



NAUTISCHES

Sonnen-Jahrbuch

Juni 2026 – Mai 2030

Greenwich-Stundenwinkel und Deklination der Sonne für jede volle Stunde Weltzeit

Zum Lernen und Üben der Astronavigation · Genauigkeit besser als die Ablesegenauigkeit eines Sextanten

Vorwort

Dieses Jahrbuch enthält die astronomischen Grunddaten der Sonne, die man für eine Standlinie nach dem klassischen Verfahren der Astronavigation benötigt: den Greenwich-Stundenwinkel (Grt) und die Deklination (Dec) der Sonne für jede volle Stunde Weltzeit (UT) sowie für jeden Tag die Zeitgleichung, die Kulminationszeit und den Halbmesser der Sonne.

Es ist als Lern- und Übungswerk für die Ausbildung gedacht und ergänzt die interaktive Astro-Navigator-Lern-App. Für die navigatorische Praxis an Bord bleibt das amtliche Nautische Jahrbuch (BSH) maßgeblich.

So ist eine Tagesspalte aufgebaut

UT	Volle Stunde der Weltzeit (00–23 Uhr UTC).
Grt	Greenwich-Stundenwinkel: die „Länge“ des Sonnenbildpunkts, westlich von Greenwich gezählt (0–360°).
Dec	Deklination: die „Breite“ des Sonnenbildpunkts (N/S).
Zeitgl.	Zeitgleichung um 0h und 12h (scheinbar minus mittel, mm:ss).
Kulm.	Uhrzeit (UT) des Sonnendurchgangs durch den Greenwich-Meridian.
Hp	Halbmesser der Sonnenscheibe in Bogenminuten.

Genauigkeit und Zeitraum

Die Sonnenpositionen werden nach dem Kurzverfahren von Jean Meeus berechnet. Grt und Dec sind auf wenige Zehntel-Bogenminuten genau – deutlich feiner, als ein Sextant abgelesen werden kann (typisch $\pm 0,2'$ bei einem Metallsextanten).

Der eigentliche Rechenkern ist über Jahrhunderte gültig. Die praktische Grenze ist die Vorhersage von Delta-T (dem Unterschied zwischen Weltzeit und dynamischer Zeit, derzeit rund 69 Sekunden). Delta-T schwankt mit der nicht völlig gleichmäßigen Erddrehung und lässt sich nur einige Jahre im Voraus genau angeben.

Deshalb deckt dieses Jahrbuch bewusst vier Jahre ab – von Juni 2026 bis Mai 2030. In diesem Fenster bleibt der durch Delta-T verursachte Grt-Fehler unter etwa 0,3 Bogenminuten. Wird das Werk später benötigt, lässt es sich mit aktuellem Delta-T-Wert jederzeit neu erzeugen.

Wichtig: Alle Uhrzeiten sind Weltzeit (UT/UTC). Mitteleuropäische Zeit (MEZ) ist UT + 1 h, Sommerzeit (MESZ) ist UT + 2 h.

Merke

Der Grt der Sonne wächst um genau $15^{\circ}00,0'$ je Stunde. Minuten und Sekunden nach der vollen Stunde über die Schalttafel am Ende des Buches hinzufügen.

Eine Sonnen-Standlinie – das Prinzip

1. Sonnenhöhe mit dem Sextanten messen und die genaue Uhrzeit (UT) notieren.
2. Messwert beschicken: Indexfehler, Kimmtiefe, Strahlenbrechung und Halbmesser anbringen → beobachtete Höhe Ho. (Tafeln am Buchende.)
3. Grt und Dec der Sonne für die volle Stunde aus der Tagesspalte ablesen.
4. Grt-Zuwachs für Minuten und Sekunden aus der Schalttafel addieren.
5. Mit dem Koppelort Höhe und Azimut rechnerisch bestimmen.
6. Unterschied der Höhen ergibt die Versetzung – daraus die Standlinie.

Am einfachsten ist die Mittagsbreite: Misst man die Sonnenhöhe genau zur Kulmination, ergibt sich die geografische Breite ohne jede Uhr.

Rechenbeispiel: Mittagsbreite

15. Juni 2026, Sonne im Süden, Beobachter nahe Punat (Krk).

Aus der Tagesspalte 15.06.:

Deklination (Mittag)	N 23°19,2'
Halbmesser	15,8'

Messung (Unterrand):

Sextanthöhe Hs	68°05,0'
Indexfehler	+0,0'
Kimmtiefe (Augh. 2 m)	- 2,5'
Strahlenbrechung	- 0,4'
Halbmesser (Unterrand)	+15,8'
beobachtete Höhe Ho	68°17,9'

Breite = 90° – Ho + Dec:

$$= 90^\circ - 68^\circ 17,9' + 23^\circ 19,2'$$

Breite ≈ 45°01,3' N

(Punat: 45°01' N)

2026

Juni

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Mo 01.06.		Di 02.06.		Mi 03.06.		Do 04.06.		Fr 05.06.		Sa 06.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°33.1'	N 22°01.6'	180°30.8'	N 22°09.7'	180°28.4'	N 22°17.3'	180°25.9'	N 22°24.6'	180°23.3'	N 22°31.4'	180°20.6'	N 22°37.9'
01	195°33.0'	N 22°02.0'	195°30.7'	N 22°10.0'	195°28.3'	N 22°17.6'	195°25.8'	N 22°24.9'	195°23.2'	N 22°31.7'	195°20.5'	N 22°38.1'
02	210°32.9'	N 22°02.3'	210°30.6'	N 22°10.3'	210°28.2'	N 22°17.9'	210°25.7'	N 22°25.1'	210°23.1'	N 22°32.0'	210°20.4'	N 22°38.4'
03	225°32.9'	N 22°02.7'	225°30.5'	N 22°10.6'	225°28.1'	N 22°18.2'	225°25.6'	N 22°25.4'	225°23.0'	N 22°32.2'	225°20.3'	N 22°38.7'
04	240°32.8'	N 22°03.0'	240°30.4'	N 22°11.0'	240°28.0'	N 22°18.5'	240°25.5'	N 22°25.7'	240°22.9'	N 22°32.5'	240°20.2'	N 22°38.9'
05	255°32.7'	N 22°03.3'	255°30.3'	N 22°11.3'	255°27.9'	N 22°18.9'	255°25.4'	N 22°26.0'	255°22.8'	N 22°32.8'	255°20.1'	N 22°39.2'
06	270°32.6'	N 22°03.7'	270°30.2'	N 22°11.6'	270°27.8'	N 22°19.2'	270°25.3'	N 22°26.3'	270°22.7'	N 22°33.1'	270°20.0'	N 22°39.4'
07	285°32.5'	N 22°04.0'	285°30.1'	N 22°11.9'	285°27.7'	N 22°19.5'	285°25.2'	N 22°26.6'	285°22.5'	N 22°33.3'	285°19.9'	N 22°39.7'
08	300°32.4'	N 22°04.4'	300°30.0'	N 22°12.3'	300°27.6'	N 22°19.8'	300°25.1'	N 22°26.9'	300°22.4'	N 22°33.6'	300°19.7'	N 22°39.9'
09	315°32.3'	N 22°04.7'	315°29.9'	N 22°12.6'	315°27.5'	N 22°20.1'	315°24.9'	N 22°27.2'	315°22.3'	N 22°33.9'	315°19.6'	N 22°40.2'
10	330°32.2'	N 22°05.0'	330°29.8'	N 22°12.9'	330°27.4'	N 22°20.4'	330°24.8'	N 22°27.5'	330°22.2'	N 22°34.2'	330°19.5'	N 22°40.5'
11	345°32.1'	N 22°05.4'	345°29.7'	N 22°13.2'	345°27.3'	N 22°20.7'	345°24.7'	N 22°27.8'	345°22.1'	N 22°34.4'	345°19.4'	N 22°40.7'
12	0°32.0'	N 22°05.7'	0°29.6'	N 22°13.5'	0°27.2'	N 22°21.0'	0°24.6'	N 22°28.0'	0°22.0'	N 22°34.7'	0°19.3'	N 22°41.0'
13	15°31.9'	N 22°06.0'	15°29.5'	N 22°13.9'	15°27.1'	N 22°21.3'	15°24.5'	N 22°28.3'	15°21.9'	N 22°35.0'	15°19.2'	N 22°41.2'
14	30°31.8'	N 22°06.4'	30°29.4'	N 22°14.2'	30°27.0'	N 22°21.6'	30°24.4'	N 22°28.6'	30°21.8'	N 22°35.2'	30°19.1'	N 22°41.5'
15	45°31.7'	N 22°06.7'	45°29.3'	N 22°14.5'	45°26.9'	N 22°21.9'	45°24.3'	N 22°28.9'	45°21.7'	N 22°35.5'	45°18.9'	N 22°41.7'
16	60°31.6'	N 22°07.0'	60°29.2'	N 22°14.8'	60°26.8'	N 22°22.2'	60°24.2'	N 22°29.2'	60°21.5'	N 22°35.8'	60°18.8'	N 22°42.0'
17	75°31.5'	N 22°07.4'	75°29.1'	N 22°15.1'	75°26.6'	N 22°22.5'	75°24.1'	N 22°29.5'	75°21.4'	N 22°36.0'	75°18.7'	N 22°42.2'
18	90°31.4'	N 22°07.7'	90°29.0'	N 22°15.4'	90°26.5'	N 22°22.8'	90°24.0'	N 22°29.7'	90°21.3'	N 22°36.3'	90°18.6'	N 22°42.5'
19	105°31.3'	N 22°08.0'	105°28.9'	N 22°15.7'	105°26.4'	N 22°23.1'	105°23.9'	N 22°30.0'	105°21.2'	N 22°36.6'	105°18.5'	N 22°42.7'
20	120°31.2'	N 22°08.4'	120°28.8'	N 22°16.1'	120°26.3'	N 22°23.4'	120°23.8'	N 22°30.3'	120°21.1'	N 22°36.8'	120°18.4'	N 22°43.0'
21	135°31.1'	N 22°08.7'	135°28.7'	N 22°16.4'	135°26.2'	N 22°23.7'	135°23.6'	N 22°30.6'	135°21.0'	N 22°37.1'	135°18.2'	N 22°43.2'
22	150°31.0'	N 22°09.0'	150°28.6'	N 22°16.7'	150°26.1'	N 22°24.0'	150°23.5'	N 22°30.9'	150°20.9'	N 22°37.4'	150°18.1'	N 22°43.5'
23	165°30.9'	N 22°09.3'	165°28.5'	N 22°17.0'	165°26.0'	N 22°24.3'	165°23.4'	N 22°31.1'	165°20.8'	N 22°37.6'	165°18.0'	N 22°43.7'
Zeitgl. 0h / 12h	+02:13 / +02:08		+02:03 / +01:59		+01:54 / +01:49		+01:44 / +01:38		+01:33 / +01:28		+01:23 / +01:17	
Kulmination UT	11:57:52		11:58:01		11:58:11		11:58:22		11:58:32		11:58:43	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	So 07.06.		Mo 08.06.		Di 09.06.		Mi 10.06.		Do 11.06.		Fr 12.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°17.9'	N 22°43.9'	180°15.1'	N 22°49.6'	180°12.2'	N 22°54.9'	180°09.2'	N 22°59.7'	180°06.2'	N 23°04.2'	180°03.2'	N 23°08.3'
01	195°17.8'	N 22°44.2'	195°15.0'	N 22°49.8'	195°12.1'	N 22°55.1'	195°09.1'	N 22°59.9'	195°06.1'	N 23°04.4'	195°03.1'	N 23°08.4'
02	210°17.7'	N 22°44.4'	210°14.8'	N 22°50.1'	210°12.0'	N 22°55.3'	210°09.0'	N 23°00.1'	210°06.0'	N 23°04.6'	210°02.9'	N 23°08.6'
03	225°17.6'	N 22°44.7'	225°14.7'	N 22°50.3'	225°11.8'	N 22°55.5'	225°08.9'	N 23°00.3'	225°05.9'	N 23°04.7'	225°02.8'	N 23°08.7'
04	240°17.4'	N 22°44.9'	240°14.6'	N 22°50.5'	240°11.7'	N 22°55.7'	240°08.7'	N 23°00.5'	240°05.7'	N 23°04.9'	240°02.7'	N 23°08.9'
05	255°17.3'	N 22°45.2'	255°14.5'	N 22°50.7'	255°11.6'	N 22°55.9'	255°08.6'	N 23°00.7'	255°05.6'	N 23°05.1'	255°02.5'	N 23°09.1'
06	270°17.2'	N 22°45.4'	270°14.4'	N 22°51.0'	270°11.5'	N 22°56.1'	270°08.5'	N 23°00.9'	270°05.5'	N 23°05.3'	270°02.4'	N 23°09.2'
07	285°17.1'	N 22°45.6'	285°14.2'	N 22°51.2'	285°11.3'	N 22°56.3'	285°08.4'	N 23°01.1'	285°05.4'	N 23°05.4'	285°02.3'	N 23°09.4'
08	300°17.0'	N 22°45.9'	300°14.1'	N 22°51.4'	300°11.2'	N 22°56.5'	300°08.2'	N 23°01.3'	300°05.2'	N 23°05.6'	300°02.2'	N 23°09.5'
09	315°16.9'	N 22°46.1'	315°14.0'	N 22°51.6'	315°11.1'	N 22°56.8'	315°08.1'	N 23°01.5'	315°05.1'	N 23°05.8'	315°02.0'	N 23°09.7'
10	330°16.7'	N 22°46.4'	330°13.9'	N 22°51.9'	330°11.0'	N 22°57.0'	330°08.0'	N 23°01.7'	330°05.0'	N 23°05.9'	330°01.9'	N 23°09.8'
11	345°16.6'	N 22°46.6'	345°13.8'	N 22°52.1'	345°10.8'	N 22°57.2'	345°07.9'	N 23°01.8'	345°04.8'	N 23°06.1'	345°01.8'	N 23°10.0'
12	0°16.5'	N 22°46.8'	0°13.6'	N 22°52.3'	0°10.7'	N 22°57.4'	0°07.7'	N 23°02.0'	0°04.7'	N 23°06.3'	0°01.6'	N 23°10.1'
13	15°16.4'	N 22°47.1'	15°13.5'	N 22°52.5'	15°10.6'	N 22°57.6'	15°07.6'	N 23°02.2'	15°04.6'	N 23°06.5'	15°01.5'	N 23°10.3'
14	30°16.3'	N 22°47.3'	30°13.4'	N 22°52.7'	30°10.5'	N 22°57.8'	30°07.5'	N 23°02.4'	30°04.5'	N 23°06.6'	30°01.4'	N 23°10.4'
15	45°16.1'	N 22°47.5'	45°13.3'	N 22°53.0'	45°10.4'	N 22°58.0'	45°07.4'	N 23°02.6'	45°04.3'	N 23°06.8'	45°01.2'	N 23°10.6'
16	60°16.0'	N 22°47.8'	60°13.2'	N 22°53.2'	60°10.2'	N 22°58.2'	60°07.2'	N 23°02.8'	60°04.2'	N 23°07.0'	60°01.1'	N 23°10.7'
17	75°15.9'	N 22°48.0'	75°13.0'	N 22°53.4'	75°10.1'	N 22°58.4'	75°07.1'	N 23°02.9'	75°04.1'	N 23°07.1'	75°01.0'	N 23°10.9'
18	90°15.8'	N 22°48.2'	90°12.9'	N 22°53.6'	90°10.0'	N 22°58.6'	90°07.0'	N 23°03.1'	90°03.9'	N 23°07.3'	90°00.9'	N 23°11.0'
19	105°15.7'	N 22°48.5'	105°12.8'	N 22°53.8'	105°09.9'	N 22°58.8'	105°06.9'	N 23°03.3'	105°03.8'	N 23°07.4'	105°00.7'	N 23°11.2'
20	120°15.6'	N 22°48.7'	120°12.7'	N 22°54.0'	120°09.7'	N 22°59.0'	120°06.7'	N 23°03.5'	120°03.7'	N 23°07.6'	120°00.6'	N 23°11.3'
21	135°15.4'	N 22°48.9'	135°12.6'	N 22°54.2'	135°09.6'	N 22°59.2'	135°06.6'	N 23°03.7'	135°03.6'	N 23°07.8'	135°00.5'	N 23°11.5'
22	150°15.3'	N 22°49.2'	150°12.4'	N 22°54.5'	150°09.5'	N 22°59.4'	150°06.5'	N 23°03.9'	150°03.4'	N 23°07.9'	150°00.3'	N 23°11.6'
23	165°15.2'	N 22°49.4'	165°12.3'	N 22°54.7'	165°09.4'	N 22°59.6'	165°06.4'	N 23°04.0'	165°03.3'	N 23°08.1'	165°00.2'	N 23°11.8'
Zeitgl. 0h / 12h	+01:12 / +01:06		+01:00 / +00:55		+00:49 / +00:43		+00:37 / +00:31		+00:25 / +00:19		+00:13 / +00:07	
Kulmination UT	11:58:54		11:59:05		11:59:17		11:59:29		11:59:41		11:59:53	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Sa 13.06.		So 14.06.		Mo 15.06.		Di 16.06.		Mi 17.06.		Do 18.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°00.1'	N 23°11.9'	179°56.9'	N 23°15.1'	179°53.8'	N 23°18.0'	179°50.5'	N 23°20.4'	179°47.3'	N 23°22.4'	179°44.1'	N 23°24.0'
01	194°59.9'	N 23°12.0'	194°56.8'	N 23°15.3'	194°53.6'	N 23°18.1'	194°50.4'	N 23°20.5'	194°47.2'	N 23°22.5'	194°43.9'	N 23°24.0'
02	209°59.8'	N 23°12.2'	209°56.7'	N 23°15.4'	209°53.5'	N 23°18.2'	209°50.3'	N 23°20.6'	209°47.0'	N 23°22.5'	209°43.8'	N 23°24.1'
03	224°59.7'	N 23°12.3'	224°56.5'	N 23°15.5'	224°53.4'	N 23°18.3'	224°50.1'	N 23°20.7'	224°46.9'	N 23°22.6'	224°43.7'	N 23°24.1'
04	239°59.6'	N 23°12.5'	239°56.4'	N 23°15.6'	239°53.2'	N 23°18.4'	239°50.0'	N 23°20.7'	239°46.8'	N 23°22.7'	239°43.5'	N 23°24.2'
05	254°59.4'	N 23°12.6'	254°56.3'	N 23°15.8'	254°53.1'	N 23°18.5'	254°49.9'	N 23°20.8'	254°46.6'	N 23°22.7'	254°43.4'	N 23°24.3'
06	269°59.3'	N 23°12.8'	269°56.1'	N 23°15.9'	269°53.0'	N 23°18.6'	269°49.7'	N 23°20.9'	269°46.5'	N 23°22.8'	269°43.2'	N 23°24.3'
07	284°59.2'	N 23°12.9'	284°56.0'	N 23°16.0'	284°52.8'	N 23°18.7'	284°49.6'	N 23°21.0'	284°46.4'	N 23°22.9'	284°43.1'	N 23°24.4'
08	299°59.0'	N 23°13.0'	299°55.9'	N 23°16.1'	299°52.7'	N 23°18.8'	299°49.5'	N 23°21.1'	299°46.2'	N 23°23.0'	299°43.0'	N 23°24.4'
09	314°58.9'	N 23°13.2'	314°55.7'	N 23°16.2'	314°52.6'	N 23°18.9'	314°49.3'	N 23°21.2'	314°46.1'	N 23°23.0'	314°42.8'	N 23°24.5'
10	329°58.8'	N 23°13.3'	329°55.6'	N 23°16.4'	329°52.4'	N 23°19.0'	329°49.2'	N 23°21.3'	329°46.0'	N 23°23.1'	329°42.7'	N 23°24.5'
11	344°58.6'	N 23°13.4'	344°55.5'	N 23°16.5'	344°52.3'	N 23°19.1'	344°49.1'	N 23°21.3'	344°45.8'	N 23°23.2'	344°42.6'	N 23°24.6'
12	359°58.5'	N 23°13.6'	359°55.3'	N 23°16.6'	359°52.2'	N 23°19.2'	359°48.9'	N 23°21.4'	359°45.7'	N 23°23.2'	359°42.4'	N 23°24.6'
13	14°58.4'	N 23°13.7'	14°55.2'	N 23°16.7'	14°52.0'	N 23°19.3'	14°48.8'	N 23°21.5'	14°45.6'	N 23°23.3'	14°42.3'	N 23°24.7'
14	29°58.2'	N 23°13.8'	29°55.1'	N 23°16.8'	29°51.9'	N 23°19.4'	29°48.7'	N 23°21.6'	29°45.4'	N 23°23.4'	29°42.2'	N 23°24.7'
15	44°58.1'	N 23°14.0'	44°54.9'	N 23°17.0'	44°51.7'	N 23°19.5'	44°48.5'	N 23°21.7'	44°45.3'	N 23°23.4'	44°42.0'	N 23°24.8'
16	59°58.0'	N 23°14.1'	59°54.8'	N 23°17.1'	59°51.6'	N 23°19.6'	59°48.4'	N 23°21.8'	59°45.1'	N 23°23.5'	59°41.9'	N 23°24.8'
17	74°57.9'	N 23°14.2'	74°54.7'	N 23°17.2'	74°51.5'	N 23°19.7'	74°48.3'	N 23°21.8'	74°45.0'	N 23°23.6'	74°41.8'	N 23°24.8'
18	89°57.7'	N 23°14.4'	89°54.5'	N 23°17.3'	89°51.3'	N 23°19.8'	89°48.1'	N 23°21.9'	89°44.9'	N 23°23.6'	89°41.6'	N 23°24.9'
19	104°57.6'	N 23°14.5'	104°54.4'	N 23°17.4'	104°51.2'	N 23°19.9'	104°48.0'	N 23°22.0'	104°44.7'	N 23°23.7'	104°41.5'	N 23°24.9'
20	119°57.5'	N 23°14.6'	119°54.3'	N 23°17.5'	119°51.1'	N 23°20.0'	119°47.9'	N 23°22.1'	119°44.6'	N 23°23.7'	119°41.3'	N 23°25.0'
21	134°57.3'	N 23°14.8'	134°54.2'	N 23°17.6'	134°50.9'	N 23°20.1'	134°47.7'	N 23°22.2'	134°44.5'	N 23°23.8'	134°41.2'	N 23°25.0'
22	149°57.2'	N 23°14.9'	149°54.0'	N 23°17.7'	149°50.8'	N 23°20.2'	149°47.6'	N 23°22.2'	149°44.3'	N 23°23.9'	149°41.1'	N 23°25.1'
23	164°57.1'	N 23°15.0'	164°53.9'	N 23°17.9'	164°50.7'	N 23°20.3'	164°47.4'	N 23°22.3'	164°44.2'	N 23°23.9'	164°40.9'	N 23°25.1'
Zeitgl. 0h / 12h	+00:00 / -00:06		-00:12 / -00:19		-00:25 / -00:31		-00:38 / -00:44		-00:51 / -00:57		-01:04 / -01:10	
Kulmination UT	12:00:06		12:00:19		12:00:31		12:00:44		12:00:57		12:01:10	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Fr 19.06.		Sa 20.06.		So 21.06.		Mo 22.06.		Di 23.06.		Mi 24.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°40.8'	N 23°25.1'	179°37.5'	N 23°25.9'	179°34.3'	N 23°26.3'	179°31.0'	N 23°26.2'	179°27.8'	N 23°25.7'	179°24.5'	N 23°24.8'
01	194°40.7'	N 23°25.2'	194°37.4'	N 23°25.9'	194°34.1'	N 23°26.3'	194°30.9'	N 23°26.2'	194°27.6'	N 23°25.7'	194°24.4'	N 23°24.8'
02	209°40.5'	N 23°25.2'	209°37.3'	N 23°26.0'	209°34.0'	N 23°26.3'	209°30.7'	N 23°26.2'	209°27.5'	N 23°25.7'	209°24.3'	N 23°24.7'
03	224°40.4'	N 23°25.3'	224°37.1'	N 23°26.0'	224°33.9'	N 23°26.3'	224°30.6'	N 23°26.2'	224°27.3'	N 23°25.6'	224°24.1'	N 23°24.7'
04	239°40.3'	N 23°25.3'	239°37.0'	N 23°26.0'	239°33.7'	N 23°26.3'	239°30.5'	N 23°26.1'	239°27.2'	N 23°25.6'	239°24.0'	N 23°24.6'
05	254°40.1'	N 23°25.3'	254°36.9'	N 23°26.0'	254°33.6'	N 23°26.3'	254°30.3'	N 23°26.1'	254°27.1'	N 23°25.6'	254°23.9'	N 23°24.6'
06	269°40.0'	N 23°25.4'	269°36.7'	N 23°26.0'	269°33.4'	N 23°26.3'	269°30.2'	N 23°26.1'	269°26.9'	N 23°25.5'	269°23.7'	N 23°24.5'
07	284°39.8'	N 23°25.4'	284°36.6'	N 23°26.1'	284°33.3'	N 23°26.3'	284°30.1'	N 23°26.1'	284°26.8'	N 23°25.5'	284°23.6'	N 23°24.5'
08	299°39.7'	N 23°25.4'	299°36.4'	N 23°26.1'	299°33.2'	N 23°26.3'	299°29.9'	N 23°26.1'	299°26.7'	N 23°25.5'	299°23.4'	N 23°24.4'
09	314°39.6'	N 23°25.5'	314°36.3'	N 23°26.1'	314°33.0'	N 23°26.3'	314°29.8'	N 23°26.1'	314°26.5'	N 23°25.4'	314°23.3'	N 23°24.4'
10	329°39.4'	N 23°25.5'	329°36.2'	N 23°26.1'	329°32.9'	N 23°26.3'	329°29.6'	N 23°26.1'	329°26.4'	N 23°25.4'	329°23.2'	N 23°24.3'
11	344°39.3'	N 23°25.6'	344°36.0'	N 23°26.1'	344°32.8'	N 23°26.3'	344°29.5'	N 23°26.0'	344°26.3'	N 23°25.4'	344°23.0'	N 23°24.3'
12	359°39.2'	N 23°25.6'	359°35.9'	N 23°26.1'	359°32.6'	N 23°26.3'	359°29.4'	N 23°26.0'	359°26.1'	N 23°25.3'	359°22.9'	N 23°24.2'
13	14°39.0'	N 23°25.6'	14°35.8'	N 23°26.2'	14°32.5'	N 23°26.3'	14°29.2'	N 23°26.0'	14°26.0'	N 23°25.3'	14°22.8'	N 23°24.2'
14	29°38.9'	N 23°25.6'	29°35.6'	N 23°26.2'	29°32.4'	N 23°26.3'	29°29.1'	N 23°26.0'	29°25.9'	N 23°25.3'	29°22.6'	N 23°24.1'
15	44°38.8'	N 23°25.7'	44°35.5'	N 23°26.2'	44°32.2'	N 23°26.3'	44°29.0'	N 23°26.0'	44°25.7'	N 23°25.2'	44°22.5'	N 23°24.1'
16	59°38.6'	N 23°25.7'	59°35.4'	N 23°26.2'	59°32.1'	N 23°26.3'	59°28.8'	N 23°25.9'	59°25.6'	N 23°25.2'	59°22.4'	N 23°24.0'
17	74°38.5'	N 23°25.7'	74°35.2'	N 23°26.2'	74°32.0'	N 23°26.3'	74°28.7'	N 23°25.9'	74°25.5'	N 23°25.1'	74°22.2'	N 23°24.0'
18	89°38.3'	N 23°25.8'	89°35.1'	N 23°26.2'	89°31.8'	N 23°26.3'	89°28.6'	N 23°25.9'	89°25.3'	N 23°25.1'	89°22.1'	N 23°23.9'
19	104°38.2'	N 23°25.8'	104°34.9'	N 23°26.2'	104°31.7'	N 23°26.2'	104°28.4'	N 23°25.9'	104°25.2'	N 23°25.1'	104°22.0'	N 23°23.8'
20	119°38.1'	N 23°25.8'	119°34.8'	N 23°26.2'	119°31.5'	N 23°26.2'	119°28.3'	N 23°25.8'	119°25.1'	N 23°25.0'	119°21.8'	N 23°23.8'
21	134°37.9'	N 23°25.8'	134°34.7'	N 23°26.2'	134°31.4'	N 23°26.2'	134°28.2'	N 23°25.8'	134°24.9'	N 23°25.0'	134°21.7'	N 23°23.7'
22	149°37.8'	N 23°25.9'	149°34.5'	N 23°26.2'	149°31.3'	N 23°26.2'	149°28.0'	N 23°25.8'	149°24.8'	N 23°24.9'	149°21.6'	N 23°23.7'
23	164°37.7'	N 23°25.9'	164°34.4'	N 23°26.3'	164°31.1'	N 23°26.2'	164°27.9'	N 23°25.8'	164°24.7'	N 23°24.9'	164°21.4'	N 23°23.6'
Zeitgl. 0h / 12h	-01:17 / -01:23		-01:30 / -01:36		-01:43 / -01:49		-01:56 / -02:02		-02:09 / -02:15		-02:22 / -02:28	
Kulmination UT	12:01:23		12:01:36		12:01:49		12:02:02		12:02:15		12:02:28	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Do 25.06.		Fr 26.06.		Sa 27.06.		So 28.06.		Mo 29.06.		Di 30.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°21.3'	N 23°23.5'	179°18.1'	N 23°21.8'	179°15.0'	N 23°19.7'	179°11.9'	N 23°17.2'	179°08.8'	N 23°14.2'	179°05.8'	N 23°10.9'
01	194°21.2'	N 23°23.5'	194°18.0'	N 23°21.7'	194°14.9'	N 23°19.6'	194°11.8'	N 23°17.0'	194°08.7'	N 23°14.1'	194°05.7'	N 23°10.7'
02	209°21.0'	N 23°23.4'	209°17.9'	N 23°21.7'	209°14.7'	N 23°19.5'	209°11.6'	N 23°16.9'	209°08.6'	N 23°14.0'	209°05.6'	N 23°10.6'
03	224°20.9'	N 23°23.3'	224°17.7'	N 23°21.6'	224°14.6'	N 23°19.4'	224°11.5'	N 23°16.8'	224°08.5'	N 23°13.8'	224°05.5'	N 23°10.4'
04	239°20.8'	N 23°23.3'	239°17.6'	N 23°21.5'	239°14.5'	N 23°19.3'	239°11.4'	N 23°16.7'	239°08.3'	N 23°13.7'	239°05.3'	N 23°10.3'
05	254°20.6'	N 23°23.2'	254°17.5'	N 23°21.4'	254°14.3'	N 23°19.2'	254°11.2'	N 23°16.6'	254°08.2'	N 23°13.6'	254°05.2'	N 23°10.1'
06	269°20.5'	N 23°23.1'	269°17.3'	N 23°21.3'	269°14.2'	N 23°19.1'	269°11.1'	N 23°16.5'	269°08.1'	N 23°13.4'	269°05.1'	N 23°10.0'
07	284°20.4'	N 23°23.1'	284°17.2'	N 23°21.2'	284°14.1'	N 23°19.0'	284°11.0'	N 23°16.3'	284°07.9'	N 23°13.3'	284°05.0'	N 23°09.8'
08	299°20.3'	N 23°23.0'	299°17.1'	N 23°21.2'	299°14.0'	N 23°18.9'	299°10.9'	N 23°16.2'	299°07.8'	N 23°13.1'	299°04.8'	N 23°09.7'
09	314°20.1'	N 23°22.9'	314°17.0'	N 23°21.1'	314°13.8'	N 23°18.8'	314°10.7'	N 23°16.1'	314°07.7'	N 23°13.0'	314°04.7'	N 23°09.5'
10	329°20.0'	N 23°22.9'	329°16.8'	N 23°21.0'	329°13.7'	N 23°18.7'	329°10.6'	N 23°16.0'	329°07.6'	N 23°12.9'	329°04.6'	N 23°09.3'
11	344°19.9'	N 23°22.8'	344°16.7'	N 23°20.9'	344°13.6'	N 23°18.6'	344°10.5'	N 23°15.9'	344°07.4'	N 23°12.7'	344°04.5'	N 23°09.2'
12	359°19.7'	N 23°22.7'	359°16.6'	N 23°20.8'	359°13.4'	N 23°18.5'	359°10.4'	N 23°15.7'	359°07.3'	N 23°12.6'	359°04.3'	N 23°09.0'
13	14°19.6'	N 23°22.7'	14°16.4'	N 23°20.7'	14°13.3'	N 23°18.4'	14°10.2'	N 23°15.6'	14°07.2'	N 23°12.5'	14°04.2'	N 23°08.9'
14	29°19.5'	N 23°22.6'	29°16.3'	N 23°20.6'	29°13.2'	N 23°18.3'	29°10.1'	N 23°15.5'	29°07.1'	N 23°12.3'	29°04.1'	N 23°08.7'
15	44°19.3'	N 23°22.5'	44°16.2'	N 23°20.5'	44°13.0'	N 23°18.2'	44°10.0'	N 23°15.4'	44°06.9'	N 23°12.2'	44°04.0'	N 23°08.6'
16	59°19.2'	N 23°22.4'	59°16.0'	N 23°20.4'	59°12.9'	N 23°18.0'	59°09.8'	N 23°15.2'	59°06.8'	N 23°12.0'	59°03.9'	N 23°08.4'
17	74°19.1'	N 23°22.4'	74°15.9'	N 23°20.4'	74°12.8'	N 23°17.9'	74°09.7'	N 23°15.1'	74°06.7'	N 23°11.9'	74°03.7'	N 23°08.2'
18	89°18.9'	N 23°22.3'	89°15.8'	N 23°20.3'	89°12.7'	N 23°17.8'	89°09.6'	N 23°15.0'	89°06.6'	N 23°11.7'	89°03.6'	N 23°08.1'
19	104°18.8'	N 23°22.2'	104°15.6'	N 23°20.2'	104°12.5'	N 23°17.7'	104°09.5'	N 23°14.9'	104°06.4'	N 23°11.6'	104°03.5'	N 23°07.9'
20	119°18.7'	N 23°22.1'	119°15.5'	N 23°20.1'	119°12.4'	N 23°17.6'	119°09.3'	N 23°14.7'	119°06.3'	N 23°11.5'	119°03.4'	N 23°07.8'
21	134°18.5'	N 23°22.1'	134°15.4'	N 23°20.0'	134°12.3'	N 23°17.5'	134°09.2'	N 23°14.6'	134°06.2'	N 23°11.3'	134°03.2'	N 23°07.6'
22	149°18.4'	N 23°22.0'	149°15.3'	N 23°19.9'	149°12.1'	N 23°17.4'	149°09.1'	N 23°14.5'	149°06.1'	N 23°11.2'	149°03.1'	N 23°07.4'
23	164°18.3'	N 23°21.9'	164°15.1'	N 23°19.8'	164°12.0'	N 23°17.3'	164°09.0'	N 23°14.3'	164°06.0'	N 23°11.0'	164°03.0'	N 23°07.3'
Zeitgl. 0h / 12h	-02:35 / -02:41		-02:47 / -02:54		-03:00 / -03:06		-03:12 / -03:19		-03:25 / -03:31		-03:37 / -03:43	
Kulmination UT	12:02:41		12:02:54		12:03:06		12:03:19		12:03:31		12:03:43	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

2026

Juli

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Mi 01.07.		Do 02.07.		Fr 03.07.		Sa 04.07.		So 05.07.		Mo 06.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°02.9'	N 23°07.1'	179°00.0'	N 23°02.9'	178°57.2'	N 22°58.4'	178°54.4'	N 22°53.4'	178°51.8'	N 22°48.1'	178°49.2'	N 22°42.3'
01	194°02.8'	N 23°06.9'	193°59.9'	N 23°02.8'	193°57.1'	N 22°58.2'	193°54.3'	N 22°53.2'	193°51.7'	N 22°47.8'	193°49.1'	N 22°42.0'
02	209°02.6'	N 23°06.8'	208°59.8'	N 23°02.6'	208°57.0'	N 22°58.0'	208°54.2'	N 22°53.0'	208°51.6'	N 22°47.6'	208°49.0'	N 22°41.8'
03	224°02.5'	N 23°06.6'	223°59.6'	N 23°02.4'	223°56.8'	N 22°57.8'	223°54.1'	N 22°52.8'	223°51.5'	N 22°47.4'	223°48.9'	N 22°41.5'
04	239°02.4'	N 23°06.4'	238°59.5'	N 23°02.2'	238°56.7'	N 22°57.6'	238°54.0'	N 22°52.6'	238°51.3'	N 22°47.1'	238°48.8'	N 22°41.3'
05	254°02.3'	N 23°06.3'	253°59.4'	N 23°02.0'	253°56.6'	N 22°57.4'	253°53.9'	N 22°52.3'	253°51.2'	N 22°46.9'	253°48.7'	N 22°41.0'
06	269°02.2'	N 23°06.1'	268°59.3'	N 23°01.8'	268°56.5'	N 22°57.2'	268°53.8'	N 22°52.1'	268°51.1'	N 22°46.7'	268°48.6'	N 22°40.8'
07	284°02.0'	N 23°05.9'	283°59.2'	N 23°01.7'	283°56.4'	N 22°57.0'	283°53.7'	N 22°51.9'	283°51.0'	N 22°46.4'	283°48.5'	N 22°40.5'
08	299°01.9'	N 23°05.8'	298°59.1'	N 23°01.5'	298°56.3'	N 22°56.8'	298°53.5'	N 22°51.7'	298°50.9'	N 22°46.2'	298°48.4'	N 22°40.3'
09	314°01.8'	N 23°05.6'	313°58.9'	N 23°01.3'	313°56.1'	N 22°56.6'	313°53.4'	N 22°51.5'	313°50.8'	N 22°45.9'	313°48.3'	N 22°40.0'
10	329°01.7'	N 23°05.4'	328°58.8'	N 23°01.1'	328°56.0'	N 22°56.4'	328°53.3'	N 22°51.2'	328°50.7'	N 22°45.7'	328°48.2'	N 22°39.8'
11	344°01.6'	N 23°05.3'	343°58.7'	N 23°00.9'	343°55.9'	N 22°56.2'	343°53.2'	N 22°51.0'	343°50.6'	N 22°45.5'	343°48.1'	N 22°39.5'
12	359°01.4'	N 23°05.1'	358°58.6'	N 23°00.7'	358°55.8'	N 22°56.0'	358°53.1'	N 22°50.8'	358°50.5'	N 22°45.2'	358°47.9'	N 22°39.3'
13	14°01.3'	N 23°04.9'	13°58.5'	N 23°00.5'	13°55.7'	N 22°55.7'	13°53.0'	N 22°50.6'	13°50.4'	N 22°45.0'	13°47.8'	N 22°39.0'
14	29°01.2'	N 23°04.7'	28°58.3'	N 23°00.3'	28°55.6'	N 22°55.5'	28°52.9'	N 22°50.3'	28°50.3'	N 22°44.7'	28°47.7'	N 22°38.8'
15	44°01.1'	N 23°04.6'	43°58.2'	N 23°00.1'	43°55.5'	N 22°55.3'	43°52.8'	N 22°50.1'	43°50.2'	N 22°44.5'	43°47.6'	N 22°38.5'
16	59°01.0'	N 23°04.4'	58°58.1'	N 22°59.9'	58°55.3'	N 22°55.1'	58°52.7'	N 22°49.9'	58°50.1'	N 22°44.3'	58°47.5'	N 22°38.2'
17	74°00.8'	N 23°04.2'	73°58.0'	N 22°59.8'	73°55.2'	N 22°54.9'	73°52.5'	N 22°49.7'	73°49.9'	N 22°44.0'	73°47.4'	N 22°38.0'
18	89°00.7'	N 23°04.0'	88°57.9'	N 22°59.6'	88°55.1'	N 22°54.7'	88°52.4'	N 22°49.4'	88°49.8'	N 22°43.8'	88°47.3'	N 22°37.7'
19	104°00.6'	N 23°03.8'	103°57.8'	N 22°59.4'	103°55.0'	N 22°54.5'	103°52.3'	N 22°49.2'	103°49.7'	N 22°43.5'	103°47.2'	N 22°37.5'
20	119°00.5'	N 23°03.7'	118°57.6'	N 22°59.2'	118°54.9'	N 22°54.3'	118°52.2'	N 22°49.0'	118°49.6'	N 22°43.3'	118°47.1'	N 22°37.2'
21	134°00.4'	N 23°03.5'	133°57.5'	N 22°59.0'	133°54.8'	N 22°54.1'	133°52.1'	N 22°48.7'	133°49.5'	N 22°43.0'	133°47.0'	N 22°36.9'
22	149°00.2'	N 23°03.3'	148°57.4'	N 22°58.8'	148°54.7'	N 22°53.8'	148°52.0'	N 22°48.5'	148°49.4'	N 22°42.8'	148°46.9'	N 22°36.7'
23	164°00.1'	N 23°03.1'	163°57.3'	N 22°58.6'	163°54.6'	N 22°53.6'	163°51.9'	N 22°48.3'	163°49.3'	N 22°42.5'	163°46.8'	N 22°36.4'
Zeitgl. 0h / 12h	-03:48 / -03:54		-04:00 / -04:06		-04:11 / -04:17		-04:22 / -04:28		-04:33 / -04:38		-04:43 / -04:48	
Kulmination UT	12:03:54		12:04:06		12:04:17		12:04:28		12:04:38		12:04:48	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Di 07.07.		Mi 08.07.		Do 09.07.		Fr 10.07.		Sa 11.07.		So 12.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°46.7'	N 22°36.1'	178°44.3'	N 22°29.6'	178°42.0'	N 22°22.7'	178°39.8'	N 22°15.3'	178°37.7'	N 22°07.6'	178°35.8'	N 21°59.6'
01	193°46.6'	N 22°35.9'	193°44.2'	N 22°29.3'	193°41.9'	N 22°22.4'	193°39.7'	N 22°15.0'	193°37.7'	N 22°07.3'	193°35.7'	N 21°59.2'
02	208°46.5'	N 22°35.6'	208°44.1'	N 22°29.0'	208°41.8'	N 22°22.1'	208°39.6'	N 22°14.7'	208°37.6'	N 22°07.0'	208°35.6'	N 21°58.9'
03	223°46.4'	N 22°35.3'	223°44.0'	N 22°28.8'	223°41.7'	N 22°21.8'	223°39.6'	N 22°14.4'	223°37.5'	N 22°06.7'	223°35.5'	N 21°58.5'
04	238°46.3'	N 22°35.1'	238°43.9'	N 22°28.5'	238°41.6'	N 22°21.5'	238°39.5'	N 22°14.1'	238°37.4'	N 22°06.3'	238°35.4'	N 21°58.2'
05	253°46.2'	N 22°34.8'	253°43.8'	N 22°28.2'	253°41.6'	N 22°21.2'	253°39.4'	N 22°13.8'	253°37.3'	N 22°06.0'	253°35.4'	N 21°57.8'
06	268°46.1'	N 22°34.5'	268°43.7'	N 22°27.9'	268°41.5'	N 22°20.9'	268°39.3'	N 22°13.5'	268°37.2'	N 22°05.7'	268°35.3'	N 21°57.5'
07	283°46.0'	N 22°34.3'	283°43.6'	N 22°27.6'	283°41.4'	N 22°20.6'	283°39.2'	N 22°13.1'	283°37.1'	N 22°05.3'	283°35.2'	N 21°57.1'
08	298°45.9'	N 22°34.0'	298°43.5'	N 22°27.3'	298°41.3'	N 22°20.3'	298°39.1'	N 22°12.8'	298°37.1'	N 22°05.0'	298°35.1'	N 21°56.8'
09	313°45.8'	N 22°33.7'	313°43.4'	N 22°27.0'	313°41.2'	N 22°20.0'	313°39.0'	N 22°12.5'	313°37.0'	N 22°04.7'	313°35.0'	N 21°56.4'
10	328°45.7'	N 22°33.5'	328°43.3'	N 22°26.8'	328°41.1'	N 22°19.7'	328°38.9'	N 22°12.2'	328°36.9'	N 22°04.3'	328°35.0'	N 21°56.1'
11	343°45.6'	N 22°33.2'	343°43.3'	N 22°26.5'	343°41.0'	N 22°19.4'	343°38.9'	N 22°11.9'	343°36.8'	N 22°04.0'	343°34.9'	N 21°55.7'
12	358°45.5'	N 22°32.9'	358°43.2'	N 22°26.2'	358°40.9'	N 22°19.1'	358°38.8'	N 22°11.5'	358°36.7'	N 22°03.6'	358°34.8'	N 21°55.4'
13	13°45.4'	N 22°32.6'	13°43.1'	N 22°25.9'	13°40.8'	N 22°18.7'	13°38.7'	N 22°11.2'	13°36.6'	N 22°03.3'	13°34.7'	N 21°55.0'
14	28°45.3'	N 22°32.4'	28°43.0'	N 22°25.6'	28°40.7'	N 22°18.4'	28°38.6'	N 22°10.9'	28°36.6'	N 22°03.0'	28°34.7'	N 21°54.7'
15	43°45.2'	N 22°32.1'	43°42.9'	N 22°25.3'	43°40.6'	N 22°18.1'	43°38.5'	N 22°10.6'	43°36.5'	N 22°02.6'	43°34.6'	N 21°54.3'
16	58°45.1'	N 22°31.8'	58°42.8'	N 22°25.0'	58°40.5'	N 22°17.8'	58°38.4'	N 22°10.3'	58°36.4'	N 22°02.3'	58°34.5'	N 21°54.0'
17	73°45.0'	N 22°31.5'	73°42.7'	N 22°24.7'	73°40.5'	N 22°17.5'	73°38.3'	N 22°09.9'	73°36.3'	N 22°02.0'	73°34.4'	N 21°53.6'
18	88°44.9'	N 22°31.3'	88°42.6'	N 22°24.4'	88°40.4'	N 22°17.2'	88°38.2'	N 22°09.6'	88°36.2'	N 22°01.6'	88°34.3'	N 21°53.3'
19	103°44.8'	N 22°31.0'	103°42.5'	N 22°24.1'	103°40.3'	N 22°16.9'	103°38.2'	N 22°09.3'	103°36.2'	N 22°01.3'	103°34.3'	N 21°52.9'
20	118°44.7'	N 22°30.7'	118°42.4'	N 22°23.8'	118°40.2'	N 22°16.6'	118°38.1'	N 22°09.0'	118°36.1'	N 22°00.9'	118°34.2'	N 21°52.5'
21	133°44.6'	N 22°30.4'	133°42.3'	N 22°23.6'	133°40.1'	N 22°16.3'	133°38.0'	N 22°08.6'	133°36.0'	N 22°00.6'	133°34.1'	N 21°52.2'
22	148°44.5'	N 22°30.2'	148°42.2'	N 22°23.3'	148°40.0'	N 22°16.0'	148°37.9'	N 22°08.3'	148°35.9'	N 22°00.2'	148°34.0'	N 21°51.8'
23	163°44.4'	N 22°29.9'	163°42.1'	N 22°23.0'	163°39.9'	N 22°15.7'	163°37.8'	N 22°08.0'	163°35.8'	N 21°59.9'	163°34.0'	N 21°51.5'
Zeitgl. 0h / 12h	-04:53 / -04:58		-05:03 / -05:07		-05:12 / -05:16		-05:21 / -05:25		-05:29 / -05:33		-05:37 / -05:41	
Kulmination UT	12:04:58		12:05:07		12:05:16		12:05:25		12:05:33		12:05:41	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Mo 13.07.		Di 14.07.		Mi 15.07.		Do 16.07.		Fr 17.07.		Sa 18.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°33.9'	N 21°51.1'	178°32.1'	N 21°42.3'	178°30.5'	N 21°33.1'	178°29.0'	N 21°23.5'	178°27.7'	N 21°13.6'	178°26.4'	N 21°03.3'
01	193°33.8'	N 21°50.7'	193°32.1'	N 21°41.9'	193°30.5'	N 21°32.7'	193°29.0'	N 21°23.1'	193°27.6'	N 21°13.1'	193°26.4'	N 21°02.8'
02	208°33.7'	N 21°50.4'	208°32.0'	N 21°41.5'	208°30.4'	N 21°32.3'	208°28.9'	N 21°22.7'	208°27.6'	N 21°12.7'	208°26.3'	N 21°02.4'
03	223°33.7'	N 21°50.0'	223°31.9'	N 21°41.1'	223°30.3'	N 21°31.9'	223°28.9'	N 21°22.3'	223°27.5'	N 21°12.3'	223°26.3'	N 21°02.0'
04	238°33.6'	N 21°49.7'	238°31.9'	N 21°40.8'	238°30.3'	N 21°31.5'	238°28.8'	N 21°21.9'	238°27.4'	N 21°11.9'	238°26.2'	N 21°01.5'
05	253°33.5'	N 21°49.3'	253°31.8'	N 21°40.4'	253°30.2'	N 21°31.1'	253°28.7'	N 21°21.5'	253°27.4'	N 21°11.4'	253°26.2'	N 21°01.1'
06	268°33.4'	N 21°48.9'	268°31.7'	N 21°40.0'	268°30.1'	N 21°30.7'	268°28.7'	N 21°21.0'	268°27.3'	N 21°11.0'	268°26.1'	N 21°00.6'
07	283°33.4'	N 21°48.6'	283°31.7'	N 21°39.6'	283°30.1'	N 21°30.3'	283°28.6'	N 21°20.6'	283°27.3'	N 21°10.6'	283°26.1'	N 21°00.2'
08	298°33.3'	N 21°48.2'	298°31.6'	N 21°39.2'	298°30.0'	N 21°29.9'	298°28.6'	N 21°20.2'	298°27.2'	N 21°10.2'	298°26.0'	N 20°59.8'
09	313°33.2'	N 21°47.8'	313°31.5'	N 21°38.9'	313°29.9'	N 21°29.5'	313°28.5'	N 21°19.8'	313°27.2'	N 21°09.7'	313°26.0'	N 20°59.3'
10	328°33.2'	N 21°47.5'	328°31.5'	N 21°38.5'	328°29.9'	N 21°29.1'	328°28.4'	N 21°19.4'	328°27.1'	N 21°09.3'	328°25.9'	N 20°58.9'
11	343°33.1'	N 21°47.1'	343°31.4'	N 21°38.1'	343°29.8'	N 21°28.7'	343°28.4'	N 21°19.0'	343°27.1'	N 21°08.9'	343°25.9'	N 20°58.4'
12	358°33.0'	N 21°46.7'	358°31.3'	N 21°37.7'	358°29.8'	N 21°28.3'	358°28.3'	N 21°18.6'	358°27.0'	N 21°08.5'	358°25.9'	N 20°58.0'
13	13°32.9'	N 21°46.4'	13°31.3'	N 21°37.3'	13°29.7'	N 21°27.9'	13°28.3'	N 21°18.2'	13°27.0'	N 21°08.0'	13°25.8'	N 20°57.5'
14	28°32.9'	N 21°46.0'	28°31.2'	N 21°36.9'	28°29.6'	N 21°27.5'	28°28.2'	N 21°17.7'	28°26.9'	N 21°07.6'	28°25.8'	N 20°57.1'
15	43°32.8'	N 21°45.6'	43°31.1'	N 21°36.6'	43°29.6'	N 21°27.1'	43°28.2'	N 21°17.3'	43°26.9'	N 21°07.2'	43°25.7'	N 20°56.6'
16	58°32.7'	N 21°45.3'	58°31.1'	N 21°36.2'	58°29.5'	N 21°26.7'	58°28.1'	N 21°16.9'	58°26.8'	N 21°06.7'	58°25.7'	N 20°56.2'
17	73°32.6'	N 21°44.9'	73°31.0'	N 21°35.8'	73°29.5'	N 21°26.3'	73°28.0'	N 21°16.5'	73°26.8'	N 21°06.3'	73°25.6'	N 20°55.8'
18	88°32.6'	N 21°44.5'	88°30.9'	N 21°35.4'	88°29.4'	N 21°25.9'	88°28.0'	N 21°16.1'	88°26.7'	N 21°05.9'	88°25.6'	N 20°55.3'
19	103°32.5'	N 21°44.1'	103°30.9'	N 21°35.0'	103°29.3'	N 21°25.5'	103°27.9'	N 21°15.7'	103°26.7'	N 21°05.4'	103°25.5'	N 20°54.9'
20	118°32.4'	N 21°43.8'	118°30.8'	N 21°34.6'	118°29.3'	N 21°25.1'	118°27.9'	N 21°15.2'	118°26.6'	N 21°05.0'	118°25.5'	N 20°54.4'
21	133°32.4'	N 21°43.4'	133°30.7'	N 21°34.2'	133°29.2'	N 21°24.7'	133°27.8'	N 21°14.8'	133°26.6'	N 21°04.6'	133°25.4'	N 20°54.0'
22	148°32.3'	N 21°43.0'	148°30.7'	N 21°33.8'	148°29.1'	N 21°24.3'	148°27.8'	N 21°14.4'	148°26.5'	N 21°04.1'	148°25.4'	N 20°53.5'
23	163°32.2'	N 21°42.6'	163°30.6'	N 21°33.5'	163°29.1'	N 21°23.9'	163°27.7'	N 21°14.0'	163°26.5'	N 21°03.7'	163°25.4'	N 20°53.1'
Zeitgl. 0h / 12h	-05:44 / -05:48		-05:51 / -05:55		-05:58 / -06:01		-06:04 / -06:07		-06:09 / -06:12		-06:14 / -06:17	
Kulmination UT	12:05:48		12:05:55		12:06:01		12:06:07		12:06:12		12:06:17	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	So 19.07.		Mo 20.07.		Di 21.07.		Mi 22.07.		Do 23.07.		Fr 24.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°25.3'	N 20°52.6'	178°24.4'	N 20°41.6'	178°23.5'	N 20°30.3'	178°22.8'	N 20°18.6'	178°22.3'	N 20°06.5'	178°21.9'	N 19°54.2'
01	193°25.3'	N 20°52.2'	193°24.3'	N 20°41.1'	193°23.5'	N 20°29.8'	193°22.8'	N 20°18.1'	193°22.3'	N 20°06.0'	193°21.9'	N 19°53.6'
02	208°25.2'	N 20°51.7'	208°24.3'	N 20°40.7'	208°23.5'	N 20°29.3'	208°22.8'	N 20°17.6'	208°22.3'	N 20°05.5'	208°21.9'	N 19°53.1'
03	223°25.2'	N 20°51.3'	223°24.2'	N 20°40.2'	223°23.4'	N 20°28.8'	223°22.8'	N 20°17.1'	223°22.2'	N 20°05.0'	223°21.9'	N 19°52.6'
04	238°25.1'	N 20°50.8'	238°24.2'	N 20°39.7'	238°23.4'	N 20°28.3'	238°22.7'	N 20°16.6'	238°22.2'	N 20°04.5'	238°21.9'	N 19°52.1'
05	253°25.1'	N 20°50.3'	253°24.2'	N 20°39.3'	253°23.4'	N 20°27.9'	253°22.7'	N 20°16.1'	253°22.2'	N 20°04.0'	253°21.8'	N 19°51.5'
06	268°25.1'	N 20°49.9'	268°24.1'	N 20°38.8'	268°23.3'	N 20°27.4'	268°22.7'	N 20°15.6'	268°22.2'	N 20°03.5'	268°21.8'	N 19°51.0'
07	283°25.0'	N 20°49.4'	283°24.1'	N 20°38.3'	283°23.3'	N 20°26.9'	283°22.7'	N 20°15.1'	283°22.2'	N 20°03.0'	283°21.8'	N 19°50.5'
08	298°25.0'	N 20°49.0'	298°24.1'	N 20°37.9'	298°23.3'	N 20°26.4'	298°22.6'	N 20°14.6'	298°22.2'	N 20°02.4'	298°21.8'	N 19°50.0'
09	313°24.9'	N 20°48.5'	313°24.0'	N 20°37.4'	313°23.3'	N 20°25.9'	313°22.6'	N 20°14.1'	313°22.1'	N 20°01.9'	313°21.8'	N 19°49.4'
10	328°24.9'	N 20°48.1'	328°24.0'	N 20°36.9'	328°23.2'	N 20°25.4'	328°22.6'	N 20°13.6'	328°22.1'	N 20°01.4'	328°21.8'	N 19°48.9'
11	343°24.9'	N 20°47.6'	343°24.0'	N 20°36.5'	343°23.2'	N 20°24.9'	343°22.6'	N 20°13.1'	343°22.1'	N 20°00.9'	343°21.8'	N 19°48.4'
12	358°24.8'	N 20°47.2'	358°23.9'	N 20°36.0'	358°23.2'	N 20°24.5'	358°22.6'	N 20°12.6'	358°22.1'	N 20°00.4'	358°21.8'	N 19°47.9'
13	13°24.8'	N 20°46.7'	13°23.9'	N 20°35.5'	13°23.1'	N 20°24.0'	13°22.5'	N 20°12.1'	13°22.1'	N 19°59.9'	13°21.7'	N 19°47.3'
14	28°24.7'	N 20°46.2'	28°23.9'	N 20°35.0'	28°23.1'	N 20°23.5'	28°22.5'	N 20°11.6'	28°22.1'	N 19°59.4'	28°21.7'	N 19°46.8'
15	43°24.7'	N 20°45.8'	43°23.8'	N 20°34.6'	43°23.1'	N 20°23.0'	43°22.5'	N 20°11.1'	43°22.0'	N 19°58.8'	43°21.7'	N 19°46.3'
16	58°24.7'	N 20°45.3'	58°23.8'	N 20°34.1'	58°23.1'	N 20°22.5'	58°22.5'	N 20°10.6'	58°22.0'	N 19°58.3'	58°21.7'	N 19°45.7'
17	73°24.6'	N 20°44.9'	73°23.8'	N 20°33.6'	73°23.0'	N 20°22.0'	73°22.4'	N 20°10.1'	73°22.0'	N 19°57.8'	73°21.7'	N 19°45.2'
18	88°24.6'	N 20°44.4'	88°23.7'	N 20°33.1'	88°23.0'	N 20°21.5'	88°22.4'	N 20°09.6'	88°22.0'	N 19°57.3'	88°21.7'	N 19°44.7'
19	103°24.5'	N 20°43.9'	103°23.7'	N 20°32.7'	103°23.0'	N 20°21.0'	103°22.4'	N 20°09.1'	103°22.0'	N 19°56.8'	103°21.7'	N 19°44.1'
20	118°24.5'	N 20°43.5'	118°23.7'	N 20°32.2'	118°22.9'	N 20°20.5'	118°22.4'	N 20°08.6'	118°22.0'	N 19°56.2'	118°21.7'	N 19°43.6'
21	133°24.5'	N 20°43.0'	133°23.6'	N 20°31.7'	133°22.9'	N 20°20.0'	133°22.4'	N 20°08.1'	133°21.9'	N 19°55.7'	133°21.7'	N 19°43.1'
22	148°24.4'	N 20°42.5'	148°23.6'	N 20°31.2'	148°22.9'	N 20°19.6'	148°22.3'	N 20°07.5'	148°21.9'	N 19°55.2'	148°21.7'	N 19°42.5'
23	163°24.4'	N 20°42.1'	163°23.6'	N 20°30.7'	163°22.9'	N 20°19.1'	163°22.3'	N 20°07.0'	163°21.9'	N 19°54.7'	163°21.7'	N 19°42.0'
Zeitgl. 0h / 12h	-06:19 / -06:21		-06:23 / -06:24		-06:26 / -06:27		-06:29 / -06:30		-06:31 / -06:32		-06:32 / -06:33	
Kulmination UT	12:06:21		12:06:24		12:06:27		12:06:30		12:06:32		12:06:33	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Sa 25.07.		So 26.07.		Mo 27.07.		Di 28.07.		Mi 29.07.		Do 30.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°21.7'	N 19°41.5'	178°21.6'	N 19°28.4'	178°21.6'	N 19°15.1'	178°21.8'	N 19°01.4'	178°22.1'	N 18°47.4'	178°22.7'	N 18°33.1'
01	193°21.6'	N 19°40.9'	193°21.6'	N 19°27.9'	193°21.6'	N 19°14.5'	193°21.8'	N 19°00.8'	193°22.2'	N 18°46.8'	193°22.7'	N 18°32.5'
02	208°21.6'	N 19°40.4'	208°21.6'	N 19°27.3'	208°21.6'	N 19°14.0'	208°21.8'	N 19°00.3'	208°22.2'	N 18°46.2'	208°22.7'	N 18°31.9'
03	223°21.6'	N 19°39.8'	223°21.6'	N 19°26.8'	223°21.6'	N 19°13.4'	223°21.8'	N 18°59.7'	223°22.2'	N 18°45.7'	223°22.7'	N 18°31.3'
04	238°21.6'	N 19°39.3'	238°21.6'	N 19°26.2'	238°21.6'	N 19°12.8'	238°21.8'	N 18°59.1'	238°22.2'	N 18°45.1'	238°22.7'	N 18°30.7'
05	253°21.6'	N 19°38.8'	253°21.6'	N 19°25.7'	253°21.6'	N 19°12.3'	253°21.9'	N 18°58.5'	253°22.2'	N 18°44.5'	253°22.8'	N 18°30.1'
06	268°21.6'	N 19°38.2'	268°21.6'	N 19°25.1'	268°21.6'	N 19°11.7'	268°21.9'	N 18°57.9'	268°22.3'	N 18°43.9'	268°22.8'	N 18°29.5'
07	283°21.6'	N 19°37.7'	283°21.6'	N 19°24.6'	283°21.6'	N 19°11.1'	283°21.9'	N 18°57.4'	283°22.3'	N 18°43.3'	283°22.8'	N 18°28.9'
08	298°21.6'	N 19°37.2'	298°21.6'	N 19°24.0'	298°21.7'	N 19°10.6'	298°21.9'	N 18°56.8'	298°22.3'	N 18°42.7'	298°22.9'	N 18°28.3'
09	313°21.6'	N 19°36.6'	313°21.6'	N 19°23.5'	313°21.7'	N 19°10.0'	313°21.9'	N 18°56.2'	313°22.3'	N 18°42.1'	313°22.9'	N 18°27.7'
10	328°21.6'	N 19°36.1'	328°21.6'	N 19°22.9'	328°21.7'	N 19°09.4'	328°21.9'	N 18°55.6'	328°22.3'	N 18°41.5'	328°22.9'	N 18°27.1'
11	343°21.6'	N 19°35.5'	343°21.6'	N 19°22.4'	343°21.7'	N 19°08.9'	343°21.9'	N 18°55.0'	343°22.4'	N 18°40.9'	343°22.9'	N 18°26.5'
12	358°21.6'	N 19°35.0'	358°21.6'	N 19°21.8'	358°21.7'	N 19°08.3'	358°22.0'	N 18°54.5'	358°22.4'	N 18°40.3'	358°23.0'	N 18°25.9'
13	13°21.6'	N 19°34.4'	13°21.6'	N 19°21.2'	13°21.7'	N 19°07.7'	13°22.0'	N 18°53.9'	13°22.4'	N 18°39.7'	13°23.0'	N 18°25.3'
14	28°21.6'	N 19°33.9'	28°21.6'	N 19°20.7'	28°21.7'	N 19°07.1'	28°22.0'	N 18°53.3'	28°22.4'	N 18°39.1'	28°23.0'	N 18°24.7'
15	43°21.6'	N 19°33.4'	43°21.6'	N 19°20.1'	43°21.7'	N 19°06.6'	43°22.0'	N 18°52.7'	43°22.4'	N 18°38.5'	43°23.0'	N 18°24.1'
16	58°21.6'	N 19°32.8'	58°21.6'	N 19°19.6'	58°21.7'	N 19°06.0'	58°22.0'	N 18°52.1'	58°22.5'	N 18°37.9'	58°23.1'	N 18°23.4'
17	73°21.6'	N 19°32.3'	73°21.6'	N 19°19.0'	73°21.7'	N 19°05.4'	73°22.0'	N 18°51.5'	73°22.5'	N 18°37.3'	73°23.1'	N 18°22.8'
18	88°21.6'	N 19°31.7'	88°21.6'	N 19°18.4'	88°21.7'	N 19°04.9'	88°22.0'	N 18°51.0'	88°22.5'	N 18°36.7'	88°23.1'	N 18°22.2'
19	103°21.6'	N 19°31.2'	103°21.6'	N 19°17.9'	103°21.7'	N 19°04.3'	103°22.1'	N 18°50.4'	103°22.5'	N 18°36.1'	103°23.2'	N 18°21.6'
20	118°21.6'	N 19°30.6'	118°21.6'	N 19°17.3'	118°21.8'	N 19°03.7'	118°22.1'	N 18°49.8'	118°22.6'	N 18°35.5'	118°23.2'	N 18°21.0'
21	133°21.6'	N 19°30.1'	133°21.6'	N 19°16.8'	133°21.8'	N 19°03.1'	133°22.1'	N 18°49.2'	133°22.6'	N 18°34.9'	133°23.2'	N 18°20.4'
22	148°21.6'	N 19°29.5'	148°21.6'	N 19°16.2'	148°21.8'	N 19°02.6'	148°22.1'	N 18°48.6'	148°22.6'	N 18°34.3'	148°23.2'	N 18°19.8'
23	163°21.6'	N 19°29.0'	163°21.6'	N 19°15.6'	163°21.8'	N 19°02.0'	163°22.1'	N 18°48.0'	163°22.6'	N 18°33.7'	163°23.3'	N 18°19.2'
Zeitgl. 0h / 12h	-06:33 / -06:34		-06:34 / -06:34		-06:34 / -06:33		-06:33 / -06:32		-06:31 / -06:30		-06:29 / -06:28	
Kulmination UT	12:06:34		12:06:34		12:06:33		12:06:32		12:06:30		12:06:28	
Halbmesser	15.7'		15.7'		15.7'		15.8'		15.8'		15.8'	

Fr 31.07.

UT	Grt	Dec
00	178°23.3'	N 18°18.5'
01	193°23.3'	N 18°17.9'
02	208°23.4'	N 18°17.3'
03	223°23.4'	N 18°16.7'
04	238°23.4'	N 18°16.1'
05	253°23.5'	N 18°15.5'
06	268°23.5'	N 18°14.8'
07	283°23.5'	N 18°14.2'
08	298°23.6'	N 18°13.6'
09	313°23.6'	N 18°13.0'
10	328°23.6'	N 18°12.4'
11	343°23.7'	N 18°11.8'
12	358°23.7'	N 18°11.1'
13	13°23.7'	N 18°10.5'
14	28°23.8'	N 18°09.9'
15	43°23.8'	N 18°09.3'
16	58°23.8'	N 18°08.6'
17	73°23.9'	N 18°08.0'
18	88°23.9'	N 18°07.4'
19	103°23.9'	N 18°06.8'
20	118°24.0'	N 18°06.2'
21	133°24.0'	N 18°05.5'
22	148°24.0'	N 18°04.9'
23	163°24.1'	N 18°04.3'

Zeitgl. 0h / 12h -06:27 / -06:25

Kulmination UT 12:06:25

Halbmesser 15.8'

2026

August

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Sa 01.08.		So 02.08.		Mo 03.08.		Di 04.08.		Mi 05.08.		Do 06.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°24.1'	N 18°03.6'	178°25.1'	N 17°48.5'	178°26.2'	N 17°33.0'	178°27.4'	N 17°17.2'	178°28.8'	N 17°01.2'	178°30.4'	N 16°44.9'
01	193°24.1'	N 18°03.0'	193°25.1'	N 17°47.8'	193°26.2'	N 17°32.3'	193°27.5'	N 17°16.6'	193°28.9'	N 17°00.5'	193°30.5'	N 16°44.2'
02	208°24.2'	N 18°02.4'	208°25.2'	N 17°47.2'	208°26.3'	N 17°31.7'	208°27.5'	N 17°15.9'	208°29.0'	N 16°59.8'	208°30.5'	N 16°43.5'
03	223°24.2'	N 18°01.8'	223°25.2'	N 17°46.5'	223°26.3'	N 17°31.0'	223°27.6'	N 17°15.2'	223°29.0'	N 16°59.1'	223°30.6'	N 16°42.8'
04	238°24.3'	N 18°01.1'	238°25.2'	N 17°45.9'	238°26.4'	N 17°30.4'	238°27.7'	N 17°14.6'	238°29.1'	N 16°58.5'	238°30.7'	N 16°42.1'
05	253°24.3'	N 18°00.5'	253°25.3'	N 17°45.3'	253°26.4'	N 17°29.7'	253°27.7'	N 17°13.9'	253°29.2'	N 16°57.8'	253°30.8'	N 16°41.4'
06	268°24.3'	N 17°59.9'	268°25.3'	N 17°44.6'	268°26.5'	N 17°29.1'	268°27.8'	N 17°13.2'	268°29.2'	N 16°57.1'	268°30.8'	N 16°40.7'
07	283°24.4'	N 17°59.2'	283°25.4'	N 17°44.0'	283°26.5'	N 17°28.4'	283°27.8'	N 17°12.6'	283°29.3'	N 16°56.4'	283°30.9'	N 16°40.0'
08	298°24.4'	N 17°58.6'	298°25.4'	N 17°43.3'	298°26.6'	N 17°27.8'	298°27.9'	N 17°11.9'	298°29.4'	N 16°55.8'	298°31.0'	N 16°39.4'
09	313°24.5'	N 17°58.0'	313°25.5'	N 17°42.7'	313°26.6'	N 17°27.1'	313°27.9'	N 17°11.2'	313°29.4'	N 16°55.1'	313°31.0'	N 16°38.7'
10	328°24.5'	N 17°57.4'	328°25.5'	N 17°42.0'	328°26.7'	N 17°26.4'	328°28.0'	N 17°10.6'	328°29.5'	N 16°54.4'	328°31.1'	N 16°38.0'
11	343°24.5'	N 17°56.7'	343°25.6'	N 17°41.4'	343°26.7'	N 17°25.8'	343°28.1'	N 17°09.9'	343°29.5'	N 16°53.7'	343°31.2'	N 16°37.3'
12	358°24.6'	N 17°56.1'	358°25.6'	N 17°40.8'	358°26.8'	N 17°25.1'	358°28.1'	N 17°09.2'	358°29.6'	N 16°53.0'	358°31.2'	N 16°36.6'
13	13°24.6'	N 17°55.5'	13°25.6'	N 17°40.1'	13°26.8'	N 17°24.5'	13°28.2'	N 17°08.6'	13°29.7'	N 16°52.4'	13°31.3'	N 16°35.9'
14	28°24.6'	N 17°54.8'	28°25.7'	N 17°39.5'	28°26.9'	N 17°23.8'	28°28.2'	N 17°07.9'	28°29.7'	N 16°51.7'	28°31.4'	N 16°35.2'
15	43°24.7'	N 17°54.2'	43°25.7'	N 17°38.8'	43°26.9'	N 17°23.2'	43°28.3'	N 17°07.2'	43°29.8'	N 16°51.0'	43°31.5'	N 16°34.5'
16	58°24.7'	N 17°53.6'	58°25.8'	N 17°38.2'	58°27.0'	N 17°22.5'	58°28.4'	N 17°06.5'	58°29.9'	N 16°50.3'	58°31.5'	N 16°33.8'
17	73°24.8'	N 17°52.9'	73°25.8'	N 17°37.5'	73°27.1'	N 17°21.8'	73°28.4'	N 17°05.9'	73°29.9'	N 16°49.6'	73°31.6'	N 16°33.1'
18	88°24.8'	N 17°52.3'	88°25.9'	N 17°36.9'	88°27.1'	N 17°21.2'	88°28.5'	N 17°05.2'	88°30.0'	N 16°49.0'	88°31.7'	N 16°32.4'
19	103°24.9'	N 17°51.6'	103°25.9'	N 17°36.2'	103°27.2'	N 17°20.5'	103°28.5'	N 17°04.5'	103°30.1'	N 16°48.3'	103°31.8'	N 16°31.7'
20	118°24.9'	N 17°51.0'	118°26.0'	N 17°35.6'	118°27.2'	N 17°19.9'	118°28.6'	N 17°03.9'	118°30.1'	N 16°47.6'	118°31.8'	N 16°31.0'
21	133°24.9'	N 17°50.4'	133°26.0'	N 17°34.9'	133°27.3'	N 17°19.2'	133°28.7'	N 17°03.2'	133°30.2'	N 16°46.9'	133°31.9'	N 16°30.4'
22	148°25.0'	N 17°49.7'	148°26.1'	N 17°34.3'	148°27.3'	N 17°18.5'	148°28.7'	N 17°02.5'	148°30.3'	N 16°46.2'	148°32.0'	N 16°29.7'
23	163°25.0'	N 17°49.1'	163°26.1'	N 17°33.6'	163°27.4'	N 17°17.9'	163°28.8'	N 17°01.8'	163°30.3'	N 16°45.5'	163°32.0'	N 16°29.0'
Zeitgl. 0h / 12h	-06:24 / -06:22		-06:20 / -06:18		-06:15 / -06:13		-06:10 / -06:08		-06:05 / -06:02		-05:58 / -05:55	
Kulmination UT	12:06:22		12:06:18		12:06:13		12:06:08		12:06:02		12:05:55	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Fr 07.08.		Sa 08.08.		So 09.08.		Mo 10.08.		Di 11.08.		Mi 12.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°32.1'	N 16°28.3'	178°34.0'	N 16°11.4'	178°36.0'	N 15°54.3'	178°38.1'	N 15°36.9'	178°40.4'	N 15°19.3'	178°42.9'	N 15°01.4'
01	193°32.2'	N 16°27.6'	193°34.1'	N 16°10.7'	193°36.1'	N 15°53.6'	193°38.2'	N 15°36.2'	193°40.5'	N 15°18.6'	193°43.0'	N 15°00.7'
02	208°32.3'	N 16°26.9'	208°34.1'	N 16°10.0'	208°36.2'	N 15°52.9'	208°38.3'	N 15°35.5'	208°40.6'	N 15°17.8'	208°43.1'	N 14°59.9'
03	223°32.3'	N 16°26.2'	223°34.2'	N 16°09.3'	223°36.2'	N 15°52.1'	223°38.4'	N 15°34.7'	223°40.7'	N 15°17.1'	223°43.2'	N 14°59.2'
04	238°32.4'	N 16°25.5'	238°34.3'	N 16°08.6'	238°36.3'	N 15°51.4'	238°38.5'	N 15°34.0'	238°40.8'	N 15°16.3'	238°43.3'	N 14°58.4'
05	253°32.5'	N 16°24.8'	253°34.4'	N 16°07.9'	253°36.4'	N 15°50.7'	253°38.6'	N 15°33.3'	253°40.9'	N 15°15.6'	253°43.4'	N 14°57.7'
06	268°32.6'	N 16°24.1'	268°34.5'	N 16°07.2'	268°36.5'	N 15°50.0'	268°38.7'	N 15°32.5'	268°41.0'	N 15°14.9'	268°43.5'	N 14°56.9'
07	283°32.6'	N 16°23.4'	283°34.6'	N 16°06.4'	283°36.6'	N 15°49.3'	283°38.8'	N 15°31.8'	283°41.1'	N 15°14.1'	283°43.6'	N 14°56.2'
08	298°32.7'	N 16°22.7'	298°34.6'	N 16°05.7'	298°36.7'	N 15°48.5'	298°38.9'	N 15°31.1'	298°41.2'	N 15°13.4'	298°43.7'	N 14°55.4'
09	313°32.8'	N 16°22.0'	313°34.7'	N 16°05.0'	313°36.8'	N 15°47.8'	313°39.0'	N 15°30.3'	313°41.3'	N 15°12.6'	313°43.8'	N 14°54.7'
10	328°32.9'	N 16°21.3'	328°34.8'	N 16°04.3'	328°36.9'	N 15°47.1'	328°39.1'	N 15°29.6'	328°41.4'	N 15°11.9'	328°43.9'	N 14°53.9'
11	343°33.0'	N 16°20.6'	343°34.9'	N 16°03.6'	343°37.0'	N 15°46.4'	343°39.2'	N 15°28.9'	343°41.5'	N 15°11.1'	343°44.0'	N 14°53.2'
12	358°33.0'	N 16°19.9'	358°35.0'	N 16°02.9'	358°37.0'	N 15°45.6'	358°39.3'	N 15°28.1'	358°41.6'	N 15°10.4'	358°44.1'	N 14°52.4'
13	13°33.1'	N 16°19.2'	13°35.0'	N 16°02.2'	13°37.1'	N 15°44.9'	13°39.4'	N 15°27.4'	13°41.7'	N 15°09.7'	13°44.2'	N 14°51.7'
14	28°33.2'	N 16°18.5'	28°35.1'	N 16°01.5'	28°37.2'	N 15°44.2'	28°39.5'	N 15°26.7'	28°41.8'	N 15°08.9'	28°44.4'	N 14°50.9'
15	43°33.3'	N 16°17.8'	43°35.2'	N 16°00.7'	43°37.3'	N 15°43.5'	43°39.6'	N 15°25.9'	43°41.9'	N 15°08.2'	43°44.5'	N 14°50.2'
16	58°33.3'	N 16°17.1'	58°35.3'	N 16°00.0'	58°37.4'	N 15°42.7'	58°39.7'	N 15°25.2'	58°42.0'	N 15°07.4'	58°44.6'	N 14°49.4'
17	73°33.4'	N 16°16.4'	73°35.4'	N 15°59.3'	73°37.5'	N 15°42.0'	73°39.7'	N 15°24.5'	73°42.1'	N 15°06.7'	73°44.7'	N 14°48.6'
18	88°33.5'	N 16°15.6'	88°35.5'	N 15°58.6'	88°37.6'	N 15°41.3'	88°39.8'	N 15°23.7'	88°42.2'	N 15°05.9'	88°44.8'	N 14°47.9'
19	103°33.6'	N 16°14.9'	103°35.6'	N 15°57.9'	103°37.7'	N 15°40.6'	103°39.9'	N 15°23.0'	103°42.3'	N 15°05.2'	103°44.9'	N 14°47.1'
20	118°33.7'	N 16°14.2'	118°35.6'	N 15°57.2'	118°37.8'	N 15°39.8'	118°40.0'	N 15°22.3'	118°42.5'	N 15°04.4'	118°45.0'	N 14°46.4'
21	133°33.7'	N 16°13.5'	133°35.7'	N 15°56.4'	133°37.9'	N 15°39.1'	133°40.1'	N 15°21.5'	133°42.6'	N 15°03.7'	133°45.1'	N 14°45.6'
22	148°33.8'	N 16°12.8'	148°35.8'	N 15°55.7'	148°38.0'	N 15°38.4'	148°40.2'	N 15°20.8'	148°42.7'	N 15°02.9'	148°45.2'	N 14°44.9'
23	163°33.9'	N 16°12.1'	163°35.9'	N 15°55.0'	163°38.0'	N 15°37.7'	163°40.3'	N 15°20.0'	163°42.8'	N 15°02.2'	163°45.3'	N 14°44.1'
Zeitgl. 0h / 12h	-05:52 / -05:48		-05:44 / -05:40		-05:36 / -05:32		-05:27 / -05:23		-05:18 / -05:13		-05:09 / -05:03	
Kulmination UT	12:05:48		12:05:40		12:05:32		12:05:23		12:05:13		12:05:03	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Do 13.08.		Fr 14.08.		Sa 15.08.		So 16.08.		Mo 17.08.		Di 18.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°45.4'	N 14°43.3'	178°48.2'	N 14°25.0'	178°51.0'	N 14°06.4'	178°54.0'	N 13°47.6'	178°57.1'	N 13°28.6'	179°00.3'	N 13°09.4'
01	193°45.6'	N 14°42.6'	193°48.3'	N 14°24.2'	193°51.1'	N 14°05.7'	193°54.1'	N 13°46.9'	193°57.2'	N 13°27.8'	194°00.5'	N 13°08.6'
02	208°45.7'	N 14°41.8'	208°48.4'	N 14°23.5'	208°51.2'	N 14°04.9'	208°54.2'	N 13°46.1'	208°57.4'	N 13°27.0'	209°00.6'	N 13°07.8'
03	223°45.8'	N 14°41.1'	223°48.5'	N 14°22.7'	223°51.4'	N 14°04.1'	223°54.4'	N 13°45.3'	223°57.5'	N 13°26.2'	224°00.8'	N 13°07.0'
04	238°45.9'	N 14°40.3'	238°48.6'	N 14°21.9'	238°51.5'	N 14°03.3'	238°54.5'	N 13°44.5'	238°57.6'	N 13°25.4'	239°00.9'	N 13°06.2'
05	253°46.0'	N 14°39.5'	253°48.7'	N 14°21.2'	253°51.6'	N 14°02.5'	253°54.6'	N 13°43.7'	253°57.8'	N 13°24.6'	254°01.0'	N 13°05.4'
06	268°46.1'	N 14°38.8'	268°48.9'	N 14°20.4'	268°51.7'	N 14°01.8'	268°54.8'	N 13°42.9'	268°57.9'	N 13°23.8'	269°01.2'	N 13°04.6'
07	283°46.2'	N 14°38.0'	283°49.0'	N 14°19.6'	283°51.9'	N 14°01.0'	283°54.9'	N 13°42.1'	283°58.0'	N 13°23.0'	284°01.3'	N 13°03.8'
08	298°46.3'	N 14°37.3'	298°49.1'	N 14°18.8'	298°52.0'	N 14°00.2'	298°55.0'	N 13°41.3'	298°58.2'	N 13°22.2'	299°01.4'	N 13°03.0'
09	313°46.4'	N 14°36.5'	313°49.2'	N 14°18.1'	313°52.1'	N 13°59.4'	313°55.1'	N 13°40.5'	313°58.3'	N 13°21.5'	314°01.6'	N 13°02.1'
10	328°46.6'	N 14°35.7'	328°49.3'	N 14°17.3'	328°52.2'	N 13°58.6'	328°55.3'	N 13°39.7'	328°58.4'	N 13°20.7'	329°01.7'	N 13°01.3'
11	343°46.7'	N 14°35.0'	343°49.4'	N 14°16.5'	343°52.4'	N 13°57.8'	343°55.4'	N 13°39.0'	343°58.6'	N 13°19.8'	344°01.9'	N 13°00.5'
12	358°46.8'	N 14°34.2'	358°49.6'	N 14°15.7'	358°52.5'	N 13°57.1'	358°55.5'	N 13°38.2'	358°58.7'	N 13°19.0'	359°02.0'	N 12°59.7'
13	13°46.9'	N 14°33.4'	13°49.7'	N 14°15.0'	13°52.6'	N 13°56.3'	13°55.7'	N 13°37.4'	13°58.8'	N 13°18.2'	14°02.1'	N 12°58.9'
14	28°47.0'	N 14°32.7'	28°49.8'	N 14°14.2'	28°52.7'	N 13°55.5'	28°55.8'	N 13°36.6'	28°59.0'	N 13°17.4'	29°02.3'	N 12°58.1'
15	43°47.1'	N 14°31.9'	43°49.9'	N 14°13.4'	43°52.9'	N 13°54.7'	43°55.9'	N 13°35.8'	43°59.1'	N 13°16.6'	44°02.4'	N 12°57.3'
16	58°47.2'	N 14°31.1'	58°50.0'	N 14°12.6'	58°53.0'	N 13°53.9'	58°56.0'	N 13°35.0'	58°59.2'	N 13°15.8'	59°02.6'	N 12°56.5'
17	73°47.4'	N 14°30.4'	73°50.2'	N 14°11.9'	73°53.1'	N 13°53.1'	73°56.2'	N 13°34.2'	73°59.4'	N 13°15.0'	74°02.7'	N 12°55.7'
18	88°47.5'	N 14°29.6'	88°50.3'	N 14°11.1'	88°53.2'	N 13°52.4'	88°56.3'	N 13°33.4'	88°59.5'	N 13°14.2'	89°02.8'	N 12°54.9'
19	103°47.6'	N 14°28.8'	103°50.4'	N 14°10.3'	103°53.4'	N 13°51.6'	103°56.4'	N 13°32.6'	103°59.7'	N 13°13.4'	104°03.0'	N 12°54.0'
20	118°47.7'	N 14°28.1'	118°50.5'	N 14°09.5'	118°53.5'	N 13°50.8'	118°56.6'	N 13°31.8'	118°59.8'	N 13°12.6'	119°03.1'	N 12°53.2'
21	133°47.8'	N 14°27.3'	133°50.6'	N 14°08.8'	133°53.6'	N 13°50.0'	133°56.7'	N 13°31.0'	133°59.9'	N 13°11.8'	134°03.3'	N 12°52.4'
22	148°47.9'	N 14°26.5'	148°50.8'	N 14°08.0'	148°53.7'	N 13°49.2'	148°56.8'	N 13°30.2'	149°00.1'	N 13°11.0'	149°03.4'	N 12°51.6'
23	163°48.0'	N 14°25.8'	163°50.9'	N 14°07.2'	163°53.9'	N 13°48.4'	163°57.0'	N 13°29.4'	164°00.2'	N 13°10.2'	164°03.6'	N 12°50.8'
Zeitgl. 0h / 12h	-04:58 / -04:53		-04:47 / -04:42		-04:36 / -04:30		-04:24 / -04:18		-04:12 / -04:05		-03:59 / -03:52	
Kulmination UT	12:04:53		12:04:42		12:04:30		12:04:18		12:04:05		12:03:52	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Mi 19.08.		Do 20.08.		Fr 21.08.		Sa 22.08.		So 23.08.		Mo 24.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°03.7'	N 12°50.0'	179°07.2'	N 12°30.3'	179°10.8'	N 12°10.5'	179°14.5'	N 11°50.5'	179°18.3'	N 11°30.3'	179°22.3'	N 11°09.9'
01	194°03.8'	N 12°49.2'	194°07.3'	N 12°29.5'	194°10.9'	N 12°09.7'	194°14.7'	N 11°49.7'	194°18.5'	N 11°29.4'	194°22.5'	N 11°09.0'
02	209°04.0'	N 12°48.4'	209°07.5'	N 12°28.7'	209°11.1'	N 12°08.9'	209°14.8'	N 11°48.8'	209°18.7'	N 11°28.6'	209°22.6'	N 11°08.2'
03	224°04.1'	N 12°47.5'	224°07.6'	N 12°27.9'	224°11.3'	N 12°08.0'	224°15.0'	N 11°48.0'	224°18.8'	N 11°27.7'	224°22.8'	N 11°07.3'
04	239°04.3'	N 12°46.7'	239°07.8'	N 12°27.1'	239°11.4'	N 12°07.2'	239°15.1'	N 11°47.1'	239°19.0'	N 11°26.9'	239°23.0'	N 11°06.5'
05	254°04.4'	N 12°45.9'	254°07.9'	N 12°26.2'	254°11.6'	N 12°06.4'	254°15.3'	N 11°46.3'	254°19.2'	N 11°26.0'	254°23.1'	N 11°05.6'
06	269°04.6'	N 12°45.1'	269°08.1'	N 12°25.4'	269°11.7'	N 12°05.5'	269°15.5'	N 11°45.5'	269°19.3'	N 11°25.2'	269°23.3'	N 11°04.8'
07	284°04.7'	N 12°44.3'	284°08.2'	N 12°24.6'	284°11.9'	N 12°04.7'	284°15.6'	N 11°44.6'	284°19.5'	N 11°24.3'	284°23.5'	N 11°03.9'
08	299°04.9'	N 12°43.5'	299°08.4'	N 12°23.8'	299°12.0'	N 12°03.9'	299°15.8'	N 11°43.8'	299°19.7'	N 11°23.5'	299°23.6'	N 11°03.0'
09	314°05.0'	N 12°42.6'	314°08.5'	N 12°22.9'	314°12.2'	N 12°03.0'	314°15.9'	N 11°42.9'	314°19.8'	N 11°22.7'	314°23.8'	N 11°02.2'
10	329°05.1'	N 12°41.8'	329°08.7'	N 12°22.1'	329°12.3'	N 12°02.2'	329°16.1'	N 11°42.1'	329°20.0'	N 11°21.8'	329°24.0'	N 11°01.3'
11	344°05.3'	N 12°41.0'	344°08.8'	N 12°21.3'	344°12.5'	N 12°01.4'	344°16.3'	N 11°41.2'	344°20.1'	N 11°21.0'	344°24.1'	N 11°00.5'
12	359°05.4'	N 12°40.2'	359°09.0'	N 12°20.5'	359°12.6'	N 12°00.5'	359°16.4'	N 11°40.4'	359°20.3'	N 11°20.1'	359°24.3'	N 10°59.6'
13	14°05.6'	N 12°39.4'	14°09.1'	N 12°19.6'	14°12.8'	N 11°59.7'	14°16.6'	N 11°39.6'	14°20.5'	N 11°19.3'	14°24.5'	N 10°58.8'
14	29°05.7'	N 12°38.6'	29°09.3'	N 12°18.8'	29°13.0'	N 11°58.9'	29°16.7'	N 11°38.7'	29°20.6'	N 11°18.4'	29°24.6'	N 10°57.9'
15	44°05.9'	N 12°37.7'	44°09.4'	N 12°18.0'	44°13.1'	N 11°58.0'	44°16.9'	N 11°37.9'	44°20.8'	N 11°17.6'	44°24.8'	N 10°57.0'
16	59°06.0'	N 12°36.9'	59°09.6'	N 12°17.1'	59°13.3'	N 11°57.2'	59°17.1'	N 11°37.0'	59°21.0'	N 11°16.7'	59°25.0'	N 10°56.2'
17	74°06.2'	N 12°36.1'	74°09.7'	N 12°16.3'	74°13.4'	N 11°56.3'	74°17.2'	N 11°36.2'	74°21.1'	N 11°15.9'	74°25.1'	N 10°55.3'
18	89°06.3'	N 12°35.3'	89°09.9'	N 12°15.5'	89°13.6'	N 11°55.5'	89°17.4'	N 11°35.3'	89°21.3'	N 11°15.0'	89°25.3'	N 10°54.5'
19	104°06.5'	N 12°34.5'	104°10.0'	N 12°14.7'	104°13.7'	N 11°54.7'	104°17.5'	N 11°34.5'	104°21.5'	N 11°14.1'	104°25.5'	N 10°53.6'
20	119°06.6'	N 12°33.6'	119°10.2'	N 12°13.8'	119°13.9'	N 11°53.8'	119°17.7'	N 11°33.7'	119°21.6'	N 11°13.3'	119°25.7'	N 10°52.8'
21	134°06.7'	N 12°32.8'	134°10.3'	N 12°13.0'	134°14.0'	N 11°53.0'	134°17.9'	N 11°32.8'	134°21.8'	N 11°12.4'	134°25.8'	N 10°51.9'
22	149°06.9'	N 12°32.0'	149°10.5'	N 12°12.2'	149°14.2'	N 11°52.2'	149°18.0'	N 11°32.0'	149°22.0'	N 11°11.6'	149°26.0'	N 10°51.0'
23	164°07.0'	N 12°31.2'	164°10.6'	N 12°11.3'	164°14.4'	N 11°51.3'	164°18.2'	N 11°31.1'	164°22.1'	N 11°10.7'	164°26.2'	N 10°50.2'
Zeitgl. 0h / 12h	-03:45 / -03:38		-03:31 / -03:24		-03:17 / -03:09		-03:02 / -02:54		-02:47 / -02:39		-02:31 / -02:23	
Kulmination UT	12:03:38		12:03:24		12:03:09		12:02:54		12:02:39		12:02:23	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Di 25.08.		Mi 26.08.		Do 27.08.		Fr 28.08.		Sa 29.08.		So 30.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°26.3'	N 10°49.3'	179°30.5'	N 10°28.6'	179°34.7'	N 10°07.7'	179°39.1'	N 9°46.6'	179°43.5'	N 9°25.4'	179°48.0'	N 9°04.0'
01	194°26.5'	N 10°48.5'	194°30.7'	N 10°27.7'	194°34.9'	N 10°06.8'	194°39.3'	N 9°45.7'	194°43.7'	N 9°24.5'	194°48.2'	N 9°03.1'
02	209°26.7'	N 10°47.6'	209°30.8'	N 10°26.8'	209°35.1'	N 10°05.9'	209°39.5'	N 9°44.8'	209°43.9'	N 9°23.6'	209°48.4'	N 9°02.2'
03	224°26.9'	N 10°46.7'	224°31.0'	N 10°26.0'	224°35.3'	N 10°05.0'	224°39.6'	N 9°44.0'	224°44.1'	N 9°22.7'	224°48.6'	N 9°01.3'
04	239°27.0'	N 10°45.9'	239°31.2'	N 10°25.1'	239°35.5'	N 10°04.2'	239°39.8'	N 9°43.1'	239°44.3'	N 9°21.8'	239°48.8'	N 9°00.4'
05	254°27.2'	N 10°45.0'	254°31.4'	N 10°24.2'	254°35.6'	N 10°03.3'	254°40.0'	N 9°42.2'	254°44.5'	N 9°20.9'	254°49.0'	N 8°59.5'
06	269°27.4'	N 10°44.1'	269°31.5'	N 10°23.4'	269°35.8'	N 10°02.4'	269°40.2'	N 9°41.3'	269°44.6'	N 9°20.0'	269°49.2'	N 8°58.6'
07	284°27.5'	N 10°43.3'	284°31.7'	N 10°22.5'	284°36.0'	N 10°01.5'	284°40.4'	N 9°40.4'	284°44.8'	N 9°19.2'	284°49.4'	N 8°57.7'
08	299°27.7'	N 10°42.4'	299°31.9'	N 10°21.6'	299°36.2'	N 10°00.7'	299°40.6'	N 9°39.5'	299°45.0'	N 9°18.3'	299°49.6'	N 8°56.8'
09	314°27.9'	N 10°41.6'	314°32.1'	N 10°20.8'	314°36.4'	N 9°59.8'	314°40.7'	N 9°38.7'	314°45.2'	N 9°17.4'	314°49.8'	N 8°56.0'
10	329°28.1'	N 10°40.7'	329°32.3'	N 10°19.9'	329°36.5'	N 9°58.9'	329°40.9'	N 9°37.8'	329°45.4'	N 9°16.5'	329°50.0'	N 8°55.1'
11	344°28.2'	N 10°39.8'	344°32.4'	N 10°19.0'	344°36.7'	N 9°58.0'	344°41.1'	N 9°36.9'	344°45.6'	N 9°15.6'	344°50.1'	N 8°54.2'
12	359°28.4'	N 10°39.0'	359°32.6'	N 10°18.1'	359°36.9'	N 9°57.2'	359°41.3'	N 9°36.0'	359°45.8'	N 9°14.7'	359°50.3'	N 8°53.3'
13	14°28.6'	N 10°38.1'	14°32.8'	N 10°17.3'	14°37.1'	N 9°56.3'	14°41.5'	N 9°35.1'	14°46.0'	N 9°13.8'	14°50.5'	N 8°52.4'
14	29°28.8'	N 10°37.2'	29°33.0'	N 10°16.4'	29°37.3'	N 9°55.4'	29°41.7'	N 9°34.2'	29°46.2'	N 9°12.9'	29°50.7'	N 8°51.5'
15	44°28.9'	N 10°36.4'	44°33.1'	N 10°15.5'	44°37.4'	N 9°54.5'	44°41.8'	N 9°33.4'	44°46.3'	N 9°12.0'	44°50.9'	N 8°50.6'
16	59°29.1'	N 10°35.5'	59°33.3'	N 10°14.7'	59°37.6'	N 9°53.6'	59°42.0'	N 9°32.5'	59°46.5'	N 9°11.1'	59°51.1'	N 8°49.7'
17	74°29.3'	N 10°34.6'	74°33.5'	N 10°13.8'	74°37.8'	N 9°52.8'	74°42.2'	N 9°31.6'	74°46.7'	N 9°10.3'	74°51.3'	N 8°48.8'
18	89°29.4'	N 10°33.8'	89°33.7'	N 10°12.9'	89°38.0'	N 9°51.9'	89°42.4'	N 9°30.7'	89°46.9'	N 9°09.4'	89°51.5'	N 8°47.9'
19	104°29.6'	N 10°32.9'	104°33.8'	N 10°12.0'	104°38.2'	N 9°51.0'	104°42.6'	N 9°29.8'	104°47.1'	N 9°08.5'	104°51.7'	N 8°47.0'
20	119°29.8'	N 10°32.0'	119°34.0'	N 10°11.2'	119°38.4'	N 9°50.1'	119°42.8'	N 9°28.9'	119°47.3'	N 9°07.6'	119°51.9'	N 8°46.1'
21	134°30.0'	N 10°31.2'	134°34.2'	N 10°10.3'	134°38.5'	N 9°49.2'	134°43.0'	N 9°28.0'	134°47.5'	N 9°06.7'	134°52.1'	N 8°45.2'
22	149°30.1'	N 10°30.3'	149°34.4'	N 10°09.4'	149°38.7'	N 9°48.4'	149°43.1'	N 9°27.2'	149°47.7'	N 9°05.8'	149°52.3'	N 8°44.3'
23	164°30.3'	N 10°29.4'	164°34.6'	N 10°08.5'	164°38.9'	N 9°47.5'	164°43.3'	N 9°26.3'	164°47.9'	N 9°04.9'	164°52.5'	N 8°43.4'
Zeitgl. 0h / 12h	-02:15 / -02:06		-01:58 / -01:50		-01:41 / -01:32		-01:24 / -01:15		-01:06 / -00:57		-00:48 / -00:39	
Kulmination UT	12:02:06		12:01:50		12:01:32		12:01:15		12:00:57		12:00:39	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

Mo 31.08.

UT	Grt	Dec
00	179°52.7'	N 8°42.5'
01	194°52.8'	N 8°41.6'
02	209°53.0'	N 8°40.7'
03	224°53.2'	N 8°39.8'
04	239°53.4'	N 8°38.9'
05	254°53.6'	N 8°38.0'
06	269°53.8'	N 8°37.1'
07	284°54.0'	N 8°36.2'
08	299°54.2'	N 8°35.3'
09	314°54.4'	N 8°34.4'
10	329°54.6'	N 8°33.5'
11	344°54.8'	N 8°32.6'
12	359°55.0'	N 8°31.7'
13	14°55.2'	N 8°30.8'
14	29°55.4'	N 8°29.9'
15	44°55.6'	N 8°29.0'
16	59°55.8'	N 8°28.1'
17	74°56.0'	N 8°27.2'
18	89°56.2'	N 8°26.3'
19	104°56.4'	N 8°25.4'
20	119°56.6'	N 8°24.4'
21	134°56.7'	N 8°23.5'
22	149°56.9'	N 8°22.6'
23	164°57.1'	N 8°21.7'

Zeitgl. 0h / 12h -00:29 / -00:20

Kulmination UT 12:00:20

Halbmesser 15.8'

2026

September

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Di 01.09.		Mi 02.09.		Do 03.09.		Fr 04.09.		Sa 05.09.		So 06.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°57.3'	N 8°20.8'	180°02.1'	N 7°59.0'	180°06.9'	N 7°37.1'	180°11.8'	N 7°15.1'	180°16.8'	N 6°52.9'	180°21.8'	N 6°30.6'
01	194°57.5'	N 8°19.9'	195°02.3'	N 7°58.1'	195°07.1'	N 7°36.2'	195°12.0'	N 7°14.2'	195°17.0'	N 6°52.0'	195°22.0'	N 6°29.7'
02	209°57.7'	N 8°19.0'	210°02.5'	N 7°57.2'	210°07.3'	N 7°35.3'	210°12.2'	N 7°13.2'	210°17.2'	N 6°51.1'	210°22.2'	N 6°28.8'
03	224°57.9'	N 8°18.1'	225°02.7'	N 7°56.3'	225°07.5'	N 7°34.4'	225°12.4'	N 7°12.3'	225°17.4'	N 6°50.1'	225°22.4'	N 6°27.9'
04	239°58.1'	N 8°17.2'	240°02.9'	N 7°55.4'	240°07.7'	N 7°33.5'	240°12.7'	N 7°11.4'	240°17.6'	N 6°49.2'	240°22.6'	N 6°26.9'
05	254°58.3'	N 8°16.3'	255°03.1'	N 7°54.5'	255°07.9'	N 7°32.5'	255°12.9'	N 7°10.5'	255°17.8'	N 6°48.3'	255°22.9'	N 6°26.0'
06	269°58.5'	N 8°15.4'	270°03.3'	N 7°53.6'	270°08.1'	N 7°31.6'	270°13.1'	N 7°09.6'	270°18.0'	N 6°47.4'	270°23.1'	N 6°25.1'
07	284°58.7'	N 8°14.5'	285°03.5'	N 7°52.7'	285°08.4'	N 7°30.7'	285°13.3'	N 7°08.6'	285°18.2'	N 6°46.4'	285°23.3'	N 6°24.1'
08	299°58.9'	N 8°13.6'	300°03.7'	N 7°51.7'	300°08.6'	N 7°29.8'	300°13.5'	N 7°07.7'	300°18.5'	N 6°45.5'	300°23.5'	N 6°23.2'
09	314°59.1'	N 8°12.7'	315°03.9'	N 7°50.8'	315°08.8'	N 7°28.9'	315°13.7'	N 7°06.8'	315°18.7'	N 6°44.6'	315°23.7'	N 6°22.3'
10	329°59.3'	N 8°11.8'	330°04.1'	N 7°49.9'	330°09.0'	N 7°28.0'	330°13.9'	N 7°05.9'	330°18.9'	N 6°43.7'	330°23.9'	N 6°21.3'
11	344°59.5'	N 8°10.9'	345°04.3'	N 7°49.0'	345°09.2'	N 7°27.0'	345°14.1'	N 7°04.9'	345°19.1'	N 6°42.7'	345°24.1'	N 6°20.4'
12	359°59.7'	N 8°10.0'	0°04.5'	N 7°48.1'	0°09.4'	N 7°26.1'	0°14.3'	N 7°04.0'	0°19.3'	N 6°41.8'	0°24.3'	N 6°19.5'
13	14°59.9'	N 8°09.0'	15°04.7'	N 7°47.2'	15°09.6'	N 7°25.2'	15°14.5'	N 7°03.1'	15°19.5'	N 6°40.9'	15°24.5'	N 6°18.5'
14	30°00.1'	N 8°08.1'	30°04.9'	N 7°46.3'	30°09.8'	N 7°24.3'	30°14.7'	N 7°02.2'	30°19.7'	N 6°39.9'	30°24.8'	N 6°17.6'
15	45°00.3'	N 8°07.2'	45°05.1'	N 7°45.4'	45°10.0'	N 7°23.4'	45°14.9'	N 7°01.2'	45°19.9'	N 6°39.0'	45°25.0'	N 6°16.7'
16	60°00.5'	N 8°06.3'	60°05.3'	N 7°44.4'	60°10.2'	N 7°22.4'	60°15.1'	N 7°00.3'	60°20.1'	N 6°38.1'	60°25.2'	N 6°15.7'
17	75°00.7'	N 8°05.4'	75°05.5'	N 7°43.5'	75°10.4'	N 7°21.5'	75°15.3'	N 6°59.4'	75°20.3'	N 6°37.2'	75°25.4'	N 6°14.8'
18	90°00.9'	N 8°04.5'	90°05.7'	N 7°42.6'	90°10.6'	N 7°20.6'	90°15.5'	N 6°58.5'	90°20.5'	N 6°36.2'	90°25.6'	N 6°13.9'
19	105°01.1'	N 8°03.6'	105°05.9'	N 7°41.7'	105°10.8'	N 7°19.7'	105°15.7'	N 6°57.5'	105°20.8'	N 6°35.3'	105°25.8'	N 6°12.9'
20	120°01.3'	N 8°02.7'	120°06.1'	N 7°40.8'	120°11.0'	N 7°18.8'	120°16.0'	N 6°56.6'	120°21.0'	N 6°34.4'	120°26.0'	N 6°12.0'
21	135°01.5'	N 8°01.8'	135°06.3'	N 7°39.9'	135°11.2'	N 7°17.8'	135°16.2'	N 6°55.7'	135°21.2'	N 6°33.4'	135°26.2'	N 6°11.1'
22	150°01.7'	N 8°00.9'	150°06.5'	N 7°39.0'	150°11.4'	N 7°16.9'	150°16.4'	N 6°54.8'	150°21.4'	N 6°32.5'	150°26.5'	N 6°10.1'
23	165°01.9'	N 8°00.0'	165°06.7'	N 7°38.0'	165°11.6'	N 7°16.0'	165°16.6'	N 6°53.8'	165°21.6'	N 6°31.6'	165°26.7'	N 6°09.2'
Zeitgl. 0h / 12h	-00:11 / -00:01		+00:08 / +00:18		+00:28 / +00:37		+00:47 / +00:57		+01:07 / +01:17		+01:27 / +01:37	
Kulmination UT	12:00:01		11:59:42		11:59:23		11:59:03		11:58:43		11:58:23	
Halbmesser	15.8'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Mo 07.09.		Di 08.09.		Mi 09.09.		Do 10.09.		Fr 11.09.		Sa 12.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°26.9'	N 6°08.3'	180°32.0'	N 5°45.8'	180°37.2'	N 5°23.2'	180°42.4'	N 5°00.5'	180°47.6'	N 4°37.8'	180°52.9'	N 4°15.0'
01	195°27.1'	N 6°07.3'	195°32.2'	N 5°44.9'	195°37.4'	N 5°22.3'	195°42.6'	N 4°59.6'	195°47.8'	N 4°36.8'	195°53.1'	N 4°14.0'
02	210°27.3'	N 6°06.4'	210°32.4'	N 5°43.9'	210°37.6'	N 5°21.3'	210°42.8'	N 4°58.7'	210°48.1'	N 4°35.9'	210°53.3'	N 4°13.1'
03	225°27.5'	N 6°05.5'	225°32.6'	N 5°43.0'	225°37.8'	N 5°20.4'	225°43.0'	N 4°57.7'	225°48.3'	N 4°34.9'	225°53.5'	N 4°12.1'
04	240°27.7'	N 6°04.5'	240°32.9'	N 5°42.0'	240°38.0'	N 5°19.4'	240°43.2'	N 4°56.8'	240°48.5'	N 4°34.0'	240°53.8'	N 4°11.2'
05	255°27.9'	N 6°03.6'	255°33.1'	N 5°41.1'	255°38.2'	N 5°18.5'	255°43.5'	N 4°55.8'	255°48.7'	N 4°33.0'	255°54.0'	N 4°10.2'
06	270°28.2'	N 6°02.7'	270°33.3'	N 5°40.2'	270°38.5'	N 5°17.6'	270°43.7'	N 4°54.9'	270°48.9'	N 4°32.1'	270°54.2'	N 4°09.2'
07	285°28.4'	N 6°01.7'	285°33.5'	N 5°39.2'	285°38.7'	N 5°16.6'	285°43.9'	N 4°53.9'	285°49.2'	N 4°31.1'	285°54.4'	N 4°08.3'
08	300°28.6'	N 6°00.8'	300°33.7'	N 5°38.3'	300°38.9'	N 5°15.7'	300°44.1'	N 4°53.0'	300°49.4'	N 4°30.2'	300°54.7'	N 4°07.3'
09	315°28.8'	N 5°59.9'	315°33.9'	N 5°37.3'	315°39.1'	N 5°14.7'	315°44.3'	N 4°52.0'	315°49.6'	N 4°29.2'	315°54.9'	N 4°06.4'
10	330°29.0'	N 5°58.9'	330°34.1'	N 5°36.4'	330°39.3'	N 5°13.8'	330°44.6'	N 4°51.1'	330°49.8'	N 4°28.3'	330°55.1'	N 4°05.4'
11	345°29.2'	N 5°58.0'	345°34.4'	N 5°35.5'	345°39.5'	N 5°12.8'	345°44.8'	N 4°50.1'	345°50.0'	N 4°27.3'	345°55.3'	N 4°04.5'
12	0°29.4'	N 5°57.0'	0°34.6'	N 5°34.5'	0°39.8'	N 5°11.9'	0°45.0'	N 4°49.2'	0°50.2'	N 4°26.4'	0°55.5'	N 4°03.5'
13	15°29.6'	N 5°56.1'	15°34.8'	N 5°33.6'	15°40.0'	N 5°10.9'	15°45.2'	N 4°48.2'	15°50.5'	N 4°25.4'	15°55.8'	N 4°02.6'
14	30°29.9'	N 5°55.2'	30°35.0'	N 5°32.6'	30°40.2'	N 5°10.0'	30°45.4'	N 4°47.3'	30°50.7'	N 4°24.5'	30°56.0'	N 4°01.6'
15	45°30.1'	N 5°54.2'	45°35.2'	N 5°31.7'	45°40.4'	N 5°09.1'	45°45.6'	N 4°46.3'	45°50.9'	N 4°23.5'	45°56.2'	N 4°00.7'
16	60°30.3'	N 5°53.3'	60°35.4'	N 5°30.8'	60°40.6'	N 5°08.1'	60°45.9'	N 4°45.4'	60°51.1'	N 4°22.6'	60°56.4'	N 3°59.7'
17	75°30.5'	N 5°52.4'	75°35.7'	N 5°29.8'	75°40.9'	N 5°07.2'	75°46.1'	N 4°44.4'	75°51.3'	N 4°21.6'	75°56.6'	N 3°58.7'
18	90°30.7'	N 5°51.4'	90°35.9'	N 5°28.9'	90°41.1'	N 5°06.2'	90°46.3'	N 4°43.5'	90°51.6'	N 4°20.7'	90°56.9'	N 3°57.8'
19	105°30.9'	N 5°50.5'	105°36.1'	N 5°27.9'	105°41.3'	N 5°05.3'	105°46.5'	N 4°42.5'	105°51.8'	N 4°19.7'	105°57.1'	N 3°56.8'
20	120°31.1'	N 5°49.5'	120°36.3'	N 5°27.0'	120°41.5'	N 5°04.3'	120°46.7'	N 4°41.6'	120°52.0'	N 4°18.8'	120°57.3'	N 3°55.9'
21	135°31.4'	N 5°48.6'	135°36.5'	N 5°26.0'	135°41.7'	N 5°03.4'	135°47.0'	N 4°40.6'	135°52.2'	N 4°17.8'	135°57.5'	N 3°54.9'
22	150°31.6'	N 5°47.7'	150°36.7'	N 5°25.1'	150°41.9'	N 5°02.4'	150°47.2'	N 4°39.7'	150°52.4'	N 4°16.9'	150°57.7'	N 3°54.0'
23	165°31.8'	N 5°46.7'	165°37.0'	N 5°24.2'	165°42.2'	N 5°01.5'	165°47.4'	N 4°38.7'	165°52.7'	N 4°15.9'	165°58.0'	N 3°53.0'
Zeitgl. 0h / 12h	+01:48 / +01:58		+02:08 / +02:18		+02:29 / +02:39		+02:49 / +03:00		+03:10 / +03:21		+03:32 / +03:42	
Kulmination UT	11:58:02		11:57:42		11:57:21		11:57:00		11:56:39		11:56:18	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	So 13.09.		Mo 14.09.		Di 15.09.		Mi 16.09.		Do 17.09.		Fr 18.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°58.2'	N 3°52.1'	181°03.5'	N 3°29.1'	181°08.8'	N 3°06.0'	181°14.2'	N 2°43.0'	181°19.6'	N 2°19.8'	181°24.9'	N 1°56.6'
01	195°58.4'	N 3°51.1'	196°03.7'	N 3°28.1'	196°09.1'	N 3°05.1'	196°14.4'	N 2°42.0'	196°19.8'	N 2°18.8'	196°25.1'	N 1°55.6'
02	210°58.6'	N 3°50.1'	211°04.0'	N 3°27.2'	211°09.3'	N 3°04.1'	211°14.6'	N 2°41.0'	211°20.0'	N 2°17.9'	211°25.4'	N 1°54.7'
03	225°58.9'	N 3°49.2'	226°04.2'	N 3°26.2'	226°09.5'	N 3°03.2'	226°14.9'	N 2°40.1'	226°20.2'	N 2°16.9'	226°25.6'	N 1°53.7'
04	240°59.1'	N 3°48.2'	241°04.4'	N 3°25.3'	241°09.7'	N 3°02.2'	241°15.1'	N 2°39.1'	241°20.4'	N 2°15.9'	241°25.8'	N 1°52.7'
05	255°59.3'	N 3°47.3'	256°04.6'	N 3°24.3'	256°10.0'	N 3°01.2'	256°15.3'	N 2°38.1'	256°20.7'	N 2°15.0'	256°26.0'	N 1°51.8'
06	270°59.5'	N 3°46.3'	271°04.8'	N 3°23.3'	271°10.2'	N 3°00.3'	271°15.5'	N 2°37.2'	271°20.9'	N 2°14.0'	271°26.2'	N 1°50.8'
07	285°59.7'	N 3°45.4'	286°05.1'	N 3°22.4'	286°10.4'	N 2°59.3'	286°15.8'	N 2°36.2'	286°21.1'	N 2°13.0'	286°26.5'	N 1°49.8'
08	301°00.0'	N 3°44.4'	301°05.3'	N 3°21.4'	301°10.6'	N 2°58.4'	301°16.0'	N 2°35.2'	301°21.3'	N 2°12.1'	301°26.7'	N 1°48.9'
09	316°00.2'	N 3°43.5'	316°05.5'	N 3°20.5'	316°10.8'	N 2°57.4'	316°16.2'	N 2°34.3'	316°21.6'	N 2°11.1'	316°26.9'	N 1°47.9'
10	331°00.4'	N 3°42.5'	331°05.7'	N 3°19.5'	331°11.1'	N 2°56.4'	331°16.4'	N 2°33.3'	331°21.8'	N 2°10.1'	331°27.1'	N 1°46.9'
11	346°00.6'	N 3°41.5'	346°06.0'	N 3°18.5'	346°11.3'	N 2°55.5'	346°16.6'	N 2°32.4'	346°22.0'	N 2°09.2'	346°27.4'	N 1°46.0'
12	1°00.8'	N 3°40.6'	1°06.2'	N 3°17.6'	1°11.5'	N 2°54.5'	1°16.9'	N 2°31.4'	1°22.2'	N 2°08.2'	1°27.6'	N 1°45.0'
13	16°01.1'	N 3°39.6'	16°06.4'	N 3°16.6'	16°11.7'	N 2°53.5'	16°17.1'	N 2°30.4'	16°22.5'	N 2°07.2'	16°27.8'	N 1°44.0'
14	31°01.3'	N 3°38.7'	31°06.6'	N 3°15.7'	31°12.0'	N 2°52.6'	31°17.3'	N 2°29.5'	31°22.7'	N 2°06.3'	31°28.0'	N 1°43.1'
15	46°01.5'	N 3°37.7'	46°06.8'	N 3°14.7'	46°12.2'	N 2°51.6'	46°17.5'	N 2°28.5'	46°22.9'	N 2°05.3'	46°28.3'	N 1°42.1'
16	61°01.7'	N 3°36.8'	61°07.1'	N 3°13.7'	61°12.4'	N 2°50.7'	61°17.8'	N 2°27.5'	61°23.1'	N 2°04.3'	61°28.5'	N 1°41.1'
17	76°02.0'	N 3°35.8'	76°07.3'	N 3°12.8'	76°12.6'	N 2°49.7'	76°18.0'	N 2°26.6'	76°23.3'	N 2°03.4'	76°28.7'	N 1°40.2'
18	91°02.2'	N 3°34.8'	91°07.5'	N 3°11.8'	91°12.9'	N 2°48.7'	91°18.2'	N 2°25.6'	91°23.6'	N 2°02.4'	91°28.9'	N 1°39.2'
19	106°02.4'	N 3°33.9'	106°07.7'	N 3°10.9'	106°13.1'	N 2°47.8'	106°18.4'	N 2°24.6'	106°23.8'	N 2°01.4'	106°29.1'	N 1°38.2'
20	121°02.6'	N 3°32.9'	121°08.0'	N 3°09.9'	121°13.3'	N 2°46.8'	121°18.7'	N 2°23.7'	121°24.0'	N 2°00.5'	121°29.4'	N 1°37.3'
21	136°02.8'	N 3°32.0'	136°08.2'	N 3°08.9'	136°13.5'	N 2°45.8'	136°18.9'	N 2°22.7'	136°24.2'	N 1°59.5'	136°29.6'	N 1°36.3'
22	151°03.1'	N 3°31.0'	151°08.4'	N 3°08.0'	151°13.7'	N 2°44.9'	151°19.1'	N 2°21.7'	151°24.5'	N 1°58.5'	151°29.8'	N 1°35.3'
23	166°03.3'	N 3°30.0'	166°08.6'	N 3°07.0'	166°14.0'	N 2°43.9'	166°19.3'	N 2°20.8'	166°24.7'	N 1°57.6'	166°30.0'	N 1°34.3'
Zeitgl. 0h / 12h	+03:53 / +04:03		+04:14 / +04:25		+04:35 / +04:46		+04:57 / +05:07		+05:18 / +05:29		+05:40 / +05:50	
Kulmination UT	11:55:57		11:55:35		11:55:14		11:54:53		11:54:31		11:54:10	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Sa 19.09.		So 20.09.		Mo 21.09.		Di 22.09.		Mi 23.09.		Do 24.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	181°30.3'	N 1°33.4'	181°35.6'	N 1°10.1'	181°40.9'	N 0°46.8'	181°46.3'	N 0°23.5'	181°51.6'	N 0°00.1'	181°56.8'	S 0°23.2'
01	196°30.5'	N 1°32.4'	196°35.8'	N 1°09.1'	196°41.2'	N 0°45.8'	196°46.5'	N 0°22.5'	196°51.8'	S 0°00.8'	196°57.0'	S 0°24.2'
02	211°30.7'	N 1°31.4'	211°36.1'	N 1°08.2'	211°41.4'	N 0°44.9'	211°46.7'	N 0°21.5'	211°52.0'	S 0°01.8'	211°57.3'	S 0°25.2'
03	226°30.9'	N 1°30.5'	226°36.3'	N 1°07.2'	226°41.6'	N 0°43.9'	226°46.9'	N 0°20.6'	226°52.2'	S 0°02.8'	226°57.5'	S 0°26.1'
04	241°31.2'	N 1°29.5'	241°36.5'	N 1°06.2'	241°41.8'	N 0°42.9'	241°47.1'	N 0°19.6'	241°52.4'	S 0°03.8'	241°57.7'	S 0°27.1'
05	256°31.4'	N 1°28.5'	256°36.7'	N 1°05.3'	256°42.1'	N 0°41.9'	256°47.4'	N 0°18.6'	256°52.7'	S 0°04.7'	256°57.9'	S 0°28.1'
06	271°31.6'	N 1°27.6'	271°36.9'	N 1°04.3'	271°42.3'	N 0°41.0'	271°47.6'	N 0°17.6'	271°52.9'	S 0°05.7'	271°58.1'	S 0°29.1'
07	286°31.8'	N 1°26.6'	286°37.2'	N 1°03.3'	286°42.5'	N 0°40.0'	286°47.8'	N 0°16.7'	286°53.1'	S 0°06.7'	286°58.4'	S 0°30.0'
08	301°32.0'	N 1°25.6'	301°37.4'	N 1°02.3'	301°42.7'	N 0°39.0'	301°48.0'	N 0°15.7'	301°53.3'	S 0°07.6'	301°58.6'	S 0°31.0'
09	316°32.3'	N 1°24.7'	316°37.6'	N 1°01.4'	316°42.9'	N 0°38.1'	316°48.3'	N 0°14.7'	316°53.5'	S 0°08.6'	316°58.8'	S 0°32.0'
10	331°32.5'	N 1°23.7'	331°37.8'	N 1°00.4'	331°43.2'	N 0°37.1'	331°48.5'	N 0°13.8'	331°53.8'	S 0°09.6'	331°59.0'	S 0°33.0'
11	346°32.7'	N 1°22.7'	346°38.1'	N 0°59.4'	346°43.4'	N 0°36.1'	346°48.7'	N 0°12.8'	346°54.0'	S 0°10.6'	346°59.2'	S 0°33.9'
12	1°32.9'	N 1°21.7'	1°38.3'	N 0°58.5'	1°43.6'	N 0°35.1'	1°48.9'	N 0°11.8'	1°54.2'	S 0°11.5'	1°59.4'	S 0°34.9'
13	16°33.2'	N 1°20.8'	16°38.5'	N 0°57.5'	16°43.8'	N 0°34.2'	16°49.1'	N 0°10.8'	16°54.4'	S 0°12.5'	16°59.7'	S 0°35.9'
14	31°33.4'	N 1°19.8'	31°38.7'	N 0°56.5'	31°44.1'	N 0°33.2'	31°49.4'	N 0°09.9'	31°54.6'	S 0°13.5'	31°59.9'	S 0°36.8'
15	46°33.6'	N 1°18.8'	46°38.9'	N 0°55.5'	46°44.3'	N 0°32.2'	46°49.6'	N 0°08.9'	46°54.9'	S 0°14.5'	47°00.1'	S 0°37.8'
16	61°33.8'	N 1°17.9'	61°39.2'	N 0°54.6'	61°44.5'	N 0°31.3'	61°49.8'	N 0°07.9'	61°55.1'	S 0°15.4'	62°00.3'	S 0°38.8'
17	76°34.1'	N 1°16.9'	76°39.4'	N 0°53.6'	76°44.7'	N 0°30.3'	76°50.0'	N 0°06.9'	76°55.3'	S 0°16.4'	77°00.5'	S 0°39.8'
18	91°34.3'	N 1°15.9'	91°39.6'	N 0°52.6'	91°44.9'	N 0°29.3'	91°50.2'	N 0°06.0'	91°55.5'	S 0°17.4'	92°00.8'	S 0°40.7'
19	106°34.5'	N 1°15.0'	106°39.8'	N 0°51.7'	106°45.2'	N 0°28.3'	106°50.5'	N 0°05.0'	106°55.7'	S 0°18.4'	107°01.0'	S 0°41.7'
20	121°34.7'	N 1°14.0'	121°40.1'	N 0°50.7'	121°45.4'	N 0°27.4'	121°50.7'	N 0°04.0'	121°56.0'	S 0°19.3'	122°01.2'	S 0°42.7'
21	136°34.9'	N 1°13.0'	136°40.3'	N 0°49.7'	136°45.6'	N 0°26.4'	136°50.9'	N 0°03.1'	136°56.2'	S 0°20.3'	137°01.4'	S 0°43.7'
22	151°35.2'	N 1°12.0'	151°40.5'	N 0°48.7'	151°45.8'	N 0°25.4'	151°51.1'	N 0°02.1'	151°56.4'	S 0°21.3'	152°01.6'	S 0°44.6'
23	166°35.4'	N 1°11.1'	166°40.7'	N 0°47.8'	166°46.0'	N 0°24.5'	166°51.3'	N 0°01.1'	166°56.6'	S 0°22.2'	167°01.8'	S 0°45.6'
Zeitgl. 0h / 12h	+06:01 / +06:12		+06:22 / +06:33		+06:44 / +06:54		+07:05 / +07:16		+07:26 / +07:37		+07:47 / +07:58	
Kulmination UT	11:53:48		11:53:27		11:53:06		11:52:44		11:52:23		11:52:02	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Fr 25.09.		Sa 26.09.		So 27.09.		Mo 28.09.		Di 29.09.		Mi 30.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°02.1'	S 0°46.6'	182°07.3'	S 1°09.9'	182°12.4'	S 1°33.3'	182°17.5'	S 1°56.7'	182°22.6'	S 2°20.0'	182°27.6'	S 2°43.3'
01	197°02.3'	S 0°47.6'	197°07.5'	S 1°10.9'	197°12.6'	S 1°34.3'	197°17.7'	S 1°57.6'	197°22.8'	S 2°21.0'	197°27.8'	S 2°44.3'
02	212°02.5'	S 0°48.5'	212°07.7'	S 1°11.9'	212°12.8'	S 1°35.3'	212°17.9'	S 1°58.6'	212°23.0'	S 2°21.9'	212°28.0'	S 2°45.3'
03	227°02.7'	S 0°49.5'	227°07.9'	S 1°12.9'	227°13.1'	S 1°36.2'	227°18.2'	S 1°59.6'	227°23.2'	S 2°22.9'	227°28.2'	S 2°46.2'
04	242°02.9'	S 0°50.5'	242°08.1'	S 1°13.8'	242°13.3'	S 1°37.2'	242°18.4'	S 2°00.6'	242°23.4'	S 2°23.9'	242°28.4'	S 2°47.2'
05	257°03.1'	S 0°51.4'	257°08.3'	S 1°14.8'	257°13.5'	S 1°38.2'	257°18.6'	S 2°01.5'	257°23.6'	S 2°24.9'	257°28.6'	S 2°48.2'
06	272°03.4'	S 0°52.4'	272°08.6'	S 1°15.8'	272°13.7'	S 1°39.1'	272°18.8'	S 2°02.5'	272°23.8'	S 2°25.8'	272°28.8'	S 2°49.1'
07	287°03.6'	S 0°53.4'	287°08.8'	S 1°16.8'	287°13.9'	S 1°40.1'	287°19.0'	S 2°03.5'	287°24.0'	S 2°26.8'	287°29.0'	S 2°50.1'
08	302°03.8'	S 0°54.4'	302°09.0'	S 1°17.7'	302°14.1'	S 1°41.1'	302°19.2'	S 2°04.4'	302°24.2'	S 2°27.8'	302°29.2'	S 2°51.1'
09	317°04.0'	S 0°55.3'	317°09.2'	S 1°18.7'	317°14.3'	S 1°42.1'	317°19.4'	S 2°05.4'	317°24.5'	S 2°28.7'	317°29.4'	S 2°52.0'
10	332°04.2'	S 0°56.3'	332°09.4'	S 1°19.7'	332°14.5'	S 1°43.0'	332°19.6'	S 2°06.4'	332°24.7'	S 2°29.7'	332°29.6'	S 2°53.0'
11	347°04.4'	S 0°57.3'	347°09.6'	S 1°20.7'	347°14.8'	S 1°44.0'	347°19.8'	S 2°07.4'	347°24.9'	S 2°30.7'	347°29.8'	S 2°54.0'
12	2°04.7'	S 0°58.3'	2°09.8'	S 1°21.6'	2°15.0'	S 1°45.0'	2°20.1'	S 2°08.3'	2°25.1'	S 2°31.7'	2°30.0'	S 2°55.0'
13	17°04.9'	S 0°59.2'	17°10.1'	S 1°22.6'	17°15.2'	S 1°46.0'	17°20.3'	S 2°09.3'	17°25.3'	S 2°32.6'	17°30.2'	S 2°55.9'
14	32°05.1'	S 1°00.2'	32°10.3'	S 1°23.6'	32°15.4'	S 1°46.9'	32°20.5'	S 2°10.3'	32°25.5'	S 2°33.6'	32°30.4'	S 2°56.9'
15	47°05.3'	S 1°01.2'	47°10.5'	S 1°24.5'	47°15.6'	S 1°47.9'	47°20.7'	S 2°11.2'	47°25.7'	S 2°34.6'	47°30.7'	S 2°57.9'
16	62°05.5'	S 1°02.2'	62°10.7'	S 1°25.5'	62°15.8'	S 1°48.9'	62°20.9'	S 2°12.2'	62°25.9'	S 2°35.5'	62°30.9'	S 2°58.8'
17	77°05.7'	S 1°03.1'	77°10.9'	S 1°26.5'	77°16.0'	S 1°49.9'	77°21.1'	S 2°13.2'	77°26.1'	S 2°36.5'	77°31.1'	S 2°59.8'
18	92°06.0'	S 1°04.1'	92°11.1'	S 1°27.5'	92°16.2'	S 1°50.8'	92°21.3'	S 2°14.2'	92°26.3'	S 2°37.5'	92°31.3'	S 3°00.8'
19	107°06.2'	S 1°05.1'	107°11.3'	S 1°28.4'	107°16.5'	S 1°51.8'	107°21.5'	S 2°15.1'	107°26.5'	S 2°38.5'	107°31.5'	S 3°01.7'
20	122°06.4'	S 1°06.1'	122°11.6'	S 1°29.4'	122°16.7'	S 1°52.8'	122°21.7'	S 2°16.1'	122°26.7'	S 2°39.4'	122°31.7'	S 3°02.7'
21	137°06.6'	S 1°07.0'	137°11.8'	S 1°30.4'	137°16.9'	S 1°53.7'	137°21.9'	S 2°17.1'	137°26.9'	S 2°40.4'	137°31.9'	S 3°03.7'
22	152°06.8'	S 1°08.0'	152°12.0'	S 1°31.4'	152°17.1'	S 1°54.7'	152°22.2'	S 2°18.1'	152°27.2'	S 2°41.4'	152°32.1'	S 3°04.7'
23	167°07.0'	S 1°09.0'	167°12.2'	S 1°32.3'	167°17.3'	S 1°55.7'	167°22.4'	S 2°19.0'	167°27.4'	S 2°42.3'	167°32.3'	S 3°05.6'
Zeitgl. 0h / 12h	+08:08 / +08:19		+08:29 / +08:39		+08:50 / +09:00		+09:10 / +09:20		+09:30 / +09:40		+09:50 / +10:00	
Kulmination UT	11:51:41		11:51:21		11:51:00		11:50:40		11:50:20		11:50:00	
Halbmesser	15.9'		16.0'		16.0'		16.0'		16.0'		16.0'	

2026

Oktober

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Do 01.10.		Fr 02.10.		Sa 03.10.		So 04.10.		Mo 05.10.		Di 06.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°32.5'	S 3°06.6'	182°37.4'	S 3°29.9'	182°42.1'	S 3°53.1'	182°46.9'	S 4°16.2'	182°51.5'	S 4°39.4'	182°56.0'	S 5°02.4'
01	197°32.7'	S 3°07.6'	197°37.6'	S 3°30.8'	197°42.3'	S 3°54.0'	197°47.0'	S 4°17.2'	197°51.7'	S 4°40.3'	197°56.2'	S 5°03.4'
02	212°32.9'	S 3°08.5'	212°37.8'	S 3°31.8'	212°42.5'	S 3°55.0'	212°47.2'	S 4°18.2'	212°51.9'	S 4°41.3'	212°56.4'	S 5°04.3'
03	227°33.1'	S 3°09.5'	227°38.0'	S 3°32.8'	227°42.7'	S 3°56.0'	227°47.4'	S 4°19.1'	227°52.1'	S 4°42.2'	227°56.6'	S 5°05.3'
04	242°33.3'	S 3°10.5'	242°38.2'	S 3°33.7'	242°42.9'	S 3°56.9'	242°47.6'	S 4°20.1'	242°52.2'	S 4°43.2'	242°56.8'	S 5°06.3'
05	257°33.5'	S 3°11.4'	257°38.4'	S 3°34.7'	257°43.1'	S 3°57.9'	257°47.8'	S 4°21.1'	257°52.4'	S 4°44.2'	257°56.9'	S 5°07.2'
06	272°33.7'	S 3°12.4'	272°38.6'	S 3°35.7'	272°43.3'	S 3°58.9'	272°48.0'	S 4°22.0'	272°52.6'	S 4°45.1'	272°57.1'	S 5°08.2'
07	287°33.9'	S 3°13.4'	287°38.8'	S 3°36.6'	287°43.5'	S 3°59.8'	287°48.2'	S 4°23.0'	287°52.8'	S 4°46.1'	287°57.3'	S 5°09.1'
08	302°34.1'	S 3°14.4'	302°39.0'	S 3°37.6'	302°43.7'	S 4°00.8'	302°48.4'	S 4°24.0'	302°53.0'	S 4°47.1'	302°57.5'	S 5°10.1'
09	317°34.3'	S 3°15.3'	317°39.2'	S 3°38.6'	317°43.9'	S 4°01.8'	317°48.6'	S 4°24.9'	317°53.2'	S 4°48.0'	317°57.7'	S 5°11.1'
10	332°34.5'	S 3°16.3'	332°39.4'	S 3°39.5'	332°44.1'	S 4°02.7'	332°48.8'	S 4°25.9'	332°53.4'	S 4°49.0'	332°57.9'	S 5°12.0'
11	347°34.7'	S 3°17.3'	347°39.6'	S 3°40.5'	347°44.3'	S 4°03.7'	347°49.0'	S 4°26.8'	347°53.6'	S 4°49.9'	347°58.1'	S 5°13.0'
12	2°34.9'	S 3°18.2'	2°39.8'	S 3°41.5'	2°44.5'	S 4°04.7'	2°49.2'	S 4°27.8'	2°53.8'	S 4°50.9'	2°58.2'	S 5°13.9'
13	17°35.1'	S 3°19.2'	17°40.0'	S 3°42.4'	17°44.7'	S 4°05.6'	17°49.4'	S 4°28.8'	17°53.9'	S 4°51.9'	17°58.4'	S 5°14.9'
14	32°35.3'	S 3°20.2'	32°40.2'	S 3°43.4'	32°44.9'	S 4°06.6'	32°49.6'	S 4°29.7'	32°54.1'	S 4°52.8'	32°58.6'	S 5°15.8'
15	47°35.5'	S 3°21.1'	47°40.4'	S 3°44.4'	47°45.1'	S 4°07.6'	47°49.8'	S 4°30.7'	47°54.3'	S 4°53.8'	47°58.8'	S 5°16.8'
16	62°35.7'	S 3°22.1'	62°40.6'	S 3°45.3'	62°45.3'	S 4°08.5'	62°49.9'	S 4°31.7'	62°54.5'	S 4°54.7'	62°59.0'	S 5°17.8'
17	77°35.9'	S 3°23.1'	77°40.8'	S 3°46.3'	77°45.5'	S 4°09.5'	77°50.1'	S 4°32.6'	77°54.7'	S 4°55.7'	77°59.2'	S 5°18.7'
18	92°36.1'	S 3°24.0'	92°41.0'	S 3°47.3'	92°45.7'	S 4°10.5'	92°50.3'	S 4°33.6'	92°54.9'	S 4°56.7'	92°59.4'	S 5°19.7'
19	107°36.3'	S 3°25.0'	107°41.2'	S 3°48.2'	107°45.9'	S 4°11.4'	107°50.5'	S 4°34.5'	107°55.1'	S 4°57.6'	107°59.5'	S 5°20.6'
20	122°36.6'	S 3°26.0'	122°41.4'	S 3°49.2'	122°46.1'	S 4°12.4'	122°50.7'	S 4°35.5'	122°55.3'	S 4°58.6'	122°59.7'	S 5°21.6'
21	137°36.8'	S 3°26.9'	137°41.6'	S 3°50.2'	137°46.3'	S 4°13.3'	137°50.9'	S 4°36.5'	137°55.5'	S 4°59.5'	137°59.9'	S 5°22.5'
22	152°37.0'	S 3°27.9'	152°41.7'	S 3°51.1'	152°46.5'	S 4°14.3'	152°51.1'	S 4°37.4'	152°55.6'	S 5°00.5'	153°00.1'	S 5°23.5'
23	167°37.2'	S 3°28.9'	167°41.9'	S 3°52.1'	167°46.7'	S 4°15.3'	167°51.3'	S 4°38.4'	167°55.8'	S 5°01.5'	168°00.3'	S 5°24.5'
Zeitgl. 0h / 12h	+10:10 / +10:20		+10:29 / +10:39		+10:49 / +10:58		+11:07 / +11:17		+11:26 / +11:35		+11:44 / +11:53	
Kulmination UT	11:49:40		11:49:21		11:49:02		11:48:43		11:48:25		11:48:07	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

	Mi 07.10.		Do 08.10.		Fr 09.10.		Sa 10.10.		So 11.10.		Mo 12.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°00.5'	S 5°25.4'	183°04.8'	S 5°48.4'	183°09.0'	S 6°11.2'	183°13.2'	S 6°34.0'	183°17.2'	S 6°56.7'	183°21.1'	S 7°19.3'
01	198°00.6'	S 5°26.4'	198°05.0'	S 5°49.3'	198°09.2'	S 6°12.2'	198°13.3'	S 6°34.9'	198°17.3'	S 6°57.6'	198°21.2'	S 7°20.2'
02	213°00.8'	S 5°27.3'	213°05.2'	S 5°50.3'	213°09.4'	S 6°13.1'	213°13.5'	S 6°35.9'	213°17.5'	S 6°58.6'	213°21.4'	S 7°21.1'
03	228°01.0'	S 5°28.3'	228°05.3'	S 5°51.2'	228°09.6'	S 6°14.1'	228°13.7'	S 6°36.8'	228°17.7'	S 6°59.5'	228°21.5'	S 7°22.1'
04	243°01.2'	S 5°29.2'	243°05.5'	S 5°52.2'	243°09.7'	S 6°15.0'	243°13.8'	S 6°37.8'	243°17.8'	S 7°00.4'	243°21.7'	S 7°23.0'
05	258°01.4'	S 5°30.2'	258°05.7'	S 5°53.1'	258°09.9'	S 6°16.0'	258°14.0'	S 6°38.7'	258°18.0'	S 7°01.4'	258°21.9'	S 7°24.0'
06	273°01.5'	S 5°31.2'	273°05.9'	S 5°54.1'	273°10.1'	S 6°16.9'	273°14.2'	S 6°39.7'	273°18.2'	S 7°02.3'	273°22.0'	S 7°24.9'
07	288°01.7'	S 5°32.1'	288°06.0'	S 5°55.0'	288°10.2'	S 6°17.9'	288°14.3'	S 6°40.6'	288°18.3'	S 7°03.3'	288°22.2'	S 7°25.8'
08	303°01.9'	S 5°33.1'	303°06.2'	S 5°56.0'	303°10.4'	S 6°18.8'	303°14.5'	S 6°41.6'	303°18.5'	S 7°04.2'	303°22.3'	S 7°26.8'
09	318°02.1'	S 5°34.0'	318°06.4'	S 5°56.9'	318°10.6'	S 6°19.8'	318°14.7'	S 6°42.5'	318°18.6'	S 7°05.2'	318°22.5'	S 7°27.7'
10	333°02.3'	S 5°35.0'	333°06.6'	S 5°57.9'	333°10.8'	S 6°20.7'	333°14.8'	S 6°43.4'	333°18.8'	S 7°06.1'	333°22.7'	S 7°28.6'
11	348°02.5'	S 5°35.9'	348°06.8'	S 5°58.8'	348°10.9'	S 6°21.7'	348°15.0'	S 6°44.4'	348°19.0'	S 7°07.0'	348°22.8'	S 7°29.6'
12	3°02.6'	S 5°36.9'	3°06.9'	S 5°59.8'	3°11.1'	S 6°22.6'	3°15.2'	S 6°45.3'	3°19.1'	S 7°08.0'	3°23.0'	S 7°30.5'
13	18°02.8'	S 5°37.8'	18°07.1'	S 6°00.7'	18°11.3'	S 6°23.6'	18°15.3'	S 6°46.3'	18°19.3'	S 7°08.9'	18°23.1'	S 7°31.5'
14	33°03.0'	S 5°38.8'	33°07.3'	S 6°01.7'	33°11.5'	S 6°24.5'	33°15.5'	S 6°47.2'	33°19.5'	S 7°09.9'	33°23.3'	S 7°32.4'
15	48°03.2'	S 5°39.8'	48°07.5'	S 6°02.6'	48°11.6'	S 6°25.5'	48°15.7'	S 6°48.2'	48°19.6'	S 7°10.8'	48°23.4'	S 7°33.3'
16	63°03.4'	S 5°40.7'	63°07.6'	S 6°03.6'	63°11.8'	S 6°26.4'	63°15.8'	S 6°49.1'	63°19.8'	S 7°11.7'	63°23.6'	S 7°34.3'
17	78°03.5'	S 5°41.7'	78°07.8'	S 6°04.5'	78°12.0'	S 6°27.3'	78°16.0'	S 6°50.1'	78°19.9'	S 7°12.7'	78°23.8'	S 7°35.2'
18	93°03.7'	S 5°42.6'	93°08.0'	S 6°05.5'	93°12.1'	S 6°28.3'	93°16.2'	S 6°51.0'	93°20.1'	S 7°13.6'	93°23.9'	S 7°36.1'
19	108°03.9'	S 5°43.6'	108°08.2'	S 6°06.5'	108°12.3'	S 6°29.2'	108°16.3'	S 6°51.9'	108°20.3'	S 7°14.6'	108°24.1'	S 7°37.1'
20	123°04.1'	S 5°44.5'	123°08.3'	S 6°07.4'	123°12.5'	S 6°30.2'	123°16.5'	S 6°52.9'	123°20.4'	S 7°15.5'	123°24.2'	S 7°38.0'
21	138°04.3'	S 5°45.5'	138°08.5'	S 6°08.4'	138°12.7'	S 6°31.1'	138°16.7'	S 6°53.8'	138°20.6'	S 7°16.4'	138°24.4'	S 7°38.9'
22	153°04.4'	S 5°46.4'	153°08.7'	S 6°09.3'	153°12.8'	S 6°32.1'	153°16.8'	S 6°54.8'	153°20.7'	S 7°17.4'	153°24.5'	S 7°39.9'
23	168°04.6'	S 5°47.4'	168°08.9'	S 6°10.3'	168°13.0'	S 6°33.0'	168°17.0'	S 6°55.7'	168°20.9'	S 7°18.3'	168°24.7'	S 7°40.8'
Zeitgl. 0h / 12h	+12:02 / +12:11		+12:19 / +12:28		+12:36 / +12:44		+12:53 / +13:01		+13:09 / +13:17		+13:24 / +13:32	
Kulmination UT	11:47:49		11:47:32		11:47:16		11:46:59		11:46:43		11:46:28	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

	Di 13.10.		Mi 14.10.		Do 15.10.		Fr 16.10.		Sa 17.10.		So 18.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°24.8'	S 7°41.8'	183°28.5'	S 8°04.1'	183°32.0'	S 8°26.4'	183°35.3'	S 8°48.6'	183°38.6'	S 9°10.6'	183°41.6'	S 9°32.5'
01	198°25.0'	S 7°42.7'	198°28.6'	S 8°05.1'	198°32.1'	S 8°27.3'	198°35.5'	S 8°49.5'	198°38.7'	S 9°11.5'	198°41.8'	S 9°33.4'
02	213°25.1'	S 7°43.6'	213°28.8'	S 8°06.0'	213°32.3'	S 8°28.3'	213°35.6'	S 8°50.4'	213°38.8'	S 9°12.4'	213°41.9'	S 9°34.3'
03	228°25.3'	S 7°44.6'	228°28.9'	S 8°06.9'	228°32.4'	S 8°29.2'	228°35.8'	S 8°51.3'	228°39.0'	S 9°13.4'	228°42.0'	S 9°35.2'
04	243°25.5'	S 7°45.5'	243°29.1'	S 8°07.9'	243°32.6'	S 8°30.1'	243°35.9'	S 8°52.3'	243°39.1'	S 9°14.3'	243°42.1'	S 9°36.1'
05	258°25.6'	S 7°46.4'	258°29.2'	S 8°08.8'	258°32.7'	S 8°31.0'	258°36.0'	S 8°53.2'	258°39.2'	S 9°15.2'	258°42.3'	S 9°37.1'
06	273°25.8'	S 7°47.4'	273°29.4'	S 8°09.7'	273°32.8'	S 8°32.0'	273°36.2'	S 8°54.1'	273°39.4'	S 9°16.1'	273°42.4'	S 9°38.0'
07	288°25.9'	S 7°48.3'	288°29.5'	S 8°10.7'	288°33.0'	S 8°32.9'	288°36.3'	S 8°55.0'	288°39.5'	S 9°17.0'	288°42.5'	S 9°38.9'
08	303°26.1'	S 7°49.2'	303°29.7'	S 8°11.6'	303°33.1'	S 8°33.8'	303°36.4'	S 8°55.9'	303°39.6'	S 9°17.9'	303°42.6'	S 9°39.8'
09	318°26.2'	S 7°50.2'	318°29.8'	S 8°12.5'	318°33.3'	S 8°34.7'	318°36.6'	S 8°56.9'	318°39.7'	S 9°18.8'	318°42.8'	S 9°40.7'
10	333°26.4'	S 7°51.1'	333°30.0'	S 8°13.4'	333°33.4'	S 8°35.7'	333°36.7'	S 8°57.8'	333°39.9'	S 9°19.8'	333°42.9'	S 9°41.6'
11	348°26.5'	S 7°52.0'	348°30.1'	S 8°14.4'	348°33.5'	S 8°36.6'	348°36.8'	S 8°58.7'	348°40.0'	S 9°20.7'	348°43.0'	S 9°42.5'
12	3°26.7'	S 7°53.0'	3°30.2'	S 8°15.3'	3°33.7'	S 8°37.5'	3°37.0'	S 8°59.6'	3°40.1'	S 9°21.6'	3°43.1'	S 9°43.4'
13	18°26.8'	S 7°53.9'	18°30.4'	S 8°16.2'	18°33.8'	S 8°38.4'	18°37.1'	S 9°00.5'	18°40.3'	S 9°22.5'	18°43.2'	S 9°44.3'
14	33°27.0'	S 7°54.8'	33°30.5'	S 8°17.2'	33°34.0'	S 8°39.4'	33°37.2'	S 9°01.4'	33°40.4'	S 9°23.4'	33°43.4'	S 9°45.2'
15	48°27.1'	S 7°55.8'	48°30.7'	S 8°18.1'	48°34.1'	S 8°40.3'	48°37.4'	S 9°02.4'	48°40.5'	S 9°24.3'	48°43.5'	S 9°46.1'
16	63°27.3'	S 7°56.7'	63°30.8'	S 8°19.0'	63°34.2'	S 8°41.2'	63°37.5'	S 9°03.3'	63°40.6'	S 9°25.2'	63°43.6'	S 9°47.0'
17	78°27.4'	S 7°57.6'	78°31.0'	S 8°19.9'	78°34.4'	S 8°42.1'	78°37.6'	S 9°04.2'	78°40.8'	S 9°26.1'	78°43.7'	S 9°47.9'
18	93°27.6'	S 7°58.6'	93°31.1'	S 8°20.9'	93°34.5'	S 8°43.0'	93°37.8'	S 9°05.1'	93°40.9'	S 9°27.0'	93°43.9'	S 9°48.8'
19	108°27.7'	S 7°59.5'	108°31.3'	S 8°21.8'	108°34.7'	S 8°44.0'	108°37.9'	S 9°06.0'	108°41.0'	S 9°28.0'	108°44.0'	S 9°49.8'
20	123°27.9'	S 8°00.4'	123°31.4'	S 8°22.7'	123°34.8'	S 8°44.9'	123°38.0'	S 9°06.9'	123°41.1'	S 9°28.9'	123°44.1'	S 9°50.7'
21	138°28.0'	S 8°01.4'	138°31.6'	S 8°23.6'	138°34.9'	S 8°45.8'	138°38.2'	S 9°07.9'	138°41.3'	S 9°29.8'	138°44.2'	S 9°51.6'
22	153°28.2'	S 8°02.3'	153°31.7'	S 8°24.6'	153°35.1'	S 8°46.7'	153°38.3'	S 9°08.8'	153°41.4'	S 9°30.7'	153°44.3'	S 9°52.5'
23	168°28.3'	S 8°03.2'	168°31.8'	S 8°25.5'	168°35.2'	S 8°47.7'	168°38.4'	S 9°09.7'	168°41.5'	S 9°31.6'	168°44.4'	S 9°53.4'
Zeitgl. 0h / 12h	+13:39 / +13:47		+13:54 / +14:01		+14:08 / +14:15		+14:21 / +14:28		+14:34 / +14:41		+14:47 / +14:53	
Kulmination UT	11:46:13		11:45:59		11:45:45		11:45:32		11:45:19		11:45:07	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.1'	

	Mo 19.10.		Di 20.10.		Mi 21.10.		Do 22.10.		Fr 23.10.		Sa 24.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°44.6'	S 9°54.3'	183°47.3'	S 10°15.9'	183°49.9'	S 10°37.4'	183°52.4'	S 10°58.7'	183°54.6'	S 11°19.8'	183°56.7'	S 11°40.8'
01	198°44.7'	S 9°55.2'	198°47.4'	S 10°16.8'	198°50.0'	S 10°38.3'	198°52.5'	S 10°59.6'	198°54.7'	S 11°20.7'	198°56.8'	S 11°41.7'
02	213°44.8'	S 9°56.1'	213°47.6'	S 10°17.7'	213°50.1'	S 10°39.1'	213°52.6'	S 11°00.4'	213°54.8'	S 11°21.6'	213°56.9'	S 11°42.5'
03	228°44.9'	S 9°57.0'	228°47.7'	S 10°18.6'	228°50.3'	S 10°40.0'	228°52.7'	S 11°01.3'	228°54.9'	S 11°22.4'	228°57.0'	S 11°43.4'
04	243°45.0'	S 9°57.9'	243°47.8'	S 10°19.5'	243°50.4'	S 10°40.9'	243°52.8'	S 11°02.2'	243°55.0'	S 11°23.3'	243°57.1'	S 11°44.3'
05	258°45.2'	S 9°58.8'	258°47.9'	S 10°20.4'	258°50.5'	S 10°41.8'	258°52.9'	S 11°03.1'	258°55.1'	S 11°24.2'	258°57.2'	S 11°45.1'
06	273°45.3'	S 9°59.7'	273°48.0'	S 10°21.3'	273°50.6'	S 10°42.7'	273°53.0'	S 11°04.0'	273°55.2'	S 11°25.1'	273°57.2'	S 11°46.0'
07	288°45.4'	S 10°00.6'	288°48.1'	S 10°22.2'	288°50.7'	S 10°43.6'	288°53.1'	S 11°04.9'	288°55.3'	S 11°26.0'	288°57.3'	S 11°46.9'
08	303°45.5'	S 10°01.5'	303°48.2'	S 10°23.1'	303°50.8'	S 10°44.5'	303°53.2'	S 11°05.7'	303°55.4'	S 11°26.8'	303°57.4'	S 11°47.7'
09	318°45.6'	S 10°02.4'	318°48.3'	S 10°24.0'	318°50.9'	S 10°45.4'	318°53.2'	S 11°06.6'	318°55.5'	S 11°27.7'	318°57.5'	S 11°48.6'
10	333°45.7'	S 10°03.3'	333°48.4'	S 10°24.9'	333°51.0'	S 10°46.3'	333°53.3'	S 11°07.5'	333°55.5'	S 11°28.6'	333°57.6'	S 11°49.5'
11	348°45.9'	S 10°04.2'	348°48.5'	S 10°25.8'	348°51.1'	S 10°47.1'	348°53.4'	S 11°08.4'	348°55.6'	S 11°29.5'	348°57.6'	S 11°50.4'
12	3°46.0'	S 10°05.1'	3°48.7'	S 10°26.6'	3°51.2'	S 10°48.0'	3°53.5'	S 11°09.3'	3°55.7'	S 11°30.3'	3°57.7'	S 11°51.2'
13	18°46.1'	S 10°06.0'	18°48.8'	S 10°27.5'	18°51.3'	S 10°48.9'	18°53.6'	S 11°10.1'	18°55.8'	S 11°31.2'	18°57.8'	S 11°52.1'
14	33°46.2'	S 10°06.9'	33°48.9'	S 10°28.4'	33°51.4'	S 10°49.8'	33°53.7'	S 11°11.0'	33°55.9'	S 11°32.1'	33°57.9'	S 11°53.0'
15	48°46.3'	S 10°07.8'	48°49.0'	S 10°29.3'	48°51.5'	S 10°50.7'	48°53.8'	S 11°11.9'	48°56.0'	S 11°32.9'	48°58.0'	S 11°53.8'
16	63°46.4'	S 10°08.7'	63°49.1'	S 10°30.2'	63°51.6'	S 10°51.6'	63°53.9'	S 11°12.8'	63°56.1'	S 11°33.8'	63°58.0'	S 11°54.7'
17	78°46.5'	S 10°09.6'	78°49.2'	S 10°31.1'	78°51.7'	S 10°52.5'	78°54.0'	S 11°13.7'	78°56.1'	S 11°34.7'	78°58.1'	S 11°55.5'
18	93°46.7'	S 10°10.5'	93°49.3'	S 10°32.0'	93°51.8'	S 10°53.4'	93°54.1'	S 11°14.5'	93°56.2'	S 11°35.6'	93°58.2'	S 11°56.4'
19	108°46.8'	S 10°11.4'	108°49.4'	S 10°32.9'	108°51.9'	S 10°54.2'	108°54.2'	S 11°15.4'	108°56.3'	S 11°36.4'	108°58.3'	S 11°57.3'
20	123°46.9'	S 10°12.3'	123°49.5'	S 10°33.8'	123°52.0'	S 10°55.1'	123°54.3'	S 11°16.3'	123°56.4'	S 11°37.3'	123°58.4'	S 11°58.1'
21	138°47.0'	S 10°13.2'	138°49.6'	S 10°34.7'	138°52.1'	S 10°56.0'	138°54.4'	S 11°17.2'	138°56.5'	S 11°38.2'	138°58.4'	S 11°59.0'
22	153°47.1'	S 10°14.1'	153°49.7'	S 10°35.6'	153°52.2'	S 10°56.9'	153°54.5'	S 11°18.1'	153°56.6'	S 11°39.1'	153°58.5'	S 11°59.9'
23	168°47.2'	S 10°15.0'	168°49.8'	S 10°36.5'	168°52.3'	S 10°57.8'	168°54.6'	S 11°18.9'	168°56.7'	S 11°39.9'	168°58.6'	S 12°00.7'
Zeitgl. 0h / 12h	+14:58 / +15:04		+15:09 / +15:15		+15:20 / +15:25		+15:30 / +15:34		+15:39 / +15:43		+15:47 / +15:51	
Kulmination UT	11:44:56		11:44:45		11:44:35		11:44:26		11:44:17		11:44:09	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	So 25.10.		Mo 26.10.		Di 27.10.		Mi 28.10.		Do 29.10.		Fr 30.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°58.7'	S 12°01.6'	184°00.4'	S 12°22.2'	184°01.9'	S 12°42.6'	184°03.3'	S 13°02.9'	184°04.5'	S 13°22.9'	184°05.5'	S 13°42.7'
01	198°58.7'	S 12°02.5'	199°00.5'	S 12°23.1'	199°02.0'	S 12°43.5'	199°03.4'	S 13°03.7'	199°04.5'	S 13°23.7'	199°05.5'	S 13°43.5'
02	213°58.8'	S 12°03.3'	214°00.5'	S 12°23.9'	214°02.1'	S 12°44.3'	214°03.4'	S 13°04.5'	214°04.6'	S 13°24.6'	214°05.5'	S 13°44.4'
03	228°58.9'	S 12°04.2'	229°00.6'	S 12°24.8'	229°02.1'	S 12°45.2'	229°03.5'	S 13°05.4'	229°04.6'	S 13°25.4'	229°05.6'	S 13°45.2'
04	243°59.0'	S 12°05.0'	244°00.7'	S 12°25.6'	244°02.2'	S 12°46.0'	244°03.5'	S 13°06.2'	244°04.7'	S 13°26.2'	244°05.6'	S 13°46.0'
05	258°59.0'	S 12°05.9'	259°00.7'	S 12°26.5'	259°02.2'	S 12°46.9'	259°03.6'	S 13°07.1'	259°04.7'	S 13°27.0'	259°05.6'	S 13°46.8'
06	273°59.1'	S 12°06.8'	274°00.8'	S 12°27.3'	274°02.3'	S 12°47.7'	274°03.6'	S 13°07.9'	274°04.7'	S 13°27.9'	274°05.7'	S 13°47.6'
07	288°59.2'	S 12°07.6'	289°00.9'	S 12°28.2'	289°02.4'	S 12°48.6'	289°03.7'	S 13°08.7'	289°04.8'	S 13°28.7'	289°05.7'	S 13°48.4'
08	303°59.3'	S 12°08.5'	304°00.9'	S 12°29.0'	304°02.4'	S 12°49.4'	304°03.7'	S 13°09.6'	304°04.8'	S 13°29.5'	304°05.7'	S 13°49.3'
09	318°59.3'	S 12°09.3'	319°01.0'	S 12°29.9'	319°02.5'	S 12°50.2'	319°03.8'	S 13°10.4'	319°04.9'	S 13°30.3'	319°05.8'	S 13°50.1'
10	333°59.4'	S 12°10.2'	334°01.1'	S 12°30.7'	334°02.5'	S 12°51.1'	334°03.8'	S 13°11.2'	334°04.9'	S 13°31.2'	334°05.8'	S 13°50.9'
11	348°59.5'	S 12°11.1'	349°01.1'	S 12°31.6'	349°02.6'	S 12°51.9'	349°03.9'	S 13°12.1'	349°05.0'	S 13°32.0'	349°05.8'	S 13°51.7'
12	3°59.5'	S 12°11.9'	4°01.2'	S 12°32.4'	4°02.7'	S 12°52.8'	4°03.9'	S 13°12.9'	4°05.0'	S 13°32.8'	4°05.9'	S 13°52.5'
13	18°59.6'	S 12°12.8'	19°01.3'	S 12°33.3'	19°02.7'	S 12°53.6'	19°04.0'	S 13°13.7'	19°05.0'	S 13°33.7'	19°05.9'	S 13°53.4'
14	33°59.7'	S 12°13.6'	34°01.3'	S 12°34.2'	34°02.8'	S 12°54.5'	34°04.0'	S 13°14.6'	34°05.1'	S 13°34.5'	34°05.9'	S 13°54.2'
15	48°59.8'	S 12°14.5'	49°01.4'	S 12°35.0'	49°02.8'	S 12°55.3'	49°04.1'	S 13°15.4'	49°05.1'	S 13°35.3'	49°06.0'	S 13°55.0'
16	63°59.8'	S 12°15.4'	64°01.4'	S 12°35.9'	64°02.9'	S 12°56.1'	64°04.1'	S 13°16.2'	64°05.2'	S 13°36.1'	64°06.0'	S 13°55.8'
17	78°59.9'	S 12°16.2'	79°01.5'	S 12°36.7'	79°02.9'	S 12°57.0'	79°04.2'	S 13°17.1'	79°05.2'	S 13°37.0'	79°06.0'	S 13°56.6'
18	94°00.0'	S 12°17.1'	94°01.6'	S 12°37.6'	94°03.0'	S 12°57.8'	94°04.2'	S 13°17.9'	94°05.2'	S 13°37.8'	94°06.1'	S 13°57.4'
19	109°00.0'	S 12°17.9'	109°01.6'	S 12°38.4'	109°03.0'	S 12°58.7'	109°04.3'	S 13°18.7'	109°05.3'	S 13°38.6'	109°06.1'	S 13°58.2'
20	124°00.1'	S 12°18.8'	124°01.7'	S 12°39.2'	124°03.1'	S 12°59.5'	124°04.3'	S 13°19.6'	124°05.3'	S 13°39.4'	124°06.1'	S 13°59.1'
21	139°00.2'	S 12°19.6'	139°01.8'	S 12°40.1'	139°03.1'	S 13°00.4'	139°04.3'	S 13°20.4'	139°05.3'	S 13°40.2'	139°06.2'	S 13°59.9'
22	154°00.3'	S 12°20.5'	154°01.8'	S 12°40.9'	154°03.2'	S 13°01.2'	154°04.4'	S 13°21.2'	154°05.4'	S 13°41.1'	154°06.2'	S 14°00.7'
23	169°00.3'	S 12°21.4'	169°01.9'	S 12°41.8'	169°03.3'	S 13°02.0'	169°04.4'	S 13°22.1'	169°05.4'	S 13°41.9'	169°06.2'	S 14°01.5'
Zeitgl. 0h / 12h	+15:55 / +15:58		+16:02 / +16:05		+16:08 / +16:11		+16:13 / +16:16		+16:18 / +16:20		+16:22 / +16:24	
Kulmination UT	11:44:02		11:43:55		11:43:49		11:43:44		11:43:40		11:43:36	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

Sa 31.10.

UT	Grt	Dec
00	184°06.2'	S 14°02.3'
01	199°06.3'	S 14°03.1'
02	214°06.3'	S 14°03.9'
03	229°06.3'	S 14°04.7'
04	244°06.4'	S 14°05.6'
05	259°06.4'	S 14°06.4'
06	274°06.4'	S 14°07.2'
07	289°06.4'	S 14°08.0'
08	304°06.5'	S 14°08.8'
09	319°06.5'	S 14°09.6'
10	334°06.5'	S 14°10.4'
11	349°06.5'	S 14°11.2'
12	4°06.6'	S 14°12.0'
13	19°06.6'	S 14°12.8'
14	34°06.6'	S 14°13.6'
15	49°06.6'	S 14°14.4'
16	64°06.7'	S 14°15.3'
17	79°06.7'	S 14°16.1'
18	94°06.7'	S 14°16.9'
19	109°06.7'	S 14°17.7'
20	124°06.7'	S 14°18.5'
21	139°06.8'	S 14°19.3'
22	154°06.8'	S 14°20.1'
23	169°06.8'	S 14°20.9'

Zeitgl. 0h / 12h +16:25 / +16:26

Kulmination UT 11:43:34

Halbmesser 16.1'

2026

November

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	So 01.11.		Mo 02.11.		Di 03.11.		Mi 04.11.		Do 05.11.		Fr 06.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	184°06.8'	S 14°21.7'	184°07.2'	S 14°40.8'	184°07.4'	S 14°59.7'	184°07.3'	S 15°18.4'	184°07.1'	S 15°36.8'	184°06.6'	S 15°55.0'
01	199°06.8'	S 14°22.5'	199°07.2'	S 14°41.6'	199°07.4'	S 15°00.5'	199°07.3'	S 15°19.2'	199°07.1'	S 15°37.6'	199°06.6'	S 15°55.7'
02	214°06.9'	S 14°23.3'	214°07.2'	S 14°42.4'	214°07.4'	S 15°01.3'	214°07.3'	S 15°19.9'	214°07.1'	S 15°38.3'	214°06.6'	S 15°56.5'
03	229°06.9'	S 14°24.1'	229°07.2'	S 14°43.2'	229°07.4'	S 15°02.1'	229°07.3'	S 15°20.7'	229°07.1'	S 15°39.1'	229°06.6'	S 15°57.2'
04	244°06.9'	S 14°24.9'	244°07.2'	S 14°44.0'	244°07.4'	S 15°02.9'	244°07.3'	S 15°21.5'	244°07.0'	S 15°39.9'	244°06.6'	S 15°58.0'
05	259°06.9'	S 14°25.7'	259°07.3'	S 14°44.8'	259°07.4'	S 15°03.6'	259°07.3'	S 15°22.3'	259°07.0'	S 15°40.6'	259°06.5'	S 15°58.7'
06	274°06.9'	S 14°26.5'	274°07.3'	S 14°45.6'	274°07.4'	S 15°04.4'	274°07.3'	S 15°23.0'	274°07.0'	S 15°41.4'	274°06.5'	S 15°59.5'
07	289°07.0'	S 14°27.3'	289°07.3'	S 14°46.4'	289°07.4'	S 15°05.2'	289°07.3'	S 15°23.8'	289°07.0'	S 15°42.1'	289°06.5'	S 16°00.2'
08	304°07.0'	S 14°28.1'	304°07.3'	S 14°47.2'	304°07.4'	S 15°06.0'	304°07.3'	S 15°24.6'	304°07.0'	S 15°42.9'	304°06.4'	S 16°01.0'
09	319°07.0'	S 14°28.9'	319°07.3'	S 14°47.9'	319°07.4'	S 15°06.8'	319°07.3'	S 15°25.3'	319°07.0'	S 15°43.6'	319°06.4'	S 16°01.7'
10	334°07.0'	S 14°29.7'	334°07.3'	S 14°48.7'	334°07.4'	S 15°07.5'	334°07.3'	S 15°26.1'	334°06.9'	S 15°44.4'	334°06.4'	S 16°02.5'
11	349°07.0'	S 14°30.5'	349°07.3'	S 14°49.5'	349°07.4'	S 15°08.3'	349°07.3'	S 15°26.9'	349°06.9'	S 15°45.2'	349°06.4'	S 16°03.2'
12	4°07.0'	S 14°31.3'	4°07.3'	S 14°50.3'	4°07.4'	S 15°09.1'	4°07.2'	S 15°27.6'	4°06.9'	S 15°45.9'	4°06.3'	S 16°03.9'
13	19°07.1'	S 14°32.1'	19°07.3'	S 14°51.1'	19°07.4'	S 15°09.9'	19°07.2'	S 15°28.4'	19°06.9'	S 15°46.7'	19°06.3'	S 16°04.7'
14	34°07.1'	S 14°32.9'	34°07.3'	S 14°51.9'	34°07.4'	S 15°10.7'	34°07.2'	S 15°29.2'	34°06.9'	S 15°47.4'	34°06.3'	S 16°05.4'
15	49°07.1'	S 14°33.7'	49°07.3'	S 14°52.7'	49°07.4'	S 15°11.4'	49°07.2'	S 15°29.9'	49°06.8'	S 15°48.2'	49°06.3'	S 16°06.2'
16	64°07.1'	S 14°34.5'	64°07.3'	S 14°53.5'	64°07.4'	S 15°12.2'	64°07.2'	S 15°30.7'	64°06.8'	S 15°48.9'	64°06.2'	S 16°06.9'
17	79°07.1'	S 14°35.3'	79°07.3'	S 14°54.2'	79°07.4'	S 15°13.0'	79°07.2'	S 15°31.5'	79°06.8'	S 15°49.7'	79°06.2'	S 16°07.7'
18	94°07.1'	S 14°36.1'	94°07.3'	S 14°55.0'	94°07.4'	S 15°13.8'	94°07.2'	S 15°32.2'	94°06.8'	S 15°50.5'	94°06.2'	S 16°08.4'
19	109°07.1'	S 14°36.9'	109°07.4'	S 14°55.8'	109°07.4'	S 15°14.5'	109°07.2'	S 15°33.0'	109°06.8'	S 15°51.2'	109°06.1'	S 16°09.2'
20	124°07.2'	S 14°37.7'	124°07.4'	S 14°56.6'	124°07.4'	S 15°15.3'	124°07.2'	S 15°33.8'	124°06.7'	S 15°52.0'	124°06.1'	S 16°09.9'
21	139°07.2'	S 14°38.4'	139°07.4'	S 14°57.4'	139°07.4'	S 15°16.1'	139°07.1'	S 15°34.5'	139°06.7'	S 15°52.7'	139°06.1'	S 16°10.6'
22	154°07.2'	S 14°39.2'	154°07.4'	S 14°58.2'	154°07.4'	S 15°16.9'	154°07.1'	S 15°35.3'	154°06.7'	S 15°53.5'	154°06.0'	S 16°11.4'
23	169°07.2'	S 14°40.0'	169°07.4'	S 14°59.0'	169°07.3'	S 15°17.6'	169°07.1'	S 15°36.0'	169°06.7'	S 15°54.2'	169°06.0'	S 16°12.1'
Zeitgl. 0h / 12h	+16:27 / +16:28		+16:29 / +16:29		+16:29 / +16:30		+16:29 / +16:29		+16:28 / +16:28		+16:27 / +16:25	
Kulmination UT	11:43:32		11:43:31		11:43:30		11:43:31		11:43:32		11:43:35	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	Sa 07.11.		So 08.11.		Mo 09.11.		Di 10.11.		Mi 11.11.		Do 12.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	184°06.0'	S 16°12.9'	184°05.1'	S 16°30.5'	184°04.0'	S 16°47.8'	184°02.7'	S 17°04.9'	184°01.2'	S 17°21.6'	183°59.5'	S 17°38.1'
01	199°06.0'	S 16°13.6'	199°05.1'	S 16°31.2'	199°04.0'	S 16°48.5'	199°02.7'	S 17°05.6'	199°01.1'	S 17°22.3'	198°59.4'	S 17°38.8'
02	214°05.9'	S 16°14.3'	214°05.0'	S 16°31.9'	214°03.9'	S 16°49.3'	214°02.6'	S 17°06.3'	214°01.1'	S 17°23.0'	213°59.3'	S 17°39.5'
03	229°05.9'	S 16°15.1'	229°05.0'	S 16°32.7'	229°03.9'	S 16°50.0'	229°02.5'	S 17°07.0'	229°01.0'	S 17°23.7'	228°59.2'	S 17°40.1'
04	244°05.9'	S 16°15.8'	244°04.9'	S 16°33.4'	244°03.8'	S 16°50.7'	244°02.5'	S 17°07.7'	244°00.9'	S 17°24.4'	243°59.1'	S 17°40.8'
05	259°05.8'	S 16°16.6'	259°04.9'	S 16°34.1'	259°03.8'	S 16°51.4'	259°02.4'	S 17°08.4'	259°00.8'	S 17°25.1'	258°59.1'	S 17°41.5'
06	274°05.8'	S 16°17.3'	274°04.9'	S 16°34.8'	274°03.7'	S 16°52.1'	274°02.4'	S 17°09.1'	274°00.8'	S 17°25.8'	273°59.0'	S 17°42.2'
07	289°05.7'	S 16°18.0'	289°04.8'	S 16°35.6'	289°03.7'	S 16°52.8'	289°02.3'	S 17°09.8'	289°00.7'	S 17°26.5'	288°58.9'	S 17°42.9'
08	304°05.7'	S 16°18.8'	304°04.8'	S 16°36.3'	304°03.6'	S 16°53.5'	304°02.2'	S 17°10.5'	304°00.6'	S 17°27.2'	303°58.8'	S 17°43.5'
09	319°05.7'	S 16°19.5'	319°04.7'	S 16°37.0'	319°03.6'	S 16°54.2'	319°02.2'	S 17°11.2'	319°00.6'	S 17°27.9'	318°58.8'	S 17°44.2'
10	334°05.6'	S 16°20.2'	334°04.7'	S 16°37.7'	334°03.5'	S 16°55.0'	334°02.1'	S 17°11.9'	334°00.5'	S 17°28.5'	333°58.7'	S 17°44.9'
11	349°05.6'	S 16°21.0'	349°04.6'	S 16°38.5'	349°03.4'	S 16°55.7'	349°02.0'	S 17°12.6'	349°00.4'	S 17°29.2'	348°58.6'	S 17°45.6'
12	4°05.6'	S 16°21.7'	4°04.6'	S 16°39.2'	4°03.4'	S 16°56.4'	4°02.0'	S 17°13.3'	4°00.4'	S 17°29.9'	3°58.5'	S 17°46.2'
13	19°05.5'	S 16°22.4'	19°04.5'	S 16°39.9'	19°03.3'	S 16°57.1'	19°01.9'	S 17°14.0'	19°00.3'	S 17°30.6'	18°58.4'	S 17°46.9'
14	34°05.5'	S 16°23.2'	34°04.5'	S 16°40.6'	34°03.3'	S 16°57.8'	34°01.9'	S 17°14.7'	34°00.2'	S 17°31.3'	33°58.3'	S 17°47.6'
15	49°05.5'	S 16°23.9'	49°04.5'	S 16°41.3'	49°03.2'	S 16°58.5'	49°01.8'	S 17°15.4'	49°00.1'	S 17°32.0'	48°58.3'	S 17°48.3'
16	64°05.4'	S 16°24.6'	64°04.4'	S 16°42.1'	64°03.2'	S 16°59.2'	64°01.7'	S 17°16.1'	64°00.1'	S 17°32.7'	63°58.2'	S 17°48.9'
17	79°05.4'	S 16°25.4'	79°04.4'	S 16°42.8'	79°03.1'	S 16°59.9'	79°01.7'	S 17°16.8'	79°00.0'	S 17°33.3'	78°58.1'	S 17°49.6'
18	94°05.3'	S 16°26.1'	94°04.3'	S 16°43.5'	94°03.1'	S 17°00.6'	94°01.6'	S 17°17.5'	93°59.9'	S 17°34.0'	93°58.0'	S 17°50.3'
19	109°05.3'	S 16°26.8'	109°04.3'	S 16°44.2'	109°03.0'	S 17°01.3'	109°01.5'	S 17°18.2'	108°59.8'	S 17°34.7'	108°57.9'	S 17°50.9'
20	124°05.3'	S 16°27.6'	124°04.2'	S 16°44.9'	124°02.9'	S 17°02.1'	124°01.5'	S 17°18.9'	123°59.8'	S 17°35.4'	123°57.8'	S 17°51.6'
21	139°05.2'	S 16°28.3'	139°04.2'	S 16°45.7'	139°02.9'	S 17°02.8'	139°01.4'	S 17°19.6'	138°59.7'	S 17°36.1'	138°57.8'	S 17°52.3'
22	154°05.2'	S 16°29.0'	154°04.1'	S 16°46.4'	154°02.8'	S 17°03.5'	154°01.3'	S 17°20.3'	153°59.6'	S 17°36.8'	153°57.7'	S 17°52.9'
23	169°05.1'	S 16°29.7'	169°04.1'	S 16°47.1'	169°02.8'	S 17°04.2'	169°01.3'	S 17°20.9'	168°59.5'	S 17°37.4'	168°57.6'	S 17°53.6'
Zeitgl. 0h / 12h	+16:24 / +16:22		+16:20 / +16:18		+16:16 / +16:14		+16:11 / +16:08		+16:05 / +16:01		+15:58 / +15:54	
Kulmination UT	11:43:38		11:43:42		11:43:46		11:43:52		11:43:59		11:44:06	
Halbmesser	16.1'		16.1'		16.1'		16.2'		16.2'		16.2'	

	Fr 13.11.		Sa 14.11.		So 15.11.		Mo 16.11.		Di 17.11.		Mi 18.11.	
UT	Gr	Dec	Gr	Dec	Gr	Dec	Gr	Dec	Gr	Dec	Gr	Dec
00	183°57.5'	S 17°54.3'	183°55.3'	S 18°10.1'	183°53.0'	S 18°25.7'	183°50.4'	S 18°40.9'	183°47.6'	S 18°55.8'	183°44.6'	S 19°10.3'
01	198°57.4'	S 17°54.9'	198°55.2'	S 18°10.8'	198°52.9'	S 18°26.3'	198°50.3'	S 18°41.5'	198°47.4'	S 18°56.4'	198°44.4'	S 19°10.9'
02	213°57.3'	S 17°55.6'	213°55.2'	S 18°11.4'	213°52.8'	S 18°26.9'	213°50.1'	S 18°42.1'	213°47.3'	S 18°57.0'	213°44.3'	S 19°11.5'
03	228°57.2'	S 17°56.3'	228°55.1'	S 18°12.1'	228°52.7'	S 18°27.6'	228°50.0'	S 18°42.8'	228°47.2'	S 18°57.6'	228°44.2'	S 19°12.1'
04	243°57.2'	S 17°56.9'	243°55.0'	S 18°12.7'	243°52.5'	S 18°28.2'	243°49.9'	S 18°43.4'	243°47.1'	S 18°58.2'	243°44.0'	S 19°12.7'
05	258°57.1'	S 17°57.6'	258°54.9'	S 18°13.4'	258°52.4'	S 18°28.9'	258°49.8'	S 18°44.0'	258°47.0'	S 18°58.8'	258°43.9'	S 19°13.3'
06	273°57.0'	S 17°58.3'	273°54.8'	S 18°14.0'	273°52.3'	S 18°29.5'	273°49.7'	S 18°44.6'	273°46.8'	S 18°59.4'	273°43.8'	S 19°13.9'
07	288°56.9'	S 17°58.9'	288°54.7'	S 18°14.7'	288°52.2'	S 18°30.1'	288°49.6'	S 18°45.3'	288°46.7'	S 19°00.0'	288°43.6'	S 19°14.5'
08	303°56.8'	S 17°59.6'	303°54.6'	S 18°15.3'	303°52.1'	S 18°30.8'	303°49.5'	S 18°45.9'	303°46.6'	S 19°00.6'	303°43.5'	S 19°15.1'
09	318°56.7'	S 18°00.3'	318°54.5'	S 18°16.0'	318°52.0'	S 18°31.4'	318°49.3'	S 18°46.5'	318°46.5'	S 19°01.3'	318°43.4'	S 19°15.7'
10	333°56.6'	S 18°00.9'	333°54.4'	S 18°16.6'	333°51.9'	S 18°32.0'	333°49.2'	S 18°47.1'	333°46.3'	S 19°01.9'	333°43.2'	S 19°16.3'
11	348°56.5'	S 18°01.6'	348°54.3'	S 18°17.3'	348°51.8'	S 18°32.7'	348°49.1'	S 18°47.7'	348°46.2'	S 19°02.5'	348°43.1'	S 19°16.9'
12	3°56.5'	S 18°02.2'	3°54.2'	S 18°17.9'	3°51.7'	S 18°33.3'	3°49.0'	S 18°48.4'	3°46.1'	S 19°03.1'	3°43.0'	S 19°17.4'
13	18°56.4'	S 18°02.9'	18°54.1'	S 18°18.6'	18°51.6'	S 18°33.9'	18°48.9'	S 18°49.0'	18°46.0'	S 19°03.7'	18°42.8'	S 19°18.0'
14	33°56.3'	S 18°03.6'	33°54.0'	S 18°19.2'	33°51.5'	S 18°34.6'	33°48.8'	S 18°49.6'	33°45.8'	S 19°04.3'	33°42.7'	S 19°18.6'
15	48°56.2'	S 18°04.2'	48°53.9'	S 18°19.9'	48°51.4'	S 18°35.2'	48°48.6'	S 18°50.2'	48°45.7'	S 19°04.9'	48°42.6'	S 19°19.2'
16	63°56.1'	S 18°04.9'	63°53.8'	S 18°20.5'	63°51.3'	S 18°35.8'	63°48.5'	S 18°50.8'	63°45.6'	S 19°05.5'	63°42.4'	S 19°19.8'
17	78°56.0'	S 18°05.5'	78°53.7'	S 18°21.2'	78°51.1'	S 18°36.5'	78°48.4'	S 18°51.5'	78°45.5'	S 19°06.1'	78°42.3'	S 19°20.4'
18	93°55.9'	S 18°06.2'	93°53.6'	S 18°21.8'	93°51.0'	S 18°37.1'	93°48.3'	S 18°52.1'	93°45.3'	S 19°06.7'	93°42.2'	S 19°21.0'
19	108°55.8'	S 18°06.9'	108°53.5'	S 18°22.5'	108°50.9'	S 18°37.7'	108°48.2'	S 18°52.7'	108°45.2'	S 19°07.3'	108°42.0'	S 19°21.6'
20	123°55.7'	S 18°07.5'	123°53.4'	S 18°23.1'	123°50.8'	S 18°38.4'	123°48.0'	S 18°53.3'	123°45.1'	S 19°07.9'	123°41.9'	S 19°22.2'
21	138°55.6'	S 18°08.2'	138°53.3'	S 18°23.7'	138°50.7'	S 18°39.0'	138°47.9'	S 18°53.9'	138°44.9'	S 19°08.5'	138°41.7'	S 19°22.7'
22	153°55.5'	S 18°08.8'	153°53.2'	S 18°24.4'	153°50.6'	S 18°39.6'	153°47.8'	S 18°54.5'	153°44.8'	S 19°09.1'	153°41.6'	S 19°23.3'
23	168°55.4'	S 18°09.5'	168°53.1'	S 18°25.0'	168°50.5'	S 18°40.2'	168°47.7'	S 18°55.1'	168°44.7'	S 19°09.7'	168°41.5'	S 19°23.9'
Zeitgl. 0h / 12h	+15:50 / +15:46		+15:41 / +15:37		+15:32 / +15:27		+15:21 / +15:16		+15:10 / +15:04		+14:58 / +14:52	
Kulmination UT	11:44:14		11:44:23		11:44:33		11:44:44		11:44:56		11:45:08	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Do 19.11.		Fr 20.11.		Sa 21.11.		So 22.11.		Mo 23.11.		Di 24.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°41.3'	S 19°24.5'	183°37.9'	S 19°38.4'	183°34.3'	S 19°51.9'	183°30.4'	S 20°05.0'	183°26.4'	S 20°17.8'	183°22.2'	S 20°30.2'
01	198°41.2'	S 19°25.1'	198°37.8'	S 19°38.9'	198°34.1'	S 19°52.4'	198°30.3'	S 20°05.5'	198°26.2'	S 20°18.3'	198°22.0'	S 20°30.7'
02	213°41.1'	S 19°25.7'	213°37.6'	S 19°39.5'	213°34.0'	S 19°53.0'	213°30.1'	S 20°06.1'	213°26.1'	S 20°18.8'	213°21.8'	S 20°31.2'
03	228°40.9'	S 19°26.3'	228°37.5'	S 19°40.1'	228°33.8'	S 19°53.5'	228°29.9'	S 20°06.6'	228°25.9'	S 20°19.3'	228°21.6'	S 20°31.7'
04	243°40.8'	S 19°26.8'	243°37.3'	S 19°40.6'	243°33.6'	S 19°54.1'	243°29.8'	S 20°07.1'	243°25.7'	S 20°19.8'	243°21.4'	S 20°32.2'
05	258°40.6'	S 19°27.4'	258°37.2'	S 19°41.2'	258°33.5'	S 19°54.6'	258°29.6'	S 20°07.7'	258°25.5'	S 20°20.4'	258°21.3'	S 20°32.7'
06	273°40.5'	S 19°28.0'	273°37.0'	S 19°41.8'	273°33.3'	S 19°55.2'	273°29.4'	S 20°08.2'	273°25.4'	S 20°20.9'	273°21.1'	S 20°33.2'
07	288°40.4'	S 19°28.6'	288°36.9'	S 19°42.3'	288°33.2'	S 19°55.7'	288°29.3'	S 20°08.8'	288°25.2'	S 20°21.4'	288°20.9'	S 20°33.7'
08	303°40.2'	S 19°29.2'	303°36.7'	S 19°42.9'	303°33.0'	S 19°56.3'	303°29.1'	S 20°09.3'	303°25.0'	S 20°21.9'	303°20.7'	S 20°34.2'
09	318°40.1'	S 19°29.7'	318°36.6'	S 19°43.5'	318°32.9'	S 19°56.8'	318°28.9'	S 20°09.8'	318°24.8'	S 20°22.4'	318°20.5'	S 20°34.7'
10	333°39.9'	S 19°30.3'	333°36.4'	S 19°44.0'	333°32.7'	S 19°57.4'	333°28.8'	S 20°10.4'	333°24.7'	S 20°23.0'	333°20.3'	S 20°35.2'
11	348°39.8'	S 19°30.9'	348°36.3'	S 19°44.6'	348°32.5'	S 19°57.9'	348°28.6'	S 20°10.9'	348°24.5'	S 20°23.5'	348°20.2'	S 20°35.7'
12	3°39.6'	S 19°31.5'	3°36.1'	S 19°45.2'	3°32.4'	S 19°58.5'	3°28.4'	S 20°11.4'	3°24.3'	S 20°24.0'	3°20.0'	S 20°36.2'
13	18°39.5'	S 19°32.1'	18°36.0'	S 19°45.7'	18°32.2'	S 19°59.0'	18°28.3'	S 20°12.0'	18°24.1'	S 20°24.5'	18°19.8'	S 20°36.7'
14	33°39.4'	S 19°32.6'	33°35.8'	S 19°46.3'	33°32.1'	S 19°59.6'	33°28.1'	S 20°12.5'	33°24.0'	S 20°25.0'	33°19.6'	S 20°37.2'
15	48°39.2'	S 19°33.2'	48°35.7'	S 19°46.8'	48°31.9'	S 20°00.1'	48°27.9'	S 20°13.0'	48°23.8'	S 20°25.5'	48°19.4'	S 20°37.7'
16	63°39.1'	S 19°33.8'	63°35.5'	S 19°47.4'	63°31.7'	S 20°00.7'	63°27.8'	S 20°13.5'	63°23.6'	S 20°26.1'	63°19.2'	S 20°38.2'
17	78°38.9'	S 19°34.4'	78°35.3'	S 19°48.0'	78°31.6'	S 20°01.2'	78°27.6'	S 20°14.1'	78°23.4'	S 20°26.6'	78°19.1'	S 20°38.7'
18	93°38.8'	S 19°34.9'	93°35.2'	S 19°48.5'	93°31.4'	S 20°01.7'	93°27.4'	S 20°14.6'	93°23.2'	S 20°27.1'	93°18.9'	S 20°39.2'
19	108°38.6'	S 19°35.5'	108°35.0'	S 19°49.1'	108°31.2'	S 20°02.3'	108°27.3'	S 20°15.1'	108°23.1'	S 20°27.6'	108°18.7'	S 20°39.7'
20	123°38.5'	S 19°36.1'	123°34.9'	S 19°49.6'	123°31.1'	S 20°02.8'	123°27.1'	S 20°15.7'	123°22.9'	S 20°28.1'	123°18.5'	S 20°40.2'
21	138°38.3'	S 19°36.6'	138°34.7'	S 19°50.2'	138°30.9'	S 20°03.4'	138°26.9'	S 20°16.2'	138°22.7'	S 20°28.6'	138°18.3'	S 20°40.7'
22	153°38.2'	S 19°37.2'	153°34.6'	S 19°50.7'	153°30.8'	S 20°03.9'	153°26.7'	S 20°16.7'	153°22.5'	S 20°29.1'	153°18.1'	S 20°41.2'
23	168°38.0'	S 19°37.8'	168°34.4'	S 19°51.3'	168°30.6'	S 20°04.4'	168°26.6'	S 20°17.2'	168°22.3'	S 20°29.6'	168°17.9'	S 20°41.7'
Zeitgl. 0h / 12h	+14:45 / +14:39		+14:32 / +14:24		+14:17 / +14:09		+14:02 / +13:54		+13:46 / +13:37		+13:29 / +13:20	
Kulmination UT	11:45:21		11:45:36		11:45:51		11:46:06		11:46:23		11:46:40	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Mi 25.11.		Do 26.11.		Fr 27.11.		Sa 28.11.		So 29.11.		Mo 30.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°17.7'	S 20°42.2'	183°13.1'	S 20°53.8'	183°08.3'	S 21°05.0'	183°03.4'	S 21°15.9'	182°58.2'	S 21°26.3'	182°52.9'	S 21°36.4'
01	198°17.6'	S 20°42.7'	198°12.9'	S 20°54.3'	198°08.1'	S 21°05.5'	198°03.1'	S 21°16.3'	197°58.0'	S 21°26.8'	197°52.7'	S 21°36.8'
02	213°17.4'	S 20°43.2'	213°12.7'	S 20°54.7'	213°07.9'	S 21°06.0'	213°02.9'	S 21°16.8'	212°57.8'	S 21°27.2'	212°52.4'	S 21°37.2'
03	228°17.2'	S 20°43.6'	228°12.5'	S 20°55.2'	228°07.7'	S 21°06.4'	228°02.7'	S 21°17.2'	227°57.6'	S 21°27.6'	227°52.2'	S 21°37.6'
04	243°17.0'	S 20°44.1'	243°12.3'	S 20°55.7'	243°07.5'	S 21°06.9'	243°02.5'	S 21°17.6'	242°57.3'	S 21°28.0'	242°52.0'	S 21°38.0'
05	258°16.8'	S 20°44.6'	258°12.1'	S 20°56.2'	258°07.3'	S 21°07.3'	258°02.3'	S 21°18.1'	257°57.1'	S 21°28.4'	257°51.8'	S 21°38.4'
06	273°16.6'	S 20°45.1'	273°11.9'	S 20°56.6'	273°07.1'	S 21°07.8'	273°02.1'	S 21°18.5'	272°56.9'	S 21°28.9'	272°51.5'	S 21°38.8'
07	288°16.4'	S 20°45.6'	288°11.8'	S 20°57.1'	288°06.9'	S 21°08.2'	288°01.9'	S 21°19.0'	287°56.7'	S 21°29.3'	287°51.3'	S 21°39.2'
08	303°16.2'	S 20°46.1'	303°11.6'	S 20°57.6'	303°06.7'	S 21°08.7'	303°01.7'	S 21°19.4'	302°56.5'	S 21°29.7'	302°51.1'	S 21°39.6'
09	318°16.0'	S 20°46.6'	318°11.4'	S 20°58.1'	318°06.5'	S 21°09.1'	318°01.4'	S 21°19.8'	317°56.2'	S 21°30.1'	317°50.8'	S 21°40.0'
10	333°15.8'	S 20°47.1'	333°11.2'	S 20°58.5'	333°06.3'	S 21°09.6'	333°01.2'	S 21°20.3'	332°56.0'	S 21°30.6'	332°50.6'	S 21°40.4'
11	348°15.7'	S 20°47.5'	348°11.0'	S 20°59.0'	348°06.1'	S 21°10.1'	348°01.0'	S 21°20.7'	347°55.8'	S 21°31.0'	347°50.4'	S 21°40.8'
12	3°15.5'	S 20°48.0'	3°10.8'	S 20°59.5'	3°05.9'	S 21°10.5'	3°00.8'	S 21°21.2'	2°55.6'	S 21°31.4'	2°50.2'	S 21°41.2'
13	18°15.3'	S 20°48.5'	18°10.6'	S 20°59.9'	18°05.7'	S 21°11.0'	18°00.6'	S 21°21.6'	17°55.3'	S 21°31.8'	17°49.9'	S 21°41.6'
14	33°15.1'	S 20°49.0'	33°10.4'	S 21°00.4'	33°05.5'	S 21°11.4'	33°00.4'	S 21°22.0'	32°55.1'	S 21°32.2'	32°49.7'	S 21°42.0'
15	48°14.9'	S 20°49.5'	48°10.2'	S 21°00.9'	48°05.2'	S 21°11.9'	48°00.2'	S 21°22.5'	47°54.9'	S 21°32.6'	47°49.5'	S 21°42.4'
16	63°14.7'	S 20°50.0'	63°10.0'	S 21°01.3'	63°05.0'	S 21°12.3'	62°59.9'	S 21°22.9'	62°54.7'	S 21°33.1'	62°49.2'	S 21°42.8'
17	78°14.5'	S 20°50.4'	78°09.8'	S 21°01.8'	78°04.8'	S 21°12.8'	77°59.7'	S 21°23.3'	77°54.5'	S 21°33.5'	77°49.0'	S 21°43.2'
18	93°14.3'	S 20°50.9'	93°09.6'	S 21°02.3'	93°04.6'	S 21°13.2'	92°59.5'	S 21°23.8'	92°54.2'	S 21°33.9'	92°48.8'	S 21°43.6'
19	108°14.1'	S 20°51.4'	108°09.3'	S 21°02.7'	108°04.4'	S 21°13.7'	107°59.3'	S 21°24.2'	107°54.0'	S 21°34.3'	107°48.6'	S 21°44.0'
20	123°13.9'	S 20°51.9'	123°09.1'	S 21°03.2'	123°04.2'	S 21°14.1'	122°59.1'	S 21°24.6'	122°53.8'	S 21°34.7'	122°48.3'	S 21°44.4'
21	138°13.7'	S 20°52.4'	138°08.9'	S 21°03.7'	138°04.0'	S 21°14.5'	137°58.9'	S 21°25.0'	137°53.6'	S 21°35.1'	137°48.1'	S 21°44.8'
22	153°13.5'	S 20°52.8'	153°08.7'	S 21°04.1'	153°03.8'	S 21°15.0'	152°58.6'	S 21°25.5'	152°53.3'	S 21°35.5'	152°47.9'	S 21°45.2'
23	168°13.3'	S 20°53.3'	168°08.5'	S 21°04.6'	168°03.6'	S 21°15.4'	167°58.4'	S 21°25.9'	167°53.1'	S 21°36.0'	167°47.6'	S 21°45.6'
Zeitgl. 0h / 12h	+13:11 / +13:02		+12:53 / +12:43		+12:33 / +12:23		+12:13 / +12:03		+11:53 / +11:42		+11:32 / +11:21	
Kulmination UT	11:46:58		11:47:17		11:47:37		11:47:57		11:48:18		11:48:39	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

2026

Dezember

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Di 01.12.		Mi 02.12.		Do 03.12.		Fr 04.12.		Sa 05.12.		So 06.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°47.4'	S 21°46.0'	182°41.7'	S 21°55.2'	182°35.9'	S 22°04.0'	182°30.0'	S 22°12.4'	182°23.9'	S 22°20.3'	182°17.7'	S 22°27.8'
01	197°47.2'	S 21°46.4'	197°41.5'	S 21°55.6'	197°35.7'	S 22°04.3'	197°29.7'	S 22°12.7'	197°23.6'	S 22°20.6'	197°17.4'	S 22°28.1'
02	212°46.9'	S 21°46.8'	212°41.3'	S 21°55.9'	212°35.5'	S 22°04.7'	212°29.5'	S 22°13.0'	212°23.4'	S 22°20.9'	212°17.1'	S 22°28.4'
03	227°46.7'	S 21°47.2'	227°41.0'	S 21°56.3'	227°35.2'	S 22°05.1'	227°29.2'	S 22°13.4'	227°23.1'	S 22°21.2'	227°16.9'	S 22°28.7'
04	242°46.5'	S 21°47.6'	242°40.8'	S 21°56.7'	242°35.0'	S 22°05.4'	242°29.0'	S 22°13.7'	242°22.9'	S 22°21.6'	242°16.6'	S 22°29.0'
05	257°46.2'	S 21°47.9'	257°40.6'	S 21°57.1'	257°34.7'	S 22°05.8'	257°28.7'	S 22°14.0'	257°22.6'	S 22°21.9'	257°16.3'	S 22°29.3'
06	272°46.0'	S 21°48.3'	272°40.3'	S 21°57.4'	272°34.5'	S 22°06.1'	272°28.5'	S 22°14.4'	272°22.3'	S 22°22.2'	272°16.1'	S 22°29.6'
07	287°45.8'	S 21°48.7'	287°40.1'	S 21°57.8'	287°34.2'	S 22°06.5'	287°28.2'	S 22°14.7'	287°22.1'	S 22°22.5'	287°15.8'	S 22°29.9'
08	302°45.5'	S 21°49.1'	302°39.8'	S 21°58.2'	302°34.0'	S 22°06.8'	302°28.0'	S 22°15.0'	302°21.8'	S 22°22.8'	302°15.6'	S 22°30.2'
09	317°45.3'	S 21°49.5'	317°39.6'	S 21°58.5'	317°33.7'	S 22°07.2'	317°27.7'	S 22°15.4'	317°21.6'	S 22°23.1'	317°15.3'	S 22°30.5'
10	332°45.1'	S 21°49.9'	332°39.3'	S 21°58.9'	332°33.5'	S 22°07.5'	332°27.5'	S 22°15.7'	332°21.3'	S 22°23.5'	332°15.0'	S 22°30.8'
11	347°44.8'	S 21°50.3'	347°39.1'	S 21°59.3'	347°33.2'	S 22°07.9'	347°27.2'	S 22°16.0'	347°21.1'	S 22°23.8'	347°14.8'	S 22°31.1'
12	2°44.6'	S 21°50.6'	2°38.9'	S 21°59.6'	2°33.0'	S 22°08.2'	2°27.0'	S 22°16.4'	2°20.8'	S 22°24.1'	2°14.5'	S 22°31.4'
13	17°44.4'	S 21°51.0'	17°38.6'	S 22°00.0'	17°32.7'	S 22°08.6'	17°26.7'	S 22°16.7'	17°20.5'	S 22°24.4'	17°14.2'	S 22°31.7'
14	32°44.1'	S 21°51.4'	32°38.4'	S 22°00.4'	32°32.5'	S 22°08.9'	32°26.5'	S 22°17.0'	32°20.3'	S 22°24.7'	32°14.0'	S 22°32.0'
15	47°43.9'	S 21°51.8'	47°38.1'	S 22°00.7'	47°32.2'	S 22°09.3'	47°26.2'	S 22°17.4'	47°20.0'	S 22°25.0'	47°13.7'	S 22°32.3'
16	62°43.6'	S 21°52.2'	62°37.9'	S 22°01.1'	62°32.0'	S 22°09.6'	62°25.9'	S 22°17.7'	62°19.8'	S 22°25.3'	62°13.4'	S 22°32.5'
17	77°43.4'	S 21°52.6'	77°37.7'	S 22°01.5'	77°31.7'	S 22°10.0'	77°25.7'	S 22°18.0'	77°19.5'	S 22°25.6'	77°13.2'	S 22°32.8'
18	92°43.2'	S 21°52.9'	92°37.4'	S 22°01.8'	92°31.5'	S 22°10.3'	92°25.4'	S 22°18.3'	92°19.2'	S 22°26.0'	92°12.9'	S 22°33.1'
19	107°42.9'	S 21°53.3'	107°37.2'	S 22°02.2'	107°31.2'	S 22°10.6'	107°25.2'	S 22°18.7'	107°19.0'	S 22°26.3'	107°12.6'	S 22°33.4'
20	122°42.7'	S 21°53.7'	122°36.9'	S 22°02.6'	122°31.0'	S 22°11.0'	122°24.9'	S 22°19.0'	122°18.7'	S 22°26.6'	122°12.4'	S 22°33.7'
21	137°42.5'	S 21°54.1'	137°36.7'	S 22°02.9'	137°30.7'	S 22°11.3'	137°24.7'	S 22°19.3'	137°18.4'	S 22°26.9'	137°12.1'	S 22°34.0'
22	152°42.2'	S 21°54.4'	152°36.4'	S 22°03.3'	152°30.5'	S 22°11.7'	152°24.4'	S 22°19.6'	152°18.2'	S 22°27.2'	152°11.8'	S 22°34.3'
23	167°42.0'	S 21°54.8'	167°36.2'	S 22°03.6'	167°30.2'	S 22°12.0'	167°24.2'	S 22°20.0'	167°17.9'	S 22°27.5'	167°11.6'	S 22°34.6'
Zeitgl. 0h / 12h	+11:10 / +10:58		+10:47 / +10:35		+10:24 / +10:12		+10:00 / +09:48		+09:36 / +09:23		+09:11 / +08:58	
Kulmination UT	11:49:02		11:49:25		11:49:48		11:50:12		11:50:37		11:51:02	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Mo 07.12.		Di 08.12.		Mi 09.12.		Do 10.12.		Fr 11.12.		Sa 12.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°11.3'	S 22°34.9'	182°04.8'	S 22°41.5'	181°58.2'	S 22°47.7'	181°51.5'	S 22°53.4'	181°44.7'	S 22°58.7'	181°37.8'	S 23°03.5'
01	197°11.0'	S 22°35.1'	197°04.5'	S 22°41.7'	196°57.9'	S 22°47.9'	196°51.2'	S 22°53.6'	196°44.4'	S 22°58.9'	196°37.5'	S 23°03.7'
02	212°10.8'	S 22°35.4'	212°04.3'	S 22°42.0'	211°57.7'	S 22°48.1'	211°50.9'	S 22°53.8'	211°44.1'	S 22°59.1'	211°37.2'	S 23°03.9'
03	227°10.5'	S 22°35.7'	227°04.0'	S 22°42.3'	226°57.4'	S 22°48.4'	226°50.6'	S 22°54.1'	226°43.8'	S 22°59.3'	226°36.9'	S 23°04.1'
04	242°10.2'	S 22°36.0'	242°03.7'	S 22°42.5'	241°57.1'	S 22°48.6'	241°50.4'	S 22°54.3'	241°43.5'	S 22°59.5'	241°36.6'	S 23°04.2'
05	257°10.0'	S 22°36.3'	257°03.4'	S 22°42.8'	256°56.8'	S 22°48.9'	256°50.1'	S 22°54.5'	256°43.2'	S 22°59.7'	256°36.3'	S 23°04.4'
06	272°09.7'	S 22°36.5'	272°03.2'	S 22°43.1'	271°56.5'	S 22°49.1'	271°49.8'	S 22°54.7'	271°43.0'	S 22°59.9'	271°36.0'	S 23°04.6'
07	287°09.4'	S 22°36.8'	287°02.9'	S 22°43.3'	286°56.3'	S 22°49.4'	286°49.5'	S 22°55.0'	286°42.7'	S 23°00.1'	286°35.7'	S 23°04.8'
08	302°09.1'	S 22°37.1'	302°02.6'	S 22°43.6'	301°56.0'	S 22°49.6'	301°49.2'	S 22°55.2'	301°42.4'	S 23°00.3'	301°35.4'	S 23°05.0'
09	317°08.9'	S 22°37.4'	317°02.3'	S 22°43.8'	316°55.7'	S 22°49.9'	316°48.9'	S 22°55.4'	316°42.1'	S 23°00.5'	316°35.2'	S 23°05.2'
10	332°08.6'	S 22°37.7'	332°02.1'	S 22°44.1'	331°55.4'	S 22°50.1'	331°48.7'	S 22°55.6'	331°41.8'	S 23°00.7'	331°34.9'	S 23°05.4'
11	347°08.3'	S 22°37.9'	347°01.8'	S 22°44.4'	346°55.1'	S 22°50.3'	346°48.4'	S 22°55.9'	346°41.5'	S 23°00.9'	346°34.6'	S 23°05.5'
12	2°08.1'	S 22°38.2'	2°01.5'	S 22°44.6'	1°54.9'	S 22°50.6'	1°48.1'	S 22°56.1'	1°41.2'	S 23°01.1'	1°34.3'	S 23°05.7'
13	17°07.8'	S 22°38.5'	17°01.2'	S 22°44.9'	16°54.6'	S 22°50.8'	16°47.8'	S 22°56.3'	16°40.9'	S 23°01.3'	16°34.0'	S 23°05.9'
14	32°07.5'	S 22°38.8'	32°01.0'	S 22°45.1'	31°54.3'	S 22°51.0'	31°47.5'	S 22°56.5'	31°40.7'	S 23°01.5'	31°33.7'	S 23°06.1'
15	47°07.3'	S 22°39.0'	47°00.7'	S 22°45.4'	46°54.0'	S 22°51.3'	46°47.2'	S 22°56.7'	46°40.4'	S 23°01.7'	46°33.4'	S 23°06.3'
16	62°07.0'	S 22°39.3'	62°00.4'	S 22°45.6'	61°53.7'	S 22°51.5'	61°47.0'	S 22°57.0'	61°40.1'	S 23°01.9'	61°33.1'	S 23°06.4'
17	77°06.7'	S 22°39.6'	77°00.1'	S 22°45.9'	76°53.5'	S 22°51.8'	76°46.7'	S 22°57.2'	76°39.8'	S 23°02.1'	76°32.8'	S 23°06.6'
18	92°06.4'	S 22°39.9'	91°59.9'	S 22°46.1'	91°53.2'	S 22°52.0'	91°46.4'	S 22°57.4'	91°39.5'	S 23°02.3'	91°32.5'	S 23°06.8'
19	107°06.2'	S 22°40.1'	106°59.6'	S 22°46.4'	106°52.9'	S 22°52.2'	106°46.1'	S 22°57.6'	106°39.2'	S 23°02.5'	106°32.2'	S 23°07.0'
20	122°05.9'	S 22°40.4'	121°59.3'	S 22°46.7'	121°52.6'	S 22°52.5'	121°45.8'	S 22°57.8'	121°38.9'	S 23°02.7'	121°31.9'	S 23°07.2'
21	137°05.6'	S 22°40.7'	136°59.0'	S 22°46.9'	136°52.3'	S 22°52.7'	136°45.5'	S 22°58.0'	136°38.6'	S 23°02.9'	136°31.6'	S 23°07.3'
22	152°05.4'	S 22°40.9'	151°58.8'	S 22°47.2'	151°52.1'	S 22°52.9'	151°45.2'	S 22°58.2'	151°38.3'	S 23°03.1'	151°31.4'	S 23°07.5'
23	167°05.1'	S 22°41.2'	166°58.5'	S 22°47.4'	166°51.8'	S 22°53.2'	166°45.0'	S 22°58.4'	166°38.1'	S 23°03.3'	166°31.1'	S 23°07.7'
Zeitgl. 0h / 12h	+08:45 / +08:32		+08:19 / +08:06		+07:53 / +07:39		+07:26 / +07:12		+06:59 / +06:45		+06:31 / +06:17	
Kulmination UT	11:51:28		11:51:54		11:52:21		11:52:48		11:53:15		11:53:43	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	So 13.12.		Mo 14.12.		Di 15.12.		Mi 16.12.		Do 17.12.		Fr 18.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	181°30.8'	S 23°07.9'	181°23.7'	S 23°11.8'	181°16.5'	S 23°15.2'	181°09.3'	S 23°18.2'	181°02.0'	S 23°20.7'	180°54.7'	S 23°22.8'
01	196°30.5'	S 23°08.0'	196°23.4'	S 23°11.9'	196°16.2'	S 23°15.3'	196°09.0'	S 23°18.3'	196°01.7'	S 23°20.8'	195°54.4'	S 23°22.8'
02	211°30.2'	S 23°08.2'	211°23.1'	S 23°12.1'	211°15.9'	S 23°15.5'	211°08.7'	S 23°18.4'	211°01.4'	S 23°20.9'	210°54.1'	S 23°22.9'
03	226°29.9'	S 23°08.4'	226°22.8'	S 23°12.2'	226°15.6'	S 23°15.6'	226°08.4'	S 23°18.5'	226°01.1'	S 23°21.0'	225°53.8'	S 23°23.0'
04	241°29.6'	S 23°08.5'	241°22.5'	S 23°12.4'	241°15.3'	S 23°15.7'	241°08.1'	S 23°18.6'	241°00.8'	S 23°21.1'	240°53.5'	S 23°23.1'
05	256°29.3'	S 23°08.7'	256°22.2'	S 23°12.5'	256°15.0'	S 23°15.9'	256°07.8'	S 23°18.8'	256°00.5'	S 23°21.2'	255°53.2'	S 23°23.1'
06	271°29.0'	S 23°08.9'	271°21.9'	S 23°12.7'	271°14.7'	S 23°16.0'	271°07.5'	S 23°18.9'	271°00.2'	S 23°21.3'	270°52.9'	S 23°23.2'
07	286°28.7'	S 23°09.0'	286°21.6'	S 23°12.8'	286°14.4'	S 23°16.1'	286°07.2'	S 23°19.0'	285°59.9'	S 23°21.4'	285°52.6'	S 23°23.3'
08	301°28.4'	S 23°09.2'	301°21.3'	S 23°13.0'	301°14.1'	S 23°16.3'	301°06.9'	S 23°19.1'	300°59.6'	S 23°21.4'	300°52.3'	S 23°23.3'
09	316°28.1'	S 23°09.4'	316°21.0'	S 23°13.1'	316°13.8'	S 23°16.4'	316°06.6'	S 23°19.2'	315°59.3'	S 23°21.5'	315°52.0'	S 23°23.4'
10	331°27.8'	S 23°09.5'	331°20.7'	S 23°13.3'	331°13.5'	S 23°16.5'	331°06.3'	S 23°19.3'	330°59.0'	S 23°21.6'	330°51.7'	S 23°23.5'
11	346°27.5'	S 23°09.7'	346°20.4'	S 23°13.4'	346°13.2'	S 23°16.6'	346°06.0'	S 23°19.4'	345°58.7'	S 23°21.7'	345°51.4'	S 23°23.5'
12	1°27.2'	S 23°09.9'	1°20.1'	S 23°13.5'	1°12.9'	S 23°16.8'	1°05.7'	S 23°19.5'	0°58.4'	S 23°21.8'	0°51.0'	S 23°23.6'
13	16°26.9'	S 23°10.0'	16°19.8'	S 23°13.7'	16°12.6'	S 23°16.9'	16°05.4'	S 23°19.6'	15°58.1'	S 23°21.9'	15°50.7'	S 23°23.7'
14	31°26.6'	S 23°10.2'	31°19.5'	S 23°13.8'	31°12.3'	S 23°17.0'	31°05.1'	S 23°19.7'	30°57.8'	S 23°22.0'	30°50.4'	S 23°23.7'
15	46°26.3'	S 23°10.3'	46°19.2'	S 23°14.0'	46°12.0'	S 23°17.1'	46°04.8'	S 23°19.8'	45°57.5'	S 23°22.0'	45°50.1'	S 23°23.8'
16	61°26.1'	S 23°10.5'	61°18.9'	S 23°14.1'	61°11.7'	S 23°17.2'	61°04.5'	S 23°19.9'	60°57.2'	S 23°22.1'	60°49.8'	S 23°23.9'
17	76°25.8'	S 23°10.7'	76°18.6'	S 23°14.2'	76°11.4'	S 23°17.4'	76°04.2'	S 23°20.0'	75°56.9'	S 23°22.2'	75°49.5'	S 23°23.9'
18	91°25.5'	S 23°10.8'	91°18.3'	S 23°14.4'	91°11.1'	S 23°17.5'	91°03.9'	S 23°20.1'	90°56.6'	S 23°22.3'	90°49.2'	S 23°24.0'
19	106°25.2'	S 23°11.0'	106°18.0'	S 23°14.5'	106°10.8'	S 23°17.6'	106°03.6'	S 23°20.2'	105°56.3'	S 23°22.4'	105°48.9'	S 23°24.0'
20	121°24.9'	S 23°11.1'	121°17.7'	S 23°14.7'	121°10.5'	S 23°17.7'	121°03.3'	S 23°20.3'	120°55.9'	S 23°22.4'	120°48.6'	S 23°24.1'
21	136°24.6'	S 23°11.3'	136°17.4'	S 23°14.8'	136°10.2'	S 23°17.8'	136°03.0'	S 23°20.4'	135°55.6'	S 23°22.5'	135°48.3'	S 23°24.2'
22	151°24.3'	S 23°11.5'	151°17.1'	S 23°14.9'	151°09.9'	S 23°18.0'	151°02.7'	S 23°20.5'	150°55.3'	S 23°22.6'	150°48.0'	S 23°24.2'
23	166°24.0'	S 23°11.6'	166°16.8'	S 23°15.1'	166°09.6'	S 23°18.1'	166°02.3'	S 23°20.6'	165°55.0'	S 23°22.7'	165°47.7'	S 23°24.3'
Zeitgl. 0h / 12h	+06:03 / +05:49		+05:35 / +05:20		+05:06 / +04:52		+04:37 / +04:23		+04:08 / +03:54		+03:39 / +03:24	
Kulmination UT	11:54:11		11:54:40		11:55:08		11:55:37		11:56:06		11:56:36	
Halbmesser	16.2'		16.2'		16.2'		16.3'		16.3'		16.3'	

	Sa 19.12.		So 20.12.		Mo 21.12.		Di 22.12.		Mi 23.12.		Do 24.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°47.4'	S 23°24.3'	180°40.0'	S 23°25.5'	180°32.6'	S 23°26.1'	180°25.1'	S 23°26.3'	180°17.7'	S 23°26.0'	180°10.2'	S 23°25.2'
01	195°47.1'	S 23°24.4'	195°39.7'	S 23°25.5'	195°32.2'	S 23°26.1'	195°24.8'	S 23°26.3'	195°17.4'	S 23°25.9'	195°09.9'	S 23°25.2'
02	210°46.7'	S 23°24.4'	210°39.4'	S 23°25.5'	210°31.9'	S 23°26.1'	210°24.5'	S 23°26.3'	210°17.1'	S 23°25.9'	210°09.6'	S 23°25.1'
03	225°46.4'	S 23°24.5'	225°39.0'	S 23°25.6'	225°31.6'	S 23°26.1'	225°24.2'	S 23°26.3'	225°16.8'	S 23°25.9'	225°09.3'	S 23°25.1'
04	240°46.1'	S 23°24.6'	240°38.7'	S 23°25.6'	240°31.3'	S 23°26.2'	240°23.9'	S 23°26.2'	240°16.4'	S 23°25.9'	240°09.0'	S 23°25.0'
05	255°45.8'	S 23°24.6'	255°38.4'	S 23°25.6'	255°31.0'	S 23°26.2'	255°23.6'	S 23°26.2'	255°16.1'	S 23°25.8'	255°08.7'	S 23°25.0'
06	270°45.5'	S 23°24.7'	270°38.1'	S 23°25.7'	270°30.7'	S 23°26.2'	270°23.3'	S 23°26.2'	270°15.8'	S 23°25.8'	270°08.4'	S 23°24.9'
07	285°45.2'	S 23°24.7'	285°37.8'	S 23°25.7'	285°30.4'	S 23°26.2'	285°23.0'	S 23°26.2'	285°15.5'	S 23°25.8'	285°08.1'	S 23°24.9'
08	300°44.9'	S 23°24.8'	300°37.5'	S 23°25.7'	300°30.1'	S 23°26.2'	300°22.6'	S 23°26.2'	300°15.2'	S 23°25.8'	300°07.8'	S 23°24.8'
09	315°44.6'	S 23°24.8'	315°37.2'	S 23°25.7'	315°29.8'	S 23°26.2'	315°22.3'	S 23°26.2'	315°14.9'	S 23°25.7'	315°07.5'	S 23°24.8'
10	330°44.3'	S 23°24.9'	330°36.9'	S 23°25.8'	330°29.5'	S 23°26.2'	330°22.0'	S 23°26.2'	330°14.6'	S 23°25.7'	330°07.1'	S 23°24.7'
11	345°44.0'	S 23°24.9'	345°36.6'	S 23°25.8'	345°29.1'	S 23°26.2'	345°21.7'	S 23°26.2'	345°14.3'	S 23°25.7'	345°06.8'	S 23°24.7'
12	0°43.7'	S 23°25.0'	0°36.3'	S 23°25.8'	0°28.8'	S 23°26.2'	0°21.4'	S 23°26.2'	0°14.0'	S 23°25.6'	0°06.5'	S 23°24.6'
13	15°43.4'	S 23°25.0'	15°36.0'	S 23°25.9'	15°28.5'	S 23°26.2'	15°21.1'	S 23°26.2'	15°13.7'	S 23°25.6'	15°06.2'	S 23°24.6'
14	30°43.1'	S 23°25.0'	30°35.6'	S 23°25.9'	30°28.2'	S 23°26.3'	30°20.8'	S 23°26.1'	30°13.3'	S 23°25.6'	30°05.9'	S 23°24.5'
15	45°42.7'	S 23°25.1'	45°35.3'	S 23°25.9'	45°27.9'	S 23°26.3'	45°20.5'	S 23°26.1'	45°13.0'	S 23°25.5'	45°05.6'	S 23°24.5'
16	60°42.4'	S 23°25.1'	60°35.0'	S 23°25.9'	60°27.6'	S 23°26.3'	60°20.2'	S 23°26.1'	60°12.7'	S 23°25.5'	60°05.3'	S 23°24.4'
17	75°42.1'	S 23°25.2'	75°34.7'	S 23°26.0'	75°27.3'	S 23°26.3'	75°19.9'	S 23°26.1'	75°12.4'	S 23°25.5'	75°05.0'	S 23°24.4'
18	90°41.8'	S 23°25.2'	90°34.4'	S 23°26.0'	90°27.0'	S 23°26.3'	90°19.5'	S 23°26.1'	90°12.1'	S 23°25.4'	90°04.7'	S 23°24.3'
19	105°41.5'	S 23°25.3'	105°34.1'	S 23°26.0'	105°26.7'	S 23°26.3'	105°19.2'	S 23°26.1'	105°11.8'	S 23°25.4'	105°04.4'	S 23°24.3'
20	120°41.2'	S 23°25.3'	120°33.8'	S 23°26.0'	120°26.4'	S 23°26.3'	120°18.9'	S 23°26.1'	120°11.5'	S 23°25.4'	120°04.1'	S 23°24.2'
21	135°40.9'	S 23°25.3'	135°33.5'	S 23°26.0'	135°26.1'	S 23°26.3'	135°18.6'	S 23°26.0'	135°11.2'	S 23°25.3'	135°03.7'	S 23°24.1'
22	150°40.6'	S 23°25.4'	150°33.2'	S 23°26.1'	150°25.7'	S 23°26.3'	150°18.3'	S 23°26.0'	150°10.9'	S 23°25.3'	150°03.4'	S 23°24.1'
23	165°40.3'	S 23°25.4'	165°32.9'	S 23°26.1'	165°25.4'	S 23°26.3'	165°18.0'	S 23°26.0'	165°10.6'	S 23°25.2'	165°03.1'	S 23°24.0'
Zeitgl. 0h / 12h	+03:09 / +02:55		+02:40 / +02:25		+02:10 / +01:55		+01:40 / +01:26		+01:11 / +00:56		+00:41 / +00:26	
Kulmination UT	11:57:05		11:57:35		11:58:05		11:58:34		11:59:04		11:59:34	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

	Fr 25.12.		Sa 26.12.		So 27.12.		Mo 28.12.		Di 29.12.		Mi 30.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°02.8'	S 23°24.0'	179°55.4'	S 23°22.2'	179°48.0'	S 23°20.1'	179°40.7'	S 23°17.4'	179°33.4'	S 23°14.3'	179°26.1'	S 23°10.7'
01	195°02.5'	S 23°23.9'	194°55.1'	S 23°22.2'	194°47.7'	S 23°20.0'	194°40.4'	S 23°17.3'	194°33.1'	S 23°14.2'	194°25.8'	S 23°10.6'
02	210°02.2'	S 23°23.8'	209°54.8'	S 23°22.1'	209°47.4'	S 23°19.9'	209°40.1'	S 23°17.2'	209°32.8'	S 23°14.0'	209°25.5'	S 23°10.4'
03	225°01.9'	S 23°23.8'	224°54.5'	S 23°22.0'	224°47.1'	S 23°19.8'	224°39.8'	S 23°17.1'	224°32.5'	S 23°13.9'	224°25.2'	S 23°10.2'
04	240°01.6'	S 23°23.7'	239°54.2'	S 23°21.9'	239°46.8'	S 23°19.7'	239°39.4'	S 23°16.9'	239°32.1'	S 23°13.7'	239°24.9'	S 23°10.1'
05	255°01.3'	S 23°23.6'	254°53.9'	S 23°21.8'	254°46.5'	S 23°19.6'	254°39.1'	S 23°16.8'	254°31.8'	S 23°13.6'	254°24.6'	S 23°09.9'
06	270°01.0'	S 23°23.6'	269°53.6'	S 23°21.7'	269°46.2'	S 23°19.5'	269°38.8'	S 23°16.7'	269°31.5'	S 23°13.5'	269°24.3'	S 23°09.8'
07	285°00.7'	S 23°23.5'	284°53.2'	S 23°21.7'	284°45.9'	S 23°19.3'	284°38.5'	S 23°16.6'	284°31.2'	S 23°13.3'	284°24.0'	S 23°09.6'
08	300°00.3'	S 23°23.4'	299°52.9'	S 23°21.6'	299°45.6'	S 23°19.2'	299°38.2'	S 23°16.4'	299°30.9'	S 23°13.2'	299°23.7'	S 23°09.4'
09	315°00.0'	S 23°23.4'	314°52.6'	S 23°21.5'	314°45.3'	S 23°19.1'	314°37.9'	S 23°16.3'	314°30.6'	S 23°13.0'	314°23.4'	S 23°09.3'
10	329°59.7'	S 23°23.3'	329°52.3'	S 23°21.4'	329°45.0'	S 23°19.0'	329°37.6'	S 23°16.2'	329°30.3'	S 23°12.9'	329°23.1'	S 23°09.1'
11	344°59.4'	S 23°23.2'	344°52.0'	S 23°21.3'	344°44.6'	S 23°18.9'	344°37.3'	S 23°16.1'	344°30.0'	S 23°12.7'	344°22.8'	S 23°08.9'
12	359°59.1'	S 23°23.2'	359°51.7'	S 23°21.2'	359°44.3'	S 23°18.8'	359°37.0'	S 23°15.9'	359°29.7'	S 23°12.6'	359°22.5'	S 23°08.8'
13	14°58.8'	S 23°23.1'	14°51.4'	S 23°21.1'	14°44.0'	S 23°18.7'	14°36.7'	S 23°15.8'	14°29.4'	S 23°12.4'	14°22.2'	S 23°08.6'
14	29°58.5'	S 23°23.0'	29°51.1'	S 23°21.0'	29°43.7'	S 23°18.6'	29°36.4'	S 23°15.7'	29°29.1'	S 23°12.3'	29°21.9'	S 23°08.4'
15	44°58.2'	S 23°22.9'	44°50.8'	S 23°20.9'	44°43.4'	S 23°18.5'	44°36.1'	S 23°15.5'	44°28.8'	S 23°12.1'	44°21.6'	S 23°08.3'
16	59°57.9'	S 23°22.9'	59°50.5'	S 23°20.8'	59°43.1'	S 23°18.4'	59°35.8'	S 23°15.4'	59°28.5'	S 23°12.0'	59°21.3'	S 23°08.1'
17	74°57.6'	S 23°22.8'	74°50.2'	S 23°20.8'	74°42.8'	S 23°18.2'	74°35.5'	S 23°15.3'	74°28.2'	S 23°11.8'	74°21.0'	S 23°07.9'
18	89°57.3'	S 23°22.7'	89°49.9'	S 23°20.7'	89°42.5'	S 23°18.1'	89°35.2'	S 23°15.1'	89°27.9'	S 23°11.7'	89°20.7'	S 23°07.7'
19	104°56.9'	S 23°22.6'	104°49.6'	S 23°20.6'	104°42.2'	S 23°18.0'	104°34.9'	S 23°15.0'	104°27.6'	S 23°11.5'	104°20.4'	S 23°07.6'
20	119°56.6'	S 23°22.6'	119°49.2'	S 23°20.5'	119°41.9'	S 23°17.9'	119°34.6'	S 23°14.9'	119°27.3'	S 23°11.4'	119°20.1'	S 23°07.4'
21	134°56.3'	S 23°22.5'	134°48.9'	S 23°20.4'	134°41.6'	S 23°17.8'	134°34.3'	S 23°14.7'	134°27.0'	S 23°11.2'	134°19.8'	S 23°07.2'
22	149°56.0'	S 23°22.4'	149°48.6'	S 23°20.3'	149°41.3'	S 23°17.7'	149°34.0'	S 23°14.6'	149°26.7'	S 23°11.0'	149°19.5'	S 23°07.0'
23	164°55.7'	S 23°22.3'	164°48.3'	S 23°20.2'	164°41.0'	S 23°17.5'	164°33.7'	S 23°14.4'	164°26.4'	S 23°10.9'	164°19.2'	S 23°06.9'
Zeitgl. 0h / 12h	+00:11 / -00:04		-00:18 / -00:33		-00:48 / -01:03		-01:17 / -01:32		-01:47 / -02:01		-02:16 / -02:30	
Kulmination UT	12:00:04		12:00:33		12:01:03		12:01:32		12:02:01		12:02:30	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

Do 31.12.

UT	Grt	Dec
00	179°18.9'	S 23°06.7'
01	194°18.6'	S 23°06.5'
02	209°18.3'	S 23°06.3'
03	224°18.0'	S 23°06.1'
04	239°17.7'	S 23°06.0'
05	254°17.4'	S 23°05.8'
06	269°17.1'	S 23°05.6'
07	284°16.8'	S 23°05.4'
08	299°16.5'	S 23°05.2'
09	314°16.2'	S 23°05.0'
10	329°15.9'	S 23°04.9'
11	344°15.6'	S 23°04.7'
12	359°15.3'	S 23°04.5'
13	14°15.0'	S 23°04.3'
14	29°14.7'	S 23°04.1'
15	44°14.4'	S 23°03.9'
16	59°14.1'	S 23°03.7'
17	74°13.8'	S 23°03.5'
18	89°13.5'	S 23°03.3'
19	104°13.3'	S 23°03.2'
20	119°13.0'	S 23°03.0'
21	134°12.7'	S 23°02.8'
22	149°12.4'	S 23°02.6'
23	164°12.1'	S 23°02.4'

Zeitgl. 0h / 12h -02:44 / -02:59

Kulmination UT 12:02:59

Halbmesser 16.3'

2027

Januar

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Fr 01.01.		Sa 02.01.		So 03.01.		Mo 04.01.		Di 05.01.		Mi 06.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°11.8'	S 23°02.2'	179°04.7'	S 22°57.2'	178°57.7'	S 22°51.8'	178°50.8'	S 22°45.9'	178°44.1'	S 22°39.6'	178°37.4'	S 22°32.8'
01	194°11.5'	S 23°02.0'	194°04.4'	S 22°57.0'	193°57.4'	S 22°51.5'	193°50.6'	S 22°45.6'	193°43.8'	S 22°39.3'	193°37.1'	S 22°32.5'
02	209°11.2'	S 23°01.8'	209°04.1'	S 22°56.8'	208°57.2'	S 22°51.3'	208°50.3'	S 22°45.4'	208°43.5'	S 22°39.0'	208°36.8'	S 22°32.2'
03	224°10.9'	S 23°01.6'	224°03.8'	S 22°56.6'	223°56.9'	S 22°51.1'	223°50.0'	S 22°45.1'	223°43.2'	S 22°38.7'	223°36.5'	S 22°31.9'
04	239°10.6'	S 23°01.4'	239°03.5'	S 22°56.3'	238°56.6'	S 22°50.8'	238°49.7'	S 22°44.9'	238°42.9'	S 22°38.5'	238°36.3'	S 22°31.6'
05	254°10.3'	S 23°01.2'	254°03.3'	S 22°56.1'	253°56.3'	S 22°50.6'	253°49.4'	S 22°44.6'	253°42.7'	S 22°38.2'	253°36.0'	S 22°31.3'
06	269°10.0'	S 23°01.0'	269°03.0'	S 22°55.9'	268°56.0'	S 22°50.4'	268°49.1'	S 22°44.4'	268°42.4'	S 22°37.9'	268°35.7'	S 22°31.0'
07	284°09.7'	S 23°00.8'	284°02.7'	S 22°55.7'	283°55.7'	S 22°50.1'	283°48.9'	S 22°44.1'	283°42.1'	S 22°37.6'	283°35.4'	S 22°30.7'
08	299°09.4'	S 23°00.6'	299°02.4'	S 22°55.5'	298°55.4'	S 22°49.9'	298°48.6'	S 22°43.8'	298°41.8'	S 22°37.4'	298°35.2'	S 22°30.4'
09	314°09.1'	S 23°00.4'	314°02.1'	S 22°55.2'	313°55.1'	S 22°49.6'	313°48.3'	S 22°43.6'	313°41.5'	S 22°37.1'	313°34.9'	S 22°30.1'
10	329°08.8'	S 23°00.2'	329°01.8'	S 22°55.0'	328°54.9'	S 22°49.4'	328°48.0'	S 22°43.3'	328°41.3'	S 22°36.8'	328°34.6'	S 22°29.8'
11	344°08.5'	S 23°00.0'	344°01.5'	S 22°54.8'	343°54.6'	S 22°49.1'	343°47.7'	S 22°43.1'	343°41.0'	S 22°36.5'	343°34.3'	S 22°29.5'
12	359°08.2'	S 22°59.7'	359°01.2'	S 22°54.6'	358°54.3'	S 22°48.9'	358°47.4'	S 22°42.8'	358°40.7'	S 22°36.2'	358°34.1'	S 22°29.2'
13	14°07.9'	S 22°59.5'	14°00.9'	S 22°54.3'	13°54.0'	S 22°48.7'	13°47.2'	S 22°42.5'	13°40.4'	S 22°36.0'	13°33.8'	S 22°28.9'
14	29°07.6'	S 22°59.3'	29°00.6'	S 22°54.1'	28°53.7'	S 22°48.4'	28°46.9'	S 22°42.3'	28°40.1'	S 22°35.7'	28°33.5'	S 22°28.6'
15	44°07.4'	S 22°59.1'	44°00.3'	S 22°53.9'	43°53.4'	S 22°48.2'	43°46.6'	S 22°42.0'	43°39.9'	S 22°35.4'	43°33.2'	S 22°28.3'
16	59°07.1'	S 22°58.9'	59°00.1'	S 22°53.6'	58°53.1'	S 22°47.9'	58°46.3'	S 22°41.7'	58°39.6'	S 22°35.1'	58°33.0'	S 22°28.0'
17	74°06.8'	S 22°58.7'	73°59.8'	S 22°53.4'	73°52.8'	S 22°47.7'	73°46.0'	S 22°41.5'	73°39.3'	S 22°34.8'	73°32.7'	S 22°27.7'
18	89°06.5'	S 22°58.5'	88°59.5'	S 22°53.2'	88°52.6'	S 22°47.4'	88°45.7'	S 22°41.2'	88°39.0'	S 22°34.5'	88°32.4'	S 22°27.4'
19	104°06.2'	S 22°58.3'	103°59.2'	S 22°53.0'	103°52.3'	S 22°47.2'	103°45.5'	S 22°40.9'	103°38.8'	S 22°34.2'	103°32.1'	S 22°27.1'
20	119°05.9'	S 22°58.1'	118°58.9'	S 22°52.7'	118°52.0'	S 22°46.9'	118°45.2'	S 22°40.7'	118°38.5'	S 22°34.0'	118°31.9'	S 22°26.8'
21	134°05.6'	S 22°57.9'	133°58.6'	S 22°52.5'	133°51.7'	S 22°46.7'	133°44.9'	S 22°40.4'	133°38.2'	S 22°33.7'	133°31.6'	S 22°26.5'
22	149°05.3'	S 22°57.6'	148°58.3'	S 22°52.3'	148°51.4'	S 22°46.4'	148°44.6'	S 22°40.1'	148°37.9'	S 22°33.4'	148°31.3'	S 22°26.2'
23	164°05.0'	S 22°57.4'	163°58.0'	S 22°52.0'	163°51.1'	S 22°46.2'	163°44.3'	S 22°39.8'	163°37.6'	S 22°33.1'	163°31.1'	S 22°25.9'
Zeitgl. 0h / 12h	-03:13 / -03:27		-03:41 / -03:55		-04:09 / -04:23		-04:37 / -04:50		-05:04 / -05:17		-05:31 / -05:44	
Kulmination UT	12:03:27		12:03:55		12:04:23		12:04:50		12:05:17		12:05:44	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

	Do 07.01.		Fr 08.01.		Sa 09.01.		So 10.01.		Mo 11.01.		Di 12.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°30.8'	S 22°25.6'	178°24.3'	S 22°17.9'	178°18.0'	S 22°09.8'	178°11.8'	S 22°01.3'	178°05.7'	S 21°52.3'	177°59.8'	S 21°42.9'
01	193°30.5'	S 22°25.3'	193°24.1'	S 22°17.6'	193°17.7'	S 22°09.4'	193°11.5'	S 22°00.9'	193°05.5'	S 21°51.9'	192°59.5'	S 21°42.5'
02	208°30.2'	S 22°24.9'	208°23.8'	S 22°17.2'	208°17.5'	S 22°09.1'	208°11.3'	S 22°00.5'	208°05.2'	S 21°51.5'	207°59.3'	S 21°42.1'
03	223°30.0'	S 22°24.6'	223°23.5'	S 22°16.9'	223°17.2'	S 22°08.7'	223°11.0'	S 22°00.2'	223°05.0'	S 21°51.1'	222°59.0'	S 21°41.7'
04	238°29.7'	S 22°24.3'	238°23.3'	S 22°16.6'	238°16.9'	S 22°08.4'	238°10.8'	S 21°59.8'	238°04.7'	S 21°50.7'	237°58.8'	S 21°41.3'
05	253°29.4'	S 22°24.0'	253°23.0'	S 22°16.2'	253°16.7'	S 22°08.0'	253°10.5'	S 21°59.4'	253°04.5'	S 21°50.4'	252°58.6'	S 21°40.9'
06	268°29.2'	S 22°23.7'	268°22.7'	S 22°15.9'	268°16.4'	S 22°07.7'	268°10.2'	S 21°59.1'	268°04.2'	S 21°50.0'	267°58.3'	S 21°40.5'
07	283°28.9'	S 22°23.4'	283°22.5'	S 22°15.6'	283°16.2'	S 22°07.3'	283°10.0'	S 21°58.7'	283°04.0'	S 21°49.6'	282°58.1'	S 21°40.1'
08	298°28.6'	S 22°23.1'	298°22.2'	S 22°15.2'	298°15.9'	S 22°07.0'	298°09.7'	S 21°58.3'	298°03.7'	S 21°49.2'	297°57.8'	S 21°39.7'
09	313°28.3'	S 22°22.7'	313°21.9'	S 22°14.9'	313°15.6'	S 22°06.6'	313°09.5'	S 21°57.9'	313°03.5'	S 21°48.8'	312°57.6'	S 21°39.3'
10	328°28.1'	S 22°22.4'	328°21.7'	S 22°14.6'	328°15.4'	S 22°06.3'	328°09.2'	S 21°57.6'	328°03.2'	S 21°48.4'	327°57.3'	S 21°38.8'
11	343°27.8'	S 22°22.1'	343°21.4'	S 22°14.2'	343°15.1'	S 22°05.9'	343°09.0'	S 21°57.2'	343°03.0'	S 21°48.0'	342°57.1'	S 21°38.4'
12	358°27.5'	S 22°21.8'	358°21.1'	S 22°13.9'	358°14.9'	S 22°05.6'	358°08.7'	S 21°56.8'	358°02.7'	S 21°47.6'	357°56.9'	S 21°38.0'
13	13°27.3'	S 22°21.5'	13°20.9'	S 22°13.6'	13°14.6'	S 22°05.2'	13°08.5'	S 21°56.4'	13°02.5'	S 21°47.2'	12°56.6'	S 21°37.6'
14	28°27.0'	S 22°21.1'	28°20.6'	S 22°13.2'	28°14.3'	S 22°04.9'	28°08.2'	S 21°56.1'	28°02.2'	S 21°46.9'	27°56.4'	S 21°37.2'
15	43°26.7'	S 22°20.8'	43°20.3'	S 22°12.9'	43°14.1'	S 22°04.5'	43°08.0'	S 21°55.7'	43°02.0'	S 21°46.5'	42°56.1'	S 21°36.8'
16	58°26.5'	S 22°20.5'	58°20.1'	S 22°12.5'	58°13.8'	S 22°04.1'	58°07.7'	S 21°55.3'	58°01.7'	S 21°46.1'	57°55.9'	S 21°36.4'
17	73°26.2'	S 22°20.2'	73°19.8'	S 22°12.2'	73°13.6'	S 22°03.8'	73°07.5'	S 21°54.9'	73°01.5'	S 21°45.7'	72°55.7'	S 21°36.0'
18	88°25.9'	S 22°19.9'	88°19.6'	S 22°11.9'	88°13.3'	S 22°03.4'	88°07.2'	S 21°54.6'	88°01.2'	S 21°45.3'	87°55.4'	S 21°35.6'
19	103°25.7'	S 22°19.5'	103°19.3'	S 22°11.5'	103°13.1'	S 22°03.1'	103°07.0'	S 21°54.2'	103°01.0'	S 21°44.9'	102°55.2'	S 21°35.1'
20	118°25.4'	S 22°19.2'	118°19.0'	S 22°11.2'	118°12.8'	S 22°02.7'	118°06.7'	S 21°53.8'	118°00.8'	S 21°44.5'	117°54.9'	S 21°34.7'
21	133°25.1'	S 22°18.9'	133°18.8'	S 22°10.8'	133°12.5'	S 22°02.3'	133°06.5'	S 21°53.4'	133°00.5'	S 21°44.1'	132°54.7'	S 21°34.3'
22	148°24.9'	S 22°18.6'	148°18.5'	S 22°10.5'	148°12.3'	S 22°02.0'	148°06.2'	S 21°53.0'	148°00.3'	S 21°43.7'	147°54.5'	S 21°33.9'
23	163°24.6'	S 22°18.2'	163°18.2'	S 22°10.1'	163°12.0'	S 22°01.6'	163°06.0'	S 21°52.7'	163°00.0'	S 21°43.3'	162°54.2'	S 21°33.5'
Zeitgl. 0h / 12h	-05:57 / -06:10		-06:23 / -06:35		-06:48 / -07:01		-07:13 / -07:25		-07:37 / -07:49		-08:01 / -08:13	
Kulmination UT	12:06:10		12:06:35		12:07:01		12:07:25		12:07:49		12:08:13	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

	Mi 13.01.		Do 14.01.		Fr 15.01.		Sa 16.01.		So 17.01.		Mo 18.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	177°54.0'	S 21°33.1'	177°48.4'	S 21°22.8'	177°42.9'	S 21°12.2'	177°37.6'	S 21°01.1'	177°32.4'	S 20°49.7'	177°27.5'	S 20°37.8'
01	192°53.8'	S 21°32.6'	192°48.1'	S 21°22.4'	192°42.7'	S 21°11.7'	192°37.4'	S 21°00.7'	192°32.2'	S 20°49.2'	192°27.3'	S 20°37.3'
02	207°53.5'	S 21°32.2'	207°47.9'	S 21°22.0'	207°42.4'	S 21°11.3'	207°37.2'	S 21°00.2'	207°32.0'	S 20°48.7'	207°27.1'	S 20°36.8'
03	222°53.3'	S 21°31.8'	222°47.7'	S 21°21.5'	222°42.2'	S 21°10.8'	222°36.9'	S 20°59.7'	222°31.8'	S 20°48.2'	222°26.9'	S 20°36.3'
04	237°53.0'	S 21°31.4'	237°47.4'	S 21°21.1'	237°42.0'	S 21°10.4'	237°36.7'	S 20°59.3'	237°31.6'	S 20°47.7'	237°26.7'	S 20°35.8'
05	252°52.8'	S 21°31.0'	252°47.2'	S 21°20.6'	252°41.8'	S 21°09.9'	252°36.5'	S 20°58.8'	252°31.4'	S 20°47.2'	252°26.5'	S 20°35.3'
06	267°52.6'	S 21°30.5'	267°47.0'	S 21°20.2'	267°41.6'	S 21°09.5'	267°36.3'	S 20°58.3'	267°31.2'	S 20°46.8'	267°26.3'	S 20°34.8'
07	282°52.3'	S 21°30.1'	282°46.8'	S 21°19.8'	282°41.3'	S 21°09.0'	282°36.1'	S 20°57.8'	282°31.0'	S 20°46.3'	282°26.1'	S 20°34.3'
08	297°52.1'	S 21°29.7'	297°46.5'	S 21°19.3'	297°41.1'	S 21°08.5'	297°35.9'	S 20°57.4'	297°30.8'	S 20°45.8'	297°25.9'	S 20°33.8'
09	312°51.9'	S 21°29.3'	312°46.3'	S 21°18.9'	312°40.9'	S 21°08.1'	312°35.6'	S 20°56.9'	312°30.6'	S 20°45.3'	312°25.7'	S 20°33.3'
10	327°51.6'	S 21°28.9'	327°46.1'	S 21°18.4'	327°40.7'	S 21°07.6'	327°35.4'	S 20°56.4'	327°30.4'	S 20°44.8'	327°25.5'	S 20°32.8'
11	342°51.4'	S 21°28.4'	342°45.8'	S 21°18.0'	342°40.4'	S 21°07.2'	342°35.2'	S 20°55.9'	342°30.2'	S 20°44.3'	342°25.3'	S 20°32.3'
12	357°51.2'	S 21°28.0'	357°45.6'	S 21°17.6'	357°40.2'	S 21°06.7'	357°35.0'	S 20°55.5'	357°29.9'	S 20°43.8'	357°25.1'	S 20°31.8'
13	12°50.9'	S 21°27.6'	12°45.4'	S 21°17.1'	12°40.0'	S 21°06.2'	12°34.8'	S 20°55.0'	12°29.7'	S 20°43.3'	12°24.9'	S 20°31.2'
14	27°50.7'	S 21°27.1'	27°45.2'	S 21°16.7'	27°39.8'	S 21°05.8'	27°34.6'	S 20°54.5'	27°29.5'	S 20°42.8'	27°24.7'	S 20°30.7'
15	42°50.5'	S 21°26.7'	42°44.9'	S 21°16.2'	42°39.6'	S 21°05.3'	42°34.4'	S 20°54.0'	42°29.3'	S 20°42.3'	42°24.5'	S 20°30.2'
16	57°50.2'	S 21°26.3'	57°44.7'	S 21°15.8'	57°39.3'	S 21°04.9'	57°34.1'	S 20°53.5'	57°29.1'	S 20°41.8'	57°24.3'	S 20°29.7'
17	72°50.0'	S 21°25.9'	72°44.5'	S 21°15.3'	72°39.1'	S 21°04.4'	72°33.9'	S 20°53.1'	72°28.9'	S 20°41.3'	72°24.1'	S 20°29.2'
18	87°49.8'	S 21°25.4'	87°44.2'	S 21°14.9'	87°38.9'	S 21°03.9'	87°33.7'	S 20°52.6'	87°28.7'	S 20°40.8'	87°23.9'	S 20°28.7'
19	102°49.5'	S 21°25.0'	102°44.0'	S 21°14.4'	102°38.7'	S 21°03.5'	102°33.5'	S 20°52.1'	102°28.5'	S 20°40.3'	102°23.7'	S 20°28.2'
20	117°49.3'	S 21°24.6'	117°43.8'	S 21°14.0'	117°38.5'	S 21°03.0'	117°33.3'	S 20°51.6'	117°28.3'	S 20°39.8'	117°23.5'	S 20°27.6'
21	132°49.1'	S 21°24.1'	132°43.6'	S 21°13.5'	132°38.2'	S 21°02.5'	132°33.1'	S 20°51.1'	132°28.1'	S 20°39.3'	132°23.3'	S 20°27.1'
22	147°48.8'	S 21°23.7'	147°43.3'	S 21°13.1'	147°38.0'	S 21°02.1'	147°32.9'	S 20°50.6'	147°27.9'	S 20°38.8'	147°23.1'	S 20°26.6'
23	162°48.6'	S 21°23.3'	162°43.1'	S 21°12.6'	162°37.8'	S 21°01.6'	162°32.7'	S 20°50.2'	162°27.7'	S 20°38.3'	162°22.9'	S 20°26.1'
Zeitgl. 0h / 12h	-08:24 / -08:35		-08:47 / -08:58		-09:08 / -09:19		-09:30 / -09:40		-09:50 / -10:00		-10:10 / -10:20	
Kulmination UT	12:08:35		12:08:58		12:09:19		12:09:40		12:10:00		12:10:20	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

	Di 19.01.		Mi 20.01.		Do 21.01.		Fr 22.01.		Sa 23.01.		So 24.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	177°22.7'	S 20°25.6'	177°18.1'	S 20°13.0'	177°13.7'	S 19°59.9'	177°09.4'	S 19°46.6'	177°05.4'	S 19°32.8'	177°01.5'	S 19°18.7'
01	192°22.5'	S 20°25.1'	192°17.9'	S 20°12.4'	192°13.5'	S 19°59.4'	192°09.2'	S 19°46.0'	192°05.2'	S 19°32.2'	192°01.4'	S 19°18.1'
02	207°22.3'	S 20°24.5'	207°17.7'	S 20°11.9'	207°13.3'	S 19°58.8'	207°09.1'	S 19°45.4'	207°05.0'	S 19°31.6'	207°01.2'	S 19°17.5'
03	222°22.1'	S 20°24.0'	222°17.5'	S 20°11.3'	222°13.1'	S 19°58.3'	222°08.9'	S 19°44.9'	222°04.9'	S 19°31.1'	222°01.0'	S 19°16.9'
04	237°21.9'	S 20°23.5'	237°17.3'	S 20°10.8'	237°12.9'	S 19°57.7'	237°08.7'	S 19°44.3'	237°04.7'	S 19°30.5'	237°00.9'	S 19°16.3'
05	252°21.7'	S 20°23.0'	252°17.1'	S 20°10.3'	252°12.8'	S 19°57.2'	252°08.6'	S 19°43.7'	252°04.5'	S 19°29.9'	252°00.7'	S 19°15.7'
06	267°21.5'	S 20°22.5'	267°17.0'	S 20°09.7'	267°12.6'	S 19°56.6'	267°08.4'	S 19°43.2'	267°04.4'	S 19°29.3'	267°00.6'	S 19°15.1'
07	282°21.3'	S 20°21.9'	282°16.8'	S 20°09.2'	282°12.4'	S 19°56.1'	282°08.2'	S 19°42.6'	282°04.2'	S 19°28.7'	282°00.4'	S 19°14.5'
08	297°21.1'	S 20°21.4'	297°16.6'	S 20°08.7'	297°12.2'	S 19°55.5'	297°08.0'	S 19°42.0'	297°04.1'	S 19°28.1'	297°00.3'	S 19°13.9'
09	312°20.9'	S 20°20.9'	312°16.4'	S 20°08.1'	312°12.0'	S 19°55.0'	312°07.9'	S 19°41.4'	312°03.9'	S 19°27.6'	312°00.1'	S 19°13.3'
10	327°20.7'	S 20°20.4'	327°16.2'	S 20°07.6'	327°11.9'	S 19°54.4'	327°07.7'	S 19°40.9'	327°03.7'	S 19°27.0'	327°00.0'	S 19°12.7'
11	342°20.6'	S 20°19.8'	342°16.0'	S 20°07.0'	342°11.7'	S 19°53.9'	342°07.5'	S 19°40.3'	342°03.6'	S 19°26.4'	341°59.8'	S 19°12.1'
12	357°20.4'	S 20°19.3'	357°15.8'	S 20°06.5'	357°11.5'	S 19°53.3'	357°07.4'	S 19°39.7'	357°03.4'	S 19°25.8'	356°59.7'	S 19°11.5'
13	12°20.2'	S 20°18.8'	12°15.7'	S 20°06.0'	12°11.3'	S 19°52.7'	12°07.2'	S 19°39.2'	12°03.3'	S 19°25.2'	11°59.5'	S 19°10.9'
14	27°20.0'	S 20°18.3'	27°15.5'	S 20°05.4'	27°11.2'	S 19°52.2'	27°07.0'	S 19°38.6'	27°03.1'	S 19°24.6'	26°59.4'	S 19°10.3'
15	42°19.8'	S 20°17.7'	42°15.3'	S 20°04.9'	42°11.0'	S 19°51.6'	42°06.9'	S 19°38.0'	42°02.9'	S 19°24.0'	41°59.2'	S 19°09.7'
16	57°19.6'	S 20°17.2'	57°15.1'	S 20°04.3'	57°10.8'	S 19°51.1'	57°06.7'	S 19°37.4'	57°02.8'	S 19°23.4'	56°59.1'	S 19°09.1'
17	72°19.4'	S 20°16.7'	72°14.9'	S 20°03.8'	72°10.6'	S 19°50.5'	72°06.5'	S 19°36.9'	72°02.6'	S 19°22.8'	71°58.9'	S 19°08.5'
18	87°19.2'	S 20°16.1'	87°14.7'	S 20°03.2'	87°10.5'	S 19°49.9'	87°06.4'	S 19°36.3'	87°02.5'	S 19°22.3'	86°58.8'	S 19°07.9'
19	102°19.0'	S 20°15.6'	102°14.6'	S 20°02.7'	102°10.3'	S 19°49.4'	102°06.2'	S 19°35.7'	102°02.3'	S 19°21.7'	101°58.6'	S 19°07.3'
20	117°18.8'	S 20°15.1'	117°14.4'	S 20°02.1'	117°10.1'	S 19°48.8'	117°06.0'	S 19°35.1'	117°02.1'	S 19°21.1'	116°58.5'	S 19°06.7'
21	132°18.6'	S 20°14.6'	132°14.2'	S 20°01.6'	132°09.9'	S 19°48.3'	132°05.9'	S 19°34.5'	132°02.0'	S 19°20.5'	131°58.3'	S 19°06.1'
22	147°18.5'	S 20°14.0'	147°14.0'	S 20°01.0'	147°09.8'	S 19°47.7'	147°05.7'	S 19°34.0'	147°01.8'	S 19°19.9'	146°58.2'	S 19°05.4'
23	162°18.3'	S 20°13.5'	162°13.8'	S 20°00.5'	162°09.6'	S 19°47.1'	162°05.5'	S 19°33.4'	162°01.7'	S 19°19.3'	161°58.0'	S 19°04.8'
Zeitgl. 0h / 12h	-10:29 / -10:39		-10:48 / -10:57		-11:05 / -11:14		-11:22 / -11:31		-11:39 / -11:46		-11:54 / -12:01	
Kulmination UT	12:10:39		12:10:57		12:11:14		12:11:31		12:11:46		12:12:01	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.2'		16.2'	

	Mo 25.01.		Di 26.01.		Mi 27.01.		Do 28.01.		Fr 29.01.		Sa 30.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°57.9'	S 19°04.2'	176°54.4'	S 18°49.4'	176°51.1'	S 18°34.2'	176°48.1'	S 18°18.7'	176°45.2'	S 18°02.9'	176°42.6'	S 17°46.8'
01	191°57.7'	S 19°03.6'	191°54.3'	S 18°48.8'	191°51.0'	S 18°33.6'	191°48.0'	S 18°18.1'	191°45.1'	S 18°02.3'	191°42.5'	S 17°46.1'
02	206°57.6'	S 19°03.0'	206°54.1'	S 18°48.2'	206°50.9'	S 18°33.0'	206°47.8'	S 18°17.4'	206°45.0'	S 18°01.6'	206°42.4'	S 17°45.4'
03	221°57.4'	S 19°02.4'	221°54.0'	S 18°47.5'	221°50.7'	S 18°32.3'	221°47.7'	S 18°16.8'	221°44.9'	S 18°00.9'	221°42.2'	S 17°44.7'
04	236°57.3'	S 19°01.8'	236°53.8'	S 18°46.9'	236°50.6'	S 18°31.7'	236°47.6'	S 18°16.1'	236°44.8'	S 18°00.2'	236°42.1'	S 17°44.0'
05	251°57.1'	S 19°01.2'	251°53.7'	S 18°46.3'	251°50.5'	S 18°31.0'	251°47.5'	S 18°15.5'	251°44.6'	S 17°59.6'	251°42.0'	S 17°43.4'
06	266°57.0'	S 19°00.6'	266°53.6'	S 18°45.6'	266°50.3'	S 18°30.4'	266°47.3'	S 18°14.8'	266°44.5'	S 17°58.9'	266°41.9'	S 17°42.7'
07	281°56.8'	S 18°59.9'	281°53.4'	S 18°45.0'	281°50.2'	S 18°29.8'	281°47.2'	S 18°14.2'	281°44.4'	S 17°58.2'	281°41.8'	S 17°42.0'
08	296°56.7'	S 18°59.3'	296°53.3'	S 18°44.4'	296°50.1'	S 18°29.1'	296°47.1'	S 18°13.5'	296°44.3'	S 17°57.6'	296°41.7'	S 17°41.3'
09	311°56.5'	S 18°58.7'	311°53.1'	S 18°43.8'	311°50.0'	S 18°28.5'	311°47.0'	S 18°12.8'	311°44.2'	S 17°56.9'	311°41.6'	S 17°40.6'
10	326°56.4'	S 18°58.1'	326°53.0'	S 18°43.1'	326°49.8'	S 18°27.8'	326°46.9'	S 18°12.2'	326°44.1'	S 17°56.2'	326°41.5'	S 17°39.9'
11	341°56.2'	S 18°57.5'	341°52.9'	S 18°42.5'	341°49.7'	S 18°27.2'	341°46.7'	S 18°11.5'	341°44.0'	S 17°55.6'	341°41.4'	S 17°39.3'
12	356°56.1'	S 18°56.9'	356°52.7'	S 18°41.9'	356°49.6'	S 18°26.5'	356°46.6'	S 18°10.9'	356°43.9'	S 17°54.9'	356°41.3'	S 17°38.6'
13	11°56.0'	S 18°56.2'	11°52.6'	S 18°41.2'	11°49.5'	S 18°25.9'	11°46.5'	S 18°10.2'	11°43.8'	S 17°54.2'	11°41.2'	S 17°37.9'
14	26°55.8'	S 18°55.6'	26°52.5'	S 18°40.6'	26°49.3'	S 18°25.2'	26°46.4'	S 18°09.6'	26°43.6'	S 17°53.5'	26°41.1'	S 17°37.2'
15	41°55.7'	S 18°55.0'	41°52.3'	S 18°40.0'	41°49.2'	S 18°24.6'	41°46.3'	S 18°08.9'	41°43.5'	S 17°52.9'	41°41.0'	S 17°36.5'
16	56°55.5'	S 18°54.4'	56°52.2'	S 18°39.3'	56°49.1'	S 18°24.0'	56°46.1'	S 18°08.2'	56°43.4'	S 17°52.2'	56°40.9'	S 17°35.8'
17	71°55.4'	S 18°53.8'	71°52.1'	S 18°38.7'	71°48.9'	S 18°23.3'	71°46.0'	S 18°07.6'	71°43.3'	S 17°51.5'	71°40.8'	S 17°35.1'
18	86°55.2'	S 18°53.1'	86°51.9'	S 18°38.1'	86°48.8'	S 18°22.7'	86°45.9'	S 18°06.9'	86°43.2'	S 17°50.8'	86°40.7'	S 17°34.4'
19	101°55.1'	S 18°52.5'	101°51.8'	S 18°37.4'	101°48.7'	S 18°22.0'	101°45.8'	S 18°06.2'	101°43.1'	S 17°50.2'	101°40.6'	S 17°33.8'
20	116°55.0'	S 18°51.9'	116°51.7'	S 18°36.8'	116°48.6'	S 18°21.4'	116°45.7'	S 18°05.6'	116°43.0'	S 17°49.5'	116°40.5'	S 17°33.1'
21	131°54.8'	S 18°51.3'	131°51.5'	S 18°36.2'	131°48.4'	S 18°20.7'	131°45.6'	S 18°04.9'	131°42.9'	S 17°48.8'	131°40.4'	S 17°32.4'
22	146°54.7'	S 18°50.7'	146°51.4'	S 18°35.5'	146°48.3'	S 18°20.1'	146°45.4'	S 18°04.2'	146°42.8'	S 17°48.1'	146°40.3'	S 17°31.7'
23	161°54.5'	S 18°50.0'	161°51.3'	S 18°34.9'	161°48.2'	S 18°19.4'	161°45.3'	S 18°03.6'	161°42.7'	S 17°47.4'	161°40.2'	S 17°31.0'
Zeitgl. 0h / 12h	-12:09 / -12:16		-12:22 / -12:29		-12:35 / -12:42		-12:48 / -12:54		-12:59 / -13:05		-13:10 / -13:15	
Kulmination UT	12:12:16		12:12:29		12:12:42		12:12:54		12:13:05		12:13:15	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

So 31.01.

UT	Grt	Dec
00	176°40.1'	S 17°30.3'
01	191°40.0'	S 17°29.6'
02	206°39.9'	S 17°28.9'
03	221°39.8'	S 17°28.2'
04	236°39.7'	S 17°27.5'
05	251°39.6'	S 17°26.8'
06	266°39.5'	S 17°26.1'
07	281°39.4'	S 17°25.4'
08	296°39.3'	S 17°24.7'
09	311°39.3'	S 17°24.0'
10	326°39.2'	S 17°23.3'
11	341°39.1'	S 17°22.6'
12	356°39.0'	S 17°21.9'
13	11°38.9'	S 17°21.2'
14	26°38.8'	S 17°20.5'
15	41°38.7'	S 17°19.8'
16	56°38.6'	S 17°19.1'
17	71°38.5'	S 17°18.4'
18	86°38.4'	S 17°17.7'
19	101°38.3'	S 17°17.0'
20	116°38.2'	S 17°16.3'
21	131°38.1'	S 17°15.6'
22	146°38.1'	S 17°14.9'
23	161°38.0'	S 17°14.2'

Zeitgl. 0h / 12h -13:20 / -13:24

Kulmination UT 12:13:24

Halbmesser 16.2'

2027

Februar

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Mo 01.02.		Di 02.02.		Mi 03.02.		Do 04.02.		Fr 05.02.		Sa 06.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°37.9'	S 17°13.5'	176°35.8'	S 16°56.4'	176°34.0'	S 16°39.0'	176°32.4'	S 16°21.4'	176°31.0'	S 16°03.4'	176°29.7'	S 15°45.2'
01	191°37.8'	S 17°12.8'	191°35.8'	S 16°55.7'	191°33.9'	S 16°38.3'	191°32.3'	S 16°20.6'	191°30.9'	S 16°02.7'	191°29.7'	S 15°44.4'
02	206°37.7'	S 17°12.1'	206°35.7'	S 16°55.0'	206°33.9'	S 16°37.6'	206°32.3'	S 16°19.9'	206°30.8'	S 16°01.9'	206°29.6'	S 15°43.6'
03	221°37.6'	S 17°11.4'	221°35.6'	S 16°54.3'	221°33.8'	S 16°36.8'	221°32.2'	S 16°19.1'	221°30.8'	S 16°01.1'	221°29.6'	S 15°42.9'
04	236°37.5'	S 17°10.7'	236°35.5'	S 16°53.5'	236°33.7'	S 16°36.1'	236°32.1'	S 16°18.4'	236°30.7'	S 16°00.4'	236°29.6'	S 15°42.1'
05	251°37.4'	S 17°10.0'	251°35.4'	S 16°52.8'	251°33.6'	S 16°35.4'	251°32.1'	S 16°17.7'	251°30.7'	S 15°59.6'	251°29.5'	S 15°41.3'
06	266°37.3'	S 17°09.3'	266°35.4'	S 16°52.1'	266°33.6'	S 16°34.7'	266°32.0'	S 16°16.9'	266°30.6'	S 15°58.9'	266°29.5'	S 15°40.6'
07	281°37.3'	S 17°08.6'	281°35.3'	S 16°51.4'	281°33.5'	S 16°33.9'	281°31.9'	S 16°16.2'	281°30.6'	S 15°58.1'	281°29.4'	S 15°39.8'
08	296°37.2'	S 17°07.8'	296°35.2'	S 16°50.7'	296°33.4'	S 16°33.2'	296°31.9'	S 16°15.4'	296°30.5'	S 15°57.4'	296°29.4'	S 15°39.0'
09	311°37.1'	S 17°07.1'	311°35.1'	S 16°49.9'	311°33.4'	S 16°32.4'	311°31.8'	S 16°14.7'	311°30.5'	S 15°56.6'	311°29.3'	S 15°38.3'
10	326°37.0'	S 17°06.4'	326°35.0'	S 16°49.2'	326°33.3'	S 16°31.7'	326°31.8'	S 16°13.9'	326°30.4'	S 15°55.8'	326°29.3'	S 15°37.5'
11	341°36.9'	S 17°05.7'	341°35.0'	S 16°48.5'	341°33.2'	S 16°31.0'	341°31.7'	S 16°13.2'	341°30.4'	S 15°55.1'	341°29.3'	S 15°36.7'
12	356°36.8'	S 17°05.0'	356°34.9'	S 16°47.8'	356°33.2'	S 16°30.2'	356°31.6'	S 16°12.4'	356°30.3'	S 15°54.3'	356°29.2'	S 15°36.0'
13	11°36.7'	S 17°04.3'	11°34.8'	S 16°47.0'	11°33.1'	S 16°29.5'	11°31.6'	S 16°11.7'	11°30.3'	S 15°53.6'	11°29.2'	S 15°35.2'
14	26°36.7'	S 17°03.6'	26°34.7'	S 16°46.3'	26°33.0'	S 16°28.8'	26°31.5'	S 16°10.9'	26°30.2'	S 15°52.8'	26°29.1'	S 15°34.4'
15	41°36.6'	S 17°02.9'	41°34.7'	S 16°45.6'	41°33.0'	S 16°28.0'	41°31.5'	S 16°10.2'	41°30.2'	S 15°52.0'	41°29.1'	S 15°33.6'
16	56°36.5'	S 17°02.2'	56°34.6'	S 16°44.9'	56°32.9'	S 16°27.3'	56°31.4'	S 16°09.4'	56°30.1'	S 15°51.3'	56°29.0'	S 15°32.9'
17	71°36.4'	S 17°01.4'	71°34.5'	S 16°44.1'	71°32.8'	S 16°26.6'	71°31.4'	S 16°08.7'	71°30.1'	S 15°50.5'	71°29.0'	S 15°32.1'
18	86°36.3'	S 17°00.7'	86°34.4'	S 16°43.4'	86°32.8'	S 16°25.8'	86°31.3'	S 16°07.9'	86°30.0'	S 15°49.8'	86°29.0'	S 15°31.3'
19	101°36.2'	S 17°00.0'	101°34.4'	S 16°42.7'	101°32.7'	S 16°25.1'	101°31.2'	S 16°07.2'	101°30.0'	S 15°49.0'	101°28.9'	S 15°30.5'
20	116°36.2'	S 16°59.3'	116°34.3'	S 16°42.0'	116°32.6'	S 16°24.3'	116°31.2'	S 16°06.4'	116°29.9'	S 15°48.2'	116°28.9'	S 15°29.8'
21	131°36.1'	S 16°58.6'	131°34.2'	S 16°41.2'	131°32.6'	S 16°23.6'	131°31.1'	S 16°05.7'	131°29.9'	S 15°47.5'	131°28.8'	S 15°29.0'
22	146°36.0'	S 16°57.9'	146°34.1'	S 16°40.5'	146°32.5'	S 16°22.9'	146°31.1'	S 16°04.9'	146°29.8'	S 15°46.7'	146°28.8'	S 15°28.2'
23	161°35.9'	S 16°57.1'	161°34.1'	S 16°39.8'	161°32.4'	S 16°22.1'	161°31.0'	S 16°04.2'	161°29.8'	S 15°45.9'	161°28.8'	S 15°27.4'
Zeitgl. 0h / 12h	-13:29 / -13:33		-13:37 / -13:40		-13:44 / -13:47		-13:50 / -13:53		-13:56 / -13:59		-14:01 / -14:03	
Kulmination UT	12:13:33		12:13:40		12:13:47		12:13:53		12:13:59		12:14:03	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	So 07.02.		Mo 08.02.		Di 09.02.		Mi 10.02.		Do 11.02.		Fr 12.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°28.7'	S 15°26.7'	176°27.9'	S 15°07.9'	176°27.3'	S 14°48.9'	176°26.9'	S 14°29.6'	176°26.7'	S 14°10.1'	176°26.7'	S 13°50.3'
01	191°28.7'	S 15°25.9'	191°27.9'	S 15°07.1'	191°27.3'	S 14°48.1'	191°26.9'	S 14°28.8'	191°26.7'	S 14°09.3'	191°26.7'	S 13°49.5'
02	206°28.7'	S 15°25.1'	206°27.9'	S 15°06.3'	206°27.3'	S 14°47.3'	206°26.9'	S 14°28.0'	206°26.7'	S 14°08.5'	206°26.7'	S 13°48.7'
03	221°28.6'	S 15°24.3'	221°27.8'	S 15°05.5'	221°27.2'	S 14°46.5'	221°26.9'	S 14°27.2'	221°26.7'	S 14°07.6'	221°26.7'	S 13°47.9'
04	236°28.6'	S 15°23.6'	236°27.8'	S 15°04.8'	236°27.2'	S 14°45.7'	236°26.8'	S 14°26.4'	236°26.7'	S 14°06.8'	236°26.7'	S 13°47.0'
05	251°28.5'	S 15°22.8'	251°27.8'	S 15°04.0'	251°27.2'	S 14°44.9'	251°26.8'	S 14°25.6'	251°26.7'	S 14°06.0'	251°26.7'	S 13°46.2'
06	266°28.5'	S 15°22.0'	266°27.7'	S 15°03.2'	266°27.2'	S 14°44.1'	266°26.8'	S 14°24.8'	266°26.7'	S 14°05.2'	266°26.7'	S 13°45.4'
07	281°28.5'	S 15°21.2'	281°27.7'	S 15°02.4'	281°27.2'	S 14°43.3'	281°26.8'	S 14°23.9'	281°26.7'	S 14°04.4'	281°26.7'	S 13°44.5'
08	296°28.4'	S 15°20.4'	296°27.7'	S 15°01.6'	296°27.1'	S 14°42.5'	296°26.8'	S 14°23.1'	296°26.6'	S 14°03.5'	296°26.7'	S 13°43.7'
09	311°28.4'	S 15°19.7'	311°27.7'	S 15°00.8'	311°27.1'	S 14°41.7'	311°26.8'	S 14°22.3'	311°26.6'	S 14°02.7'	311°26.7'	S 13°42.9'
10	326°28.4'	S 15°18.9'	326°27.6'	S 15°00.0'	326°27.1'	S 14°40.9'	326°26.8'	S 14°21.5'	326°26.6'	S 14°01.9'	326°26.7'	S 13°42.0'
11	341°28.3'	S 15°18.1'	341°27.6'	S 14°59.2'	341°27.1'	S 14°40.1'	341°26.8'	S 14°20.7'	341°26.6'	S 14°01.1'	341°26.7'	S 13°41.2'
12	356°28.3'	S 15°17.3'	356°27.6'	S 14°58.4'	356°27.1'	S 14°39.3'	356°26.8'	S 14°19.9'	356°26.6'	S 14°00.2'	356°26.7'	S 13°40.4'
13	11°28.3'	S 15°16.5'	11°27.6'	S 14°57.6'	11°27.1'	S 14°38.5'	11°26.8'	S 14°19.1'	11°26.6'	S 13°59.4'	11°26.7'	S 13°39.6'
14	26°28.2'	S 15°15.8'	26°27.5'	S 14°56.8'	26°27.0'	S 14°37.7'	26°26.7'	S 14°18.3'	26°26.6'	S 13°58.6'	26°26.7'	S 13°38.7'
15	41°28.2'	S 15°15.0'	41°27.5'	S 14°56.0'	41°27.0'	S 14°36.9'	41°26.7'	S 14°17.4'	41°26.6'	S 13°57.8'	41°26.7'	S 13°37.9'
16	56°28.2'	S 15°14.2'	56°27.5'	S 14°55.3'	56°27.0'	S 14°36.1'	56°26.7'	S 14°16.6'	56°26.6'	S 13°57.0'	56°26.7'	S 13°37.1'
17	71°28.1'	S 15°13.4'	71°27.5'	S 14°54.5'	71°27.0'	S 14°35.3'	71°26.7'	S 14°15.8'	71°26.6'	S 13°56.1'	71°26.8'	S 13°36.2'
18	86°28.1'	S 15°12.6'	86°27.4'	S 14°53.7'	86°27.0'	S 14°34.5'	86°26.7'	S 14°15.0'	86°26.6'	S 13°55.3'	86°26.8'	S 13°35.4'
19	101°28.1'	S 15°11.8'	101°27.4'	S 14°52.9'	101°27.0'	S 14°33.6'	101°26.7'	S 14°14.2'	101°26.6'	S 13°54.5'	101°26.8'	S 13°34.5'
20	116°28.0'	S 15°11.1'	116°27.4'	S 14°52.1'	116°26.9'	S 14°32.8'	116°26.7'	S 14°13.4'	116°26.6'	S 13°53.7'	116°26.8'	S 13°33.7'
21	131°28.0'	S 15°10.3'	131°27.4'	S 14°51.3'	131°26.9'	S 14°32.0'	131°26.7'	S 14°12.5'	131°26.6'	S 13°52.8'	131°26.8'	S 13°32.9'
22	146°28.0'	S 15°09.5'	146°27.3'	S 14°50.5'	146°26.9'	S 14°31.2'	146°26.7'	S 14°11.7'	146°26.7'	S 13°52.0'	146°26.8'	S 13°32.0'
23	161°27.9'	S 15°08.7'	161°27.3'	S 14°49.7'	161°26.9'	S 14°30.4'	161°26.7'	S 14°10.9'	161°26.7'	S 13°51.2'	161°26.8'	S 13°31.2'
Zeitgl. 0h / 12h	-14:05 / -14:07		-14:08 / -14:10		-14:11 / -14:12		-14:12 / -14:13		-14:13 / -14:13		-14:13 / -14:13	
Kulmination UT	12:14:07		12:14:10		12:14:12		12:14:13		12:14:13		12:14:13	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Sa 13.02.		So 14.02.		Mo 15.02.		Di 16.02.		Mi 17.02.		Do 18.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°26.8'	S 13°30.4'	176°27.2'	S 13°10.2'	176°27.7'	S 12°49.8'	176°28.5'	S 12°29.1'	176°29.4'	S 12°08.3'	176°30.5'	S 11°47.3'
01	191°26.8'	S 13°29.5'	191°27.2'	S 13°09.3'	191°27.8'	S 12°48.9'	191°28.5'	S 12°28.3'	191°29.4'	S 12°07.4'	191°30.5'	S 11°46.4'
02	206°26.9'	S 13°28.7'	206°27.2'	S 13°08.5'	206°27.8'	S 12°48.0'	206°28.5'	S 12°27.4'	206°29.5'	S 12°06.6'	206°30.6'	S 11°45.5'
03	221°26.9'	S 13°27.9'	221°27.2'	S 13°07.6'	221°27.8'	S 12°47.2'	221°28.6'	S 12°26.5'	221°29.5'	S 12°05.7'	221°30.6'	S 11°44.7'
04	236°26.9'	S 13°27.0'	236°27.3'	S 13°06.8'	236°27.8'	S 12°46.3'	236°28.6'	S 12°25.7'	236°29.6'	S 12°04.8'	236°30.7'	S 11°43.8'
05	251°26.9'	S 13°26.2'	251°27.3'	S 13°05.9'	251°27.9'	S 12°45.5'	251°28.6'	S 12°24.8'	251°29.6'	S 12°03.9'	251°30.7'	S 11°42.9'
06	266°26.9'	S 13°25.3'	266°27.3'	S 13°05.1'	266°27.9'	S 12°44.6'	266°28.7'	S 12°23.9'	266°29.6'	S 12°03.1'	266°30.8'	S 11°42.0'
07	281°26.9'	S 13°24.5'	281°27.3'	S 13°04.2'	281°27.9'	S 12°43.8'	281°28.7'	S 12°23.1'	281°29.7'	S 12°02.2'	281°30.8'	S 11°41.1'
08	296°26.9'	S 13°23.7'	296°27.4'	S 13°03.4'	296°28.0'	S 12°42.9'	296°28.8'	S 12°22.2'	296°29.7'	S 12°01.3'	296°30.9'	S 11°40.2'
09	311°26.9'	S 13°22.8'	311°27.4'	S 13°02.5'	311°28.0'	S 12°42.0'	311°28.8'	S 12°21.3'	311°29.8'	S 12°00.5'	311°30.9'	S 11°39.4'
10	326°27.0'	S 13°22.0'	326°27.4'	S 13°01.7'	326°28.0'	S 12°41.2'	326°28.8'	S 12°20.5'	326°29.8'	S 11°59.6'	326°31.0'	S 11°38.5'
11	341°27.0'	S 13°21.1'	341°27.4'	S 13°00.8'	341°28.1'	S 12°40.3'	341°28.9'	S 12°19.6'	341°29.9'	S 11°58.7'	341°31.0'	S 11°37.6'
12	356°27.0'	S 13°20.3'	356°27.4'	S 13°00.0'	356°28.1'	S 12°39.5'	356°28.9'	S 12°18.7'	356°29.9'	S 11°57.8'	356°31.1'	S 11°36.7'
13	11°27.0'	S 13°19.5'	11°27.5'	S 12°59.1'	11°28.1'	S 12°38.6'	11°28.9'	S 12°17.9'	11°30.0'	S 11°57.0'	11°31.1'	S 11°35.8'
14	26°27.0'	S 13°18.6'	26°27.5'	S 12°58.3'	26°28.1'	S 12°37.7'	26°29.0'	S 12°17.0'	26°30.0'	S 11°56.1'	26°31.2'	S 11°34.9'
15	41°27.0'	S 13°17.8'	41°27.5'	S 12°57.4'	41°28.2'	S 12°36.9'	41°29.0'	S 12°16.1'	41°30.0'	S 11°55.2'	41°31.3'	S 11°34.1'
16	56°27.0'	S 13°16.9'	56°27.5'	S 12°56.6'	56°28.2'	S 12°36.0'	56°29.1'	S 12°15.3'	56°30.1'	S 11°54.3'	56°31.3'	S 11°33.2'
17	71°27.1'	S 13°16.1'	71°27.6'	S 12°55.7'	71°28.2'	S 12°35.2'	71°29.1'	S 12°14.4'	71°30.1'	S 11°53.4'	71°31.4'	S 11°32.3'
18	86°27.1'	S 13°15.2'	86°27.6'	S 12°54.9'	86°28.3'	S 12°34.3'	86°29.1'	S 12°13.5'	86°30.2'	S 11°52.6'	86°31.4'	S 11°31.4'
19	101°27.1'	S 13°14.4'	101°27.6'	S 12°54.0'	101°28.3'	S 12°33.4'	101°29.2'	S 12°12.7'	101°30.2'	S 11°51.7'	101°31.5'	S 11°30.5'
20	116°27.1'	S 13°13.5'	116°27.6'	S 12°53.2'	116°28.3'	S 12°32.6'	116°29.2'	S 12°11.8'	116°30.3'	S 11°50.8'	116°31.5'	S 11°29.6'
21	131°27.1'	S 13°12.7'	131°27.7'	S 12°52.3'	131°28.4'	S 12°31.7'	131°29.3'	S 12°10.9'	131°30.3'	S 11°49.9'	131°31.6'	S 11°28.8'
22	146°27.2'	S 13°11.9'	146°27.7'	S 12°51.5'	146°28.4'	S 12°30.9'	146°29.3'	S 12°10.1'	146°30.4'	S 11°49.1'	146°31.6'	S 11°27.9'
23	161°27.2'	S 13°11.0'	161°27.7'	S 12°50.6'	161°28.4'	S 12°30.0'	161°29.3'	S 12°09.2'	161°30.4'	S 11°48.2'	161°31.7'	S 11°27.0'
Zeitgl. 0h / 12h	-14:13 / -14:12		-14:11 / -14:10		-14:09 / -14:08		-14:06 / -14:04		-14:02 / -14:00		-13:58 / -13:56	
Kulmination UT	12:14:12		12:14:10		12:14:08		12:14:04		12:14:00		12:13:56	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Fr 19.02.		Sa 20.02.		So 21.02.		Mo 22.02.		Di 23.02.		Mi 24.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°31.7'	S 11°26.1'	176°33.2'	S 11°04.7'	176°34.8'	S 10°43.2'	176°36.6'	S 10°21.4'	176°38.5'	S 9°59.6'	176°40.6'	S 9°37.5'
01	191°31.8'	S 11°25.2'	191°33.2'	S 11°03.8'	191°34.9'	S 10°42.3'	191°36.6'	S 10°20.5'	191°38.6'	S 9°58.6'	191°40.7'	S 9°36.6'
02	206°31.9'	S 11°24.3'	206°33.3'	S 11°02.9'	206°34.9'	S 10°41.4'	206°36.7'	S 10°19.6'	206°38.7'	S 9°57.7'	206°40.8'	S 9°35.7'
03	221°31.9'	S 11°23.4'	221°33.4'	S 11°02.0'	221°35.0'	S 10°40.4'	221°36.8'	S 10°18.7'	221°38.7'	S 9°56.8'	221°40.8'	S 9°34.8'
04	236°32.0'	S 11°22.5'	236°33.4'	S 11°01.1'	236°35.1'	S 10°39.5'	236°36.9'	S 10°17.8'	236°38.8'	S 9°55.9'	236°40.9'	S 9°33.8'
05	251°32.0'	S 11°21.7'	251°33.5'	S 11°00.2'	251°35.1'	S 10°38.6'	251°36.9'	S 10°16.9'	251°38.9'	S 9°55.0'	251°41.0'	S 9°32.9'
06	266°32.1'	S 11°20.8'	266°33.6'	S 10°59.3'	266°35.2'	S 10°37.7'	266°37.0'	S 10°16.0'	266°39.0'	S 9°54.1'	266°41.1'	S 9°32.0'
07	281°32.1'	S 11°19.9'	281°33.6'	S 10°58.4'	281°35.3'	S 10°36.8'	281°37.1'	S 10°15.1'	281°39.1'	S 9°53.1'	281°41.2'	S 9°31.1'
08	296°32.2'	S 11°19.0'	296°33.7'	S 10°57.5'	296°35.4'	S 10°35.9'	296°37.2'	S 10°14.2'	296°39.2'	S 9°52.2'	296°41.3'	S 9°30.1'
09	311°32.3'	S 11°18.1'	311°33.8'	S 10°56.6'	311°35.4'	S 10°35.0'	311°37.3'	S 10°13.2'	311°39.3'	S 9°51.3'	311°41.4'	S 9°29.2'
10	326°32.3'	S 11°17.2'	326°33.8'	S 10°55.7'	326°35.5'	S 10°34.1'	326°37.3'	S 10°12.3'	326°39.3'	S 9°50.4'	326°41.5'	S 9°28.3'
11	341°32.4'	S 11°16.3'	341°33.9'	S 10°54.9'	341°35.6'	S 10°33.2'	341°37.4'	S 10°11.4'	341°39.4'	S 9°49.5'	341°41.6'	S 9°27.4'
12	356°32.4'	S 11°15.4'	356°34.0'	S 10°54.0'	356°35.7'	S 10°32.3'	356°37.5'	S 10°10.5'	356°39.5'	S 9°48.6'	356°41.7'	S 9°26.4'
13	11°32.5'	S 11°14.5'	11°34.0'	S 10°53.1'	11°35.7'	S 10°31.4'	11°37.6'	S 10°09.6'	11°39.6'	S 9°47.6'	11°41.8'	S 9°25.5'
14	26°32.6'	S 11°13.6'	26°34.1'	S 10°52.2'	26°35.8'	S 10°30.5'	26°37.7'	S 10°08.7'	26°39.7'	S 9°46.7'	26°41.9'	S 9°24.6'
15	41°32.6'	S 11°12.7'	41°34.2'	S 10°51.3'	41°35.9'	S 10°29.6'	41°37.7'	S 10°07.8'	41°39.8'	S 9°45.8'	41°42.0'	S 9°23.7'
16	56°32.7'	S 11°11.9'	56°34.2'	S 10°50.4'	56°36.0'	S 10°28.7'	56°37.8'	S 10°06.9'	56°39.9'	S 9°44.9'	56°42.0'	S 9°22.7'
17	71°32.7'	S 11°11.0'	71°34.3'	S 10°49.5'	71°36.0'	S 10°27.8'	71°37.9'	S 10°06.0'	71°40.0'	S 9°44.0'	71°42.1'	S 9°21.8'
18	86°32.8'	S 11°10.1'	86°34.4'	S 10°48.6'	86°36.1'	S 10°26.9'	86°38.0'	S 10°05.0'	86°40.0'	S 9°43.0'	86°42.2'	S 9°20.9'
19	101°32.9'	S 11°09.2'	101°34.4'	S 10°47.7'	101°36.2'	S 10°26.0'	101°38.1'	S 10°04.1'	101°40.1'	S 9°42.1'	101°42.3'	S 9°20.0'
20	116°32.9'	S 11°08.3'	116°34.5'	S 10°46.8'	116°36.3'	S 10°25.1'	116°38.2'	S 10°03.2'	116°40.2'	S 9°41.2'	116°42.4'	S 9°19.0'
21	131°33.0'	S 11°07.4'	131°34.6'	S 10°45.9'	131°36.3'	S 10°24.2'	131°38.2'	S 10°02.3'	131°40.3'	S 9°40.3'	131°42.5'	S 9°18.1'
22	146°33.1'	S 11°06.5'	146°34.7'	S 10°45.0'	146°36.4'	S 10°23.2'	146°38.3'	S 10°01.4'	146°40.4'	S 9°39.4'	146°42.6'	S 9°17.2'
23	161°33.1'	S 11°05.6'	161°34.7'	S 10°44.1'	161°36.5'	S 10°22.3'	161°38.4'	S 10°00.5'	161°40.5'	S 9°38.4'	161°42.7'	S 9°16.3'
Zeitgl. 0h / 12h	-13:53 / -13:50		-13:47 / -13:44		-13:41 / -13:37		-13:34 / -13:30		-13:26 / -13:22		-13:18 / -13:13	
Kulmination UT	12:13:50		12:13:44		12:13:37		12:13:30		12:13:22		12:13:13	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

UT	Do 25.02.		Fr 26.02.		Sa 27.02.		So 28.02.	
	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°42.8'	S 9°15.3'	176°45.2'	S 8°53.0'	176°47.7'	S 8°30.6'	176°50.4'	S 8°08.0'
01	191°42.9'	S 9°14.4'	191°45.3'	S 8°52.1'	191°47.8'	S 8°29.6'	191°50.5'	S 8°07.1'
02	206°43.0'	S 9°13.5'	206°45.4'	S 8°51.2'	206°47.9'	S 8°28.7'	206°50.6'	S 8°06.1'
03	221°43.1'	S 9°12.6'	221°45.5'	S 8°50.2'	221°48.0'	S 8°27.8'	221°50.7'	S 8°05.2'
04	236°43.2'	S 9°11.6'	236°45.6'	S 8°49.3'	236°48.2'	S 8°26.8'	236°50.8'	S 8°04.2'
05	251°43.3'	S 9°10.7'	251°45.7'	S 8°48.4'	251°48.3'	S 8°25.9'	251°51.0'	S 8°03.3'
06	266°43.4'	S 9°09.8'	266°45.8'	S 8°47.4'	266°48.4'	S 8°24.9'	266°51.1'	S 8°02.3'
07	281°43.5'	S 9°08.8'	281°45.9'	S 8°46.5'	281°48.5'	S 8°24.0'	281°51.2'	S 8°01.4'
08	296°43.6'	S 9°07.9'	296°46.0'	S 8°45.6'	296°48.6'	S 8°23.1'	296°51.3'	S 8°00.4'
09	311°43.7'	S 9°07.0'	311°46.1'	S 8°44.6'	311°48.7'	S 8°22.1'	311°51.4'	S 7°59.5'
10	326°43.8'	S 9°06.1'	326°46.2'	S 8°43.7'	326°48.8'	S 8°21.2'	326°51.5'	S 7°58.6'
11	341°43.9'	S 9°05.1'	341°46.3'	S 8°42.7'	341°48.9'	S 8°20.2'	341°51.6'	S 7°57.6'
12	356°44.0'	S 9°04.2'	356°46.4'	S 8°41.8'	356°49.0'	S 8°19.3'	356°51.8'	S 7°56.7'
13	11°44.1'	S 9°03.3'	11°46.5'	S 8°40.9'	11°49.1'	S 8°18.4'	11°51.9'	S 7°55.7'
14	26°44.2'	S 9°02.3'	26°46.7'	S 8°39.9'	26°49.3'	S 8°17.4'	26°52.0'	S 7°54.8'
15	41°44.3'	S 9°01.4'	41°46.8'	S 8°39.0'	41°49.4'	S 8°16.5'	41°52.1'	S 7°53.8'
16	56°44.4'	S 9°00.5'	56°46.9'	S 8°38.1'	56°49.5'	S 8°15.5'	56°52.2'	S 7°52.9'
17	71°44.5'	S 8°59.5'	71°47.0'	S 8°37.1'	71°49.6'	S 8°14.6'	71°52.4'	S 7°51.9'
18	86°44.6'	S 8°58.6'	86°47.1'	S 8°36.2'	86°49.7'	S 8°13.7'	86°52.5'	S 7°51.0'
19	101°44.7'	S 8°57.7'	101°47.2'	S 8°35.3'	101°49.8'	S 8°12.7'	101°52.6'	S 7°50.0'
20	116°44.8'	S 8°56.8'	116°47.3'	S 8°34.3'	116°49.9'	S 8°11.8'	116°52.7'	S 7°49.1'
21	131°44.9'	S 8°55.8'	131°47.4'	S 8°33.4'	131°50.0'	S 8°10.8'	131°52.8'	S 7°48.1'
22	146°45.0'	S 8°54.9'	146°47.5'	S 8°32.4'	146°50.2'	S 8°09.9'	146°52.9'	S 7°47.2'
23	161°45.1'	S 8°54.0'	161°47.6'	S 8°31.5'	161°50.3'	S 8°08.9'	161°53.1'	S 7°46.2'

Zeitgl. 0h / 12h	-13:09 / -13:04	-12:59 / -12:54	-12:49 / -12:44	-12:38 / -12:33
Kulmination UT	12:13:04	12:12:54	12:12:44	12:12:33
Halbmesser	16.2'	16.2'	16.2'	16.1'

2027

März

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Mo 01.03.		Di 02.03.		Mi 03.03.		Do 04.03.		Fr 05.03.		Sa 06.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°53.2'	S 7°45.3'	176°56.1'	S 7°22.5'	176°59.2'	S 6°59.6'	177°02.3'	S 6°36.6'	177°05.6'	S 6°13.5'	177°09.0'	S 5°50.3'
01	191°53.3'	S 7°44.4'	191°56.2'	S 7°21.5'	191°59.3'	S 6°58.6'	192°02.5'	S 6°35.6'	192°05.8'	S 6°12.5'	192°09.2'	S 5°49.3'
02	206°53.4'	S 7°43.4'	206°56.4'	S 7°20.6'	206°59.4'	S 6°57.7'	207°02.6'	S 6°34.6'	207°05.9'	S 6°11.5'	207°09.3'	S 5°48.3'
03	221°53.5'	S 7°42.5'	221°56.5'	S 7°19.6'	221°59.5'	S 6°56.7'	222°02.7'	S 6°33.7'	222°06.0'	S 6°10.6'	222°09.4'	S 5°47.4'
04	236°53.7'	S 7°41.5'	236°56.6'	S 7°18.7'	236°59.7'	S 6°55.8'	237°02.9'	S 6°32.7'	237°06.2'	S 6°09.6'	237°09.6'	S 5°46.4'
05	251°53.8'	S 7°40.6'	251°56.7'	S 7°17.7'	251°59.8'	S 6°54.8'	252°03.0'	S 6°31.8'	252°06.3'	S 6°08.6'	252°09.7'	S 5°45.4'
06	266°53.9'	S 7°39.6'	266°56.9'	S 7°16.8'	266°59.9'	S 6°53.8'	267°03.1'	S 6°30.8'	267°06.5'	S 6°07.7'	267°09.9'	S 5°44.5'
07	281°54.0'	S 7°38.7'	281°57.0'	S 7°15.8'	282°00.1'	S 6°52.9'	282°03.3'	S 6°29.8'	282°06.6'	S 6°06.7'	282°10.0'	S 5°43.5'
08	296°54.1'	S 7°37.7'	296°57.1'	S 7°14.9'	297°00.2'	S 6°51.9'	297°03.4'	S 6°28.9'	297°06.7'	S 6°05.7'	297°10.2'	S 5°42.5'
09	311°54.3'	S 7°36.8'	311°57.2'	S 7°13.9'	312°00.3'	S 6°51.0'	312°03.5'	S 6°27.9'	312°06.9'	S 6°04.8'	312°10.3'	S 5°41.6'
10	326°54.4'	S 7°35.8'	326°57.4'	S 7°13.0'	327°00.5'	S 6°50.0'	327°03.7'	S 6°27.0'	327°07.0'	S 6°03.8'	327°10.5'	S 5°40.6'
11	341°54.5'	S 7°34.9'	341°57.5'	S 7°12.0'	342°00.6'	S 6°49.0'	342°03.8'	S 6°26.0'	342°07.2'	S 6°02.8'	342°10.6'	S 5°39.6'
12	356°54.6'	S 7°33.9'	356°57.6'	S 7°11.1'	357°00.7'	S 6°48.1'	357°04.0'	S 6°25.0'	357°07.3'	S 6°01.9'	357°10.7'	S 5°38.6'
13	11°54.8'	S 7°33.0'	11°57.7'	S 7°10.1'	12°00.9'	S 6°47.1'	12°04.1'	S 6°24.1'	12°07.4'	S 6°00.9'	12°10.9'	S 5°37.7'
14	26°54.9'	S 7°32.0'	26°57.9'	S 7°09.1'	27°01.0'	S 6°46.2'	27°04.2'	S 6°23.1'	27°07.6'	S 5°59.9'	27°11.0'	S 5°36.7'
15	41°55.0'	S 7°31.1'	41°58.0'	S 7°08.2'	42°01.1'	S 6°45.2'	42°04.4'	S 6°22.1'	42°07.7'	S 5°59.0'	42°11.2'	S 5°35.7'
16	56°55.1'	S 7°30.1'	56°58.1'	S 7°07.2'	57°01.3'	S 6°44.3'	57°04.5'	S 6°21.2'	57°07.9'	S 5°58.0'	57°11.3'	S 5°34.8'
17	71°55.2'	S 7°29.2'	71°58.3'	S 7°06.3'	72°01.4'	S 6°43.3'	72°04.6'	S 6°20.2'	72°08.0'	S 5°57.0'	72°11.5'	S 5°33.8'
18	86°55.4'	S 7°28.2'	86°58.4'	S 7°05.3'	87°01.5'	S 6°42.3'	87°04.8'	S 6°19.2'	87°08.2'	S 5°56.1'	87°11.6'	S 5°32.8'
19	101°55.5'	S 7°27.3'	101°58.5'	S 7°04.4'	102°01.7'	S 6°41.4'	102°04.9'	S 6°18.3'	102°08.3'	S 5°55.1'	102°11.8'	S 5°31.9'
20	116°55.6'	S 7°26.3'	116°58.6'	S 7°03.4'	117°01.8'	S 6°40.4'	117°05.1'	S 6°17.3'	117°08.4'	S 5°54.1'	117°11.9'	S 5°30.9'
21	131°55.7'	S 7°25.4'	131°58.8'	S 7°02.5'	132°01.9'	S 6°39.5'	132°05.2'	S 6°16.4'	132°08.6'	S 5°53.2'	132°12.1'	S 5°29.9'
22	146°55.9'	S 7°24.4'	146°58.9'	S 7°01.5'	147°02.1'	S 6°38.5'	147°05.3'	S 6°15.4'	147°08.7'	S 5°52.2'	147°12.2'	S 5°28.9'
23	161°56.0'	S 7°23.4'	161°59.0'	S 7°00.5'	162°02.2'	S 6°37.5'	162°05.5'	S 6°14.4'	162°08.9'	S 5°51.2'	162°12.4'	S 5°28.0'
Zeitgl. 0h / 12h	-12:27 / -12:21		-12:16 / -12:10		-12:03 / -11:57		-11:51 / -11:44		-11:38 / -11:31		-11:24 / -11:17	
Kulmination UT	12:12:21		12:12:10		12:11:57		12:11:44		12:11:31		12:11:17	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	So 07.03.		Mo 08.03.		Di 09.03.		Mi 10.03.		Do 11.03.		Fr 12.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	177°12.5'	S 5°27.0'	177°16.1'	S 5°03.7'	177°19.8'	S 4°40.3'	177°23.6'	S 4°16.8'	177°27.5'	S 3°53.3'	177°31.4'	S 3°29.7'
01	192°12.7'	S 5°26.0'	192°16.3'	S 5°02.7'	192°20.0'	S 4°39.3'	192°23.7'	S 4°15.8'	192°27.6'	S 3°52.3'	192°31.6'	S 3°28.7'
02	207°12.8'	S 5°25.1'	207°16.4'	S 5°01.7'	207°20.1'	S 4°38.3'	207°23.9'	S 4°14.8'	207°27.8'	S 3°51.3'	207°31.7'	S 3°27.7'
03	222°13.0'	S 5°24.1'	222°16.6'	S 5°00.7'	222°20.3'	S 4°37.3'	222°24.1'	S 4°13.8'	222°27.9'	S 3°50.3'	222°31.9'	S 3°26.7'
04	237°13.1'	S 5°23.1'	237°16.7'	S 4°59.8'	237°20.4'	S 4°36.3'	237°24.2'	S 4°12.9'	237°28.1'	S 3°49.3'	237°32.1'	S 3°25.8'
05	252°13.3'	S 5°22.1'	252°16.9'	S 4°58.8'	252°20.6'	S 4°35.4'	252°24.4'	S 4°11.9'	252°28.3'	S 3°48.4'	252°32.2'	S 3°24.8'
06	267°13.4'	S 5°21.2'	267°17.0'	S 4°57.8'	267°20.7'	S 4°34.4'	267°24.5'	S 4°10.9'	267°28.4'	S 3°47.4'	267°32.4'	S 3°23.8'
07	282°13.5'	S 5°20.2'	282°17.2'	S 4°56.8'	282°20.9'	S 4°33.4'	282°24.7'	S 4°09.9'	282°28.6'	S 3°46.4'	282°32.6'	S 3°22.8'
08	297°13.7'	S 5°19.2'	297°17.3'	S 4°55.9'	297°21.1'	S 4°32.4'	297°24.9'	S 4°08.9'	297°28.8'	S 3°45.4'	297°32.7'	S 3°21.8'
09	312°13.8'	S 5°18.3'	312°17.5'	S 4°54.9'	312°21.2'	S 4°31.5'	312°25.0'	S 4°08.0'	312°28.9'	S 3°44.4'	312°32.9'	S 3°20.8'
10	327°14.0'	S 5°17.3'	327°17.6'	S 4°53.9'	327°21.4'	S 4°30.5'	327°25.2'	S 4°07.0'	327°29.1'	S 3°43.4'	327°33.1'	S 3°19.9'
11	342°14.1'	S 5°16.3'	342°17.8'	S 4°52.9'	342°21.5'	S 4°29.5'	342°25.3'	S 4°06.0'	342°29.3'	S 3°42.5'	342°33.2'	S 3°18.9'
12	357°14.3'	S 5°15.3'	357°17.9'	S 4°52.0'	357°21.7'	S 4°28.5'	357°25.5'	S 4°05.0'	357°29.4'	S 3°41.5'	357°33.4'	S 3°17.9'
13	12°14.4'	S 5°14.4'	12°18.1'	S 4°51.0'	12°21.8'	S 4°27.5'	12°25.7'	S 4°04.0'	12°29.6'	S 3°40.5'	12°33.6'	S 3°16.9'
14	27°14.6'	S 5°13.4'	27°18.3'	S 4°50.0'	27°22.0'	S 4°26.6'	27°25.8'	S 4°03.1'	27°29.7'	S 3°39.5'	27°33.7'	S 3°15.9'
15	42°14.7'	S 5°12.4'	42°18.4'	S 4°49.0'	42°22.2'	S 4°25.6'	42°26.0'	S 4°02.1'	42°29.9'	S 3°38.5'	42°33.9'	S 3°14.9'
16	57°14.9'	S 5°11.5'	57°18.6'	S 4°48.1'	57°22.3'	S 4°24.6'	57°26.2'	S 4°01.1'	57°30.1'	S 3°37.5'	57°34.1'	S 3°13.9'
17	72°15.0'	S 5°10.5'	72°18.7'	S 4°47.1'	72°22.5'	S 4°23.6'	72°26.3'	S 4°00.1'	72°30.2'	S 3°36.6'	72°34.2'	S 3°13.0'
18	87°15.2'	S 5°09.5'	87°18.9'	S 4°46.1'	87°22.6'	S 4°22.7'	87°26.5'	S 3°59.1'	87°30.4'	S 3°35.6'	87°34.4'	S 3°12.0'
19	102°15.4'	S 5°08.5'	102°19.0'	S 4°45.1'	102°22.8'	S 4°21.7'	102°26.6'	S 3°58.2'	102°30.6'	S 3°34.6'	102°34.6'	S 3°11.0'
20	117°15.5'	S 5°07.6'	117°19.2'	S 4°44.2'	117°22.9'	S 4°20.7'	117°26.8'	S 3°57.2'	117°30.7'	S 3°33.6'	117°34.7'	S 3°10.0'
21	132°15.7'	S 5°06.6'	132°19.3'	S 4°43.2'	132°23.1'	S 4°19.7'	132°27.0'	S 3°56.2'	132°30.9'	S 3°32.6'	132°34.9'	S 3°09.0'
22	147°15.8'	S 5°05.6'	147°19.5'	S 4°42.2'	147°23.3'	S 4°18.7'	147°27.1'	S 3°55.2'	147°31.1'	S 3°31.7'	147°35.1'	S 3°08.0'
23	162°16.0'	S 5°04.6'	162°19.6'	S 4°41.2'	162°23.4'	S 4°17.8'	162°27.3'	S 3°54.2'	162°31.2'	S 3°30.7'	162°35.3'	S 3°07.1'
Zeitgl. 0h / 12h	-11:10 / -11:03		-10:56 / -10:48		-10:41 / -10:33		-10:26 / -10:18		-10:10 / -10:02		-09:54 / -09:46	
Kulmination UT	12:11:03		12:10:48		12:10:33		12:10:18		12:10:02		12:09:46	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	Sa 13.03.		So 14.03.		Mo 15.03.		Di 16.03.		Mi 17.03.		Do 18.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	177°35.4'	S 3°06.1'	177°39.5'	S 2°42.4'	177°43.7'	S 2°18.8'	177°47.9'	S 1°55.1'	177°52.2'	S 1°31.3'	177°56.5'	S 1°07.6'
01	192°35.6'	S 3°05.1'	192°39.7'	S 2°41.4'	192°43.8'	S 2°17.8'	192°48.1'	S 1°54.1'	192°52.3'	S 1°30.3'	192°56.7'	S 1°06.6'
02	207°35.8'	S 3°04.1'	207°39.9'	S 2°40.5'	207°44.0'	S 2°16.8'	207°48.2'	S 1°53.1'	207°52.5'	S 1°29.4'	207°56.8'	S 1°05.6'
03	222°35.9'	S 3°03.1'	222°40.0'	S 2°39.5'	222°44.2'	S 2°15.8'	222°48.4'	S 1°52.1'	222°52.7'	S 1°28.4'	222°57.0'	S 1°04.6'
04	237°36.1'	S 3°02.1'	237°40.2'	S 2°38.5'	237°44.4'	S 2°14.8'	237°48.6'	S 1°51.1'	237°52.9'	S 1°27.4'	237°57.2'	S 1°03.7'
05	252°36.3'	S 3°01.2'	252°40.4'	S 2°37.5'	252°44.5'	S 2°13.8'	252°48.8'	S 1°50.1'	252°53.1'	S 1°26.4'	252°57.4'	S 1°02.7'
06	267°36.4'	S 3°00.2'	267°40.5'	S 2°36.5'	267°44.7'	S 2°12.8'	267°48.9'	S 1°49.1'	267°53.2'	S 1°25.4'	267°57.6'	S 1°01.7'
07	282°36.6'	S 2°59.2'	282°40.7'	S 2°35.5'	282°44.9'	S 2°11.8'	282°49.1'	S 1°48.1'	282°53.4'	S 1°24.4'	282°57.7'	S 1°00.7'
08	297°36.8'	S 2°58.2'	297°40.9'	S 2°34.5'	297°45.1'	S 2°10.9'	297°49.3'	S 1°47.1'	297°53.6'	S 1°23.4'	297°57.9'	S 0°59.7'
09	312°37.0'	S 2°57.2'	312°41.1'	S 2°33.6'	312°45.2'	S 2°09.9'	312°49.5'	S 1°46.2'	312°53.8'	S 1°22.4'	312°58.1'	S 0°58.7'
10	327°37.1'	S 2°56.2'	327°41.2'	S 2°32.6'	327°45.4'	S 2°08.9'	327°49.7'	S 1°45.2'	327°53.9'	S 1°21.5'	327°58.3'	S 0°57.7'
11	342°37.3'	S 2°55.2'	342°41.4'	S 2°31.6'	342°45.6'	S 2°07.9'	342°49.8'	S 1°44.2'	342°54.1'	S 1°20.5'	342°58.5'	S 0°56.7'
12	357°37.5'	S 2°54.3'	357°41.6'	S 2°30.6'	357°45.8'	S 2°06.9'	357°50.0'	S 1°43.2'	357°54.3'	S 1°19.5'	357°58.6'	S 0°55.7'
13	12°37.6'	S 2°53.3'	12°41.8'	S 2°29.6'	12°45.9'	S 2°05.9'	12°50.2'	S 1°42.2'	12°54.5'	S 1°18.5'	12°58.8'	S 0°54.8'
14	27°37.8'	S 2°52.3'	27°41.9'	S 2°28.6'	27°46.1'	S 2°04.9'	27°50.4'	S 1°41.2'	27°54.7'	S 1°17.5'	27°59.0'	S 0°53.8'
15	42°38.0'	S 2°51.3'	42°42.1'	S 2°27.6'	42°46.3'	S 2°03.9'	42°50.5'	S 1°40.2'	42°54.8'	S 1°16.5'	42°59.2'	S 0°52.8'
16	57°38.1'	S 2°50.3'	57°42.3'	S 2°26.6'	57°46.5'	S 2°03.0'	57°50.7'	S 1°39.2'	57°55.0'	S 1°15.5'	57°59.4'	S 0°51.8'
17	72°38.3'	S 2°49.3'	72°42.5'	S 2°25.7'	72°46.7'	S 2°02.0'	72°50.9'	S 1°38.3'	72°55.2'	S 1°14.5'	72°59.6'	S 0°50.8'
18	87°38.5'	S 2°48.3'	87°42.6'	S 2°24.7'	87°46.8'	S 2°01.0'	87°51.1'	S 1°37.3'	87°55.4'	S 1°13.5'	87°59.7'	S 0°49.8'
19	102°38.7'	S 2°47.4'	102°42.8'	S 2°23.7'	102°47.0'	S 2°00.0'	102°51.3'	S 1°36.3'	102°55.6'	S 1°12.6'	102°59.9'	S 0°48.8'
20	117°38.8'	S 2°46.4'	117°43.0'	S 2°22.7'	117°47.2'	S 1°59.0'	117°51.4'	S 1°35.3'	117°55.7'	S 1°11.6'	118°00.1'	S 0°47.8'
21	132°39.0'	S 2°45.4'	132°43.1'	S 2°21.7'	132°47.4'	S 1°58.0'	132°51.6'	S 1°34.3'	132°55.9'	S 1°10.6'	133°00.3'	S 0°46.8'
22	147°39.2'	S 2°44.4'	147°43.3'	S 2°20.7'	147°47.5'	S 1°57.0'	147°51.8'	S 1°33.3'	147°56.1'	S 1°09.6'	148°00.5'	S 0°45.9'
23	162°39.3'	S 2°43.4'	162°43.5'	S 2°19.7'	162°47.7'	S 1°56.0'	162°52.0'	S 1°32.3'	162°56.3'	S 1°08.6'	163°00.7'	S 0°44.9'
Zeitgl. 0h / 12h	-09:38 / -09:30		-09:22 / -09:14		-09:05 / -08:57		-08:48 / -08:40		-08:31 / -08:23		-08:14 / -08:05	
Kulmination UT	12:09:30		12:09:14		12:08:57		12:08:40		12:08:23		12:08:05	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	Fr 19.03.		Sa 20.03.		So 21.03.		Mo 22.03.		Di 23.03.		Mi 24.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°00.8'	S 0°43.9'	178°05.2'	S 0°20.2'	178°09.7'	N 0°03.6'	178°14.1'	N 0°27.3'	178°18.6'	N 0°51.0'	178°23.1'	N 1°14.6'
01	193°01.0'	S 0°42.9'	193°05.4'	S 0°19.2'	193°09.8'	N 0°04.6'	193°14.3'	N 0°28.3'	193°18.8'	N 0°51.9'	193°23.3'	N 1°15.6'
02	208°01.2'	S 0°41.9'	208°05.6'	S 0°18.2'	208°10.0'	N 0°05.5'	208°14.5'	N 0°29.2'	208°19.0'	N 0°52.9'	208°23.5'	N 1°16.6'
03	223°01.4'	S 0°40.9'	223°05.8'	S 0°17.2'	223°10.2'	N 0°06.5'	223°14.7'	N 0°30.2'	223°19.2'	N 0°53.9'	223°23.7'	N 1°17.6'
04	238°01.6'	S 0°39.9'	238°06.0'	S 0°16.2'	238°10.4'	N 0°07.5'	238°14.9'	N 0°31.2'	238°19.4'	N 0°54.9'	238°23.9'	N 1°18.6'
05	253°01.7'	S 0°38.9'	253°06.2'	S 0°15.2'	253°10.6'	N 0°08.5'	253°15.1'	N 0°32.2'	253°19.5'	N 0°55.9'	253°24.1'	N 1°19.5'
06	268°01.9'	S 0°38.0'	268°06.3'	S 0°14.2'	268°10.8'	N 0°09.5'	268°15.2'	N 0°33.2'	268°19.7'	N 0°56.9'	268°24.2'	N 1°20.5'
07	283°02.1'	S 0°37.0'	283°06.5'	S 0°13.2'	283°11.0'	N 0°10.5'	283°15.4'	N 0°34.2'	283°19.9'	N 0°57.9'	283°24.4'	N 1°21.5'
08	298°02.3'	S 0°36.0'	298°06.7'	S 0°12.2'	298°11.1'	N 0°11.5'	298°15.6'	N 0°35.2'	298°20.1'	N 0°58.8'	298°24.6'	N 1°22.5'
09	313°02.5'	S 0°35.0'	313°06.9'	S 0°11.3'	313°11.3'	N 0°12.5'	313°15.8'	N 0°36.2'	313°20.3'	N 0°59.8'	313°24.8'	N 1°23.5'
10	328°02.7'	S 0°34.0'	328°07.1'	S 0°10.3'	328°11.5'	N 0°13.4'	328°16.0'	N 0°37.1'	328°20.5'	N 1°00.8'	328°25.0'	N 1°24.5'
11	343°02.8'	S 0°33.0'	343°07.3'	S 0°09.3'	343°11.7'	N 0°14.4'	343°16.2'	N 0°38.1'	343°20.7'	N 1°01.8'	343°25.2'	N 1°25.4'
12	358°03.0'	S 0°32.0'	358°07.4'	S 0°08.3'	358°11.9'	N 0°15.4'	358°16.4'	N 0°39.1'	358°20.9'	N 1°02.8'	358°25.4'	N 1°26.4'
13	13°03.2'	S 0°31.0'	13°07.6'	S 0°07.3'	13°12.1'	N 0°16.4'	13°16.6'	N 0°40.1'	13°21.0'	N 1°03.8'	13°25.6'	N 1°27.4'
14	28°03.4'	S 0°30.0'	28°07.8'	S 0°06.3'	28°12.3'	N 0°17.4'	28°16.7'	N 0°41.1'	28°21.2'	N 1°04.8'	28°25.7'	N 1°28.4'
15	43°03.6'	S 0°29.1'	43°08.0'	S 0°05.3'	43°12.4'	N 0°18.4'	43°16.9'	N 0°42.1'	43°21.4'	N 1°05.7'	43°25.9'	N 1°29.4'
16	58°03.8'	S 0°28.1'	58°08.2'	S 0°04.3'	58°12.6'	N 0°19.4'	58°17.1'	N 0°43.1'	58°21.6'	N 1°06.7'	58°26.1'	N 1°30.4'
17	73°03.9'	S 0°27.1'	73°08.4'	S 0°03.4'	73°12.8'	N 0°20.4'	73°17.3'	N 0°44.0'	73°21.8'	N 1°07.7'	73°26.3'	N 1°31.3'
18	88°04.1'	S 0°26.1'	88°08.6'	S 0°02.4'	88°13.0'	N 0°21.3'	88°17.5'	N 0°45.0'	88°22.0'	N 1°08.7'	88°26.5'	N 1°32.3'
19	103°04.3'	S 0°25.1'	103°08.7'	S 0°01.4'	103°13.2'	N 0°22.3'	103°17.7'	N 0°46.0'	103°22.2'	N 1°09.7'	103°26.7'	N 1°33.3'
20	118°04.5'	S 0°24.1'	118°08.9'	S 0°00.4'	118°13.4'	N 0°23.3'	118°17.9'	N 0°47.0'	118°22.4'	N 1°10.7'	118°26.9'	N 1°34.3'
21	133°04.7'	S 0°23.1'	133°09.1'	N 0°00.6'	133°13.6'	N 0°24.3'	133°18.0'	N 0°48.0'	133°22.5'	N 1°11.7'	133°27.1'	N 1°35.3'
22	148°04.9'	S 0°22.1'	148°09.3'	N 0°01.6'	148°13.8'	N 0°25.3'	148°18.2'	N 0°49.0'	148°22.7'	N 1°12.6'	148°27.2'	N 1°36.3'
23	163°05.0'	S 0°21.1'	163°09.5'	N 0°02.6'	163°13.9'	N 0°26.3'	163°18.4'	N 0°50.0'	163°22.9'	N 1°13.6'	163°27.4'	N 1°37.3'
Zeitgl. 0h / 12h	-07:57 / -07:48		-07:39 / -07:30		-07:21 / -07:12		-07:03 / -06:55		-06:46 / -06:37		-06:28 / -06:19	
Kulmination UT	12:07:48		12:07:30		12:07:12		12:06:55		12:06:37		12:06:19	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.0'		16.0'	

	Do 25.03.		Fr 26.03.		Sa 27.03.		So 28.03.		Mo 29.03.		Di 30.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°27.6'	N 1°38.2'	178°32.1'	N 2°01.8'	178°36.7'	N 2°25.4'	178°41.2'	N 2°48.9'	178°45.7'	N 3°12.3'	178°50.2'	N 3°35.7'
01	193°27.8'	N 1°39.2'	193°32.3'	N 2°02.8'	193°36.9'	N 2°26.3'	193°41.4'	N 2°49.8'	193°45.9'	N 3°13.3'	193°50.4'	N 3°36.6'
02	208°28.0'	N 1°40.2'	208°32.5'	N 2°03.8'	208°37.1'	N 2°27.3'	208°41.6'	N 2°50.8'	208°46.1'	N 3°14.2'	208°50.6'	N 3°37.6'
03	223°28.2'	N 1°41.2'	223°32.7'	N 2°04.8'	223°37.2'	N 2°28.3'	223°41.8'	N 2°51.8'	223°46.3'	N 3°15.2'	223°50.8'	N 3°38.6'
04	238°28.4'	N 1°42.2'	238°32.9'	N 2°05.8'	238°37.4'	N 2°29.3'	238°42.0'	N 2°52.8'	238°46.5'	N 3°16.2'	238°51.0'	N 3°39.6'
05	253°28.6'	N 1°43.2'	253°33.1'	N 2°06.7'	253°37.6'	N 2°30.3'	253°42.1'	N 2°53.7'	253°46.7'	N 3°17.2'	253°51.2'	N 3°40.5'
06	268°28.8'	N 1°44.1'	268°33.3'	N 2°07.7'	268°37.8'	N 2°31.2'	268°42.3'	N 2°54.7'	268°46.8'	N 3°18.1'	268°51.3'	N 3°41.5'
07	283°28.9'	N 1°45.1'	283°33.5'	N 2°08.7'	283°38.0'	N 2°32.2'	283°42.5'	N 2°55.7'	283°47.0'	N 3°19.1'	283°51.5'	N 3°42.5'
08	298°29.1'	N 1°46.1'	298°33.7'	N 2°09.7'	298°38.2'	N 2°33.2'	298°42.7'	N 2°56.7'	298°47.2'	N 3°20.1'	298°51.7'	N 3°43.5'
09	313°29.3'	N 1°47.1'	313°33.8'	N 2°10.7'	313°38.4'	N 2°34.2'	313°42.9'	N 2°57.7'	313°47.4'	N 3°21.1'	313°51.9'	N 3°44.4'
10	328°29.5'	N 1°48.1'	328°34.0'	N 2°11.6'	328°38.6'	N 2°35.2'	328°43.1'	N 2°58.6'	328°47.6'	N 3°22.0'	328°52.1'	N 3°45.4'
11	343°29.7'	N 1°49.1'	343°34.2'	N 2°12.6'	343°38.7'	N 2°36.1'	343°43.3'	N 2°59.6'	343°47.8'	N 3°23.0'	343°52.3'	N 3°46.4'
12	358°29.9'	N 1°50.0'	358°34.4'	N 2°13.6'	358°38.9'	N 2°37.1'	358°43.5'	N 3°00.6'	358°48.0'	N 3°24.0'	358°52.5'	N 3°47.3'
13	13°30.1'	N 1°51.0'	13°34.6'	N 2°14.6'	13°39.1'	N 2°38.1'	13°43.6'	N 3°01.6'	13°48.2'	N 3°25.0'	13°52.7'	N 3°48.3'
14	28°30.3'	N 1°52.0'	28°34.8'	N 2°15.6'	28°39.3'	N 2°39.1'	28°43.8'	N 3°02.5'	28°48.3'	N 3°25.9'	28°52.8'	N 3°49.3'
15	43°30.5'	N 1°53.0'	43°35.0'	N 2°16.5'	43°39.5'	N 2°40.1'	43°44.0'	N 3°03.5'	43°48.5'	N 3°26.9'	43°53.0'	N 3°50.3'
16	58°30.6'	N 1°54.0'	58°35.2'	N 2°17.5'	58°39.7'	N 2°41.0'	58°44.2'	N 3°04.5'	58°48.7'	N 3°27.9'	58°53.2'	N 3°51.2'
17	73°30.8'	N 1°54.9'	73°35.4'	N 2°18.5'	73°39.9'	N 2°42.0'	73°44.4'	N 3°05.5'	73°48.9'	N 3°28.9'	73°53.4'	N 3°52.2'
18	88°31.0'	N 1°55.9'	88°35.5'	N 2°19.5'	88°40.1'	N 2°43.0'	88°44.6'	N 3°06.4'	88°49.1'	N 3°29.8'	88°53.6'	N 3°53.2'
19	103°31.2'	N 1°56.9'	103°35.7'	N 2°20.5'	103°40.3'	N 2°44.0'	103°44.8'	N 3°07.4'	103°49.3'	N 3°30.8'	103°53.8'	N 3°54.1'
20	118°31.4'	N 1°57.9'	118°35.9'	N 2°21.4'	118°40.4'	N 2°44.9'	118°45.0'	N 3°08.4'	118°49.5'	N 3°31.8'	118°54.0'	N 3°55.1'
21	133°31.6'	N 1°58.9'	133°36.1'	N 2°22.4'	133°40.6'	N 2°45.9'	133°45.2'	N 3°09.4'	133°49.7'	N 3°32.8'	133°54.2'	N 3°56.1'
22	148°31.8'	N 1°59.9'	148°36.3'	N 2°23.4'	148°40.8'	N 2°46.9'	148°45.3'	N 3°10.3'	148°49.8'	N 3°33.7'	148°54.3'	N 3°57.0'
23	163°32.0'	N 2°00.8'	163°36.5'	N 2°24.4'	163°41.0'	N 2°47.9'	163°45.5'	N 3°11.3'	163°50.0'	N 3°34.7'	163°54.5'	N 3°58.0'
Zeitgl. 0h / 12h	-06:09 / -06:00		-05:51 / -05:42		-05:33 / -05:24		-05:15 / -05:06		-04:57 / -04:48		-04:39 / -04:30	
Kulmination UT	12:06:00		12:05:42		12:05:24		12:05:06		12:04:48		12:04:30	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

Mi 31.03.

UT	Grt	Dec
00	178°54.7'	N 3°59.0'
01	193°54.9'	N 4°00.0'
02	208°55.1'	N 4°00.9'
03	223°55.3'	N 4°01.9'
04	238°55.5'	N 4°02.9'
05	253°55.6'	N 4°03.8'
06	268°55.8'	N 4°04.8'
07	283°56.0'	N 4°05.8'
08	298°56.2'	N 4°06.7'
09	313°56.4'	N 4°07.7'
10	328°56.6'	N 4°08.7'
11	343°56.8'	N 4°09.6'
12	358°57.0'	N 4°10.6'
13	13°57.1'	N 4°11.6'
14	28°57.3'	N 4°12.5'
15	43°57.5'	N 4°13.5'
16	58°57.7'	N 4°14.5'
17	73°57.9'	N 4°15.4'
18	88°58.1'	N 4°16.4'
19	103°58.3'	N 4°17.4'
20	118°58.4'	N 4°18.4'
21	133°58.6'	N 4°19.3'
22	148°58.8'	N 4°20.3'
23	163°59.0'	N 4°21.3'

Zeitgl. 0h / 12h -04:21 / -04:12

Kulmination UT 12:04:12

Halbmesser 16.0'

2027

April

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Do 01.04.		Fr 02.04.		Sa 03.04.		So 04.04.		Mo 05.04.		Di 06.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°59.2'	N 4°22.2'	179°03.6'	N 4°45.4'	179°08.0'	N 5°08.4'	179°12.4'	N 5°31.4'	179°16.7'	N 5°54.3'	179°21.0'	N 6°17.1'
01	193°59.4'	N 4°23.2'	194°03.8'	N 4°46.3'	194°08.2'	N 5°09.4'	194°12.6'	N 5°32.4'	194°16.9'	N 5°55.3'	194°21.2'	N 6°18.0'
02	208°59.6'	N 4°24.2'	209°04.0'	N 4°47.3'	209°08.4'	N 5°10.4'	209°12.8'	N 5°33.3'	209°17.1'	N 5°56.2'	209°21.4'	N 6°19.0'
03	223°59.7'	N 4°25.1'	224°04.2'	N 4°48.3'	224°08.6'	N 5°11.3'	224°13.0'	N 5°34.3'	224°17.3'	N 5°57.2'	224°21.6'	N 6°19.9'
04	238°59.9'	N 4°26.1'	239°04.4'	N 4°49.2'	239°08.8'	N 5°12.3'	239°13.1'	N 5°35.2'	239°17.5'	N 5°58.1'	239°21.8'	N 6°20.9'
05	254°00.1'	N 4°27.0'	254°04.5'	N 4°50.2'	254°09.0'	N 5°13.2'	254°13.3'	N 5°36.2'	254°17.6'	N 5°59.1'	254°21.9'	N 6°21.8'
06	269°00.3'	N 4°28.0'	269°04.7'	N 4°51.1'	269°09.1'	N 5°14.2'	269°13.5'	N 5°37.2'	269°17.8'	N 6°00.0'	269°22.1'	N 6°22.8'
07	284°00.5'	N 4°29.0'	284°04.9'	N 4°52.1'	284°09.3'	N 5°15.2'	284°13.7'	N 5°38.1'	284°18.0'	N 6°01.0'	284°22.3'	N 6°23.7'
08	299°00.7'	N 4°29.9'	299°05.1'	N 4°53.1'	299°09.5'	N 5°16.1'	299°13.9'	N 5°39.1'	299°18.2'	N 6°01.9'	299°22.5'	N 6°24.7'
09	314°00.9'	N 4°30.9'	314°05.3'	N 4°54.0'	314°09.7'	N 5°17.1'	314°14.0'	N 5°40.0'	314°18.4'	N 6°02.9'	314°22.6'	N 6°25.6'
10	329°01.0'	N 4°31.9'	329°05.5'	N 4°55.0'	329°09.9'	N 5°18.0'	329°14.2'	N 5°41.0'	329°18.5'	N 6°03.8'	329°22.8'	N 6°26.5'
11	344°01.2'	N 4°32.8'	344°05.7'	N 4°56.0'	344°10.0'	N 5°19.0'	344°14.4'	N 5°41.9'	344°18.7'	N 6°04.8'	344°23.0'	N 6°27.5'
12	359°01.4'	N 4°33.8'	359°05.8'	N 4°56.9'	359°10.2'	N 5°19.9'	359°14.6'	N 5°42.9'	359°18.9'	N 6°05.7'	359°23.2'	N 6°28.4'
13	14°01.6'	N 4°34.8'	14°06.0'	N 4°57.9'	14°10.4'	N 5°20.9'	14°14.8'	N 5°43.8'	14°19.1'	N 6°06.7'	14°23.3'	N 6°29.4'
14	29°01.8'	N 4°35.7'	29°06.2'	N 4°58.8'	29°10.6'	N 5°21.9'	29°14.9'	N 5°44.8'	29°19.3'	N 6°07.6'	29°23.5'	N 6°30.3'
15	44°02.0'	N 4°36.7'	44°06.4'	N 4°59.8'	44°10.8'	N 5°22.8'	44°15.1'	N 5°45.7'	44°19.4'	N 6°08.6'	44°23.7'	N 6°31.3'
16	59°02.1'	N 4°37.7'	59°06.6'	N 5°00.8'	59°11.0'	N 5°23.8'	59°15.3'	N 5°46.7'	59°19.6'	N 6°09.5'	59°23.9'	N 6°32.2'
17	74°02.3'	N 4°38.6'	74°06.8'	N 5°01.7'	74°11.1'	N 5°24.7'	74°15.5'	N 5°47.6'	74°19.8'	N 6°10.4'	74°24.1'	N 6°33.2'
18	89°02.5'	N 4°39.6'	89°06.9'	N 5°02.7'	89°11.3'	N 5°25.7'	89°15.7'	N 5°48.6'	89°20.0'	N 6°11.4'	89°24.2'	N 6°34.1'
19	104°02.7'	N 4°40.6'	104°07.1'	N 5°03.6'	104°11.5'	N 5°26.6'	104°15.8'	N 5°49.5'	104°20.2'	N 6°12.3'	104°24.4'	N 6°35.0'
20	119°02.9'	N 4°41.5'	119°07.3'	N 5°04.6'	119°11.7'	N 5°27.6'	119°16.0'	N 5°50.5'	119°20.3'	N 6°13.3'	119°24.6'	N 6°36.0'
21	134°03.1'	N 4°42.5'	134°07.5'	N 5°05.6'	134°11.9'	N 5°28.6'	134°16.2'	N 5°51.4'	134°20.5'	N 6°14.2'	134°24.8'	N 6°36.9'
22	149°03.3'	N 4°43.4'	149°07.7'	N 5°06.5'	149°12.0'	N 5°29.5'	149°16.4'	N 5°52.4'	149°20.7'	N 6°15.2'	149°24.9'	N 6°37.9'
23	164°03.4'	N 4°44.4'	164°07.9'	N 5°07.5'	164°12.2'	N 5°30.5'	164°16.6'	N 5°53.4'	164°20.9'	N 6°16.1'	164°25.1'	N 6°38.8'
Zeitgl. 0h / 12h	-04:03 / -03:54		-03:46 / -03:37		-03:28 / -03:19		-03:10 / -03:02		-02:53 / -02:44		-02:36 / -02:27	
Kulmination UT	12:03:54		12:03:37		12:03:19		12:03:02		12:02:44		12:02:27	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

	Mi 07.04.		Do 08.04.		Fr 09.04.		Sa 10.04.		So 11.04.		Mo 12.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°25.3'	N 6°39.8'	179°29.5'	N 7°02.3'	179°33.6'	N 7°24.7'	179°37.7'	N 7°47.1'	179°41.7'	N 8°09.2'	179°45.6'	N 8°31.3'
01	194°25.5'	N 6°40.7'	194°29.6'	N 7°03.2'	194°33.8'	N 7°25.7'	194°37.8'	N 7°48.0'	194°41.8'	N 8°10.2'	194°45.8'	N 8°32.2'
02	209°25.6'	N 6°41.6'	209°29.8'	N 7°04.2'	209°33.9'	N 7°26.6'	209°38.0'	N 7°48.9'	209°42.0'	N 8°11.1'	209°45.9'	N 8°33.1'
03	224°25.8'	N 6°42.6'	224°30.0'	N 7°05.1'	224°34.1'	N 7°27.5'	224°38.2'	N 7°49.8'	224°42.2'	N 8°12.0'	224°46.1'	N 8°34.0'
04	239°26.0'	N 6°43.5'	239°30.2'	N 7°06.1'	239°34.3'	N 7°28.5'	239°38.3'	N 7°50.8'	239°42.3'	N 8°12.9'	239°46.3'	N 8°34.9'
05	254°26.2'	N 6°44.5'	254°30.3'	N 7°07.0'	254°34.5'	N 7°29.4'	254°38.5'	N 7°51.7'	254°42.5'	N 8°13.8'	254°46.4'	N 8°35.9'
06	269°26.3'	N 6°45.4'	269°30.5'	N 7°07.9'	269°34.6'	N 7°30.3'	269°38.7'	N 7°52.6'	269°42.7'	N 8°14.8'	269°46.6'	N 8°36.8'
07	284°26.5'	N 6°46.3'	284°30.7'	N 7°08.9'	284°34.8'	N 7°31.3'	284°38.9'	N 7°53.5'	284°42.8'	N 8°15.7'	284°46.7'	N 8°37.7'
08	299°26.7'	N 6°47.3'	299°30.9'	N 7°09.8'	299°35.0'	N 7°32.2'	299°39.0'	N 7°54.5'	299°43.0'	N 8°16.6'	299°46.9'	N 8°38.6'
09	314°26.9'	N 6°48.2'	314°31.0'	N 7°10.7'	314°35.1'	N 7°33.1'	314°39.2'	N 7°55.4'	314°43.2'	N 8°17.5'	314°47.1'	N 8°39.5'
10	329°27.0'	N 6°49.2'	329°31.2'	N 7°11.7'	329°35.3'	N 7°34.1'	329°39.4'	N 7°56.3'	329°43.3'	N 8°18.4'	329°47.2'	N 8°40.4'
11	344°27.2'	N 6°50.1'	344°31.4'	N 7°12.6'	344°35.5'	N 7°35.0'	344°39.5'	N 7°57.2'	344°43.5'	N 8°19.4'	344°47.4'	N 8°41.3'
12	359°27.4'	N 6°51.0'	359°31.5'	N 7°13.5'	359°35.6'	N 7°35.9'	359°39.7'	N 7°58.2'	359°43.7'	N 8°20.3'	359°47.6'	N 8°42.3'
13	14°27.6'	N 6°52.0'	14°31.7'	N 7°14.5'	14°35.8'	N 7°36.9'	14°39.9'	N 7°59.1'	14°43.8'	N 8°21.2'	14°47.7'	N 8°43.2'
14	29°27.7'	N 6°52.9'	29°31.9'	N 7°15.4'	29°36.0'	N 7°37.8'	29°40.0'	N 8°00.0'	29°44.0'	N 8°22.1'	29°47.9'	N 8°44.1'
15	44°27.9'	N 6°53.9'	44°32.1'	N 7°16.3'	44°36.2'	N 7°38.7'	44°40.2'	N 8°00.9'	44°44.1'	N 8°23.0'	44°48.0'	N 8°45.0'
16	59°28.1'	N 6°54.8'	59°32.2'	N 7°17.3'	59°36.3'	N 7°39.6'	59°40.4'	N 8°01.9'	59°44.3'	N 8°24.0'	59°48.2'	N 8°45.9'
17	74°28.3'	N 6°55.7'	74°32.4'	N 7°18.2'	74°36.5'	N 7°40.6'	74°40.5'	N 8°02.8'	74°44.5'	N 8°24.9'	74°48.4'	N 8°46.8'
18	89°28.4'	N 6°56.7'	89°32.6'	N 7°19.2'	89°36.7'	N 7°41.5'	89°40.7'	N 8°03.7'	89°44.6'	N 8°25.8'	89°48.5'	N 8°47.7'
19	104°28.6'	N 6°57.6'	104°32.8'	N 7°20.1'	104°36.8'	N 7°42.4'	104°40.9'	N 8°04.6'	104°44.8'	N 8°26.7'	104°48.7'	N 8°48.6'
20	119°28.8'	N 6°58.6'	119°32.9'	N 7°21.0'	119°37.0'	N 7°43.4'	119°41.0'	N 8°05.6'	119°45.0'	N 8°27.6'	119°48.8'	N 8°49.5'
21	134°29.0'	N 6°59.5'	134°33.1'	N 7°22.0'	134°37.2'	N 7°44.3'	134°41.2'	N 8°06.5'	134°45.1'	N 8°28.5'	134°49.0'	N 8°50.5'
22	149°29.1'	N 7°00.4'	149°33.3'	N 7°22.9'	149°37.3'	N 7°45.2'	149°41.3'	N 8°07.4'	149°45.3'	N 8°29.5'	149°49.2'	N 8°51.4'
23	164°29.3'	N 7°01.4'	164°33.4'	N 7°23.8'	164°37.5'	N 7°46.1'	164°41.5'	N 8°08.3'	164°45.5'	N 8°30.4'	164°49.3'	N 8°52.3'
Zeitgl. 0h / 12h	-02:19 / -02:10		-02:02 / -01:54		-01:46 / -01:37		-01:29 / -01:21		-01:13 / -01:05		-00:58 / -00:50	
Kulmination UT	12:02:10		12:01:54		12:01:37		12:01:21		12:01:05		12:00:50	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

	Di 13.04.		Mi 14.04.		Do 15.04.		Fr 16.04.		Sa 17.04.		So 18.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°49.5'	N 8°53.2'	179°53.3'	N 9°14.9'	179°57.0'	N 9°36.5'	180°00.6'	N 9°58.0'	180°04.1'	N 10°19.3'	180°07.5'	N 10°40.4'
01	194°49.6'	N 8°54.1'	194°53.4'	N 9°15.8'	194°57.1'	N 9°37.4'	195°00.7'	N 9°58.9'	195°04.2'	N 10°20.1'	195°07.7'	N 10°41.2'
02	209°49.8'	N 8°55.0'	209°53.6'	N 9°16.7'	209°57.3'	N 9°38.3'	210°00.9'	N 9°59.8'	210°04.4'	N 10°21.0'	210°07.8'	N 10°42.1'
03	224°50.0'	N 8°55.9'	224°53.7'	N 9°17.6'	224°57.4'	N 9°39.2'	225°01.0'	N 10°00.6'	225°04.5'	N 10°21.9'	225°07.9'	N 10°43.0'
04	239°50.1'	N 8°56.8'	239°53.9'	N 9°18.6'	239°57.6'	N 9°40.1'	240°01.2'	N 10°01.5'	240°04.7'	N 10°22.8'	240°08.1'	N 10°43.9'
05	254°50.3'	N 8°57.7'	254°54.0'	N 9°19.5'	254°57.7'	N 9°41.0'	255°01.3'	N 10°02.4'	255°04.8'	N 10°23.7'	255°08.2'	N 10°44.7'
06	269°50.4'	N 8°58.6'	269°54.2'	N 9°20.4'	269°57.9'	N 9°41.9'	270°01.5'	N 10°03.3'	270°05.0'	N 10°24.5'	270°08.4'	N 10°45.6'
07	284°50.6'	N 8°59.5'	284°54.3'	N 9°21.3'	284°58.0'	N 9°42.8'	285°01.6'	N 10°04.2'	285°05.1'	N 10°25.4'	285°08.5'	N 10°46.5'
08	299°50.7'	N 9°00.5'	299°54.5'	N 9°22.2'	299°58.2'	N 9°43.7'	300°01.7'	N 10°05.1'	300°05.2'	N 10°26.3'	300°08.6'	N 10°47.4'
09	314°50.9'	N 9°01.4'	314°54.7'	N 9°23.1'	314°58.3'	N 9°44.6'	315°01.9'	N 10°06.0'	315°05.4'	N 10°27.2'	315°08.8'	N 10°48.2'
10	329°51.1'	N 9°02.3'	329°54.8'	N 9°24.0'	329°58.5'	N 9°45.5'	330°02.0'	N 10°06.9'	330°05.5'	N 10°28.1'	330°08.9'	N 10°49.1'
11	344°51.2'	N 9°03.2'	344°55.0'	N 9°24.9'	344°58.6'	N 9°46.4'	345°02.2'	N 10°07.8'	345°05.7'	N 10°28.9'	345°09.1'	N 10°50.0'
12	359°51.4'	N 9°04.1'	359°55.1'	N 9°25.8'	359°58.8'	N 9°47.3'	0°02.3'	N 10°08.6'	0°05.8'	N 10°29.8'	0°09.2'	N 10°50.8'
13	14°51.5'	N 9°05.0'	14°55.3'	N 9°26.7'	14°58.9'	N 9°48.2'	15°02.5'	N 10°09.5'	15°06.0'	N 10°30.7'	15°09.3'	N 10°51.7'
14	29°51.7'	N 9°05.9'	29°55.4'	N 9°27.6'	29°59.1'	N 9°49.1'	30°02.6'	N 10°10.4'	30°06.1'	N 10°31.6'	30°09.5'	N 10°52.6'
15	44°51.8'	N 9°06.8'	44°55.6'	N 9°28.5'	44°59.2'	N 9°50.0'	45°02.8'	N 10°11.3'	45°06.2'	N 10°32.5'	45°09.6'	N 10°53.5'
16	59°52.0'	N 9°07.7'	59°55.7'	N 9°29.4'	59°59.4'	N 9°50.9'	60°02.9'	N 10°12.2'	60°06.4'	N 10°33.3'	60°09.7'	N 10°54.3'
17	74°52.2'	N 9°08.6'	74°55.9'	N 9°30.3'	74°59.5'	N 9°51.7'	75°03.1'	N 10°13.1'	75°06.5'	N 10°34.2'	75°09.9'	N 10°55.2'
18	89°52.3'	N 9°09.5'	89°56.0'	N 9°31.2'	89°59.7'	N 9°52.6'	90°03.2'	N 10°14.0'	90°06.7'	N 10°35.1'	90°10.0'	N 10°56.1'
19	104°52.5'	N 9°10.4'	104°56.2'	N 9°32.1'	104°59.8'	N 9°53.5'	105°03.4'	N 10°14.8'	105°06.8'	N 10°36.0'	105°10.2'	N 10°56.9'
20	119°52.6'	N 9°11.3'	119°56.3'	N 9°33.0'	120°00.0'	N 9°54.4'	120°03.5'	N 10°15.7'	120°07.0'	N 10°36.9'	120°10.3'	N 10°57.8'
21	134°52.8'	N 9°12.2'	134°56.5'	N 9°33.8'	135°00.1'	N 9°55.3'	135°03.7'	N 10°16.6'	135°07.1'	N 10°37.7'	135°10.4'	N 10°58.7'
22	149°52.9'	N 9°13.1'	149°56.6'	N 9°34.7'	150°00.3'	N 9°56.2'	150°03.8'	N 10°17.5'	150°07.2'	N 10°38.6'	150°10.6'	N 10°59.6'
23	164°53.1'	N 9°14.0'	164°56.8'	N 9°35.6'	165°00.4'	N 9°57.1'	165°03.9'	N 10°18.4'	165°07.4'	N 10°39.5'	165°10.7'	N 11°00.4'
Zeitgl. 0h / 12h	-00:42 / -00:35		-00:27 / -00:20		-00:12 / -00:05		+00:02 / +00:09		+00:16 / +00:23		+00:30 / +00:37	
Kulmination UT	12:00:35		12:00:20		12:00:05		11:59:51		11:59:37		11:59:23	
Halbmesser	16.0'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Mo 19.04.		Di 20.04.		Mi 21.04.		Do 22.04.		Fr 23.04.		Sa 24.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°10.8'	N 11°01.3'	180°14.1'	N 11°22.0'	180°17.2'	N 11°42.6'	180°20.2'	N 12°03.0'	180°23.1'	N 12°23.1'	180°25.9'	N 12°43.1'
01	195°11.0'	N 11°02.2'	195°14.2'	N 11°22.9'	195°17.3'	N 11°43.4'	195°20.3'	N 12°03.8'	195°23.3'	N 12°24.0'	195°26.0'	N 12°43.9'
02	210°11.1'	N 11°03.0'	210°14.3'	N 11°23.8'	210°17.5'	N 11°44.3'	210°20.5'	N 12°04.6'	210°23.4'	N 12°24.8'	210°26.2'	N 12°44.7'
03	225°11.3'	N 11°03.9'	225°14.5'	N 11°24.6'	225°17.6'	N 11°45.2'	225°20.6'	N 12°05.5'	225°23.5'	N 12°25.6'	225°26.3'	N 12°45.6'
04	240°11.4'	N 11°04.8'	240°14.6'	N 11°25.5'	240°17.7'	N 11°46.0'	240°20.7'	N 12°06.3'	240°23.6'	N 12°26.5'	240°26.4'	N 12°46.4'
05	255°11.5'	N 11°05.6'	255°14.7'	N 11°26.3'	255°17.8'	N 11°46.9'	255°20.8'	N 12°07.2'	255°23.7'	N 12°27.3'	255°26.5'	N 12°47.2'
06	270°11.7'	N 11°06.5'	270°14.9'	N 11°27.2'	270°18.0'	N 11°47.7'	270°21.0'	N 12°08.0'	270°23.8'	N 12°28.1'	270°26.6'	N 12°48.1'
07	285°11.8'	N 11°07.4'	285°15.0'	N 11°28.1'	285°18.1'	N 11°48.6'	285°21.1'	N 12°08.9'	285°24.0'	N 12°29.0'	285°26.7'	N 12°48.9'
08	300°11.9'	N 11°08.2'	300°15.1'	N 11°28.9'	300°18.2'	N 11°49.4'	300°21.2'	N 12°09.7'	300°24.1'	N 12°29.8'	300°26.8'	N 12°49.7'
09	315°12.1'	N 11°09.1'	315°15.3'	N 11°29.8'	315°18.3'	N 11°50.3'	315°21.3'	N 12°10.5'	315°24.2'	N 12°30.6'	315°26.9'	N 12°50.5'
10	330°12.2'	N 11°10.0'	330°15.4'	N 11°30.6'	330°18.5'	N 11°51.1'	330°21.4'	N 12°11.4'	330°24.3'	N 12°31.5'	330°27.1'	N 12°51.4'
11	345°12.3'	N 11°10.8'	345°15.5'	N 11°31.5'	345°18.6'	N 11°52.0'	345°21.6'	N 12°12.2'	345°24.4'	N 12°32.3'	345°27.2'	N 12°52.2'
12	0°12.5'	N 11°11.7'	0°15.7'	N 11°32.3'	0°18.7'	N 11°52.8'	0°21.7'	N 12°13.1'	0°24.5'	N 12°33.1'	0°27.3'	N 12°53.0'
13	15°12.6'	N 11°12.5'	15°15.8'	N 11°33.2'	15°18.9'	N 11°53.7'	15°21.8'	N 12°13.9'	15°24.7'	N 12°34.0'	15°27.4'	N 12°53.8'
14	30°12.7'	N 11°13.4'	30°15.9'	N 11°34.1'	30°19.0'	N 11°54.5'	30°21.9'	N 12°14.8'	30°24.8'	N 12°34.8'	30°27.5'	N 12°54.6'
15	45°12.9'	N 11°14.3'	45°16.0'	N 11°34.9'	45°19.1'	N 11°55.3'	45°22.1'	N 12°15.6'	45°24.9'	N 12°35.6'	45°27.6'	N 12°55.5'
16	60°13.0'	N 11°15.1'	60°16.2'	N 11°35.8'	60°19.2'	N 11°56.2'	60°22.2'	N 12°16.4'	60°25.0'	N 12°36.5'	60°27.7'	N 12°56.3'
17	75°13.1'	N 11°16.0'	75°16.3'	N 11°36.6'	75°19.4'	N 11°57.0'	75°22.3'	N 12°17.3'	75°25.1'	N 12°37.3'	75°27.8'	N 12°57.1'
18	90°13.3'	N 11°16.9'	90°16.4'	N 11°37.5'	90°19.5'	N 11°57.9'	90°22.4'	N 12°18.1'	90°25.2'	N 12°38.1'	90°27.9'	N 12°57.9'
19	105°13.4'	N 11°17.7'	105°16.6'	N 11°38.3'	105°19.6'	N 11°58.7'	105°22.5'	N 12°18.9'	105°25.4'	N 12°39.0'	105°28.1'	N 12°58.8'
20	120°13.5'	N 11°18.6'	120°16.7'	N 11°39.2'	120°19.7'	N 11°59.6'	120°22.7'	N 12°19.8'	120°25.5'	N 12°39.8'	120°28.2'	N 12°59.6'
21	135°13.7'	N 11°19.5'	135°16.8'	N 11°40.0'	135°19.9'	N 12°00.4'	135°22.8'	N 12°20.6'	135°25.6'	N 12°40.6'	135°28.3'	N 13°00.4'
22	150°13.8'	N 11°20.3'	150°16.9'	N 11°40.9'	150°20.0'	N 12°01.3'	150°22.9'	N 12°21.5'	150°25.7'	N 12°41.4'	150°28.4'	N 13°01.2'
23	165°13.9'	N 11°21.2'	165°17.1'	N 11°41.7'	165°20.1'	N 12°02.1'	165°23.0'	N 12°22.3'	165°25.8'	N 12°42.3'	165°28.5'	N 13°02.0'
Zeitgl. 0h / 12h	+00:43 / +00:50		+00:56 / +01:03		+01:09 / +01:15		+01:21 / +01:27		+01:33 / +01:38		+01:44 / +01:49	
Kulmination UT	11:59:10		11:58:57		11:58:45		11:58:33		11:58:22		11:58:11	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	So 25.04.		Mo 26.04.		Di 27.04.		Mi 28.04.		Do 29.04.		Fr 30.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°28.6'	N 13°02.8'	180°31.2'	N 13°22.4'	180°33.6'	N 13°41.7'	180°35.9'	N 14°00.8'	180°38.1'	N 14°19.7'	180°40.2'	N 14°38.3'
01	195°28.7'	N 13°03.7'	195°31.3'	N 13°23.2'	195°33.7'	N 13°42.5'	195°36.0'	N 14°01.6'	195°38.2'	N 14°20.4'	195°40.2'	N 14°39.1'
02	210°28.8'	N 13°04.5'	210°31.4'	N 13°24.0'	210°33.8'	N 13°43.3'	210°36.1'	N 14°02.4'	210°38.3'	N 14°21.2'	210°40.3'	N 14°39.8'
03	225°28.9'	N 13°05.3'	225°31.5'	N 13°24.8'	225°33.9'	N 13°44.1'	225°36.2'	N 14°03.2'	225°38.4'	N 14°22.0'	225°40.4'	N 14°40.6'
04	240°29.0'	N 13°06.1'	240°31.6'	N 13°25.6'	240°34.0'	N 13°44.9'	240°36.3'	N 14°04.0'	240°38.5'	N 14°22.8'	240°40.5'	N 14°41.4'
05	255°29.1'	N 13°06.9'	255°31.7'	N 13°26.4'	255°34.1'	N 13°45.7'	255°36.4'	N 14°04.8'	255°38.5'	N 14°23.6'	255°40.6'	N 14°42.1'
06	270°29.3'	N 13°07.8'	270°31.8'	N 13°27.2'	270°34.2'	N 13°46.5'	270°36.5'	N 14°05.5'	270°38.6'	N 14°24.3'	270°40.7'	N 14°42.9'
07	285°29.4'	N 13°08.6'	285°31.9'	N 13°28.0'	285°34.3'	N 13°47.3'	285°36.6'	N 14°06.3'	285°38.7'	N 14°25.1'	285°40.7'	N 14°43.7'
08	300°29.5'	N 13°09.4'	300°32.0'	N 13°28.9'	300°34.4'	N 13°48.1'	300°36.7'	N 14°07.1'	300°38.8'	N 14°25.9'	300°40.8'	N 14°44.5'
09	315°29.6'	N 13°10.2'	315°32.1'	N 13°29.7'	315°34.5'	N 13°48.9'	315°36.8'	N 14°07.9'	315°38.9'	N 14°26.7'	315°40.9'	N 14°45.2'
10	330°29.7'	N 13°11.0'	330°32.2'	N 13°30.5'	330°34.6'	N 13°49.7'	330°36.8'	N 14°08.7'	330°39.0'	N 14°27.5'	330°41.0'	N 14°46.0'
11	345°29.8'	N 13°11.8'	345°32.3'	N 13°31.3'	345°34.7'	N 13°50.5'	345°36.9'	N 14°09.5'	345°39.1'	N 14°28.2'	345°41.1'	N 14°46.8'
12	0°29.9'	N 13°12.6'	0°32.4'	N 13°32.1'	0°34.8'	N 13°51.3'	0°37.0'	N 14°10.3'	0°39.2'	N 14°29.0'	0°41.1'	N 14°47.5'
13	15°30.0'	N 13°13.5'	15°32.5'	N 13°32.9'	15°34.9'	N 13°52.1'	15°37.1'	N 14°11.1'	15°39.2'	N 14°29.8'	15°41.2'	N 14°48.3'
14	30°30.1'	N 13°14.3'	30°32.6'	N 13°33.7'	30°35.0'	N 13°52.9'	30°37.2'	N 14°11.8'	30°39.3'	N 14°30.6'	30°41.3'	N 14°49.0'
15	45°30.2'	N 13°15.1'	45°32.7'	N 13°34.5'	45°35.1'	N 13°53.7'	45°37.3'	N 14°12.6'	45°39.4'	N 14°31.3'	45°41.4'	N 14°49.8'
16	60°30.3'	N 13°15.9'	60°32.8'	N 13°35.3'	60°35.2'	N 13°54.5'	60°37.4'	N 14°13.4'	60°39.5'	N 14°32.1'	60°41.5'	N 14°50.6'
17	75°30.4'	N 13°16.7'	75°32.9'	N 13°36.1'	75°35.3'	N 13°55.3'	75°37.5'	N 14°14.2'	75°39.6'	N 14°32.9'	75°41.5'	N 14°51.3'
18	90°30.5'	N 13°17.5'	90°33.0'	N 13°36.9'	90°35.4'	N 13°56.1'	90°37.6'	N 14°15.0'	90°39.7'	N 14°33.7'	90°41.6'	N 14°52.1'
19	105°30.6'	N 13°18.3'	105°33.1'	N 13°37.7'	105°35.4'	N 13°56.8'	105°37.7'	N 14°15.8'	105°39.7'	N 14°34.4'	105°41.7'	N 14°52.9'
20	120°30.7'	N 13°19.1'	120°33.2'	N 13°38.5'	120°35.5'	N 13°57.6'	120°37.8'	N 14°16.5'	120°39.8'	N 14°35.2'	120°41.8'	N 14°53.6'
21	135°30.9'	N 13°20.0'	135°33.3'	N 13°39.3'	135°35.6'	N 13°58.4'	135°37.8'	N 14°17.3'	135°39.9'	N 14°36.0'	135°41.9'	N 14°54.4'
22	150°31.0'	N 13°20.8'	150°33.4'	N 13°40.1'	150°35.7'	N 13°59.2'	150°37.9'	N 14°18.1'	150°40.0'	N 14°36.8'	150°41.9'	N 14°55.2'
23	165°31.1'	N 13°21.6'	165°33.5'	N 13°40.9'	165°35.8'	N 14°00.0'	165°38.0'	N 14°18.9'	165°40.1'	N 14°37.5'	165°42.0'	N 14°55.9'
Zeitgl. 0h / 12h	+01:54 / +02:00		+02:05 / +02:10		+02:14 / +02:19		+02:24 / +02:28		+02:32 / +02:37		+02:41 / +02:45	
Kulmination UT	11:58:00		11:57:50		11:57:41		11:57:32		11:57:23		11:57:15	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

2027

Mai

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Sa 01.05.		So 02.05.		Mo 03.05.		Di 04.05.		Mi 05.05.		Do 06.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°42.1'	N 14°56.7'	180°43.9'	N 15°14.8'	180°45.5'	N 15°32.7'	180°47.1'	N 15°50.3'	180°48.5'	N 16°07.7'	180°49.7'	N 16°24.8'
01	195°42.2'	N 14°57.4'	195°44.0'	N 15°15.6'	195°45.6'	N 15°33.4'	195°47.1'	N 15°51.1'	195°48.5'	N 16°08.4'	195°49.8'	N 16°25.5'
02	210°42.2'	N 14°58.2'	210°44.0'	N 15°16.3'	210°45.7'	N 15°34.2'	210°47.2'	N 15°51.8'	210°48.6'	N 16°09.1'	210°49.8'	N 16°26.2'
03	225°42.3'	N 14°59.0'	225°44.1'	N 15°17.1'	225°45.7'	N 15°34.9'	225°47.3'	N 15°52.5'	225°48.6'	N 16°09.9'	225°49.9'	N 16°26.9'
04	240°42.4'	N 14°59.7'	240°44.2'	N 15°17.8'	240°45.8'	N 15°35.7'	240°47.3'	N 15°53.2'	240°48.7'	N 16°10.6'	240°49.9'	N 16°27.6'
05	255°42.5'	N 15°00.5'	255°44.2'	N 15°18.6'	255°45.9'	N 15°36.4'	255°47.4'	N 15°54.0'	255°48.7'	N 16°11.3'	255°49.9'	N 16°28.3'
06	270°42.6'	N 15°01.2'	270°44.3'	N 15°19.3'	270°45.9'	N 15°37.1'	270°47.4'	N 15°54.7'	270°48.8'	N 16°12.0'	270°50.0'	N 16°29.0'
07	285°42.6'	N 15°02.0'	285°44.4'	N 15°20.1'	285°46.0'	N 15°37.9'	285°47.5'	N 15°55.4'	285°48.8'	N 16°12.7'	285°50.0'	N 16°29.7'
08	300°42.7'	N 15°02.8'	300°44.5'	N 15°20.8'	300°46.1'	N 15°38.6'	300°47.5'	N 15°56.2'	300°48.9'	N 16°13.4'	300°50.1'	N 16°30.4'
09	315°42.8'	N 15°03.5'	315°44.5'	N 15°21.6'	315°46.1'	N 15°39.3'	315°47.6'	N 15°56.9'	315°48.9'	N 16°14.1'	315°50.1'	N 16°31.1'
10	330°42.9'	N 15°04.3'	330°44.6'	N 15°22.3'	330°46.2'	N 15°40.1'	330°47.7'	N 15°57.6'	330°49.0'	N 16°14.9'	330°50.2'	N 16°31.8'
11	345°42.9'	N 15°05.0'	345°44.7'	N 15°23.0'	345°46.3'	N 15°40.8'	345°47.7'	N 15°58.3'	345°49.0'	N 16°15.6'	345°50.2'	N 16°32.5'
12	0°43.0'	N 15°05.8'	0°44.7'	N 15°23.8'	0°46.3'	N 15°41.6'	0°47.8'	N 15°59.1'	0°49.1'	N 16°16.3'	0°50.3'	N 16°33.2'
13	15°43.1'	N 15°06.5'	15°44.8'	N 15°24.5'	15°46.4'	N 15°42.3'	15°47.8'	N 15°59.8'	15°49.2'	N 16°17.0'	15°50.3'	N 16°33.9'
14	30°43.2'	N 15°07.3'	30°44.9'	N 15°25.3'	30°46.5'	N 15°43.0'	30°47.9'	N 16°00.5'	30°49.2'	N 16°17.7'	30°50.4'	N 16°34.6'
15	45°43.2'	N 15°08.0'	45°44.9'	N 15°26.0'	45°46.5'	N 15°43.8'	45°48.0'	N 16°01.2'	45°49.3'	N 16°18.4'	45°50.4'	N 16°35.3'
16	60°43.3'	N 15°08.8'	60°45.0'	N 15°26.8'	60°46.6'	N 15°44.5'	60°48.0'	N 16°01.9'	60°49.3'	N 16°19.1'	60°50.5'	N 16°36.0'
17	75°43.4'	N 15°09.6'	75°45.1'	N 15°27.5'	75°46.6'	N 15°45.2'	75°48.1'	N 16°02.7'	75°49.4'	N 16°19.8'	75°50.5'	N 16°36.7'
18	90°43.5'	N 15°10.3'	90°45.1'	N 15°28.3'	90°46.7'	N 15°46.0'	90°48.1'	N 16°03.4'	90°49.4'	N 16°20.5'	90°50.5'	N 16°37.4'
19	105°43.5'	N 15°11.1'	105°45.2'	N 15°29.0'	105°46.8'	N 15°46.7'	105°48.2'	N 16°04.1'	105°49.5'	N 16°21.3'	105°50.6'	N 16°38.1'
20	120°43.6'	N 15°11.8'	120°45.3'	N 15°29.7'	120°46.8'	N 15°47.4'	120°48.2'	N 16°04.8'	120°49.5'	N 16°22.0'	120°50.6'	N 16°38.8'
21	135°43.7'	N 15°12.6'	135°45.3'	N 15°30.5'	135°46.9'	N 15°48.1'	135°48.3'	N 16°05.5'	135°49.6'	N 16°22.7'	135°50.7'	N 16°39.5'
22	150°43.7'	N 15°13.3'	150°45.4'	N 15°31.2'	150°46.9'	N 15°48.9'	150°48.3'	N 16°06.3'	150°49.6'	N 16°23.4'	150°50.7'	N 16°40.2'
23	165°43.8'	N 15°14.1'	165°45.5'	N 15°32.0'	165°47.0'	N 15°49.6'	165°48.4'	N 16°07.0'	165°49.7'	N 16°24.1'	165°50.8'	N 16°40.9'
Zeitgl. 0h / 12h	+02:48 / +02:52		+02:56 / +02:59		+03:02 / +03:05		+03:08 / +03:11		+03:14 / +03:16		+03:19 / +03:21	
Kulmination UT	11:57:08		11:57:01		11:56:55		11:56:49		11:56:44		11:56:39	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Fr 07.05.		Sa 08.05.		So 09.05.		Mo 10.05.		Di 11.05.		Mi 12.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°50.8'	N 16°41.6'	180°51.8'	N 16°58.2'	180°52.6'	N 17°14.4'	180°53.3'	N 17°30.4'	180°53.8'	N 17°46.1'	180°54.2'	N 18°01.5'
01	195°50.9'	N 16°42.3'	195°51.8'	N 16°58.9'	195°52.6'	N 17°15.1'	195°53.3'	N 17°31.1'	195°53.8'	N 17°46.7'	195°54.2'	N 18°02.1'
02	210°50.9'	N 16°43.0'	210°51.9'	N 16°59.5'	210°52.7'	N 17°15.8'	210°53.3'	N 17°31.7'	210°53.9'	N 17°47.4'	210°54.2'	N 18°02.7'
03	225°50.9'	N 16°43.7'	225°51.9'	N 17°00.2'	225°52.7'	N 17°16.4'	225°53.4'	N 17°32.4'	225°53.9'	N 17°48.0'	225°54.3'	N 18°03.4'
04	240°51.0'	N 16°44.4'	240°51.9'	N 17°00.9'	240°52.7'	N 17°17.1'	240°53.4'	N 17°33.0'	240°53.9'	N 17°48.7'	240°54.3'	N 18°04.0'
05	255°51.0'	N 16°45.1'	255°52.0'	N 17°01.6'	255°52.8'	N 17°17.8'	255°53.4'	N 17°33.7'	255°53.9'	N 17°49.3'	255°54.3'	N 18°04.6'
06	270°51.1'	N 16°45.8'	270°52.0'	N 17°02.3'	270°52.8'	N 17°18.5'	270°53.4'	N 17°34.4'	270°53.9'	N 17°50.0'	270°54.3'	N 18°05.3'
07	285°51.1'	N 16°46.5'	285°52.0'	N 17°02.9'	285°52.8'	N 17°19.1'	285°53.5'	N 17°35.0'	285°54.0'	N 17°50.6'	285°54.3'	N 18°05.9'
08	300°51.2'	N 16°47.2'	300°52.1'	N 17°03.6'	300°52.8'	N 17°19.8'	300°53.5'	N 17°35.7'	300°54.0'	N 17°51.3'	300°54.3'	N 18°06.5'
09	315°51.2'	N 16°47.9'	315°52.1'	N 17°04.3'	315°52.9'	N 17°20.5'	315°53.5'	N 17°36.3'	315°54.0'	N 17°51.9'	315°54.3'	N 18°07.2'
10	330°51.2'	N 16°48.6'	330°52.1'	N 17°05.0'	330°52.9'	N 17°21.1'	330°53.5'	N 17°37.0'	330°54.0'	N 17°52.5'	330°54.3'	N 18°07.8'
11	345°51.3'	N 16°49.2'	345°52.2'	N 17°05.7'	345°52.9'	N 17°21.8'	345°53.6'	N 17°37.6'	345°54.0'	N 17°53.2'	345°54.4'	N 18°08.4'
12	0°51.3'	N 16°49.9'	0°52.2'	N 17°06.3'	0°53.0'	N 17°22.5'	0°53.6'	N 17°38.3'	0°54.0'	N 17°53.8'	0°54.4'	N 18°09.1'
13	15°51.4'	N 16°50.6'	15°52.2'	N 17°07.0'	15°53.0'	N 17°23.1'	15°53.6'	N 17°38.9'	15°54.1'	N 17°54.5'	15°54.4'	N 18°09.7'
14	30°51.4'	N 16°51.3'	30°52.3'	N 17°07.7'	30°53.0'	N 17°23.8'	30°53.6'	N 17°39.6'	30°54.1'	N 17°55.1'	30°54.4'	N 18°10.3'
15	45°51.4'	N 16°52.0'	45°52.3'	N 17°08.4'	45°53.0'	N 17°24.5'	45°53.6'	N 17°40.2'	45°54.1'	N 17°55.7'	45°54.4'	N 18°10.9'
16	60°51.5'	N 16°52.7'	60°52.3'	N 17°09.0'	60°53.1'	N 17°25.1'	60°53.7'	N 17°40.9'	60°54.1'	N 17°56.4'	60°54.4'	N 18°11.6'
17	75°51.5'	N 16°53.4'	75°52.4'	N 17°09.7'	75°53.1'	N 17°25.8'	75°53.7'	N 17°41.5'	75°54.1'	N 17°57.0'	75°54.4'	N 18°12.2'
18	90°51.6'	N 16°54.1'	90°52.4'	N 17°10.4'	90°53.1'	N 17°26.4'	90°53.7'	N 17°42.2'	90°54.1'	N 17°57.7'	90°54.4'	N 18°12.8'
19	105°51.6'	N 16°54.7'	105°52.4'	N 17°11.1'	105°53.2'	N 17°27.1'	105°53.7'	N 17°42.8'	105°54.2'	N 17°58.3'	105°54.4'	N 18°13.4'
20	120°51.6'	N 16°55.4'	120°52.5'	N 17°11.7'	120°53.2'	N 17°27.8'	120°53.7'	N 17°43.5'	120°54.2'	N 17°58.9'	120°54.4'	N 18°14.1'
21	135°51.7'	N 16°56.1'	135°52.5'	N 17°12.4'	135°53.2'	N 17°28.4'	135°53.8'	N 17°44.1'	135°54.2'	N 17°59.6'	135°54.5'	N 18°14.7'
22	150°51.7'	N 16°56.8'	150°52.5'	N 17°13.1'	150°53.2'	N 17°29.1'	150°53.8'	N 17°44.8'	150°54.2'	N 18°00.2'	150°54.5'	N 18°15.3'
23	165°51.7'	N 16°57.5'	165°52.6'	N 17°13.8'	165°53.3'	N 17°29.7'	165°53.8'	N 17°45.4'	165°54.2'	N 18°00.8'	165°54.5'	N 18°15.9'
Zeitgl. 0h / 12h	+03:23 / +03:25		+03:27 / +03:29		+03:30 / +03:32		+03:33 / +03:34		+03:35 / +03:36		+03:37 / +03:37	
Kulmination UT	11:56:35		11:56:31		11:56:28		11:56:26		11:56:24		11:56:23	
Halbmesser	15.9'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Do 13.05.		Fr 14.05.		Sa 15.05.		So 16.05.		Mo 17.05.		Di 18.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°54.5'	N 18°16.6'	180°54.6'	N 18°31.3'	180°54.6'	N 18°45.8'	180°54.4'	N 18°59.9'	180°54.1'	N 19°13.8'	180°53.6'	N 19°27.3'
01	195°54.5'	N 18°17.2'	195°54.6'	N 18°31.9'	195°54.6'	N 18°46.4'	195°54.4'	N 19°00.5'	195°54.1'	N 19°14.3'	195°53.6'	N 19°27.8'
02	210°54.5'	N 18°17.8'	210°54.6'	N 18°32.5'	210°54.5'	N 18°47.0'	210°54.4'	N 19°01.1'	210°54.0'	N 19°14.9'	210°53.6'	N 19°28.4'
03	225°54.5'	N 18°18.4'	225°54.6'	N 18°33.2'	225°54.5'	N 18°47.6'	225°54.4'	N 19°01.7'	225°54.0'	N 19°15.5'	225°53.6'	N 19°28.9'
04	240°54.5'	N 18°19.0'	240°54.6'	N 18°33.8'	240°54.5'	N 18°48.2'	240°54.3'	N 19°02.3'	240°54.0'	N 19°16.0'	240°53.5'	N 19°29.5'
05	255°54.5'	N 18°19.7'	255°54.6'	N 18°34.4'	255°54.5'	N 18°48.8'	255°54.3'	N 19°02.8'	255°54.0'	N 19°16.6'	255°53.5'	N 19°30.0'
06	270°54.5'	N 18°20.3'	270°54.6'	N 18°35.0'	270°54.5'	N 18°49.4'	270°54.3'	N 19°03.4'	270°54.0'	N 19°17.2'	270°53.5'	N 19°30.6'
07	285°54.5'	N 18°20.9'	285°54.6'	N 18°35.6'	285°54.5'	N 18°50.0'	285°54.3'	N 19°04.0'	285°54.0'	N 19°17.7'	285°53.5'	N 19°31.1'
08	300°54.5'	N 18°21.5'	300°54.6'	N 18°36.2'	300°54.5'	N 18°50.5'	300°54.3'	N 19°04.6'	300°53.9'	N 19°18.3'	300°53.4'	N 19°31.7'
09	315°54.5'	N 18°22.1'	315°54.6'	N 18°36.8'	315°54.5'	N 18°51.1'	315°54.3'	N 19°05.2'	315°53.9'	N 19°18.9'	315°53.4'	N 19°32.2'
10	330°54.5'	N 18°22.8'	330°54.6'	N 18°37.4'	330°54.5'	N 18°51.7'	330°54.3'	N 19°05.7'	330°53.9'	N 19°19.4'	330°53.4'	N 19°32.8'
11	345°54.5'	N 18°23.4'	345°54.6'	N 18°38.0'	345°54.5'	N 18°52.3'	345°54.3'	N 19°06.3'	345°53.9'	N 19°20.0'	345°53.4'	N 19°33.3'
12	0°54.5'	N 18°24.0'	0°54.6'	N 18°38.6'	0°54.5'	N 18°52.9'	0°54.2'	N 19°06.9'	0°53.9'	N 19°20.5'	0°53.3'	N 19°33.9'
13	15°54.6'	N 18°24.6'	15°54.6'	N 18°39.2'	15°54.5'	N 18°53.5'	15°54.2'	N 19°07.5'	15°53.8'	N 19°21.1'	15°53.3'	N 19°34.4'
14	30°54.6'	N 18°25.2'	30°54.6'	N 18°39.8'	30°54.5'	N 18°54.1'	30°54.2'	N 19°08.0'	30°53.8'	N 19°21.7'	30°53.3'	N 19°35.0'
15	45°54.6'	N 18°25.8'	45°54.6'	N 18°40.4'	45°54.5'	N 18°54.7'	45°54.2'	N 19°08.6'	45°53.8'	N 19°22.2'	45°53.3'	N 19°35.5'
16	60°54.6'	N 18°26.4'	60°54.6'	N 18°41.0'	60°54.5'	N 18°55.3'	60°54.2'	N 19°09.2'	60°53.8'	N 19°22.8'	60°53.2'	N 19°36.1'
17	75°54.6'	N 18°27.1'	75°54.6'	N 18°41.6'	75°54.4'	N 18°55.8'	75°54.2'	N 19°09.8'	75°53.8'	N 19°23.4'	75°53.2'	N 19°36.6'
18	90°54.6'	N 18°27.7'	90°54.6'	N 18°42.2'	90°54.4'	N 18°56.4'	90°54.2'	N 19°10.3'	90°53.7'	N 19°23.9'	90°53.2'	N 19°37.2'
19	105°54.6'	N 18°28.3'	105°54.6'	N 18°42.8'	105°54.4'	N 18°57.0'	105°54.1'	N 19°10.9'	105°53.7'	N 19°24.5'	105°53.2'	N 19°37.7'
20	120°54.6'	N 18°28.9'	120°54.6'	N 18°43.4'	120°54.4'	N 18°57.6'	120°54.1'	N 19°11.5'	120°53.7'	N 19°25.0'	120°53.1'	N 19°38.3'
21	135°54.6'	N 18°29.5'	135°54.6'	N 18°44.0'	135°54.4'	N 18°58.2'	135°54.1'	N 19°12.0'	135°53.7'	N 19°25.6'	135°53.1'	N 19°38.8'
22	150°54.6'	N 18°30.1'	150°54.6'	N 18°44.6'	150°54.4'	N 18°58.8'	150°54.1'	N 19°12.6'	150°53.7'	N 19°26.1'	150°53.1'	N 19°39.3'
23	165°54.6'	N 18°30.7'	165°54.6'	N 18°45.2'	165°54.4'	N 18°59.4'	165°54.1'	N 19°13.2'	165°53.6'	N 19°26.7'	165°53.1'	N 19°39.9'
Zeitgl. 0h / 12h	+03:38 / +03:38		+03:38 / +03:38		+03:38 / +03:38		+03:38 / +03:37		+03:36 / +03:35		+03:34 / +03:33	
Kulmination UT	11:56:22		11:56:22		11:56:22		11:56:23		11:56:25		11:56:27	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Mi 19.05.		Do 20.05.		Fr 21.05.		Sa 22.05.		So 23.05.		Mo 24.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°53.0'	N 19°40.4'	180°52.3'	N 19°53.3'	180°51.4'	N 20°05.7'	180°50.4'	N 20°17.9'	180°49.3'	N 20°29.7'	180°48.0'	N 20°41.1'
01	195°53.0'	N 19°41.0'	195°52.3'	N 19°53.8'	195°51.4'	N 20°06.3'	195°50.4'	N 20°18.4'	195°49.3'	N 20°30.2'	195°48.0'	N 20°41.6'
02	210°53.0'	N 19°41.5'	210°52.2'	N 19°54.3'	210°51.4'	N 20°06.8'	210°50.3'	N 20°18.9'	210°49.2'	N 20°30.7'	210°47.9'	N 20°42.1'
03	225°52.9'	N 19°42.0'	225°52.2'	N 19°54.8'	225°51.3'	N 20°07.3'	225°50.3'	N 20°19.4'	225°49.2'	N 20°31.1'	225°47.9'	N 20°42.5'
04	240°52.9'	N 19°42.6'	240°52.2'	N 19°55.4'	240°51.3'	N 20°07.8'	240°50.3'	N 20°19.9'	240°49.1'	N 20°31.6'	240°47.8'	N 20°43.0'
05	255°52.9'	N 19°43.1'	255°52.1'	N 19°55.9'	255°51.2'	N 20°08.3'	255°50.2'	N 20°20.4'	255°49.1'	N 20°32.1'	255°47.8'	N 20°43.5'
06	270°52.9'	N 19°43.7'	270°52.1'	N 19°56.4'	270°51.2'	N 20°08.8'	270°50.2'	N 20°20.9'	270°49.0'	N 20°32.6'	270°47.7'	N 20°43.9'
07	285°52.8'	N 19°44.2'	285°52.1'	N 19°56.9'	285°51.2'	N 20°09.3'	285°50.1'	N 20°21.4'	285°49.0'	N 20°33.1'	285°47.7'	N 20°44.4'
08	300°52.8'	N 19°44.7'	300°52.0'	N 19°57.5'	300°51.1'	N 20°09.8'	300°50.1'	N 20°21.9'	300°48.9'	N 20°33.5'	300°47.6'	N 20°44.9'
09	315°52.8'	N 19°45.3'	315°52.0'	N 19°58.0'	315°51.1'	N 20°10.3'	315°50.0'	N 20°22.4'	315°48.8'	N 20°34.0'	315°47.5'	N 20°45.3'
10	330°52.7'	N 19°45.8'	330°52.0'	N 19°58.5'	330°51.0'	N 20°10.8'	330°50.0'	N 20°22.9'	330°48.8'	N 20°34.5'	330°47.5'	N 20°45.8'
11	345°52.7'	N 19°46.3'	345°51.9'	N 19°59.0'	345°51.0'	N 20°11.4'	345°49.9'	N 20°23.3'	345°48.7'	N 20°35.0'	345°47.4'	N 20°46.3'
12	0°52.7'	N 19°46.9'	0°51.9'	N 19°59.5'	0°51.0'	N 20°11.9'	0°49.9'	N 20°23.8'	0°48.7'	N 20°35.5'	0°47.4'	N 20°46.7'
13	15°52.6'	N 19°47.4'	15°51.8'	N 20°00.1'	15°50.9'	N 20°12.4'	15°49.8'	N 20°24.3'	15°48.6'	N 20°35.9'	15°47.3'	N 20°47.2'
14	30°52.6'	N 19°47.9'	30°51.8'	N 20°00.6'	30°50.9'	N 20°12.9'	30°49.8'	N 20°24.8'	30°48.6'	N 20°36.4'	30°47.3'	N 20°47.7'
15	45°52.6'	N 19°48.5'	45°51.8'	N 20°01.1'	45°50.8'	N 20°13.4'	45°49.7'	N 20°25.3'	45°48.5'	N 20°36.9'	45°47.2'	N 20°48.1'
16	60°52.6'	N 19°49.0'	60°51.7'	N 20°01.6'	60°50.8'	N 20°13.9'	60°49.7'	N 20°25.8'	60°48.5'	N 20°37.4'	60°47.1'	N 20°48.6'
17	75°52.5'	N 19°49.5'	75°51.7'	N 20°02.1'	75°50.7'	N 20°14.4'	75°49.6'	N 20°26.3'	75°48.4'	N 20°37.8'	75°47.1'	N 20°49.0'
18	90°52.5'	N 19°50.1'	90°51.7'	N 20°02.7'	90°50.7'	N 20°14.9'	90°49.6'	N 20°26.8'	90°48.4'	N 20°38.3'	90°47.0'	N 20°49.5'
19	105°52.5'	N 19°50.6'	105°51.6'	N 20°03.2'	105°50.7'	N 20°15.4'	105°49.6'	N 20°27.3'	105°48.3'	N 20°38.8'	105°47.0'	N 20°50.0'
20	120°52.4'	N 19°51.1'	120°51.6'	N 20°03.7'	120°50.6'	N 20°15.9'	120°49.5'	N 20°27.7'	120°48.3'	N 20°39.3'	120°46.9'	N 20°50.4'
21	135°52.4'	N 19°51.7'	135°51.5'	N 20°04.2'	135°50.6'	N 20°16.4'	135°49.5'	N 20°28.2'	135°48.2'	N 20°39.7'	135°46.8'	N 20°50.9'
22	150°52.4'	N 19°52.2'	150°51.5'	N 20°04.7'	150°50.5'	N 20°16.9'	150°49.4'	N 20°28.7'	150°48.2'	N 20°40.2'	150°46.8'	N 20°51.3'
23	165°52.3'	N 19°52.7'	165°51.5'	N 20°05.2'	165°50.5'	N 20°17.4'	165°49.4'	N 20°29.2'	165°48.1'	N 20°40.7'	165°46.7'	N 20°51.8'
Zeitgl. 0h / 12h	+03:32 / +03:31		+03:29 / +03:28		+03:26 / +03:24		+03:22 / +03:20		+03:17 / +03:15		+03:12 / +03:09	
Kulmination UT	11:56:29		11:56:32		11:56:36		11:56:40		11:56:45		11:56:51	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Di 25.05.		Mi 26.05.		Do 27.05.		Fr 28.05.		Sa 29.05.		So 30.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°46.7'	N 20°52.2'	180°45.1'	N 21°03.0'	180°43.5'	N 21°13.3'	180°41.8'	N 21°23.3'	180°39.9'	N 21°33.0'	180°37.9'	N 21°42.2'
01	195°46.6'	N 20°52.7'	195°45.1'	N 21°03.4'	195°43.4'	N 21°13.8'	195°41.7'	N 21°23.7'	195°39.8'	N 21°33.4'	195°37.8'	N 21°42.6'
02	210°46.5'	N 20°53.1'	210°45.0'	N 21°03.8'	210°43.4'	N 21°14.2'	210°41.6'	N 21°24.2'	210°39.7'	N 21°33.8'	210°37.8'	N 21°43.0'
03	225°46.5'	N 20°53.6'	225°45.0'	N 21°04.3'	225°43.3'	N 21°14.6'	225°41.5'	N 21°24.6'	225°39.7'	N 21°34.2'	225°37.7'	N 21°43.4'
04	240°46.4'	N 20°54.0'	240°44.9'	N 21°04.7'	240°43.2'	N 21°15.0'	240°41.5'	N 21°25.0'	240°39.6'	N 21°34.5'	240°37.6'	N 21°43.7'
05	255°46.4'	N 20°54.5'	255°44.8'	N 21°05.2'	255°43.2'	N 21°15.5'	255°41.4'	N 21°25.4'	255°39.5'	N 21°34.9'	255°37.5'	N 21°44.1'
06	270°46.3'	N 20°55.0'	270°44.8'	N 21°05.6'	270°43.1'	N 21°15.9'	270°41.3'	N 21°25.8'	270°39.4'	N 21°35.3'	270°37.4'	N 21°44.5'
07	285°46.2'	N 20°55.4'	285°44.7'	N 21°06.0'	285°43.0'	N 21°16.3'	285°41.2'	N 21°26.2'	285°39.3'	N 21°35.7'	285°37.3'	N 21°44.9'
08	300°46.2'	N 20°55.9'	300°44.6'	N 21°06.5'	300°42.9'	N 21°16.7'	300°41.2'	N 21°26.6'	300°39.3'	N 21°36.1'	300°37.2'	N 21°45.2'
09	315°46.1'	N 20°56.3'	315°44.6'	N 21°06.9'	315°42.9'	N 21°17.1'	315°41.1'	N 21°27.0'	315°39.2'	N 21°36.5'	315°37.2'	N 21°45.6'
10	330°46.0'	N 20°56.7'	330°44.5'	N 21°07.3'	330°42.8'	N 21°17.5'	330°41.0'	N 21°27.4'	330°39.1'	N 21°36.9'	330°37.1'	N 21°46.0'
11	345°46.0'	N 20°57.2'	345°44.4'	N 21°07.8'	345°42.7'	N 21°18.0'	345°40.9'	N 21°27.8'	345°39.0'	N 21°37.3'	345°37.0'	N 21°46.4'
12	0°45.9'	N 20°57.6'	0°44.3'	N 21°08.2'	0°42.7'	N 21°18.4'	0°40.8'	N 21°28.2'	0°38.9'	N 21°37.7'	0°36.9'	N 21°46.7'
13	15°45.9'	N 20°58.1'	15°44.3'	N 21°08.6'	15°42.6'	N 21°18.8'	15°40.8'	N 21°28.6'	15°38.8'	N 21°38.0'	15°36.8'	N 21°47.1'
14	30°45.8'	N 20°58.5'	30°44.2'	N 21°09.1'	30°42.5'	N 21°19.2'	30°40.7'	N 21°29.0'	30°38.8'	N 21°38.4'	30°36.7'	N 21°47.5'
15	45°45.7'	N 20°59.0'	45°44.1'	N 21°09.5'	45°42.4'	N 21°19.6'	45°40.6'	N 21°29.4'	45°38.7'	N 21°38.8'	45°36.6'	N 21°47.8'
16	60°45.7'	N 20°59.4'	60°44.1'	N 21°09.9'	60°42.4'	N 21°20.0'	60°40.5'	N 21°29.8'	60°38.6'	N 21°39.2'	60°36.5'	N 21°48.2'
17	75°45.6'	N 20°59.9'	75°44.0'	N 21°10.3'	75°42.3'	N 21°20.5'	75°40.5'	N 21°30.2'	75°38.5'	N 21°39.6'	75°36.5'	N 21°48.6'
18	90°45.5'	N 21°00.3'	90°43.9'	N 21°10.8'	90°42.2'	N 21°20.9'	90°40.4'	N 21°30.6'	90°38.4'	N 21°40.0'	90°36.4'	N 21°48.9'
19	105°45.5'	N 21°00.8'	105°43.9'	N 21°11.2'	105°42.1'	N 21°21.3'	105°40.3'	N 21°31.0'	105°38.3'	N 21°40.3'	105°36.3'	N 21°49.3'
20	120°45.4'	N 21°01.2'	120°43.8'	N 21°11.6'	120°42.1'	N 21°21.7'	120°40.2'	N 21°31.4'	120°38.3'	N 21°40.7'	120°36.2'	N 21°49.7'
21	135°45.3'	N 21°01.6'	135°43.7'	N 21°12.1'	135°42.0'	N 21°22.1'	135°40.1'	N 21°31.8'	135°38.2'	N 21°41.1'	135°36.1'	N 21°50.0'
22	150°45.3'	N 21°02.1'	150°43.7'	N 21°12.5'	150°41.9'	N 21°22.5'	150°40.1'	N 21°32.2'	150°38.1'	N 21°41.5'	150°36.0'	N 21°50.4'
23	165°45.2'	N 21°02.5'	165°43.6'	N 21°12.9'	165°41.8'	N 21°22.9'	165°40.0'	N 21°32.6'	165°38.0'	N 21°41.9'	165°35.9'	N 21°50.8'
Zeitgl. 0h / 12h	+03:07 / +03:04		+03:01 / +02:57		+02:54 / +02:51		+02:47 / +02:43		+02:40 / +02:36		+02:32 / +02:28	
Kulmination UT	11:56:56		11:57:03		11:57:09		11:57:17		11:57:24		11:57:32	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

Mo 31.05.

UT	Grt	Dec
00	180°35.8'	N 21°51.1'
01	195°35.7'	N 21°51.5'
02	210°35.7'	N 21°51.8'
03	225°35.6'	N 21°52.2'
04	240°35.5'	N 21°52.6'
05	255°35.4'	N 21°52.9'
06	270°35.3'	N 21°53.3'
07	285°35.2'	N 21°53.6'
08	300°35.1'	N 21°54.0'
09	315°35.0'	N 21°54.3'
10	330°34.9'	N 21°54.7'
11	345°34.8'	N 21°55.1'
12	0°34.8'	N 21°55.4'
13	15°34.7'	N 21°55.8'
14	30°34.6'	N 21°56.1'
15	45°34.5'	N 21°56.5'
16	60°34.4'	N 21°56.8'
17	75°34.3'	N 21°57.2'
18	90°34.2'	N 21°57.5'
19	105°34.1'	N 21°57.9'
20	120°34.0'	N 21°58.2'
21	135°33.9'	N 21°58.6'
22	150°33.8'	N 21°58.9'
23	165°33.7'	N 21°59.3'

Zeitgl. 0h / 12h +02:23 / +02:19

Kulmination UT 11:57:41

Halbmesser 15.8'

2027

Juni

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Di 01.06.		Mi 02.06.		Do 03.06.		Fr 04.06.		Sa 05.06.		So 06.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°33.6'	N 21°59.6'	180°31.4'	N 22°07.7'	180°29.0'	N 22°15.5'	180°26.5'	N 22°22.8'	180°23.9'	N 22°29.8'	180°21.3'	N 22°36.3'
01	195°33.6'	N 22°00.0'	195°31.3'	N 22°08.1'	195°28.9'	N 22°15.8'	195°26.4'	N 22°23.1'	195°23.8'	N 22°30.0'	195°21.2'	N 22°36.6'
02	210°33.5'	N 22°00.3'	210°31.2'	N 22°08.4'	210°28.8'	N 22°16.1'	210°26.3'	N 22°23.4'	210°23.7'	N 22°30.3'	210°21.0'	N 22°36.9'
03	225°33.4'	N 22°00.7'	225°31.1'	N 22°08.7'	225°28.7'	N 22°16.4'	225°26.2'	N 22°23.7'	225°23.6'	N 22°30.6'	225°20.9'	N 22°37.1'
04	240°33.3'	N 22°01.0'	240°31.0'	N 22°09.1'	240°28.6'	N 22°16.7'	240°26.1'	N 22°24.0'	240°23.5'	N 22°30.9'	240°20.8'	N 22°37.4'
05	255°33.2'	N 22°01.3'	255°30.9'	N 22°09.4'	255°28.5'	N 22°17.0'	255°26.0'	N 22°24.3'	255°23.4'	N 22°31.2'	255°20.7'	N 22°37.6'
06	270°33.1'	N 22°01.7'	270°30.8'	N 22°09.7'	270°28.4'	N 22°17.3'	270°25.9'	N 22°24.6'	270°23.3'	N 22°31.4'	270°20.6'	N 22°37.9'
07	285°33.0'	N 22°02.0'	285°30.7'	N 22°10.0'	285°28.3'	N 22°17.7'	285°25.7'	N 22°24.9'	285°23.2'	N 22°31.7'	285°20.5'	N 22°38.2'
08	300°32.9'	N 22°02.4'	300°30.6'	N 22°10.4'	300°28.2'	N 22°18.0'	300°25.6'	N 22°25.2'	300°23.0'	N 22°32.0'	300°20.4'	N 22°38.4'
09	315°32.8'	N 22°02.7'	315°30.5'	N 22°10.7'	315°28.0'	N 22°18.3'	315°25.5'	N 22°25.5'	315°22.9'	N 22°32.3'	315°20.3'	N 22°38.7'
10	330°32.7'	N 22°03.0'	330°30.4'	N 22°11.0'	330°27.9'	N 22°18.6'	330°25.4'	N 22°25.8'	330°22.8'	N 22°32.5'	330°20.1'	N 22°38.9'
11	345°32.6'	N 22°03.4'	345°30.3'	N 22°11.3'	345°27.8'	N 22°18.9'	345°25.3'	N 22°26.1'	345°22.7'	N 22°32.8'	345°20.0'	N 22°39.2'
12	0°32.5'	N 22°03.7'	0°30.2'	N 22°11.7'	0°27.7'	N 22°19.2'	0°25.2'	N 22°26.3'	0°22.6'	N 22°33.1'	0°19.9'	N 22°39.5'
13	15°32.4'	N 22°04.1'	15°30.1'	N 22°12.0'	15°27.6'	N 22°19.5'	15°25.1'	N 22°26.6'	15°22.5'	N 22°33.4'	15°19.8'	N 22°39.7'
14	30°32.3'	N 22°04.4'	30°30.0'	N 22°12.3'	30°27.5'	N 22°19.8'	30°25.0'	N 22°26.9'	30°22.4'	N 22°33.6'	30°19.7'	N 22°40.0'
15	45°32.2'	N 22°04.7'	45°29.9'	N 22°12.6'	45°27.4'	N 22°20.1'	45°24.9'	N 22°27.2'	45°22.3'	N 22°33.9'	45°19.6'	N 22°40.2'
16	60°32.1'	N 22°05.1'	60°29.8'	N 22°12.9'	60°27.3'	N 22°20.4'	60°24.8'	N 22°27.5'	60°22.2'	N 22°34.2'	60°19.5'	N 22°40.5'
17	75°32.0'	N 22°05.4'	75°29.7'	N 22°13.3'	75°27.2'	N 22°20.7'	75°24.7'	N 22°27.8'	75°22.0'	N 22°34.5'	75°19.3'	N 22°40.7'
18	90°31.9'	N 22°05.7'	90°29.6'	N 22°13.6'	90°27.1'	N 22°21.0'	90°24.6'	N 22°28.1'	90°21.9'	N 22°34.7'	90°19.2'	N 22°41.0'
19	105°31.8'	N 22°06.1'	105°29.5'	N 22°13.9'	105°27.0'	N 22°21.3'	105°24.5'	N 22°28.4'	105°21.8'	N 22°35.0'	105°19.1'	N 22°41.2'
20	120°31.7'	N 22°06.4'	120°29.4'	N 22°14.2'	120°26.9'	N 22°21.6'	120°24.4'	N 22°28.6'	120°21.7'	N 22°35.3'	120°19.0'	N 22°41.5'
21	135°31.6'	N 22°06.7'	135°29.3'	N 22°14.5'	135°26.8'	N 22°21.9'	135°24.2'	N 22°28.9'	135°21.6'	N 22°35.5'	135°18.9'	N 22°41.7'
22	150°31.5'	N 22°07.1'	150°29.2'	N 22°14.8'	150°26.7'	N 22°22.2'	150°24.1'	N 22°29.2'	150°21.5'	N 22°35.8'	150°18.8'	N 22°42.0'
23	165°31.5'	N 22°07.4'	165°29.1'	N 22°15.2'	165°26.6'	N 22°22.5'	165°24.0'	N 22°29.5'	165°21.4'	N 22°36.1'	165°18.7'	N 22°42.2'
Zeitgl. 0h / 12h	+02:15 / +02:10		+02:05 / +02:01		+01:56 / +01:51		+01:46 / +01:41		+01:36 / +01:30		+01:25 / +01:20	
Kulmination UT	11:57:50		11:57:59		11:58:09		11:58:19		11:58:30		11:58:40	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Mo 07.06.		Di 08.06.		Mi 09.06.		Do 10.06.		Fr 11.06.		Sa 12.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°18.5'	N 22°42.5'	180°15.7'	N 22°48.3'	180°12.9'	N 22°53.6'	180°09.9'	N 22°58.6'	180°06.9'	N 23°03.1'	180°03.9'	N 23°07.3'
01	195°18.4'	N 22°42.7'	195°15.6'	N 22°48.5'	195°12.7'	N 22°53.8'	195°09.8'	N 22°58.8'	195°06.8'	N 23°03.3'	195°03.8'	N 23°07.4'
02	210°18.3'	N 22°43.0'	210°15.5'	N 22°48.7'	210°12.6'	N 22°54.0'	210°09.7'	N 22°59.0'	210°06.7'	N 23°03.5'	210°03.6'	N 23°07.6'
03	225°18.2'	N 22°43.2'	225°15.4'	N 22°48.9'	225°12.5'	N 22°54.3'	225°09.6'	N 22°59.2'	225°06.6'	N 23°03.7'	225°03.5'	N 23°07.8'
04	240°18.1'	N 22°43.5'	240°15.3'	N 22°49.2'	240°12.4'	N 22°54.5'	240°09.4'	N 22°59.4'	240°06.4'	N 23°03.9'	240°03.4'	N 23°07.9'
05	255°18.0'	N 22°43.7'	255°15.1'	N 22°49.4'	255°12.3'	N 22°54.7'	255°09.3'	N 22°59.6'	255°06.3'	N 23°04.0'	255°03.2'	N 23°08.1'
06	270°17.8'	N 22°44.0'	270°15.0'	N 22°49.6'	270°12.1'	N 22°54.9'	270°09.2'	N 22°59.8'	270°06.2'	N 23°04.2'	270°03.1'	N 23°08.3'
07	285°17.7'	N 22°44.2'	285°14.9'	N 22°49.9'	285°12.0'	N 22°55.1'	285°09.1'	N 22°59.9'	285°06.1'	N 23°04.4'	285°03.0'	N 23°08.4'
08	300°17.6'	N 22°44.5'	300°14.8'	N 22°50.1'	300°11.9'	N 22°55.3'	300°08.9'	N 23°00.1'	300°05.9'	N 23°04.6'	300°02.9'	N 23°08.6'
09	315°17.5'	N 22°44.7'	315°14.7'	N 22°50.3'	315°11.8'	N 22°55.5'	315°08.8'	N 23°00.3'	315°05.8'	N 23°04.7'	315°02.7'	N 23°08.7'
10	330°17.4'	N 22°44.9'	330°14.5'	N 22°50.5'	330°11.6'	N 22°55.7'	330°08.7'	N 23°00.5'	330°05.7'	N 23°04.9'	330°02.6'	N 23°08.9'
11	345°17.3'	N 22°45.2'	345°14.4'	N 22°50.8'	345°11.5'	N 22°55.9'	345°08.6'	N 23°00.7'	345°05.5'	N 23°05.1'	345°02.5'	N 23°09.1'
12	0°17.1'	N 22°45.4'	0°14.3'	N 22°51.0'	0°11.4'	N 22°56.1'	0°08.4'	N 23°00.9'	0°05.4'	N 23°05.3'	0°02.3'	N 23°09.2'
13	15°17.0'	N 22°45.7'	15°14.2'	N 22°51.2'	15°11.3'	N 22°56.4'	15°08.3'	N 23°01.1'	15°05.3'	N 23°05.4'	15°02.2'	N 23°09.4'
14	30°16.9'	N 22°45.9'	30°14.1'	N 22°51.4'	30°11.2'	N 22°56.6'	30°08.2'	N 23°01.3'	30°05.2'	N 23°05.6'	30°02.1'	N 23°09.5'
15	45°16.8'	N 22°46.1'	45°13.9'	N 22°51.7'	45°11.0'	N 22°56.8'	45°08.1'	N 23°01.5'	45°05.0'	N 23°05.8'	45°02.0'	N 23°09.7'
16	60°16.7'	N 22°46.4'	60°13.8'	N 22°51.9'	60°10.9'	N 22°57.0'	60°07.9'	N 23°01.7'	60°04.9'	N 23°05.9'	60°01.8'	N 23°09.8'
17	75°16.6'	N 22°46.6'	75°13.7'	N 22°52.1'	75°10.8'	N 22°57.2'	75°07.8'	N 23°01.8'	75°04.8'	N 23°06.1'	75°01.7'	N 23°10.0'
18	90°16.4'	N 22°46.9'	90°13.6'	N 22°52.3'	90°10.7'	N 22°57.4'	90°07.7'	N 23°02.0'	90°04.7'	N 23°06.3'	90°01.6'	N 23°10.1'
19	105°16.3'	N 22°47.1'	105°13.5'	N 22°52.5'	105°10.5'	N 22°57.6'	105°07.6'	N 23°02.2'	105°04.5'	N 23°06.5'	105°01.4'	N 23°10.3'
20	120°16.2'	N 22°47.3'	120°13.3'	N 22°52.8'	120°10.4'	N 22°57.8'	120°07.4'	N 23°02.4'	120°04.4'	N 23°06.6'	120°01.3'	N 23°10.4'
21	135°16.1'	N 22°47.6'	135°13.2'	N 22°53.0'	135°10.3'	N 22°58.0'	135°07.3'	N 23°02.6'	135°04.3'	N 23°06.8'	135°01.2'	N 23°10.6'
22	150°16.0'	N 22°47.8'	150°13.1'	N 22°53.2'	150°10.2'	N 22°58.2'	150°07.2'	N 23°02.8'	150°04.1'	N 23°07.0'	150°01.1'	N 23°10.7'
23	165°15.9'	N 22°48.0'	165°13.0'	N 22°53.4'	165°10.1'	N 22°58.4'	165°07.1'	N 23°03.0'	165°04.0'	N 23°07.1'	165°00.9'	N 23°10.9'
Zeitgl. 0h / 12h	+01:14 / +01:09		+01:03 / +00:57		+00:51 / +00:46		+00:40 / +00:34		+00:28 / +00:22		+00:16 / +00:09	
Kulmination UT	11:58:51		11:59:03		11:59:14		11:59:26		11:59:38		11:59:51	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	So 13.06.		Mo 14.06.		Di 15.06.		Mi 16.06.		Do 17.06.		Fr 18.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°00.8'	N 23°11.0'	179°57.7'	N 23°14.4'	179°54.5'	N 23°17.3'	179°51.3'	N 23°19.8'	179°48.1'	N 23°21.9'	179°44.8'	N 23°23.6'
01	195°00.7'	N 23°11.2'	194°57.5'	N 23°14.5'	194°54.4'	N 23°17.4'	194°51.2'	N 23°19.9'	194°47.9'	N 23°22.0'	194°44.7'	N 23°23.7'
02	210°00.5'	N 23°11.3'	209°57.4'	N 23°14.6'	209°54.2'	N 23°17.5'	209°51.0'	N 23°20.0'	209°47.8'	N 23°22.1'	209°44.5'	N 23°23.7'
03	225°00.4'	N 23°11.5'	224°57.3'	N 23°14.7'	224°54.1'	N 23°17.6'	224°50.9'	N 23°20.1'	224°47.7'	N 23°22.1'	224°44.4'	N 23°23.8'
04	240°00.3'	N 23°11.6'	239°57.1'	N 23°14.9'	239°54.0'	N 23°17.7'	239°50.8'	N 23°20.2'	239°47.5'	N 23°22.2'	239°44.3'	N 23°23.8'
05	255°00.1'	N 23°11.8'	254°57.0'	N 23°15.0'	254°53.8'	N 23°17.8'	254°50.6'	N 23°20.3'	254°47.4'	N 23°22.3'	254°44.1'	N 23°23.9'
06	270°00.0'	N 23°11.9'	269°56.9'	N 23°15.1'	269°53.7'	N 23°18.0'	269°50.5'	N 23°20.4'	269°47.3'	N 23°22.4'	269°44.0'	N 23°23.9'
07	284°59.9'	N 23°12.0'	284°56.7'	N 23°15.3'	284°53.6'	N 23°18.1'	284°50.3'	N 23°20.5'	284°47.1'	N 23°22.4'	284°43.9'	N 23°24.0'
08	299°59.8'	N 23°12.2'	299°56.6'	N 23°15.4'	299°53.4'	N 23°18.2'	299°50.2'	N 23°20.5'	299°47.0'	N 23°22.5'	299°43.7'	N 23°24.1'
09	314°59.6'	N 23°12.3'	314°56.5'	N 23°15.5'	314°53.3'	N 23°18.3'	314°50.1'	N 23°20.6'	314°46.8'	N 23°22.6'	314°43.6'	N 23°24.1'
10	329°59.5'	N 23°12.5'	329°56.3'	N 23°15.6'	329°53.2'	N 23°18.4'	329°49.9'	N 23°20.7'	329°46.7'	N 23°22.7'	329°43.5'	N 23°24.2'
11	344°59.4'	N 23°12.6'	344°56.2'	N 23°15.8'	344°53.0'	N 23°18.5'	344°49.8'	N 23°20.8'	344°46.6'	N 23°22.7'	344°43.3'	N 23°24.2'
12	359°59.2'	N 23°12.7'	359°56.1'	N 23°15.9'	359°52.9'	N 23°18.6'	359°49.7'	N 23°20.9'	359°46.4'	N 23°22.8'	359°43.2'	N 23°24.3'
13	14°59.1'	N 23°12.9'	14°55.9'	N 23°16.0'	14°52.8'	N 23°18.7'	14°49.5'	N 23°21.0'	14°46.3'	N 23°22.9'	14°43.1'	N 23°24.3'
14	29°59.0'	N 23°13.0'	29°55.8'	N 23°16.1'	29°52.6'	N 23°18.8'	29°49.4'	N 23°21.1'	29°46.2'	N 23°22.9'	29°42.9'	N 23°24.4'
15	44°58.8'	N 23°13.2'	44°55.7'	N 23°16.2'	44°52.5'	N 23°18.9'	44°49.3'	N 23°21.2'	44°46.0'	N 23°23.0'	44°42.8'	N 23°24.4'
16	59°58.7'	N 23°13.3'	59°55.6'	N 23°16.4'	59°52.4'	N 23°19.0'	59°49.1'	N 23°21.2'	59°45.9'	N 23°23.1'	59°42.6'	N 23°24.5'
17	74°58.6'	N 23°13.4'	74°55.4'	N 23°16.5'	74°52.2'	N 23°19.1'	74°49.0'	N 23°21.3'	74°45.8'	N 23°23.1'	74°42.5'	N 23°24.5'
18	89°58.4'	N 23°13.6'	89°55.3'	N 23°16.6'	89°52.1'	N 23°19.2'	89°48.9'	N 23°21.4'	89°45.6'	N 23°23.2'	89°42.4'	N 23°24.6'
19	104°58.3'	N 23°13.7'	104°55.2'	N 23°16.7'	104°52.0'	N 23°19.3'	104°48.7'	N 23°21.5'	104°45.5'	N 23°23.3'	104°42.2'	N 23°24.6'
20	119°58.2'	N 23°13.8'	119°55.0'	N 23°16.8'	119°51.8'	N 23°19.4'	119°48.6'	N 23°21.6'	119°45.4'	N 23°23.3'	119°42.1'	N 23°24.7'
21	134°58.1'	N 23°14.0'	134°54.9'	N 23°16.9'	134°51.7'	N 23°19.5'	134°48.5'	N 23°21.7'	134°45.2'	N 23°23.4'	134°42.0'	N 23°24.7'
22	149°57.9'	N 23°14.1'	149°54.8'	N 23°17.1'	149°51.6'	N 23°19.6'	149°48.3'	N 23°21.7'	149°45.1'	N 23°23.5'	149°41.8'	N 23°24.8'
23	164°57.8'	N 23°14.2'	164°54.6'	N 23°17.2'	164°51.4'	N 23°19.7'	164°48.2'	N 23°21.8'	164°44.9'	N 23°23.5'	164°41.7'	N 23°24.8'
Zeitgl. 0h / 12h	+00:03 / -00:03		-00:09 / -00:16		-00:22 / -00:28		-00:35 / -00:41		-00:48 / -00:54		-01:01 / -01:07	
Kulmination UT	12:00:03		12:00:16		12:00:28		12:00:41		12:00:54		12:01:07	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Sa 19.06.		So 20.06.		Mo 21.06.		Di 22.06.		Mi 23.06.		Do 24.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°41.6'	N 23°24.9'	179°38.3'	N 23°25.7'	179°35.0'	N 23°26.2'	179°31.8'	N 23°26.2'	179°28.5'	N 23°25.8'	179°25.3'	N 23°25.0'
01	194°41.4'	N 23°24.9'	194°38.2'	N 23°25.8'	194°34.9'	N 23°26.2'	194°31.6'	N 23°26.2'	194°28.4'	N 23°25.8'	194°25.1'	N 23°25.0'
02	209°41.3'	N 23°25.0'	209°38.0'	N 23°25.8'	209°34.7'	N 23°26.2'	209°31.5'	N 23°26.2'	209°28.2'	N 23°25.8'	209°25.0'	N 23°25.0'
03	224°41.1'	N 23°25.0'	224°37.9'	N 23°25.8'	224°34.6'	N 23°26.2'	224°31.4'	N 23°26.2'	224°28.1'	N 23°25.8'	224°24.9'	N 23°24.9'
04	239°41.0'	N 23°25.0'	239°37.7'	N 23°25.8'	239°34.5'	N 23°26.2'	239°31.2'	N 23°26.2'	239°28.0'	N 23°25.7'	239°24.7'	N 23°24.9'
05	254°40.9'	N 23°25.1'	254°37.6'	N 23°25.9'	254°34.3'	N 23°26.2'	254°31.1'	N 23°26.2'	254°27.8'	N 23°25.7'	254°24.6'	N 23°24.8'
06	269°40.7'	N 23°25.1'	269°37.5'	N 23°25.9'	269°34.2'	N 23°26.2'	269°30.9'	N 23°26.2'	269°27.7'	N 23°25.7'	269°24.5'	N 23°24.8'
07	284°40.6'	N 23°25.2'	284°37.3'	N 23°25.9'	284°34.1'	N 23°26.2'	284°30.8'	N 23°26.1'	284°27.6'	N 23°25.6'	284°24.3'	N 23°24.7'
08	299°40.5'	N 23°25.2'	299°37.2'	N 23°25.9'	299°33.9'	N 23°26.2'	299°30.7'	N 23°26.1'	299°27.4'	N 23°25.6'	299°24.2'	N 23°24.7'
09	314°40.3'	N 23°25.2'	314°37.1'	N 23°25.9'	314°33.8'	N 23°26.2'	314°30.5'	N 23°26.1'	314°27.3'	N 23°25.6'	314°24.1'	N 23°24.6'
10	329°40.2'	N 23°25.3'	329°36.9'	N 23°26.0'	329°33.7'	N 23°26.2'	329°30.4'	N 23°26.1'	329°27.2'	N 23°25.6'	329°23.9'	N 23°24.6'
11	344°40.1'	N 23°25.3'	344°36.8'	N 23°26.0'	344°33.5'	N 23°26.2'	344°30.3'	N 23°26.1'	344°27.0'	N 23°25.5'	344°23.8'	N 23°24.5'
12	359°39.9'	N 23°25.3'	359°36.7'	N 23°26.0'	359°33.4'	N 23°26.2'	359°30.1'	N 23°26.1'	359°26.9'	N 23°25.5'	359°23.7'	N 23°24.5'
13	14°39.8'	N 23°25.4'	14°36.5'	N 23°26.0'	14°33.3'	N 23°26.2'	14°30.0'	N 23°26.1'	14°26.7'	N 23°25.5'	14°23.5'	N 23°24.4'
14	29°39.7'	N 23°25.4'	29°36.4'	N 23°26.0'	29°33.1'	N 23°26.2'	29°29.9'	N 23°26.0'	29°26.6'	N 23°25.4'	29°23.4'	N 23°24.4'
15	44°39.5'	N 23°25.5'	44°36.2'	N 23°26.1'	44°33.0'	N 23°26.2'	44°29.7'	N 23°26.0'	44°26.5'	N 23°25.4'	44°23.3'	N 23°24.3'
16	59°39.4'	N 23°25.5'	59°36.1'	N 23°26.1'	59°32.8'	N 23°26.2'	59°29.6'	N 23°26.0'	59°26.3'	N 23°25.4'	59°23.1'	N 23°24.3'
17	74°39.2'	N 23°25.5'	74°36.0'	N 23°26.1'	74°32.7'	N 23°26.2'	74°29.5'	N 23°26.0'	74°26.2'	N 23°25.3'	74°23.0'	N 23°24.2'
18	89°39.1'	N 23°25.6'	89°35.8'	N 23°26.1'	89°32.6'	N 23°26.2'	89°29.3'	N 23°26.0'	89°26.1'	N 23°25.3'	89°22.9'	N 23°24.2'
19	104°39.0'	N 23°25.6'	104°35.7'	N 23°26.1'	104°32.4'	N 23°26.2'	104°29.2'	N 23°25.9'	104°25.9'	N 23°25.2'	104°22.7'	N 23°24.1'
20	119°38.8'	N 23°25.6'	119°35.6'	N 23°26.1'	119°32.3'	N 23°26.2'	119°29.0'	N 23°25.9'	119°25.8'	N 23°25.2'	119°22.6'	N 23°24.1'
21	134°38.7'	N 23°25.6'	134°35.4'	N 23°26.1'	134°32.2'	N 23°26.2'	134°28.9'	N 23°25.9'	134°25.7'	N 23°25.2'	134°22.5'	N 23°24.0'
22	149°38.6'	N 23°25.7'	149°35.3'	N 23°26.2'	149°32.0'	N 23°26.2'	149°28.8'	N 23°25.9'	149°25.5'	N 23°25.1'	149°22.3'	N 23°24.0'
23	164°38.4'	N 23°25.7'	164°35.2'	N 23°26.2'	164°31.9'	N 23°26.2'	164°28.6'	N 23°25.9'	164°25.4'	N 23°25.1'	164°22.2'	N 23°23.9'
Zeitgl. 0h / 12h	-01:14 / -01:20		-01:27 / -01:33		-01:40 / -01:46		-01:53 / -01:59		-02:06 / -02:12		-02:19 / -02:25	
Kulmination UT	12:01:20		12:01:33		12:01:46		12:01:59		12:02:12		12:02:25	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Fr 25.06.		Sa 26.06.		So 27.06.		Mo 28.06.		Di 29.06.		Mi 30.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°22.1'	N 23°23.8'	179°18.9'	N 23°22.2'	179°15.7'	N 23°20.2'	179°12.6'	N 23°17.8'	179°09.5'	N 23°14.9'	179°06.5'	N 23°11.7'
01	194°21.9'	N 23°23.8'	194°18.7'	N 23°22.2'	194°15.6'	N 23°20.1'	194°12.5'	N 23°17.7'	194°09.4'	N 23°14.8'	194°06.4'	N 23°11.5'
02	209°21.8'	N 23°23.7'	209°18.6'	N 23°22.1'	209°15.5'	N 23°20.0'	209°12.3'	N 23°17.5'	209°09.3'	N 23°14.7'	209°06.3'	N 23°11.4'
03	224°21.7'	N 23°23.7'	224°18.5'	N 23°22.0'	224°15.3'	N 23°19.9'	224°12.2'	N 23°17.4'	224°09.2'	N 23°14.5'	224°06.1'	N 23°11.2'
04	239°21.5'	N 23°23.6'	239°18.3'	N 23°21.9'	239°15.2'	N 23°19.8'	239°12.1'	N 23°17.3'	239°09.0'	N 23°14.4'	239°06.0'	N 23°11.1'
05	254°21.4'	N 23°23.5'	254°18.2'	N 23°21.8'	254°15.1'	N 23°19.7'	254°12.0'	N 23°17.2'	254°08.9'	N 23°14.3'	254°05.9'	N 23°10.9'
06	269°21.3'	N 23°23.5'	269°18.1'	N 23°21.8'	269°14.9'	N 23°19.6'	269°11.8'	N 23°17.1'	269°08.8'	N 23°14.1'	269°05.8'	N 23°10.8'
07	284°21.1'	N 23°23.4'	284°17.9'	N 23°21.7'	284°14.8'	N 23°19.5'	284°11.7'	N 23°17.0'	284°08.6'	N 23°14.0'	284°05.6'	N 23°10.6'
08	299°21.0'	N 23°23.4'	299°17.8'	N 23°21.6'	299°14.7'	N 23°19.4'	299°11.6'	N 23°16.9'	299°08.5'	N 23°13.9'	299°05.5'	N 23°10.5'
09	314°20.9'	N 23°23.3'	314°17.7'	N 23°21.5'	314°14.5'	N 23°19.3'	314°11.4'	N 23°16.7'	314°08.4'	N 23°13.7'	314°05.4'	N 23°10.3'
10	329°20.7'	N 23°23.2'	329°17.5'	N 23°21.4'	329°14.4'	N 23°19.2'	329°11.3'	N 23°16.6'	329°08.3'	N 23°13.6'	329°05.3'	N 23°10.2'
11	344°20.6'	N 23°23.2'	344°17.4'	N 23°21.4'	344°14.3'	N 23°19.1'	344°11.2'	N 23°16.5'	344°08.1'	N 23°13.5'	344°05.2'	N 23°10.0'
12	359°20.5'	N 23°23.1'	359°17.3'	N 23°21.3'	359°14.2'	N 23°19.0'	359°11.1'	N 23°16.4'	359°08.0'	N 23°13.3'	359°05.0'	N 23°09.9'
13	14°20.3'	N 23°23.0'	14°17.2'	N 23°21.2'	14°14.0'	N 23°18.9'	14°10.9'	N 23°16.3'	14°07.9'	N 23°13.2'	14°04.9'	N 23°09.7'
14	29°20.2'	N 23°23.0'	29°17.0'	N 23°21.1'	29°13.9'	N 23°18.8'	29°10.8'	N 23°16.2'	29°07.8'	N 23°13.1'	29°04.8'	N 23°09.6'
15	44°20.1'	N 23°22.9'	44°16.9'	N 23°21.0'	44°13.8'	N 23°18.7'	44°10.7'	N 23°16.0'	44°07.6'	N 23°12.9'	44°04.7'	N 23°09.4'
16	59°19.9'	N 23°22.8'	59°16.8'	N 23°20.9'	59°13.6'	N 23°18.6'	59°10.6'	N 23°15.9'	59°07.5'	N 23°12.8'	59°04.5'	N 23°09.3'
17	74°19.8'	N 23°22.7'	74°16.6'	N 23°20.8'	74°13.5'	N 23°18.5'	74°10.4'	N 23°15.8'	74°07.4'	N 23°12.7'	74°04.4'	N 23°09.1'
18	89°19.7'	N 23°22.7'	89°16.5'	N 23°20.7'	89°13.4'	N 23°18.4'	89°10.3'	N 23°15.7'	89°07.3'	N 23°12.5'	89°04.3'	N 23°09.0'
19	104°19.5'	N 23°22.6'	104°16.4'	N 23°20.7'	104°13.2'	N 23°18.3'	104°10.2'	N 23°15.5'	104°07.1'	N 23°12.4'	104°04.2'	N 23°08.8'
20	119°19.4'	N 23°22.5'	119°16.2'	N 23°20.6'	119°13.1'	N 23°18.2'	119°10.0'	N 23°15.4'	119°07.0'	N 23°12.2'	119°04.0'	N 23°08.6'
21	134°19.3'	N 23°22.5'	134°16.1'	N 23°20.5'	134°13.0'	N 23°18.1'	134°09.9'	N 23°15.3'	134°06.9'	N 23°12.1'	134°03.9'	N 23°08.5'
22	149°19.1'	N 23°22.4'	149°16.0'	N 23°20.4'	149°12.9'	N 23°18.0'	149°09.8'	N 23°15.2'	149°06.8'	N 23°12.0'	149°03.8'	N 23°08.3'
23	164°19.0'	N 23°22.3'	164°15.8'	N 23°20.3'	164°12.7'	N 23°17.9'	164°09.7'	N 23°15.0'	164°06.6'	N 23°11.8'	164°03.7'	N 23°08.2'
Zeitgl. 0h / 12h	-02:32 / -02:38		-02:45 / -02:51		-02:57 / -03:03		-03:10 / -03:16		-03:22 / -03:28		-03:34 / -03:40	
Kulmination UT	12:02:38		12:02:51		12:03:03		12:03:16		12:03:28		12:03:40	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

2027

Juli

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Do 01.07.		Fr 02.07.		Sa 03.07.		So 04.07.		Mo 05.07.		Di 06.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°03.6'	N 23°08.0'	179°00.7'	N 23°03.9'	178°57.8'	N 22°59.5'	178°55.1'	N 22°54.6'	178°52.4'	N 22°49.3'	178°49.8'	N 22°43.7'
01	194°03.4'	N 23°07.8'	194°00.5'	N 23°03.8'	193°57.7'	N 22°59.3'	193°55.0'	N 22°54.4'	193°52.3'	N 22°49.1'	193°49.7'	N 22°43.4'
02	209°03.3'	N 23°07.7'	209°00.4'	N 23°03.6'	208°57.6'	N 22°59.1'	208°54.8'	N 22°54.2'	208°52.2'	N 22°48.9'	208°49.6'	N 22°43.2'
03	224°03.2'	N 23°07.5'	224°00.3'	N 23°03.4'	223°57.5'	N 22°58.9'	223°54.7'	N 22°54.0'	223°52.1'	N 22°48.7'	223°49.5'	N 22°42.9'
04	239°03.1'	N 23°07.4'	239°00.2'	N 23°03.2'	238°57.4'	N 22°58.7'	238°54.6'	N 22°53.8'	238°51.9'	N 22°48.4'	238°49.4'	N 22°42.7'
05	254°02.9'	N 23°07.2'	254°00.1'	N 23°03.0'	253°57.2'	N 22°58.5'	253°54.5'	N 22°53.5'	253°51.8'	N 22°48.2'	253°49.3'	N 22°42.4'
06	269°02.8'	N 23°07.0'	268°59.9'	N 23°02.9'	268°57.1'	N 22°58.3'	268°54.4'	N 22°53.3'	268°51.7'	N 22°48.0'	268°49.2'	N 22°42.2'
07	284°02.7'	N 23°06.9'	283°59.8'	N 23°02.7'	283°57.0'	N 22°58.1'	283°54.3'	N 22°53.1'	283°51.6'	N 22°47.7'	283°49.0'	N 22°42.0'
08	299°02.6'	N 23°06.7'	298°59.7'	N 23°02.5'	298°56.9'	N 22°57.9'	298°54.2'	N 22°52.9'	298°51.5'	N 22°47.5'	298°48.9'	N 22°41.7'
09	314°02.5'	N 23°06.5'	313°59.6'	N 23°02.3'	313°56.8'	N 22°57.7'	313°54.1'	N 22°52.7'	313°51.4'	N 22°47.3'	313°48.8'	N 22°41.5'
10	329°02.3'	N 23°06.4'	328°59.5'	N 23°02.1'	328°56.7'	N 22°57.5'	328°53.9'	N 22°52.5'	328°51.3'	N 22°47.0'	328°48.7'	N 22°41.2'
11	344°02.2'	N 23°06.2'	343°59.4'	N 23°01.9'	343°56.6'	N 22°57.3'	343°53.8'	N 22°52.2'	343°51.2'	N 22°46.8'	343°48.6'	N 22°41.0'
12	359°02.1'	N 23°06.0'	358°59.2'	N 23°01.8'	358°56.4'	N 22°57.1'	358°53.7'	N 22°52.0'	358°51.1'	N 22°46.6'	358°48.5'	N 22°40.7'
13	14°02.0'	N 23°05.9'	13°59.1'	N 23°01.6'	13°56.3'	N 22°56.9'	13°53.6'	N 22°51.8'	13°51.0'	N 22°46.3'	13°48.4'	N 22°40.4'
14	29°01.9'	N 23°05.7'	28°59.0'	N 23°01.4'	28°56.2'	N 22°56.7'	28°53.5'	N 22°51.6'	28°50.9'	N 22°46.1'	28°48.3'	N 22°40.2'
15	44°01.7'	N 23°05.5'	43°58.9'	N 23°01.2'	43°56.1'	N 22°56.5'	43°53.4'	N 22°51.4'	43°50.8'	N 22°45.8'	43°48.2'	N 22°39.9'
16	59°01.6'	N 23°05.3'	58°58.8'	N 23°01.0'	58°56.0'	N 22°56.3'	58°53.3'	N 22°51.1'	58°50.6'	N 22°45.6'	58°48.1'	N 22°39.7'
17	74°01.5'	N 23°05.2'	73°58.6'	N 23°00.8'	73°55.9'	N 22°56.1'	73°53.2'	N 22°50.9'	73°50.5'	N 22°45.4'	73°48.0'	N 22°39.4'
18	89°01.4'	N 23°05.0'	88°58.5'	N 23°00.6'	88°55.7'	N 22°55.9'	88°53.0'	N 22°50.7'	88°50.4'	N 22°45.1'	88°47.9'	N 22°39.2'
19	104°01.3'	N 23°04.8'	103°58.4'	N 23°00.4'	103°55.6'	N 22°55.7'	103°52.9'	N 22°50.5'	103°50.3'	N 22°44.9'	103°47.8'	N 22°38.9'
20	119°01.1'	N 23°04.7'	118°58.3'	N 23°00.3'	118°55.5'	N 22°55.4'	118°52.8'	N 22°50.2'	118°50.2'	N 22°44.7'	118°47.7'	N 22°38.7'
21	134°01.0'	N 23°04.5'	133°58.2'	N 23°00.1'	133°55.4'	N 22°55.2'	133°52.7'	N 22°50.0'	133°50.1'	N 22°44.4'	133°47.6'	N 22°38.4'
22	149°00.9'	N 23°04.3'	148°58.1'	N 22°59.9'	148°55.3'	N 22°55.0'	148°52.6'	N 22°49.8'	148°50.0'	N 22°44.2'	148°47.5'	N 22°38.1'
23	164°00.8'	N 23°04.1'	163°57.9'	N 22°59.7'	163°55.2'	N 22°54.8'	163°52.5'	N 22°49.6'	163°49.9'	N 22°43.9'	163°47.4'	N 22°37.9'
Zeitgl. 0h / 12h	-03:46 / -03:52		-03:57 / -04:03		-04:09 / -04:14		-04:20 / -04:25		-04:30 / -04:36		-04:41 / -04:46	
Kulmination UT	12:03:52		12:04:03		12:04:14		12:04:25		12:04:36		12:04:46	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Mi 07.07.		Do 08.07.		Fr 09.07.		Sa 10.07.		So 11.07.		Mo 12.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°47.3'	N 22°37.6'	178°44.9'	N 22°31.2'	178°42.5'	N 22°24.3'	178°40.3'	N 22°17.1'	178°38.2'	N 22°09.5'	178°36.2'	N 22°01.5'
01	193°47.2'	N 22°37.4'	193°44.8'	N 22°30.9'	193°42.4'	N 22°24.0'	193°40.2'	N 22°16.8'	193°38.1'	N 22°09.2'	193°36.1'	N 22°01.2'
02	208°47.1'	N 22°37.1'	208°44.7'	N 22°30.6'	208°42.3'	N 22°23.7'	208°40.1'	N 22°16.5'	208°38.0'	N 22°08.8'	208°36.0'	N 22°00.8'
03	223°47.0'	N 22°36.8'	223°44.6'	N 22°30.3'	223°42.3'	N 22°23.4'	223°40.0'	N 22°16.2'	223°37.9'	N 22°08.5'	223°36.0'	N 22°00.5'
04	238°46.9'	N 22°36.6'	238°44.5'	N 22°30.1'	238°42.2'	N 22°23.2'	238°40.0'	N 22°15.9'	238°37.9'	N 22°08.2'	238°35.9'	N 22°00.1'
05	253°46.8'	N 22°36.3'	253°44.4'	N 22°29.8'	253°42.1'	N 22°22.9'	253°39.9'	N 22°15.5'	253°37.8'	N 22°07.9'	253°35.8'	N 21°59.8'
06	268°46.7'	N 22°36.0'	268°44.3'	N 22°29.5'	268°42.0'	N 22°22.6'	268°39.8'	N 22°15.2'	268°37.7'	N 22°07.5'	268°35.7'	N 21°59.4'
07	283°46.6'	N 22°35.8'	283°44.2'	N 22°29.2'	283°41.9'	N 22°22.3'	283°39.7'	N 22°14.9'	283°37.6'	N 22°07.2'	283°35.6'	N 21°59.1'
08	298°46.5'	N 22°35.5'	298°44.1'	N 22°28.9'	298°41.8'	N 22°22.0'	298°39.6'	N 22°14.6'	298°37.5'	N 22°06.9'	298°35.6'	N 21°58.8'
09	313°46.4'	N 22°35.2'	313°44.0'	N 22°28.7'	313°41.7'	N 22°21.7'	313°39.5'	N 22°14.3'	313°37.4'	N 22°06.5'	313°35.5'	N 21°58.4'
10	328°46.3'	N 22°35.0'	328°43.9'	N 22°28.4'	328°41.6'	N 22°21.4'	328°39.4'	N 22°14.0'	328°37.4'	N 22°06.2'	328°35.4'	N 21°58.1'
11	343°46.2'	N 22°34.7'	343°43.8'	N 22°28.1'	343°41.5'	N 22°21.1'	343°39.3'	N 22°13.7'	343°37.3'	N 22°05.9'	343°35.3'	N 21°57.7'
12	358°46.1'	N 22°34.4'	358°43.7'	N 22°27.8'	358°41.4'	N 22°20.8'	358°39.2'	N 22°13.3'	358°37.2'	N 22°05.5'	358°35.2'	N 21°57.4'
13	13°46.0'	N 22°34.2'	13°43.6'	N 22°27.5'	13°41.3'	N 22°20.5'	13°39.2'	N 22°13.0'	13°37.1'	N 22°05.2'	13°35.2'	N 21°57.0'
14	28°45.9'	N 22°33.9'	28°43.5'	N 22°27.2'	28°41.2'	N 22°20.2'	28°39.1'	N 22°12.7'	28°37.0'	N 22°04.9'	28°35.1'	N 21°56.7'
15	43°45.8'	N 22°33.6'	43°43.4'	N 22°26.9'	43°41.1'	N 22°19.9'	43°39.0'	N 22°12.4'	43°36.9'	N 22°04.5'	43°35.0'	N 21°56.3'
16	58°45.7'	N 22°33.4'	58°43.3'	N 22°26.7'	58°41.0'	N 22°19.6'	58°38.9'	N 22°12.1'	58°36.9'	N 22°04.2'	58°34.9'	N 21°56.0'
17	73°45.6'	N 22°33.1'	73°43.2'	N 22°26.4'	73°41.0'	N 22°19.3'	73°38.8'	N 22°11.8'	73°36.8'	N 22°03.9'	73°34.8'	N 21°55.6'
18	88°45.5'	N 22°32.8'	88°43.1'	N 22°26.1'	88°40.9'	N 22°18.9'	88°38.7'	N 22°11.4'	88°36.7'	N 22°03.5'	88°34.8'	N 21°55.3'
19	103°45.4'	N 22°32.5'	103°43.0'	N 22°25.8'	103°40.8'	N 22°18.6'	103°38.6'	N 22°11.1'	103°36.6'	N 22°03.2'	103°34.7'	N 21°54.9'
20	118°45.3'	N 22°32.3'	118°42.9'	N 22°25.5'	118°40.7'	N 22°18.3'	118°38.5'	N 22°10.8'	118°36.5'	N 22°02.9'	118°34.6'	N 21°54.6'
21	133°45.2'	N 22°32.0'	133°42.8'	N 22°25.2'	133°40.6'	N 22°18.0'	133°38.5'	N 22°10.5'	133°36.4'	N 22°02.5'	133°34.5'	N 21°54.2'
22	148°45.1'	N 22°31.7'	148°42.7'	N 22°24.9'	148°40.5'	N 22°17.7'	148°38.4'	N 22°10.1'	148°36.4'	N 22°02.2'	148°34.5'	N 21°53.8'
23	163°45.0'	N 22°31.4'	163°42.6'	N 22°24.6'	163°40.4'	N 22°17.4'	163°38.3'	N 22°09.8'	163°36.3'	N 22°01.8'	163°34.4'	N 21°53.5'
Zeitgl. 0h / 12h	-04:51 / -04:56		-05:01 / -05:05		-05:10 / -05:14		-05:19 / -05:23		-05:27 / -05:31		-05:35 / -05:39	
Kulmination UT	12:04:56		12:05:05		12:05:14		12:05:23		12:05:31		12:05:39	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Di 13.07.		Mi 14.07.		Do 15.07.		Fr 16.07.		Sa 17.07.		So 18.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°34.3'	N 21°53.1'	178°32.5'	N 21°44.4'	178°30.9'	N 21°35.3'	178°29.4'	N 21°25.8'	178°28.0'	N 21°15.9'	178°26.7'	N 21°05.7'
01	193°34.2'	N 21°52.8'	193°32.5'	N 21°44.0'	193°30.8'	N 21°34.9'	193°29.3'	N 21°25.4'	193°27.9'	N 21°15.5'	193°26.6'	N 21°05.3'
02	208°34.2'	N 21°52.4'	208°32.4'	N 21°43.6'	208°30.7'	N 21°34.5'	208°29.2'	N 21°25.0'	208°27.8'	N 21°15.1'	208°26.6'	N 21°04.9'
03	223°34.1'	N 21°52.1'	223°32.3'	N 21°43.3'	223°30.7'	N 21°34.1'	223°29.2'	N 21°24.6'	223°27.8'	N 21°14.7'	223°26.5'	N 21°04.4'
04	238°34.0'	N 21°51.7'	238°32.2'	N 21°42.9'	238°30.6'	N 21°33.7'	238°29.1'	N 21°24.2'	238°27.7'	N 21°14.3'	238°26.5'	N 21°04.0'
05	253°33.9'	N 21°51.3'	253°32.2'	N 21°42.5'	253°30.5'	N 21°33.3'	253°29.0'	N 21°23.8'	253°27.7'	N 21°13.8'	253°26.4'	N 21°03.6'
06	268°33.8'	N 21°51.0'	268°32.1'	N 21°42.1'	268°30.5'	N 21°32.9'	268°29.0'	N 21°23.4'	268°27.6'	N 21°13.4'	268°26.4'	N 21°03.1'
07	283°33.8'	N 21°50.6'	283°32.0'	N 21°41.8'	283°30.4'	N 21°32.5'	283°28.9'	N 21°23.0'	283°27.6'	N 21°13.0'	283°26.3'	N 21°02.7'
08	298°33.7'	N 21°50.3'	298°32.0'	N 21°41.4'	298°30.4'	N 21°32.2'	298°28.9'	N 21°22.5'	298°27.5'	N 21°12.6'	298°26.3'	N 21°02.3'
09	313°33.6'	N 21°49.9'	313°31.9'	N 21°41.0'	313°30.3'	N 21°31.8'	313°28.8'	N 21°22.1'	313°27.5'	N 21°12.2'	313°26.2'	N 21°01.8'
10	328°33.6'	N 21°49.5'	328°31.8'	N 21°40.6'	328°30.2'	N 21°31.4'	328°28.8'	N 21°21.7'	328°27.4'	N 21°11.7'	328°26.2'	N 21°01.4'
11	343°33.5'	N 21°49.2'	343°31.8'	N 21°40.3'	343°30.2'	N 21°31.0'	343°28.7'	N 21°21.3'	343°27.4'	N 21°11.3'	343°26.1'	N 21°00.9'
12	358°33.4'	N 21°48.8'	358°31.7'	N 21°39.9'	358°30.1'	N 21°30.6'	358°28.6'	N 21°20.9'	358°27.3'	N 21°10.9'	358°26.1'	N 21°00.5'
13	13°33.3'	N 21°48.4'	13°31.6'	N 21°39.5'	13°30.0'	N 21°30.2'	13°28.6'	N 21°20.5'	13°27.2'	N 21°10.5'	13°26.0'	N 21°00.1'
14	28°33.3'	N 21°48.1'	28°31.6'	N 21°39.1'	28°30.0'	N 21°29.8'	28°28.5'	N 21°20.1'	28°27.2'	N 21°10.0'	28°26.0'	N 20°59.6'
15	43°33.2'	N 21°47.7'	43°31.5'	N 21°38.7'	43°29.9'	N 21°29.4'	43°28.5'	N 21°19.7'	43°27.1'	N 21°09.6'	43°26.0'	N 20°59.2'
16	58°33.1'	N 21°47.3'	58°31.4'	N 21°38.4'	58°29.8'	N 21°29.0'	58°28.4'	N 21°19.3'	58°27.1'	N 21°09.2'	58°25.9'	N 20°58.7'
17	73°33.0'	N 21°47.0'	73°31.3'	N 21°38.0'	73°29.8'	N 21°28.6'	73°28.3'	N 21°18.9'	73°27.0'	N 21°08.7'	73°25.9'	N 20°58.3'
18	88°33.0'	N 21°46.6'	88°31.3'	N 21°37.6'	88°29.7'	N 21°28.2'	88°28.3'	N 21°18.4'	88°27.0'	N 21°08.3'	88°25.8'	N 20°57.8'
19	103°32.9'	N 21°46.2'	103°31.2'	N 21°37.2'	103°29.7'	N 21°27.8'	103°28.2'	N 21°18.0'	103°26.9'	N 21°07.9'	103°25.8'	N 20°57.4'
20	118°32.8'	N 21°45.9'	118°31.1'	N 21°36.8'	118°29.6'	N 21°27.4'	118°28.2'	N 21°17.6'	118°26.9'	N 21°07.5'	118°25.7'	N 20°57.0'
21	133°32.7'	N 21°45.5'	133°31.1'	N 21°36.4'	133°29.5'	N 21°27.0'	133°28.1'	N 21°17.2'	133°26.8'	N 21°07.0'	133°25.7'	N 20°56.5'
22	148°32.7'	N 21°45.1'	148°31.0'	N 21°36.0'	148°29.5'	N 21°26.6'	148°28.1'	N 21°16.8'	148°26.8'	N 21°06.6'	148°25.6'	N 20°56.1'
23	163°32.6'	N 21°44.8'	163°30.9'	N 21°35.7'	163°29.4'	N 21°26.2'	163°28.0'	N 21°16.4'	163°26.7'	N 21°06.2'	163°25.6'	N 20°55.6'
Zeitgl. 0h / 12h	-05:43 / -05:46		-05:50 / -05:53		-05:56 / -06:00		-06:03 / -06:05		-06:08 / -06:11		-06:13 / -06:16	
Kulmination UT	12:05:46		12:05:53		12:06:00		12:06:05		12:06:11		12:06:16	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Mo 19.07.		Di 20.07.		Mi 21.07.		Do 22.07.		Fr 23.07.		Sa 24.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°25.5'	N 20°55.2'	178°24.5'	N 20°44.3'	178°23.7'	N 20°33.0'	178°23.0'	N 20°21.4'	178°22.4'	N 20°09.4'	178°22.0'	N 19°57.1'
01	193°25.5'	N 20°54.7'	193°24.5'	N 20°43.8'	193°23.7'	N 20°32.5'	193°22.9'	N 20°20.9'	193°22.4'	N 20°08.9'	193°21.9'	N 19°56.6'
02	208°25.5'	N 20°54.3'	208°24.5'	N 20°43.3'	208°23.6'	N 20°32.0'	208°22.9'	N 20°20.4'	208°22.3'	N 20°08.4'	208°21.9'	N 19°56.1'
03	223°25.4'	N 20°53.8'	223°24.4'	N 20°42.9'	223°23.6'	N 20°31.6'	223°22.9'	N 20°19.9'	223°22.3'	N 20°07.9'	223°21.9'	N 19°55.6'
04	238°25.4'	N 20°53.4'	238°24.4'	N 20°42.4'	238°23.6'	N 20°31.1'	238°22.9'	N 20°19.4'	238°22.3'	N 20°07.4'	238°21.9'	N 19°55.0'
05	253°25.3'	N 20°52.9'	253°24.4'	N 20°41.9'	253°23.5'	N 20°30.6'	253°22.8'	N 20°18.9'	253°22.3'	N 20°06.9'	253°21.9'	N 19°54.5'
06	268°25.3'	N 20°52.5'	268°24.3'	N 20°41.5'	268°23.5'	N 20°30.1'	268°22.8'	N 20°18.4'	268°22.3'	N 20°06.4'	268°21.9'	N 19°54.0'
07	283°25.2'	N 20°52.0'	283°24.3'	N 20°41.0'	283°23.5'	N 20°29.6'	283°22.8'	N 20°17.9'	283°22.2'	N 20°05.9'	283°21.9'	N 19°53.5'
08	298°25.2'	N 20°51.6'	298°24.2'	N 20°40.5'	298°23.4'	N 20°29.2'	298°22.8'	N 20°17.4'	298°22.2'	N 20°05.4'	298°21.8'	N 19°53.0'
09	313°25.2'	N 20°51.1'	313°24.2'	N 20°40.1'	313°23.4'	N 20°28.7'	313°22.7'	N 20°16.9'	313°22.2'	N 20°04.8'	313°21.8'	N 19°52.4'
10	328°25.1'	N 20°50.7'	328°24.2'	N 20°39.6'	328°23.4'	N 20°28.2'	328°22.7'	N 20°16.4'	328°22.2'	N 20°04.3'	328°21.8'	N 19°51.9'
11	343°25.1'	N 20°50.2'	343°24.1'	N 20°39.1'	343°23.3'	N 20°27.7'	343°22.7'	N 20°15.9'	343°22.2'	N 20°03.8'	343°21.8'	N 19°51.4'
12	358°25.0'	N 20°49.8'	358°24.1'	N 20°38.7'	358°23.3'	N 20°27.2'	358°22.7'	N 20°15.4'	358°22.2'	N 20°03.3'	358°21.8'	N 19°50.9'
13	13°25.0'	N 20°49.3'	13°24.1'	N 20°38.2'	13°23.3'	N 20°26.7'	13°22.6'	N 20°14.9'	13°22.1'	N 20°02.8'	13°21.8'	N 19°50.3'
14	28°24.9'	N 20°48.8'	28°24.0'	N 20°37.7'	28°23.2'	N 20°26.3'	28°22.6'	N 20°14.4'	28°22.1'	N 20°02.3'	28°21.8'	N 19°49.8'
15	43°24.9'	N 20°48.4'	43°24.0'	N 20°37.2'	43°23.2'	N 20°25.8'	43°22.6'	N 20°13.9'	43°22.1'	N 20°01.8'	43°21.8'	N 19°49.3'
16	58°24.9'	N 20°47.9'	58°24.0'	N 20°36.8'	58°23.2'	N 20°25.3'	58°22.6'	N 20°13.4'	58°22.1'	N 20°01.3'	58°21.8'	N 19°48.8'
17	73°24.8'	N 20°47.5'	73°23.9'	N 20°36.3'	73°23.2'	N 20°24.8'	73°22.5'	N 20°12.9'	73°22.1'	N 20°00.7'	73°21.7'	N 19°48.2'
18	88°24.8'	N 20°47.0'	88°23.9'	N 20°35.8'	88°23.1'	N 20°24.3'	88°22.5'	N 20°12.4'	88°22.1'	N 20°00.2'	88°21.7'	N 19°47.7'
19	103°24.7'	N 20°46.6'	103°23.9'	N 20°35.4'	103°23.1'	N 20°23.8'	103°22.5'	N 20°11.9'	103°22.0'	N 19°59.7'	103°21.7'	N 19°47.2'
20	118°24.7'	N 20°46.1'	118°23.8'	N 20°34.9'	118°23.1'	N 20°23.3'	118°22.5'	N 20°11.4'	118°22.0'	N 19°59.2'	118°21.7'	N 19°46.6'
21	133°24.7'	N 20°45.6'	133°23.8'	N 20°34.4'	133°23.0'	N 20°22.8'	133°22.5'	N 20°10.9'	133°22.0'	N 19°58.7'	133°21.7'	N 19°46.1'
22	148°24.6'	N 20°45.2'	148°23.8'	N 20°33.9'	148°23.0'	N 20°22.4'	148°22.4'	N 20°10.4'	148°22.0'	N 19°58.2'	148°21.7'	N 19°45.6'
23	163°24.6'	N 20°44.7'	163°23.7'	N 20°33.5'	163°23.0'	N 20°21.9'	163°22.4'	N 20°09.9'	163°22.0'	N 19°57.6'	163°21.7'	N 19°45.0'
Zeitgl. 0h / 12h	-06:18 / -06:20		-06:22 / -06:24		-06:25 / -06:27		-06:28 / -06:29		-06:30 / -06:31		-06:32 / -06:33	
Kulmination UT	12:06:20		12:06:24		12:06:27		12:06:29		12:06:31		12:06:33	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	So 25.07.		Mo 26.07.		Di 27.07.		Mi 28.07.		Do 29.07.		Fr 30.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°21.7'	N 19°44.5'	178°21.5'	N 19°31.6'	178°21.5'	N 19°18.3'	178°21.7'	N 19°04.7'	178°22.0'	N 18°50.8'	178°22.5'	N 18°36.6'
01	193°21.7'	N 19°44.0'	193°21.5'	N 19°31.0'	193°21.6'	N 19°17.7'	193°21.7'	N 19°04.1'	193°22.0'	N 18°50.2'	193°22.5'	N 18°36.0'
02	208°21.7'	N 19°43.4'	208°21.5'	N 19°30.5'	208°21.6'	N 19°17.2'	208°21.7'	N 19°03.5'	208°22.1'	N 18°49.6'	208°22.5'	N 18°35.4'
03	223°21.6'	N 19°42.9'	223°21.5'	N 19°29.9'	223°21.6'	N 19°16.6'	223°21.7'	N 19°03.0'	223°22.1'	N 18°49.0'	223°22.6'	N 18°34.8'
04	238°21.6'	N 19°42.4'	238°21.5'	N 19°29.4'	238°21.6'	N 19°16.0'	238°21.8'	N 19°02.4'	238°22.1'	N 18°48.4'	238°22.6'	N 18°34.2'
05	253°21.6'	N 19°41.8'	253°21.5'	N 19°28.8'	253°21.6'	N 19°15.5'	253°21.8'	N 19°01.8'	253°22.1'	N 18°47.8'	253°22.6'	N 18°33.6'
06	268°21.6'	N 19°41.3'	268°21.5'	N 19°28.3'	268°21.6'	N 19°14.9'	268°21.8'	N 19°01.2'	268°22.1'	N 18°47.3'	268°22.6'	N 18°33.0'
07	283°21.6'	N 19°40.8'	283°21.5'	N 19°27.7'	283°21.6'	N 19°14.4'	283°21.8'	N 19°00.7'	283°22.1'	N 18°46.7'	283°22.7'	N 18°32.4'
08	298°21.6'	N 19°40.2'	298°21.5'	N 19°27.2'	298°21.6'	N 19°13.8'	298°21.8'	N 19°00.1'	298°22.2'	N 18°46.1'	298°22.7'	N 18°31.8'
09	313°21.6'	N 19°39.7'	313°21.5'	N 19°26.6'	313°21.6'	N 19°13.2'	313°21.8'	N 18°59.5'	313°22.2'	N 18°45.5'	313°22.7'	N 18°31.2'
10	328°21.6'	N 19°39.2'	328°21.5'	N 19°26.1'	328°21.6'	N 19°12.7'	328°21.8'	N 18°58.9'	328°22.2'	N 18°44.9'	328°22.7'	N 18°30.6'
11	343°21.6'	N 19°38.6'	343°21.5'	N 19°25.5'	343°21.6'	N 19°12.1'	343°21.8'	N 18°58.4'	343°22.2'	N 18°44.3'	343°22.8'	N 18°30.0'
12	358°21.6'	N 19°38.1'	358°21.5'	N 19°25.0'	358°21.6'	N 19°11.5'	358°21.8'	N 18°57.8'	358°22.2'	N 18°43.7'	358°22.8'	N 18°29.3'
13	13°21.6'	N 19°37.5'	13°21.5'	N 19°24.4'	13°21.6'	N 19°11.0'	13°21.9'	N 18°57.2'	13°22.3'	N 18°43.1'	13°22.8'	N 18°28.7'
14	28°21.6'	N 19°37.0'	28°21.5'	N 19°23.9'	28°21.6'	N 19°10.4'	28°21.9'	N 18°56.6'	28°22.3'	N 18°42.5'	28°22.8'	N 18°28.1'
15	43°21.6'	N 19°36.5'	43°21.5'	N 19°23.3'	43°21.6'	N 19°09.8'	43°21.9'	N 18°56.0'	43°22.3'	N 18°41.9'	43°22.9'	N 18°27.5'
16	58°21.6'	N 19°35.9'	58°21.5'	N 19°22.7'	58°21.6'	N 19°09.3'	58°21.9'	N 18°55.5'	58°22.3'	N 18°41.3'	58°22.9'	N 18°26.9'
17	73°21.6'	N 19°35.4'	73°21.5'	N 19°22.2'	73°21.6'	N 19°08.7'	73°21.9'	N 18°54.9'	73°22.3'	N 18°40.7'	73°22.9'	N 18°26.3'
18	88°21.6'	N 19°34.8'	88°21.5'	N 19°21.6'	88°21.7'	N 19°08.1'	88°21.9'	N 18°54.3'	88°22.4'	N 18°40.2'	88°22.9'	N 18°25.7'
19	103°21.6'	N 19°34.3'	103°21.5'	N 19°21.1'	103°21.7'	N 19°07.6'	103°21.9'	N 18°53.7'	103°22.4'	N 18°39.6'	103°23.0'	N 18°25.1'
20	118°21.6'	N 19°33.7'	118°21.5'	N 19°20.5'	118°21.7'	N 19°07.0'	118°22.0'	N 18°53.1'	118°22.4'	N 18°39.0'	118°23.0'	N 18°24.5'
21	133°21.5'	N 19°33.2'	133°21.5'	N 19°20.0'	133°21.7'	N 19°06.4'	133°22.0'	N 18°52.5'	133°22.4'	N 18°38.4'	133°23.0'	N 18°23.9'
22	148°21.5'	N 19°32.7'	148°21.5'	N 19°19.4'	148°21.7'	N 19°05.8'	148°22.0'	N 18°52.0'	148°22.4'	N 18°37.8'	148°23.1'	N 18°23.3'
23	163°21.5'	N 19°32.1'	163°21.5'	N 19°18.8'	163°21.7'	N 19°05.3'	163°22.0'	N 18°51.4'	163°22.5'	N 18°37.2'	163°23.1'	N 18°22.7'
Zeitgl. 0h / 12h	-06:33 / -06:34		-06:34 / -06:34		-06:34 / -06:34		-06:33 / -06:33		-06:32 / -06:31		-06:30 / -06:29	
Kulmination UT	12:06:34		12:06:34		12:06:34		12:06:33		12:06:31		12:06:29	
Halbmesser	15.7'		15.7'		15.7'		15.8'		15.8'		15.8'	

Sa 31.07.

UT	Grt	Dec
00	178°23.1'	N 18°22.0'
01	193°23.1'	N 18°21.4'
02	208°23.2'	N 18°20.8'
03	223°23.2'	N 18°20.2'
04	238°23.2'	N 18°19.6'
05	253°23.3'	N 18°19.0'
06	268°23.3'	N 18°18.4'
07	283°23.3'	N 18°17.8'
08	298°23.3'	N 18°17.1'
09	313°23.4'	N 18°16.5'
10	328°23.4'	N 18°15.9'
11	343°23.4'	N 18°15.3'
12	358°23.5'	N 18°14.7'
13	13°23.5'	N 18°14.1'
14	28°23.5'	N 18°13.4'
15	43°23.6'	N 18°12.8'
16	58°23.6'	N 18°12.2'
17	73°23.6'	N 18°11.6'
18	88°23.7'	N 18°11.0'
19	103°23.7'	N 18°10.3'
20	118°23.7'	N 18°09.7'
21	133°23.8'	N 18°09.1'
22	148°23.8'	N 18°08.5'
23	163°23.8'	N 18°07.8'

Zeitgl. 0h / 12h -06:28 / -06:26

Kulmination UT 12:06:26

Halbmesser 15.8'

2027

August

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	So 01.08.		Mo 02.08.		Di 03.08.		Mi 04.08.		Do 05.08.		Fr 06.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°23.9'	N 18°07.2'	178°24.8'	N 17°52.1'	178°25.9'	N 17°36.7'	178°27.1'	N 17°21.0'	178°28.5'	N 17°05.0'	178°30.0'	N 16°48.8'
01	193°23.9'	N 18°06.6'	193°24.8'	N 17°51.5'	193°25.9'	N 17°36.0'	193°27.1'	N 17°20.3'	193°28.5'	N 17°04.4'	193°30.1'	N 16°48.1'
02	208°23.9'	N 18°06.0'	208°24.9'	N 17°50.8'	208°26.0'	N 17°35.4'	208°27.2'	N 17°19.7'	208°28.6'	N 17°03.7'	208°30.1'	N 16°47.4'
03	223°24.0'	N 18°05.4'	223°24.9'	N 17°50.2'	223°26.0'	N 17°34.7'	223°27.3'	N 17°19.0'	223°28.7'	N 17°03.0'	223°30.2'	N 16°46.7'
04	238°24.0'	N 18°04.7'	238°25.0'	N 17°49.6'	238°26.1'	N 17°34.1'	238°27.3'	N 17°18.4'	238°28.7'	N 17°02.3'	238°30.3'	N 16°46.0'
05	253°24.1'	N 18°04.1'	253°25.0'	N 17°48.9'	253°26.1'	N 17°33.4'	253°27.4'	N 17°17.7'	253°28.8'	N 17°01.7'	253°30.3'	N 16°45.4'
06	268°24.1'	N 18°03.5'	268°25.1'	N 17°48.3'	268°26.2'	N 17°32.8'	268°27.4'	N 17°17.0'	268°28.8'	N 17°01.0'	268°30.4'	N 16°44.7'
07	283°24.1'	N 18°02.8'	283°25.1'	N 17°47.6'	283°26.2'	N 17°32.1'	283°27.5'	N 17°16.4'	283°28.9'	N 17°00.3'	283°30.5'	N 16°44.0'
08	298°24.2'	N 18°02.2'	298°25.1'	N 17°47.0'	298°26.3'	N 17°31.5'	298°27.5'	N 17°15.7'	298°29.0'	N 16°59.6'	298°30.5'	N 16°43.3'
09	313°24.2'	N 18°01.6'	313°25.2'	N 17°46.4'	313°26.3'	N 17°30.8'	313°27.6'	N 17°15.0'	313°29.0'	N 16°59.0'	313°30.6'	N 16°42.6'
10	328°24.2'	N 18°01.0'	328°25.2'	N 17°45.7'	328°26.4'	N 17°30.2'	328°27.7'	N 17°14.4'	328°29.1'	N 16°58.3'	328°30.7'	N 16°41.9'
11	343°24.3'	N 18°00.3'	343°25.3'	N 17°45.1'	343°26.4'	N 17°29.5'	343°27.7'	N 17°13.7'	343°29.2'	N 16°57.6'	343°30.7'	N 16°41.2'
12	358°24.3'	N 17°59.7'	358°25.3'	N 17°44.4'	358°26.5'	N 17°28.9'	358°27.8'	N 17°13.0'	358°29.2'	N 16°56.9'	358°30.8'	N 16°40.5'
13	13°24.4'	N 17°59.1'	13°25.4'	N 17°43.8'	13°26.5'	N 17°28.2'	13°27.8'	N 17°12.4'	13°29.3'	N 16°56.3'	13°30.9'	N 16°39.9'
14	28°24.4'	N 17°58.4'	28°25.4'	N 17°43.2'	28°26.6'	N 17°27.6'	28°27.9'	N 17°11.7'	28°29.3'	N 16°55.6'	28°31.0'	N 16°39.2'
15	43°24.4'	N 17°57.8'	43°25.5'	N 17°42.5'	43°26.6'	N 17°26.9'	43°27.9'	N 17°11.0'	43°29.4'	N 16°54.9'	43°31.0'	N 16°38.5'
16	58°24.5'	N 17°57.2'	58°25.5'	N 17°41.9'	58°26.7'	N 17°26.3'	58°28.0'	N 17°10.4'	58°29.5'	N 16°54.2'	58°31.1'	N 16°37.8'
17	73°24.5'	N 17°56.5'	73°25.5'	N 17°41.2'	73°26.7'	N 17°25.6'	73°28.1'	N 17°09.7'	73°29.5'	N 16°53.5'	73°31.2'	N 16°37.1'
18	88°24.6'	N 17°55.9'	88°25.6'	N 17°40.6'	88°26.8'	N 17°25.0'	88°28.1'	N 17°09.0'	88°29.6'	N 16°52.9'	88°31.2'	N 16°36.4'
19	103°24.6'	N 17°55.3'	103°25.6'	N 17°39.9'	103°26.8'	N 17°24.3'	103°28.2'	N 17°08.4'	103°29.7'	N 16°52.2'	103°31.3'	N 16°35.7'
20	118°24.6'	N 17°54.6'	118°25.7'	N 17°39.3'	118°26.9'	N 17°23.6'	118°28.2'	N 17°07.7'	118°29.7'	N 16°51.5'	118°31.4'	N 16°35.0'
21	133°24.7'	N 17°54.0'	133°25.7'	N 17°38.6'	133°26.9'	N 17°23.0'	133°28.3'	N 17°07.0'	133°29.8'	N 16°50.8'	133°31.5'	N 16°34.3'
22	148°24.7'	N 17°53.4'	148°25.8'	N 17°38.0'	148°27.0'	N 17°22.3'	148°28.4'	N 17°06.4'	148°29.9'	N 16°50.1'	148°31.5'	N 16°33.6'
23	163°24.8'	N 17°52.7'	163°25.8'	N 17°37.3'	163°27.0'	N 17°21.7'	163°28.4'	N 17°05.7'	163°29.9'	N 16°49.5'	163°31.6'	N 16°32.9'
Zeitgl. 0h / 12h	-06:24 / -06:23		-06:21 / -06:19		-06:17 / -06:14		-06:12 / -06:09		-06:06 / -06:03		-06:00 / -05:57	
Kulmination UT	12:06:23		12:06:19		12:06:14		12:06:09		12:06:03		12:05:57	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Sa 07.08.		So 08.08.		Mo 09.08.		Di 10.08.		Mi 11.08.		Do 12.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°31.7'	N 16°32.2'	178°33.5'	N 16°15.5'	178°35.5'	N 15°58.4'	178°37.6'	N 15°41.1'	178°39.8'	N 15°23.5'	178°42.2'	N 15°05.7'
01	193°31.7'	N 16°31.6'	193°33.6'	N 16°14.8'	193°35.6'	N 15°57.7'	193°37.7'	N 15°40.4'	193°39.9'	N 15°22.8'	193°42.3'	N 15°05.0'
02	208°31.8'	N 16°30.9'	208°33.7'	N 16°14.0'	208°35.6'	N 15°57.0'	208°37.8'	N 15°39.6'	208°40.0'	N 15°22.1'	208°42.5'	N 15°04.2'
03	223°31.9'	N 16°30.2'	223°33.7'	N 16°13.3'	223°35.7'	N 15°56.3'	223°37.9'	N 15°38.9'	223°40.1'	N 15°21.3'	223°42.6'	N 15°03.5'
04	238°32.0'	N 16°29.5'	238°33.8'	N 16°12.6'	238°35.8'	N 15°55.5'	238°37.9'	N 15°38.2'	238°40.2'	N 15°20.6'	238°42.7'	N 15°02.7'
05	253°32.0'	N 16°28.8'	253°33.9'	N 16°11.9'	253°35.9'	N 15°54.8'	253°38.0'	N 15°37.5'	253°40.3'	N 15°19.8'	253°42.8'	N 15°02.0'
06	268°32.1'	N 16°28.1'	268°34.0'	N 16°11.2'	268°36.0'	N 15°54.1'	268°38.1'	N 15°36.7'	268°40.4'	N 15°19.1'	268°42.9'	N 15°01.2'
07	283°32.2'	N 16°27.4'	283°34.1'	N 16°10.5'	283°36.1'	N 15°53.4'	283°38.2'	N 15°36.0'	283°40.5'	N 15°18.4'	283°43.0'	N 15°00.5'
08	298°32.3'	N 16°26.7'	298°34.1'	N 16°09.8'	298°36.2'	N 15°52.7'	298°38.3'	N 15°35.3'	298°40.6'	N 15°17.6'	298°43.1'	N 14°59.7'
09	313°32.3'	N 16°26.0'	313°34.2'	N 16°09.1'	313°36.2'	N 15°51.9'	313°38.4'	N 15°34.5'	313°40.7'	N 15°16.9'	313°43.2'	N 14°59.0'
10	328°32.4'	N 16°25.3'	328°34.3'	N 16°08.4'	328°36.3'	N 15°51.2'	328°38.5'	N 15°33.8'	328°40.8'	N 15°16.1'	328°43.3'	N 14°58.2'
11	343°32.5'	N 16°24.6'	343°34.4'	N 16°07.7'	343°36.4'	N 15°50.5'	343°38.6'	N 15°33.1'	343°40.9'	N 15°15.4'	343°43.4'	N 14°57.5'
12	358°32.6'	N 16°23.9'	358°34.5'	N 16°07.0'	358°36.5'	N 15°49.8'	358°38.7'	N 15°32.3'	358°41.0'	N 15°14.7'	358°43.5'	N 14°56.7'
13	13°32.6'	N 16°23.2'	13°34.5'	N 16°06.3'	13°36.6'	N 15°49.1'	13°38.8'	N 15°31.6'	13°41.1'	N 15°13.9'	13°43.6'	N 14°56.0'
14	28°32.7'	N 16°22.5'	28°34.6'	N 16°05.5'	28°36.7'	N 15°48.3'	28°38.9'	N 15°30.9'	28°41.2'	N 15°13.2'	28°43.7'	N 14°55.2'
15	43°32.8'	N 16°21.8'	43°34.7'	N 16°04.8'	43°36.8'	N 15°47.6'	43°39.0'	N 15°30.2'	43°41.3'	N 15°12.4'	43°43.8'	N 14°54.5'
16	58°32.9'	N 16°21.1'	58°34.8'	N 16°04.1'	58°36.9'	N 15°46.9'	58°39.1'	N 15°29.4'	58°41.4'	N 15°11.7'	58°43.9'	N 14°53.7'
17	73°32.9'	N 16°20.4'	73°34.9'	N 16°03.4'	73°37.0'	N 15°46.2'	73°39.2'	N 15°28.7'	73°41.5'	N 15°11.0'	73°44.0'	N 14°53.0'
18	88°33.0'	N 16°19.7'	88°35.0'	N 16°02.7'	88°37.0'	N 15°45.4'	88°39.3'	N 15°28.0'	88°41.6'	N 15°10.2'	88°44.1'	N 14°52.2'
19	103°33.1'	N 16°19.0'	103°35.0'	N 16°02.0'	103°37.1'	N 15°44.7'	103°39.4'	N 15°27.2'	103°41.7'	N 15°09.5'	103°44.2'	N 14°51.5'
20	118°33.2'	N 16°18.3'	118°35.1'	N 16°01.3'	118°37.2'	N 15°44.0'	118°39.5'	N 15°26.5'	118°41.8'	N 15°08.7'	118°44.4'	N 14°50.7'
21	133°33.3'	N 16°17.6'	133°35.2'	N 16°00.6'	133°37.3'	N 15°43.3'	133°39.6'	N 15°25.7'	133°41.9'	N 15°08.0'	133°44.5'	N 14°50.0'
22	148°33.3'	N 16°16.9'	148°35.3'	N 15°59.8'	148°37.4'	N 15°42.5'	148°39.6'	N 15°25.0'	148°42.0'	N 15°07.2'	148°44.6'	N 14°49.2'
23	163°33.4'	N 16°16.2'	163°35.4'	N 15°59.1'	163°37.5'	N 15°41.8'	163°39.7'	N 15°24.3'	163°42.1'	N 15°06.5'	163°44.7'	N 14°48.4'
Zeitgl. 0h / 12h	-05:53 / -05:50		-05:46 / -05:42		-05:38 / -05:34		-05:30 / -05:25		-05:21 / -05:16		-05:11 / -05:06	
Kulmination UT	12:05:50		12:05:42		12:05:34		12:05:25		12:05:16		12:05:06	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Fr 13.08.		Sa 14.08.		So 15.08.		Mo 16.08.		Di 17.08.		Mi 18.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°44.8'	N 14°47.7'	178°47.5'	N 14°29.4'	178°50.3'	N 14°10.9'	178°53.2'	N 13°52.2'	178°56.3'	N 13°33.2'	178°59.5'	N 13°14.0'
01	193°44.9'	N 14°46.9'	193°47.6'	N 14°28.6'	193°50.4'	N 14°10.1'	193°53.4'	N 13°51.4'	193°56.4'	N 13°32.4'	193°59.7'	N 13°13.2'
02	208°45.0'	N 14°46.2'	208°47.7'	N 14°27.9'	208°50.5'	N 14°09.3'	208°53.5'	N 13°50.6'	208°56.6'	N 13°31.6'	208°59.8'	N 13°12.4'
03	223°45.1'	N 14°45.4'	223°47.8'	N 14°27.1'	223°50.6'	N 14°08.6'	223°53.6'	N 13°49.8'	223°56.7'	N 13°30.8'	223°59.9'	N 13°11.6'
04	238°45.2'	N 14°44.7'	238°47.9'	N 14°26.3'	238°50.8'	N 14°07.8'	238°53.7'	N 13°49.0'	238°56.8'	N 13°30.0'	239°00.1'	N 13°10.8'
05	253°45.3'	N 14°43.9'	253°48.0'	N 14°25.6'	253°50.9'	N 14°07.0'	253°53.9'	N 13°48.2'	253°57.0'	N 13°29.2'	254°00.2'	N 13°10.0'
06	268°45.4'	N 14°43.1'	268°48.2'	N 14°24.8'	268°51.0'	N 14°06.2'	268°54.0'	N 13°47.4'	268°57.1'	N 13°28.4'	269°00.3'	N 13°09.2'
07	283°45.6'	N 14°42.4'	283°48.3'	N 14°24.0'	283°51.1'	N 14°05.5'	283°54.1'	N 13°46.7'	283°57.2'	N 13°27.6'	284°00.5'	N 13°08.4'
08	298°45.7'	N 14°41.6'	298°48.4'	N 14°23.3'	298°51.3'	N 14°04.7'	298°54.2'	N 13°45.9'	298°57.4'	N 13°26.8'	299°00.6'	N 13°07.6'
09	313°45.8'	N 14°40.9'	313°48.5'	N 14°22.5'	313°51.4'	N 14°03.9'	313°54.4'	N 13°45.1'	313°57.5'	N 13°26.0'	314°00.8'	N 13°06.8'
10	328°45.9'	N 14°40.1'	328°48.6'	N 14°21.7'	328°51.5'	N 14°03.1'	328°54.5'	N 13°44.3'	328°57.6'	N 13°25.2'	329°00.9'	N 13°06.0'
11	343°46.0'	N 14°39.3'	343°48.7'	N 14°21.0'	343°51.6'	N 14°02.3'	343°54.6'	N 13°43.5'	343°57.8'	N 13°24.4'	344°01.0'	N 13°05.2'
12	358°46.1'	N 14°38.6'	358°48.9'	N 14°20.2'	358°51.7'	N 14°01.6'	358°54.8'	N 13°42.7'	358°57.9'	N 13°23.6'	359°01.2'	N 13°04.4'
13	13°46.2'	N 14°37.8'	13°49.0'	N 14°19.4'	13°51.9'	N 14°00.8'	13°54.9'	N 13°41.9'	13°58.0'	N 13°22.8'	14°01.3'	N 13°03.6'
14	28°46.3'	N 14°37.1'	28°49.1'	N 14°18.6'	28°52.0'	N 14°00.0'	28°55.0'	N 13°41.1'	28°58.2'	N 13°22.0'	29°01.5'	N 13°02.7'
15	43°46.4'	N 14°36.3'	43°49.2'	N 14°17.9'	43°52.1'	N 13°59.2'	43°55.1'	N 13°40.3'	43°58.3'	N 13°21.2'	44°01.6'	N 13°01.9'
16	58°46.6'	N 14°35.5'	58°49.3'	N 14°17.1'	58°52.2'	N 13°58.4'	58°55.3'	N 13°39.5'	58°58.4'	N 13°20.4'	59°01.7'	N 13°01.1'
17	73°46.7'	N 14°34.8'	73°49.4'	N 14°16.3'	73°52.4'	N 13°57.6'	73°55.4'	N 13°38.8'	73°58.6'	N 13°19.6'	74°01.9'	N 13°00.3'
18	88°46.8'	N 14°34.0'	88°49.6'	N 14°15.5'	88°52.5'	N 13°56.9'	88°55.5'	N 13°38.0'	88°58.7'	N 13°18.8'	89°02.0'	N 12°59.5'
19	103°46.9'	N 14°33.2'	103°49.7'	N 14°14.8'	103°52.6'	N 13°56.1'	103°55.7'	N 13°37.2'	103°58.8'	N 13°18.0'	104°02.2'	N 12°58.7'
20	118°47.0'	N 14°32.5'	118°49.8'	N 14°14.0'	118°52.7'	N 13°55.3'	118°55.8'	N 13°36.4'	118°59.0'	N 13°17.2'	119°02.3'	N 12°57.9'
21	133°47.1'	N 14°31.7'	133°49.9'	N 14°13.2'	133°52.9'	N 13°54.5'	133°55.9'	N 13°35.6'	133°59.1'	N 13°16.4'	134°02.4'	N 12°57.1'
22	148°47.2'	N 14°30.9'	148°50.0'	N 14°12.4'	148°53.0'	N 13°53.7'	148°56.1'	N 13°34.8'	148°59.3'	N 13°15.6'	149°02.6'	N 12°56.3'
23	163°47.4'	N 14°30.2'	163°50.2'	N 14°11.7'	163°53.1'	N 13°52.9'	163°56.2'	N 13°34.0'	163°59.4'	N 13°14.8'	164°02.7'	N 12°55.5'
Zeitgl. 0h / 12h	-05:01 / -04:56		-04:50 / -04:45		-04:39 / -04:33		-04:27 / -04:21		-04:15 / -04:08		-04:02 / -03:55	
Kulmination UT	12:04:56		12:04:45		12:04:33		12:04:21		12:04:08		12:03:55	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Do 19.08.		Fr 20.08.		Sa 21.08.		So 22.08.		Mo 23.08.		Di 24.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°02.9'	N 12°54.6'	179°06.3'	N 12°35.1'	179°09.9'	N 12°15.3'	179°13.6'	N 11°55.3'	179°17.4'	N 11°35.1'	179°21.3'	N 11°14.8'
01	194°03.0'	N 12°53.8'	194°06.5'	N 12°34.2'	194°10.0'	N 12°14.5'	194°13.7'	N 11°54.5'	194°17.6'	N 11°34.3'	194°21.5'	N 11°13.9'
02	209°03.1'	N 12°53.0'	209°06.6'	N 12°33.4'	209°10.2'	N 12°13.6'	209°13.9'	N 11°53.6'	209°17.7'	N 11°33.4'	209°21.6'	N 11°13.1'
03	224°03.3'	N 12°52.2'	224°06.8'	N 12°32.6'	224°10.3'	N 12°12.8'	224°14.1'	N 11°52.8'	224°17.9'	N 11°32.6'	224°21.8'	N 11°12.2'
04	239°03.4'	N 12°51.4'	239°06.9'	N 12°31.8'	239°10.5'	N 12°12.0'	239°14.2'	N 11°52.0'	239°18.0'	N 11°31.8'	239°22.0'	N 11°11.4'
05	254°03.6'	N 12°50.6'	254°07.1'	N 12°31.0'	254°10.7'	N 12°11.1'	254°14.4'	N 11°51.1'	254°18.2'	N 11°30.9'	254°22.1'	N 11°10.5'
06	269°03.7'	N 12°49.8'	269°07.2'	N 12°30.1'	269°10.8'	N 12°10.3'	269°14.5'	N 11°50.3'	269°18.4'	N 11°30.1'	269°22.3'	N 11°09.7'
07	284°03.9'	N 12°49.0'	284°07.3'	N 12°29.3'	284°11.0'	N 12°09.5'	284°14.7'	N 11°49.4'	284°18.5'	N 11°29.2'	284°22.5'	N 11°08.8'
08	299°04.0'	N 12°48.1'	299°07.5'	N 12°28.5'	299°11.1'	N 12°08.6'	299°14.8'	N 11°48.6'	299°18.7'	N 11°28.4'	299°22.6'	N 11°08.0'
09	314°04.1'	N 12°47.3'	314°07.6'	N 12°27.7'	314°11.3'	N 12°07.8'	314°15.0'	N 11°47.8'	314°18.9'	N 11°27.5'	314°22.8'	N 11°07.1'
10	329°04.3'	N 12°46.5'	329°07.8'	N 12°26.8'	329°11.4'	N 12°07.0'	329°15.2'	N 11°46.9'	329°19.0'	N 11°26.7'	329°23.0'	N 11°06.3'
11	344°04.4'	N 12°45.7'	344°07.9'	N 12°26.0'	344°11.6'	N 12°06.1'	344°15.3'	N 11°46.1'	344°19.2'	N 11°25.8'	344°23.1'	N 11°05.4'
12	359°04.6'	N 12°44.9'	359°08.1'	N 12°25.2'	359°11.7'	N 12°05.3'	359°15.5'	N 11°45.2'	359°19.3'	N 11°25.0'	359°23.3'	N 11°04.5'
13	14°04.7'	N 12°44.1'	14°08.2'	N 12°24.4'	14°11.9'	N 12°04.5'	14°15.6'	N 11°44.4'	14°19.5'	N 11°24.1'	14°23.5'	N 11°03.7'
14	29°04.9'	N 12°43.2'	29°08.4'	N 12°23.5'	29°12.0'	N 12°03.6'	29°15.8'	N 11°43.6'	29°19.7'	N 11°23.3'	29°23.6'	N 11°02.8'
15	44°05.0'	N 12°42.4'	44°08.5'	N 12°22.7'	44°12.2'	N 12°02.8'	44°16.0'	N 11°42.7'	44°19.8'	N 11°22.4'	44°23.8'	N 11°02.0'
16	59°05.1'	N 12°41.6'	59°08.7'	N 12°21.9'	59°12.3'	N 12°02.0'	59°16.1'	N 11°41.9'	59°20.0'	N 11°21.6'	59°24.0'	N 11°01.1'
17	74°05.3'	N 12°40.8'	74°08.8'	N 12°21.1'	74°12.5'	N 12°01.1'	74°16.3'	N 11°41.0'	74°20.2'	N 11°20.7'	74°24.2'	N 11°00.3'
18	89°05.4'	N 12°40.0'	89°09.0'	N 12°20.2'	89°12.7'	N 12°00.3'	89°16.4'	N 11°40.2'	89°20.3'	N 11°19.9'	89°24.3'	N 10°59.4'
19	104°05.6'	N 12°39.2'	104°09.1'	N 12°19.4'	104°12.8'	N 11°59.5'	104°16.6'	N 11°39.4'	104°20.5'	N 11°19.0'	104°24.5'	N 10°58.5'
20	119°05.7'	N 12°38.3'	119°09.3'	N 12°18.6'	119°13.0'	N 11°58.6'	119°16.8'	N 11°38.5'	119°20.7'	N 11°18.2'	119°24.7'	N 10°57.7'
21	134°05.9'	N 12°37.5'	134°09.4'	N 12°17.8'	134°13.1'	N 11°57.8'	134°16.9'	N 11°37.7'	134°20.8'	N 11°17.3'	134°24.8'	N 10°56.8'
22	149°06.0'	N 12°36.7'	149°09.6'	N 12°16.9'	149°13.3'	N 11°57.0'	149°17.1'	N 11°36.8'	149°21.0'	N 11°16.5'	149°25.0'	N 10°56.0'
23	164°06.2'	N 12°35.9'	164°09.7'	N 12°16.1'	164°13.4'	N 11°56.1'	164°17.2'	N 11°36.0'	164°21.1'	N 11°15.6'	164°25.2'	N 10°55.1'
Zeitgl. 0h / 12h	-03:49 / -03:42		-03:35 / -03:28		-03:20 / -03:13		-03:06 / -02:58		-02:50 / -02:43		-02:35 / -02:27	
Kulmination UT	12:03:42		12:03:28		12:03:13		12:02:58		12:02:43		12:02:27	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Mi 25.08.		Do 26.08.		Fr 27.08.		Sa 28.08.		So 29.08.		Mo 30.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°25.3'	N 10°54.3'	179°29.5'	N 10°33.6'	179°33.7'	N 10°12.7'	179°38.0'	N 9°51.7'	179°42.4'	N 9°30.5'	179°46.9'	N 9°09.1'
01	194°25.5'	N 10°53.4'	194°29.6'	N 10°32.7'	194°33.9'	N 10°11.8'	194°38.2'	N 9°50.8'	194°42.6'	N 9°29.6'	194°47.1'	N 9°08.3'
02	209°25.7'	N 10°52.5'	209°29.8'	N 10°31.8'	209°34.0'	N 10°10.9'	209°38.4'	N 9°49.9'	209°42.8'	N 9°28.7'	209°47.3'	N 9°07.4'
03	224°25.8'	N 10°51.7'	224°30.0'	N 10°31.0'	224°34.2'	N 10°10.1'	224°38.6'	N 9°49.0'	224°43.0'	N 9°27.8'	224°47.5'	N 9°06.5'
04	239°26.0'	N 10°50.8'	239°30.2'	N 10°30.1'	239°34.4'	N 10°09.2'	239°38.7'	N 9°48.1'	239°43.2'	N 9°26.9'	239°47.7'	N 9°05.6'
05	254°26.2'	N 10°50.0'	254°30.3'	N 10°29.2'	254°34.6'	N 10°08.3'	254°38.9'	N 9°47.3'	254°43.4'	N 9°26.0'	254°47.9'	N 9°04.7'
06	269°26.4'	N 10°49.1'	269°30.5'	N 10°28.4'	269°34.8'	N 10°07.5'	269°39.1'	N 9°46.4'	269°43.5'	N 9°25.2'	269°48.1'	N 9°03.8'
07	284°26.5'	N 10°48.2'	284°30.7'	N 10°27.5'	284°34.9'	N 10°06.6'	284°39.3'	N 9°45.5'	284°43.7'	N 9°24.3'	284°48.3'	N 9°02.9'
08	299°26.7'	N 10°47.4'	299°30.9'	N 10°26.6'	299°35.1'	N 10°05.7'	299°39.5'	N 9°44.6'	299°43.9'	N 9°23.4'	299°48.4'	N 9°02.0'
09	314°26.9'	N 10°46.5'	314°31.0'	N 10°25.8'	314°35.3'	N 10°04.8'	314°39.7'	N 9°43.7'	314°44.1'	N 9°22.5'	314°48.6'	N 9°01.1'
10	329°27.0'	N 10°45.7'	329°31.2'	N 10°24.9'	329°35.5'	N 10°04.0'	329°39.8'	N 9°42.9'	329°44.3'	N 9°21.6'	329°48.8'	N 9°00.2'
11	344°27.2'	N 10°44.8'	344°31.4'	N 10°24.0'	344°35.7'	N 10°03.1'	344°40.0'	N 9°42.0'	344°44.5'	N 9°20.7'	344°49.0'	N 8°59.3'
12	359°27.4'	N 10°43.9'	359°31.6'	N 10°23.1'	359°35.8'	N 10°02.2'	359°40.2'	N 9°41.1'	359°44.7'	N 9°19.8'	359°49.2'	N 8°58.4'
13	14°27.6'	N 10°43.1'	14°31.7'	N 10°22.3'	14°36.0'	N 10°01.3'	14°40.4'	N 9°40.2'	14°44.9'	N 9°18.9'	14°49.4'	N 8°57.5'
14	29°27.7'	N 10°42.2'	29°31.9'	N 10°21.4'	29°36.2'	N 10°00.4'	29°40.6'	N 9°39.3'	29°45.0'	N 9°18.1'	29°49.6'	N 8°56.6'
15	44°27.9'	N 10°41.3'	44°32.1'	N 10°20.5'	44°36.4'	N 9°59.6'	44°40.8'	N 9°38.4'	44°45.2'	N 9°17.2'	44°49.8'	N 8°55.7'
16	59°28.1'	N 10°40.5'	59°32.3'	N 10°19.7'	59°36.6'	N 9°58.7'	59°40.9'	N 9°37.6'	59°45.4'	N 9°16.3'	59°50.0'	N 8°54.8'
17	74°28.2'	N 10°39.6'	74°32.4'	N 10°18.8'	74°36.7'	N 9°57.8'	74°41.1'	N 9°36.7'	74°45.6'	N 9°15.4'	74°50.2'	N 8°53.9'
18	89°28.4'	N 10°38.8'	89°32.6'	N 10°17.9'	89°36.9'	N 9°56.9'	89°41.3'	N 9°35.8'	89°45.8'	N 9°14.5'	89°50.4'	N 8°53.0'
19	104°28.6'	N 10°37.9'	104°32.8'	N 10°17.1'	104°37.1'	N 9°56.1'	104°41.5'	N 9°34.9'	104°46.0'	N 9°13.6'	104°50.6'	N 8°52.1'
20	119°28.8'	N 10°37.0'	119°33.0'	N 10°16.2'	119°37.3'	N 9°55.2'	119°41.7'	N 9°34.0'	119°46.2'	N 9°12.7'	119°50.7'	N 8°51.3'
21	134°28.9'	N 10°36.2'	134°33.2'	N 10°15.3'	134°37.5'	N 9°54.3'	134°41.9'	N 9°33.1'	134°46.4'	N 9°11.8'	134°50.9'	N 8°50.4'
22	149°29.1'	N 10°35.3'	149°33.3'	N 10°14.4'	149°37.6'	N 9°53.4'	149°42.1'	N 9°32.3'	149°46.5'	N 9°10.9'	149°51.1'	N 8°49.5'
23	164°29.3'	N 10°34.4'	164°33.5'	N 10°13.6'	164°37.8'	N 9°52.5'	164°42.2'	N 9°31.4'	164°46.7'	N 9°10.0'	164°51.3'	N 8°48.6'
Zeitgl. 0h / 12h	-02:19 / -02:10		-02:02 / -01:54		-01:45 / -01:37		-01:28 / -01:19		-01:10 / -01:01		-00:52 / -00:43	
Kulmination UT	12:02:10		12:01:54		12:01:37		12:01:19		12:01:01		12:00:43	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

Di 31.08.

UT	Grt	Dec
00	179°51.5'	N 8°47.7'
01	194°51.7'	N 8°46.8'
02	209°51.9'	N 8°45.9'
03	224°52.1'	N 8°45.0'
04	239°52.3'	N 8°44.1'
05	254°52.5'	N 8°43.2'
06	269°52.7'	N 8°42.3'
07	284°52.9'	N 8°41.4'
08	299°53.1'	N 8°40.5'
09	314°53.3'	N 8°39.6'
10	329°53.4'	N 8°38.7'
11	344°53.6'	N 8°37.8'
12	359°53.8'	N 8°36.9'
13	14°54.0'	N 8°36.0'
14	29°54.2'	N 8°35.1'
15	44°54.4'	N 8°34.2'
16	59°54.6'	N 8°33.3'
17	74°54.8'	N 8°32.4'
18	89°55.0'	N 8°31.5'
19	104°55.2'	N 8°30.6'
20	119°55.4'	N 8°29.7'
21	134°55.6'	N 8°28.7'
22	149°55.8'	N 8°27.8'
23	164°56.0'	N 8°26.9'

Zeitgl. 0h / 12h -00:34 / -00:25

Kulmination UT 12:00:25

Halbmesser 15.8'

2027

September

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Mi 01.09.		Do 02.09.		Fr 03.09.		Sa 04.09.		So 05.09.		Mo 06.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°56.2'	N 8°26.0'	180°00.9'	N 8°04.3'	180°05.7'	N 7°42.4'	180°10.6'	N 7°20.4'	180°15.6'	N 6°58.3'	180°20.6'	N 6°36.0'
01	194°56.4'	N 8°25.1'	195°01.1'	N 8°03.4'	195°05.9'	N 7°41.5'	195°10.8'	N 7°19.5'	195°15.8'	N 6°57.3'	195°20.8'	N 6°35.1'
02	209°56.6'	N 8°24.2'	210°01.3'	N 8°02.5'	210°06.1'	N 7°40.6'	210°11.0'	N 7°18.5'	210°16.0'	N 6°56.4'	210°21.0'	N 6°34.1'
03	224°56.8'	N 8°23.3'	225°01.5'	N 8°01.6'	225°06.3'	N 7°39.6'	225°11.2'	N 7°17.6'	225°16.2'	N 6°55.5'	225°21.2'	N 6°33.2'
04	239°57.0'	N 8°22.4'	240°01.7'	N 8°00.6'	240°06.5'	N 7°38.7'	240°11.4'	N 7°16.7'	240°16.4'	N 6°54.6'	240°21.4'	N 6°32.3'
05	254°57.2'	N 8°21.5'	255°01.9'	N 7°59.7'	255°06.8'	N 7°37.8'	255°11.6'	N 7°15.8'	255°16.6'	N 6°53.6'	255°21.6'	N 6°31.4'
06	269°57.4'	N 8°20.6'	270°02.1'	N 7°58.8'	270°07.0'	N 7°36.9'	270°11.9'	N 7°14.9'	270°16.8'	N 6°52.7'	270°21.8'	N 6°30.4'
07	284°57.6'	N 8°19.7'	285°02.3'	N 7°57.9'	285°07.2'	N 7°36.0'	285°12.1'	N 7°13.9'	285°17.0'	N 6°51.8'	285°22.0'	N 6°29.5'
08	299°57.8'	N 8°18.8'	300°02.5'	N 7°57.0'	300°07.4'	N 7°35.1'	300°12.3'	N 7°13.0'	300°17.2'	N 6°50.8'	300°22.3'	N 6°28.6'
09	314°58.0'	N 8°17.9'	315°02.7'	N 7°56.1'	315°07.6'	N 7°34.2'	315°12.5'	N 7°12.1'	315°17.4'	N 6°49.9'	315°22.5'	N 6°27.6'
10	329°58.1'	N 8°17.0'	330°02.9'	N 7°55.2'	330°07.8'	N 7°33.2'	330°12.7'	N 7°11.2'	330°17.6'	N 6°49.0'	330°22.7'	N 6°26.7'
11	344°58.3'	N 8°16.1'	345°03.1'	N 7°54.3'	345°08.0'	N 7°32.3'	345°12.9'	N 7°10.3'	345°17.9'	N 6°48.1'	345°22.9'	N 6°25.8'
12	359°58.5'	N 8°15.2'	0°03.3'	N 7°53.4'	0°08.2'	N 7°31.4'	0°13.1'	N 7°09.3'	0°18.1'	N 6°47.1'	0°23.1'	N 6°24.8'
13	14°58.7'	N 8°14.3'	15°03.5'	N 7°52.4'	15°08.4'	N 7°30.5'	15°13.3'	N 7°08.4'	15°18.3'	N 6°46.2'	15°23.3'	N 6°23.9'
14	29°58.9'	N 8°13.4'	30°03.7'	N 7°51.5'	30°08.6'	N 7°29.6'	30°13.5'	N 7°07.5'	30°18.5'	N 6°45.3'	30°23.5'	N 6°23.0'
15	44°59.1'	N 8°12.5'	45°03.9'	N 7°50.6'	45°08.8'	N 7°28.7'	45°13.7'	N 7°06.6'	45°18.7'	N 6°44.4'	45°23.7'	N 6°22.0'
16	59°59.3'	N 8°11.5'	60°04.1'	N 7°49.7'	60°09.0'	N 7°27.7'	60°13.9'	N 7°05.6'	60°18.9'	N 6°43.4'	60°23.9'	N 6°21.1'
17	74°59.5'	N 8°10.6'	75°04.3'	N 7°48.8'	75°09.2'	N 7°26.8'	75°14.1'	N 7°04.7'	75°19.1'	N 6°42.5'	75°24.2'	N 6°20.2'
18	89°59.7'	N 8°09.7'	90°04.5'	N 7°47.9'	90°09.4'	N 7°25.9'	90°14.3'	N 7°03.8'	90°19.3'	N 6°41.6'	90°24.4'	N 6°19.3'
19	104°59.9'	N 8°08.8'	105°04.7'	N 7°47.0'	105°09.6'	N 7°25.0'	105°14.5'	N 7°02.9'	105°19.5'	N 6°40.7'	105°24.6'	N 6°18.3'
20	120°00.1'	N 8°07.9'	120°04.9'	N 7°46.0'	120°09.8'	N 7°24.1'	120°14.7'	N 7°01.9'	120°19.7'	N 6°39.7'	120°24.8'	N 6°17.4'
21	135°00.3'	N 8°07.0'	135°05.1'	N 7°45.1'	135°10.0'	N 7°23.1'	135°14.9'	N 7°01.0'	135°19.9'	N 6°38.8'	135°25.0'	N 6°16.5'
22	150°00.5'	N 8°06.1'	150°05.3'	N 7°44.2'	150°10.2'	N 7°22.2'	150°15.2'	N 7°00.1'	150°20.2'	N 6°37.9'	150°25.2'	N 6°15.5'
23	165°00.7'	N 8°05.2'	165°05.5'	N 7°43.3'	165°10.4'	N 7°21.3'	165°15.4'	N 6°59.2'	165°20.4'	N 6°36.9'	165°25.4'	N 6°14.6'
Zeitgl. 0h / 12h	-00:15 / -00:06		+00:04 / +00:13		+00:23 / +00:33		+00:42 / +00:52		+01:02 / +01:12		+01:22 / +01:32	
Kulmination UT	12:00:06		11:59:47		11:59:27		11:59:08		11:58:48		11:58:28	
Halbmesser	15.8'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Di 07.09.		Mi 08.09.		Do 09.09.		Fr 10.09.		Sa 11.09.		So 12.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°25.6'	N 6°13.7'	180°30.7'	N 5°51.2'	180°35.9'	N 5°28.6'	180°41.1'	N 5°06.0'	180°46.3'	N 4°43.3'	180°51.6'	N 4°20.5'
01	195°25.8'	N 6°12.7'	195°31.0'	N 5°50.3'	195°36.1'	N 5°27.7'	195°41.3'	N 5°05.1'	195°46.5'	N 4°42.3'	195°51.8'	N 4°19.5'
02	210°26.1'	N 6°11.8'	210°31.2'	N 5°49.3'	210°36.3'	N 5°26.8'	210°41.5'	N 5°04.1'	210°46.8'	N 4°41.4'	210°52.0'	N 4°18.6'
03	225°26.3'	N 6°10.9'	225°31.4'	N 5°48.4'	225°36.5'	N 5°25.8'	225°41.7'	N 5°03.2'	225°47.0'	N 4°40.4'	225°52.3'	N 4°17.6'
04	240°26.5'	N 6°09.9'	240°31.6'	N 5°47.4'	240°36.8'	N 5°24.9'	240°42.0'	N 5°02.2'	240°47.2'	N 4°39.5'	240°52.5'	N 4°16.7'
05	255°26.7'	N 6°09.0'	255°31.8'	N 5°46.5'	255°37.0'	N 5°23.9'	255°42.2'	N 5°01.3'	255°47.4'	N 4°38.5'	255°52.7'	N 4°15.7'
06	270°26.9'	N 6°08.1'	270°32.0'	N 5°45.6'	270°37.2'	N 5°23.0'	270°42.4'	N 5°00.3'	270°47.6'	N 4°37.6'	270°52.9'	N 4°14.7'
07	285°27.1'	N 6°07.1'	285°32.2'	N 5°44.6'	285°37.4'	N 5°22.1'	285°42.6'	N 4°59.4'	285°47.9'	N 4°36.6'	285°53.1'	N 4°13.8'
08	300°27.3'	N 6°06.2'	300°32.5'	N 5°43.7'	300°37.6'	N 5°21.1'	300°42.8'	N 4°58.4'	300°48.1'	N 4°35.7'	300°53.4'	N 4°12.8'
09	315°27.5'	N 6°05.2'	315°32.7'	N 5°42.8'	315°37.8'	N 5°20.2'	315°43.1'	N 4°57.5'	315°48.3'	N 4°34.7'	315°53.6'	N 4°11.9'
10	330°27.8'	N 6°04.3'	330°32.9'	N 5°41.8'	330°38.1'	N 5°19.2'	330°43.3'	N 4°56.5'	330°48.5'	N 4°33.8'	330°53.8'	N 4°10.9'
11	345°28.0'	N 6°03.4'	345°33.1'	N 5°40.9'	345°38.3'	N 5°18.3'	345°43.5'	N 4°55.6'	345°48.7'	N 4°32.8'	345°54.0'	N 4°10.0'
12	0°28.2'	N 6°02.4'	0°33.3'	N 5°39.9'	0°38.5'	N 5°17.3'	0°43.7'	N 4°54.6'	0°49.0'	N 4°31.9'	0°54.2'	N 4°09.0'
13	15°28.4'	N 6°01.5'	15°33.5'	N 5°39.0'	15°38.7'	N 5°16.4'	15°43.9'	N 4°53.7'	15°49.2'	N 4°30.9'	15°54.5'	N 4°08.1'
14	30°28.6'	N 6°00.6'	30°33.7'	N 5°38.1'	30°38.9'	N 5°15.4'	30°44.1'	N 4°52.8'	30°49.4'	N 4°30.0'	30°54.7'	N 4°07.1'
15	45°28.8'	N 5°59.6'	45°34.0'	N 5°37.1'	45°39.1'	N 5°14.5'	45°44.4'	N 4°51.8'	45°49.6'	N 4°29.0'	45°54.9'	N 4°06.2'
16	60°29.0'	N 5°58.7'	60°34.2'	N 5°36.2'	60°39.4'	N 5°13.6'	60°44.6'	N 4°50.9'	60°49.8'	N 4°28.1'	60°55.1'	N 4°05.2'
17	75°29.2'	N 5°57.8'	75°34.4'	N 5°35.2'	75°39.6'	N 5°12.6'	75°44.8'	N 4°49.9'	75°50.1'	N 4°27.1'	75°55.3'	N 4°04.3'
18	90°29.5'	N 5°56.8'	90°34.6'	N 5°34.3'	90°39.8'	N 5°11.7'	90°45.0'	N 4°49.0'	90°50.3'	N 4°26.2'	90°55.6'	N 4°03.3'
19	105°29.7'	N 5°55.9'	105°34.8'	N 5°33.4'	105°40.0'	N 5°10.7'	105°45.2'	N 4°48.0'	105°50.5'	N 4°25.2'	105°55.8'	N 4°02.3'
20	120°29.9'	N 5°54.9'	120°35.0'	N 5°32.4'	120°40.2'	N 5°09.8'	120°45.5'	N 4°47.1'	120°50.7'	N 4°24.3'	120°56.0'	N 4°01.4'
21	135°30.1'	N 5°54.0'	135°35.3'	N 5°31.5'	135°40.4'	N 5°08.8'	135°45.7'	N 4°46.1'	135°50.9'	N 4°23.3'	135°56.2'	N 4°00.4'
22	150°30.3'	N 5°53.1'	150°35.5'	N 5°30.5'	150°40.7'	N 5°07.9'	150°45.9'	N 4°45.2'	150°51.2'	N 4°22.4'	150°56.4'	N 3°59.5'
23	165°30.5'	N 5°52.1'	165°35.7'	N 5°29.6'	165°40.9'	N 5°06.9'	165°46.1'	N 4°44.2'	165°51.4'	N 4°21.4'	165°56.7'	N 3°58.5'
Zeitgl. 0h / 12h	+01:43 / +01:53		+02:03 / +02:13		+02:24 / +02:34		+02:44 / +02:55		+03:05 / +03:16		+03:26 / +03:37	
Kulmination UT	11:58:07		11:57:47		11:57:26		11:57:05		11:56:44		11:56:23	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Mo 13.09.		Di 14.09.		Mi 15.09.		Do 16.09.		Fr 17.09.		Sa 18.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°56.9'	N 3°57.6'	181°02.2'	N 3°34.6'	181°07.5'	N 3°11.6'	181°12.9'	N 2°48.5'	181°18.2'	N 2°25.4'	181°23.6'	N 2°02.2'
01	195°57.1'	N 3°56.6'	196°02.4'	N 3°33.7'	196°07.8'	N 3°10.6'	196°13.1'	N 2°47.6'	196°18.5'	N 2°24.4'	196°23.8'	N 2°01.2'
02	210°57.3'	N 3°55.7'	211°02.6'	N 3°32.7'	211°08.0'	N 3°09.7'	211°13.3'	N 2°46.6'	211°18.7'	N 2°23.4'	211°24.0'	N 2°00.3'
03	225°57.6'	N 3°54.7'	226°02.9'	N 3°31.7'	226°08.2'	N 3°08.7'	226°13.6'	N 2°45.6'	226°18.9'	N 2°22.5'	226°24.3'	N 1°59.3'
04	240°57.8'	N 3°53.8'	241°03.1'	N 3°30.8'	241°08.4'	N 3°07.8'	241°13.8'	N 2°44.7'	241°19.1'	N 2°21.5'	241°24.5'	N 1°58.3'
05	255°58.0'	N 3°52.8'	256°03.3'	N 3°29.8'	256°08.7'	N 3°06.8'	256°14.0'	N 2°43.7'	256°19.4'	N 2°20.6'	256°24.7'	N 1°57.4'
06	270°58.2'	N 3°51.8'	271°03.5'	N 3°28.9'	271°08.9'	N 3°05.8'	271°14.2'	N 2°42.7'	271°19.6'	N 2°19.6'	271°24.9'	N 1°56.4'
07	285°58.4'	N 3°50.9'	286°03.8'	N 3°27.9'	286°09.1'	N 3°04.9'	286°14.4'	N 2°41.8'	286°19.8'	N 2°18.6'	286°25.2'	N 1°55.4'
08	300°58.7'	N 3°49.9'	301°04.0'	N 3°26.9'	301°09.3'	N 3°03.9'	301°14.7'	N 2°40.8'	301°20.0'	N 2°17.7'	301°25.4'	N 1°54.5'
09	315°58.9'	N 3°49.0'	316°04.2'	N 3°26.0'	316°09.5'	N 3°02.9'	316°14.9'	N 2°39.8'	316°20.3'	N 2°16.7'	316°25.6'	N 1°53.5'
10	330°59.1'	N 3°48.0'	331°04.4'	N 3°25.0'	331°09.8'	N 3°02.0'	331°15.1'	N 2°38.9'	331°20.5'	N 2°15.7'	331°25.8'	N 1°52.5'
11	345°59.3'	N 3°47.1'	346°04.6'	N 3°24.1'	346°10.0'	N 3°01.0'	346°15.3'	N 2°37.9'	346°20.7'	N 2°14.8'	346°26.1'	N 1°51.6'
12	0°59.5'	N 3°46.1'	1°04.9'	N 3°23.1'	1°10.2'	N 3°00.1'	1°15.6'	N 2°37.0'	1°20.9'	N 2°13.8'	1°26.3'	N 1°50.6'
13	15°59.8'	N 3°45.1'	16°05.1'	N 3°22.2'	16°10.4'	N 2°59.1'	16°15.8'	N 2°36.0'	16°21.1'	N 2°12.8'	16°26.5'	N 1°49.6'
14	31°00.0'	N 3°44.2'	31°05.3'	N 3°21.2'	31°10.7'	N 2°58.1'	31°16.0'	N 2°35.0'	31°21.4'	N 2°11.9'	31°26.7'	N 1°48.7'
15	46°00.2'	N 3°43.2'	46°05.5'	N 3°20.2'	46°10.9'	N 2°57.2'	46°16.2'	N 2°34.1'	46°21.6'	N 2°10.9'	46°26.9'	N 1°47.7'
16	61°00.4'	N 3°42.3'	61°05.8'	N 3°19.3'	61°11.1'	N 2°56.2'	61°16.5'	N 2°33.1'	61°21.8'	N 2°09.9'	61°27.2'	N 1°46.7'
17	76°00.7'	N 3°41.3'	76°06.0'	N 3°18.3'	76°11.3'	N 2°55.3'	76°16.7'	N 2°32.1'	76°22.0'	N 2°09.0'	76°27.4'	N 1°45.8'
18	91°00.9'	N 3°40.4'	91°06.2'	N 3°17.4'	91°11.5'	N 2°54.3'	91°16.9'	N 2°31.2'	91°22.3'	N 2°08.0'	91°27.6'	N 1°44.8'
19	106°01.1'	N 3°39.4'	106°06.4'	N 3°16.4'	106°11.8'	N 2°53.3'	106°17.1'	N 2°30.2'	106°22.5'	N 2°07.0'	106°27.8'	N 1°43.8'
20	121°01.3'	N 3°38.4'	121°06.6'	N 3°15.4'	121°12.0'	N 2°52.4'	121°17.3'	N 2°29.2'	121°22.7'	N 2°06.1'	121°28.1'	N 1°42.8'
21	136°01.5'	N 3°37.5'	136°06.9'	N 3°14.5'	136°12.2'	N 2°51.4'	136°17.6'	N 2°28.3'	136°22.9'	N 2°05.1'	136°28.3'	N 1°41.9'
22	151°01.8'	N 3°36.5'	151°07.1'	N 3°13.5'	151°12.4'	N 2°50.4'	151°17.8'	N 2°27.3'	151°23.2'	N 2°04.1'	151°28.5'	N 1°40.9'
23	166°02.0'	N 3°35.6'	166°07.3'	N 3°12.6'	166°12.7'	N 2°49.5'	166°18.0'	N 2°26.3'	166°23.4'	N 2°03.2'	166°28.7'	N 1°39.9'
Zeitgl. 0h / 12h	+03:48 / +03:58		+04:09 / +04:19		+04:30 / +04:41		+04:52 / +05:02		+05:13 / +05:24		+05:34 / +05:45	
Kulmination UT	11:56:02		11:55:41		11:55:19		11:54:58		11:54:36		11:54:15	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	So 19.09.		Mo 20.09.		Di 21.09.		Mi 22.09.		Do 23.09.		Fr 24.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	181°29.0'	N 1°39.0'	181°34.3'	N 1°15.7'	181°39.6'	N 0°52.4'	181°45.0'	N 0°29.1'	181°50.3'	N 0°05.8'	181°55.5'	S 0°17.6'
01	196°29.2'	N 1°38.0'	196°34.5'	N 1°14.7'	196°39.9'	N 0°51.4'	196°45.2'	N 0°28.1'	196°50.5'	N 0°04.8'	196°55.8'	S 0°18.6'
02	211°29.4'	N 1°37.0'	211°34.8'	N 1°13.8'	211°40.1'	N 0°50.5'	211°45.4'	N 0°27.2'	211°50.7'	N 0°03.8'	211°56.0'	S 0°19.5'
03	226°29.6'	N 1°36.1'	226°35.0'	N 1°12.8'	226°40.3'	N 0°49.5'	226°45.6'	N 0°26.2'	226°50.9'	N 0°02.8'	226°56.2'	S 0°20.5'
04	241°29.8'	N 1°35.1'	241°35.2'	N 1°11.8'	241°40.5'	N 0°48.5'	241°45.9'	N 0°25.2'	241°51.2'	N 0°01.9'	241°56.4'	S 0°21.5'
05	256°30.1'	N 1°34.1'	256°35.4'	N 1°10.9'	256°40.8'	N 0°47.6'	256°46.1'	N 0°24.2'	256°51.4'	N 0°00.9'	256°56.6'	S 0°22.5'
06	271°30.3'	N 1°33.2'	271°35.6'	N 1°09.9'	271°41.0'	N 0°46.6'	271°46.3'	N 0°23.3'	271°51.6'	S 0°00.1'	271°56.9'	S 0°23.4'
07	286°30.5'	N 1°32.2'	286°35.9'	N 1°08.9'	286°41.2'	N 0°45.6'	286°46.5'	N 0°22.3'	286°51.8'	S 0°01.0'	286°57.1'	S 0°24.4'
08	301°30.7'	N 1°31.2'	301°36.1'	N 1°07.9'	301°41.4'	N 0°44.6'	301°46.7'	N 0°21.3'	301°52.0'	S 0°02.0'	301°57.3'	S 0°25.4'
09	316°31.0'	N 1°30.3'	316°36.3'	N 1°07.0'	316°41.6'	N 0°43.7'	316°47.0'	N 0°20.3'	316°52.3'	S 0°03.0'	316°57.5'	S 0°26.4'
10	331°31.2'	N 1°29.3'	331°36.5'	N 1°06.0'	331°41.9'	N 0°42.7'	331°47.2'	N 0°19.4'	331°52.5'	S 0°04.0'	331°57.7'	S 0°27.3'
11	346°31.4'	N 1°28.3'	346°36.8'	N 1°05.0'	346°42.1'	N 0°41.7'	346°47.4'	N 0°18.4'	346°52.7'	S 0°04.9'	346°58.0'	S 0°28.3'
12	1°31.6'	N 1°27.3'	1°37.0'	N 1°04.1'	1°42.3'	N 0°40.8'	1°47.6'	N 0°17.4'	1°52.9'	S 0°05.9'	1°58.2'	S 0°29.3'
13	16°31.9'	N 1°26.4'	16°37.2'	N 1°03.1'	16°42.5'	N 0°39.8'	16°47.8'	N 0°16.5'	16°53.1'	S 0°06.9'	16°58.4'	S 0°30.2'
14	31°32.1'	N 1°25.4'	31°37.4'	N 1°02.1'	31°42.8'	N 0°38.8'	31°48.1'	N 0°15.5'	31°53.4'	S 0°07.9'	31°58.6'	S 0°31.2'
15	46°32.3'	N 1°24.4'	46°37.6'	N 1°01.2'	46°43.0'	N 0°37.8'	46°48.3'	N 0°14.5'	46°53.6'	S 0°08.8'	46°58.8'	S 0°32.2'
16	61°32.5'	N 1°23.5'	61°37.9'	N 1°00.2'	61°43.2'	N 0°36.9'	61°48.5'	N 0°13.5'	61°53.8'	S 0°09.8'	61°59.0'	S 0°33.2'
17	76°32.7'	N 1°22.5'	76°38.1'	N 0°59.2'	76°43.4'	N 0°35.9'	76°48.7'	N 0°12.6'	76°54.0'	S 0°10.8'	76°59.3'	S 0°34.1'
18	91°33.0'	N 1°21.5'	91°38.3'	N 0°58.2'	91°43.6'	N 0°34.9'	91°48.9'	N 0°11.6'	91°54.2'	S 0°11.8'	91°59.5'	S 0°35.1'
19	106°33.2'	N 1°20.6'	106°38.5'	N 0°57.3'	106°43.9'	N 0°34.0'	106°49.2'	N 0°10.6'	106°54.4'	S 0°12.7'	106°59.7'	S 0°36.1'
20	121°33.4'	N 1°19.6'	121°38.8'	N 0°56.3'	121°44.1'	N 0°33.0'	121°49.4'	N 0°09.7'	121°54.7'	S 0°13.7'	121°59.9'	S 0°37.1'
21	136°33.6'	N 1°18.6'	136°39.0'	N 0°55.3'	136°44.3'	N 0°32.0'	136°49.6'	N 0°08.7'	136°54.9'	S 0°14.7'	137°00.1'	S 0°38.0'
22	151°33.9'	N 1°17.7'	151°39.2'	N 0°54.4'	151°44.5'	N 0°31.0'	151°49.8'	N 0°07.7'	151°55.1'	S 0°15.6'	152°00.4'	S 0°39.0'
23	166°34.1'	N 1°16.7'	166°39.4'	N 0°53.4'	166°44.7'	N 0°30.1'	166°50.1'	N 0°06.7'	166°55.3'	S 0°16.6'	167°00.6'	S 0°40.0'
Zeitgl. 0h / 12h	+05:56 / +06:07		+06:17 / +06:28		+06:39 / +06:49		+07:00 / +07:10		+07:21 / +07:32		+07:42 / +07:53	
Kulmination UT	11:53:53		11:53:32		11:53:11		11:52:50		11:52:28		11:52:07	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Sa 25.09.		So 26.09.		Mo 27.09.		Di 28.09.		Mi 29.09.		Do 30.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°00.8'	S 0°41.0'	182°06.0'	S 1°04.3'	182°11.2'	S 1°27.7'	182°16.3'	S 1°51.0'	182°21.3'	S 2°14.4'	182°26.4'	S 2°37.7'
01	197°01.0'	S 0°41.9'	197°06.2'	S 1°05.3'	197°11.4'	S 1°28.7'	197°16.5'	S 1°52.0'	197°21.6'	S 2°15.3'	197°26.6'	S 2°38.7'
02	212°01.2'	S 0°42.9'	212°06.4'	S 1°06.3'	212°11.6'	S 1°29.6'	212°16.7'	S 1°53.0'	212°21.8'	S 2°16.3'	212°26.8'	S 2°39.6'
03	227°01.4'	S 0°43.9'	227°06.6'	S 1°07.2'	227°11.8'	S 1°30.6'	227°16.9'	S 1°54.0'	227°22.0'	S 2°17.3'	227°27.0'	S 2°40.6'
04	242°01.7'	S 0°44.8'	242°06.9'	S 1°08.2'	242°12.0'	S 1°31.6'	242°17.1'	S 1°54.9'	242°22.2'	S 2°18.3'	242°27.2'	S 2°41.6'
05	257°01.9'	S 0°45.8'	257°07.1'	S 1°09.2'	257°12.2'	S 1°32.5'	257°17.3'	S 1°55.9'	257°22.4'	S 2°19.2'	257°27.4'	S 2°42.5'
06	272°02.1'	S 0°46.8'	272°07.3'	S 1°10.2'	272°12.4'	S 1°33.5'	272°17.5'	S 1°56.9'	272°22.6'	S 2°20.2'	272°27.6'	S 2°43.5'
07	287°02.3'	S 0°47.8'	287°07.5'	S 1°11.1'	287°12.7'	S 1°34.5'	287°17.8'	S 1°57.8'	287°22.8'	S 2°21.2'	287°27.8'	S 2°44.5'
08	302°02.5'	S 0°48.7'	302°07.7'	S 1°12.1'	302°12.9'	S 1°35.5'	302°18.0'	S 1°58.8'	302°23.0'	S 2°22.1'	302°28.0'	S 2°45.5'
09	317°02.7'	S 0°49.7'	317°07.9'	S 1°13.1'	317°13.1'	S 1°36.4'	317°18.2'	S 1°59.8'	317°23.2'	S 2°23.1'	317°28.2'	S 2°46.4'
10	332°03.0'	S 0°50.7'	332°08.2'	S 1°14.1'	332°13.3'	S 1°37.4'	332°18.4'	S 2°00.8'	332°23.4'	S 2°24.1'	332°28.4'	S 2°47.4'
11	347°03.2'	S 0°51.7'	347°08.4'	S 1°15.0'	347°13.5'	S 1°38.4'	347°18.6'	S 2°01.7'	347°23.6'	S 2°25.1'	347°28.6'	S 2°48.4'
12	2°03.4'	S 0°52.6'	2°08.6'	S 1°16.0'	2°13.7'	S 1°39.4'	2°18.8'	S 2°02.7'	2°23.9'	S 2°26.0'	2°28.8'	S 2°49.3'
13	17°03.6'	S 0°53.6'	17°08.8'	S 1°17.0'	17°13.9'	S 1°40.3'	17°19.0'	S 2°03.7'	17°24.1'	S 2°27.0'	17°29.0'	S 2°50.3'
14	32°03.8'	S 0°54.6'	32°09.0'	S 1°17.9'	32°14.2'	S 1°41.3'	32°19.2'	S 2°04.7'	32°24.3'	S 2°28.0'	32°29.2'	S 2°51.3'
15	47°04.0'	S 0°55.6'	47°09.2'	S 1°18.9'	47°14.4'	S 1°42.3'	47°19.5'	S 2°05.6'	47°24.5'	S 2°29.0'	47°29.5'	S 2°52.3'
16	62°04.3'	S 0°56.5'	62°09.4'	S 1°19.9'	62°14.6'	S 1°43.3'	62°19.7'	S 2°06.6'	62°24.7'	S 2°29.9'	62°29.7'	S 2°53.2'
17	77°04.5'	S 0°57.5'	77°09.7'	S 1°20.9'	77°14.8'	S 1°44.2'	77°19.9'	S 2°07.6'	77°24.9'	S 2°30.9'	77°29.9'	S 2°54.2'
18	92°04.7'	S 0°58.5'	92°09.9'	S 1°21.8'	92°15.0'	S 1°45.2'	92°20.1'	S 2°08.5'	92°25.1'	S 2°31.9'	92°30.1'	S 2°55.2'
19	107°04.9'	S 0°59.5'	107°10.1'	S 1°22.8'	107°15.2'	S 1°46.2'	107°20.3'	S 2°09.5'	107°25.3'	S 2°32.8'	107°30.3'	S 2°56.1'
20	122°05.1'	S 1°00.4'	122°10.3'	S 1°23.8'	122°15.4'	S 1°47.1'	122°20.5'	S 2°10.5'	122°25.5'	S 2°33.8'	122°30.5'	S 2°57.1'
21	137°05.3'	S 1°01.4'	137°10.5'	S 1°24.8'	137°15.6'	S 1°48.1'	137°20.7'	S 2°11.5'	137°25.7'	S 2°34.8'	137°30.7'	S 2°58.1'
22	152°05.6'	S 1°02.4'	152°10.7'	S 1°25.7'	152°15.9'	S 1°49.1'	152°20.9'	S 2°12.4'	152°25.9'	S 2°35.8'	152°30.9'	S 2°59.0'
23	167°05.8'	S 1°03.3'	167°10.9'	S 1°26.7'	167°16.1'	S 1°50.1'	167°21.1'	S 2°13.4'	167°26.1'	S 2°36.7'	167°31.1'	S 3°00.0'
Zeitgl. 0h / 12h	+08:03 / +08:14		+08:24 / +08:34		+08:45 / +08:55		+09:05 / +09:15		+09:25 / +09:35		+09:45 / +09:55	
Kulmination UT	11:51:46		11:51:26		11:51:05		11:50:45		11:50:25		11:50:05	
Halbmesser	15.9'		16.0'		16.0'		16.0'		16.0'		16.0'	

2027

Oktober

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Fr 01.10.		Sa 02.10.		So 03.10.		Mo 04.10.		Di 05.10.		Mi 06.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°31.3'	S 3°01.0'	182°36.2'	S 3°24.2'	182°41.0'	S 3°47.5'	182°45.7'	S 4°10.7'	182°50.4'	S 4°33.8'	182°54.9'	S 4°56.9'
01	197°31.5'	S 3°02.0'	197°36.4'	S 3°25.2'	197°41.2'	S 3°48.4'	197°45.9'	S 4°11.6'	197°50.6'	S 4°34.7'	197°55.1'	S 4°57.8'
02	212°31.7'	S 3°02.9'	212°36.6'	S 3°26.2'	212°41.4'	S 3°49.4'	212°46.1'	S 4°12.6'	212°50.7'	S 4°35.7'	212°55.3'	S 4°58.8'
03	227°31.9'	S 3°03.9'	227°36.8'	S 3°27.2'	227°41.6'	S 3°50.4'	227°46.3'	S 4°13.5'	227°50.9'	S 4°36.7'	227°55.5'	S 4°59.7'
04	242°32.1'	S 3°04.9'	242°37.0'	S 3°28.1'	242°41.8'	S 3°51.3'	242°46.5'	S 4°14.5'	242°51.1'	S 4°37.6'	242°55.7'	S 5°00.7'
05	257°32.3'	S 3°05.8'	257°37.2'	S 3°29.1'	257°42.0'	S 3°52.3'	257°46.7'	S 4°15.5'	257°51.3'	S 4°38.6'	257°55.9'	S 5°01.7'
06	272°32.5'	S 3°06.8'	272°37.4'	S 3°30.1'	272°42.2'	S 3°53.3'	272°46.9'	S 4°16.4'	272°51.5'	S 4°39.6'	272°56.0'	S 5°02.6'
07	287°32.7'	S 3°07.8'	287°37.6'	S 3°31.0'	287°42.4'	S 3°54.2'	287°47.1'	S 4°17.4'	287°51.7'	S 4°40.5'	287°56.2'	S 5°03.6'
08	302°32.9'	S 3°08.7'	302°37.8'	S 3°32.0'	302°42.6'	S 3°55.2'	302°47.3'	S 4°18.4'	302°51.9'	S 4°41.5'	302°56.4'	S 5°04.5'
09	317°33.1'	S 3°09.7'	317°38.0'	S 3°33.0'	317°42.8'	S 3°56.2'	317°47.5'	S 4°19.3'	317°52.1'	S 4°42.4'	317°56.6'	S 5°05.5'
10	332°33.3'	S 3°10.7'	332°38.2'	S 3°33.9'	332°43.0'	S 3°57.1'	332°47.7'	S 4°20.3'	332°52.3'	S 4°43.4'	332°56.8'	S 5°06.5'
11	347°33.5'	S 3°11.7'	347°38.4'	S 3°34.9'	347°43.2'	S 3°58.1'	347°47.9'	S 4°21.3'	347°52.5'	S 4°44.4'	347°57.0'	S 5°07.4'
12	2°33.7'	S 3°12.6'	2°38.6'	S 3°35.9'	2°43.4'	S 3°59.1'	2°48.0'	S 4°22.2'	2°52.6'	S 4°45.3'	2°57.2'	S 5°08.4'
13	17°34.0'	S 3°13.6'	17°38.8'	S 3°36.8'	17°43.6'	S 4°00.0'	17°48.2'	S 4°23.2'	17°52.8'	S 4°46.3'	17°57.3'	S 5°09.3'
14	32°34.2'	S 3°14.6'	32°39.0'	S 3°37.8'	32°43.8'	S 4°01.0'	32°48.4'	S 4°24.2'	32°53.0'	S 4°47.3'	32°57.5'	S 5°10.3'
15	47°34.4'	S 3°15.5'	47°39.2'	S 3°38.8'	47°43.9'	S 4°02.0'	47°48.6'	S 4°25.1'	47°53.2'	S 4°48.2'	47°57.7'	S 5°11.3'
16	62°34.6'	S 3°16.5'	62°39.4'	S 3°39.7'	62°44.1'	S 4°02.9'	62°48.8'	S 4°26.1'	62°53.4'	S 4°49.2'	62°57.9'	S 5°12.2'
17	77°34.8'	S 3°17.5'	77°39.6'	S 3°40.7'	77°44.3'	S 4°03.9'	77°49.0'	S 4°27.0'	77°53.6'	S 4°50.1'	77°58.1'	S 5°13.2'
18	92°35.0'	S 3°18.4'	92°39.8'	S 3°41.7'	92°44.5'	S 4°04.9'	92°49.2'	S 4°28.0'	92°53.8'	S 4°51.1'	92°58.3'	S 5°14.1'
19	107°35.2'	S 3°19.4'	107°40.0'	S 3°42.6'	107°44.7'	S 4°05.8'	107°49.4'	S 4°29.0'	107°54.0'	S 4°52.1'	107°58.5'	S 5°15.1'
20	122°35.4'	S 3°20.4'	122°40.2'	S 3°43.6'	122°44.9'	S 4°06.8'	122°49.6'	S 4°29.9'	122°54.2'	S 4°53.0'	122°58.6'	S 5°16.0'
21	137°35.6'	S 3°21.3'	137°40.4'	S 3°44.6'	137°45.1'	S 4°07.8'	137°49.8'	S 4°30.9'	137°54.4'	S 4°54.0'	137°58.8'	S 5°17.0'
22	152°35.8'	S 3°22.3'	152°40.6'	S 3°45.5'	152°45.3'	S 4°08.7'	152°50.0'	S 4°31.9'	152°54.5'	S 4°54.9'	152°59.0'	S 5°18.0'
23	167°36.0'	S 3°23.3'	167°40.8'	S 3°46.5'	167°45.5'	S 4°09.7'	167°50.2'	S 4°32.8'	167°54.7'	S 4°55.9'	167°59.2'	S 5°18.9'
Zeitgl. 0h / 12h	+10:05 / +10:15		+10:25 / +10:34		+10:44 / +10:53		+11:03 / +11:12		+11:21 / +11:31		+11:40 / +11:49	
Kulmination UT	11:49:45		11:49:26		11:49:07		11:48:48		11:48:29		11:48:11	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

	Do 07.10.		Fr 08.10.		Sa 09.10.		So 10.10.		Mo 11.10.		Di 12.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°59.4'	S 5°19.9'	183°03.7'	S 5°42.8'	183°08.0'	S 6°05.7'	183°12.2'	S 6°28.5'	183°16.2'	S 6°51.2'	183°20.1'	S 7°13.8'
01	197°59.6'	S 5°20.8'	198°03.9'	S 5°43.8'	198°08.2'	S 6°06.6'	198°12.3'	S 6°29.4'	198°16.4'	S 6°52.1'	198°20.3'	S 7°14.8'
02	212°59.7'	S 5°21.8'	213°04.1'	S 5°44.7'	213°08.4'	S 6°07.6'	213°12.5'	S 6°30.4'	213°16.5'	S 6°53.1'	213°20.5'	S 7°15.7'
03	227°59.9'	S 5°22.7'	228°04.3'	S 5°45.7'	228°08.5'	S 6°08.5'	228°12.7'	S 6°31.3'	228°16.7'	S 6°54.0'	228°20.6'	S 7°16.6'
04	243°00.1'	S 5°23.7'	243°04.5'	S 5°46.6'	243°08.7'	S 6°09.5'	243°12.8'	S 6°32.3'	243°16.9'	S 6°55.0'	243°20.8'	S 7°17.6'
05	258°00.3'	S 5°24.7'	258°04.6'	S 5°47.6'	258°08.9'	S 6°10.5'	258°13.0'	S 6°33.2'	258°17.0'	S 6°55.9'	258°20.9'	S 7°18.5'
06	273°00.5'	S 5°25.6'	273°04.8'	S 5°48.5'	273°09.1'	S 6°11.4'	273°13.2'	S 6°34.2'	273°17.2'	S 6°56.9'	273°21.1'	S 7°19.5'
07	288°00.7'	S 5°26.6'	288°05.0'	S 5°49.5'	288°09.2'	S 6°12.4'	288°13.4'	S 6°35.1'	288°17.4'	S 6°57.8'	288°21.3'	S 7°20.4'
08	303°00.8'	S 5°27.5'	303°05.2'	S 5°50.5'	303°09.4'	S 6°13.3'	303°13.5'	S 6°36.1'	303°17.5'	S 6°58.7'	303°21.4'	S 7°21.3'
09	318°01.0'	S 5°28.5'	318°05.4'	S 5°51.4'	318°09.6'	S 6°14.3'	318°13.7'	S 6°37.0'	318°17.7'	S 6°59.7'	318°21.6'	S 7°22.3'
10	333°01.2'	S 5°29.4'	333°05.5'	S 5°52.4'	333°09.8'	S 6°15.2'	333°13.9'	S 6°38.0'	333°17.9'	S 7°00.6'	333°21.7'	S 7°23.2'
11	348°01.4'	S 5°30.4'	348°05.7'	S 5°53.3'	348°09.9'	S 6°16.2'	348°14.0'	S 6°38.9'	348°18.0'	S 7°01.6'	348°21.9'	S 7°24.1'
12	3°01.6'	S 5°31.4'	3°05.9'	S 5°54.3'	3°10.1'	S 6°17.1'	3°14.2'	S 6°39.9'	3°18.2'	S 7°02.5'	3°22.0'	S 7°25.1'
13	18°01.8'	S 5°32.3'	18°06.1'	S 5°55.2'	18°10.3'	S 6°18.1'	18°14.4'	S 6°40.8'	18°18.3'	S 7°03.5'	18°22.2'	S 7°26.0'
14	33°01.9'	S 5°33.3'	33°06.2'	S 5°56.2'	33°10.4'	S 6°19.0'	33°14.5'	S 6°41.7'	33°18.5'	S 7°04.4'	33°22.4'	S 7°27.0'
15	48°02.1'	S 5°34.2'	48°06.4'	S 5°57.1'	48°10.6'	S 6°20.0'	48°14.7'	S 6°42.7'	48°18.7'	S 7°05.3'	48°22.5'	S 7°27.9'
16	63°02.3'	S 5°35.2'	63°06.6'	S 5°58.1'	63°10.8'	S 6°20.9'	63°14.9'	S 6°43.6'	63°18.8'	S 7°06.3'	63°22.7'	S 7°28.8'
17	78°02.5'	S 5°36.1'	78°06.8'	S 5°59.0'	78°11.0'	S 6°21.8'	78°15.0'	S 6°44.6'	78°19.0'	S 7°07.2'	78°22.8'	S 7°29.8'
18	93°02.7'	S 5°37.1'	93°07.0'	S 6°00.0'	93°11.1'	S 6°22.8'	93°15.2'	S 6°45.5'	93°19.2'	S 7°08.2'	93°23.0'	S 7°30.7'
19	108°02.8'	S 5°38.0'	108°07.1'	S 6°00.9'	108°11.3'	S 6°23.7'	108°15.4'	S 6°46.5'	108°19.3'	S 7°09.1'	108°23.1'	S 7°31.6'
20	123°03.0'	S 5°39.0'	123°07.3'	S 6°01.9'	123°11.5'	S 6°24.7'	123°15.5'	S 6°47.4'	123°19.5'	S 7°10.1'	123°23.3'	S 7°32.6'
21	138°03.2'	S 5°40.0'	138°07.5'	S 6°02.8'	138°11.7'	S 6°25.6'	138°15.7'	S 6°48.4'	138°19.6'	S 7°11.0'	138°23.5'	S 7°33.5'
22	153°03.4'	S 5°40.9'	153°07.7'	S 6°03.8'	153°11.8'	S 6°26.6'	153°15.9'	S 6°49.3'	153°19.8'	S 7°11.9'	153°23.6'	S 7°34.5'
23	168°03.6'	S 5°41.9'	168°07.8'	S 6°04.7'	168°12.0'	S 6°27.5'	168°16.0'	S 6°50.3'	168°20.0'	S 7°12.9'	168°23.8'	S 7°35.4'
Zeitgl. 0h / 12h	+11:58 / +12:06		+12:15 / +12:24		+12:32 / +12:40		+12:49 / +12:57		+13:05 / +13:13		+13:21 / +13:28	
Kulmination UT	11:47:54		11:47:36		11:47:20		11:47:03		11:46:47		11:46:32	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

	Mi 13.10.		Do 14.10.		Fr 15.10.		Sa 16.10.		So 17.10.		Mo 18.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°23.9'	S 7°36.3'	183°27.6'	S 7°58.7'	183°31.1'	S 8°21.0'	183°34.5'	S 8°43.2'	183°37.8'	S 9°05.3'	183°40.9'	S 9°27.2'
01	198°24.1'	S 7°37.3'	198°27.8'	S 7°59.7'	198°31.3'	S 8°22.0'	198°34.7'	S 8°44.2'	198°37.9'	S 9°06.2'	198°41.0'	S 9°28.1'
02	213°24.2'	S 7°38.2'	213°27.9'	S 8°00.6'	213°31.4'	S 8°22.9'	213°34.8'	S 8°45.1'	213°38.1'	S 9°07.1'	213°41.2'	S 9°29.0'
03	228°24.4'	S 7°39.1'	228°28.1'	S 8°01.5'	228°31.6'	S 8°23.8'	228°35.0'	S 8°46.0'	228°38.2'	S 9°08.0'	228°41.3'	S 9°30.0'
04	243°24.6'	S 7°40.1'	243°28.2'	S 8°02.5'	243°31.7'	S 8°24.8'	243°35.1'	S 8°46.9'	243°38.3'	S 9°09.0'	243°41.4'	S 9°30.9'
05	258°24.7'	S 7°41.0'	258°28.4'	S 8°03.4'	258°31.9'	S 8°25.7'	258°35.2'	S 8°47.8'	258°38.5'	S 9°09.9'	258°41.5'	S 9°31.8'
06	273°24.9'	S 7°41.9'	273°28.5'	S 8°04.3'	273°32.0'	S 8°26.6'	273°35.4'	S 8°48.8'	273°38.6'	S 9°10.8'	273°41.7'	S 9°32.7'
07	288°25.0'	S 7°42.9'	288°28.6'	S 8°05.3'	288°32.1'	S 8°27.5'	288°35.5'	S 8°49.7'	288°38.7'	S 9°11.7'	288°41.8'	S 9°33.6'
08	303°25.2'	S 7°43.8'	303°28.8'	S 8°06.2'	303°32.3'	S 8°28.5'	303°35.6'	S 8°50.6'	303°38.9'	S 9°12.6'	303°41.9'	S 9°34.5'
09	318°25.3'	S 7°44.7'	318°28.9'	S 8°07.1'	318°32.4'	S 8°29.4'	318°35.8'	S 8°51.5'	318°39.0'	S 9°13.5'	318°42.0'	S 9°35.4'
10	333°25.5'	S 7°45.7'	333°29.1'	S 8°08.1'	333°32.6'	S 8°30.3'	333°35.9'	S 8°52.4'	333°39.1'	S 9°14.4'	333°42.2'	S 9°36.3'
11	348°25.6'	S 7°46.6'	348°29.2'	S 8°09.0'	348°32.7'	S 8°31.2'	348°36.1'	S 8°53.4'	348°39.2'	S 9°15.4'	348°42.3'	S 9°37.2'
12	3°25.8'	S 7°47.6'	3°29.4'	S 8°09.9'	3°32.9'	S 8°32.2'	3°36.2'	S 8°54.3'	3°39.4'	S 9°16.3'	3°42.4'	S 9°38.1'
13	18°25.9'	S 7°48.5'	18°29.5'	S 8°10.8'	18°33.0'	S 8°33.1'	18°36.3'	S 8°55.2'	18°39.5'	S 9°17.2'	18°42.5'	S 9°39.0'
14	33°26.1'	S 7°49.4'	33°29.7'	S 8°11.8'	33°33.1'	S 8°34.0'	33°36.5'	S 8°56.1'	33°39.6'	S 9°18.1'	33°42.7'	S 9°40.0'
15	48°26.2'	S 7°50.4'	48°29.8'	S 8°12.7'	48°33.3'	S 8°34.9'	48°36.6'	S 8°57.0'	48°39.8'	S 9°19.0'	48°42.8'	S 9°40.9'
16	63°26.4'	S 7°51.3'	63°30.0'	S 8°13.6'	63°33.4'	S 8°35.8'	63°36.7'	S 8°58.0'	63°39.9'	S 9°19.9'	63°42.9'	S 9°41.8'
17	78°26.5'	S 7°52.2'	78°30.1'	S 8°14.6'	78°33.6'	S 8°36.8'	78°36.9'	S 8°58.9'	78°40.0'	S 9°20.8'	78°43.0'	S 9°42.7'
18	93°26.7'	S 7°53.2'	93°30.3'	S 8°15.5'	93°33.7'	S 8°37.7'	93°37.0'	S 8°59.8'	93°40.1'	S 9°21.8'	93°43.1'	S 9°43.6'
19	108°26.8'	S 7°54.1'	108°30.4'	S 8°16.4'	108°33.8'	S 8°38.6'	108°37.1'	S 9°00.7'	108°40.3'	S 9°22.7'	108°43.3'	S 9°44.5'
20	123°27.0'	S 7°55.0'	123°30.6'	S 8°17.3'	123°34.0'	S 8°39.5'	123°37.3'	S 9°01.6'	123°40.4'	S 9°23.6'	123°43.4'	S 9°45.4'
21	138°27.2'	S 7°55.9'	138°30.7'	S 8°18.3'	138°34.1'	S 8°40.5'	138°37.4'	S 9°02.5'	138°40.5'	S 9°24.5'	138°43.5'	S 9°46.3'
22	153°27.3'	S 7°56.9'	153°30.9'	S 8°19.2'	153°34.3'	S 8°41.4'	153°37.5'	S 9°03.5'	153°40.7'	S 9°25.4'	153°43.6'	S 9°47.2'
23	168°27.5'	S 7°57.8'	168°31.0'	S 8°20.1'	168°34.4'	S 8°42.3'	168°37.7'	S 9°04.4'	168°40.8'	S 9°26.3'	168°43.8'	S 9°48.1'
Zeitgl. 0h / 12h	+13:36 / +13:43		+13:50 / +13:58		+14:05 / +14:11		+14:18 / +14:25		+14:31 / +14:38		+14:44 / +14:50	
Kulmination UT	11:46:17		11:46:02		11:45:49		11:45:35		11:45:22		11:45:10	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.1'	

	Di 19.10.		Mi 20.10.		Do 21.10.		Fr 22.10.		Sa 23.10.		So 24.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°43.9'	S 9°49.0'	183°46.7'	S 10°10.7'	183°49.3'	S 10°32.2'	183°51.8'	S 10°53.5'	183°54.1'	S 11°14.7'	183°56.2'	S 11°35.7'
01	198°44.0'	S 9°49.9'	198°46.8'	S 10°11.6'	198°49.4'	S 10°33.1'	198°51.9'	S 10°54.4'	198°54.2'	S 11°15.6'	198°56.3'	S 11°36.6'
02	213°44.1'	S 9°50.8'	213°46.9'	S 10°12.5'	213°49.5'	S 10°34.0'	213°52.0'	S 10°55.3'	213°54.3'	S 11°16.5'	213°56.4'	S 11°37.5'
03	228°44.2'	S 9°51.7'	228°47.0'	S 10°13.4'	228°49.6'	S 10°34.9'	228°52.1'	S 10°56.2'	228°54.4'	S 11°17.4'	228°56.5'	S 11°38.3'
04	243°44.4'	S 9°52.6'	243°47.1'	S 10°14.3'	243°49.7'	S 10°35.7'	243°52.2'	S 10°57.1'	243°54.5'	S 11°18.2'	243°56.6'	S 11°39.2'
05	258°44.5'	S 9°53.5'	258°47.2'	S 10°15.2'	258°49.9'	S 10°36.6'	258°52.3'	S 10°58.0'	258°54.6'	S 11°19.1'	258°56.7'	S 11°40.1'
06	273°44.6'	S 9°54.4'	273°47.4'	S 10°16.1'	273°50.0'	S 10°37.5'	273°52.4'	S 10°58.8'	273°54.7'	S 11°20.0'	273°56.8'	S 11°41.0'
07	288°44.7'	S 9°55.4'	288°47.5'	S 10°17.0'	288°50.1'	S 10°38.4'	288°52.5'	S 10°59.7'	288°54.8'	S 11°20.9'	288°56.8'	S 11°41.8'
08	303°44.8'	S 9°56.3'	303°47.6'	S 10°17.9'	303°50.2'	S 10°39.3'	303°52.6'	S 11°00.6'	303°54.8'	S 11°21.7'	303°56.9'	S 11°42.7'
09	318°44.9'	S 9°57.2'	318°47.7'	S 10°18.8'	318°50.3'	S 10°40.2'	318°52.7'	S 11°01.5'	318°54.9'	S 11°22.6'	318°57.0'	S 11°43.6'
10	333°45.1'	S 9°58.1'	333°47.8'	S 10°19.7'	333°50.4'	S 10°41.1'	333°52.8'	S 11°02.4'	333°55.0'	S 11°23.5'	333°57.1'	S 11°44.4'
11	348°45.2'	S 9°59.0'	348°47.9'	S 10°20.6'	348°50.5'	S 10°42.0'	348°52.9'	S 11°03.3'	348°55.1'	S 11°24.4'	348°57.2'	S 11°45.3'
12	3°45.3'	S 9°59.9'	3°48.0'	S 10°21.4'	3°50.6'	S 10°42.9'	3°53.0'	S 11°04.1'	3°55.2'	S 11°25.2'	3°57.3'	S 11°46.2'
13	18°45.4'	S 10°00.8'	18°48.1'	S 10°22.3'	18°50.7'	S 10°43.8'	18°53.1'	S 11°05.0'	18°55.3'	S 11°26.1'	18°57.3'	S 11°47.0'
14	33°45.5'	S 10°01.7'	33°48.2'	S 10°23.2'	33°50.8'	S 10°44.7'	33°53.2'	S 11°05.9'	33°55.4'	S 11°27.0'	33°57.4'	S 11°47.9'
15	48°45.6'	S 10°02.6'	48°48.3'	S 10°24.1'	48°50.9'	S 10°45.5'	48°53.3'	S 11°06.8'	48°55.5'	S 11°27.9'	48°57.5'	S 11°48.8'
16	63°45.8'	S 10°03.5'	63°48.5'	S 10°25.0'	63°51.0'	S 10°46.4'	63°53.4'	S 11°07.7'	63°55.6'	S 11°28.7'	63°57.6'	S 11°49.6'
17	78°45.9'	S 10°04.4'	78°48.6'	S 10°25.9'	78°51.1'	S 10°47.3'	78°53.5'	S 11°08.6'	78°55.6'	S 11°29.6'	78°57.7'	S 11°50.5'
18	93°46.0'	S 10°05.3'	93°48.7'	S 10°26.8'	93°51.2'	S 10°48.2'	93°53.5'	S 11°09.4'	93°55.7'	S 11°30.5'	93°57.7'	S 11°51.4'
19	108°46.1'	S 10°06.2'	108°48.8'	S 10°27.7'	108°51.3'	S 10°49.1'	108°53.6'	S 11°10.3'	108°55.8'	S 11°31.4'	108°57.8'	S 11°52.2'
20	123°46.2'	S 10°07.1'	123°48.9'	S 10°28.6'	123°51.4'	S 10°50.0'	123°53.7'	S 11°11.2'	123°55.9'	S 11°32.2'	123°57.9'	S 11°53.1'
21	138°46.3'	S 10°08.0'	138°49.0'	S 10°29.5'	138°51.5'	S 10°50.9'	138°53.8'	S 11°12.1'	138°56.0'	S 11°33.1'	138°58.0'	S 11°54.0'
22	153°46.4'	S 10°08.9'	153°49.1'	S 10°30.4'	153°51.6'	S 10°51.8'	153°53.9'	S 11°13.0'	153°56.1'	S 11°34.0'	153°58.1'	S 11°54.8'
23	168°46.6'	S 10°09.8'	168°49.2'	S 10°31.3'	168°51.7'	S 10°52.6'	168°54.0'	S 11°13.8'	168°56.2'	S 11°34.9'	168°58.1'	S 11°55.7'
Zeitgl. 0h / 12h	+14:55 / +15:01		+15:07 / +15:12		+15:17 / +15:22		+15:27 / +15:32		+15:36 / +15:41		+15:45 / +15:49	
Kulmination UT	11:44:59		11:44:48		11:44:38		11:44:28		11:44:19		11:44:11	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	Mo 25.10.		Di 26.10.		Mi 27.10.		Do 28.10.		Fr 29.10.		Sa 30.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°58.2'	S 11°56.6'	184°00.0'	S 12°17.2'	184°01.6'	S 12°37.7'	184°03.0'	S 12°58.0'	184°04.2'	S 13°18.1'	184°05.2'	S 13°37.9'
01	198°58.3'	S 11°57.4'	199°00.1'	S 12°18.1'	199°01.7'	S 12°38.6'	199°03.1'	S 12°58.8'	199°04.3'	S 13°18.9'	199°05.3'	S 13°38.7'
02	213°58.4'	S 11°58.3'	214°00.1'	S 12°18.9'	214°01.7'	S 12°39.4'	214°03.1'	S 12°59.7'	214°04.3'	S 13°19.7'	214°05.3'	S 13°39.6'
03	228°58.4'	S 11°59.2'	229°00.2'	S 12°19.8'	229°01.8'	S 12°40.3'	229°03.2'	S 13°00.5'	229°04.4'	S 13°20.6'	229°05.4'	S 13°40.4'
04	243°58.5'	S 12°00.0'	244°00.3'	S 12°20.7'	244°01.8'	S 12°41.1'	244°03.2'	S 13°01.3'	244°04.4'	S 13°21.4'	244°05.4'	S 13°41.2'
05	258°58.6'	S 12°00.9'	259°00.3'	S 12°21.5'	259°01.9'	S 12°41.9'	259°03.3'	S 13°02.2'	259°04.4'	S 13°22.2'	259°05.4'	S 13°42.0'
06	273°58.7'	S 12°01.8'	274°00.4'	S 12°22.4'	274°02.0'	S 12°42.8'	274°03.3'	S 13°03.0'	274°04.5'	S 13°23.0'	274°05.5'	S 13°42.9'
07	288°58.7'	S 12°02.6'	289°00.5'	S 12°23.2'	289°02.0'	S 12°43.6'	289°03.4'	S 13°03.9'	289°04.5'	S 13°23.9'	289°05.5'	S 13°43.7'
08	303°58.8'	S 12°03.5'	304°00.5'	S 12°24.1'	304°02.1'	S 12°44.5'	304°03.4'	S 13°04.7'	304°04.6'	S 13°24.7'	304°05.5'	S 13°44.5'
09	318°58.9'	S 12°04.3'	319°00.6'	S 12°24.9'	319°02.1'	S 12°45.3'	319°03.5'	S 13°05.5'	319°04.6'	S 13°25.5'	319°05.6'	S 13°45.3'
10	333°59.0'	S 12°05.2'	334°00.7'	S 12°25.8'	334°02.2'	S 12°46.2'	334°03.5'	S 13°06.4'	334°04.7'	S 13°26.4'	334°05.6'	S 13°46.1'
11	348°59.0'	S 12°06.1'	349°00.7'	S 12°26.6'	349°02.3'	S 12°47.0'	349°03.6'	S 13°07.2'	349°04.7'	S 13°27.2'	349°05.6'	S 13°47.0'
12	3°59.1'	S 12°06.9'	4°00.8'	S 12°27.5'	4°02.3'	S 12°47.9'	4°03.6'	S 13°08.0'	4°04.8'	S 13°28.0'	4°05.7'	S 13°47.8'
13	18°59.2'	S 12°07.8'	19°00.9'	S 12°28.3'	19°02.4'	S 12°48.7'	19°03.7'	S 13°08.9'	19°04.8'	S 13°28.8'	19°05.7'	S 13°48.6'
14	33°59.3'	S 12°08.6'	34°00.9'	S 12°29.2'	34°02.4'	S 12°49.6'	34°03.7'	S 13°09.7'	34°04.8'	S 13°29.7'	34°05.8'	S 13°49.4'
15	48°59.3'	S 12°09.5'	49°01.0'	S 12°30.1'	49°02.5'	S 12°50.4'	49°03.8'	S 13°10.6'	49°04.9'	S 13°30.5'	49°05.8'	S 13°50.2'
16	63°59.4'	S 12°10.4'	64°01.1'	S 12°30.9'	64°02.5'	S 12°51.2'	64°03.8'	S 13°11.4'	64°04.9'	S 13°31.3'	64°05.8'	S 13°51.1'
17	78°59.5'	S 12°11.2'	79°01.1'	S 12°31.8'	79°02.6'	S 12°52.1'	79°03.9'	S 13°12.2'	79°05.0'	S 13°32.2'	79°05.9'	S 13°51.9'
18	93°59.6'	S 12°12.1'	94°01.2'	S 12°32.6'	94°02.7'	S 12°52.9'	94°03.9'	S 13°13.1'	94°05.0'	S 13°33.0'	94°05.9'	S 13°52.7'
19	108°59.6'	S 12°12.9'	109°01.3'	S 12°33.5'	109°02.7'	S 12°53.8'	109°04.0'	S 13°13.9'	109°05.0'	S 13°33.8'	109°05.9'	S 13°53.5'
20	123°59.7'	S 12°13.8'	124°01.3'	S 12°34.3'	124°02.8'	S 12°54.6'	124°04.0'	S 13°14.7'	124°05.1'	S 13°34.6'	124°05.9'	S 13°54.3'
21	138°59.8'	S 12°14.7'	139°01.4'	S 12°35.2'	139°02.8'	S 12°55.5'	139°04.1'	S 13°15.6'	139°05.1'	S 13°35.5'	139°06.0'	S 13°55.1'
22	153°59.8'	S 12°15.5'	154°01.5'	S 12°36.0'	154°02.9'	S 12°56.3'	154°04.1'	S 13°16.4'	154°05.2'	S 13°36.3'	154°06.0'	S 13°55.9'
23	168°59.9'	S 12°16.4'	169°01.5'	S 12°36.9'	169°02.9'	S 12°57.1'	169°04.2'	S 13°17.2'	169°05.2'	S 13°37.1'	169°06.0'	S 13°56.8'
Zeitgl. 0h / 12h	+15:53 / +15:56		+16:00 / +16:03		+16:06 / +16:09		+16:12 / +16:15		+16:17 / +16:19		+16:21 / +16:23	
Kulmination UT	11:44:04		11:43:57		11:43:51		11:43:45		11:43:41		11:43:37	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

So 31.10.

UT	Grt	Dec
00	184°06.1'	S 13°57.6'
01	199°06.1'	S 13°58.4'
02	214°06.1'	S 13°59.2'
03	229°06.2'	S 14°00.0'
04	244°06.2'	S 14°00.8'
05	259°06.2'	S 14°01.6'
06	274°06.2'	S 14°02.5'
07	289°06.3'	S 14°03.3'
08	304°06.3'	S 14°04.1'
09	319°06.3'	S 14°04.9'
10	334°06.4'	S 14°05.7'
11	349°06.4'	S 14°06.5'
12	4°06.4'	S 14°07.3'
13	19°06.4'	S 14°08.1'
14	34°06.5'	S 14°08.9'
15	49°06.5'	S 14°09.7'
16	64°06.5'	S 14°10.6'
17	79°06.5'	S 14°11.4'
18	94°06.6'	S 14°12.2'
19	109°06.6'	S 14°13.0'
20	124°06.6'	S 14°13.8'
21	139°06.6'	S 14°14.6'
22	154°06.7'	S 14°15.4'
23	169°06.7'	S 14°16.2'

Zeitgl. 0h / 12h +16:24 / +16:26

Kulmination UT 11:43:34

Halbmesser 16.1'

2027

November

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Mo 01.11.		Di 02.11.		Mi 03.11.		Do 04.11.		Fr 05.11.		Sa 06.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	184°06.7'	S 14°17.0'	184°07.1'	S 14°36.2'	184°07.4'	S 14°55.2'	184°07.4'	S 15°13.9'	184°07.2'	S 15°32.4'	184°06.8'	S 15°50.6'
01	199°06.7'	S 14°17.8'	199°07.1'	S 14°37.0'	199°07.4'	S 14°56.0'	199°07.4'	S 15°14.7'	199°07.2'	S 15°33.1'	199°06.8'	S 15°51.3'
02	214°06.7'	S 14°18.6'	214°07.2'	S 14°37.8'	214°07.4'	S 14°56.7'	214°07.4'	S 15°15.4'	214°07.2'	S 15°33.9'	214°06.7'	S 15°52.1'
03	229°06.8'	S 14°19.4'	229°07.2'	S 14°38.6'	229°07.4'	S 14°57.5'	229°07.4'	S 15°16.2'	229°07.1'	S 15°34.7'	229°06.7'	S 15°52.8'
04	244°06.8'	S 14°20.2'	244°07.2'	S 14°39.4'	244°07.4'	S 14°58.3'	244°07.4'	S 15°17.0'	244°07.1'	S 15°35.4'	244°06.7'	S 15°53.6'
05	259°06.8'	S 14°21.0'	259°07.2'	S 14°40.2'	259°07.4'	S 14°59.1'	259°07.4'	S 15°17.8'	259°07.1'	S 15°36.2'	259°06.7'	S 15°54.3'
06	274°06.8'	S 14°21.8'	274°07.2'	S 14°41.0'	274°07.4'	S 14°59.9'	274°07.3'	S 15°18.5'	274°07.1'	S 15°36.9'	274°06.6'	S 15°55.1'
07	289°06.8'	S 14°22.6'	289°07.2'	S 14°41.8'	289°07.4'	S 15°00.7'	289°07.3'	S 15°19.3'	289°07.1'	S 15°37.7'	289°06.6'	S 15°55.8'
08	304°06.9'	S 14°23.4'	304°07.2'	S 14°42.6'	304°07.4'	S 15°01.4'	304°07.3'	S 15°20.1'	304°07.1'	S 15°38.5'	304°06.6'	S 15°56.6'
09	319°06.9'	S 14°24.2'	319°07.2'	S 14°43.3'	319°07.4'	S 15°02.2'	319°07.3'	S 15°20.8'	319°07.1'	S 15°39.2'	319°06.6'	S 15°57.3'
10	334°06.9'	S 14°25.0'	334°07.2'	S 14°44.1'	334°07.4'	S 15°03.0'	334°07.3'	S 15°21.6'	334°07.0'	S 15°40.0'	334°06.6'	S 15°58.1'
11	349°06.9'	S 14°25.8'	349°07.3'	S 14°44.9'	349°07.4'	S 15°03.8'	349°07.3'	S 15°22.4'	349°07.0'	S 15°40.7'	349°06.5'	S 15°58.8'
12	4°06.9'	S 14°26.6'	4°07.3'	S 14°45.7'	4°07.4'	S 15°04.6'	4°07.3'	S 15°23.2'	4°07.0'	S 15°41.5'	4°06.5'	S 15°59.6'
13	19°07.0'	S 14°27.4'	19°07.3'	S 14°46.5'	19°07.4'	S 15°05.3'	19°07.3'	S 15°23.9'	19°07.0'	S 15°42.3'	19°06.5'	S 16°00.3'
14	34°07.0'	S 14°28.2'	34°07.3'	S 14°47.3'	34°07.4'	S 15°06.1'	34°07.3'	S 15°24.7'	34°07.0'	S 15°43.0'	34°06.5'	S 16°01.1'
15	49°07.0'	S 14°29.0'	49°07.3'	S 14°48.1'	49°07.4'	S 15°06.9'	49°07.3'	S 15°25.5'	49°07.0'	S 15°43.8'	49°06.4'	S 16°01.8'
16	64°07.0'	S 14°29.8'	64°07.3'	S 14°48.9'	64°07.4'	S 15°07.7'	64°07.3'	S 15°26.2'	64°06.9'	S 15°44.5'	64°06.4'	S 16°02.6'
17	79°07.0'	S 14°30.6'	79°07.3'	S 14°49.7'	79°07.4'	S 15°08.5'	79°07.3'	S 15°27.0'	79°06.9'	S 15°45.3'	79°06.4'	S 16°03.3'
18	94°07.0'	S 14°31.4'	94°07.3'	S 14°50.5'	94°07.4'	S 15°09.2'	94°07.2'	S 15°27.8'	94°06.9'	S 15°46.1'	94°06.3'	S 16°04.1'
19	109°07.1'	S 14°32.2'	109°07.3'	S 14°51.2'	109°07.4'	S 15°10.0'	109°07.2'	S 15°28.5'	109°06.9'	S 15°46.8'	109°06.3'	S 16°04.8'
20	124°07.1'	S 14°33.0'	124°07.3'	S 14°52.0'	124°07.4'	S 15°10.8'	124°07.2'	S 15°29.3'	124°06.9'	S 15°47.6'	124°06.3'	S 16°05.6'
21	139°07.1'	S 14°33.8'	139°07.3'	S 14°52.8'	139°07.4'	S 15°11.6'	139°07.2'	S 15°30.1'	139°06.8'	S 15°48.3'	139°06.3'	S 16°06.3'
22	154°07.1'	S 14°34.6'	154°07.3'	S 14°53.6'	154°07.4'	S 15°12.3'	154°07.2'	S 15°30.8'	154°06.8'	S 15°49.1'	154°06.2'	S 16°07.0'
23	169°07.1'	S 14°35.4'	169°07.3'	S 14°54.4'	169°07.4'	S 15°13.1'	169°07.2'	S 15°31.6'	169°06.8'	S 15°49.8'	169°06.2'	S 16°07.8'
Zeitgl. 0h / 12h	+16:27 / +16:28		+16:29 / +16:29		+16:29 / +16:30		+16:29 / +16:29		+16:29 / +16:28		+16:27 / +16:26	
Kulmination UT	11:43:32		11:43:31		11:43:30		11:43:31		11:43:32		11:43:34	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	So 07.11.		Mo 08.11.		Di 09.11.		Mi 10.11.		Do 11.11.		Fr 12.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	184°06.2'	S 16°08.5'	184°05.3'	S 16°26.2'	184°04.3'	S 16°43.6'	184°03.1'	S 17°00.8'	184°01.6'	S 17°17.6'	183°59.9'	S 17°34.1'
01	199°06.1'	S 16°09.3'	199°05.3'	S 16°27.0'	199°04.3'	S 16°44.3'	199°03.0'	S 17°01.5'	199°01.5'	S 17°18.3'	198°59.8'	S 17°34.8'
02	214°06.1'	S 16°10.0'	214°05.3'	S 16°27.7'	214°04.2'	S 16°45.1'	214°02.9'	S 17°02.2'	214°01.5'	S 17°19.0'	213°59.8'	S 17°35.5'
03	229°06.1'	S 16°10.8'	229°05.2'	S 16°28.4'	229°04.2'	S 16°45.8'	229°02.9'	S 17°02.9'	229°01.4'	S 17°19.7'	228°59.7'	S 17°36.2'
04	244°06.0'	S 16°11.5'	244°05.2'	S 16°29.1'	244°04.1'	S 16°46.5'	244°02.8'	S 17°03.6'	244°01.3'	S 17°20.4'	243°59.6'	S 17°36.9'
05	259°06.0'	S 16°12.2'	259°05.1'	S 16°29.9'	259°04.1'	S 16°47.2'	259°02.8'	S 17°04.3'	259°01.3'	S 17°21.1'	258°59.5'	S 17°37.5'
06	274°06.0'	S 16°13.0'	274°05.1'	S 16°30.6'	274°04.0'	S 16°47.9'	274°02.7'	S 17°05.0'	274°01.2'	S 17°21.8'	273°59.5'	S 17°38.2'
07	289°06.0'	S 16°13.7'	289°05.1'	S 16°31.3'	289°04.0'	S 16°48.7'	289°02.6'	S 17°05.7'	289°01.1'	S 17°22.4'	288°59.4'	S 17°38.9'
08	304°05.9'	S 16°14.5'	304°05.0'	S 16°32.1'	304°03.9'	S 16°49.4'	304°02.6'	S 17°06.4'	304°01.1'	S 17°23.1'	303°59.3'	S 17°39.6'
09	319°05.9'	S 16°15.2'	319°05.0'	S 16°32.8'	319°03.9'	S 16°50.1'	319°02.5'	S 17°07.1'	319°01.0'	S 17°23.8'	318°59.2'	S 17°40.3'
10	334°05.9'	S 16°15.9'	334°04.9'	S 16°33.5'	334°03.8'	S 16°50.8'	334°02.5'	S 17°07.8'	334°00.9'	S 17°24.5'	333°59.1'	S 17°40.9'
11	349°05.8'	S 16°16.7'	349°04.9'	S 16°34.2'	349°03.8'	S 16°51.5'	349°02.4'	S 17°08.5'	349°00.8'	S 17°25.2'	348°59.1'	S 17°41.6'
12	4°05.8'	S 16°17.4'	4°04.9'	S 16°35.0'	4°03.7'	S 16°52.2'	4°02.3'	S 17°09.2'	4°00.8'	S 17°25.9'	3°59.0'	S 17°42.3'
13	19°05.7'	S 16°18.1'	19°04.8'	S 16°35.7'	19°03.7'	S 16°52.9'	19°02.3'	S 17°09.9'	19°00.7'	S 17°26.6'	18°58.9'	S 17°43.0'
14	34°05.7'	S 16°18.9'	34°04.8'	S 16°36.4'	34°03.6'	S 16°53.7'	34°02.2'	S 17°10.6'	34°00.6'	S 17°27.3'	33°58.8'	S 17°43.6'
15	49°05.7'	S 16°19.6'	49°04.7'	S 16°37.1'	49°03.5'	S 16°54.4'	49°02.2'	S 17°11.3'	49°00.6'	S 17°28.0'	48°58.7'	S 17°44.3'
16	64°05.6'	S 16°20.4'	64°04.7'	S 16°37.9'	64°03.5'	S 16°55.1'	64°02.1'	S 17°12.0'	64°00.5'	S 17°28.7'	63°58.7'	S 17°45.0'
17	79°05.6'	S 16°21.1'	79°04.6'	S 16°38.6'	79°03.4'	S 16°55.8'	79°02.0'	S 17°12.7'	79°00.4'	S 17°29.3'	78°58.6'	S 17°45.7'
18	94°05.6'	S 16°21.8'	94°04.6'	S 16°39.3'	94°03.4'	S 16°56.5'	94°02.0'	S 17°13.4'	94°00.3'	S 17°30.0'	93°58.5'	S 17°46.3'
19	109°05.5'	S 16°22.6'	109°04.5'	S 16°40.0'	109°03.3'	S 16°57.2'	109°01.9'	S 17°14.1'	109°00.3'	S 17°30.7'	108°58.4'	S 17°47.0'
20	124°05.5'	S 16°23.3'	124°04.5'	S 16°40.7'	124°03.3'	S 16°57.9'	124°01.8'	S 17°14.8'	124°00.2'	S 17°31.4'	123°58.3'	S 17°47.7'
21	139°05.5'	S 16°24.0'	139°04.4'	S 16°41.5'	139°03.2'	S 16°58.6'	139°01.8'	S 17°15.5'	139°00.1'	S 17°32.1'	138°58.3'	S 17°48.4'
22	154°05.4'	S 16°24.8'	154°04.4'	S 16°42.2'	154°03.2'	S 16°59.3'	154°01.7'	S 17°16.2'	154°00.1'	S 17°32.8'	153°58.2'	S 17°49.0'
23	169°05.4'	S 16°25.5'	169°04.4'	S 16°42.9'	169°03.1'	S 17°00.0'	169°01.7'	S 17°16.9'	169°00.0'	S 17°33.4'	168°58.1'	S 17°49.7'
Zeitgl. 0h / 12h	+16:25 / +16:23		+16:21 / +16:19		+16:17 / +16:15		+16:12 / +16:09		+16:06 / +16:03		+16:00 / +15:56	
Kulmination UT	11:43:37		11:43:41		11:43:45		11:43:51		11:43:57		11:44:04	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.2'		16.2'	

	Sa 13.11.		So 14.11.		Mo 15.11.		Di 16.11.		Mi 17.11.		Do 18.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°58.0'	S 17°50.4'	183°55.9'	S 18°06.3'	183°53.6'	S 18°21.9'	183°51.0'	S 18°37.2'	183°48.3'	S 18°52.2'	183°45.3'	S 19°06.8'
01	198°57.9'	S 17°51.0'	198°55.8'	S 18°07.0'	198°53.5'	S 18°22.6'	198°50.9'	S 18°37.8'	198°48.2'	S 18°52.8'	198°45.2'	S 19°07.4'
02	213°57.8'	S 17°51.7'	213°55.7'	S 18°07.6'	213°53.4'	S 18°23.2'	213°50.8'	S 18°38.5'	213°48.0'	S 18°53.4'	213°45.1'	S 19°08.0'
03	228°57.8'	S 17°52.4'	228°55.6'	S 18°08.3'	228°53.3'	S 18°23.8'	228°50.7'	S 18°39.1'	228°47.9'	S 18°54.0'	228°44.9'	S 19°08.6'
04	243°57.7'	S 17°53.0'	243°55.5'	S 18°08.9'	243°53.2'	S 18°24.5'	243°50.6'	S 18°39.7'	243°47.8'	S 18°54.6'	243°44.8'	S 19°09.2'
05	258°57.6'	S 17°53.7'	258°55.4'	S 18°09.6'	258°53.1'	S 18°25.1'	258°50.5'	S 18°40.3'	258°47.7'	S 18°55.2'	258°44.7'	S 19°09.8'
06	273°57.5'	S 17°54.4'	273°55.3'	S 18°10.2'	273°53.0'	S 18°25.8'	273°50.4'	S 18°41.0'	273°47.6'	S 18°55.9'	273°44.5'	S 19°10.4'
07	288°57.4'	S 17°55.0'	288°55.2'	S 18°10.9'	288°52.9'	S 18°26.4'	288°50.2'	S 18°41.6'	288°47.4'	S 18°56.5'	288°44.4'	S 19°11.0'
08	303°57.3'	S 17°55.7'	303°55.1'	S 18°11.5'	303°52.7'	S 18°27.0'	303°50.1'	S 18°42.2'	303°47.3'	S 18°57.1'	303°44.3'	S 19°11.6'
09	318°57.2'	S 17°56.4'	318°55.0'	S 18°12.2'	318°52.6'	S 18°27.7'	318°50.0'	S 18°42.9'	318°47.2'	S 18°57.7'	318°44.1'	S 19°12.2'
10	333°57.2'	S 17°57.0'	333°55.0'	S 18°12.8'	333°52.5'	S 18°28.3'	333°49.9'	S 18°43.5'	333°47.1'	S 18°58.3'	333°44.0'	S 19°12.8'
11	348°57.1'	S 17°57.7'	348°54.9'	S 18°13.5'	348°52.4'	S 18°29.0'	348°49.8'	S 18°44.1'	348°46.9'	S 18°58.9'	348°43.9'	S 19°13.4'
12	3°57.0'	S 17°58.4'	3°54.8'	S 18°14.1'	3°52.3'	S 18°29.6'	3°49.7'	S 18°44.7'	3°46.8'	S 18°59.5'	3°43.8'	S 19°14.0'
13	18°56.9'	S 17°59.0'	18°54.7'	S 18°14.8'	18°52.2'	S 18°30.2'	18°49.6'	S 18°45.3'	18°46.7'	S 19°00.1'	18°43.6'	S 19°14.6'
14	33°56.8'	S 17°59.7'	33°54.6'	S 18°15.4'	33°52.1'	S 18°30.9'	33°49.5'	S 18°46.0'	33°46.6'	S 19°00.7'	33°43.5'	S 19°15.2'
15	48°56.7'	S 18°00.4'	48°54.5'	S 18°16.1'	48°52.0'	S 18°31.5'	48°49.3'	S 18°46.6'	48°46.5'	S 19°01.3'	48°43.4'	S 19°15.8'
16	63°56.6'	S 18°01.0'	63°54.4'	S 18°16.7'	63°51.9'	S 18°32.1'	63°49.2'	S 18°47.2'	63°46.3'	S 19°02.0'	63°43.2'	S 19°16.3'
17	78°56.5'	S 18°01.7'	78°54.3'	S 18°17.4'	78°51.8'	S 18°32.8'	78°49.1'	S 18°47.8'	78°46.2'	S 19°02.6'	78°43.1'	S 19°16.9'
18	93°56.4'	S 18°02.3'	93°54.2'	S 18°18.0'	93°51.7'	S 18°33.4'	93°49.0'	S 18°48.5'	93°46.1'	S 19°03.2'	93°43.0'	S 19°17.5'
19	108°56.4'	S 18°03.0'	108°54.1'	S 18°18.7'	108°51.6'	S 18°34.0'	108°48.9'	S 18°49.1'	108°45.9'	S 19°03.8'	108°42.8'	S 19°18.1'
20	123°56.3'	S 18°03.7'	123°54.0'	S 18°19.3'	123°51.5'	S 18°34.7'	123°48.8'	S 18°49.7'	123°45.8'	S 19°04.4'	123°42.7'	S 19°18.7'
21	138°56.2'	S 18°04.3'	138°53.9'	S 18°20.0'	138°51.4'	S 18°35.3'	138°48.6'	S 18°50.3'	138°45.7'	S 19°05.0'	138°42.6'	S 19°19.3'
22	153°56.1'	S 18°05.0'	153°53.8'	S 18°20.6'	153°51.2'	S 18°35.9'	153°48.5'	S 18°50.9'	153°45.6'	S 19°05.6'	153°42.4'	S 19°19.9'
23	168°56.0'	S 18°05.6'	168°53.7'	S 18°21.3'	168°51.1'	S 18°36.6'	168°48.4'	S 18°51.5'	168°45.4'	S 19°06.2'	168°42.3'	S 19°20.5'
Zeitgl. 0h / 12h	+15:52 / +15:48		+15:44 / +15:39		+15:34 / +15:29		+15:24 / +15:19		+15:13 / +15:07		+15:01 / +14:55	
Kulmination UT	11:44:12		11:44:21		11:44:31		11:44:41		11:44:53		11:45:05	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Fr 19.11.		Sa 20.11.		So 21.11.		Mo 22.11.		Di 23.11.		Mi 24.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°42.1'	S 19°21.1'	183°38.8'	S 19°35.0'	183°35.2'	S 19°48.6'	183°31.4'	S 20°01.8'	183°27.4'	S 20°14.7'	183°23.2'	S 20°27.2'
01	198°42.0'	S 19°21.7'	198°38.6'	S 19°35.6'	198°35.0'	S 19°49.1'	198°31.2'	S 20°02.4'	198°27.2'	S 20°15.2'	198°23.0'	S 20°27.7'
02	213°41.9'	S 19°22.2'	213°38.5'	S 19°36.2'	213°34.9'	S 19°49.7'	213°31.1'	S 20°02.9'	213°27.1'	S 20°15.7'	213°22.9'	S 20°28.2'
03	228°41.7'	S 19°22.8'	228°38.3'	S 19°36.7'	228°34.7'	S 19°50.3'	228°30.9'	S 20°03.4'	228°26.9'	S 20°16.3'	228°22.7'	S 20°28.7'
04	243°41.6'	S 19°23.4'	243°38.2'	S 19°37.3'	243°34.6'	S 19°50.8'	243°30.7'	S 20°04.0'	243°26.7'	S 20°16.8'	243°22.5'	S 20°29.2'
05	258°41.5'	S 19°24.0'	258°38.0'	S 19°37.9'	258°34.4'	S 19°51.4'	258°30.6'	S 20°04.5'	258°26.6'	S 20°17.3'	258°22.3'	S 20°29.7'
06	273°41.3'	S 19°24.6'	273°37.9'	S 19°38.4'	273°34.3'	S 19°51.9'	273°30.4'	S 20°05.1'	273°26.4'	S 20°17.8'	273°22.1'	S 20°30.2'
07	288°41.2'	S 19°25.2'	288°37.7'	S 19°39.0'	288°34.1'	S 19°52.5'	288°30.3'	S 20°05.6'	288°26.2'	S 20°18.4'	288°22.0'	S 20°30.7'
08	303°41.0'	S 19°25.8'	303°37.6'	S 19°39.6'	303°33.9'	S 19°53.0'	303°30.1'	S 20°06.1'	303°26.0'	S 20°18.9'	303°21.8'	S 20°31.2'
09	318°40.9'	S 19°26.3'	318°37.4'	S 19°40.1'	318°33.8'	S 19°53.6'	318°29.9'	S 20°06.7'	318°25.9'	S 20°19.4'	318°21.6'	S 20°31.7'
10	333°40.8'	S 19°26.9'	333°37.3'	S 19°40.7'	333°33.6'	S 19°54.1'	333°29.8'	S 20°07.2'	333°25.7'	S 20°19.9'	333°21.4'	S 20°32.2'
11	348°40.6'	S 19°27.5'	348°37.1'	S 19°41.3'	348°33.5'	S 19°54.7'	348°29.6'	S 20°07.8'	348°25.5'	S 20°20.4'	348°21.2'	S 20°32.8'
12	3°40.5'	S 19°28.1'	3°37.0'	S 19°41.8'	3°33.3'	S 19°55.2'	3°29.4'	S 20°08.3'	3°25.3'	S 20°21.0'	3°21.1'	S 20°33.3'
13	18°40.3'	S 19°28.7'	18°36.8'	S 19°42.4'	18°33.2'	S 19°55.8'	18°29.3'	S 20°08.8'	18°25.2'	S 20°21.5'	18°20.9'	S 20°33.8'
14	33°40.2'	S 19°29.2'	33°36.7'	S 19°43.0'	33°33.0'	S 19°56.3'	33°29.1'	S 20°09.4'	33°25.0'	S 20°22.0'	33°20.7'	S 20°34.3'
15	48°40.1'	S 19°29.8'	48°36.5'	S 19°43.5'	48°32.8'	S 19°56.9'	48°28.9'	S 20°09.9'	48°24.8'	S 20°22.5'	48°20.5'	S 20°34.8'
16	63°39.9'	S 19°30.4'	63°36.4'	S 19°44.1'	63°32.7'	S 19°57.4'	63°28.8'	S 20°10.4'	63°24.6'	S 20°23.0'	63°20.3'	S 20°35.3'
17	78°39.8'	S 19°31.0'	78°36.2'	S 19°44.7'	78°32.5'	S 19°58.0'	78°28.6'	S 20°11.0'	78°24.5'	S 20°23.6'	78°20.1'	S 20°35.8'
18	93°39.6'	S 19°31.6'	93°36.1'	S 19°45.2'	93°32.4'	S 19°58.5'	93°28.4'	S 20°11.5'	93°24.3'	S 20°24.1'	93°20.0'	S 20°36.3'
19	108°39.5'	S 19°32.1'	108°35.9'	S 19°45.8'	108°32.2'	S 19°59.1'	108°28.3'	S 20°12.0'	108°24.1'	S 20°24.6'	108°19.8'	S 20°36.8'
20	123°39.3'	S 19°32.7'	123°35.8'	S 19°46.4'	123°32.0'	S 19°59.6'	123°28.1'	S 20°12.6'	123°23.9'	S 20°25.1'	123°19.6'	S 20°37.3'
21	138°39.2'	S 19°33.3'	138°35.6'	S 19°46.9'	138°31.9'	S 20°00.2'	138°27.9'	S 20°13.1'	138°23.8'	S 20°25.6'	138°19.4'	S 20°37.8'
22	153°39.1'	S 19°33.9'	153°35.5'	S 19°47.5'	153°31.7'	S 20°00.7'	153°27.7'	S 20°13.6'	153°23.6'	S 20°26.1'	153°19.2'	S 20°38.3'
23	168°38.9'	S 19°34.4'	168°35.3'	S 19°48.0'	168°31.6'	S 20°01.3'	168°27.6'	S 20°14.1'	168°23.4'	S 20°26.6'	168°19.0'	S 20°38.8'
Zeitgl. 0h / 12h	+14:49 / +14:42		+14:35 / +14:28		+14:21 / +14:13		+14:06 / +13:58		+13:50 / +13:41		+13:33 / +13:24	
Kulmination UT	11:45:18		11:45:32		11:45:47		11:46:02		11:46:19		11:46:36	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Do 25.11.		Fr 26.11.		Sa 27.11.		So 28.11.		Mo 29.11.		Di 30.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°18.8'	S 20°39.3'	183°14.3'	S 20°51.0'	183°09.5'	S 21°02.3'	183°04.6'	S 21°13.3'	182°59.5'	S 21°23.8'	182°54.2'	S 21°33.9'
01	198°18.7'	S 20°39.8'	198°14.1'	S 20°51.5'	198°09.3'	S 21°02.8'	198°04.4'	S 21°13.7'	197°59.3'	S 21°24.2'	197°54.0'	S 21°34.3'
02	213°18.5'	S 20°40.3'	213°13.9'	S 20°51.9'	213°09.1'	S 21°03.2'	213°04.2'	S 21°14.2'	212°59.1'	S 21°24.7'	212°53.8'	S 21°34.8'
03	228°18.3'	S 20°40.7'	228°13.7'	S 20°52.4'	228°08.9'	S 21°03.7'	228°04.0'	S 21°14.6'	227°58.8'	S 21°25.1'	227°53.5'	S 21°35.2'
04	243°18.1'	S 20°41.2'	243°13.5'	S 20°52.9'	243°08.7'	S 21°04.2'	243°03.8'	S 21°15.0'	242°58.6'	S 21°25.5'	242°53.3'	S 21°35.6'
05	258°17.9'	S 20°41.7'	258°13.3'	S 20°53.4'	258°08.5'	S 21°04.6'	258°03.6'	S 21°15.5'	257°58.4'	S 21°25.9'	257°53.1'	S 21°36.0'
06	273°17.7'	S 20°42.2'	273°13.1'	S 20°53.9'	273°08.3'	S 21°05.1'	273°03.3'	S 21°15.9'	272°58.2'	S 21°26.4'	272°52.9'	S 21°36.4'
07	288°17.5'	S 20°42.7'	288°12.9'	S 20°54.3'	288°08.1'	S 21°05.6'	288°03.1'	S 21°16.4'	287°58.0'	S 21°26.8'	287°52.6'	S 21°36.8'
08	303°17.3'	S 20°43.2'	303°12.7'	S 20°54.8'	303°07.9'	S 21°06.0'	303°02.9'	S 21°16.8'	302°57.8'	S 21°27.2'	302°52.4'	S 21°37.2'
09	318°17.2'	S 20°43.7'	318°12.5'	S 20°55.3'	318°07.7'	S 21°06.5'	318°02.7'	S 21°17.3'	317°57.5'	S 21°27.6'	317°52.2'	S 21°37.6'
10	333°17.0'	S 20°44.2'	333°12.3'	S 20°55.8'	333°07.5'	S 21°06.9'	333°02.5'	S 21°17.7'	332°57.3'	S 21°28.1'	332°52.0'	S 21°38.0'
11	348°16.8'	S 20°44.7'	348°12.1'	S 20°56.2'	348°07.3'	S 21°07.4'	348°02.3'	S 21°18.1'	347°57.1'	S 21°28.5'	347°51.7'	S 21°38.4'
12	3°16.6'	S 20°45.2'	3°11.9'	S 20°56.7'	3°07.1'	S 21°07.8'	3°02.1'	S 21°18.6'	2°56.9'	S 21°28.9'	2°51.5'	S 21°38.8'
13	18°16.4'	S 20°45.7'	18°11.7'	S 20°57.2'	18°06.9'	S 21°08.3'	18°01.9'	S 21°19.0'	17°56.7'	S 21°29.3'	17°51.3'	S 21°39.3'
14	33°16.2'	S 20°46.1'	33°11.5'	S 20°57.6'	33°06.7'	S 21°08.7'	33°01.6'	S 21°19.5'	32°56.4'	S 21°29.8'	32°51.1'	S 21°39.7'
15	48°16.0'	S 20°46.6'	48°11.3'	S 20°58.1'	48°06.5'	S 21°09.2'	48°01.4'	S 21°19.9'	47°56.2'	S 21°30.2'	47°50.8'	S 21°40.1'
16	63°15.8'	S 20°47.1'	63°11.1'	S 20°58.6'	63°06.3'	S 21°09.7'	63°01.2'	S 21°20.3'	62°56.0'	S 21°30.6'	62°50.6'	S 21°40.5'
17	78°15.6'	S 20°47.6'	78°10.9'	S 20°59.1'	78°06.1'	S 21°10.1'	78°01.0'	S 21°20.8'	77°55.8'	S 21°31.0'	77°50.4'	S 21°40.9'
18	93°15.4'	S 20°48.1'	93°10.7'	S 20°59.5'	93°05.9'	S 21°10.6'	93°00.8'	S 21°21.2'	92°55.5'	S 21°31.4'	92°50.1'	S 21°41.3'
19	108°15.3'	S 20°48.6'	108°10.5'	S 21°00.0'	108°05.6'	S 21°11.0'	108°00.6'	S 21°21.6'	107°55.3'	S 21°31.9'	107°49.9'	S 21°41.7'
20	123°15.1'	S 20°49.1'	123°10.3'	S 21°00.5'	123°05.4'	S 21°11.5'	123°00.4'	S 21°22.1'	122°55.1'	S 21°32.3'	122°49.7'	S 21°42.1'
21	138°14.9'	S 20°49.5'	138°10.1'	S 21°00.9'	138°05.2'	S 21°11.9'	138°00.1'	S 21°22.5'	137°54.9'	S 21°32.7'	137°49.5'	S 21°42.5'
22	153°14.7'	S 20°50.0'	153°09.9'	S 21°01.4'	153°05.0'	S 21°12.4'	152°59.9'	S 21°22.9'	152°54.7'	S 21°33.1'	152°49.2'	S 21°42.9'
23	168°14.5'	S 20°50.5'	168°09.7'	S 21°01.9'	168°04.8'	S 21°12.8'	167°59.7'	S 21°23.4'	167°54.4'	S 21°33.5'	167°49.0'	S 21°43.3'
Zeitgl. 0h / 12h	+13:15 / +13:06		+12:57 / +12:48		+12:38 / +12:28		+12:18 / +12:08		+11:58 / +11:47		+11:37 / +11:26	
Kulmination UT	11:46:54		11:47:12		11:47:32		11:47:52		11:48:13		11:48:34	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

2027

Dezember

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Mi 01.12.		Do 02.12.		Fr 03.12.		Sa 04.12.		So 05.12.		Mo 06.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°48.8'	S 21°43.7'	182°43.2'	S 21°53.0'	182°37.4'	S 22°01.9'	182°31.5'	S 22°10.3'	182°25.4'	S 22°18.4'	182°19.2'	S 22°26.0'
01	197°48.5'	S 21°44.1'	197°42.9'	S 21°53.3'	197°37.1'	S 22°02.2'	197°31.2'	S 22°10.7'	197°25.2'	S 22°18.7'	197°18.9'	S 22°26.3'
02	212°48.3'	S 21°44.5'	212°42.7'	S 21°53.7'	212°36.9'	S 22°02.6'	212°31.0'	S 22°11.0'	212°24.9'	S 22°19.0'	212°18.7'	S 22°26.6'
03	227°48.1'	S 21°44.8'	227°42.4'	S 21°54.1'	227°36.7'	S 22°02.9'	227°30.7'	S 22°11.4'	227°24.6'	S 22°19.3'	227°18.4'	S 22°26.9'
04	242°47.8'	S 21°45.2'	242°42.2'	S 21°54.5'	242°36.4'	S 22°03.3'	242°30.5'	S 22°11.7'	242°24.4'	S 22°19.7'	242°18.2'	S 22°27.2'
05	257°47.6'	S 21°45.6'	257°42.0'	S 21°54.9'	257°36.2'	S 22°03.7'	257°30.2'	S 22°12.0'	257°24.1'	S 22°20.0'	257°17.9'	S 22°27.5'
06	272°47.4'	S 21°46.0'	272°41.7'	S 21°55.2'	272°35.9'	S 22°04.0'	272°30.0'	S 22°12.4'	272°23.9'	S 22°20.3'	272°17.6'	S 22°27.8'
07	287°47.1'	S 21°46.4'	287°41.5'	S 21°55.6'	287°35.7'	S 22°04.4'	287°29.7'	S 22°12.7'	287°23.6'	S 22°20.6'	287°17.4'	S 22°28.1'
08	302°46.9'	S 21°46.8'	302°41.2'	S 21°56.0'	302°35.4'	S 22°04.7'	302°29.5'	S 22°13.1'	302°23.4'	S 22°21.0'	302°17.1'	S 22°28.4'
09	317°46.7'	S 21°47.2'	317°41.0'	S 21°56.4'	317°35.2'	S 22°05.1'	317°29.2'	S 22°13.4'	317°23.1'	S 22°21.3'	317°16.9'	S 22°28.7'
10	332°46.4'	S 21°47.6'	332°40.8'	S 21°56.7'	332°34.9'	S 22°05.4'	332°29.0'	S 22°13.7'	332°22.8'	S 22°21.6'	332°16.6'	S 22°29.0'
11	347°46.2'	S 21°48.0'	347°40.5'	S 21°57.1'	347°34.7'	S 22°05.8'	347°28.7'	S 22°14.1'	347°22.6'	S 22°21.9'	347°16.3'	S 22°29.3'
12	2°46.0'	S 21°48.4'	2°40.3'	S 21°57.5'	2°34.4'	S 22°06.1'	2°28.5'	S 22°14.4'	2°22.3'	S 22°22.2'	2°16.1'	S 22°29.6'
13	17°45.7'	S 21°48.8'	17°40.0'	S 21°57.8'	17°34.2'	S 22°06.5'	17°28.2'	S 22°14.7'	17°22.1'	S 22°22.5'	17°15.8'	S 22°29.9'
14	32°45.5'	S 21°49.1'	32°39.8'	S 21°58.2'	32°34.0'	S 22°06.9'	32°28.0'	S 22°15.1'	32°21.8'	S 22°22.9'	32°15.5'	S 22°30.2'
15	47°45.3'	S 21°49.5'	47°39.6'	S 21°58.6'	47°33.7'	S 22°07.2'	47°27.7'	S 22°15.4'	47°21.6'	S 22°23.2'	47°15.3'	S 22°30.5'
16	62°45.0'	S 21°49.9'	62°39.3'	S 21°58.9'	62°33.5'	S 22°07.6'	62°27.4'	S 22°15.7'	62°21.3'	S 22°23.5'	62°15.0'	S 22°30.8'
17	77°44.8'	S 21°50.3'	77°39.1'	S 21°59.3'	77°33.2'	S 22°07.9'	77°27.2'	S 22°16.1'	77°21.0'	S 22°23.8'	77°14.7'	S 22°31.1'
18	92°44.6'	S 21°50.7'	92°38.8'	S 21°59.7'	92°33.0'	S 22°08.3'	92°26.9'	S 22°16.4'	92°20.8'	S 22°24.1'	92°14.5'	S 22°31.4'
19	107°44.3'	S 21°51.1'	107°38.6'	S 22°00.0'	107°32.7'	S 22°08.6'	107°26.7'	S 22°16.7'	107°20.5'	S 22°24.4'	107°14.2'	S 22°31.7'
20	122°44.1'	S 21°51.4'	122°38.4'	S 22°00.4'	122°32.5'	S 22°08.9'	122°26.4'	S 22°17.1'	122°20.3'	S 22°24.7'	122°13.9'	S 22°32.0'
21	137°43.9'	S 21°51.8'	137°38.1'	S 22°00.8'	137°32.2'	S 22°09.3'	137°26.2'	S 22°17.4'	137°20.0'	S 22°25.0'	137°13.7'	S 22°32.3'
22	152°43.6'	S 21°52.2'	152°37.9'	S 22°01.1'	152°32.0'	S 22°09.6'	152°25.9'	S 22°17.7'	152°19.7'	S 22°25.4'	152°13.4'	S 22°32.6'
23	167°43.4'	S 21°52.6'	167°37.6'	S 22°01.5'	167°31.7'	S 22°10.0'	167°25.7'	S 22°18.0'	167°19.5'	S 22°25.7'	167°13.1'	S 22°32.9'
Zeitgl. 0h / 12h	+11:15 / +11:04		+10:53 / +10:41		+10:30 / +10:18		+10:06 / +09:54		+09:42 / +09:29		+09:17 / +09:04	
Kulmination UT	11:48:56		11:49:19		11:49:42		11:50:06		11:50:31		11:50:56	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Di 07.12.		Mi 08.12.		Do 09.12.		Fr 10.12.		Sa 11.12.		So 12.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°12.9'	S 22°33.1'	182°06.4'	S 22°39.9'	181°59.8'	S 22°46.2'	181°53.2'	S 22°52.0'	181°46.4'	S 22°57.4'	181°39.5'	S 23°02.3'
01	197°12.6'	S 22°33.4'	197°06.1'	S 22°40.1'	196°59.6'	S 22°46.4'	196°52.9'	S 22°52.2'	196°46.1'	S 22°57.6'	196°39.2'	S 23°02.5'
02	212°12.3'	S 22°33.7'	212°05.9'	S 22°40.4'	211°59.3'	S 22°46.7'	211°52.6'	S 22°52.5'	211°45.8'	S 22°57.8'	211°38.9'	S 23°02.7'
03	227°12.1'	S 22°34.0'	227°05.6'	S 22°40.7'	226°59.0'	S 22°46.9'	226°52.3'	S 22°52.7'	226°45.5'	S 22°58.0'	226°38.6'	S 23°02.9'
04	242°11.8'	S 22°34.3'	242°05.3'	S 22°40.9'	241°58.7'	S 22°47.2'	241°52.0'	S 22°52.9'	241°45.2'	S 22°58.2'	241°38.3'	S 23°03.1'
05	257°11.5'	S 22°34.6'	257°05.1'	S 22°41.2'	256°58.5'	S 22°47.4'	256°51.8'	S 22°53.2'	256°44.9'	S 22°58.4'	256°38.0'	S 23°03.3'
06	272°11.3'	S 22°34.9'	272°04.8'	S 22°41.5'	271°58.2'	S 22°47.7'	271°51.5'	S 22°53.4'	271°44.7'	S 22°58.7'	271°37.7'	S 23°03.5'
07	287°11.0'	S 22°35.2'	287°04.5'	S 22°41.8'	286°57.9'	S 22°47.9'	286°51.2'	S 22°53.6'	286°44.4'	S 22°58.9'	286°37.5'	S 23°03.7'
08	302°10.7'	S 22°35.4'	302°04.2'	S 22°42.0'	301°57.6'	S 22°48.2'	301°50.9'	S 22°53.8'	301°44.1'	S 22°59.1'	301°37.2'	S 23°03.9'
09	317°10.5'	S 22°35.7'	317°04.0'	S 22°42.3'	316°57.3'	S 22°48.4'	316°50.6'	S 22°54.1'	316°43.8'	S 22°59.3'	316°36.9'	S 23°04.0'
10	332°10.2'	S 22°36.0'	332°03.7'	S 22°42.5'	331°57.1'	S 22°48.6'	331°50.3'	S 22°54.3'	331°43.5'	S 22°59.5'	331°36.6'	S 23°04.2'
11	347°09.9'	S 22°36.3'	347°03.4'	S 22°42.8'	346°56.8'	S 22°48.9'	346°50.1'	S 22°54.5'	346°43.2'	S 22°59.7'	346°36.3'	S 23°04.4'
12	2°09.7'	S 22°36.6'	2°03.1'	S 22°43.1'	1°56.5'	S 22°49.1'	1°49.8'	S 22°54.7'	1°42.9'	S 22°59.9'	1°36.0'	S 23°04.6'
13	17°09.4'	S 22°36.8'	17°02.9'	S 22°43.3'	16°56.2'	S 22°49.4'	16°49.5'	S 22°55.0'	16°42.6'	S 23°00.1'	16°35.7'	S 23°04.8'
14	32°09.1'	S 22°37.1'	32°02.6'	S 22°43.6'	31°56.0'	S 22°49.6'	31°49.2'	S 22°55.2'	31°42.4'	S 23°00.3'	31°35.4'	S 23°05.0'
15	47°08.9'	S 22°37.4'	47°02.3'	S 22°43.9'	46°55.7'	S 22°49.9'	46°48.9'	S 22°55.4'	46°42.1'	S 23°00.5'	46°35.1'	S 23°05.2'
16	62°08.6'	S 22°37.7'	62°02.0'	S 22°44.1'	61°55.4'	S 22°50.1'	61°48.6'	S 22°55.6'	61°41.8'	S 23°00.7'	61°34.8'	S 23°05.4'
17	77°08.3'	S 22°38.0'	77°01.8'	S 22°44.4'	76°55.1'	S 22°50.3'	76°48.4'	S 22°55.9'	76°41.5'	S 23°00.9'	76°34.5'	S 23°05.5'
18	92°08.0'	S 22°38.2'	92°01.5'	S 22°44.6'	91°54.8'	S 22°50.6'	91°48.1'	S 22°56.1'	91°41.2'	S 23°01.1'	91°34.3'	S 23°05.7'
19	107°07.8'	S 22°38.5'	107°01.2'	S 22°44.9'	106°54.6'	S 22°50.8'	106°47.8'	S 22°56.3'	106°40.9'	S 23°01.3'	106°34.0'	S 23°05.9'
20	122°07.5'	S 22°38.8'	122°00.9'	S 22°45.1'	121°54.3'	S 22°51.1'	121°47.5'	S 22°56.5'	121°40.6'	S 23°01.5'	121°33.7'	S 23°06.1'
21	137°07.2'	S 22°39.1'	137°00.7'	S 22°45.4'	136°54.0'	S 22°51.3'	136°47.2'	S 22°56.7'	136°40.3'	S 23°01.7'	136°33.4'	S 23°06.3'
22	152°07.0'	S 22°39.3'	152°00.4'	S 22°45.7'	151°53.7'	S 22°51.5'	151°46.9'	S 22°57.0'	151°40.1'	S 23°01.9'	151°33.1'	S 23°06.4'
23	167°06.7'	S 22°39.6'	167°00.1'	S 22°45.9'	166°53.4'	S 22°51.8'	166°46.7'	S 22°57.2'	166°39.8'	S 23°02.1'	166°32.8'	S 23°06.6'
Zeitgl. 0h / 12h	+08:52 / +08:39		+08:26 / +08:13		+07:59 / +07:46		+07:33 / +07:19		+07:05 / +06:52		+06:38 / +06:24	
Kulmination UT	11:51:21		11:51:47		11:52:14		11:52:41		11:53:08		11:53:36	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Mo 13.12.		Di 14.12.		Mi 15.12.		Do 16.12.		Fr 17.12.		Sa 18.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	181°32.5'	S 23°06.8'	181°25.4'	S 23°10.8'	181°18.3'	S 23°14.4'	181°11.1'	S 23°17.5'	181°03.8'	S 23°20.1'	180°56.5'	S 23°22.3'
01	196°32.2'	S 23°07.0'	196°25.1'	S 23°11.0'	196°18.0'	S 23°14.5'	196°10.8'	S 23°17.6'	196°03.5'	S 23°20.2'	195°56.2'	S 23°22.3'
02	211°31.9'	S 23°07.1'	211°24.8'	S 23°11.1'	211°17.7'	S 23°14.6'	211°10.5'	S 23°17.7'	211°03.2'	S 23°20.3'	210°55.9'	S 23°22.4'
03	226°31.6'	S 23°07.3'	226°24.6'	S 23°11.3'	226°17.4'	S 23°14.8'	226°10.2'	S 23°17.8'	226°02.9'	S 23°20.4'	225°55.6'	S 23°22.5'
04	241°31.3'	S 23°07.5'	241°24.3'	S 23°11.4'	241°17.1'	S 23°14.9'	241°09.9'	S 23°17.9'	241°02.6'	S 23°20.5'	240°55.3'	S 23°22.6'
05	256°31.0'	S 23°07.7'	256°24.0'	S 23°11.6'	256°16.8'	S 23°15.1'	256°09.6'	S 23°18.1'	256°02.3'	S 23°20.6'	255°55.0'	S 23°22.6'
06	271°30.7'	S 23°07.8'	271°23.7'	S 23°11.7'	271°16.5'	S 23°15.2'	271°09.3'	S 23°18.2'	271°02.0'	S 23°20.7'	270°54.7'	S 23°22.7'
07	286°30.4'	S 23°08.0'	286°23.4'	S 23°11.9'	286°16.2'	S 23°15.3'	286°09.0'	S 23°18.3'	286°01.7'	S 23°20.8'	285°54.4'	S 23°22.8'
08	301°30.2'	S 23°08.2'	301°23.1'	S 23°12.0'	301°15.9'	S 23°15.5'	301°08.7'	S 23°18.4'	301°01.4'	S 23°20.9'	300°54.1'	S 23°22.9'
09	316°29.9'	S 23°08.4'	316°22.8'	S 23°12.2'	316°15.6'	S 23°15.6'	316°08.4'	S 23°18.5'	316°01.1'	S 23°21.0'	315°53.8'	S 23°22.9'
10	331°29.6'	S 23°08.5'	331°22.5'	S 23°12.4'	331°15.3'	S 23°15.7'	331°08.1'	S 23°18.6'	331°00.8'	S 23°21.1'	330°53.5'	S 23°23.0'
11	346°29.3'	S 23°08.7'	346°22.2'	S 23°12.5'	346°15.0'	S 23°15.8'	346°07.8'	S 23°18.7'	346°00.5'	S 23°21.1'	345°53.2'	S 23°23.1'
12	1°29.0'	S 23°08.9'	1°21.9'	S 23°12.6'	1°14.7'	S 23°16.0'	1°07.5'	S 23°18.8'	1°00.2'	S 23°21.2'	0°52.9'	S 23°23.2'
13	16°28.7'	S 23°09.0'	16°21.6'	S 23°12.8'	16°14.4'	S 23°16.1'	16°07.2'	S 23°18.9'	15°59.9'	S 23°21.3'	15°52.6'	S 23°23.2'
14	31°28.4'	S 23°09.2'	31°21.3'	S 23°12.9'	31°14.1'	S 23°16.2'	31°06.9'	S 23°19.1'	30°59.6'	S 23°21.4'	30°52.3'	S 23°23.3'
15	46°28.1'	S 23°09.4'	46°21.0'	S 23°13.1'	46°13.8'	S 23°16.4'	46°06.6'	S 23°19.2'	45°59.3'	S 23°21.5'	45°51.9'	S 23°23.4'
16	61°27.8'	S 23°09.5'	61°20.7'	S 23°13.2'	61°13.5'	S 23°16.5'	61°06.3'	S 23°19.3'	60°59.0'	S 23°21.6'	60°51.6'	S 23°23.4'
17	76°27.5'	S 23°09.7'	76°20.4'	S 23°13.4'	76°13.2'	S 23°16.6'	76°06.0'	S 23°19.4'	75°58.7'	S 23°21.7'	75°51.3'	S 23°23.5'
18	91°27.2'	S 23°09.9'	91°20.1'	S 23°13.5'	91°12.9'	S 23°16.7'	91°05.7'	S 23°19.5'	90°58.4'	S 23°21.8'	90°51.0'	S 23°23.6'
19	106°26.9'	S 23°10.0'	106°19.8'	S 23°13.7'	106°12.6'	S 23°16.9'	106°05.4'	S 23°19.6'	105°58.1'	S 23°21.8'	105°50.7'	S 23°23.6'
20	121°26.6'	S 23°10.2'	121°19.5'	S 23°13.8'	121°12.3'	S 23°17.0'	121°05.1'	S 23°19.7'	120°57.8'	S 23°21.9'	120°50.4'	S 23°23.7'
21	136°26.3'	S 23°10.3'	136°19.2'	S 23°14.0'	136°12.0'	S 23°17.1'	136°04.8'	S 23°19.8'	135°57.5'	S 23°22.0'	135°50.1'	S 23°23.8'
22	151°26.0'	S 23°10.5'	151°18.9'	S 23°14.1'	151°11.7'	S 23°17.2'	151°04.5'	S 23°19.9'	150°57.1'	S 23°22.1'	150°49.8'	S 23°23.8'
23	166°25.7'	S 23°10.7'	166°18.6'	S 23°14.2'	166°11.4'	S 23°17.3'	166°04.1'	S 23°20.0'	165°56.8'	S 23°22.2'	165°49.5'	S 23°23.9'
Zeitgl. 0h / 12h	+06:10 / +05:56		+05:42 / +05:28		+05:13 / +04:59		+04:44 / +04:30		+04:15 / +04:01		+03:46 / +03:31	
Kulmination UT	11:54:04		11:54:32		11:55:01		11:55:30		11:55:59		11:56:29	
Halbmesser	16.2'		16.2'		16.2'		16.3'		16.3'		16.3'	

	So 19.12.		Mo 20.12.		Di 21.12.		Mi 22.12.		Do 23.12.		Fr 24.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°49.2'	S 23°24.0'	180°41.8'	S 23°25.2'	180°34.4'	S 23°25.9'	180°27.0'	S 23°26.2'	180°19.5'	S 23°26.0'	180°12.1'	S 23°25.4'
01	195°48.9'	S 23°24.0'	195°41.5'	S 23°25.2'	195°34.1'	S 23°26.0'	195°26.6'	S 23°26.2'	195°19.2'	S 23°26.0'	195°11.8'	S 23°25.3'
02	210°48.6'	S 23°24.1'	210°41.2'	S 23°25.3'	210°33.8'	S 23°26.0'	210°26.3'	S 23°26.2'	210°18.9'	S 23°26.0'	210°11.5'	S 23°25.3'
03	225°48.3'	S 23°24.1'	225°40.9'	S 23°25.3'	225°33.5'	S 23°26.0'	225°26.0'	S 23°26.2'	225°18.6'	S 23°26.0'	225°11.2'	S 23°25.3'
04	240°48.0'	S 23°24.2'	240°40.6'	S 23°25.3'	240°33.1'	S 23°26.0'	240°25.7'	S 23°26.2'	240°18.3'	S 23°26.0'	240°10.8'	S 23°25.2'
05	255°47.6'	S 23°24.2'	255°40.3'	S 23°25.4'	255°32.8'	S 23°26.0'	255°25.4'	S 23°26.2'	255°18.0'	S 23°25.9'	255°10.5'	S 23°25.2'
06	270°47.3'	S 23°24.3'	270°39.9'	S 23°25.4'	270°32.5'	S 23°26.1'	270°25.1'	S 23°26.2'	270°17.7'	S 23°25.9'	270°10.2'	S 23°25.1'
07	285°47.0'	S 23°24.4'	285°39.6'	S 23°25.4'	285°32.2'	S 23°26.1'	285°24.8'	S 23°26.2'	285°17.4'	S 23°25.9'	285°09.9'	S 23°25.1'
08	300°46.7'	S 23°24.4'	300°39.3'	S 23°25.5'	300°31.9'	S 23°26.1'	300°24.5'	S 23°26.2'	300°17.0'	S 23°25.9'	300°09.6'	S 23°25.1'
09	315°46.4'	S 23°24.5'	315°39.0'	S 23°25.5'	315°31.6'	S 23°26.1'	315°24.2'	S 23°26.2'	315°16.7'	S 23°25.8'	315°09.3'	S 23°25.0'
10	330°46.1'	S 23°24.5'	330°38.7'	S 23°25.6'	330°31.3'	S 23°26.1'	330°23.9'	S 23°26.2'	330°16.4'	S 23°25.8'	330°09.0'	S 23°25.0'
11	345°45.8'	S 23°24.6'	345°38.4'	S 23°25.6'	345°31.0'	S 23°26.1'	345°23.6'	S 23°26.2'	345°16.1'	S 23°25.8'	345°08.7'	S 23°24.9'
12	0°45.5'	S 23°24.6'	0°38.1'	S 23°25.6'	0°30.7'	S 23°26.1'	0°23.2'	S 23°26.2'	0°15.8'	S 23°25.8'	0°08.4'	S 23°24.9'
13	15°45.2'	S 23°24.7'	15°37.8'	S 23°25.6'	15°30.4'	S 23°26.1'	15°22.9'	S 23°26.2'	15°15.5'	S 23°25.7'	15°08.1'	S 23°24.8'
14	30°44.9'	S 23°24.7'	30°37.5'	S 23°25.7'	30°30.1'	S 23°26.2'	30°22.6'	S 23°26.2'	30°15.2'	S 23°25.7'	30°07.7'	S 23°24.8'
15	45°44.6'	S 23°24.8'	45°37.2'	S 23°25.7'	45°29.7'	S 23°26.2'	45°22.3'	S 23°26.2'	45°14.9'	S 23°25.7'	45°07.4'	S 23°24.7'
16	60°44.3'	S 23°24.8'	60°36.9'	S 23°25.7'	60°29.4'	S 23°26.2'	60°22.0'	S 23°26.2'	60°14.6'	S 23°25.7'	60°07.1'	S 23°24.7'
17	75°44.0'	S 23°24.9'	75°36.6'	S 23°25.8'	75°29.1'	S 23°26.2'	75°21.7'	S 23°26.1'	75°14.3'	S 23°25.6'	75°06.8'	S 23°24.6'
18	90°43.6'	S 23°24.9'	90°36.2'	S 23°25.8'	90°28.8'	S 23°26.2'	90°21.4'	S 23°26.1'	90°13.9'	S 23°25.6'	90°06.5'	S 23°24.6'
19	105°43.3'	S 23°25.0'	105°35.9'	S 23°25.8'	105°28.5'	S 23°26.2'	105°21.1'	S 23°26.1'	105°13.6'	S 23°25.6'	105°06.2'	S 23°24.5'
20	120°43.0'	S 23°25.0'	120°35.6'	S 23°25.8'	120°28.2'	S 23°26.2'	120°20.8'	S 23°26.1'	120°13.3'	S 23°25.5'	120°05.9'	S 23°24.5'
21	135°42.7'	S 23°25.1'	135°35.3'	S 23°25.9'	135°27.9'	S 23°26.2'	135°20.5'	S 23°26.1'	135°13.0'	S 23°25.5'	135°05.6'	S 23°24.4'
22	150°42.4'	S 23°25.1'	150°35.0'	S 23°25.9'	150°27.6'	S 23°26.2'	150°20.1'	S 23°26.1'	150°12.7'	S 23°25.5'	150°05.3'	S 23°24.4'
23	165°42.1'	S 23°25.1'	165°34.7'	S 23°25.9'	165°27.3'	S 23°26.2'	165°19.8'	S 23°26.1'	165°12.4'	S 23°25.4'	165°05.0'	S 23°24.3'
Zeitgl. 0h / 12h	+03:17 / +03:02		+02:47 / +02:32		+02:18 / +02:03		+01:48 / +01:33		+01:18 / +01:03		+00:48 / +00:33	
Kulmination UT	11:56:58		11:57:28		11:57:57		11:58:27		11:58:57		11:59:27	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

	Sa 25.12.		So 26.12.		Mo 27.12.		Di 28.12.		Mi 29.12.		Do 30.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°04.7'	S 23°24.3'	179°57.2'	S 23°22.7'	179°49.8'	S 23°20.6'	179°42.5'	S 23°18.1'	179°35.2'	S 23°15.1'	179°27.9'	S 23°11.6'
01	195°04.3'	S 23°24.2'	194°56.9'	S 23°22.6'	194°49.5'	S 23°20.5'	194°42.2'	S 23°17.9'	194°34.9'	S 23°14.9'	194°27.6'	S 23°11.4'
02	210°04.0'	S 23°24.1'	209°56.6'	S 23°22.5'	209°49.2'	S 23°20.4'	209°41.9'	S 23°17.8'	209°34.6'	S 23°14.8'	209°27.3'	S 23°11.3'
03	225°03.7'	S 23°24.1'	224°56.3'	S 23°22.4'	224°48.9'	S 23°20.3'	224°41.6'	S 23°17.7'	224°34.3'	S 23°14.6'	224°27.0'	S 23°11.1'
04	240°03.4'	S 23°24.0'	239°56.0'	S 23°22.3'	239°48.6'	S 23°20.2'	239°41.3'	S 23°17.6'	239°34.0'	S 23°14.5'	239°26.7'	S 23°11.0'
05	255°03.1'	S 23°24.0'	254°55.7'	S 23°22.3'	254°48.3'	S 23°20.1'	254°41.0'	S 23°17.5'	254°33.6'	S 23°14.4'	254°26.4'	S 23°10.8'
06	270°02.8'	S 23°23.9'	269°55.4'	S 23°22.2'	269°48.0'	S 23°20.0'	269°40.7'	S 23°17.4'	269°33.3'	S 23°14.2'	269°26.1'	S 23°10.6'
07	285°02.5'	S 23°23.8'	284°55.1'	S 23°22.1'	284°47.7'	S 23°19.9'	284°40.3'	S 23°17.2'	284°33.0'	S 23°14.1'	284°25.8'	S 23°10.5'
08	300°02.2'	S 23°23.8'	299°54.8'	S 23°22.0'	299°47.4'	S 23°19.8'	299°40.0'	S 23°17.1'	299°32.7'	S 23°14.0'	299°25.5'	S 23°10.3'
09	315°01.9'	S 23°23.7'	314°54.5'	S 23°21.9'	314°47.1'	S 23°19.7'	314°39.7'	S 23°17.0'	314°32.4'	S 23°13.8'	314°25.2'	S 23°10.2'
10	330°01.6'	S 23°23.6'	329°54.2'	S 23°21.9'	329°46.8'	S 23°19.6'	329°39.4'	S 23°16.9'	329°32.1'	S 23°13.7'	329°24.9'	S 23°10.0'
11	345°01.3'	S 23°23.6'	344°53.8'	S 23°21.8'	344°46.5'	S 23°19.5'	344°39.1'	S 23°16.7'	344°31.8'	S 23°13.5'	344°24.6'	S 23°09.8'
12	0°00.9'	S 23°23.5'	359°53.5'	S 23°21.7'	359°46.2'	S 23°19.4'	359°38.8'	S 23°16.6'	359°31.5'	S 23°13.4'	359°24.3'	S 23°09.7'
13	15°00.6'	S 23°23.5'	14°53.2'	S 23°21.6'	14°45.9'	S 23°19.3'	14°38.5'	S 23°16.5'	14°31.2'	S 23°13.2'	14°24.0'	S 23°09.5'
14	30°00.3'	S 23°23.4'	29°52.9'	S 23°21.5'	29°45.5'	S 23°19.2'	29°38.2'	S 23°16.4'	29°30.9'	S 23°13.1'	29°23.7'	S 23°09.4'
15	45°00.0'	S 23°23.3'	44°52.6'	S 23°21.4'	44°45.2'	S 23°19.1'	44°37.9'	S 23°16.2'	44°30.6'	S 23°12.9'	44°23.4'	S 23°09.2'
16	59°59.7'	S 23°23.2'	59°52.3'	S 23°21.3'	59°44.9'	S 23°19.0'	59°37.6'	S 23°16.1'	59°30.3'	S 23°12.8'	59°23.1'	S 23°09.0'
17	74°59.4'	S 23°23.2'	74°52.0'	S 23°21.2'	74°44.6'	S 23°18.8'	74°37.3'	S 23°16.0'	74°30.0'	S 23°12.6'	74°22.8'	S 23°08.9'
18	89°59.1'	S 23°23.1'	89°51.7'	S 23°21.2'	89°44.3'	S 23°18.7'	89°37.0'	S 23°15.9'	89°29.7'	S 23°12.5'	89°22.5'	S 23°08.7'
19	104°58.8'	S 23°23.0'	104°51.4'	S 23°21.1'	104°44.0'	S 23°18.6'	104°36.7'	S 23°15.7'	104°29.4'	S 23°12.4'	104°22.2'	S 23°08.5'
20	119°58.5'	S 23°23.0'	119°51.1'	S 23°21.0'	119°43.7'	S 23°18.5'	119°36.4'	S 23°15.6'	119°29.1'	S 23°12.2'	119°21.9'	S 23°08.3'
21	134°58.2'	S 23°22.9'	134°50.8'	S 23°20.9'	134°43.4'	S 23°18.4'	134°36.1'	S 23°15.5'	134°28.8'	S 23°12.0'	134°21.6'	S 23°08.2'
22	149°57.9'	S 23°22.8'	149°50.5'	S 23°20.8'	149°43.1'	S 23°18.3'	149°35.8'	S 23°15.3'	149°28.5'	S 23°11.9'	149°21.3'	S 23°08.0'
23	164°57.5'	S 23°22.7'	164°50.2'	S 23°20.7'	164°42.8'	S 23°18.2'	164°35.5'	S 23°15.2'	164°28.2'	S 23°11.7'	164°21.0'	S 23°07.8'
Zeitgl. 0h / 12h	+00:19 / +00:04		-00:11 / -00:26		-00:41 / -00:55		-01:10 / -01:25		-01:39 / -01:54		-02:08 / -02:23	
Kulmination UT	11:59:56		12:00:26		12:00:55		12:01:25		12:01:54		12:02:23	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

Fr 31.12.

UT	Grt	Dec
00	179°20.7'	S 23°07.7'
01	194°20.4'	S 23°07.5'
02	209°20.1'	S 23°07.3'
03	224°19.8'	S 23°07.1'
04	239°19.5'	S 23°07.0'
05	254°19.2'	S 23°06.8'
06	269°18.9'	S 23°06.6'
07	284°18.6'	S 23°06.4'
08	299°18.3'	S 23°06.2'
09	314°18.0'	S 23°06.1'
10	329°17.7'	S 23°05.9'
11	344°17.4'	S 23°05.7'
12	359°17.1'	S 23°05.5'
13	14°16.8'	S 23°05.3'
14	29°16.5'	S 23°05.1'
15	44°16.2'	S 23°05.0'
16	59°15.9'	S 23°04.8'
17	74°15.6'	S 23°04.6'
18	89°15.3'	S 23°04.4'
19	104°15.0'	S 23°04.2'
20	119°14.7'	S 23°04.0'
21	134°14.4'	S 23°03.8'
22	149°14.1'	S 23°03.6'
23	164°13.8'	S 23°03.5'

Zeitgl. 0h / 12h -02:37 / -02:52

Kulmination UT 12:02:52

Halbmesser 16.3'

2028

Januar

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Sa 01.01.		So 02.01.		Mo 03.01.		Di 04.01.		Mi 05.01.		Do 06.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°13.5'	S 23°03.3'	179°06.5'	S 22°58.4'	178°59.5'	S 22°53.1'	178°52.5'	S 22°47.3'	178°45.7'	S 22°41.1'	178°39.0'	S 22°34.4'
01	194°13.2'	S 23°03.1'	194°06.2'	S 22°58.2'	193°59.2'	S 22°52.9'	193°52.3'	S 22°47.1'	193°45.5'	S 22°40.8'	193°38.7'	S 22°34.1'
02	209°12.9'	S 23°02.9'	209°05.9'	S 22°58.0'	208°58.9'	S 22°52.6'	208°52.0'	S 22°46.8'	208°45.2'	S 22°40.6'	208°38.5'	S 22°33.9'
03	224°12.6'	S 23°02.7'	224°05.6'	S 22°57.8'	223°58.6'	S 22°52.4'	223°51.7'	S 22°46.6'	223°44.9'	S 22°40.3'	223°38.2'	S 22°33.6'
04	239°12.4'	S 23°02.5'	239°05.3'	S 22°57.6'	238°58.3'	S 22°52.2'	238°51.4'	S 22°46.3'	238°44.6'	S 22°40.0'	238°37.9'	S 22°33.3'
05	254°12.1'	S 23°02.3'	254°05.0'	S 22°57.3'	253°58.0'	S 22°51.9'	253°51.1'	S 22°46.1'	253°44.3'	S 22°39.7'	253°37.6'	S 22°33.0'
06	269°11.8'	S 23°02.1'	269°04.7'	S 22°57.1'	268°57.7'	S 22°51.7'	268°50.8'	S 22°45.8'	268°44.0'	S 22°39.5'	268°37.4'	S 22°32.7'
07	284°11.5'	S 23°01.9'	284°04.4'	S 22°56.9'	283°57.4'	S 22°51.5'	283°50.6'	S 22°45.6'	283°43.8'	S 22°39.2'	283°37.1'	S 22°32.4'
08	299°11.2'	S 23°01.7'	299°04.1'	S 22°56.7'	298°57.1'	S 22°51.2'	298°50.3'	S 22°45.3'	298°43.5'	S 22°38.9'	298°36.8'	S 22°32.1'
09	314°10.9'	S 23°01.5'	314°03.8'	S 22°56.5'	313°56.9'	S 22°51.0'	313°50.0'	S 22°45.0'	313°43.2'	S 22°38.7'	313°36.5'	S 22°31.8'
10	329°10.6'	S 23°01.3'	329°03.5'	S 22°56.2'	328°56.6'	S 22°50.7'	328°49.7'	S 22°44.8'	328°42.9'	S 22°38.4'	328°36.3'	S 22°31.5'
11	344°10.3'	S 23°01.1'	344°03.2'	S 22°56.0'	343°56.3'	S 22°50.5'	343°49.4'	S 22°44.5'	343°42.6'	S 22°38.1'	343°36.0'	S 22°31.2'
12	359°10.0'	S 23°00.9'	359°02.9'	S 22°55.8'	358°56.0'	S 22°50.3'	358°49.1'	S 22°44.3'	358°42.4'	S 22°37.8'	358°35.7'	S 22°30.9'
13	14°09.7'	S 23°00.7'	14°02.7'	S 22°55.6'	13°55.7'	S 22°50.0'	13°48.8'	S 22°44.0'	13°42.1'	S 22°37.5'	13°35.4'	S 22°30.6'
14	29°09.4'	S 23°00.5'	29°02.4'	S 22°55.4'	28°55.4'	S 22°49.8'	28°48.6'	S 22°43.7'	28°41.8'	S 22°37.3'	28°35.2'	S 22°30.3'
15	44°09.1'	S 23°00.3'	44°02.1'	S 22°55.1'	43°55.1'	S 22°49.5'	43°48.3'	S 22°43.5'	43°41.5'	S 22°37.0'	43°34.9'	S 22°30.0'
16	59°08.8'	S 23°00.1'	59°01.8'	S 22°54.9'	58°54.8'	S 22°49.3'	58°48.0'	S 22°43.2'	58°41.2'	S 22°36.7'	58°34.6'	S 22°29.7'
17	74°08.5'	S 22°59.9'	74°01.5'	S 22°54.7'	73°54.6'	S 22°49.1'	73°47.7'	S 22°43.0'	73°41.0'	S 22°36.4'	73°34.3'	S 22°29.4'
18	89°08.2'	S 22°59.7'	89°01.2'	S 22°54.5'	88°54.3'	S 22°48.8'	88°47.4'	S 22°42.7'	88°40.7'	S 22°36.1'	88°34.1'	S 22°29.1'
19	104°07.9'	S 22°59.5'	104°00.9'	S 22°54.2'	103°54.0'	S 22°48.6'	103°47.1'	S 22°42.4'	103°40.4'	S 22°35.9'	103°33.8'	S 22°28.8'
20	119°07.6'	S 22°59.2'	119°00.6'	S 22°54.0'	118°53.7'	S 22°48.3'	118°46.9'	S 22°42.2'	118°40.1'	S 22°35.6'	118°33.5'	S 22°28.5'
21	134°07.3'	S 22°59.0'	134°00.3'	S 22°53.8'	133°53.4'	S 22°48.1'	133°46.6'	S 22°41.9'	133°39.9'	S 22°35.3'	133°33.2'	S 22°28.2'
22	149°07.0'	S 22°58.8'	149°00.0'	S 22°53.6'	148°53.1'	S 22°47.8'	148°46.3'	S 22°41.6'	148°39.6'	S 22°35.0'	148°33.0'	S 22°27.9'
23	164°06.8'	S 22°58.6'	163°59.7'	S 22°53.3'	163°52.8'	S 22°47.6'	163°46.0'	S 22°41.4'	163°39.3'	S 22°34.7'	163°32.7'	S 22°27.6'
Zeitgl. 0h / 12h	-03:06 / -03:20		-03:34 / -03:48		-04:02 / -04:16		-04:30 / -04:43		-04:57 / -05:11		-05:24 / -05:37	
Kulmination UT	12:03:20		12:03:48		12:04:16		12:04:43		12:05:11		12:05:37	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

	Fr 07.01.		Sa 08.01.		So 09.01.		Mo 10.01.		Di 11.01.		Mi 12.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°32.4'	S 22°27.3'	178°25.9'	S 22°19.7'	178°19.6'	S 22°11.7'	178°13.3'	S 22°03.3'	178°07.2'	S 21°54.4'	178°01.2'	S 21°45.2'
01	193°32.1'	S 22°27.0'	193°25.7'	S 22°19.4'	193°19.3'	S 22°11.4'	193°13.1'	S 22°03.0'	193°07.0'	S 21°54.1'	193°01.0'	S 21°44.8'
02	208°31.9'	S 22°26.7'	208°25.4'	S 22°19.1'	208°19.0'	S 22°11.1'	208°12.8'	S 22°02.6'	208°06.7'	S 21°53.7'	208°00.8'	S 21°44.4'
03	223°31.6'	S 22°26.4'	223°25.1'	S 22°18.8'	223°18.8'	S 22°10.7'	223°12.5'	S 22°02.2'	223°06.5'	S 21°53.3'	223°00.5'	S 21°44.0'
04	238°31.3'	S 22°26.1'	238°24.9'	S 22°18.4'	238°18.5'	S 22°10.4'	238°12.3'	S 22°01.9'	238°06.2'	S 21°52.9'	238°00.3'	S 21°43.6'
05	253°31.1'	S 22°25.8'	253°24.6'	S 22°18.1'	253°18.2'	S 22°10.0'	253°12.0'	S 22°01.5'	253°06.0'	S 21°52.5'	253°00.0'	S 21°43.2'
06	268°30.8'	S 22°25.5'	268°24.3'	S 22°17.8'	268°18.0'	S 22°09.7'	268°11.8'	S 22°01.1'	268°05.7'	S 21°52.2'	267°59.8'	S 21°42.8'
07	283°30.5'	S 22°25.2'	283°24.1'	S 22°17.5'	283°17.7'	S 22°09.3'	283°11.5'	S 22°00.8'	283°05.5'	S 21°51.8'	282°59.5'	S 21°42.4'
08	298°30.2'	S 22°24.8'	298°23.8'	S 22°17.1'	298°17.5'	S 22°09.0'	298°11.3'	S 22°00.4'	298°05.2'	S 21°51.4'	297°59.3'	S 21°42.0'
09	313°30.0'	S 22°24.5'	313°23.5'	S 22°16.8'	313°17.2'	S 22°08.6'	313°11.0'	S 22°00.0'	313°05.0'	S 21°51.0'	312°59.0'	S 21°41.6'
10	328°29.7'	S 22°24.2'	328°23.3'	S 22°16.5'	328°16.9'	S 22°08.3'	328°10.8'	S 21°59.7'	328°04.7'	S 21°50.6'	327°58.8'	S 21°41.2'
11	343°29.4'	S 22°23.9'	343°23.0'	S 22°16.1'	343°16.7'	S 22°07.9'	343°10.5'	S 21°59.3'	343°04.5'	S 21°50.2'	342°58.6'	S 21°40.8'
12	358°29.2'	S 22°23.6'	358°22.7'	S 22°15.8'	358°16.4'	S 22°07.6'	358°10.2'	S 21°58.9'	358°04.2'	S 21°49.9'	357°58.3'	S 21°40.3'
13	13°28.9'	S 22°23.3'	13°22.5'	S 22°15.5'	13°16.2'	S 22°07.2'	13°10.0'	S 21°58.6'	13°04.0'	S 21°49.5'	12°58.1'	S 21°39.9'
14	28°28.6'	S 22°23.0'	28°22.2'	S 22°15.1'	28°15.9'	S 22°06.9'	28°09.7'	S 21°58.2'	28°03.7'	S 21°49.1'	27°57.8'	S 21°39.5'
15	43°28.3'	S 22°22.6'	43°21.9'	S 22°14.8'	43°15.6'	S 22°06.5'	43°09.5'	S 21°57.8'	43°03.5'	S 21°48.7'	42°57.6'	S 21°39.1'
16	58°28.1'	S 22°22.3'	58°21.7'	S 22°14.5'	58°15.4'	S 22°06.2'	58°09.2'	S 21°57.5'	58°03.2'	S 21°48.3'	57°57.3'	S 21°38.7'
17	73°27.8'	S 22°22.0'	73°21.4'	S 22°14.1'	73°15.1'	S 22°05.8'	73°09.0'	S 21°57.1'	73°03.0'	S 21°47.9'	72°57.1'	S 21°38.3'
18	88°27.5'	S 22°21.7'	88°21.1'	S 22°13.8'	88°14.9'	S 22°05.5'	88°08.7'	S 21°56.7'	88°02.7'	S 21°47.5'	87°56.9'	S 21°37.9'
19	103°27.3'	S 22°21.4'	103°20.9'	S 22°13.5'	103°14.6'	S 22°05.1'	103°08.5'	S 21°56.3'	103°02.5'	S 21°47.1'	102°56.6'	S 21°37.5'
20	118°27.0'	S 22°21.0'	118°20.6'	S 22°13.1'	118°14.3'	S 22°04.8'	118°08.2'	S 21°56.0'	118°02.2'	S 21°46.7'	117°56.4'	S 21°37.1'
21	133°26.7'	S 22°20.7'	133°20.3'	S 22°12.8'	133°14.1'	S 22°04.4'	133°08.0'	S 21°55.6'	133°02.0'	S 21°46.3'	132°56.1'	S 21°36.7'
22	148°26.5'	S 22°20.4'	148°20.1'	S 22°12.4'	148°13.8'	S 22°04.0'	148°07.7'	S 21°55.2'	148°01.7'	S 21°45.9'	147°55.9'	S 21°36.3'
23	163°26.2'	S 22°20.1'	163°19.8'	S 22°12.1'	163°13.6'	S 22°03.7'	163°07.5'	S 21°54.8'	163°01.5'	S 21°45.5'	162°55.7'	S 21°35.9'
Zeitgl. 0h / 12h	-05:50 / -06:03		-06:16 / -06:29		-06:42 / -06:54		-07:07 / -07:19		-07:31 / -07:43		-07:55 / -08:07	
Kulmination UT	12:06:03		12:06:29		12:06:54		12:07:19		12:07:43		12:08:07	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

	Do 13.01.		Fr 14.01.		Sa 15.01.		So 16.01.		Mo 17.01.		Di 18.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	177°55.4'	S 21°35.4'	177°49.8'	S 21°25.3'	177°44.3'	S 21°14.8'	177°38.9'	S 21°03.8'	177°33.7'	S 20°52.4'	177°28.7'	S 20°40.7'
01	192°55.2'	S 21°35.0'	192°49.5'	S 21°24.9'	192°44.0'	S 21°14.3'	192°38.7'	S 21°03.3'	192°33.5'	S 20°52.0'	192°28.5'	S 20°40.2'
02	207°54.9'	S 21°34.6'	207°49.3'	S 21°24.4'	207°43.8'	S 21°13.9'	207°38.5'	S 21°02.9'	207°33.3'	S 20°51.5'	207°28.3'	S 20°39.7'
03	222°54.7'	S 21°34.2'	222°49.1'	S 21°24.0'	222°43.6'	S 21°13.4'	222°38.2'	S 21°02.4'	222°33.1'	S 20°51.0'	222°28.1'	S 20°39.2'
04	237°54.5'	S 21°33.8'	237°48.8'	S 21°23.6'	237°43.3'	S 21°13.0'	237°38.0'	S 21°01.9'	237°32.9'	S 20°50.5'	237°27.9'	S 20°38.7'
05	252°54.2'	S 21°33.4'	252°48.6'	S 21°23.1'	252°43.1'	S 21°12.5'	252°37.8'	S 21°01.5'	252°32.7'	S 20°50.0'	252°27.7'	S 20°38.2'
06	267°54.0'	S 21°32.9'	267°48.4'	S 21°22.7'	267°42.9'	S 21°12.1'	267°37.6'	S 21°01.0'	267°32.5'	S 20°49.5'	267°27.5'	S 20°37.7'
07	282°53.8'	S 21°32.5'	282°48.1'	S 21°22.3'	282°42.7'	S 21°11.6'	282°37.4'	S 21°00.5'	282°32.2'	S 20°49.1'	282°27.3'	S 20°37.2'
08	297°53.5'	S 21°32.1'	297°47.9'	S 21°21.8'	297°42.4'	S 21°11.1'	297°37.2'	S 21°00.1'	297°32.0'	S 20°48.6'	297°27.1'	S 20°36.7'
09	312°53.3'	S 21°31.7'	312°47.7'	S 21°21.4'	312°42.2'	S 21°10.7'	312°36.9'	S 20°59.6'	312°31.8'	S 20°48.1'	312°26.9'	S 20°36.2'
10	327°53.0'	S 21°31.3'	327°47.4'	S 21°21.0'	327°42.0'	S 21°10.2'	327°36.7'	S 20°59.1'	327°31.6'	S 20°47.6'	327°26.7'	S 20°35.7'
11	342°52.8'	S 21°30.8'	342°47.2'	S 21°20.5'	342°41.8'	S 21°09.8'	342°36.5'	S 20°58.6'	342°31.4'	S 20°47.1'	342°26.5'	S 20°35.2'
12	357°52.6'	S 21°30.4'	357°47.0'	S 21°20.1'	357°41.6'	S 21°09.3'	357°36.3'	S 20°58.2'	357°31.2'	S 20°46.6'	357°26.3'	S 20°34.7'
13	12°52.3'	S 21°30.0'	12°46.8'	S 21°19.6'	12°41.3'	S 21°08.9'	12°36.1'	S 20°57.7'	12°31.0'	S 20°46.1'	12°26.1'	S 20°34.2'
14	27°52.1'	S 21°29.6'	27°46.5'	S 21°19.2'	27°41.1'	S 21°08.4'	27°35.9'	S 20°57.2'	27°30.8'	S 20°45.6'	27°25.9'	S 20°33.6'
15	42°51.9'	S 21°29.2'	42°46.3'	S 21°18.8'	42°40.9'	S 21°08.0'	42°35.6'	S 20°56.7'	42°30.6'	S 20°45.1'	42°25.7'	S 20°33.1'
16	57°51.6'	S 21°28.7'	57°46.1'	S 21°18.3'	57°40.7'	S 21°07.5'	57°35.4'	S 20°56.3'	57°30.4'	S 20°44.6'	57°25.5'	S 20°32.6'
17	72°51.4'	S 21°28.3'	72°45.8'	S 21°17.9'	72°40.4'	S 21°07.0'	72°35.2'	S 20°55.8'	72°30.2'	S 20°44.2'	72°25.3'	S 20°32.1'
18	87°51.2'	S 21°27.9'	87°45.6'	S 21°17.4'	87°40.2'	S 21°06.6'	87°35.0'	S 20°55.3'	87°29.9'	S 20°43.7'	87°25.1'	S 20°31.6'
19	102°50.9'	S 21°27.4'	102°45.4'	S 21°17.0'	102°40.0'	S 21°06.1'	102°34.8'	S 20°54.8'	102°29.7'	S 20°43.2'	102°24.9'	S 20°31.1'
20	117°50.7'	S 21°27.0'	117°45.2'	S 21°16.5'	117°39.8'	S 21°05.7'	117°34.6'	S 20°54.4'	117°29.5'	S 20°42.7'	117°24.7'	S 20°30.6'
21	132°50.5'	S 21°26.6'	132°44.9'	S 21°16.1'	132°39.6'	S 21°05.2'	132°34.4'	S 20°53.9'	132°29.3'	S 20°42.2'	132°24.5'	S 20°30.1'
22	147°50.2'	S 21°26.2'	147°44.7'	S 21°15.7'	147°39.3'	S 21°04.7'	147°34.1'	S 20°53.4'	147°29.1'	S 20°41.7'	147°24.3'	S 20°29.6'
23	162°50.0'	S 21°25.7'	162°44.5'	S 21°15.2'	162°39.1'	S 21°04.3'	162°33.9'	S 20°52.9'	162°28.9'	S 20°41.2'	162°24.1'	S 20°29.0'
Zeitgl. 0h / 12h	-08:18 / -08:30		-08:41 / -08:52		-09:03 / -09:14		-09:24 / -09:35		-09:45 / -09:55		-10:05 / -10:15	
Kulmination UT	12:08:30		12:08:52		12:09:14		12:09:35		12:09:55		12:10:15	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

	Mi 19.01.		Do 20.01.		Fr 21.01.		Sa 22.01.		So 23.01.		Mo 24.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	177°23.9'	S 20°28.5'	177°19.2'	S 20°16.0'	177°14.8'	S 20°03.1'	177°10.5'	S 19°49.8'	177°06.4'	S 19°36.1'	177°02.5'	S 19°22.1'
01	192°23.7'	S 20°28.0'	192°19.0'	S 20°15.5'	192°14.6'	S 20°02.5'	192°10.3'	S 19°49.2'	192°06.2'	S 19°35.6'	192°02.3'	S 19°21.5'
02	207°23.5'	S 20°27.5'	207°18.8'	S 20°14.9'	207°14.4'	S 20°02.0'	207°10.1'	S 19°48.7'	207°06.0'	S 19°35.0'	207°02.2'	S 19°20.9'
03	222°23.3'	S 20°27.0'	222°18.7'	S 20°14.4'	222°14.2'	S 20°01.4'	222°09.9'	S 19°48.1'	222°05.9'	S 19°34.4'	222°02.0'	S 19°20.3'
04	237°23.1'	S 20°26.5'	237°18.5'	S 20°13.9'	237°14.0'	S 20°00.9'	237°09.8'	S 19°47.5'	237°05.7'	S 19°33.8'	237°01.8'	S 19°19.7'
05	252°22.9'	S 20°26.0'	252°18.3'	S 20°13.3'	252°13.8'	S 20°00.3'	252°09.6'	S 19°47.0'	252°05.5'	S 19°33.2'	252°01.7'	S 19°19.1'
06	267°22.7'	S 20°25.4'	267°18.1'	S 20°12.8'	267°13.7'	S 19°59.8'	267°09.4'	S 19°46.4'	267°05.4'	S 19°32.7'	267°01.5'	S 19°18.5'
07	282°22.5'	S 20°24.9'	282°17.9'	S 20°12.3'	282°13.5'	S 19°59.2'	282°09.3'	S 19°45.8'	282°05.2'	S 19°32.1'	282°01.4'	S 19°17.9'
08	297°22.3'	S 20°24.4'	297°17.7'	S 20°11.7'	297°13.3'	S 19°58.7'	297°09.1'	S 19°45.3'	297°05.1'	S 19°31.5'	297°01.2'	S 19°17.3'
09	312°22.1'	S 20°23.9'	312°17.5'	S 20°11.2'	312°13.1'	S 19°58.1'	312°08.9'	S 19°44.7'	312°04.9'	S 19°30.9'	312°01.1'	S 19°16.8'
10	327°21.9'	S 20°23.4'	327°17.3'	S 20°10.7'	327°12.9'	S 19°57.6'	327°08.7'	S 19°44.1'	327°04.7'	S 19°30.3'	327°00.9'	S 19°16.2'
11	342°21.7'	S 20°22.8'	342°17.2'	S 20°10.1'	342°12.8'	S 19°57.0'	342°08.6'	S 19°43.6'	342°04.6'	S 19°29.7'	342°00.8'	S 19°15.6'
12	357°21.5'	S 20°22.3'	357°17.0'	S 20°09.6'	357°12.6'	S 19°56.5'	357°08.4'	S 19°43.0'	357°04.4'	S 19°29.2'	357°00.6'	S 19°15.0'
13	12°21.3'	S 20°21.8'	12°16.8'	S 20°09.1'	12°12.4'	S 19°55.9'	12°08.2'	S 19°42.4'	12°04.2'	S 19°28.6'	12°00.4'	S 19°14.4'
14	27°21.1'	S 20°21.3'	27°16.6'	S 20°08.5'	27°12.2'	S 19°55.4'	27°08.1'	S 19°41.9'	27°04.1'	S 19°28.0'	27°00.3'	S 19°13.8'
15	42°20.9'	S 20°20.7'	42°16.4'	S 20°08.0'	42°12.1'	S 19°54.8'	42°07.9'	S 19°41.3'	42°03.9'	S 19°27.4'	42°00.1'	S 19°13.2'
16	57°20.8'	S 20°20.2'	57°16.2'	S 20°07.4'	57°11.9'	S 19°54.3'	57°07.7'	S 19°40.7'	57°03.8'	S 19°26.8'	57°00.0'	S 19°12.6'
17	72°20.6'	S 20°19.7'	72°16.0'	S 20°06.9'	72°11.7'	S 19°53.7'	72°07.6'	S 19°40.2'	72°03.6'	S 19°26.2'	71°59.8'	S 19°12.0'
18	87°20.4'	S 20°19.2'	87°15.9'	S 20°06.3'	87°11.5'	S 19°53.1'	87°07.4'	S 19°39.6'	87°03.4'	S 19°25.6'	86°59.7'	S 19°11.3'
19	102°20.2'	S 20°18.6'	102°15.7'	S 20°05.8'	102°11.3'	S 19°52.6'	102°07.2'	S 19°39.0'	102°03.3'	S 19°25.1'	101°59.5'	S 19°10.7'
20	117°20.0'	S 20°18.1'	117°15.5'	S 20°05.3'	117°11.2'	S 19°52.0'	117°07.0'	S 19°38.4'	117°03.1'	S 19°24.5'	116°59.4'	S 19°10.1'
21	132°19.8'	S 20°17.6'	132°15.3'	S 20°04.7'	132°11.0'	S 19°51.5'	132°06.9'	S 19°37.9'	132°03.0'	S 19°23.9'	131°59.2'	S 19°09.5'
22	147°19.6'	S 20°17.1'	147°15.1'	S 20°04.2'	147°10.8'	S 19°50.9'	147°06.7'	S 19°37.3'	147°02.8'	S 19°23.3'	146°59.1'	S 19°08.9'
23	162°19.4'	S 20°16.5'	162°14.9'	S 20°03.6'	162°10.6'	S 19°50.4'	162°06.5'	S 19°36.7'	162°02.6'	S 19°22.7'	161°58.9'	S 19°08.3'
Zeitgl. 0h / 12h	-10:24 / -10:34		-10:43 / -10:52		-11:01 / -11:10		-11:18 / -11:26		-11:34 / -11:42		-11:50 / -11:58	
Kulmination UT	12:10:34		12:10:52		12:11:10		12:11:26		12:11:42		12:11:58	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.2'	

	Di 25.01.		Mi 26.01.		Do 27.01.		Fr 28.01.		Sa 29.01.		So 30.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°58.8'	S 19°07.7'	176°55.3'	S 18°53.0'	176°51.9'	S 18°37.9'	176°48.8'	S 18°22.5'	176°45.9'	S 18°06.7'	176°43.2'	S 17°50.7'
01	191°58.6'	S 19°07.1'	191°55.1'	S 18°52.4'	191°51.8'	S 18°37.3'	191°48.7'	S 18°21.8'	191°45.8'	S 18°06.1'	191°43.1'	S 17°50.0'
02	206°58.5'	S 19°06.5'	206°55.0'	S 18°51.7'	206°51.7'	S 18°36.6'	206°48.6'	S 18°21.2'	206°45.7'	S 18°05.4'	206°43.0'	S 17°49.3'
03	221°58.3'	S 19°05.9'	221°54.8'	S 18°51.1'	221°51.5'	S 18°36.0'	221°48.5'	S 18°20.5'	221°45.6'	S 18°04.7'	221°42.9'	S 17°48.6'
04	236°58.2'	S 19°05.3'	236°54.7'	S 18°50.5'	236°51.4'	S 18°35.4'	236°48.3'	S 18°19.9'	236°45.5'	S 18°04.1'	236°42.8'	S 17°48.0'
05	251°58.0'	S 19°04.7'	251°54.6'	S 18°49.9'	251°51.3'	S 18°34.7'	251°48.2'	S 18°19.2'	251°45.4'	S 18°03.4'	251°42.7'	S 17°47.3'
06	266°57.9'	S 19°04.1'	266°54.4'	S 18°49.2'	266°51.2'	S 18°34.1'	266°48.1'	S 18°18.6'	266°45.2'	S 18°02.7'	266°42.6'	S 17°46.6'
07	281°57.7'	S 19°03.5'	281°54.3'	S 18°48.6'	281°51.0'	S 18°33.4'	281°48.0'	S 18°17.9'	281°45.1'	S 18°02.1'	281°42.5'	S 17°45.9'
08	296°57.6'	S 19°02.8'	296°54.1'	S 18°48.0'	296°50.9'	S 18°32.8'	296°47.8'	S 18°17.3'	296°45.0'	S 18°01.4'	296°42.4'	S 17°45.2'
09	311°57.4'	S 19°02.2'	311°54.0'	S 18°47.4'	311°50.8'	S 18°32.2'	311°47.7'	S 18°16.6'	311°44.9'	S 18°00.7'	311°42.3'	S 17°44.6'
10	326°57.3'	S 19°01.6'	326°53.9'	S 18°46.7'	326°50.6'	S 18°31.5'	326°47.6'	S 18°16.0'	326°44.8'	S 18°00.1'	326°42.2'	S 17°43.9'
11	341°57.1'	S 19°01.0'	341°53.7'	S 18°46.1'	341°50.5'	S 18°30.9'	341°47.5'	S 18°15.3'	341°44.7'	S 17°59.4'	341°42.1'	S 17°43.2'
12	356°57.0'	S 19°00.4'	356°53.6'	S 18°45.5'	356°50.4'	S 18°30.2'	356°47.4'	S 18°14.7'	356°44.6'	S 17°58.7'	356°42.0'	S 17°42.5'
13	11°56.8'	S 18°59.8'	11°53.4'	S 18°44.9'	11°50.2'	S 18°29.6'	11°47.2'	S 18°14.0'	11°44.4'	S 17°58.1'	11°41.9'	S 17°41.8'
14	26°56.7'	S 18°59.2'	26°53.3'	S 18°44.2'	26°50.1'	S 18°29.0'	26°47.1'	S 18°13.3'	26°44.3'	S 17°57.4'	26°41.7'	S 17°41.1'
15	41°56.6'	S 18°58.6'	41°53.2'	S 18°43.6'	41°50.0'	S 18°28.3'	41°47.0'	S 18°12.7'	41°44.2'	S 17°56.7'	41°41.6'	S 17°40.5'
16	56°56.4'	S 18°57.9'	56°53.0'	S 18°43.0'	56°49.9'	S 18°27.7'	56°46.9'	S 18°12.0'	56°44.1'	S 17°56.1'	56°41.5'	S 17°39.8'
17	71°56.3'	S 18°57.3'	71°52.9'	S 18°42.3'	71°49.7'	S 18°27.0'	71°46.8'	S 18°11.4'	71°44.0'	S 17°55.4'	71°41.4'	S 17°39.1'
18	86°56.1'	S 18°56.7'	86°52.8'	S 18°41.7'	86°49.6'	S 18°26.4'	86°46.6'	S 18°10.7'	86°43.9'	S 17°54.7'	86°41.3'	S 17°38.4'
19	101°56.0'	S 18°56.1'	101°52.6'	S 18°41.1'	101°49.5'	S 18°25.7'	101°46.5'	S 18°10.0'	101°43.8'	S 17°54.0'	101°41.2'	S 17°37.7'
20	116°55.8'	S 18°55.5'	116°52.5'	S 18°40.4'	116°49.3'	S 18°25.1'	116°46.4'	S 18°09.4'	116°43.7'	S 17°53.4'	116°41.1'	S 17°37.0'
21	131°55.7'	S 18°54.8'	131°52.4'	S 18°39.8'	131°49.2'	S 18°24.4'	131°46.3'	S 18°08.7'	131°43.6'	S 17°52.7'	131°41.0'	S 17°36.3'
22	146°55.5'	S 18°54.2'	146°52.2'	S 18°39.2'	146°49.1'	S 18°23.8'	146°46.2'	S 18°08.1'	146°43.4'	S 17°52.0'	146°40.9'	S 17°35.6'
23	161°55.4'	S 18°53.6'	161°52.1'	S 18°38.5'	161°49.0'	S 18°23.1'	161°46.1'	S 18°07.4'	161°43.3'	S 17°51.3'	161°40.8'	S 17°35.0'
Zeitgl. 0h / 12h	-12:05 / -12:12		-12:19 / -12:26		-12:32 / -12:39		-12:45 / -12:51		-12:56 / -13:02		-13:07 / -13:12	
Kulmination UT	12:12:12		12:12:26		12:12:39		12:12:51		12:13:02		12:13:12	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

Mo 31.01.

UT	Grt	Dec
00	176°40.7'	S 17°34.3'
01	191°40.6'	S 17°33.6'
02	206°40.5'	S 17°32.9'
03	221°40.4'	S 17°32.2'
04	236°40.3'	S 17°31.5'
05	251°40.2'	S 17°30.8'
06	266°40.1'	S 17°30.1'
07	281°40.0'	S 17°29.4'
08	296°39.9'	S 17°28.7'
09	311°39.8'	S 17°28.0'
10	326°39.8'	S 17°27.3'
11	341°39.7'	S 17°26.6'
12	356°39.6'	S 17°26.0'
13	11°39.5'	S 17°25.3'
14	26°39.4'	S 17°24.6'
15	41°39.3'	S 17°23.9'
16	56°39.2'	S 17°23.2'
17	71°39.1'	S 17°22.5'
18	86°39.0'	S 17°21.8'
19	101°38.9'	S 17°21.1'
20	116°38.8'	S 17°20.4'
21	131°38.7'	S 17°19.7'
22	146°38.6'	S 17°19.0'
23	161°38.5'	S 17°18.3'

Zeitgl. 0h / 12h -13:17 / -13:22

Kulmination UT 12:13:22

Halbmesser 16.2'

2028

Februar

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Di 01.02.		Mi 02.02.		Do 03.02.		Fr 04.02.		Sa 05.02.		So 06.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°38.4'	S 17°17.6'	176°36.4'	S 17°00.5'	176°34.5'	S 16°43.2'	176°32.8'	S 16°25.6'	176°31.3'	S 16°07.7'	176°30.1'	S 15°49.6'
01	191°38.3'	S 17°16.9'	191°36.3'	S 16°59.8'	191°34.4'	S 16°42.5'	191°32.7'	S 16°24.9'	191°31.3'	S 16°07.0'	191°30.0'	S 15°48.8'
02	206°38.3'	S 17°16.2'	206°36.2'	S 16°59.1'	206°34.3'	S 16°41.8'	206°32.7'	S 16°24.2'	206°31.2'	S 16°06.2'	206°30.0'	S 15°48.1'
03	221°38.2'	S 17°15.5'	221°36.1'	S 16°58.4'	221°34.3'	S 16°41.1'	221°32.6'	S 16°23.4'	221°31.2'	S 16°05.5'	221°29.9'	S 15°47.3'
04	236°38.1'	S 17°14.7'	236°36.0'	S 16°57.7'	236°34.2'	S 16°40.3'	236°32.5'	S 16°22.7'	236°31.1'	S 16°04.7'	236°29.9'	S 15°46.5'
05	251°38.0'	S 17°14.0'	251°35.9'	S 16°57.0'	251°34.1'	S 16°39.6'	251°32.5'	S 16°21.9'	251°31.0'	S 16°04.0'	251°29.8'	S 15°45.8'
06	266°37.9'	S 17°13.3'	266°35.9'	S 16°56.2'	266°34.0'	S 16°38.9'	266°32.4'	S 16°21.2'	266°31.0'	S 16°03.2'	266°29.8'	S 15°45.0'
07	281°37.8'	S 17°12.6'	281°35.8'	S 16°55.5'	281°34.0'	S 16°38.1'	281°32.3'	S 16°20.4'	281°30.9'	S 16°02.5'	281°29.7'	S 15°44.2'
08	296°37.7'	S 17°11.9'	296°35.7'	S 16°54.8'	296°33.9'	S 16°37.4'	296°32.3'	S 16°19.7'	296°30.9'	S 16°01.7'	296°29.7'	S 15°43.5'
09	311°37.6'	S 17°11.2'	311°35.6'	S 16°54.1'	311°33.8'	S 16°36.7'	311°32.2'	S 16°19.0'	311°30.8'	S 16°01.0'	311°29.6'	S 15°42.7'
10	326°37.5'	S 17°10.5'	326°35.5'	S 16°53.4'	326°33.7'	S 16°35.9'	326°32.2'	S 16°18.2'	326°30.8'	S 16°00.2'	326°29.6'	S 15°41.9'
11	341°37.5'	S 17°09.8'	341°35.5'	S 16°52.7'	341°33.7'	S 16°35.2'	341°32.1'	S 16°17.5'	341°30.7'	S 15°59.5'	341°29.5'	S 15°41.2'
12	356°37.4'	S 17°09.1'	356°35.4'	S 16°51.9'	356°33.6'	S 16°34.5'	356°32.0'	S 16°16.7'	356°30.7'	S 15°58.7'	356°29.5'	S 15°40.4'
13	11°37.3'	S 17°08.4'	11°35.3'	S 16°51.2'	11°33.5'	S 16°33.7'	11°32.0'	S 16°16.0'	11°30.6'	S 15°57.9'	11°29.5'	S 15°39.6'
14	26°37.2'	S 17°07.7'	26°35.2'	S 16°50.5'	26°33.5'	S 16°33.0'	26°31.9'	S 16°15.2'	26°30.6'	S 15°57.2'	26°29.4'	S 15°38.9'
15	41°37.1'	S 17°07.0'	41°35.2'	S 16°49.8'	41°33.4'	S 16°32.3'	41°31.9'	S 16°14.5'	41°30.5'	S 15°56.4'	41°29.4'	S 15°38.1'
16	56°37.0'	S 17°06.3'	56°35.1'	S 16°49.0'	56°33.3'	S 16°31.5'	56°31.8'	S 16°13.7'	56°30.5'	S 15°55.7'	56°29.3'	S 15°37.3'
17	71°36.9'	S 17°05.5'	71°35.0'	S 16°48.3'	71°33.3'	S 16°30.8'	71°31.7'	S 16°13.0'	71°30.4'	S 15°54.9'	71°29.3'	S 15°36.5'
18	86°36.9'	S 17°04.8'	86°34.9'	S 16°47.6'	86°33.2'	S 16°30.1'	86°31.7'	S 16°12.2'	86°30.4'	S 15°54.1'	86°29.2'	S 15°35.8'
19	101°36.8'	S 17°04.1'	101°34.8'	S 16°46.9'	101°33.1'	S 16°29.3'	101°31.6'	S 16°11.5'	101°30.3'	S 15°53.4'	101°29.2'	S 15°35.0'
20	116°36.7'	S 17°03.4'	116°34.8'	S 16°46.1'	116°33.1'	S 16°28.6'	116°31.6'	S 16°10.7'	116°30.3'	S 15°52.6'	116°29.2'	S 15°34.2'
21	131°36.6'	S 17°02.7'	131°34.7'	S 16°45.4'	131°33.0'	S 16°27.9'	131°31.5'	S 16°10.0'	131°30.2'	S 15°51.9'	131°29.1'	S 15°33.5'
22	146°36.5'	S 17°02.0'	146°34.6'	S 16°44.7'	146°32.9'	S 16°27.1'	146°31.4'	S 16°09.2'	146°30.2'	S 15°51.1'	146°29.1'	S 15°32.7'
23	161°36.4'	S 17°01.3'	161°34.5'	S 16°44.0'	161°32.9'	S 16°26.4'	161°31.4'	S 16°08.5'	161°30.1'	S 15°50.3'	161°29.0'	S 15°31.9'
Zeitgl. 0h / 12h	-13:26 / -13:31		-13:35 / -13:38		-13:42 / -13:46		-13:49 / -13:52		-13:55 / -13:57		-14:00 / -14:02	
Kulmination UT	12:13:31		12:13:38		12:13:46		12:13:52		12:13:57		12:14:02	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Mo 07.02.		Di 08.02.		Mi 09.02.		Do 10.02.		Fr 11.02.		Sa 12.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°29.0'	S 15°31.1'	176°28.1'	S 15°12.4'	176°27.5'	S 14°53.5'	176°27.0'	S 14°34.3'	176°26.7'	S 14°14.8'	176°26.7'	S 13°55.1'
01	191°29.0'	S 15°30.4'	191°28.1'	S 15°11.7'	191°27.5'	S 14°52.7'	191°27.0'	S 14°33.5'	191°26.7'	S 14°14.0'	191°26.7'	S 13°54.3'
02	206°28.9'	S 15°29.6'	206°28.1'	S 15°10.9'	206°27.4'	S 14°51.9'	206°27.0'	S 14°32.6'	206°26.7'	S 14°13.2'	206°26.7'	S 13°53.5'
03	221°28.9'	S 15°28.8'	221°28.0'	S 15°10.1'	221°27.4'	S 14°51.1'	221°27.0'	S 14°31.8'	221°26.7'	S 14°12.4'	221°26.7'	S 13°52.6'
04	236°28.8'	S 15°28.0'	236°28.0'	S 15°09.3'	236°27.4'	S 14°50.3'	236°27.0'	S 14°31.0'	236°26.7'	S 14°11.5'	236°26.7'	S 13°51.8'
05	251°28.8'	S 15°27.3'	251°28.0'	S 15°08.5'	251°27.4'	S 14°49.5'	251°26.9'	S 14°30.2'	251°26.7'	S 14°10.7'	251°26.7'	S 13°51.0'
06	266°28.8'	S 15°26.5'	266°28.0'	S 15°07.7'	266°27.3'	S 14°48.7'	266°26.9'	S 14°29.4'	266°26.7'	S 14°09.9'	266°26.7'	S 13°50.2'
07	281°28.7'	S 15°25.7'	281°27.9'	S 15°06.9'	281°27.3'	S 14°47.9'	281°26.9'	S 14°28.6'	281°26.7'	S 14°09.1'	281°26.7'	S 13°49.3'
08	296°28.7'	S 15°24.9'	296°27.9'	S 15°06.1'	296°27.3'	S 14°47.1'	296°26.9'	S 14°27.8'	296°26.7'	S 14°08.3'	296°26.7'	S 13°48.5'
09	311°28.6'	S 15°24.2'	311°27.9'	S 15°05.4'	311°27.3'	S 14°46.3'	311°26.9'	S 14°27.0'	311°26.7'	S 14°07.4'	311°26.7'	S 13°47.7'
10	326°28.6'	S 15°23.4'	326°27.8'	S 15°04.6'	326°27.3'	S 14°45.5'	326°26.9'	S 14°26.2'	326°26.7'	S 14°06.6'	326°26.7'	S 13°46.8'
11	341°28.6'	S 15°22.6'	341°27.8'	S 15°03.8'	341°27.2'	S 14°44.7'	341°26.9'	S 14°25.4'	341°26.7'	S 14°05.8'	341°26.7'	S 13°46.0'
12	356°28.5'	S 15°21.8'	356°27.8'	S 15°03.0'	356°27.2'	S 14°43.9'	356°26.9'	S 14°24.6'	356°26.7'	S 14°05.0'	356°26.7'	S 13°45.2'
13	11°28.5'	S 15°21.0'	11°27.8'	S 15°02.2'	11°27.2'	S 14°43.1'	11°26.8'	S 14°23.8'	11°26.7'	S 14°04.2'	11°26.7'	S 13°44.3'
14	26°28.5'	S 15°20.3'	26°27.7'	S 15°01.4'	26°27.2'	S 14°42.3'	26°26.8'	S 14°22.9'	26°26.7'	S 14°03.3'	26°26.7'	S 13°43.5'
15	41°28.4'	S 15°19.5'	41°27.7'	S 15°00.6'	41°27.2'	S 14°41.5'	41°26.8'	S 14°22.1'	41°26.7'	S 14°02.5'	41°26.7'	S 13°42.7'
16	56°28.4'	S 15°18.7'	56°27.7'	S 14°59.8'	56°27.1'	S 14°40.7'	56°26.8'	S 14°21.3'	56°26.7'	S 14°01.7'	56°26.7'	S 13°41.9'
17	71°28.4'	S 15°17.9'	71°27.6'	S 14°59.0'	71°27.1'	S 14°39.9'	71°26.8'	S 14°20.5'	71°26.7'	S 14°00.9'	71°26.7'	S 13°41.0'
18	86°28.3'	S 15°17.1'	86°27.6'	S 14°58.2'	86°27.1'	S 14°39.1'	86°26.8'	S 14°19.7'	86°26.7'	S 14°00.1'	86°26.8'	S 13°40.2'
19	101°28.3'	S 15°16.4'	101°27.6'	S 14°57.4'	101°27.1'	S 14°38.3'	101°26.8'	S 14°18.9'	101°26.7'	S 13°59.2'	101°26.8'	S 13°39.4'
20	116°28.3'	S 15°15.6'	116°27.6'	S 14°56.7'	116°27.1'	S 14°37.5'	116°26.8'	S 14°18.1'	116°26.7'	S 13°58.4'	116°26.8'	S 13°38.5'
21	131°28.2'	S 15°14.8'	131°27.5'	S 14°55.9'	131°27.1'	S 14°36.7'	131°26.8'	S 14°17.3'	131°26.7'	S 13°57.6'	131°26.8'	S 13°37.7'
22	146°28.2'	S 15°14.0'	146°27.5'	S 14°55.1'	146°27.0'	S 14°35.9'	146°26.8'	S 14°16.4'	146°26.7'	S 13°56.8'	146°26.8'	S 13°36.9'
23	161°28.2'	S 15°13.2'	161°27.5'	S 14°54.3'	161°27.0'	S 14°35.1'	161°26.8'	S 14°15.6'	161°26.7'	S 13°55.9'	161°26.8'	S 13°36.0'
Zeitgl. 0h / 12h	-14:04 / -14:06		-14:07 / -14:09		-14:10 / -14:11		-14:12 / -14:13		-14:13 / -14:13		-14:13 / -14:13	
Kulmination UT	12:14:06		12:14:09		12:14:11		12:14:13		12:14:13		12:14:13	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	So 13.02.		Mo 14.02.		Di 15.02.		Mi 16.02.		Do 17.02.		Fr 18.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°26.8'	S 13°35.2'	176°27.1'	S 13°15.0'	176°27.6'	S 12°54.7'	176°28.3'	S 12°34.1'	176°29.2'	S 12°13.3'	176°30.2'	S 11°52.4'
01	191°26.8'	S 13°34.4'	191°27.1'	S 13°14.2'	191°27.6'	S 12°53.8'	191°28.3'	S 12°33.2'	191°29.2'	S 12°12.5'	191°30.3'	S 11°51.5'
02	206°26.8'	S 13°33.5'	206°27.2'	S 13°13.4'	206°27.7'	S 12°53.0'	206°28.4'	S 12°32.4'	206°29.3'	S 12°11.6'	206°30.3'	S 11°50.6'
03	221°26.8'	S 13°32.7'	221°27.2'	S 13°12.5'	221°27.7'	S 12°52.1'	221°28.4'	S 12°31.5'	221°29.3'	S 12°10.7'	221°30.4'	S 11°49.7'
04	236°26.8'	S 13°31.8'	236°27.2'	S 13°11.7'	236°27.7'	S 12°51.3'	236°28.4'	S 12°30.7'	236°29.3'	S 12°09.9'	236°30.4'	S 11°48.9'
05	251°26.9'	S 13°31.0'	251°27.2'	S 13°10.8'	251°27.8'	S 12°50.4'	251°28.5'	S 12°29.8'	251°29.4'	S 12°09.0'	251°30.5'	S 11°48.0'
06	266°26.9'	S 13°30.2'	266°27.2'	S 13°10.0'	266°27.8'	S 12°49.6'	266°28.5'	S 12°28.9'	266°29.4'	S 12°08.1'	266°30.5'	S 11°47.1'
07	281°26.9'	S 13°29.3'	281°27.2'	S 13°09.1'	281°27.8'	S 12°48.7'	281°28.5'	S 12°28.1'	281°29.5'	S 12°07.2'	281°30.6'	S 11°46.2'
08	296°26.9'	S 13°28.5'	296°27.3'	S 13°08.3'	296°27.8'	S 12°47.8'	296°28.6'	S 12°27.2'	296°29.5'	S 12°06.4'	296°30.6'	S 11°45.3'
09	311°26.9'	S 13°27.7'	311°27.3'	S 13°07.4'	311°27.9'	S 12°47.0'	311°28.6'	S 12°26.3'	311°29.6'	S 12°05.5'	311°30.7'	S 11°44.5'
10	326°26.9'	S 13°26.8'	326°27.3'	S 13°06.6'	326°27.9'	S 12°46.1'	326°28.7'	S 12°25.5'	326°29.6'	S 12°04.6'	326°30.7'	S 11°43.6'
11	341°26.9'	S 13°26.0'	341°27.3'	S 13°05.7'	341°27.9'	S 12°45.3'	341°28.7'	S 12°24.6'	341°29.6'	S 12°03.7'	341°30.8'	S 11°42.7'
12	356°26.9'	S 13°25.1'	356°27.3'	S 13°04.9'	356°27.9'	S 12°44.4'	356°28.7'	S 12°23.7'	356°29.7'	S 12°02.9'	356°30.8'	S 11°41.8'
13	11°27.0'	S 13°24.3'	11°27.4'	S 13°04.0'	11°28.0'	S 12°43.6'	11°28.8'	S 12°22.9'	11°29.7'	S 12°02.0'	11°30.9'	S 11°40.9'
14	26°27.0'	S 13°23.5'	26°27.4'	S 13°03.2'	26°28.0'	S 12°42.7'	26°28.8'	S 12°22.0'	26°29.8'	S 12°01.1'	26°30.9'	S 11°40.0'
15	41°27.0'	S 13°22.6'	41°27.4'	S 13°02.3'	41°28.0'	S 12°41.8'	41°28.8'	S 12°21.1'	41°29.8'	S 12°00.3'	41°31.0'	S 11°39.2'
16	56°27.0'	S 13°21.8'	56°27.4'	S 13°01.5'	56°28.1'	S 12°41.0'	56°28.9'	S 12°20.3'	56°29.9'	S 11°59.4'	56°31.0'	S 11°38.3'
17	71°27.0'	S 13°20.9'	71°27.5'	S 13°00.6'	71°28.1'	S 12°40.1'	71°28.9'	S 12°19.4'	71°29.9'	S 11°58.5'	71°31.1'	S 11°37.4'
18	86°27.0'	S 13°20.1'	86°27.5'	S 12°59.8'	86°28.1'	S 12°39.3'	86°28.9'	S 12°18.5'	86°30.0'	S 11°57.6'	86°31.1'	S 11°36.5'
19	101°27.0'	S 13°19.3'	101°27.5'	S 12°58.9'	101°28.2'	S 12°38.4'	101°29.0'	S 12°17.7'	101°30.0'	S 11°56.8'	101°31.2'	S 11°35.6'
20	116°27.1'	S 13°18.4'	116°27.5'	S 12°58.1'	116°28.2'	S 12°37.6'	116°29.0'	S 12°16.8'	116°30.0'	S 11°55.9'	116°31.2'	S 11°34.7'
21	131°27.1'	S 13°17.6'	131°27.6'	S 12°57.2'	131°28.2'	S 12°36.7'	131°29.1'	S 12°15.9'	131°30.1'	S 11°55.0'	131°31.3'	S 11°33.9'
22	146°27.1'	S 13°16.7'	146°27.6'	S 12°56.4'	146°28.2'	S 12°35.8'	146°29.1'	S 12°15.1'	146°30.1'	S 11°54.1'	146°31.3'	S 11°33.0'
23	161°27.1'	S 13°15.9'	161°27.6'	S 12°55.5'	161°28.3'	S 12°35.0'	161°29.1'	S 12°14.2'	161°30.2'	S 11°53.2'	161°31.4'	S 11°32.1'
Zeitgl. 0h / 12h	-14:13 / -14:12		-14:12 / -14:11		-14:10 / -14:08		-14:07 / -14:05		-14:03 / -14:01		-13:59 / -13:57	
Kulmination UT	12:14:12		12:14:11		12:14:08		12:14:05		12:14:01		12:13:57	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Sa 19.02.		So 20.02.		Mo 21.02.		Di 22.02.		Mi 23.02.		Do 24.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°31.5'	S 11°31.2'	176°32.9'	S 11°09.9'	176°34.4'	S 10°48.4'	176°36.1'	S 10°26.7'	176°38.0'	S 10°04.8'	176°40.1'	S 9°42.8'
01	191°31.5'	S 11°30.3'	191°32.9'	S 11°09.0'	191°34.5'	S 10°47.5'	191°36.2'	S 10°25.8'	191°38.1'	S 10°03.9'	191°40.2'	S 9°41.9'
02	206°31.6'	S 11°29.4'	206°33.0'	S 11°08.1'	206°34.6'	S 10°46.6'	206°36.3'	S 10°24.9'	206°38.2'	S 10°03.0'	206°40.3'	S 9°41.0'
03	221°31.6'	S 11°28.6'	221°33.0'	S 11°07.2'	221°34.6'	S 10°45.7'	221°36.4'	S 10°24.0'	221°38.3'	S 10°02.1'	221°40.4'	S 9°40.1'
04	236°31.7'	S 11°27.7'	236°33.1'	S 11°06.3'	236°34.7'	S 10°44.8'	236°36.5'	S 10°23.0'	236°38.4'	S 10°01.2'	236°40.4'	S 9°39.2'
05	251°31.7'	S 11°26.8'	251°33.2'	S 11°05.4'	251°34.8'	S 10°43.9'	251°36.5'	S 10°22.1'	251°38.5'	S 10°00.3'	251°40.5'	S 9°38.2'
06	266°31.8'	S 11°25.9'	266°33.2'	S 11°04.5'	266°34.8'	S 10°43.0'	266°36.6'	S 10°21.2'	266°38.5'	S 9°59.3'	266°40.6'	S 9°37.3'
07	281°31.8'	S 11°25.0'	281°33.3'	S 11°03.6'	281°34.9'	S 10°42.0'	281°36.7'	S 10°20.3'	281°38.6'	S 9°58.4'	281°40.7'	S 9°36.4'
08	296°31.9'	S 11°24.1'	296°33.4'	S 11°02.7'	296°35.0'	S 10°41.1'	296°36.8'	S 10°19.4'	296°38.7'	S 9°57.5'	296°40.8'	S 9°35.5'
09	311°32.0'	S 11°23.2'	311°33.4'	S 11°01.8'	311°35.0'	S 10°40.2'	311°36.8'	S 10°18.5'	311°38.8'	S 9°56.6'	311°40.9'	S 9°34.5'
10	326°32.0'	S 11°22.3'	326°33.5'	S 11°00.9'	326°35.1'	S 10°39.3'	326°36.9'	S 10°17.6'	326°38.9'	S 9°55.7'	326°41.0'	S 9°33.6'
11	341°32.1'	S 11°21.5'	341°33.6'	S 11°00.0'	341°35.2'	S 10°38.4'	341°37.0'	S 10°16.7'	341°39.0'	S 9°54.8'	341°41.1'	S 9°32.7'
12	356°32.1'	S 11°20.6'	356°33.6'	S 10°59.1'	356°35.3'	S 10°37.5'	356°37.1'	S 10°15.8'	356°39.0'	S 9°53.9'	356°41.2'	S 9°31.8'
13	11°32.2'	S 11°19.7'	11°33.7'	S 10°58.2'	11°35.3'	S 10°36.6'	11°37.2'	S 10°14.9'	11°39.1'	S 9°52.9'	11°41.3'	S 9°30.9'
14	26°32.3'	S 11°18.8'	26°33.7'	S 10°57.3'	26°35.4'	S 10°35.7'	26°37.2'	S 10°14.0'	26°39.2'	S 9°52.0'	26°41.4'	S 9°29.9'
15	41°32.3'	S 11°17.9'	41°33.8'	S 10°56.4'	41°35.5'	S 10°34.8'	41°37.3'	S 10°13.0'	41°39.3'	S 9°51.1'	41°41.4'	S 9°29.0'
16	56°32.4'	S 11°17.0'	56°33.9'	S 10°55.5'	56°35.6'	S 10°33.9'	56°37.4'	S 10°12.1'	56°39.4'	S 9°50.2'	56°41.5'	S 9°28.1'
17	71°32.4'	S 11°16.1'	71°33.9'	S 10°54.6'	71°35.6'	S 10°33.0'	71°37.5'	S 10°11.2'	71°39.5'	S 9°49.3'	71°41.6'	S 9°27.2'
18	86°32.5'	S 11°15.2'	86°34.0'	S 10°53.8'	86°35.7'	S 10°32.1'	86°37.6'	S 10°10.3'	86°39.6'	S 9°48.3'	86°41.7'	S 9°26.2'
19	101°32.5'	S 11°14.3'	101°34.1'	S 10°52.9'	101°35.8'	S 10°31.2'	101°37.6'	S 10°09.4'	101°39.6'	S 9°47.4'	101°41.8'	S 9°25.3'
20	116°32.6'	S 11°13.4'	116°34.1'	S 10°52.0'	116°35.8'	S 10°30.3'	116°37.7'	S 10°08.5'	116°39.7'	S 9°46.5'	116°41.9'	S 9°24.4'
21	131°32.7'	S 11°12.5'	131°34.2'	S 10°51.1'	131°35.9'	S 10°29.4'	131°37.8'	S 10°07.6'	131°39.8'	S 9°45.6'	131°42.0'	S 9°23.5'
22	146°32.7'	S 11°11.7'	146°34.3'	S 10°50.2'	146°36.0'	S 10°28.5'	146°37.9'	S 10°06.7'	146°39.9'	S 9°44.7'	146°42.1'	S 9°22.5'
23	161°32.8'	S 11°10.8'	161°34.4'	S 10°49.3'	161°36.1'	S 10°27.6'	161°38.0'	S 10°05.7'	161°40.0'	S 9°43.8'	161°42.2'	S 9°21.6'
Zeitgl. 0h / 12h	-13:54 / -13:51		-13:49 / -13:46		-13:42 / -13:39		-13:35 / -13:32		-13:28 / -13:24		-13:20 / -13:15	
Kulmination UT	12:13:51		12:13:46		12:13:39		12:13:32		12:13:24		12:13:15	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Fr 25.02.		Sa 26.02.		So 27.02.		Mo 28.02.		Di 29.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°42.3'	S 9°20.7'	176°44.6'	S 8°58.4'	176°47.1'	S 8°36.0'	176°49.8'	S 8°13.4'	176°52.5'	S 7°50.8'
01	191°42.4'	S 9°19.8'	191°44.7'	S 8°57.5'	191°47.2'	S 8°35.1'	191°49.9'	S 8°12.5'	191°52.6'	S 7°49.8'
02	206°42.5'	S 9°18.8'	206°44.8'	S 8°56.5'	206°47.3'	S 8°34.1'	206°50.0'	S 8°11.6'	206°52.8'	S 7°48.9'
03	221°42.6'	S 9°17.9'	221°44.9'	S 8°55.6'	221°47.4'	S 8°33.2'	221°50.1'	S 8°10.6'	221°52.9'	S 7°47.9'
04	236°42.7'	S 9°17.0'	236°45.0'	S 8°54.7'	236°47.6'	S 8°32.2'	236°50.2'	S 8°09.7'	236°53.0'	S 7°47.0'
05	251°42.8'	S 9°16.1'	251°45.1'	S 8°53.7'	251°47.7'	S 8°31.3'	251°50.3'	S 8°08.7'	251°53.1'	S 7°46.0'
06	266°42.9'	S 9°15.1'	266°45.2'	S 8°52.8'	266°47.8'	S 8°30.4'	266°50.4'	S 8°07.8'	266°53.2'	S 7°45.1'
07	281°43.0'	S 9°14.2'	281°45.3'	S 8°51.9'	281°47.9'	S 8°29.4'	281°50.5'	S 8°06.8'	281°53.3'	S 7°44.1'
08	296°43.1'	S 9°13.3'	296°45.4'	S 8°50.9'	296°48.0'	S 8°28.5'	296°50.7'	S 8°05.9'	296°53.5'	S 7°43.2'
09	311°43.1'	S 9°12.4'	311°45.5'	S 8°50.0'	311°48.1'	S 8°27.5'	311°50.8'	S 8°05.0'	311°53.6'	S 7°42.2'
10	326°43.2'	S 9°11.4'	326°45.7'	S 8°49.1'	326°48.2'	S 8°26.6'	326°50.9'	S 8°04.0'	326°53.7'	S 7°41.3'
11	341°43.3'	S 9°10.5'	341°45.8'	S 8°48.1'	341°48.3'	S 8°25.7'	341°51.0'	S 8°03.1'	341°53.8'	S 7°40.4'
12	356°43.4'	S 9°09.6'	356°45.9'	S 8°47.2'	356°48.4'	S 8°24.7'	356°51.1'	S 8°02.1'	356°54.0'	S 7°39.4'
13	11°43.5'	S 9°08.6'	11°46.0'	S 8°46.3'	11°48.5'	S 8°23.8'	11°51.2'	S 8°01.2'	11°54.1'	S 7°38.5'
14	26°43.6'	S 9°07.7'	26°46.1'	S 8°45.3'	26°48.6'	S 8°22.9'	26°51.4'	S 8°00.2'	26°54.2'	S 7°37.5'
15	41°43.7'	S 9°06.8'	41°46.2'	S 8°44.4'	41°48.8'	S 8°21.9'	41°51.5'	S 7°59.3'	41°54.3'	S 7°36.6'
16	56°43.8'	S 9°05.9'	56°46.3'	S 8°43.5'	56°48.9'	S 8°21.0'	56°51.6'	S 7°58.3'	56°54.4'	S 7°35.6'
17	71°43.9'	S 9°04.9'	71°46.4'	S 8°42.5'	71°49.0'	S 8°20.0'	71°51.7'	S 7°57.4'	71°54.6'	S 7°34.7'
18	86°44.0'	S 9°04.0'	86°46.5'	S 8°41.6'	86°49.1'	S 8°19.1'	86°51.8'	S 7°56.5'	86°54.7'	S 7°33.7'
19	101°44.1'	S 9°03.1'	101°46.6'	S 8°40.7'	101°49.2'	S 8°18.2'	101°51.9'	S 7°55.5'	101°54.8'	S 7°32.8'
20	116°44.2'	S 9°02.1'	116°46.7'	S 8°39.7'	116°49.3'	S 8°17.2'	116°52.0'	S 7°54.6'	116°54.9'	S 7°31.8'
21	131°44.3'	S 9°01.2'	131°46.8'	S 8°38.8'	131°49.4'	S 8°16.3'	131°52.2'	S 7°53.6'	131°55.0'	S 7°30.9'
22	146°44.4'	S 9°00.3'	146°46.9'	S 8°37.9'	146°49.5'	S 8°15.3'	146°52.3'	S 7°52.7'	146°55.2'	S 7°29.9'
23	161°44.5'	S 8°59.3'	161°47.0'	S 8°36.9'	161°49.6'	S 8°14.4'	161°52.4'	S 7°51.7'	161°55.3'	S 7°28.9'

Zeitgl. 0h / 12h -13:11 / -13:06

-13:01 / -12:57

-12:52 / -12:46

-12:41 / -12:36

-12:30 / -12:24

Kulmination UT 12:13:06

12:12:57

12:12:46

12:12:36

12:12:24

Halbmesser 16.2'

16.2'

16.2'

16.1'

16.1'

2028

März

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Mi 01.03.		Do 02.03.		Fr 03.03.		Sa 04.03.		So 05.03.		Mo 06.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°55.4'	S 7°28.0'	176°58.4'	S 7°05.1'	177°01.6'	S 6°42.1'	177°04.8'	S 6°19.0'	177°08.2'	S 5°55.9'	177°11.7'	S 5°32.6'
01	191°55.5'	S 7°27.0'	191°58.6'	S 7°04.2'	192°01.7'	S 6°41.2'	192°05.0'	S 6°18.1'	192°08.3'	S 5°54.9'	192°11.8'	S 5°31.6'
02	206°55.7'	S 7°26.1'	206°58.7'	S 7°03.2'	207°01.8'	S 6°40.2'	207°05.1'	S 6°17.1'	207°08.5'	S 5°53.9'	207°12.0'	S 5°30.7'
03	221°55.8'	S 7°25.1'	221°58.8'	S 7°02.2'	222°02.0'	S 6°39.2'	222°05.2'	S 6°16.1'	222°08.6'	S 5°53.0'	222°12.1'	S 5°29.7'
04	236°55.9'	S 7°24.2'	236°58.9'	S 7°01.3'	237°02.1'	S 6°38.3'	237°05.4'	S 6°15.2'	237°08.8'	S 5°52.0'	237°12.3'	S 5°28.7'
05	251°56.0'	S 7°23.2'	251°59.1'	S 7°00.3'	252°02.2'	S 6°37.3'	252°05.5'	S 6°14.2'	252°08.9'	S 5°51.0'	252°12.4'	S 5°27.8'
06	266°56.2'	S 7°22.3'	266°59.2'	S 6°59.4'	267°02.4'	S 6°36.4'	267°05.7'	S 6°13.3'	267°09.1'	S 5°50.1'	267°12.6'	S 5°26.8'
07	281°56.3'	S 7°21.3'	281°59.3'	S 6°58.4'	282°02.5'	S 6°35.4'	282°05.8'	S 6°12.3'	282°09.2'	S 5°49.1'	282°12.7'	S 5°25.8'
08	296°56.4'	S 7°20.4'	296°59.5'	S 6°57.5'	297°02.6'	S 6°34.4'	297°05.9'	S 6°11.3'	297°09.3'	S 5°48.1'	297°12.9'	S 5°24.9'
09	311°56.5'	S 7°19.4'	311°59.6'	S 6°56.5'	312°02.8'	S 6°33.5'	312°06.1'	S 6°10.4'	312°09.5'	S 5°47.2'	312°13.0'	S 5°23.9'
10	326°56.7'	S 7°18.5'	326°59.7'	S 6°55.5'	327°02.9'	S 6°32.5'	327°06.2'	S 6°09.4'	327°09.6'	S 5°46.2'	327°13.2'	S 5°22.9'
11	341°56.8'	S 7°17.5'	341°59.9'	S 6°54.6'	342°03.1'	S 6°31.6'	342°06.4'	S 6°08.4'	342°09.8'	S 5°45.2'	342°13.3'	S 5°21.9'
12	356°56.9'	S 7°16.6'	357°00.0'	S 6°53.6'	357°03.2'	S 6°30.6'	357°06.5'	S 6°07.5'	357°09.9'	S 5°44.3'	357°13.4'	S 5°21.0'
13	11°57.0'	S 7°15.6'	12°00.1'	S 6°52.7'	12°03.3'	S 6°29.6'	12°06.6'	S 6°06.5'	12°10.1'	S 5°43.3'	12°13.6'	S 5°20.0'
14	26°57.2'	S 7°14.7'	27°00.3'	S 6°51.7'	27°03.5'	S 6°28.7'	27°06.8'	S 6°05.5'	27°10.2'	S 5°42.3'	27°13.7'	S 5°19.0'
15	41°57.3'	S 7°13.7'	42°00.4'	S 6°50.8'	42°03.6'	S 6°27.7'	42°06.9'	S 6°04.6'	42°10.4'	S 5°41.3'	42°13.9'	S 5°18.1'
16	56°57.4'	S 7°12.8'	57°00.5'	S 6°49.8'	57°03.7'	S 6°26.7'	57°07.1'	S 6°03.6'	57°10.5'	S 5°40.4'	57°14.0'	S 5°17.1'
17	71°57.5'	S 7°11.8'	72°00.6'	S 6°48.8'	72°03.9'	S 6°25.8'	72°07.2'	S 6°02.6'	72°10.7'	S 5°39.4'	72°14.2'	S 5°16.1'
18	86°57.7'	S 7°10.8'	87°00.8'	S 6°47.9'	87°04.0'	S 6°24.8'	87°07.3'	S 6°01.7'	87°10.8'	S 5°38.4'	87°14.3'	S 5°15.1'
19	101°57.8'	S 7°09.9'	102°00.9'	S 6°46.9'	102°04.1'	S 6°23.9'	102°07.5'	S 6°00.7'	102°10.9'	S 5°37.5'	102°14.5'	S 5°14.2'
20	116°57.9'	S 7°08.9'	117°01.0'	S 6°46.0'	117°04.3'	S 6°22.9'	117°07.6'	S 5°59.7'	117°11.1'	S 5°36.5'	117°14.6'	S 5°13.2'
21	131°58.1'	S 7°08.0'	132°01.2'	S 6°45.0'	132°04.4'	S 6°21.9'	132°07.8'	S 5°58.8'	132°11.2'	S 5°35.5'	132°14.8'	S 5°12.2'
22	146°58.2'	S 7°07.0'	147°01.3'	S 6°44.0'	147°04.6'	S 6°21.0'	147°07.9'	S 5°57.8'	147°11.4'	S 5°34.6'	147°14.9'	S 5°11.2'
23	161°58.3'	S 7°06.1'	162°01.4'	S 6°43.1'	162°04.7'	S 6°20.0'	162°08.1'	S 5°56.8'	162°11.5'	S 5°33.6'	162°15.1'	S 5°10.3'
Zeitgl. 0h / 12h	-12:18 / -12:12		-12:06 / -12:00		-11:54 / -11:47		-11:41 / -11:34		-11:27 / -11:20		-11:13 / -11:06	
Kulmination UT	12:12:12		12:12:00		12:11:47		12:11:34		12:11:20		12:11:06	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	Di 07.03.		Mi 08.03.		Do 09.03.		Fr 10.03.		Sa 11.03.		So 12.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	177°15.2'	S 5°09.3'	177°18.9'	S 4°45.9'	177°22.7'	S 4°22.4'	177°26.5'	S 3°58.9'	177°30.5'	S 3°35.4'	177°34.5'	S 3°11.8'
01	192°15.4'	S 5°08.3'	192°19.1'	S 4°44.9'	192°22.8'	S 4°21.5'	192°26.7'	S 3°58.0'	192°30.6'	S 3°34.4'	192°34.6'	S 3°10.8'
02	207°15.6'	S 5°07.3'	207°19.2'	S 4°43.9'	207°23.0'	S 4°20.5'	207°26.9'	S 3°57.0'	207°30.8'	S 3°33.4'	207°34.8'	S 3°09.8'
03	222°15.7'	S 5°06.4'	222°19.4'	S 4°43.0'	222°23.2'	S 4°19.5'	222°27.0'	S 3°56.0'	222°31.0'	S 3°32.4'	222°35.0'	S 3°08.8'
04	237°15.9'	S 5°05.4'	237°19.5'	S 4°42.0'	237°23.3'	S 4°18.5'	237°27.2'	S 3°55.0'	237°31.1'	S 3°31.4'	237°35.1'	S 3°07.8'
05	252°16.0'	S 5°04.4'	252°19.7'	S 4°41.0'	252°23.5'	S 4°17.6'	252°27.3'	S 3°54.0'	252°31.3'	S 3°30.5'	252°35.3'	S 3°06.9'
06	267°16.2'	S 5°03.5'	267°19.9'	S 4°40.0'	267°23.6'	S 4°16.6'	267°27.5'	S 3°53.0'	267°31.5'	S 3°29.5'	267°35.5'	S 3°05.9'
07	282°16.3'	S 5°02.5'	282°20.0'	S 4°39.1'	282°23.8'	S 4°15.6'	282°27.7'	S 3°52.1'	282°31.6'	S 3°28.5'	282°35.6'	S 3°04.9'
08	297°16.5'	S 5°01.5'	297°20.2'	S 4°38.1'	297°24.0'	S 4°14.6'	297°27.8'	S 3°51.1'	297°31.8'	S 3°27.5'	297°35.8'	S 3°03.9'
09	312°16.6'	S 5°00.5'	312°20.3'	S 4°37.1'	312°24.1'	S 4°13.6'	312°28.0'	S 3°50.1'	312°32.0'	S 3°26.5'	312°36.0'	S 3°02.9'
10	327°16.8'	S 4°59.6'	327°20.5'	S 4°36.1'	327°24.3'	S 4°12.7'	327°28.2'	S 3°49.1'	327°32.1'	S 3°25.5'	327°36.2'	S 3°01.9'
11	342°16.9'	S 4°58.6'	342°20.6'	S 4°35.2'	342°24.4'	S 4°11.7'	342°28.3'	S 3°48.1'	342°32.3'	S 3°24.6'	342°36.3'	S 3°00.9'
12	357°17.1'	S 4°57.6'	357°20.8'	S 4°34.2'	357°24.6'	S 4°10.7'	357°28.5'	S 3°47.2'	357°32.5'	S 3°23.6'	357°36.5'	S 3°00.0'
13	12°17.2'	S 4°56.6'	12°20.9'	S 4°33.2'	12°24.8'	S 4°09.7'	12°28.6'	S 3°46.2'	12°32.6'	S 3°22.6'	12°36.7'	S 2°59.0'
14	27°17.4'	S 4°55.7'	27°21.1'	S 4°32.2'	27°24.9'	S 4°08.7'	27°28.8'	S 3°45.2'	27°32.8'	S 3°21.6'	27°36.8'	S 2°58.0'
15	42°17.5'	S 4°54.7'	42°21.3'	S 4°31.2'	42°25.1'	S 4°07.8'	42°29.0'	S 3°44.2'	42°33.0'	S 3°20.6'	42°37.0'	S 2°57.0'
16	57°17.7'	S 4°53.7'	57°21.4'	S 4°30.3'	57°25.2'	S 4°06.8'	57°29.1'	S 3°43.2'	57°33.1'	S 3°19.6'	57°37.2'	S 2°56.0'
17	72°17.8'	S 4°52.7'	72°21.6'	S 4°29.3'	72°25.4'	S 4°05.8'	72°29.3'	S 3°42.3'	72°33.3'	S 3°18.7'	72°37.3'	S 2°55.0'
18	87°18.0'	S 4°51.8'	87°21.7'	S 4°28.3'	87°25.6'	S 4°04.8'	87°29.5'	S 3°41.3'	87°33.5'	S 3°17.7'	87°37.5'	S 2°54.0'
19	102°18.1'	S 4°50.8'	102°21.9'	S 4°27.3'	102°25.7'	S 4°03.8'	102°29.6'	S 3°40.3'	102°33.6'	S 3°16.7'	102°37.7'	S 2°53.1'
20	117°18.3'	S 4°49.8'	117°22.0'	S 4°26.4'	117°25.9'	S 4°02.9'	117°29.8'	S 3°39.3'	117°33.8'	S 3°15.7'	117°37.9'	S 2°52.1'
21	132°18.5'	S 4°48.8'	132°22.2'	S 4°25.4'	132°26.0'	S 4°01.9'	132°30.0'	S 3°38.3'	132°34.0'	S 3°14.7'	132°38.0'	S 2°51.1'
22	147°18.6'	S 4°47.9'	147°22.4'	S 4°24.4'	147°26.2'	S 4°00.9'	147°30.1'	S 3°37.3'	147°34.1'	S 3°13.7'	147°38.2'	S 2°50.1'
23	162°18.8'	S 4°46.9'	162°22.5'	S 4°23.4'	162°26.4'	S 3°59.9'	162°30.3'	S 3°36.4'	162°34.3'	S 3°12.8'	162°38.4'	S 2°49.1'
Zeitgl. 0h / 12h	-10:59 / -10:52		-10:44 / -10:37		-10:29 / -10:22		-10:14 / -10:06		-09:58 / -09:50		-09:42 / -09:34	
Kulmination UT	12:10:52		12:10:37		12:10:22		12:10:06		12:09:50		12:09:34	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	Mo 13.03.		Di 14.03.		Mi 15.03.		Do 16.03.		Fr 17.03.		Sa 18.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	177°38.5'	S 2°48.1'	177°42.7'	S 2°24.5'	177°46.9'	S 2°00.8'	177°51.1'	S 1°37.1'	177°55.4'	S 1°13.3'	177°59.8'	S 0°49.6'
01	192°38.7'	S 2°47.1'	192°42.8'	S 2°23.5'	192°47.1'	S 1°59.8'	192°51.3'	S 1°36.1'	192°55.6'	S 1°12.3'	193°00.0'	S 0°48.6'
02	207°38.9'	S 2°46.2'	207°43.0'	S 2°22.5'	207°47.2'	S 1°58.8'	207°51.5'	S 1°35.1'	207°55.8'	S 1°11.4'	208°00.1'	S 0°47.6'
03	222°39.0'	S 2°45.2'	222°43.2'	S 2°21.5'	222°47.4'	S 1°57.8'	222°51.7'	S 1°34.1'	222°56.0'	S 1°10.4'	223°00.3'	S 0°46.6'
04	237°39.2'	S 2°44.2'	237°43.4'	S 2°20.5'	237°47.6'	S 1°56.8'	237°51.8'	S 1°33.1'	237°56.2'	S 1°09.4'	238°00.5'	S 0°45.7'
05	252°39.4'	S 2°43.2'	252°43.5'	S 2°19.5'	252°47.8'	S 1°55.8'	252°52.0'	S 1°32.1'	252°56.3'	S 1°08.4'	253°00.7'	S 0°44.7'
06	267°39.6'	S 2°42.2'	267°43.7'	S 2°18.5'	267°47.9'	S 1°54.8'	267°52.2'	S 1°31.1'	267°56.5'	S 1°07.4'	268°00.9'	S 0°43.7'
07	282°39.7'	S 2°41.2'	282°43.9'	S 2°17.6'	282°48.1'	S 1°53.9'	282°52.4'	S 1°30.1'	282°56.7'	S 1°06.4'	283°01.1'	S 0°42.7'
08	297°39.9'	S 2°40.2'	297°44.1'	S 2°16.6'	297°48.3'	S 1°52.9'	297°52.6'	S 1°29.2'	297°56.9'	S 1°05.4'	298°01.2'	S 0°41.7'
09	312°40.1'	S 2°39.3'	312°44.2'	S 2°15.6'	312°48.5'	S 1°51.9'	312°52.7'	S 1°28.2'	312°57.1'	S 1°04.4'	313°01.4'	S 0°40.7'
10	327°40.3'	S 2°38.3'	327°44.4'	S 2°14.6'	327°48.6'	S 1°50.9'	327°52.9'	S 1°27.2'	327°57.2'	S 1°03.5'	328°01.6'	S 0°39.7'
11	342°40.4'	S 2°37.3'	342°44.6'	S 2°13.6'	342°48.8'	S 1°49.9'	342°53.1'	S 1°26.2'	342°57.4'	S 1°02.5'	343°01.8'	S 0°38.7'
12	357°40.6'	S 2°36.3'	357°44.8'	S 2°12.6'	357°49.0'	S 1°48.9'	357°53.3'	S 1°25.2'	357°57.6'	S 1°01.5'	358°02.0'	S 0°37.7'
13	12°40.8'	S 2°35.3'	12°44.9'	S 2°11.6'	12°49.2'	S 1°47.9'	12°53.5'	S 1°24.2'	12°57.8'	S 1°00.5'	13°02.2'	S 0°36.8'
14	27°40.9'	S 2°34.3'	27°45.1'	S 2°10.6'	27°49.4'	S 1°46.9'	27°53.6'	S 1°23.2'	27°58.0'	S 0°59.5'	28°02.3'	S 0°35.8'
15	42°41.1'	S 2°33.3'	42°45.3'	S 2°09.7'	42°49.5'	S 1°46.0'	42°53.8'	S 1°22.2'	42°58.1'	S 0°58.5'	43°02.5'	S 0°34.8'
16	57°41.3'	S 2°32.4'	57°45.5'	S 2°08.7'	57°49.7'	S 1°45.0'	57°54.0'	S 1°21.2'	57°58.3'	S 0°57.5'	58°02.7'	S 0°33.8'
17	72°41.5'	S 2°31.4'	72°45.6'	S 2°07.7'	72°49.9'	S 1°44.0'	72°54.2'	S 1°20.3'	72°58.5'	S 0°56.5'	73°02.9'	S 0°32.8'
18	87°41.6'	S 2°30.4'	87°45.8'	S 2°06.7'	87°50.1'	S 1°43.0'	87°54.4'	S 1°19.3'	87°58.7'	S 0°55.5'	88°03.1'	S 0°31.8'
19	102°41.8'	S 2°29.4'	102°46.0'	S 2°05.7'	102°50.2'	S 1°42.0'	102°54.5'	S 1°18.3'	102°58.9'	S 0°54.6'	103°03.3'	S 0°30.8'
20	117°42.0'	S 2°28.4'	117°46.2'	S 2°04.7'	117°50.4'	S 1°41.0'	117°54.7'	S 1°17.3'	117°59.1'	S 0°53.6'	118°03.4'	S 0°29.8'
21	132°42.2'	S 2°27.4'	132°46.3'	S 2°03.7'	132°50.6'	S 1°40.0'	132°54.9'	S 1°16.3'	132°59.2'	S 0°52.6'	133°03.6'	S 0°28.8'
22	147°42.3'	S 2°26.4'	147°46.5'	S 2°02.7'	147°50.8'	S 1°39.0'	147°55.1'	S 1°15.3'	147°59.4'	S 0°51.6'	148°03.8'	S 0°27.9'
23	162°42.5'	S 2°25.5'	162°46.7'	S 2°01.8'	162°51.0'	S 1°38.0'	162°55.3'	S 1°14.3'	162°59.6'	S 0°50.6'	163°04.0'	S 0°26.9'
Zeitgl. 0h / 12h	-09:26 / -09:18		-09:09 / -09:01		-08:52 / -08:44		-08:35 / -08:27		-08:18 / -08:10		-08:01 / -07:52	
Kulmination UT	12:09:18		12:09:01		12:08:44		12:08:27		12:08:10		12:07:52	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	So 19.03.		Mo 20.03.		Di 21.03.		Mi 22.03.		Do 23.03.		Fr 24.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°04.2'	S 0°25.9'	178°08.6'	S 0°02.2'	178°13.1'	N 0°21.5'	178°17.5'	N 0°45.2'	178°22.0'	N 1°08.9'	178°26.5'	N 1°32.5'
01	193°04.4'	S 0°24.9'	193°08.8'	S 0°01.2'	193°13.2'	N 0°22.5'	193°17.7'	N 0°46.2'	193°22.2'	N 1°09.9'	193°26.7'	N 1°33.5'
02	208°04.5'	S 0°23.9'	208°09.0'	S 0°00.2'	208°13.4'	N 0°23.5'	208°17.9'	N 0°47.2'	208°22.4'	N 1°10.9'	208°26.9'	N 1°34.5'
03	223°04.7'	S 0°22.9'	223°09.2'	N 0°00.8'	223°13.6'	N 0°24.5'	223°18.1'	N 0°48.2'	223°22.6'	N 1°11.9'	223°27.1'	N 1°35.5'
04	238°04.9'	S 0°21.9'	238°09.3'	N 0°01.8'	238°13.8'	N 0°25.5'	238°18.3'	N 0°49.2'	238°22.8'	N 1°12.8'	238°27.3'	N 1°36.5'
05	253°05.1'	S 0°20.9'	253°09.5'	N 0°02.8'	253°14.0'	N 0°26.5'	253°18.5'	N 0°50.2'	253°23.0'	N 1°13.8'	253°27.5'	N 1°37.5'
06	268°05.3'	S 0°20.0'	268°09.7'	N 0°03.8'	268°14.2'	N 0°27.5'	268°18.7'	N 0°51.2'	268°23.2'	N 1°14.8'	268°27.7'	N 1°38.4'
07	283°05.5'	S 0°19.0'	283°09.9'	N 0°04.8'	283°14.4'	N 0°28.5'	283°18.8'	N 0°52.1'	283°23.3'	N 1°15.8'	283°27.9'	N 1°39.4'
08	298°05.6'	S 0°18.0'	298°10.1'	N 0°05.7'	298°14.5'	N 0°29.4'	298°19.0'	N 0°53.1'	298°23.5'	N 1°16.8'	298°28.0'	N 1°40.4'
09	313°05.8'	S 0°17.0'	313°10.3'	N 0°06.7'	313°14.7'	N 0°30.4'	313°19.2'	N 0°54.1'	313°23.7'	N 1°17.8'	313°28.2'	N 1°41.4'
10	328°06.0'	S 0°16.0'	328°10.5'	N 0°07.7'	328°14.9'	N 0°31.4'	328°19.4'	N 0°55.1'	328°23.9'	N 1°18.8'	328°28.4'	N 1°42.4'
11	343°06.2'	S 0°15.0'	343°10.6'	N 0°08.7'	343°15.1'	N 0°32.4'	343°19.6'	N 0°56.1'	343°24.1'	N 1°19.7'	343°28.6'	N 1°43.4'
12	358°06.4'	S 0°14.0'	358°10.8'	N 0°09.7'	358°15.3'	N 0°33.4'	358°19.8'	N 0°57.1'	358°24.3'	N 1°20.7'	358°28.8'	N 1°44.3'
13	13°06.6'	S 0°13.0'	13°11.0'	N 0°10.7'	13°15.5'	N 0°34.4'	13°20.0'	N 0°58.1'	13°24.5'	N 1°21.7'	13°29.0'	N 1°45.3'
14	28°06.8'	S 0°12.0'	28°11.2'	N 0°11.7'	28°15.7'	N 0°35.4'	28°20.2'	N 0°59.0'	28°24.7'	N 1°22.7'	28°29.2'	N 1°46.3'
15	43°06.9'	S 0°11.1'	43°11.4'	N 0°12.7'	43°15.8'	N 0°36.4'	43°20.3'	N 1°00.0'	43°24.8'	N 1°23.7'	43°29.4'	N 1°47.3'
16	58°07.1'	S 0°10.1'	58°11.6'	N 0°13.6'	58°16.0'	N 0°37.3'	58°20.5'	N 1°01.0'	58°25.0'	N 1°24.7'	58°29.6'	N 1°48.3'
17	73°07.3'	S 0°09.1'	73°11.8'	N 0°14.6'	73°16.2'	N 0°38.3'	73°20.7'	N 1°02.0'	73°25.2'	N 1°25.6'	73°29.7'	N 1°49.3'
18	88°07.5'	S 0°08.1'	88°11.9'	N 0°15.6'	88°16.4'	N 0°39.3'	88°20.9'	N 1°03.0'	88°25.4'	N 1°26.6'	88°29.9'	N 1°50.2'
19	103°07.7'	S 0°07.1'	103°12.1'	N 0°16.6'	103°16.6'	N 0°40.3'	103°21.1'	N 1°04.0'	103°25.6'	N 1°27.6'	103°30.1'	N 1°51.2'
20	118°07.9'	S 0°06.1'	118°12.3'	N 0°17.6'	118°16.8'	N 0°41.3'	118°21.3'	N 1°05.0'	118°25.8'	N 1°28.6'	118°30.3'	N 1°52.2'
21	133°08.0'	S 0°05.1'	133°12.5'	N 0°18.6'	133°17.0'	N 0°42.3'	133°21.5'	N 1°05.9'	133°26.0'	N 1°29.6'	133°30.5'	N 1°53.2'
22	148°08.2'	S 0°04.1'	148°12.7'	N 0°19.6'	148°17.2'	N 0°43.3'	148°21.7'	N 1°06.9'	148°26.2'	N 1°30.6'	148°30.7'	N 1°54.2'
23	163°08.4'	S 0°03.1'	163°12.9'	N 0°20.6'	163°17.3'	N 0°44.3'	163°21.8'	N 1°07.9'	163°26.4'	N 1°31.6'	163°30.9'	N 1°55.2'
Zeitgl. 0h / 12h	-07:43 / -07:34		-07:26 / -07:17		-07:08 / -06:59		-06:50 / -06:41		-06:32 / -06:23		-06:14 / -06:05	
Kulmination UT	12:07:34		12:07:17		12:06:59		12:06:41		12:06:23		12:06:05	
Halbmesser	16.1'		16.1'		16.1'		16.0'		16.0'		16.0'	

	Sa 25.03.		So 26.03.		Mo 27.03.		Di 28.03.		Mi 29.03.		Do 30.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°31.1'	N 1°56.1'	178°35.6'	N 2°19.7'	178°40.1'	N 2°43.2'	178°44.6'	N 3°06.6'	178°49.1'	N 3°30.0'	178°53.6'	N 3°53.4'
01	193°31.2'	N 1°57.1'	193°35.8'	N 2°20.7'	193°40.3'	N 2°44.2'	193°44.8'	N 3°07.6'	193°49.3'	N 3°31.0'	193°53.8'	N 3°54.3'
02	208°31.4'	N 1°58.1'	208°36.0'	N 2°21.6'	208°40.5'	N 2°45.1'	208°45.0'	N 3°08.6'	208°49.5'	N 3°32.0'	208°54.0'	N 3°55.3'
03	223°31.6'	N 1°59.1'	223°36.2'	N 2°22.6'	223°40.7'	N 2°46.1'	223°45.2'	N 3°09.6'	223°49.7'	N 3°33.0'	223°54.2'	N 3°56.3'
04	238°31.8'	N 2°00.1'	238°36.3'	N 2°23.6'	238°40.9'	N 2°47.1'	238°45.4'	N 3°10.5'	238°49.9'	N 3°33.9'	238°54.4'	N 3°57.2'
05	253°32.0'	N 2°01.0'	253°36.5'	N 2°24.6'	253°41.1'	N 2°48.1'	253°45.6'	N 3°11.5'	253°50.1'	N 3°34.9'	253°54.6'	N 3°58.2'
06	268°32.2'	N 2°02.0'	268°36.7'	N 2°25.6'	268°41.2'	N 2°49.1'	268°45.8'	N 3°12.5'	268°50.3'	N 3°35.9'	268°54.7'	N 3°59.2'
07	283°32.4'	N 2°03.0'	283°36.9'	N 2°26.5'	283°41.4'	N 2°50.0'	283°45.9'	N 3°13.5'	283°50.4'	N 3°36.8'	283°54.9'	N 4°00.1'
08	298°32.6'	N 2°04.0'	298°37.1'	N 2°27.5'	298°41.6'	N 2°51.0'	298°46.1'	N 3°14.4'	298°50.6'	N 3°37.8'	298°55.1'	N 4°01.1'
09	313°32.8'	N 2°05.0'	313°37.3'	N 2°28.5'	313°41.8'	N 2°52.0'	313°46.3'	N 3°15.4'	313°50.8'	N 3°38.8'	313°55.3'	N 4°02.1'
10	328°32.9'	N 2°06.0'	328°37.5'	N 2°29.5'	328°42.0'	N 2°53.0'	328°46.5'	N 3°16.4'	328°51.0'	N 3°39.8'	328°55.5'	N 4°03.1'
11	343°33.1'	N 2°06.9'	343°37.7'	N 2°30.5'	343°42.2'	N 2°53.9'	343°46.7'	N 3°17.4'	343°51.2'	N 3°40.7'	343°55.7'	N 4°04.0'
12	358°33.3'	N 2°07.9'	358°37.8'	N 2°31.4'	358°42.4'	N 2°54.9'	358°46.9'	N 3°18.3'	358°51.4'	N 3°41.7'	358°55.9'	N 4°05.0'
13	13°33.5'	N 2°08.9'	13°38.0'	N 2°32.4'	13°42.6'	N 2°55.9'	13°47.1'	N 3°19.3'	13°51.6'	N 3°42.7'	13°56.1'	N 4°06.0'
14	28°33.7'	N 2°09.9'	28°38.2'	N 2°33.4'	28°42.7'	N 2°56.9'	28°47.3'	N 3°20.3'	28°51.8'	N 3°43.6'	28°56.2'	N 4°06.9'
15	43°33.9'	N 2°10.9'	43°38.4'	N 2°34.4'	43°42.9'	N 2°57.9'	43°47.4'	N 3°21.3'	43°51.9'	N 3°44.6'	43°56.4'	N 4°07.9'
16	58°34.1'	N 2°11.8'	58°38.6'	N 2°35.4'	58°43.1'	N 2°58.8'	58°47.6'	N 3°22.2'	58°52.1'	N 3°45.6'	58°56.6'	N 4°08.9'
17	73°34.3'	N 2°12.8'	73°38.8'	N 2°36.3'	73°43.3'	N 2°59.8'	73°47.8'	N 3°23.2'	73°52.3'	N 3°46.6'	73°56.8'	N 4°09.8'
18	88°34.5'	N 2°13.8'	88°39.0'	N 2°37.3'	88°43.5'	N 3°00.8'	88°48.0'	N 3°24.2'	88°52.5'	N 3°47.5'	88°57.0'	N 4°10.8'
19	103°34.6'	N 2°14.8'	103°39.2'	N 2°38.3'	103°43.7'	N 3°01.8'	103°48.2'	N 3°25.2'	103°52.7'	N 3°48.5'	103°57.2'	N 4°11.8'
20	118°34.8'	N 2°15.8'	118°39.4'	N 2°39.3'	118°43.9'	N 3°02.7'	118°48.4'	N 3°26.1'	118°52.9'	N 3°49.5'	118°57.4'	N 4°12.7'
21	133°35.0'	N 2°16.7'	133°39.5'	N 2°40.3'	133°44.1'	N 3°03.7'	133°48.6'	N 3°27.1'	133°53.1'	N 3°50.4'	133°57.5'	N 4°13.7'
22	148°35.2'	N 2°17.7'	148°39.7'	N 2°41.2'	148°44.3'	N 3°04.7'	148°48.8'	N 3°28.1'	148°53.3'	N 3°51.4'	148°57.7'	N 4°14.7'
23	163°35.4'	N 2°18.7'	163°39.9'	N 2°42.2'	163°44.4'	N 3°05.7'	163°48.9'	N 3°29.1'	163°53.4'	N 3°52.4'	163°57.9'	N 4°15.6'
Zeitgl. 0h / 12h	-05:56 / -05:47		-05:38 / -05:29		-05:20 / -05:11		-05:01 / -04:52		-04:43 / -04:34		-04:25 / -04:17	
Kulmination UT	12:05:47		12:05:29		12:05:11		12:04:52		12:04:34		12:04:17	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

Fr 31.03.

UT	Grt	Dec
00	178°58.1'	N 4°16.6'
01	193°58.3'	N 4°17.6'
02	208°58.5'	N 4°18.5'
03	223°58.7'	N 4°19.5'
04	238°58.8'	N 4°20.5'
05	253°59.0'	N 4°21.4'
06	268°59.2'	N 4°22.4'
07	283°59.4'	N 4°23.4'
08	298°59.6'	N 4°24.3'
09	313°59.8'	N 4°25.3'
10	329°00.0'	N 4°26.3'
11	344°00.1'	N 4°27.2'
12	359°00.3'	N 4°28.2'
13	14°00.5'	N 4°29.2'
14	29°00.7'	N 4°30.1'
15	44°00.9'	N 4°31.1'
16	59°01.1'	N 4°32.1'
17	74°01.3'	N 4°33.0'
18	89°01.4'	N 4°34.0'
19	104°01.6'	N 4°35.0'
20	119°01.8'	N 4°35.9'
21	134°02.0'	N 4°36.9'
22	149°02.2'	N 4°37.9'
23	164°02.4'	N 4°38.8'

Zeitgl. 0h / 12h -04:08 / -03:59

Kulmination UT 12:03:59

Halbmesser 16.0'

2028

April

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Sa 01.04.		So 02.04.		Mo 03.04.		Di 04.04.		Mi 05.04.		Do 06.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°02.6'	N 4°39.8'	179°07.0'	N 5°02.9'	179°11.4'	N 5°25.9'	179°15.7'	N 5°48.8'	179°20.0'	N 6°11.6'	179°24.3'	N 6°34.3'
01	194°02.7'	N 4°40.7'	194°07.2'	N 5°03.8'	194°11.5'	N 5°26.8'	194°15.9'	N 5°49.7'	194°20.2'	N 6°12.5'	194°24.4'	N 6°35.2'
02	209°02.9'	N 4°41.7'	209°07.3'	N 5°04.8'	209°11.7'	N 5°27.8'	209°16.1'	N 5°50.7'	209°20.4'	N 6°13.5'	209°24.6'	N 6°36.2'
03	224°03.1'	N 4°42.7'	224°07.5'	N 5°05.8'	224°11.9'	N 5°28.7'	224°16.2'	N 5°51.6'	224°20.5'	N 6°14.4'	224°24.8'	N 6°37.1'
04	239°03.3'	N 4°43.6'	239°07.7'	N 5°06.7'	239°12.1'	N 5°29.7'	239°16.4'	N 5°52.6'	239°20.7'	N 6°15.4'	239°25.0'	N 6°38.1'
05	254°03.5'	N 4°44.6'	254°07.9'	N 5°07.7'	254°12.3'	N 5°30.7'	254°16.6'	N 5°53.5'	254°20.9'	N 6°16.3'	254°25.1'	N 6°39.0'
06	269°03.7'	N 4°45.6'	269°08.1'	N 5°08.6'	269°12.4'	N 5°31.6'	269°16.8'	N 5°54.5'	269°21.1'	N 6°17.3'	269°25.3'	N 6°39.9'
07	284°03.8'	N 4°46.5'	284°08.3'	N 5°09.6'	284°12.6'	N 5°32.6'	284°17.0'	N 5°55.4'	284°21.2'	N 6°18.2'	284°25.5'	N 6°40.9'
08	299°04.0'	N 4°47.5'	299°08.4'	N 5°10.6'	299°12.8'	N 5°33.5'	299°17.1'	N 5°56.4'	299°21.4'	N 6°19.2'	299°25.7'	N 6°41.8'
09	314°04.2'	N 4°48.5'	314°08.6'	N 5°11.5'	314°13.0'	N 5°34.5'	314°17.3'	N 5°57.3'	314°21.6'	N 6°20.1'	314°25.8'	N 6°42.8'
10	329°04.4'	N 4°49.4'	329°08.8'	N 5°12.5'	329°13.2'	N 5°35.4'	329°17.5'	N 5°58.3'	329°21.8'	N 6°21.1'	329°26.0'	N 6°43.7'
11	344°04.6'	N 4°50.4'	344°09.0'	N 5°13.4'	344°13.4'	N 5°36.4'	344°17.7'	N 5°59.2'	344°22.0'	N 6°22.0'	344°26.2'	N 6°44.6'
12	359°04.8'	N 4°51.3'	359°09.2'	N 5°14.4'	359°13.5'	N 5°37.3'	359°17.9'	N 6°00.2'	359°22.1'	N 6°22.9'	359°26.4'	N 6°45.6'
13	14°04.9'	N 4°52.3'	14°09.3'	N 5°15.3'	14°13.7'	N 5°38.3'	14°18.0'	N 6°01.1'	14°22.3'	N 6°23.9'	14°26.5'	N 6°46.5'
14	29°05.1'	N 4°53.3'	29°09.5'	N 5°16.3'	29°13.9'	N 5°39.2'	29°18.2'	N 6°02.1'	29°22.5'	N 6°24.8'	29°26.7'	N 6°47.5'
15	44°05.3'	N 4°54.2'	44°09.7'	N 5°17.3'	44°14.1'	N 5°40.2'	44°18.4'	N 6°03.0'	44°22.7'	N 6°25.8'	44°26.9'	N 6°48.4'
16	59°05.5'	N 4°55.2'	59°09.9'	N 5°18.2'	59°14.3'	N 5°41.2'	59°18.6'	N 6°04.0'	59°22.8'	N 6°26.7'	59°27.1'	N 6°49.4'
17	74°05.7'	N 4°56.1'	74°10.1'	N 5°19.2'	74°14.4'	N 5°42.1'	74°18.8'	N 6°04.9'	74°23.0'	N 6°27.7'	74°27.2'	N 6°50.3'
18	89°05.9'	N 4°57.1'	89°10.3'	N 5°20.1'	89°14.6'	N 5°43.1'	89°18.9'	N 6°05.9'	89°23.2'	N 6°28.6'	89°27.4'	N 6°51.2'
19	104°06.1'	N 4°58.1'	104°10.4'	N 5°21.1'	104°14.8'	N 5°44.0'	104°19.1'	N 6°06.8'	104°23.4'	N 6°29.6'	104°27.6'	N 6°52.2'
20	119°06.2'	N 4°59.0'	119°10.6'	N 5°22.0'	119°15.0'	N 5°45.0'	119°19.3'	N 6°07.8'	119°23.6'	N 6°30.5'	119°27.8'	N 6°53.1'
21	134°06.4'	N 5°00.0'	134°10.8'	N 5°23.0'	134°15.2'	N 5°45.9'	134°19.5'	N 6°08.7'	134°23.7'	N 6°31.5'	134°27.9'	N 6°54.1'
22	149°06.6'	N 5°01.0'	149°11.0'	N 5°24.0'	149°15.3'	N 5°46.9'	149°19.6'	N 6°09.7'	149°23.9'	N 6°32.4'	149°28.1'	N 6°55.0'
23	164°06.8'	N 5°01.9'	164°11.2'	N 5°24.9'	164°15.5'	N 5°47.8'	164°19.8'	N 6°10.6'	164°24.1'	N 6°33.3'	164°28.3'	N 6°55.9'
Zeitgl. 0h / 12h	-03:50 / -03:41		-03:32 / -03:23		-03:15 / -03:06		-02:57 / -02:49		-02:40 / -02:31		-02:23 / -02:15	
Kulmination UT	12:03:41		12:03:23		12:03:06		12:02:49		12:02:31		12:02:15	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

	Fr 07.04.		Sa 08.04.		So 09.04.		Mo 10.04.		Di 11.04.		Mi 12.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°28.5'	N 6°56.9'	179°32.6'	N 7°19.3'	179°36.7'	N 7°41.7'	179°40.7'	N 8°03.9'	179°44.7'	N 8°26.0'	179°48.5'	N 8°47.9'
01	194°28.6'	N 6°57.8'	194°32.8'	N 7°20.3'	194°36.9'	N 7°42.6'	194°40.9'	N 8°04.8'	194°44.8'	N 8°26.9'	194°48.7'	N 8°48.8'
02	209°28.8'	N 6°58.7'	209°32.9'	N 7°21.2'	209°37.0'	N 7°43.5'	209°41.0'	N 8°05.7'	209°45.0'	N 8°27.8'	209°48.9'	N 8°49.7'
03	224°29.0'	N 6°59.7'	224°33.1'	N 7°22.1'	224°37.2'	N 7°44.5'	224°41.2'	N 8°06.7'	224°45.1'	N 8°28.7'	224°49.0'	N 8°50.6'
04	239°29.2'	N 7°00.6'	239°33.3'	N 7°23.1'	239°37.4'	N 7°45.4'	239°41.4'	N 8°07.6'	239°45.3'	N 8°29.6'	239°49.2'	N 8°51.5'
05	254°29.3'	N 7°01.6'	254°33.5'	N 7°24.0'	254°37.5'	N 7°46.3'	254°41.5'	N 8°08.5'	254°45.5'	N 8°30.5'	254°49.3'	N 8°52.5'
06	269°29.5'	N 7°02.5'	269°33.6'	N 7°24.9'	269°37.7'	N 7°47.2'	269°41.7'	N 8°09.4'	269°45.6'	N 8°31.5'	269°49.5'	N 8°53.4'
07	284°29.7'	N 7°03.4'	284°33.8'	N 7°25.9'	284°37.9'	N 7°48.2'	284°41.9'	N 8°10.3'	284°45.8'	N 8°32.4'	284°49.7'	N 8°54.3'
08	299°29.8'	N 7°04.4'	299°34.0'	N 7°26.8'	299°38.0'	N 7°49.1'	299°42.0'	N 8°11.3'	299°46.0'	N 8°33.3'	299°49.8'	N 8°55.2'
09	314°30.0'	N 7°05.3'	314°34.1'	N 7°27.7'	314°38.2'	N 7°50.0'	314°42.2'	N 8°12.2'	314°46.1'	N 8°34.2'	314°50.0'	N 8°56.1'
10	329°30.2'	N 7°06.2'	329°34.3'	N 7°28.7'	329°38.4'	N 7°50.9'	329°42.4'	N 8°13.1'	329°46.3'	N 8°35.1'	329°50.1'	N 8°57.0'
11	344°30.4'	N 7°07.2'	344°34.5'	N 7°29.6'	344°38.5'	N 7°51.9'	344°42.5'	N 8°14.0'	344°46.4'	N 8°36.0'	344°50.3'	N 8°57.9'
12	359°30.5'	N 7°08.1'	359°34.7'	N 7°30.5'	359°38.7'	N 7°52.8'	359°42.7'	N 8°14.9'	359°46.6'	N 8°37.0'	359°50.4'	N 8°58.8'
13	14°30.7'	N 7°09.1'	14°34.8'	N 7°31.5'	14°38.9'	N 7°53.7'	14°42.9'	N 8°15.9'	14°46.8'	N 8°37.9'	14°50.6'	N 8°59.7'
14	29°30.9'	N 7°10.0'	29°35.0'	N 7°32.4'	29°39.0'	N 7°54.6'	29°43.0'	N 8°16.8'	29°46.9'	N 8°38.8'	29°50.8'	N 9°00.6'
15	44°31.1'	N 7°10.9'	44°35.2'	N 7°33.3'	44°39.2'	N 7°55.6'	44°43.2'	N 8°17.7'	44°47.1'	N 8°39.7'	44°50.9'	N 9°01.5'
16	59°31.2'	N 7°11.9'	59°35.3'	N 7°34.2'	59°39.4'	N 7°56.5'	59°43.4'	N 8°18.6'	59°47.3'	N 8°40.6'	59°51.1'	N 9°02.4'
17	74°31.4'	N 7°12.8'	74°35.5'	N 7°35.2'	74°39.5'	N 7°57.4'	74°43.5'	N 8°19.5'	74°47.4'	N 8°41.5'	74°51.2'	N 9°03.4'
18	89°31.6'	N 7°13.7'	89°35.7'	N 7°36.1'	89°39.7'	N 7°58.3'	89°43.7'	N 8°20.5'	89°47.6'	N 8°42.4'	89°51.4'	N 9°04.3'
19	104°31.7'	N 7°14.7'	104°35.8'	N 7°37.0'	104°39.9'	N 7°59.3'	104°43.8'	N 8°21.4'	104°47.7'	N 8°43.3'	104°51.6'	N 9°05.2'
20	119°31.9'	N 7°15.6'	119°36.0'	N 7°38.0'	119°40.0'	N 8°00.2'	119°44.0'	N 8°22.3'	119°47.9'	N 8°44.3'	119°51.7'	N 9°06.1'
21	134°32.1'	N 7°16.5'	134°36.2'	N 7°38.9'	134°40.2'	N 8°01.1'	134°44.2'	N 8°23.2'	134°48.1'	N 8°45.2'	134°51.9'	N 9°07.0'
22	149°32.3'	N 7°17.5'	149°36.4'	N 7°39.8'	149°40.4'	N 8°02.0'	149°44.3'	N 8°24.1'	149°48.2'	N 8°46.1'	149°52.0'	N 9°07.9'
23	164°32.4'	N 7°18.4'	164°36.5'	N 7°40.7'	164°40.5'	N 8°03.0'	164°44.5'	N 8°25.0'	164°48.4'	N 8°47.0'	164°52.2'	N 9°08.8'
Zeitgl. 0h / 12h	-02:06 / -01:58		-01:50 / -01:41		-01:33 / -01:25		-01:17 / -01:09		-01:01 / -00:54		-00:46 / -00:38	
Kulmination UT	12:01:58		12:01:41		12:01:25		12:01:09		12:00:54		12:00:38	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

	Do 13.04.		Fr 14.04.		Sa 15.04.		So 16.04.		Mo 17.04.		Di 18.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°52.3'	N 9°09.7'	179°56.1'	N 9°31.3'	179°59.7'	N 9°52.8'	180°03.2'	N 10°14.1'	180°06.7'	N 10°35.3'	180°10.0'	N 10°56.2'
01	194°52.5'	N 9°10.6'	194°56.2'	N 9°32.2'	194°59.8'	N 9°53.7'	195°03.4'	N 10°15.0'	195°06.8'	N 10°36.1'	195°10.2'	N 10°57.1'
02	209°52.6'	N 9°11.5'	209°56.4'	N 9°33.1'	210°00.0'	N 9°54.6'	210°03.5'	N 10°15.9'	210°07.0'	N 10°37.0'	210°10.3'	N 10°58.0'
03	224°52.8'	N 9°12.4'	224°56.5'	N 9°34.0'	225°00.1'	N 9°55.5'	225°03.7'	N 10°16.8'	225°07.1'	N 10°37.9'	225°10.4'	N 10°58.8'
04	239°53.0'	N 9°13.3'	239°56.7'	N 9°34.9'	240°00.3'	N 9°56.4'	240°03.8'	N 10°17.7'	240°07.2'	N 10°38.8'	240°10.6'	N 10°59.7'
05	254°53.1'	N 9°14.2'	254°56.8'	N 9°35.8'	255°00.4'	N 9°57.3'	255°04.0'	N 10°18.5'	255°07.4'	N 10°39.7'	255°10.7'	N 11°00.6'
06	269°53.3'	N 9°15.1'	269°57.0'	N 9°36.7'	270°00.6'	N 9°58.2'	270°04.1'	N 10°19.4'	270°07.5'	N 10°40.5'	270°10.9'	N 11°01.5'
07	284°53.4'	N 9°16.0'	284°57.1'	N 9°37.6'	285°00.7'	N 9°59.0'	285°04.2'	N 10°20.3'	285°07.7'	N 10°41.4'	285°11.0'	N 11°02.3'
08	299°53.6'	N 9°16.9'	299°57.3'	N 9°38.5'	300°00.9'	N 9°59.9'	300°04.4'	N 10°21.2'	300°07.8'	N 10°42.3'	300°11.1'	N 11°03.2'
09	314°53.7'	N 9°17.8'	314°57.4'	N 9°39.4'	315°01.0'	N 10°00.8'	315°04.5'	N 10°22.1'	315°07.9'	N 10°43.2'	315°11.3'	N 11°04.1'
10	329°53.9'	N 9°18.7'	329°57.6'	N 9°40.3'	330°01.2'	N 10°01.7'	330°04.7'	N 10°23.0'	330°08.1'	N 10°44.0'	330°11.4'	N 11°04.9'
11	344°54.1'	N 9°19.6'	344°57.7'	N 9°41.2'	345°01.3'	N 10°02.6'	345°04.8'	N 10°23.8'	345°08.2'	N 10°44.9'	345°11.5'	N 11°05.8'
12	359°54.2'	N 9°20.5'	359°57.9'	N 9°42.1'	0°01.5'	N 10°03.5'	0°05.0'	N 10°24.7'	0°08.4'	N 10°45.8'	0°11.7'	N 11°06.7'
13	14°54.4'	N 9°21.4'	14°58.0'	N 9°43.0'	15°01.6'	N 10°04.4'	15°05.1'	N 10°25.6'	15°08.5'	N 10°46.6'	15°11.8'	N 11°07.5'
14	29°54.5'	N 9°22.3'	29°58.2'	N 9°43.9'	30°01.8'	N 10°05.3'	30°05.3'	N 10°26.5'	30°08.6'	N 10°47.5'	30°11.9'	N 11°08.4'
15	44°54.7'	N 9°23.2'	44°58.3'	N 9°44.8'	45°01.9'	N 10°06.1'	45°05.4'	N 10°27.4'	45°08.8'	N 10°48.4'	45°12.1'	N 11°09.3'
16	59°54.8'	N 9°24.1'	59°58.5'	N 9°45.7'	60°02.1'	N 10°07.0'	60°05.5'	N 10°28.2'	60°08.9'	N 10°49.3'	60°12.2'	N 11°10.1'
17	74°55.0'	N 9°25.0'	74°58.6'	N 9°46.6'	75°02.2'	N 10°07.9'	75°05.7'	N 10°29.1'	75°09.1'	N 10°50.1'	75°12.4'	N 11°11.0'
18	89°55.1'	N 9°25.9'	89°58.8'	N 9°47.5'	90°02.4'	N 10°08.8'	90°05.8'	N 10°30.0'	90°09.2'	N 10°51.0'	90°12.5'	N 11°11.8'
19	104°55.3'	N 9°26.8'	104°58.9'	N 9°48.3'	105°02.5'	N 10°09.7'	105°06.0'	N 10°30.9'	105°09.3'	N 10°51.9'	105°12.6'	N 11°12.7'
20	119°55.4'	N 9°27.7'	119°59.1'	N 9°49.2'	120°02.6'	N 10°10.6'	120°06.1'	N 10°31.8'	120°09.5'	N 10°52.8'	120°12.8'	N 11°13.6'
21	134°55.6'	N 9°28.6'	134°59.2'	N 9°50.1'	135°02.8'	N 10°11.5'	135°06.3'	N 10°32.6'	135°09.6'	N 10°53.6'	135°12.9'	N 11°14.4'
22	149°55.7'	N 9°29.5'	149°59.4'	N 9°51.0'	150°02.9'	N 10°12.4'	150°06.4'	N 10°33.5'	150°09.8'	N 10°54.5'	150°13.0'	N 11°15.3'
23	164°55.9'	N 9°30.4'	164°59.5'	N 9°51.9'	165°03.1'	N 10°13.2'	165°06.5'	N 10°34.4'	165°09.9'	N 10°55.4'	165°13.2'	N 11°16.2'
Zeitgl. 0h / 12h	-00:31 / -00:23		-00:16 / -00:08		-00:01 / +00:06		+00:13 / +00:20		+00:27 / +00:33		+00:40 / +00:47	
Kulmination UT	12:00:23		12:00:08		11:59:54		11:59:40		11:59:27		11:59:13	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Mi 19.04.		Do 20.04.		Fr 21.04.		Sa 22.04.		So 23.04.		Mo 24.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°13.3'	N 11°17.0'	180°16.4'	N 11°37.6'	180°19.5'	N 11°58.0'	180°22.4'	N 12°18.3'	180°25.2'	N 12°38.3'	180°27.9'	N 12°58.1'
01	195°13.4'	N 11°17.9'	195°16.6'	N 11°38.5'	195°19.6'	N 11°58.9'	195°22.5'	N 12°19.1'	195°25.4'	N 12°39.1'	195°28.1'	N 12°58.9'
02	210°13.6'	N 11°18.8'	210°16.7'	N 11°39.3'	210°19.7'	N 11°59.7'	210°22.7'	N 12°19.9'	210°25.5'	N 12°39.9'	210°28.2'	N 12°59.7'
03	225°13.7'	N 11°19.6'	225°16.8'	N 11°40.2'	225°19.9'	N 12°00.6'	225°22.8'	N 12°20.8'	225°25.6'	N 12°40.8'	225°28.3'	N 13°00.5'
04	240°13.8'	N 11°20.5'	240°17.0'	N 11°41.0'	240°20.0'	N 12°01.4'	240°22.9'	N 12°21.6'	240°25.7'	N 12°41.6'	240°28.4'	N 13°01.4'
05	255°14.0'	N 11°21.3'	255°17.1'	N 11°41.9'	255°20.1'	N 12°02.3'	255°23.0'	N 12°22.4'	255°25.8'	N 12°42.4'	255°28.5'	N 13°02.2'
06	270°14.1'	N 11°22.2'	270°17.2'	N 11°42.8'	270°20.2'	N 12°03.1'	270°23.1'	N 12°23.3'	270°25.9'	N 12°43.2'	270°28.6'	N 13°03.0'
07	285°14.2'	N 11°23.1'	285°17.3'	N 11°43.6'	285°20.4'	N 12°04.0'	285°23.3'	N 12°24.1'	285°26.0'	N 12°44.1'	285°28.7'	N 13°03.8'
08	300°14.4'	N 11°23.9'	300°17.5'	N 11°44.5'	300°20.5'	N 12°04.8'	300°23.4'	N 12°25.0'	300°26.2'	N 12°44.9'	300°28.8'	N 13°04.6'
09	315°14.5'	N 11°24.8'	315°17.6'	N 11°45.3'	315°20.6'	N 12°05.7'	315°23.5'	N 12°25.8'	315°26.3'	N 12°45.7'	315°28.9'	N 13°05.5'
10	330°14.6'	N 11°25.6'	330°17.7'	N 11°46.2'	330°20.7'	N 12°06.5'	330°23.6'	N 12°26.6'	330°26.4'	N 12°46.6'	330°29.0'	N 13°06.3'
11	345°14.7'	N 11°26.5'	345°17.8'	N 11°47.0'	345°20.8'	N 12°07.3'	345°23.7'	N 12°27.5'	345°26.5'	N 12°47.4'	345°29.2'	N 13°07.1'
12	0°14.9'	N 11°27.4'	0°18.0'	N 11°47.9'	0°21.0'	N 12°08.2'	0°23.8'	N 12°28.3'	0°26.6'	N 12°48.2'	0°29.3'	N 13°07.9'
13	15°15.0'	N 11°28.2'	15°18.1'	N 11°48.7'	15°21.1'	N 12°09.0'	15°24.0'	N 12°29.1'	15°26.7'	N 12°49.0'	15°29.4'	N 13°08.7'
14	30°15.1'	N 11°29.1'	30°18.2'	N 11°49.6'	30°21.2'	N 12°09.9'	30°24.1'	N 12°30.0'	30°26.8'	N 12°49.9'	30°29.5'	N 13°09.5'
15	45°15.3'	N 11°29.9'	45°18.4'	N 11°50.4'	45°21.3'	N 12°10.7'	45°24.2'	N 12°30.8'	45°26.9'	N 12°50.7'	45°29.6'	N 13°10.4'
16	60°15.4'	N 11°30.8'	60°18.5'	N 11°51.3'	60°21.5'	N 12°11.5'	60°24.3'	N 12°31.6'	60°27.1'	N 12°51.5'	60°29.7'	N 13°11.2'
17	75°15.5'	N 11°31.6'	75°18.6'	N 11°52.1'	75°21.6'	N 12°12.4'	75°24.4'	N 12°32.5'	75°27.2'	N 12°52.3'	75°29.8'	N 13°12.0'
18	90°15.7'	N 11°32.5'	90°18.7'	N 11°53.0'	90°21.7'	N 12°13.2'	90°24.5'	N 12°33.3'	90°27.3'	N 12°53.1'	90°29.9'	N 13°12.8'
19	105°15.8'	N 11°33.4'	105°18.9'	N 11°53.8'	105°21.8'	N 12°14.1'	105°24.7'	N 12°34.1'	105°27.4'	N 12°54.0'	105°30.0'	N 13°13.6'
20	120°15.9'	N 11°34.2'	120°19.0'	N 11°54.7'	120°21.9'	N 12°14.9'	120°24.8'	N 12°35.0'	120°27.5'	N 12°54.8'	120°30.1'	N 13°14.4'
21	135°16.1'	N 11°35.1'	135°19.1'	N 11°55.5'	135°22.1'	N 12°15.7'	135°24.9'	N 12°35.8'	135°27.6'	N 12°55.6'	135°30.2'	N 13°15.2'
22	150°16.2'	N 11°35.9'	150°19.2'	N 11°56.4'	150°22.2'	N 12°16.6'	150°25.0'	N 12°36.6'	150°27.7'	N 12°56.4'	150°30.3'	N 13°16.0'
23	165°16.3'	N 11°36.8'	165°19.4'	N 11°57.2'	165°22.3'	N 12°17.4'	165°25.1'	N 12°37.4'	165°27.8'	N 12°57.3'	165°30.4'	N 13°16.9'
Zeitgl. 0h / 12h	+00:53 / +01:00		+01:06 / +01:12		+01:18 / +01:24		+01:30 / +01:35		+01:41 / +01:46		+01:52 / +01:57	
Kulmination UT	11:59:00		11:58:48		11:58:36		11:58:25		11:58:14		11:58:03	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Di 25.04.		Mi 26.04.		Do 27.04.		Fr 28.04.		Sa 29.04.		So 30.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°30.5'	N 13°17.7'	180°33.0'	N 13°37.0'	180°35.3'	N 13°56.2'	180°37.6'	N 14°15.1'	180°39.7'	N 14°33.8'	180°41.6'	N 14°52.2'
01	195°30.6'	N 13°18.5'	195°33.1'	N 13°37.8'	195°35.4'	N 13°57.0'	195°37.7'	N 14°15.9'	195°39.7'	N 14°34.6'	195°41.7'	N 14°53.0'
02	210°30.7'	N 13°19.3'	210°33.2'	N 13°38.7'	210°35.5'	N 13°57.8'	210°37.7'	N 14°16.7'	210°39.8'	N 14°35.3'	210°41.8'	N 14°53.8'
03	225°30.9'	N 13°20.1'	225°33.3'	N 13°39.5'	225°35.6'	N 13°58.6'	225°37.8'	N 14°17.5'	225°39.9'	N 14°36.1'	225°41.9'	N 14°54.5'
04	240°31.0'	N 13°20.9'	240°33.4'	N 13°40.3'	240°35.7'	N 13°59.4'	240°37.9'	N 14°18.2'	240°40.0'	N 14°36.9'	240°41.9'	N 14°55.3'
05	255°31.1'	N 13°21.7'	255°33.5'	N 13°41.1'	255°35.8'	N 14°00.2'	255°38.0'	N 14°19.0'	255°40.1'	N 14°37.7'	255°42.0'	N 14°56.1'
06	270°31.2'	N 13°22.5'	270°33.6'	N 13°41.9'	270°35.9'	N 14°00.9'	270°38.1'	N 14°19.8'	270°40.2'	N 14°38.4'	270°42.1'	N 14°56.8'
07	285°31.3'	N 13°23.3'	285°33.7'	N 13°42.7'	285°36.0'	N 14°01.7'	285°38.2'	N 14°20.6'	285°40.2'	N 14°39.2'	285°42.2'	N 14°57.6'
08	300°31.4'	N 13°24.2'	300°33.8'	N 13°43.5'	300°36.1'	N 14°02.5'	300°38.3'	N 14°21.4'	300°40.3'	N 14°40.0'	300°42.2'	N 14°58.3'
09	315°31.5'	N 13°25.0'	315°33.9'	N 13°44.3'	315°36.2'	N 14°03.3'	315°38.4'	N 14°22.1'	315°40.4'	N 14°40.7'	315°42.3'	N 14°59.1'
10	330°31.6'	N 13°25.8'	330°34.0'	N 13°45.1'	330°36.3'	N 14°04.1'	330°38.5'	N 14°22.9'	330°40.5'	N 14°41.5'	330°42.4'	N 14°59.9'
11	345°31.7'	N 13°26.6'	345°34.1'	N 13°45.9'	345°36.4'	N 14°04.9'	345°38.5'	N 14°23.7'	345°40.6'	N 14°42.3'	345°42.5'	N 15°00.6'
12	0°31.8'	N 13°27.4'	0°34.2'	N 13°46.6'	0°36.5'	N 14°05.7'	0°38.6'	N 14°24.5'	0°40.7'	N 14°43.1'	0°42.5'	N 15°01.4'
13	15°31.9'	N 13°28.2'	15°34.3'	N 13°47.4'	15°36.6'	N 14°06.5'	15°38.7'	N 14°25.3'	15°40.7'	N 14°43.8'	15°42.6'	N 15°02.1'
14	30°32.0'	N 13°29.0'	30°34.4'	N 13°48.2'	30°36.7'	N 14°07.3'	30°38.8'	N 14°26.0'	30°40.8'	N 14°44.6'	30°42.7'	N 15°02.9'
15	45°32.1'	N 13°29.8'	45°34.5'	N 13°49.0'	45°36.8'	N 14°08.0'	45°38.9'	N 14°26.8'	45°40.9'	N 14°45.4'	45°42.8'	N 15°03.6'
16	60°32.2'	N 13°30.6'	60°34.6'	N 13°49.8'	60°36.8'	N 14°08.8'	60°39.0'	N 14°27.6'	60°41.0'	N 14°46.1'	60°42.8'	N 15°04.4'
17	75°32.3'	N 13°31.4'	75°34.7'	N 13°50.6'	75°36.9'	N 14°09.6'	75°39.1'	N 14°28.4'	75°41.1'	N 14°46.9'	75°42.9'	N 15°05.2'
18	90°32.4'	N 13°32.2'	90°34.8'	N 13°51.4'	90°37.0'	N 14°10.4'	90°39.1'	N 14°29.1'	90°41.1'	N 14°47.7'	90°43.0'	N 15°05.9'
19	105°32.5'	N 13°33.0'	105°34.9'	N 13°52.2'	105°37.1'	N 14°11.2'	105°39.2'	N 14°29.9'	105°41.2'	N 14°48.4'	105°43.1'	N 15°06.7'
20	120°32.6'	N 13°33.8'	120°35.0'	N 13°53.0'	120°37.2'	N 14°12.0'	120°39.3'	N 14°30.7'	120°41.3'	N 14°49.2'	120°43.1'	N 15°07.4'
21	135°32.7'	N 13°34.6'	135°35.1'	N 13°53.8'	135°37.3'	N 14°12.8'	135°39.4'	N 14°31.5'	135°41.4'	N 14°50.0'	135°43.2'	N 15°08.2'
22	150°32.8'	N 13°35.4'	150°35.2'	N 13°54.6'	150°37.4'	N 14°13.5'	150°39.5'	N 14°32.3'	150°41.5'	N 14°50.7'	150°43.3'	N 15°08.9'
23	165°32.9'	N 13°36.2'	165°35.3'	N 13°55.4'	165°37.5'	N 14°14.3'	165°39.6'	N 14°33.0'	165°41.5'	N 14°51.5'	165°43.4'	N 15°09.7'
Zeitgl. 0h / 12h	+02:02 / +02:07		+02:12 / +02:17		+02:21 / +02:26		+02:30 / +02:35		+02:39 / +02:43		+02:46 / +02:50	
Kulmination UT	11:57:53		11:57:43		11:57:34		11:57:25		11:57:17		11:57:10	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

2028

Mai

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Mo 01.05.		Di 02.05.		Mi 03.05.		Do 04.05.		Fr 05.05.		Sa 06.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°43.4'	N 15°10.4'	180°45.1'	N 15°28.4'	180°46.7'	N 15°46.1'	180°48.1'	N 16°03.5'	180°49.4'	N 16°20.7'	180°50.5'	N 16°37.6'
01	195°43.5'	N 15°11.2'	195°45.2'	N 15°29.1'	195°46.8'	N 15°46.8'	195°48.2'	N 16°04.2'	195°49.4'	N 16°21.4'	195°50.6'	N 16°38.3'
02	210°43.6'	N 15°11.9'	210°45.3'	N 15°29.9'	210°46.8'	N 15°47.5'	210°48.2'	N 16°04.9'	210°49.5'	N 16°22.1'	210°50.6'	N 16°39.0'
03	225°43.7'	N 15°12.7'	225°45.3'	N 15°30.6'	225°46.9'	N 15°48.3'	225°48.3'	N 16°05.7'	225°49.5'	N 16°22.8'	225°50.7'	N 16°39.7'
04	240°43.7'	N 15°13.4'	240°45.4'	N 15°31.4'	240°46.9'	N 15°49.0'	240°48.3'	N 16°06.4'	240°49.6'	N 16°23.5'	240°50.7'	N 16°40.3'
05	255°43.8'	N 15°14.2'	255°45.5'	N 15°32.1'	255°47.0'	N 15°49.7'	255°48.4'	N 16°07.1'	255°49.6'	N 16°24.2'	255°50.8'	N 16°41.0'
06	270°43.9'	N 15°15.0'	270°45.5'	N 15°32.8'	270°47.1'	N 15°50.5'	270°48.4'	N 16°07.8'	270°49.7'	N 16°24.9'	270°50.8'	N 16°41.7'
07	285°43.9'	N 15°15.7'	285°45.6'	N 15°33.6'	285°47.1'	N 15°51.2'	285°48.5'	N 16°08.5'	285°49.7'	N 16°25.6'	285°50.8'	N 16°42.4'
08	300°44.0'	N 15°16.5'	300°45.7'	N 15°34.3'	300°47.2'	N 15°51.9'	300°48.6'	N 16°09.3'	300°49.8'	N 16°26.3'	300°50.9'	N 16°43.1'
09	315°44.1'	N 15°17.2'	315°45.7'	N 15°35.1'	315°47.2'	N 15°52.6'	315°48.6'	N 16°10.0'	315°49.8'	N 16°27.0'	315°50.9'	N 16°43.8'
10	330°44.2'	N 15°17.9'	330°45.8'	N 15°35.8'	330°47.3'	N 15°53.4'	330°48.7'	N 16°10.7'	330°49.9'	N 16°27.7'	330°51.0'	N 16°44.5'
11	345°44.2'	N 15°18.7'	345°45.9'	N 15°36.5'	345°47.4'	N 15°54.1'	345°48.7'	N 16°11.4'	345°49.9'	N 16°28.4'	345°51.0'	N 16°45.2'
12	0°44.3'	N 15°19.4'	0°45.9'	N 15°37.3'	0°47.4'	N 15°54.8'	0°48.8'	N 16°12.1'	0°50.0'	N 16°29.1'	0°51.0'	N 16°45.9'
13	15°44.4'	N 15°20.2'	15°46.0'	N 15°38.0'	15°47.5'	N 15°55.6'	15°48.8'	N 16°12.8'	15°50.0'	N 16°29.9'	15°51.1'	N 16°46.6'
14	30°44.4'	N 15°20.9'	30°46.1'	N 15°38.7'	30°47.5'	N 15°56.3'	30°48.9'	N 16°13.6'	30°50.1'	N 16°30.6'	30°51.1'	N 16°47.3'
15	45°44.5'	N 15°21.7'	45°46.1'	N 15°39.5'	45°47.6'	N 15°57.0'	45°48.9'	N 16°14.3'	45°50.1'	N 16°31.3'	45°51.2'	N 16°48.0'
16	60°44.6'	N 15°22.4'	60°46.2'	N 15°40.2'	60°47.7'	N 15°57.7'	60°49.0'	N 16°15.0'	60°50.2'	N 16°32.0'	60°51.2'	N 16°48.7'
17	75°44.7'	N 15°23.2'	75°46.3'	N 15°40.9'	75°47.7'	N 15°58.5'	75°49.0'	N 16°15.7'	75°50.2'	N 16°32.7'	75°51.3'	N 16°49.4'
18	90°44.7'	N 15°23.9'	90°46.3'	N 15°41.7'	90°47.8'	N 15°59.2'	90°49.1'	N 16°16.4'	90°50.3'	N 16°33.4'	90°51.3'	N 16°50.0'
19	105°44.8'	N 15°24.7'	105°46.4'	N 15°42.4'	105°47.8'	N 15°59.9'	105°49.1'	N 16°17.1'	105°50.3'	N 16°34.1'	105°51.3'	N 16°50.7'
20	120°44.9'	N 15°25.4'	120°46.4'	N 15°43.1'	120°47.9'	N 16°00.6'	120°49.2'	N 16°17.8'	120°50.4'	N 16°34.8'	120°51.4'	N 16°51.4'
21	135°44.9'	N 15°26.2'	135°46.5'	N 15°43.9'	135°47.9'	N 16°01.3'	135°49.2'	N 16°18.5'	135°50.4'	N 16°35.5'	135°51.4'	N 16°52.1'
22	150°45.0'	N 15°26.9'	150°46.6'	N 15°44.6'	150°48.0'	N 16°02.1'	150°49.3'	N 16°19.3'	150°50.4'	N 16°36.2'	150°51.5'	N 16°52.8'
23	165°45.1'	N 15°27.6'	165°46.6'	N 15°45.3'	165°48.1'	N 16°02.8'	165°49.3'	N 16°20.0'	165°50.5'	N 16°36.9'	165°51.5'	N 16°53.5'
Zeitgl. 0h / 12h	+02:54 / +02:57		+03:01 / +03:04		+03:07 / +03:10		+03:12 / +03:15		+03:18 / +03:20		+03:22 / +03:24	
Kulmination UT	11:57:03		11:56:56		11:56:50		11:56:45		11:56:40		11:56:36	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	So 07.05.		Mo 08.05.		Di 09.05.		Mi 10.05.		Do 11.05.		Fr 12.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°51.5'	N 16°54.2'	180°52.4'	N 17°10.5'	180°53.1'	N 17°26.6'	180°53.7'	N 17°42.3'	180°54.1'	N 17°57.8'	180°54.4'	N 18°12.9'
01	195°51.6'	N 16°54.9'	195°52.4'	N 17°11.2'	195°53.1'	N 17°27.2'	195°53.7'	N 17°43.0'	195°54.1'	N 17°58.4'	195°54.4'	N 18°13.5'
02	210°51.6'	N 16°55.5'	210°52.5'	N 17°11.9'	210°53.2'	N 17°27.9'	210°53.7'	N 17°43.6'	210°54.1'	N 17°59.0'	210°54.4'	N 18°14.2'
03	225°51.6'	N 16°56.2'	225°52.5'	N 17°12.5'	225°53.2'	N 17°28.5'	225°53.7'	N 17°44.3'	225°54.2'	N 17°59.7'	225°54.4'	N 18°14.8'
04	240°51.7'	N 16°56.9'	240°52.5'	N 17°13.2'	240°53.2'	N 17°29.2'	240°53.8'	N 17°44.9'	240°54.2'	N 18°00.3'	240°54.4'	N 18°15.4'
05	255°51.7'	N 16°57.6'	255°52.6'	N 17°13.9'	255°53.2'	N 17°29.9'	255°53.8'	N 17°45.5'	255°54.2'	N 18°00.9'	255°54.4'	N 18°16.0'
06	270°51.8'	N 16°58.3'	270°52.6'	N 17°14.5'	270°53.3'	N 17°30.5'	270°53.8'	N 17°46.2'	270°54.2'	N 18°01.6'	270°54.4'	N 18°16.7'
07	285°51.8'	N 16°59.0'	285°52.6'	N 17°15.2'	285°53.3'	N 17°31.2'	285°53.8'	N 17°46.8'	285°54.2'	N 18°02.2'	285°54.5'	N 18°17.3'
08	300°51.8'	N 16°59.7'	300°52.6'	N 17°15.9'	300°53.3'	N 17°31.8'	300°53.8'	N 17°47.5'	300°54.2'	N 18°02.8'	300°54.5'	N 18°17.9'
09	315°51.9'	N 17°00.3'	315°52.7'	N 17°16.6'	315°53.3'	N 17°32.5'	315°53.9'	N 17°48.1'	315°54.2'	N 18°03.5'	315°54.5'	N 18°18.5'
10	330°51.9'	N 17°01.0'	330°52.7'	N 17°17.2'	330°53.4'	N 17°33.2'	330°53.9'	N 17°48.8'	330°54.2'	N 18°04.1'	330°54.5'	N 18°19.1'
11	345°51.9'	N 17°01.7'	345°52.7'	N 17°17.9'	345°53.4'	N 17°33.8'	345°53.9'	N 17°49.4'	345°54.3'	N 18°04.7'	345°54.5'	N 18°19.8'
12	0°52.0'	N 17°02.4'	0°52.8'	N 17°18.6'	0°53.4'	N 17°34.5'	0°53.9'	N 17°50.1'	0°54.3'	N 18°05.4'	0°54.5'	N 18°20.4'
13	15°52.0'	N 17°03.1'	15°52.8'	N 17°19.2'	15°53.4'	N 17°35.1'	15°53.9'	N 17°50.7'	15°54.3'	N 18°06.0'	15°54.5'	N 18°21.0'
14	30°52.0'	N 17°03.7'	30°52.8'	N 17°19.9'	30°53.5'	N 17°35.8'	30°53.9'	N 17°51.4'	30°54.3'	N 18°06.6'	30°54.5'	N 18°21.6'
15	45°52.1'	N 17°04.4'	45°52.9'	N 17°20.6'	45°53.5'	N 17°36.4'	45°54.0'	N 17°52.0'	45°54.3'	N 18°07.3'	45°54.5'	N 18°22.2'
16	60°52.1'	N 17°05.1'	60°52.9'	N 17°21.2'	60°53.5'	N 17°37.1'	60°54.0'	N 17°52.6'	60°54.3'	N 18°07.9'	60°54.5'	N 18°22.8'
17	75°52.2'	N 17°05.8'	75°52.9'	N 17°21.9'	75°53.5'	N 17°37.7'	75°54.0'	N 17°53.3'	75°54.3'	N 18°08.5'	75°54.5'	N 18°23.5'
18	90°52.2'	N 17°06.5'	90°52.9'	N 17°22.6'	90°53.5'	N 17°38.4'	90°54.0'	N 17°53.9'	90°54.3'	N 18°09.2'	90°54.5'	N 18°24.1'
19	105°52.2'	N 17°07.1'	105°53.0'	N 17°23.2'	105°53.6'	N 17°39.0'	105°54.0'	N 17°54.6'	105°54.4'	N 18°09.8'	105°54.5'	N 18°24.7'
20	120°52.3'	N 17°07.8'	120°53.0'	N 17°23.9'	120°53.6'	N 17°39.7'	120°54.0'	N 17°55.2'	120°54.4'	N 18°10.4'	120°54.5'	N 18°25.3'
21	135°52.3'	N 17°08.5'	135°53.0'	N 17°24.6'	135°53.6'	N 17°40.4'	135°54.1'	N 17°55.8'	135°54.4'	N 18°11.0'	135°54.5'	N 18°25.9'
22	150°52.3'	N 17°09.2'	150°53.1'	N 17°25.2'	150°53.6'	N 17°41.0'	150°54.1'	N 17°56.5'	150°54.4'	N 18°11.7'	150°54.5'	N 18°26.5'
23	165°52.4'	N 17°09.8'	165°53.1'	N 17°25.9'	165°53.7'	N 17°41.7'	165°54.1'	N 17°57.1'	165°54.4'	N 18°12.3'	165°54.5'	N 18°27.2'
Zeitgl. 0h / 12h	+03:26 / +03:28		+03:30 / +03:31		+03:32 / +03:34		+03:35 / +03:36		+03:36 / +03:37		+03:38 / +03:38	
Kulmination UT	11:56:32		11:56:29		11:56:26		11:56:24		11:56:23		11:56:22	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Sa 13.05.		So 14.05.		Mo 15.05.		Di 16.05.		Mi 17.05.		Do 18.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°54.5'	N 18°27.8'	180°54.5'	N 18°42.3'	180°54.4'	N 18°56.5'	180°54.1'	N 19°10.4'	180°53.7'	N 19°24.0'	180°53.2'	N 19°37.2'
01	195°54.5'	N 18°28.4'	195°54.5'	N 18°42.9'	195°54.4'	N 18°57.1'	195°54.1'	N 19°11.0'	195°53.7'	N 19°24.6'	195°53.1'	N 19°37.8'
02	210°54.5'	N 18°29.0'	210°54.5'	N 18°43.5'	210°54.4'	N 18°57.7'	210°54.1'	N 19°11.6'	210°53.7'	N 19°25.1'	210°53.1'	N 19°38.3'
03	225°54.6'	N 18°29.6'	225°54.5'	N 18°44.1'	225°54.4'	N 18°58.3'	225°54.1'	N 19°12.1'	225°53.6'	N 19°25.7'	225°53.1'	N 19°38.9'
04	240°54.6'	N 18°30.2'	240°54.5'	N 18°44.7'	240°54.4'	N 18°58.9'	240°54.1'	N 19°12.7'	240°53.6'	N 19°26.2'	240°53.0'	N 19°39.4'
05	255°54.6'	N 18°30.8'	255°54.5'	N 18°45.3'	255°54.4'	N 18°59.4'	255°54.1'	N 19°13.3'	255°53.6'	N 19°26.8'	255°53.0'	N 19°40.0'
06	270°54.6'	N 18°31.4'	270°54.5'	N 18°45.9'	270°54.4'	N 19°00.0'	270°54.0'	N 19°13.8'	270°53.6'	N 19°27.3'	270°53.0'	N 19°40.5'
07	285°54.6'	N 18°32.0'	285°54.5'	N 18°46.5'	285°54.3'	N 19°00.6'	285°54.0'	N 19°14.4'	285°53.6'	N 19°27.9'	285°53.0'	N 19°41.0'
08	300°54.6'	N 18°32.6'	300°54.5'	N 18°47.1'	300°54.3'	N 19°01.2'	300°54.0'	N 19°15.0'	300°53.5'	N 19°28.4'	300°52.9'	N 19°41.6'
09	315°54.6'	N 18°33.3'	315°54.5'	N 18°47.7'	315°54.3'	N 19°01.8'	315°54.0'	N 19°15.5'	315°53.5'	N 19°29.0'	315°52.9'	N 19°42.1'
10	330°54.6'	N 18°33.9'	330°54.5'	N 18°48.3'	330°54.3'	N 19°02.4'	330°54.0'	N 19°16.1'	330°53.5'	N 19°29.6'	330°52.9'	N 19°42.7'
11	345°54.6'	N 18°34.5'	345°54.5'	N 18°48.9'	345°54.3'	N 19°02.9'	345°54.0'	N 19°16.7'	345°53.5'	N 19°30.1'	345°52.8'	N 19°43.2'
12	0°54.6'	N 18°35.1'	0°54.5'	N 18°49.4'	0°54.3'	N 19°03.5'	0°53.9'	N 19°17.2'	0°53.4'	N 19°30.7'	0°52.8'	N 19°43.7'
13	15°54.6'	N 18°35.7'	15°54.5'	N 18°50.0'	15°54.3'	N 19°04.1'	15°53.9'	N 19°17.8'	15°53.4'	N 19°31.2'	15°52.8'	N 19°44.3'
14	30°54.6'	N 18°36.3'	30°54.5'	N 18°50.6'	30°54.3'	N 19°04.7'	30°53.9'	N 19°18.4'	30°53.4'	N 19°31.8'	30°52.8'	N 19°44.8'
15	45°54.6'	N 18°36.9'	45°54.5'	N 18°51.2'	45°54.3'	N 19°05.2'	45°53.9'	N 19°18.9'	45°53.4'	N 19°32.3'	45°52.7'	N 19°45.3'
16	60°54.6'	N 18°37.5'	60°54.5'	N 18°51.8'	60°54.2'	N 19°05.8'	60°53.9'	N 19°19.5'	60°53.4'	N 19°32.9'	60°52.7'	N 19°45.9'
17	75°54.6'	N 18°38.1'	75°54.5'	N 18°52.4'	75°54.2'	N 19°06.4'	75°53.8'	N 19°20.1'	75°53.3'	N 19°33.4'	75°52.7'	N 19°46.4'
18	90°54.6'	N 18°38.7'	90°54.5'	N 18°53.0'	90°54.2'	N 19°07.0'	90°53.8'	N 19°20.6'	90°53.3'	N 19°34.0'	90°52.6'	N 19°47.0'
19	105°54.6'	N 18°39.3'	105°54.4'	N 18°53.6'	105°54.2'	N 19°07.6'	105°53.8'	N 19°21.2'	105°53.3'	N 19°34.5'	105°52.6'	N 19°47.5'
20	120°54.6'	N 18°39.9'	120°54.4'	N 18°54.2'	120°54.2'	N 19°08.1'	120°53.8'	N 19°21.8'	120°53.3'	N 19°35.1'	120°52.6'	N 19°48.0'
21	135°54.6'	N 18°40.5'	135°54.4'	N 18°54.8'	135°54.2'	N 19°08.7'	135°53.8'	N 19°22.3'	135°53.2'	N 19°35.6'	135°52.5'	N 19°48.6'
22	150°54.6'	N 18°41.1'	150°54.4'	N 18°55.3'	150°54.2'	N 19°09.3'	150°53.7'	N 19°22.9'	150°53.2'	N 19°36.1'	150°52.5'	N 19°49.1'
23	165°54.5'	N 18°41.7'	165°54.4'	N 18°55.9'	165°54.1'	N 19°09.8'	165°53.7'	N 19°23.4'	165°53.2'	N 19°36.7'	165°52.5'	N 19°49.6'
Zeitgl. 0h / 12h	+03:38 / +03:38		+03:38 / +03:38		+03:38 / +03:37		+03:37 / +03:36		+03:35 / +03:34		+03:33 / +03:31	
Kulmination UT	11:56:22		11:56:22		11:56:23		11:56:24		11:56:26		11:56:29	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Fr 19.05.		Sa 20.05.		So 21.05.		Mo 22.05.		Di 23.05.		Mi 24.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°52.5'	N 19°50.2'	180°51.6'	N 20°02.7'	180°50.7'	N 20°15.0'	180°49.6'	N 20°26.8'	180°48.3'	N 20°38.4'	180°47.0'	N 20°49.6'
01	195°52.4'	N 19°50.7'	195°51.6'	N 20°03.2'	195°50.6'	N 20°15.5'	195°49.5'	N 20°27.3'	195°48.3'	N 20°38.8'	195°46.9'	N 20°50.0'
02	210°52.4'	N 19°51.2'	210°51.5'	N 20°03.8'	210°50.6'	N 20°16.0'	210°49.5'	N 20°27.8'	210°48.2'	N 20°39.3'	210°46.9'	N 20°50.5'
03	225°52.4'	N 19°51.7'	225°51.5'	N 20°04.3'	225°50.5'	N 20°16.5'	225°49.4'	N 20°28.3'	225°48.2'	N 20°39.8'	225°46.8'	N 20°50.9'
04	240°52.3'	N 19°52.3'	240°51.5'	N 20°04.8'	240°50.5'	N 20°17.0'	240°49.4'	N 20°28.8'	240°48.1'	N 20°40.3'	240°46.7'	N 20°51.4'
05	255°52.3'	N 19°52.8'	255°51.4'	N 20°05.3'	255°50.4'	N 20°17.5'	255°49.3'	N 20°29.3'	255°48.1'	N 20°40.7'	255°46.7'	N 20°51.8'
06	270°52.3'	N 19°53.3'	270°51.4'	N 20°05.8'	270°50.4'	N 20°18.0'	270°49.3'	N 20°29.8'	270°48.0'	N 20°41.2'	270°46.6'	N 20°52.3'
07	285°52.2'	N 19°53.9'	285°51.4'	N 20°06.3'	285°50.3'	N 20°18.5'	285°49.2'	N 20°30.2'	285°47.9'	N 20°41.7'	285°46.6'	N 20°52.7'
08	300°52.2'	N 19°54.4'	300°51.3'	N 20°06.8'	300°50.3'	N 20°19.0'	300°49.2'	N 20°30.7'	300°47.9'	N 20°42.1'	300°46.5'	N 20°53.2'
09	315°52.2'	N 19°54.9'	315°51.3'	N 20°07.4'	315°50.3'	N 20°19.5'	315°49.1'	N 20°31.2'	315°47.8'	N 20°42.6'	315°46.4'	N 20°53.7'
10	330°52.1'	N 19°55.4'	330°51.2'	N 20°07.9'	330°50.2'	N 20°19.9'	330°49.1'	N 20°31.7'	330°47.8'	N 20°43.1'	330°46.4'	N 20°54.1'
11	345°52.1'	N 19°56.0'	345°51.2'	N 20°08.4'	345°50.2'	N 20°20.4'	345°49.0'	N 20°32.2'	345°47.7'	N 20°43.5'	345°46.3'	N 20°54.6'
12	0°52.1'	N 19°56.5'	0°51.2'	N 20°08.9'	0°50.1'	N 20°20.9'	0°49.0'	N 20°32.6'	0°47.7'	N 20°44.0'	0°46.2'	N 20°55.0'
13	15°52.0'	N 19°57.0'	15°51.1'	N 20°09.4'	15°50.1'	N 20°21.4'	15°48.9'	N 20°33.1'	15°47.6'	N 20°44.5'	15°46.2'	N 20°55.5'
14	30°52.0'	N 19°57.5'	30°51.1'	N 20°09.9'	30°50.0'	N 20°21.9'	30°48.9'	N 20°33.6'	30°47.6'	N 20°44.9'	30°46.1'	N 20°55.9'
15	45°52.0'	N 19°58.0'	45°51.0'	N 20°10.4'	45°50.0'	N 20°22.4'	45°48.8'	N 20°34.1'	45°47.5'	N 20°45.4'	45°46.1'	N 20°56.4'
16	60°51.9'	N 19°58.6'	60°51.0'	N 20°10.9'	60°49.9'	N 20°22.9'	60°48.8'	N 20°34.6'	60°47.4'	N 20°45.9'	60°46.0'	N 20°56.8'
17	75°51.9'	N 19°59.1'	75°51.0'	N 20°11.4'	75°49.9'	N 20°23.4'	75°48.7'	N 20°35.0'	75°47.4'	N 20°46.3'	75°45.9'	N 20°57.3'
18	90°51.8'	N 19°59.6'	90°50.9'	N 20°11.9'	90°49.8'	N 20°23.9'	90°48.6'	N 20°35.5'	90°47.3'	N 20°46.8'	90°45.9'	N 20°57.7'
19	105°51.8'	N 20°00.1'	105°50.9'	N 20°12.4'	105°49.8'	N 20°24.4'	105°48.6'	N 20°36.0'	105°47.3'	N 20°47.3'	105°45.8'	N 20°58.1'
20	120°51.8'	N 20°00.7'	120°50.8'	N 20°12.9'	120°49.7'	N 20°24.9'	120°48.5'	N 20°36.5'	120°47.2'	N 20°47.7'	120°45.7'	N 20°58.6'
21	135°51.7'	N 20°01.2'	135°50.8'	N 20°13.4'	135°49.7'	N 20°25.4'	135°48.5'	N 20°36.9'	135°47.1'	N 20°48.2'	135°45.7'	N 20°59.0'
22	150°51.7'	N 20°01.7'	150°50.7'	N 20°13.9'	150°49.7'	N 20°25.9'	150°48.4'	N 20°37.4'	150°47.1'	N 20°48.6'	150°45.6'	N 20°59.5'
23	165°51.7'	N 20°02.2'	165°50.7'	N 20°14.5'	165°49.6'	N 20°26.4'	165°48.4'	N 20°37.9'	165°47.0'	N 20°49.1'	165°45.6'	N 20°59.9'
Zeitgl. 0h / 12h	+03:30 / +03:28		+03:26 / +03:25		+03:23 / +03:20		+03:18 / +03:16		+03:13 / +03:11		+03:08 / +03:05	
Kulmination UT	11:56:32		11:56:35		11:56:40		11:56:44		11:56:49		11:56:55	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Do 25.05.		Fr 26.05.		Sa 27.05.		So 28.05.		Mo 29.05.		Di 30.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°45.5'	N 21°00.4'	180°43.9'	N 21°10.8'	180°42.2'	N 21°20.9'	180°40.3'	N 21°30.6'	180°38.4'	N 21°40.0'	180°36.3'	N 21°49.0'
01	195°45.4'	N 21°00.8'	195°43.8'	N 21°11.3'	195°42.1'	N 21°21.3'	195°40.2'	N 21°31.0'	195°38.3'	N 21°40.4'	195°36.2'	N 21°49.3'
02	210°45.4'	N 21°01.3'	210°43.8'	N 21°11.7'	210°42.0'	N 21°21.7'	210°40.2'	N 21°31.4'	210°38.2'	N 21°40.8'	210°36.1'	N 21°49.7'
03	225°45.3'	N 21°01.7'	225°43.7'	N 21°12.1'	225°41.9'	N 21°22.2'	225°40.1'	N 21°31.8'	225°38.1'	N 21°41.1'	225°36.1'	N 21°50.1'
04	240°45.2'	N 21°02.1'	240°43.6'	N 21°12.5'	240°41.9'	N 21°22.6'	240°40.0'	N 21°32.2'	240°38.0'	N 21°41.5'	240°36.0'	N 21°50.4'
05	255°45.2'	N 21°02.6'	255°43.5'	N 21°13.0'	255°41.8'	N 21°23.0'	255°39.9'	N 21°32.6'	255°38.0'	N 21°41.9'	255°35.9'	N 21°50.8'
06	270°45.1'	N 21°03.0'	270°43.5'	N 21°13.4'	270°41.7'	N 21°23.4'	270°39.9'	N 21°33.0'	270°37.9'	N 21°42.3'	270°35.8'	N 21°51.2'
07	285°45.0'	N 21°03.5'	285°43.4'	N 21°13.8'	285°41.6'	N 21°23.8'	285°39.8'	N 21°33.4'	285°37.8'	N 21°42.6'	285°35.7'	N 21°51.5'
08	300°45.0'	N 21°03.9'	300°43.3'	N 21°14.2'	300°41.6'	N 21°24.2'	300°39.7'	N 21°33.8'	300°37.7'	N 21°43.0'	300°35.6'	N 21°51.9'
09	315°44.9'	N 21°04.3'	315°43.3'	N 21°14.7'	315°41.5'	N 21°24.6'	315°39.6'	N 21°34.2'	315°37.6'	N 21°43.4'	315°35.5'	N 21°52.2'
10	330°44.8'	N 21°04.8'	330°43.2'	N 21°15.1'	330°41.4'	N 21°25.0'	330°39.5'	N 21°34.6'	330°37.5'	N 21°43.8'	330°35.4'	N 21°52.6'
11	345°44.8'	N 21°05.2'	345°43.1'	N 21°15.5'	345°41.3'	N 21°25.4'	345°39.4'	N 21°35.0'	345°37.4'	N 21°44.2'	345°35.3'	N 21°53.0'
12	0°44.7'	N 21°05.6'	0°43.0'	N 21°15.9'	0°41.3'	N 21°25.8'	0°39.4'	N 21°35.4'	0°37.4'	N 21°44.5'	0°35.2'	N 21°53.3'
13	15°44.6'	N 21°06.1'	15°43.0'	N 21°16.3'	15°41.2'	N 21°26.2'	15°39.3'	N 21°35.8'	15°37.3'	N 21°44.9'	15°35.2'	N 21°53.7'
14	30°44.6'	N 21°06.5'	30°42.9'	N 21°16.8'	30°41.1'	N 21°26.6'	30°39.2'	N 21°36.1'	30°37.2'	N 21°45.3'	30°35.1'	N 21°54.0'
15	45°44.5'	N 21°06.9'	45°42.8'	N 21°17.2'	45°41.0'	N 21°27.0'	45°39.1'	N 21°36.5'	45°37.1'	N 21°45.6'	45°35.0'	N 21°54.4'
16	60°44.4'	N 21°07.4'	60°42.8'	N 21°17.6'	60°41.0'	N 21°27.4'	60°39.0'	N 21°36.9'	60°37.0'	N 21°46.0'	60°34.9'	N 21°54.7'
17	75°44.4'	N 21°07.8'	75°42.7'	N 21°18.0'	75°40.9'	N 21°27.8'	75°39.0'	N 21°37.3'	75°36.9'	N 21°46.4'	75°34.8'	N 21°55.1'
18	90°44.3'	N 21°08.2'	90°42.6'	N 21°18.4'	90°40.8'	N 21°28.2'	90°38.9'	N 21°37.7'	90°36.8'	N 21°46.8'	90°34.7'	N 21°55.4'
19	105°44.2'	N 21°08.7'	105°42.5'	N 21°18.8'	105°40.7'	N 21°28.6'	105°38.8'	N 21°38.1'	105°36.8'	N 21°47.1'	105°34.6'	N 21°55.8'
20	120°44.2'	N 21°09.1'	120°42.5'	N 21°19.3'	120°40.6'	N 21°29.0'	120°38.7'	N 21°38.5'	120°36.7'	N 21°47.5'	120°34.5'	N 21°56.2'
21	135°44.1'	N 21°09.5'	135°42.4'	N 21°19.7'	135°40.6'	N 21°29.4'	135°38.6'	N 21°38.8'	135°36.6'	N 21°47.9'	135°34.4'	N 21°56.5'
22	150°44.0'	N 21°10.0'	150°42.3'	N 21°20.1'	150°40.5'	N 21°29.8'	150°38.5'	N 21°39.2'	150°36.5'	N 21°48.2'	150°34.3'	N 21°56.9'
23	165°44.0'	N 21°10.4'	165°42.2'	N 21°20.5'	165°40.4'	N 21°30.2'	165°38.5'	N 21°39.6'	165°36.4'	N 21°48.6'	165°34.2'	N 21°57.2'
Zeitgl. 0h / 12h	+03:02 / +02:59		+02:56 / +02:52		+02:49 / +02:45		+02:41 / +02:37		+02:34 / +02:29		+02:25 / +02:21	
Kulmination UT	11:57:01		11:57:08		11:57:15		11:57:23		11:57:31		11:57:39	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

Mi 31.05.

UT	Grt	Dec
00	180°34.2'	N 21°57.6'
01	195°34.1'	N 21°57.9'
02	210°34.0'	N 21°58.3'
03	225°33.9'	N 21°58.6'
04	240°33.8'	N 21°59.0'
05	255°33.7'	N 21°59.3'
06	270°33.6'	N 21°59.6'
07	285°33.5'	N 22°00.0'
08	300°33.4'	N 22°00.3'
09	315°33.3'	N 22°00.7'
10	330°33.2'	N 22°01.0'
11	345°33.1'	N 22°01.4'
12	0°33.0'	N 22°01.7'
13	15°32.9'	N 22°02.1'
14	30°32.8'	N 22°02.4'
15	45°32.7'	N 22°02.7'
16	60°32.6'	N 22°03.1'
17	75°32.6'	N 22°03.4'
18	90°32.5'	N 22°03.8'
19	105°32.4'	N 22°04.1'
20	120°32.3'	N 22°04.4'
21	135°32.2'	N 22°04.8'
22	150°32.1'	N 22°05.1'
23	165°32.0'	N 22°05.4'

Zeitgl. 0h / 12h +02:17 / +02:12

Kulmination UT 11:57:48

Halbmesser 15.8'

2028

Juni

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Do 01.06.		Fr 02.06.		Sa 03.06.		So 04.06.		Mo 05.06.		Di 06.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°31.9'	N 22°05.8'	180°29.5'	N 22°13.6'	180°27.1'	N 22°21.0'	180°24.5'	N 22°28.1'	180°21.9'	N 22°34.7'	180°19.2'	N 22°41.0'
01	195°31.8'	N 22°06.1'	195°29.4'	N 22°13.9'	195°27.0'	N 22°21.3'	195°24.4'	N 22°28.4'	195°21.8'	N 22°35.0'	195°19.1'	N 22°41.2'
02	210°31.7'	N 22°06.4'	210°29.3'	N 22°14.2'	210°26.9'	N 22°21.6'	210°24.3'	N 22°28.7'	210°21.7'	N 22°35.3'	210°18.9'	N 22°41.5'
03	225°31.6'	N 22°06.8'	225°29.2'	N 22°14.5'	225°26.7'	N 22°21.9'	225°24.2'	N 22°28.9'	225°21.5'	N 22°35.5'	225°18.8'	N 22°41.7'
04	240°31.5'	N 22°07.1'	240°29.1'	N 22°14.9'	240°26.6'	N 22°22.2'	240°24.1'	N 22°29.2'	240°21.4'	N 22°35.8'	240°18.7'	N 22°42.0'
05	255°31.4'	N 22°07.4'	255°29.0'	N 22°15.2'	255°26.5'	N 22°22.5'	255°24.0'	N 22°29.5'	255°21.3'	N 22°36.1'	255°18.6'	N 22°42.2'
06	270°31.3'	N 22°07.8'	270°28.9'	N 22°15.5'	270°26.4'	N 22°22.8'	270°23.9'	N 22°29.8'	270°21.2'	N 22°36.3'	270°18.5'	N 22°42.5'
07	285°31.2'	N 22°08.1'	285°28.8'	N 22°15.8'	285°26.3'	N 22°23.1'	285°23.8'	N 22°30.1'	285°21.1'	N 22°36.6'	285°18.4'	N 22°42.7'
08	300°31.1'	N 22°08.4'	300°28.7'	N 22°16.1'	300°26.2'	N 22°23.4'	300°23.6'	N 22°30.3'	300°21.0'	N 22°36.9'	300°18.2'	N 22°43.0'
09	315°31.0'	N 22°08.8'	315°28.6'	N 22°16.4'	315°26.1'	N 22°23.7'	315°23.5'	N 22°30.6'	315°20.9'	N 22°37.1'	315°18.1'	N 22°43.2'
10	330°30.9'	N 22°09.1'	330°28.5'	N 22°16.7'	330°26.0'	N 22°24.0'	330°23.4'	N 22°30.9'	330°20.8'	N 22°37.4'	330°18.0'	N 22°43.5'
11	345°30.8'	N 22°09.4'	345°28.4'	N 22°17.1'	345°25.9'	N 22°24.3'	345°23.3'	N 22°31.2'	345°20.6'	N 22°37.7'	345°17.9'	N 22°43.7'
12	0°30.7'	N 22°09.7'	0°28.3'	N 22°17.4'	0°25.8'	N 22°24.6'	0°23.2'	N 22°31.5'	0°20.5'	N 22°37.9'	0°17.8'	N 22°44.0'
13	15°30.6'	N 22°10.1'	15°28.2'	N 22°17.7'	15°25.7'	N 22°24.9'	15°23.1'	N 22°31.7'	15°20.4'	N 22°38.2'	15°17.7'	N 22°44.2'
14	30°30.5'	N 22°10.4'	30°28.1'	N 22°18.0'	30°25.6'	N 22°25.2'	30°23.0'	N 22°32.0'	30°20.3'	N 22°38.4'	30°17.6'	N 22°44.5'
15	45°30.4'	N 22°10.7'	45°28.0'	N 22°18.3'	45°25.5'	N 22°25.5'	45°22.9'	N 22°32.3'	45°20.2'	N 22°38.7'	45°17.4'	N 22°44.7'
16	60°30.3'	N 22°11.0'	60°27.9'	N 22°18.6'	60°25.4'	N 22°25.8'	60°22.8'	N 22°32.6'	60°20.1'	N 22°39.0'	60°17.3'	N 22°44.9'
17	75°30.2'	N 22°11.4'	75°27.8'	N 22°18.9'	75°25.3'	N 22°26.1'	75°22.7'	N 22°32.8'	75°20.0'	N 22°39.2'	75°17.2'	N 22°45.2'
18	90°30.1'	N 22°11.7'	90°27.7'	N 22°19.2'	90°25.2'	N 22°26.4'	90°22.5'	N 22°33.1'	90°19.9'	N 22°39.5'	90°17.1'	N 22°45.4'
19	105°30.0'	N 22°12.0'	105°27.6'	N 22°19.5'	105°25.1'	N 22°26.6'	105°22.4'	N 22°33.4'	105°19.7'	N 22°39.7'	105°17.0'	N 22°45.7'
20	120°29.9'	N 22°12.3'	120°27.5'	N 22°19.8'	120°24.9'	N 22°26.9'	120°22.3'	N 22°33.7'	120°19.6'	N 22°40.0'	120°16.9'	N 22°45.9'
21	135°29.8'	N 22°12.6'	135°27.4'	N 22°20.1'	135°24.8'	N 22°27.2'	135°22.2'	N 22°33.9'	135°19.5'	N 22°40.2'	135°16.7'	N 22°46.1'
22	150°29.7'	N 22°13.0'	150°27.3'	N 22°20.4'	150°24.7'	N 22°27.5'	150°22.1'	N 22°34.2'	150°19.4'	N 22°40.5'	150°16.6'	N 22°46.4'
23	165°29.6'	N 22°13.3'	165°27.2'	N 22°20.7'	165°24.6'	N 22°27.8'	165°22.0'	N 22°34.5'	165°19.3'	N 22°40.7'	165°16.5'	N 22°46.6'
Zeitgl. 0h / 12h	+02:08 / +02:03		+01:58 / +01:53		+01:48 / +01:43		+01:38 / +01:33		+01:28 / +01:22		+01:17 / +01:11	
Kulmination UT	11:57:57		11:58:07		11:58:17		11:58:27		11:58:38		11:58:49	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Mi 07.06.		Do 08.06.		Fr 09.06.		Sa 10.06.		So 11.06.		Mo 12.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°16.4'	N 22°46.9'	180°13.5'	N 22°52.3'	180°10.6'	N 22°57.4'	180°07.6'	N 23°02.0'	180°04.6'	N 23°06.3'	180°01.5'	N 23°10.1'
01	195°16.3'	N 22°47.1'	195°13.4'	N 22°52.5'	195°10.5'	N 22°57.6'	195°07.5'	N 23°02.2'	195°04.5'	N 23°06.4'	195°01.4'	N 23°10.3'
02	210°16.1'	N 22°47.3'	210°13.3'	N 22°52.8'	210°10.4'	N 22°57.8'	210°07.4'	N 23°02.4'	210°04.3'	N 23°06.6'	210°01.3'	N 23°10.4'
03	225°16.0'	N 22°47.6'	225°13.2'	N 22°53.0'	225°10.2'	N 22°58.0'	225°07.3'	N 23°02.6'	225°04.2'	N 23°06.8'	225°01.1'	N 23°10.6'
04	240°15.9'	N 22°47.8'	240°13.0'	N 22°53.2'	240°10.1'	N 22°58.2'	240°07.1'	N 23°02.8'	240°04.1'	N 23°06.9'	240°01.0'	N 23°10.7'
05	255°15.8'	N 22°48.0'	255°12.9'	N 22°53.4'	255°10.0'	N 22°58.4'	255°07.0'	N 23°02.9'	255°04.0'	N 23°07.1'	255°00.9'	N 23°10.9'
06	270°15.7'	N 22°48.3'	270°12.8'	N 22°53.6'	270°09.9'	N 22°58.6'	270°06.9'	N 23°03.1'	270°03.8'	N 23°07.3'	270°00.7'	N 23°11.0'
07	285°15.6'	N 22°48.5'	285°12.7'	N 22°53.8'	285°09.7'	N 22°58.8'	285°06.7'	N 23°03.3'	285°03.7'	N 23°07.4'	285°00.6'	N 23°11.2'
08	300°15.4'	N 22°48.7'	300°12.6'	N 22°54.0'	300°09.6'	N 22°59.0'	300°06.6'	N 23°03.5'	300°03.6'	N 23°07.6'	300°00.5'	N 23°11.3'
09	315°15.3'	N 22°48.9'	315°12.4'	N 22°54.3'	315°09.5'	N 22°59.2'	315°06.5'	N 23°03.7'	315°03.4'	N 23°07.8'	315°00.3'	N 23°11.4'
10	330°15.2'	N 22°49.2'	330°12.3'	N 22°54.5'	330°09.4'	N 22°59.4'	330°06.4'	N 23°03.8'	330°03.3'	N 23°07.9'	330°00.2'	N 23°11.6'
11	345°15.1'	N 22°49.4'	345°12.2'	N 22°54.7'	345°09.3'	N 22°59.6'	345°06.2'	N 23°04.0'	345°03.2'	N 23°08.1'	345°00.1'	N 23°11.7'
12	0°15.0'	N 22°49.6'	0°12.1'	N 22°54.9'	0°09.1'	N 22°59.7'	0°06.1'	N 23°04.2'	0°03.1'	N 23°08.2'	0°00.0'	N 23°11.9'
13	15°14.8'	N 22°49.9'	15°12.0'	N 22°55.1'	15°09.0'	N 22°59.9'	15°06.0'	N 23°04.4'	15°02.9'	N 23°08.4'	14°59.8'	N 23°12.0'
14	30°14.7'	N 22°50.1'	30°11.8'	N 22°55.3'	30°08.9'	N 23°00.1'	30°05.9'	N 23°04.6'	30°02.8'	N 23°08.6'	29°59.7'	N 23°12.2'
15	45°14.6'	N 22°50.3'	45°11.7'	N 22°55.5'	45°08.8'	N 23°00.3'	45°05.7'	N 23°04.7'	45°02.7'	N 23°08.7'	44°59.6'	N 23°12.3'
16	60°14.5'	N 22°50.5'	60°11.6'	N 22°55.7'	60°08.6'	N 23°00.5'	60°05.6'	N 23°04.9'	60°02.5'	N 23°08.9'	59°59.4'	N 23°12.4'
17	75°14.4'	N 22°50.8'	75°11.5'	N 22°55.9'	75°08.5'	N 23°00.7'	75°05.5'	N 23°05.1'	75°02.4'	N 23°09.0'	74°59.3'	N 23°12.6'
18	90°14.2'	N 22°51.0'	90°11.3'	N 22°56.1'	90°08.4'	N 23°00.9'	90°05.4'	N 23°05.2'	90°02.3'	N 23°09.2'	89°59.2'	N 23°12.7'
19	105°14.1'	N 22°51.2'	105°11.2'	N 22°56.4'	105°08.3'	N 23°01.1'	105°05.2'	N 23°05.4'	105°02.2'	N 23°09.3'	104°59.0'	N 23°12.9'
20	120°14.0'	N 22°51.4'	120°11.1'	N 22°56.6'	120°08.1'	N 23°01.3'	120°05.1'	N 23°05.6'	120°02.0'	N 23°09.5'	119°58.9'	N 23°13.0'
21	135°13.9'	N 22°51.7'	135°11.0'	N 22°56.8'	135°08.0'	N 23°01.5'	135°05.0'	N 23°05.8'	135°01.9'	N 23°09.7'	134°58.8'	N 23°13.1'
22	150°13.8'	N 22°51.9'	150°10.9'	N 22°57.0'	150°07.9'	N 23°01.7'	150°04.9'	N 23°05.9'	150°01.8'	N 23°09.8'	149°58.6'	N 23°13.3'
23	165°13.6'	N 22°52.1'	165°10.7'	N 22°57.2'	165°07.8'	N 23°01.8'	165°04.7'	N 23°06.1'	165°01.6'	N 23°10.0'	164°58.5'	N 23°13.4'
Zeitgl. 0h / 12h	+01:06 / +01:00		+00:54 / +00:48		+00:42 / +00:37		+00:31 / +00:24		+00:18 / +00:12		+00:06 / -00:00	
Kulmination UT	11:59:00		11:59:12		11:59:23		11:59:36		11:59:48		12:00:00	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.7'	

	Di 13.06.		Mi 14.06.		Do 15.06.		Fr 16.06.		Sa 17.06.		So 18.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°58.4'	N 23°13.5'	179°55.2'	N 23°16.6'	179°52.0'	N 23°19.2'	179°48.8'	N 23°21.4'	179°45.6'	N 23°23.2'	179°42.3'	N 23°24.5'
01	194°58.3'	N 23°13.7'	194°55.1'	N 23°16.7'	194°51.9'	N 23°19.3'	194°48.7'	N 23°21.5'	194°45.4'	N 23°23.2'	194°42.2'	N 23°24.6'
02	209°58.1'	N 23°13.8'	209°55.0'	N 23°16.8'	209°51.8'	N 23°19.4'	209°48.5'	N 23°21.5'	209°45.3'	N 23°23.3'	209°42.0'	N 23°24.6'
03	224°58.0'	N 23°13.9'	224°54.8'	N 23°16.9'	224°51.6'	N 23°19.5'	224°48.4'	N 23°21.6'	224°45.2'	N 23°23.4'	224°41.9'	N 23°24.7'
04	239°57.9'	N 23°14.1'	239°54.7'	N 23°17.0'	239°51.5'	N 23°19.6'	239°48.3'	N 23°21.7'	239°45.0'	N 23°23.4'	239°41.8'	N 23°24.7'
05	254°57.7'	N 23°14.2'	254°54.6'	N 23°17.1'	254°51.4'	N 23°19.7'	254°48.1'	N 23°21.8'	254°44.9'	N 23°23.5'	254°41.6'	N 23°24.8'
06	269°57.6'	N 23°14.3'	269°54.4'	N 23°17.3'	269°51.2'	N 23°19.8'	269°48.0'	N 23°21.9'	269°44.8'	N 23°23.6'	269°41.5'	N 23°24.8'
07	284°57.5'	N 23°14.5'	284°54.3'	N 23°17.4'	284°51.1'	N 23°19.9'	284°47.9'	N 23°21.9'	284°44.6'	N 23°23.6'	284°41.4'	N 23°24.9'
08	299°57.3'	N 23°14.6'	299°54.2'	N 23°17.5'	299°51.0'	N 23°20.0'	299°47.7'	N 23°22.0'	299°44.5'	N 23°23.7'	299°41.2'	N 23°24.9'
09	314°57.2'	N 23°14.7'	314°54.0'	N 23°17.6'	314°50.8'	N 23°20.1'	314°47.6'	N 23°22.1'	314°44.3'	N 23°23.7'	314°41.1'	N 23°25.0'
10	329°57.1'	N 23°14.9'	329°53.9'	N 23°17.7'	329°50.7'	N 23°20.1'	329°47.5'	N 23°22.2'	329°44.2'	N 23°23.8'	329°41.0'	N 23°25.0'
11	344°56.9'	N 23°15.0'	344°53.8'	N 23°17.8'	344°50.6'	N 23°20.2'	344°47.3'	N 23°22.3'	344°44.1'	N 23°23.9'	344°40.8'	N 23°25.0'
12	359°56.8'	N 23°15.1'	359°53.6'	N 23°17.9'	359°50.4'	N 23°20.3'	359°47.2'	N 23°22.3'	359°43.9'	N 23°23.9'	359°40.7'	N 23°25.1'
13	14°56.7'	N 23°15.2'	14°53.5'	N 23°18.0'	14°50.3'	N 23°20.4'	14°47.1'	N 23°22.4'	14°43.8'	N 23°24.0'	14°40.5'	N 23°25.1'
14	29°56.5'	N 23°15.4'	29°53.4'	N 23°18.1'	29°50.2'	N 23°20.5'	29°46.9'	N 23°22.5'	29°43.7'	N 23°24.0'	29°40.4'	N 23°25.2'
15	44°56.4'	N 23°15.5'	44°53.2'	N 23°18.3'	44°50.0'	N 23°20.6'	44°46.8'	N 23°22.5'	44°43.5'	N 23°24.1'	44°40.3'	N 23°25.2'
16	59°56.3'	N 23°15.6'	59°53.1'	N 23°18.4'	59°49.9'	N 23°20.7'	59°46.6'	N 23°22.6'	59°43.4'	N 23°24.1'	59°40.1'	N 23°25.2'
17	74°56.2'	N 23°15.7'	74°53.0'	N 23°18.5'	74°49.7'	N 23°20.8'	74°46.5'	N 23°22.7'	74°43.3'	N 23°24.2'	74°40.0'	N 23°25.3'
18	89°56.0'	N 23°15.9'	89°52.8'	N 23°18.6'	89°49.6'	N 23°20.9'	89°46.4'	N 23°22.8'	89°43.1'	N 23°24.2'	89°39.9'	N 23°25.3'
19	104°55.9'	N 23°16.0'	104°52.7'	N 23°18.7'	104°49.5'	N 23°21.0'	104°46.2'	N 23°22.8'	104°43.0'	N 23°24.3'	104°39.7'	N 23°25.3'
20	119°55.8'	N 23°16.1'	119°52.6'	N 23°18.8'	119°49.3'	N 23°21.0'	119°46.1'	N 23°22.9'	119°42.9'	N 23°24.3'	119°39.6'	N 23°25.4'
21	134°55.6'	N 23°16.2'	134°52.4'	N 23°18.9'	134°49.2'	N 23°21.1'	134°46.0'	N 23°23.0'	134°42.7'	N 23°24.4'	134°39.5'	N 23°25.4'
22	149°55.5'	N 23°16.3'	149°52.3'	N 23°19.0'	149°49.1'	N 23°21.2'	149°45.8'	N 23°23.0'	149°42.6'	N 23°24.4'	149°39.3'	N 23°25.4'
23	164°55.4'	N 23°16.5'	164°52.2'	N 23°19.1'	164°48.9'	N 23°21.3'	164°45.7'	N 23°23.1'	164°42.4'	N 23°24.5'	164°39.2'	N 23°25.5'
Zeitgl. 0h / 12h	-00:06 / -00:13		-00:19 / -00:25		-00:32 / -00:38		-00:45 / -00:51		-00:58 / -01:04		-01:11 / -01:17	
Kulmination UT	12:00:13		12:00:25		12:00:38		12:00:51		12:01:04		12:01:17	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Mo 19.06.		Di 20.06.		Mi 21.06.		Do 22.06.		Fr 23.06.		Sa 24.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°39.0'	N 23°25.5'	179°35.8'	N 23°26.1'	179°32.5'	N 23°26.2'	179°29.3'	N 23°25.9'	179°26.0'	N 23°25.2'	179°22.8'	N 23°24.1'
01	194°38.9'	N 23°25.5'	194°35.6'	N 23°26.1'	194°32.4'	N 23°26.2'	194°29.1'	N 23°25.9'	194°25.9'	N 23°25.2'	194°22.7'	N 23°24.1'
02	209°38.8'	N 23°25.6'	209°35.5'	N 23°26.1'	209°32.2'	N 23°26.2'	209°29.0'	N 23°25.9'	209°25.7'	N 23°25.1'	209°22.5'	N 23°24.0'
03	224°38.6'	N 23°25.6'	224°35.4'	N 23°26.1'	224°32.1'	N 23°26.2'	224°28.9'	N 23°25.9'	224°25.6'	N 23°25.1'	224°22.4'	N 23°24.0'
04	239°38.5'	N 23°25.6'	239°35.2'	N 23°26.1'	239°32.0'	N 23°26.2'	239°28.7'	N 23°25.8'	239°25.5'	N 23°25.1'	239°22.3'	N 23°23.9'
05	254°38.4'	N 23°25.7'	254°35.1'	N 23°26.1'	254°31.8'	N 23°26.2'	254°28.6'	N 23°25.8'	254°25.3'	N 23°25.0'	254°22.1'	N 23°23.8'
06	269°38.2'	N 23°25.7'	269°35.0'	N 23°26.1'	269°31.7'	N 23°26.2'	269°28.4'	N 23°25.8'	269°25.2'	N 23°25.0'	269°22.0'	N 23°23.8'
07	284°38.1'	N 23°25.7'	284°34.8'	N 23°26.1'	284°31.6'	N 23°26.2'	284°28.3'	N 23°25.8'	284°25.1'	N 23°24.9'	284°21.9'	N 23°23.7'
08	299°38.0'	N 23°25.7'	299°34.7'	N 23°26.1'	299°31.4'	N 23°26.1'	299°28.2'	N 23°25.7'	299°24.9'	N 23°24.9'	299°21.7'	N 23°23.7'
09	314°37.8'	N 23°25.8'	314°34.6'	N 23°26.2'	314°31.3'	N 23°26.1'	314°28.0'	N 23°25.7'	314°24.8'	N 23°24.9'	314°21.6'	N 23°23.6'
10	329°37.7'	N 23°25.8'	329°34.4'	N 23°26.2'	329°31.2'	N 23°26.1'	329°27.9'	N 23°25.7'	329°24.7'	N 23°24.8'	329°21.5'	N 23°23.5'
11	344°37.5'	N 23°25.8'	344°34.3'	N 23°26.2'	344°31.0'	N 23°26.1'	344°27.8'	N 23°25.6'	344°24.5'	N 23°24.8'	344°21.3'	N 23°23.5'
12	359°37.4'	N 23°25.8'	359°34.1'	N 23°26.2'	359°30.9'	N 23°26.1'	359°27.6'	N 23°25.6'	359°24.4'	N 23°24.7'	359°21.2'	N 23°23.4'
13	14°37.3'	N 23°25.9'	14°34.0'	N 23°26.2'	14°30.7'	N 23°26.1'	14°27.5'	N 23°25.6'	14°24.3'	N 23°24.7'	14°21.1'	N 23°23.3'
14	29°37.1'	N 23°25.9'	29°33.9'	N 23°26.2'	29°30.6'	N 23°26.1'	29°27.4'	N 23°25.6'	29°24.1'	N 23°24.6'	29°20.9'	N 23°23.3'
15	44°37.0'	N 23°25.9'	44°33.7'	N 23°26.2'	44°30.5'	N 23°26.1'	44°27.2'	N 23°25.5'	44°24.0'	N 23°24.6'	44°20.8'	N 23°23.2'
16	59°36.9'	N 23°25.9'	59°33.6'	N 23°26.2'	59°30.3'	N 23°26.1'	59°27.1'	N 23°25.5'	59°23.9'	N 23°24.5'	59°20.7'	N 23°23.2'
17	74°36.7'	N 23°25.9'	74°33.5'	N 23°26.2'	74°30.2'	N 23°26.0'	74°27.0'	N 23°25.5'	74°23.7'	N 23°24.5'	74°20.5'	N 23°23.1'
18	89°36.6'	N 23°26.0'	89°33.3'	N 23°26.2'	89°30.1'	N 23°26.0'	89°26.8'	N 23°25.4'	89°23.6'	N 23°24.4'	89°20.4'	N 23°23.0'
19	104°36.5'	N 23°26.0'	104°33.2'	N 23°26.2'	104°29.9'	N 23°26.0'	104°26.7'	N 23°25.4'	104°23.5'	N 23°24.4'	104°20.3'	N 23°23.0'
20	119°36.3'	N 23°26.0'	119°33.1'	N 23°26.2'	119°29.8'	N 23°26.0'	119°26.6'	N 23°25.4'	119°23.3'	N 23°24.3'	119°20.1'	N 23°22.9'
21	134°36.2'	N 23°26.0'	134°32.9'	N 23°26.2'	134°29.7'	N 23°26.0'	134°26.4'	N 23°25.3'	134°23.2'	N 23°24.3'	134°20.0'	N 23°22.8'
22	149°36.0'	N 23°26.0'	149°32.8'	N 23°26.2'	149°29.5'	N 23°26.0'	149°26.3'	N 23°25.3'	149°23.1'	N 23°24.2'	149°19.9'	N 23°22.7'
23	164°35.9'	N 23°26.0'	164°32.6'	N 23°26.2'	164°29.4'	N 23°25.9'	164°26.2'	N 23°25.3'	164°22.9'	N 23°24.2'	164°19.7'	N 23°22.7'
Zeitgl. 0h / 12h	-01:24 / -01:30		-01:37 / -01:43		-01:50 / -01:56		-02:03 / -02:09		-02:16 / -02:22		-02:29 / -02:35	
Kulmination UT	12:01:30		12:01:43		12:01:56		12:02:09		12:02:22		12:02:35	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	So 25.06.		Mo 26.06.		Di 27.06.		Mi 28.06.		Do 29.06.		Fr 30.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°19.6'	N 23°22.6'	179°16.4'	N 23°20.7'	179°13.3'	N 23°18.3'	179°10.2'	N 23°15.6'	179°07.2'	N 23°12.4'	179°04.2'	N 23°08.9'
01	194°19.5'	N 23°22.5'	194°16.3'	N 23°20.6'	194°13.2'	N 23°18.2'	194°10.1'	N 23°15.5'	194°07.1'	N 23°12.3'	194°04.1'	N 23°08.7'
02	209°19.3'	N 23°22.5'	209°16.2'	N 23°20.5'	209°13.1'	N 23°18.1'	209°10.0'	N 23°15.3'	209°07.0'	N 23°12.2'	209°04.0'	N 23°08.6'
03	224°19.2'	N 23°22.4'	224°16.0'	N 23°20.4'	224°12.9'	N 23°18.0'	224°09.9'	N 23°15.2'	224°06.8'	N 23°12.0'	224°03.9'	N 23°08.4'
04	239°19.1'	N 23°22.3'	239°15.9'	N 23°20.3'	239°12.8'	N 23°17.9'	239°09.7'	N 23°15.1'	239°06.7'	N 23°11.9'	239°03.7'	N 23°08.2'
05	254°18.9'	N 23°22.2'	254°15.8'	N 23°20.2'	254°12.7'	N 23°17.8'	254°09.6'	N 23°15.0'	254°06.6'	N 23°11.7'	254°03.6'	N 23°08.1'
06	269°18.8'	N 23°22.2'	269°15.7'	N 23°20.1'	269°12.5'	N 23°17.7'	269°09.5'	N 23°14.8'	269°06.5'	N 23°11.6'	269°03.5'	N 23°07.9'
07	284°18.7'	N 23°22.1'	284°15.5'	N 23°20.0'	284°12.4'	N 23°17.6'	284°09.3'	N 23°14.7'	284°06.3'	N 23°11.4'	284°03.4'	N 23°07.8'
08	299°18.5'	N 23°22.0'	299°15.4'	N 23°19.9'	299°12.3'	N 23°17.5'	299°09.2'	N 23°14.6'	299°06.2'	N 23°11.3'	299°03.3'	N 23°07.6'
09	314°18.4'	N 23°21.9'	314°15.3'	N 23°19.8'	314°12.2'	N 23°17.4'	314°09.1'	N 23°14.5'	314°06.1'	N 23°11.2'	314°03.1'	N 23°07.4'
10	329°18.3'	N 23°21.9'	329°15.1'	N 23°19.8'	329°12.0'	N 23°17.2'	329°09.0'	N 23°14.3'	329°06.0'	N 23°11.0'	329°03.0'	N 23°07.3'
11	344°18.1'	N 23°21.8'	344°15.0'	N 23°19.7'	344°11.9'	N 23°17.1'	344°08.8'	N 23°14.2'	344°05.8'	N 23°10.9'	344°02.9'	N 23°07.1'
12	359°18.0'	N 23°21.7'	359°14.9'	N 23°19.6'	359°11.8'	N 23°17.0'	359°08.7'	N 23°14.1'	359°05.7'	N 23°10.7'	359°02.8'	N 23°06.9'
13	14°17.9'	N 23°21.6'	14°14.7'	N 23°19.5'	14°11.6'	N 23°16.9'	14°08.6'	N 23°13.9'	14°05.6'	N 23°10.6'	14°02.6'	N 23°06.8'
14	29°17.8'	N 23°21.5'	29°14.6'	N 23°19.4'	29°11.5'	N 23°16.8'	29°08.5'	N 23°13.8'	29°05.5'	N 23°10.4'	29°02.5'	N 23°06.6'
15	44°17.6'	N 23°21.4'	44°14.5'	N 23°19.3'	44°11.4'	N 23°16.7'	44°08.3'	N 23°13.7'	44°05.3'	N 23°10.3'	44°02.4'	N 23°06.4'
16	59°17.5'	N 23°21.4'	59°14.4'	N 23°19.2'	59°11.3'	N 23°16.6'	59°08.2'	N 23°13.5'	59°05.2'	N 23°10.1'	59°02.3'	N 23°06.3'
17	74°17.4'	N 23°21.3'	74°14.2'	N 23°19.1'	74°11.1'	N 23°16.4'	74°08.1'	N 23°13.4'	74°05.1'	N 23°10.0'	74°02.2'	N 23°06.1'
18	89°17.2'	N 23°21.2'	89°14.1'	N 23°19.0'	89°11.0'	N 23°16.3'	89°08.0'	N 23°13.3'	89°05.0'	N 23°09.8'	89°02.0'	N 23°05.9'
19	104°17.1'	N 23°21.1'	104°14.0'	N 23°18.9'	104°10.9'	N 23°16.2'	104°07.8'	N 23°13.1'	104°04.8'	N 23°09.7'	104°01.9'	N 23°05.8'
20	119°17.0'	N 23°21.0'	119°13.8'	N 23°18.8'	119°10.7'	N 23°16.1'	119°07.7'	N 23°13.0'	119°04.7'	N 23°09.5'	119°01.8'	N 23°05.6'
21	134°16.8'	N 23°20.9'	134°13.7'	N 23°18.7'	134°10.6'	N 23°16.0'	134°07.6'	N 23°12.9'	134°04.6'	N 23°09.3'	134°01.7'	N 23°05.4'
22	149°16.7'	N 23°20.9'	149°13.6'	N 23°18.5'	149°10.5'	N 23°15.8'	149°07.5'	N 23°12.7'	149°04.5'	N 23°09.2'	149°01.6'	N 23°05.3'
23	164°16.6'	N 23°20.8'	164°13.4'	N 23°18.4'	164°10.4'	N 23°15.7'	164°07.3'	N 23°12.6'	164°04.4'	N 23°09.0'	164°01.4'	N 23°05.1'
Zeitgl. 0h / 12h	-02:42 / -02:48		-02:54 / -03:01		-03:07 / -03:13		-03:19 / -03:25		-03:31 / -03:37		-03:43 / -03:49	
Kulmination UT	12:02:48		12:03:01		12:03:13		12:03:25		12:03:37		12:03:49	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

2028

Juli

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Sa 01.07.		So 02.07.		Mo 03.07.		Di 04.07.		Mi 05.07.		Do 06.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°01.3'	N 23°04.9'	178°58.5'	N 23°00.5'	178°55.7'	N 22°55.8'	178°53.0'	N 22°50.6'	178°50.4'	N 22°45.0'	178°47.8'	N 22°39.1'
01	194°01.2'	N 23°04.7'	193°58.4'	N 23°00.3'	193°55.6'	N 22°55.6'	193°52.9'	N 22°50.4'	193°50.3'	N 22°44.8'	193°47.7'	N 22°38.8'
02	209°01.1'	N 23°04.6'	208°58.2'	N 23°00.2'	208°55.5'	N 22°55.4'	208°52.8'	N 22°50.1'	208°50.2'	N 22°44.5'	208°47.6'	N 22°38.6'
03	224°01.0'	N 23°04.4'	223°58.1'	N 23°00.0'	223°55.4'	N 22°55.1'	223°52.7'	N 22°49.9'	223°50.1'	N 22°44.3'	223°47.5'	N 22°38.3'
04	239°00.8'	N 23°04.2'	238°58.0'	N 22°59.8'	238°55.2'	N 22°54.9'	238°52.6'	N 22°49.7'	238°49.9'	N 22°44.1'	238°47.4'	N 22°38.0'
05	254°00.7'	N 23°04.0'	253°57.9'	N 22°59.6'	253°55.1'	N 22°54.7'	253°52.4'	N 22°49.5'	253°49.8'	N 22°43.8'	253°47.3'	N 22°37.8'
06	269°00.6'	N 23°03.9'	268°57.8'	N 22°59.4'	268°55.0'	N 22°54.5'	268°52.3'	N 22°49.2'	268°49.7'	N 22°43.6'	268°47.2'	N 22°37.5'
07	284°00.5'	N 23°03.7'	283°57.7'	N 22°59.2'	283°54.9'	N 22°54.3'	283°52.2'	N 22°49.0'	283°49.6'	N 22°43.3'	283°47.1'	N 22°37.3'
08	299°00.4'	N 23°03.5'	298°57.5'	N 22°59.0'	298°54.8'	N 22°54.1'	298°52.1'	N 22°48.8'	298°49.5'	N 22°43.1'	298°47.0'	N 22°37.0'
09	314°00.2'	N 23°03.3'	313°57.4'	N 22°58.8'	313°54.7'	N 22°53.9'	313°52.0'	N 22°48.6'	313°49.4'	N 22°42.8'	313°46.9'	N 22°36.7'
10	329°00.1'	N 23°03.1'	328°57.3'	N 22°58.6'	328°54.6'	N 22°53.7'	328°51.9'	N 22°48.3'	328°49.3'	N 22°42.6'	328°46.8'	N 22°36.5'
11	344°00.0'	N 23°03.0'	343°57.2'	N 22°58.4'	343°54.4'	N 22°53.4'	343°51.8'	N 22°48.1'	343°49.2'	N 22°42.3'	343°46.7'	N 22°36.2'
12	358°59.9'	N 23°02.8'	358°57.1'	N 22°58.2'	358°54.3'	N 22°53.2'	358°51.7'	N 22°47.9'	358°49.1'	N 22°42.1'	358°46.6'	N 22°35.9'
13	13°59.8'	N 23°02.6'	13°57.0'	N 22°58.0'	13°54.2'	N 22°53.0'	13°51.6'	N 22°47.6'	13°49.0'	N 22°41.8'	13°46.5'	N 22°35.7'
14	28°59.7'	N 23°02.4'	28°56.8'	N 22°57.8'	28°54.1'	N 22°52.8'	28°51.5'	N 22°47.4'	28°48.9'	N 22°41.6'	28°46.4'	N 22°35.4'
15	43°59.5'	N 23°02.2'	43°56.7'	N 22°57.6'	43°54.0'	N 22°52.6'	43°51.3'	N 22°47.2'	43°48.8'	N 22°41.3'	43°46.3'	N 22°35.1'
16	58°59.4'	N 23°02.0'	58°56.6'	N 22°57.4'	58°53.9'	N 22°52.4'	58°51.2'	N 22°46.9'	58°48.7'	N 22°41.1'	58°46.2'	N 22°34.9'
17	73°59.3'	N 23°01.9'	73°56.5'	N 22°57.2'	73°53.8'	N 22°52.1'	73°51.1'	N 22°46.7'	73°48.6'	N 22°40.8'	73°46.1'	N 22°34.6'
18	88°59.2'	N 23°01.7'	88°56.4'	N 22°57.0'	88°53.7'	N 22°51.9'	88°51.0'	N 22°46.5'	88°48.5'	N 22°40.6'	88°46.0'	N 22°34.3'
19	103°59.1'	N 23°01.5'	103°56.3'	N 22°56.8'	103°53.6'	N 22°51.7'	103°50.9'	N 22°46.2'	103°48.4'	N 22°40.3'	103°45.9'	N 22°34.1'
20	118°58.9'	N 23°01.3'	118°56.2'	N 22°56.6'	118°53.4'	N 22°51.5'	118°50.8'	N 22°46.0'	118°48.3'	N 22°40.1'	118°45.8'	N 22°33.8'
21	133°58.8'	N 23°01.1'	133°56.0'	N 22°56.4'	133°53.3'	N 22°51.3'	133°50.7'	N 22°45.7'	133°48.2'	N 22°39.8'	133°45.7'	N 22°33.5'
22	148°58.7'	N 23°00.9'	148°55.9'	N 22°56.2'	148°53.2'	N 22°51.0'	148°50.6'	N 22°45.5'	148°48.1'	N 22°39.6'	148°45.6'	N 22°33.3'
23	163°58.6'	N 23°00.7'	163°55.8'	N 22°56.0'	163°53.1'	N 22°50.8'	163°50.5'	N 22°45.3'	163°47.9'	N 22°39.3'	163°45.5'	N 22°33.0'
Zeitgl. 0h / 12h	-03:55 / -04:00		-04:06 / -04:12		-04:17 / -04:23		-04:28 / -04:33		-04:38 / -04:44		-04:49 / -04:54	
Kulmination UT	12:04:00		12:04:12		12:04:23		12:04:33		12:04:44		12:04:54	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Fr 07.07.		Sa 08.07.		So 09.07.		Mo 10.07.		Di 11.07.		Mi 12.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°45.4'	N 22°32.7'	178°43.1'	N 22°26.0'	178°40.8'	N 22°18.8'	178°38.7'	N 22°11.3'	178°36.6'	N 22°03.4'	178°34.7'	N 21°55.1'
01	193°45.3'	N 22°32.4'	193°43.0'	N 22°25.7'	193°40.7'	N 22°18.5'	193°38.6'	N 22°11.0'	193°36.6'	N 22°03.1'	193°34.6'	N 21°54.8'
02	208°45.2'	N 22°32.2'	208°42.9'	N 22°25.4'	208°40.6'	N 22°18.2'	208°38.5'	N 22°10.7'	208°36.5'	N 22°02.7'	208°34.6'	N 21°54.4'
03	223°45.1'	N 22°31.9'	223°42.8'	N 22°25.1'	223°40.5'	N 22°17.9'	223°38.4'	N 22°10.3'	223°36.4'	N 22°02.4'	223°34.5'	N 21°54.1'
04	238°45.0'	N 22°31.6'	238°42.7'	N 22°24.8'	238°40.4'	N 22°17.6'	238°38.3'	N 22°10.0'	238°36.3'	N 22°02.1'	238°34.4'	N 21°53.7'
05	253°44.9'	N 22°31.3'	253°42.6'	N 22°24.5'	253°40.4'	N 22°17.3'	253°38.2'	N 22°09.7'	253°36.2'	N 22°01.7'	253°34.3'	N 21°53.4'
06	268°44.8'	N 22°31.1'	268°42.5'	N 22°24.2'	268°40.3'	N 22°17.0'	268°38.2'	N 22°09.4'	268°36.2'	N 22°01.4'	268°34.3'	N 21°53.0'
07	283°44.7'	N 22°30.8'	283°42.4'	N 22°23.9'	283°40.2'	N 22°16.7'	283°38.1'	N 22°09.0'	283°36.1'	N 22°01.0'	283°34.2'	N 21°52.6'
08	298°44.6'	N 22°30.5'	298°42.3'	N 22°23.6'	298°40.1'	N 22°16.4'	298°38.0'	N 22°08.7'	298°36.0'	N 22°00.7'	298°34.1'	N 21°52.3'
09	313°44.5'	N 22°30.2'	313°42.2'	N 22°23.3'	313°40.0'	N 22°16.1'	313°37.9'	N 22°08.4'	313°35.9'	N 22°00.4'	313°34.0'	N 21°51.9'
10	328°44.4'	N 22°29.9'	328°42.1'	N 22°23.0'	328°39.9'	N 22°15.7'	328°37.8'	N 22°08.1'	328°35.8'	N 22°00.0'	328°34.0'	N 21°51.6'
11	343°44.3'	N 22°29.7'	343°42.0'	N 22°22.7'	343°39.8'	N 22°15.4'	343°37.7'	N 22°07.7'	343°35.7'	N 21°59.7'	343°33.9'	N 21°51.2'
12	358°44.2'	N 22°29.4'	358°41.9'	N 22°22.4'	358°39.7'	N 22°15.1'	358°37.6'	N 22°07.4'	358°35.7'	N 21°59.3'	358°33.8'	N 21°50.9'
13	13°44.1'	N 22°29.1'	13°41.8'	N 22°22.1'	13°39.6'	N 22°14.8'	13°37.6'	N 22°07.1'	13°35.6'	N 21°59.0'	13°33.7'	N 21°50.5'
14	28°44.0'	N 22°28.8'	28°41.7'	N 22°21.8'	28°39.6'	N 22°14.5'	28°37.5'	N 22°06.7'	28°35.5'	N 21°58.6'	28°33.7'	N 21°50.1'
15	43°43.9'	N 22°28.5'	43°41.6'	N 22°21.5'	43°39.5'	N 22°14.2'	43°37.4'	N 22°06.4'	43°35.4'	N 21°58.3'	43°33.6'	N 21°49.8'
16	58°43.8'	N 22°28.3'	58°41.6'	N 22°21.3'	58°39.4'	N 22°13.9'	58°37.3'	N 22°06.1'	58°35.3'	N 21°57.9'	58°33.5'	N 21°49.4'
17	73°43.7'	N 22°28.0'	73°41.5'	N 22°20.9'	73°39.3'	N 22°13.5'	73°37.2'	N 22°05.8'	73°35.3'	N 21°57.6'	73°33.4'	N 21°49.0'
18	88°43.6'	N 22°27.7'	88°41.4'	N 22°20.6'	88°39.2'	N 22°13.2'	88°37.1'	N 22°05.4'	88°35.2'	N 21°57.2'	88°33.4'	N 21°48.7'
19	103°43.5'	N 22°27.4'	103°41.3'	N 22°20.3'	103°39.1'	N 22°12.9'	103°37.1'	N 22°05.1'	103°35.1'	N 21°56.9'	103°33.3'	N 21°48.3'
20	118°43.4'	N 22°27.1'	118°41.2'	N 22°20.0'	118°39.0'	N 22°12.6'	118°37.0'	N 22°04.8'	118°35.0'	N 21°56.5'	118°33.2'	N 21°47.9'
21	133°43.3'	N 22°26.8'	133°41.1'	N 22°19.7'	133°38.9'	N 22°12.3'	133°36.9'	N 22°04.4'	133°35.0'	N 21°56.2'	133°33.1'	N 21°47.6'
22	148°43.3'	N 22°26.5'	148°41.0'	N 22°19.4'	148°38.8'	N 22°12.0'	148°36.8'	N 22°04.1'	148°34.9'	N 21°55.8'	148°33.1'	N 21°47.2'
23	163°43.2'	N 22°26.3'	163°40.9'	N 22°19.1'	163°38.8'	N 22°11.6'	163°36.7'	N 22°03.7'	163°34.8'	N 21°55.5'	163°33.0'	N 21°46.8'
Zeitgl. 0h / 12h	-04:58 / -05:03		-05:08 / -05:12		-05:17 / -05:21		-05:25 / -05:29		-05:33 / -05:37		-05:41 / -05:45	
Kulmination UT	12:05:03		12:05:12		12:05:21		12:05:29		12:05:37		12:05:45	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Do 13.07.		Fr 14.07.		Sa 15.07.		So 16.07.		Mo 17.07.		Di 18.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°32.9'	N 21°46.5'	178°31.2'	N 21°37.5'	178°29.7'	N 21°28.1'	178°28.3'	N 21°18.3'	178°26.9'	N 21°08.2'	178°25.8'	N 20°57.7'
01	193°32.8'	N 21°46.1'	193°31.2'	N 21°37.1'	193°29.6'	N 21°27.7'	193°28.2'	N 21°17.9'	193°26.9'	N 21°07.7'	193°25.7'	N 20°57.3'
02	208°32.8'	N 21°45.7'	208°31.1'	N 21°36.7'	208°29.6'	N 21°27.3'	208°28.1'	N 21°17.5'	208°26.8'	N 21°07.3'	208°25.7'	N 20°56.8'
03	223°32.7'	N 21°45.4'	223°31.0'	N 21°36.3'	223°29.5'	N 21°26.9'	223°28.1'	N 21°17.1'	223°26.8'	N 21°06.9'	223°25.6'	N 20°56.4'
04	238°32.6'	N 21°45.0'	238°31.0'	N 21°35.9'	238°29.4'	N 21°26.5'	238°28.0'	N 21°16.6'	238°26.7'	N 21°06.5'	238°25.6'	N 20°55.9'
05	253°32.6'	N 21°44.6'	253°30.9'	N 21°35.5'	253°29.4'	N 21°26.1'	253°28.0'	N 21°16.2'	253°26.7'	N 21°06.0'	253°25.6'	N 20°55.5'
06	268°32.5'	N 21°44.3'	268°30.8'	N 21°35.1'	268°29.3'	N 21°25.7'	268°27.9'	N 21°15.8'	268°26.6'	N 21°05.6'	268°25.5'	N 20°55.0'
07	283°32.4'	N 21°43.9'	283°30.8'	N 21°34.8'	283°29.3'	N 21°25.2'	283°27.9'	N 21°15.4'	283°26.6'	N 21°05.2'	283°25.5'	N 20°54.6'
08	298°32.3'	N 21°43.5'	298°30.7'	N 21°34.4'	298°29.2'	N 21°24.8'	298°27.8'	N 21°15.0'	298°26.5'	N 21°04.7'	298°25.4'	N 20°54.1'
09	313°32.3'	N 21°43.1'	313°30.6'	N 21°34.0'	313°29.1'	N 21°24.4'	313°27.7'	N 21°14.5'	313°26.5'	N 21°04.3'	313°25.4'	N 20°53.7'
10	328°32.2'	N 21°42.8'	328°30.6'	N 21°33.6'	328°29.1'	N 21°24.0'	328°27.7'	N 21°14.1'	328°26.4'	N 21°03.9'	328°25.3'	N 20°53.2'
11	343°32.1'	N 21°42.4'	343°30.5'	N 21°33.2'	343°29.0'	N 21°23.6'	343°27.6'	N 21°13.7'	343°26.4'	N 21°03.4'	343°25.3'	N 20°52.8'
12	358°32.1'	N 21°42.0'	358°30.4'	N 21°32.8'	358°29.0'	N 21°23.2'	358°27.6'	N 21°13.3'	358°26.3'	N 21°03.0'	358°25.2'	N 20°52.3'
13	13°32.0'	N 21°41.6'	13°30.4'	N 21°32.4'	13°28.9'	N 21°22.8'	13°27.5'	N 21°12.9'	13°26.3'	N 21°02.5'	13°25.2'	N 20°51.9'
14	28°31.9'	N 21°41.3'	28°30.3'	N 21°32.0'	28°28.8'	N 21°22.4'	28°27.5'	N 21°12.4'	28°26.3'	N 21°02.1'	28°25.2'	N 20°51.4'
15	43°31.9'	N 21°40.9'	43°30.3'	N 21°31.6'	43°28.8'	N 21°22.0'	43°27.4'	N 21°12.0'	43°26.2'	N 21°01.7'	43°25.1'	N 20°51.0'
16	58°31.8'	N 21°40.5'	58°30.2'	N 21°31.2'	58°28.7'	N 21°21.6'	58°27.4'	N 21°11.6'	58°26.2'	N 21°01.2'	58°25.1'	N 20°50.5'
17	73°31.7'	N 21°40.1'	73°30.1'	N 21°30.8'	73°28.7'	N 21°21.2'	73°27.3'	N 21°11.2'	73°26.1'	N 21°00.8'	73°25.0'	N 20°50.1'
18	88°31.6'	N 21°39.7'	88°30.1'	N 21°30.4'	88°28.6'	N 21°20.8'	88°27.3'	N 21°10.7'	88°26.1'	N 21°00.4'	88°25.0'	N 20°49.6'
19	103°31.6'	N 21°39.4'	103°30.0'	N 21°30.0'	103°28.5'	N 21°20.4'	103°27.2'	N 21°10.3'	103°26.0'	N 20°59.9'	103°25.0'	N 20°49.2'
20	118°31.5'	N 21°39.0'	118°29.9'	N 21°29.6'	118°28.5'	N 21°20.0'	118°27.2'	N 21°09.9'	118°26.0'	N 20°59.5'	118°24.9'	N 20°48.7'
21	133°31.4'	N 21°38.6'	133°29.9'	N 21°29.3'	133°28.4'	N 21°19.5'	133°27.1'	N 21°09.5'	133°25.9'	N 20°59.0'	133°24.9'	N 20°48.2'
22	148°31.4'	N 21°38.2'	148°29.8'	N 21°28.9'	148°28.4'	N 21°19.1'	148°27.1'	N 21°09.0'	148°25.9'	N 20°58.6'	148°24.8'	N 20°47.8'
23	163°31.3'	N 21°37.8'	163°29.7'	N 21°28.5'	163°28.3'	N 21°18.7'	163°27.0'	N 21°08.6'	163°25.8'	N 20°58.1'	163°24.8'	N 20°47.3'
Zeitgl. 0h / 12h	-05:48 / -05:52		-05:55 / -05:58		-06:01 / -06:04		-06:07 / -06:10		-06:12 / -06:15		-06:17 / -06:19	
Kulmination UT	12:05:52		12:05:58		12:06:04		12:06:10		12:06:15		12:06:19	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Mi 19.07.		Do 20.07.		Fr 21.07.		Sa 22.07.		So 23.07.		Mo 24.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°24.8'	N 20°46.9'	178°23.9'	N 20°35.7'	178°23.1'	N 20°24.2'	178°22.5'	N 20°12.3'	178°22.0'	N 20°00.1'	178°21.7'	N 19°47.5'
01	193°24.7'	N 20°46.4'	193°23.8'	N 20°35.2'	193°23.1'	N 20°23.7'	193°22.5'	N 20°11.8'	193°22.0'	N 19°59.6'	193°21.7'	N 19°47.0'
02	208°24.7'	N 20°45.9'	208°23.8'	N 20°34.7'	208°23.0'	N 20°23.2'	208°22.4'	N 20°11.3'	208°22.0'	N 19°59.0'	208°21.7'	N 19°46.5'
03	223°24.6'	N 20°45.5'	223°23.8'	N 20°34.3'	223°23.0'	N 20°22.7'	223°22.4'	N 20°10.8'	223°22.0'	N 19°58.5'	223°21.7'	N 19°45.9'
04	238°24.6'	N 20°45.0'	238°23.7'	N 20°33.8'	238°23.0'	N 20°22.2'	238°22.4'	N 20°10.3'	238°22.0'	N 19°58.0'	238°21.7'	N 19°45.4'
05	253°24.6'	N 20°44.6'	253°23.7'	N 20°33.3'	253°23.0'	N 20°21.7'	253°22.4'	N 20°09.8'	253°21.9'	N 19°57.5'	253°21.7'	N 19°44.9'
06	268°24.5'	N 20°44.1'	268°23.7'	N 20°32.8'	268°22.9'	N 20°21.2'	268°22.4'	N 20°09.3'	268°21.9'	N 19°57.0'	268°21.6'	N 19°44.3'
07	283°24.5'	N 20°43.6'	283°23.6'	N 20°32.4'	283°22.9'	N 20°20.7'	283°22.3'	N 20°08.8'	283°21.9'	N 19°56.5'	283°21.6'	N 19°43.8'
08	298°24.4'	N 20°43.2'	298°23.6'	N 20°31.9'	298°22.9'	N 20°20.2'	298°22.3'	N 20°08.3'	298°21.9'	N 19°55.9'	298°21.6'	N 19°43.3'
09	313°24.4'	N 20°42.7'	313°23.6'	N 20°31.4'	313°22.9'	N 20°19.7'	313°22.3'	N 20°07.7'	313°21.9'	N 19°55.4'	313°21.6'	N 19°42.7'
10	328°24.4'	N 20°42.2'	328°23.5'	N 20°30.9'	328°22.8'	N 20°19.2'	328°22.3'	N 20°07.2'	328°21.9'	N 19°54.9'	328°21.6'	N 19°42.2'
11	343°24.3'	N 20°41.8'	343°23.5'	N 20°30.4'	343°22.8'	N 20°18.8'	343°22.3'	N 20°06.7'	343°21.9'	N 19°54.4'	343°21.6'	N 19°41.7'
12	358°24.3'	N 20°41.3'	358°23.5'	N 20°30.0'	358°22.8'	N 20°18.3'	358°22.2'	N 20°06.2'	358°21.8'	N 19°53.8'	358°21.6'	N 19°41.1'
13	13°24.2'	N 20°40.9'	13°23.4'	N 20°29.5'	13°22.8'	N 20°17.8'	13°22.2'	N 20°05.7'	13°21.8'	N 19°53.3'	13°21.6'	N 19°40.6'
14	28°24.2'	N 20°40.4'	28°23.4'	N 20°29.0'	28°22.7'	N 20°17.3'	28°22.2'	N 20°05.2'	28°21.8'	N 19°52.8'	28°21.6'	N 19°40.1'
15	43°24.2'	N 20°39.9'	43°23.4'	N 20°28.5'	43°22.7'	N 20°16.8'	43°22.2'	N 20°04.7'	43°21.8'	N 19°52.3'	43°21.6'	N 19°39.5'
16	58°24.1'	N 20°39.4'	58°23.3'	N 20°28.0'	58°22.7'	N 20°16.3'	58°22.2'	N 20°04.2'	58°21.8'	N 19°51.8'	58°21.6'	N 19°39.0'
17	73°24.1'	N 20°39.0'	73°23.3'	N 20°27.6'	73°22.7'	N 20°15.8'	73°22.1'	N 20°03.7'	73°21.8'	N 19°51.2'	73°21.6'	N 19°38.5'
18	88°24.1'	N 20°38.5'	88°23.3'	N 20°27.1'	88°22.6'	N 20°15.3'	88°22.1'	N 20°03.2'	88°21.8'	N 19°50.7'	88°21.6'	N 19°37.9'
19	103°24.0'	N 20°38.0'	103°23.2'	N 20°26.6'	103°22.6'	N 20°14.8'	103°22.1'	N 20°02.6'	103°21.8'	N 19°50.2'	103°21.6'	N 19°37.4'
20	118°24.0'	N 20°37.6'	118°23.2'	N 20°26.1'	118°22.6'	N 20°14.3'	118°22.1'	N 20°02.1'	118°21.7'	N 19°49.6'	118°21.6'	N 19°36.8'
21	133°24.0'	N 20°37.1'	133°23.2'	N 20°25.6'	133°22.6'	N 20°13.8'	133°22.1'	N 20°01.6'	133°21.7'	N 19°49.1'	133°21.5'	N 19°36.3'
22	148°23.9'	N 20°36.6'	148°23.2'	N 20°25.1'	148°22.5'	N 20°13.3'	148°22.1'	N 20°01.1'	148°21.7'	N 19°48.6'	148°21.5'	N 19°35.7'
23	163°23.9'	N 20°36.2'	163°23.1'	N 20°24.6'	163°22.5'	N 20°12.8'	163°22.0'	N 20°00.6'	163°21.7'	N 19°48.1'	163°21.5'	N 19°35.2'
Zeitgl. 0h / 12h	-06:21 / -06:23		-06:25 / -06:26		-06:28 / -06:29		-06:30 / -06:31		-06:32 / -06:33		-06:33 / -06:34	
Kulmination UT	12:06:23		12:06:26		12:06:29		12:06:31		12:06:33		12:06:34	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Di 25.07.		Mi 26.07.		Do 27.07.		Fr 28.07.		Sa 29.07.		So 30.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°21.5'	N 19°34.7'	178°21.5'	N 19°21.5'	178°21.6'	N 19°08.0'	178°21.9'	N 18°54.1'	178°22.3'	N 18°40.0'	178°22.9'	N 18°25.5'
01	193°21.5'	N 19°34.1'	193°21.5'	N 19°20.9'	193°21.6'	N 19°07.4'	193°21.9'	N 18°53.5'	193°22.4'	N 18°39.4'	193°22.9'	N 18°24.9'
02	208°21.5'	N 19°33.6'	208°21.5'	N 19°20.4'	208°21.7'	N 19°06.8'	208°21.9'	N 18°53.0'	208°22.4'	N 18°38.8'	208°23.0'	N 18°24.3'
03	223°21.5'	N 19°33.0'	223°21.5'	N 19°19.8'	223°21.7'	N 19°06.2'	223°22.0'	N 18°52.4'	223°22.4'	N 18°38.2'	223°23.0'	N 18°23.7'
04	238°21.5'	N 19°32.5'	238°21.5'	N 19°19.2'	238°21.7'	N 19°05.7'	238°22.0'	N 18°51.8'	238°22.4'	N 18°37.6'	238°23.0'	N 18°23.1'
05	253°21.5'	N 19°31.9'	253°21.5'	N 19°18.7'	253°21.7'	N 19°05.1'	253°22.0'	N 18°51.2'	253°22.5'	N 18°37.0'	253°23.1'	N 18°22.5'
06	268°21.5'	N 19°31.4'	268°21.5'	N 19°18.1'	268°21.7'	N 19°04.5'	268°22.0'	N 18°50.6'	268°22.5'	N 18°36.4'	268°23.1'	N 18°21.9'
07	283°21.5'	N 19°30.8'	283°21.5'	N 19°17.6'	283°21.7'	N 19°04.0'	283°22.0'	N 18°50.0'	283°22.5'	N 18°35.8'	283°23.1'	N 18°21.3'
08	298°21.5'	N 19°30.3'	298°21.5'	N 19°17.0'	298°21.7'	N 19°03.4'	298°22.0'	N 18°49.4'	298°22.5'	N 18°35.2'	298°23.1'	N 18°20.6'
09	313°21.5'	N 19°29.8'	313°21.5'	N 19°16.4'	313°21.7'	N 19°02.8'	313°22.1'	N 18°48.9'	313°22.5'	N 18°34.6'	313°23.2'	N 18°20.0'
10	328°21.5'	N 19°29.2'	328°21.5'	N 19°15.9'	328°21.7'	N 19°02.2'	328°22.1'	N 18°48.3'	328°22.6'	N 18°34.0'	328°23.2'	N 18°19.4'
11	343°21.5'	N 19°28.7'	343°21.5'	N 19°15.3'	343°21.7'	N 19°01.7'	343°22.1'	N 18°47.7'	343°22.6'	N 18°33.4'	343°23.2'	N 18°18.8'
12	358°21.5'	N 19°28.1'	358°21.6'	N 19°14.7'	358°21.8'	N 19°01.1'	358°22.1'	N 18°47.1'	358°22.6'	N 18°32.8'	358°23.3'	N 18°18.2'
13	13°21.5'	N 19°27.6'	13°21.6'	N 19°14.2'	13°21.8'	N 19°00.5'	13°22.1'	N 18°46.5'	13°22.6'	N 18°32.2'	13°23.3'	N 18°17.6'
14	28°21.5'	N 19°27.0'	28°21.6'	N 19°13.6'	28°21.8'	N 18°59.9'	28°22.1'	N 18°45.9'	28°22.7'	N 18°31.6'	28°23.3'	N 18°17.0'
15	43°21.5'	N 19°26.5'	43°21.6'	N 19°13.1'	43°21.8'	N 18°59.3'	43°22.2'	N 18°45.3'	43°22.7'	N 18°31.0'	43°23.4'	N 18°16.3'
16	58°21.5'	N 19°25.9'	58°21.6'	N 19°12.5'	58°21.8'	N 18°58.8'	58°22.2'	N 18°44.7'	58°22.7'	N 18°30.4'	58°23.4'	N 18°15.7'
17	73°21.5'	N 19°25.3'	73°21.6'	N 19°11.9'	73°21.8'	N 18°58.2'	73°22.2'	N 18°44.1'	73°22.7'	N 18°29.8'	73°23.4'	N 18°15.1'
18	88°21.5'	N 19°24.8'	88°21.6'	N 19°11.4'	88°21.8'	N 18°57.6'	88°22.2'	N 18°43.5'	88°22.8'	N 18°29.2'	88°23.5'	N 18°14.5'
19	103°21.5'	N 19°24.2'	103°21.6'	N 19°10.8'	103°21.8'	N 18°57.0'	103°22.2'	N 18°43.0'	103°22.8'	N 18°28.6'	103°23.5'	N 18°13.9'
20	118°21.5'	N 19°23.7'	118°21.6'	N 19°10.2'	118°21.9'	N 18°56.4'	118°22.3'	N 18°42.4'	118°22.8'	N 18°28.0'	118°23.5'	N 18°13.3'
21	133°21.5'	N 19°23.1'	133°21.6'	N 19°09.7'	133°21.9'	N 18°55.9'	133°22.3'	N 18°41.8'	133°22.8'	N 18°27.4'	133°23.6'	N 18°12.6'
22	148°21.5'	N 19°22.6'	148°21.6'	N 19°09.1'	148°21.9'	N 18°55.3'	148°22.3'	N 18°41.2'	148°22.9'	N 18°26.7'	148°23.6'	N 18°12.0'
23	163°21.5'	N 19°22.0'	163°21.6'	N 19°08.5'	163°21.9'	N 18°54.7'	163°22.3'	N 18°40.6'	163°22.9'	N 18°26.1'	163°23.6'	N 18°11.4'
Zeitgl. 0h / 12h	-06:34 / -06:34		-06:34 / -06:34		-06:33 / -06:33		-06:32 / -06:32		-06:31 / -06:30		-06:28 / -06:27	
Kulmination UT	12:06:34		12:06:34		12:06:33		12:06:32		12:06:30		12:06:27	
Halbmesser	15.7'		15.7'		15.7'		15.8'		15.8'		15.8'	

Mo 31.07.

UT	Grt	Dec
00	178°23.7'	N 18°10.8'
01	193°23.7'	N 18°10.2'
02	208°23.7'	N 18°09.5'
03	223°23.8'	N 18°08.9'
04	238°23.8'	N 18°08.3'
05	253°23.8'	N 18°07.7'
06	268°23.9'	N 18°07.0'
07	283°23.9'	N 18°06.4'
08	298°23.9'	N 18°05.8'
09	313°24.0'	N 18°05.2'
10	328°24.0'	N 18°04.5'
11	343°24.0'	N 18°03.9'
12	358°24.1'	N 18°03.3'
13	13°24.1'	N 18°02.7'
14	28°24.2'	N 18°02.0'
15	43°24.2'	N 18°01.4'
16	58°24.2'	N 18°00.8'
17	73°24.3'	N 18°00.2'
18	88°24.3'	N 17°59.5'
19	103°24.3'	N 17°58.9'
20	118°24.4'	N 17°58.3'
21	133°24.4'	N 17°57.6'
22	148°24.5'	N 17°57.0'
23	163°24.5'	N 17°56.4'

Zeitgl. 0h / 12h -06:25 / -06:24

Kulmination UT 12:06:24

Halbmesser 15.8'

2028

August

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Di 01.08.		Mi 02.08.		Do 03.08.		Fr 04.08.		Sa 05.08.		So 06.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°24.5'	N 17°55.7'	178°25.6'	N 17°40.4'	178°26.8'	N 17°24.8'	178°28.1'	N 17°08.9'	178°29.6'	N 16°52.7'	178°31.2'	N 16°36.2'
01	193°24.6'	N 17°55.1'	193°25.6'	N 17°39.7'	193°26.8'	N 17°24.1'	193°28.2'	N 17°08.2'	193°29.7'	N 16°52.0'	193°31.3'	N 16°35.5'
02	208°24.6'	N 17°54.5'	208°25.7'	N 17°39.1'	208°26.9'	N 17°23.5'	208°28.2'	N 17°07.5'	208°29.7'	N 16°51.3'	208°31.4'	N 16°34.8'
03	223°24.7'	N 17°53.8'	223°25.7'	N 17°38.5'	223°26.9'	N 17°22.8'	223°28.3'	N 17°06.9'	223°29.8'	N 16°50.6'	223°31.4'	N 16°34.1'
04	238°24.7'	N 17°53.2'	238°25.8'	N 17°37.8'	238°27.0'	N 17°22.1'	238°28.3'	N 17°06.2'	238°29.9'	N 16°49.9'	238°31.5'	N 16°33.4'
05	253°24.7'	N 17°52.6'	253°25.8'	N 17°37.2'	253°27.0'	N 17°21.5'	253°28.4'	N 17°05.5'	253°29.9'	N 16°49.3'	253°31.6'	N 16°32.8'
06	268°24.8'	N 17°51.9'	268°25.9'	N 17°36.5'	268°27.1'	N 17°20.8'	268°28.5'	N 17°04.8'	268°30.0'	N 16°48.6'	268°31.7'	N 16°32.1'
07	283°24.8'	N 17°51.3'	283°25.9'	N 17°35.9'	283°27.1'	N 17°20.2'	283°28.5'	N 17°04.2'	283°30.1'	N 16°47.9'	283°31.7'	N 16°31.4'
08	298°24.9'	N 17°50.7'	298°26.0'	N 17°35.2'	298°27.2'	N 17°19.5'	298°28.6'	N 17°03.5'	298°30.1'	N 16°47.2'	298°31.8'	N 16°30.7'
09	313°24.9'	N 17°50.0'	313°26.0'	N 17°34.6'	313°27.2'	N 17°18.8'	313°28.6'	N 17°02.8'	313°30.2'	N 16°46.5'	313°31.9'	N 16°30.0'
10	328°25.0'	N 17°49.4'	328°26.1'	N 17°33.9'	328°27.3'	N 17°18.2'	328°28.7'	N 17°02.1'	328°30.3'	N 16°45.8'	328°32.0'	N 16°29.3'
11	343°25.0'	N 17°48.7'	343°26.1'	N 17°33.3'	343°27.4'	N 17°17.5'	343°28.8'	N 17°01.5'	343°30.3'	N 16°45.2'	343°32.0'	N 16°28.6'
12	358°25.0'	N 17°48.1'	358°26.2'	N 17°32.6'	358°27.4'	N 17°16.8'	358°28.8'	N 17°00.8'	358°30.4'	N 16°44.5'	358°32.1'	N 16°27.9'
13	13°25.1'	N 17°47.5'	13°26.2'	N 17°32.0'	13°27.5'	N 17°16.2'	13°28.9'	N 17°00.1'	13°30.5'	N 16°43.8'	13°32.2'	N 16°27.2'
14	28°25.1'	N 17°46.8'	28°26.3'	N 17°31.3'	28°27.5'	N 17°15.5'	28°29.0'	N 16°59.5'	28°30.5'	N 16°43.1'	28°32.3'	N 16°26.5'
15	43°25.2'	N 17°46.2'	43°26.3'	N 17°30.7'	43°27.6'	N 17°14.9'	43°29.0'	N 16°58.8'	43°30.6'	N 16°42.4'	43°32.3'	N 16°25.8'
16	58°25.2'	N 17°45.5'	58°26.4'	N 17°30.0'	58°27.6'	N 17°14.2'	58°29.1'	N 16°58.1'	58°30.7'	N 16°41.7'	58°32.4'	N 16°25.1'
17	73°25.3'	N 17°44.9'	73°26.4'	N 17°29.4'	73°27.7'	N 17°13.5'	73°29.1'	N 16°57.4'	73°30.7'	N 16°41.0'	73°32.5'	N 16°24.4'
18	88°25.3'	N 17°44.3'	88°26.5'	N 17°28.7'	88°27.8'	N 17°12.9'	88°29.2'	N 16°56.7'	88°30.8'	N 16°40.4'	88°32.6'	N 16°23.7'
19	103°25.3'	N 17°43.6'	103°26.5'	N 17°28.0'	103°27.8'	N 17°12.2'	103°29.3'	N 16°56.1'	103°30.9'	N 16°39.7'	103°32.6'	N 16°23.0'
20	118°25.4'	N 17°43.0'	118°26.6'	N 17°27.4'	118°27.9'	N 17°11.5'	118°29.3'	N 16°55.4'	118°31.0'	N 16°39.0'	118°32.7'	N 16°22.3'
21	133°25.4'	N 17°42.3'	133°26.6'	N 17°26.7'	133°27.9'	N 17°10.9'	133°29.4'	N 16°54.7'	133°31.0'	N 16°38.3'	133°32.8'	N 16°21.6'
22	148°25.5'	N 17°41.7'	148°26.7'	N 17°26.1'	148°28.0'	N 17°10.2'	148°29.5'	N 16°54.0'	148°31.1'	N 16°37.6'	148°32.9'	N 16°20.9'
23	163°25.5'	N 17°41.0'	163°26.7'	N 17°25.4'	163°28.0'	N 17°09.5'	163°29.5'	N 16°53.4'	163°31.2'	N 16°36.9'	163°32.9'	N 16°20.2'
Zeitgl. 0h / 12h	-06:22 / -06:20		-06:18 / -06:15		-06:13 / -06:10		-06:08 / -06:05		-06:02 / -05:58		-05:55 / -05:52	
Kulmination UT	12:06:20		12:06:15		12:06:10		12:06:05		12:05:58		12:05:52	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Mo 07.08.		Di 08.08.		Mi 09.08.		Do 10.08.		Fr 11.08.		Sa 12.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°33.0'	N 16°19.5'	178°35.0'	N 16°02.5'	178°37.0'	N 15°45.3'	178°39.3'	N 15°27.8'	178°41.6'	N 15°10.0'	178°44.1'	N 14°52.0'
01	193°33.1'	N 16°18.8'	193°35.0'	N 16°01.8'	193°37.1'	N 15°44.5'	193°39.4'	N 15°27.0'	193°41.7'	N 15°09.3'	193°44.2'	N 14°51.3'
02	208°33.2'	N 16°18.1'	208°35.1'	N 16°01.1'	208°37.2'	N 15°43.8'	208°39.5'	N 15°26.3'	208°41.8'	N 15°08.5'	208°44.4'	N 14°50.5'
03	223°33.3'	N 16°17.4'	223°35.2'	N 16°00.4'	223°37.3'	N 15°43.1'	223°39.6'	N 15°25.6'	223°41.9'	N 15°07.8'	223°44.5'	N 14°49.8'
04	238°33.3'	N 16°16.7'	238°35.3'	N 15°59.6'	238°37.4'	N 15°42.4'	238°39.6'	N 15°24.8'	238°42.0'	N 15°07.0'	238°44.6'	N 14°49.0'
05	253°33.4'	N 16°16.0'	253°35.4'	N 15°58.9'	253°37.5'	N 15°41.6'	253°39.7'	N 15°24.1'	253°42.1'	N 15°06.3'	253°44.7'	N 14°48.2'
06	268°33.5'	N 16°15.3'	268°35.5'	N 15°58.2'	268°37.6'	N 15°40.9'	268°39.8'	N 15°23.3'	268°42.2'	N 15°05.5'	268°44.8'	N 14°47.5'
07	283°33.6'	N 16°14.6'	283°35.5'	N 15°57.5'	283°37.7'	N 15°40.2'	283°39.9'	N 15°22.6'	283°42.3'	N 15°04.8'	283°44.9'	N 14°46.7'
08	298°33.7'	N 16°13.9'	298°35.6'	N 15°56.8'	298°37.8'	N 15°39.4'	298°40.0'	N 15°21.9'	298°42.5'	N 15°04.0'	298°45.0'	N 14°46.0'
09	313°33.7'	N 16°13.1'	313°35.7'	N 15°56.1'	313°37.9'	N 15°38.7'	313°40.1'	N 15°21.1'	313°42.6'	N 15°03.3'	313°45.1'	N 14°45.2'
10	328°33.8'	N 16°12.4'	328°35.8'	N 15°55.3'	328°37.9'	N 15°38.0'	328°40.2'	N 15°20.4'	328°42.7'	N 15°02.5'	328°45.2'	N 14°44.5'
11	343°33.9'	N 16°11.7'	343°35.9'	N 15°54.6'	343°38.0'	N 15°37.3'	343°40.3'	N 15°19.7'	343°42.8'	N 15°01.8'	343°45.3'	N 14°43.7'
12	358°34.0'	N 16°11.0'	358°36.0'	N 15°53.9'	358°38.1'	N 15°36.5'	358°40.4'	N 15°18.9'	358°42.9'	N 15°01.0'	358°45.4'	N 14°42.9'
13	13°34.1'	N 16°10.3'	13°36.1'	N 15°53.2'	13°38.2'	N 15°35.8'	13°40.5'	N 15°18.2'	13°43.0'	N 15°00.3'	13°45.6'	N 14°42.2'
14	28°34.1'	N 16°09.6'	28°36.2'	N 15°52.5'	28°38.3'	N 15°35.1'	28°40.6'	N 15°17.4'	28°43.1'	N 14°59.5'	28°45.7'	N 14°41.4'
15	43°34.2'	N 16°08.9'	43°36.2'	N 15°51.8'	43°38.4'	N 15°34.3'	43°40.7'	N 15°16.7'	43°43.2'	N 14°58.8'	43°45.8'	N 14°40.7'
16	58°34.3'	N 16°08.2'	58°36.3'	N 15°51.0'	58°38.5'	N 15°33.6'	58°40.8'	N 15°16.0'	58°43.3'	N 14°58.0'	58°45.9'	N 14°39.9'
17	73°34.4'	N 16°07.5'	73°36.4'	N 15°50.3'	73°38.6'	N 15°32.9'	73°40.9'	N 15°15.2'	73°43.4'	N 14°57.3'	73°46.0'	N 14°39.1'
18	88°34.5'	N 16°06.8'	88°36.5'	N 15°49.6'	88°38.7'	N 15°32.2'	88°41.0'	N 15°14.5'	88°43.5'	N 14°56.5'	88°46.1'	N 14°38.4'
19	103°34.5'	N 16°06.1'	103°36.6'	N 15°48.9'	103°38.8'	N 15°31.4'	103°41.1'	N 15°13.7'	103°43.6'	N 14°55.8'	103°46.2'	N 14°37.6'
20	118°34.6'	N 16°05.3'	118°36.7'	N 15°48.1'	118°38.9'	N 15°30.7'	118°41.2'	N 15°13.0'	118°43.7'	N 14°55.0'	118°46.3'	N 14°36.9'
21	133°34.7'	N 16°04.6'	133°36.8'	N 15°47.4'	133°39.0'	N 15°30.0'	133°41.3'	N 15°12.2'	133°43.8'	N 14°54.3'	133°46.5'	N 14°36.1'
22	148°34.8'	N 16°03.9'	148°36.9'	N 15°46.7'	148°39.1'	N 15°29.2'	148°41.4'	N 15°11.5'	148°43.9'	N 14°53.5'	148°46.6'	N 14°35.3'
23	163°34.9'	N 16°03.2'	163°36.9'	N 15°46.0'	163°39.2'	N 15°28.5'	163°41.5'	N 15°10.8'	163°44.0'	N 14°52.8'	163°46.7'	N 14°34.6'
Zeitgl. 0h / 12h	-05:48 / -05:44		-05:40 / -05:36		-05:32 / -05:27		-05:23 / -05:18		-05:13 / -05:09		-05:03 / -04:58	
Kulmination UT	12:05:44		12:05:36		12:05:27		12:05:18		12:05:09		12:04:58	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	So 13.08.		Mo 14.08.		Di 15.08.		Mi 16.08.		Do 17.08.		Fr 18.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°46.8'	N 14°33.8'	178°49.6'	N 14°15.3'	178°52.5'	N 13°56.7'	178°55.5'	N 13°37.8'	178°58.7'	N 13°18.6'	179°02.0'	N 12°59.3'
01	193°46.9'	N 14°33.0'	193°49.7'	N 14°14.6'	193°52.6'	N 13°55.9'	193°55.7'	N 13°37.0'	193°58.9'	N 13°17.8'	194°02.2'	N 12°58.5'
02	208°47.0'	N 14°32.3'	208°49.8'	N 14°13.8'	208°52.7'	N 13°55.1'	208°55.8'	N 13°36.2'	208°59.0'	N 13°17.0'	209°02.3'	N 12°57.7'
03	223°47.1'	N 14°31.5'	223°49.9'	N 14°13.0'	223°52.9'	N 13°54.3'	223°55.9'	N 13°35.4'	223°59.1'	N 13°16.2'	224°02.4'	N 12°56.9'
04	238°47.2'	N 14°30.7'	238°50.0'	N 14°12.2'	238°53.0'	N 13°53.5'	238°56.1'	N 13°34.6'	238°59.3'	N 13°15.4'	239°02.6'	N 12°56.1'
05	253°47.4'	N 14°30.0'	253°50.2'	N 14°11.5'	253°53.1'	N 13°52.7'	253°56.2'	N 13°33.8'	253°59.4'	N 13°14.6'	254°02.7'	N 12°55.3'
06	268°47.5'	N 14°29.2'	268°50.3'	N 14°10.7'	268°53.2'	N 13°52.0'	268°56.3'	N 13°33.0'	268°59.5'	N 13°13.8'	269°02.9'	N 12°54.4'
07	283°47.6'	N 14°28.4'	283°50.4'	N 14°09.9'	283°53.4'	N 13°51.2'	283°56.5'	N 13°32.2'	283°59.7'	N 13°13.0'	284°03.0'	N 12°53.6'
08	298°47.7'	N 14°27.7'	298°50.5'	N 14°09.1'	298°53.5'	N 13°50.4'	298°56.6'	N 13°31.4'	298°59.8'	N 13°12.2'	299°03.2'	N 12°52.8'
09	313°47.8'	N 14°26.9'	313°50.7'	N 14°08.4'	313°53.6'	N 13°49.6'	313°56.7'	N 13°30.6'	313°59.9'	N 13°11.4'	314°03.3'	N 12°52.0'
10	328°47.9'	N 14°26.1'	328°50.8'	N 14°07.6'	328°53.7'	N 13°48.8'	328°56.8'	N 13°29.8'	329°00.1'	N 13°10.6'	329°03.4'	N 12°51.2'
11	343°48.0'	N 14°25.4'	343°50.9'	N 14°06.8'	343°53.9'	N 13°48.0'	343°57.0'	N 13°29.0'	344°00.2'	N 13°09.8'	344°03.6'	N 12°50.4'
12	358°48.2'	N 14°24.6'	358°51.0'	N 14°06.0'	358°54.0'	N 13°47.2'	358°57.1'	N 13°28.2'	359°00.4'	N 13°09.0'	359°03.7'	N 12°49.6'
13	13°48.3'	N 14°23.8'	13°51.1'	N 14°05.3'	13°54.1'	N 13°46.4'	13°57.2'	N 13°27.4'	14°00.5'	N 13°08.2'	14°03.9'	N 12°48.8'
14	28°48.4'	N 14°23.1'	28°51.3'	N 14°04.5'	28°54.3'	N 13°45.7'	28°57.4'	N 13°26.6'	29°00.6'	N 13°07.4'	29°04.0'	N 12°47.9'
15	43°48.5'	N 14°22.3'	43°51.4'	N 14°03.7'	43°54.4'	N 13°44.9'	43°57.5'	N 13°25.8'	44°00.8'	N 13°06.6'	44°04.2'	N 12°47.1'
16	58°48.6'	N 14°21.5'	58°51.5'	N 14°02.9'	58°54.5'	N 13°44.1'	58°57.6'	N 13°25.0'	59°00.9'	N 13°05.8'	59°04.3'	N 12°46.3'
17	73°48.7'	N 14°20.8'	73°51.6'	N 14°02.1'	73°54.6'	N 13°43.3'	73°57.8'	N 13°24.2'	74°01.0'	N 13°05.0'	74°04.4'	N 12°45.5'
18	88°48.9'	N 14°20.0'	88°51.7'	N 14°01.4'	88°54.8'	N 13°42.5'	88°57.9'	N 13°23.4'	89°01.2'	N 13°04.2'	89°04.6'	N 12°44.7'
19	103°49.0'	N 14°19.2'	103°51.9'	N 14°00.6'	103°54.9'	N 13°41.7'	103°58.0'	N 13°22.6'	104°01.3'	N 13°03.4'	104°04.7'	N 12°43.9'
20	118°49.1'	N 14°18.4'	118°52.0'	N 13°59.8'	118°55.0'	N 13°40.9'	118°58.2'	N 13°21.8'	119°01.5'	N 13°02.5'	119°04.9'	N 12°43.0'
21	133°49.2'	N 14°17.7'	133°52.1'	N 13°59.0'	133°55.2'	N 13°40.1'	133°58.3'	N 13°21.0'	134°01.6'	N 13°01.7'	134°05.0'	N 12°42.2'
22	148°49.3'	N 14°16.9'	148°52.2'	N 13°58.2'	148°55.3'	N 13°39.3'	148°58.4'	N 13°20.2'	149°01.7'	N 13°00.9'	149°05.2'	N 12°41.4'
23	163°49.5'	N 14°16.1'	163°52.4'	N 13°57.4'	163°55.4'	N 13°38.5'	163°58.6'	N 13°19.4'	164°01.9'	N 13°00.1'	164°05.3'	N 12°40.6'
Zeitgl. 0h / 12h	-04:53 / -04:47		-04:42 / -04:36		-04:30 / -04:24		-04:18 / -04:12		-04:05 / -03:59		-03:52 / -03:45	
Kulmination UT	12:04:47		12:04:36		12:04:24		12:04:12		12:03:59		12:03:45	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Sa 19.08.		So 20.08.		Mo 21.08.		Di 22.08.		Mi 23.08.		Do 24.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°05.5'	N 12°39.8'	179°09.0'	N 12°20.0'	179°12.7'	N 12°00.1'	179°16.4'	N 11°40.0'	179°20.3'	N 11°19.7'	179°24.3'	N 10°59.2'
01	194°05.6'	N 12°39.0'	194°09.2'	N 12°19.2'	194°12.8'	N 11°59.3'	194°16.6'	N 11°39.1'	194°20.5'	N 11°18.8'	194°24.5'	N 10°58.3'
02	209°05.7'	N 12°38.1'	209°09.3'	N 12°18.4'	209°13.0'	N 11°58.4'	209°16.8'	N 11°38.3'	209°20.7'	N 11°18.0'	209°24.7'	N 10°57.5'
03	224°05.9'	N 12°37.3'	224°09.5'	N 12°17.6'	224°13.1'	N 11°57.6'	224°16.9'	N 11°37.5'	224°20.8'	N 11°17.1'	224°24.8'	N 10°56.6'
04	239°06.0'	N 12°36.5'	239°09.6'	N 12°16.7'	239°13.3'	N 11°56.8'	239°17.1'	N 11°36.6'	239°21.0'	N 11°16.3'	239°25.0'	N 10°55.8'
05	254°06.2'	N 12°35.7'	254°09.8'	N 12°15.9'	254°13.4'	N 11°55.9'	254°17.2'	N 11°35.8'	254°21.2'	N 11°15.4'	254°25.2'	N 10°54.9'
06	269°06.3'	N 12°34.9'	269°09.9'	N 12°15.1'	269°13.6'	N 11°55.1'	269°17.4'	N 11°34.9'	269°21.3'	N 11°14.6'	269°25.4'	N 10°54.0'
07	284°06.5'	N 12°34.0'	284°10.1'	N 12°14.2'	284°13.8'	N 11°54.3'	284°17.6'	N 11°34.1'	284°21.5'	N 11°13.7'	284°25.5'	N 10°53.2'
08	299°06.6'	N 12°33.2'	299°10.2'	N 12°13.4'	299°13.9'	N 11°53.4'	299°17.7'	N 11°33.2'	299°21.7'	N 11°12.9'	299°25.7'	N 10°52.3'
09	314°06.8'	N 12°32.4'	314°10.4'	N 12°12.6'	314°14.1'	N 11°52.6'	314°17.9'	N 11°32.4'	314°21.8'	N 11°12.0'	314°25.9'	N 10°51.5'
10	329°06.9'	N 12°31.6'	329°10.5'	N 12°11.8'	329°14.2'	N 11°51.7'	329°18.1'	N 11°31.5'	329°22.0'	N 11°11.2'	329°26.0'	N 10°50.6'
11	344°07.1'	N 12°30.8'	344°10.7'	N 12°10.9'	344°14.4'	N 11°50.9'	344°18.2'	N 11°30.7'	344°22.2'	N 11°10.3'	344°26.2'	N 10°49.8'
12	359°07.2'	N 12°29.9'	359°10.8'	N 12°10.1'	359°14.5'	N 11°50.1'	359°18.4'	N 11°29.9'	359°22.3'	N 11°09.5'	359°26.4'	N 10°48.9'
13	14°07.4'	N 12°29.1'	14°11.0'	N 12°09.3'	14°14.7'	N 11°49.2'	14°18.5'	N 11°29.0'	14°22.5'	N 11°08.6'	14°26.5'	N 10°48.0'
14	29°07.5'	N 12°28.3'	29°11.1'	N 12°08.4'	29°14.9'	N 11°48.4'	29°18.7'	N 11°28.2'	29°22.7'	N 11°07.8'	29°26.7'	N 10°47.2'
15	44°07.7'	N 12°27.5'	44°11.3'	N 12°07.6'	44°15.0'	N 11°47.6'	44°18.9'	N 11°27.3'	44°22.8'	N 11°06.9'	44°26.9'	N 10°46.3'
16	59°07.8'	N 12°26.6'	59°11.4'	N 12°06.8'	59°15.2'	N 11°46.7'	59°19.0'	N 11°26.5'	59°23.0'	N 11°06.0'	59°27.1'	N 10°45.4'
17	74°08.0'	N 12°25.8'	74°11.6'	N 12°05.9'	74°15.3'	N 11°45.9'	74°19.2'	N 11°25.6'	74°23.2'	N 11°05.2'	74°27.2'	N 10°44.6'
18	89°08.1'	N 12°25.0'	89°11.7'	N 12°05.1'	89°15.5'	N 11°45.0'	89°19.4'	N 11°24.8'	89°23.3'	N 11°04.3'	89°27.4'	N 10°43.7'
19	104°08.3'	N 12°24.2'	104°11.9'	N 12°04.3'	104°15.6'	N 11°44.2'	104°19.5'	N 11°23.9'	104°23.5'	N 11°03.5'	104°27.6'	N 10°42.9'
20	119°08.4'	N 12°23.3'	119°12.0'	N 12°03.4'	119°15.8'	N 11°43.4'	119°19.7'	N 11°23.1'	119°23.7'	N 11°02.6'	119°27.7'	N 10°42.0'
21	134°08.6'	N 12°22.5'	134°12.2'	N 12°02.6'	134°16.0'	N 11°42.5'	134°19.8'	N 11°22.2'	134°23.8'	N 11°01.8'	134°27.9'	N 10°41.1'
22	149°08.7'	N 12°21.7'	149°12.4'	N 12°01.8'	149°16.1'	N 11°41.7'	149°20.0'	N 11°21.4'	149°24.0'	N 11°00.9'	149°28.1'	N 10°40.3'
23	164°08.9'	N 12°20.9'	164°12.5'	N 12°00.9'	164°16.3'	N 11°40.8'	164°20.2'	N 11°20.5'	164°24.2'	N 11°00.1'	164°28.3'	N 10°39.4'
Zeitgl. 0h / 12h	-03:38 / -03:31		-03:24 / -03:17		-03:09 / -03:02		-02:54 / -02:46		-02:39 / -02:31		-02:23 / -02:14	
Kulmination UT	12:03:31		12:03:17		12:03:02		12:02:46		12:02:31		12:02:14	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Fr 25.08.		Sa 26.08.		So 27.08.		Mo 28.08.		Di 29.08.		Mi 30.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°28.4'	N 10°38.5'	179°32.6'	N 10°17.7'	179°36.9'	N 9°56.7'	179°41.3'	N 9°35.6'	179°45.8'	N 9°14.3'	179°50.4'	N 8°52.8'
01	194°28.6'	N 10°37.7'	194°32.8'	N 10°16.8'	194°37.1'	N 9°55.8'	194°41.5'	N 9°34.7'	194°46.0'	N 9°13.4'	194°50.6'	N 8°51.9'
02	209°28.8'	N 10°36.8'	209°33.0'	N 10°16.0'	209°37.3'	N 9°55.0'	209°41.7'	N 9°33.8'	209°46.2'	N 9°12.5'	209°50.8'	N 8°51.0'
03	224°29.0'	N 10°35.9'	224°33.2'	N 10°15.1'	224°37.5'	N 9°54.1'	224°41.9'	N 9°32.9'	224°46.4'	N 9°11.6'	224°51.0'	N 8°50.1'
04	239°29.1'	N 10°35.1'	239°33.4'	N 10°14.2'	239°37.7'	N 9°53.2'	239°42.1'	N 9°32.0'	239°46.6'	N 9°10.7'	239°51.2'	N 8°49.2'
05	254°29.3'	N 10°34.2'	254°33.5'	N 10°13.4'	254°37.8'	N 9°52.3'	254°42.3'	N 9°31.2'	254°46.8'	N 9°09.8'	254°51.3'	N 8°48.3'
06	269°29.5'	N 10°33.3'	269°33.7'	N 10°12.5'	269°38.0'	N 9°51.5'	269°42.4'	N 9°30.3'	269°46.9'	N 9°08.9'	269°51.5'	N 8°47.4'
07	284°29.7'	N 10°32.5'	284°33.9'	N 10°11.6'	284°38.2'	N 9°50.6'	284°42.6'	N 9°29.4'	284°47.1'	N 9°08.0'	284°51.7'	N 8°46.5'
08	299°29.8'	N 10°31.6'	299°34.1'	N 10°10.7'	299°38.4'	N 9°49.7'	299°42.8'	N 9°28.5'	299°47.3'	N 9°07.1'	299°51.9'	N 8°45.7'
09	314°30.0'	N 10°30.7'	314°34.2'	N 10°09.9'	314°38.6'	N 9°48.8'	314°43.0'	N 9°27.6'	314°47.5'	N 9°06.3'	314°52.1'	N 8°44.8'
10	329°30.2'	N 10°29.9'	329°34.4'	N 10°09.0'	329°38.8'	N 9°47.9'	329°43.2'	N 9°26.7'	329°47.7'	N 9°05.4'	329°52.3'	N 8°43.9'
11	344°30.4'	N 10°29.0'	344°34.6'	N 10°08.1'	344°38.9'	N 9°47.1'	344°43.4'	N 9°25.8'	344°47.9'	N 9°04.5'	344°52.5'	N 8°43.0'
12	359°30.5'	N 10°28.1'	359°34.8'	N 10°07.2'	359°39.1'	N 9°46.2'	359°43.6'	N 9°24.9'	359°48.1'	N 9°03.6'	359°52.7'	N 8°42.1'
13	14°30.7'	N 10°27.3'	14°35.0'	N 10°06.4'	14°39.3'	N 9°45.3'	14°43.8'	N 9°24.1'	14°48.3'	N 9°02.7'	14°52.9'	N 8°41.2'
14	29°30.9'	N 10°26.4'	29°35.1'	N 10°05.5'	29°39.5'	N 9°44.4'	29°43.9'	N 9°23.2'	29°48.5'	N 9°01.8'	29°53.1'	N 8°40.3'
15	44°31.1'	N 10°25.5'	44°35.3'	N 10°04.6'	44°39.7'	N 9°43.5'	44°44.1'	N 9°22.3'	44°48.7'	N 9°00.9'	44°53.3'	N 8°39.4'
16	59°31.2'	N 10°24.7'	59°35.5'	N 10°03.7'	59°39.9'	N 9°42.6'	59°44.3'	N 9°21.4'	59°48.9'	N 9°00.0'	59°53.5'	N 8°38.5'
17	74°31.4'	N 10°23.8'	74°35.7'	N 10°02.9'	74°40.0'	N 9°41.8'	74°44.5'	N 9°20.5'	74°49.0'	N 8°59.1'	74°53.7'	N 8°37.6'
18	89°31.6'	N 10°22.9'	89°35.9'	N 10°02.0'	89°40.2'	N 9°40.9'	89°44.7'	N 9°19.6'	89°49.2'	N 8°58.2'	89°53.9'	N 8°36.7'
19	104°31.8'	N 10°22.1'	104°36.0'	N 10°01.1'	104°40.4'	N 9°40.0'	104°44.9'	N 9°18.7'	104°49.4'	N 8°57.3'	104°54.1'	N 8°35.8'
20	119°31.9'	N 10°21.2'	119°36.2'	N 10°00.2'	119°40.6'	N 9°39.1'	119°45.1'	N 9°17.8'	119°49.6'	N 8°56.4'	119°54.3'	N 8°34.9'
21	134°32.1'	N 10°20.3'	134°36.4'	N 9°59.4'	134°40.8'	N 9°38.2'	134°45.3'	N 9°16.9'	134°49.8'	N 8°55.5'	134°54.4'	N 8°33.9'
22	149°32.3'	N 10°19.5'	149°36.6'	N 9°58.5'	149°41.0'	N 9°37.3'	149°45.4'	N 9°16.1'	149°50.0'	N 8°54.6'	149°54.6'	N 8°33.0'
23	164°32.5'	N 10°18.6'	164°36.8'	N 9°57.6'	164°41.1'	N 9°36.5'	164°45.6'	N 9°15.2'	164°50.2'	N 8°53.7'	164°54.8'	N 8°32.1'
Zeitgl. 0h / 12h	-02:06 / -01:58		-01:49 / -01:41		-01:32 / -01:23		-01:15 / -01:06		-00:57 / -00:48		-00:38 / -00:29	
Kulmination UT	12:01:58		12:01:41		12:01:23		12:01:06		12:00:48		12:00:29	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

Do 31.08.

UT	Grt	Dec
00	179°55.0'	N 8°31.2'
01	194°55.2'	N 8°30.3'
02	209°55.4'	N 8°29.4'
03	224°55.6'	N 8°28.5'
04	239°55.8'	N 8°27.6'
05	254°56.0'	N 8°26.7'
06	269°56.2'	N 8°25.8'
07	284°56.4'	N 8°24.9'
08	299°56.6'	N 8°24.0'
09	314°56.8'	N 8°23.1'
10	329°57.0'	N 8°22.2'
11	344°57.2'	N 8°21.3'
12	359°57.4'	N 8°20.4'
13	14°57.6'	N 8°19.5'
14	29°57.8'	N 8°18.6'
15	44°58.0'	N 8°17.7'
16	59°58.2'	N 8°16.8'
17	74°58.4'	N 8°15.9'
18	89°58.6'	N 8°15.0'
19	104°58.8'	N 8°14.1'
20	119°59.0'	N 8°13.1'
21	134°59.2'	N 8°12.2'
22	149°59.4'	N 8°11.3'
23	164°59.6'	N 8°10.4'

Zeitgl. 0h / 12h -00:20 / -00:10

Kulmination UT 12:00:10

Halbmesser 15.8'

2028

September

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Fr 01.09.		Sa 02.09.		So 03.09.		Mo 04.09.		Di 05.09.		Mi 06.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°59.8'	N 8°09.5'	180°04.6'	N 7°47.7'	180°09.4'	N 7°25.7'	180°14.4'	N 7°03.6'	180°19.3'	N 6°41.4'	180°24.4'	N 6°19.0'
01	195°00.0'	N 8°08.6'	195°04.8'	N 7°46.7'	195°09.6'	N 7°24.8'	195°14.6'	N 7°02.7'	195°19.6'	N 6°40.4'	195°24.6'	N 6°18.1'
02	210°00.2'	N 8°07.7'	210°05.0'	N 7°45.8'	210°09.8'	N 7°23.8'	210°14.8'	N 7°01.7'	210°19.8'	N 6°39.5'	210°24.8'	N 6°17.2'
03	225°00.4'	N 8°06.8'	225°05.2'	N 7°44.9'	225°10.0'	N 7°22.9'	225°15.0'	N 7°00.8'	225°20.0'	N 6°38.6'	225°25.0'	N 6°16.2'
04	240°00.6'	N 8°05.9'	240°05.4'	N 7°44.0'	240°10.2'	N 7°22.0'	240°15.2'	N 6°59.9'	240°20.2'	N 6°37.7'	240°25.2'	N 6°15.3'
05	255°00.7'	N 8°05.0'	255°05.6'	N 7°43.1'	255°10.4'	N 7°21.1'	255°15.4'	N 6°59.0'	255°20.4'	N 6°36.7'	255°25.4'	N 6°14.4'
06	270°00.9'	N 8°04.1'	270°05.8'	N 7°42.2'	270°10.6'	N 7°20.2'	270°15.6'	N 6°58.0'	270°20.6'	N 6°35.8'	270°25.7'	N 6°13.4'
07	285°01.1'	N 8°03.2'	285°06.0'	N 7°41.3'	285°10.9'	N 7°19.2'	285°15.8'	N 6°57.1'	285°20.8'	N 6°34.9'	285°25.9'	N 6°12.5'
08	300°01.3'	N 8°02.2'	300°06.2'	N 7°40.3'	300°11.1'	N 7°18.3'	300°16.0'	N 6°56.2'	300°21.0'	N 6°33.9'	300°26.1'	N 6°11.6'
09	315°01.5'	N 8°01.3'	315°06.4'	N 7°39.4'	315°11.3'	N 7°17.4'	315°16.2'	N 6°55.3'	315°21.2'	N 6°33.0'	315°26.3'	N 6°10.6'
10	330°01.7'	N 8°00.4'	330°06.6'	N 7°38.5'	330°11.5'	N 7°16.5'	330°16.4'	N 6°54.3'	330°21.4'	N 6°32.1'	330°26.5'	N 6°09.7'
11	345°01.9'	N 7°59.5'	345°06.8'	N 7°37.6'	345°11.7'	N 7°15.6'	345°16.6'	N 6°53.4'	345°21.7'	N 6°31.1'	345°26.7'	N 6°08.8'
12	0°02.1'	N 7°58.6'	0°07.0'	N 7°36.7'	0°11.9'	N 7°14.6'	0°16.8'	N 6°52.5'	0°21.9'	N 6°30.2'	0°26.9'	N 6°07.8'
13	15°02.3'	N 7°57.7'	15°07.2'	N 7°35.8'	15°12.1'	N 7°13.7'	15°17.0'	N 6°51.6'	15°22.1'	N 6°29.3'	15°27.1'	N 6°06.9'
14	30°02.5'	N 7°56.8'	30°07.4'	N 7°34.9'	30°12.3'	N 7°12.8'	30°17.3'	N 6°50.6'	30°22.3'	N 6°28.4'	30°27.4'	N 6°06.0'
15	45°02.7'	N 7°55.9'	45°07.6'	N 7°33.9'	45°12.5'	N 7°11.9'	45°17.5'	N 6°49.7'	45°22.5'	N 6°27.4'	45°27.6'	N 6°05.0'
16	60°02.9'	N 7°55.0'	60°07.8'	N 7°33.0'	60°12.7'	N 7°11.0'	60°17.7'	N 6°48.8'	60°22.7'	N 6°26.5'	60°27.8'	N 6°04.1'
17	75°03.1'	N 7°54.1'	75°08.0'	N 7°32.1'	75°12.9'	N 7°10.0'	75°17.9'	N 6°47.9'	75°22.9'	N 6°25.6'	75°28.0'	N 6°03.2'
18	90°03.3'	N 7°53.1'	90°08.2'	N 7°31.2'	90°13.1'	N 7°09.1'	90°18.1'	N 6°46.9'	90°23.1'	N 6°24.6'	90°28.2'	N 6°02.2'
19	105°03.5'	N 7°52.2'	105°08.4'	N 7°30.3'	105°13.3'	N 7°08.2'	105°18.3'	N 6°46.0'	105°23.3'	N 6°23.7'	105°28.4'	N 6°01.3'
20	120°03.7'	N 7°51.3'	120°08.6'	N 7°29.4'	120°13.5'	N 7°07.3'	120°18.5'	N 6°45.1'	120°23.5'	N 6°22.8'	120°28.6'	N 6°00.4'
21	135°04.0'	N 7°50.4'	135°08.8'	N 7°28.4'	135°13.7'	N 7°06.3'	135°18.7'	N 6°44.1'	135°23.8'	N 6°21.8'	135°28.8'	N 5°59.4'
22	150°04.2'	N 7°49.5'	150°09.0'	N 7°27.5'	150°13.9'	N 7°05.4'	150°18.9'	N 6°43.2'	150°24.0'	N 6°20.9'	150°29.1'	N 5°58.5'
23	165°04.4'	N 7°48.6'	165°09.2'	N 7°26.6'	165°14.1'	N 7°04.5'	165°19.1'	N 6°42.3'	165°24.2'	N 6°20.0'	165°29.3'	N 5°57.5'
Zeitgl. 0h / 12h	-00:01 / +00:09		+00:18 / +00:28		+00:38 / +00:48		+00:57 / +01:07		+01:17 / +01:27		+01:38 / +01:48	
Kulmination UT	11:59:51		11:59:32		11:59:12		11:58:53		11:58:33		11:58:12	
Halbmesser	15.8'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Do 07.09.		Fr 08.09.		Sa 09.09.		So 10.09.		Mo 11.09.		Di 12.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°29.5'	N 5°56.6'	180°34.6'	N 5°34.1'	180°39.8'	N 5°11.5'	180°45.0'	N 4°48.7'	180°50.3'	N 4°26.0'	180°55.6'	N 4°03.1'
01	195°29.7'	N 5°55.7'	195°34.9'	N 5°33.1'	195°40.0'	N 5°10.5'	195°45.3'	N 4°47.8'	195°50.5'	N 4°25.0'	195°55.8'	N 4°02.1'
02	210°29.9'	N 5°54.7'	210°35.1'	N 5°32.2'	210°40.3'	N 5°09.6'	210°45.5'	N 4°46.9'	210°50.7'	N 4°24.1'	210°56.0'	N 4°01.2'
03	225°30.1'	N 5°53.8'	225°35.3'	N 5°31.3'	225°40.5'	N 5°08.6'	225°45.7'	N 4°45.9'	225°51.0'	N 4°23.1'	225°56.3'	N 4°00.2'
04	240°30.3'	N 5°52.9'	240°35.5'	N 5°30.3'	240°40.7'	N 5°07.7'	240°45.9'	N 4°45.0'	240°51.2'	N 4°22.2'	240°56.5'	N 3°59.3'
05	255°30.6'	N 5°51.9'	255°35.7'	N 5°29.4'	255°40.9'	N 5°06.7'	255°46.1'	N 4°44.0'	255°51.4'	N 4°21.2'	255°56.7'	N 3°58.3'
06	270°30.8'	N 5°51.0'	270°35.9'	N 5°28.4'	270°41.1'	N 5°05.8'	270°46.4'	N 4°43.1'	270°51.6'	N 4°20.2'	270°56.9'	N 3°57.4'
07	285°31.0'	N 5°50.0'	285°36.1'	N 5°27.5'	285°41.3'	N 5°04.8'	285°46.6'	N 4°42.1'	285°51.8'	N 4°19.3'	285°57.1'	N 3°56.4'
08	300°31.2'	N 5°49.1'	300°36.4'	N 5°26.5'	300°41.6'	N 5°03.9'	300°46.8'	N 4°41.2'	300°52.1'	N 4°18.3'	300°57.4'	N 3°55.5'
09	315°31.4'	N 5°48.2'	315°36.6'	N 5°25.6'	315°41.8'	N 5°03.0'	315°47.0'	N 4°40.2'	315°52.3'	N 4°17.4'	315°57.6'	N 3°54.5'
10	330°31.6'	N 5°47.2'	330°36.8'	N 5°24.7'	330°42.0'	N 5°02.0'	330°47.2'	N 4°39.3'	330°52.5'	N 4°16.4'	330°57.8'	N 3°53.5'
11	345°31.8'	N 5°46.3'	345°37.0'	N 5°23.7'	345°42.2'	N 5°01.1'	345°47.5'	N 4°38.3'	345°52.7'	N 4°15.5'	345°58.0'	N 3°52.6'
12	0°32.1'	N 5°45.4'	0°37.2'	N 5°22.8'	0°42.4'	N 5°00.1'	0°47.7'	N 4°37.4'	0°52.9'	N 4°14.5'	0°58.2'	N 3°51.6'
13	15°32.3'	N 5°44.4'	15°37.4'	N 5°21.8'	15°42.6'	N 4°59.2'	15°47.9'	N 4°36.4'	15°53.2'	N 4°13.6'	15°58.5'	N 3°50.7'
14	30°32.5'	N 5°43.5'	30°37.7'	N 5°20.9'	30°42.9'	N 4°58.2'	30°48.1'	N 4°35.5'	30°53.4'	N 4°12.6'	30°58.7'	N 3°49.7'
15	45°32.7'	N 5°42.5'	45°37.9'	N 5°20.0'	45°43.1'	N 4°57.3'	45°48.3'	N 4°34.5'	45°53.6'	N 4°11.7'	45°58.9'	N 3°48.8'
16	60°32.9'	N 5°41.6'	60°38.1'	N 5°19.0'	60°43.3'	N 4°56.3'	60°48.6'	N 4°33.6'	60°53.8'	N 4°10.7'	60°59.1'	N 3°47.8'
17	75°33.1'	N 5°40.7'	75°38.3'	N 5°18.1'	75°43.5'	N 4°55.4'	75°48.8'	N 4°32.6'	75°54.0'	N 4°09.8'	75°59.4'	N 3°46.8'
18	90°33.3'	N 5°39.7'	90°38.5'	N 5°17.1'	90°43.7'	N 4°54.4'	90°49.0'	N 4°31.7'	90°54.3'	N 4°08.8'	90°59.6'	N 3°45.9'
19	105°33.6'	N 5°38.8'	105°38.7'	N 5°16.2'	105°44.0'	N 4°53.5'	105°49.2'	N 4°30.7'	105°54.5'	N 4°07.9'	105°59.8'	N 3°44.9'
20	120°33.8'	N 5°37.8'	120°39.0'	N 5°15.2'	120°44.2'	N 4°52.5'	120°49.4'	N 4°29.8'	120°54.7'	N 4°06.9'	121°00.0'	N 3°44.0'
21	135°34.0'	N 5°36.9'	135°39.2'	N 5°14.3'	135°44.4'	N 4°51.6'	135°49.6'	N 4°28.8'	135°54.9'	N 4°06.0'	136°00.2'	N 3°43.0'
22	150°34.2'	N 5°36.0'	150°39.4'	N 5°13.3'	150°44.6'	N 4°50.6'	150°49.9'	N 4°27.9'	150°55.2'	N 4°05.0'	151°00.5'	N 3°42.1'
23	165°34.4'	N 5°35.0'	165°39.6'	N 5°12.4'	165°44.8'	N 4°49.7'	165°50.1'	N 4°26.9'	165°55.4'	N 4°04.0'	166°00.7'	N 3°41.1'
Zeitgl. 0h / 12h	+01:58 / +02:08		+02:19 / +02:29		+02:39 / +02:50		+03:00 / +03:11		+03:21 / +03:32		+03:42 / +03:53	
Kulmination UT	11:57:52		11:57:31		11:57:10		11:56:49		11:56:28		11:56:07	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Mi 13.09.		Do 14.09.		Fr 15.09.		Sa 16.09.		So 17.09.		Mo 18.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	181°00.9'	N 3°40.1'	181°06.2'	N 3°17.1'	181°11.6'	N 2°54.1'	181°16.9'	N 2°31.0'	181°22.3'	N 2°07.8'	181°27.7'	N 1°44.6'
01	196°01.1'	N 3°39.2'	196°06.5'	N 3°16.2'	196°11.8'	N 2°53.1'	196°17.2'	N 2°30.0'	196°22.5'	N 2°06.8'	196°27.9'	N 1°43.6'
02	211°01.3'	N 3°38.2'	211°06.7'	N 3°15.2'	211°12.0'	N 2°52.2'	211°17.4'	N 2°29.0'	211°22.7'	N 2°05.9'	211°28.1'	N 1°42.6'
03	226°01.6'	N 3°37.3'	226°06.9'	N 3°14.3'	226°12.2'	N 2°51.2'	226°17.6'	N 2°28.1'	226°23.0'	N 2°04.9'	226°28.3'	N 1°41.7'
04	241°01.8'	N 3°36.3'	241°07.1'	N 3°13.3'	241°12.5'	N 2°50.2'	241°17.8'	N 2°27.1'	241°23.2'	N 2°03.9'	241°28.5'	N 1°40.7'
05	256°02.0'	N 3°35.4'	256°07.3'	N 3°12.3'	256°12.7'	N 2°49.3'	256°18.1'	N 2°26.1'	256°23.4'	N 2°03.0'	256°28.8'	N 1°39.7'
06	271°02.2'	N 3°34.4'	271°07.6'	N 3°11.4'	271°12.9'	N 2°48.3'	271°18.3'	N 2°25.2'	271°23.6'	N 2°02.0'	271°29.0'	N 1°38.8'
07	286°02.5'	N 3°33.4'	286°07.8'	N 3°10.4'	286°13.1'	N 2°47.3'	286°18.5'	N 2°24.2'	286°23.9'	N 2°01.0'	286°29.2'	N 1°37.8'
08	301°02.7'	N 3°32.5'	301°08.0'	N 3°09.5'	301°13.4'	N 2°46.4'	301°18.7'	N 2°23.2'	301°24.1'	N 2°00.1'	301°29.4'	N 1°36.8'
09	316°02.9'	N 3°31.5'	316°08.2'	N 3°08.5'	316°13.6'	N 2°45.4'	316°18.9'	N 2°22.3'	316°24.3'	N 1°59.1'	316°29.7'	N 1°35.9'
10	331°03.1'	N 3°30.6'	331°08.5'	N 3°07.5'	331°13.8'	N 2°44.5'	331°19.2'	N 2°21.3'	331°24.5'	N 1°58.1'	331°29.9'	N 1°34.9'
11	346°03.3'	N 3°29.6'	346°08.7'	N 3°06.6'	346°14.0'	N 2°43.5'	346°19.4'	N 2°20.3'	346°24.7'	N 1°57.2'	346°30.1'	N 1°33.9'
12	1°03.6'	N 3°28.7'	1°08.9'	N 3°05.6'	1°14.3'	N 2°42.5'	1°19.6'	N 2°19.4'	1°25.0'	N 1°56.2'	1°30.3'	N 1°33.0'
13	16°03.8'	N 3°27.7'	16°09.1'	N 3°04.7'	16°14.5'	N 2°41.6'	16°19.8'	N 2°18.4'	16°25.2'	N 1°55.2'	16°30.6'	N 1°32.0'
14	31°04.0'	N 3°26.7'	31°09.4'	N 3°03.7'	31°14.7'	N 2°40.6'	31°20.1'	N 2°17.4'	31°25.4'	N 1°54.3'	31°30.8'	N 1°31.0'
15	46°04.2'	N 3°25.8'	46°09.6'	N 3°02.7'	46°14.9'	N 2°39.6'	46°20.3'	N 2°16.5'	46°25.6'	N 1°53.3'	46°31.0'	N 1°30.0'
16	61°04.5'	N 3°24.8'	61°09.8'	N 3°01.8'	61°15.1'	N 2°38.7'	61°20.5'	N 2°15.5'	61°25.9'	N 1°52.3'	61°31.2'	N 1°29.1'
17	76°04.7'	N 3°23.9'	76°10.0'	N 3°00.8'	76°15.4'	N 2°37.7'	76°20.7'	N 2°14.6'	76°26.1'	N 1°51.3'	76°31.4'	N 1°28.1'
18	91°04.9'	N 3°22.9'	91°10.2'	N 2°59.9'	91°15.6'	N 2°36.7'	91°21.0'	N 2°13.6'	91°26.3'	N 1°50.4'	91°31.7'	N 1°27.1'
19	106°05.1'	N 3°21.9'	106°10.5'	N 2°58.9'	106°15.8'	N 2°35.8'	106°21.2'	N 2°12.6'	106°26.5'	N 1°49.4'	106°31.9'	N 1°26.2'
20	121°05.3'	N 3°21.0'	121°10.7'	N 2°57.9'	121°16.0'	N 2°34.8'	121°21.4'	N 2°11.7'	121°26.8'	N 1°48.4'	121°32.1'	N 1°25.2'
21	136°05.6'	N 3°20.0'	136°10.9'	N 2°57.0'	136°16.3'	N 2°33.9'	136°21.6'	N 2°10.7'	136°27.0'	N 1°47.5'	136°32.3'	N 1°24.2'
22	151°05.8'	N 3°19.1'	151°11.1'	N 2°56.0'	151°16.5'	N 2°32.9'	151°21.8'	N 2°09.7'	151°27.2'	N 1°46.5'	151°32.6'	N 1°23.3'
23	166°06.0'	N 3°18.1'	166°11.4'	N 2°55.0'	166°16.7'	N 2°31.9'	166°22.1'	N 2°08.8'	166°27.4'	N 1°45.5'	166°32.8'	N 1°22.3'
Zeitgl. 0h / 12h	+04:04 / +04:14		+04:25 / +04:36		+04:46 / +04:57		+05:08 / +05:18		+05:29 / +05:40		+05:51 / +06:01	
Kulmination UT	11:55:46		11:55:24		11:55:03		11:54:42		11:54:20		11:53:59	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Di 19.09.		Mi 20.09.		Do 21.09.		Fr 22.09.		Sa 23.09.		So 24.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	181°33.0'	N 1°21.3'	181°38.3'	N 0°58.0'	181°43.7'	N 0°34.7'	181°49.0'	N 0°11.4'	181°54.3'	S 0°12.0'	181°59.5'	S 0°35.3'
01	196°33.2'	N 1°20.4'	196°38.6'	N 0°57.1'	196°43.9'	N 0°33.8'	196°49.2'	N 0°10.4'	196°54.5'	S 0°12.9'	196°59.7'	S 0°36.3'
02	211°33.4'	N 1°19.4'	211°38.8'	N 0°56.1'	211°44.1'	N 0°32.8'	211°49.4'	N 0°09.4'	211°54.7'	S 0°13.9'	211°59.9'	S 0°37.3'
03	226°33.7'	N 1°18.4'	226°39.0'	N 0°55.1'	226°44.3'	N 0°31.8'	226°49.6'	N 0°08.5'	226°54.9'	S 0°14.9'	227°00.2'	S 0°38.2'
04	241°33.9'	N 1°17.4'	241°39.2'	N 0°54.2'	241°44.6'	N 0°30.8'	241°49.9'	N 0°07.5'	241°55.1'	S 0°15.9'	242°00.4'	S 0°39.2'
05	256°34.1'	N 1°16.5'	256°39.5'	N 0°53.2'	256°44.8'	N 0°29.9'	256°50.1'	N 0°06.5'	256°55.4'	S 0°16.8'	257°00.6'	S 0°40.2'
06	271°34.3'	N 1°15.5'	271°39.7'	N 0°52.2'	271°45.0'	N 0°28.9'	271°50.3'	N 0°05.6'	271°55.6'	S 0°17.8'	272°00.8'	S 0°41.2'
07	286°34.6'	N 1°14.5'	286°39.9'	N 0°51.2'	286°45.2'	N 0°27.9'	286°50.5'	N 0°04.6'	286°55.8'	S 0°18.8'	287°01.0'	S 0°42.1'
08	301°34.8'	N 1°13.6'	301°40.1'	N 0°50.3'	301°45.4'	N 0°26.9'	301°50.7'	N 0°03.6'	301°56.0'	S 0°19.7'	302°01.3'	S 0°43.1'
09	316°35.0'	N 1°12.6'	316°40.3'	N 0°49.3'	316°45.7'	N 0°26.0'	316°51.0'	N 0°02.6'	316°56.2'	S 0°20.7'	317°01.5'	S 0°44.1'
10	331°35.2'	N 1°11.6'	331°40.6'	N 0°48.3'	331°45.9'	N 0°25.0'	331°51.2'	N 0°01.7'	331°56.5'	S 0°21.7'	332°01.7'	S 0°45.1'
11	346°35.5'	N 1°10.7'	346°40.8'	N 0°47.4'	346°46.1'	N 0°24.0'	346°51.4'	N 0°00.7'	346°56.7'	S 0°22.7'	347°01.9'	S 0°46.0'
12	1°35.7'	N 1°09.7'	1°41.0'	N 0°46.4'	1°46.3'	N 0°23.1'	1°51.6'	S 0°00.3'	1°56.9'	S 0°23.6'	2°02.1'	S 0°47.0'
13	16°35.9'	N 1°08.7'	16°41.2'	N 0°45.4'	16°46.6'	N 0°22.1'	16°51.8'	S 0°01.3'	16°57.1'	S 0°24.6'	17°02.3'	S 0°48.0'
14	31°36.1'	N 1°07.7'	31°41.5'	N 0°44.4'	31°46.8'	N 0°21.1'	31°52.1'	S 0°02.2'	31°57.3'	S 0°25.6'	32°02.6'	S 0°48.9'
15	46°36.3'	N 1°06.8'	46°41.7'	N 0°43.5'	46°47.0'	N 0°20.1'	46°52.3'	S 0°03.2'	46°57.5'	S 0°26.6'	47°02.8'	S 0°49.9'
16	61°36.6'	N 1°05.8'	61°41.9'	N 0°42.5'	61°47.2'	N 0°19.2'	61°52.5'	S 0°04.2'	61°57.8'	S 0°27.5'	62°03.0'	S 0°50.9'
17	76°36.8'	N 1°04.8'	76°42.1'	N 0°41.5'	76°47.4'	N 0°18.2'	76°52.7'	S 0°05.1'	76°58.0'	S 0°28.5'	77°03.2'	S 0°51.9'
18	91°37.0'	N 1°03.9'	91°42.3'	N 0°40.6'	91°47.7'	N 0°17.2'	91°52.9'	S 0°06.1'	91°58.2'	S 0°29.5'	92°03.4'	S 0°52.8'
19	106°37.2'	N 1°02.9'	106°42.6'	N 0°39.6'	106°47.9'	N 0°16.3'	106°53.2'	S 0°07.1'	106°58.4'	S 0°30.4'	107°03.6'	S 0°53.8'
20	121°37.5'	N 1°01.9'	121°42.8'	N 0°38.6'	121°48.1'	N 0°15.3'	121°53.4'	S 0°08.1'	121°58.6'	S 0°31.4'	122°03.9'	S 0°54.8'
21	136°37.7'	N 1°00.9'	136°43.0'	N 0°37.6'	136°48.3'	N 0°14.3'	136°53.6'	S 0°09.0'	136°58.9'	S 0°32.4'	137°04.1'	S 0°55.8'
22	151°37.9'	N 1°00.0'	151°43.2'	N 0°36.7'	151°48.5'	N 0°13.3'	151°53.8'	S 0°10.0'	151°59.1'	S 0°33.4'	152°04.3'	S 0°56.7'
23	166°38.1'	N 0°59.0'	166°43.5'	N 0°35.7'	166°48.8'	N 0°12.4'	166°54.0'	S 0°11.0'	166°59.3'	S 0°34.3'	167°04.5'	S 0°57.7'
Zeitgl. 0h / 12h	+06:12 / +06:23		+06:33 / +06:44		+06:55 / +07:05		+07:16 / +07:26		+07:37 / +07:48		+07:58 / +08:09	
Kulmination UT	11:53:37		11:53:16		11:52:55		11:52:34		11:52:12		11:51:51	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Mo 25.09.		Di 26.09.		Mi 27.09.		Do 28.09.		Fr 29.09.		Sa 30.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°04.7'	S 0°58.7'	182°09.9'	S 1°22.0'	182°15.0'	S 1°45.4'	182°20.1'	S 2°08.7'	182°25.1'	S 2°32.1'	182°30.1'	S 2°55.4'
01	197°04.9'	S 0°59.7'	197°10.1'	S 1°23.0'	197°15.2'	S 1°46.4'	197°20.3'	S 2°09.7'	197°25.3'	S 2°33.0'	197°30.3'	S 2°56.3'
02	212°05.2'	S 1°00.6'	212°10.3'	S 1°24.0'	212°15.5'	S 1°47.3'	212°20.5'	S 2°10.7'	212°25.6'	S 2°34.0'	212°30.5'	S 2°57.3'
03	227°05.4'	S 1°01.6'	227°10.5'	S 1°25.0'	227°15.7'	S 1°48.3'	227°20.7'	S 2°11.7'	227°25.8'	S 2°35.0'	227°30.7'	S 2°58.3'
04	242°05.6'	S 1°02.6'	242°10.8'	S 1°25.9'	242°15.9'	S 1°49.3'	242°21.0'	S 2°12.6'	242°26.0'	S 2°35.9'	242°30.9'	S 2°59.2'
05	257°05.8'	S 1°03.5'	257°11.0'	S 1°26.9'	257°16.1'	S 1°50.3'	257°21.2'	S 2°13.6'	257°26.2'	S 2°36.9'	257°31.1'	S 3°00.2'
06	272°06.0'	S 1°04.5'	272°11.2'	S 1°27.9'	272°16.3'	S 1°51.2'	272°21.4'	S 2°14.6'	272°26.4'	S 2°37.9'	272°31.3'	S 3°01.2'
07	287°06.2'	S 1°05.5'	287°11.4'	S 1°28.9'	287°16.5'	S 1°52.2'	287°21.6'	S 2°15.5'	287°26.6'	S 2°38.9'	287°31.5'	S 3°02.2'
08	302°06.5'	S 1°06.5'	302°11.6'	S 1°29.8'	302°16.7'	S 1°53.2'	302°21.8'	S 2°16.5'	302°26.8'	S 2°39.8'	302°31.7'	S 3°03.1'
09	317°06.7'	S 1°07.4'	317°11.8'	S 1°30.8'	317°16.9'	S 1°54.2'	317°22.0'	S 2°17.5'	317°27.0'	S 2°40.8'	317°31.9'	S 3°04.1'
10	332°06.9'	S 1°08.4'	332°12.0'	S 1°31.8'	332°17.2'	S 1°55.1'	332°22.2'	S 2°18.5'	332°27.2'	S 2°41.8'	332°32.1'	S 3°05.1'
11	347°07.1'	S 1°09.4'	347°12.3'	S 1°32.7'	347°17.4'	S 1°56.1'	347°22.4'	S 2°19.4'	347°27.4'	S 2°42.7'	347°32.4'	S 3°06.0'
12	2°07.3'	S 1°10.4'	2°12.5'	S 1°33.7'	2°17.6'	S 1°57.1'	2°22.6'	S 2°20.4'	2°27.6'	S 2°43.7'	2°32.6'	S 3°07.0'
13	17°07.5'	S 1°11.3'	17°12.7'	S 1°34.7'	17°17.8'	S 1°58.0'	17°22.8'	S 2°21.4'	17°27.8'	S 2°44.7'	17°32.8'	S 3°08.0'
14	32°07.8'	S 1°12.3'	32°12.9'	S 1°35.7'	32°18.0'	S 1°59.0'	32°23.1'	S 2°22.3'	32°28.0'	S 2°45.7'	32°33.0'	S 3°08.9'
15	47°08.0'	S 1°13.3'	47°13.1'	S 1°36.6'	47°18.2'	S 2°00.0'	47°23.3'	S 2°23.3'	47°28.2'	S 2°46.6'	47°33.2'	S 3°09.9'
16	62°08.2'	S 1°14.3'	62°13.3'	S 1°37.6'	62°18.4'	S 2°01.0'	62°23.5'	S 2°24.3'	62°28.5'	S 2°47.6'	62°33.4'	S 3°10.9'
17	77°08.4'	S 1°15.2'	77°13.5'	S 1°38.6'	77°18.6'	S 2°01.9'	77°23.7'	S 2°25.3'	77°28.7'	S 2°48.6'	77°33.6'	S 3°11.8'
18	92°08.6'	S 1°16.2'	92°13.8'	S 1°39.6'	92°18.8'	S 2°02.9'	92°23.9'	S 2°26.2'	92°28.9'	S 2°49.5'	92°33.8'	S 3°12.8'
19	107°08.8'	S 1°17.2'	107°14.0'	S 1°40.5'	107°19.1'	S 2°03.9'	107°24.1'	S 2°27.2'	107°29.1'	S 2°50.5'	107°34.0'	S 3°13.8'
20	122°09.0'	S 1°18.1'	122°14.2'	S 1°41.5'	122°19.3'	S 2°04.9'	122°24.3'	S 2°28.2'	122°29.3'	S 2°51.5'	122°34.2'	S 3°14.8'
21	137°09.3'	S 1°19.1'	137°14.4'	S 1°42.5'	137°19.5'	S 2°05.8'	137°24.5'	S 2°29.1'	137°29.5'	S 2°52.5'	137°34.4'	S 3°15.7'
22	152°09.5'	S 1°20.1'	152°14.6'	S 1°43.5'	152°19.7'	S 2°06.8'	152°24.7'	S 2°30.1'	152°29.7'	S 2°53.4'	152°34.6'	S 3°16.7'
23	167°09.7'	S 1°21.1'	167°14.8'	S 1°44.4'	167°19.9'	S 2°07.8'	167°24.9'	S 2°31.1'	167°29.9'	S 2°54.4'	167°34.8'	S 3°17.7'
Zeitgl. 0h / 12h	+08:19 / +08:29		+08:40 / +08:50		+09:00 / +09:10		+09:20 / +09:31		+09:41 / +09:51		+10:00 / +10:10	
Kulmination UT	11:51:31		11:51:10		11:50:50		11:50:29		11:50:09		11:49:50	
Halbmesser	15.9'		16.0'		16.0'		16.0'		16.0'		16.0'	

2028

Oktober

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	So 01.10.		Mo 02.10.		Di 03.10.		Mi 04.10.		Do 05.10.		Fr 06.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°35.0'	S 3°18.6'	182°39.8'	S 3°41.9'	182°44.6'	S 4°05.1'	182°49.2'	S 4°28.2'	182°53.8'	S 4°51.3'	182°58.3'	S 5°14.3'
01	197°35.2'	S 3°19.6'	197°40.0'	S 3°42.8'	197°44.8'	S 4°06.0'	197°49.4'	S 4°29.2'	197°54.0'	S 4°52.2'	197°58.5'	S 5°15.3'
02	212°35.4'	S 3°20.6'	212°40.2'	S 3°43.8'	212°45.0'	S 4°07.0'	212°49.6'	S 4°30.1'	212°54.2'	S 4°53.2'	212°58.7'	S 5°16.2'
03	227°35.6'	S 3°21.5'	227°40.4'	S 3°44.8'	227°45.2'	S 4°08.0'	227°49.8'	S 4°31.1'	227°54.4'	S 4°54.2'	227°58.9'	S 5°17.2'
04	242°35.8'	S 3°22.5'	242°40.6'	S 3°45.7'	242°45.4'	S 4°08.9'	242°50.0'	S 4°32.0'	242°54.6'	S 4°55.1'	242°59.0'	S 5°18.1'
05	257°36.0'	S 3°23.5'	257°40.8'	S 3°46.7'	257°45.5'	S 4°09.9'	257°50.2'	S 4°33.0'	257°54.8'	S 4°56.1'	257°59.2'	S 5°19.1'
06	272°36.2'	S 3°24.4'	272°41.0'	S 3°47.7'	272°45.7'	S 4°10.8'	272°50.4'	S 4°34.0'	272°54.9'	S 4°57.0'	272°59.4'	S 5°20.1'
07	287°36.4'	S 3°25.4'	287°41.2'	S 3°48.6'	287°45.9'	S 4°11.8'	287°50.6'	S 4°34.9'	287°55.1'	S 4°58.0'	287°59.6'	S 5°21.0'
08	302°36.6'	S 3°26.4'	302°41.4'	S 3°49.6'	302°46.1'	S 4°12.8'	302°50.8'	S 4°35.9'	302°55.3'	S 4°59.0'	302°59.8'	S 5°22.0'
09	317°36.8'	S 3°27.3'	317°41.6'	S 3°50.6'	317°46.3'	S 4°13.7'	317°51.0'	S 4°36.9'	317°55.5'	S 4°59.9'	318°00.0'	S 5°22.9'
10	332°37.0'	S 3°28.3'	332°41.8'	S 3°51.5'	332°46.5'	S 4°14.7'	332°51.2'	S 4°37.8'	332°55.7'	S 5°00.9'	333°00.1'	S 5°23.9'
11	347°37.2'	S 3°29.3'	347°42.0'	S 3°52.5'	347°46.7'	S 4°15.7'	347°51.3'	S 4°38.8'	347°55.9'	S 5°01.8'	348°00.3'	S 5°24.8'
12	2°37.4'	S 3°30.3'	2°42.2'	S 3°53.5'	2°46.9'	S 4°16.6'	2°51.5'	S 4°39.7'	2°56.1'	S 5°02.8'	3°00.5'	S 5°25.8'
13	17°37.6'	S 3°31.2'	17°42.4'	S 3°54.4'	17°47.1'	S 4°17.6'	17°51.7'	S 4°40.7'	17°56.3'	S 5°03.8'	18°00.7'	S 5°26.8'
14	32°37.8'	S 3°32.2'	32°42.6'	S 3°55.4'	32°47.3'	S 4°18.6'	32°51.9'	S 4°41.7'	32°56.4'	S 5°04.7'	33°00.9'	S 5°27.7'
15	47°38.0'	S 3°33.2'	47°42.8'	S 3°56.4'	47°47.5'	S 4°19.5'	47°52.1'	S 4°42.6'	47°56.6'	S 5°05.7'	48°01.1'	S 5°28.7'
16	62°38.2'	S 3°34.1'	62°43.0'	S 3°57.3'	62°47.7'	S 4°20.5'	62°52.3'	S 4°43.6'	62°56.8'	S 5°06.6'	63°01.2'	S 5°29.6'
17	77°38.4'	S 3°35.1'	77°43.2'	S 3°58.3'	77°47.9'	S 4°21.5'	77°52.5'	S 4°44.6'	77°57.0'	S 5°07.6'	78°01.4'	S 5°30.6'
18	92°38.6'	S 3°36.1'	92°43.4'	S 3°59.3'	92°48.1'	S 4°22.4'	92°52.7'	S 4°45.5'	92°57.2'	S 5°08.6'	93°01.6'	S 5°31.5'
19	107°38.8'	S 3°37.0'	107°43.6'	S 4°00.2'	107°48.3'	S 4°23.4'	107°52.9'	S 4°46.5'	107°57.4'	S 5°09.5'	108°01.8'	S 5°32.5'
20	122°39.0'	S 3°38.0'	122°43.8'	S 4°01.2'	122°48.5'	S 4°24.3'	122°53.1'	S 4°47.4'	122°57.6'	S 5°10.5'	123°02.0'	S 5°33.5'
21	137°39.2'	S 3°39.0'	137°44.0'	S 4°02.2'	137°48.7'	S 4°25.3'	137°53.2'	S 4°48.4'	137°57.7'	S 5°11.4'	138°02.2'	S 5°34.4'
22	152°39.4'	S 3°39.9'	152°44.2'	S 4°03.1'	152°48.8'	S 4°26.3'	152°53.4'	S 4°49.4'	152°57.9'	S 5°12.4'	153°02.3'	S 5°35.4'
23	167°39.6'	S 3°40.9'	167°44.4'	S 4°04.1'	167°49.0'	S 4°27.2'	167°53.6'	S 4°50.3'	167°58.1'	S 5°13.4'	168°02.5'	S 5°36.3'
Zeitgl. 0h / 12h	+10:20 / +10:30		+10:39 / +10:49		+10:58 / +11:08		+11:17 / +11:26		+11:35 / +11:44		+11:53 / +12:02	
Kulmination UT	11:49:30		11:49:11		11:48:52		11:48:34		11:48:16		11:47:58	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

	Sa 07.10.		So 08.10.		Mo 09.10.		Di 10.10.		Mi 11.10.		Do 12.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°02.7'	S 5°37.3'	183°07.0'	S 6°00.2'	183°11.2'	S 6°23.0'	183°15.2'	S 6°45.7'	183°19.2'	S 7°08.3'	183°23.0'	S 7°30.9'
01	198°02.9'	S 5°38.2'	198°07.2'	S 6°01.1'	198°11.3'	S 6°23.9'	198°15.4'	S 6°46.7'	198°19.3'	S 7°09.3'	198°23.2'	S 7°31.8'
02	213°03.1'	S 5°39.2'	213°07.3'	S 6°02.1'	213°11.5'	S 6°24.9'	213°15.6'	S 6°47.6'	213°19.5'	S 7°10.2'	213°23.3'	S 7°32.8'
03	228°03.2'	S 5°40.1'	228°07.5'	S 6°03.0'	228°11.7'	S 6°25.8'	228°15.7'	S 6°48.5'	228°19.7'	S 7°11.2'	228°23.5'	S 7°33.7'
04	243°03.4'	S 5°41.1'	243°07.7'	S 6°04.0'	243°11.9'	S 6°26.8'	243°15.9'	S 6°49.5'	243°19.8'	S 7°12.1'	243°23.6'	S 7°34.6'
05	258°03.6'	S 5°42.1'	258°07.9'	S 6°04.9'	258°12.0'	S 6°27.7'	258°16.1'	S 6°50.4'	258°20.0'	S 7°13.1'	258°23.8'	S 7°35.6'
06	273°03.8'	S 5°43.0'	273°08.0'	S 6°05.9'	273°12.2'	S 6°28.7'	273°16.2'	S 6°51.4'	273°20.2'	S 7°14.0'	273°24.0'	S 7°36.5'
07	288°04.0'	S 5°44.0'	288°08.2'	S 6°06.8'	288°12.4'	S 6°29.6'	288°16.4'	S 6°52.3'	288°20.3'	S 7°14.9'	288°24.1'	S 7°37.4'
08	303°04.1'	S 5°44.9'	303°08.4'	S 6°07.8'	303°12.5'	S 6°30.6'	303°16.6'	S 6°53.3'	303°20.5'	S 7°15.9'	303°24.3'	S 7°38.4'
09	318°04.3'	S 5°45.9'	318°08.6'	S 6°08.7'	318°12.7'	S 6°31.5'	318°16.7'	S 6°54.2'	318°20.6'	S 7°16.8'	318°24.4'	S 7°39.3'
10	333°04.5'	S 5°46.8'	333°08.7'	S 6°09.7'	333°12.9'	S 6°32.5'	333°16.9'	S 6°55.2'	333°20.8'	S 7°17.8'	333°24.6'	S 7°40.2'
11	348°04.7'	S 5°47.8'	348°08.9'	S 6°10.6'	348°13.0'	S 6°33.4'	348°17.1'	S 6°56.1'	348°21.0'	S 7°18.7'	348°24.7'	S 7°41.2'
12	3°04.9'	S 5°48.7'	3°09.1'	S 6°11.6'	3°13.2'	S 6°34.4'	3°17.2'	S 6°57.0'	3°21.1'	S 7°19.6'	3°24.9'	S 7°42.1'
13	18°05.0'	S 5°49.7'	18°09.3'	S 6°12.5'	18°13.4'	S 6°35.3'	18°17.4'	S 6°58.0'	18°21.3'	S 7°20.6'	18°25.0'	S 7°43.1'
14	33°05.2'	S 5°50.6'	33°09.4'	S 6°13.5'	33°13.6'	S 6°36.2'	33°17.6'	S 6°58.9'	33°21.4'	S 7°21.5'	33°25.2'	S 7°44.0'
15	48°05.4'	S 5°51.6'	48°09.6'	S 6°14.4'	48°13.7'	S 6°37.2'	48°17.7'	S 6°59.9'	48°21.6'	S 7°22.4'	48°25.3'	S 7°44.9'
16	63°05.6'	S 5°52.5'	63°09.8'	S 6°15.4'	63°13.9'	S 6°38.1'	63°17.9'	S 7°00.8'	63°21.8'	S 7°23.4'	63°25.5'	S 7°45.9'
17	78°05.7'	S 5°53.5'	78°10.0'	S 6°16.3'	78°14.1'	S 6°39.1'	78°18.0'	S 7°01.8'	78°21.9'	S 7°24.3'	78°25.7'	S 7°46.8'
18	93°05.9'	S 5°54.5'	93°10.1'	S 6°17.3'	93°14.2'	S 6°40.0'	93°18.2'	S 7°02.7'	93°22.1'	S 7°25.3'	93°25.8'	S 7°47.7'
19	108°06.1'	S 5°55.4'	108°10.3'	S 6°18.2'	108°14.4'	S 6°41.0'	108°18.4'	S 7°03.6'	108°22.2'	S 7°26.2'	108°26.0'	S 7°48.7'
20	123°06.3'	S 5°56.4'	123°10.5'	S 6°19.2'	123°14.6'	S 6°41.9'	123°18.5'	S 7°04.6'	123°22.4'	S 7°27.1'	123°26.1'	S 7°49.6'
21	138°06.5'	S 5°57.3'	138°10.6'	S 6°20.1'	138°14.7'	S 6°42.9'	138°18.7'	S 7°05.5'	138°22.5'	S 7°28.1'	138°26.3'	S 7°50.5'
22	153°06.6'	S 5°58.3'	153°10.8'	S 6°21.1'	153°14.9'	S 6°43.8'	153°18.9'	S 7°06.5'	153°22.7'	S 7°29.0'	153°26.4'	S 7°51.5'
23	168°06.8'	S 5°59.2'	168°11.0'	S 6°22.0'	168°15.1'	S 6°44.8'	168°19.0'	S 7°07.4'	168°22.9'	S 7°29.9'	168°26.6'	S 7°52.4'
Zeitgl. 0h / 12h	+12:11 / +12:19		+12:28 / +12:36		+12:45 / +12:53		+13:01 / +13:09		+13:17 / +13:24		+13:32 / +13:40	
Kulmination UT	11:47:41		11:47:24		11:47:07		11:46:51		11:46:36		11:46:20	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

	Fr 13.10.		Sa 14.10.		So 15.10.		Mo 16.10.		Di 17.10.		Mi 18.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°26.7'	S 7°53.3'	183°30.3'	S 8°15.7'	183°33.7'	S 8°37.9'	183°37.0'	S 9°00.0'	183°40.2'	S 9°21.9'	183°43.2'	S 9°43.7'
01	198°26.9'	S 7°54.3'	198°30.4'	S 8°16.6'	198°33.9'	S 8°38.8'	198°37.2'	S 9°00.9'	198°40.3'	S 9°22.8'	198°43.3'	S 9°44.7'
02	213°27.0'	S 7°55.2'	213°30.6'	S 8°17.5'	213°34.0'	S 8°39.7'	213°37.3'	S 9°01.8'	213°40.4'	S 9°23.7'	213°43.4'	S 9°45.6'
03	228°27.2'	S 7°56.1'	228°30.7'	S 8°18.4'	228°34.1'	S 8°40.6'	228°37.4'	S 9°02.7'	228°40.6'	S 9°24.7'	228°43.5'	S 9°46.5'
04	243°27.3'	S 7°57.1'	243°30.9'	S 8°19.4'	243°34.3'	S 8°41.6'	243°37.6'	S 9°03.6'	243°40.7'	S 9°25.6'	243°43.7'	S 9°47.4'
05	258°27.5'	S 7°58.0'	258°31.0'	S 8°20.3'	258°34.4'	S 8°42.5'	258°37.7'	S 9°04.5'	258°40.8'	S 9°26.5'	258°43.8'	S 9°48.3'
06	273°27.6'	S 7°58.9'	273°31.2'	S 8°21.2'	273°34.6'	S 8°43.4'	273°37.8'	S 9°05.5'	273°40.9'	S 9°27.4'	273°43.9'	S 9°49.2'
07	288°27.8'	S 7°59.8'	288°31.3'	S 8°22.1'	288°34.7'	S 8°44.3'	288°38.0'	S 9°06.4'	288°41.1'	S 9°28.3'	288°44.0'	S 9°50.1'
08	303°27.9'	S 8°00.8'	303°31.5'	S 8°23.1'	303°34.8'	S 8°45.2'	303°38.1'	S 9°07.3'	303°41.2'	S 9°29.2'	303°44.1'	S 9°51.0'
09	318°28.1'	S 8°01.7'	318°31.6'	S 8°24.0'	318°35.0'	S 8°46.2'	318°38.2'	S 9°08.2'	318°41.3'	S 9°30.1'	318°44.3'	S 9°51.9'
10	333°28.2'	S 8°02.6'	333°31.7'	S 8°24.9'	333°35.1'	S 8°47.1'	333°38.4'	S 9°09.1'	333°41.4'	S 9°31.0'	333°44.4'	S 9°52.8'
11	348°28.4'	S 8°03.6'	348°31.9'	S 8°25.8'	348°35.3'	S 8°48.0'	348°38.5'	S 9°10.0'	348°41.6'	S 9°31.9'	348°44.5'	S 9°53.7'
12	3°28.5'	S 8°04.5'	3°32.0'	S 8°26.8'	3°35.4'	S 8°48.9'	3°38.6'	S 9°11.0'	3°41.7'	S 9°32.9'	3°44.6'	S 9°54.6'
13	18°28.7'	S 8°05.4'	18°32.2'	S 8°27.7'	18°35.5'	S 8°49.8'	18°38.7'	S 9°11.9'	18°41.8'	S 9°33.8'	18°44.7'	S 9°55.5'
14	33°28.8'	S 8°06.4'	33°32.3'	S 8°28.6'	33°35.7'	S 8°50.8'	33°38.9'	S 9°12.8'	33°41.9'	S 9°34.7'	33°44.8'	S 9°56.4'
15	48°29.0'	S 8°07.3'	48°32.5'	S 8°29.6'	48°35.8'	S 8°51.7'	48°39.0'	S 9°13.7'	48°42.1'	S 9°35.6'	48°45.0'	S 9°57.3'
16	63°29.1'	S 8°08.2'	63°32.6'	S 8°30.5'	63°35.9'	S 8°52.6'	63°39.1'	S 9°14.6'	63°42.2'	S 9°36.5'	63°45.1'	S 9°58.2'
17	78°29.3'	S 8°09.2'	78°32.7'	S 8°31.4'	78°36.1'	S 8°53.5'	78°39.3'	S 9°15.5'	78°42.3'	S 9°37.4'	78°45.2'	S 9°59.1'
18	93°29.4'	S 8°10.1'	93°32.9'	S 8°32.3'	93°36.2'	S 8°54.4'	93°39.4'	S 9°16.4'	93°42.4'	S 9°38.3'	93°45.3'	S 10°00.0'
19	108°29.6'	S 8°11.0'	108°33.0'	S 8°33.2'	108°36.3'	S 8°55.4'	108°39.5'	S 9°17.4'	108°42.6'	S 9°39.2'	108°45.4'	S 10°00.9'
20	123°29.7'	S 8°11.9'	123°33.2'	S 8°34.2'	123°36.5'	S 8°56.3'	123°39.7'	S 9°18.3'	123°42.7'	S 9°40.1'	123°45.5'	S 10°01.8'
21	138°29.9'	S 8°12.9'	138°33.3'	S 8°35.1'	138°36.6'	S 8°57.2'	138°39.8'	S 9°19.2'	138°42.8'	S 9°41.0'	138°45.7'	S 10°02.7'
22	153°30.0'	S 8°13.8'	153°33.4'	S 8°36.0'	153°36.8'	S 8°58.1'	153°39.9'	S 9°20.1'	153°42.9'	S 9°41.9'	153°45.8'	S 10°03.6'
23	168°30.1'	S 8°14.7'	168°33.6'	S 8°36.9'	168°36.9'	S 8°59.0'	168°40.0'	S 9°21.0'	168°43.0'	S 9°42.8'	168°45.9'	S 10°04.5'
Zeitgl. 0h / 12h	+13:47 / +13:54		+14:01 / +14:08		+14:15 / +14:22		+14:28 / +14:34		+14:41 / +14:47		+14:53 / +14:58	
Kulmination UT	11:46:06		11:45:52		11:45:38		11:45:26		11:45:13		11:45:02	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.1'		16.1'	

	Do 19.10.		Fr 20.10.		Sa 21.10.		So 22.10.		Mo 23.10.		Di 24.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°46.0'	S 10°05.4'	183°48.7'	S 10°27.0'	183°51.2'	S 10°48.4'	183°53.6'	S 11°09.6'	183°55.7'	S 11°30.6'	183°57.7'	S 11°51.5'
01	198°46.1'	S 10°06.3'	198°48.8'	S 10°27.9'	198°51.3'	S 10°49.3'	198°53.7'	S 11°10.5'	198°55.8'	S 11°31.5'	198°57.8'	S 11°52.4'
02	213°46.2'	S 10°07.2'	213°48.9'	S 10°28.8'	213°51.4'	S 10°50.1'	213°53.8'	S 11°11.3'	213°55.9'	S 11°32.4'	213°57.9'	S 11°53.3'
03	228°46.4'	S 10°08.1'	228°49.0'	S 10°29.7'	228°51.5'	S 10°51.0'	228°53.8'	S 11°12.2'	228°56.0'	S 11°33.3'	228°58.0'	S 11°54.1'
04	243°46.5'	S 10°09.0'	243°49.1'	S 10°30.6'	243°51.6'	S 10°51.9'	243°53.9'	S 11°13.1'	243°56.1'	S 11°34.1'	243°58.1'	S 11°55.0'
05	258°46.6'	S 10°09.9'	258°49.2'	S 10°31.4'	258°51.7'	S 10°52.8'	258°54.0'	S 11°14.0'	258°56.2'	S 11°35.0'	258°58.1'	S 11°55.9'
06	273°46.7'	S 10°10.8'	273°49.3'	S 10°32.3'	273°51.8'	S 10°53.7'	273°54.1'	S 11°14.9'	273°56.3'	S 11°35.9'	273°58.2'	S 11°56.7'
07	288°46.8'	S 10°11.7'	288°49.4'	S 10°33.2'	288°51.9'	S 10°54.6'	288°54.2'	S 11°15.7'	288°56.3'	S 11°36.8'	288°58.3'	S 11°57.6'
08	303°46.9'	S 10°12.6'	303°49.5'	S 10°34.1'	303°52.0'	S 10°55.5'	303°54.3'	S 11°16.6'	303°56.4'	S 11°37.6'	303°58.4'	S 11°58.5'
09	318°47.0'	S 10°13.5'	318°49.7'	S 10°35.0'	318°52.1'	S 10°56.3'	318°54.4'	S 11°17.5'	318°56.5'	S 11°38.5'	318°58.5'	S 11°59.3'
10	333°47.1'	S 10°14.4'	333°49.8'	S 10°35.9'	333°52.2'	S 10°57.2'	333°54.5'	S 11°18.4'	333°56.6'	S 11°39.4'	333°58.5'	S 12°00.2'
11	348°47.3'	S 10°15.3'	348°49.9'	S 10°36.8'	348°52.3'	S 10°58.1'	348°54.6'	S 11°19.3'	348°56.7'	S 11°40.2'	348°58.6'	S 12°01.0'
12	3°47.4'	S 10°16.2'	3°50.0'	S 10°37.7'	3°52.4'	S 10°59.0'	3°54.7'	S 11°20.1'	3°56.8'	S 11°41.1'	3°58.7'	S 12°01.9'
13	18°47.5'	S 10°17.1'	18°50.1'	S 10°38.6'	18°52.5'	S 10°59.9'	18°54.8'	S 11°21.0'	18°56.9'	S 11°42.0'	18°58.8'	S 12°02.8'
14	33°47.6'	S 10°18.0'	33°50.2'	S 10°39.5'	33°52.6'	S 11°00.8'	33°54.9'	S 11°21.9'	33°56.9'	S 11°42.8'	33°58.8'	S 12°03.6'
15	48°47.7'	S 10°18.9'	48°50.3'	S 10°40.4'	48°52.7'	S 11°01.6'	48°54.9'	S 11°22.8'	48°57.0'	S 11°43.7'	48°58.9'	S 12°04.5'
16	63°47.8'	S 10°19.8'	63°50.4'	S 10°41.3'	63°52.8'	S 11°02.5'	63°55.0'	S 11°23.6'	63°57.1'	S 11°44.6'	63°59.0'	S 12°05.4'
17	78°47.9'	S 10°20.7'	78°50.5'	S 10°42.1'	78°52.9'	S 11°03.4'	78°55.1'	S 11°24.5'	78°57.2'	S 11°45.5'	78°59.1'	S 12°06.2'
18	93°48.0'	S 10°21.6'	93°50.6'	S 10°43.0'	93°53.0'	S 11°04.3'	93°55.2'	S 11°25.4'	93°57.3'	S 11°46.3'	93°59.1'	S 12°07.1'
19	108°48.1'	S 10°22.5'	108°50.7'	S 10°43.9'	108°53.1'	S 11°05.2'	108°55.3'	S 11°26.3'	108°57.3'	S 11°47.2'	108°59.2'	S 12°07.9'
20	123°48.3'	S 10°23.4'	123°50.8'	S 10°44.8'	123°53.2'	S 11°06.1'	123°55.4'	S 11°27.1'	123°57.4'	S 11°48.1'	123°59.3'	S 12°08.8'
21	138°48.4'	S 10°24.3'	138°50.9'	S 10°45.7'	138°53.3'	S 11°06.9'	138°55.5'	S 11°28.0'	138°57.5'	S 11°48.9'	138°59.4'	S 12°09.7'
22	153°48.5'	S 10°25.2'	153°51.0'	S 10°46.6'	153°53.4'	S 11°07.8'	153°55.6'	S 11°28.9'	153°57.6'	S 11°49.8'	153°59.4'	S 12°10.5'
23	168°48.6'	S 10°26.1'	168°51.1'	S 10°47.5'	168°53.5'	S 11°08.7'	168°55.7'	S 11°29.8'	168°57.7'	S 11°50.7'	168°59.5'	S 12°11.4'
Zeitgl. 0h / 12h	+15:04 / +15:09		+15:15 / +15:20		+15:25 / +15:30		+15:34 / +15:39		+15:43 / +15:47		+15:51 / +15:55	
Kulmination UT	11:44:51		11:44:40		11:44:30		11:44:21		11:44:13		11:44:05	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	Mi 25.10.		Do 26.10.		Fr 27.10.		Sa 28.10.		So 29.10.		Mo 30.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°59.6'	S 12°12.2'	184°01.2'	S 12°32.8'	184°02.7'	S 12°53.1'	184°03.9'	S 13°13.2'	184°05.0'	S 13°33.1'	184°05.9'	S 13°52.8'
01	198°59.6'	S 12°13.1'	199°01.3'	S 12°33.6'	199°02.7'	S 12°53.9'	199°04.0'	S 13°14.0'	199°05.1'	S 13°33.9'	199°05.9'	S 13°53.6'
02	213°59.7'	S 12°14.0'	214°01.3'	S 12°34.5'	214°02.8'	S 12°54.8'	214°04.0'	S 13°14.9'	214°05.1'	S 13°34.8'	214°06.0'	S 13°54.4'
03	228°59.8'	S 12°14.8'	229°01.4'	S 12°35.3'	229°02.8'	S 12°55.6'	229°04.1'	S 13°15.7'	229°05.1'	S 13°35.6'	229°06.0'	S 13°55.3'
04	243°59.9'	S 12°15.7'	244°01.5'	S 12°36.2'	244°02.9'	S 12°56.4'	244°04.1'	S 13°16.5'	244°05.2'	S 13°36.4'	244°06.0'	S 13°56.1'
05	258°59.9'	S 12°16.5'	259°01.5'	S 12°37.0'	259°03.0'	S 12°57.3'	259°04.2'	S 13°17.4'	259°05.2'	S 13°37.2'	259°06.0'	S 13°56.9'
06	274°00.0'	S 12°17.4'	274°01.6'	S 12°37.9'	274°03.0'	S 12°58.1'	274°04.2'	S 13°18.2'	274°05.3'	S 13°38.1'	274°06.1'	S 13°57.7'
07	289°00.1'	S 12°18.2'	289°01.7'	S 12°38.7'	289°03.1'	S 12°59.0'	289°04.3'	S 13°19.0'	289°05.3'	S 13°38.9'	289°06.1'	S 13°58.5'
08	304°00.1'	S 12°19.1'	304°01.7'	S 12°39.5'	304°03.1'	S 12°59.8'	304°04.3'	S 13°19.9'	304°05.3'	S 13°39.7'	304°06.1'	S 13°59.3'
09	319°00.2'	S 12°20.0'	319°01.8'	S 12°40.4'	319°03.2'	S 13°00.6'	319°04.4'	S 13°20.7'	319°05.4'	S 13°40.5'	319°06.2'	S 14°00.1'
10	334°00.3'	S 12°20.8'	334°01.8'	S 12°41.2'	334°03.2'	S 13°01.5'	334°04.4'	S 13°21.5'	334°05.4'	S 13°41.4'	334°06.2'	S 14°01.0'
11	349°00.3'	S 12°21.7'	349°01.9'	S 12°42.1'	349°03.3'	S 13°02.3'	349°04.5'	S 13°22.4'	349°05.4'	S 13°42.2'	349°06.2'	S 14°01.8'
12	4°00.4'	S 12°22.5'	4°02.0'	S 12°42.9'	4°03.3'	S 13°03.2'	4°04.5'	S 13°23.2'	4°05.5'	S 13°43.0'	4°06.3'	S 14°02.6'
13	19°00.5'	S 12°23.4'	19°02.0'	S 12°43.8'	19°03.4'	S 13°04.0'	19°04.5'	S 13°24.0'	19°05.5'	S 13°43.8'	19°06.3'	S 14°03.4'
14	34°00.6'	S 12°24.2'	34°02.1'	S 12°44.6'	34°03.4'	S 13°04.8'	34°04.6'	S 13°24.8'	34°05.5'	S 13°44.6'	34°06.3'	S 14°04.2'
15	49°00.6'	S 12°25.1'	49°02.1'	S 12°45.5'	49°03.5'	S 13°05.7'	49°04.6'	S 13°25.7'	49°05.6'	S 13°45.5'	49°06.3'	S 14°05.0'
16	64°00.7'	S 12°25.9'	64°02.2'	S 12°46.3'	64°03.5'	S 13°06.5'	64°04.7'	S 13°26.5'	64°05.6'	S 13°46.3'	64°06.4'	S 14°05.8'
17	79°00.8'	S 12°26.8'	79°02.3'	S 12°47.2'	79°03.6'	S 13°07.4'	79°04.7'	S 13°27.3'	79°05.7'	S 13°47.1'	79°06.4'	S 14°06.6'
18	94°00.8'	S 12°27.6'	94°02.3'	S 12°48.0'	94°03.6'	S 13°08.2'	94°04.8'	S 13°28.2'	94°05.7'	S 13°47.9'	94°06.4'	S 14°07.4'
19	109°00.9'	S 12°28.5'	109°02.4'	S 12°48.9'	109°03.7'	S 13°09.0'	109°04.8'	S 13°29.0'	109°05.7'	S 13°48.7'	109°06.4'	S 14°08.3'
20	124°01.0'	S 12°29.3'	124°02.4'	S 12°49.7'	124°03.7'	S 13°09.9'	124°04.8'	S 13°29.8'	124°05.8'	S 13°49.5'	124°06.5'	S 14°09.1'
21	139°01.0'	S 12°30.2'	139°02.5'	S 12°50.5'	139°03.8'	S 13°10.7'	139°04.9'	S 13°30.6'	139°05.8'	S 13°50.4'	139°06.5'	S 14°09.9'
22	154°01.1'	S 12°31.0'	154°02.6'	S 12°51.4'	154°03.8'	S 13°11.5'	154°04.9'	S 13°31.5'	154°05.8'	S 13°51.2'	154°06.5'	S 14°10.7'
23	169°01.2'	S 12°31.9'	169°02.6'	S 12°52.2'	169°03.9'	S 13°12.4'	169°05.0'	S 13°32.3'	169°05.9'	S 13°52.0'	169°06.5'	S 14°11.5'
Zeitgl. 0h / 12h	+15:58 / +16:02		+16:05 / +16:08		+16:11 / +16:13		+16:16 / +16:18		+16:20 / +16:22		+16:24 / +16:25	
Kulmination UT	11:43:58		11:43:52		11:43:47		11:43:42		11:43:38		11:43:35	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

Di 31.10.

UT	Grt	Dec
00	184°06.6'	S 14°12.3'
01	199°06.6'	S 14°13.1'
02	214°06.6'	S 14°13.9'
03	229°06.6'	S 14°14.7'
04	244°06.7'	S 14°15.5'
05	259°06.7'	S 14°16.3'
06	274°06.7'	S 14°17.1'
07	289°06.7'	S 14°17.9'
08	304°06.8'	S 14°18.7'
09	319°06.8'	S 14°19.5'
10	334°06.8'	S 14°20.3'
11	349°06.8'	S 14°21.2'
12	4°06.8'	S 14°22.0'
13	19°06.9'	S 14°22.8'
14	34°06.9'	S 14°23.6'
15	49°06.9'	S 14°24.4'
16	64°06.9'	S 14°25.2'
17	79°06.9'	S 14°26.0'
18	94°06.9'	S 14°26.8'
19	109°07.0'	S 14°27.6'
20	124°07.0'	S 14°28.4'
21	139°07.0'	S 14°29.2'
22	154°07.0'	S 14°30.0'
23	169°07.0'	S 14°30.8'

Zeitgl. 0h / 12h +16:26 / +16:27

Kulmination UT 11:43:33

Halbmesser 16.1'

2028

November

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Mi 01.11.		Do 02.11.		Fr 03.11.		Sa 04.11.		So 05.11.		Mo 06.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	184°07.0'	S 14°31.6'	184°07.3'	S 14°50.6'	184°07.4'	S 15°09.4'	184°07.3'	S 15°27.9'	184°06.9'	S 15°46.2'	184°06.3'	S 16°04.2'
01	199°07.1'	S 14°32.4'	199°07.3'	S 14°51.4'	199°07.4'	S 15°10.1'	199°07.2'	S 15°28.7'	199°06.9'	S 15°46.9'	199°06.3'	S 16°04.9'
02	214°07.1'	S 14°33.1'	214°07.3'	S 14°52.1'	214°07.4'	S 15°10.9'	214°07.2'	S 15°29.4'	214°06.9'	S 15°47.7'	214°06.3'	S 16°05.7'
03	229°07.1'	S 14°33.9'	229°07.3'	S 14°52.9'	229°07.4'	S 15°11.7'	229°07.2'	S 15°30.2'	229°06.8'	S 15°48.4'	229°06.3'	S 16°06.4'
04	244°07.1'	S 14°34.7'	244°07.3'	S 14°53.7'	244°07.4'	S 15°12.5'	244°07.2'	S 15°31.0'	244°06.8'	S 15°49.2'	244°06.2'	S 16°07.2'
05	259°07.1'	S 14°35.5'	259°07.4'	S 14°54.5'	259°07.4'	S 15°13.2'	259°07.2'	S 15°31.7'	259°06.8'	S 15°49.9'	259°06.2'	S 16°07.9'
06	274°07.1'	S 14°36.3'	274°07.4'	S 14°55.3'	274°07.4'	S 15°14.0'	274°07.2'	S 15°32.5'	274°06.8'	S 15°50.7'	274°06.2'	S 16°08.6'
07	289°07.1'	S 14°37.1'	289°07.4'	S 14°56.1'	289°07.4'	S 15°14.8'	289°07.2'	S 15°33.2'	289°06.8'	S 15°51.4'	289°06.1'	S 16°09.4'
08	304°07.2'	S 14°37.9'	304°07.4'	S 14°56.9'	304°07.4'	S 15°15.6'	304°07.2'	S 15°34.0'	304°06.7'	S 15°52.2'	304°06.1'	S 16°10.1'
09	319°07.2'	S 14°38.7'	319°07.4'	S 14°57.6'	319°07.4'	S 15°16.3'	319°07.1'	S 15°34.8'	319°06.7'	S 15°53.0'	319°06.1'	S 16°10.9'
10	334°07.2'	S 14°39.5'	334°07.4'	S 14°58.4'	334°07.4'	S 15°17.1'	334°07.1'	S 15°35.5'	334°06.7'	S 15°53.7'	334°06.0'	S 16°11.6'
11	349°07.2'	S 14°40.3'	349°07.4'	S 14°59.2'	349°07.4'	S 15°17.9'	349°07.1'	S 15°36.3'	349°06.7'	S 15°54.5'	349°06.0'	S 16°12.4'
12	4°07.2'	S 14°41.1'	4°07.4'	S 15°00.0'	4°07.3'	S 15°18.7'	4°07.1'	S 15°37.1'	4°06.6'	S 15°55.2'	4°06.0'	S 16°13.1'
13	19°07.2'	S 14°41.9'	19°07.4'	S 15°00.8'	19°07.3'	S 15°19.4'	19°07.1'	S 15°37.8'	19°06.6'	S 15°56.0'	19°05.9'	S 16°13.8'
14	34°07.2'	S 14°42.7'	34°07.4'	S 15°01.6'	34°07.3'	S 15°20.2'	34°07.1'	S 15°38.6'	34°06.6'	S 15°56.7'	34°05.9'	S 16°14.6'
15	49°07.2'	S 14°43.5'	49°07.4'	S 15°02.3'	49°07.3'	S 15°21.0'	49°07.1'	S 15°39.3'	49°06.6'	S 15°57.5'	49°05.9'	S 16°15.3'
16	64°07.3'	S 14°44.3'	64°07.4'	S 15°03.1'	64°07.3'	S 15°21.7'	64°07.0'	S 15°40.1'	64°06.6'	S 15°58.2'	64°05.9'	S 16°16.0'
17	79°07.3'	S 14°45.1'	79°07.4'	S 15°03.9'	79°07.3'	S 15°22.5'	79°07.0'	S 15°40.9'	79°06.5'	S 15°59.0'	79°05.8'	S 16°16.8'
18	94°07.3'	S 14°45.8'	94°07.4'	S 15°04.7'	94°07.3'	S 15°23.3'	94°07.0'	S 15°41.6'	94°06.5'	S 15°59.7'	94°05.8'	S 16°17.5'
19	109°07.3'	S 14°46.6'	109°07.4'	S 15°05.5'	109°07.3'	S 15°24.0'	109°07.0'	S 15°42.4'	109°06.5'	S 16°00.5'	109°05.7'	S 16°18.3'
20	124°07.3'	S 14°47.4'	124°07.4'	S 15°06.2'	124°07.3'	S 15°24.8'	124°07.0'	S 15°43.1'	124°06.4'	S 16°01.2'	124°05.7'	S 16°19.0'
21	139°07.3'	S 14°48.2'	139°07.4'	S 15°07.0'	139°07.3'	S 15°25.6'	139°07.0'	S 15°43.9'	139°06.4'	S 16°01.9'	139°05.7'	S 16°19.7'
22	154°07.3'	S 14°49.0'	154°07.4'	S 15°07.8'	154°07.3'	S 15°26.4'	154°06.9'	S 15°44.7'	154°06.4'	S 16°02.7'	154°05.6'	S 16°20.5'
23	169°07.3'	S 14°49.8'	169°07.4'	S 15°08.6'	169°07.3'	S 15°27.1'	169°06.9'	S 15°45.4'	169°06.4'	S 16°03.4'	169°05.6'	S 16°21.2'
Zeitgl. 0h / 12h	+16:28 / +16:29		+16:29 / +16:30		+16:30 / +16:29		+16:29 / +16:28		+16:28 / +16:27		+16:25 / +16:24	
Kulmination UT	11:43:31		11:43:30		11:43:31		11:43:32		11:43:33		11:43:36	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	Di 07.11.		Mi 08.11.		Do 09.11.		Fr 10.11.		Sa 11.11.		So 12.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	184°05.6'	S 16°21.9'	184°04.6'	S 16°39.4'	184°03.4'	S 16°56.6'	184°02.0'	S 17°13.5'	184°00.3'	S 17°30.1'	183°58.5'	S 17°46.4'
01	199°05.5'	S 16°22.7'	199°04.5'	S 16°40.1'	199°03.3'	S 16°57.3'	199°01.9'	S 17°14.2'	199°00.3'	S 17°30.8'	198°58.4'	S 17°47.1'
02	214°05.5'	S 16°23.4'	214°04.5'	S 16°40.9'	214°03.3'	S 16°58.0'	214°01.8'	S 17°14.9'	214°00.2'	S 17°31.5'	213°58.3'	S 17°47.8'
03	229°05.5'	S 16°24.1'	229°04.4'	S 16°41.6'	229°03.2'	S 16°58.7'	229°01.8'	S 17°15.6'	229°00.1'	S 17°32.2'	228°58.2'	S 17°48.4'
04	244°05.4'	S 16°24.9'	244°04.4'	S 16°42.3'	244°03.2'	S 16°59.4'	244°01.7'	S 17°16.3'	244°00.0'	S 17°32.9'	243°58.2'	S 17°49.1'
05	259°05.4'	S 16°25.6'	259°04.4'	S 16°43.0'	259°03.1'	S 17°00.1'	259°01.6'	S 17°17.0'	259°00.0'	S 17°33.5'	258°58.1'	S 17°49.8'
06	274°05.3'	S 16°26.3'	274°04.3'	S 16°43.7'	274°03.1'	S 17°00.9'	274°01.6'	S 17°17.7'	273°59.9'	S 17°34.2'	273°58.0'	S 17°50.5'
07	289°05.3'	S 16°27.1'	289°04.3'	S 16°44.5'	289°03.0'	S 17°01.6'	289°01.5'	S 17°18.4'	288°59.8'	S 17°34.9'	288°57.9'	S 17°51.1'
08	304°05.3'	S 16°27.8'	304°04.2'	S 16°45.2'	304°02.9'	S 17°02.3'	304°01.4'	S 17°19.1'	303°59.7'	S 17°35.6'	303°57.8'	S 17°51.8'
09	319°05.2'	S 16°28.5'	319°04.2'	S 16°45.9'	319°02.9'	S 17°03.0'	319°01.4'	S 17°19.8'	318°59.7'	S 17°36.3'	318°57.7'	S 17°52.5'
10	334°05.2'	S 16°29.2'	334°04.1'	S 16°46.6'	334°02.8'	S 17°03.7'	334°01.3'	S 17°20.5'	333°59.6'	S 17°37.0'	333°57.7'	S 17°53.1'
11	349°05.1'	S 16°30.0'	349°04.1'	S 16°47.3'	349°02.8'	S 17°04.4'	349°01.2'	S 17°21.2'	348°59.5'	S 17°37.6'	348°57.6'	S 17°53.8'
12	4°05.1'	S 16°30.7'	4°04.0'	S 16°48.0'	4°02.7'	S 17°05.1'	4°01.2'	S 17°21.9'	3°59.4'	S 17°38.3'	3°57.5'	S 17°54.5'
13	19°05.1'	S 16°31.4'	19°04.0'	S 16°48.8'	19°02.6'	S 17°05.8'	19°01.1'	S 17°22.5'	18°59.4'	S 17°39.0'	18°57.4'	S 17°55.1'
14	34°05.0'	S 16°32.2'	34°03.9'	S 16°49.5'	34°02.6'	S 17°06.5'	34°01.0'	S 17°23.2'	33°59.3'	S 17°39.7'	33°57.3'	S 17°55.8'
15	49°05.0'	S 16°32.9'	49°03.9'	S 16°50.2'	49°02.5'	S 17°07.2'	49°01.0'	S 17°23.9'	48°59.2'	S 17°40.4'	48°57.2'	S 17°56.5'
16	64°04.9'	S 16°33.6'	64°03.8'	S 16°50.9'	64°02.5'	S 17°07.9'	64°00.9'	S 17°24.6'	63°59.1'	S 17°41.0'	63°57.1'	S 17°57.1'
17	79°04.9'	S 16°34.3'	79°03.8'	S 16°51.6'	79°02.4'	S 17°08.6'	79°00.8'	S 17°25.3'	78°59.1'	S 17°41.7'	78°57.1'	S 17°57.8'
18	94°04.9'	S 16°35.1'	94°03.7'	S 16°52.3'	94°02.3'	S 17°09.3'	94°00.8'	S 17°26.0'	93°59.0'	S 17°42.4'	93°57.0'	S 17°58.5'
19	109°04.8'	S 16°35.8'	109°03.7'	S 16°53.0'	109°02.3'	S 17°10.0'	109°00.7'	S 17°26.7'	108°58.9'	S 17°43.1'	108°56.9'	S 17°59.1'
20	124°04.8'	S 16°36.5'	124°03.6'	S 16°53.8'	124°02.2'	S 17°10.7'	124°00.6'	S 17°27.4'	123°58.8'	S 17°43.7'	123°56.8'	S 17°59.8'
21	139°04.7'	S 16°37.2'	139°03.5'	S 16°54.5'	139°02.2'	S 17°11.4'	139°00.6'	S 17°28.1'	138°58.7'	S 17°44.4'	138°56.7'	S 18°00.5'
22	154°04.7'	S 16°38.0'	154°03.5'	S 16°55.2'	154°02.1'	S 17°12.1'	154°00.5'	S 17°28.7'	153°58.7'	S 17°45.1'	153°56.6'	S 18°01.1'
23	169°04.6'	S 16°38.7'	169°03.4'	S 16°55.9'	169°02.0'	S 17°12.8'	169°00.4'	S 17°29.4'	168°58.6'	S 17°45.8'	168°56.5'	S 18°01.8'
Zeitgl. 0h / 12h	+16:22 / +16:20		+16:18 / +16:16		+16:14 / +16:11		+16:08 / +16:05		+16:01 / +15:58		+15:54 / +15:50	
Kulmination UT	11:43:40		11:43:44		11:43:49		11:43:55		11:44:02		11:44:10	
Halbmesser	16.1'		16.1'		16.1'		16.2'		16.2'		16.2'	

	Mo 13.11.		Di 14.11.		Mi 15.11.		Do 16.11.		Fr 17.11.		Sa 18.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°56.4'	S 18°02.4'	183°54.2'	S 18°18.1'	183°51.7'	S 18°33.5'	183°49.0'	S 18°48.5'	183°46.1'	S 19°03.2'	183°42.9'	S 19°17.6'
01	198°56.3'	S 18°03.1'	198°54.1'	S 18°18.8'	198°51.6'	S 18°34.1'	198°48.9'	S 18°49.2'	198°45.9'	S 19°03.8'	198°42.8'	S 19°18.2'
02	213°56.3'	S 18°03.8'	213°54.0'	S 18°19.4'	213°51.5'	S 18°34.8'	213°48.7'	S 18°49.8'	213°45.8'	S 19°04.4'	213°42.7'	S 19°18.8'
03	228°56.2'	S 18°04.4'	228°53.9'	S 18°20.1'	228°51.3'	S 18°35.4'	228°48.6'	S 18°50.4'	228°45.7'	S 19°05.1'	228°42.5'	S 19°19.4'
04	243°56.1'	S 18°05.1'	243°53.8'	S 18°20.7'	243°51.2'	S 18°36.0'	243°48.5'	S 18°51.0'	243°45.6'	S 19°05.7'	243°42.4'	S 19°20.0'
05	258°56.0'	S 18°05.7'	258°53.7'	S 18°21.4'	258°51.1'	S 18°36.7'	258°48.4'	S 18°51.6'	258°45.4'	S 19°06.3'	258°42.3'	S 19°20.6'
06	273°55.9'	S 18°06.4'	273°53.6'	S 18°22.0'	273°51.0'	S 18°37.3'	273°48.3'	S 18°52.2'	273°45.3'	S 19°06.9'	273°42.1'	S 19°21.1'
07	288°55.8'	S 18°07.0'	288°53.5'	S 18°22.6'	288°50.9'	S 18°37.9'	288°48.1'	S 18°52.9'	288°45.2'	S 19°07.5'	288°42.0'	S 19°21.7'
08	303°55.7'	S 18°07.7'	303°53.4'	S 18°23.3'	303°50.8'	S 18°38.5'	303°48.0'	S 18°53.5'	303°45.0'	S 19°08.1'	303°41.9'	S 19°22.3'
09	318°55.6'	S 18°08.4'	318°53.3'	S 18°23.9'	318°50.7'	S 18°39.2'	318°47.9'	S 18°54.1'	318°44.9'	S 19°08.7'	318°41.7'	S 19°22.9'
10	333°55.5'	S 18°09.0'	333°53.2'	S 18°24.6'	333°50.6'	S 18°39.8'	333°47.8'	S 18°54.7'	333°44.8'	S 19°09.3'	333°41.6'	S 19°23.5'
11	348°55.4'	S 18°09.7'	348°53.0'	S 18°25.2'	348°50.5'	S 18°40.4'	348°47.7'	S 18°55.3'	348°44.7'	S 19°09.9'	348°41.4'	S 19°24.1'
12	3°55.3'	S 18°10.3'	3°52.9'	S 18°25.8'	3°50.4'	S 18°41.1'	3°47.5'	S 18°55.9'	3°44.5'	S 19°10.5'	3°41.3'	S 19°24.7'
13	18°55.2'	S 18°11.0'	18°52.8'	S 18°26.5'	18°50.2'	S 18°41.7'	18°47.4'	S 18°56.5'	18°44.4'	S 19°11.1'	18°41.2'	S 19°25.2'
14	33°55.1'	S 18°11.6'	33°52.7'	S 18°27.1'	33°50.1'	S 18°42.3'	33°47.3'	S 18°57.2'	33°44.3'	S 19°11.7'	33°41.0'	S 19°25.8'
15	48°55.0'	S 18°12.3'	48°52.6'	S 18°27.8'	48°50.0'	S 18°42.9'	48°47.2'	S 18°57.8'	48°44.1'	S 19°12.3'	48°40.9'	S 19°26.4'
16	63°54.9'	S 18°12.9'	63°52.5'	S 18°28.4'	63°49.9'	S 18°43.6'	63°47.1'	S 18°58.4'	63°44.0'	S 19°12.9'	63°40.7'	S 19°27.0'
17	78°54.8'	S 18°13.6'	78°52.4'	S 18°29.0'	78°49.8'	S 18°44.2'	78°46.9'	S 18°59.0'	78°43.9'	S 19°13.5'	78°40.6'	S 19°27.6'
18	93°54.7'	S 18°14.2'	93°52.3'	S 18°29.7'	93°49.7'	S 18°44.8'	93°46.8'	S 18°59.6'	93°43.7'	S 19°14.0'	93°40.5'	S 19°28.2'
19	108°54.7'	S 18°14.9'	108°52.2'	S 18°30.3'	108°49.6'	S 18°45.4'	108°46.7'	S 19°00.2'	108°43.6'	S 19°14.6'	108°40.3'	S 19°28.7'
20	123°54.6'	S 18°15.5'	123°52.1'	S 18°31.0'	123°49.4'	S 18°46.0'	123°46.6'	S 19°00.8'	123°43.5'	S 19°15.2'	123°40.2'	S 19°29.3'
21	138°54.5'	S 18°16.2'	138°52.0'	S 18°31.6'	138°49.3'	S 18°46.7'	138°46.4'	S 19°01.4'	138°43.3'	S 19°15.8'	138°40.0'	S 19°29.9'
22	153°54.4'	S 18°16.8'	153°51.9'	S 18°32.2'	153°49.2'	S 18°47.3'	153°46.3'	S 19°02.0'	153°43.2'	S 19°16.4'	153°39.9'	S 19°30.5'
23	168°54.3'	S 18°17.5'	168°51.8'	S 18°32.9'	168°49.1'	S 18°47.9'	168°46.2'	S 19°02.6'	168°43.1'	S 19°17.0'	168°39.8'	S 19°31.0'
Zeitgl. 0h / 12h	+15:46 / +15:41		+15:37 / +15:32		+15:27 / +15:21		+15:16 / +15:10		+15:04 / +14:58		+14:52 / +14:45	
Kulmination UT	11:44:19		11:44:28		11:44:39		11:44:50		11:45:02		11:45:15	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	So 19.11.		Mo 20.11.		Di 21.11.		Mi 22.11.		Do 23.11.		Fr 24.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°39.6'	S 19°31.6'	183°36.1'	S 19°45.3'	183°32.3'	S 19°58.6'	183°28.4'	S 20°11.5'	183°24.3'	S 20°24.1'	183°19.9'	S 20°36.3'
01	198°39.5'	S 19°32.2'	198°35.9'	S 19°45.9'	198°32.2'	S 19°59.2'	198°28.2'	S 20°12.1'	198°24.1'	S 20°24.6'	198°19.8'	S 20°36.8'
02	213°39.3'	S 19°32.8'	213°35.8'	S 19°46.4'	213°32.0'	S 19°59.7'	213°28.1'	S 20°12.6'	213°23.9'	S 20°25.2'	213°19.6'	S 20°37.3'
03	228°39.2'	S 19°33.4'	228°35.6'	S 19°47.0'	228°31.9'	S 20°00.2'	228°27.9'	S 20°13.1'	228°23.7'	S 20°25.7'	228°19.4'	S 20°37.8'
04	243°39.0'	S 19°33.9'	243°35.5'	S 19°47.5'	243°31.7'	S 20°00.8'	243°27.7'	S 20°13.7'	243°23.6'	S 20°26.2'	243°19.2'	S 20°38.3'
05	258°38.9'	S 19°34.5'	258°35.3'	S 19°48.1'	258°31.5'	S 20°01.3'	258°27.6'	S 20°14.2'	258°23.4'	S 20°26.7'	258°19.0'	S 20°38.8'
06	273°38.7'	S 19°35.1'	273°35.2'	S 19°48.7'	273°31.4'	S 20°01.9'	273°27.4'	S 20°14.7'	273°23.2'	S 20°27.2'	273°18.8'	S 20°39.3'
07	288°38.6'	S 19°35.6'	288°35.0'	S 19°49.2'	288°31.2'	S 20°02.4'	288°27.2'	S 20°15.3'	288°23.0'	S 20°27.7'	288°18.6'	S 20°39.8'
08	303°38.5'	S 19°36.2'	303°34.9'	S 19°49.8'	303°31.1'	S 20°03.0'	303°27.0'	S 20°15.8'	303°22.8'	S 20°28.2'	303°18.5'	S 20°40.3'
09	318°38.3'	S 19°36.8'	318°34.7'	S 19°50.3'	318°30.9'	S 20°03.5'	318°26.9'	S 20°16.3'	318°22.7'	S 20°28.7'	318°18.3'	S 20°40.8'
10	333°38.2'	S 19°37.4'	333°34.5'	S 19°50.9'	333°30.7'	S 20°04.0'	333°26.7'	S 20°16.8'	333°22.5'	S 20°29.3'	333°18.1'	S 20°41.3'
11	348°38.0'	S 19°37.9'	348°34.4'	S 19°51.4'	348°30.6'	S 20°04.6'	348°26.5'	S 20°17.4'	348°22.3'	S 20°29.8'	348°17.9'	S 20°41.8'
12	3°37.9'	S 19°38.5'	3°34.2'	S 19°52.0'	3°30.4'	S 20°05.1'	3°26.4'	S 20°17.9'	3°22.1'	S 20°30.3'	3°17.7'	S 20°42.3'
13	18°37.7'	S 19°39.1'	18°34.1'	S 19°52.5'	18°30.2'	S 20°05.7'	18°26.2'	S 20°18.4'	18°21.9'	S 20°30.8'	18°17.5'	S 20°42.8'
14	33°37.6'	S 19°39.6'	33°33.9'	S 19°53.1'	33°30.1'	S 20°06.2'	33°26.0'	S 20°18.9'	33°21.8'	S 20°31.3'	33°17.3'	S 20°43.3'
15	48°37.4'	S 19°40.2'	48°33.8'	S 19°53.7'	48°29.9'	S 20°06.7'	48°25.8'	S 20°19.5'	48°21.6'	S 20°31.8'	48°17.1'	S 20°43.8'
16	63°37.3'	S 19°40.8'	63°33.6'	S 19°54.2'	63°29.7'	S 20°07.3'	63°25.7'	S 20°20.0'	63°21.4'	S 20°32.3'	63°17.0'	S 20°44.2'
17	78°37.1'	S 19°41.3'	78°33.5'	S 19°54.8'	78°29.6'	S 20°07.8'	78°25.5'	S 20°20.5'	78°21.2'	S 20°32.8'	78°16.8'	S 20°44.7'
18	93°37.0'	S 19°41.9'	93°33.3'	S 19°55.3'	93°29.4'	S 20°08.3'	93°25.3'	S 20°21.0'	93°21.0'	S 20°33.3'	93°16.6'	S 20°45.2'
19	108°36.8'	S 19°42.5'	108°33.1'	S 19°55.9'	108°29.2'	S 20°08.9'	108°25.1'	S 20°21.5'	108°20.9'	S 20°33.8'	108°16.4'	S 20°45.7'
20	123°36.7'	S 19°43.0'	123°33.0'	S 19°56.4'	123°29.1'	S 20°09.4'	123°25.0'	S 20°22.1'	123°20.7'	S 20°34.3'	123°16.2'	S 20°46.2'
21	138°36.5'	S 19°43.6'	138°32.8'	S 19°57.0'	138°28.9'	S 20°10.0'	138°24.8'	S 20°22.6'	138°20.5'	S 20°34.8'	138°16.0'	S 20°46.7'
22	153°36.4'	S 19°44.2'	153°32.7'	S 19°57.5'	153°28.7'	S 20°10.5'	153°24.6'	S 20°23.1'	153°20.3'	S 20°35.3'	153°15.8'	S 20°47.2'
23	168°36.2'	S 19°44.7'	168°32.5'	S 19°58.1'	168°28.6'	S 20°11.0'	168°24.4'	S 20°23.6'	168°20.1'	S 20°35.8'	168°15.6'	S 20°47.7'
Zeitgl. 0h / 12h	+14:38 / +14:31		+14:24 / +14:17		+14:09 / +14:02		+13:54 / +13:45		+13:37 / +13:29		+13:20 / +13:11	
Kulmination UT	11:45:29		11:45:43		11:45:58		11:46:15		11:46:31		11:46:49	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Sa 25.11.		So 26.11.		Mo 27.11.		Di 28.11.		Mi 29.11.		Do 30.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°15.4'	S 20°48.1'	183°10.7'	S 20°59.6'	183°05.8'	S 21°10.6'	183°00.8'	S 21°21.2'	182°55.5'	S 21°31.5'	182°50.1'	S 21°41.3'
01	198°15.2'	S 20°48.6'	198°10.5'	S 21°00.0'	198°05.6'	S 21°11.1'	198°00.5'	S 21°21.7'	197°55.3'	S 21°31.9'	197°49.9'	S 21°41.7'
02	213°15.0'	S 20°49.1'	213°10.3'	S 21°00.5'	213°05.4'	S 21°11.5'	213°00.3'	S 21°22.1'	212°55.1'	S 21°32.3'	212°49.7'	S 21°42.1'
03	228°14.8'	S 20°49.6'	228°10.1'	S 21°01.0'	228°05.2'	S 21°12.0'	228°00.1'	S 21°22.5'	227°54.9'	S 21°32.7'	227°49.4'	S 21°42.5'
04	243°14.7'	S 20°50.1'	243°09.9'	S 21°01.4'	243°05.0'	S 21°12.4'	242°59.9'	S 21°23.0'	242°54.6'	S 21°33.1'	242°49.2'	S 21°42.9'
05	258°14.5'	S 20°50.5'	258°09.7'	S 21°01.9'	258°04.8'	S 21°12.8'	257°59.7'	S 21°23.4'	257°54.4'	S 21°33.6'	257°49.0'	S 21°43.3'
06	273°14.3'	S 20°51.0'	273°09.5'	S 21°02.4'	273°04.6'	S 21°13.3'	272°59.5'	S 21°23.8'	272°54.2'	S 21°34.0'	272°48.7'	S 21°43.7'
07	288°14.1'	S 20°51.5'	288°09.3'	S 21°02.8'	288°04.4'	S 21°13.7'	287°59.3'	S 21°24.3'	287°54.0'	S 21°34.4'	287°48.5'	S 21°44.1'
08	303°13.9'	S 20°52.0'	303°09.1'	S 21°03.3'	303°04.2'	S 21°14.2'	302°59.0'	S 21°24.7'	302°53.7'	S 21°34.8'	302°48.3'	S 21°44.5'
09	318°13.7'	S 20°52.5'	318°08.9'	S 21°03.7'	318°04.0'	S 21°14.6'	317°58.8'	S 21°25.1'	317°53.5'	S 21°35.2'	317°48.0'	S 21°44.9'
10	333°13.5'	S 20°52.9'	333°08.7'	S 21°04.2'	333°03.7'	S 21°15.1'	332°58.6'	S 21°25.6'	332°53.3'	S 21°35.6'	332°47.8'	S 21°45.3'
11	348°13.3'	S 20°53.4'	348°08.5'	S 21°04.7'	348°03.5'	S 21°15.5'	347°58.4'	S 21°26.0'	347°53.1'	S 21°36.0'	347°47.6'	S 21°45.7'
12	3°13.1'	S 20°53.9'	3°08.3'	S 21°05.1'	3°03.3'	S 21°16.0'	2°58.2'	S 21°26.4'	2°52.8'	S 21°36.4'	2°47.4'	S 21°46.1'
13	18°12.9'	S 20°54.4'	18°08.1'	S 21°05.6'	18°03.1'	S 21°16.4'	17°57.9'	S 21°26.8'	17°52.6'	S 21°36.8'	17°47.1'	S 21°46.4'
14	33°12.7'	S 20°54.9'	33°07.9'	S 21°06.1'	33°02.9'	S 21°16.9'	32°57.7'	S 21°27.3'	32°52.4'	S 21°37.3'	32°46.9'	S 21°46.8'
15	48°12.5'	S 20°55.3'	48°07.7'	S 21°06.5'	48°02.7'	S 21°17.3'	47°57.5'	S 21°27.7'	47°52.2'	S 21°37.7'	47°46.7'	S 21°47.2'
16	63°12.3'	S 20°55.8'	63°07.5'	S 21°07.0'	63°02.5'	S 21°17.7'	62°57.3'	S 21°28.1'	62°51.9'	S 21°38.1'	62°46.4'	S 21°47.6'
17	78°12.1'	S 20°56.3'	78°07.3'	S 21°07.4'	78°02.3'	S 21°18.2'	77°57.1'	S 21°28.5'	77°51.7'	S 21°38.5'	77°46.2'	S 21°48.0'
18	93°11.9'	S 20°56.7'	93°07.1'	S 21°07.9'	93°02.0'	S 21°18.6'	92°56.9'	S 21°28.9'	92°51.5'	S 21°38.9'	92°46.0'	S 21°48.4'
19	108°11.7'	S 20°57.2'	108°06.9'	S 21°08.3'	108°01.8'	S 21°19.1'	107°56.6'	S 21°29.4'	107°51.3'	S 21°39.3'	107°45.7'	S 21°48.8'
20	123°11.5'	S 20°57.7'	123°06.7'	S 21°08.8'	123°01.6'	S 21°19.5'	122°56.4'	S 21°29.8'	122°51.0'	S 21°39.7'	122°45.5'	S 21°49.2'
21	138°11.3'	S 20°58.2'	138°06.5'	S 21°09.2'	138°01.4'	S 21°19.9'	137°56.2'	S 21°30.2'	137°50.8'	S 21°40.1'	137°45.3'	S 21°49.6'
22	153°11.1'	S 20°58.6'	153°06.2'	S 21°09.7'	153°01.2'	S 21°20.4'	152°56.0'	S 21°30.6'	152°50.6'	S 21°40.5'	152°45.0'	S 21°49.9'
23	168°10.9'	S 20°59.1'	168°06.0'	S 21°10.1'	168°01.0'	S 21°20.8'	167°55.7'	S 21°31.1'	167°50.3'	S 21°40.9'	167°44.8'	S 21°50.3'
Zeitgl. 0h / 12h	+13:02 / +12:52		+12:43 / +12:33		+12:23 / +12:13		+12:03 / +11:53		+11:42 / +11:31		+11:20 / +11:09	
Kulmination UT	11:47:08		11:47:27		11:47:47		11:48:07		11:48:29		11:48:51	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

2028

Dezember

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Fr 01.12.		Sa 02.12.		So 03.12.		Mo 04.12.		Di 05.12.		Mi 06.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°44.5'	S 21°50.7'	182°38.8'	S 21°59.7'	182°32.9'	S 22°08.3'	182°26.9'	S 22°16.4'	182°20.7'	S 22°24.1'	182°14.4'	S 22°31.4'
01	197°44.3'	S 21°51.1'	197°38.6'	S 22°00.1'	197°32.7'	S 22°08.6'	197°26.7'	S 22°16.7'	197°20.5'	S 22°24.4'	197°14.2'	S 22°31.7'
02	212°44.1'	S 21°51.5'	212°38.3'	S 22°00.4'	212°32.4'	S 22°09.0'	212°26.4'	S 22°17.1'	212°20.2'	S 22°24.7'	212°13.9'	S 22°32.0'
03	227°43.8'	S 21°51.9'	227°38.1'	S 22°00.8'	227°32.2'	S 22°09.3'	227°26.2'	S 22°17.4'	227°20.0'	S 22°25.1'	227°13.7'	S 22°32.3'
04	242°43.6'	S 21°52.2'	242°37.9'	S 22°01.2'	242°31.9'	S 22°09.7'	242°25.9'	S 22°17.7'	242°19.7'	S 22°25.4'	242°13.4'	S 22°32.6'
05	257°43.4'	S 21°52.6'	257°37.6'	S 22°01.5'	257°31.7'	S 22°10.0'	257°25.6'	S 22°18.1'	257°19.4'	S 22°25.7'	257°13.1'	S 22°32.9'
06	272°43.1'	S 21°53.0'	272°37.4'	S 22°01.9'	272°31.4'	S 22°10.3'	272°25.4'	S 22°18.4'	272°19.2'	S 22°26.0'	272°12.9'	S 22°33.1'
07	287°42.9'	S 21°53.4'	287°37.1'	S 22°02.2'	287°31.2'	S 22°10.7'	287°25.1'	S 22°18.7'	287°18.9'	S 22°26.3'	287°12.6'	S 22°33.4'
08	302°42.7'	S 21°53.7'	302°36.9'	S 22°02.6'	302°30.9'	S 22°11.0'	302°24.9'	S 22°19.0'	302°18.7'	S 22°26.6'	302°12.3'	S 22°33.7'
09	317°42.4'	S 21°54.1'	317°36.6'	S 22°03.0'	317°30.7'	S 22°11.4'	317°24.6'	S 22°19.4'	317°18.4'	S 22°26.9'	317°12.1'	S 22°34.0'
10	332°42.2'	S 21°54.5'	332°36.4'	S 22°03.3'	332°30.4'	S 22°11.7'	332°24.4'	S 22°19.7'	332°18.1'	S 22°27.2'	332°11.8'	S 22°34.3'
11	347°41.9'	S 21°54.9'	347°36.1'	S 22°03.7'	347°30.2'	S 22°12.1'	347°24.1'	S 22°20.0'	347°17.9'	S 22°27.5'	347°11.5'	S 22°34.6'
12	2°41.7'	S 21°55.3'	2°35.9'	S 22°04.0'	2°29.9'	S 22°12.4'	2°23.8'	S 22°20.3'	2°17.6'	S 22°27.8'	2°11.3'	S 22°34.9'
13	17°41.5'	S 21°55.6'	17°35.7'	S 22°04.4'	17°29.7'	S 22°12.7'	17°23.6'	S 22°20.6'	17°17.4'	S 22°28.1'	17°11.0'	S 22°35.2'
14	32°41.2'	S 21°56.0'	32°35.4'	S 22°04.7'	32°29.4'	S 22°13.1'	32°23.3'	S 22°21.0'	32°17.1'	S 22°28.4'	32°10.7'	S 22°35.4'
15	47°41.0'	S 21°56.4'	47°35.2'	S 22°05.1'	47°29.2'	S 22°13.4'	47°23.1'	S 22°21.3'	47°16.8'	S 22°28.7'	47°10.4'	S 22°35.7'
16	62°40.7'	S 21°56.7'	62°34.9'	S 22°05.5'	62°28.9'	S 22°13.7'	62°22.8'	S 22°21.6'	62°16.6'	S 22°29.0'	62°10.2'	S 22°36.0'
17	77°40.5'	S 21°57.1'	77°34.7'	S 22°05.8'	77°28.7'	S 22°14.1'	77°22.6'	S 22°21.9'	77°16.3'	S 22°29.3'	77°09.9'	S 22°36.3'
18	92°40.3'	S 21°57.5'	92°34.4'	S 22°06.2'	92°28.4'	S 22°14.4'	92°22.3'	S 22°22.2'	92°16.0'	S 22°29.6'	92°09.6'	S 22°36.6'
19	107°40.0'	S 21°57.9'	107°34.2'	S 22°06.5'	107°28.2'	S 22°14.7'	107°22.0'	S 22°22.5'	107°15.8'	S 22°29.9'	107°09.4'	S 22°36.8'
20	122°39.8'	S 21°58.2'	122°33.9'	S 22°06.9'	122°27.9'	S 22°15.1'	122°21.8'	S 22°22.9'	122°15.5'	S 22°30.2'	122°09.1'	S 22°37.1'
21	137°39.5'	S 21°58.6'	137°33.7'	S 22°07.2'	137°27.7'	S 22°15.4'	137°21.5'	S 22°23.2'	137°15.2'	S 22°30.5'	137°08.8'	S 22°37.4'
22	152°39.3'	S 21°59.0'	152°33.4'	S 22°07.6'	152°27.4'	S 22°15.7'	152°21.3'	S 22°23.5'	152°15.0'	S 22°30.8'	152°08.6'	S 22°37.7'
23	167°39.1'	S 21°59.3'	167°33.2'	S 22°07.9'	167°27.2'	S 22°16.1'	167°21.0'	S 22°23.8'	167°14.7'	S 22°31.1'	167°08.3'	S 22°38.0'
Zeitgl. 0h / 12h	+10:58 / +10:47		+10:35 / +10:24		+10:12 / +10:00		+09:48 / +09:35		+09:23 / +09:10		+08:58 / +08:45	
Kulmination UT	11:49:13		11:49:36		11:50:00		11:50:25		11:50:50		11:51:15	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Do 07.12.		Fr 08.12.		Sa 09.12.		So 10.12.		Mo 11.12.		Di 12.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°08.0'	S 22°38.2'	182°01.5'	S 22°44.6'	181°54.8'	S 22°50.6'	181°48.0'	S 22°56.1'	181°41.2'	S 23°01.1'	181°34.2'	S 23°05.7'
01	197°07.8'	S 22°38.5'	197°01.2'	S 22°44.9'	196°54.5'	S 22°50.8'	196°47.8'	S 22°56.3'	196°40.9'	S 23°01.3'	196°33.9'	S 23°05.9'
02	212°07.5'	S 22°38.8'	212°00.9'	S 22°45.1'	211°54.3'	S 22°51.0'	211°47.5'	S 22°56.5'	211°40.6'	S 23°01.5'	211°33.6'	S 23°06.1'
03	227°07.2'	S 22°39.1'	227°00.6'	S 22°45.4'	226°54.0'	S 22°51.3'	226°47.2'	S 22°56.7'	226°40.3'	S 23°01.7'	226°33.4'	S 23°06.2'
04	242°06.9'	S 22°39.3'	242°00.4'	S 22°45.6'	241°53.7'	S 22°51.5'	241°46.9'	S 22°56.9'	241°40.0'	S 23°01.9'	241°33.1'	S 23°06.4'
05	257°06.7'	S 22°39.6'	257°00.1'	S 22°45.9'	256°53.4'	S 22°51.8'	256°46.6'	S 22°57.2'	256°39.7'	S 23°02.1'	256°32.8'	S 23°06.6'
06	272°06.4'	S 22°39.9'	271°59.8'	S 22°46.2'	271°53.1'	S 22°52.0'	271°46.3'	S 22°57.4'	271°39.5'	S 23°02.3'	271°32.5'	S 23°06.8'
07	287°06.1'	S 22°40.1'	286°59.5'	S 22°46.4'	286°52.9'	S 22°52.2'	286°46.1'	S 22°57.6'	286°39.2'	S 23°02.5'	286°32.2'	S 23°07.0'
08	302°05.9'	S 22°40.4'	301°59.3'	S 22°46.7'	301°52.6'	S 22°52.5'	301°45.8'	S 22°57.8'	301°38.9'	S 23°02.7'	301°31.9'	S 23°07.1'
09	317°05.6'	S 22°40.7'	316°59.0'	S 22°46.9'	316°52.3'	S 22°52.7'	316°45.5'	S 22°58.0'	316°38.6'	S 23°02.9'	316°31.6'	S 23°07.3'
10	332°05.3'	S 22°40.9'	331°58.7'	S 22°47.2'	331°52.0'	S 22°52.9'	331°45.2'	S 22°58.2'	331°38.3'	S 23°03.1'	331°31.3'	S 23°07.5'
11	347°05.0'	S 22°41.2'	346°58.4'	S 22°47.4'	346°51.7'	S 22°53.1'	346°44.9'	S 22°58.4'	346°38.0'	S 23°03.3'	346°31.0'	S 23°07.6'
12	2°04.8'	S 22°41.5'	1°58.2'	S 22°47.7'	1°51.4'	S 22°53.4'	1°44.6'	S 22°58.6'	1°37.7'	S 23°03.5'	1°30.7'	S 23°07.8'
13	17°04.5'	S 22°41.7'	16°57.9'	S 22°47.9'	16°51.2'	S 22°53.6'	16°44.3'	S 22°58.9'	16°37.4'	S 23°03.7'	16°30.4'	S 23°08.0'
14	32°04.2'	S 22°42.0'	31°57.6'	S 22°48.1'	31°50.9'	S 22°53.8'	31°44.1'	S 22°59.1'	31°37.1'	S 23°03.8'	31°30.1'	S 23°08.2'
15	47°03.9'	S 22°42.3'	46°57.3'	S 22°48.4'	46°50.6'	S 22°54.1'	46°43.8'	S 22°59.3'	46°36.8'	S 23°04.0'	46°29.8'	S 23°08.3'
16	62°03.7'	S 22°42.5'	61°57.0'	S 22°48.6'	61°50.3'	S 22°54.3'	61°43.5'	S 22°59.5'	61°36.6'	S 23°04.2'	61°29.5'	S 23°08.5'
17	77°03.4'	S 22°42.8'	76°56.8'	S 22°48.9'	76°50.0'	S 22°54.5'	76°43.2'	S 22°59.7'	76°36.3'	S 23°04.4'	76°29.2'	S 23°08.7'
18	92°03.1'	S 22°43.1'	91°56.5'	S 22°49.1'	91°49.7'	S 22°54.7'	91°42.9'	S 22°59.9'	91°36.0'	S 23°04.6'	91°29.0'	S 23°08.8'
19	107°02.8'	S 22°43.3'	106°56.2'	S 22°49.4'	106°49.5'	S 22°55.0'	106°42.6'	S 23°00.1'	106°35.7'	S 23°04.8'	106°28.7'	S 23°09.0'
20	122°02.6'	S 22°43.6'	121°55.9'	S 22°49.6'	121°49.2'	S 22°55.2'	121°42.3'	S 23°00.3'	121°35.4'	S 23°05.0'	121°28.4'	S 23°09.2'
21	137°02.3'	S 22°43.8'	136°55.7'	S 22°49.9'	136°48.9'	S 22°55.4'	136°42.0'	S 23°00.5'	136°35.1'	S 23°05.1'	136°28.1'	S 23°09.3'
22	152°02.0'	S 22°44.1'	151°55.4'	S 22°50.1'	151°48.6'	S 22°55.6'	151°41.8'	S 23°00.7'	151°34.8'	S 23°05.3'	151°27.8'	S 23°09.5'
23	167°01.7'	S 22°44.4'	166°55.1'	S 22°50.3'	166°48.3'	S 22°55.8'	166°41.5'	S 23°00.9'	166°34.5'	S 23°05.5'	166°27.5'	S 23°09.7'
Zeitgl. 0h / 12h	+08:32 / +08:19		+08:06 / +07:53		+07:39 / +07:26		+07:12 / +06:59		+06:45 / +06:31		+06:17 / +06:03	
Kulmination UT	11:51:41		11:52:07		11:52:34		11:53:01		11:53:29		11:53:57	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Mi 13.12.		Do 14.12.		Fr 15.12.		Sa 16.12.		So 17.12.		Mo 18.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	181°27.2'	S 23°09.8'	181°20.1'	S 23°13.5'	181°12.9'	S 23°16.7'	181°05.6'	S 23°19.4'	180°58.3'	S 23°21.7'	180°51.0'	S 23°23.5'
01	196°26.9'	S 23°10.0'	196°19.8'	S 23°13.6'	196°12.6'	S 23°16.8'	196°05.3'	S 23°19.6'	195°58.0'	S 23°21.8'	195°50.7'	S 23°23.6'
02	211°26.6'	S 23°10.2'	211°19.5'	S 23°13.8'	211°12.3'	S 23°17.0'	211°05.0'	S 23°19.7'	210°57.7'	S 23°21.9'	210°50.4'	S 23°23.7'
03	226°26.3'	S 23°10.3'	226°19.2'	S 23°13.9'	226°12.0'	S 23°17.1'	226°04.7'	S 23°19.8'	225°57.4'	S 23°22.0'	225°50.1'	S 23°23.7'
04	241°26.0'	S 23°10.5'	241°18.9'	S 23°14.1'	241°11.7'	S 23°17.2'	241°04.4'	S 23°19.9'	240°57.1'	S 23°22.1'	240°49.8'	S 23°23.8'
05	256°25.7'	S 23°10.6'	256°18.6'	S 23°14.2'	256°11.4'	S 23°17.3'	256°04.1'	S 23°20.0'	255°56.8'	S 23°22.1'	255°49.5'	S 23°23.8'
06	271°25.4'	S 23°10.8'	271°18.3'	S 23°14.3'	271°11.1'	S 23°17.4'	271°03.8'	S 23°20.1'	270°56.5'	S 23°22.2'	270°49.2'	S 23°23.9'
07	286°25.1'	S 23°10.9'	286°18.0'	S 23°14.5'	286°10.8'	S 23°17.6'	286°03.5'	S 23°20.2'	285°56.2'	S 23°22.3'	285°48.9'	S 23°24.0'
08	301°24.8'	S 23°11.1'	301°17.7'	S 23°14.6'	301°10.5'	S 23°17.7'	301°03.2'	S 23°20.3'	300°55.9'	S 23°22.4'	300°48.5'	S 23°24.0'
09	316°24.5'	S 23°11.3'	316°17.4'	S 23°14.8'	316°10.2'	S 23°17.8'	316°02.9'	S 23°20.4'	315°55.6'	S 23°22.5'	315°48.2'	S 23°24.1'
10	331°24.2'	S 23°11.4'	331°17.1'	S 23°14.9'	331°09.9'	S 23°17.9'	331°02.6'	S 23°20.5'	330°55.3'	S 23°22.5'	330°47.9'	S 23°24.1'
11	346°23.9'	S 23°11.6'	346°16.8'	S 23°15.0'	346°09.6'	S 23°18.0'	346°02.3'	S 23°20.5'	345°55.0'	S 23°22.6'	345°47.6'	S 23°24.2'
12	1°23.6'	S 23°11.7'	1°16.5'	S 23°15.2'	1°09.3'	S 23°18.1'	1°02.0'	S 23°20.6'	0°54.7'	S 23°22.7'	0°47.3'	S 23°24.3'
13	16°23.3'	S 23°11.9'	16°16.2'	S 23°15.3'	16°09.0'	S 23°18.2'	16°01.7'	S 23°20.7'	15°54.4'	S 23°22.8'	15°47.0'	S 23°24.3'
14	31°23.0'	S 23°12.0'	31°15.9'	S 23°15.4'	31°08.7'	S 23°18.4'	31°01.4'	S 23°20.8'	30°54.1'	S 23°22.8'	30°46.7'	S 23°24.4'
15	46°22.7'	S 23°12.2'	46°15.6'	S 23°15.6'	46°08.4'	S 23°18.5'	46°01.1'	S 23°20.9'	45°53.8'	S 23°22.9'	45°46.4'	S 23°24.4'
16	61°22.4'	S 23°12.3'	61°15.3'	S 23°15.7'	61°08.1'	S 23°18.6'	61°00.8'	S 23°21.0'	60°53.5'	S 23°23.0'	60°46.1'	S 23°24.5'
17	76°22.2'	S 23°12.5'	76°15.0'	S 23°15.8'	76°07.8'	S 23°18.7'	76°00.5'	S 23°21.1'	75°53.1'	S 23°23.1'	75°45.8'	S 23°24.5'
18	91°21.9'	S 23°12.6'	91°14.7'	S 23°15.9'	91°07.5'	S 23°18.8'	91°00.2'	S 23°21.2'	90°52.8'	S 23°23.1'	90°45.5'	S 23°24.6'
19	106°21.6'	S 23°12.8'	106°14.4'	S 23°16.1'	106°07.2'	S 23°18.9'	105°59.9'	S 23°21.3'	105°52.5'	S 23°23.2'	105°45.2'	S 23°24.6'
20	121°21.3'	S 23°12.9'	121°14.1'	S 23°16.2'	121°06.9'	S 23°19.0'	120°59.6'	S 23°21.4'	120°52.2'	S 23°23.3'	120°44.9'	S 23°24.7'
21	136°21.0'	S 23°13.1'	136°13.8'	S 23°16.3'	136°06.5'	S 23°19.1'	135°59.3'	S 23°21.5'	135°51.9'	S 23°23.3'	135°44.5'	S 23°24.7'
22	151°20.7'	S 23°13.2'	151°13.5'	S 23°16.5'	151°06.2'	S 23°19.2'	150°59.0'	S 23°21.6'	150°51.6'	S 23°23.4'	150°44.2'	S 23°24.8'
23	166°20.4'	S 23°13.4'	166°13.2'	S 23°16.6'	166°05.9'	S 23°19.3'	165°58.6'	S 23°21.6'	165°51.3'	S 23°23.5'	165°43.9'	S 23°24.8'
Zeitgl. 0h / 12h	+05:49 / +05:35		+05:20 / +05:06		+04:52 / +04:37		+04:23 / +04:08		+03:53 / +03:39		+03:24 / +03:09	
Kulmination UT	11:54:25		11:54:54		11:55:23		11:55:52		11:56:21		11:56:51	
Halbmesser	16.2'		16.2'		16.3'		16.3'		16.3'		16.3'	

	Di 19.12.		Mi 20.12.		Do 21.12.		Fr 22.12.		Sa 23.12.		So 24.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°43.6'	S 23°24.9'	180°36.2'	S 23°25.7'	180°28.8'	S 23°26.1'	180°21.4'	S 23°26.1'	180°13.9'	S 23°25.5'	180°06.5'	S 23°24.5'
01	195°43.3'	S 23°24.9'	195°35.9'	S 23°25.8'	195°28.5'	S 23°26.1'	195°21.0'	S 23°26.1'	195°13.6'	S 23°25.5'	195°06.2'	S 23°24.5'
02	210°43.0'	S 23°25.0'	210°35.6'	S 23°25.8'	210°28.2'	S 23°26.2'	210°20.7'	S 23°26.0'	210°13.3'	S 23°25.5'	210°05.9'	S 23°24.4'
03	225°42.7'	S 23°25.0'	225°35.3'	S 23°25.8'	225°27.9'	S 23°26.2'	225°20.4'	S 23°26.0'	225°13.0'	S 23°25.4'	225°05.6'	S 23°24.4'
04	240°42.4'	S 23°25.0'	240°35.0'	S 23°25.8'	240°27.6'	S 23°26.2'	240°20.1'	S 23°26.0'	240°12.7'	S 23°25.4'	240°05.3'	S 23°24.3'
05	255°42.1'	S 23°25.1'	255°34.7'	S 23°25.9'	255°27.2'	S 23°26.2'	255°19.8'	S 23°26.0'	255°12.4'	S 23°25.4'	255°04.9'	S 23°24.2'
06	270°41.8'	S 23°25.1'	270°34.4'	S 23°25.9'	270°26.9'	S 23°26.2'	270°19.5'	S 23°26.0'	270°12.1'	S 23°25.3'	270°04.6'	S 23°24.2'
07	285°41.5'	S 23°25.2'	285°34.1'	S 23°25.9'	285°26.6'	S 23°26.2'	285°19.2'	S 23°26.0'	285°11.8'	S 23°25.3'	285°04.3'	S 23°24.1'
08	300°41.2'	S 23°25.2'	300°33.7'	S 23°25.9'	300°26.3'	S 23°26.2'	300°18.9'	S 23°25.9'	300°11.4'	S 23°25.2'	300°04.0'	S 23°24.1'
09	315°40.9'	S 23°25.3'	315°33.4'	S 23°25.9'	315°26.0'	S 23°26.2'	315°18.6'	S 23°25.9'	315°11.1'	S 23°25.2'	315°03.7'	S 23°24.0'
10	330°40.5'	S 23°25.3'	330°33.1'	S 23°26.0'	330°25.7'	S 23°26.2'	330°18.3'	S 23°25.9'	330°10.8'	S 23°25.2'	330°03.4'	S 23°24.0'
11	345°40.2'	S 23°25.3'	345°32.8'	S 23°26.0'	345°25.4'	S 23°26.2'	345°17.9'	S 23°25.9'	345°10.5'	S 23°25.1'	345°03.1'	S 23°23.9'
12	0°39.9'	S 23°25.4'	0°32.5'	S 23°26.0'	0°25.1'	S 23°26.2'	0°17.6'	S 23°25.9'	0°10.2'	S 23°25.1'	0°02.8'	S 23°23.8'
13	15°39.6'	S 23°25.4'	15°32.2'	S 23°26.0'	15°24.8'	S 23°26.2'	15°17.3'	S 23°25.8'	15°09.9'	S 23°25.0'	15°02.5'	S 23°23.8'
14	30°39.3'	S 23°25.4'	30°31.9'	S 23°26.0'	30°24.5'	S 23°26.2'	30°17.0'	S 23°25.8'	30°09.6'	S 23°25.0'	30°02.2'	S 23°23.7'
15	45°39.0'	S 23°25.5'	45°31.6'	S 23°26.0'	45°24.1'	S 23°26.2'	45°16.7'	S 23°25.8'	45°09.3'	S 23°25.0'	45°01.8'	S 23°23.6'
16	60°38.7'	S 23°25.5'	60°31.3'	S 23°26.1'	60°23.8'	S 23°26.1'	60°16.4'	S 23°25.8'	60°09.0'	S 23°24.9'	60°01.5'	S 23°23.6'
17	75°38.4'	S 23°25.5'	75°31.0'	S 23°26.1'	75°23.5'	S 23°26.1'	75°16.1'	S 23°25.7'	75°08.7'	S 23°24.9'	75°01.2'	S 23°23.5'
18	90°38.1'	S 23°25.6'	90°30.7'	S 23°26.1'	90°23.2'	S 23°26.1'	90°15.8'	S 23°25.7'	90°08.3'	S 23°24.8'	90°00.9'	S 23°23.4'
19	105°37.8'	S 23°25.6'	105°30.3'	S 23°26.1'	105°22.9'	S 23°26.1'	105°15.5'	S 23°25.7'	105°08.0'	S 23°24.8'	105°00.6'	S 23°23.4'
20	120°37.5'	S 23°25.6'	120°30.0'	S 23°26.1'	120°22.6'	S 23°26.1'	120°15.2'	S 23°25.7'	120°07.7'	S 23°24.7'	120°00.3'	S 23°23.3'
21	135°37.1'	S 23°25.7'	135°29.7'	S 23°26.1'	135°22.3'	S 23°26.1'	135°14.9'	S 23°25.6'	135°07.4'	S 23°24.7'	135°00.0'	S 23°23.2'
22	150°36.8'	S 23°25.7'	150°29.4'	S 23°26.1'	150°22.0'	S 23°26.1'	150°14.5'	S 23°25.6'	150°07.1'	S 23°24.6'	149°59.7'	S 23°23.2'
23	165°36.5'	S 23°25.7'	165°29.1'	S 23°26.1'	165°21.7'	S 23°26.1'	165°14.2'	S 23°25.6'	165°06.8'	S 23°24.6'	164°59.4'	S 23°23.1'
Zeitgl. 0h / 12h	+02:54 / +02:40		+02:25 / +02:10		+01:55 / +01:40		+01:25 / +01:11		+00:56 / +00:41		+00:26 / +00:11	
Kulmination UT	11:57:20		11:57:50		11:58:20		11:58:49		11:59:19		11:59:49	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

	Mo 25.12.		Di 26.12.		Mi 27.12.		Do 28.12.		Fr 29.12.		Sa 30.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°59.1'	S 23°23.0'	179°51.7'	S 23°21.1'	179°44.3'	S 23°18.7'	179°37.0'	S 23°15.8'	179°29.7'	S 23°12.4'	179°22.5'	S 23°08.6'
01	194°58.8'	S 23°23.0'	194°51.4'	S 23°21.0'	194°44.0'	S 23°18.6'	194°36.7'	S 23°15.6'	194°29.4'	S 23°12.3'	194°22.2'	S 23°08.4'
02	209°58.5'	S 23°22.9'	209°51.1'	S 23°20.9'	209°43.7'	S 23°18.4'	209°36.4'	S 23°15.5'	209°29.1'	S 23°12.1'	209°21.9'	S 23°08.3'
03	224°58.1'	S 23°22.8'	224°50.7'	S 23°20.8'	224°43.4'	S 23°18.3'	224°36.1'	S 23°15.4'	224°28.8'	S 23°12.0'	224°21.6'	S 23°08.1'
04	239°57.8'	S 23°22.7'	239°50.4'	S 23°20.7'	239°43.1'	S 23°18.2'	239°35.8'	S 23°15.2'	239°28.5'	S 23°11.8'	239°21.3'	S 23°07.9'
05	254°57.5'	S 23°22.7'	254°50.1'	S 23°20.6'	254°42.8'	S 23°18.1'	254°35.5'	S 23°15.1'	254°28.2'	S 23°11.7'	254°21.0'	S 23°07.7'
06	269°57.2'	S 23°22.6'	269°49.8'	S 23°20.5'	269°42.5'	S 23°18.0'	269°35.2'	S 23°15.0'	269°27.9'	S 23°11.5'	269°20.7'	S 23°07.6'
07	284°56.9'	S 23°22.5'	284°49.5'	S 23°20.4'	284°42.2'	S 23°17.9'	284°34.8'	S 23°14.8'	284°27.6'	S 23°11.4'	284°20.4'	S 23°07.4'
08	299°56.6'	S 23°22.4'	299°49.2'	S 23°20.3'	299°41.9'	S 23°17.8'	299°34.5'	S 23°14.7'	299°27.3'	S 23°11.2'	299°20.1'	S 23°07.2'
09	314°56.3'	S 23°22.4'	314°48.9'	S 23°20.2'	314°41.6'	S 23°17.6'	314°34.2'	S 23°14.6'	314°27.0'	S 23°11.0'	314°19.8'	S 23°07.0'
10	329°56.0'	S 23°22.3'	329°48.6'	S 23°20.1'	329°41.2'	S 23°17.5'	329°33.9'	S 23°14.4'	329°26.7'	S 23°10.9'	329°19.5'	S 23°06.9'
11	344°55.7'	S 23°22.2'	344°48.3'	S 23°20.0'	344°40.9'	S 23°17.4'	344°33.6'	S 23°14.3'	344°26.4'	S 23°10.7'	344°19.2'	S 23°06.7'
12	359°55.4'	S 23°22.1'	359°48.0'	S 23°19.9'	359°40.6'	S 23°17.3'	359°33.3'	S 23°14.2'	359°26.1'	S 23°10.6'	359°18.9'	S 23°06.5'
13	14°55.1'	S 23°22.0'	14°47.7'	S 23°19.8'	14°40.3'	S 23°17.2'	14°33.0'	S 23°14.0'	14°25.8'	S 23°10.4'	14°18.6'	S 23°06.3'
14	29°54.8'	S 23°22.0'	29°47.4'	S 23°19.7'	29°40.0'	S 23°17.0'	29°32.7'	S 23°13.9'	29°25.5'	S 23°10.2'	29°18.3'	S 23°06.2'
15	44°54.4'	S 23°21.9'	44°47.1'	S 23°19.6'	44°39.7'	S 23°16.9'	44°32.4'	S 23°13.7'	44°25.2'	S 23°10.1'	44°18.0'	S 23°06.0'
16	59°54.1'	S 23°21.8'	59°46.8'	S 23°19.5'	59°39.4'	S 23°16.8'	59°32.1'	S 23°13.6'	59°24.9'	S 23°09.9'	59°17.7'	S 23°05.8'
17	74°53.8'	S 23°21.7'	74°46.5'	S 23°19.4'	74°39.1'	S 23°16.7'	74°31.8'	S 23°13.4'	74°24.6'	S 23°09.8'	74°17.4'	S 23°05.6'
18	89°53.5'	S 23°21.6'	89°46.1'	S 23°19.3'	89°38.8'	S 23°16.5'	89°31.5'	S 23°13.3'	89°24.3'	S 23°09.6'	89°17.1'	S 23°05.4'
19	104°53.2'	S 23°21.5'	104°45.8'	S 23°19.2'	104°38.5'	S 23°16.4'	104°31.2'	S 23°13.2'	104°24.0'	S 23°09.4'	104°16.8'	S 23°05.2'
20	119°52.9'	S 23°21.4'	119°45.5'	S 23°19.1'	119°38.2'	S 23°16.3'	119°30.9'	S 23°13.0'	119°23.7'	S 23°09.3'	119°16.5'	S 23°05.1'
21	134°52.6'	S 23°21.4'	134°45.2'	S 23°19.0'	134°37.9'	S 23°16.2'	134°30.6'	S 23°12.9'	134°23.4'	S 23°09.1'	134°16.2'	S 23°04.9'
22	149°52.3'	S 23°21.3'	149°44.9'	S 23°18.9'	149°37.6'	S 23°16.0'	149°30.3'	S 23°12.7'	149°23.1'	S 23°08.9'	149°15.9'	S 23°04.7'
23	164°52.0'	S 23°21.2'	164°44.6'	S 23°18.8'	164°37.3'	S 23°15.9'	164°30.0'	S 23°12.6'	164°22.8'	S 23°08.8'	164°15.6'	S 23°04.5'
Zeitgl. 0h / 12h	-00:04 / -00:19		-00:33 / -00:48		-01:03 / -01:17		-01:32 / -01:47		-02:01 / -02:16		-02:30 / -02:44	
Kulmination UT	12:00:19		12:00:48		12:01:17		12:01:47		12:02:16		12:02:44	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

So 31.12.

UT	Grt	Dec
00	179°15.3'	S 23°04.3'
01	194°15.0'	S 23°04.1'
02	209°14.7'	S 23°03.9'
03	224°14.4'	S 23°03.7'
04	239°14.1'	S 23°03.6'
05	254°13.8'	S 23°03.4'
06	269°13.5'	S 23°03.2'
07	284°13.2'	S 23°03.0'
08	299°12.9'	S 23°02.8'
09	314°12.6'	S 23°02.6'
10	329°12.3'	S 23°02.4'
11	344°12.0'	S 23°02.2'
12	359°11.7'	S 23°02.0'
13	14°11.4'	S 23°01.8'
14	29°11.2'	S 23°01.6'
15	44°10.9'	S 23°01.4'
16	59°10.6'	S 23°01.2'
17	74°10.3'	S 23°01.0'
18	89°10.0'	S 23°00.8'
19	104°09.7'	S 23°00.6'
20	119°09.4'	S 23°00.4'
21	134°09.1'	S 23°00.2'
22	149°08.8'	S 23°00.0'
23	164°08.5'	S 22°59.8'

Zeitgl. 0h / 12h -02:59 / -03:13

Kulmination UT 12:03:13

Halbmesser 16.3'

2029

Januar

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Mo 01.01.		Di 02.01.		Mi 03.01.		Do 04.01.		Fr 05.01.		Sa 06.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°08.2'	S 22°59.6'	179°01.2'	S 22°54.4'	178°54.3'	S 22°48.7'	178°47.4'	S 22°42.6'	178°40.7'	S 22°36.0'	178°34.0'	S 22°29.0'
01	194°07.9'	S 22°59.4'	194°00.9'	S 22°54.1'	193°54.0'	S 22°48.5'	193°47.1'	S 22°42.3'	193°40.4'	S 22°35.7'	193°33.8'	S 22°28.7'
02	209°07.6'	S 22°59.2'	209°00.6'	S 22°53.9'	208°53.7'	S 22°48.2'	208°46.9'	S 22°42.1'	208°40.1'	S 22°35.5'	208°33.5'	S 22°28.4'
03	224°07.3'	S 22°58.9'	224°00.3'	S 22°53.7'	223°53.4'	S 22°48.0'	223°46.6'	S 22°41.8'	223°39.8'	S 22°35.2'	223°33.2'	S 22°28.1'
04	239°07.0'	S 22°58.7'	239°00.0'	S 22°53.5'	238°53.1'	S 22°47.7'	238°46.3'	S 22°41.5'	238°39.6'	S 22°34.9'	238°33.0'	S 22°27.8'
05	254°06.7'	S 22°58.5'	253°59.7'	S 22°53.2'	253°52.8'	S 22°47.5'	253°46.0'	S 22°41.3'	253°39.3'	S 22°34.6'	253°32.7'	S 22°27.5'
06	269°06.4'	S 22°58.3'	268°59.4'	S 22°53.0'	268°52.5'	S 22°47.2'	268°45.7'	S 22°41.0'	268°39.0'	S 22°34.3'	268°32.4'	S 22°27.2'
07	284°06.2'	S 22°58.1'	283°59.2'	S 22°52.8'	283°52.3'	S 22°47.0'	283°45.4'	S 22°40.7'	283°38.7'	S 22°34.0'	283°32.1'	S 22°26.9'
08	299°05.9'	S 22°57.9'	298°58.9'	S 22°52.5'	298°52.0'	S 22°46.7'	298°45.2'	S 22°40.5'	298°38.5'	S 22°33.7'	298°31.9'	S 22°26.6'
09	314°05.6'	S 22°57.7'	313°58.6'	S 22°52.3'	313°51.7'	S 22°46.5'	313°44.9'	S 22°40.2'	313°38.2'	S 22°33.5'	313°31.6'	S 22°26.3'
10	329°05.3'	S 22°57.5'	328°58.3'	S 22°52.1'	328°51.4'	S 22°46.2'	328°44.6'	S 22°39.9'	328°37.9'	S 22°33.2'	328°31.3'	S 22°26.0'
11	344°05.0'	S 22°57.2'	343°58.0'	S 22°51.8'	343°51.1'	S 22°46.0'	343°44.3'	S 22°39.6'	343°37.6'	S 22°32.9'	343°31.0'	S 22°25.7'
12	359°04.7'	S 22°57.0'	358°57.7'	S 22°51.6'	358°50.8'	S 22°45.7'	358°44.0'	S 22°39.4'	358°37.3'	S 22°32.6'	358°30.8'	S 22°25.4'
13	14°04.4'	S 22°56.8'	13°57.4'	S 22°51.4'	13°50.5'	S 22°45.5'	13°43.8'	S 22°39.1'	13°37.1'	S 22°32.3'	13°30.5'	S 22°25.0'
14	29°04.1'	S 22°56.6'	28°57.1'	S 22°51.1'	28°50.3'	S 22°45.2'	28°43.5'	S 22°38.8'	28°36.8'	S 22°32.0'	28°30.2'	S 22°24.7'
15	44°03.8'	S 22°56.4'	43°56.8'	S 22°50.9'	43°50.0'	S 22°44.9'	43°43.2'	S 22°38.5'	43°36.5'	S 22°31.7'	43°30.0'	S 22°24.4'
16	59°03.5'	S 22°56.2'	58°56.6'	S 22°50.6'	58°49.7'	S 22°44.7'	58°42.9'	S 22°38.3'	58°36.2'	S 22°31.4'	58°29.7'	S 22°24.1'
17	74°03.2'	S 22°55.9'	73°56.3'	S 22°50.4'	73°49.4'	S 22°44.4'	73°42.6'	S 22°38.0'	73°36.0'	S 22°31.1'	73°29.4'	S 22°23.8'
18	89°02.9'	S 22°55.7'	88°56.0'	S 22°50.2'	88°49.1'	S 22°44.2'	88°42.4'	S 22°37.7'	88°35.7'	S 22°30.8'	88°29.1'	S 22°23.5'
19	104°02.6'	S 22°55.5'	103°55.7'	S 22°49.9'	103°48.8'	S 22°43.9'	103°42.1'	S 22°37.4'	103°35.4'	S 22°30.5'	103°28.9'	S 22°23.2'
20	119°02.4'	S 22°55.3'	118°55.4'	S 22°49.7'	118°48.6'	S 22°43.6'	118°41.8'	S 22°37.2'	118°35.1'	S 22°30.2'	118°28.6'	S 22°22.8'
21	134°02.1'	S 22°55.0'	133°55.1'	S 22°49.4'	133°48.3'	S 22°43.4'	133°41.5'	S 22°36.9'	133°34.9'	S 22°29.9'	133°28.3'	S 22°22.5'
22	149°01.8'	S 22°54.8'	148°54.8'	S 22°49.2'	148°48.0'	S 22°43.1'	148°41.2'	S 22°36.6'	148°34.6'	S 22°29.6'	148°28.1'	S 22°22.2'
23	164°01.5'	S 22°54.6'	163°54.5'	S 22°49.0'	163°47.7'	S 22°42.9'	163°41.0'	S 22°36.3'	163°34.3'	S 22°29.3'	163°27.8'	S 22°21.9'
Zeitgl. 0h / 12h	-03:27 / -03:41		-03:55 / -04:09		-04:23 / -04:37		-04:50 / -05:04		-05:17 / -05:31		-05:44 / -05:57	
Kulmination UT	12:03:41		12:04:09		12:04:37		12:05:04		12:05:31		12:05:57	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

	So 07.01.		Mo 08.01.		Di 09.01.		Mi 10.01.		Do 11.01.		Fr 12.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°27.5'	S 22°21.6'	178°21.1'	S 22°13.7'	178°14.9'	S 22°05.3'	178°08.7'	S 21°56.6'	178°02.7'	S 21°47.4'	177°56.9'	S 21°37.8'
01	193°27.3'	S 22°21.2'	193°20.9'	S 22°13.3'	193°14.6'	S 22°05.0'	193°08.5'	S 21°56.2'	193°02.5'	S 21°47.0'	192°56.6'	S 21°37.4'
02	208°27.0'	S 22°20.9'	208°20.6'	S 22°13.0'	208°14.3'	S 22°04.6'	208°08.2'	S 21°55.8'	208°02.2'	S 21°46.6'	207°56.4'	S 21°37.0'
03	223°26.7'	S 22°20.6'	223°20.3'	S 22°12.7'	223°14.1'	S 22°04.3'	223°08.0'	S 21°55.5'	223°02.0'	S 21°46.2'	222°56.1'	S 21°36.5'
04	238°26.5'	S 22°20.3'	238°20.1'	S 22°12.3'	238°13.8'	S 22°03.9'	238°07.7'	S 21°55.1'	238°01.7'	S 21°45.8'	237°55.9'	S 21°36.1'
05	253°26.2'	S 22°20.0'	253°19.8'	S 22°12.0'	253°13.6'	S 22°03.6'	253°07.5'	S 21°54.7'	253°01.5'	S 21°45.4'	252°55.7'	S 21°35.7'
06	268°25.9'	S 22°19.6'	268°19.6'	S 22°11.6'	268°13.3'	S 22°03.2'	268°07.2'	S 21°54.3'	268°01.2'	S 21°45.0'	267°55.4'	S 21°35.3'
07	283°25.6'	S 22°19.3'	283°19.3'	S 22°11.3'	283°13.1'	S 22°02.8'	283°07.0'	S 21°53.9'	283°01.0'	S 21°44.6'	282°55.2'	S 21°34.9'
08	298°25.4'	S 22°19.0'	298°19.0'	S 22°10.9'	298°12.8'	S 22°02.5'	298°06.7'	S 21°53.6'	298°00.8'	S 21°44.2'	297°54.9'	S 21°34.5'
09	313°25.1'	S 22°18.7'	313°18.8'	S 22°10.6'	313°12.5'	S 22°02.1'	313°06.5'	S 21°53.2'	313°00.5'	S 21°43.8'	312°54.7'	S 21°34.1'
10	328°24.8'	S 22°18.3'	328°18.5'	S 22°10.3'	328°12.3'	S 22°01.7'	328°06.2'	S 21°52.8'	328°00.3'	S 21°43.4'	327°54.5'	S 21°33.6'
11	343°24.6'	S 22°18.0'	343°18.2'	S 22°09.9'	343°12.0'	S 22°01.4'	343°06.0'	S 21°52.4'	343°00.0'	S 21°43.0'	342°54.2'	S 21°33.2'
12	358°24.3'	S 22°17.7'	358°18.0'	S 22°09.6'	358°11.8'	S 22°01.0'	358°05.7'	S 21°52.0'	357°59.8'	S 21°42.6'	357°54.0'	S 21°32.8'
13	13°24.0'	S 22°17.3'	13°17.7'	S 22°09.2'	13°11.5'	S 22°00.7'	13°05.5'	S 21°51.7'	12°59.5'	S 21°42.2'	12°53.8'	S 21°32.4'
14	28°23.8'	S 22°17.0'	28°17.5'	S 22°08.9'	28°11.3'	S 22°00.3'	28°05.2'	S 21°51.3'	27°59.3'	S 21°41.8'	27°53.5'	S 21°32.0'
15	43°23.5'	S 22°16.7'	43°17.2'	S 22°08.5'	43°11.0'	S 21°59.9'	43°05.0'	S 21°50.9'	42°59.0'	S 21°41.4'	42°53.3'	S 21°31.6'
16	58°23.2'	S 22°16.4'	58°16.9'	S 22°08.2'	58°10.8'	S 21°59.6'	58°04.7'	S 21°50.5'	57°58.8'	S 21°41.0'	57°53.0'	S 21°31.1'
17	73°23.0'	S 22°16.0'	73°16.7'	S 22°07.8'	73°10.5'	S 21°59.2'	73°04.5'	S 21°50.1'	72°58.6'	S 21°40.6'	72°52.8'	S 21°30.7'
18	88°22.7'	S 22°15.7'	88°16.4'	S 22°07.5'	88°10.2'	S 21°58.8'	88°04.2'	S 21°49.7'	87°58.3'	S 21°40.2'	87°52.6'	S 21°30.3'
19	103°22.5'	S 22°15.4'	103°16.2'	S 22°07.1'	103°10.0'	S 21°58.4'	103°04.0'	S 21°49.3'	102°58.1'	S 21°39.8'	102°52.3'	S 21°29.9'
20	118°22.2'	S 22°15.0'	118°15.9'	S 22°06.8'	118°09.7'	S 21°58.1'	118°03.7'	S 21°49.0'	117°57.8'	S 21°39.4'	117°52.1'	S 21°29.4'
21	133°21.9'	S 22°14.7'	133°15.6'	S 22°06.4'	133°09.5'	S 21°57.7'	133°03.5'	S 21°48.6'	132°57.6'	S 21°39.0'	132°51.9'	S 21°29.0'
22	148°21.7'	S 22°14.3'	148°15.4'	S 22°06.1'	148°09.2'	S 21°57.3'	148°03.2'	S 21°48.2'	147°57.3'	S 21°38.6'	147°51.6'	S 21°28.6'
23	163°21.4'	S 22°14.0'	163°15.1'	S 22°05.7'	163°09.0'	S 21°57.0'	163°03.0'	S 21°47.8'	162°57.1'	S 21°38.2'	162°51.4'	S 21°28.2'
Zeitgl. 0h / 12h	-06:10 / -06:23		-06:35 / -06:48		-07:01 / -07:13		-07:25 / -07:37		-07:49 / -08:01		-08:13 / -08:24	
Kulmination UT	12:06:23		12:06:48		12:07:13		12:07:37		12:08:01		12:08:24	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

	Sa 13.01.		So 14.01.		Mo 15.01.		Di 16.01.		Mi 17.01.		Do 18.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	177°51.2'	S 21°27.7'	177°45.6'	S 21°17.3'	177°40.2'	S 21°06.4'	177°35.0'	S 20°55.2'	177°30.0'	S 20°43.5'	177°25.1'	S 20°31.5'
01	192°50.9'	S 21°27.3'	192°45.4'	S 21°16.9'	192°40.0'	S 21°06.0'	192°34.8'	S 20°54.7'	192°29.8'	S 20°43.0'	192°24.9'	S 20°31.0'
02	207°50.7'	S 21°26.9'	207°45.2'	S 21°16.4'	207°39.8'	S 21°05.5'	207°34.6'	S 20°54.2'	207°29.5'	S 20°42.5'	207°24.7'	S 20°30.4'
03	222°50.5'	S 21°26.5'	222°44.9'	S 21°16.0'	222°39.6'	S 21°05.1'	222°34.4'	S 20°53.7'	222°29.3'	S 20°42.0'	222°24.5'	S 20°29.9'
04	237°50.2'	S 21°26.0'	237°44.7'	S 21°15.5'	237°39.3'	S 21°04.6'	237°34.2'	S 20°53.3'	237°29.1'	S 20°41.5'	237°24.3'	S 20°29.4'
05	252°50.0'	S 21°25.6'	252°44.5'	S 21°15.1'	252°39.1'	S 21°04.1'	252°33.9'	S 20°52.8'	252°28.9'	S 20°41.0'	252°24.1'	S 20°28.9'
06	267°49.8'	S 21°25.2'	267°44.3'	S 21°14.6'	267°38.9'	S 21°03.7'	267°33.7'	S 20°52.3'	267°28.7'	S 20°40.5'	267°23.9'	S 20°28.4'
07	282°49.5'	S 21°24.7'	282°44.0'	S 21°14.2'	282°38.7'	S 21°03.2'	282°33.5'	S 20°51.8'	282°28.5'	S 20°40.0'	282°23.7'	S 20°27.9'
08	297°49.3'	S 21°24.3'	297°43.8'	S 21°13.7'	297°38.5'	S 21°02.7'	297°33.3'	S 20°51.3'	297°28.3'	S 20°39.5'	297°23.5'	S 20°27.4'
09	312°49.1'	S 21°23.9'	312°43.6'	S 21°13.3'	312°38.3'	S 21°02.3'	312°33.1'	S 20°50.9'	312°28.1'	S 20°39.0'	312°23.3'	S 20°26.8'
10	327°48.8'	S 21°23.4'	327°43.4'	S 21°12.8'	327°38.0'	S 21°01.8'	327°32.9'	S 20°50.4'	327°27.9'	S 20°38.5'	327°23.1'	S 20°26.3'
11	342°48.6'	S 21°23.0'	342°43.1'	S 21°12.4'	342°37.8'	S 21°01.3'	342°32.7'	S 20°49.9'	342°27.7'	S 20°38.0'	342°22.9'	S 20°25.8'
12	357°48.4'	S 21°22.6'	357°42.9'	S 21°11.9'	357°37.6'	S 21°00.9'	357°32.5'	S 20°49.4'	357°27.5'	S 20°37.5'	357°22.7'	S 20°25.3'
13	12°48.1'	S 21°22.1'	12°42.7'	S 21°11.5'	12°37.4'	S 21°00.4'	12°32.3'	S 20°48.9'	12°27.3'	S 20°37.0'	12°22.5'	S 20°24.8'
14	27°47.9'	S 21°21.7'	27°42.5'	S 21°11.0'	27°37.2'	S 20°59.9'	27°32.0'	S 20°48.4'	27°27.1'	S 20°36.5'	27°22.3'	S 20°24.3'
15	42°47.7'	S 21°21.3'	42°42.2'	S 21°10.6'	42°36.9'	S 20°59.4'	42°31.8'	S 20°47.9'	42°26.9'	S 20°36.0'	42°22.1'	S 20°23.7'
16	57°47.4'	S 21°20.8'	57°42.0'	S 21°10.1'	57°36.7'	S 20°59.0'	57°31.6'	S 20°47.5'	57°26.7'	S 20°35.5'	57°21.9'	S 20°23.2'
17	72°47.2'	S 21°20.4'	72°41.8'	S 21°09.6'	72°36.5'	S 20°58.5'	72°31.4'	S 20°47.0'	72°26.5'	S 20°35.0'	72°21.7'	S 20°22.7'
18	87°47.0'	S 21°19.9'	87°41.6'	S 21°09.2'	87°36.3'	S 20°58.0'	87°31.2'	S 20°46.5'	87°26.3'	S 20°34.5'	87°21.5'	S 20°22.2'
19	102°46.8'	S 21°19.5'	102°41.3'	S 21°08.7'	102°36.1'	S 20°57.6'	102°31.0'	S 20°46.0'	102°26.1'	S 20°34.0'	102°21.3'	S 20°21.6'
20	117°46.5'	S 21°19.1'	117°41.1'	S 21°08.3'	117°35.9'	S 20°57.1'	117°30.8'	S 20°45.5'	117°25.9'	S 20°33.5'	117°21.2'	S 20°21.1'
21	132°46.3'	S 21°18.6'	132°40.9'	S 21°07.8'	132°35.7'	S 20°56.6'	132°30.6'	S 20°45.0'	132°25.7'	S 20°33.0'	132°21.0'	S 20°20.6'
22	147°46.1'	S 21°18.2'	147°40.7'	S 21°07.4'	147°35.4'	S 20°56.1'	147°30.4'	S 20°44.5'	147°25.5'	S 20°32.5'	147°20.8'	S 20°20.1'
23	162°45.8'	S 21°17.7'	162°40.5'	S 21°06.9'	162°35.2'	S 20°55.7'	162°30.2'	S 20°44.0'	162°25.3'	S 20°32.0'	162°20.6'	S 20°19.5'
Zeitgl. 0h / 12h	-08:35 / -08:47		-08:58 / -09:08		-09:19 / -09:30		-09:40 / -09:50		-10:00 / -10:10		-10:20 / -10:29	
Kulmination UT	12:08:47		12:09:08		12:09:30		12:09:50		12:10:10		12:10:29	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

	Fr 19.01.		Sa 20.01.		So 21.01.		Mo 22.01.		Di 23.01.		Mi 24.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	177°20.4'	S 20°19.0'	177°15.9'	S 20°06.2'	177°11.5'	S 19°53.0'	177°07.4'	S 19°39.4'	177°03.4'	S 19°25.5'	176°59.7'	S 19°11.2'
01	192°20.2'	S 20°18.5'	192°15.7'	S 20°05.7'	192°11.4'	S 19°52.4'	192°07.2'	S 19°38.9'	192°03.3'	S 19°24.9'	191°59.5'	S 19°10.6'
02	207°20.0'	S 20°18.0'	207°15.5'	S 20°05.1'	207°11.2'	S 19°51.9'	207°07.1'	S 19°38.3'	207°03.1'	S 19°24.3'	206°59.4'	S 19°10.0'
03	222°19.8'	S 20°17.4'	222°15.3'	S 20°04.6'	222°11.0'	S 19°51.3'	222°06.9'	S 19°37.7'	222°03.0'	S 19°23.7'	221°59.2'	S 19°09.4'
04	237°19.6'	S 20°16.9'	237°15.1'	S 20°04.0'	237°10.8'	S 19°50.8'	237°06.7'	S 19°37.1'	237°02.8'	S 19°23.1'	236°59.1'	S 19°08.8'
05	252°19.4'	S 20°16.4'	252°15.0'	S 20°03.5'	252°10.7'	S 19°50.2'	252°06.6'	S 19°36.6'	252°02.7'	S 19°22.5'	251°58.9'	S 19°08.2'
06	267°19.2'	S 20°15.9'	267°14.8'	S 20°02.9'	267°10.5'	S 19°49.6'	267°06.4'	S 19°36.0'	267°02.5'	S 19°21.9'	266°58.8'	S 19°07.6'
07	282°19.0'	S 20°15.3'	282°14.6'	S 20°02.4'	282°10.3'	S 19°49.1'	282°06.2'	S 19°35.4'	282°02.3'	S 19°21.4'	281°58.6'	S 19°07.0'
08	297°18.9'	S 20°14.8'	297°14.4'	S 20°01.8'	297°10.1'	S 19°48.5'	297°06.1'	S 19°34.8'	297°02.2'	S 19°20.8'	296°58.5'	S 19°06.3'
09	312°18.7'	S 20°14.3'	312°14.2'	S 20°01.3'	312°10.0'	S 19°48.0'	312°05.9'	S 19°34.2'	312°02.0'	S 19°20.2'	311°58.3'	S 19°05.7'
10	327°18.5'	S 20°13.7'	327°14.0'	S 20°00.7'	327°09.8'	S 19°47.4'	327°05.7'	S 19°33.7'	327°01.9'	S 19°19.6'	326°58.2'	S 19°05.1'
11	342°18.3'	S 20°13.2'	342°13.9'	S 20°00.2'	342°09.6'	S 19°46.8'	342°05.6'	S 19°33.1'	342°01.7'	S 19°19.0'	341°58.0'	S 19°04.5'
12	357°18.1'	S 20°12.7'	357°13.7'	S 19°59.6'	357°09.4'	S 19°46.3'	357°05.4'	S 19°32.5'	357°01.5'	S 19°18.4'	356°57.9'	S 19°03.9'
13	12°17.9'	S 20°12.1'	12°13.5'	S 19°59.1'	12°09.3'	S 19°45.7'	12°05.2'	S 19°31.9'	12°01.4'	S 19°17.8'	11°57.7'	S 19°03.3'
14	27°17.7'	S 20°11.6'	27°13.3'	S 19°58.5'	27°09.1'	S 19°45.1'	27°05.1'	S 19°31.3'	27°01.2'	S 19°17.2'	26°57.6'	S 19°02.7'
15	42°17.5'	S 20°11.1'	42°13.1'	S 19°58.0'	42°08.9'	S 19°44.6'	42°04.9'	S 19°30.8'	42°01.1'	S 19°16.6'	41°57.4'	S 19°02.1'
16	57°17.4'	S 20°10.5'	57°13.0'	S 19°57.4'	57°08.8'	S 19°44.0'	57°04.7'	S 19°30.2'	57°00.9'	S 19°16.0'	56°57.3'	S 19°01.5'
17	72°17.2'	S 20°10.0'	72°12.8'	S 19°56.9'	72°08.6'	S 19°43.4'	72°04.6'	S 19°29.6'	72°00.8'	S 19°15.4'	71°57.2'	S 19°00.8'
18	87°17.0'	S 20°09.4'	87°12.6'	S 19°56.3'	87°08.4'	S 19°42.9'	87°04.4'	S 19°29.0'	87°00.6'	S 19°14.8'	86°57.0'	S 19°00.2'
19	102°16.8'	S 20°08.9'	102°12.4'	S 19°55.8'	102°08.2'	S 19°42.3'	102°04.3'	S 19°28.4'	102°00.5'	S 19°14.2'	101°56.9'	S 18°59.6'
20	117°16.6'	S 20°08.4'	117°12.2'	S 19°55.2'	117°08.1'	S 19°41.7'	117°04.1'	S 19°27.8'	117°00.3'	S 19°13.6'	116°56.7'	S 18°59.0'
21	132°16.4'	S 20°07.8'	132°12.1'	S 19°54.7'	132°07.9'	S 19°41.1'	132°03.9'	S 19°27.2'	132°00.2'	S 19°13.0'	131°56.6'	S 18°58.4'
22	147°16.2'	S 20°07.3'	147°11.9'	S 19°54.1'	147°07.7'	S 19°40.6'	147°03.8'	S 19°26.7'	147°00.0'	S 19°12.4'	146°56.4'	S 18°57.8'
23	162°16.1'	S 20°06.7'	162°11.7'	S 19°53.6'	162°07.6'	S 19°40.0'	162°03.6'	S 19°26.1'	161°59.8'	S 19°11.8'	161°56.3'	S 18°57.2'
Zeitgl. 0h / 12h	-10:38 / -10:48		-10:57 / -11:05		-11:14 / -11:22		-11:30 / -11:38		-11:46 / -11:54		-12:01 / -12:08	
Kulmination UT	12:10:48		12:11:05		12:11:22		12:11:38		12:11:54		12:12:08	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.2'		16.2'	

	Do 25.01.		Fr 26.01.		Sa 27.01.		So 28.01.		Mo 29.01.		Di 30.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°56.1'	S 18°56.5'	176°52.8'	S 18°41.5'	176°49.6'	S 18°26.2'	176°46.7'	S 18°10.5'	176°43.9'	S 17°54.5'	176°41.4'	S 17°38.2'
01	191°56.0'	S 18°55.9'	191°52.6'	S 18°40.9'	191°49.5'	S 18°25.6'	191°46.5'	S 18°09.9'	191°43.8'	S 17°53.9'	191°41.3'	S 17°37.5'
02	206°55.8'	S 18°55.3'	206°52.5'	S 18°40.3'	206°49.4'	S 18°24.9'	206°46.4'	S 18°09.2'	206°43.7'	S 17°53.2'	206°41.2'	S 17°36.9'
03	221°55.7'	S 18°54.7'	221°52.4'	S 18°39.6'	221°49.2'	S 18°24.3'	221°46.3'	S 18°08.6'	221°43.6'	S 17°52.5'	221°41.1'	S 17°36.2'
04	236°55.6'	S 18°54.1'	236°52.2'	S 18°39.0'	236°49.1'	S 18°23.6'	236°46.2'	S 18°07.9'	236°43.5'	S 17°51.8'	236°41.0'	S 17°35.5'
05	251°55.4'	S 18°53.4'	251°52.1'	S 18°38.4'	251°49.0'	S 18°23.0'	251°46.1'	S 18°07.2'	251°43.4'	S 17°51.2'	251°40.9'	S 17°34.8'
06	266°55.3'	S 18°52.8'	266°52.0'	S 18°37.7'	266°48.9'	S 18°22.3'	266°46.0'	S 18°06.6'	266°43.3'	S 17°50.5'	266°40.8'	S 17°34.1'
07	281°55.1'	S 18°52.2'	281°51.8'	S 18°37.1'	281°48.7'	S 18°21.7'	281°45.8'	S 18°05.9'	281°43.1'	S 17°49.8'	281°40.7'	S 17°33.4'
08	296°55.0'	S 18°51.6'	296°51.7'	S 18°36.5'	296°48.6'	S 18°21.0'	296°45.7'	S 18°05.2'	296°43.0'	S 17°49.1'	296°40.6'	S 17°32.7'
09	311°54.9'	S 18°51.0'	311°51.6'	S 18°35.8'	311°48.5'	S 18°20.4'	311°45.6'	S 18°04.6'	311°42.9'	S 17°48.5'	311°40.5'	S 17°32.0'
10	326°54.7'	S 18°50.3'	326°51.4'	S 18°35.2'	326°48.4'	S 18°19.7'	326°45.5'	S 18°03.9'	326°42.8'	S 17°47.8'	326°40.4'	S 17°31.3'
11	341°54.6'	S 18°49.7'	341°51.3'	S 18°34.6'	341°48.2'	S 18°19.1'	341°45.4'	S 18°03.2'	341°42.7'	S 17°47.1'	341°40.3'	S 17°30.6'
12	356°54.4'	S 18°49.1'	356°51.2'	S 18°33.9'	356°48.1'	S 18°18.4'	356°45.3'	S 18°02.6'	356°42.6'	S 17°46.4'	356°40.2'	S 17°29.9'
13	11°54.3'	S 18°48.5'	11°51.0'	S 18°33.3'	11°48.0'	S 18°17.8'	11°45.1'	S 18°01.9'	11°42.5'	S 17°45.7'	11°40.1'	S 17°29.3'
14	26°54.2'	S 18°47.8'	26°50.9'	S 18°32.6'	26°47.9'	S 18°17.1'	26°45.0'	S 18°01.2'	26°42.4'	S 17°45.1'	26°40.0'	S 17°28.6'
15	41°54.0'	S 18°47.2'	41°50.8'	S 18°32.0'	41°47.7'	S 18°16.5'	41°44.9'	S 18°00.6'	41°42.3'	S 17°44.4'	41°39.9'	S 17°27.9'
16	56°53.9'	S 18°46.6'	56°50.7'	S 18°31.4'	56°47.6'	S 18°15.8'	56°44.8'	S 17°59.9'	56°42.2'	S 17°43.7'	56°39.8'	S 17°27.2'
17	71°53.7'	S 18°46.0'	71°50.5'	S 18°30.7'	71°47.5'	S 18°15.1'	71°44.7'	S 17°59.2'	71°42.1'	S 17°43.0'	71°39.7'	S 17°26.5'
18	86°53.6'	S 18°45.3'	86°50.4'	S 18°30.1'	86°47.4'	S 18°14.5'	86°44.6'	S 17°58.6'	86°42.0'	S 17°42.3'	86°39.6'	S 17°25.8'
19	101°53.5'	S 18°44.7'	101°50.3'	S 18°29.4'	101°47.3'	S 18°13.8'	101°44.5'	S 17°57.9'	101°41.9'	S 17°41.7'	101°39.5'	S 17°25.1'
20	116°53.3'	S 18°44.1'	116°50.1'	S 18°28.8'	116°47.1'	S 18°13.2'	116°44.4'	S 17°57.2'	116°41.8'	S 17°41.0'	116°39.4'	S 17°24.4'
21	131°53.2'	S 18°43.4'	131°50.0'	S 18°28.1'	131°47.0'	S 18°12.5'	131°44.2'	S 17°56.6'	131°41.7'	S 17°40.3'	131°39.3'	S 17°23.7'
22	146°53.1'	S 18°42.8'	146°49.9'	S 18°27.5'	146°46.9'	S 18°11.9'	146°44.1'	S 17°55.9'	146°41.6'	S 17°39.6'	146°39.2'	S 17°23.0'
23	161°52.9'	S 18°42.2'	161°49.7'	S 18°26.9'	161°46.8'	S 18°11.2'	161°44.0'	S 17°55.2'	161°41.5'	S 17°38.9'	161°39.1'	S 17°22.3'
Zeitgl. 0h / 12h	-12:15 / -12:22		-12:29 / -12:35		-12:42 / -12:48		-12:53 / -12:59		-13:04 / -13:10		-13:15 / -13:19	
Kulmination UT	12:12:22		12:12:35		12:12:48		12:12:59		12:13:10		12:13:19	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

Mi 31.01.

UT	Grt	Dec
00	176°39.0'	S 17°21.6'
01	191°38.9'	S 17°20.9'
02	206°38.8'	S 17°20.2'
03	221°38.7'	S 17°19.5'
04	236°38.7'	S 17°18.8'
05	251°38.6'	S 17°18.1'
06	266°38.5'	S 17°17.4'
07	281°38.4'	S 17°16.7'
08	296°38.3'	S 17°16.0'
09	311°38.2'	S 17°15.3'
10	326°38.1'	S 17°14.6'
11	341°38.0'	S 17°13.9'
12	356°37.9'	S 17°13.2'
13	11°37.8'	S 17°12.5'
14	26°37.8'	S 17°11.8'
15	41°37.7'	S 17°11.0'
16	56°37.6'	S 17°10.3'
17	71°37.5'	S 17°09.6'
18	86°37.4'	S 17°08.9'
19	101°37.3'	S 17°08.2'
20	116°37.2'	S 17°07.5'
21	131°37.1'	S 17°06.8'
22	146°37.1'	S 17°06.1'
23	161°37.0'	S 17°05.4'

Zeitgl. 0h / 12h -13:24 / -13:28

Kulmination UT 12:13:28

Halbmesser 16.2'

2029

Februar

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Do 01.02.		Fr 02.02.		Sa 03.02.		So 04.02.		Mo 05.02.		Di 06.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°36.9'	S 17°04.7'	176°35.0'	S 16°47.4'	176°33.2'	S 16°29.9'	176°31.7'	S 16°12.1'	176°30.4'	S 15°54.0'	176°29.3'	S 15°35.6'
01	191°36.8'	S 17°03.9'	191°34.9'	S 16°46.7'	191°33.2'	S 16°29.1'	191°31.6'	S 16°11.3'	191°30.3'	S 15°53.2'	191°29.2'	S 15°34.8'
02	206°36.7'	S 17°03.2'	206°34.8'	S 16°46.0'	206°33.1'	S 16°28.4'	206°31.6'	S 16°10.6'	206°30.3'	S 15°52.4'	206°29.2'	S 15°34.0'
03	221°36.6'	S 17°02.5'	221°34.7'	S 16°45.2'	221°33.0'	S 16°27.7'	221°31.5'	S 16°09.8'	221°30.2'	S 15°51.7'	221°29.2'	S 15°33.3'
04	236°36.5'	S 17°01.8'	236°34.7'	S 16°44.5'	236°33.0'	S 16°26.9'	236°31.5'	S 16°09.1'	236°30.2'	S 15°50.9'	236°29.1'	S 15°32.5'
05	251°36.5'	S 17°01.1'	251°34.6'	S 16°43.8'	251°32.9'	S 16°26.2'	251°31.4'	S 16°08.3'	251°30.1'	S 15°50.2'	251°29.1'	S 15°31.7'
06	266°36.4'	S 17°00.4'	266°34.5'	S 16°43.1'	266°32.8'	S 16°25.5'	266°31.4'	S 16°07.6'	266°30.1'	S 15°49.4'	266°29.0'	S 15°31.0'
07	281°36.3'	S 16°59.7'	281°34.4'	S 16°42.3'	281°32.8'	S 16°24.7'	281°31.3'	S 16°06.8'	281°30.0'	S 15°48.6'	281°29.0'	S 15°30.2'
08	296°36.2'	S 16°58.9'	296°34.4'	S 16°41.6'	296°32.7'	S 16°24.0'	296°31.2'	S 16°06.1'	296°30.0'	S 15°47.9'	296°29.0'	S 15°29.4'
09	311°36.1'	S 16°58.2'	311°34.3'	S 16°40.9'	311°32.6'	S 16°23.2'	311°31.2'	S 16°05.3'	311°29.9'	S 15°47.1'	311°28.9'	S 15°28.6'
10	326°36.1'	S 16°57.5'	326°34.2'	S 16°40.1'	326°32.6'	S 16°22.5'	326°31.1'	S 16°04.6'	326°29.9'	S 15°46.3'	326°28.9'	S 15°27.9'
11	341°36.0'	S 16°56.8'	341°34.1'	S 16°39.4'	341°32.5'	S 16°21.8'	341°31.1'	S 16°03.8'	341°29.9'	S 15°45.6'	341°28.8'	S 15°27.1'
12	356°35.9'	S 16°56.1'	356°34.1'	S 16°38.7'	356°32.4'	S 16°21.0'	356°31.0'	S 16°03.0'	356°29.8'	S 15°44.8'	356°28.8'	S 15°26.3'
13	11°35.8'	S 16°55.4'	11°34.0'	S 16°38.0'	11°32.4'	S 16°20.3'	11°31.0'	S 16°02.3'	11°29.8'	S 15°44.0'	11°28.8'	S 15°25.5'
14	26°35.7'	S 16°54.6'	26°33.9'	S 16°37.2'	26°32.3'	S 16°19.5'	26°30.9'	S 16°01.5'	26°29.7'	S 15°43.3'	26°28.7'	S 15°24.8'
15	41°35.7'	S 16°53.9'	41°33.8'	S 16°36.5'	41°32.3'	S 16°18.8'	41°30.9'	S 16°00.8'	41°29.7'	S 15°42.5'	41°28.7'	S 15°24.0'
16	56°35.6'	S 16°53.2'	56°33.8'	S 16°35.8'	56°32.2'	S 16°18.0'	56°30.8'	S 16°00.0'	56°29.6'	S 15°41.7'	56°28.6'	S 15°23.2'
17	71°35.5'	S 16°52.5'	71°33.7'	S 16°35.0'	71°32.1'	S 16°17.3'	71°30.8'	S 15°59.3'	71°29.6'	S 15°41.0'	71°28.6'	S 15°22.4'
18	86°35.4'	S 16°51.8'	86°33.6'	S 16°34.3'	86°32.1'	S 16°16.5'	86°30.7'	S 15°58.5'	86°29.5'	S 15°40.2'	86°28.6'	S 15°21.6'
19	101°35.3'	S 16°51.0'	101°33.6'	S 16°33.6'	101°32.0'	S 16°15.8'	101°30.6'	S 15°57.8'	101°29.5'	S 15°39.4'	101°28.5'	S 15°20.9'
20	116°35.3'	S 16°50.3'	116°33.5'	S 16°32.8'	116°31.9'	S 16°15.1'	116°30.6'	S 15°57.0'	116°29.4'	S 15°38.7'	116°28.5'	S 15°20.1'
21	131°35.2'	S 16°49.6'	131°33.4'	S 16°32.1'	131°31.9'	S 16°14.3'	131°30.5'	S 15°56.2'	131°29.4'	S 15°37.9'	131°28.5'	S 15°19.3'
22	146°35.1'	S 16°48.9'	146°33.4'	S 16°31.4'	146°31.8'	S 16°13.6'	146°30.5'	S 15°55.5'	146°29.4'	S 15°37.1'	146°28.4'	S 15°18.5'
23	161°35.0'	S 16°48.1'	161°33.3'	S 16°30.6'	161°31.8'	S 16°12.8'	161°30.4'	S 15°54.7'	161°29.3'	S 15°36.4'	161°28.4'	S 15°17.7'
Zeitgl. 0h / 12h	-13:32 / -13:36		-13:40 / -13:44		-13:47 / -13:50		-13:53 / -13:56		-13:58 / -14:01		-14:03 / -14:05	
Kulmination UT	12:13:36		12:13:44		12:13:50		12:13:56		12:14:01		12:14:05	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Mi 07.02.		Do 08.02.		Fr 09.02.		Sa 10.02.		So 11.02.		Mo 12.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°28.4'	S 15°17.0'	176°27.7'	S 14°58.1'	176°27.1'	S 14°38.9'	176°26.8'	S 14°19.5'	176°26.7'	S 13°59.9'	176°26.8'	S 13°40.0'
01	191°28.3'	S 15°16.2'	191°27.6'	S 14°57.3'	191°27.1'	S 14°38.1'	191°26.8'	S 14°18.7'	191°26.7'	S 13°59.0'	191°26.8'	S 13°39.2'
02	206°28.3'	S 15°15.4'	206°27.6'	S 14°56.5'	206°27.1'	S 14°37.3'	206°26.8'	S 14°17.9'	206°26.7'	S 13°58.2'	206°26.8'	S 13°38.3'
03	221°28.3'	S 15°14.6'	221°27.6'	S 14°55.7'	221°27.1'	S 14°36.5'	221°26.8'	S 14°17.1'	221°26.7'	S 13°57.4'	221°26.8'	S 13°37.5'
04	236°28.2'	S 15°13.8'	236°27.6'	S 14°54.9'	236°27.1'	S 14°35.7'	236°26.8'	S 14°16.2'	236°26.7'	S 13°56.6'	236°26.8'	S 13°36.7'
05	251°28.2'	S 15°13.0'	251°27.5'	S 14°54.1'	251°27.1'	S 14°34.9'	251°26.8'	S 14°15.4'	251°26.7'	S 13°55.7'	251°26.8'	S 13°35.8'
06	266°28.2'	S 15°12.3'	266°27.5'	S 14°53.3'	266°27.1'	S 14°34.1'	266°26.8'	S 14°14.6'	266°26.7'	S 13°54.9'	266°26.8'	S 13°35.0'
07	281°28.1'	S 15°11.5'	281°27.5'	S 14°52.5'	281°27.0'	S 14°33.3'	281°26.8'	S 14°13.8'	281°26.7'	S 13°54.1'	281°26.9'	S 13°34.2'
08	296°28.1'	S 15°10.7'	296°27.5'	S 14°51.7'	296°27.0'	S 14°32.5'	296°26.8'	S 14°13.0'	296°26.7'	S 13°53.3'	296°26.9'	S 13°33.3'
09	311°28.1'	S 15°09.9'	311°27.4'	S 14°50.9'	311°27.0'	S 14°31.7'	311°26.8'	S 14°12.2'	311°26.7'	S 13°52.4'	311°26.9'	S 13°32.5'
10	326°28.0'	S 15°09.1'	326°27.4'	S 14°50.1'	326°27.0'	S 14°30.8'	326°26.8'	S 14°11.4'	326°26.7'	S 13°51.6'	326°26.9'	S 13°31.7'
11	341°28.0'	S 15°08.3'	341°27.4'	S 14°49.3'	341°27.0'	S 14°30.0'	341°26.8'	S 14°10.5'	341°26.7'	S 13°50.8'	341°26.9'	S 13°30.8'
12	356°28.0'	S 15°07.5'	356°27.4'	S 14°48.5'	356°27.0'	S 14°29.2'	356°26.8'	S 14°09.7'	356°26.7'	S 13°50.0'	356°26.9'	S 13°30.0'
13	11°28.0'	S 15°06.7'	11°27.4'	S 14°47.7'	11°27.0'	S 14°28.4'	11°26.7'	S 14°08.9'	11°26.7'	S 13°49.1'	11°26.9'	S 13°29.1'
14	26°27.9'	S 15°06.0'	26°27.3'	S 14°46.9'	26°26.9'	S 14°27.6'	26°26.7'	S 14°08.1'	26°26.7'	S 13°48.3'	26°26.9'	S 13°28.3'
15	41°27.9'	S 15°05.2'	41°27.3'	S 14°46.1'	41°26.9'	S 14°26.8'	41°26.7'	S 14°07.3'	41°26.7'	S 13°47.5'	41°26.9'	S 13°27.5'
16	56°27.9'	S 15°04.4'	56°27.3'	S 14°45.3'	56°26.9'	S 14°26.0'	56°26.7'	S 14°06.4'	56°26.8'	S 13°46.6'	56°27.0'	S 13°26.6'
17	71°27.8'	S 15°03.6'	71°27.3'	S 14°44.5'	71°26.9'	S 14°25.2'	71°26.7'	S 14°05.6'	71°26.8'	S 13°45.8'	71°27.0'	S 13°25.8'
18	86°27.8'	S 15°02.8'	86°27.3'	S 14°43.7'	86°26.9'	S 14°24.4'	86°26.7'	S 14°04.8'	86°26.8'	S 13°45.0'	86°27.0'	S 13°25.0'
19	101°27.8'	S 15°02.0'	101°27.2'	S 14°42.9'	101°26.9'	S 14°23.6'	101°26.7'	S 14°04.0'	101°26.8'	S 13°44.2'	101°27.0'	S 13°24.1'
20	116°27.8'	S 15°01.2'	116°27.2'	S 14°42.1'	116°26.9'	S 14°22.8'	116°26.7'	S 14°03.2'	116°26.8'	S 13°43.3'	116°27.0'	S 13°23.3'
21	131°27.7'	S 15°00.4'	131°27.2'	S 14°41.3'	131°26.9'	S 14°21.9'	131°26.7'	S 14°02.3'	131°26.8'	S 13°42.5'	131°27.0'	S 13°22.4'
22	146°27.7'	S 14°59.6'	146°27.2'	S 14°40.5'	146°26.9'	S 14°21.1'	146°26.7'	S 14°01.5'	146°26.8'	S 13°41.7'	146°27.0'	S 13°21.6'
23	161°27.7'	S 14°58.8'	161°27.2'	S 14°39.7'	161°26.8'	S 14°20.3'	161°26.7'	S 14°00.7'	161°26.8'	S 13°40.8'	161°27.1'	S 13°20.8'
Zeitgl. 0h / 12h	-14:07 / -14:08		-14:09 / -14:10		-14:11 / -14:12		-14:13 / -14:13		-14:13 / -14:13		-14:13 / -14:12	
Kulmination UT	12:14:08		12:14:10		12:14:12		12:14:13		12:14:13		12:14:12	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Di 13.02.		Mi 14.02.		Do 15.02.		Fr 16.02.		Sa 17.02.		So 18.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°27.1'	S 13°19.9'	176°27.5'	S 12°59.6'	176°28.2'	S 12°39.1'	176°29.0'	S 12°18.4'	176°30.0'	S 11°57.4'	176°31.2'	S 11°36.3'
01	191°27.1'	S 13°19.1'	191°27.5'	S 12°58.7'	191°28.2'	S 12°38.2'	191°29.0'	S 12°17.5'	191°30.0'	S 11°56.6'	191°31.2'	S 11°35.4'
02	206°27.1'	S 13°18.2'	206°27.6'	S 12°57.9'	206°28.2'	S 12°37.4'	206°29.1'	S 12°16.6'	206°30.1'	S 11°55.7'	206°31.3'	S 11°34.6'
03	221°27.1'	S 13°17.4'	221°27.6'	S 12°57.0'	221°28.3'	S 12°36.5'	221°29.1'	S 12°15.7'	221°30.1'	S 11°54.8'	221°31.3'	S 11°33.7'
04	236°27.1'	S 13°16.5'	236°27.6'	S 12°56.2'	236°28.3'	S 12°35.6'	236°29.1'	S 12°14.9'	236°30.2'	S 11°53.9'	236°31.4'	S 11°32.8'
05	251°27.1'	S 13°15.7'	251°27.6'	S 12°55.3'	251°28.3'	S 12°34.8'	251°29.2'	S 12°14.0'	251°30.2'	S 11°53.0'	251°31.4'	S 11°31.9'
06	266°27.2'	S 13°14.9'	266°27.7'	S 12°54.5'	266°28.4'	S 12°33.9'	266°29.2'	S 12°13.1'	266°30.3'	S 11°52.2'	266°31.5'	S 11°31.0'
07	281°27.2'	S 13°14.0'	281°27.7'	S 12°53.6'	281°28.4'	S 12°33.1'	281°29.3'	S 12°12.3'	281°30.3'	S 11°51.3'	281°31.6'	S 11°30.1'
08	296°27.2'	S 13°13.2'	296°27.7'	S 12°52.8'	296°28.4'	S 12°32.2'	296°29.3'	S 12°11.4'	296°30.4'	S 11°50.4'	296°31.6'	S 11°29.2'
09	311°27.2'	S 13°12.3'	311°27.7'	S 12°51.9'	311°28.5'	S 12°31.3'	311°29.3'	S 12°10.5'	311°30.4'	S 11°49.5'	311°31.7'	S 11°28.4'
10	326°27.2'	S 13°11.5'	326°27.8'	S 12°51.1'	326°28.5'	S 12°30.5'	326°29.4'	S 12°09.7'	326°30.5'	S 11°48.7'	326°31.7'	S 11°27.5'
11	341°27.3'	S 13°10.6'	341°27.8'	S 12°50.2'	341°28.5'	S 12°29.6'	341°29.4'	S 12°08.8'	341°30.5'	S 11°47.8'	341°31.8'	S 11°26.6'
12	356°27.3'	S 13°09.8'	356°27.8'	S 12°49.4'	356°28.6'	S 12°28.7'	356°29.5'	S 12°07.9'	356°30.6'	S 11°46.9'	356°31.8'	S 11°25.7'
13	11°27.3'	S 13°08.9'	11°27.8'	S 12°48.5'	11°28.6'	S 12°27.9'	11°29.5'	S 12°07.0'	11°30.6'	S 11°46.0'	11°31.9'	S 11°24.8'
14	26°27.3'	S 13°08.1'	26°27.9'	S 12°47.7'	26°28.6'	S 12°27.0'	26°29.6'	S 12°06.2'	26°30.7'	S 11°45.1'	26°32.0'	S 11°23.9'
15	41°27.3'	S 13°07.2'	41°27.9'	S 12°46.8'	41°28.7'	S 12°26.1'	41°29.6'	S 12°05.3'	41°30.7'	S 11°44.3'	41°32.0'	S 11°23.0'
16	56°27.4'	S 13°06.4'	56°27.9'	S 12°45.9'	56°28.7'	S 12°25.3'	56°29.6'	S 12°04.4'	56°30.8'	S 11°43.4'	56°32.1'	S 11°22.1'
17	71°27.4'	S 13°05.5'	71°28.0'	S 12°45.1'	71°28.7'	S 12°24.4'	71°29.7'	S 12°03.6'	71°30.8'	S 11°42.5'	71°32.1'	S 11°21.3'
18	86°27.4'	S 13°04.7'	86°28.0'	S 12°44.2'	86°28.8'	S 12°23.6'	86°29.7'	S 12°02.7'	86°30.9'	S 11°41.6'	86°32.2'	S 11°20.4'
19	101°27.4'	S 13°03.8'	101°28.0'	S 12°43.4'	101°28.8'	S 12°22.7'	101°29.8'	S 12°01.8'	101°30.9'	S 11°40.7'	101°32.2'	S 11°19.5'
20	116°27.4'	S 13°03.0'	116°28.0'	S 12°42.5'	116°28.8'	S 12°21.8'	116°29.8'	S 12°00.9'	116°31.0'	S 11°39.9'	116°32.3'	S 11°18.6'
21	131°27.5'	S 13°02.2'	131°28.1'	S 12°41.7'	131°28.9'	S 12°21.0'	131°29.9'	S 12°00.1'	131°31.0'	S 11°39.0'	131°32.4'	S 11°17.7'
22	146°27.5'	S 13°01.3'	146°28.1'	S 12°40.8'	146°28.9'	S 12°20.1'	146°29.9'	S 11°59.2'	146°31.1'	S 11°38.1'	146°32.4'	S 11°16.8'
23	161°27.5'	S 13°00.5'	161°28.1'	S 12°39.9'	161°29.0'	S 12°19.2'	161°30.0'	S 11°58.3'	161°31.1'	S 11°37.2'	161°32.5'	S 11°15.9'
Zeitgl. 0h / 12h	-14:12 / -14:11		-14:10 / -14:09		-14:07 / -14:06		-14:04 / -14:02		-14:00 / -13:58		-13:55 / -13:53	
Kulmination UT	12:14:11		12:14:09		12:14:06		12:14:02		12:13:58		12:13:53	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Mo 19.02.		Di 20.02.		Mi 21.02.		Do 22.02.		Fr 23.02.		Sa 24.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°32.5'	S 11°15.0'	176°34.1'	S 10°53.6'	176°35.7'	S 10°31.9'	176°37.6'	S 10°10.1'	176°39.6'	S 9°48.2'	176°41.8'	S 9°26.0'
01	191°32.6'	S 11°14.1'	191°34.1'	S 10°52.7'	191°35.8'	S 10°31.0'	191°37.7'	S 10°09.2'	191°39.7'	S 9°47.2'	191°41.9'	S 9°25.1'
02	206°32.7'	S 11°13.2'	206°34.2'	S 10°51.8'	206°35.9'	S 10°30.1'	206°37.8'	S 10°08.3'	206°39.8'	S 9°46.3'	206°42.0'	S 9°24.2'
03	221°32.7'	S 11°12.4'	221°34.3'	S 10°50.9'	221°36.0'	S 10°29.2'	221°37.8'	S 10°07.4'	221°39.9'	S 9°45.4'	221°42.1'	S 9°23.3'
04	236°32.8'	S 11°11.5'	236°34.3'	S 10°50.0'	236°36.0'	S 10°28.3'	236°37.9'	S 10°06.5'	236°40.0'	S 9°44.5'	236°42.1'	S 9°22.3'
05	251°32.8'	S 11°10.6'	251°34.4'	S 10°49.1'	251°36.1'	S 10°27.4'	251°38.0'	S 10°05.5'	251°40.0'	S 9°43.6'	251°42.2'	S 9°21.4'
06	266°32.9'	S 11°09.7'	266°34.5'	S 10°48.2'	266°36.2'	S 10°26.5'	266°38.1'	S 10°04.6'	266°40.1'	S 9°42.6'	266°42.3'	S 9°20.5'
07	281°33.0'	S 11°08.8'	281°34.5'	S 10°47.3'	281°36.3'	S 10°25.6'	281°38.2'	S 10°03.7'	281°40.2'	S 9°41.7'	281°42.4'	S 9°19.6'
08	296°33.0'	S 11°07.9'	296°34.6'	S 10°46.4'	296°36.3'	S 10°24.7'	296°38.3'	S 10°02.8'	296°40.3'	S 9°40.8'	296°42.5'	S 9°18.6'
09	311°33.1'	S 11°07.0'	311°34.7'	S 10°45.5'	311°36.4'	S 10°23.8'	311°38.3'	S 10°01.9'	311°40.4'	S 9°39.9'	311°42.6'	S 9°17.7'
10	326°33.2'	S 11°06.1'	326°34.7'	S 10°44.6'	326°36.5'	S 10°22.8'	326°38.4'	S 10°01.0'	326°40.5'	S 9°39.0'	326°42.7'	S 9°16.8'
11	341°33.2'	S 11°05.2'	341°34.8'	S 10°43.7'	341°36.6'	S 10°21.9'	341°38.5'	S 10°00.1'	341°40.6'	S 9°38.0'	341°42.8'	S 9°15.9'
12	356°33.3'	S 11°04.3'	356°34.9'	S 10°42.8'	356°36.7'	S 10°21.0'	356°38.6'	S 9°59.1'	356°40.7'	S 9°37.1'	356°42.9'	S 9°14.9'
13	11°33.3'	S 11°03.4'	11°35.0'	S 10°41.9'	11°36.7'	S 10°20.1'	11°38.7'	S 9°58.2'	11°40.8'	S 9°36.2'	11°43.0'	S 9°14.0'
14	26°33.4'	S 11°02.5'	26°35.0'	S 10°41.0'	26°36.8'	S 10°19.2'	26°38.8'	S 9°57.3'	26°40.9'	S 9°35.3'	26°43.1'	S 9°13.1'
15	41°33.5'	S 11°01.6'	41°35.1'	S 10°40.0'	41°36.9'	S 10°18.3'	41°38.8'	S 9°56.4'	41°40.9'	S 9°34.4'	41°43.2'	S 9°12.2'
16	56°33.5'	S 11°00.7'	56°35.2'	S 10°39.1'	56°37.0'	S 10°17.4'	56°38.9'	S 9°55.5'	56°41.0'	S 9°33.4'	56°43.3'	S 9°11.2'
17	71°33.6'	S 10°59.8'	71°35.2'	S 10°38.2'	71°37.0'	S 10°16.5'	71°39.0'	S 9°54.6'	71°41.1'	S 9°32.5'	71°43.4'	S 9°10.3'
18	86°33.7'	S 10°58.9'	86°35.3'	S 10°37.3'	86°37.1'	S 10°15.6'	86°39.1'	S 9°53.7'	86°41.2'	S 9°31.6'	86°43.5'	S 9°09.4'
19	101°33.7'	S 10°58.0'	101°35.4'	S 10°36.4'	101°37.2'	S 10°14.7'	101°39.2'	S 9°52.7'	101°41.3'	S 9°30.7'	101°43.6'	S 9°08.4'
20	116°33.8'	S 10°57.1'	116°35.5'	S 10°35.5'	116°37.3'	S 10°13.8'	116°39.3'	S 9°51.8'	116°41.4'	S 9°29.7'	116°43.7'	S 9°07.5'
21	131°33.9'	S 10°56.2'	131°35.5'	S 10°34.6'	131°37.4'	S 10°12.8'	131°39.3'	S 9°50.9'	131°41.5'	S 9°28.8'	131°43.8'	S 9°06.6'
22	146°33.9'	S 10°55.4'	146°35.6'	S 10°33.7'	146°37.4'	S 10°11.9'	146°39.4'	S 9°50.0'	146°41.6'	S 9°27.9'	146°43.9'	S 9°05.7'
23	161°34.0'	S 10°54.5'	161°35.7'	S 10°32.8'	161°37.5'	S 10°11.0'	161°39.5'	S 9°49.1'	161°41.7'	S 9°27.0'	161°44.0'	S 9°04.7'
Zeitgl. 0h / 12h	-13:50 / -13:47		-13:44 / -13:40		-13:37 / -13:33		-13:30 / -13:26		-13:22 / -13:17		-13:13 / -13:08	
Kulmination UT	12:13:47		12:13:40		12:13:33		12:13:26		12:13:17		12:13:08	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

UT	So 25.02.		Mo 26.02.		Di 27.02.		Mi 28.02.	
	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°44.1'	S 9°03.8'	176°46.5'	S 8°41.4'	176°49.1'	S 8°18.9'	176°51.9'	S 7°56.3'
01	191°44.2'	S 9°02.9'	191°46.6'	S 8°40.5'	191°49.2'	S 8°18.0'	191°52.0'	S 7°55.3'
02	206°44.3'	S 9°01.9'	206°46.7'	S 8°39.5'	206°49.4'	S 8°17.0'	206°52.1'	S 7°54.4'
03	221°44.4'	S 9°01.0'	221°46.9'	S 8°38.6'	221°49.5'	S 8°16.1'	221°52.2'	S 7°53.4'
04	236°44.5'	S 9°00.1'	236°47.0'	S 8°37.7'	236°49.6'	S 8°15.1'	236°52.3'	S 7°52.5'
05	251°44.6'	S 8°59.1'	251°47.1'	S 8°36.7'	251°49.7'	S 8°14.2'	251°52.5'	S 7°51.5'
06	266°44.7'	S 8°58.2'	266°47.2'	S 8°35.8'	266°49.8'	S 8°13.2'	266°52.6'	S 7°50.6'
07	281°44.8'	S 8°57.3'	281°47.3'	S 8°34.9'	281°49.9'	S 8°12.3'	281°52.7'	S 7°49.6'
08	296°44.9'	S 8°56.3'	296°47.4'	S 8°33.9'	296°50.0'	S 8°11.4'	296°52.8'	S 7°48.7'
09	311°45.0'	S 8°55.4'	311°47.5'	S 8°33.0'	311°50.1'	S 8°10.4'	311°52.9'	S 7°47.7'
10	326°45.1'	S 8°54.5'	326°47.6'	S 8°32.0'	326°50.3'	S 8°09.5'	326°53.0'	S 7°46.8'
11	341°45.2'	S 8°53.5'	341°47.7'	S 8°31.1'	341°50.4'	S 8°08.5'	341°53.2'	S 7°45.8'
12	356°45.3'	S 8°52.6'	356°47.8'	S 8°30.2'	356°50.5'	S 8°07.6'	356°53.3'	S 7°44.9'
13	11°45.4'	S 8°51.7'	11°47.9'	S 8°29.2'	11°50.6'	S 8°06.6'	11°53.4'	S 7°43.9'
14	26°45.5'	S 8°50.8'	26°48.0'	S 8°28.3'	26°50.7'	S 8°05.7'	26°53.5'	S 7°43.0'
15	41°45.6'	S 8°49.8'	41°48.1'	S 8°27.3'	41°50.8'	S 8°04.8'	41°53.6'	S 7°42.0'
16	56°45.7'	S 8°48.9'	56°48.3'	S 8°26.4'	56°50.9'	S 8°03.8'	56°53.8'	S 7°41.1'
17	71°45.8'	S 8°47.9'	71°48.4'	S 8°25.5'	71°51.1'	S 8°02.9'	71°53.9'	S 7°40.2'
18	86°45.9'	S 8°47.0'	86°48.5'	S 8°24.5'	86°51.2'	S 8°01.9'	86°54.0'	S 7°39.2'
19	101°46.0'	S 8°46.1'	101°48.6'	S 8°23.6'	101°51.3'	S 8°01.0'	101°54.1'	S 7°38.3'
20	116°46.1'	S 8°45.1'	116°48.7'	S 8°22.7'	116°51.4'	S 8°00.0'	116°54.2'	S 7°37.3'
21	131°46.2'	S 8°44.2'	131°48.8'	S 8°21.7'	131°51.5'	S 7°59.1'	131°54.4'	S 7°36.4'
22	146°46.3'	S 8°43.3'	146°48.9'	S 8°20.8'	146°51.6'	S 7°58.1'	146°54.5'	S 7°35.4'
23	161°46.4'	S 8°42.3'	161°49.0'	S 8°19.8'	161°51.7'	S 7°57.2'	161°54.6'	S 7°34.5'

Zeitgl. 0h / 12h	-13:04 / -12:59	-12:54 / -12:49	-12:43 / -12:38	-12:33 / -12:27
Kulmination UT	12:12:59	12:12:49	12:12:38	12:12:27
Halbmesser	16.2'	16.2'	16.1'	16.1'

2029

März

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Do 01.03.		Fr 02.03.		Sa 03.03.		So 04.03.		Mo 05.03.		Di 06.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°54.7'	S 7°33.5'	176°57.7'	S 7°10.6'	177°00.8'	S 6°47.7'	177°04.1'	S 6°24.6'	177°07.4'	S 6°01.5'	177°10.8'	S 5°38.2'
01	191°54.9'	S 7°32.6'	191°57.8'	S 7°09.7'	192°01.0'	S 6°46.7'	192°04.2'	S 6°23.7'	192°07.5'	S 6°00.5'	192°11.0'	S 5°37.3'
02	206°55.0'	S 7°31.6'	206°58.0'	S 7°08.7'	207°01.1'	S 6°45.8'	207°04.3'	S 6°22.7'	207°07.7'	S 5°59.5'	207°11.1'	S 5°36.3'
03	221°55.1'	S 7°30.7'	221°58.1'	S 7°07.8'	222°01.2'	S 6°44.8'	222°04.5'	S 6°21.7'	222°07.8'	S 5°58.6'	222°11.3'	S 5°35.3'
04	236°55.2'	S 7°29.7'	236°58.2'	S 7°06.8'	237°01.4'	S 6°43.8'	237°04.6'	S 6°20.8'	237°08.0'	S 5°57.6'	237°11.4'	S 5°34.4'
05	251°55.3'	S 7°28.7'	251°58.4'	S 7°05.9'	252°01.5'	S 6°42.9'	252°04.7'	S 6°19.8'	252°08.1'	S 5°56.6'	252°11.6'	S 5°33.4'
06	266°55.5'	S 7°27.8'	266°58.5'	S 7°04.9'	267°01.6'	S 6°41.9'	267°04.9'	S 6°18.8'	267°08.3'	S 5°55.7'	267°11.7'	S 5°32.4'
07	281°55.6'	S 7°26.8'	281°58.6'	S 7°04.0'	282°01.8'	S 6°41.0'	282°05.0'	S 6°17.9'	282°08.4'	S 5°54.7'	282°11.9'	S 5°31.4'
08	296°55.7'	S 7°25.9'	296°58.7'	S 7°03.0'	297°01.9'	S 6°40.0'	297°05.2'	S 6°16.9'	297°08.5'	S 5°53.7'	297°12.0'	S 5°30.5'
09	311°55.8'	S 7°24.9'	311°58.9'	S 7°02.0'	312°02.0'	S 6°39.0'	312°05.3'	S 6°15.9'	312°08.7'	S 5°52.8'	312°12.2'	S 5°29.5'
10	326°56.0'	S 7°24.0'	326°59.0'	S 7°01.1'	327°02.2'	S 6°38.1'	327°05.4'	S 6°15.0'	327°08.8'	S 5°51.8'	327°12.3'	S 5°28.5'
11	341°56.1'	S 7°23.0'	341°59.1'	S 7°00.1'	342°02.3'	S 6°37.1'	342°05.6'	S 6°14.0'	342°09.0'	S 5°50.8'	342°12.5'	S 5°27.6'
12	356°56.2'	S 7°22.1'	356°59.3'	S 6°59.2'	357°02.4'	S 6°36.2'	357°05.7'	S 6°13.1'	357°09.1'	S 5°49.9'	357°12.6'	S 5°26.6'
13	11°56.3'	S 7°21.1'	11°59.4'	S 6°58.2'	12°02.6'	S 6°35.2'	12°05.9'	S 6°12.1'	12°09.3'	S 5°48.9'	12°12.8'	S 5°25.6'
14	26°56.5'	S 7°20.2'	26°59.5'	S 6°57.3'	27°02.7'	S 6°34.2'	27°06.0'	S 6°11.1'	27°09.4'	S 5°47.9'	27°12.9'	S 5°24.7'
15	41°56.6'	S 7°19.2'	41°59.6'	S 6°56.3'	42°02.8'	S 6°33.3'	42°06.1'	S 6°10.2'	42°09.5'	S 5°47.0'	42°13.1'	S 5°23.7'
16	56°56.7'	S 7°18.3'	56°59.8'	S 6°55.3'	57°03.0'	S 6°32.3'	57°06.3'	S 6°09.2'	57°09.7'	S 5°46.0'	57°13.2'	S 5°22.7'
17	71°56.8'	S 7°17.3'	71°59.9'	S 6°54.4'	72°03.1'	S 6°31.4'	72°06.4'	S 6°08.2'	72°09.8'	S 5°45.0'	72°13.4'	S 5°21.7'
18	86°57.0'	S 7°16.4'	87°00.0'	S 6°53.4'	87°03.2'	S 6°30.4'	87°06.6'	S 6°07.3'	87°10.0'	S 5°44.1'	87°13.5'	S 5°20.8'
19	101°57.1'	S 7°15.4'	102°00.2'	S 6°52.5'	102°03.4'	S 6°29.4'	102°06.7'	S 6°06.3'	102°10.1'	S 5°43.1'	102°13.6'	S 5°19.8'
20	116°57.2'	S 7°14.5'	117°00.3'	S 6°51.5'	117°03.5'	S 6°28.5'	117°06.8'	S 6°05.3'	117°10.3'	S 5°42.1'	117°13.8'	S 5°18.8'
21	131°57.3'	S 7°13.5'	132°00.4'	S 6°50.6'	132°03.6'	S 6°27.5'	132°07.0'	S 6°04.4'	132°10.4'	S 5°41.1'	132°13.9'	S 5°17.9'
22	146°57.5'	S 7°12.6'	147°00.6'	S 6°49.6'	147°03.8'	S 6°26.5'	147°07.1'	S 6°03.4'	147°10.6'	S 5°40.2'	147°14.1'	S 5°16.9'
23	161°57.6'	S 7°11.6'	162°00.7'	S 6°48.6'	162°03.9'	S 6°25.6'	162°07.3'	S 6°02.4'	162°10.7'	S 5°39.2'	162°14.2'	S 5°15.9'
Zeitgl. 0h / 12h	-12:21 / -12:15		-12:09 / -12:03		-11:57 / -11:50		-11:44 / -11:37		-11:30 / -11:24		-11:17 / -11:10	
Kulmination UT	12:12:15		12:12:03		12:11:50		12:11:37		12:11:24		12:11:10	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	Mi 07.03.		Do 08.03.		Fr 09.03.		Sa 10.03.		So 11.03.		Mo 12.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	177°14.4'	S 5°14.9'	177°18.0'	S 4°51.6'	177°21.8'	S 4°28.1'	177°25.6'	S 4°04.6'	177°29.5'	S 3°41.1'	177°33.5'	S 3°17.5'
01	192°14.5'	S 5°14.0'	192°18.2'	S 4°50.6'	192°21.9'	S 4°27.1'	192°25.8'	S 4°03.6'	192°29.7'	S 3°40.1'	192°33.7'	S 3°16.5'
02	207°14.7'	S 5°13.0'	207°18.4'	S 4°49.6'	207°22.1'	S 4°26.2'	207°25.9'	S 4°02.7'	207°29.8'	S 3°39.1'	207°33.8'	S 3°15.5'
03	222°14.8'	S 5°12.0'	222°18.5'	S 4°48.6'	222°22.3'	S 4°25.2'	222°26.1'	S 4°01.7'	222°30.0'	S 3°38.1'	222°34.0'	S 3°14.5'
04	237°15.0'	S 5°11.0'	237°18.7'	S 4°47.7'	237°22.4'	S 4°24.2'	237°26.3'	S 4°00.7'	237°30.2'	S 3°37.1'	237°34.2'	S 3°13.5'
05	252°15.1'	S 5°10.1'	252°18.8'	S 4°46.7'	252°22.6'	S 4°23.2'	252°26.4'	S 3°59.7'	252°30.3'	S 3°36.2'	252°34.3'	S 3°12.6'
06	267°15.3'	S 5°09.1'	267°19.0'	S 4°45.7'	267°22.7'	S 4°22.2'	267°26.6'	S 3°58.7'	267°30.5'	S 3°35.2'	267°34.5'	S 3°11.6'
07	282°15.5'	S 5°08.1'	282°19.1'	S 4°44.7'	282°22.9'	S 4°21.3'	282°26.7'	S 3°57.8'	282°30.7'	S 3°34.2'	282°34.7'	S 3°10.6'
08	297°15.6'	S 5°07.1'	297°19.3'	S 4°43.7'	297°23.0'	S 4°20.3'	297°26.9'	S 3°56.8'	297°30.8'	S 3°33.2'	297°34.8'	S 3°09.6'
09	312°15.8'	S 5°06.2'	312°19.4'	S 4°42.8'	312°23.2'	S 4°19.3'	312°27.1'	S 3°55.8'	312°31.0'	S 3°32.2'	312°35.0'	S 3°08.6'
10	327°15.9'	S 5°05.2'	327°19.6'	S 4°41.8'	327°23.4'	S 4°18.3'	327°27.2'	S 3°54.8'	327°31.2'	S 3°31.2'	327°35.2'	S 3°07.6'
11	342°16.1'	S 5°04.2'	342°19.7'	S 4°40.8'	342°23.5'	S 4°17.4'	342°27.4'	S 3°53.8'	342°31.3'	S 3°30.3'	342°35.4'	S 3°06.7'
12	357°16.2'	S 5°03.3'	357°19.9'	S 4°39.8'	357°23.7'	S 4°16.4'	357°27.6'	S 3°52.9'	357°31.5'	S 3°29.3'	357°35.5'	S 3°05.7'
13	12°16.4'	S 5°02.3'	12°20.1'	S 4°38.9'	12°23.8'	S 4°15.4'	12°27.7'	S 3°51.9'	12°31.7'	S 3°28.3'	12°35.7'	S 3°04.7'
14	27°16.5'	S 5°01.3'	27°20.2'	S 4°37.9'	27°24.0'	S 4°14.4'	27°27.9'	S 3°50.9'	27°31.8'	S 3°27.3'	27°35.9'	S 3°03.7'
15	42°16.7'	S 5°00.3'	42°20.4'	S 4°36.9'	42°24.2'	S 4°13.4'	42°28.0'	S 3°49.9'	42°32.0'	S 3°26.3'	42°36.0'	S 3°02.7'
16	57°16.8'	S 4°59.4'	57°20.5'	S 4°35.9'	57°24.3'	S 4°12.5'	57°28.2'	S 3°48.9'	57°32.2'	S 3°25.3'	57°36.2'	S 3°01.7'
17	72°17.0'	S 4°58.4'	72°20.7'	S 4°35.0'	72°24.5'	S 4°11.5'	72°28.4'	S 3°47.9'	72°32.3'	S 3°24.4'	72°36.4'	S 3°00.7'
18	87°17.1'	S 4°57.4'	87°20.8'	S 4°34.0'	87°24.6'	S 4°10.5'	87°28.5'	S 3°47.0'	87°32.5'	S 3°23.4'	87°36.5'	S 2°59.8'
19	102°17.3'	S 4°56.4'	102°21.0'	S 4°33.0'	102°24.8'	S 4°09.5'	102°28.7'	S 3°46.0'	102°32.7'	S 3°22.4'	102°36.7'	S 2°58.8'
20	117°17.4'	S 4°55.5'	117°21.2'	S 4°32.0'	117°25.0'	S 4°08.5'	117°28.9'	S 3°45.0'	117°32.8'	S 3°21.4'	117°36.9'	S 2°57.8'
21	132°17.6'	S 4°54.5'	132°21.3'	S 4°31.0'	132°25.1'	S 4°07.6'	132°29.0'	S 3°44.0'	132°33.0'	S 3°20.4'	132°37.0'	S 2°56.8'
22	147°17.7'	S 4°53.5'	147°21.5'	S 4°30.1'	147°25.3'	S 4°06.6'	147°29.2'	S 3°43.0'	147°33.2'	S 3°19.4'	147°37.2'	S 2°55.8'
23	162°17.9'	S 4°52.5'	162°21.6'	S 4°29.1'	162°25.4'	S 4°05.6'	162°29.4'	S 3°42.1'	162°33.3'	S 3°18.5'	162°37.4'	S 2°54.8'
Zeitgl. 0h / 12h	-11:02 / -10:55		-10:48 / -10:40		-10:33 / -10:25		-10:18 / -10:10		-10:02 / -09:54		-09:46 / -09:38	
Kulmination UT	12:10:55		12:10:40		12:10:25		12:10:10		12:09:54		12:09:38	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	Di 13.03.		Mi 14.03.		Do 15.03.		Fr 16.03.		Sa 17.03.		So 18.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	177°37.6'	S 2°53.8'	177°41.7'	S 2°30.2'	177°45.9'	S 2°06.5'	177°50.1'	S 1°42.8'	177°54.4'	S 1°19.1'	177°58.7'	S 0°55.3'
01	192°37.7'	S 2°52.9'	192°41.9'	S 2°29.2'	192°46.0'	S 2°05.5'	192°50.3'	S 1°41.8'	192°54.6'	S 1°18.1'	192°58.9'	S 0°54.4'
02	207°37.9'	S 2°51.9'	207°42.0'	S 2°28.2'	207°46.2'	S 2°04.5'	207°50.5'	S 1°40.8'	207°54.8'	S 1°17.1'	207°59.1'	S 0°53.4'
03	222°38.1'	S 2°50.9'	222°42.2'	S 2°27.2'	222°46.4'	S 2°03.5'	222°50.6'	S 1°39.8'	222°54.9'	S 1°16.1'	222°59.3'	S 0°52.4'
04	237°38.2'	S 2°49.9'	237°42.4'	S 2°26.2'	237°46.6'	S 2°02.5'	237°50.8'	S 1°38.8'	237°55.1'	S 1°15.1'	237°59.5'	S 0°51.4'
05	252°38.4'	S 2°48.9'	252°42.6'	S 2°25.3'	252°46.7'	S 2°01.6'	252°51.0'	S 1°37.9'	252°55.3'	S 1°14.1'	252°59.6'	S 0°50.4'
06	267°38.6'	S 2°47.9'	267°42.7'	S 2°24.3'	267°46.9'	S 2°00.6'	267°51.2'	S 1°36.9'	267°55.5'	S 1°13.1'	267°59.8'	S 0°49.4'
07	282°38.8'	S 2°47.0'	282°42.9'	S 2°23.3'	282°47.1'	S 1°59.6'	282°51.4'	S 1°35.9'	282°55.7'	S 1°12.2'	283°00.0'	S 0°48.4'
08	297°38.9'	S 2°46.0'	297°43.1'	S 2°22.3'	297°47.3'	S 1°58.6'	297°51.5'	S 1°34.9'	297°55.8'	S 1°11.2'	298°00.2'	S 0°47.4'
09	312°39.1'	S 2°45.0'	312°43.2'	S 2°21.3'	312°47.5'	S 1°57.6'	312°51.7'	S 1°33.9'	312°56.0'	S 1°10.2'	313°00.4'	S 0°46.4'
10	327°39.3'	S 2°44.0'	327°43.4'	S 2°20.3'	327°47.6'	S 1°56.6'	327°51.9'	S 1°32.9'	327°56.2'	S 1°09.2'	328°00.6'	S 0°45.5'
11	342°39.4'	S 2°43.0'	342°43.6'	S 2°19.3'	342°47.8'	S 1°55.6'	342°52.1'	S 1°31.9'	342°56.4'	S 1°08.2'	343°00.7'	S 0°44.5'
12	357°39.6'	S 2°42.0'	357°43.8'	S 2°18.3'	357°48.0'	S 1°54.6'	357°52.2'	S 1°30.9'	357°56.6'	S 1°07.2'	358°00.9'	S 0°43.5'
13	12°39.8'	S 2°41.0'	12°43.9'	S 2°17.4'	12°48.2'	S 1°53.7'	12°52.4'	S 1°29.9'	12°56.7'	S 1°06.2'	13°01.1'	S 0°42.5'
14	27°40.0'	S 2°40.0'	27°44.1'	S 2°16.4'	27°48.3'	S 1°52.7'	27°52.6'	S 1°29.0'	27°56.9'	S 1°05.2'	28°01.3'	S 0°41.5'
15	42°40.1'	S 2°39.1'	42°44.3'	S 2°15.4'	42°48.5'	S 1°51.7'	42°52.8'	S 1°28.0'	42°57.1'	S 1°04.2'	43°01.5'	S 0°40.5'
16	57°40.3'	S 2°38.1'	57°44.5'	S 2°14.4'	57°48.7'	S 1°50.7'	57°53.0'	S 1°27.0'	57°57.3'	S 1°03.3'	58°01.7'	S 0°39.5'
17	72°40.5'	S 2°37.1'	72°44.6'	S 2°13.4'	72°48.9'	S 1°49.7'	72°53.1'	S 1°26.0'	72°57.5'	S 1°02.3'	73°01.8'	S 0°38.5'
18	87°40.6'	S 2°36.1'	87°44.8'	S 2°12.4'	87°49.0'	S 1°48.7'	87°53.3'	S 1°25.0'	87°57.7'	S 1°01.3'	88°02.0'	S 0°37.5'
19	102°40.8'	S 2°35.1'	102°45.0'	S 2°11.4'	102°49.2'	S 1°47.7'	102°53.5'	S 1°24.0'	102°57.8'	S 1°00.3'	103°02.2'	S 0°36.6'
20	117°41.0'	S 2°34.1'	117°45.2'	S 2°10.4'	117°49.4'	S 1°46.7'	117°53.7'	S 1°23.0'	117°58.0'	S 0°59.3'	118°02.4'	S 0°35.6'
21	132°41.2'	S 2°33.1'	132°45.3'	S 2°09.5'	132°49.6'	S 1°45.8'	132°53.9'	S 1°22.0'	132°58.2'	S 0°58.3'	133°02.6'	S 0°34.6'
22	147°41.3'	S 2°32.2'	147°45.5'	S 2°08.5'	147°49.8'	S 1°44.8'	147°54.0'	S 1°21.0'	147°58.4'	S 0°57.3'	148°02.8'	S 0°33.6'
23	162°41.5'	S 2°31.2'	162°45.7'	S 2°07.5'	162°49.9'	S 1°43.8'	162°54.2'	S 1°20.1'	162°58.6'	S 0°56.3'	163°02.9'	S 0°32.6'
Zeitgl. 0h / 12h	-09:30 / -09:22		-09:13 / -09:05		-08:57 / -08:48		-08:40 / -08:31		-08:22 / -08:14		-08:05 / -07:56	
Kulmination UT	12:09:22		12:09:05		12:08:48		12:08:31		12:08:14		12:07:56	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	Mo 19.03.		Di 20.03.		Mi 21.03.		Do 22.03.		Fr 23.03.		Sa 24.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°03.1'	S 0°31.6'	178°07.5'	S 0°07.9'	178°12.0'	N 0°15.8'	178°16.5'	N 0°39.5'	178°20.9'	N 1°03.2'	178°25.5'	N 1°26.8'
01	193°03.3'	S 0°30.6'	193°07.7'	S 0°06.9'	193°12.2'	N 0°16.8'	193°16.6'	N 0°40.5'	193°21.1'	N 1°04.2'	193°25.6'	N 1°27.8'
02	208°03.5'	S 0°29.6'	208°07.9'	S 0°05.9'	208°12.4'	N 0°17.8'	208°16.8'	N 0°41.5'	208°21.3'	N 1°05.2'	208°25.8'	N 1°28.8'
03	223°03.7'	S 0°28.7'	223°08.1'	S 0°04.9'	223°12.5'	N 0°18.8'	223°17.0'	N 0°42.5'	223°21.5'	N 1°06.1'	223°26.0'	N 1°29.8'
04	238°03.9'	S 0°27.7'	238°08.3'	S 0°03.9'	238°12.7'	N 0°19.8'	238°17.2'	N 0°43.5'	238°21.7'	N 1°07.1'	238°26.2'	N 1°30.8'
05	253°04.0'	S 0°26.7'	253°08.5'	S 0°03.0'	253°12.9'	N 0°20.8'	253°17.4'	N 0°44.4'	253°21.9'	N 1°08.1'	253°26.4'	N 1°31.7'
06	268°04.2'	S 0°25.7'	268°08.6'	S 0°02.0'	268°13.1'	N 0°21.7'	268°17.6'	N 0°45.4'	268°22.1'	N 1°09.1'	268°26.6'	N 1°32.7'
07	283°04.4'	S 0°24.7'	283°08.8'	S 0°01.0'	283°13.3'	N 0°22.7'	283°17.8'	N 0°46.4'	283°22.3'	N 1°10.1'	283°26.8'	N 1°33.7'
08	298°04.6'	S 0°23.7'	298°09.0'	N 0°00.0'	298°13.5'	N 0°23.7'	298°17.9'	N 0°47.4'	298°22.4'	N 1°11.1'	298°27.0'	N 1°34.7'
09	313°04.8'	S 0°22.7'	313°09.2'	N 0°01.0'	313°13.7'	N 0°24.7'	313°18.1'	N 0°48.4'	313°22.6'	N 1°12.0'	313°27.1'	N 1°35.7'
10	328°05.0'	S 0°21.7'	328°09.4'	N 0°02.0'	328°13.8'	N 0°25.7'	328°18.3'	N 0°49.4'	328°22.8'	N 1°13.0'	328°27.3'	N 1°36.7'
11	343°05.1'	S 0°20.7'	343°09.6'	N 0°03.0'	343°14.0'	N 0°26.7'	343°18.5'	N 0°50.4'	343°23.0'	N 1°14.0'	343°27.5'	N 1°37.6'
12	358°05.3'	S 0°19.8'	358°09.8'	N 0°04.0'	358°14.2'	N 0°27.7'	358°18.7'	N 0°51.3'	358°23.2'	N 1°15.0'	358°27.7'	N 1°38.6'
13	13°05.5'	S 0°18.8'	13°09.9'	N 0°04.9'	13°14.4'	N 0°28.7'	13°18.9'	N 0°52.3'	13°23.4'	N 1°16.0'	13°27.9'	N 1°39.6'
14	28°05.7'	S 0°17.8'	28°10.1'	N 0°05.9'	28°14.6'	N 0°29.6'	28°19.1'	N 0°53.3'	28°23.6'	N 1°17.0'	28°28.1'	N 1°40.6'
15	43°05.9'	S 0°16.8'	43°10.3'	N 0°06.9'	43°14.8'	N 0°30.6'	43°19.3'	N 0°54.3'	43°23.8'	N 1°18.0'	43°28.3'	N 1°41.6'
16	58°06.1'	S 0°15.8'	58°10.5'	N 0°07.9'	58°15.0'	N 0°31.6'	58°19.4'	N 0°55.3'	58°23.9'	N 1°18.9'	58°28.5'	N 1°42.6'
17	73°06.2'	S 0°14.8'	73°10.7'	N 0°08.9'	73°15.1'	N 0°32.6'	73°19.6'	N 0°56.3'	73°24.1'	N 1°19.9'	73°28.7'	N 1°43.5'
18	88°06.4'	S 0°13.8'	88°10.9'	N 0°09.9'	88°15.3'	N 0°33.6'	88°19.8'	N 0°57.3'	88°24.3'	N 1°20.9'	88°28.8'	N 1°44.5'
19	103°06.6'	S 0°12.8'	103°11.1'	N 0°10.9'	103°15.5'	N 0°34.6'	103°20.0'	N 0°58.3'	103°24.5'	N 1°21.9'	103°29.0'	N 1°45.5'
20	118°06.8'	S 0°11.8'	118°11.2'	N 0°11.9'	118°15.7'	N 0°35.6'	118°20.2'	N 0°59.2'	118°24.7'	N 1°22.9'	118°29.2'	N 1°46.5'
21	133°07.0'	S 0°10.9'	133°11.4'	N 0°12.9'	133°15.9'	N 0°36.5'	133°20.4'	N 1°00.2'	133°24.9'	N 1°23.9'	133°29.4'	N 1°47.5'
22	148°07.2'	S 0°09.9'	148°11.6'	N 0°13.8'	148°16.1'	N 0°37.5'	148°20.6'	N 1°01.2'	148°25.1'	N 1°24.9'	148°29.6'	N 1°48.5'
23	163°07.4'	S 0°08.9'	163°11.8'	N 0°14.8'	163°16.3'	N 0°38.5'	163°20.8'	N 1°02.2'	163°25.3'	N 1°25.8'	163°29.8'	N 1°49.4'
Zeitgl. 0h / 12h	-07:48 / -07:39		-07:30 / -07:21		-07:12 / -07:03		-06:54 / -06:45		-06:36 / -06:27		-06:18 / -06:09	
Kulmination UT	12:07:39		12:07:21		12:07:03		12:06:45		12:06:27		12:06:09	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.0'		16.0'	

	So 25.03.		Mo 26.03.		Di 27.03.		Mi 28.03.		Do 29.03.		Fr 30.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°30.0'	N 1°50.4'	178°34.5'	N 2°14.0'	178°39.0'	N 2°37.5'	178°43.5'	N 3°01.0'	178°48.0'	N 3°24.4'	178°52.5'	N 3°47.7'
01	193°30.2'	N 1°51.4'	193°34.7'	N 2°15.0'	193°39.2'	N 2°38.5'	193°43.7'	N 3°01.9'	193°48.2'	N 3°25.4'	193°52.7'	N 3°48.7'
02	208°30.3'	N 1°52.4'	208°34.9'	N 2°16.0'	208°39.4'	N 2°39.5'	208°43.9'	N 3°02.9'	208°48.4'	N 3°26.3'	208°52.9'	N 3°49.7'
03	223°30.5'	N 1°53.4'	223°35.1'	N 2°16.9'	223°39.6'	N 2°40.4'	223°44.1'	N 3°03.9'	223°48.6'	N 3°27.3'	223°53.1'	N 3°50.6'
04	238°30.7'	N 1°54.4'	238°35.2'	N 2°17.9'	238°39.8'	N 2°41.4'	238°44.3'	N 3°04.9'	238°48.8'	N 3°28.3'	238°53.3'	N 3°51.6'
05	253°30.9'	N 1°55.3'	253°35.4'	N 2°18.9'	253°40.0'	N 2°42.4'	253°44.5'	N 3°05.9'	253°49.0'	N 3°29.2'	253°53.5'	N 3°52.6'
06	268°31.1'	N 1°56.3'	268°35.6'	N 2°19.9'	268°40.1'	N 2°43.4'	268°44.7'	N 3°06.8'	268°49.2'	N 3°30.2'	268°53.7'	N 3°53.5'
07	283°31.3'	N 1°57.3'	283°35.8'	N 2°20.9'	283°40.3'	N 2°44.4'	283°44.9'	N 3°07.8'	283°49.4'	N 3°31.2'	283°53.9'	N 3°54.5'
08	298°31.5'	N 1°58.3'	298°36.0'	N 2°21.8'	298°40.5'	N 2°45.3'	298°45.0'	N 3°08.8'	298°49.5'	N 3°32.2'	298°54.0'	N 3°55.5'
09	313°31.7'	N 1°59.3'	313°36.2'	N 2°22.8'	313°40.7'	N 2°46.3'	313°45.2'	N 3°09.8'	313°49.7'	N 3°33.1'	313°54.2'	N 3°56.5'
10	328°31.9'	N 2°00.3'	328°36.4'	N 2°23.8'	328°40.9'	N 2°47.3'	328°45.4'	N 3°10.7'	328°49.9'	N 3°34.1'	328°54.4'	N 3°57.4'
11	343°32.0'	N 2°01.2'	343°36.6'	N 2°24.8'	343°41.1'	N 2°48.3'	343°45.6'	N 3°11.7'	343°50.1'	N 3°35.1'	343°54.6'	N 3°58.4'
12	358°32.2'	N 2°02.2'	358°36.8'	N 2°25.8'	358°41.3'	N 2°49.2'	358°45.8'	N 3°12.7'	358°50.3'	N 3°36.1'	358°54.8'	N 3°59.4'
13	13°32.4'	N 2°03.2'	13°36.9'	N 2°26.7'	13°41.5'	N 2°50.2'	13°46.0'	N 3°13.7'	13°50.5'	N 3°37.0'	13°55.0'	N 4°00.3'
14	28°32.6'	N 2°04.2'	28°37.1'	N 2°27.7'	28°41.7'	N 2°51.2'	28°46.2'	N 3°14.6'	28°50.7'	N 3°38.0'	28°55.2'	N 4°01.3'
15	43°32.8'	N 2°05.2'	43°37.3'	N 2°28.7'	43°41.8'	N 2°52.2'	43°46.4'	N 3°15.6'	43°50.9'	N 3°39.0'	43°55.3'	N 4°02.3'
16	58°33.0'	N 2°06.1'	58°37.5'	N 2°29.7'	58°42.0'	N 2°53.2'	58°46.5'	N 3°16.6'	58°51.0'	N 3°39.9'	58°55.5'	N 4°03.2'
17	73°33.2'	N 2°07.1'	73°37.7'	N 2°30.7'	73°42.2'	N 2°54.1'	73°46.7'	N 3°17.6'	73°51.2'	N 3°40.9'	73°55.7'	N 4°04.2'
18	88°33.4'	N 2°08.1'	88°37.9'	N 2°31.6'	88°42.4'	N 2°55.1'	88°46.9'	N 3°18.5'	88°51.4'	N 3°41.9'	88°55.9'	N 4°05.2'
19	103°33.6'	N 2°09.1'	103°38.1'	N 2°32.6'	103°42.6'	N 2°56.1'	103°47.1'	N 3°19.5'	103°51.6'	N 3°42.9'	103°56.1'	N 4°06.1'
20	118°33.7'	N 2°10.1'	118°38.3'	N 2°33.6'	118°42.8'	N 2°57.1'	118°47.3'	N 3°20.5'	118°51.8'	N 3°43.8'	118°56.3'	N 4°07.1'
21	133°33.9'	N 2°11.0'	133°38.5'	N 2°34.6'	133°43.0'	N 2°58.0'	133°47.5'	N 3°21.5'	133°52.0'	N 3°44.8'	133°56.5'	N 4°08.1'
22	148°34.1'	N 2°12.0'	148°38.6'	N 2°35.6'	148°43.2'	N 2°59.0'	148°47.7'	N 3°22.4'	148°52.2'	N 3°45.8'	148°56.6'	N 4°09.1'
23	163°34.3'	N 2°13.0'	163°38.8'	N 2°36.5'	163°43.3'	N 3°00.0'	163°47.9'	N 3°23.4'	163°52.4'	N 3°46.7'	163°56.8'	N 4°10.0'
Zeitgl. 0h / 12h	-06:00 / -05:51		-05:42 / -05:33		-05:24 / -05:15		-05:06 / -04:57		-04:48 / -04:39		-04:30 / -04:21	
Kulmination UT	12:05:51		12:05:33		12:05:15		12:04:57		12:04:39		12:04:21	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

Sa 31.03.

UT	Grt	Dec
00	178°57.0'	N 4°11.0'
01	193°57.2'	N 4°12.0'
02	208°57.4'	N 4°12.9'
03	223°57.6'	N 4°13.9'
04	238°57.8'	N 4°14.9'
05	253°58.0'	N 4°15.8'
06	268°58.1'	N 4°16.8'
07	283°58.3'	N 4°17.8'
08	298°58.5'	N 4°18.7'
09	313°58.7'	N 4°19.7'
10	328°58.9'	N 4°20.7'
11	343°59.1'	N 4°21.6'
12	358°59.3'	N 4°22.6'
13	13°59.4'	N 4°23.6'
14	28°59.6'	N 4°24.5'
15	43°59.8'	N 4°25.5'
16	59°00.0'	N 4°26.5'
17	74°00.2'	N 4°27.4'
18	89°00.4'	N 4°28.4'
19	104°00.5'	N 4°29.4'
20	119°00.7'	N 4°30.3'
21	134°00.9'	N 4°31.3'
22	149°01.1'	N 4°32.3'
23	164°01.3'	N 4°33.2'

Zeitgl. 0h / 12h -04:12 / -04:03

Kulmination UT 12:04:03

Halbmesser 16.0'

2029

April

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	So 01.04.		Mo 02.04.		Di 03.04.		Mi 04.04.		Do 05.04.		Fr 06.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°01.5'	N 4°34.2'	179°05.9'	N 4°57.3'	179°10.3'	N 5°20.3'	179°14.6'	N 5°43.2'	179°19.0'	N 6°06.1'	179°23.2'	N 6°28.8'
01	194°01.7'	N 4°35.1'	194°06.1'	N 4°58.3'	194°10.5'	N 5°21.3'	194°14.8'	N 5°44.2'	194°19.1'	N 6°07.0'	194°23.4'	N 6°29.7'
02	209°01.8'	N 4°36.1'	209°06.3'	N 4°59.2'	209°10.7'	N 5°22.2'	209°15.0'	N 5°45.1'	209°19.3'	N 6°08.0'	209°23.6'	N 6°30.7'
03	224°02.0'	N 4°37.1'	224°06.5'	N 5°00.2'	224°10.8'	N 5°23.2'	224°15.2'	N 5°46.1'	224°19.5'	N 6°08.9'	224°23.8'	N 6°31.6'
04	239°02.2'	N 4°38.0'	239°06.6'	N 5°01.1'	239°11.0'	N 5°24.1'	239°15.4'	N 5°47.1'	239°19.7'	N 6°09.9'	239°23.9'	N 6°32.6'
05	254°02.4'	N 4°39.0'	254°06.8'	N 5°02.1'	254°11.2'	N 5°25.1'	254°15.6'	N 5°48.0'	254°19.9'	N 6°10.8'	254°24.1'	N 6°33.5'
06	269°02.6'	N 4°40.0'	269°07.0'	N 5°03.1'	269°11.4'	N 5°26.1'	269°15.7'	N 5°49.0'	269°20.0'	N 6°11.8'	269°24.3'	N 6°34.5'
07	284°02.8'	N 4°40.9'	284°07.2'	N 5°04.0'	284°11.6'	N 5°27.0'	284°15.9'	N 5°49.9'	284°20.2'	N 6°12.7'	284°24.5'	N 6°35.4'
08	299°03.0'	N 4°41.9'	299°07.4'	N 5°05.0'	299°11.7'	N 5°28.0'	299°16.1'	N 5°50.9'	299°20.4'	N 6°13.7'	299°24.6'	N 6°36.3'
09	314°03.1'	N 4°42.9'	314°07.6'	N 5°05.9'	314°11.9'	N 5°28.9'	314°16.3'	N 5°51.8'	314°20.6'	N 6°14.6'	314°24.8'	N 6°37.3'
10	329°03.3'	N 4°43.8'	329°07.7'	N 5°06.9'	329°12.1'	N 5°29.9'	329°16.5'	N 5°52.8'	329°20.7'	N 6°15.6'	329°25.0'	N 6°38.2'
11	344°03.5'	N 4°44.8'	344°07.9'	N 5°07.9'	344°12.3'	N 5°30.8'	344°16.6'	N 5°53.7'	344°20.9'	N 6°16.5'	344°25.2'	N 6°39.2'
12	359°03.7'	N 4°45.7'	359°08.1'	N 5°08.8'	359°12.5'	N 5°31.8'	359°16.8'	N 5°54.7'	359°21.1'	N 6°17.4'	359°25.3'	N 6°40.1'
13	14°03.9'	N 4°46.7'	14°08.3'	N 5°09.8'	14°12.7'	N 5°32.7'	14°17.0'	N 5°55.6'	14°21.3'	N 6°18.4'	14°25.5'	N 6°41.1'
14	29°04.1'	N 4°47.7'	29°08.5'	N 5°10.7'	29°12.8'	N 5°33.7'	29°17.2'	N 5°56.6'	29°21.5'	N 6°19.3'	29°25.7'	N 6°42.0'
15	44°04.2'	N 4°48.6'	44°08.7'	N 5°11.7'	44°13.0'	N 5°34.7'	44°17.3'	N 5°57.5'	44°21.6'	N 6°20.3'	44°25.9'	N 6°42.9'
16	59°04.4'	N 4°49.6'	59°08.8'	N 5°12.6'	59°13.2'	N 5°35.6'	59°17.5'	N 5°58.5'	59°21.8'	N 6°21.2'	59°26.0'	N 6°43.9'
17	74°04.6'	N 4°50.6'	74°09.0'	N 5°13.6'	74°13.4'	N 5°36.6'	74°17.7'	N 5°59.4'	74°22.0'	N 6°22.2'	74°26.2'	N 6°44.8'
18	89°04.8'	N 4°51.5'	89°09.2'	N 5°14.6'	89°13.6'	N 5°37.5'	89°17.9'	N 6°00.4'	89°22.2'	N 6°23.1'	89°26.4'	N 6°45.8'
19	104°05.0'	N 4°52.5'	104°09.4'	N 5°15.5'	104°13.7'	N 5°38.5'	104°18.1'	N 6°01.3'	104°22.3'	N 6°24.1'	104°26.6'	N 6°46.7'
20	119°05.2'	N 4°53.4'	119°09.6'	N 5°16.5'	119°13.9'	N 5°39.4'	119°18.2'	N 6°02.3'	119°22.5'	N 6°25.0'	119°26.7'	N 6°47.6'
21	134°05.3'	N 4°54.4'	134°09.7'	N 5°17.4'	134°14.1'	N 5°40.4'	134°18.4'	N 6°03.2'	134°22.7'	N 6°26.0'	134°26.9'	N 6°48.6'
22	149°05.5'	N 4°55.4'	149°09.9'	N 5°18.4'	149°14.3'	N 5°41.3'	149°18.6'	N 6°04.2'	149°22.9'	N 6°26.9'	149°27.1'	N 6°49.5'
23	164°05.7'	N 4°56.3'	164°10.1'	N 5°19.4'	164°14.5'	N 5°42.3'	164°18.8'	N 6°05.1'	164°23.0'	N 6°27.8'	164°27.3'	N 6°50.5'
Zeitgl. 0h / 12h	-03:54 / -03:45		-03:36 / -03:28		-03:19 / -03:10		-03:01 / -02:53		-02:44 / -02:36		-02:27 / -02:19	
Kulmination UT	12:03:45		12:03:28		12:03:10		12:02:53		12:02:36		12:02:19	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

	Sa 07.04.		So 08.04.		Mo 09.04.		Di 10.04.		Mi 11.04.		Do 12.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°27.4'	N 6°51.4'	179°31.6'	N 7°13.9'	179°35.7'	N 7°36.3'	179°39.7'	N 7°58.5'	179°43.7'	N 8°20.6'	179°47.6'	N 8°42.6'
01	194°27.6'	N 6°52.3'	194°31.8'	N 7°14.8'	194°35.9'	N 7°37.2'	194°39.9'	N 7°59.4'	194°43.9'	N 8°21.5'	194°47.8'	N 8°43.5'
02	209°27.8'	N 6°53.3'	209°31.9'	N 7°15.8'	209°36.0'	N 7°38.1'	209°40.1'	N 8°00.4'	209°44.0'	N 8°22.5'	209°47.9'	N 8°44.4'
03	224°28.0'	N 6°54.2'	224°32.1'	N 7°16.7'	224°36.2'	N 7°39.1'	224°40.2'	N 8°01.3'	224°44.2'	N 8°23.4'	224°48.1'	N 8°45.3'
04	239°28.1'	N 6°55.2'	239°32.3'	N 7°17.6'	239°36.4'	N 7°40.0'	239°40.4'	N 8°02.2'	239°44.4'	N 8°24.3'	239°48.2'	N 8°46.2'
05	254°28.3'	N 6°56.1'	254°32.5'	N 7°18.6'	254°36.5'	N 7°40.9'	254°40.6'	N 8°03.1'	254°44.5'	N 8°25.2'	254°48.4'	N 8°47.2'
06	269°28.5'	N 6°57.0'	269°32.6'	N 7°19.5'	269°36.7'	N 7°41.8'	269°40.7'	N 8°04.1'	269°44.7'	N 8°26.1'	269°48.6'	N 8°48.1'
07	284°28.7'	N 6°58.0'	284°32.8'	N 7°20.4'	284°36.9'	N 7°42.8'	284°40.9'	N 8°05.0'	284°44.8'	N 8°27.0'	284°48.7'	N 8°49.0'
08	299°28.8'	N 6°58.9'	299°33.0'	N 7°21.4'	299°37.1'	N 7°43.7'	299°41.1'	N 8°05.9'	299°45.0'	N 8°28.0'	299°48.9'	N 8°49.9'
09	314°29.0'	N 6°59.9'	314°33.1'	N 7°22.3'	314°37.2'	N 7°44.6'	314°41.2'	N 8°06.8'	314°45.2'	N 8°28.9'	314°49.0'	N 8°50.8'
10	329°29.2'	N 7°00.8'	329°33.3'	N 7°23.2'	329°37.4'	N 7°45.6'	329°41.4'	N 8°07.7'	329°45.3'	N 8°29.8'	329°49.2'	N 8°51.7'
11	344°29.4'	N 7°01.7'	344°33.5'	N 7°24.2'	344°37.6'	N 7°46.5'	344°41.6'	N 8°08.7'	344°45.5'	N 8°30.7'	344°49.4'	N 8°52.6'
12	359°29.5'	N 7°02.7'	359°33.7'	N 7°25.1'	359°37.7'	N 7°47.4'	359°41.7'	N 8°09.6'	359°45.7'	N 8°31.6'	359°49.5'	N 8°53.5'
13	14°29.7'	N 7°03.6'	14°33.8'	N 7°26.0'	14°37.9'	N 7°48.3'	14°41.9'	N 8°10.5'	14°45.8'	N 8°32.5'	14°49.7'	N 8°54.4'
14	29°29.9'	N 7°04.5'	29°34.0'	N 7°27.0'	29°38.1'	N 7°49.3'	29°42.1'	N 8°11.4'	29°46.0'	N 8°33.5'	29°49.8'	N 8°55.3'
15	44°30.0'	N 7°05.5'	44°34.2'	N 7°27.9'	44°38.2'	N 7°50.2'	44°42.2'	N 8°12.3'	44°46.1'	N 8°34.4'	44°50.0'	N 8°56.3'
16	59°30.2'	N 7°06.4'	59°34.3'	N 7°28.8'	59°38.4'	N 7°51.1'	59°42.4'	N 8°13.3'	59°46.3'	N 8°35.3'	59°50.1'	N 8°57.2'
17	74°30.4'	N 7°07.4'	74°34.5'	N 7°29.8'	74°38.6'	N 7°52.0'	74°42.6'	N 8°14.2'	74°46.5'	N 8°36.2'	74°50.3'	N 8°58.1'
18	89°30.6'	N 7°08.3'	89°34.7'	N 7°30.7'	89°38.7'	N 7°53.0'	89°42.7'	N 8°15.1'	89°46.6'	N 8°37.1'	89°50.5'	N 8°59.0'
19	104°30.7'	N 7°09.2'	104°34.9'	N 7°31.6'	104°38.9'	N 7°53.9'	104°42.9'	N 8°16.0'	104°46.8'	N 8°38.0'	104°50.6'	N 8°59.9'
20	119°30.9'	N 7°10.2'	119°35.0'	N 7°32.6'	119°39.1'	N 7°54.8'	119°43.0'	N 8°16.9'	119°47.0'	N 8°38.9'	119°50.8'	N 9°00.8'
21	134°31.1'	N 7°11.1'	134°35.2'	N 7°33.5'	134°39.2'	N 7°55.7'	134°43.2'	N 8°17.9'	134°47.1'	N 8°39.9'	134°50.9'	N 9°01.7'
22	149°31.3'	N 7°12.0'	149°35.4'	N 7°34.4'	149°39.4'	N 7°56.7'	149°43.4'	N 8°18.8'	149°47.3'	N 8°40.8'	149°51.1'	N 9°02.6'
23	164°31.4'	N 7°13.0'	164°35.5'	N 7°35.3'	164°39.6'	N 7°57.6'	164°43.5'	N 8°19.7'	164°47.4'	N 8°41.7'	164°51.3'	N 9°03.5'
Zeitgl. 0h / 12h	-02:10 / -02:02		-01:54 / -01:45		-01:37 / -01:29		-01:21 / -01:13		-01:05 / -00:57		-00:50 / -00:42	
Kulmination UT	12:02:02		12:01:45		12:01:29		12:01:13		12:00:57		12:00:42	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

	Fr 13.04.		Sa 14.04.		So 15.04.		Mo 16.04.		Di 17.04.		Mi 18.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°51.4'	N 9°04.4'	179°55.1'	N 9°26.1'	179°58.8'	N 9°47.6'	180°02.4'	N 10°09.0'	180°05.8'	N 10°30.1'	180°09.2'	N 10°51.2'
01	194°51.6'	N 9°05.3'	194°55.3'	N 9°27.0'	194°59.0'	N 9°48.5'	195°02.5'	N 10°09.8'	195°06.0'	N 10°31.0'	195°09.4'	N 10°52.0'
02	209°51.7'	N 9°06.2'	209°55.5'	N 9°27.9'	209°59.1'	N 9°49.4'	210°02.7'	N 10°10.7'	210°06.1'	N 10°31.9'	210°09.5'	N 10°52.9'
03	224°51.9'	N 9°07.1'	224°55.6'	N 9°28.8'	224°59.3'	N 9°50.3'	225°02.8'	N 10°11.6'	225°06.3'	N 10°32.8'	225°09.6'	N 10°53.8'
04	239°52.0'	N 9°08.0'	239°55.8'	N 9°29.7'	239°59.4'	N 9°51.2'	240°03.0'	N 10°12.5'	240°06.4'	N 10°33.7'	240°09.8'	N 10°54.6'
05	254°52.2'	N 9°08.9'	254°55.9'	N 9°30.6'	254°59.6'	N 9°52.1'	255°03.1'	N 10°13.4'	255°06.6'	N 10°34.5'	255°09.9'	N 10°55.5'
06	269°52.4'	N 9°09.9'	269°56.1'	N 9°31.5'	269°59.7'	N 9°53.0'	270°03.2'	N 10°14.3'	270°06.7'	N 10°35.4'	270°10.0'	N 10°56.4'
07	284°52.5'	N 9°10.8'	284°56.2'	N 9°32.4'	284°59.9'	N 9°53.9'	285°03.4'	N 10°15.2'	285°06.8'	N 10°36.3'	285°10.2'	N 10°57.3'
08	299°52.7'	N 9°11.7'	299°56.4'	N 9°33.3'	300°00.0'	N 9°54.7'	300°03.5'	N 10°16.0'	300°07.0'	N 10°37.2'	300°10.3'	N 10°58.1'
09	314°52.8'	N 9°12.6'	314°56.5'	N 9°34.2'	315°00.1'	N 9°55.6'	315°03.7'	N 10°16.9'	315°07.1'	N 10°38.0'	315°10.5'	N 10°59.0'
10	329°53.0'	N 9°13.5'	329°56.7'	N 9°35.1'	330°00.3'	N 9°56.5'	330°03.8'	N 10°17.8'	330°07.3'	N 10°38.9'	330°10.6'	N 10°59.9'
11	344°53.1'	N 9°14.4'	344°56.8'	N 9°36.0'	345°00.4'	N 9°57.4'	345°04.0'	N 10°18.7'	345°07.4'	N 10°39.8'	345°10.7'	N 11°00.7'
12	359°53.3'	N 9°15.3'	359°57.0'	N 9°36.9'	0°00.6'	N 9°58.3'	0°04.1'	N 10°19.6'	0°07.5'	N 10°40.7'	0°10.9'	N 11°01.6'
13	14°53.4'	N 9°16.2'	14°57.1'	N 9°37.8'	15°00.7'	N 9°59.2'	15°04.3'	N 10°20.5'	15°07.7'	N 10°41.6'	15°11.0'	N 11°02.5'
14	29°53.6'	N 9°17.1'	29°57.3'	N 9°38.7'	30°00.9'	N 10°00.1'	30°04.4'	N 10°21.3'	30°07.8'	N 10°42.4'	30°11.1'	N 11°03.3'
15	44°53.8'	N 9°18.0'	44°57.4'	N 9°39.6'	45°01.0'	N 10°01.0'	45°04.5'	N 10°22.2'	45°08.0'	N 10°43.3'	45°11.3'	N 11°04.2'
16	59°53.9'	N 9°18.9'	59°57.6'	N 9°40.5'	60°01.2'	N 10°01.9'	60°04.7'	N 10°23.1'	60°08.1'	N 10°44.2'	60°11.4'	N 11°05.1'
17	74°54.1'	N 9°19.8'	74°57.7'	N 9°41.3'	75°01.3'	N 10°02.8'	75°04.8'	N 10°24.0'	75°08.2'	N 10°45.1'	75°11.5'	N 11°05.9'
18	89°54.2'	N 9°20.7'	89°57.9'	N 9°42.2'	90°01.5'	N 10°03.6'	90°05.0'	N 10°24.9'	90°08.4'	N 10°45.9'	90°11.7'	N 11°06.8'
19	104°54.4'	N 9°21.6'	104°58.0'	N 9°43.1'	105°01.6'	N 10°04.5'	105°05.1'	N 10°25.7'	105°08.5'	N 10°46.8'	105°11.8'	N 11°07.7'
20	119°54.5'	N 9°22.5'	119°58.2'	N 9°44.0'	120°01.8'	N 10°05.4'	120°05.3'	N 10°26.6'	120°08.7'	N 10°47.7'	120°12.0'	N 11°08.5'
21	134°54.7'	N 9°23.4'	134°58.3'	N 9°44.9'	135°01.9'	N 10°06.3'	135°05.4'	N 10°27.5'	135°08.8'	N 10°48.5'	135°12.1'	N 11°09.4'
22	149°54.8'	N 9°24.3'	149°58.5'	N 9°45.8'	150°02.1'	N 10°07.2'	150°05.6'	N 10°28.4'	150°08.9'	N 10°49.4'	150°12.2'	N 11°10.3'
23	164°55.0'	N 9°25.2'	164°58.7'	N 9°46.7'	165°02.2'	N 10°08.1'	165°05.7'	N 10°29.3'	165°09.1'	N 10°50.3'	165°12.4'	N 11°11.1'
Zeitgl. 0h / 12h	-00:34 / -00:27		-00:19 / -00:12		-00:05 / +00:02		+00:09 / +00:16		+00:23 / +00:30		+00:37 / +00:43	
Kulmination UT	12:00:27		12:00:12		11:59:58		11:59:44		11:59:30		11:59:17	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Do 19.04.		Fr 20.04.		Sa 21.04.		So 22.04.		Mo 23.04.		Di 24.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°12.5'	N 11°12.0'	180°15.7'	N 11°32.6'	180°18.7'	N 11°53.1'	180°21.7'	N 12°13.4'	180°24.6'	N 12°33.4'	180°27.3'	N 12°53.3'
01	195°12.6'	N 11°12.9'	195°15.8'	N 11°33.5'	195°18.9'	N 11°54.0'	195°21.8'	N 12°14.2'	195°24.7'	N 12°34.3'	195°27.4'	N 12°54.1'
02	210°12.8'	N 11°13.7'	210°15.9'	N 11°34.4'	210°19.0'	N 11°54.8'	210°21.9'	N 12°15.0'	210°24.8'	N 12°35.1'	210°27.5'	N 12°54.9'
03	225°12.9'	N 11°14.6'	225°16.1'	N 11°35.2'	225°19.1'	N 11°55.6'	225°22.1'	N 12°15.9'	225°24.9'	N 12°35.9'	225°27.6'	N 12°55.8'
04	240°13.0'	N 11°15.5'	240°16.2'	N 11°36.1'	240°19.2'	N 11°56.5'	240°22.2'	N 12°16.7'	240°25.0'	N 12°36.8'	240°27.7'	N 12°56.6'
05	255°13.2'	N 11°16.3'	255°16.3'	N 11°36.9'	255°19.4'	N 11°57.3'	255°22.3'	N 12°17.6'	255°25.1'	N 12°37.6'	255°27.8'	N 12°57.4'
06	270°13.3'	N 11°17.2'	270°16.4'	N 11°37.8'	270°19.5'	N 11°58.2'	270°22.4'	N 12°18.4'	270°25.2'	N 12°38.4'	270°28.0'	N 12°58.2'
07	285°13.4'	N 11°18.0'	285°16.6'	N 11°38.6'	285°19.6'	N 11°59.0'	285°22.5'	N 12°19.2'	285°25.4'	N 12°39.2'	285°28.1'	N 12°59.0'
08	300°13.6'	N 11°18.9'	300°16.7'	N 11°39.5'	300°19.7'	N 11°59.9'	300°22.7'	N 12°20.1'	300°25.5'	N 12°40.1'	300°28.2'	N 12°59.9'
09	315°13.7'	N 11°19.8'	315°16.8'	N 11°40.3'	315°19.9'	N 12°00.7'	315°22.8'	N 12°20.9'	315°25.6'	N 12°40.9'	315°28.3'	N 13°00.7'
10	330°13.8'	N 11°20.6'	330°17.0'	N 11°41.2'	330°20.0'	N 12°01.6'	330°22.9'	N 12°21.8'	330°25.7'	N 12°41.7'	330°28.4'	N 13°01.5'
11	345°14.0'	N 11°21.5'	345°17.1'	N 11°42.0'	345°20.1'	N 12°02.4'	345°23.0'	N 12°22.6'	345°25.8'	N 12°42.6'	345°28.5'	N 13°02.3'
12	0°14.1'	N 11°22.3'	0°17.2'	N 11°42.9'	0°20.2'	N 12°03.3'	0°23.1'	N 12°23.4'	0°25.9'	N 12°43.4'	0°28.6'	N 13°03.1'
13	15°14.2'	N 11°23.2'	15°17.3'	N 11°43.8'	15°20.4'	N 12°04.1'	15°23.3'	N 12°24.3'	15°26.0'	N 12°44.2'	15°28.7'	N 13°04.0'
14	30°14.4'	N 11°24.1'	30°17.5'	N 11°44.6'	30°20.5'	N 12°04.9'	30°23.4'	N 12°25.1'	30°26.2'	N 12°45.0'	30°28.8'	N 13°04.8'
15	45°14.5'	N 11°24.9'	45°17.6'	N 11°45.5'	45°20.6'	N 12°05.8'	45°23.5'	N 12°25.9'	45°26.3'	N 12°45.9'	45°28.9'	N 13°05.6'
16	60°14.6'	N 11°25.8'	60°17.7'	N 11°46.3'	60°20.7'	N 12°06.6'	60°23.6'	N 12°26.8'	60°26.4'	N 12°46.7'	60°29.0'	N 13°06.4'
17	75°14.8'	N 11°26.6'	75°17.9'	N 11°47.2'	75°20.8'	N 12°07.5'	75°23.7'	N 12°27.6'	75°26.5'	N 12°47.5'	75°29.2'	N 13°07.2'
18	90°14.9'	N 11°27.5'	90°18.0'	N 11°48.0'	90°21.0'	N 12°08.3'	90°23.8'	N 12°28.4'	90°26.6'	N 12°48.3'	90°29.3'	N 13°08.0'
19	105°15.0'	N 11°28.4'	105°18.1'	N 11°48.9'	105°21.1'	N 12°09.2'	105°24.0'	N 12°29.3'	105°26.7'	N 12°49.2'	105°29.4'	N 13°08.9'
20	120°15.1'	N 11°29.2'	120°18.2'	N 11°49.7'	120°21.2'	N 12°10.0'	120°24.1'	N 12°30.1'	120°26.8'	N 12°50.0'	120°29.5'	N 13°09.7'
21	135°15.3'	N 11°30.1'	135°18.4'	N 11°50.6'	135°21.3'	N 12°10.8'	135°24.2'	N 12°30.9'	135°26.9'	N 12°50.8'	135°29.6'	N 13°10.5'
22	150°15.4'	N 11°30.9'	150°18.5'	N 11°51.4'	150°21.5'	N 12°11.7'	150°24.3'	N 12°31.8'	150°27.1'	N 12°51.6'	150°29.7'	N 13°11.3'
23	165°15.5'	N 11°31.8'	165°18.6'	N 11°52.3'	165°21.6'	N 12°12.5'	165°24.4'	N 12°32.6'	165°27.2'	N 12°52.5'	165°29.8'	N 13°12.1'
Zeitgl. 0h / 12h	+00:50 / +00:56		+01:03 / +01:09		+01:15 / +01:21		+01:27 / +01:33		+01:38 / +01:44		+01:49 / +01:54	
Kulmination UT	11:59:04		11:58:51		11:58:39		11:58:27		11:58:16		11:58:06	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Mi 25.04.		Do 26.04.		Fr 27.04.		Sa 28.04.		So 29.04.		Mo 30.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°29.9'	N 13°12.9'	180°32.4'	N 13°32.4'	180°34.8'	N 13°51.6'	180°37.0'	N 14°10.5'	180°39.1'	N 14°29.3'	180°41.1'	N 14°47.8'
01	195°30.0'	N 13°13.7'	195°32.5'	N 13°33.2'	195°34.9'	N 13°52.4'	195°37.1'	N 14°11.3'	195°39.2'	N 14°30.1'	195°41.2'	N 14°48.5'
02	210°30.1'	N 13°14.6'	210°32.6'	N 13°34.0'	210°35.0'	N 13°53.1'	210°37.2'	N 14°12.1'	210°39.3'	N 14°30.8'	210°41.3'	N 14°49.3'
03	225°30.2'	N 13°15.4'	225°32.7'	N 13°34.8'	225°35.1'	N 13°53.9'	225°37.3'	N 14°12.9'	225°39.4'	N 14°31.6'	225°41.4'	N 14°50.1'
04	240°30.3'	N 13°16.2'	240°32.8'	N 13°35.6'	240°35.2'	N 13°54.7'	240°37.4'	N 14°13.7'	240°39.5'	N 14°32.4'	240°41.4'	N 14°50.8'
05	255°30.4'	N 13°17.0'	255°32.9'	N 13°36.4'	255°35.3'	N 13°55.5'	255°37.5'	N 14°14.5'	255°39.6'	N 14°33.1'	255°41.5'	N 14°51.6'
06	270°30.5'	N 13°17.8'	270°33.0'	N 13°37.2'	270°35.3'	N 13°56.3'	270°37.6'	N 14°15.2'	270°39.6'	N 14°33.9'	270°41.6'	N 14°52.4'
07	285°30.6'	N 13°18.6'	285°33.1'	N 13°38.0'	285°35.4'	N 13°57.1'	285°37.7'	N 14°16.0'	285°39.7'	N 14°34.7'	285°41.7'	N 14°53.1'
08	300°30.7'	N 13°19.4'	300°33.2'	N 13°38.8'	300°35.5'	N 13°57.9'	300°37.7'	N 14°16.8'	300°39.8'	N 14°35.5'	300°41.8'	N 14°53.9'
09	315°30.9'	N 13°20.2'	315°33.3'	N 13°39.6'	315°35.6'	N 13°58.7'	315°37.8'	N 14°17.6'	315°39.9'	N 14°36.2'	315°41.8'	N 14°54.7'
10	330°31.0'	N 13°21.1'	330°33.4'	N 13°40.4'	330°35.7'	N 13°59.5'	330°37.9'	N 14°18.4'	330°40.0'	N 14°37.0'	330°41.9'	N 14°55.4'
11	345°31.1'	N 13°21.9'	345°33.5'	N 13°41.2'	345°35.8'	N 14°00.3'	345°38.0'	N 14°19.2'	345°40.1'	N 14°37.8'	345°42.0'	N 14°56.2'
12	0°31.2'	N 13°22.7'	0°33.6'	N 13°42.0'	0°35.9'	N 14°01.1'	0°38.1'	N 14°19.9'	0°40.2'	N 14°38.6'	0°42.1'	N 14°56.9'
13	15°31.3'	N 13°23.5'	15°33.7'	N 13°42.8'	15°36.0'	N 14°01.9'	15°38.2'	N 14°20.7'	15°40.2'	N 14°39.3'	15°42.2'	N 14°57.7'
14	30°31.4'	N 13°24.3'	30°33.8'	N 13°43.6'	30°36.1'	N 14°02.7'	30°38.3'	N 14°21.5'	30°40.3'	N 14°40.1'	30°42.2'	N 14°58.5'
15	45°31.5'	N 13°25.1'	45°33.9'	N 13°44.4'	45°36.2'	N 14°03.4'	45°38.4'	N 14°22.3'	45°40.4'	N 14°40.9'	45°42.3'	N 14°59.2'
16	60°31.6'	N 13°25.9'	60°34.0'	N 13°45.2'	60°36.3'	N 14°04.2'	60°38.4'	N 14°23.1'	60°40.5'	N 14°41.6'	60°42.4'	N 15°00.0'
17	75°31.7'	N 13°26.7'	75°34.1'	N 13°46.0'	75°36.4'	N 14°05.0'	75°38.5'	N 14°23.8'	75°40.6'	N 14°42.4'	75°42.5'	N 15°00.7'
18	90°31.8'	N 13°27.5'	90°34.2'	N 13°46.8'	90°36.5'	N 14°05.8'	90°38.6'	N 14°24.6'	90°40.6'	N 14°43.2'	90°42.5'	N 15°01.5'
19	105°31.9'	N 13°28.3'	105°34.3'	N 13°47.6'	105°36.6'	N 14°06.6'	105°38.7'	N 14°25.4'	105°40.7'	N 14°43.9'	105°42.6'	N 15°02.3'
20	120°32.0'	N 13°29.1'	120°34.4'	N 13°48.4'	120°36.7'	N 14°07.4'	120°38.8'	N 14°26.2'	120°40.8'	N 14°44.7'	120°42.7'	N 15°03.0'
21	135°32.1'	N 13°29.9'	135°34.5'	N 13°49.2'	135°36.7'	N 14°08.2'	135°38.9'	N 14°26.9'	135°40.9'	N 14°45.5'	135°42.8'	N 15°03.8'
22	150°32.2'	N 13°30.7'	150°34.6'	N 13°50.0'	150°36.8'	N 14°09.0'	150°39.0'	N 14°27.7'	150°41.0'	N 14°46.2'	150°42.8'	N 15°04.5'
23	165°32.3'	N 13°31.6'	165°34.7'	N 13°50.8'	165°36.9'	N 14°09.7'	165°39.1'	N 14°28.5'	165°41.0'	N 14°47.0'	165°42.9'	N 15°05.3'
Zeitgl. 0h / 12h	+02:00 / +02:05		+02:10 / +02:14		+02:19 / +02:24		+02:28 / +02:32		+02:37 / +02:41		+02:45 / +02:48	
Kulmination UT	11:57:55		11:57:46		11:57:36		11:57:28		11:57:19		11:57:12	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

2029

Mai

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Di 01.05.		Mi 02.05.		Do 03.05.		Fr 04.05.		Sa 05.05.		So 06.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°43.0'	N 15°06.0'	180°44.7'	N 15°24.0'	180°46.3'	N 15°41.8'	180°47.8'	N 15°59.3'	180°49.1'	N 16°16.5'	180°50.2'	N 16°33.5'
01	195°43.1'	N 15°06.8'	195°44.8'	N 15°24.8'	195°46.4'	N 15°42.5'	195°47.8'	N 16°00.0'	195°49.1'	N 16°17.2'	195°50.3'	N 16°34.2'
02	210°43.1'	N 15°07.5'	210°44.8'	N 15°25.5'	210°46.4'	N 15°43.3'	210°47.9'	N 16°00.7'	210°49.2'	N 16°17.9'	210°50.3'	N 16°34.9'
03	225°43.2'	N 15°08.3'	225°44.9'	N 15°26.3'	225°46.5'	N 15°44.0'	225°47.9'	N 16°01.5'	225°49.2'	N 16°18.6'	225°50.4'	N 16°35.6'
04	240°43.3'	N 15°09.1'	240°45.0'	N 15°27.0'	240°46.6'	N 15°44.7'	240°48.0'	N 16°02.2'	240°49.3'	N 16°19.4'	240°50.4'	N 16°36.3'
05	255°43.4'	N 15°09.8'	255°45.1'	N 15°27.8'	255°46.6'	N 15°45.5'	255°48.0'	N 16°02.9'	255°49.3'	N 16°20.1'	255°50.5'	N 16°37.0'
06	270°43.4'	N 15°10.6'	270°45.1'	N 15°28.5'	270°46.7'	N 15°46.2'	270°48.1'	N 16°03.6'	270°49.4'	N 16°20.8'	270°50.5'	N 16°37.7'
07	285°43.5'	N 15°11.3'	285°45.2'	N 15°29.2'	285°46.7'	N 15°46.9'	285°48.1'	N 16°04.3'	285°49.4'	N 16°21.5'	285°50.6'	N 16°38.4'
08	300°43.6'	N 15°12.1'	300°45.3'	N 15°30.0'	300°46.8'	N 15°47.7'	300°48.2'	N 16°05.1'	300°49.5'	N 16°22.2'	300°50.6'	N 16°39.1'
09	315°43.6'	N 15°12.8'	315°45.3'	N 15°30.7'	315°46.9'	N 15°48.4'	315°48.3'	N 16°05.8'	315°49.5'	N 16°22.9'	315°50.6'	N 16°39.8'
10	330°43.7'	N 15°13.6'	330°45.4'	N 15°31.5'	330°46.9'	N 15°49.1'	330°48.3'	N 16°06.5'	330°49.6'	N 16°23.6'	330°50.7'	N 16°40.5'
11	345°43.8'	N 15°14.3'	345°45.5'	N 15°32.2'	345°47.0'	N 15°49.8'	345°48.4'	N 16°07.2'	345°49.6'	N 16°24.3'	345°50.7'	N 16°41.1'
12	0°43.9'	N 15°15.1'	0°45.5'	N 15°32.9'	0°47.0'	N 15°50.6'	0°48.4'	N 16°07.9'	0°49.7'	N 16°25.0'	0°50.8'	N 16°41.8'
13	15°43.9'	N 15°15.8'	15°45.6'	N 15°33.7'	15°47.1'	N 15°51.3'	15°48.5'	N 16°08.7'	15°49.7'	N 16°25.7'	15°50.8'	N 16°42.5'
14	30°44.0'	N 15°16.6'	30°45.7'	N 15°34.4'	30°47.2'	N 15°52.0'	30°48.5'	N 16°09.4'	30°49.8'	N 16°26.4'	30°50.9'	N 16°43.2'
15	45°44.1'	N 15°17.3'	45°45.7'	N 15°35.2'	45°47.2'	N 15°52.8'	45°48.6'	N 16°10.1'	45°49.8'	N 16°27.1'	45°50.9'	N 16°43.9'
16	60°44.2'	N 15°18.1'	60°45.8'	N 15°35.9'	60°47.3'	N 15°53.5'	60°48.6'	N 16°10.8'	60°49.9'	N 16°27.8'	60°50.9'	N 16°44.6'
17	75°44.2'	N 15°18.8'	75°45.9'	N 15°36.6'	75°47.3'	N 15°54.2'	75°48.7'	N 16°11.5'	75°49.9'	N 16°28.6'	75°51.0'	N 16°45.3'
18	90°44.3'	N 15°19.6'	90°45.9'	N 15°37.4'	90°47.4'	N 15°54.9'	90°48.8'	N 16°12.2'	90°50.0'	N 16°29.3'	90°51.0'	N 16°46.0'
19	105°44.4'	N 15°20.3'	105°46.0'	N 15°38.1'	105°47.5'	N 15°55.7'	105°48.8'	N 16°12.9'	105°50.0'	N 16°30.0'	105°51.1'	N 16°46.7'
20	120°44.4'	N 15°21.1'	120°46.0'	N 15°38.9'	120°47.5'	N 15°56.4'	120°48.9'	N 16°13.7'	120°50.1'	N 16°30.7'	120°51.1'	N 16°47.4'
21	135°44.5'	N 15°21.8'	135°46.1'	N 15°39.6'	135°47.6'	N 15°57.1'	135°48.9'	N 16°14.4'	135°50.1'	N 16°31.4'	135°51.2'	N 16°48.1'
22	150°44.6'	N 15°22.6'	150°46.2'	N 15°40.3'	150°47.6'	N 15°57.8'	150°49.0'	N 16°15.1'	150°50.1'	N 16°32.1'	150°51.2'	N 16°48.8'
23	165°44.6'	N 15°23.3'	165°46.2'	N 15°41.1'	165°47.7'	N 15°58.6'	165°49.0'	N 16°15.8'	165°50.2'	N 16°32.8'	165°51.2'	N 16°49.5'
Zeitgl. 0h / 12h	+02:52 / +02:55		+02:59 / +03:02		+03:05 / +03:08		+03:11 / +03:14		+03:16 / +03:19		+03:21 / +03:23	
Kulmination UT	11:57:05		11:56:58		11:56:52		11:56:46		11:56:41		11:56:37	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Mo 07.05.		Di 08.05.		Mi 09.05.		Do 10.05.		Fr 11.05.		Sa 12.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°51.3'	N 16°50.1'	180°52.2'	N 17°06.5'	180°52.9'	N 17°22.7'	180°53.5'	N 17°38.5'	180°54.0'	N 17°54.0'	180°54.3'	N 18°09.2'
01	195°51.3'	N 16°50.8'	195°52.2'	N 17°07.2'	195°52.9'	N 17°23.3'	195°53.5'	N 17°39.1'	195°54.0'	N 17°54.7'	195°54.3'	N 18°09.9'
02	210°51.4'	N 16°51.5'	210°52.2'	N 17°07.9'	210°53.0'	N 17°24.0'	210°53.6'	N 17°39.8'	210°54.0'	N 17°55.3'	210°54.3'	N 18°10.5'
03	225°51.4'	N 16°52.2'	225°52.3'	N 17°08.6'	225°53.0'	N 17°24.7'	225°53.6'	N 17°40.4'	225°54.0'	N 17°55.9'	225°54.3'	N 18°11.1'
04	240°51.4'	N 16°52.9'	240°52.3'	N 17°09.3'	240°53.0'	N 17°25.3'	240°53.6'	N 17°41.1'	240°54.1'	N 17°56.6'	240°54.4'	N 18°11.7'
05	255°51.5'	N 16°53.6'	255°52.3'	N 17°09.9'	255°53.1'	N 17°26.0'	255°53.6'	N 17°41.7'	255°54.1'	N 17°57.2'	255°54.4'	N 18°12.4'
06	270°51.5'	N 16°54.3'	270°52.4'	N 17°10.6'	270°53.1'	N 17°26.6'	270°53.7'	N 17°42.4'	270°54.1'	N 17°57.8'	270°54.4'	N 18°13.0'
07	285°51.5'	N 16°55.0'	285°52.4'	N 17°11.3'	285°53.1'	N 17°27.3'	285°53.7'	N 17°43.0'	285°54.1'	N 17°58.5'	285°54.4'	N 18°13.6'
08	300°51.6'	N 16°55.6'	300°52.4'	N 17°12.0'	300°53.1'	N 17°28.0'	300°53.7'	N 17°43.7'	300°54.1'	N 17°59.1'	300°54.4'	N 18°14.2'
09	315°51.6'	N 16°56.3'	315°52.5'	N 17°12.6'	315°53.2'	N 17°28.6'	315°53.7'	N 17°44.3'	315°54.1'	N 17°59.8'	315°54.4'	N 18°14.9'
10	330°51.7'	N 16°57.0'	330°52.5'	N 17°13.3'	330°53.2'	N 17°29.3'	330°53.7'	N 17°45.0'	330°54.1'	N 18°00.4'	330°54.4'	N 18°15.5'
11	345°51.7'	N 16°57.7'	345°52.5'	N 17°14.0'	345°53.2'	N 17°30.0'	345°53.8'	N 17°45.6'	345°54.2'	N 18°01.0'	345°54.4'	N 18°16.1'
12	0°51.7'	N 16°58.4'	0°52.6'	N 17°14.6'	0°53.2'	N 17°30.6'	0°53.8'	N 17°46.3'	0°54.2'	N 18°01.7'	0°54.4'	N 18°16.7'
13	15°51.8'	N 16°59.1'	15°52.6'	N 17°15.3'	15°53.3'	N 17°31.3'	15°53.8'	N 17°46.9'	15°54.2'	N 18°02.3'	15°54.4'	N 18°17.4'
14	30°51.8'	N 16°59.8'	30°52.6'	N 17°16.0'	30°53.3'	N 17°31.9'	30°53.8'	N 17°47.6'	30°54.2'	N 18°02.9'	30°54.4'	N 18°18.0'
15	45°51.8'	N 17°00.4'	45°52.7'	N 17°16.7'	45°53.3'	N 17°32.6'	45°53.8'	N 17°48.2'	45°54.2'	N 18°03.6'	45°54.4'	N 18°18.6'
16	60°51.9'	N 17°01.1'	60°52.7'	N 17°17.3'	60°53.3'	N 17°33.2'	60°53.8'	N 17°48.9'	60°54.2'	N 18°04.2'	60°54.4'	N 18°19.2'
17	75°51.9'	N 17°01.8'	75°52.7'	N 17°18.0'	75°53.4'	N 17°33.9'	75°53.9'	N 17°49.5'	75°54.2'	N 18°04.8'	75°54.5'	N 18°19.8'
18	90°52.0'	N 17°02.5'	90°52.7'	N 17°18.7'	90°53.4'	N 17°34.6'	90°53.9'	N 17°50.2'	90°54.2'	N 18°05.5'	90°54.5'	N 18°20.5'
19	105°52.0'	N 17°03.2'	105°52.8'	N 17°19.3'	105°53.4'	N 17°35.2'	105°53.9'	N 17°50.8'	105°54.3'	N 18°06.1'	105°54.5'	N 18°21.1'
20	120°52.0'	N 17°03.8'	120°52.8'	N 17°20.0'	120°53.4'	N 17°35.9'	120°53.9'	N 17°51.4'	120°54.3'	N 18°06.7'	120°54.5'	N 18°21.7'
21	135°52.1'	N 17°04.5'	135°52.8'	N 17°20.7'	135°53.5'	N 17°36.5'	135°53.9'	N 17°52.1'	135°54.3'	N 18°07.4'	135°54.5'	N 18°22.3'
22	150°52.1'	N 17°05.2'	150°52.9'	N 17°21.3'	150°53.5'	N 17°37.2'	150°54.0'	N 17°52.7'	150°54.3'	N 18°08.0'	150°54.5'	N 18°22.9'
23	165°52.1'	N 17°05.9'	165°52.9'	N 17°22.0'	165°53.5'	N 17°37.8'	165°54.0'	N 17°53.4'	165°54.3'	N 18°08.6'	165°54.5'	N 18°23.5'
Zeitgl. 0h / 12h	+03:25 / +03:27		+03:29 / +03:30		+03:32 / +03:33		+03:34 / +03:35		+03:36 / +03:37		+03:37 / +03:38	
Kulmination UT	11:56:33		11:56:30		11:56:27		11:56:25		11:56:23		11:56:22	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	So 13.05.		Mo 14.05.		Di 15.05.		Mi 16.05.		Do 17.05.		Fr 18.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°54.5'	N 18°24.2'	180°54.5'	N 18°38.8'	180°54.4'	N 18°53.1'	180°54.2'	N 19°07.0'	180°53.8'	N 19°20.7'	180°53.3'	N 19°34.0'
01	195°54.5'	N 18°24.8'	195°54.5'	N 18°39.4'	195°54.4'	N 18°53.7'	195°54.2'	N 19°07.6'	195°53.8'	N 19°21.3'	195°53.2'	N 19°34.6'
02	210°54.5'	N 18°25.4'	210°54.5'	N 18°40.0'	210°54.4'	N 18°54.2'	210°54.1'	N 19°08.2'	210°53.8'	N 19°21.8'	210°53.2'	N 19°35.1'
03	225°54.5'	N 18°26.0'	225°54.5'	N 18°40.6'	225°54.4'	N 18°54.8'	225°54.1'	N 19°08.8'	225°53.7'	N 19°22.4'	225°53.2'	N 19°35.7'
04	240°54.5'	N 18°26.6'	240°54.5'	N 18°41.2'	240°54.4'	N 18°55.4'	240°54.1'	N 19°09.3'	240°53.7'	N 19°22.9'	240°53.2'	N 19°36.2'
05	255°54.5'	N 18°27.2'	255°54.5'	N 18°41.8'	255°54.4'	N 18°56.0'	255°54.1'	N 19°09.9'	255°53.7'	N 19°23.5'	255°53.1'	N 19°36.8'
06	270°54.5'	N 18°27.8'	270°54.5'	N 18°42.4'	270°54.4'	N 18°56.6'	270°54.1'	N 19°10.5'	270°53.7'	N 19°24.1'	270°53.1'	N 19°37.3'
07	285°54.5'	N 18°28.5'	285°54.5'	N 18°43.0'	285°54.4'	N 18°57.2'	285°54.1'	N 19°11.1'	285°53.7'	N 19°24.6'	285°53.1'	N 19°37.9'
08	300°54.5'	N 18°29.1'	300°54.5'	N 18°43.6'	300°54.4'	N 18°57.8'	300°54.1'	N 19°11.6'	300°53.6'	N 19°25.2'	300°53.1'	N 19°38.4'
09	315°54.5'	N 18°29.7'	315°54.5'	N 18°44.2'	315°54.3'	N 18°58.4'	315°54.0'	N 19°12.2'	315°53.6'	N 19°25.7'	315°53.0'	N 19°38.9'
10	330°54.5'	N 18°30.3'	330°54.5'	N 18°44.8'	330°54.3'	N 18°58.9'	330°54.0'	N 19°12.8'	330°53.6'	N 19°26.3'	330°53.0'	N 19°39.5'
11	345°54.5'	N 18°30.9'	345°54.5'	N 18°45.4'	345°54.3'	N 18°59.5'	345°54.0'	N 19°13.3'	345°53.6'	N 19°26.9'	345°53.0'	N 19°40.0'
12	0°54.5'	N 18°31.5'	0°54.5'	N 18°46.0'	0°54.3'	N 19°00.1'	0°54.0'	N 19°13.9'	0°53.5'	N 19°27.4'	0°53.0'	N 19°40.6'
13	15°54.5'	N 18°32.1'	15°54.5'	N 18°46.6'	15°54.3'	N 19°00.7'	15°54.0'	N 19°14.5'	15°53.5'	N 19°28.0'	15°52.9'	N 19°41.1'
14	30°54.5'	N 18°32.7'	30°54.5'	N 18°47.2'	30°54.3'	N 19°01.3'	30°54.0'	N 19°15.1'	30°53.5'	N 19°28.5'	30°52.9'	N 19°41.6'
15	45°54.5'	N 18°33.3'	45°54.5'	N 18°47.7'	45°54.3'	N 19°01.8'	45°54.0'	N 19°15.6'	45°53.5'	N 19°29.1'	45°52.9'	N 19°42.2'
16	60°54.5'	N 18°33.9'	60°54.5'	N 18°48.3'	60°54.3'	N 19°02.4'	60°53.9'	N 19°16.2'	60°53.5'	N 19°29.6'	60°52.8'	N 19°42.7'
17	75°54.5'	N 18°34.5'	75°54.5'	N 18°48.9'	75°54.3'	N 19°03.0'	75°53.9'	N 19°16.8'	75°53.4'	N 19°30.2'	75°52.8'	N 19°43.3'
18	90°54.5'	N 18°35.2'	90°54.5'	N 18°49.5'	90°54.3'	N 19°03.6'	90°53.9'	N 19°17.3'	90°53.4'	N 19°30.7'	90°52.8'	N 19°43.8'
19	105°54.5'	N 18°35.8'	105°54.5'	N 18°50.1'	105°54.2'	N 19°04.2'	105°53.9'	N 19°17.9'	105°53.4'	N 19°31.3'	105°52.8'	N 19°44.3'
20	120°54.5'	N 18°36.4'	120°54.4'	N 18°50.7'	120°54.2'	N 19°04.7'	120°53.9'	N 19°18.4'	120°53.4'	N 19°31.8'	120°52.7'	N 19°44.9'
21	135°54.5'	N 18°37.0'	135°54.4'	N 18°51.3'	135°54.2'	N 19°05.3'	135°53.8'	N 19°19.0'	135°53.3'	N 19°32.4'	135°52.7'	N 19°45.4'
22	150°54.5'	N 18°37.6'	150°54.4'	N 18°51.9'	150°54.2'	N 19°05.9'	150°53.8'	N 19°19.6'	150°53.3'	N 19°32.9'	150°52.7'	N 19°45.9'
23	165°54.5'	N 18°38.2'	165°54.4'	N 18°52.5'	165°54.2'	N 19°06.5'	165°53.8'	N 19°20.1'	165°53.3'	N 19°33.5'	165°52.6'	N 19°46.5'
Zeitgl. 0h / 12h	+03:38 / +03:38		+03:38 / +03:38		+03:38 / +03:37		+03:37 / +03:36		+03:35 / +03:34		+03:33 / +03:32	
Kulmination UT	11:56:22		11:56:22		11:56:23		11:56:24		11:56:26		11:56:28	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Sa 19.05.		So 20.05.		Mo 21.05.		Di 22.05.		Mi 23.05.		Do 24.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°52.6'	N 19°47.0'	180°51.8'	N 19°59.7'	180°50.9'	N 20°12.0'	180°49.8'	N 20°24.0'	180°48.6'	N 20°35.6'	180°47.3'	N 20°46.8'
01	195°52.6'	N 19°47.6'	195°51.8'	N 20°00.2'	195°50.8'	N 20°12.5'	195°49.8'	N 20°24.4'	195°48.6'	N 20°36.0'	195°47.2'	N 20°47.3'
02	210°52.5'	N 19°48.1'	210°51.7'	N 20°00.7'	210°50.8'	N 20°13.0'	210°49.7'	N 20°24.9'	210°48.5'	N 20°36.5'	210°47.2'	N 20°47.8'
03	225°52.5'	N 19°48.6'	225°51.7'	N 20°01.2'	225°50.7'	N 20°13.5'	225°49.7'	N 20°25.4'	225°48.4'	N 20°37.0'	225°47.1'	N 20°48.2'
04	240°52.5'	N 19°49.2'	240°51.7'	N 20°01.7'	240°50.7'	N 20°14.0'	240°49.6'	N 20°25.9'	240°48.4'	N 20°37.5'	240°47.0'	N 20°48.7'
05	255°52.4'	N 19°49.7'	255°51.6'	N 20°02.3'	255°50.7'	N 20°14.5'	255°49.6'	N 20°26.4'	255°48.3'	N 20°37.9'	255°47.0'	N 20°49.1'
06	270°52.4'	N 19°50.2'	270°51.6'	N 20°02.8'	270°50.6'	N 20°15.0'	270°49.5'	N 20°26.9'	270°48.3'	N 20°38.4'	270°46.9'	N 20°49.6'
07	285°52.4'	N 19°50.7'	285°51.5'	N 20°03.3'	285°50.6'	N 20°15.5'	285°49.5'	N 20°27.4'	285°48.2'	N 20°38.9'	285°46.9'	N 20°50.1'
08	300°52.4'	N 19°51.3'	300°51.5'	N 20°03.8'	300°50.5'	N 20°16.0'	300°49.4'	N 20°27.9'	300°48.2'	N 20°39.4'	300°46.8'	N 20°50.5'
09	315°52.3'	N 19°51.8'	315°51.5'	N 20°04.3'	315°50.5'	N 20°16.5'	315°49.4'	N 20°28.4'	315°48.1'	N 20°39.8'	315°46.7'	N 20°51.0'
10	330°52.3'	N 19°52.3'	330°51.4'	N 20°04.8'	330°50.4'	N 20°17.0'	330°49.3'	N 20°28.8'	330°48.1'	N 20°40.3'	330°46.7'	N 20°51.4'
11	345°52.3'	N 19°52.9'	345°51.4'	N 20°05.4'	345°50.4'	N 20°17.5'	345°49.3'	N 20°29.3'	345°48.0'	N 20°40.8'	345°46.6'	N 20°51.9'
12	0°52.2'	N 19°53.4'	0°51.4'	N 20°05.9'	0°50.4'	N 20°18.0'	0°49.2'	N 20°29.8'	0°48.0'	N 20°41.2'	0°46.6'	N 20°52.3'
13	15°52.2'	N 19°53.9'	15°51.3'	N 20°06.4'	15°50.3'	N 20°18.5'	15°49.2'	N 20°30.3'	15°47.9'	N 20°41.7'	15°46.5'	N 20°52.8'
14	30°52.2'	N 19°54.4'	30°51.3'	N 20°06.9'	30°50.3'	N 20°19.0'	30°49.1'	N 20°30.8'	30°47.8'	N 20°42.2'	30°46.4'	N 20°53.2'
15	45°52.1'	N 19°55.0'	45°51.2'	N 20°07.4'	45°50.2'	N 20°19.5'	45°49.1'	N 20°31.3'	45°47.8'	N 20°42.7'	45°46.4'	N 20°53.7'
16	60°52.1'	N 19°55.5'	60°51.2'	N 20°07.9'	60°50.2'	N 20°20.0'	60°49.0'	N 20°31.7'	60°47.7'	N 20°43.1'	60°46.3'	N 20°54.1'
17	75°52.0'	N 19°56.0'	75°51.2'	N 20°08.4'	75°50.1'	N 20°20.5'	75°49.0'	N 20°32.2'	75°47.7'	N 20°43.6'	75°46.3'	N 20°54.6'
18	90°52.0'	N 19°56.5'	90°51.1'	N 20°08.9'	90°50.1'	N 20°21.0'	90°48.9'	N 20°32.7'	90°47.6'	N 20°44.1'	90°46.2'	N 20°55.0'
19	105°52.0'	N 19°57.1'	105°51.1'	N 20°09.4'	105°50.0'	N 20°21.5'	105°48.9'	N 20°33.2'	105°47.6'	N 20°44.5'	105°46.1'	N 20°55.5'
20	120°51.9'	N 19°57.6'	120°51.0'	N 20°10.0'	120°50.0'	N 20°22.0'	120°48.8'	N 20°33.7'	120°47.5'	N 20°45.0'	120°46.1'	N 20°55.9'
21	135°51.9'	N 19°58.1'	135°51.0'	N 20°10.5'	135°49.9'	N 20°22.5'	135°48.8'	N 20°34.1'	135°47.5'	N 20°45.4'	135°46.0'	N 20°56.4'
22	150°51.9'	N 19°58.6'	150°51.0'	N 20°11.0'	150°49.9'	N 20°23.0'	150°48.7'	N 20°34.6'	150°47.4'	N 20°45.9'	150°46.0'	N 20°56.8'
23	165°51.8'	N 19°59.2'	165°50.9'	N 20°11.5'	165°49.8'	N 20°23.5'	165°48.7'	N 20°35.1'	165°47.3'	N 20°46.4'	165°45.9'	N 20°57.3'
Zeitgl. 0h / 12h	+03:30 / +03:29		+03:27 / +03:25		+03:23 / +03:21		+03:19 / +03:17		+03:14 / +03:12		+03:09 / +03:06	
Kulmination UT	11:56:31		11:56:35		11:56:39		11:56:43		11:56:48		11:56:54	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Fr 25.05.		Sa 26.05.		So 27.05.		Mo 28.05.		Di 29.05.		Mi 30.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°45.8'	N 20°57.7'	180°44.3'	N 21°08.3'	180°42.6'	N 21°18.5'	180°40.7'	N 21°28.3'	180°38.8'	N 21°37.7'	180°36.8'	N 21°46.8'
01	195°45.8'	N 20°58.2'	195°44.2'	N 21°08.7'	195°42.5'	N 21°18.9'	195°40.7'	N 21°28.7'	195°38.7'	N 21°38.1'	195°36.7'	N 21°47.2'
02	210°45.7'	N 20°58.6'	210°44.1'	N 21°09.1'	210°42.4'	N 21°19.3'	210°40.6'	N 21°29.1'	210°38.7'	N 21°38.5'	210°36.6'	N 21°47.5'
03	225°45.6'	N 20°59.1'	225°44.0'	N 21°09.6'	225°42.3'	N 21°19.7'	225°40.5'	N 21°29.5'	225°38.6'	N 21°38.9'	225°36.5'	N 21°47.9'
04	240°45.6'	N 20°59.5'	240°44.0'	N 21°10.0'	240°42.3'	N 21°20.1'	240°40.4'	N 21°29.9'	240°38.5'	N 21°39.3'	240°36.4'	N 21°48.3'
05	255°45.5'	N 21°00.0'	255°43.9'	N 21°10.4'	255°42.2'	N 21°20.5'	255°40.4'	N 21°30.3'	255°38.4'	N 21°39.6'	255°36.4'	N 21°48.6'
06	270°45.4'	N 21°00.4'	270°43.8'	N 21°10.9'	270°42.1'	N 21°21.0'	270°40.3'	N 21°30.7'	270°38.3'	N 21°40.0'	270°36.3'	N 21°49.0'
07	285°45.4'	N 21°00.9'	285°43.8'	N 21°11.3'	285°42.0'	N 21°21.4'	285°40.2'	N 21°31.1'	285°38.2'	N 21°40.4'	285°36.2'	N 21°49.4'
08	300°45.3'	N 21°01.3'	300°43.7'	N 21°11.7'	300°42.0'	N 21°21.8'	300°40.1'	N 21°31.5'	300°38.2'	N 21°40.8'	300°36.1'	N 21°49.7'
09	315°45.3'	N 21°01.7'	315°43.6'	N 21°12.1'	315°41.9'	N 21°22.2'	315°40.0'	N 21°31.9'	315°38.1'	N 21°41.2'	315°36.0'	N 21°50.1'
10	330°45.2'	N 21°02.2'	330°43.6'	N 21°12.6'	330°41.8'	N 21°22.6'	330°40.0'	N 21°32.3'	330°38.0'	N 21°41.5'	330°35.9'	N 21°50.4'
11	345°45.1'	N 21°02.6'	345°43.5'	N 21°13.0'	345°41.7'	N 21°23.0'	345°39.9'	N 21°32.7'	345°37.9'	N 21°41.9'	345°35.8'	N 21°50.8'
12	0°45.1'	N 21°03.1'	0°43.4'	N 21°13.4'	0°41.7'	N 21°23.4'	0°39.8'	N 21°33.0'	0°37.8'	N 21°42.3'	0°35.7'	N 21°51.2'
13	15°45.0'	N 21°03.5'	15°43.3'	N 21°13.8'	15°41.6'	N 21°23.8'	15°39.7'	N 21°33.4'	15°37.7'	N 21°42.7'	15°35.6'	N 21°51.5'
14	30°44.9'	N 21°03.9'	30°43.3'	N 21°14.3'	30°41.5'	N 21°24.2'	30°39.6'	N 21°33.8'	30°37.6'	N 21°43.1'	30°35.6'	N 21°51.9'
15	45°44.9'	N 21°04.4'	45°43.2'	N 21°14.7'	45°41.4'	N 21°24.6'	45°39.6'	N 21°34.2'	45°37.6'	N 21°43.4'	45°35.5'	N 21°52.3'
16	60°44.8'	N 21°04.8'	60°43.1'	N 21°15.1'	60°41.4'	N 21°25.0'	60°39.5'	N 21°34.6'	60°37.5'	N 21°43.8'	60°35.4'	N 21°52.6'
17	75°44.7'	N 21°05.2'	75°43.1'	N 21°15.5'	75°41.3'	N 21°25.5'	75°39.4'	N 21°35.0'	75°37.4'	N 21°44.2'	75°35.3'	N 21°53.0'
18	90°44.7'	N 21°05.7'	90°43.0'	N 21°16.0'	90°41.2'	N 21°25.9'	90°39.3'	N 21°35.4'	90°37.3'	N 21°44.6'	90°35.2'	N 21°53.3'
19	105°44.6'	N 21°06.1'	105°42.9'	N 21°16.4'	105°41.1'	N 21°26.3'	105°39.2'	N 21°35.8'	105°37.2'	N 21°44.9'	105°35.1'	N 21°53.7'
20	120°44.5'	N 21°06.6'	120°42.8'	N 21°16.8'	120°41.1'	N 21°26.7'	120°39.2'	N 21°36.2'	120°37.1'	N 21°45.3'	120°35.0'	N 21°54.0'
21	135°44.5'	N 21°07.0'	135°42.8'	N 21°17.2'	135°41.0'	N 21°27.1'	135°39.1'	N 21°36.6'	135°37.0'	N 21°45.7'	135°34.9'	N 21°54.4'
22	150°44.4'	N 21°07.4'	150°42.7'	N 21°17.6'	150°40.9'	N 21°27.5'	150°39.0'	N 21°36.9'	150°37.0'	N 21°46.0'	150°34.8'	N 21°54.8'
23	165°44.3'	N 21°07.9'	165°42.6'	N 21°18.1'	165°40.8'	N 21°27.9'	165°38.9'	N 21°37.3'	165°36.9'	N 21°46.4'	165°34.7'	N 21°55.1'
Zeitgl. 0h / 12h	+03:03 / +03:00		+02:57 / +02:54		+02:50 / +02:47		+02:43 / +02:39		+02:35 / +02:31		+02:27 / +02:23	
Kulmination UT	11:57:00		11:57:06		11:57:13		11:57:21		11:57:29		11:57:37	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

Do 31.05.

UT	Grt	Dec
00	180°34.6'	N 21°55.5'
01	195°34.6'	N 21°55.8'
02	210°34.5'	N 21°56.2'
03	225°34.4'	N 21°56.5'
04	240°34.3'	N 21°56.9'
05	255°34.2'	N 21°57.2'
06	270°34.1'	N 21°57.6'
07	285°34.0'	N 21°57.9'
08	300°33.9'	N 21°58.3'
09	315°33.8'	N 21°58.6'
10	330°33.7'	N 21°59.0'
11	345°33.6'	N 21°59.3'
12	0°33.5'	N 21°59.7'
13	15°33.4'	N 22°00.0'
14	30°33.4'	N 22°00.4'
15	45°33.3'	N 22°00.7'
16	60°33.2'	N 22°01.0'
17	75°33.1'	N 22°01.4'
18	90°33.0'	N 22°01.7'
19	105°32.9'	N 22°02.1'
20	120°32.8'	N 22°02.4'
21	135°32.7'	N 22°02.8'
22	150°32.6'	N 22°03.1'
23	165°32.5'	N 22°03.4'

Zeitgl. 0h / 12h +02:19 / +02:14

Kulmination UT 11:57:46

Halbmesser 15.8'

2029

Juni

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Fr 01.06.		Sa 02.06.		So 03.06.		Mo 04.06.		Di 05.06.		Mi 06.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°32.4'	N 22°03.8'	180°30.1'	N 22°11.7'	180°27.6'	N 22°19.2'	180°25.1'	N 22°26.4'	180°22.5'	N 22°33.1'	180°19.8'	N 22°39.5'
01	195°32.3'	N 22°04.1'	195°30.0'	N 22°12.0'	195°27.5'	N 22°19.5'	195°25.0'	N 22°26.7'	195°22.4'	N 22°33.4'	195°19.7'	N 22°39.7'
02	210°32.2'	N 22°04.4'	210°29.9'	N 22°12.3'	210°27.4'	N 22°19.8'	210°24.9'	N 22°26.9'	210°22.3'	N 22°33.7'	210°19.6'	N 22°40.0'
03	225°32.1'	N 22°04.8'	225°29.8'	N 22°12.7'	225°27.3'	N 22°20.1'	225°24.8'	N 22°27.2'	225°22.2'	N 22°33.9'	225°19.5'	N 22°40.2'
04	240°32.0'	N 22°05.1'	240°29.7'	N 22°13.0'	240°27.2'	N 22°20.4'	240°24.7'	N 22°27.5'	240°22.0'	N 22°34.2'	240°19.3'	N 22°40.5'
05	255°31.9'	N 22°05.5'	255°29.6'	N 22°13.3'	255°27.1'	N 22°20.7'	255°24.6'	N 22°27.8'	255°21.9'	N 22°34.5'	255°19.2'	N 22°40.7'
06	270°31.8'	N 22°05.8'	270°29.5'	N 22°13.6'	270°27.0'	N 22°21.0'	270°24.5'	N 22°28.1'	270°21.8'	N 22°34.7'	270°19.1'	N 22°41.0'
07	285°31.7'	N 22°06.1'	285°29.4'	N 22°13.9'	285°26.9'	N 22°21.3'	285°24.3'	N 22°28.4'	285°21.7'	N 22°35.0'	285°19.0'	N 22°41.2'
08	300°31.6'	N 22°06.5'	300°29.3'	N 22°14.2'	300°26.8'	N 22°21.6'	300°24.2'	N 22°28.7'	300°21.6'	N 22°35.3'	300°18.9'	N 22°41.5'
09	315°31.5'	N 22°06.8'	315°29.2'	N 22°14.6'	315°26.7'	N 22°21.9'	315°24.1'	N 22°28.9'	315°21.5'	N 22°35.5'	315°18.8'	N 22°41.7'
10	330°31.4'	N 22°07.1'	330°29.1'	N 22°14.9'	330°26.6'	N 22°22.2'	330°24.0'	N 22°29.2'	330°21.4'	N 22°35.8'	330°18.7'	N 22°42.0'
11	345°31.3'	N 22°07.4'	345°29.0'	N 22°15.2'	345°26.5'	N 22°22.5'	345°23.9'	N 22°29.5'	345°21.3'	N 22°36.1'	345°18.5'	N 22°42.2'
12	0°31.2'	N 22°07.8'	0°28.9'	N 22°15.5'	0°26.4'	N 22°22.8'	0°23.8'	N 22°29.8'	0°21.2'	N 22°36.3'	0°18.4'	N 22°42.5'
13	15°31.1'	N 22°08.1'	15°28.8'	N 22°15.8'	15°26.3'	N 22°23.1'	15°23.7'	N 22°30.1'	15°21.0'	N 22°36.6'	15°18.3'	N 22°42.7'
14	30°31.0'	N 22°08.4'	30°28.7'	N 22°16.1'	30°26.2'	N 22°23.4'	30°23.6'	N 22°30.3'	30°20.9'	N 22°36.9'	30°18.2'	N 22°43.0'
15	45°31.0'	N 22°08.8'	45°28.6'	N 22°16.4'	45°26.1'	N 22°23.7'	45°23.5'	N 22°30.6'	45°20.8'	N 22°37.1'	45°18.1'	N 22°43.2'
16	60°30.9'	N 22°09.1'	60°28.4'	N 22°16.8'	60°26.0'	N 22°24.0'	60°23.4'	N 22°30.9'	60°20.7'	N 22°37.4'	60°18.0'	N 22°43.5'
17	75°30.8'	N 22°09.4'	75°28.3'	N 22°17.1'	75°25.8'	N 22°24.3'	75°23.3'	N 22°31.2'	75°20.6'	N 22°37.7'	75°17.8'	N 22°43.7'
18	90°30.7'	N 22°09.7'	90°28.2'	N 22°17.4'	90°25.7'	N 22°24.6'	90°23.1'	N 22°31.5'	90°20.5'	N 22°37.9'	90°17.7'	N 22°44.0'
19	105°30.6'	N 22°10.1'	105°28.1'	N 22°17.7'	105°25.6'	N 22°24.9'	105°23.0'	N 22°31.7'	105°20.4'	N 22°38.2'	105°17.6'	N 22°44.2'
20	120°30.5'	N 22°10.4'	120°28.0'	N 22°18.0'	120°25.5'	N 22°25.2'	120°22.9'	N 22°32.0'	120°20.3'	N 22°38.4'	120°17.5'	N 22°44.5'
21	135°30.4'	N 22°10.7'	135°27.9'	N 22°18.3'	135°25.4'	N 22°25.5'	135°22.8'	N 22°32.3'	135°20.1'	N 22°38.7'	135°17.4'	N 22°44.7'
22	150°30.3'	N 22°11.0'	150°27.8'	N 22°18.6'	150°25.3'	N 22°25.8'	150°22.7'	N 22°32.6'	150°20.0'	N 22°39.0'	150°17.3'	N 22°44.9'
23	165°30.2'	N 22°11.4'	165°27.7'	N 22°18.9'	165°25.2'	N 22°26.1'	165°22.6'	N 22°32.8'	165°19.9'	N 22°39.2'	165°17.1'	N 22°45.2'
Zeitgl. 0h / 12h	+02:10 / +02:05		+02:00 / +01:55		+01:51 / +01:45		+01:40 / +01:35		+01:30 / +01:25		+01:19 / +01:14	
Kulmination UT	11:57:55		11:58:05		11:58:15		11:58:25		11:58:35		11:58:46	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Do 07.06.		Fr 08.06.		Sa 09.06.		So 10.06.		Mo 11.06.		Di 12.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°17.0'	N 22°45.4'	180°14.2'	N 22°51.0'	180°11.3'	N 22°56.1'	180°08.3'	N 23°00.9'	180°05.3'	N 23°05.2'	180°02.2'	N 23°09.2'
01	195°16.9'	N 22°45.7'	195°14.1'	N 22°51.2'	195°11.2'	N 22°56.3'	195°08.2'	N 23°01.1'	195°05.2'	N 23°05.4'	195°02.1'	N 23°09.3'
02	210°16.8'	N 22°45.9'	210°14.0'	N 22°51.4'	210°11.0'	N 22°56.5'	210°08.1'	N 23°01.3'	210°05.0'	N 23°05.6'	210°02.0'	N 23°09.5'
03	225°16.7'	N 22°46.1'	225°13.8'	N 22°51.6'	225°10.9'	N 22°56.7'	225°07.9'	N 23°01.4'	225°04.9'	N 23°05.7'	225°01.8'	N 23°09.6'
04	240°16.6'	N 22°46.4'	240°13.7'	N 22°51.9'	240°10.8'	N 22°57.0'	240°07.8'	N 23°01.6'	240°04.8'	N 23°05.9'	240°01.7'	N 23°09.8'
05	255°16.4'	N 22°46.6'	255°13.6'	N 22°52.1'	255°10.7'	N 22°57.2'	255°07.7'	N 23°01.8'	255°04.7'	N 23°06.1'	255°01.6'	N 23°09.9'
06	270°16.3'	N 22°46.8'	270°13.5'	N 22°52.3'	270°10.5'	N 22°57.4'	270°07.6'	N 23°02.0'	270°04.5'	N 23°06.3'	270°01.5'	N 23°10.1'
07	285°16.2'	N 22°47.1'	285°13.3'	N 22°52.5'	285°10.4'	N 22°57.6'	285°07.4'	N 23°02.2'	285°04.4'	N 23°06.4'	285°01.3'	N 23°10.2'
08	300°16.1'	N 22°47.3'	300°13.2'	N 22°52.7'	300°10.3'	N 22°57.8'	300°07.3'	N 23°02.4'	300°04.3'	N 23°06.6'	300°01.2'	N 23°10.4'
09	315°16.0'	N 22°47.6'	315°13.1'	N 22°53.0'	315°10.2'	N 22°58.0'	315°07.2'	N 23°02.6'	315°04.2'	N 23°06.8'	315°01.1'	N 23°10.5'
10	330°15.9'	N 22°47.8'	330°13.0'	N 22°53.2'	330°10.1'	N 22°58.2'	330°07.1'	N 23°02.7'	330°04.0'	N 23°06.9'	330°00.9'	N 23°10.7'
11	345°15.7'	N 22°48.0'	345°12.9'	N 22°53.4'	345°09.9'	N 22°58.4'	345°06.9'	N 23°02.9'	345°03.9'	N 23°07.1'	345°00.8'	N 23°10.8'
12	0°15.6'	N 22°48.2'	0°12.7'	N 22°53.6'	0°09.8'	N 22°58.6'	0°06.8'	N 23°03.1'	0°03.8'	N 23°07.2'	0°00.7'	N 23°11.0'
13	15°15.5'	N 22°48.5'	15°12.6'	N 22°53.8'	15°09.7'	N 22°58.8'	15°06.7'	N 23°03.3'	15°03.6'	N 23°07.4'	15°00.5'	N 23°11.1'
14	30°15.4'	N 22°48.7'	30°12.5'	N 22°54.0'	30°09.6'	N 22°59.0'	30°06.6'	N 23°03.5'	30°03.5'	N 23°07.6'	30°00.4'	N 23°11.3'
15	45°15.3'	N 22°48.9'	45°12.4'	N 22°54.2'	45°09.4'	N 22°59.1'	45°06.4'	N 23°03.6'	45°03.4'	N 23°07.7'	45°00.3'	N 23°11.4'
16	60°15.1'	N 22°49.2'	60°12.3'	N 22°54.5'	60°09.3'	N 22°59.3'	60°06.3'	N 23°03.8'	60°03.3'	N 23°07.9'	60°00.2'	N 23°11.6'
17	75°15.0'	N 22°49.4'	75°12.1'	N 22°54.7'	75°09.2'	N 22°59.5'	75°06.2'	N 23°04.0'	75°03.1'	N 23°08.1'	75°00.0'	N 23°11.7'
18	90°14.9'	N 22°49.6'	90°12.0'	N 22°54.9'	90°09.1'	N 22°59.7'	90°06.1'	N 23°04.2'	90°03.0'	N 23°08.2'	89°59.9'	N 23°11.9'
19	105°14.8'	N 22°49.9'	105°11.9'	N 22°55.1'	105°08.9'	N 22°59.9'	105°05.9'	N 23°04.4'	105°02.9'	N 23°08.4'	104°59.8'	N 23°12.0'
20	120°14.7'	N 22°50.1'	120°11.8'	N 22°55.3'	120°08.8'	N 23°00.1'	120°05.8'	N 23°04.5'	120°02.7'	N 23°08.5'	119°59.6'	N 23°12.1'
21	135°14.5'	N 22°50.3'	135°11.7'	N 22°55.5'	135°08.7'	N 23°00.3'	135°05.7'	N 23°04.7'	135°02.6'	N 23°08.7'	134°59.5'	N 23°12.3'
22	150°14.4'	N 22°50.5'	150°11.5'	N 22°55.7'	150°08.6'	N 23°00.5'	150°05.6'	N 23°04.9'	150°02.5'	N 23°08.9'	149°59.4'	N 23°12.4'
23	165°14.3'	N 22°50.8'	165°11.4'	N 22°55.9'	165°08.4'	N 23°00.7'	165°05.4'	N 23°05.1'	165°02.4'	N 23°09.0'	164°59.2'	N 23°12.6'
Zeitgl. 0h / 12h	+01:08 / +01:02		+00:57 / +00:51		+00:45 / +00:39		+00:33 / +00:27		+00:21 / +00:15		+00:09 / +00:03	
Kulmination UT	11:58:58		11:59:09		11:59:21		11:59:33		11:59:45		11:59:57	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.7'	

	Mi 13.06.		Do 14.06.		Fr 15.06.		Sa 16.06.		So 17.06.		Mo 18.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°59.1'	N 23°12.7'	179°56.0'	N 23°15.8'	179°52.8'	N 23°18.5'	179°49.6'	N 23°20.8'	179°46.3'	N 23°22.7'	179°43.1'	N 23°24.2'
01	194°59.0'	N 23°12.8'	194°55.8'	N 23°15.9'	194°52.6'	N 23°18.6'	194°49.4'	N 23°20.9'	194°46.2'	N 23°22.8'	194°42.9'	N 23°24.2'
02	209°58.9'	N 23°13.0'	209°55.7'	N 23°16.1'	209°52.5'	N 23°18.7'	209°49.3'	N 23°21.0'	209°46.0'	N 23°22.9'	209°42.8'	N 23°24.3'
03	224°58.7'	N 23°13.1'	224°55.6'	N 23°16.2'	224°52.4'	N 23°18.8'	224°49.2'	N 23°21.1'	224°45.9'	N 23°22.9'	224°42.7'	N 23°24.3'
04	239°58.6'	N 23°13.2'	239°55.4'	N 23°16.3'	239°52.2'	N 23°18.9'	239°49.0'	N 23°21.2'	239°45.8'	N 23°23.0'	239°42.5'	N 23°24.4'
05	254°58.5'	N 23°13.4'	254°55.3'	N 23°16.4'	254°52.1'	N 23°19.0'	254°48.9'	N 23°21.3'	254°45.6'	N 23°23.1'	254°42.4'	N 23°24.4'
06	269°58.3'	N 23°13.5'	269°55.2'	N 23°16.5'	269°52.0'	N 23°19.1'	269°48.7'	N 23°21.3'	269°45.5'	N 23°23.1'	269°42.2'	N 23°24.5'
07	284°58.2'	N 23°13.7'	284°55.0'	N 23°16.7'	284°51.8'	N 23°19.2'	284°48.6'	N 23°21.4'	284°45.4'	N 23°23.2'	284°42.1'	N 23°24.5'
08	299°58.1'	N 23°13.8'	299°54.9'	N 23°16.8'	299°51.7'	N 23°19.3'	299°48.5'	N 23°21.5'	299°45.2'	N 23°23.3'	299°42.0'	N 23°24.6'
09	314°57.9'	N 23°13.9'	314°54.8'	N 23°16.9'	314°51.6'	N 23°19.4'	314°48.3'	N 23°21.6'	314°45.1'	N 23°23.3'	314°41.8'	N 23°24.6'
10	329°57.8'	N 23°14.0'	329°54.6'	N 23°17.0'	329°51.4'	N 23°19.5'	329°48.2'	N 23°21.7'	329°45.0'	N 23°23.4'	329°41.7'	N 23°24.7'
11	344°57.7'	N 23°14.2'	344°54.5'	N 23°17.1'	344°51.3'	N 23°19.6'	344°48.1'	N 23°21.7'	344°44.8'	N 23°23.4'	344°41.6'	N 23°24.7'
12	359°57.5'	N 23°14.3'	359°54.4'	N 23°17.2'	359°51.2'	N 23°19.7'	359°47.9'	N 23°21.8'	359°44.7'	N 23°23.5'	359°41.4'	N 23°24.8'
13	14°57.4'	N 23°14.4'	14°54.2'	N 23°17.3'	14°51.0'	N 23°19.8'	14°47.8'	N 23°21.9'	14°44.6'	N 23°23.6'	14°41.3'	N 23°24.8'
14	29°57.3'	N 23°14.6'	29°54.1'	N 23°17.5'	29°50.9'	N 23°19.9'	29°47.7'	N 23°22.0'	29°44.4'	N 23°23.6'	29°41.2'	N 23°24.9'
15	44°57.1'	N 23°14.7'	44°54.0'	N 23°17.6'	44°50.8'	N 23°20.0'	44°47.5'	N 23°22.1'	44°44.3'	N 23°23.7'	44°41.0'	N 23°24.9'
16	59°57.0'	N 23°14.8'	59°53.8'	N 23°17.7'	59°50.6'	N 23°20.1'	59°47.4'	N 23°22.1'	59°44.1'	N 23°23.7'	59°40.9'	N 23°24.9'
17	74°56.9'	N 23°15.0'	74°53.7'	N 23°17.8'	74°50.5'	N 23°20.2'	74°47.3'	N 23°22.2'	74°44.0'	N 23°23.8'	74°40.8'	N 23°25.0'
18	89°56.7'	N 23°15.1'	89°53.6'	N 23°17.9'	89°50.4'	N 23°20.3'	89°47.1'	N 23°22.3'	89°43.9'	N 23°23.9'	89°40.6'	N 23°25.0'
19	104°56.6'	N 23°15.2'	104°53.4'	N 23°18.0'	104°50.2'	N 23°20.4'	104°47.0'	N 23°22.4'	104°43.7'	N 23°23.9'	104°40.5'	N 23°25.1'
20	119°56.5'	N 23°15.3'	119°53.3'	N 23°18.1'	119°50.1'	N 23°20.5'	119°46.9'	N 23°22.4'	119°43.6'	N 23°24.0'	119°40.3'	N 23°25.1'
21	134°56.4'	N 23°15.5'	134°53.2'	N 23°18.2'	134°50.0'	N 23°20.6'	134°46.7'	N 23°22.5'	134°43.5'	N 23°24.0'	134°40.2'	N 23°25.1'
22	149°56.2'	N 23°15.6'	149°53.0'	N 23°18.3'	149°49.8'	N 23°20.7'	149°46.6'	N 23°22.6'	149°43.3'	N 23°24.1'	149°40.1'	N 23°25.2'
23	164°56.1'	N 23°15.7'	164°52.9'	N 23°18.4'	164°49.7'	N 23°20.7'	164°46.5'	N 23°22.6'	164°43.2'	N 23°24.1'	164°39.9'	N 23°25.2'
Zeitgl. 0h / 12h	-00:04 / -00:10		-00:16 / -00:23		-00:29 / -00:35		-00:42 / -00:48		-00:55 / -01:01		-01:08 / -01:14	
Kulmination UT	12:00:10		12:00:23		12:00:35		12:00:48		12:01:01		12:01:14	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Di 19.06.		Mi 20.06.		Do 21.06.		Fr 22.06.		Sa 23.06.		So 24.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°39.8'	N 23°25.3'	179°36.5'	N 23°25.9'	179°33.3'	N 23°26.1'	179°30.0'	N 23°26.0'	179°26.8'	N 23°25.4'	179°23.5'	N 23°24.4'
01	194°39.7'	N 23°25.3'	194°36.4'	N 23°25.9'	194°33.1'	N 23°26.1'	194°29.9'	N 23°25.9'	194°26.6'	N 23°25.3'	194°23.4'	N 23°24.3'
02	209°39.5'	N 23°25.3'	209°36.3'	N 23°25.9'	209°33.0'	N 23°26.1'	209°29.7'	N 23°25.9'	209°26.5'	N 23°25.3'	209°23.3'	N 23°24.3'
03	224°39.4'	N 23°25.4'	224°36.1'	N 23°26.0'	224°32.9'	N 23°26.1'	224°29.6'	N 23°25.9'	224°26.4'	N 23°25.3'	224°23.1'	N 23°24.2'
04	239°39.3'	N 23°25.4'	239°36.0'	N 23°26.0'	239°32.7'	N 23°26.1'	239°29.5'	N 23°25.9'	239°26.2'	N 23°25.2'	239°23.0'	N 23°24.2'
05	254°39.1'	N 23°25.4'	254°35.9'	N 23°26.0'	254°32.6'	N 23°26.1'	254°29.3'	N 23°25.9'	254°26.1'	N 23°25.2'	254°22.9'	N 23°24.1'
06	269°39.0'	N 23°25.5'	269°35.7'	N 23°26.0'	269°32.5'	N 23°26.1'	269°29.2'	N 23°25.9'	269°26.0'	N 23°25.2'	269°22.7'	N 23°24.1'
07	284°38.8'	N 23°25.5'	284°35.6'	N 23°26.0'	284°32.3'	N 23°26.1'	284°29.1'	N 23°25.8'	284°25.8'	N 23°25.1'	284°22.6'	N 23°24.0'
08	299°38.7'	N 23°25.5'	299°35.4'	N 23°26.0'	299°32.2'	N 23°26.1'	299°28.9'	N 23°25.8'	299°25.7'	N 23°25.1'	299°22.5'	N 23°23.9'
09	314°38.6'	N 23°25.5'	314°35.3'	N 23°26.0'	314°32.0'	N 23°26.1'	314°28.8'	N 23°25.8'	314°25.6'	N 23°25.0'	314°22.3'	N 23°23.9'
10	329°38.4'	N 23°25.6'	329°35.2'	N 23°26.1'	329°31.9'	N 23°26.1'	329°28.7'	N 23°25.8'	329°25.4'	N 23°25.0'	329°22.2'	N 23°23.8'
11	344°38.3'	N 23°25.6'	344°35.0'	N 23°26.1'	344°31.8'	N 23°26.1'	344°28.5'	N 23°25.7'	344°25.3'	N 23°25.0'	344°22.1'	N 23°23.8'
12	359°38.2'	N 23°25.6'	359°34.9'	N 23°26.1'	359°31.6'	N 23°26.1'	359°28.4'	N 23°25.7'	359°25.1'	N 23°24.9'	359°21.9'	N 23°23.7'
13	14°38.0'	N 23°25.7'	14°34.8'	N 23°26.1'	14°31.5'	N 23°26.1'	14°28.2'	N 23°25.7'	14°25.0'	N 23°24.9'	14°21.8'	N 23°23.7'
14	29°37.9'	N 23°25.7'	29°34.6'	N 23°26.1'	29°31.4'	N 23°26.1'	29°28.1'	N 23°25.7'	29°24.9'	N 23°24.8'	29°21.7'	N 23°23.6'
15	44°37.8'	N 23°25.7'	44°34.5'	N 23°26.1'	44°31.2'	N 23°26.1'	44°28.0'	N 23°25.6'	44°24.7'	N 23°24.8'	44°21.5'	N 23°23.5'
16	59°37.6'	N 23°25.7'	59°34.4'	N 23°26.1'	59°31.1'	N 23°26.1'	59°27.8'	N 23°25.6'	59°24.6'	N 23°24.7'	59°21.4'	N 23°23.5'
17	74°37.5'	N 23°25.8'	74°34.2'	N 23°26.1'	74°31.0'	N 23°26.1'	74°27.7'	N 23°25.6'	74°24.5'	N 23°24.7'	74°21.3'	N 23°23.4'
18	89°37.4'	N 23°25.8'	89°34.1'	N 23°26.1'	89°30.8'	N 23°26.0'	89°27.6'	N 23°25.6'	89°24.3'	N 23°24.7'	89°21.1'	N 23°23.3'
19	104°37.2'	N 23°25.8'	104°33.9'	N 23°26.1'	104°30.7'	N 23°26.0'	104°27.4'	N 23°25.5'	104°24.2'	N 23°24.6'	104°21.0'	N 23°23.3'
20	119°37.1'	N 23°25.8'	119°33.8'	N 23°26.1'	119°30.6'	N 23°26.0'	119°27.3'	N 23°25.5'	119°24.1'	N 23°24.6'	119°20.9'	N 23°23.2'
21	134°36.9'	N 23°25.8'	134°33.7'	N 23°26.1'	134°30.4'	N 23°26.0'	134°27.2'	N 23°25.5'	134°23.9'	N 23°24.5'	134°20.7'	N 23°23.1'
22	149°36.8'	N 23°25.9'	149°33.5'	N 23°26.1'	149°30.3'	N 23°26.0'	149°27.0'	N 23°25.4'	149°23.8'	N 23°24.5'	149°20.6'	N 23°23.1'
23	164°36.7'	N 23°25.9'	164°33.4'	N 23°26.1'	164°30.1'	N 23°26.0'	164°26.9'	N 23°25.4'	164°23.7'	N 23°24.4'	164°20.5'	N 23°23.0'
Zeitgl. 0h / 12h	-01:21 / -01:27		-01:34 / -01:40		-01:47 / -01:53		-02:00 / -02:06		-02:13 / -02:19		-02:26 / -02:32	
Kulmination UT	12:01:27		12:01:40		12:01:53		12:02:06		12:02:19		12:02:32	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Mo 25.06.		Di 26.06.		Mi 27.06.		Do 28.06.		Fr 29.06.		Sa 30.06.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°20.3'	N 23°22.9'	179°17.2'	N 23°21.1'	179°14.0'	N 23°18.9'	179°10.9'	N 23°16.2'	179°07.9'	N 23°13.2'	179°04.9'	N 23°09.7'
01	194°20.2'	N 23°22.9'	194°17.0'	N 23°21.0'	194°13.9'	N 23°18.8'	194°10.8'	N 23°16.1'	194°07.8'	N 23°13.0'	194°04.8'	N 23°09.6'
02	209°20.1'	N 23°22.8'	209°16.9'	N 23°21.0'	209°13.8'	N 23°18.7'	209°10.7'	N 23°16.0'	209°07.7'	N 23°12.9'	209°04.7'	N 23°09.4'
03	224°19.9'	N 23°22.7'	224°16.8'	N 23°20.9'	224°13.6'	N 23°18.6'	224°10.6'	N 23°15.9'	224°07.5'	N 23°12.8'	224°04.5'	N 23°09.3'
04	239°19.8'	N 23°22.7'	239°16.6'	N 23°20.8'	239°13.5'	N 23°18.5'	239°10.4'	N 23°15.8'	239°07.4'	N 23°12.6'	239°04.4'	N 23°09.1'
05	254°19.7'	N 23°22.6'	254°16.5'	N 23°20.7'	254°13.4'	N 23°18.4'	254°10.3'	N 23°15.6'	254°07.3'	N 23°12.5'	254°04.3'	N 23°08.9'
06	269°19.5'	N 23°22.5'	269°16.4'	N 23°20.6'	269°13.3'	N 23°18.3'	269°10.2'	N 23°15.5'	269°07.2'	N 23°12.4'	269°04.2'	N 23°08.8'
07	284°19.4'	N 23°22.5'	284°16.3'	N 23°20.5'	284°13.1'	N 23°18.2'	284°10.1'	N 23°15.4'	284°07.0'	N 23°12.2'	284°04.1'	N 23°08.6'
08	299°19.3'	N 23°22.4'	299°16.1'	N 23°20.4'	299°13.0'	N 23°18.0'	299°09.9'	N 23°15.3'	299°06.9'	N 23°12.1'	299°03.9'	N 23°08.5'
09	314°19.1'	N 23°22.3'	314°16.0'	N 23°20.3'	314°12.9'	N 23°17.9'	314°09.8'	N 23°15.1'	314°06.8'	N 23°11.9'	314°03.8'	N 23°08.3'
10	329°19.0'	N 23°22.2'	329°15.9'	N 23°20.2'	329°12.7'	N 23°17.8'	329°09.7'	N 23°15.0'	329°06.7'	N 23°11.8'	329°03.7'	N 23°08.2'
11	344°18.9'	N 23°22.2'	344°15.7'	N 23°20.1'	344°12.6'	N 23°17.7'	344°09.5'	N 23°14.9'	344°06.5'	N 23°11.6'	344°03.6'	N 23°08.0'
12	359°18.7'	N 23°22.1'	359°15.6'	N 23°20.1'	359°12.5'	N 23°17.6'	359°09.4'	N 23°14.8'	359°06.4'	N 23°11.5'	359°03.4'	N 23°07.8'
13	14°18.6'	N 23°22.0'	14°15.5'	N 23°20.0'	14°12.4'	N 23°17.5'	14°09.3'	N 23°14.6'	14°06.3'	N 23°11.4'	14°03.3'	N 23°07.7'
14	29°18.5'	N 23°21.9'	29°15.3'	N 23°19.9'	29°12.2'	N 23°17.4'	29°09.2'	N 23°14.5'	29°06.2'	N 23°11.2'	29°03.2'	N 23°07.5'
15	44°18.4'	N 23°21.9'	44°15.2'	N 23°19.8'	44°12.1'	N 23°17.3'	44°09.0'	N 23°14.4'	44°06.0'	N 23°11.1'	44°03.1'	N 23°07.3'
16	59°18.2'	N 23°21.8'	59°15.1'	N 23°19.7'	59°12.0'	N 23°17.2'	59°08.9'	N 23°14.2'	59°05.9'	N 23°10.9'	59°03.0'	N 23°07.2'
17	74°18.1'	N 23°21.7'	74°14.9'	N 23°19.6'	74°11.8'	N 23°17.0'	74°08.8'	N 23°14.1'	74°05.8'	N 23°10.8'	74°02.8'	N 23°07.0'
18	89°18.0'	N 23°21.6'	89°14.8'	N 23°19.5'	89°11.7'	N 23°16.9'	89°08.7'	N 23°14.0'	89°05.7'	N 23°10.6'	89°02.7'	N 23°06.9'
19	104°17.8'	N 23°21.5'	104°14.7'	N 23°19.4'	104°11.6'	N 23°16.8'	104°08.5'	N 23°13.8'	104°05.5'	N 23°10.5'	104°02.6'	N 23°06.7'
20	119°17.7'	N 23°21.5'	119°14.6'	N 23°19.3'	119°11.5'	N 23°16.7'	119°08.4'	N 23°13.7'	119°05.4'	N 23°10.3'	119°02.5'	N 23°06.5'
21	134°17.6'	N 23°21.4'	134°14.4'	N 23°19.2'	134°11.3'	N 23°16.6'	134°08.3'	N 23°13.6'	134°05.3'	N 23°10.2'	134°02.4'	N 23°06.4'
22	149°17.4'	N 23°21.3'	149°14.3'	N 23°19.1'	149°11.2'	N 23°16.5'	149°08.2'	N 23°13.4'	149°05.2'	N 23°10.0'	149°02.2'	N 23°06.2'
23	164°17.3'	N 23°21.2'	164°14.2'	N 23°19.0'	164°11.1'	N 23°16.4'	164°08.0'	N 23°13.3'	164°05.0'	N 23°09.9'	164°02.1'	N 23°06.0'
Zeitgl. 0h / 12h	-02:39 / -02:45		-02:51 / -02:58		-03:04 / -03:10		-03:16 / -03:22		-03:28 / -03:34		-03:40 / -03:46	
Kulmination UT	12:02:45		12:02:58		12:03:10		12:03:22		12:03:34		12:03:46	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

2029

Juli

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	So 01.07.		Mo 02.07.		Di 03.07.		Mi 04.07.		Do 05.07.		Fr 06.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°02.0'	N 23°05.8'	178°59.1'	N 23°01.6'	178°56.3'	N 22°56.9'	178°53.6'	N 22°51.8'	178°51.0'	N 22°46.4'	178°48.4'	N 22°40.5'
01	194°01.9'	N 23°05.7'	193°59.0'	N 23°01.4'	193°56.2'	N 22°56.7'	193°53.5'	N 22°51.6'	193°50.9'	N 22°46.1'	193°48.3'	N 22°40.2'
02	209°01.7'	N 23°05.5'	208°58.9'	N 23°01.2'	208°56.1'	N 22°56.5'	208°53.4'	N 22°51.4'	208°50.8'	N 22°45.9'	208°48.2'	N 22°40.0'
03	224°01.6'	N 23°05.3'	223°58.8'	N 23°01.0'	223°56.0'	N 22°56.3'	223°53.3'	N 22°51.2'	223°50.6'	N 22°45.6'	223°48.1'	N 22°39.7'
04	239°01.5'	N 23°05.2'	238°58.7'	N 23°00.8'	238°55.9'	N 22°56.1'	238°53.2'	N 22°50.9'	238°50.5'	N 22°45.4'	238°48.0'	N 22°39.5'
05	254°01.4'	N 23°05.0'	253°58.5'	N 23°00.6'	253°55.8'	N 22°55.9'	253°53.1'	N 22°50.7'	253°50.4'	N 22°45.2'	253°47.9'	N 22°39.2'
06	269°01.3'	N 23°04.8'	268°58.4'	N 23°00.4'	268°55.6'	N 22°55.7'	268°52.9'	N 22°50.5'	268°50.3'	N 22°44.9'	268°47.8'	N 22°39.0'
07	284°01.1'	N 23°04.6'	283°58.3'	N 23°00.3'	283°55.5'	N 22°55.5'	283°52.8'	N 22°50.3'	283°50.2'	N 22°44.7'	283°47.7'	N 22°38.7'
08	299°01.0'	N 23°04.5'	298°58.2'	N 23°00.1'	298°55.4'	N 22°55.3'	298°52.7'	N 22°50.0'	298°50.1'	N 22°44.4'	298°47.6'	N 22°38.4'
09	314°00.9'	N 23°04.3'	313°58.1'	N 22°59.9'	313°55.3'	N 22°55.0'	313°52.6'	N 22°49.8'	313°50.0'	N 22°44.2'	313°47.5'	N 22°38.2'
10	329°00.8'	N 23°04.1'	328°58.0'	N 22°59.7'	328°55.2'	N 22°54.8'	328°52.5'	N 22°49.6'	328°49.9'	N 22°44.0'	328°47.4'	N 22°37.9'
11	344°00.7'	N 23°03.9'	343°57.8'	N 22°59.5'	343°55.1'	N 22°54.6'	343°52.4'	N 22°49.4'	343°49.8'	N 22°43.7'	343°47.3'	N 22°37.7'
12	359°00.5'	N 23°03.8'	358°57.7'	N 22°59.3'	358°55.0'	N 22°54.4'	358°52.3'	N 22°49.1'	358°49.7'	N 22°43.5'	358°47.2'	N 22°37.4'
13	14°00.4'	N 23°03.6'	13°57.6'	N 22°59.1'	13°54.8'	N 22°54.2'	13°52.2'	N 22°48.9'	13°49.6'	N 22°43.2'	13°47.1'	N 22°37.1'
14	29°00.3'	N 23°03.4'	28°57.5'	N 22°58.9'	28°54.7'	N 22°54.0'	28°52.1'	N 22°48.7'	28°49.5'	N 22°43.0'	28°47.0'	N 22°36.9'
15	44°00.2'	N 23°03.2'	43°57.4'	N 22°58.7'	43°54.6'	N 22°53.8'	43°52.0'	N 22°48.5'	43°49.4'	N 22°42.7'	43°46.9'	N 22°36.6'
16	59°00.1'	N 23°03.0'	58°57.3'	N 22°58.5'	58°54.5'	N 22°53.6'	58°51.8'	N 22°48.2'	58°49.3'	N 22°42.5'	58°46.8'	N 22°36.4'
17	74°00.0'	N 23°02.9'	73°57.1'	N 22°58.3'	73°54.4'	N 22°53.3'	73°51.7'	N 22°48.0'	73°49.2'	N 22°42.2'	73°46.7'	N 22°36.1'
18	88°59.8'	N 23°02.7'	88°57.0'	N 22°58.1'	88°54.3'	N 22°53.1'	88°51.6'	N 22°47.8'	88°49.1'	N 22°42.0'	88°46.6'	N 22°35.8'
19	103°59.7'	N 23°02.5'	103°56.9'	N 22°57.9'	103°54.2'	N 22°52.9'	103°51.5'	N 22°47.5'	103°48.9'	N 22°41.7'	103°46.5'	N 22°35.6'
20	118°59.6'	N 23°02.3'	118°56.8'	N 22°57.7'	118°54.1'	N 22°52.7'	118°51.4'	N 22°47.3'	118°48.8'	N 22°41.5'	118°46.4'	N 22°35.3'
21	133°59.5'	N 23°02.1'	133°56.7'	N 22°57.5'	133°53.9'	N 22°52.5'	133°51.3'	N 22°47.1'	133°48.7'	N 22°41.2'	133°46.3'	N 22°35.0'
22	148°59.4'	N 23°01.9'	148°56.6'	N 22°57.3'	148°53.8'	N 22°52.3'	148°51.2'	N 22°46.8'	148°48.6'	N 22°41.0'	148°46.2'	N 22°34.8'
23	163°59.2'	N 23°01.8'	163°56.4'	N 22°57.1'	163°53.7'	N 22°52.0'	163°51.1'	N 22°46.6'	163°48.5'	N 22°40.7'	163°46.1'	N 22°34.5'
Zeitgl. 0h / 12h	-03:52 / -03:58		-04:04 / -04:09		-04:15 / -04:20		-04:26 / -04:31		-04:36 / -04:41		-04:46 / -04:51	
Kulmination UT	12:03:58		12:04:09		12:04:20		12:04:31		12:04:41		12:04:51	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Sa 07.07.		So 08.07.		Mo 09.07.		Di 10.07.		Mi 11.07.		Do 12.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°46.0'	N 22°34.2'	178°43.6'	N 22°27.6'	178°41.3'	N 22°20.5'	178°39.2'	N 22°13.1'	178°37.1'	N 22°05.3'	178°35.1'	N 21°57.1'
01	193°45.9'	N 22°34.0'	193°43.5'	N 22°27.3'	193°41.2'	N 22°20.2'	193°39.1'	N 22°12.8'	193°37.0'	N 22°05.0'	193°35.1'	N 21°56.8'
02	208°45.8'	N 22°33.7'	208°43.4'	N 22°27.0'	208°41.1'	N 22°19.9'	208°39.0'	N 22°12.5'	208°36.9'	N 22°04.6'	208°35.0'	N 21°56.4'
03	223°45.7'	N 22°33.4'	223°43.3'	N 22°26.7'	223°41.0'	N 22°19.6'	223°38.9'	N 22°12.1'	223°36.8'	N 22°04.3'	223°34.9'	N 21°56.1'
04	238°45.6'	N 22°33.1'	238°43.2'	N 22°26.4'	238°41.0'	N 22°19.3'	238°38.8'	N 22°11.8'	238°36.8'	N 22°04.0'	238°34.8'	N 21°55.7'
05	253°45.5'	N 22°32.9'	253°43.1'	N 22°26.1'	253°40.9'	N 22°19.0'	253°38.7'	N 22°11.5'	253°36.7'	N 22°03.6'	253°34.8'	N 21°55.4'
06	268°45.4'	N 22°32.6'	268°43.0'	N 22°25.8'	268°40.8'	N 22°18.7'	268°38.6'	N 22°11.2'	268°36.6'	N 22°03.3'	268°34.7'	N 21°55.0'
07	283°45.3'	N 22°32.3'	283°42.9'	N 22°25.6'	283°40.7'	N 22°18.4'	283°38.5'	N 22°10.9'	283°36.5'	N 22°02.9'	283°34.6'	N 21°54.7'
08	298°45.2'	N 22°32.0'	298°42.8'	N 22°25.3'	298°40.6'	N 22°18.1'	298°38.5'	N 22°10.5'	298°36.4'	N 22°02.6'	298°34.5'	N 21°54.3'
09	313°45.1'	N 22°31.8'	313°42.7'	N 22°25.0'	313°40.5'	N 22°17.8'	313°38.4'	N 22°10.2'	313°36.4'	N 22°02.3'	313°34.4'	N 21°53.9'
10	328°45.0'	N 22°31.5'	328°42.6'	N 22°24.7'	328°40.4'	N 22°17.5'	328°38.3'	N 22°09.9'	328°36.3'	N 22°01.9'	328°34.4'	N 21°53.6'
11	343°44.9'	N 22°31.2'	343°42.5'	N 22°24.4'	343°40.3'	N 22°17.2'	343°38.2'	N 22°09.6'	343°36.2'	N 22°01.6'	343°34.3'	N 21°53.2'
12	358°44.8'	N 22°30.9'	358°42.4'	N 22°24.1'	358°40.2'	N 22°16.9'	358°38.1'	N 22°09.2'	358°36.1'	N 22°01.3'	358°34.2'	N 21°52.9'
13	13°44.7'	N 22°30.7'	13°42.3'	N 22°23.8'	13°40.1'	N 22°16.6'	13°38.0'	N 22°08.9'	13°36.0'	N 22°00.9'	13°34.1'	N 21°52.5'
14	28°44.6'	N 22°30.4'	28°42.3'	N 22°23.5'	28°40.0'	N 22°16.2'	28°37.9'	N 22°08.6'	28°35.9'	N 22°00.6'	28°34.1'	N 21°52.2'
15	43°44.5'	N 22°30.1'	43°42.2'	N 22°23.2'	43°40.0'	N 22°15.9'	43°37.9'	N 22°08.3'	43°35.9'	N 22°00.2'	43°34.0'	N 21°51.8'
16	58°44.4'	N 22°29.8'	58°42.1'	N 22°22.9'	58°39.9'	N 22°15.6'	58°37.8'	N 22°07.9'	58°35.8'	N 21°59.9'	58°33.9'	N 21°51.4'
17	73°44.3'	N 22°29.6'	73°42.0'	N 22°22.6'	73°39.8'	N 22°15.3'	73°37.7'	N 22°07.6'	73°35.7'	N 21°59.5'	73°33.8'	N 21°51.1'
18	88°44.2'	N 22°29.3'	88°41.9'	N 22°22.3'	88°39.7'	N 22°15.0'	88°37.6'	N 22°07.3'	88°35.6'	N 21°59.2'	88°33.8'	N 21°50.7'
19	103°44.1'	N 22°29.0'	103°41.8'	N 22°22.0'	103°39.6'	N 22°14.7'	103°37.5'	N 22°07.0'	103°35.5'	N 21°58.8'	103°33.7'	N 21°50.4'
20	118°44.0'	N 22°28.7'	118°41.7'	N 22°21.7'	118°39.5'	N 22°14.4'	118°37.4'	N 22°06.6'	118°35.5'	N 21°58.5'	118°33.6'	N 21°50.0'
21	133°43.9'	N 22°28.4'	133°41.6'	N 22°21.4'	133°39.4'	N 22°14.1'	133°37.3'	N 22°06.3'	133°35.4'	N 21°58.2'	133°33.5'	N 21°49.6'
22	148°43.8'	N 22°28.1'	148°41.5'	N 22°21.1'	148°39.3'	N 22°13.7'	148°37.3'	N 22°06.0'	148°35.3'	N 21°57.8'	148°33.5'	N 21°49.3'
23	163°43.7'	N 22°27.9'	163°41.4'	N 22°20.8'	163°39.2'	N 22°13.4'	163°37.2'	N 22°05.6'	163°35.2'	N 21°57.5'	163°33.4'	N 21°48.9'
Zeitgl. 0h / 12h	-04:56 / -05:01		-05:06 / -05:10		-05:15 / -05:19		-05:23 / -05:28		-05:32 / -05:36		-05:39 / -05:43	
Kulmination UT	12:05:01		12:05:10		12:05:19		12:05:28		12:05:36		12:05:43	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Fr 13.07.		Sa 14.07.		So 15.07.		Mo 16.07.		Di 17.07.		Mi 18.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°33.3'	N 21°48.5'	178°31.6'	N 21°39.6'	178°30.0'	N 21°30.3'	178°28.6'	N 21°20.6'	178°27.2'	N 21°10.6'	178°26.0'	N 21°00.2'
01	193°33.2'	N 21°48.2'	193°31.5'	N 21°39.2'	193°30.0'	N 21°29.9'	193°28.5'	N 21°20.2'	193°27.2'	N 21°10.2'	193°26.0'	N 20°59.8'
02	208°33.2'	N 21°47.8'	208°31.5'	N 21°38.8'	208°29.9'	N 21°29.5'	208°28.4'	N 21°19.8'	208°27.1'	N 21°09.7'	208°25.9'	N 20°59.3'
03	223°33.1'	N 21°47.4'	223°31.4'	N 21°38.5'	223°29.8'	N 21°29.1'	223°28.4'	N 21°19.4'	223°27.1'	N 21°09.3'	223°25.9'	N 20°58.9'
04	238°33.0'	N 21°47.1'	238°31.3'	N 21°38.1'	238°29.8'	N 21°28.7'	238°28.3'	N 21°19.0'	238°27.0'	N 21°08.9'	238°25.8'	N 20°58.4'
05	253°33.0'	N 21°46.7'	253°31.3'	N 21°37.7'	253°29.7'	N 21°28.3'	253°28.3'	N 21°18.6'	253°27.0'	N 21°08.5'	253°25.8'	N 20°58.0'
06	268°32.9'	N 21°46.3'	268°31.2'	N 21°37.3'	268°29.6'	N 21°27.9'	268°28.2'	N 21°18.2'	268°26.9'	N 21°08.0'	268°25.7'	N 20°57.6'
07	283°32.8'	N 21°46.0'	283°31.1'	N 21°36.9'	283°29.6'	N 21°27.5'	283°28.2'	N 21°17.7'	283°26.9'	N 21°07.6'	283°25.7'	N 20°57.1'
08	298°32.7'	N 21°45.6'	298°31.1'	N 21°36.5'	298°29.5'	N 21°27.1'	298°28.1'	N 21°17.3'	298°26.8'	N 21°07.2'	298°25.7'	N 20°56.7'
09	313°32.7'	N 21°45.2'	313°31.0'	N 21°36.2'	313°29.5'	N 21°26.7'	313°28.0'	N 21°16.9'	313°26.8'	N 21°06.7'	313°25.6'	N 20°56.2'
10	328°32.6'	N 21°44.9'	328°30.9'	N 21°35.8'	328°29.4'	N 21°26.3'	328°28.0'	N 21°16.5'	328°26.7'	N 21°06.3'	328°25.6'	N 20°55.8'
11	343°32.5'	N 21°44.5'	343°30.9'	N 21°35.4'	343°29.3'	N 21°25.9'	343°27.9'	N 21°16.1'	343°26.7'	N 21°05.9'	343°25.5'	N 20°55.3'
12	358°32.4'	N 21°44.1'	358°30.8'	N 21°35.0'	358°29.3'	N 21°25.5'	358°27.9'	N 21°15.7'	358°26.6'	N 21°05.4'	358°25.5'	N 20°54.9'
13	13°32.4'	N 21°43.8'	13°30.7'	N 21°34.6'	13°29.2'	N 21°25.1'	13°27.8'	N 21°15.2'	13°26.6'	N 21°05.0'	13°25.4'	N 20°54.4'
14	28°32.3'	N 21°43.4'	28°30.7'	N 21°34.2'	28°29.2'	N 21°24.7'	28°27.8'	N 21°14.8'	28°26.5'	N 21°04.6'	28°25.4'	N 20°54.0'
15	43°32.2'	N 21°43.0'	43°30.6'	N 21°33.8'	43°29.1'	N 21°24.3'	43°27.7'	N 21°14.4'	43°26.5'	N 21°04.1'	43°25.3'	N 20°53.5'
16	58°32.2'	N 21°42.6'	58°30.5'	N 21°33.4'	58°29.0'	N 21°23.9'	58°27.7'	N 21°14.0'	58°26.4'	N 21°03.7'	58°25.3'	N 20°53.1'
17	73°32.1'	N 21°42.3'	73°30.5'	N 21°33.1'	73°29.0'	N 21°23.5'	73°27.6'	N 21°13.6'	73°26.4'	N 21°03.3'	73°25.3'	N 20°52.6'
18	88°32.0'	N 21°41.9'	88°30.4'	N 21°32.7'	88°28.9'	N 21°23.1'	88°27.5'	N 21°13.1'	88°26.3'	N 21°02.8'	88°25.2'	N 20°52.2'
19	103°32.0'	N 21°41.5'	103°30.3'	N 21°32.3'	103°28.9'	N 21°22.7'	103°27.5'	N 21°12.7'	103°26.3'	N 21°02.4'	103°25.2'	N 20°51.7'
20	118°31.9'	N 21°41.1'	118°30.3'	N 21°31.9'	118°28.8'	N 21°22.3'	118°27.4'	N 21°12.3'	118°26.2'	N 21°02.0'	118°25.1'	N 20°51.3'
21	133°31.8'	N 21°40.7'	133°30.2'	N 21°31.5'	133°28.7'	N 21°21.9'	133°27.4'	N 21°11.9'	133°26.2'	N 21°01.5'	133°25.1'	N 20°50.8'
22	148°31.7'	N 21°40.4'	148°30.1'	N 21°31.1'	148°28.7'	N 21°21.5'	148°27.3'	N 21°11.4'	148°26.1'	N 21°01.1'	148°25.0'	N 20°50.4'
23	163°31.7'	N 21°40.0'	163°30.1'	N 21°30.7'	163°28.6'	N 21°21.0'	163°27.3'	N 21°11.0'	163°26.1'	N 21°00.6'	163°25.0'	N 20°49.9'
Zeitgl. 0h / 12h	-05:47 / -05:50		-05:54 / -05:57		-06:00 / -06:03		-06:06 / -06:08		-06:11 / -06:14		-06:16 / -06:18	
Kulmination UT	12:05:50		12:05:57		12:06:03		12:06:08		12:06:14		12:06:18	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Do 19.07.		Fr 20.07.		Sa 21.07.		So 22.07.		Mo 23.07.		Di 24.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°25.0'	N 20°49.5'	178°24.0'	N 20°38.4'	178°23.2'	N 20°26.9'	178°22.6'	N 20°15.1'	178°22.1'	N 20°03.0'	178°21.7'	N 19°50.5'
01	193°24.9'	N 20°49.0'	193°24.0'	N 20°37.9'	193°23.2'	N 20°26.4'	193°22.6'	N 20°14.6'	193°22.1'	N 20°02.5'	193°21.7'	N 19°50.0'
02	208°24.9'	N 20°48.5'	208°24.0'	N 20°37.4'	208°23.2'	N 20°25.9'	208°22.6'	N 20°14.1'	208°22.1'	N 20°02.0'	208°21.7'	N 19°49.5'
03	223°24.8'	N 20°48.1'	223°23.9'	N 20°36.9'	223°23.2'	N 20°25.5'	223°22.5'	N 20°13.6'	223°22.1'	N 20°01.5'	223°21.7'	N 19°49.0'
04	238°24.8'	N 20°47.6'	238°23.9'	N 20°36.5'	238°23.1'	N 20°25.0'	238°22.5'	N 20°13.1'	238°22.0'	N 20°00.9'	238°21.7'	N 19°48.4'
05	253°24.8'	N 20°47.2'	253°23.9'	N 20°36.0'	253°23.1'	N 20°24.5'	253°22.5'	N 20°12.6'	253°22.0'	N 20°00.4'	253°21.7'	N 19°47.9'
06	268°24.7'	N 20°46.7'	268°23.8'	N 20°35.5'	268°23.1'	N 20°24.0'	268°22.5'	N 20°12.1'	268°22.0'	N 19°59.9'	268°21.7'	N 19°47.4'
07	283°24.7'	N 20°46.3'	283°23.8'	N 20°35.1'	283°23.0'	N 20°23.5'	283°22.4'	N 20°11.6'	283°22.0'	N 19°59.4'	283°21.7'	N 19°46.8'
08	298°24.6'	N 20°45.8'	298°23.8'	N 20°34.6'	298°23.0'	N 20°23.0'	298°22.4'	N 20°11.1'	298°22.0'	N 19°58.9'	298°21.7'	N 19°46.3'
09	313°24.6'	N 20°45.3'	313°23.7'	N 20°34.1'	313°23.0'	N 20°22.5'	313°22.4'	N 20°10.6'	313°22.0'	N 19°58.4'	313°21.7'	N 19°45.8'
10	328°24.6'	N 20°44.9'	328°23.7'	N 20°33.6'	328°23.0'	N 20°22.0'	328°22.4'	N 20°10.1'	328°21.9'	N 19°57.9'	328°21.6'	N 19°45.3'
11	343°24.5'	N 20°44.4'	343°23.7'	N 20°33.2'	343°22.9'	N 20°21.6'	343°22.4'	N 20°09.6'	343°21.9'	N 19°57.3'	343°21.6'	N 19°44.7'
12	358°24.5'	N 20°44.0'	358°23.6'	N 20°32.7'	358°22.9'	N 20°21.1'	358°22.3'	N 20°09.1'	358°21.9'	N 19°56.8'	358°21.6'	N 19°44.2'
13	13°24.4'	N 20°43.5'	13°23.6'	N 20°32.2'	13°22.9'	N 20°20.6'	13°22.3'	N 20°08.6'	13°21.9'	N 19°56.3'	13°21.6'	N 19°43.7'
14	28°24.4'	N 20°43.0'	28°23.6'	N 20°31.7'	28°22.9'	N 20°20.1'	28°22.3'	N 20°08.1'	28°21.9'	N 19°55.8'	28°21.6'	N 19°43.1'
15	43°24.4'	N 20°42.6'	43°23.5'	N 20°31.2'	43°22.8'	N 20°19.6'	43°22.3'	N 20°07.6'	43°21.9'	N 19°55.3'	43°21.6'	N 19°42.6'
16	58°24.3'	N 20°42.1'	58°23.5'	N 20°30.8'	58°22.8'	N 20°19.1'	58°22.3'	N 20°07.1'	58°21.8'	N 19°54.7'	58°21.6'	N 19°42.1'
17	73°24.3'	N 20°41.6'	73°23.5'	N 20°30.3'	73°22.8'	N 20°18.6'	73°22.2'	N 20°06.6'	73°21.8'	N 19°54.2'	73°21.6'	N 19°41.5'
18	88°24.3'	N 20°41.2'	88°23.4'	N 20°29.8'	88°22.8'	N 20°18.1'	88°22.2'	N 20°06.1'	88°21.8'	N 19°53.7'	88°21.6'	N 19°41.0'
19	103°24.2'	N 20°40.7'	103°23.4'	N 20°29.3'	103°22.7'	N 20°17.6'	103°22.2'	N 20°05.6'	103°21.8'	N 19°53.2'	103°21.6'	N 19°40.4'
20	118°24.2'	N 20°40.2'	118°23.4'	N 20°28.8'	118°22.7'	N 20°17.1'	118°22.2'	N 20°05.0'	118°21.8'	N 19°52.6'	118°21.6'	N 19°39.9'
21	133°24.1'	N 20°39.8'	133°23.3'	N 20°28.4'	133°22.7'	N 20°16.6'	133°22.2'	N 20°04.5'	133°21.8'	N 19°52.1'	133°21.6'	N 19°39.4'
22	148°24.1'	N 20°39.3'	148°23.3'	N 20°27.9'	148°22.7'	N 20°16.1'	148°22.1'	N 20°04.0'	148°21.8'	N 19°51.6'	148°21.6'	N 19°38.8'
23	163°24.1'	N 20°38.8'	163°23.3'	N 20°27.4'	163°22.6'	N 20°15.6'	163°22.1'	N 20°03.5'	163°21.8'	N 19°51.1'	163°21.5'	N 19°38.3'
Zeitgl. 0h / 12h	-06:20 / -06:22		-06:24 / -06:26		-06:27 / -06:28		-06:30 / -06:31		-06:32 / -06:32		-06:33 / -06:33	
Kulmination UT	12:06:22		12:06:26		12:06:28		12:06:31		12:06:32		12:06:33	
Halbmesser	15.7'		15.7'		15.7'		15.7'		15.7'		15.7'	

	Mi 25.07.		Do 26.07.		Fr 27.07.		Sa 28.07.		So 29.07.		Mo 30.07.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°21.5'	N 19°37.8'	178°21.5'	N 19°24.6'	178°21.6'	N 19°11.2'	178°21.8'	N 18°57.4'	178°22.2'	N 18°43.4'	178°22.7'	N 18°29.0'
01	193°21.5'	N 19°37.2'	193°21.5'	N 19°24.1'	193°21.6'	N 19°10.6'	193°21.8'	N 18°56.9'	193°22.2'	N 18°42.8'	193°22.8'	N 18°28.4'
02	208°21.5'	N 19°36.7'	208°21.5'	N 19°23.5'	208°21.6'	N 19°10.1'	208°21.8'	N 18°56.3'	208°22.2'	N 18°42.2'	208°22.8'	N 18°27.8'
03	223°21.5'	N 19°36.1'	223°21.5'	N 19°23.0'	223°21.6'	N 19°09.5'	223°21.9'	N 18°55.7'	223°22.3'	N 18°41.6'	223°22.8'	N 18°27.2'
04	238°21.5'	N 19°35.6'	238°21.5'	N 19°22.4'	238°21.6'	N 19°08.9'	238°21.9'	N 18°55.1'	238°22.3'	N 18°41.0'	238°22.9'	N 18°26.6'
05	253°21.5'	N 19°35.0'	253°21.5'	N 19°21.9'	253°21.6'	N 19°08.4'	253°21.9'	N 18°54.5'	253°22.3'	N 18°40.4'	253°22.9'	N 18°26.0'
06	268°21.5'	N 19°34.5'	268°21.5'	N 19°21.3'	268°21.6'	N 19°07.8'	268°21.9'	N 18°54.0'	268°22.3'	N 18°39.8'	268°22.9'	N 18°25.4'
07	283°21.5'	N 19°34.0'	283°21.5'	N 19°20.7'	283°21.6'	N 19°07.2'	283°21.9'	N 18°53.4'	283°22.3'	N 18°39.2'	283°22.9'	N 18°24.7'
08	298°21.5'	N 19°33.4'	298°21.5'	N 19°20.2'	298°21.6'	N 19°06.6'	298°21.9'	N 18°52.8'	298°22.4'	N 18°38.6'	298°23.0'	N 18°24.1'
09	313°21.5'	N 19°32.9'	313°21.5'	N 19°19.6'	313°21.6'	N 19°06.1'	313°21.9'	N 18°52.2'	313°22.4'	N 18°38.0'	313°23.0'	N 18°23.5'
10	328°21.5'	N 19°32.3'	328°21.5'	N 19°19.1'	328°21.7'	N 19°05.5'	328°22.0'	N 18°51.6'	328°22.4'	N 18°37.4'	328°23.0'	N 18°22.9'
11	343°21.5'	N 19°31.8'	343°21.5'	N 19°18.5'	343°21.7'	N 19°04.9'	343°22.0'	N 18°51.0'	343°22.4'	N 18°36.8'	343°23.0'	N 18°22.3'
12	358°21.5'	N 19°31.2'	358°21.5'	N 19°18.0'	358°21.7'	N 19°04.4'	358°22.0'	N 18°50.4'	358°22.5'	N 18°36.2'	358°23.1'	N 18°21.7'
13	13°21.5'	N 19°30.7'	13°21.5'	N 19°17.4'	13°21.7'	N 19°03.8'	13°22.0'	N 18°49.9'	13°22.5'	N 18°35.6'	13°23.1'	N 18°21.1'
14	28°21.5'	N 19°30.1'	28°21.5'	N 19°16.8'	28°21.7'	N 19°03.2'	28°22.0'	N 18°49.3'	28°22.5'	N 18°35.0'	28°23.1'	N 18°20.5'
15	43°21.5'	N 19°29.6'	43°21.5'	N 19°16.3'	43°21.7'	N 19°02.6'	43°22.0'	N 18°48.7'	43°22.5'	N 18°34.4'	43°23.2'	N 18°19.9'
16	58°21.5'	N 19°29.0'	58°21.5'	N 19°15.7'	58°21.7'	N 19°02.1'	58°22.1'	N 18°48.1'	58°22.5'	N 18°33.8'	58°23.2'	N 18°19.2'
17	73°21.5'	N 19°28.5'	73°21.5'	N 19°15.1'	73°21.7'	N 19°01.5'	73°22.1'	N 18°47.5'	73°22.6'	N 18°33.2'	73°23.2'	N 18°18.6'
18	88°21.5'	N 19°27.9'	88°21.5'	N 19°14.6'	88°21.7'	N 19°00.9'	88°22.1'	N 18°46.9'	88°22.6'	N 18°32.6'	88°23.3'	N 18°18.0'
19	103°21.5'	N 19°27.4'	103°21.5'	N 19°14.0'	103°21.7'	N 19°00.3'	103°22.1'	N 18°46.3'	103°22.6'	N 18°32.0'	103°23.3'	N 18°17.4'
20	118°21.5'	N 19°26.8'	118°21.5'	N 19°13.5'	118°21.8'	N 18°59.8'	118°22.1'	N 18°45.7'	118°22.6'	N 18°31.4'	118°23.3'	N 18°16.8'
21	133°21.5'	N 19°26.3'	133°21.6'	N 19°12.9'	133°21.8'	N 18°59.2'	133°22.1'	N 18°45.1'	133°22.7'	N 18°30.8'	133°23.3'	N 18°16.2'
22	148°21.5'	N 19°25.7'	148°21.6'	N 19°12.3'	148°21.8'	N 18°58.6'	148°22.2'	N 18°44.6'	148°22.7'	N 18°30.2'	148°23.4'	N 18°15.6'
23	163°21.5'	N 19°25.2'	163°21.6'	N 19°11.8'	163°21.8'	N 18°58.0'	163°22.2'	N 18°44.0'	163°22.7'	N 18°29.6'	163°23.4'	N 18°14.9'
Zeitgl. 0h / 12h	-06:34 / -06:34		-06:34 / -06:34		-06:34 / -06:33		-06:33 / -06:32		-06:31 / -06:30		-06:29 / -06:28	
Kulmination UT	12:06:34		12:06:34		12:06:33		12:06:32		12:06:30		12:06:28	
Halbmesser	15.7'		15.7'		15.7'		15.8'		15.8'		15.8'	

Di 31.07.

UT	Grt	Dec
00	178°23.4'	N 18°14.3'
01	193°23.5'	N 18°13.7'
02	208°23.5'	N 18°13.1'
03	223°23.5'	N 18°12.5'
04	238°23.6'	N 18°11.8'
05	253°23.6'	N 18°11.2'
06	268°23.6'	N 18°10.6'
07	283°23.7'	N 18°10.0'
08	298°23.7'	N 18°09.4'
09	313°23.7'	N 18°08.7'
10	328°23.8'	N 18°08.1'
11	343°23.8'	N 18°07.5'
12	358°23.8'	N 18°06.9'
13	13°23.9'	N 18°06.2'
14	28°23.9'	N 18°05.6'
15	43°24.0'	N 18°05.0'
16	58°24.0'	N 18°04.4'
17	73°24.0'	N 18°03.7'
18	88°24.1'	N 18°03.1'
19	103°24.1'	N 18°02.5'
20	118°24.1'	N 18°01.9'
21	133°24.2'	N 18°01.2'
22	148°24.2'	N 18°00.6'
23	163°24.3'	N 18°00.0'

Zeitgl. 0h / 12h -06:26 / -06:25

Kulmination UT 12:06:25

Halbmesser 15.8'

2029

August

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Mi 01.08.		Do 02.08.		Fr 03.08.		Sa 04.08.		So 05.08.		Mo 06.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°24.3'	N 17°59.3'	178°25.3'	N 17°44.1'	178°26.4'	N 17°28.5'	178°27.7'	N 17°12.7'	178°29.2'	N 16°56.6'	178°30.8'	N 16°40.2'
01	193°24.3'	N 17°58.7'	193°25.3'	N 17°43.4'	193°26.5'	N 17°27.9'	193°27.8'	N 17°12.0'	193°29.3'	N 16°55.9'	193°30.9'	N 16°39.5'
02	208°24.4'	N 17°58.1'	208°25.4'	N 17°42.8'	208°26.5'	N 17°27.2'	208°27.9'	N 17°11.3'	208°29.3'	N 16°55.2'	208°30.9'	N 16°38.8'
03	223°24.4'	N 17°57.5'	223°25.4'	N 17°42.1'	223°26.6'	N 17°26.6'	223°27.9'	N 17°10.7'	223°29.4'	N 16°54.5'	223°31.0'	N 16°38.1'
04	238°24.4'	N 17°56.8'	238°25.5'	N 17°41.5'	238°26.7'	N 17°25.9'	238°28.0'	N 17°10.0'	238°29.5'	N 16°53.8'	238°31.1'	N 16°37.4'
05	253°24.5'	N 17°56.2'	253°25.5'	N 17°40.9'	253°26.7'	N 17°25.2'	253°28.0'	N 17°09.3'	253°29.5'	N 16°53.2'	253°31.2'	N 16°36.7'
06	268°24.5'	N 17°55.6'	268°25.6'	N 17°40.2'	268°26.8'	N 17°24.6'	268°28.1'	N 17°08.7'	268°29.6'	N 16°52.5'	268°31.2'	N 16°36.0'
07	283°24.6'	N 17°54.9'	283°25.6'	N 17°39.6'	283°26.8'	N 17°23.9'	283°28.2'	N 17°08.0'	283°29.7'	N 16°51.8'	283°31.3'	N 16°35.3'
08	298°24.6'	N 17°54.3'	298°25.7'	N 17°38.9'	298°26.9'	N 17°23.3'	298°28.2'	N 17°07.3'	298°29.7'	N 16°51.1'	298°31.4'	N 16°34.6'
09	313°24.6'	N 17°53.7'	313°25.7'	N 17°38.3'	313°26.9'	N 17°22.6'	313°28.3'	N 17°06.7'	313°29.8'	N 16°50.4'	313°31.4'	N 16°34.0'
10	328°24.7'	N 17°53.0'	328°25.8'	N 17°37.6'	328°27.0'	N 17°22.0'	328°28.3'	N 17°06.0'	328°29.9'	N 16°49.8'	328°31.5'	N 16°33.3'
11	343°24.7'	N 17°52.4'	343°25.8'	N 17°37.0'	343°27.0'	N 17°21.3'	343°28.4'	N 17°05.3'	343°29.9'	N 16°49.1'	343°31.6'	N 16°32.6'
12	358°24.8'	N 17°51.7'	358°25.8'	N 17°36.3'	358°27.1'	N 17°20.6'	358°28.5'	N 17°04.7'	358°30.0'	N 16°48.4'	358°31.7'	N 16°31.9'
13	13°24.8'	N 17°51.1'	13°25.9'	N 17°35.7'	13°27.1'	N 17°20.0'	13°28.5'	N 17°04.0'	13°30.1'	N 16°47.7'	13°31.7'	N 16°31.2'
14	28°24.9'	N 17°50.5'	28°25.9'	N 17°35.0'	28°27.2'	N 17°19.3'	28°28.6'	N 17°03.3'	28°30.1'	N 16°47.0'	28°31.8'	N 16°30.5'
15	43°24.9'	N 17°49.8'	43°26.0'	N 17°34.4'	43°27.2'	N 17°18.7'	43°28.6'	N 17°02.6'	43°30.2'	N 16°46.3'	43°31.9'	N 16°29.8'
16	58°24.9'	N 17°49.2'	58°26.0'	N 17°33.7'	58°27.3'	N 17°18.0'	58°28.7'	N 17°02.0'	58°30.3'	N 16°45.7'	58°32.0'	N 16°29.1'
17	73°25.0'	N 17°48.6'	73°26.1'	N 17°33.1'	73°27.4'	N 17°17.3'	73°28.8'	N 17°01.3'	73°30.3'	N 16°45.0'	73°32.0'	N 16°28.4'
18	88°25.0'	N 17°47.9'	88°26.1'	N 17°32.4'	88°27.4'	N 17°16.7'	88°28.8'	N 17°00.6'	88°30.4'	N 16°44.3'	88°32.1'	N 16°27.7'
19	103°25.1'	N 17°47.3'	103°26.2'	N 17°31.8'	103°27.5'	N 17°16.0'	103°28.9'	N 16°59.9'	103°30.5'	N 16°43.6'	103°32.2'	N 16°27.0'
20	118°25.1'	N 17°46.6'	118°26.2'	N 17°31.1'	118°27.5'	N 17°15.3'	118°28.9'	N 16°59.3'	118°30.5'	N 16°42.9'	118°32.3'	N 16°26.3'
21	133°25.2'	N 17°46.0'	133°26.3'	N 17°30.5'	133°27.6'	N 17°14.7'	133°29.0'	N 16°58.6'	133°30.6'	N 16°42.2'	133°32.3'	N 16°25.6'
22	148°25.2'	N 17°45.4'	148°26.3'	N 17°29.8'	148°27.6'	N 17°14.0'	148°29.1'	N 16°57.9'	148°30.7'	N 16°41.5'	148°32.4'	N 16°24.9'
23	163°25.2'	N 17°44.7'	163°26.4'	N 17°29.2'	163°27.7'	N 17°13.3'	163°29.1'	N 16°57.2'	163°30.7'	N 16°40.9'	163°32.5'	N 16°24.2'
Zeitgl. 0h / 12h	-06:23 / -06:21		-06:19 / -06:17		-06:14 / -06:12		-06:09 / -06:06		-06:03 / -06:00		-05:57 / -05:53	
Kulmination UT	12:06:21		12:06:17		12:06:12		12:06:06		12:06:00		12:05:53	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Di 07.08.		Mi 08.08.		Do 09.08.		Fr 10.08.		Sa 11.08.		So 12.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°32.6'	N 16°23.5'	178°34.5'	N 16°06.6'	178°36.5'	N 15°49.4'	178°38.7'	N 15°32.0'	178°41.0'	N 15°14.3'	178°43.5'	N 14°56.4'
01	193°32.6'	N 16°22.8'	193°34.5'	N 16°05.9'	193°36.6'	N 15°48.7'	193°38.8'	N 15°31.2'	193°41.1'	N 15°13.5'	193°43.6'	N 14°55.6'
02	208°32.7'	N 16°22.1'	208°34.6'	N 16°05.2'	208°36.7'	N 15°48.0'	208°38.9'	N 15°30.5'	208°41.2'	N 15°12.8'	208°43.7'	N 14°54.8'
03	223°32.8'	N 16°21.4'	223°34.7'	N 16°04.5'	223°36.8'	N 15°47.2'	223°39.0'	N 15°29.8'	223°41.3'	N 15°12.1'	223°43.8'	N 14°54.1'
04	238°32.9'	N 16°20.7'	238°34.8'	N 16°03.7'	238°36.9'	N 15°46.5'	238°39.1'	N 15°29.0'	238°41.4'	N 15°11.3'	238°43.9'	N 14°53.3'
05	253°32.9'	N 16°20.0'	253°34.9'	N 16°03.0'	253°36.9'	N 15°45.8'	253°39.2'	N 15°28.3'	253°41.5'	N 15°10.6'	253°44.0'	N 14°52.6'
06	268°33.0'	N 16°19.3'	268°35.0'	N 16°02.3'	268°37.0'	N 15°45.1'	268°39.3'	N 15°27.6'	268°41.6'	N 15°09.8'	268°44.1'	N 14°51.8'
07	283°33.1'	N 16°18.6'	283°35.0'	N 16°01.6'	283°37.1'	N 15°44.3'	283°39.4'	N 15°26.8'	283°41.7'	N 15°09.1'	283°44.3'	N 14°51.1'
08	298°33.2'	N 16°17.9'	298°35.1'	N 16°00.9'	298°37.2'	N 15°43.6'	298°39.5'	N 15°26.1'	298°41.8'	N 15°08.3'	298°44.4'	N 14°50.3'
09	313°33.3'	N 16°17.2'	313°35.2'	N 16°00.2'	313°37.3'	N 15°42.9'	313°39.6'	N 15°25.4'	313°41.9'	N 15°07.6'	313°44.5'	N 14°49.6'
10	328°33.3'	N 16°16.5'	328°35.3'	N 15°59.5'	328°37.4'	N 15°42.2'	328°39.7'	N 15°24.6'	328°42.0'	N 15°06.8'	328°44.6'	N 14°48.8'
11	343°33.4'	N 16°15.8'	343°35.4'	N 15°58.7'	343°37.5'	N 15°41.4'	343°39.7'	N 15°23.9'	343°42.1'	N 15°06.1'	343°44.7'	N 14°48.1'
12	358°33.5'	N 16°15.1'	358°35.5'	N 15°58.0'	358°37.6'	N 15°40.7'	358°39.8'	N 15°23.2'	358°42.2'	N 15°05.3'	358°44.8'	N 14°47.3'
13	13°33.6'	N 16°14.4'	13°35.5'	N 15°57.3'	13°37.7'	N 15°40.0'	13°39.9'	N 15°22.4'	13°42.4'	N 15°04.6'	13°44.9'	N 14°46.5'
14	28°33.6'	N 16°13.7'	28°35.6'	N 15°56.6'	28°37.8'	N 15°39.3'	28°40.0'	N 15°21.7'	28°42.5'	N 15°03.8'	28°45.0'	N 14°45.8'
15	43°33.7'	N 16°13.0'	43°35.7'	N 15°55.9'	43°37.9'	N 15°38.5'	43°40.1'	N 15°20.9'	43°42.6'	N 15°03.1'	43°45.1'	N 14°45.0'
16	58°33.8'	N 16°12.3'	58°35.8'	N 15°55.2'	58°37.9'	N 15°37.8'	58°40.2'	N 15°20.2'	58°42.7'	N 15°02.4'	58°45.2'	N 14°44.3'
17	73°33.9'	N 16°11.5'	73°35.9'	N 15°54.4'	73°38.0'	N 15°37.1'	73°40.3'	N 15°19.5'	73°42.8'	N 15°01.6'	73°45.3'	N 14°43.5'
18	88°34.0'	N 16°10.8'	88°36.0'	N 15°53.7'	88°38.1'	N 15°36.3'	88°40.4'	N 15°18.7'	88°42.9'	N 15°00.9'	88°45.5'	N 14°42.7'
19	103°34.0'	N 16°10.1'	103°36.1'	N 15°53.0'	103°38.2'	N 15°35.6'	103°40.5'	N 15°18.0'	103°43.0'	N 15°00.1'	103°45.6'	N 14°42.0'
20	118°34.1'	N 16°09.4'	118°36.2'	N 15°52.3'	118°38.3'	N 15°34.9'	118°40.6'	N 15°17.2'	118°43.1'	N 14°59.4'	118°45.7'	N 14°41.2'
21	133°34.2'	N 16°08.7'	133°36.2'	N 15°51.6'	133°38.4'	N 15°34.2'	133°40.7'	N 15°16.5'	133°43.2'	N 14°58.6'	133°45.8'	N 14°40.5'
22	148°34.3'	N 16°08.0'	148°36.3'	N 15°50.8'	148°38.5'	N 15°33.4'	148°40.8'	N 15°15.8'	148°43.3'	N 14°57.9'	148°45.9'	N 14°39.7'
23	163°34.4'	N 16°07.3'	163°36.4'	N 15°50.1'	163°38.6'	N 15°32.7'	163°40.9'	N 15°15.0'	163°43.4'	N 14°57.1'	163°46.0'	N 14°38.9'
Zeitgl. 0h / 12h	-05:50 / -05:46		-05:42 / -05:38		-05:34 / -05:30		-05:25 / -05:21		-05:16 / -05:11		-05:06 / -05:01	
Kulmination UT	12:05:46		12:05:38		12:05:30		12:05:21		12:05:11		12:05:01	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Mo 13.08.		Di 14.08.		Mi 15.08.		Do 16.08.		Fr 17.08.		Sa 18.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°46.1'	N 14°38.2'	178°48.9'	N 14°19.8'	178°51.8'	N 14°01.2'	178°54.8'	N 13°42.3'	178°57.9'	N 13°23.2'	179°01.2'	N 13°04.0'
01	193°46.2'	N 14°37.4'	193°49.0'	N 14°19.0'	193°51.9'	N 14°00.4'	193°54.9'	N 13°41.5'	193°58.1'	N 13°22.4'	194°01.3'	N 13°03.2'
02	208°46.3'	N 14°36.7'	208°49.1'	N 14°18.2'	208°52.0'	N 13°59.6'	208°55.0'	N 13°40.7'	208°58.2'	N 13°21.6'	209°01.5'	N 13°02.3'
03	223°46.5'	N 14°35.9'	223°49.2'	N 14°17.5'	223°52.1'	N 13°58.8'	223°55.2'	N 13°39.9'	223°58.3'	N 13°20.8'	224°01.6'	N 13°01.5'
04	238°46.6'	N 14°35.1'	238°49.3'	N 14°16.7'	238°52.3'	N 13°58.0'	238°55.3'	N 13°39.1'	238°58.5'	N 13°20.0'	239°01.8'	N 13°00.7'
05	253°46.7'	N 14°34.4'	253°49.5'	N 14°15.9'	253°52.4'	N 13°57.2'	253°55.4'	N 13°38.4'	253°58.6'	N 13°19.2'	254°01.9'	N 12°59.9'
06	268°46.8'	N 14°33.6'	268°49.6'	N 14°15.1'	268°52.5'	N 13°56.5'	268°55.5'	N 13°37.6'	268°58.7'	N 13°18.4'	269°02.0'	N 12°59.1'
07	283°46.9'	N 14°32.8'	283°49.7'	N 14°14.4'	283°52.6'	N 13°55.7'	283°55.7'	N 13°36.8'	283°58.9'	N 13°17.6'	284°02.2'	N 12°58.3'
08	298°47.0'	N 14°32.1'	298°49.8'	N 14°13.6'	298°52.7'	N 13°54.9'	298°55.8'	N 13°36.0'	298°59.0'	N 13°16.8'	299°02.3'	N 12°57.5'
09	313°47.1'	N 14°31.3'	313°49.9'	N 14°12.8'	313°52.9'	N 13°54.1'	313°55.9'	N 13°35.2'	313°59.1'	N 13°16.0'	314°02.5'	N 12°56.7'
10	328°47.2'	N 14°30.5'	328°50.1'	N 14°12.1'	328°53.0'	N 13°53.3'	328°56.1'	N 13°34.4'	328°59.3'	N 13°15.2'	329°02.6'	N 12°55.9'
11	343°47.4'	N 14°29.8'	343°50.2'	N 14°11.3'	343°53.1'	N 13°52.5'	343°56.2'	N 13°33.6'	343°59.4'	N 13°14.4'	344°02.7'	N 12°55.1'
12	358°47.5'	N 14°29.0'	358°50.3'	N 14°10.5'	358°53.2'	N 13°51.8'	358°56.3'	N 13°32.8'	358°59.5'	N 13°13.6'	359°02.9'	N 12°54.2'
13	13°47.6'	N 14°28.2'	13°50.4'	N 14°09.7'	13°53.4'	N 13°51.0'	13°56.5'	N 13°32.0'	13°59.7'	N 13°12.8'	14°03.0'	N 12°53.4'
14	28°47.7'	N 14°27.5'	28°50.5'	N 14°08.9'	28°53.5'	N 13°50.2'	28°56.6'	N 13°31.2'	28°59.8'	N 13°12.0'	29°03.2'	N 12°52.6'
15	43°47.8'	N 14°26.7'	43°50.7'	N 14°08.2'	43°53.6'	N 13°49.4'	43°56.7'	N 13°30.4'	44°00.0'	N 13°11.2'	44°03.3'	N 12°51.8'
16	58°47.9'	N 14°25.9'	58°50.8'	N 14°07.4'	58°53.8'	N 13°48.6'	58°56.9'	N 13°29.6'	59°00.1'	N 13°10.4'	59°03.4'	N 12°51.0'
17	73°48.1'	N 14°25.2'	73°50.9'	N 14°06.6'	73°53.9'	N 13°47.8'	73°57.0'	N 13°28.8'	74°00.2'	N 13°09.6'	74°03.6'	N 12°50.2'
18	88°48.2'	N 14°24.4'	88°51.0'	N 14°05.8'	88°54.0'	N 13°47.0'	88°57.1'	N 13°28.0'	89°00.4'	N 13°08.8'	89°03.7'	N 12°49.4'
19	103°48.3'	N 14°23.6'	103°51.1'	N 14°05.1'	103°54.1'	N 13°46.3'	103°57.3'	N 13°27.2'	104°00.5'	N 13°08.0'	104°03.9'	N 12°48.6'
20	118°48.4'	N 14°22.9'	118°51.3'	N 14°04.3'	118°54.3'	N 13°45.5'	118°57.4'	N 13°26.4'	119°00.6'	N 13°07.2'	119°04.0'	N 12°47.7'
21	133°48.5'	N 14°22.1'	133°51.4'	N 14°03.5'	133°54.4'	N 13°44.7'	133°57.5'	N 13°25.6'	134°00.8'	N 13°06.4'	134°04.2'	N 12°46.9'
22	148°48.6'	N 14°21.3'	148°51.5'	N 14°02.7'	148°54.5'	N 13°43.9'	148°57.7'	N 13°24.8'	149°00.9'	N 13°05.6'	149°04.3'	N 12°46.1'
23	163°48.8'	N 14°20.6'	163°51.6'	N 14°01.9'	163°54.6'	N 13°43.1'	163°57.8'	N 13°24.0'	164°01.1'	N 13°04.8'	164°04.5'	N 12°45.3'
Zeitgl. 0h / 12h	-04:56 / -04:50		-04:45 / -04:39		-04:33 / -04:27		-04:21 / -04:15		-04:08 / -04:02		-03:55 / -03:48	
Kulmination UT	12:04:50		12:04:39		12:04:27		12:04:15		12:04:02		12:03:48	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

UT	So 19.08.		Mo 20.08.		Di 21.08.		Mi 22.08.		Do 23.08.		Fr 24.08.	
	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°04.6'	N 12°44.5'	179°08.1'	N 12°24.8'	179°11.8'	N 12°04.9'	179°15.5'	N 11°44.8'	179°19.4'	N 11°24.6'	179°23.3'	N 11°04.1'
01	194°04.7'	N 12°43.7'	194°08.3'	N 12°24.0'	194°11.9'	N 12°04.1'	194°15.7'	N 11°44.0'	194°19.5'	N 11°23.7'	194°23.5'	N 11°03.3'
02	209°04.9'	N 12°42.8'	209°08.4'	N 12°23.1'	209°12.1'	N 12°03.2'	209°15.8'	N 11°43.2'	209°19.7'	N 11°22.9'	209°23.7'	N 11°02.4'
03	224°05.0'	N 12°42.0'	224°08.6'	N 12°22.3'	224°12.2'	N 12°02.4'	224°16.0'	N 11°42.3'	224°19.9'	N 11°22.0'	224°23.8'	N 11°01.6'
04	239°05.2'	N 12°41.2'	239°08.7'	N 12°21.5'	239°12.4'	N 12°01.6'	239°16.1'	N 11°41.5'	239°20.0'	N 11°21.2'	239°24.0'	N 11°00.7'
05	254°05.3'	N 12°40.4'	254°08.9'	N 12°20.7'	254°12.5'	N 12°00.7'	254°16.3'	N 11°40.6'	254°20.2'	N 11°20.3'	254°24.2'	N 10°59.9'
06	269°05.5'	N 12°39.6'	269°09.0'	N 12°19.8'	269°12.7'	N 11°59.9'	269°16.5'	N 11°39.8'	269°20.4'	N 11°19.5'	269°24.4'	N 10°59.0'
07	284°05.6'	N 12°38.8'	284°09.2'	N 12°19.0'	284°12.8'	N 11°59.1'	284°16.6'	N 11°38.9'	284°20.5'	N 11°18.6'	284°24.5'	N 10°58.1'
08	299°05.8'	N 12°37.9'	299°09.3'	N 12°18.2'	299°13.0'	N 11°58.2'	299°16.8'	N 11°38.1'	299°20.7'	N 11°17.8'	299°24.7'	N 10°57.3'
09	314°05.9'	N 12°37.1'	314°09.5'	N 12°17.4'	314°13.1'	N 11°57.4'	314°16.9'	N 11°37.3'	314°20.8'	N 11°16.9'	314°24.9'	N 10°56.4'
10	329°06.0'	N 12°36.3'	329°09.6'	N 12°16.5'	329°13.3'	N 11°56.6'	329°17.1'	N 11°36.4'	329°21.0'	N 11°16.1'	329°25.0'	N 10°55.6'
11	344°06.2'	N 12°35.5'	344°09.8'	N 12°15.7'	344°13.5'	N 11°55.7'	344°17.3'	N 11°35.6'	344°21.2'	N 11°15.2'	344°25.2'	N 10°54.7'
12	359°06.3'	N 12°34.7'	359°09.9'	N 12°14.9'	359°13.6'	N 11°54.9'	359°17.4'	N 11°34.7'	359°21.3'	N 11°14.4'	359°25.4'	N 10°53.8'
13	14°06.5'	N 12°33.8'	14°10.1'	N 12°14.0'	14°13.8'	N 11°54.1'	14°17.6'	N 11°33.9'	14°21.5'	N 11°13.5'	14°25.5'	N 10°53.0'
14	29°06.6'	N 12°33.0'	29°10.2'	N 12°13.2'	29°13.9'	N 11°53.2'	29°17.7'	N 11°33.0'	29°21.7'	N 11°12.7'	29°25.7'	N 10°52.1'
15	44°06.8'	N 12°32.2'	44°10.4'	N 12°12.4'	44°14.1'	N 11°52.4'	44°17.9'	N 11°32.2'	44°21.8'	N 11°11.8'	44°25.9'	N 10°51.3'
16	59°06.9'	N 12°31.4'	59°10.5'	N 12°11.6'	59°14.2'	N 11°51.5'	59°18.1'	N 11°31.3'	59°22.0'	N 11°11.0'	59°26.1'	N 10°50.4'
17	74°07.1'	N 12°30.6'	74°10.7'	N 12°10.7'	74°14.4'	N 11°50.7'	74°18.2'	N 11°30.5'	74°22.2'	N 11°10.1'	74°26.2'	N 10°49.5'
18	89°07.2'	N 12°29.7'	89°10.8'	N 12°09.9'	89°14.6'	N 11°49.9'	89°18.4'	N 11°29.7'	89°22.3'	N 11°09.3'	89°26.4'	N 10°48.7'
19	104°07.4'	N 12°28.9'	104°11.0'	N 12°09.1'	104°14.7'	N 11°49.0'	104°18.6'	N 11°28.8'	104°22.5'	N 11°08.4'	104°26.6'	N 10°47.8'
20	119°07.5'	N 12°28.1'	119°11.1'	N 12°08.2'	119°14.9'	N 11°48.2'	119°18.7'	N 11°28.0'	119°22.7'	N 11°07.6'	119°26.7'	N 10°47.0'
21	134°07.7'	N 12°27.3'	134°11.3'	N 12°07.4'	134°15.0'	N 11°47.4'	134°18.9'	N 11°27.1'	134°22.8'	N 11°06.7'	134°26.9'	N 10°46.1'
22	149°07.8'	N 12°26.4'	149°11.4'	N 12°06.6'	149°15.2'	N 11°46.5'	149°19.0'	N 11°26.3'	149°23.0'	N 11°05.8'	149°27.1'	N 10°45.2'
23	164°08.0'	N 12°25.6'	164°11.6'	N 12°05.7'	164°15.3'	N 11°45.7'	164°19.2'	N 11°25.4'	164°23.2'	N 11°05.0'	164°27.3'	N 10°44.4'
Zeitgl. 0h / 12h	-03:42 / -03:35		-03:28 / -03:20		-03:13 / -03:06		-02:58 / -02:50		-02:43 / -02:35		-02:27 / -02:19	
Kulmination UT	12:03:35		12:03:20		12:03:06		12:02:50		12:02:35		12:02:19	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Sa 25.08.		So 26.08.		Mo 27.08.		Di 28.08.		Mi 29.08.		Do 30.08.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°27.4'	N 10°43.5'	179°31.6'	N 10°22.7'	179°35.9'	N 10°01.8'	179°40.2'	N 9°40.7'	179°44.7'	N 9°19.4'	179°49.3'	N 8°58.0'
01	194°27.6'	N 10°42.7'	194°31.8'	N 10°21.9'	194°36.1'	N 10°00.9'	194°40.4'	N 9°39.8'	194°44.9'	N 9°18.5'	194°49.4'	N 8°57.1'
02	209°27.8'	N 10°41.8'	209°32.0'	N 10°21.0'	209°36.2'	N 10°00.0'	209°40.6'	N 9°38.9'	209°45.1'	N 9°17.6'	209°49.6'	N 8°56.2'
03	224°27.9'	N 10°40.9'	224°32.1'	N 10°20.1'	224°36.4'	N 9°59.2'	224°40.8'	N 9°38.0'	224°45.3'	N 9°16.7'	224°49.8'	N 8°55.3'
04	239°28.1'	N 10°40.1'	239°32.3'	N 10°19.3'	239°36.6'	N 9°58.3'	239°41.0'	N 9°37.1'	239°45.5'	N 9°15.9'	239°50.0'	N 8°54.4'
05	254°28.3'	N 10°39.2'	254°32.5'	N 10°18.4'	254°36.8'	N 9°57.4'	254°41.2'	N 9°36.3'	254°45.7'	N 9°15.0'	254°50.2'	N 8°53.5'
06	269°28.5'	N 10°38.3'	269°32.7'	N 10°17.5'	269°37.0'	N 9°56.5'	269°41.4'	N 9°35.4'	269°45.8'	N 9°14.1'	269°50.4'	N 8°52.6'
07	284°28.6'	N 10°37.5'	284°32.8'	N 10°16.6'	284°37.1'	N 9°55.6'	284°41.5'	N 9°34.5'	284°46.0'	N 9°13.2'	284°50.6'	N 8°51.7'
08	299°28.8'	N 10°36.6'	299°33.0'	N 10°15.8'	299°37.3'	N 9°54.8'	299°41.7'	N 9°33.6'	299°46.2'	N 9°12.3'	299°50.8'	N 8°50.8'
09	314°29.0'	N 10°35.7'	314°33.2'	N 10°14.9'	314°37.5'	N 9°53.9'	314°41.9'	N 9°32.7'	314°46.4'	N 9°11.4'	314°51.0'	N 8°49.9'
10	329°29.2'	N 10°34.9'	329°33.4'	N 10°14.0'	329°37.7'	N 9°53.0'	329°42.1'	N 9°31.8'	329°46.6'	N 9°10.5'	329°51.2'	N 8°49.0'
11	344°29.3'	N 10°34.0'	344°33.6'	N 10°13.2'	344°37.9'	N 9°52.1'	344°42.3'	N 9°30.9'	344°46.8'	N 9°09.6'	344°51.4'	N 8°48.1'
12	359°29.5'	N 10°33.1'	359°33.7'	N 10°12.3'	359°38.1'	N 9°51.2'	359°42.5'	N 9°30.1'	359°47.0'	N 9°08.7'	359°51.6'	N 8°47.2'
13	14°29.7'	N 10°32.3'	14°33.9'	N 10°11.4'	14°38.2'	N 9°50.4'	14°42.7'	N 9°29.2'	14°47.2'	N 9°07.8'	14°51.8'	N 8°46.3'
14	29°29.8'	N 10°31.4'	29°34.1'	N 10°10.5'	29°38.4'	N 9°49.5'	29°42.8'	N 9°28.3'	29°47.4'	N 9°06.9'	29°51.9'	N 8°45.4'
15	44°30.0'	N 10°30.5'	44°34.3'	N 10°09.7'	44°38.6'	N 9°48.6'	44°43.0'	N 9°27.4'	44°47.5'	N 9°06.0'	44°52.1'	N 8°44.5'
16	59°30.2'	N 10°29.7'	59°34.4'	N 10°08.8'	59°38.8'	N 9°47.7'	59°43.2'	N 9°26.5'	59°47.7'	N 9°05.2'	59°52.3'	N 8°43.6'
17	74°30.4'	N 10°28.8'	74°34.6'	N 10°07.9'	74°39.0'	N 9°46.8'	74°43.4'	N 9°25.6'	74°47.9'	N 9°04.3'	74°52.5'	N 8°42.7'
18	89°30.5'	N 10°27.9'	89°34.8'	N 10°07.0'	89°39.1'	N 9°46.0'	89°43.6'	N 9°24.7'	89°48.1'	N 9°03.4'	89°52.7'	N 8°41.9'
19	104°30.7'	N 10°27.1'	104°35.0'	N 10°06.2'	104°39.3'	N 9°45.1'	104°43.8'	N 9°23.9'	104°48.3'	N 9°02.5'	104°52.9'	N 8°41.0'
20	119°30.9'	N 10°26.2'	119°35.2'	N 10°05.3'	119°39.5'	N 9°44.2'	119°44.0'	N 9°23.0'	119°48.5'	N 9°01.6'	119°53.1'	N 8°40.1'
21	134°31.1'	N 10°25.3'	134°35.3'	N 10°04.4'	134°39.7'	N 9°43.3'	134°44.1'	N 9°22.1'	134°48.7'	N 9°00.7'	134°53.3'	N 8°39.2'
22	149°31.3'	N 10°24.5'	149°35.5'	N 10°03.5'	149°39.9'	N 9°42.4'	149°44.3'	N 9°21.2'	149°48.9'	N 8°59.8'	149°53.5'	N 8°38.3'
23	164°31.4'	N 10°23.6'	164°35.7'	N 10°02.7'	164°40.1'	N 9°41.6'	164°44.5'	N 9°20.3'	164°49.1'	N 8°58.9'	164°53.7'	N 8°37.3'
Zeitgl. 0h / 12h	-02:10 / -02:02		-01:54 / -01:45		-01:36 / -01:28		-01:19 / -01:10		-01:01 / -00:52		-00:43 / -00:34	
Kulmination UT	12:02:02		12:01:45		12:01:28		12:01:10		12:00:52		12:00:34	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

Fr 31.08.

UT	Grt	Dec
00	179°53.9'	N 8°36.4'
01	194°54.1'	N 8°35.5'
02	209°54.3'	N 8°34.6'
03	224°54.5'	N 8°33.7'
04	239°54.7'	N 8°32.8'
05	254°54.9'	N 8°31.9'
06	269°55.1'	N 8°31.0'
07	284°55.3'	N 8°30.1'
08	299°55.4'	N 8°29.2'
09	314°55.6'	N 8°28.3'
10	329°55.8'	N 8°27.4'
11	344°56.0'	N 8°26.5'
12	359°56.2'	N 8°25.6'
13	14°56.4'	N 8°24.7'
14	29°56.6'	N 8°23.8'
15	44°56.8'	N 8°22.9'
16	59°57.0'	N 8°22.0'
17	74°57.2'	N 8°21.1'
18	89°57.4'	N 8°20.2'
19	104°57.6'	N 8°19.3'
20	119°57.8'	N 8°18.4'
21	134°58.0'	N 8°17.5'
22	149°58.2'	N 8°16.6'
23	164°58.4'	N 8°15.7'

Zeitgl. 0h / 12h -00:24 / -00:15

Kulmination UT 12:00:15

Halbmesser 15.8'

2029

September

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Sa 01.09.		So 02.09.		Mo 03.09.		Di 04.09.		Mi 05.09.		Do 06.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°58.6'	N 8°14.8'	180°03.4'	N 7°52.9'	180°08.2'	N 7°31.0'	180°13.1'	N 7°08.9'	180°18.1'	N 6°46.7'	180°23.2'	N 6°24.4'
01	194°58.8'	N 8°13.9'	195°03.6'	N 7°52.0'	195°08.4'	N 7°30.1'	195°13.3'	N 7°08.0'	195°18.3'	N 6°45.8'	195°23.4'	N 6°23.5'
02	209°59.0'	N 8°12.9'	210°03.8'	N 7°51.1'	210°08.6'	N 7°29.1'	210°13.6'	N 7°07.1'	210°18.5'	N 6°44.9'	210°23.6'	N 6°22.6'
03	224°59.2'	N 8°12.0'	225°04.0'	N 7°50.2'	225°08.8'	N 7°28.2'	225°13.8'	N 7°06.1'	225°18.7'	N 6°43.9'	225°23.8'	N 6°21.6'
04	239°59.4'	N 8°11.1'	240°04.2'	N 7°49.3'	240°09.0'	N 7°27.3'	240°14.0'	N 7°05.2'	240°19.0'	N 6°43.0'	240°24.0'	N 6°20.7'
05	254°59.6'	N 8°10.2'	255°04.4'	N 7°48.4'	255°09.2'	N 7°26.4'	255°14.2'	N 7°04.3'	255°19.2'	N 6°42.1'	255°24.2'	N 6°19.8'
06	269°59.8'	N 8°09.3'	270°04.6'	N 7°47.5'	270°09.4'	N 7°25.5'	270°14.4'	N 7°03.4'	270°19.4'	N 6°41.2'	270°24.4'	N 6°18.8'
07	285°00.0'	N 8°08.4'	285°04.8'	N 7°46.5'	285°09.7'	N 7°24.6'	285°14.6'	N 7°02.5'	285°19.6'	N 6°40.2'	285°24.6'	N 6°17.9'
08	300°00.2'	N 8°07.5'	300°05.0'	N 7°45.6'	300°09.9'	N 7°23.6'	300°14.8'	N 7°01.5'	300°19.8'	N 6°39.3'	300°24.8'	N 6°17.0'
09	315°00.4'	N 8°06.6'	315°05.2'	N 7°44.7'	315°10.1'	N 7°22.7'	315°15.0'	N 7°00.6'	315°20.0'	N 6°38.4'	315°25.1'	N 6°16.0'
10	330°00.6'	N 8°05.7'	330°05.4'	N 7°43.8'	330°10.3'	N 7°21.8'	330°15.2'	N 6°59.7'	330°20.2'	N 6°37.4'	330°25.3'	N 6°15.1'
11	345°00.8'	N 8°04.8'	345°05.6'	N 7°42.9'	345°10.5'	N 7°20.9'	345°15.4'	N 6°58.8'	345°20.4'	N 6°36.5'	345°25.5'	N 6°14.2'
12	0°01.0'	N 8°03.9'	0°05.8'	N 7°42.0'	0°10.7'	N 7°20.0'	0°15.6'	N 6°57.8'	0°20.6'	N 6°35.6'	0°25.7'	N 6°13.2'
13	15°01.2'	N 8°03.0'	15°06.0'	N 7°41.1'	15°10.9'	N 7°19.0'	15°15.8'	N 6°56.9'	15°20.8'	N 6°34.7'	15°25.9'	N 6°12.3'
14	30°01.4'	N 8°02.0'	30°06.2'	N 7°40.1'	30°11.1'	N 7°18.1'	30°16.0'	N 6°56.0'	30°21.0'	N 6°33.7'	30°26.1'	N 6°11.4'
15	45°01.6'	N 8°01.1'	45°06.4'	N 7°39.2'	45°11.3'	N 7°17.2'	45°16.2'	N 6°55.1'	45°21.3'	N 6°32.8'	45°26.3'	N 6°10.4'
16	60°01.8'	N 8°00.2'	60°06.6'	N 7°38.3'	60°11.5'	N 7°16.3'	60°16.5'	N 6°54.1'	60°21.5'	N 6°31.9'	60°26.5'	N 6°09.5'
17	75°02.0'	N 7°59.3'	75°06.8'	N 7°37.4'	75°11.7'	N 7°15.4'	75°16.7'	N 6°53.2'	75°21.7'	N 6°30.9'	75°26.8'	N 6°08.6'
18	90°02.2'	N 7°58.4'	90°07.0'	N 7°36.5'	90°11.9'	N 7°14.4'	90°16.9'	N 6°52.3'	90°21.9'	N 6°30.0'	90°27.0'	N 6°07.6'
19	105°02.4'	N 7°57.5'	105°07.2'	N 7°35.6'	105°12.1'	N 7°13.5'	105°17.1'	N 6°51.4'	105°22.1'	N 6°29.1'	105°27.2'	N 6°06.7'
20	120°02.6'	N 7°56.6'	120°07.4'	N 7°34.7'	120°12.3'	N 7°12.6'	120°17.3'	N 6°50.4'	120°22.3'	N 6°28.1'	120°27.4'	N 6°05.8'
21	135°02.8'	N 7°55.7'	135°07.6'	N 7°33.7'	135°12.5'	N 7°11.7'	135°17.5'	N 6°49.5'	135°22.5'	N 6°27.2'	135°27.6'	N 6°04.8'
22	150°03.0'	N 7°54.8'	150°07.8'	N 7°32.8'	150°12.7'	N 7°10.8'	150°17.7'	N 6°48.6'	150°22.7'	N 6°26.3'	150°27.8'	N 6°03.9'
23	165°03.2'	N 7°53.8'	165°08.0'	N 7°31.9'	165°12.9'	N 7°09.8'	165°17.9'	N 6°47.7'	165°22.9'	N 6°25.4'	165°28.0'	N 6°03.0'
Zeitgl. 0h / 12h	-00:06 / +00:04		+00:13 / +00:23		+00:33 / +00:43		+00:53 / +01:02		+01:12 / +01:23		+01:33 / +01:43	
Kulmination UT	11:59:56		11:59:37		11:59:17		11:58:58		11:58:37		11:58:17	
Halbmesser	15.8'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Fr 07.09.		Sa 08.09.		So 09.09.		Mo 10.09.		Di 11.09.		Mi 12.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°28.2'	N 6°02.0'	180°33.4'	N 5°39.5'	180°38.6'	N 5°16.9'	180°43.8'	N 4°54.2'	180°49.0'	N 4°31.5'	180°54.3'	N 4°08.6'
01	195°28.5'	N 6°01.1'	195°33.6'	N 5°38.6'	195°38.8'	N 5°16.0'	195°44.0'	N 4°53.3'	195°49.2'	N 4°30.5'	195°54.5'	N 4°07.7'
02	210°28.7'	N 6°00.2'	210°33.8'	N 5°37.6'	210°39.0'	N 5°15.0'	210°44.2'	N 4°52.3'	210°49.5'	N 4°29.6'	210°54.7'	N 4°06.7'
03	225°28.9'	N 5°59.2'	225°34.0'	N 5°36.7'	225°39.2'	N 5°14.1'	225°44.4'	N 4°51.4'	225°49.7'	N 4°28.6'	225°55.0'	N 4°05.8'
04	240°29.1'	N 5°58.3'	240°34.2'	N 5°35.8'	240°39.4'	N 5°13.1'	240°44.6'	N 4°50.4'	240°49.9'	N 4°27.7'	240°55.2'	N 4°04.8'
05	255°29.3'	N 5°57.3'	255°34.4'	N 5°34.8'	255°39.6'	N 5°12.2'	255°44.9'	N 4°49.5'	255°50.1'	N 4°26.7'	255°55.4'	N 4°03.8'
06	270°29.5'	N 5°56.4'	270°34.7'	N 5°33.9'	270°39.9'	N 5°11.3'	270°45.1'	N 4°48.5'	270°50.3'	N 4°25.8'	270°55.6'	N 4°02.9'
07	285°29.7'	N 5°55.5'	285°34.9'	N 5°32.9'	285°40.1'	N 5°10.3'	285°45.3'	N 4°47.6'	285°50.6'	N 4°24.8'	285°55.8'	N 4°01.9'
08	300°29.9'	N 5°54.5'	300°35.1'	N 5°32.0'	300°40.3'	N 5°09.4'	300°45.5'	N 4°46.7'	300°50.8'	N 4°23.9'	300°56.1'	N 4°01.0'
09	315°30.2'	N 5°53.6'	315°35.3'	N 5°31.1'	315°40.5'	N 5°08.4'	315°45.7'	N 4°45.7'	315°51.0'	N 4°22.9'	315°56.3'	N 4°00.0'
10	330°30.4'	N 5°52.7'	330°35.5'	N 5°30.1'	330°40.7'	N 5°07.5'	330°46.0'	N 4°44.8'	330°51.2'	N 4°21.9'	330°56.5'	N 3°59.1'
11	345°30.6'	N 5°51.7'	345°35.7'	N 5°29.2'	345°40.9'	N 5°06.5'	345°46.2'	N 4°43.8'	345°51.4'	N 4°21.0'	345°56.7'	N 3°58.1'
12	0°30.8'	N 5°50.8'	0°36.0'	N 5°28.2'	0°41.2'	N 5°05.6'	0°46.4'	N 4°42.9'	0°51.7'	N 4°20.0'	0°57.0'	N 3°57.2'
13	15°31.0'	N 5°49.8'	15°36.2'	N 5°27.3'	15°41.4'	N 5°04.6'	15°46.6'	N 4°41.9'	15°51.9'	N 4°19.1'	15°57.2'	N 3°56.2'
14	30°31.2'	N 5°48.9'	30°36.4'	N 5°26.3'	30°41.6'	N 5°03.7'	30°46.8'	N 4°41.0'	30°52.1'	N 4°18.1'	30°57.4'	N 3°55.2'
15	45°31.4'	N 5°48.0'	45°36.6'	N 5°25.4'	45°41.8'	N 5°02.8'	45°47.0'	N 4°40.0'	45°52.3'	N 4°17.2'	45°57.6'	N 3°54.3'
16	60°31.7'	N 5°47.0'	60°36.8'	N 5°24.5'	60°42.0'	N 5°01.8'	60°47.3'	N 4°39.1'	60°52.5'	N 4°16.2'	60°57.8'	N 3°53.3'
17	75°31.9'	N 5°46.1'	75°37.0'	N 5°23.5'	75°42.2'	N 5°00.9'	75°47.5'	N 4°38.1'	75°52.8'	N 4°15.3'	75°58.1'	N 3°52.4'
18	90°32.1'	N 5°45.2'	90°37.3'	N 5°22.6'	90°42.5'	N 4°59.9'	90°47.7'	N 4°37.2'	90°53.0'	N 4°14.3'	90°58.3'	N 3°51.4'
19	105°32.3'	N 5°44.2'	105°37.5'	N 5°21.6'	105°42.7'	N 4°59.0'	105°47.9'	N 4°36.2'	105°53.2'	N 4°13.4'	105°58.5'	N 3°50.5'
20	120°32.5'	N 5°43.3'	120°37.7'	N 5°20.7'	120°42.9'	N 4°58.0'	120°48.1'	N 4°35.3'	120°53.4'	N 4°12.4'	120°58.7'	N 3°49.5'
21	135°32.7'	N 5°42.3'	135°37.9'	N 5°19.7'	135°43.1'	N 4°57.1'	135°48.4'	N 4°34.3'	135°53.6'	N 4°11.5'	135°58.9'	N 3°48.6'
22	150°32.9'	N 5°41.4'	150°38.1'	N 5°18.8'	150°43.3'	N 4°56.1'	150°48.6'	N 4°33.4'	150°53.9'	N 4°10.5'	150°59.2'	N 3°47.6'
23	165°33.2'	N 5°40.5'	165°38.3'	N 5°17.9'	165°43.6'	N 4°55.2'	165°48.8'	N 4°32.4'	165°54.1'	N 4°09.6'	165°59.4'	N 3°46.6'
Zeitgl. 0h / 12h	+01:53 / +02:03		+02:13 / +02:24		+02:34 / +02:45		+02:55 / +03:06		+03:16 / +03:27		+03:37 / +03:48	
Kulmination UT	11:57:57		11:57:36		11:57:15		11:56:54		11:56:33		11:56:12	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Do 13.09.		Fr 14.09.		Sa 15.09.		So 16.09.		Mo 17.09.		Di 18.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°59.6'	N 3°45.7'	181°04.9'	N 3°22.7'	181°10.3'	N 2°59.7'	181°15.6'	N 2°36.5'	181°21.0'	N 2°13.4'	181°26.3'	N 1°50.2'
01	195°59.8'	N 3°44.7'	196°05.2'	N 3°21.7'	196°10.5'	N 2°58.7'	196°15.8'	N 2°35.6'	196°21.2'	N 2°12.4'	196°26.6'	N 1°49.2'
02	211°00.1'	N 3°43.8'	211°05.4'	N 3°20.8'	211°10.7'	N 2°57.7'	211°16.1'	N 2°34.6'	211°21.4'	N 2°11.5'	211°26.8'	N 1°48.2'
03	226°00.3'	N 3°42.8'	226°05.6'	N 3°19.8'	226°10.9'	N 2°56.8'	226°16.3'	N 2°33.7'	226°21.7'	N 2°10.5'	226°27.0'	N 1°47.3'
04	241°00.5'	N 3°41.9'	241°05.8'	N 3°18.9'	241°11.2'	N 2°55.8'	241°16.5'	N 2°32.7'	241°21.9'	N 2°09.5'	241°27.2'	N 1°46.3'
05	256°00.7'	N 3°40.9'	256°06.0'	N 3°17.9'	256°11.4'	N 2°54.8'	256°16.7'	N 2°31.7'	256°22.1'	N 2°08.6'	256°27.5'	N 1°45.3'
06	271°00.9'	N 3°39.9'	271°06.3'	N 3°16.9'	271°11.6'	N 2°53.9'	271°17.0'	N 2°30.8'	271°22.3'	N 2°07.6'	271°27.7'	N 1°44.4'
07	286°01.2'	N 3°39.0'	286°06.5'	N 3°16.0'	286°11.8'	N 2°52.9'	286°17.2'	N 2°29.8'	286°22.5'	N 2°06.6'	286°27.9'	N 1°43.4'
08	301°01.4'	N 3°38.0'	301°06.7'	N 3°15.0'	301°12.1'	N 2°52.0'	301°17.4'	N 2°28.8'	301°22.8'	N 2°05.7'	301°28.1'	N 1°42.4'
09	316°01.6'	N 3°37.1'	316°06.9'	N 3°14.1'	316°12.3'	N 2°51.0'	316°17.6'	N 2°27.9'	316°23.0'	N 2°04.7'	316°28.4'	N 1°41.5'
10	331°01.8'	N 3°36.1'	331°07.2'	N 3°13.1'	331°12.5'	N 2°50.0'	331°17.9'	N 2°26.9'	331°23.2'	N 2°03.7'	331°28.6'	N 1°40.5'
11	346°02.0'	N 3°35.2'	346°07.4'	N 3°12.1'	346°12.7'	N 2°49.1'	346°18.1'	N 2°25.9'	346°23.4'	N 2°02.8'	346°28.8'	N 1°39.5'
12	1°02.3'	N 3°34.2'	1°07.6'	N 3°11.2'	1°12.9'	N 2°48.1'	1°18.3'	N 2°25.0'	1°23.7'	N 2°01.8'	1°29.0'	N 1°38.6'
13	16°02.5'	N 3°33.2'	16°07.8'	N 3°10.2'	16°13.2'	N 2°47.1'	16°18.5'	N 2°24.0'	16°23.9'	N 2°00.8'	16°29.2'	N 1°37.6'
14	31°02.7'	N 3°32.3'	31°08.0'	N 3°09.3'	31°13.4'	N 2°46.2'	31°18.8'	N 2°23.0'	31°24.1'	N 1°59.9'	31°29.5'	N 1°36.6'
15	46°02.9'	N 3°31.3'	46°08.3'	N 3°08.3'	46°13.6'	N 2°45.2'	46°19.0'	N 2°22.1'	46°24.3'	N 1°58.9'	46°29.7'	N 1°35.7'
16	61°03.2'	N 3°30.4'	61°08.5'	N 3°07.3'	61°13.8'	N 2°44.3'	61°19.2'	N 2°21.1'	61°24.6'	N 1°57.9'	61°29.9'	N 1°34.7'
17	76°03.4'	N 3°29.4'	76°08.7'	N 3°06.4'	76°14.1'	N 2°43.3'	76°19.4'	N 2°20.1'	76°24.8'	N 1°57.0'	76°30.1'	N 1°33.7'
18	91°03.6'	N 3°28.5'	91°08.9'	N 3°05.4'	91°14.3'	N 2°42.3'	91°19.6'	N 2°19.2'	91°25.0'	N 1°56.0'	91°30.4'	N 1°32.8'
19	106°03.8'	N 3°27.5'	106°09.2'	N 3°04.5'	106°14.5'	N 2°41.4'	106°19.9'	N 2°18.2'	106°25.2'	N 1°55.0'	106°30.6'	N 1°31.8'
20	121°04.0'	N 3°26.5'	121°09.4'	N 3°03.5'	121°14.7'	N 2°40.4'	121°20.1'	N 2°17.2'	121°25.5'	N 1°54.1'	121°30.8'	N 1°30.8'
21	136°04.3'	N 3°25.6'	136°09.6'	N 3°02.5'	136°15.0'	N 2°39.4'	136°20.3'	N 2°16.3'	136°25.7'	N 1°53.1'	136°31.0'	N 1°29.8'
22	151°04.5'	N 3°24.6'	151°09.8'	N 3°01.6'	151°15.2'	N 2°38.5'	151°20.5'	N 2°15.3'	151°25.9'	N 1°52.1'	151°31.3'	N 1°28.9'
23	166°04.7'	N 3°23.7'	166°10.1'	N 3°00.6'	166°15.4'	N 2°37.5'	166°20.8'	N 2°14.4'	166°26.1'	N 1°51.2'	166°31.5'	N 1°27.9'
Zeitgl. 0h / 12h	+03:58 / +04:09		+04:20 / +04:30		+04:41 / +04:52		+05:03 / +05:13		+05:24 / +05:35		+05:45 / +05:56	
Kulmination UT	11:55:51		11:55:30		11:55:08		11:54:47		11:54:25		11:54:04	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Mi 19.09.		Do 20.09.		Fr 21.09.		Sa 22.09.		So 23.09.		Mo 24.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	181°31.7'	N 1°26.9'	181°37.0'	N 1°03.7'	181°42.4'	N 0°40.4'	181°47.7'	N 0°17.0'	181°53.0'	S 0°06.3'	181°58.2'	S 0°29.7'
01	196°31.9'	N 1°26.0'	196°37.3'	N 1°02.7'	196°42.6'	N 0°39.4'	196°47.9'	N 0°16.1'	196°53.2'	S 0°07.3'	196°58.5'	S 0°30.6'
02	211°32.1'	N 1°25.0'	211°37.5'	N 1°01.7'	211°42.8'	N 0°38.4'	211°48.1'	N 0°15.1'	211°53.4'	S 0°08.3'	211°58.7'	S 0°31.6'
03	226°32.4'	N 1°24.0'	226°37.7'	N 1°00.8'	226°43.0'	N 0°37.4'	226°48.3'	N 0°14.1'	226°53.6'	S 0°09.2'	226°58.9'	S 0°32.6'
04	241°32.6'	N 1°23.1'	241°37.9'	N 0°59.8'	241°43.3'	N 0°36.5'	241°48.6'	N 0°13.1'	241°53.9'	S 0°10.2'	241°59.1'	S 0°33.6'
05	256°32.8'	N 1°22.1'	256°38.2'	N 0°58.8'	256°43.5'	N 0°35.5'	256°48.8'	N 0°12.2'	256°54.1'	S 0°11.2'	256°59.3'	S 0°34.5'
06	271°33.0'	N 1°21.1'	271°38.4'	N 0°57.8'	271°43.7'	N 0°34.5'	271°49.0'	N 0°11.2'	271°54.3'	S 0°12.2'	271°59.5'	S 0°35.5'
07	286°33.3'	N 1°20.2'	286°38.6'	N 0°56.9'	286°43.9'	N 0°33.6'	286°49.2'	N 0°10.2'	286°54.5'	S 0°13.1'	286°59.8'	S 0°36.5'
08	301°33.5'	N 1°19.2'	301°38.8'	N 0°55.9'	301°44.1'	N 0°32.6'	301°49.5'	N 0°09.3'	301°54.7'	S 0°14.1'	302°00.0'	S 0°37.5'
09	316°33.7'	N 1°18.2'	316°39.0'	N 0°54.9'	316°44.4'	N 0°31.6'	316°49.7'	N 0°08.3'	316°55.0'	S 0°15.1'	317°00.2'	S 0°38.4'
10	331°33.9'	N 1°17.2'	331°39.3'	N 0°54.0'	331°44.6'	N 0°30.6'	331°49.9'	N 0°07.3'	331°55.2'	S 0°16.0'	332°00.4'	S 0°39.4'
11	346°34.1'	N 1°16.3'	346°39.5'	N 0°53.0'	346°44.8'	N 0°29.7'	346°50.1'	N 0°06.3'	346°55.4'	S 0°17.0'	347°00.6'	S 0°40.4'
12	1°34.4'	N 1°15.3'	1°39.7'	N 0°52.0'	1°45.0'	N 0°28.7'	1°50.3'	N 0°05.4'	1°55.6'	S 0°18.0'	2°00.9'	S 0°41.3'
13	16°34.6'	N 1°14.3'	16°39.9'	N 0°51.0'	16°45.3'	N 0°27.7'	16°50.6'	N 0°04.4'	16°55.8'	S 0°19.0'	17°01.1'	S 0°42.3'
14	31°34.8'	N 1°13.4'	31°40.2'	N 0°50.1'	31°45.5'	N 0°26.8'	31°50.8'	N 0°03.4'	31°56.0'	S 0°19.9'	32°01.3'	S 0°43.3'
15	46°35.0'	N 1°12.4'	46°40.4'	N 0°49.1'	46°45.7'	N 0°25.8'	46°51.0'	N 0°02.4'	46°56.3'	S 0°20.9'	47°01.5'	S 0°44.3'
16	61°35.3'	N 1°11.4'	61°40.6'	N 0°48.1'	61°45.9'	N 0°24.8'	61°51.2'	N 0°01.5'	61°56.5'	S 0°21.9'	62°01.7'	S 0°45.2'
17	76°35.5'	N 1°10.5'	76°40.8'	N 0°47.2'	76°46.1'	N 0°23.8'	76°51.4'	N 0°00.5'	76°56.7'	S 0°22.9'	77°01.9'	S 0°46.2'
18	91°35.7'	N 1°09.5'	91°41.0'	N 0°46.2'	91°46.4'	N 0°22.9'	91°51.7'	S 0°00.5'	91°56.9'	S 0°23.8'	92°02.2'	S 0°47.2'
19	106°35.9'	N 1°08.5'	106°41.3'	N 0°45.2'	106°46.6'	N 0°21.9'	106°51.9'	S 0°01.4'	106°57.1'	S 0°24.8'	107°02.4'	S 0°48.2'
20	121°36.2'	N 1°07.5'	121°41.5'	N 0°44.2'	121°46.8'	N 0°20.9'	121°52.1'	S 0°02.4'	121°57.4'	S 0°25.8'	122°02.6'	S 0°49.1'
21	136°36.4'	N 1°06.6'	136°41.7'	N 0°43.3'	136°47.0'	N 0°19.9'	136°52.3'	S 0°03.4'	136°57.6'	S 0°26.7'	137°02.8'	S 0°50.1'
22	151°36.6'	N 1°05.6'	151°41.9'	N 0°42.3'	151°47.2'	N 0°19.0'	151°52.5'	S 0°04.4'	151°57.8'	S 0°27.7'	152°03.0'	S 0°51.1'
23	166°36.8'	N 1°04.6'	166°42.2'	N 0°41.3'	166°47.5'	N 0°18.0'	166°52.8'	S 0°05.3'	166°58.0'	S 0°28.7'	167°03.2'	S 0°52.1'
Zeitgl. 0h / 12h	+06:07 / +06:17		+06:28 / +06:39		+06:49 / +07:00		+07:11 / +07:21		+07:32 / +07:42		+07:53 / +08:03	
Kulmination UT	11:53:43		11:53:21		11:53:00		11:52:39		11:52:18		11:51:57	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Di 25.09.		Mi 26.09.		Do 27.09.		Fr 28.09.		Sa 29.09.		So 30.09.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°03.5'	S 0°53.0'	182°08.6'	S 1°16.4'	182°13.8'	S 1°39.7'	182°18.9'	S 2°03.1'	182°23.9'	S 2°26.4'	182°28.9'	S 2°49.7'
01	197°03.7'	S 0°54.0'	197°08.9'	S 1°17.4'	197°14.0'	S 1°40.7'	197°19.1'	S 2°04.1'	197°24.1'	S 2°27.4'	197°29.1'	S 2°50.7'
02	212°03.9'	S 0°55.0'	212°09.1'	S 1°18.3'	212°14.2'	S 1°41.7'	212°19.3'	S 2°05.0'	212°24.3'	S 2°28.4'	212°29.3'	S 2°51.7'
03	227°04.1'	S 0°56.0'	227°09.3'	S 1°19.3'	227°14.4'	S 1°42.7'	227°19.5'	S 2°06.0'	227°24.5'	S 2°29.3'	227°29.5'	S 2°52.6'
04	242°04.3'	S 0°56.9'	242°09.5'	S 1°20.3'	242°14.6'	S 1°43.6'	242°19.7'	S 2°07.0'	242°24.8'	S 2°30.3'	242°29.7'	S 2°53.6'
05	257°04.5'	S 0°57.9'	257°09.7'	S 1°21.3'	257°14.9'	S 1°44.6'	257°19.9'	S 2°08.0'	257°25.0'	S 2°31.3'	257°29.9'	S 2°54.6'
06	272°04.8'	S 0°58.9'	272°09.9'	S 1°22.2'	272°15.1'	S 1°45.6'	272°20.1'	S 2°08.9'	272°25.2'	S 2°32.2'	272°30.1'	S 2°55.5'
07	287°05.0'	S 0°59.8'	287°10.2'	S 1°23.2'	287°15.3'	S 1°46.6'	287°20.4'	S 2°09.9'	287°25.4'	S 2°33.2'	287°30.3'	S 2°56.5'
08	302°05.2'	S 1°00.8'	302°10.4'	S 1°24.2'	302°15.5'	S 1°47.5'	302°20.6'	S 2°10.9'	302°25.6'	S 2°34.2'	302°30.5'	S 2°57.5'
09	317°05.4'	S 1°01.8'	317°10.6'	S 1°25.2'	317°15.7'	S 1°48.5'	317°20.8'	S 2°11.8'	317°25.8'	S 2°35.2'	317°30.7'	S 2°58.5'
10	332°05.6'	S 1°02.8'	332°10.8'	S 1°26.1'	332°15.9'	S 1°49.5'	332°21.0'	S 2°12.8'	332°26.0'	S 2°36.1'	332°30.9'	S 2°59.4'
11	347°05.8'	S 1°03.7'	347°11.0'	S 1°27.1'	347°16.1'	S 1°50.4'	347°21.2'	S 2°13.8'	347°26.2'	S 2°37.1'	347°31.2'	S 3°00.4'
12	2°06.1'	S 1°04.7'	2°11.2'	S 1°28.1'	2°16.3'	S 1°51.4'	2°21.4'	S 2°14.8'	2°26.4'	S 2°38.1'	2°31.4'	S 3°01.4'
13	17°06.3'	S 1°05.7'	17°11.4'	S 1°29.0'	17°16.6'	S 1°52.4'	17°21.6'	S 2°15.7'	17°26.6'	S 2°39.0'	17°31.6'	S 3°02.3'
14	32°06.5'	S 1°06.7'	32°11.7'	S 1°30.0'	32°16.8'	S 1°53.4'	32°21.8'	S 2°16.7'	32°26.8'	S 2°40.0'	32°31.8'	S 3°03.3'
15	47°06.7'	S 1°07.6'	47°11.9'	S 1°31.0'	47°17.0'	S 1°54.3'	47°22.0'	S 2°17.7'	47°27.0'	S 2°41.0'	47°32.0'	S 3°04.3'
16	62°06.9'	S 1°08.6'	62°12.1'	S 1°32.0'	62°17.2'	S 1°55.3'	62°22.2'	S 2°18.6'	62°27.2'	S 2°42.0'	62°32.2'	S 3°05.2'
17	77°07.1'	S 1°09.6'	77°12.3'	S 1°32.9'	77°17.4'	S 1°56.3'	77°22.5'	S 2°19.6'	77°27.4'	S 2°42.9'	77°32.4'	S 3°06.2'
18	92°07.4'	S 1°10.6'	92°12.5'	S 1°33.9'	92°17.6'	S 1°57.3'	92°22.7'	S 2°20.6'	92°27.7'	S 2°43.9'	92°32.6'	S 3°07.2'
19	107°07.6'	S 1°11.5'	107°12.7'	S 1°34.9'	107°17.8'	S 1°58.2'	107°22.9'	S 2°21.6'	107°27.9'	S 2°44.9'	107°32.8'	S 3°08.2'
20	122°07.8'	S 1°12.5'	122°12.9'	S 1°35.9'	122°18.0'	S 1°59.2'	122°23.1'	S 2°22.5'	122°28.1'	S 2°45.8'	122°33.0'	S 3°09.1'
21	137°08.0'	S 1°13.5'	137°13.1'	S 1°36.8'	137°18.2'	S 2°00.2'	137°23.3'	S 2°23.5'	137°28.3'	S 2°46.8'	137°33.2'	S 3°10.1'
22	152°08.2'	S 1°14.4'	152°13.4'	S 1°37.8'	152°18.5'	S 2°01.1'	152°23.5'	S 2°24.5'	152°28.5'	S 2°47.8'	152°33.4'	S 3°11.1'
23	167°08.4'	S 1°15.4'	167°13.6'	S 1°38.8'	167°18.7'	S 2°02.1'	167°23.7'	S 2°25.4'	167°28.7'	S 2°48.8'	167°33.6'	S 3°12.0'
Zeitgl. 0h / 12h	+08:14 / +08:24		+08:35 / +08:45		+08:55 / +09:05		+09:16 / +09:26		+09:36 / +09:46		+09:56 / +10:05	
Kulmination UT	11:51:36		11:51:15		11:50:55		11:50:34		11:50:14		11:49:55	
Halbmesser	15.9'		16.0'		16.0'		16.0'		16.0'		16.0'	

2029

Oktober

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Mo 01.10.		Di 02.10.		Mi 03.10.		Do 04.10.		Fr 05.10.		Sa 06.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°33.8'	S 3°13.0'	182°38.6'	S 3°36.2'	182°43.4'	S 3°59.4'	182°48.1'	S 4°22.6'	182°52.7'	S 4°45.7'	182°57.2'	S 5°08.7'
01	197°34.0'	S 3°14.0'	197°38.9'	S 3°37.2'	197°43.6'	S 4°00.4'	197°48.3'	S 4°23.6'	197°52.9'	S 4°46.7'	197°57.4'	S 5°09.7'
02	212°34.2'	S 3°14.9'	212°39.1'	S 3°38.2'	212°43.8'	S 4°01.4'	212°48.5'	S 4°24.5'	212°53.1'	S 4°47.6'	212°57.6'	S 5°10.7'
03	227°34.4'	S 3°15.9'	227°39.3'	S 3°39.1'	227°44.0'	S 4°02.3'	227°48.7'	S 4°25.5'	227°53.3'	S 4°48.6'	227°57.8'	S 5°11.6'
04	242°34.6'	S 3°16.9'	242°39.4'	S 3°40.1'	242°44.2'	S 4°03.3'	242°48.9'	S 4°26.4'	242°53.5'	S 4°49.5'	242°58.0'	S 5°12.6'
05	257°34.8'	S 3°17.8'	257°39.6'	S 3°41.1'	257°44.4'	S 4°04.3'	257°49.1'	S 4°27.4'	257°53.7'	S 4°50.5'	257°58.1'	S 5°13.5'
06	272°35.0'	S 3°18.8'	272°39.8'	S 3°42.0'	272°44.6'	S 4°05.2'	272°49.3'	S 4°28.4'	272°53.8'	S 4°51.5'	272°58.3'	S 5°14.5'
07	287°35.2'	S 3°19.8'	287°40.0'	S 3°43.0'	287°44.8'	S 4°06.2'	287°49.5'	S 4°29.3'	287°54.0'	S 4°52.4'	287°58.5'	S 5°15.4'
08	302°35.4'	S 3°20.8'	302°40.2'	S 3°44.0'	302°45.0'	S 4°07.2'	302°49.6'	S 4°30.3'	302°54.2'	S 4°53.4'	302°58.7'	S 5°16.4'
09	317°35.6'	S 3°21.7'	317°40.4'	S 3°44.9'	317°45.2'	S 4°08.1'	317°49.8'	S 4°31.3'	317°54.4'	S 4°54.3'	317°58.9'	S 5°17.4'
10	332°35.8'	S 3°22.7'	332°40.6'	S 3°45.9'	332°45.4'	S 4°09.1'	332°50.0'	S 4°32.2'	332°54.6'	S 4°55.3'	332°59.1'	S 5°18.3'
11	347°36.0'	S 3°23.7'	347°40.8'	S 3°46.9'	347°45.6'	S 4°10.1'	347°50.2'	S 4°33.2'	347°54.8'	S 4°56.3'	347°59.3'	S 5°19.3'
12	2°36.2'	S 3°24.6'	2°41.0'	S 3°47.8'	2°45.8'	S 4°11.0'	2°50.4'	S 4°34.2'	2°55.0'	S 4°57.2'	2°59.4'	S 5°20.2'
13	17°36.4'	S 3°25.6'	17°41.2'	S 3°48.8'	17°46.0'	S 4°12.0'	17°50.6'	S 4°35.1'	17°55.2'	S 4°58.2'	17°59.6'	S 5°21.2'
14	32°36.6'	S 3°26.6'	32°41.4'	S 3°49.8'	32°46.2'	S 4°13.0'	32°50.8'	S 4°36.1'	32°55.3'	S 4°59.1'	32°59.8'	S 5°22.2'
15	47°36.8'	S 3°27.5'	47°41.6'	S 3°50.7'	47°46.4'	S 4°13.9'	47°51.0'	S 4°37.0'	47°55.5'	S 5°00.1'	48°00.0'	S 5°23.1'
16	62°37.0'	S 3°28.5'	62°41.8'	S 3°51.7'	62°46.6'	S 4°14.9'	62°51.2'	S 4°38.0'	62°55.7'	S 5°01.1'	63°00.2'	S 5°24.1'
17	77°37.2'	S 3°29.5'	77°42.0'	S 3°52.7'	77°46.7'	S 4°15.8'	77°51.4'	S 4°39.0'	77°55.9'	S 5°02.0'	78°00.4'	S 5°25.0'
18	92°37.4'	S 3°30.4'	92°42.2'	S 3°53.6'	92°46.9'	S 4°16.8'	92°51.6'	S 4°39.9'	92°56.1'	S 5°03.0'	93°00.5'	S 5°26.0'
19	107°37.6'	S 3°31.4'	107°42.4'	S 3°54.6'	107°47.1'	S 4°17.8'	107°51.8'	S 4°40.9'	107°56.3'	S 5°03.9'	108°00.7'	S 5°26.9'
20	122°37.8'	S 3°32.4'	122°42.6'	S 3°55.6'	122°47.3'	S 4°18.7'	122°51.9'	S 4°41.8'	122°56.5'	S 5°04.9'	123°00.9'	S 5°27.9'
21	137°38.0'	S 3°33.3'	137°42.8'	S 3°56.5'	137°47.5'	S 4°19.7'	137°52.1'	S 4°42.8'	137°56.7'	S 5°05.9'	138°01.1'	S 5°28.8'
22	152°38.2'	S 3°34.3'	152°43.0'	S 3°57.5'	152°47.7'	S 4°20.7'	152°52.3'	S 4°43.8'	152°56.8'	S 5°06.8'	153°01.3'	S 5°29.8'
23	167°38.4'	S 3°35.3'	167°43.2'	S 3°58.5'	167°47.9'	S 4°21.6'	167°52.5'	S 4°44.7'	167°57.0'	S 5°07.8'	168°01.4'	S 5°30.8'
Zeitgl. 0h / 12h	+10:15 / +10:25		+10:35 / +10:44		+10:54 / +11:03		+11:12 / +11:22		+11:31 / +11:40		+11:49 / +11:58	
Kulmination UT	11:49:35		11:49:16		11:48:57		11:48:38		11:48:20		11:48:02	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

	So 07.10.		Mo 08.10.		Di 09.10.		Mi 10.10.		Do 11.10.		Fr 12.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°01.6'	S 5°31.7'	183°05.9'	S 5°54.6'	183°10.2'	S 6°17.5'	183°14.3'	S 6°40.2'	183°18.2'	S 7°02.9'	183°22.1'	S 7°25.4'
01	198°01.8'	S 5°32.7'	198°06.1'	S 5°55.6'	198°10.3'	S 6°18.4'	198°14.4'	S 6°41.1'	198°18.4'	S 7°03.8'	198°22.3'	S 7°26.4'
02	213°02.0'	S 5°33.6'	213°06.3'	S 5°56.5'	213°10.5'	S 6°19.4'	213°14.6'	S 6°42.1'	213°18.6'	S 7°04.7'	213°22.4'	S 7°27.3'
03	228°02.2'	S 5°34.6'	228°06.5'	S 5°57.5'	228°10.7'	S 6°20.3'	228°14.8'	S 6°43.0'	228°18.7'	S 7°05.7'	228°22.6'	S 7°28.2'
04	243°02.4'	S 5°35.5'	243°06.7'	S 5°58.4'	243°10.8'	S 6°21.3'	243°14.9'	S 6°44.0'	243°18.9'	S 7°06.6'	243°22.7'	S 7°29.2'
05	258°02.5'	S 5°36.5'	258°06.8'	S 5°59.4'	258°11.0'	S 6°22.2'	258°15.1'	S 6°44.9'	258°19.0'	S 7°07.6'	258°22.9'	S 7°30.1'
06	273°02.7'	S 5°37.5'	273°07.0'	S 6°00.3'	273°11.2'	S 6°23.1'	273°15.3'	S 6°45.9'	273°19.2'	S 7°08.5'	273°23.0'	S 7°31.0'
07	288°02.9'	S 5°38.4'	288°07.2'	S 6°01.3'	288°11.4'	S 6°24.1'	288°15.4'	S 6°46.8'	288°19.4'	S 7°09.5'	288°23.2'	S 7°32.0'
08	303°03.1'	S 5°39.4'	303°07.4'	S 6°02.2'	303°11.5'	S 6°25.0'	303°15.6'	S 6°47.8'	303°19.5'	S 7°10.4'	303°23.4'	S 7°32.9'
09	318°03.3'	S 5°40.3'	318°07.5'	S 6°03.2'	318°11.7'	S 6°26.0'	318°15.8'	S 6°48.7'	318°19.7'	S 7°11.3'	318°23.5'	S 7°33.9'
10	333°03.4'	S 5°41.3'	333°07.7'	S 6°04.1'	333°11.9'	S 6°26.9'	333°15.9'	S 6°49.7'	333°19.9'	S 7°12.3'	333°23.7'	S 7°34.8'
11	348°03.6'	S 5°42.2'	348°07.9'	S 6°05.1'	348°12.0'	S 6°27.9'	348°16.1'	S 6°50.6'	348°20.0'	S 7°13.2'	348°23.8'	S 7°35.7'
12	3°03.8'	S 5°43.2'	3°08.1'	S 6°06.0'	3°12.2'	S 6°28.8'	3°16.3'	S 6°51.5'	3°20.2'	S 7°14.2'	3°24.0'	S 7°36.7'
13	18°04.0'	S 5°44.1'	18°08.2'	S 6°07.0'	18°12.4'	S 6°29.8'	18°16.4'	S 6°52.5'	18°20.3'	S 7°15.1'	18°24.1'	S 7°37.6'
14	33°04.2'	S 5°45.1'	33°08.4'	S 6°08.0'	33°12.6'	S 6°30.7'	33°16.6'	S 6°53.4'	33°20.5'	S 7°16.0'	33°24.3'	S 7°38.5'
15	48°04.3'	S 5°46.0'	48°08.6'	S 6°08.9'	48°12.7'	S 6°31.7'	48°16.8'	S 6°54.4'	48°20.7'	S 7°17.0'	48°24.4'	S 7°39.5'
16	63°04.5'	S 5°47.0'	63°08.8'	S 6°09.9'	63°12.9'	S 6°32.6'	63°16.9'	S 6°55.3'	63°20.8'	S 7°17.9'	63°24.6'	S 7°40.4'
17	78°04.7'	S 5°48.0'	78°08.9'	S 6°10.8'	78°13.1'	S 6°33.6'	78°17.1'	S 6°56.3'	78°21.0'	S 7°18.9'	78°24.8'	S 7°41.3'
18	93°04.9'	S 5°48.9'	93°09.1'	S 6°11.8'	93°13.2'	S 6°34.5'	93°17.2'	S 6°57.2'	93°21.1'	S 7°19.8'	93°24.9'	S 7°42.3'
19	108°05.1'	S 5°49.9'	108°09.3'	S 6°12.7'	108°13.4'	S 6°35.5'	108°17.4'	S 6°58.1'	108°21.3'	S 7°20.7'	108°25.1'	S 7°43.2'
20	123°05.2'	S 5°50.8'	123°09.5'	S 6°13.7'	123°13.6'	S 6°36.4'	123°17.6'	S 6°59.1'	123°21.5'	S 7°21.7'	123°25.2'	S 7°44.2'
21	138°05.4'	S 5°51.8'	138°09.6'	S 6°14.6'	138°13.7'	S 6°37.4'	138°17.7'	S 7°00.0'	138°21.6'	S 7°22.6'	138°25.4'	S 7°45.1'
22	153°05.6'	S 5°52.7'	153°09.8'	S 6°15.6'	153°13.9'	S 6°38.3'	153°17.9'	S 7°01.0'	153°21.8'	S 7°23.5'	153°25.5'	S 7°46.0'
23	168°05.8'	S 5°53.7'	168°10.0'	S 6°16.5'	168°14.1'	S 6°39.3'	168°18.1'	S 7°01.9'	168°21.9'	S 7°24.5'	168°25.7'	S 7°47.0'
Zeitgl. 0h / 12h	+12:07 / +12:15		+12:24 / +12:32		+12:41 / +12:49		+12:57 / +13:05		+13:13 / +13:21		+13:28 / +13:36	
Kulmination UT	11:47:45		11:47:28		11:47:11		11:46:55		11:46:39		11:46:24	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

	Sa 13.10.		So 14.10.		Mo 15.10.		Di 16.10.		Mi 17.10.		Do 18.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°25.8'	S 7°47.9'	183°29.4'	S 8°10.2'	183°32.9'	S 8°32.5'	183°36.2'	S 8°54.6'	183°39.4'	S 9°16.6'	183°42.4'	S 9°38.5'
01	198°26.0'	S 7°48.8'	198°29.6'	S 8°11.2'	198°33.0'	S 8°33.4'	198°36.4'	S 8°55.5'	198°39.5'	S 9°17.5'	198°42.6'	S 9°39.4'
02	213°26.1'	S 7°49.8'	213°29.7'	S 8°12.1'	213°33.2'	S 8°34.3'	213°36.5'	S 8°56.4'	213°39.7'	S 9°18.4'	213°42.7'	S 9°40.3'
03	228°26.3'	S 7°50.7'	228°29.9'	S 8°13.0'	228°33.3'	S 8°35.3'	228°36.6'	S 8°57.4'	228°39.8'	S 9°19.3'	228°42.8'	S 9°41.2'
04	243°26.4'	S 7°51.6'	243°30.0'	S 8°14.0'	243°33.5'	S 8°36.2'	243°36.8'	S 8°58.3'	243°39.9'	S 9°20.2'	243°42.9'	S 9°42.1'
05	258°26.6'	S 7°52.6'	258°30.2'	S 8°14.9'	258°33.6'	S 8°37.1'	258°36.9'	S 8°59.2'	258°40.1'	S 9°21.2'	258°43.1'	S 9°43.0'
06	273°26.7'	S 7°53.5'	273°30.3'	S 8°15.8'	273°33.7'	S 8°38.0'	273°37.0'	S 9°00.1'	273°40.2'	S 9°22.1'	273°43.2'	S 9°43.9'
07	288°26.9'	S 7°54.4'	288°30.5'	S 8°16.7'	288°33.9'	S 8°38.9'	288°37.2'	S 9°01.0'	288°40.3'	S 9°23.0'	288°43.3'	S 9°44.8'
08	303°27.0'	S 7°55.4'	303°30.6'	S 8°17.7'	303°34.0'	S 8°39.9'	303°37.3'	S 9°01.9'	303°40.4'	S 9°23.9'	303°43.4'	S 9°45.7'
09	318°27.2'	S 7°56.3'	318°30.7'	S 8°18.6'	318°34.2'	S 8°40.8'	318°37.4'	S 9°02.9'	318°40.6'	S 9°24.8'	318°43.5'	S 9°46.6'
10	333°27.3'	S 7°57.2'	333°30.9'	S 8°19.5'	333°34.3'	S 8°41.7'	333°37.6'	S 9°03.8'	333°40.7'	S 9°25.7'	333°43.7'	S 9°47.5'
11	348°27.5'	S 7°58.1'	348°31.0'	S 8°20.4'	348°34.4'	S 8°42.6'	348°37.7'	S 9°04.7'	348°40.8'	S 9°26.6'	348°43.8'	S 9°48.4'
12	3°27.6'	S 7°59.1'	3°31.2'	S 8°21.4'	3°34.6'	S 8°43.6'	3°37.8'	S 9°05.6'	3°41.0'	S 9°27.5'	3°43.9'	S 9°49.3'
13	18°27.8'	S 8°00.0'	18°31.3'	S 8°22.3'	18°34.7'	S 8°44.5'	18°38.0'	S 9°06.5'	18°41.1'	S 9°28.5'	18°44.0'	S 9°50.2'
14	33°27.9'	S 8°00.9'	33°31.5'	S 8°23.2'	33°34.9'	S 8°45.4'	33°38.1'	S 9°07.4'	33°41.2'	S 9°29.4'	33°44.1'	S 9°51.1'
15	48°28.1'	S 8°01.9'	48°31.6'	S 8°24.2'	48°35.0'	S 8°46.3'	48°38.2'	S 9°08.4'	48°41.3'	S 9°30.3'	48°44.3'	S 9°52.0'
16	63°28.2'	S 8°02.8'	63°31.8'	S 8°25.1'	63°35.1'	S 8°47.2'	63°38.4'	S 9°09.3'	63°41.5'	S 9°31.2'	63°44.4'	S 9°53.0'
17	78°28.4'	S 8°03.7'	78°31.9'	S 8°26.0'	78°35.3'	S 8°48.2'	78°38.5'	S 9°10.2'	78°41.6'	S 9°32.1'	78°44.5'	S 9°53.9'
18	93°28.5'	S 8°04.7'	93°32.0'	S 8°26.9'	93°35.4'	S 8°49.1'	93°38.6'	S 9°11.1'	93°41.7'	S 9°33.0'	93°44.6'	S 9°54.8'
19	108°28.7'	S 8°05.6'	108°32.2'	S 8°27.9'	108°35.5'	S 8°50.0'	108°38.8'	S 9°12.0'	108°41.8'	S 9°33.9'	108°44.7'	S 9°55.7'
20	123°28.8'	S 8°06.5'	123°32.3'	S 8°28.8'	123°35.7'	S 8°50.9'	123°38.9'	S 9°12.9'	123°42.0'	S 9°34.8'	123°44.9'	S 9°56.6'
21	138°29.0'	S 8°07.5'	138°32.5'	S 8°29.7'	138°35.8'	S 8°51.8'	138°39.0'	S 9°13.9'	138°42.1'	S 9°35.7'	138°45.0'	S 9°57.5'
22	153°29.1'	S 8°08.4'	153°32.6'	S 8°30.6'	153°36.0'	S 8°52.8'	153°39.2'	S 9°14.8'	153°42.2'	S 9°36.6'	153°45.1'	S 9°58.4'
23	168°29.3'	S 8°09.3'	168°32.8'	S 8°31.6'	168°36.1'	S 8°53.7'	168°39.3'	S 9°15.7'	168°42.3'	S 9°37.5'	168°45.2'	S 9°59.3'
Zeitgl. 0h / 12h	+13:43 / +13:51		+13:58 / +14:05		+14:12 / +14:18		+14:25 / +14:31		+14:38 / +14:44		+14:50 / +14:56	
Kulmination UT	11:46:09		11:45:55		11:45:42		11:45:29		11:45:16		11:45:04	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.1'	

	Fr 19.10.		Sa 20.10.		So 21.10.		Mo 22.10.		Di 23.10.		Mi 24.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°45.3'	S 10°00.2'	183°48.1'	S 10°21.8'	183°50.6'	S 10°43.2'	183°53.0'	S 11°04.4'	183°55.2'	S 11°25.5'	183°57.3'	S 11°46.5'
01	198°45.4'	S 10°01.1'	198°48.2'	S 10°22.6'	198°50.7'	S 10°44.1'	198°53.1'	S 11°05.3'	198°55.3'	S 11°26.4'	198°57.4'	S 11°47.3'
02	213°45.6'	S 10°02.0'	213°48.3'	S 10°23.5'	213°50.8'	S 10°45.0'	213°53.2'	S 11°06.2'	213°55.4'	S 11°27.3'	213°57.4'	S 11°48.2'
03	228°45.7'	S 10°02.9'	228°48.4'	S 10°24.4'	228°50.9'	S 10°45.8'	228°53.3'	S 11°07.1'	228°55.5'	S 11°28.2'	228°57.5'	S 11°49.1'
04	243°45.8'	S 10°03.8'	243°48.5'	S 10°25.3'	243°51.0'	S 10°46.7'	243°53.4'	S 11°08.0'	243°55.6'	S 11°29.0'	243°57.6'	S 11°49.9'
05	258°45.9'	S 10°04.7'	258°48.6'	S 10°26.2'	258°51.1'	S 10°47.6'	258°53.5'	S 11°08.8'	258°55.7'	S 11°29.9'	258°57.7'	S 11°50.8'
06	273°46.0'	S 10°05.6'	273°48.7'	S 10°27.1'	273°51.2'	S 10°48.5'	273°53.6'	S 11°09.7'	273°55.8'	S 11°30.8'	273°57.8'	S 11°51.7'
07	288°46.1'	S 10°06.5'	288°48.8'	S 10°28.0'	288°51.3'	S 10°49.4'	288°53.7'	S 11°10.6'	288°55.8'	S 11°31.7'	288°57.8'	S 11°52.5'
08	303°46.3'	S 10°07.4'	303°48.9'	S 10°28.9'	303°51.4'	S 10°50.3'	303°53.8'	S 11°11.5'	303°55.9'	S 11°32.5'	303°57.9'	S 11°53.4'
09	318°46.4'	S 10°08.3'	318°49.0'	S 10°29.8'	318°51.5'	S 10°51.2'	318°53.9'	S 11°12.4'	318°56.0'	S 11°33.4'	318°58.0'	S 11°54.3'
10	333°46.5'	S 10°09.2'	333°49.1'	S 10°30.7'	333°51.6'	S 10°52.1'	333°54.0'	S 11°13.2'	333°56.1'	S 11°34.3'	333°58.1'	S 11°55.1'
11	348°46.6'	S 10°10.1'	348°49.2'	S 10°31.6'	348°51.7'	S 10°52.9'	348°54.0'	S 11°14.1'	348°56.2'	S 11°35.1'	348°58.2'	S 11°56.0'
12	3°46.7'	S 10°11.0'	3°49.4'	S 10°32.5'	3°51.8'	S 10°53.8'	3°54.1'	S 11°15.0'	3°56.3'	S 11°36.0'	3°58.2'	S 11°56.9'
13	18°46.8'	S 10°11.9'	18°49.5'	S 10°33.4'	18°51.9'	S 10°54.7'	18°54.2'	S 11°15.9'	18°56.4'	S 11°36.9'	18°58.3'	S 11°57.7'
14	33°46.9'	S 10°12.8'	33°49.6'	S 10°34.3'	33°52.0'	S 10°55.6'	33°54.3'	S 11°16.8'	33°56.4'	S 11°37.8'	33°58.4'	S 11°58.6'
15	48°47.1'	S 10°13.7'	48°49.7'	S 10°35.2'	48°52.1'	S 10°56.5'	48°54.4'	S 11°17.6'	48°56.5'	S 11°38.6'	48°58.5'	S 11°59.5'
16	63°47.2'	S 10°14.6'	63°49.8'	S 10°36.1'	63°52.2'	S 10°57.4'	63°54.5'	S 11°18.5'	63°56.6'	S 11°39.5'	63°58.5'	S 12°00.3'
17	78°47.3'	S 10°15.5'	78°49.9'	S 10°36.9'	78°52.3'	S 10°58.3'	78°54.6'	S 11°19.4'	78°56.7'	S 11°40.4'	78°58.6'	S 12°01.2'
18	93°47.4'	S 10°16.4'	93°50.0'	S 10°37.8'	93°52.4'	S 10°59.1'	93°54.7'	S 11°20.3'	93°56.8'	S 11°41.2'	93°58.7'	S 12°02.0'
19	108°47.5'	S 10°17.3'	108°50.1'	S 10°38.7'	108°52.5'	S 11°00.0'	108°54.8'	S 11°21.2'	108°56.9'	S 11°42.1'	108°58.8'	S 12°02.9'
20	123°47.6'	S 10°18.2'	123°50.2'	S 10°39.6'	123°52.6'	S 11°00.9'	123°54.9'	S 11°22.0'	123°56.9'	S 11°43.0'	123°58.8'	S 12°03.8'
21	138°47.7'	S 10°19.1'	138°50.3'	S 10°40.5'	138°52.7'	S 11°01.8'	138°55.0'	S 11°22.9'	138°57.0'	S 11°43.9'	138°58.9'	S 12°04.6'
22	153°47.8'	S 10°20.0'	153°50.4'	S 10°41.4'	153°52.8'	S 11°02.7'	153°55.0'	S 11°23.8'	153°57.1'	S 11°44.7'	153°59.0'	S 12°05.5'
23	168°47.9'	S 10°20.9'	168°50.5'	S 10°42.3'	168°52.9'	S 11°03.6'	168°55.1'	S 11°24.7'	168°57.2'	S 11°45.6'	168°59.1'	S 12°06.3'
Zeitgl. 0h / 12h	+15:01 / +15:07		+15:12 / +15:17		+15:22 / +15:27		+15:32 / +15:37		+15:41 / +15:45		+15:49 / +15:53	
Kulmination UT	11:44:53		11:44:43		11:44:33		11:44:23		11:44:15		11:44:07	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	Do 25.10.		Fr 26.10.		Sa 27.10.		So 28.10.		Mo 29.10.		Di 30.10.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°59.1'	S 12°07.2'	184°00.8'	S 12°27.8'	184°02.3'	S 12°48.1'	184°03.6'	S 13°08.3'	184°04.8'	S 13°28.3'	184°05.7'	S 13°48.0'
01	198°59.2'	S 12°08.1'	199°00.9'	S 12°28.6'	199°02.4'	S 12°49.0'	199°03.7'	S 13°09.1'	199°04.8'	S 13°29.1'	199°05.7'	S 13°48.9'
02	213°59.3'	S 12°08.9'	214°01.0'	S 12°29.5'	214°02.5'	S 12°49.8'	214°03.7'	S 13°10.0'	214°04.9'	S 13°29.9'	214°05.8'	S 13°49.7'
03	228°59.4'	S 12°09.8'	229°01.0'	S 12°30.3'	229°02.5'	S 12°50.7'	229°03.8'	S 13°10.8'	229°04.9'	S 13°30.8'	229°05.8'	S 13°50.5'
04	243°59.4'	S 12°10.6'	244°01.1'	S 12°31.2'	244°02.6'	S 12°51.5'	244°03.8'	S 13°11.7'	244°04.9'	S 13°31.6'	244°05.8'	S 13°51.3'
05	258°59.5'	S 12°11.5'	259°01.2'	S 12°32.0'	259°02.6'	S 12°52.4'	259°03.9'	S 13°12.5'	259°05.0'	S 13°32.4'	259°05.9'	S 13°52.1'
06	273°59.6'	S 12°12.4'	274°01.2'	S 12°32.9'	274°02.7'	S 12°53.2'	274°03.9'	S 13°13.3'	274°05.0'	S 13°33.2'	274°05.9'	S 13°52.9'
07	288°59.7'	S 12°13.2'	289°01.3'	S 12°33.7'	289°02.7'	S 12°54.0'	289°04.0'	S 13°14.2'	289°05.1'	S 13°34.1'	289°05.9'	S 13°53.8'
08	303°59.7'	S 12°14.1'	304°01.4'	S 12°34.6'	304°02.8'	S 12°54.9'	304°04.0'	S 13°15.0'	304°05.1'	S 13°34.9'	304°06.0'	S 13°54.6'
09	318°59.8'	S 12°14.9'	319°01.4'	S 12°35.4'	319°02.9'	S 12°55.7'	319°04.1'	S 13°15.8'	319°05.1'	S 13°35.7'	319°06.0'	S 13°55.4'
10	333°59.9'	S 12°15.8'	334°01.5'	S 12°36.3'	334°02.9'	S 12°56.6'	334°04.1'	S 13°16.7'	334°05.2'	S 13°36.5'	334°06.0'	S 13°56.2'
11	348°59.9'	S 12°16.7'	349°01.5'	S 12°37.1'	349°03.0'	S 12°57.4'	349°04.2'	S 13°17.5'	349°05.2'	S 13°37.4'	349°06.1'	S 13°57.0'
12	4°00.0'	S 12°17.5'	4°01.6'	S 12°38.0'	4°03.0'	S 12°58.3'	4°04.2'	S 13°18.3'	4°05.3'	S 13°38.2'	4°06.1'	S 13°57.8'
13	19°00.1'	S 12°18.4'	19°01.7'	S 12°38.8'	19°03.1'	S 12°59.1'	19°04.3'	S 13°19.2'	19°05.3'	S 13°39.0'	19°06.1'	S 13°58.6'
14	34°00.2'	S 12°19.2'	34°01.7'	S 12°39.7'	34°03.1'	S 12°59.9'	34°04.3'	S 13°20.0'	34°05.3'	S 13°39.8'	34°06.1'	S 13°59.5'
15	49°00.2'	S 12°20.1'	49°01.8'	S 12°40.5'	49°03.2'	S 13°00.8'	49°04.4'	S 13°20.8'	49°05.4'	S 13°40.6'	49°06.2'	S 14°00.3'
16	64°00.3'	S 12°20.9'	64°01.9'	S 12°41.4'	64°03.2'	S 13°01.6'	64°04.4'	S 13°21.6'	64°05.4'	S 13°41.5'	64°06.2'	S 14°01.1'
17	79°00.4'	S 12°21.8'	79°01.9'	S 12°42.2'	79°03.3'	S 13°02.5'	79°04.5'	S 13°22.5'	79°05.4'	S 13°42.3'	79°06.2'	S 14°01.9'
18	94°00.4'	S 12°22.6'	94°02.0'	S 12°43.1'	94°03.3'	S 13°03.3'	94°04.5'	S 13°23.3'	94°05.5'	S 13°43.1'	94°06.3'	S 14°02.7'
19	109°00.5'	S 12°23.5'	109°02.0'	S 12°43.9'	109°03.4'	S 13°04.1'	109°04.6'	S 13°24.1'	109°05.5'	S 13°43.9'	109°06.3'	S 14°03.5'
20	124°00.6'	S 12°24.4'	124°02.1'	S 12°44.8'	124°03.4'	S 13°05.0'	124°04.6'	S 13°25.0'	124°05.6'	S 13°44.8'	124°06.3'	S 14°04.3'
21	139°00.6'	S 12°25.2'	139°02.2'	S 12°45.6'	139°03.5'	S 13°05.8'	139°04.6'	S 13°25.8'	139°05.6'	S 13°45.6'	139°06.3'	S 14°05.1'
22	154°00.7'	S 12°26.1'	154°02.2'	S 12°46.5'	154°03.5'	S 13°06.6'	154°04.7'	S 13°26.6'	154°05.6'	S 13°46.4'	154°06.4'	S 14°05.9'
23	169°00.8'	S 12°26.9'	169°02.3'	S 12°47.3'	169°03.6'	S 13°07.5'	169°04.7'	S 13°27.5'	169°05.7'	S 13°47.2'	169°06.4'	S 14°06.8'
Zeitgl. 0h / 12h	+15:57 / +16:00		+16:03 / +16:06		+16:09 / +16:12		+16:15 / +16:17		+16:19 / +16:21		+16:23 / +16:24	
Kulmination UT	11:44:00		11:43:54		11:43:48		11:43:43		11:43:39		11:43:36	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

Mi 31.10.

UT	Grt	Dec
00	184°06.4'	S 14°07.6'
01	199°06.4'	S 14°08.4'
02	214°06.5'	S 14°09.2'
03	229°06.5'	S 14°10.0'
04	244°06.5'	S 14°10.8'
05	259°06.5'	S 14°11.6'
06	274°06.6'	S 14°12.4'
07	289°06.6'	S 14°13.2'
08	304°06.6'	S 14°14.0'
09	319°06.6'	S 14°14.8'
10	334°06.7'	S 14°15.6'
11	349°06.7'	S 14°16.4'
12	4°06.7'	S 14°17.3'
13	19°06.7'	S 14°18.1'
14	34°06.8'	S 14°18.9'
15	49°06.8'	S 14°19.7'
16	64°06.8'	S 14°20.5'
17	79°06.8'	S 14°21.3'
18	94°06.8'	S 14°22.1'
19	109°06.9'	S 14°22.9'
20	124°06.9'	S 14°23.7'
21	139°06.9'	S 14°24.5'
22	154°06.9'	S 14°25.3'
23	169°06.9'	S 14°26.1'

Zeitgl. 0h / 12h +16:26 / +16:27

Kulmination UT 11:43:33

Halbmesser 16.1'

2029

November

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Do 01.11.		Fr 02.11.		Sa 03.11.		So 04.11.		Mo 05.11.		Di 06.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	184°07.0'	S 14°26.9'	184°07.3'	S 14°46.0'	184°07.4'	S 15°04.8'	184°07.3'	S 15°23.4'	184°07.0'	S 15°41.7'	184°06.5'	S 15°59.8'
01	199°07.0'	S 14°27.7'	199°07.3'	S 14°46.7'	199°07.4'	S 15°05.6'	199°07.3'	S 15°24.2'	199°07.0'	S 15°42.5'	199°06.5'	S 16°00.6'
02	214°07.0'	S 14°28.5'	214°07.3'	S 14°47.5'	214°07.4'	S 15°06.4'	214°07.3'	S 15°24.9'	214°07.0'	S 15°43.2'	214°06.4'	S 16°01.3'
03	229°07.0'	S 14°29.3'	229°07.3'	S 14°48.3'	229°07.4'	S 15°07.1'	229°07.3'	S 15°25.7'	229°07.0'	S 15°44.0'	229°06.4'	S 16°02.0'
04	244°07.0'	S 14°30.1'	244°07.3'	S 14°49.1'	244°07.4'	S 15°07.9'	244°07.3'	S 15°26.5'	244°06.9'	S 15°44.8'	244°06.4'	S 16°02.8'
05	259°07.0'	S 14°30.9'	259°07.3'	S 14°49.9'	259°07.4'	S 15°08.7'	259°07.3'	S 15°27.2'	259°06.9'	S 15°45.5'	259°06.4'	S 16°03.5'
06	274°07.1'	S 14°31.7'	274°07.3'	S 14°50.7'	274°07.4'	S 15°09.5'	274°07.3'	S 15°28.0'	274°06.9'	S 15°46.3'	274°06.3'	S 16°04.3'
07	289°07.1'	S 14°32.5'	289°07.3'	S 14°51.5'	289°07.4'	S 15°10.2'	289°07.2'	S 15°28.8'	289°06.9'	S 15°47.0'	289°06.3'	S 16°05.0'
08	304°07.1'	S 14°33.3'	304°07.3'	S 14°52.3'	304°07.4'	S 15°11.0'	304°07.2'	S 15°29.5'	304°06.9'	S 15°47.8'	304°06.3'	S 16°05.8'
09	319°07.1'	S 14°34.1'	319°07.3'	S 14°53.0'	319°07.4'	S 15°11.8'	319°07.2'	S 15°30.3'	319°06.8'	S 15°48.5'	319°06.3'	S 16°06.5'
10	334°07.1'	S 14°34.9'	334°07.3'	S 14°53.8'	334°07.4'	S 15°12.6'	334°07.2'	S 15°31.1'	334°06.8'	S 15°49.3'	334°06.2'	S 16°07.3'
11	349°07.1'	S 14°35.6'	349°07.4'	S 14°54.6'	349°07.4'	S 15°13.3'	349°07.2'	S 15°31.8'	349°06.8'	S 15°50.0'	349°06.2'	S 16°08.0'
12	4°07.1'	S 14°36.4'	4°07.4'	S 14°55.4'	4°07.4'	S 15°14.1'	4°07.2'	S 15°32.6'	4°06.8'	S 15°50.8'	4°06.2'	S 16°08.7'
13	19°07.2'	S 14°37.2'	19°07.4'	S 14°56.2'	19°07.4'	S 15°14.9'	19°07.2'	S 15°33.4'	19°06.8'	S 15°51.6'	19°06.1'	S 16°09.5'
14	34°07.2'	S 14°38.0'	34°07.4'	S 14°57.0'	34°07.4'	S 15°15.7'	34°07.2'	S 15°34.1'	34°06.7'	S 15°52.3'	34°06.1'	S 16°10.2'
15	49°07.2'	S 14°38.8'	49°07.4'	S 14°57.8'	49°07.4'	S 15°16.4'	49°07.1'	S 15°34.9'	49°06.7'	S 15°53.1'	49°06.1'	S 16°11.0'
16	64°07.2'	S 14°39.6'	64°07.4'	S 14°58.5'	64°07.4'	S 15°17.2'	64°07.1'	S 15°35.6'	64°06.7'	S 15°53.8'	64°06.0'	S 16°11.7'
17	79°07.2'	S 14°40.4'	79°07.4'	S 14°59.3'	79°07.4'	S 15°18.0'	79°07.1'	S 15°36.4'	79°06.7'	S 15°54.6'	79°06.0'	S 16°12.5'
18	94°07.2'	S 14°41.2'	94°07.4'	S 15°00.1'	94°07.3'	S 15°18.8'	94°07.1'	S 15°37.2'	94°06.6'	S 15°55.3'	94°06.0'	S 16°13.2'
19	109°07.2'	S 14°42.0'	109°07.4'	S 15°00.9'	109°07.3'	S 15°19.5'	109°07.1'	S 15°37.9'	109°06.6'	S 15°56.1'	109°05.9'	S 16°13.9'
20	124°07.2'	S 14°42.8'	124°07.4'	S 15°01.7'	124°07.3'	S 15°20.3'	124°07.1'	S 15°38.7'	124°06.6'	S 15°56.8'	124°05.9'	S 16°14.7'
21	139°07.2'	S 14°43.6'	139°07.4'	S 15°02.5'	139°07.3'	S 15°21.1'	139°07.1'	S 15°39.4'	139°06.6'	S 15°57.6'	139°05.9'	S 16°15.4'
22	154°07.3'	S 14°44.4'	154°07.4'	S 15°03.2'	154°07.3'	S 15°21.8'	154°07.0'	S 15°40.2'	154°06.5'	S 15°58.3'	154°05.8'	S 16°16.1'
23	169°07.3'	S 14°45.2'	169°07.4'	S 15°04.0'	169°07.3'	S 15°22.6'	169°07.0'	S 15°41.0'	169°06.5'	S 15°59.1'	169°05.8'	S 16°16.9'
Zeitgl. 0h / 12h	+16:28 / +16:29		+16:29 / +16:29		+16:30 / +16:30		+16:29 / +16:29		+16:28 / +16:27		+16:26 / +16:25	
Kulmination UT	11:43:31		11:43:31		11:43:30		11:43:31		11:43:33		11:43:35	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	Mi 07.11.		Do 08.11.		Fr 09.11.		Sa 10.11.		So 11.11.		Mo 12.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	184°05.8'	S 16°17.6'	184°04.8'	S 16°35.2'	184°03.7'	S 16°52.4'	184°02.3'	S 17°09.4'	184°00.8'	S 17°26.1'	183°59.0'	S 17°42.5'
01	199°05.7'	S 16°18.4'	199°04.8'	S 16°35.9'	199°03.6'	S 16°53.1'	199°02.3'	S 17°10.1'	199°00.7'	S 17°26.8'	198°58.9'	S 17°43.1'
02	214°05.7'	S 16°19.1'	214°04.8'	S 16°36.6'	214°03.6'	S 16°53.8'	214°02.2'	S 17°10.8'	214°00.6'	S 17°27.5'	213°58.8'	S 17°43.8'
03	229°05.7'	S 16°19.8'	229°04.7'	S 16°37.3'	229°03.5'	S 16°54.6'	229°02.2'	S 17°11.5'	229°00.5'	S 17°28.1'	228°58.7'	S 17°44.5'
04	244°05.6'	S 16°20.6'	244°04.7'	S 16°38.1'	244°03.5'	S 16°55.3'	244°02.1'	S 17°12.2'	244°00.5'	S 17°28.8'	243°58.6'	S 17°45.2'
05	259°05.6'	S 16°21.3'	259°04.6'	S 16°38.8'	259°03.4'	S 16°56.0'	259°02.0'	S 17°12.9'	259°00.4'	S 17°29.5'	258°58.6'	S 17°45.8'
06	274°05.6'	S 16°22.0'	274°04.6'	S 16°39.5'	274°03.4'	S 16°56.7'	274°02.0'	S 17°13.6'	274°00.3'	S 17°30.2'	273°58.5'	S 17°46.5'
07	289°05.5'	S 16°22.8'	289°04.5'	S 16°40.2'	289°03.3'	S 16°57.4'	289°01.9'	S 17°14.3'	289°00.3'	S 17°30.9'	288°58.4'	S 17°47.2'
08	304°05.5'	S 16°23.5'	304°04.5'	S 16°40.9'	304°03.3'	S 16°58.1'	304°01.8'	S 17°15.0'	304°00.2'	S 17°31.6'	303°58.3'	S 17°47.9'
09	319°05.5'	S 16°24.2'	319°04.4'	S 16°41.7'	319°03.2'	S 16°58.8'	319°01.8'	S 17°15.7'	319°00.1'	S 17°32.3'	318°58.2'	S 17°48.5'
10	334°05.4'	S 16°25.0'	334°04.4'	S 16°42.4'	334°03.2'	S 16°59.5'	334°01.7'	S 17°16.4'	334°00.0'	S 17°32.9'	333°58.2'	S 17°49.2'
11	349°05.4'	S 16°25.7'	349°04.3'	S 16°43.1'	349°03.1'	S 17°00.2'	349°01.6'	S 17°17.1'	349°00.0'	S 17°33.6'	348°58.1'	S 17°49.9'
12	4°05.3'	S 16°26.4'	4°04.3'	S 16°43.8'	4°03.0'	S 17°00.9'	4°01.6'	S 17°17.8'	3°59.9'	S 17°34.3'	3°58.0'	S 17°50.5'
13	19°05.3'	S 16°27.2'	19°04.3'	S 16°44.5'	19°03.0'	S 17°01.7'	19°01.5'	S 17°18.5'	18°59.8'	S 17°35.0'	18°57.9'	S 17°51.2'
14	34°05.3'	S 16°27.9'	34°04.2'	S 16°45.3'	34°02.9'	S 17°02.4'	34°01.4'	S 17°19.2'	33°59.7'	S 17°35.7'	33°57.8'	S 17°51.9'
15	49°05.2'	S 16°28.6'	49°04.2'	S 16°46.0'	49°02.9'	S 17°03.1'	49°01.4'	S 17°19.9'	48°59.7'	S 17°36.4'	48°57.7'	S 17°52.5'
16	64°05.2'	S 16°29.3'	64°04.1'	S 16°46.7'	64°02.8'	S 17°03.8'	64°01.3'	S 17°20.6'	63°59.6'	S 17°37.0'	63°57.7'	S 17°53.2'
17	79°05.1'	S 16°30.1'	79°04.1'	S 16°47.4'	79°02.8'	S 17°04.5'	79°01.2'	S 17°21.2'	78°59.5'	S 17°37.7'	78°57.6'	S 17°53.9'
18	94°05.1'	S 16°30.8'	94°04.0'	S 16°48.1'	94°02.7'	S 17°05.2'	94°01.2'	S 17°21.9'	93°59.4'	S 17°38.4'	93°57.5'	S 17°54.6'
19	109°05.1'	S 16°31.5'	109°04.0'	S 16°48.8'	109°02.6'	S 17°05.9'	109°01.1'	S 17°22.6'	108°59.4'	S 17°39.1'	108°57.4'	S 17°55.2'
20	124°05.0'	S 16°32.3'	124°03.9'	S 16°49.6'	124°02.6'	S 17°06.6'	124°01.0'	S 17°23.3'	123°59.3'	S 17°39.8'	123°57.3'	S 17°55.9'
21	139°05.0'	S 16°33.0'	139°03.9'	S 16°50.3'	139°02.5'	S 17°07.3'	139°01.0'	S 17°24.0'	138°59.2'	S 17°40.4'	138°57.2'	S 17°56.5'
22	154°04.9'	S 16°33.7'	154°03.8'	S 16°51.0'	154°02.5'	S 17°08.0'	154°00.9'	S 17°24.7'	153°59.1'	S 17°41.1'	153°57.1'	S 17°57.2'
23	169°04.9'	S 16°34.4'	169°03.8'	S 16°51.7'	169°02.4'	S 17°08.7'	169°00.8'	S 17°25.4'	168°59.0'	S 17°41.8'	168°57.0'	S 17°57.9'
Zeitgl. 0h / 12h	+16:23 / +16:21		+16:19 / +16:17		+16:15 / +16:12		+16:09 / +16:06		+16:03 / +16:00		+15:56 / +15:52	
Kulmination UT	11:43:39		11:43:43		11:43:48		11:43:54		11:44:00		11:44:08	
Halbmesser	16.1'		16.1'		16.1'		16.2'		16.2'		16.2'	

	Di 13.11.		Mi 14.11.		Do 15.11.		Fr 16.11.		Sa 17.11.		So 18.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°57.0'	S 17°58.5'	183°54.7'	S 18°14.3'	183°52.3'	S 18°29.8'	183°49.7'	S 18°44.9'	183°46.8'	S 18°59.7'	183°43.7'	S 19°14.1'
01	198°56.9'	S 17°59.2'	198°54.6'	S 18°15.0'	198°52.2'	S 18°30.4'	198°49.5'	S 18°45.5'	198°46.7'	S 19°00.3'	198°43.6'	S 19°14.7'
02	213°56.8'	S 17°59.9'	213°54.5'	S 18°15.6'	213°52.1'	S 18°31.0'	213°49.4'	S 18°46.1'	213°46.5'	S 19°00.9'	213°43.5'	S 19°15.3'
03	228°56.7'	S 18°00.5'	228°54.4'	S 18°16.3'	228°52.0'	S 18°31.7'	228°49.3'	S 18°46.7'	228°46.4'	S 19°01.5'	228°43.3'	S 19°15.9'
04	243°56.6'	S 18°01.2'	243°54.3'	S 18°16.9'	243°51.9'	S 18°32.3'	243°49.2'	S 18°47.4'	243°46.3'	S 19°02.1'	243°43.2'	S 19°16.5'
05	258°56.5'	S 18°01.9'	258°54.2'	S 18°17.6'	258°51.8'	S 18°32.9'	258°49.1'	S 18°48.0'	258°46.2'	S 19°02.7'	258°43.1'	S 19°17.1'
06	273°56.4'	S 18°02.5'	273°54.2'	S 18°18.2'	273°51.7'	S 18°33.6'	273°49.0'	S 18°48.6'	273°46.0'	S 19°03.3'	273°42.9'	S 19°17.7'
07	288°56.3'	S 18°03.2'	288°54.1'	S 18°18.8'	288°51.6'	S 18°34.2'	288°48.8'	S 18°49.2'	288°45.9'	S 19°03.9'	288°42.8'	S 19°18.3'
08	303°56.2'	S 18°03.8'	303°54.0'	S 18°19.5'	303°51.4'	S 18°34.8'	303°48.7'	S 18°49.8'	303°45.8'	S 19°04.5'	303°42.7'	S 19°18.8'
09	318°56.2'	S 18°04.5'	318°53.9'	S 18°20.1'	318°51.3'	S 18°35.5'	318°48.6'	S 18°50.5'	318°45.7'	S 19°05.1'	318°42.5'	S 19°19.4'
10	333°56.1'	S 18°05.1'	333°53.8'	S 18°20.8'	333°51.2'	S 18°36.1'	333°48.5'	S 18°51.1'	333°45.5'	S 19°05.7'	333°42.4'	S 19°20.0'
11	348°56.0'	S 18°05.8'	348°53.6'	S 18°21.4'	348°51.1'	S 18°36.7'	348°48.4'	S 18°51.7'	348°45.4'	S 19°06.3'	348°42.3'	S 19°20.6'
12	3°55.9'	S 18°06.5'	3°53.5'	S 18°22.1'	3°51.0'	S 18°37.4'	3°48.3'	S 18°52.3'	3°45.3'	S 19°06.9'	3°42.1'	S 19°21.2'
13	18°55.8'	S 18°07.1'	18°53.4'	S 18°22.7'	18°50.9'	S 18°38.0'	18°48.1'	S 18°52.9'	18°45.2'	S 19°07.5'	18°42.0'	S 19°21.8'
14	33°55.7'	S 18°07.8'	33°53.3'	S 18°23.4'	33°50.8'	S 18°38.6'	33°48.0'	S 18°53.5'	33°45.0'	S 19°08.1'	33°41.8'	S 19°22.4'
15	48°55.6'	S 18°08.4'	48°53.2'	S 18°24.0'	48°50.7'	S 18°39.2'	48°47.9'	S 18°54.2'	48°44.9'	S 19°08.7'	48°41.7'	S 19°23.0'
16	63°55.5'	S 18°09.1'	63°53.1'	S 18°24.6'	63°50.6'	S 18°39.9'	63°47.8'	S 18°54.8'	63°44.8'	S 19°09.3'	63°41.6'	S 19°23.5'
17	78°55.4'	S 18°09.7'	78°53.0'	S 18°25.3'	78°50.5'	S 18°40.5'	78°47.7'	S 18°55.4'	78°44.6'	S 19°09.9'	78°41.4'	S 19°24.1'
18	93°55.3'	S 18°10.4'	93°52.9'	S 18°25.9'	93°50.3'	S 18°41.1'	93°47.5'	S 18°56.0'	93°44.5'	S 19°10.5'	93°41.3'	S 19°24.7'
19	108°55.2'	S 18°11.0'	108°52.8'	S 18°26.6'	108°50.2'	S 18°41.7'	108°47.4'	S 18°56.6'	108°44.4'	S 19°11.1'	108°41.1'	S 19°25.3'
20	123°55.1'	S 18°11.7'	123°52.7'	S 18°27.2'	123°50.1'	S 18°42.4'	123°47.3'	S 18°57.2'	123°44.3'	S 19°11.7'	123°41.0'	S 19°25.9'
21	138°55.0'	S 18°12.4'	138°52.6'	S 18°27.8'	138°50.0'	S 18°43.0'	138°47.2'	S 18°57.8'	138°44.1'	S 19°12.3'	138°40.9'	S 19°26.5'
22	153°54.9'	S 18°13.0'	153°52.5'	S 18°28.5'	153°49.9'	S 18°43.6'	153°47.0'	S 18°58.4'	153°44.0'	S 19°12.9'	153°40.7'	S 19°27.1'
23	168°54.8'	S 18°13.7'	168°52.4'	S 18°29.1'	168°49.8'	S 18°44.2'	168°46.9'	S 18°59.0'	168°43.9'	S 19°13.5'	168°40.6'	S 19°27.6'
Zeitgl. 0h / 12h	+15:48 / +15:44		+15:39 / +15:34		+15:29 / +15:24		+15:19 / +15:13		+15:07 / +15:01		+14:55 / +14:48	
Kulmination UT	11:44:16		11:44:26		11:44:36		11:44:47		11:44:59		11:45:12	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Mo 19.11.		Di 20.11.		Mi 21.11.		Do 22.11.		Fr 23.11.		Sa 24.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°40.4'	S 19°28.2'	183°37.0'	S 19°42.0'	183°33.3'	S 19°55.4'	183°29.4'	S 20°08.4'	183°25.3'	S 20°21.1'	183°21.0'	S 20°33.3'
01	198°40.3'	S 19°28.8'	198°36.8'	S 19°42.5'	198°33.1'	S 19°55.9'	198°29.2'	S 20°08.9'	198°25.1'	S 20°21.6'	198°20.8'	S 20°33.9'
02	213°40.2'	S 19°29.4'	213°36.7'	S 19°43.1'	213°33.0'	S 19°56.5'	213°29.1'	S 20°09.5'	213°25.0'	S 20°22.1'	213°20.7'	S 20°34.4'
03	228°40.0'	S 19°30.0'	228°36.5'	S 19°43.7'	228°32.8'	S 19°57.0'	228°28.9'	S 20°10.0'	228°24.8'	S 20°22.6'	228°20.5'	S 20°34.9'
04	243°39.9'	S 19°30.5'	243°36.4'	S 19°44.2'	243°32.6'	S 19°57.6'	243°28.7'	S 20°10.5'	243°24.6'	S 20°23.1'	243°20.3'	S 20°35.4'
05	258°39.7'	S 19°31.1'	258°36.2'	S 19°44.8'	258°32.5'	S 19°58.1'	258°28.6'	S 20°11.1'	258°24.4'	S 20°23.6'	258°20.1'	S 20°35.9'
06	273°39.6'	S 19°31.7'	273°36.1'	S 19°45.3'	273°32.3'	S 19°58.7'	273°28.4'	S 20°11.6'	273°24.3'	S 20°24.2'	273°19.9'	S 20°36.4'
07	288°39.5'	S 19°32.3'	288°35.9'	S 19°45.9'	288°32.2'	S 19°59.2'	288°28.2'	S 20°12.1'	288°24.1'	S 20°24.7'	288°19.7'	S 20°36.9'
08	303°39.3'	S 19°32.8'	303°35.8'	S 19°46.5'	303°32.0'	S 19°59.7'	303°28.0'	S 20°12.7'	303°23.9'	S 20°25.2'	303°19.6'	S 20°37.4'
09	318°39.2'	S 19°33.4'	318°35.6'	S 19°47.0'	318°31.8'	S 20°00.3'	318°27.9'	S 20°13.2'	318°23.7'	S 20°25.7'	318°19.4'	S 20°37.9'
10	333°39.0'	S 19°34.0'	333°35.5'	S 19°47.6'	333°31.7'	S 20°00.8'	333°27.7'	S 20°13.7'	333°23.5'	S 20°26.2'	333°19.2'	S 20°38.4'
11	348°38.9'	S 19°34.6'	348°35.3'	S 19°48.1'	348°31.5'	S 20°01.4'	348°27.5'	S 20°14.2'	348°23.4'	S 20°26.7'	348°19.0'	S 20°38.9'
12	3°38.7'	S 19°35.1'	3°35.1'	S 19°48.7'	3°31.4'	S 20°01.9'	3°27.4'	S 20°14.8'	3°23.2'	S 20°27.3'	3°18.8'	S 20°39.3'
13	18°38.6'	S 19°35.7'	18°35.0'	S 19°49.3'	18°31.2'	S 20°02.5'	18°27.2'	S 20°15.3'	18°23.0'	S 20°27.8'	18°18.6'	S 20°39.8'
14	33°38.4'	S 19°36.3'	33°34.8'	S 19°49.8'	33°31.0'	S 20°03.0'	33°27.0'	S 20°15.8'	33°22.8'	S 20°28.3'	33°18.4'	S 20°40.3'
15	48°38.3'	S 19°36.8'	48°34.7'	S 19°50.4'	48°30.9'	S 20°03.6'	48°26.9'	S 20°16.4'	48°22.7'	S 20°28.8'	48°18.2'	S 20°40.8'
16	63°38.1'	S 19°37.4'	63°34.5'	S 19°50.9'	63°30.7'	S 20°04.1'	63°26.7'	S 20°16.9'	63°22.5'	S 20°29.3'	63°18.1'	S 20°41.3'
17	78°38.0'	S 19°38.0'	78°34.4'	S 19°51.5'	78°30.5'	S 20°04.6'	78°26.5'	S 20°17.4'	78°22.3'	S 20°29.8'	78°17.9'	S 20°41.8'
18	93°37.9'	S 19°38.6'	93°34.2'	S 19°52.0'	93°30.4'	S 20°05.2'	93°26.3'	S 20°17.9'	93°22.1'	S 20°30.3'	93°17.7'	S 20°42.3'
19	108°37.7'	S 19°39.1'	108°34.1'	S 19°52.6'	108°30.2'	S 20°05.7'	108°26.2'	S 20°18.5'	108°21.9'	S 20°30.8'	108°17.5'	S 20°42.8'
20	123°37.6'	S 19°39.7'	123°33.9'	S 19°53.2'	123°30.1'	S 20°06.2'	123°26.0'	S 20°19.0'	123°21.7'	S 20°31.3'	123°17.3'	S 20°43.3'
21	138°37.4'	S 19°40.3'	138°33.8'	S 19°53.7'	138°29.9'	S 20°06.8'	138°25.8'	S 20°19.5'	138°21.6'	S 20°31.8'	138°17.1'	S 20°43.8'
22	153°37.3'	S 19°40.8'	153°33.6'	S 19°54.3'	153°29.7'	S 20°07.3'	153°25.7'	S 20°20.0'	153°21.4'	S 20°32.3'	153°16.9'	S 20°44.3'
23	168°37.1'	S 19°41.4'	168°33.4'	S 19°54.8'	168°29.6'	S 20°07.9'	168°25.5'	S 20°20.5'	168°21.2'	S 20°32.8'	168°16.7'	S 20°44.8'
Zeitgl. 0h / 12h	+14:42 / +14:35		+14:28 / +14:21		+14:13 / +14:05		+13:58 / +13:49		+13:41 / +13:33		+13:24 / +13:15	
Kulmination UT	11:45:25		11:45:39		11:45:55		11:46:11		11:46:27		11:46:45	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	So 25.11.		Mo 26.11.		Di 27.11.		Mi 28.11.		Do 29.11.		Fr 30.11.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	183°16.5'	S 20°45.3'	183°11.9'	S 20°56.8'	183°07.0'	S 21°07.9'	183°02.0'	S 21°18.6'	182°56.8'	S 21°29.0'	182°51.5'	S 21°38.9'
01	198°16.4'	S 20°45.7'	198°11.7'	S 20°57.2'	198°06.8'	S 21°08.4'	198°01.8'	S 21°19.1'	197°56.6'	S 21°29.4'	197°51.2'	S 21°39.3'
02	213°16.2'	S 20°46.2'	213°11.5'	S 20°57.7'	213°06.6'	S 21°08.8'	213°01.6'	S 21°19.5'	212°56.4'	S 21°29.8'	212°51.0'	S 21°39.7'
03	228°16.0'	S 20°46.7'	228°11.3'	S 20°58.2'	228°06.4'	S 21°09.3'	228°01.4'	S 21°20.0'	227°56.2'	S 21°30.2'	227°50.8'	S 21°40.1'
04	243°15.8'	S 20°47.2'	243°11.1'	S 20°58.7'	243°06.2'	S 21°09.7'	243°01.2'	S 21°20.4'	242°55.9'	S 21°30.7'	242°50.6'	S 21°40.5'
05	258°15.6'	S 20°47.7'	258°10.9'	S 20°59.1'	258°06.0'	S 21°10.2'	258°01.0'	S 21°20.8'	257°55.7'	S 21°31.1'	257°50.3'	S 21°40.9'
06	273°15.4'	S 20°48.2'	273°10.7'	S 20°59.6'	273°05.8'	S 21°10.6'	273°00.7'	S 21°21.3'	272°55.5'	S 21°31.5'	272°50.1'	S 21°41.3'
07	288°15.2'	S 20°48.7'	288°10.5'	S 21°00.1'	288°05.6'	S 21°11.1'	288°00.5'	S 21°21.7'	287°55.3'	S 21°31.9'	287°49.9'	S 21°41.7'
08	303°15.0'	S 20°49.1'	303°10.3'	S 21°00.5'	303°05.4'	S 21°11.5'	303°00.3'	S 21°22.1'	302°55.1'	S 21°32.3'	302°49.6'	S 21°42.1'
09	318°14.8'	S 20°49.6'	318°10.1'	S 21°01.0'	318°05.2'	S 21°12.0'	318°00.1'	S 21°22.6'	317°54.8'	S 21°32.7'	317°49.4'	S 21°42.5'
10	333°14.6'	S 20°50.1'	333°09.9'	S 21°01.5'	333°05.0'	S 21°12.4'	332°59.9'	S 21°23.0'	332°54.6'	S 21°33.2'	332°49.2'	S 21°42.9'
11	348°14.4'	S 20°50.6'	348°09.7'	S 21°01.9'	348°04.8'	S 21°12.9'	347°59.7'	S 21°23.4'	347°54.4'	S 21°33.6'	347°48.9'	S 21°43.3'
12	3°14.2'	S 20°51.1'	3°09.5'	S 21°02.4'	3°04.6'	S 21°13.3'	2°59.4'	S 21°23.9'	2°54.2'	S 21°34.0'	2°48.7'	S 21°43.7'
13	18°14.0'	S 20°51.5'	18°09.3'	S 21°02.9'	18°04.3'	S 21°13.8'	17°59.2'	S 21°24.3'	17°53.9'	S 21°34.4'	17°48.5'	S 21°44.1'
14	33°13.9'	S 20°52.0'	33°09.1'	S 21°03.3'	33°04.1'	S 21°14.2'	32°59.0'	S 21°24.7'	32°53.7'	S 21°34.8'	32°48.3'	S 21°44.5'
15	48°13.7'	S 20°52.5'	48°08.9'	S 21°03.8'	48°03.9'	S 21°14.7'	47°58.8'	S 21°25.1'	47°53.5'	S 21°35.2'	47°48.0'	S 21°44.9'
16	63°13.5'	S 20°53.0'	63°08.7'	S 21°04.2'	63°03.7'	S 21°15.1'	62°58.6'	S 21°25.6'	62°53.3'	S 21°35.6'	62°47.8'	S 21°45.3'
17	78°13.3'	S 20°53.5'	78°08.5'	S 21°04.7'	78°03.5'	S 21°15.6'	77°58.4'	S 21°26.0'	77°53.0'	S 21°36.0'	77°47.6'	S 21°45.7'
18	93°13.1'	S 20°53.9'	93°08.3'	S 21°05.2'	93°03.3'	S 21°16.0'	92°58.1'	S 21°26.4'	92°52.8'	S 21°36.5'	92°47.3'	S 21°46.1'
19	108°12.9'	S 20°54.4'	108°08.1'	S 21°05.6'	108°03.1'	S 21°16.4'	107°57.9'	S 21°26.9'	107°52.6'	S 21°36.9'	107°47.1'	S 21°46.5'
20	123°12.7'	S 20°54.9'	123°07.9'	S 21°06.1'	123°02.9'	S 21°16.9'	122°57.7'	S 21°27.3'	122°52.4'	S 21°37.3'	122°46.9'	S 21°46.9'
21	138°12.5'	S 20°55.4'	138°07.7'	S 21°06.5'	138°02.7'	S 21°17.3'	137°57.5'	S 21°27.7'	137°52.1'	S 21°37.7'	137°46.6'	S 21°47.2'
22	153°12.3'	S 20°55.8'	153°07.5'	S 21°07.0'	153°02.4'	S 21°17.8'	152°57.3'	S 21°28.1'	152°51.9'	S 21°38.1'	152°46.4'	S 21°47.6'
23	168°12.1'	S 20°56.3'	168°07.3'	S 21°07.5'	168°02.2'	S 21°18.2'	167°57.0'	S 21°28.6'	167°51.7'	S 21°38.5'	167°46.2'	S 21°48.0'
Zeitgl. 0h / 12h	+13:06 / +12:57		+12:48 / +12:38		+12:28 / +12:18		+12:08 / +11:58		+11:47 / +11:37		+11:26 / +11:15	
Kulmination UT	11:47:03		11:47:22		11:47:42		11:48:02		11:48:23		11:48:45	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

2029

Dezember

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Sa 01.12.		So 02.12.		Mo 03.12.		Di 04.12.		Mi 05.12.		Do 06.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°45.9'	S 21°48.4'	182°40.2'	S 21°57.5'	182°34.4'	S 22°06.2'	182°28.4'	S 22°14.4'	182°22.3'	S 22°22.2'	182°16.0'	S 22°29.6'
01	197°45.7'	S 21°48.8'	197°40.0'	S 21°57.9'	197°34.2'	S 22°06.5'	197°28.2'	S 22°14.8'	197°22.0'	S 22°22.6'	197°15.7'	S 22°29.9'
02	212°45.5'	S 21°49.2'	212°39.8'	S 21°58.2'	212°33.9'	S 22°06.9'	212°27.9'	S 22°15.1'	212°21.8'	S 22°22.9'	212°15.5'	S 22°30.2'
03	227°45.2'	S 21°49.6'	227°39.5'	S 21°58.6'	227°33.7'	S 22°07.2'	227°27.6'	S 22°15.4'	227°21.5'	S 22°23.2'	227°15.2'	S 22°30.5'
04	242°45.0'	S 21°50.0'	242°39.3'	S 21°59.0'	242°33.4'	S 22°07.6'	242°27.4'	S 22°15.8'	242°21.2'	S 22°23.5'	242°15.0'	S 22°30.8'
05	257°44.8'	S 21°50.3'	257°39.0'	S 21°59.3'	257°33.2'	S 22°07.9'	257°27.1'	S 22°16.1'	257°21.0'	S 22°23.8'	257°14.7'	S 22°31.1'
06	272°44.5'	S 21°50.7'	272°38.8'	S 21°59.7'	272°32.9'	S 22°08.3'	272°26.9'	S 22°16.4'	272°20.7'	S 22°24.1'	272°14.4'	S 22°31.4'
07	287°44.3'	S 21°51.1'	287°38.6'	S 22°00.1'	287°32.7'	S 22°08.6'	287°26.6'	S 22°16.7'	287°20.5'	S 22°24.4'	287°14.2'	S 22°31.7'
08	302°44.1'	S 21°51.5'	302°38.3'	S 22°00.4'	302°32.4'	S 22°09.0'	302°26.4'	S 22°17.1'	302°20.2'	S 22°24.7'	302°13.9'	S 22°32.0'
09	317°43.8'	S 21°51.9'	317°38.1'	S 22°00.8'	317°32.2'	S 22°09.3'	317°26.1'	S 22°17.4'	317°19.9'	S 22°25.1'	317°13.6'	S 22°32.3'
10	332°43.6'	S 21°52.2'	332°37.8'	S 22°01.2'	332°31.9'	S 22°09.7'	332°25.9'	S 22°17.7'	332°19.7'	S 22°25.4'	332°13.4'	S 22°32.6'
11	347°43.3'	S 21°52.6'	347°37.6'	S 22°01.5'	347°31.7'	S 22°10.0'	347°25.6'	S 22°18.1'	347°19.4'	S 22°25.7'	347°13.1'	S 22°32.9'
12	2°43.1'	S 21°53.0'	2°37.3'	S 22°01.9'	2°31.4'	S 22°10.3'	2°25.4'	S 22°18.4'	2°19.2'	S 22°26.0'	2°12.8'	S 22°33.1'
13	17°42.9'	S 21°53.4'	17°37.1'	S 22°02.3'	17°31.2'	S 22°10.7'	17°25.1'	S 22°18.7'	17°18.9'	S 22°26.3'	17°12.6'	S 22°33.4'
14	32°42.6'	S 21°53.8'	32°36.9'	S 22°02.6'	32°30.9'	S 22°11.0'	32°24.8'	S 22°19.0'	32°18.6'	S 22°26.6'	32°12.3'	S 22°33.7'
15	47°42.4'	S 21°54.1'	47°36.6'	S 22°03.0'	47°30.7'	S 22°11.4'	47°24.6'	S 22°19.4'	47°18.4'	S 22°26.9'	47°12.0'	S 22°34.0'
16	62°42.2'	S 21°54.5'	62°36.4'	S 22°03.3'	62°30.4'	S 22°11.7'	62°24.3'	S 22°19.7'	62°18.1'	S 22°27.2'	62°11.8'	S 22°34.3'
17	77°41.9'	S 21°54.9'	77°36.1'	S 22°03.7'	77°30.2'	S 22°12.1'	77°24.1'	S 22°20.0'	77°17.9'	S 22°27.5'	77°11.5'	S 22°34.6'
18	92°41.7'	S 21°55.3'	92°35.9'	S 22°04.0'	92°29.9'	S 22°12.4'	92°23.8'	S 22°20.3'	92°17.6'	S 22°27.8'	92°11.2'	S 22°34.9'
19	107°41.4'	S 21°55.6'	107°35.6'	S 22°04.4'	107°29.7'	S 22°12.7'	107°23.6'	S 22°20.6'	107°17.3'	S 22°28.1'	107°11.0'	S 22°35.1'
20	122°41.2'	S 21°56.0'	122°35.4'	S 22°04.8'	122°29.4'	S 22°13.1'	122°23.3'	S 22°21.0'	122°17.1'	S 22°28.4'	122°10.7'	S 22°35.4'
21	137°41.0'	S 21°56.4'	137°35.1'	S 22°05.1'	137°29.2'	S 22°13.4'	137°23.1'	S 22°21.3'	137°16.8'	S 22°28.7'	137°10.4'	S 22°35.7'
22	152°40.7'	S 21°56.8'	152°34.9'	S 22°05.5'	152°28.9'	S 22°13.7'	152°22.8'	S 22°21.6'	152°16.5'	S 22°29.0'	152°10.2'	S 22°36.0'
23	167°40.5'	S 21°57.1'	167°34.6'	S 22°05.8'	167°28.7'	S 22°14.1'	167°22.5'	S 22°21.9'	167°16.3'	S 22°29.3'	167°09.9'	S 22°36.3'
Zeitgl. 0h / 12h	+11:04 / +10:52		+10:41 / +10:29		+10:18 / +10:06		+09:54 / +09:41		+09:29 / +09:17		+09:04 / +08:51	
Kulmination UT	11:49:08		11:49:31		11:49:54		11:50:19		11:50:43		11:51:09	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Fr 07.12.		Sa 08.12.		So 09.12.		Mo 10.12.		Di 11.12.		Mi 12.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	182°09.6'	S 22°36.6'	182°03.1'	S 22°43.1'	181°56.5'	S 22°49.1'	181°49.7'	S 22°54.7'	181°42.9'	S 22°59.9'	181°35.9'	S 23°04.6'
01	197°09.3'	S 22°36.8'	197°02.8'	S 22°43.3'	196°56.2'	S 22°49.4'	196°49.4'	S 22°54.9'	196°42.6'	S 23°00.1'	196°35.7'	S 23°04.8'
02	212°09.1'	S 22°37.1'	212°02.5'	S 22°43.6'	211°55.9'	S 22°49.6'	211°49.2'	S 22°55.2'	211°42.3'	S 23°00.3'	211°35.4'	S 23°04.9'
03	227°08.8'	S 22°37.4'	227°02.3'	S 22°43.8'	226°55.6'	S 22°49.8'	226°48.9'	S 22°55.4'	226°42.0'	S 23°00.5'	226°35.1'	S 23°05.1'
04	242°08.5'	S 22°37.7'	242°02.0'	S 22°44.1'	241°55.3'	S 22°50.1'	241°48.6'	S 22°55.6'	241°41.7'	S 23°00.7'	241°34.8'	S 23°05.3'
05	257°08.3'	S 22°37.9'	257°01.7'	S 22°44.4'	256°55.1'	S 22°50.3'	256°48.3'	S 22°55.8'	256°41.4'	S 23°00.9'	256°34.5'	S 23°05.5'
06	272°08.0'	S 22°38.2'	272°01.4'	S 22°44.6'	271°54.8'	S 22°50.6'	271°48.0'	S 22°56.0'	271°41.2'	S 23°01.1'	271°34.2'	S 23°05.7'
07	287°07.7'	S 22°38.5'	287°01.2'	S 22°44.9'	286°54.5'	S 22°50.8'	286°47.7'	S 22°56.3'	286°40.9'	S 23°01.3'	286°33.9'	S 23°05.9'
08	302°07.5'	S 22°38.8'	302°00.9'	S 22°45.1'	301°54.2'	S 22°51.0'	301°47.5'	S 22°56.5'	301°40.6'	S 23°01.5'	301°33.6'	S 23°06.0'
09	317°07.2'	S 22°39.0'	317°00.6'	S 22°45.4'	316°53.9'	S 22°51.3'	316°47.2'	S 22°56.7'	316°40.3'	S 23°01.7'	316°33.3'	S 23°06.2'
10	332°06.9'	S 22°39.3'	332°00.3'	S 22°45.6'	331°53.7'	S 22°51.5'	331°46.9'	S 22°56.9'	331°40.0'	S 23°01.9'	331°33.0'	S 23°06.4'
11	347°06.6'	S 22°39.6'	347°00.1'	S 22°45.9'	346°53.4'	S 22°51.7'	346°46.6'	S 22°57.1'	346°39.7'	S 23°02.1'	346°32.7'	S 23°06.6'
12	2°06.4'	S 22°39.9'	1°59.8'	S 22°46.1'	1°53.1'	S 22°52.0'	1°46.3'	S 22°57.4'	1°39.4'	S 23°02.3'	1°32.4'	S 23°06.7'
13	17°06.1'	S 22°40.1'	16°59.5'	S 22°46.4'	16°52.8'	S 22°52.2'	16°46.0'	S 22°57.6'	16°39.1'	S 23°02.5'	16°32.2'	S 23°06.9'
14	32°05.8'	S 22°40.4'	31°59.2'	S 22°46.6'	31°52.5'	S 22°52.4'	31°45.7'	S 22°57.8'	31°38.8'	S 23°02.7'	31°31.9'	S 23°07.1'
15	47°05.6'	S 22°40.7'	46°59.0'	S 22°46.9'	46°52.3'	S 22°52.7'	46°45.5'	S 22°58.0'	46°38.6'	S 23°02.9'	46°31.6'	S 23°07.3'
16	62°05.3'	S 22°40.9'	61°58.7'	S 22°47.1'	61°52.0'	S 22°52.9'	61°45.2'	S 22°58.2'	61°38.3'	S 23°03.1'	61°31.3'	S 23°07.4'
17	77°05.0'	S 22°41.2'	76°58.4'	S 22°47.4'	76°51.7'	S 22°53.1'	76°44.9'	S 22°58.4'	76°38.0'	S 23°03.2'	76°31.0'	S 23°07.6'
18	92°04.7'	S 22°41.5'	91°58.1'	S 22°47.6'	91°51.4'	S 22°53.4'	91°44.6'	S 22°58.6'	91°37.7'	S 23°03.4'	91°30.7'	S 23°07.8'
19	107°04.5'	S 22°41.7'	106°57.9'	S 22°47.9'	106°51.1'	S 22°53.6'	106°44.3'	S 22°58.8'	106°37.4'	S 23°03.6'	106°30.4'	S 23°08.0'
20	122°04.2'	S 22°42.0'	121°57.6'	S 22°48.1'	121°50.9'	S 22°53.8'	121°44.0'	S 22°59.0'	121°37.1'	S 23°03.8'	121°30.1'	S 23°08.1'
21	137°03.9'	S 22°42.3'	136°57.3'	S 22°48.4'	136°50.6'	S 22°54.0'	136°43.7'	S 22°59.3'	136°36.8'	S 23°04.0'	136°29.8'	S 23°08.3'
22	152°03.6'	S 22°42.5'	151°57.0'	S 22°48.6'	151°50.3'	S 22°54.3'	151°43.5'	S 22°59.5'	151°36.5'	S 23°04.2'	151°29.5'	S 23°08.5'
23	167°03.4'	S 22°42.8'	166°56.7'	S 22°48.9'	166°50.0'	S 22°54.5'	166°43.2'	S 22°59.7'	166°36.2'	S 23°04.4'	166°29.2'	S 23°08.6'
Zeitgl. 0h / 12h	+08:38 / +08:25		+08:12 / +07:59		+07:46 / +07:32		+07:19 / +07:05		+06:52 / +06:38		+06:24 / +06:10	
Kulmination UT	11:51:35		11:52:01		11:52:28		11:52:55		11:53:22		11:53:50	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Do 13.12.		Fr 14.12.		Sa 15.12.		So 16.12.		Mo 17.12.		Di 18.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	181°28.9'	S 23°08.8'	181°21.8'	S 23°12.6'	181°14.7'	S 23°15.9'	181°07.4'	S 23°18.8'	181°00.1'	S 23°21.2'	180°52.8'	S 23°23.1'
01	196°28.6'	S 23°09.0'	196°21.5'	S 23°12.7'	196°14.4'	S 23°16.0'	196°07.1'	S 23°18.9'	195°59.8'	S 23°21.2'	195°52.5'	S 23°23.1'
02	211°28.3'	S 23°09.1'	211°21.2'	S 23°12.9'	211°14.1'	S 23°16.2'	211°06.8'	S 23°19.0'	210°59.5'	S 23°21.3'	210°52.2'	S 23°23.2'
03	226°28.0'	S 23°09.3'	226°20.9'	S 23°13.0'	226°13.8'	S 23°16.3'	226°06.5'	S 23°19.1'	225°59.2'	S 23°21.4'	225°51.9'	S 23°23.3'
04	241°27.8'	S 23°09.5'	241°20.6'	S 23°13.2'	241°13.5'	S 23°16.4'	241°06.2'	S 23°19.2'	240°58.9'	S 23°21.5'	240°51.6'	S 23°23.4'
05	256°27.5'	S 23°09.6'	256°20.3'	S 23°13.3'	256°13.2'	S 23°16.5'	256°05.9'	S 23°19.3'	255°58.6'	S 23°21.6'	255°51.3'	S 23°23.4'
06	271°27.2'	S 23°09.8'	271°20.0'	S 23°13.5'	271°12.9'	S 23°16.7'	271°05.6'	S 23°19.4'	270°58.3'	S 23°21.7'	270°51.0'	S 23°23.5'
07	286°26.9'	S 23°10.0'	286°19.7'	S 23°13.6'	286°12.6'	S 23°16.8'	286°05.3'	S 23°19.5'	285°58.0'	S 23°21.8'	285°50.7'	S 23°23.5'
08	301°26.6'	S 23°10.1'	301°19.4'	S 23°13.7'	301°12.3'	S 23°16.9'	301°05.0'	S 23°19.6'	300°57.7'	S 23°21.8'	300°50.4'	S 23°23.6'
09	316°26.3'	S 23°10.3'	316°19.2'	S 23°13.9'	316°12.0'	S 23°17.0'	316°04.7'	S 23°19.7'	315°57.4'	S 23°21.9'	315°50.1'	S 23°23.7'
10	331°26.0'	S 23°10.4'	331°18.9'	S 23°14.0'	331°11.7'	S 23°17.2'	331°04.4'	S 23°19.8'	330°57.1'	S 23°22.0'	330°49.8'	S 23°23.7'
11	346°25.7'	S 23°10.6'	346°18.6'	S 23°14.2'	346°11.4'	S 23°17.3'	346°04.1'	S 23°19.9'	345°56.8'	S 23°22.1'	345°49.4'	S 23°23.8'
12	1°25.4'	S 23°10.8'	1°18.3'	S 23°14.3'	1°11.1'	S 23°17.4'	1°03.8'	S 23°20.0'	0°56.5'	S 23°22.2'	0°49.1'	S 23°23.9'
13	16°25.1'	S 23°10.9'	16°18.0'	S 23°14.4'	16°10.8'	S 23°17.5'	16°03.5'	S 23°20.1'	15°56.2'	S 23°22.3'	15°48.8'	S 23°23.9'
14	31°24.8'	S 23°11.1'	31°17.7'	S 23°14.6'	31°10.5'	S 23°17.6'	31°03.2'	S 23°20.2'	30°55.9'	S 23°22.3'	30°48.5'	S 23°24.0'
15	46°24.5'	S 23°11.2'	46°17.4'	S 23°14.7'	46°10.2'	S 23°17.7'	46°02.9'	S 23°20.3'	45°55.6'	S 23°22.4'	45°48.2'	S 23°24.0'
16	61°24.2'	S 23°11.4'	61°17.1'	S 23°14.9'	61°09.8'	S 23°17.9'	61°02.6'	S 23°20.4'	60°55.3'	S 23°22.5'	60°47.9'	S 23°24.1'
17	76°23.9'	S 23°11.5'	76°16.8'	S 23°15.0'	76°09.5'	S 23°18.0'	76°02.3'	S 23°20.5'	75°55.0'	S 23°22.6'	75°47.6'	S 23°24.2'
18	91°23.6'	S 23°11.7'	91°16.5'	S 23°15.1'	91°09.2'	S 23°18.1'	91°02.0'	S 23°20.6'	90°54.7'	S 23°22.6'	90°47.3'	S 23°24.2'
19	106°23.3'	S 23°11.8'	106°16.2'	S 23°15.3'	106°08.9'	S 23°18.2'	106°01.7'	S 23°20.7'	105°54.3'	S 23°22.7'	105°47.0'	S 23°24.3'
20	121°23.0'	S 23°12.0'	121°15.9'	S 23°15.4'	121°08.6'	S 23°18.3'	121°01.4'	S 23°20.8'	120°54.0'	S 23°22.8'	120°46.7'	S 23°24.3'
21	136°22.7'	S 23°12.1'	136°15.6'	S 23°15.5'	136°08.3'	S 23°18.4'	136°01.1'	S 23°20.9'	135°53.7'	S 23°22.9'	135°46.4'	S 23°24.4'
22	151°22.4'	S 23°12.3'	151°15.3'	S 23°15.7'	151°08.0'	S 23°18.5'	151°00.8'	S 23°21.0'	150°53.4'	S 23°22.9'	150°46.1'	S 23°24.4'
23	166°22.1'	S 23°12.4'	166°15.0'	S 23°15.8'	166°07.7'	S 23°18.7'	166°00.5'	S 23°21.1'	165°53.1'	S 23°23.0'	165°45.8'	S 23°24.5'
Zeitgl. 0h / 12h	+05:56 / +05:42		+05:27 / +05:13		+04:59 / +04:44		+04:30 / +04:15		+04:01 / +03:46		+03:31 / +03:17	
Kulmination UT	11:54:18		11:54:47		11:55:16		11:55:45		11:56:14		11:56:43	
Halbmesser	16.2'		16.2'		16.3'		16.3'		16.3'		16.3'	

	Mi 19.12.		Do 20.12.		Fr 21.12.		Sa 22.12.		So 23.12.		Mo 24.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°45.4'	S 23°24.5'	180°38.0'	S 23°25.5'	180°30.6'	S 23°26.0'	180°23.2'	S 23°26.1'	180°15.8'	S 23°25.6'	180°08.3'	S 23°24.7'
01	195°45.1'	S 23°24.6'	195°37.7'	S 23°25.5'	195°30.3'	S 23°26.0'	195°22.9'	S 23°26.1'	195°15.4'	S 23°25.6'	195°08.0'	S 23°24.7'
02	210°44.8'	S 23°24.6'	210°37.4'	S 23°25.6'	210°30.0'	S 23°26.1'	210°22.6'	S 23°26.1'	210°15.1'	S 23°25.6'	210°07.7'	S 23°24.7'
03	225°44.5'	S 23°24.7'	225°37.1'	S 23°25.6'	225°29.7'	S 23°26.1'	225°22.3'	S 23°26.0'	225°14.8'	S 23°25.6'	225°07.4'	S 23°24.6'
04	240°44.2'	S 23°24.7'	240°36.8'	S 23°25.6'	240°29.4'	S 23°26.1'	240°22.0'	S 23°26.0'	240°14.5'	S 23°25.5'	240°07.1'	S 23°24.6'
05	255°43.9'	S 23°24.8'	255°36.5'	S 23°25.7'	255°29.1'	S 23°26.1'	255°21.6'	S 23°26.0'	255°14.2'	S 23°25.5'	255°06.8'	S 23°24.5'
06	270°43.6'	S 23°24.8'	270°36.2'	S 23°25.7'	270°28.8'	S 23°26.1'	270°21.3'	S 23°26.0'	270°13.9'	S 23°25.5'	270°06.5'	S 23°24.4'
07	285°43.3'	S 23°24.9'	285°35.9'	S 23°25.7'	285°28.5'	S 23°26.1'	285°21.0'	S 23°26.0'	285°13.6'	S 23°25.4'	285°06.2'	S 23°24.4'
08	300°43.0'	S 23°24.9'	300°35.6'	S 23°25.7'	300°28.2'	S 23°26.1'	300°20.7'	S 23°26.0'	300°13.3'	S 23°25.4'	300°05.8'	S 23°24.3'
09	315°42.7'	S 23°25.0'	315°35.3'	S 23°25.8'	315°27.8'	S 23°26.1'	315°20.4'	S 23°26.0'	315°13.0'	S 23°25.4'	315°05.5'	S 23°24.3'
10	330°42.4'	S 23°25.0'	330°35.0'	S 23°25.8'	330°27.5'	S 23°26.1'	330°20.1'	S 23°26.0'	330°12.7'	S 23°25.3'	330°05.2'	S 23°24.2'
11	345°42.1'	S 23°25.0'	345°34.7'	S 23°25.8'	345°27.2'	S 23°26.1'	345°19.8'	S 23°25.9'	345°12.4'	S 23°25.3'	345°04.9'	S 23°24.2'
12	0°41.8'	S 23°25.1'	0°34.3'	S 23°25.8'	0°26.9'	S 23°26.1'	0°19.5'	S 23°25.9'	0°12.0'	S 23°25.3'	0°04.6'	S 23°24.1'
13	15°41.4'	S 23°25.1'	15°34.0'	S 23°25.9'	15°26.6'	S 23°26.1'	15°19.2'	S 23°25.9'	15°11.7'	S 23°25.2'	15°04.3'	S 23°24.1'
14	30°41.1'	S 23°25.2'	30°33.7'	S 23°25.9'	30°26.3'	S 23°26.1'	30°18.9'	S 23°25.9'	30°11.4'	S 23°25.2'	30°04.0'	S 23°24.0'
15	45°40.8'	S 23°25.2'	45°33.4'	S 23°25.9'	45°26.0'	S 23°26.1'	45°18.5'	S 23°25.9'	45°11.1'	S 23°25.1'	45°03.7'	S 23°23.9'
16	60°40.5'	S 23°25.2'	60°33.1'	S 23°25.9'	60°25.7'	S 23°26.1'	60°18.2'	S 23°25.8'	60°10.8'	S 23°25.1'	60°03.4'	S 23°23.9'
17	75°40.2'	S 23°25.3'	75°32.8'	S 23°25.9'	75°25.4'	S 23°26.1'	75°17.9'	S 23°25.8'	75°10.5'	S 23°25.1'	75°03.1'	S 23°23.8'
18	90°39.9'	S 23°25.3'	90°32.5'	S 23°25.9'	90°25.1'	S 23°26.1'	90°17.6'	S 23°25.8'	90°10.2'	S 23°25.0'	90°02.8'	S 23°23.8'
19	105°39.6'	S 23°25.3'	105°32.2'	S 23°26.0'	105°24.7'	S 23°26.1'	105°17.3'	S 23°25.8'	105°09.9'	S 23°25.0'	105°02.4'	S 23°23.7'
20	120°39.3'	S 23°25.4'	120°31.9'	S 23°26.0'	120°24.4'	S 23°26.1'	120°17.0'	S 23°25.7'	120°09.6'	S 23°24.9'	120°02.1'	S 23°23.6'
21	135°39.0'	S 23°25.4'	135°31.6'	S 23°26.0'	135°24.1'	S 23°26.1'	135°16.7'	S 23°25.7'	135°09.3'	S 23°24.9'	135°01.8'	S 23°23.6'
22	150°38.7'	S 23°25.5'	150°31.2'	S 23°26.0'	150°23.8'	S 23°26.1'	150°16.4'	S 23°25.7'	150°08.9'	S 23°24.8'	150°01.5'	S 23°23.5'
23	165°38.4'	S 23°25.5'	165°30.9'	S 23°26.0'	165°23.5'	S 23°26.1'	165°16.1'	S 23°25.7'	165°08.6'	S 23°24.8'	165°01.2'	S 23°23.4'
Zeitgl. 0h / 12h	+03:02 / +02:47		+02:32 / +02:17		+02:03 / +01:48		+01:33 / +01:18		+01:03 / +00:48		+00:33 / +00:18	
Kulmination UT	11:57:13		11:57:43		11:58:12		11:58:42		11:59:12		11:59:42	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

	Di 25.12.		Mi 26.12.		Do 27.12.		Fr 28.12.		Sa 29.12.		So 30.12.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°00.9'	S 23°23.4'	179°53.5'	S 23°21.5'	179°46.1'	S 23°19.2'	179°38.8'	S 23°16.5'	179°31.5'	S 23°13.2'	179°24.3'	S 23°09.5'
01	195°00.6'	S 23°23.3'	194°53.2'	S 23°21.5'	194°45.8'	S 23°19.1'	194°38.5'	S 23°16.3'	194°31.2'	S 23°13.1'	194°24.0'	S 23°09.3'
02	210°00.3'	S 23°23.2'	209°52.9'	S 23°21.4'	209°45.5'	S 23°19.0'	209°38.2'	S 23°16.2'	209°30.9'	S 23°12.9'	209°23.7'	S 23°09.2'
03	225°00.0'	S 23°23.2'	224°52.6'	S 23°21.3'	224°45.2'	S 23°18.9'	224°37.9'	S 23°16.1'	224°30.6'	S 23°12.8'	224°23.4'	S 23°09.0'
04	239°59.7'	S 23°23.1'	239°52.3'	S 23°21.2'	239°44.9'	S 23°18.8'	239°37.6'	S 23°15.9'	239°30.3'	S 23°12.6'	239°23.1'	S 23°08.8'
05	254°59.4'	S 23°23.0'	254°52.0'	S 23°21.1'	254°44.6'	S 23°18.7'	254°37.3'	S 23°15.8'	254°30.0'	S 23°12.5'	254°22.8'	S 23°08.7'
06	269°59.0'	S 23°23.0'	269°51.7'	S 23°21.0'	269°44.3'	S 23°18.6'	269°37.0'	S 23°15.7'	269°29.7'	S 23°12.3'	269°22.5'	S 23°08.5'
07	284°58.7'	S 23°22.9'	284°51.3'	S 23°20.9'	284°44.0'	S 23°18.5'	284°36.7'	S 23°15.6'	284°29.4'	S 23°12.2'	284°22.2'	S 23°08.3'
08	299°58.4'	S 23°22.8'	299°51.0'	S 23°20.8'	299°43.7'	S 23°18.4'	299°36.4'	S 23°15.4'	299°29.1'	S 23°12.0'	299°21.9'	S 23°08.2'
09	314°58.1'	S 23°22.7'	314°50.7'	S 23°20.7'	314°43.4'	S 23°18.2'	314°36.0'	S 23°15.3'	314°28.8'	S 23°11.9'	314°21.6'	S 23°08.0'
10	329°57.8'	S 23°22.7'	329°50.4'	S 23°20.6'	329°43.1'	S 23°18.1'	329°35.7'	S 23°15.2'	329°28.5'	S 23°11.7'	329°21.3'	S 23°07.8'
11	344°57.5'	S 23°22.6'	344°50.1'	S 23°20.5'	344°42.8'	S 23°18.0'	344°35.4'	S 23°15.0'	344°28.2'	S 23°11.6'	344°21.0'	S 23°07.7'
12	359°57.2'	S 23°22.5'	359°49.8'	S 23°20.4'	359°42.5'	S 23°17.9'	359°35.1'	S 23°14.9'	359°27.9'	S 23°11.4'	359°20.7'	S 23°07.5'
13	14°56.9'	S 23°22.4'	14°49.5'	S 23°20.3'	14°42.1'	S 23°17.8'	14°34.8'	S 23°14.8'	14°27.6'	S 23°11.3'	14°20.4'	S 23°07.3'
14	29°56.6'	S 23°22.4'	29°49.2'	S 23°20.3'	29°41.8'	S 23°17.7'	29°34.5'	S 23°14.6'	29°27.3'	S 23°11.1'	29°20.1'	S 23°07.1'
15	44°56.3'	S 23°22.3'	44°48.9'	S 23°20.2'	44°41.5'	S 23°17.6'	44°34.2'	S 23°14.5'	44°27.0'	S 23°11.0'	44°19.8'	S 23°07.0'
16	59°56.0'	S 23°22.2'	59°48.6'	S 23°20.1'	59°41.2'	S 23°17.4'	59°33.9'	S 23°14.3'	59°26.7'	S 23°10.8'	59°19.5'	S 23°06.8'
17	74°55.7'	S 23°22.1'	74°48.3'	S 23°20.0'	74°40.9'	S 23°17.3'	74°33.6'	S 23°14.2'	74°26.4'	S 23°10.6'	74°19.2'	S 23°06.6'
18	89°55.3'	S 23°22.0'	89°48.0'	S 23°19.9'	89°40.6'	S 23°17.2'	89°33.3'	S 23°14.1'	89°26.1'	S 23°10.5'	89°18.9'	S 23°06.4'
19	104°55.0'	S 23°22.0'	104°47.7'	S 23°19.8'	104°40.3'	S 23°17.1'	104°33.0'	S 23°13.9'	104°25.8'	S 23°10.3'	104°18.6'	S 23°06.2'
20	119°54.7'	S 23°21.9'	119°47.4'	S 23°19.7'	119°40.0'	S 23°17.0'	119°32.7'	S 23°13.8'	119°25.5'	S 23°10.2'	119°18.3'	S 23°06.1'
21	134°54.4'	S 23°21.8'	134°47.0'	S 23°19.5'	134°39.7'	S 23°16.8'	134°32.4'	S 23°13.6'	134°25.2'	S 23°10.0'	134°18.0'	S 23°05.9'
22	149°54.1'	S 23°21.7'	149°46.7'	S 23°19.4'	149°39.4'	S 23°16.7'	149°32.1'	S 23°13.5'	149°24.9'	S 23°09.8'	149°17.7'	S 23°05.7'
23	164°53.8'	S 23°21.6'	164°46.4'	S 23°19.3'	164°39.1'	S 23°16.6'	164°31.8'	S 23°13.4'	164°24.6'	S 23°09.7'	164°17.4'	S 23°05.5'
Zeitgl. 0h / 12h	+00:04 / -00:11		-00:26 / -00:41		-00:55 / -01:10		-01:25 / -01:39		-01:54 / -02:09		-02:23 / -02:37	
Kulmination UT	12:00:11		12:00:41		12:01:10		12:01:39		12:02:09		12:02:37	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

Mo 31.12.

UT	Grt	Dec
00	179°17.1'	S 23°05.3'
01	194°16.8'	S 23°05.2'
02	209°16.5'	S 23°05.0'
03	224°16.2'	S 23°04.8'
04	239°15.9'	S 23°04.6'
05	254°15.6'	S 23°04.4'
06	269°15.3'	S 23°04.2'
07	284°15.0'	S 23°04.0'
08	299°14.7'	S 23°03.8'
09	314°14.4'	S 23°03.7'
10	329°14.1'	S 23°03.5'
11	344°13.8'	S 23°03.3'
12	359°13.5'	S 23°03.1'
13	14°13.2'	S 23°02.9'
14	29°12.9'	S 23°02.7'
15	44°12.6'	S 23°02.5'
16	59°12.3'	S 23°02.3'
17	74°12.0'	S 23°02.1'
18	89°11.7'	S 23°01.9'
19	104°11.4'	S 23°01.7'
20	119°11.1'	S 23°01.5'
21	134°10.8'	S 23°01.3'
22	149°10.6'	S 23°01.1'
23	164°10.3'	S 23°00.9'

Zeitgl. 0h / 12h -02:52 / -03:06

Kulmination UT 12:03:06

Halbmesser 16.3'

2030

Januar

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Di 01.01.		Mi 02.01.		Do 03.01.		Fr 04.01.		Sa 05.01.		So 06.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°10.0'	S 23°00.7'	179°02.9'	S 22°55.6'	178°56.0'	S 22°50.1'	178°49.1'	S 22°44.1'	178°42.3'	S 22°37.6'	178°35.7'	S 22°30.7'
01	194°09.7'	S 23°00.5'	194°02.6'	S 22°55.4'	193°55.7'	S 22°49.8'	193°48.8'	S 22°43.8'	193°42.1'	S 22°37.3'	193°35.4'	S 22°30.4'
02	209°09.4'	S 23°00.3'	209°02.3'	S 22°55.2'	208°55.4'	S 22°49.6'	208°48.5'	S 22°43.5'	208°41.8'	S 22°37.1'	208°35.1'	S 22°30.1'
03	224°09.1'	S 23°00.1'	224°02.1'	S 22°54.9'	223°55.1'	S 22°49.3'	223°48.3'	S 22°43.3'	223°41.5'	S 22°36.8'	223°34.9'	S 22°29.8'
04	239°08.8'	S 22°59.9'	239°01.8'	S 22°54.7'	238°54.8'	S 22°49.1'	238°48.0'	S 22°43.0'	238°41.2'	S 22°36.5'	238°34.6'	S 22°29.5'
05	254°08.5'	S 22°59.7'	254°01.5'	S 22°54.5'	253°54.5'	S 22°48.9'	253°47.7'	S 22°42.8'	253°41.0'	S 22°36.2'	253°34.3'	S 22°29.2'
06	269°08.2'	S 22°59.5'	269°01.2'	S 22°54.3'	268°54.2'	S 22°48.6'	268°47.4'	S 22°42.5'	268°40.7'	S 22°35.9'	268°34.0'	S 22°28.9'
07	284°07.9'	S 22°59.3'	284°00.9'	S 22°54.0'	283°54.0'	S 22°48.4'	283°47.1'	S 22°42.2'	283°40.4'	S 22°35.6'	283°33.8'	S 22°28.6'
08	299°07.6'	S 22°59.1'	299°00.6'	S 22°53.8'	298°53.7'	S 22°48.1'	298°46.8'	S 22°42.0'	298°40.1'	S 22°35.4'	298°33.5'	S 22°28.3'
09	314°07.3'	S 22°58.8'	314°00.3'	S 22°53.6'	313°53.4'	S 22°47.9'	313°46.6'	S 22°41.7'	313°39.8'	S 22°35.1'	313°33.2'	S 22°28.0'
10	329°07.0'	S 22°58.6'	329°00.0'	S 22°53.4'	328°53.1'	S 22°47.6'	328°46.3'	S 22°41.4'	328°39.6'	S 22°34.8'	328°32.9'	S 22°27.7'
11	344°06.7'	S 22°58.4'	343°59.7'	S 22°53.1'	343°52.8'	S 22°47.4'	343°46.0'	S 22°41.2'	343°39.3'	S 22°34.5'	343°32.7'	S 22°27.4'
12	359°06.4'	S 22°58.2'	358°59.4'	S 22°52.9'	358°52.5'	S 22°47.1'	358°45.7'	S 22°40.9'	358°39.0'	S 22°34.2'	358°32.4'	S 22°27.1'
13	14°06.1'	S 22°58.0'	13°59.1'	S 22°52.7'	13°52.2'	S 22°46.9'	13°45.4'	S 22°40.6'	13°38.7'	S 22°33.9'	13°32.1'	S 22°26.8'
14	29°05.8'	S 22°57.8'	28°58.9'	S 22°52.4'	28°52.0'	S 22°46.6'	28°45.2'	S 22°40.4'	28°38.4'	S 22°33.6'	28°31.9'	S 22°26.5'
15	44°05.6'	S 22°57.6'	43°58.6'	S 22°52.2'	43°51.7'	S 22°46.4'	43°44.9'	S 22°40.1'	43°38.2'	S 22°33.3'	43°31.6'	S 22°26.2'
16	59°05.3'	S 22°57.4'	58°58.3'	S 22°52.0'	58°51.4'	S 22°46.1'	58°44.6'	S 22°39.8'	58°37.9'	S 22°33.1'	58°31.3'	S 22°25.9'
17	74°05.0'	S 22°57.1'	73°58.0'	S 22°51.7'	73°51.1'	S 22°45.9'	73°44.3'	S 22°39.5'	73°37.6'	S 22°32.8'	73°31.0'	S 22°25.5'
18	89°04.7'	S 22°56.9'	88°57.7'	S 22°51.5'	88°50.8'	S 22°45.6'	88°44.0'	S 22°39.3'	88°37.3'	S 22°32.5'	88°30.8'	S 22°25.2'
19	104°04.4'	S 22°56.7'	103°57.4'	S 22°51.3'	103°50.5'	S 22°45.4'	103°43.7'	S 22°39.0'	103°37.1'	S 22°32.2'	103°30.5'	S 22°24.9'
20	119°04.1'	S 22°56.5'	118°57.1'	S 22°51.0'	118°50.2'	S 22°45.1'	118°43.5'	S 22°38.7'	118°36.8'	S 22°31.9'	118°30.2'	S 22°24.6'
21	134°03.8'	S 22°56.3'	133°56.8'	S 22°50.8'	133°50.0'	S 22°44.8'	133°43.2'	S 22°38.4'	133°36.5'	S 22°31.6'	133°30.0'	S 22°24.3'
22	149°03.5'	S 22°56.1'	148°56.5'	S 22°50.5'	148°49.7'	S 22°44.6'	148°42.9'	S 22°38.2'	148°36.2'	S 22°31.3'	148°29.7'	S 22°24.0'
23	164°03.2'	S 22°55.8'	163°56.3'	S 22°50.3'	163°49.4'	S 22°44.3'	163°42.6'	S 22°37.9'	163°36.0'	S 22°31.0'	163°29.4'	S 22°23.7'
Zeitgl. 0h / 12h	-03:20 / -03:34		-03:48 / -04:02		-04:16 / -04:30		-04:44 / -04:57		-05:11 / -05:24		-05:37 / -05:50	
Kulmination UT	12:03:34		12:04:02		12:04:30		12:04:57		12:05:24		12:05:50	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

	Mo 07.01.		Di 08.01.		Mi 09.01.		Do 10.01.		Fr 11.01.		Sa 12.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°29.1'	S 22°23.4'	178°22.7'	S 22°15.6'	178°16.4'	S 22°07.4'	178°10.2'	S 21°58.7'	178°04.2'	S 21°49.6'	177°58.3'	S 21°40.1'
01	193°28.9'	S 22°23.0'	193°22.4'	S 22°15.2'	193°16.2'	S 22°07.0'	193°10.0'	S 21°58.3'	193°04.0'	S 21°49.2'	192°58.1'	S 21°39.7'
02	208°28.6'	S 22°22.7'	208°22.2'	S 22°14.9'	208°15.9'	S 22°06.6'	208°09.7'	S 21°58.0'	208°03.7'	S 21°48.8'	207°57.8'	S 21°39.3'
03	223°28.3'	S 22°22.4'	223°21.9'	S 22°14.6'	223°15.6'	S 22°06.3'	223°09.5'	S 21°57.6'	223°03.5'	S 21°48.4'	222°57.6'	S 21°38.9'
04	238°28.1'	S 22°22.1'	238°21.7'	S 22°14.2'	238°15.4'	S 22°05.9'	238°09.2'	S 21°57.2'	238°03.2'	S 21°48.1'	237°57.4'	S 21°38.5'
05	253°27.8'	S 22°21.8'	253°21.4'	S 22°13.9'	253°15.1'	S 22°05.6'	253°09.0'	S 21°56.8'	253°03.0'	S 21°47.7'	252°57.1'	S 21°38.1'
06	268°27.5'	S 22°21.5'	268°21.1'	S 22°13.6'	268°14.9'	S 22°05.2'	268°08.7'	S 21°56.5'	268°02.7'	S 21°47.3'	267°56.9'	S 21°37.7'
07	283°27.3'	S 22°21.1'	283°20.9'	S 22°13.2'	283°14.6'	S 22°04.9'	283°08.5'	S 21°56.1'	283°02.5'	S 21°46.9'	282°56.6'	S 21°37.2'
08	298°27.0'	S 22°20.8'	298°20.6'	S 22°12.9'	298°14.3'	S 22°04.5'	298°08.2'	S 21°55.7'	298°02.2'	S 21°46.5'	297°56.4'	S 21°36.8'
09	313°26.7'	S 22°20.5'	313°20.3'	S 22°12.5'	313°14.1'	S 22°04.2'	313°08.0'	S 21°55.3'	313°02.0'	S 21°46.1'	312°56.1'	S 21°36.4'
10	328°26.4'	S 22°20.2'	328°20.1'	S 22°12.2'	328°13.8'	S 22°03.8'	328°07.7'	S 21°55.0'	328°01.7'	S 21°45.7'	327°55.9'	S 21°36.0'
11	343°26.2'	S 22°19.8'	343°19.8'	S 22°11.9'	343°13.6'	S 22°03.4'	343°07.5'	S 21°54.6'	343°01.5'	S 21°45.3'	342°55.7'	S 21°35.6'
12	358°25.9'	S 22°19.5'	358°19.5'	S 22°11.5'	358°13.3'	S 22°03.1'	358°07.2'	S 21°54.2'	358°01.2'	S 21°44.9'	357°55.4'	S 21°35.2'
13	13°25.6'	S 22°19.2'	13°19.3'	S 22°11.2'	13°13.1'	S 22°02.7'	13°07.0'	S 21°53.8'	13°01.0'	S 21°44.5'	12°55.2'	S 21°34.8'
14	28°25.4'	S 22°18.9'	28°19.0'	S 22°10.8'	28°12.8'	S 22°02.4'	28°06.7'	S 21°53.4'	28°00.8'	S 21°44.1'	27°55.0'	S 21°34.4'
15	43°25.1'	S 22°18.5'	43°18.8'	S 22°10.5'	43°12.5'	S 22°02.0'	43°06.5'	S 21°53.1'	43°00.5'	S 21°43.7'	42°54.7'	S 21°33.9'
16	58°24.8'	S 22°18.2'	58°18.5'	S 22°10.1'	58°12.3'	S 22°01.6'	58°06.2'	S 21°52.7'	58°00.3'	S 21°43.3'	57°54.5'	S 21°33.5'
17	73°24.6'	S 22°17.9'	73°18.2'	S 22°09.8'	73°12.0'	S 22°01.3'	73°06.0'	S 21°52.3'	73°00.0'	S 21°42.9'	72°54.2'	S 21°33.1'
18	88°24.3'	S 22°17.6'	88°18.0'	S 22°09.4'	88°11.8'	S 22°00.9'	88°05.7'	S 21°51.9'	87°59.8'	S 21°42.5'	87°54.0'	S 21°32.7'
19	103°24.0'	S 22°17.2'	103°17.7'	S 22°09.1'	103°11.5'	S 22°00.5'	103°05.5'	S 21°51.5'	102°59.5'	S 21°42.1'	102°53.8'	S 21°32.3'
20	118°23.8'	S 22°16.9'	118°17.5'	S 22°08.8'	118°11.3'	S 22°00.2'	118°05.2'	S 21°51.2'	117°59.3'	S 21°41.7'	117°53.5'	S 21°31.8'
21	133°23.5'	S 22°16.6'	133°17.2'	S 22°08.4'	133°11.0'	S 21°59.8'	133°05.0'	S 21°50.8'	132°59.0'	S 21°41.3'	132°53.3'	S 21°31.4'
22	148°23.2'	S 22°16.2'	148°16.9'	S 22°08.1'	148°10.7'	S 21°59.4'	148°04.7'	S 21°50.4'	147°58.8'	S 21°40.9'	147°53.1'	S 21°31.0'
23	163°23.0'	S 22°15.9'	163°16.7'	S 22°07.7'	163°10.5'	S 21°59.1'	163°04.5'	S 21°50.0'	162°58.6'	S 21°40.5'	162°52.8'	S 21°30.6'
Zeitgl. 0h / 12h	-06:03 / -06:16		-06:29 / -06:42		-06:54 / -07:07		-07:19 / -07:31		-07:43 / -07:55		-08:07 / -08:18	
Kulmination UT	12:06:16		12:06:42		12:07:07		12:07:31		12:07:55		12:08:18	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

	So 13.01.		Mo 14.01.		Di 15.01.		Mi 16.01.		Do 17.01.		Fr 18.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	177°52.6'	S 21°30.2'	177°47.0'	S 21°19.8'	177°41.6'	S 21°09.1'	177°36.3'	S 20°57.9'	177°31.2'	S 20°46.3'	177°26.3'	S 20°34.4'
01	192°52.3'	S 21°29.7'	192°46.8'	S 21°19.4'	192°41.3'	S 21°08.6'	192°36.1'	S 20°57.4'	192°31.0'	S 20°45.8'	192°26.1'	S 20°33.9'
02	207°52.1'	S 21°29.3'	207°46.5'	S 21°18.9'	207°41.1'	S 21°08.1'	207°35.9'	S 20°56.9'	207°30.8'	S 20°45.4'	207°25.9'	S 20°33.4'
03	222°51.9'	S 21°28.9'	222°46.3'	S 21°18.5'	222°40.9'	S 21°07.7'	222°35.7'	S 20°56.5'	222°30.6'	S 20°44.9'	222°25.7'	S 20°32.9'
04	237°51.6'	S 21°28.5'	237°46.1'	S 21°18.1'	237°40.7'	S 21°07.2'	237°35.4'	S 20°56.0'	237°30.4'	S 20°44.4'	237°25.5'	S 20°32.3'
05	252°51.4'	S 21°28.0'	252°45.8'	S 21°17.6'	252°40.5'	S 21°06.8'	252°35.2'	S 20°55.5'	252°30.2'	S 20°43.9'	252°25.3'	S 20°31.8'
06	267°51.2'	S 21°27.6'	267°45.6'	S 21°17.2'	267°40.2'	S 21°06.3'	267°35.0'	S 20°55.0'	267°30.0'	S 20°43.4'	267°25.1'	S 20°31.3'
07	282°50.9'	S 21°27.2'	282°45.4'	S 21°16.7'	282°40.0'	S 21°05.8'	282°34.8'	S 20°54.6'	282°29.8'	S 20°42.9'	282°24.9'	S 20°30.8'
08	297°50.7'	S 21°26.8'	297°45.2'	S 21°16.3'	297°39.8'	S 21°05.4'	297°34.6'	S 20°54.1'	297°29.6'	S 20°42.4'	297°24.7'	S 20°30.3'
09	312°50.5'	S 21°26.3'	312°44.9'	S 21°15.8'	312°39.6'	S 21°04.9'	312°34.4'	S 20°53.6'	312°29.3'	S 20°41.9'	312°24.5'	S 20°29.8'
10	327°50.2'	S 21°25.9'	327°44.7'	S 21°15.4'	327°39.4'	S 21°04.5'	327°34.2'	S 20°53.1'	327°29.1'	S 20°41.4'	327°24.3'	S 20°29.3'
11	342°50.0'	S 21°25.5'	342°44.5'	S 21°14.9'	342°39.1'	S 21°04.0'	342°33.9'	S 20°52.6'	342°28.9'	S 20°40.9'	342°24.1'	S 20°28.8'
12	357°49.8'	S 21°25.0'	357°44.3'	S 21°14.5'	357°38.9'	S 21°03.5'	357°33.7'	S 20°52.2'	357°28.7'	S 20°40.4'	357°23.9'	S 20°28.2'
13	12°49.5'	S 21°24.6'	12°44.0'	S 21°14.0'	12°38.7'	S 21°03.1'	12°33.5'	S 20°51.7'	12°28.5'	S 20°39.9'	12°23.7'	S 20°27.7'
14	27°49.3'	S 21°24.2'	27°43.8'	S 21°13.6'	27°38.5'	S 21°02.6'	27°33.3'	S 20°51.2'	27°28.3'	S 20°39.4'	27°23.5'	S 20°27.2'
15	42°49.1'	S 21°23.7'	42°43.6'	S 21°13.1'	42°38.3'	S 21°02.1'	42°33.1'	S 20°50.7'	42°28.1'	S 20°38.9'	42°23.3'	S 20°26.7'
16	57°48.8'	S 21°23.3'	57°43.4'	S 21°12.7'	57°38.0'	S 21°01.7'	57°32.9'	S 20°50.2'	57°27.9'	S 20°38.4'	57°23.1'	S 20°26.2'
17	72°48.6'	S 21°22.9'	72°43.1'	S 21°12.2'	72°37.8'	S 21°01.2'	72°32.7'	S 20°49.7'	72°27.7'	S 20°37.9'	72°22.9'	S 20°25.7'
18	87°48.4'	S 21°22.4'	87°42.9'	S 21°11.8'	87°37.6'	S 21°00.7'	87°32.5'	S 20°49.3'	87°27.5'	S 20°37.4'	87°22.7'	S 20°25.2'
19	102°48.1'	S 21°22.0'	102°42.7'	S 21°11.3'	102°37.4'	S 21°00.3'	102°32.3'	S 20°48.8'	102°27.3'	S 20°36.9'	102°22.5'	S 20°24.6'
20	117°47.9'	S 21°21.6'	117°42.5'	S 21°10.9'	117°37.2'	S 20°59.8'	117°32.0'	S 20°48.3'	117°27.1'	S 20°36.4'	117°22.3'	S 20°24.1'
21	132°47.7'	S 21°21.1'	132°42.2'	S 21°10.4'	132°37.0'	S 20°59.3'	132°31.8'	S 20°47.8'	132°26.9'	S 20°35.9'	132°22.1'	S 20°23.6'
22	147°47.5'	S 21°20.7'	147°42.0'	S 21°10.0'	147°36.7'	S 20°58.8'	147°31.6'	S 20°47.3'	147°26.7'	S 20°35.4'	147°21.9'	S 20°23.1'
23	162°47.2'	S 21°20.3'	162°41.8'	S 21°09.5'	162°36.5'	S 20°58.4'	162°31.4'	S 20°46.8'	162°26.5'	S 20°34.9'	162°21.7'	S 20°22.5'
Zeitgl. 0h / 12h	-08:30 / -08:41		-08:52 / -09:03		-09:14 / -09:24		-09:35 / -09:45		-09:55 / -10:05		-10:15 / -10:24	
Kulmination UT	12:08:41		12:09:03		12:09:24		12:09:45		12:10:05		12:10:24	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.3'		16.3'	

	Sa 19.01.		So 20.01.		Mo 21.01.		Di 22.01.		Mi 23.01.		Do 24.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	177°21.6'	S 20°22.0'	177°17.0'	S 20°09.3'	177°12.6'	S 19°56.2'	177°08.4'	S 19°42.7'	177°04.4'	S 19°28.9'	177°00.6'	S 19°14.6'
01	192°21.4'	S 20°21.5'	192°16.8'	S 20°08.8'	192°12.4'	S 19°55.6'	192°08.3'	S 19°42.1'	192°04.3'	S 19°28.3'	192°00.5'	S 19°14.0'
02	207°21.2'	S 20°21.0'	207°16.6'	S 20°08.2'	207°12.3'	S 19°55.1'	207°08.1'	S 19°41.6'	207°04.1'	S 19°27.7'	207°00.3'	S 19°13.4'
03	222°21.0'	S 20°20.5'	222°16.4'	S 20°07.7'	222°12.1'	S 19°54.5'	222°07.9'	S 19°41.0'	222°03.9'	S 19°27.1'	222°00.2'	S 19°12.8'
04	237°20.8'	S 20°19.9'	237°16.3'	S 20°07.1'	237°11.9'	S 19°54.0'	237°07.8'	S 19°40.4'	237°03.8'	S 19°26.5'	237°00.0'	S 19°12.2'
05	252°20.6'	S 20°19.4'	252°16.1'	S 20°06.6'	252°11.7'	S 19°53.4'	252°07.6'	S 19°39.8'	252°03.6'	S 19°25.9'	251°59.9'	S 19°11.6'
06	267°20.4'	S 20°18.9'	267°15.9'	S 20°06.1'	267°11.6'	S 19°52.8'	267°07.4'	S 19°39.3'	267°03.5'	S 19°25.3'	266°59.7'	S 19°11.0'
07	282°20.2'	S 20°18.4'	282°15.7'	S 20°05.5'	282°11.4'	S 19°52.3'	282°07.2'	S 19°38.7'	282°03.3'	S 19°24.7'	281°59.6'	S 19°10.4'
08	297°20.0'	S 20°17.8'	297°15.5'	S 20°05.0'	297°11.2'	S 19°51.7'	297°07.1'	S 19°38.1'	297°03.1'	S 19°24.2'	296°59.4'	S 19°09.8'
09	312°19.8'	S 20°17.3'	312°15.3'	S 20°04.4'	312°11.0'	S 19°51.2'	312°06.9'	S 19°37.6'	312°03.0'	S 19°23.6'	311°59.3'	S 19°09.2'
10	327°19.6'	S 20°16.8'	327°15.1'	S 20°03.9'	327°10.8'	S 19°50.6'	327°06.7'	S 19°37.0'	327°02.8'	S 19°23.0'	326°59.1'	S 19°08.6'
11	342°19.4'	S 20°16.2'	342°15.0'	S 20°03.3'	342°10.7'	S 19°50.1'	342°06.6'	S 19°36.4'	342°02.7'	S 19°22.4'	341°59.0'	S 19°08.0'
12	357°19.2'	S 20°15.7'	357°14.8'	S 20°02.8'	357°10.5'	S 19°49.5'	357°06.4'	S 19°35.8'	357°02.5'	S 19°21.8'	356°58.8'	S 19°07.4'
13	12°19.1'	S 20°15.2'	12°14.6'	S 20°02.2'	12°10.3'	S 19°48.9'	12°06.2'	S 19°35.2'	12°02.4'	S 19°21.2'	11°58.7'	S 19°06.8'
14	27°18.9'	S 20°14.6'	27°14.4'	S 20°01.7'	27°10.2'	S 19°48.4'	27°06.1'	S 19°34.7'	27°02.2'	S 19°20.6'	26°58.5'	S 19°06.2'
15	42°18.7'	S 20°14.1'	42°14.2'	S 20°01.1'	42°10.0'	S 19°47.8'	42°05.9'	S 19°34.1'	42°02.0'	S 19°20.0'	41°58.4'	S 19°05.6'
16	57°18.5'	S 20°13.6'	57°14.1'	S 20°00.6'	57°09.8'	S 19°47.2'	57°05.7'	S 19°33.5'	57°01.9'	S 19°19.4'	56°58.2'	S 19°05.0'
17	72°18.3'	S 20°13.0'	72°13.9'	S 20°00.0'	72°09.6'	S 19°46.7'	72°05.6'	S 19°32.9'	72°01.7'	S 19°18.8'	71°58.1'	S 19°04.4'
18	87°18.1'	S 20°12.5'	87°13.7'	S 19°59.5'	87°09.5'	S 19°46.1'	87°05.4'	S 19°32.3'	87°01.6'	S 19°18.2'	86°57.9'	S 19°03.8'
19	102°17.9'	S 20°12.0'	102°13.5'	S 19°58.9'	102°09.3'	S 19°45.5'	102°05.3'	S 19°31.8'	102°01.4'	S 19°17.6'	101°57.8'	S 19°03.1'
20	117°17.7'	S 20°11.4'	117°13.3'	S 19°58.4'	117°09.1'	S 19°45.0'	117°05.1'	S 19°31.2'	117°01.3'	S 19°17.0'	116°57.6'	S 19°02.5'
21	132°17.6'	S 20°10.9'	132°13.2'	S 19°57.8'	132°08.9'	S 19°44.4'	132°04.9'	S 19°30.6'	132°01.1'	S 19°16.4'	131°57.5'	S 19°01.9'
22	147°17.4'	S 20°10.4'	147°13.0'	S 19°57.3'	147°08.8'	S 19°43.8'	147°04.8'	S 19°30.0'	147°00.9'	S 19°15.8'	146°57.3'	S 19°01.3'
23	162°17.2'	S 20°09.8'	162°12.8'	S 19°56.7'	162°08.6'	S 19°43.3'	162°04.6'	S 19°29.4'	162°00.8'	S 19°15.2'	161°57.2'	S 19°00.7'
Zeitgl. 0h / 12h	-10:34 / -10:43		-10:52 / -11:01		-11:10 / -11:18		-11:26 / -11:34		-11:42 / -11:50		-11:57 / -12:05	
Kulmination UT	12:10:43		12:11:01		12:11:18		12:11:34		12:11:50		12:12:05	
Halbmesser	16.3'		16.3'		16.3'		16.3'		16.2'		16.2'	

	Fr 25.01.		Sa 26.01.		So 27.01.		Mo 28.01.		Di 29.01.		Mi 30.01.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°57.0'	S 19°00.1'	176°53.6'	S 18°45.2'	176°50.4'	S 18°29.9'	176°47.4'	S 18°14.3'	176°44.6'	S 17°58.4'	176°42.0'	S 17°42.2'
01	191°56.9'	S 18°59.5'	191°53.5'	S 18°44.5'	191°50.3'	S 18°29.3'	191°47.3'	S 18°13.7'	191°44.5'	S 17°57.7'	191°41.9'	S 17°41.5'
02	206°56.7'	S 18°58.9'	206°53.3'	S 18°43.9'	206°50.2'	S 18°28.6'	206°47.2'	S 18°13.0'	206°44.4'	S 17°57.1'	206°41.8'	S 17°40.8'
03	221°56.6'	S 18°58.2'	221°53.2'	S 18°43.3'	221°50.0'	S 18°28.0'	221°47.0'	S 18°12.4'	221°44.3'	S 17°56.4'	221°41.7'	S 17°40.1'
04	236°56.4'	S 18°57.6'	236°53.1'	S 18°42.7'	236°49.9'	S 18°27.3'	236°46.9'	S 18°11.7'	236°44.2'	S 17°55.7'	236°41.6'	S 17°39.4'
05	251°56.3'	S 18°57.0'	251°52.9'	S 18°42.0'	251°49.8'	S 18°26.7'	251°46.8'	S 18°11.0'	251°44.0'	S 17°55.1'	251°41.5'	S 17°38.7'
06	266°56.2'	S 18°56.4'	266°52.8'	S 18°41.4'	266°49.6'	S 18°26.0'	266°46.7'	S 18°10.4'	266°43.9'	S 17°54.4'	266°41.4'	S 17°38.1'
07	281°56.0'	S 18°55.8'	281°52.7'	S 18°40.8'	281°49.5'	S 18°25.4'	281°46.6'	S 18°09.7'	281°43.8'	S 17°53.7'	281°41.3'	S 17°37.4'
08	296°55.9'	S 18°55.1'	296°52.5'	S 18°40.1'	296°49.4'	S 18°24.8'	296°46.5'	S 18°09.1'	296°43.7'	S 17°53.0'	296°41.2'	S 17°36.7'
09	311°55.7'	S 18°54.5'	311°52.4'	S 18°39.5'	311°49.3'	S 18°24.1'	311°46.3'	S 18°08.4'	311°43.6'	S 17°52.4'	311°41.1'	S 17°36.0'
10	326°55.6'	S 18°53.9'	326°52.3'	S 18°38.9'	326°49.1'	S 18°23.5'	326°46.2'	S 18°07.7'	326°43.5'	S 17°51.7'	326°41.0'	S 17°35.3'
11	341°55.4'	S 18°53.3'	341°52.1'	S 18°38.2'	341°49.0'	S 18°22.8'	341°46.1'	S 18°07.1'	341°43.4'	S 17°51.0'	341°40.9'	S 17°34.6'
12	356°55.3'	S 18°52.7'	356°52.0'	S 18°37.6'	356°48.9'	S 18°22.2'	356°46.0'	S 18°06.4'	356°43.3'	S 17°50.3'	356°40.8'	S 17°33.9'
13	11°55.2'	S 18°52.0'	11°51.9'	S 18°36.9'	11°48.8'	S 18°21.5'	11°45.9'	S 18°05.7'	11°43.2'	S 17°49.7'	11°40.7'	S 17°33.2'
14	26°55.0'	S 18°51.4'	26°51.7'	S 18°36.3'	26°48.6'	S 18°20.9'	26°45.7'	S 18°05.1'	26°43.1'	S 17°49.0'	26°40.6'	S 17°32.6'
15	41°54.9'	S 18°50.8'	41°51.6'	S 18°35.7'	41°48.5'	S 18°20.2'	41°45.6'	S 18°04.4'	41°43.0'	S 17°48.3'	41°40.5'	S 17°31.9'
16	56°54.7'	S 18°50.2'	56°51.5'	S 18°35.0'	56°48.4'	S 18°19.6'	56°45.5'	S 18°03.8'	56°42.9'	S 17°47.6'	56°40.4'	S 17°31.2'
17	71°54.6'	S 18°49.6'	71°51.3'	S 18°34.4'	71°48.3'	S 18°18.9'	71°45.4'	S 18°03.1'	71°42.7'	S 17°46.9'	71°40.3'	S 17°30.5'
18	86°54.5'	S 18°48.9'	86°51.2'	S 18°33.8'	86°48.1'	S 18°18.3'	86°45.3'	S 18°02.4'	86°42.6'	S 17°46.3'	86°40.2'	S 17°29.8'
19	101°54.3'	S 18°48.3'	101°51.1'	S 18°33.1'	101°48.0'	S 18°17.6'	101°45.2'	S 18°01.8'	101°42.5'	S 17°45.6'	101°40.1'	S 17°29.1'
20	116°54.2'	S 18°47.7'	116°50.9'	S 18°32.5'	116°47.9'	S 18°16.9'	116°45.1'	S 18°01.1'	116°42.4'	S 17°44.9'	116°40.0'	S 17°28.4'
21	131°54.0'	S 18°47.1'	131°50.8'	S 18°31.8'	131°47.8'	S 18°16.3'	131°44.9'	S 18°00.4'	131°42.3'	S 17°44.2'	131°39.9'	S 17°27.7'
22	146°53.9'	S 18°46.4'	146°50.7'	S 18°31.2'	146°47.7'	S 18°15.6'	146°44.8'	S 17°59.7'	146°42.2'	S 17°43.5'	146°39.8'	S 17°27.0'
23	161°53.8'	S 18°45.8'	161°50.5'	S 18°30.6'	161°47.5'	S 18°15.0'	161°44.7'	S 17°59.1'	161°42.1'	S 17°42.9'	161°39.7'	S 17°26.3'
Zeitgl. 0h / 12h	-12:12 / -12:19		-12:26 / -12:32		-12:38 / -12:44		-12:50 / -12:56		-13:02 / -13:07		-13:12 / -13:17	
Kulmination UT	12:12:19		12:12:32		12:12:44		12:12:56		12:13:07		12:13:17	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

Do 31.01.

UT	Grt	Dec
00	176°39.6'	S 17°25.6'
01	191°39.5'	S 17°24.9'
02	206°39.4'	S 17°24.2'
03	221°39.3'	S 17°23.5'
04	236°39.2'	S 17°22.8'
05	251°39.1'	S 17°22.1'
06	266°39.1'	S 17°21.4'
07	281°39.0'	S 17°20.7'
08	296°38.9'	S 17°20.0'
09	311°38.8'	S 17°19.3'
10	326°38.7'	S 17°18.6'
11	341°38.6'	S 17°17.9'
12	356°38.5'	S 17°17.2'
13	11°38.4'	S 17°16.5'
14	26°38.3'	S 17°15.8'
15	41°38.2'	S 17°15.1'
16	56°38.1'	S 17°14.4'
17	71°38.0'	S 17°13.7'
18	86°38.0'	S 17°13.0'
19	101°37.9'	S 17°12.3'
20	116°37.8'	S 17°11.6'
21	131°37.7'	S 17°10.9'
22	146°37.6'	S 17°10.2'
23	161°37.5'	S 17°09.5'

Zeitgl. 0h / 12h -13:22 / -13:26

Kulmination UT 12:13:26

Halbmesser 16.2'

2030

Februar

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Fr 01.02.		Sa 02.02.		So 03.02.		Mo 04.02.		Di 05.02.		Mi 06.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°37.4'	S 17°08.8'	176°35.4'	S 16°51.6'	176°33.7'	S 16°34.1'	176°32.1'	S 16°16.4'	176°30.7'	S 15°58.3'	176°29.6'	S 15°40.0'
01	191°37.3'	S 17°08.0'	191°35.4'	S 16°50.9'	191°33.6'	S 16°33.4'	191°32.0'	S 16°15.6'	191°30.7'	S 15°57.6'	191°29.5'	S 15°39.3'
02	206°37.3'	S 17°07.3'	206°35.3'	S 16°50.1'	206°33.5'	S 16°32.7'	206°32.0'	S 16°14.9'	206°30.6'	S 15°56.8'	206°29.5'	S 15°38.5'
03	221°37.2'	S 17°06.6'	221°35.2'	S 16°49.4'	221°33.5'	S 16°31.9'	221°31.9'	S 16°14.1'	221°30.6'	S 15°56.1'	221°29.4'	S 15°37.7'
04	236°37.1'	S 17°05.9'	236°35.1'	S 16°48.7'	236°33.4'	S 16°31.2'	236°31.9'	S 16°13.4'	236°30.5'	S 15°55.3'	236°29.4'	S 15°37.0'
05	251°37.0'	S 17°05.2'	251°35.1'	S 16°48.0'	251°33.3'	S 16°30.5'	251°31.8'	S 16°12.6'	251°30.5'	S 15°54.6'	251°29.4'	S 15°36.2'
06	266°36.9'	S 17°04.5'	266°35.0'	S 16°47.2'	266°33.3'	S 16°29.7'	266°31.7'	S 16°11.9'	266°30.4'	S 15°53.8'	266°29.3'	S 15°35.4'
07	281°36.8'	S 17°03.8'	281°34.9'	S 16°46.5'	281°33.2'	S 16°29.0'	281°31.7'	S 16°11.1'	281°30.4'	S 15°53.0'	281°29.3'	S 15°34.6'
08	296°36.7'	S 17°03.1'	296°34.8'	S 16°45.8'	296°33.1'	S 16°28.2'	296°31.6'	S 16°10.4'	296°30.3'	S 15°52.3'	296°29.2'	S 15°33.9'
09	311°36.7'	S 17°02.3'	311°34.8'	S 16°45.1'	311°33.1'	S 16°27.5'	311°31.6'	S 16°09.6'	311°30.3'	S 15°51.5'	311°29.2'	S 15°33.1'
10	326°36.6'	S 17°01.6'	326°34.7'	S 16°44.3'	326°33.0'	S 16°26.8'	326°31.5'	S 16°08.9'	326°30.2'	S 15°50.7'	326°29.1'	S 15°32.3'
11	341°36.5'	S 17°00.9'	341°34.6'	S 16°43.6'	341°32.9'	S 16°26.0'	341°31.4'	S 16°08.1'	341°30.2'	S 15°50.0'	341°29.1'	S 15°31.6'
12	356°36.4'	S 17°00.2'	356°34.5'	S 16°42.9'	356°32.9'	S 16°25.3'	356°31.4'	S 16°07.4'	356°30.1'	S 15°49.2'	356°29.1'	S 15°30.8'
13	11°36.3'	S 16°59.5'	11°34.5'	S 16°42.2'	11°32.8'	S 16°24.5'	11°31.3'	S 16°06.6'	11°30.1'	S 15°48.5'	11°29.0'	S 15°30.0'
14	26°36.2'	S 16°58.8'	26°34.4'	S 16°41.4'	26°32.7'	S 16°23.8'	26°31.3'	S 16°05.9'	26°30.0'	S 15°47.7'	26°29.0'	S 15°29.2'
15	41°36.2'	S 16°58.1'	41°34.3'	S 16°40.7'	41°32.7'	S 16°23.1'	41°31.2'	S 16°05.1'	41°30.0'	S 15°46.9'	41°28.9'	S 15°28.5'
16	56°36.1'	S 16°57.3'	56°34.2'	S 16°40.0'	56°32.6'	S 16°22.3'	56°31.2'	S 16°04.4'	56°29.9'	S 15°46.2'	56°28.9'	S 15°27.7'
17	71°36.0'	S 16°56.6'	71°34.2'	S 16°39.2'	71°32.5'	S 16°21.6'	71°31.1'	S 16°03.6'	71°29.9'	S 15°45.4'	71°28.9'	S 15°26.9'
18	86°35.9'	S 16°55.9'	86°34.1'	S 16°38.5'	86°32.5'	S 16°20.8'	86°31.1'	S 16°02.9'	86°29.8'	S 15°44.6'	86°28.8'	S 15°26.1'
19	101°35.8'	S 16°55.2'	101°34.0'	S 16°37.8'	101°32.4'	S 16°20.1'	101°31.0'	S 16°02.1'	101°29.8'	S 15°43.9'	101°28.8'	S 15°25.4'
20	116°35.8'	S 16°54.5'	116°34.0'	S 16°37.1'	116°32.3'	S 16°19.4'	116°30.9'	S 16°01.4'	116°29.8'	S 15°43.1'	116°28.8'	S 15°24.6'
21	131°35.7'	S 16°53.7'	131°33.9'	S 16°36.3'	131°32.3'	S 16°18.6'	131°30.9'	S 16°00.6'	131°29.7'	S 15°42.3'	131°28.7'	S 15°23.8'
22	146°35.6'	S 16°53.0'	146°33.8'	S 16°35.6'	146°32.2'	S 16°17.9'	146°30.8'	S 15°59.9'	146°29.7'	S 15°41.6'	146°28.7'	S 15°23.0'
23	161°35.5'	S 16°52.3'	161°33.7'	S 16°34.9'	161°32.2'	S 16°17.1'	161°30.8'	S 15°59.1'	161°29.6'	S 15°40.8'	161°28.6'	S 15°22.2'
Zeitgl. 0h / 12h	-13:30 / -13:34		-13:38 / -13:42		-13:45 / -13:49		-13:52 / -13:54		-13:57 / -13:59		-14:02 / -14:04	
Kulmination UT	12:13:34		12:13:42		12:13:49		12:13:54		12:13:59		12:14:04	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Do 07.02.		Fr 08.02.		Sa 09.02.		So 10.02.		Mo 11.02.		Di 12.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°28.6'	S 15°21.5'	176°27.9'	S 15°02.6'	176°27.3'	S 14°43.5'	176°26.9'	S 14°24.2'	176°26.8'	S 14°04.6'	176°26.8'	S 13°44.8'
01	191°28.6'	S 15°20.7'	191°27.8'	S 15°01.8'	191°27.3'	S 14°42.7'	191°26.9'	S 14°23.4'	191°26.8'	S 14°03.8'	191°26.8'	S 13°44.0'
02	206°28.5'	S 15°19.9'	206°27.8'	S 15°01.0'	206°27.3'	S 14°41.9'	206°26.9'	S 14°22.6'	206°26.8'	S 14°03.0'	206°26.8'	S 13°43.1'
03	221°28.5'	S 15°19.1'	221°27.8'	S 15°00.3'	221°27.2'	S 14°41.1'	221°26.9'	S 14°21.8'	221°26.8'	S 14°02.2'	221°26.8'	S 13°42.3'
04	236°28.5'	S 15°18.3'	236°27.7'	S 14°59.5'	236°27.2'	S 14°40.3'	236°26.9'	S 14°21.0'	236°26.8'	S 14°01.3'	236°26.8'	S 13°41.5'
05	251°28.4'	S 15°17.6'	251°27.7'	S 14°58.7'	251°27.2'	S 14°39.5'	251°26.9'	S 14°20.1'	251°26.8'	S 14°00.5'	251°26.8'	S 13°40.7'
06	266°28.4'	S 15°16.8'	266°27.7'	S 14°57.9'	266°27.2'	S 14°38.7'	266°26.9'	S 14°19.3'	266°26.8'	S 13°59.7'	266°26.8'	S 13°39.8'
07	281°28.4'	S 15°16.0'	281°27.7'	S 14°57.1'	281°27.2'	S 14°37.9'	281°26.9'	S 14°18.5'	281°26.8'	S 13°58.9'	281°26.8'	S 13°39.0'
08	296°28.3'	S 15°15.2'	296°27.6'	S 14°56.3'	296°27.2'	S 14°37.1'	296°26.9'	S 14°17.7'	296°26.8'	S 13°58.0'	296°26.9'	S 13°38.2'
09	311°28.3'	S 15°14.4'	311°27.6'	S 14°55.5'	311°27.1'	S 14°36.3'	311°26.9'	S 14°16.9'	311°26.8'	S 13°57.2'	311°26.9'	S 13°37.3'
10	326°28.3'	S 15°13.6'	326°27.6'	S 14°54.7'	326°27.1'	S 14°35.5'	326°26.8'	S 14°16.1'	326°26.8'	S 13°56.4'	326°26.9'	S 13°36.5'
11	341°28.2'	S 15°12.9'	341°27.6'	S 14°53.9'	341°27.1'	S 14°34.7'	341°26.8'	S 14°15.3'	341°26.8'	S 13°55.6'	341°26.9'	S 13°35.7'
12	356°28.2'	S 15°12.1'	356°27.5'	S 14°53.1'	356°27.1'	S 14°33.9'	356°26.8'	S 14°14.4'	356°26.8'	S 13°54.7'	356°26.9'	S 13°34.8'
13	11°28.2'	S 15°11.3'	11°27.5'	S 14°52.3'	11°27.1'	S 14°33.1'	11°26.8'	S 14°13.6'	11°26.8'	S 13°53.9'	11°26.9'	S 13°34.0'
14	26°28.1'	S 15°10.5'	26°27.5'	S 14°51.5'	26°27.1'	S 14°32.3'	26°26.8'	S 14°12.8'	26°26.8'	S 13°53.1'	26°26.9'	S 13°33.1'
15	41°28.1'	S 15°09.7'	41°27.5'	S 14°50.7'	41°27.0'	S 14°31.5'	41°26.8'	S 14°12.0'	41°26.8'	S 13°52.3'	41°26.9'	S 13°32.3'
16	56°28.1'	S 15°08.9'	56°27.5'	S 14°49.9'	56°27.0'	S 14°30.7'	56°26.8'	S 14°11.2'	56°26.8'	S 13°51.4'	56°26.9'	S 13°31.5'
17	71°28.1'	S 15°08.1'	71°27.4'	S 14°49.1'	71°27.0'	S 14°29.9'	71°26.8'	S 14°10.4'	71°26.8'	S 13°50.6'	71°26.9'	S 13°30.6'
18	86°28.0'	S 15°07.4'	86°27.4'	S 14°48.3'	86°27.0'	S 14°29.1'	86°26.8'	S 14°09.5'	86°26.8'	S 13°49.8'	86°27.0'	S 13°29.8'
19	101°28.0'	S 15°06.6'	101°27.4'	S 14°47.5'	101°27.0'	S 14°28.2'	101°26.8'	S 14°08.7'	101°26.8'	S 13°49.0'	101°27.0'	S 13°29.0'
20	116°28.0'	S 15°05.8'	116°27.4'	S 14°46.7'	116°27.0'	S 14°27.4'	116°26.8'	S 14°07.9'	116°26.8'	S 13°48.1'	116°27.0'	S 13°28.1'
21	131°27.9'	S 15°05.0'	131°27.4'	S 14°45.9'	131°27.0'	S 14°26.6'	131°26.8'	S 14°07.1'	131°26.8'	S 13°47.3'	131°27.0'	S 13°27.3'
22	146°27.9'	S 15°04.2'	146°27.3'	S 14°45.1'	146°27.0'	S 14°25.8'	146°26.8'	S 14°06.3'	146°26.8'	S 13°46.5'	146°27.0'	S 13°26.4'
23	161°27.9'	S 15°03.4'	161°27.3'	S 14°44.3'	161°26.9'	S 14°25.0'	161°26.8'	S 14°05.4'	161°26.8'	S 13°45.6'	161°27.0'	S 13°25.6'
Zeitgl. 0h / 12h	-14:06 / -14:07		-14:09 / -14:10		-14:11 / -14:12		-14:12 / -14:13		-14:13 / -14:13		-14:13 / -14:12	
Kulmination UT	12:14:07		12:14:10		12:14:12		12:14:13		12:14:13		12:14:12	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Mi 13.02.		Do 14.02.		Fr 15.02.		Sa 16.02.		So 17.02.		Mo 18.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°27.0'	S 13°24.8'	176°27.4'	S 13°04.5'	176°28.0'	S 12°44.0'	176°28.8'	S 12°23.4'	176°29.8'	S 12°02.5'	176°30.9'	S 11°41.4'
01	191°27.0'	S 13°23.9'	191°27.5'	S 13°03.7'	191°28.1'	S 12°43.2'	191°28.9'	S 12°22.5'	191°29.8'	S 12°01.6'	191°31.0'	S 11°40.5'
02	206°27.1'	S 13°23.1'	206°27.5'	S 13°02.8'	206°28.1'	S 12°42.3'	206°28.9'	S 12°21.6'	206°29.9'	S 12°00.7'	206°31.0'	S 11°39.7'
03	221°27.1'	S 13°22.3'	221°27.5'	S 13°02.0'	221°28.1'	S 12°41.5'	221°28.9'	S 12°20.8'	221°29.9'	S 11°59.9'	221°31.1'	S 11°38.8'
04	236°27.1'	S 13°21.4'	236°27.5'	S 13°01.1'	236°28.2'	S 12°40.6'	236°29.0'	S 12°19.9'	236°30.0'	S 11°59.0'	236°31.1'	S 11°37.9'
05	251°27.1'	S 13°20.6'	251°27.5'	S 13°00.3'	251°28.2'	S 12°39.8'	251°29.0'	S 12°19.0'	251°30.0'	S 11°58.1'	251°31.2'	S 11°37.0'
06	266°27.1'	S 13°19.7'	266°27.6'	S 12°59.4'	266°28.2'	S 12°38.9'	266°29.0'	S 12°18.2'	266°30.0'	S 11°57.2'	266°31.2'	S 11°36.1'
07	281°27.1'	S 13°18.9'	281°27.6'	S 12°58.6'	281°28.2'	S 12°38.0'	281°29.1'	S 12°17.3'	281°30.1'	S 11°56.4'	281°31.3'	S 11°35.3'
08	296°27.1'	S 13°18.0'	296°27.6'	S 12°57.7'	296°28.3'	S 12°37.2'	296°29.1'	S 12°16.4'	296°30.1'	S 11°55.5'	296°31.3'	S 11°34.4'
09	311°27.2'	S 13°17.2'	311°27.6'	S 12°56.9'	311°28.3'	S 12°36.3'	311°29.2'	S 12°15.6'	311°30.2'	S 11°54.6'	311°31.4'	S 11°33.5'
10	326°27.2'	S 13°16.4'	326°27.7'	S 12°56.0'	326°28.3'	S 12°35.5'	326°29.2'	S 12°14.7'	326°30.2'	S 11°53.7'	326°31.4'	S 11°32.6'
11	341°27.2'	S 13°15.5'	341°27.7'	S 12°55.2'	341°28.4'	S 12°34.6'	341°29.2'	S 12°13.8'	341°30.3'	S 11°52.9'	341°31.5'	S 11°31.7'
12	356°27.2'	S 13°14.7'	356°27.7'	S 12°54.3'	356°28.4'	S 12°33.7'	356°29.3'	S 12°13.0'	356°30.3'	S 11°52.0'	356°31.5'	S 11°30.8'
13	11°27.2'	S 13°13.8'	11°27.7'	S 12°53.5'	11°28.4'	S 12°32.9'	11°29.3'	S 12°12.1'	11°30.4'	S 11°51.1'	11°31.6'	S 11°29.9'
14	26°27.2'	S 13°13.0'	26°27.8'	S 12°52.6'	26°28.5'	S 12°32.0'	26°29.4'	S 12°11.2'	26°30.4'	S 11°50.2'	26°31.7'	S 11°29.1'
15	41°27.3'	S 13°12.1'	41°27.8'	S 12°51.7'	41°28.5'	S 12°31.1'	41°29.4'	S 12°10.3'	41°30.5'	S 11°49.4'	41°31.7'	S 11°28.2'
16	56°27.3'	S 13°11.3'	56°27.8'	S 12°50.9'	56°28.5'	S 12°30.3'	56°29.4'	S 12°09.5'	56°30.5'	S 11°48.5'	56°31.8'	S 11°27.3'
17	71°27.3'	S 13°10.4'	71°27.8'	S 12°50.0'	71°28.6'	S 12°29.4'	71°29.5'	S 12°08.6'	71°30.6'	S 11°47.6'	71°31.8'	S 11°26.4'
18	86°27.3'	S 13°09.6'	86°27.9'	S 12°49.2'	86°28.6'	S 12°28.6'	86°29.5'	S 12°07.7'	86°30.6'	S 11°46.7'	86°31.9'	S 11°25.5'
19	101°27.3'	S 13°08.8'	101°27.9'	S 12°48.3'	101°28.6'	S 12°27.7'	101°29.6'	S 12°06.9'	101°30.7'	S 11°45.8'	101°31.9'	S 11°24.6'
20	116°27.4'	S 13°07.9'	116°27.9'	S 12°47.5'	116°28.7'	S 12°26.8'	116°29.6'	S 12°06.0'	116°30.7'	S 11°45.0'	116°32.0'	S 11°23.7'
21	131°27.4'	S 13°07.1'	131°27.9'	S 12°46.6'	131°28.7'	S 12°26.0'	131°29.6'	S 12°05.1'	131°30.8'	S 11°44.1'	131°32.1'	S 11°22.8'
22	146°27.4'	S 13°06.2'	146°28.0'	S 12°45.8'	146°28.7'	S 12°25.1'	146°29.7'	S 12°04.2'	146°30.8'	S 11°43.2'	146°32.1'	S 11°22.0'
23	161°27.4'	S 13°05.4'	161°28.0'	S 12°44.9'	161°28.8'	S 12°24.2'	161°29.7'	S 12°03.4'	161°30.9'	S 11°42.3'	161°32.2'	S 11°21.1'
Zeitgl. 0h / 12h	-14:12 / -14:11		-14:10 / -14:09		-14:08 / -14:06		-14:05 / -14:03		-14:01 / -13:59		-13:56 / -13:54	
Kulmination UT	12:14:11		12:14:09		12:14:06		12:14:03		12:13:59		12:13:54	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

	Di 19.02.		Mi 20.02.		Do 21.02.		Fr 22.02.		Sa 23.02.		So 24.02.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°32.2'	S 11°20.2'	176°33.7'	S 10°58.8'	176°35.4'	S 10°37.2'	176°37.2'	S 10°15.4'	176°39.1'	S 9°53.5'	176°41.3'	S 9°31.4'
01	191°32.3'	S 11°19.3'	191°33.8'	S 10°57.9'	191°35.4'	S 10°36.2'	191°37.2'	S 10°14.5'	191°39.2'	S 9°52.6'	191°41.4'	S 9°30.5'
02	206°32.3'	S 11°18.4'	206°33.8'	S 10°57.0'	206°35.5'	S 10°35.3'	206°37.3'	S 10°13.6'	206°39.3'	S 9°51.6'	206°41.4'	S 9°29.5'
03	221°32.4'	S 11°17.5'	221°33.9'	S 10°56.1'	221°35.6'	S 10°34.4'	221°37.4'	S 10°12.7'	221°39.4'	S 9°50.7'	221°41.5'	S 9°28.6'
04	236°32.5'	S 11°16.6'	236°34.0'	S 10°55.2'	236°35.6'	S 10°33.5'	236°37.5'	S 10°11.7'	236°39.5'	S 9°49.8'	236°41.6'	S 9°27.7'
05	251°32.5'	S 11°15.7'	251°34.0'	S 10°54.3'	251°35.7'	S 10°32.6'	251°37.6'	S 10°10.8'	251°39.6'	S 9°48.9'	251°41.7'	S 9°26.8'
06	266°32.6'	S 11°14.8'	266°34.1'	S 10°53.4'	266°35.8'	S 10°31.7'	266°37.6'	S 10°09.9'	266°39.7'	S 9°48.0'	266°41.8'	S 9°25.9'
07	281°32.6'	S 11°13.9'	281°34.2'	S 10°52.5'	281°35.9'	S 10°30.8'	281°37.7'	S 10°09.0'	281°39.7'	S 9°47.0'	281°41.9'	S 9°24.9'
08	296°32.7'	S 11°13.1'	296°34.2'	S 10°51.6'	296°35.9'	S 10°29.9'	296°37.8'	S 10°08.1'	296°39.8'	S 9°46.1'	296°42.0'	S 9°24.0'
09	311°32.8'	S 11°12.2'	311°34.3'	S 10°50.7'	311°36.0'	S 10°29.0'	311°37.9'	S 10°07.2'	311°39.9'	S 9°45.2'	311°42.1'	S 9°23.1'
10	326°32.8'	S 11°11.3'	326°34.4'	S 10°49.8'	326°36.1'	S 10°28.1'	326°38.0'	S 10°06.3'	326°40.0'	S 9°44.3'	326°42.2'	S 9°22.2'
11	341°32.9'	S 11°10.4'	341°34.4'	S 10°48.9'	341°36.2'	S 10°27.2'	341°38.1'	S 10°05.4'	341°40.1'	S 9°43.4'	341°42.3'	S 9°21.2'
12	356°32.9'	S 11°09.5'	356°34.5'	S 10°48.0'	356°36.2'	S 10°26.3'	356°38.1'	S 10°04.4'	356°40.2'	S 9°42.4'	356°42.4'	S 9°20.3'
13	11°33.0'	S 11°08.6'	11°34.6'	S 10°47.1'	11°36.3'	S 10°25.4'	11°38.2'	S 10°03.5'	11°40.3'	S 9°41.5'	11°42.5'	S 9°19.4'
14	26°33.1'	S 11°07.7'	26°34.7'	S 10°46.2'	26°36.4'	S 10°24.5'	26°38.3'	S 10°02.6'	26°40.4'	S 9°40.6'	26°42.6'	S 9°18.5'
15	41°33.1'	S 11°06.8'	41°34.7'	S 10°45.3'	41°36.5'	S 10°23.6'	41°38.4'	S 10°01.7'	41°40.5'	S 9°39.7'	41°42.7'	S 9°17.5'
16	56°33.2'	S 11°05.9'	56°34.8'	S 10°44.4'	56°36.5'	S 10°22.7'	56°38.5'	S 10°00.8'	56°40.5'	S 9°38.8'	56°42.8'	S 9°16.6'
17	71°33.3'	S 11°05.0'	71°34.9'	S 10°43.5'	71°36.6'	S 10°21.8'	71°38.5'	S 9°59.9'	71°40.6'	S 9°37.8'	71°42.9'	S 9°15.7'
18	86°33.3'	S 11°04.1'	86°34.9'	S 10°42.6'	86°36.7'	S 10°20.8'	86°38.6'	S 9°59.0'	86°40.7'	S 9°36.9'	86°43.0'	S 9°14.7'
19	101°33.4'	S 11°03.2'	101°35.0'	S 10°41.7'	101°36.8'	S 10°19.9'	101°38.7'	S 9°58.0'	101°40.8'	S 9°36.0'	101°43.1'	S 9°13.8'
20	116°33.5'	S 11°02.3'	116°35.1'	S 10°40.8'	116°36.9'	S 10°19.0'	116°38.8'	S 9°57.1'	116°40.9'	S 9°35.1'	116°43.1'	S 9°12.9'
21	131°33.5'	S 11°01.4'	131°35.1'	S 10°39.9'	131°36.9'	S 10°18.1'	131°38.9'	S 9°56.2'	131°41.0'	S 9°34.2'	131°43.2'	S 9°12.0'
22	146°33.6'	S 11°00.5'	146°35.2'	S 10°39.0'	146°37.0'	S 10°17.2'	146°39.0'	S 9°55.3'	146°41.1'	S 9°33.2'	146°43.3'	S 9°11.0'
23	161°33.6'	S 10°59.6'	161°35.3'	S 10°38.1'	161°37.1'	S 10°16.3'	161°39.1'	S 9°54.4'	161°41.2'	S 9°32.3'	161°43.4'	S 9°10.1'
Zeitgl. 0h / 12h	-13:51 / -13:48		-13:45 / -13:42		-13:39 / -13:35		-13:31 / -13:27		-13:23 / -13:19		-13:15 / -13:10	
Kulmination UT	12:13:48		12:13:42		12:13:35		12:13:27		12:13:19		12:13:10	
Halbmesser	16.2'		16.2'		16.2'		16.2'		16.2'		16.2'	

UT	Mo 25.02.		Di 26.02.		Mi 27.02.		Do 28.02.	
	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°43.5'	S 9°09.2'	176°46.0'	S 8°46.8'	176°48.5'	S 8°24.3'	176°51.2'	S 8°01.7'
01	191°43.6'	S 9°08.3'	191°46.1'	S 8°45.9'	191°48.6'	S 8°23.4'	191°51.3'	S 8°00.8'
02	206°43.7'	S 9°07.3'	206°46.2'	S 8°45.0'	206°48.7'	S 8°22.5'	206°51.5'	S 7°59.8'
03	221°43.8'	S 9°06.4'	221°46.3'	S 8°44.0'	221°48.9'	S 8°21.5'	221°51.6'	S 7°58.9'
04	236°43.9'	S 9°05.5'	236°46.4'	S 8°43.1'	236°49.0'	S 8°20.6'	236°51.7'	S 7°58.0'
05	251°44.0'	S 9°04.5'	251°46.5'	S 8°42.2'	251°49.1'	S 8°19.6'	251°51.8'	S 7°57.0'
06	266°44.1'	S 9°03.6'	266°46.6'	S 8°41.2'	266°49.2'	S 8°18.7'	266°51.9'	S 7°56.1'
07	281°44.2'	S 9°02.7'	281°46.7'	S 8°40.3'	281°49.3'	S 8°17.8'	281°52.0'	S 7°55.1'
08	296°44.3'	S 9°01.7'	296°46.8'	S 8°39.3'	296°49.4'	S 8°16.8'	296°52.1'	S 7°54.2'
09	311°44.4'	S 9°00.8'	311°46.9'	S 8°38.4'	311°49.5'	S 8°15.9'	311°52.3'	S 7°53.2'
10	326°44.5'	S 8°59.9'	326°47.0'	S 8°37.5'	326°49.6'	S 8°14.9'	326°52.4'	S 7°52.3'
11	341°44.6'	S 8°59.0'	341°47.1'	S 8°36.5'	341°49.7'	S 8°14.0'	341°52.5'	S 7°51.3'
12	356°44.7'	S 8°58.0'	356°47.2'	S 8°35.6'	356°49.9'	S 8°13.1'	356°52.6'	S 7°50.4'
13	11°44.8'	S 8°57.1'	11°47.3'	S 8°34.7'	11°50.0'	S 8°12.1'	11°52.7'	S 7°49.4'
14	26°44.9'	S 8°56.2'	26°47.4'	S 8°33.7'	26°50.1'	S 8°11.2'	26°52.9'	S 7°48.5'
15	41°45.0'	S 8°55.2'	41°47.5'	S 8°32.8'	41°50.2'	S 8°10.2'	41°53.0'	S 7°47.5'
16	56°45.1'	S 8°54.3'	56°47.7'	S 8°31.9'	56°50.3'	S 8°09.3'	56°53.1'	S 7°46.6'
17	71°45.2'	S 8°53.4'	71°47.8'	S 8°30.9'	71°50.4'	S 8°08.3'	71°53.2'	S 7°45.7'
18	86°45.3'	S 8°52.4'	86°47.9'	S 8°30.0'	86°50.5'	S 8°07.4'	86°53.3'	S 7°44.7'
19	101°45.4'	S 8°51.5'	101°48.0'	S 8°29.0'	101°50.6'	S 8°06.5'	101°53.5'	S 7°43.8'
20	116°45.5'	S 8°50.6'	116°48.1'	S 8°28.1'	116°50.8'	S 8°05.5'	116°53.6'	S 7°42.8'
21	131°45.6'	S 8°49.6'	131°48.2'	S 8°27.2'	131°50.9'	S 8°04.6'	131°53.7'	S 7°41.9'
22	146°45.8'	S 8°48.7'	146°48.3'	S 8°26.2'	146°51.0'	S 8°03.6'	146°53.8'	S 7°40.9'
23	161°45.9'	S 8°47.8'	161°48.4'	S 8°25.3'	161°51.1'	S 8°02.7'	161°53.9'	S 7°40.0'

Zeitgl. 0h / 12h -13:06 / -13:01 -12:56 / -12:51 -12:46 / -12:41 -12:35 / -12:30

Kulmination UT 12:13:01 12:12:51 12:12:41 12:12:30

Halbmesser 16.2' 16.2' 16.1' 16.1'

2030

März

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Fr 01.03.		Sa 02.03.		So 03.03.		Mo 04.03.		Di 05.03.		Mi 06.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	176°54.1'	S 7°39.0'	176°57.0'	S 7°16.2'	177°00.1'	S 6°53.2'	177°03.3'	S 6°30.2'	177°06.6'	S 6°07.1'	177°10.0'	S 5°43.9'
01	191°54.2'	S 7°38.1'	191°57.1'	S 7°15.2'	192°00.2'	S 6°52.3'	192°03.4'	S 6°29.2'	192°06.7'	S 6°06.1'	192°10.2'	S 5°42.9'
02	206°54.3'	S 7°37.1'	206°57.3'	S 7°14.3'	207°00.4'	S 6°51.3'	207°03.6'	S 6°28.3'	207°06.9'	S 6°05.1'	207°10.3'	S 5°41.9'
03	221°54.4'	S 7°36.2'	221°57.4'	S 7°13.3'	222°00.5'	S 6°50.4'	222°03.7'	S 6°27.3'	222°07.0'	S 6°04.2'	222°10.5'	S 5°41.0'
04	236°54.5'	S 7°35.2'	236°57.5'	S 7°12.4'	237°00.6'	S 6°49.4'	237°03.8'	S 6°26.4'	237°07.2'	S 6°03.2'	237°10.6'	S 5°40.0'
05	251°54.7'	S 7°34.3'	251°57.6'	S 7°11.4'	252°00.7'	S 6°48.4'	252°04.0'	S 6°25.4'	252°07.3'	S 6°02.2'	252°10.8'	S 5°39.0'
06	266°54.8'	S 7°33.3'	266°57.8'	S 7°10.5'	267°00.9'	S 6°47.5'	267°04.1'	S 6°24.4'	267°07.4'	S 6°01.3'	267°10.9'	S 5°38.1'
07	281°54.9'	S 7°32.4'	281°57.9'	S 7°09.5'	282°01.0'	S 6°46.5'	282°04.2'	S 6°23.5'	282°07.6'	S 6°00.3'	282°11.0'	S 5°37.1'
08	296°55.0'	S 7°31.4'	296°58.0'	S 7°08.5'	297°01.1'	S 6°45.6'	297°04.4'	S 6°22.5'	297°07.7'	S 5°59.3'	297°11.2'	S 5°36.1'
09	311°55.1'	S 7°30.5'	311°58.2'	S 7°07.6'	312°01.3'	S 6°44.6'	312°04.5'	S 6°21.5'	312°07.9'	S 5°58.4'	312°11.3'	S 5°35.1'
10	326°55.3'	S 7°29.5'	326°58.3'	S 7°06.6'	327°01.4'	S 6°43.7'	327°04.7'	S 6°20.6'	327°08.0'	S 5°57.4'	327°11.5'	S 5°34.2'
11	341°55.4'	S 7°28.6'	341°58.4'	S 7°05.7'	342°01.5'	S 6°42.7'	342°04.8'	S 6°19.6'	342°08.2'	S 5°56.4'	342°11.6'	S 5°33.2'
12	356°55.5'	S 7°27.6'	356°58.5'	S 7°04.7'	357°01.7'	S 6°41.7'	357°04.9'	S 6°18.7'	357°08.3'	S 5°55.5'	357°11.8'	S 5°32.2'
13	11°55.6'	S 7°26.7'	11°58.7'	S 7°03.8'	12°01.8'	S 6°40.8'	12°05.1'	S 6°17.7'	12°08.4'	S 5°54.5'	12°11.9'	S 5°31.3'
14	26°55.8'	S 7°25.7'	26°58.8'	S 7°02.8'	27°01.9'	S 6°39.8'	27°05.2'	S 6°16.7'	27°08.6'	S 5°53.5'	27°12.1'	S 5°30.3'
15	41°55.9'	S 7°24.8'	41°58.9'	S 7°01.9'	42°02.1'	S 6°38.9'	42°05.3'	S 6°15.8'	42°08.7'	S 5°52.6'	42°12.2'	S 5°29.3'
16	56°56.0'	S 7°23.8'	56°59.1'	S 7°00.9'	57°02.2'	S 6°37.9'	57°05.5'	S 6°14.8'	57°08.9'	S 5°51.6'	57°12.4'	S 5°28.3'
17	71°56.1'	S 7°22.8'	71°59.2'	S 6°59.9'	72°02.3'	S 6°36.9'	72°05.6'	S 6°13.8'	72°09.0'	S 5°50.6'	72°12.5'	S 5°27.4'
18	86°56.3'	S 7°21.9'	86°59.3'	S 6°59.0'	87°02.5'	S 6°36.0'	87°05.8'	S 6°12.9'	87°09.2'	S 5°49.7'	87°12.7'	S 5°26.4'
19	101°56.4'	S 7°20.9'	101°59.4'	S 6°58.0'	102°02.6'	S 6°35.0'	102°05.9'	S 6°11.9'	102°09.3'	S 5°48.7'	102°12.8'	S 5°25.4'
20	116°56.5'	S 7°20.0'	116°59.6'	S 6°57.1'	117°02.7'	S 6°34.0'	117°06.0'	S 6°10.9'	117°09.4'	S 5°47.7'	117°13.0'	S 5°24.5'
21	131°56.6'	S 7°19.0'	131°59.7'	S 6°56.1'	132°02.9'	S 6°33.1'	132°06.2'	S 6°10.0'	132°09.6'	S 5°46.8'	132°13.1'	S 5°23.5'
22	146°56.8'	S 7°18.1'	146°59.8'	S 6°55.2'	147°03.0'	S 6°32.1'	147°06.3'	S 6°09.0'	147°09.7'	S 5°45.8'	147°13.3'	S 5°22.5'
23	161°56.9'	S 7°17.1'	162°00.0'	S 6°54.2'	162°03.2'	S 6°31.2'	162°06.5'	S 6°08.0'	162°09.9'	S 5°44.8'	162°13.4'	S 5°21.5'
Zeitgl. 0h / 12h	-12:24 / -12:18		-12:12 / -12:06		-12:00 / -11:53		-11:47 / -11:40		-11:34 / -11:27		-11:20 / -11:13	
Kulmination UT	12:12:18		12:12:06		12:11:53		12:11:40		12:11:27		12:11:13	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	Do 07.03.		Fr 08.03.		Sa 09.03.		So 10.03.		Mo 11.03.		Di 12.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	177°13.6'	S 5°20.6'	177°17.2'	S 4°57.2'	177°20.9'	S 4°33.8'	177°24.7'	S 4°10.3'	177°28.6'	S 3°46.8'	177°32.5'	S 3°23.2'
01	192°13.7'	S 5°19.6'	192°17.3'	S 4°56.2'	192°21.0'	S 4°32.8'	192°24.9'	S 4°09.3'	192°28.7'	S 3°45.8'	192°32.7'	S 3°22.2'
02	207°13.8'	S 5°18.6'	207°17.5'	S 4°55.3'	207°21.2'	S 4°31.8'	207°25.0'	S 4°08.4'	207°28.9'	S 3°44.8'	207°32.9'	S 3°21.2'
03	222°14.0'	S 5°17.7'	222°17.6'	S 4°54.3'	222°21.4'	S 4°30.9'	222°25.2'	S 4°07.4'	222°29.1'	S 3°43.8'	222°33.0'	S 3°20.2'
04	237°14.1'	S 5°16.7'	237°17.8'	S 4°53.3'	237°21.5'	S 4°29.9'	237°25.3'	S 4°06.4'	237°29.2'	S 3°42.8'	237°33.2'	S 3°19.3'
05	252°14.3'	S 5°15.7'	252°17.9'	S 4°52.3'	252°21.7'	S 4°28.9'	252°25.5'	S 4°05.4'	252°29.4'	S 3°41.9'	252°33.4'	S 3°18.3'
06	267°14.4'	S 5°14.7'	267°18.1'	S 4°51.4'	267°21.8'	S 4°27.9'	267°25.7'	S 4°04.4'	267°29.6'	S 3°40.9'	267°33.6'	S 3°17.3'
07	282°14.6'	S 5°13.8'	282°18.2'	S 4°50.4'	282°22.0'	S 4°26.9'	282°25.8'	S 4°03.5'	282°29.7'	S 3°39.9'	282°33.7'	S 3°16.3'
08	297°14.7'	S 5°12.8'	297°18.4'	S 4°49.4'	297°22.1'	S 4°26.0'	297°26.0'	S 4°02.5'	297°29.9'	S 3°38.9'	297°33.9'	S 3°15.3'
09	312°14.9'	S 5°11.8'	312°18.6'	S 4°48.4'	312°22.3'	S 4°25.0'	312°26.1'	S 4°01.5'	312°30.1'	S 3°37.9'	312°34.1'	S 3°14.3'
10	327°15.0'	S 5°10.9'	327°18.7'	S 4°47.5'	327°22.5'	S 4°24.0'	327°26.3'	S 4°00.5'	327°30.2'	S 3°37.0'	327°34.2'	S 3°13.4'
11	342°15.2'	S 5°09.9'	342°18.9'	S 4°46.5'	342°22.6'	S 4°23.0'	342°26.5'	S 3°59.5'	342°30.4'	S 3°36.0'	342°34.4'	S 3°12.4'
12	357°15.3'	S 5°08.9'	357°19.0'	S 4°45.5'	357°22.8'	S 4°22.1'	357°26.6'	S 3°58.5'	357°30.6'	S 3°35.0'	357°34.6'	S 3°11.4'
13	12°15.5'	S 5°07.9'	12°19.2'	S 4°44.5'	12°22.9'	S 4°21.1'	12°26.8'	S 3°57.6'	12°30.7'	S 3°34.0'	12°34.7'	S 3°10.4'
14	27°15.7'	S 5°07.0'	27°19.3'	S 4°43.6'	27°23.1'	S 4°20.1'	27°27.0'	S 3°56.6'	27°30.9'	S 3°33.0'	27°34.9'	S 3°09.4'
15	42°15.8'	S 5°06.0'	42°19.5'	S 4°42.6'	42°23.3'	S 4°19.1'	42°27.1'	S 3°55.6'	42°31.1'	S 3°32.0'	42°35.1'	S 3°08.4'
16	57°16.0'	S 5°05.0'	57°19.6'	S 4°41.6'	57°23.4'	S 4°18.1'	57°27.3'	S 3°54.6'	57°31.2'	S 3°31.1'	57°35.2'	S 3°07.5'
17	72°16.1'	S 5°04.0'	72°19.8'	S 4°40.6'	72°23.6'	S 4°17.2'	72°27.4'	S 3°53.6'	72°31.4'	S 3°30.1'	72°35.4'	S 3°06.5'
18	87°16.3'	S 5°03.1'	87°20.0'	S 4°39.7'	87°23.7'	S 4°16.2'	87°27.6'	S 3°52.7'	87°31.6'	S 3°29.1'	87°35.6'	S 3°05.5'
19	102°16.4'	S 5°02.1'	102°20.1'	S 4°38.7'	102°23.9'	S 4°15.2'	102°27.8'	S 3°51.7'	102°31.7'	S 3°28.1'	102°35.7'	S 3°04.5'
20	117°16.6'	S 5°01.1'	117°20.3'	S 4°37.7'	117°24.1'	S 4°14.2'	117°27.9'	S 3°50.7'	117°31.9'	S 3°27.1'	117°35.9'	S 3°03.5'
21	132°16.7'	S 5°00.1'	132°20.4'	S 4°36.7'	132°24.2'	S 4°13.2'	132°28.1'	S 3°49.7'	132°32.0'	S 3°26.1'	132°36.1'	S 3°02.5'
22	147°16.9'	S 4°59.2'	147°20.6'	S 4°35.7'	147°24.4'	S 4°12.3'	147°28.3'	S 3°48.7'	147°32.2'	S 3°25.2'	147°36.2'	S 3°01.5'
23	162°17.0'	S 4°58.2'	162°20.7'	S 4°34.8'	162°24.5'	S 4°11.3'	162°28.4'	S 3°47.8'	162°32.4'	S 3°24.2'	162°36.4'	S 3°00.6'
Zeitgl. 0h / 12h	-11:06 / -10:59		-10:51 / -10:44		-10:36 / -10:29		-10:21 / -10:13		-10:06 / -09:58		-09:50 / -09:42	
Kulmination UT	12:10:59		12:10:44		12:10:29		12:10:13		12:09:58		12:09:42	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	Mi 13.03.		Do 14.03.		Fr 15.03.		Sa 16.03.		So 17.03.		Mo 18.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	177°36.6'	S 2°59.6'	177°40.7'	S 2°35.9'	177°44.9'	S 2°12.2'	177°49.1'	S 1°48.5'	177°53.4'	S 1°24.8'	177°57.7'	S 1°01.1'
01	192°36.8'	S 2°58.6'	192°40.9'	S 2°34.9'	192°45.0'	S 2°11.3'	192°49.3'	S 1°47.5'	192°53.6'	S 1°23.8'	192°57.9'	S 1°00.1'
02	207°36.9'	S 2°57.6'	207°41.0'	S 2°33.9'	207°45.2'	S 2°10.3'	207°49.4'	S 1°46.6'	207°53.7'	S 1°22.8'	207°58.1'	S 0°59.1'
03	222°37.1'	S 2°56.6'	222°41.2'	S 2°33.0'	222°45.4'	S 2°09.3'	222°49.6'	S 1°45.6'	222°53.9'	S 1°21.9'	222°58.2'	S 0°58.1'
04	237°37.3'	S 2°55.6'	237°41.4'	S 2°32.0'	237°45.6'	S 2°08.3'	237°49.8'	S 1°44.6'	237°54.1'	S 1°20.9'	237°58.4'	S 0°57.1'
05	252°37.4'	S 2°54.6'	252°41.6'	S 2°31.0'	252°45.7'	S 2°07.3'	252°50.0'	S 1°43.6'	252°54.3'	S 1°19.9'	252°58.6'	S 0°56.2'
06	267°37.6'	S 2°53.7'	267°41.7'	S 2°30.0'	267°45.9'	S 2°06.3'	267°50.2'	S 1°42.6'	267°54.4'	S 1°18.9'	267°58.8'	S 0°55.2'
07	282°37.8'	S 2°52.7'	282°41.9'	S 2°29.0'	282°46.1'	S 2°05.3'	282°50.3'	S 1°41.6'	282°54.6'	S 1°17.9'	282°59.0'	S 0°54.2'
08	297°37.9'	S 2°51.7'	297°42.1'	S 2°28.0'	297°46.3'	S 2°04.3'	297°50.5'	S 1°40.6'	297°54.8'	S 1°16.9'	297°59.2'	S 0°53.2'
09	312°38.1'	S 2°50.7'	312°42.3'	S 2°27.0'	312°46.4'	S 2°03.4'	312°50.7'	S 1°39.6'	312°55.0'	S 1°15.9'	312°59.3'	S 0°52.2'
10	327°38.3'	S 2°49.7'	327°42.4'	S 2°26.1'	327°46.6'	S 2°02.4'	327°50.9'	S 1°38.7'	327°55.2'	S 1°14.9'	327°59.5'	S 0°51.2'
11	342°38.5'	S 2°48.7'	342°42.6'	S 2°25.1'	342°46.8'	S 2°01.4'	342°51.0'	S 1°37.7'	342°55.3'	S 1°13.9'	342°59.7'	S 0°50.2'
12	357°38.6'	S 2°47.7'	357°42.8'	S 2°24.1'	357°47.0'	S 2°00.4'	357°51.2'	S 1°36.7'	357°55.5'	S 1°13.0'	357°59.9'	S 0°49.2'
13	12°38.8'	S 2°46.8'	12°42.9'	S 2°23.1'	12°47.1'	S 1°59.4'	12°51.4'	S 1°35.7'	12°55.7'	S 1°12.0'	13°00.1'	S 0°48.2'
14	27°39.0'	S 2°45.8'	27°43.1'	S 2°22.1'	27°47.3'	S 1°58.4'	27°51.6'	S 1°34.7'	27°55.9'	S 1°11.0'	28°00.2'	S 0°47.3'
15	42°39.1'	S 2°44.8'	42°43.3'	S 2°21.1'	42°47.5'	S 1°57.4'	42°51.8'	S 1°33.7'	42°56.1'	S 1°10.0'	43°00.4'	S 0°46.3'
16	57°39.3'	S 2°43.8'	57°43.5'	S 2°20.1'	57°47.7'	S 1°56.4'	57°51.9'	S 1°32.7'	57°56.3'	S 1°09.0'	58°00.6'	S 0°45.3'
17	72°39.5'	S 2°42.8'	72°43.6'	S 2°19.1'	72°47.9'	S 1°55.5'	72°52.1'	S 1°31.7'	72°56.4'	S 1°08.0'	73°00.8'	S 0°44.3'
18	87°39.7'	S 2°41.8'	87°43.8'	S 2°18.2'	87°48.0'	S 1°54.5'	87°52.3'	S 1°30.8'	87°56.6'	S 1°07.0'	88°01.0'	S 0°43.3'
19	102°39.8'	S 2°40.8'	102°44.0'	S 2°17.2'	102°48.2'	S 1°53.5'	102°52.5'	S 1°29.8'	102°56.8'	S 1°06.0'	103°01.2'	S 0°42.3'
20	117°40.0'	S 2°39.9'	117°44.2'	S 2°16.2'	117°48.4'	S 1°52.5'	117°52.7'	S 1°28.8'	117°57.0'	S 1°05.0'	118°01.3'	S 0°41.3'
21	132°40.2'	S 2°38.9'	132°44.3'	S 2°15.2'	132°48.6'	S 1°51.5'	132°52.8'	S 1°27.8'	132°57.2'	S 1°04.1'	133°01.5'	S 0°40.3'
22	147°40.4'	S 2°37.9'	147°44.5'	S 2°14.2'	147°48.7'	S 1°50.5'	147°53.0'	S 1°26.8'	147°57.3'	S 1°03.1'	148°01.7'	S 0°39.3'
23	162°40.5'	S 2°36.9'	162°44.7'	S 2°13.2'	162°48.9'	S 1°49.5'	162°53.2'	S 1°25.8'	162°57.5'	S 1°02.1'	163°01.9'	S 0°38.4'
Zeitgl. 0h / 12h	-09:34 / -09:25		-09:17 / -09:09		-09:01 / -08:52		-08:44 / -08:35		-08:27 / -08:18		-08:09 / -08:00	
Kulmination UT	12:09:25		12:09:09		12:08:52		12:08:35		12:08:18		12:08:00	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.1'		16.1'	

	Di 19.03.		Mi 20.03.		Do 21.03.		Fr 22.03.		Sa 23.03.		So 24.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°02.1'	S 0°37.4'	178°06.5'	S 0°13.6'	178°10.9'	N 0°10.1'	178°15.4'	N 0°33.8'	178°19.9'	N 0°57.4'	178°24.4'	N 1°21.1'
01	193°02.3'	S 0°36.4'	193°06.7'	S 0°12.7'	193°11.1'	N 0°11.1'	193°15.6'	N 0°34.8'	193°20.0'	N 0°58.4'	193°24.6'	N 1°22.1'
02	208°02.4'	S 0°35.4'	208°06.8'	S 0°11.7'	208°11.3'	N 0°12.0'	208°15.7'	N 0°35.7'	208°20.2'	N 0°59.4'	208°24.7'	N 1°23.1'
03	223°02.6'	S 0°34.4'	223°07.0'	S 0°10.7'	223°11.5'	N 0°13.0'	223°15.9'	N 0°36.7'	223°20.4'	N 1°00.4'	223°24.9'	N 1°24.0'
04	238°02.8'	S 0°33.4'	238°07.2'	S 0°09.7'	238°11.7'	N 0°14.0'	238°16.1'	N 0°37.7'	238°20.6'	N 1°01.4'	238°25.1'	N 1°25.0'
05	253°03.0'	S 0°32.4'	253°07.4'	S 0°08.7'	253°11.8'	N 0°15.0'	253°16.3'	N 0°38.7'	253°20.8'	N 1°02.4'	253°25.3'	N 1°26.0'
06	268°03.2'	S 0°31.4'	268°07.6'	S 0°07.7'	268°12.0'	N 0°16.0'	268°16.5'	N 0°39.7'	268°21.0'	N 1°03.4'	268°25.5'	N 1°27.0'
07	283°03.3'	S 0°30.4'	283°07.8'	S 0°06.7'	283°12.2'	N 0°17.0'	283°16.7'	N 0°40.7'	283°21.2'	N 1°04.3'	283°25.7'	N 1°28.0'
08	298°03.5'	S 0°29.5'	298°07.9'	S 0°05.7'	298°12.4'	N 0°18.0'	298°16.9'	N 0°41.7'	298°21.4'	N 1°05.3'	298°25.9'	N 1°29.0'
09	313°03.7'	S 0°28.5'	313°08.1'	S 0°04.8'	313°12.6'	N 0°19.0'	313°17.1'	N 0°42.6'	313°21.5'	N 1°06.3'	313°26.1'	N 1°30.0'
10	328°03.9'	S 0°27.5'	328°08.3'	S 0°03.8'	328°12.8'	N 0°19.9'	328°17.2'	N 0°43.6'	328°21.7'	N 1°07.3'	328°26.2'	N 1°30.9'
11	343°04.1'	S 0°26.5'	343°08.5'	S 0°02.8'	343°13.0'	N 0°20.9'	343°17.4'	N 0°44.6'	343°21.9'	N 1°08.3'	343°26.4'	N 1°31.9'
12	358°04.3'	S 0°25.5'	358°08.7'	S 0°01.8'	358°13.1'	N 0°21.9'	358°17.6'	N 0°45.6'	358°22.1'	N 1°09.3'	358°26.6'	N 1°32.9'
13	13°04.4'	S 0°24.5'	13°08.9'	S 0°00.8'	13°13.3'	N 0°22.9'	13°17.8'	N 0°46.6'	13°22.3'	N 1°10.3'	13°26.8'	N 1°33.9'
14	28°04.6'	S 0°23.5'	28°09.1'	N 0°00.2'	28°13.5'	N 0°23.9'	28°18.0'	N 0°47.6'	28°22.5'	N 1°11.2'	28°27.0'	N 1°34.9'
15	43°04.8'	S 0°22.5'	43°09.2'	N 0°01.2'	43°13.7'	N 0°24.9'	43°18.2'	N 0°48.6'	43°22.7'	N 1°12.2'	43°27.2'	N 1°35.9'
16	58°05.0'	S 0°21.6'	58°09.4'	N 0°02.2'	58°13.9'	N 0°25.9'	58°18.4'	N 0°49.6'	58°22.9'	N 1°13.2'	58°27.4'	N 1°36.8'
17	73°05.2'	S 0°20.6'	73°09.6'	N 0°03.2'	73°14.1'	N 0°26.9'	73°18.6'	N 0°50.5'	73°23.1'	N 1°14.2'	73°27.6'	N 1°37.8'
18	88°05.4'	S 0°19.6'	88°09.8'	N 0°04.1'	88°14.3'	N 0°27.8'	88°18.7'	N 0°51.5'	88°23.2'	N 1°15.2'	88°27.8'	N 1°38.8'
19	103°05.6'	S 0°18.6'	103°10.0'	N 0°05.1'	103°14.4'	N 0°28.8'	103°18.9'	N 0°52.5'	103°23.4'	N 1°16.2'	103°27.9'	N 1°39.8'
20	118°05.7'	S 0°17.6'	118°10.2'	N 0°06.1'	118°14.6'	N 0°29.8'	118°19.1'	N 0°53.5'	118°23.6'	N 1°17.2'	118°28.1'	N 1°40.8'
21	133°05.9'	S 0°16.6'	133°10.4'	N 0°07.1'	133°14.8'	N 0°30.8'	133°19.3'	N 0°54.5'	133°23.8'	N 1°18.1'	133°28.3'	N 1°41.8'
22	148°06.1'	S 0°15.6'	148°10.5'	N 0°08.1'	148°15.0'	N 0°31.8'	148°19.5'	N 0°55.5'	148°24.0'	N 1°19.1'	148°28.5'	N 1°42.7'
23	163°06.3'	S 0°14.6'	163°10.7'	N 0°09.1'	163°15.2'	N 0°32.8'	163°19.7'	N 0°56.5'	163°24.2'	N 1°20.1'	163°28.7'	N 1°43.7'
Zeitgl. 0h / 12h	-07:52 / -07:43		-07:34 / -07:25		-07:16 / -07:07		-06:58 / -06:50		-06:41 / -06:32		-06:23 / -06:14	
Kulmination UT	12:07:43		12:07:25		12:07:07		12:06:50		12:06:32		12:06:14	
Halbmesser	16.1'		16.1'		16.1'		16.1'		16.0'		16.0'	

	Mo 25.03.		Di 26.03.		Mi 27.03.		Do 28.03.		Fr 29.03.		Sa 30.03.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	178°28.9'	N 1°44.7'	178°33.4'	N 2°08.3'	178°37.9'	N 2°31.8'	178°42.4'	N 2°55.3'	178°47.0'	N 3°18.7'	178°51.5'	N 3°42.1'
01	193°29.1'	N 1°45.7'	193°33.6'	N 2°09.3'	193°38.1'	N 2°32.8'	193°42.6'	N 2°56.3'	193°47.1'	N 3°19.7'	193°51.6'	N 3°43.0'
02	208°29.3'	N 1°46.7'	208°33.8'	N 2°10.2'	208°38.3'	N 2°33.8'	208°42.8'	N 2°57.2'	208°47.3'	N 3°20.7'	208°51.8'	N 3°44.0'
03	223°29.4'	N 1°47.7'	223°34.0'	N 2°11.2'	223°38.5'	N 2°34.7'	223°43.0'	N 2°58.2'	223°47.5'	N 3°21.6'	223°52.0'	N 3°45.0'
04	238°29.6'	N 1°48.6'	238°34.2'	N 2°12.2'	238°38.7'	N 2°35.7'	238°43.2'	N 2°59.2'	238°47.7'	N 3°22.6'	238°52.2'	N 3°45.9'
05	253°29.8'	N 1°49.6'	253°34.3'	N 2°13.2'	253°38.9'	N 2°36.7'	253°43.4'	N 3°00.2'	253°47.9'	N 3°23.6'	253°52.4'	N 3°46.9'
06	268°30.0'	N 1°50.6'	268°34.5'	N 2°14.2'	268°39.1'	N 2°37.7'	268°43.6'	N 3°01.1'	268°48.1'	N 3°24.5'	268°52.6'	N 3°47.9'
07	283°30.2'	N 1°51.6'	283°34.7'	N 2°15.1'	283°39.2'	N 2°38.7'	283°43.8'	N 3°02.1'	283°48.3'	N 3°25.5'	283°52.8'	N 3°48.9'
08	298°30.4'	N 1°52.6'	298°34.9'	N 2°16.1'	298°39.4'	N 2°39.6'	298°44.0'	N 3°03.1'	298°48.5'	N 3°26.5'	298°53.0'	N 3°49.8'
09	313°30.6'	N 1°53.6'	313°35.1'	N 2°17.1'	313°39.6'	N 2°40.6'	313°44.1'	N 3°04.1'	313°48.6'	N 3°27.5'	313°53.1'	N 3°50.8'
10	328°30.8'	N 1°54.5'	328°35.3'	N 2°18.1'	328°39.8'	N 2°41.6'	328°44.3'	N 3°05.1'	328°48.8'	N 3°28.4'	328°53.3'	N 3°51.8'
11	343°31.0'	N 1°55.5'	343°35.5'	N 2°19.1'	343°40.0'	N 2°42.6'	343°44.5'	N 3°06.0'	343°49.0'	N 3°29.4'	343°53.5'	N 3°52.7'
12	358°31.1'	N 1°56.5'	358°35.7'	N 2°20.0'	358°40.2'	N 2°43.6'	358°44.7'	N 3°07.0'	358°49.2'	N 3°30.4'	358°53.7'	N 3°53.7'
13	13°31.3'	N 1°57.5'	13°35.9'	N 2°21.0'	13°40.4'	N 2°44.5'	13°44.9'	N 3°08.0'	13°49.4'	N 3°31.4'	13°53.9'	N 3°54.7'
14	28°31.5'	N 1°58.5'	28°36.0'	N 2°22.0'	28°40.6'	N 2°45.5'	28°45.1'	N 3°09.0'	28°49.6'	N 3°32.3'	28°54.1'	N 3°55.7'
15	43°31.7'	N 1°59.4'	43°36.2'	N 2°23.0'	43°40.8'	N 2°46.5'	43°45.3'	N 3°09.9'	43°49.8'	N 3°33.3'	43°54.3'	N 3°56.6'
16	58°31.9'	N 2°00.4'	58°36.4'	N 2°24.0'	58°40.9'	N 2°47.5'	58°45.5'	N 3°10.9'	58°50.0'	N 3°34.3'	58°54.4'	N 3°57.6'
17	73°32.1'	N 2°01.4'	73°36.6'	N 2°25.0'	73°41.1'	N 2°48.4'	73°45.6'	N 3°11.9'	73°50.1'	N 3°35.3'	73°54.6'	N 3°58.6'
18	88°32.3'	N 2°02.4'	88°36.8'	N 2°25.9'	88°41.3'	N 2°49.4'	88°45.8'	N 3°12.9'	88°50.3'	N 3°36.2'	88°54.8'	N 3°59.5'
19	103°32.5'	N 2°03.4'	103°37.0'	N 2°26.9'	103°41.5'	N 2°50.4'	103°46.0'	N 3°13.8'	103°50.5'	N 3°37.2'	103°55.0'	N 4°00.5'
20	118°32.6'	N 2°04.4'	118°37.2'	N 2°27.9'	118°41.7'	N 2°51.4'	118°46.2'	N 3°14.8'	118°50.7'	N 3°38.2'	118°55.2'	N 4°01.5'
21	133°32.8'	N 2°05.3'	133°37.4'	N 2°28.9'	133°41.9'	N 2°52.4'	133°46.4'	N 3°15.8'	133°50.9'	N 3°39.1'	133°55.4'	N 4°02.4'
22	148°33.0'	N 2°06.3'	148°37.5'	N 2°29.8'	148°42.1'	N 2°53.3'	148°46.6'	N 3°16.8'	148°51.1'	N 3°40.1'	148°55.6'	N 4°03.4'
23	163°33.2'	N 2°07.3'	163°37.7'	N 2°30.8'	163°42.3'	N 2°54.3'	163°46.8'	N 3°17.7'	163°51.3'	N 3°41.1'	163°55.8'	N 4°04.4'
Zeitgl. 0h / 12h	-06:04 / -05:55		-05:46 / -05:37		-05:28 / -05:19		-05:10 / -05:01		-04:52 / -04:43		-04:34 / -04:25	
Kulmination UT	12:05:55		12:05:37		12:05:19		12:05:01		12:04:43		12:04:25	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

So 31.03.

UT	Grt	Dec
00	178°55.9'	N 4°05.3'
01	193°56.1'	N 4°06.3'
02	208°56.3'	N 4°07.3'
03	223°56.5'	N 4°08.3'
04	238°56.7'	N 4°09.2'
05	253°56.9'	N 4°10.2'
06	268°57.1'	N 4°11.2'
07	283°57.2'	N 4°12.1'
08	298°57.4'	N 4°13.1'
09	313°57.6'	N 4°14.1'
10	328°57.8'	N 4°15.0'
11	343°58.0'	N 4°16.0'
12	358°58.2'	N 4°17.0'
13	13°58.4'	N 4°17.9'
14	28°58.5'	N 4°18.9'
15	43°58.7'	N 4°19.9'
16	58°58.9'	N 4°20.8'
17	73°59.1'	N 4°21.8'
18	88°59.3'	N 4°22.8'
19	103°59.5'	N 4°23.7'
20	118°59.7'	N 4°24.7'
21	133°59.8'	N 4°25.7'
22	149°00.0'	N 4°26.6'
23	164°00.2'	N 4°27.6'

Zeitgl. 0h / 12h -04:16 / -04:07

Kulmination UT 12:04:07

Halbmesser 16.0'

2030

April

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Mo 01.04.		Di 02.04.		Mi 03.04.		Do 04.04.		Fr 05.04.		Sa 06.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°00.4'	N 4°28.6'	179°04.8'	N 4°51.7'	179°09.2'	N 5°14.7'	179°13.6'	N 5°37.7'	179°17.9'	N 6°00.5'	179°22.2'	N 6°23.3'
01	194°00.6'	N 4°29.5'	194°05.0'	N 4°52.6'	194°09.4'	N 5°15.7'	194°13.8'	N 5°38.6'	194°18.1'	N 6°01.5'	194°22.4'	N 6°24.2'
02	209°00.8'	N 4°30.5'	209°05.2'	N 4°53.6'	209°09.6'	N 5°16.6'	209°14.0'	N 5°39.6'	209°18.3'	N 6°02.4'	209°22.5'	N 6°25.2'
03	224°01.0'	N 4°31.5'	224°05.4'	N 4°54.6'	224°09.8'	N 5°17.6'	224°14.1'	N 5°40.5'	224°18.5'	N 6°03.4'	224°22.7'	N 6°26.1'
04	239°01.1'	N 4°32.4'	239°05.6'	N 4°55.5'	239°10.0'	N 5°18.6'	239°14.3'	N 5°41.5'	239°18.6'	N 6°04.3'	239°22.9'	N 6°27.1'
05	254°01.3'	N 4°33.4'	254°05.7'	N 4°56.5'	254°10.1'	N 5°19.5'	254°14.5'	N 5°42.5'	254°18.8'	N 6°05.3'	254°23.1'	N 6°28.0'
06	269°01.5'	N 4°34.3'	269°05.9'	N 4°57.5'	269°10.3'	N 5°20.5'	269°14.7'	N 5°43.4'	269°19.0'	N 6°06.2'	269°23.3'	N 6°29.0'
07	284°01.7'	N 4°35.3'	284°06.1'	N 4°58.4'	284°10.5'	N 5°21.4'	284°14.9'	N 5°44.4'	284°19.2'	N 6°07.2'	284°23.4'	N 6°29.9'
08	299°01.9'	N 4°36.3'	299°06.3'	N 4°59.4'	299°10.7'	N 5°22.4'	299°15.0'	N 5°45.3'	299°19.3'	N 6°08.1'	299°23.6'	N 6°30.8'
09	314°02.1'	N 4°37.2'	314°06.5'	N 5°00.3'	314°10.9'	N 5°23.3'	314°15.2'	N 5°46.3'	314°19.5'	N 6°09.1'	314°23.8'	N 6°31.8'
10	329°02.2'	N 4°38.2'	329°06.7'	N 5°01.3'	329°11.1'	N 5°24.3'	329°15.4'	N 5°47.2'	329°19.7'	N 6°10.0'	329°24.0'	N 6°32.7'
11	344°02.4'	N 4°39.2'	344°06.9'	N 5°02.3'	344°11.2'	N 5°25.3'	344°15.6'	N 5°48.2'	344°19.9'	N 6°11.0'	344°24.1'	N 6°33.7'
12	359°02.6'	N 4°40.1'	359°07.0'	N 5°03.2'	359°11.4'	N 5°26.2'	359°15.8'	N 5°49.1'	359°20.1'	N 6°11.9'	359°24.3'	N 6°34.6'
13	14°02.8'	N 4°41.1'	14°07.2'	N 5°04.2'	14°11.6'	N 5°27.2'	14°15.9'	N 5°50.1'	14°20.2'	N 6°12.9'	14°24.5'	N 6°35.6'
14	29°03.0'	N 4°42.1'	29°07.4'	N 5°05.1'	29°11.8'	N 5°28.1'	29°16.1'	N 5°51.0'	29°20.4'	N 6°13.8'	29°24.7'	N 6°36.5'
15	44°03.2'	N 4°43.0'	44°07.6'	N 5°06.1'	44°12.0'	N 5°29.1'	44°16.3'	N 5°52.0'	44°20.6'	N 6°14.8'	44°24.8'	N 6°37.4'
16	59°03.4'	N 4°44.0'	59°07.8'	N 5°07.1'	59°12.1'	N 5°30.0'	59°16.5'	N 5°52.9'	59°20.8'	N 6°15.7'	59°25.0'	N 6°38.4'
17	74°03.5'	N 4°45.0'	74°08.0'	N 5°08.0'	74°12.3'	N 5°31.0'	74°16.7'	N 5°53.9'	74°21.0'	N 6°16.7'	74°25.2'	N 6°39.3'
18	89°03.7'	N 4°45.9'	89°08.1'	N 5°09.0'	89°12.5'	N 5°32.0'	89°16.8'	N 5°54.8'	89°21.1'	N 6°17.6'	89°25.4'	N 6°40.3'
19	104°03.9'	N 4°46.9'	104°08.3'	N 5°09.9'	104°12.7'	N 5°32.9'	104°17.0'	N 5°55.8'	104°21.3'	N 6°18.6'	104°25.5'	N 6°41.2'
20	119°04.1'	N 4°47.8'	119°08.5'	N 5°10.9'	119°12.9'	N 5°33.9'	119°17.2'	N 5°56.7'	119°21.5'	N 6°19.5'	119°25.7'	N 6°42.2'
21	134°04.3'	N 4°48.8'	134°08.7'	N 5°11.9'	134°13.1'	N 5°34.8'	134°17.4'	N 5°57.7'	134°21.7'	N 6°20.4'	134°25.9'	N 6°43.1'
22	149°04.5'	N 4°49.8'	149°08.9'	N 5°12.8'	149°13.2'	N 5°35.8'	149°17.6'	N 5°58.6'	149°21.8'	N 6°21.4'	149°26.1'	N 6°44.0'
23	164°04.6'	N 4°50.7'	164°09.0'	N 5°13.8'	164°13.4'	N 5°36.7'	164°17.7'	N 5°59.6'	164°22.0'	N 6°22.3'	164°26.2'	N 6°45.0'
Zeitgl. 0h / 12h	-03:58 / -03:50		-03:41 / -03:32		-03:23 / -03:14		-03:06 / -02:57		-02:48 / -02:40		-02:31 / -02:23	
Kulmination UT	12:03:50		12:03:32		12:03:14		12:02:57		12:02:40		12:02:23	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

	So 07.04.		Mo 08.04.		Di 09.04.		Mi 10.04.		Do 11.04.		Fr 12.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°26.4'	N 6°45.9'	179°30.6'	N 7°08.4'	179°34.7'	N 7°30.8'	179°38.8'	N 7°53.1'	179°42.7'	N 8°15.3'	179°46.6'	N 8°37.3'
01	194°26.6'	N 6°46.9'	194°30.8'	N 7°09.4'	194°34.9'	N 7°31.8'	194°38.9'	N 7°54.0'	194°42.9'	N 8°16.2'	194°46.8'	N 8°38.2'
02	209°26.8'	N 6°47.8'	209°30.9'	N 7°10.3'	209°35.0'	N 7°32.7'	209°39.1'	N 7°55.0'	209°43.1'	N 8°17.1'	209°47.0'	N 8°39.1'
03	224°26.9'	N 6°48.7'	224°31.1'	N 7°11.3'	224°35.2'	N 7°33.6'	224°39.3'	N 7°55.9'	224°43.2'	N 8°18.0'	224°47.1'	N 8°40.0'
04	239°27.1'	N 6°49.7'	239°31.3'	N 7°12.2'	239°35.4'	N 7°34.6'	239°39.4'	N 7°56.8'	239°43.4'	N 8°18.9'	239°47.3'	N 8°40.9'
05	254°27.3'	N 6°50.6'	254°31.5'	N 7°13.1'	254°35.6'	N 7°35.5'	254°39.6'	N 7°57.7'	254°43.6'	N 8°19.9'	254°47.5'	N 8°41.8'
06	269°27.5'	N 6°51.6'	269°31.6'	N 7°14.1'	269°35.7'	N 7°36.4'	269°39.8'	N 7°58.7'	269°43.7'	N 8°20.8'	269°47.6'	N 8°42.7'
07	284°27.6'	N 6°52.5'	284°31.8'	N 7°15.0'	284°35.9'	N 7°37.4'	284°39.9'	N 7°59.6'	284°43.9'	N 8°21.7'	284°47.8'	N 8°43.7'
08	299°27.8'	N 6°53.4'	299°32.0'	N 7°15.9'	299°36.1'	N 7°38.3'	299°40.1'	N 8°00.5'	299°44.0'	N 8°22.6'	299°47.9'	N 8°44.6'
09	314°28.0'	N 6°54.4'	314°32.1'	N 7°16.9'	314°36.2'	N 7°39.2'	314°40.3'	N 8°01.4'	314°44.2'	N 8°23.5'	314°48.1'	N 8°45.5'
10	329°28.2'	N 6°55.3'	329°32.3'	N 7°17.8'	329°36.4'	N 7°40.1'	329°40.4'	N 8°02.4'	329°44.4'	N 8°24.4'	329°48.3'	N 8°46.4'
11	344°28.3'	N 6°56.3'	344°32.5'	N 7°18.7'	344°36.6'	N 7°41.1'	344°40.6'	N 8°03.3'	344°44.5'	N 8°25.4'	344°48.4'	N 8°47.3'
12	359°28.5'	N 6°57.2'	359°32.7'	N 7°19.7'	359°36.7'	N 7°42.0'	359°40.8'	N 8°04.2'	359°44.7'	N 8°26.3'	359°48.6'	N 8°48.2'
13	14°28.7'	N 6°58.1'	14°32.8'	N 7°20.6'	14°36.9'	N 7°42.9'	14°40.9'	N 8°05.1'	14°44.9'	N 8°27.2'	14°48.7'	N 8°49.1'
14	29°28.9'	N 6°59.1'	29°33.0'	N 7°21.5'	29°37.1'	N 7°43.9'	29°41.1'	N 8°06.1'	29°45.0'	N 8°28.1'	29°48.9'	N 8°50.0'
15	44°29.0'	N 7°00.0'	44°33.2'	N 7°22.5'	44°37.2'	N 7°44.8'	44°41.3'	N 8°07.0'	44°45.2'	N 8°29.0'	44°49.1'	N 8°50.9'
16	59°29.2'	N 7°00.9'	59°33.3'	N 7°23.4'	59°37.4'	N 7°45.7'	59°41.4'	N 8°07.9'	59°45.4'	N 8°29.9'	59°49.2'	N 8°51.9'
17	74°29.4'	N 7°01.9'	74°33.5'	N 7°24.3'	74°37.6'	N 7°46.6'	74°41.6'	N 8°08.8'	74°45.5'	N 8°30.9'	74°49.4'	N 8°52.8'
18	89°29.6'	N 7°02.8'	89°33.7'	N 7°25.3'	89°37.7'	N 7°47.6'	89°41.7'	N 8°09.7'	89°45.7'	N 8°31.8'	89°49.5'	N 8°53.7'
19	104°29.7'	N 7°03.8'	104°33.9'	N 7°26.2'	104°37.9'	N 7°48.5'	104°41.9'	N 8°10.7'	104°45.8'	N 8°32.7'	104°49.7'	N 8°54.6'
20	119°29.9'	N 7°04.7'	119°34.0'	N 7°27.1'	119°38.1'	N 7°49.4'	119°42.1'	N 8°11.6'	119°46.0'	N 8°33.6'	119°49.8'	N 8°55.5'
21	134°30.1'	N 7°05.6'	134°34.2'	N 7°28.1'	134°38.3'	N 7°50.3'	134°42.2'	N 8°12.5'	134°46.2'	N 8°34.5'	134°50.0'	N 8°56.4'
22	149°30.2'	N 7°06.6'	149°34.4'	N 7°29.0'	149°38.4'	N 7°51.3'	149°42.4'	N 8°13.4'	149°46.3'	N 8°35.4'	149°50.2'	N 8°57.3'
23	164°30.4'	N 7°07.5'	164°34.5'	N 7°29.9'	164°38.6'	N 7°52.2'	164°42.6'	N 8°14.3'	164°46.5'	N 8°36.4'	164°50.3'	N 8°58.2'
Zeitgl. 0h / 12h	-02:14 / -02:06		-01:58 / -01:49		-01:41 / -01:33		-01:25 / -01:17		-01:09 / -01:01		-00:53 / -00:46	
Kulmination UT	12:02:06		12:01:49		12:01:33		12:01:17		12:01:01		12:00:46	
Halbmesser	16.0'		16.0'		16.0'		16.0'		16.0'		16.0'	

	Sa 13.04.		So 14.04.		Mo 15.04.		Di 16.04.		Mi 17.04.		Do 18.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	179°50.5'	N 8°59.1'	179°54.2'	N 9°20.8'	179°57.9'	N 9°42.4'	180°01.5'	N 10°03.8'	180°05.0'	N 10°25.0'	180°08.4'	N 10°46.1'
01	194°50.6'	N 9°00.0'	194°54.4'	N 9°21.7'	194°58.1'	N 9°43.3'	195°01.6'	N 10°04.7'	195°05.1'	N 10°25.9'	195°08.5'	N 10°46.9'
02	209°50.8'	N 9°00.9'	209°54.5'	N 9°22.6'	209°58.2'	N 9°44.2'	210°01.8'	N 10°05.6'	210°05.3'	N 10°26.8'	210°08.7'	N 10°47.8'
03	224°51.0'	N 9°01.8'	224°54.7'	N 9°23.5'	224°58.4'	N 9°45.1'	225°01.9'	N 10°06.4'	225°05.4'	N 10°27.7'	225°08.8'	N 10°48.7'
04	239°51.1'	N 9°02.8'	239°54.9'	N 9°24.4'	239°58.5'	N 9°46.0'	240°02.1'	N 10°07.3'	240°05.6'	N 10°28.5'	240°08.9'	N 10°49.6'
05	254°51.3'	N 9°03.7'	254°55.0'	N 9°25.3'	254°58.7'	N 9°46.9'	255°02.2'	N 10°08.2'	255°05.7'	N 10°29.4'	255°09.1'	N 10°50.4'
06	269°51.4'	N 9°04.6'	269°55.2'	N 9°26.2'	269°58.8'	N 9°47.8'	270°02.4'	N 10°09.1'	270°05.9'	N 10°30.3'	270°09.2'	N 10°51.3'
07	284°51.6'	N 9°05.5'	284°55.3'	N 9°27.1'	284°59.0'	N 9°48.6'	285°02.5'	N 10°10.0'	285°06.0'	N 10°31.2'	285°09.4'	N 10°52.2'
08	299°51.7'	N 9°06.4'	299°55.5'	N 9°28.0'	299°59.1'	N 9°49.5'	300°02.7'	N 10°10.9'	300°06.1'	N 10°32.0'	300°09.5'	N 10°53.0'
09	314°51.9'	N 9°07.3'	314°55.6'	N 9°28.9'	314°59.3'	N 9°50.4'	315°02.8'	N 10°11.8'	315°06.3'	N 10°32.9'	315°09.6'	N 10°53.9'
10	329°52.1'	N 9°08.2'	329°55.8'	N 9°29.8'	329°59.4'	N 9°51.3'	330°03.0'	N 10°12.6'	330°06.4'	N 10°33.8'	330°09.8'	N 10°54.8'
11	344°52.2'	N 9°09.1'	344°55.9'	N 9°30.7'	344°59.6'	N 9°52.2'	345°03.1'	N 10°13.5'	345°06.6'	N 10°34.7'	345°09.9'	N 10°55.7'
12	359°52.4'	N 9°10.0'	359°56.1'	N 9°31.6'	359°59.7'	N 9°53.1'	0°03.3'	N 10°14.4'	0°06.7'	N 10°35.6'	0°10.1'	N 10°56.5'
13	14°52.5'	N 9°10.9'	14°56.2'	N 9°32.5'	14°59.9'	N 9°54.0'	15°03.4'	N 10°15.3'	15°06.8'	N 10°36.4'	15°10.2'	N 10°57.4'
14	29°52.7'	N 9°11.8'	29°56.4'	N 9°33.4'	30°00.0'	N 9°54.9'	30°03.5'	N 10°16.2'	30°07.0'	N 10°37.3'	30°10.3'	N 10°58.3'
15	44°52.8'	N 9°12.7'	44°56.5'	N 9°34.3'	45°00.2'	N 9°55.8'	45°03.7'	N 10°17.1'	45°07.1'	N 10°38.2'	45°10.5'	N 10°59.1'
16	59°53.0'	N 9°13.6'	59°56.7'	N 9°35.2'	60°00.3'	N 9°56.7'	60°03.8'	N 10°18.0'	60°07.3'	N 10°39.1'	60°10.6'	N 11°00.0'
17	74°53.2'	N 9°14.5'	74°56.8'	N 9°36.1'	75°00.5'	N 9°57.6'	75°04.0'	N 10°18.8'	75°07.4'	N 10°39.9'	75°10.7'	N 11°00.9'
18	89°53.3'	N 9°15.4'	89°57.0'	N 9°37.0'	90°00.6'	N 9°58.4'	90°04.1'	N 10°19.7'	90°07.6'	N 10°40.8'	90°10.9'	N 11°01.7'
19	104°53.5'	N 9°16.3'	104°57.2'	N 9°37.9'	105°00.8'	N 9°59.3'	105°04.3'	N 10°20.6'	105°07.7'	N 10°41.7'	105°11.0'	N 11°02.6'
20	119°53.6'	N 9°17.2'	119°57.3'	N 9°38.8'	120°00.9'	N 10°00.2'	120°04.4'	N 10°21.5'	120°07.8'	N 10°42.6'	120°11.2'	N 11°03.5'
21	134°53.8'	N 9°18.1'	134°57.5'	N 9°39.7'	135°01.1'	N 10°01.1'	135°04.6'	N 10°22.4'	135°08.0'	N 10°43.4'	135°11.3'	N 11°04.3'
22	149°53.9'	N 9°19.0'	149°57.6'	N 9°40.6'	150°01.2'	N 10°02.0'	150°04.7'	N 10°23.2'	150°08.1'	N 10°44.3'	150°11.4'	N 11°05.2'
23	164°54.1'	N 9°19.9'	164°57.8'	N 9°41.5'	165°01.3'	N 10°02.9'	165°04.8'	N 10°24.1'	165°08.3'	N 10°45.2'	165°11.6'	N 11°06.1'
Zeitgl. 0h / 12h	-00:38 / -00:31		-00:23 / -00:16		-00:08 / -00:01		+00:06 / +00:13		+00:20 / +00:27		+00:34 / +00:40	
Kulmination UT	12:00:31		12:00:16		12:00:01		11:59:47		11:59:33		11:59:20	
Halbmesser	16.0'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Fr 19.04.		Sa 20.04.		So 21.04.		Mo 22.04.		Di 23.04.		Mi 24.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°11.7'	N 11°06.9'	180°14.9'	N 11°27.6'	180°18.0'	N 11°48.1'	180°21.0'	N 12°08.5'	180°23.9'	N 12°28.6'	180°26.6'	N 12°48.5'
01	195°11.8'	N 11°07.8'	195°15.0'	N 11°28.5'	195°18.1'	N 11°49.0'	195°21.1'	N 12°09.3'	195°24.0'	N 12°29.4'	195°26.7'	N 12°49.3'
02	210°12.0'	N 11°08.7'	210°15.2'	N 11°29.4'	210°18.2'	N 11°49.8'	210°21.2'	N 12°10.1'	210°24.1'	N 12°30.2'	210°26.8'	N 12°50.1'
03	225°12.1'	N 11°09.5'	225°15.3'	N 11°30.2'	225°18.4'	N 11°50.7'	225°21.3'	N 12°11.0'	225°24.2'	N 12°31.1'	225°27.0'	N 12°50.9'
04	240°12.2'	N 11°10.4'	240°15.4'	N 11°31.1'	240°18.5'	N 11°51.5'	240°21.5'	N 12°11.8'	240°24.3'	N 12°31.9'	240°27.1'	N 12°51.8'
05	255°12.4'	N 11°11.3'	255°15.5'	N 11°31.9'	255°18.6'	N 11°52.4'	255°21.6'	N 12°12.7'	255°24.4'	N 12°32.7'	255°27.2'	N 12°52.6'
06	270°12.5'	N 11°12.1'	270°15.7'	N 11°32.8'	270°18.7'	N 11°53.2'	270°21.7'	N 12°13.5'	270°24.6'	N 12°33.6'	270°27.3'	N 12°53.4'
07	285°12.6'	N 11°13.0'	285°15.8'	N 11°33.6'	285°18.9'	N 11°54.1'	285°21.8'	N 12°14.3'	285°24.7'	N 12°34.4'	285°27.4'	N 12°54.2'
08	300°12.8'	N 11°13.9'	300°15.9'	N 11°34.5'	300°19.0'	N 11°54.9'	300°21.9'	N 12°15.2'	300°24.8'	N 12°35.2'	300°27.5'	N 12°55.1'
09	315°12.9'	N 11°14.7'	315°16.1'	N 11°35.3'	315°19.1'	N 11°55.8'	315°22.1'	N 12°16.0'	315°24.9'	N 12°36.1'	315°27.6'	N 12°55.9'
10	330°13.0'	N 11°15.6'	330°16.2'	N 11°36.2'	330°19.2'	N 11°56.6'	330°22.2'	N 12°16.9'	330°25.0'	N 12°36.9'	330°27.7'	N 12°56.7'
11	345°13.2'	N 11°16.4'	345°16.3'	N 11°37.1'	345°19.4'	N 11°57.5'	345°22.3'	N 12°17.7'	345°25.1'	N 12°37.7'	345°27.8'	N 12°57.5'
12	0°13.3'	N 11°17.3'	0°16.5'	N 11°37.9'	0°19.5'	N 11°58.3'	0°22.4'	N 12°18.5'	0°25.2'	N 12°38.5'	0°28.0'	N 12°58.3'
13	15°13.4'	N 11°18.2'	15°16.6'	N 11°38.8'	15°19.6'	N 11°59.2'	15°22.5'	N 12°19.4'	15°25.4'	N 12°39.4'	15°28.1'	N 12°59.2'
14	30°13.6'	N 11°19.0'	30°16.7'	N 11°39.6'	30°19.7'	N 12°00.0'	30°22.7'	N 12°20.2'	30°25.5'	N 12°40.2'	30°28.2'	N 13°00.0'
15	45°13.7'	N 11°19.9'	45°16.8'	N 11°40.5'	45°19.9'	N 12°00.9'	45°22.8'	N 12°21.0'	45°25.6'	N 12°41.0'	45°28.3'	N 13°00.8'
16	60°13.8'	N 11°20.8'	60°17.0'	N 11°41.3'	60°20.0'	N 12°01.7'	60°22.9'	N 12°21.9'	60°25.7'	N 12°41.9'	60°28.4'	N 13°01.6'
17	75°14.0'	N 11°21.6'	75°17.1'	N 11°42.2'	75°20.1'	N 12°02.5'	75°23.0'	N 12°22.7'	75°25.8'	N 12°42.7'	75°28.5'	N 13°02.4'
18	90°14.1'	N 11°22.5'	90°17.2'	N 11°43.0'	90°20.2'	N 12°03.4'	90°23.1'	N 12°23.6'	90°25.9'	N 12°43.5'	90°28.6'	N 13°03.3'
19	105°14.2'	N 11°23.3'	105°17.4'	N 11°43.9'	105°20.4'	N 12°04.2'	105°23.3'	N 12°24.4'	105°26.0'	N 12°44.3'	105°28.7'	N 13°04.1'
20	120°14.4'	N 11°24.2'	120°17.5'	N 11°44.7'	120°20.5'	N 12°05.1'	120°23.4'	N 12°25.2'	120°26.2'	N 12°45.2'	120°28.8'	N 13°04.9'
21	135°14.5'	N 11°25.1'	135°17.6'	N 11°45.6'	135°20.6'	N 12°05.9'	135°23.5'	N 12°26.1'	135°26.3'	N 12°46.0'	135°28.9'	N 13°05.7'
22	150°14.6'	N 11°25.9'	150°17.7'	N 11°46.4'	150°20.7'	N 12°06.8'	150°23.6'	N 12°26.9'	150°26.4'	N 12°46.8'	150°29.0'	N 13°06.5'
23	165°14.8'	N 11°26.8'	165°17.9'	N 11°47.3'	165°20.9'	N 12°07.6'	165°23.7'	N 12°27.7'	165°26.5'	N 12°47.6'	165°29.2'	N 13°07.3'
Zeitgl. 0h / 12h	+00:47 / +00:53		+01:00 / +01:06		+01:12 / +01:18		+01:24 / +01:30		+01:35 / +01:41		+01:46 / +01:52	
Kulmination UT	11:59:07		11:58:54		11:58:42		11:58:30		11:58:19		11:58:08	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Do 25.04.		Fr 26.04.		Sa 27.04.		So 28.04.		Mo 29.04.		Di 30.04.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°29.3'	N 13°08.2'	180°31.8'	N 13°27.6'	180°34.2'	N 13°46.9'	180°36.5'	N 14°05.9'	180°38.6'	N 14°24.7'	180°40.6'	N 14°43.3'
01	195°29.4'	N 13°09.0'	195°31.9'	N 13°28.4'	195°34.3'	N 13°47.7'	195°36.6'	N 14°06.7'	195°38.7'	N 14°25.5'	195°40.7'	N 14°44.1'
02	210°29.5'	N 13°09.8'	210°32.0'	N 13°29.3'	210°34.4'	N 13°48.5'	210°36.6'	N 14°07.5'	210°38.8'	N 14°26.3'	210°40.8'	N 14°44.8'
03	225°29.6'	N 13°10.6'	225°32.1'	N 13°30.1'	225°34.5'	N 13°49.3'	225°36.7'	N 14°08.3'	225°38.9'	N 14°27.1'	225°40.9'	N 14°45.6'
04	240°29.7'	N 13°11.4'	240°32.2'	N 13°30.9'	240°34.6'	N 13°50.1'	240°36.8'	N 14°09.1'	240°39.0'	N 14°27.8'	240°41.0'	N 14°46.4'
05	255°29.8'	N 13°12.2'	255°32.3'	N 13°31.7'	255°34.7'	N 13°50.9'	255°36.9'	N 14°09.9'	255°39.0'	N 14°28.6'	255°41.0'	N 14°47.1'
06	270°29.9'	N 13°13.1'	270°32.4'	N 13°32.5'	270°34.8'	N 13°51.7'	270°37.0'	N 14°10.6'	270°39.1'	N 14°29.4'	270°41.1'	N 14°47.9'
07	285°30.0'	N 13°13.9'	285°32.5'	N 13°33.3'	285°34.9'	N 13°52.5'	285°37.1'	N 14°11.4'	285°39.2'	N 14°30.2'	285°41.2'	N 14°48.7'
08	300°30.1'	N 13°14.7'	300°32.6'	N 13°34.1'	300°35.0'	N 13°53.3'	300°37.2'	N 14°12.2'	300°39.3'	N 14°30.9'	300°41.3'	N 14°49.4'
09	315°30.2'	N 13°15.5'	315°32.7'	N 13°34.9'	315°35.1'	N 13°54.1'	315°37.3'	N 14°13.0'	315°39.4'	N 14°31.7'	315°41.4'	N 14°50.2'
10	330°30.3'	N 13°16.3'	330°32.8'	N 13°35.7'	330°35.2'	N 13°54.9'	330°37.4'	N 14°13.8'	330°39.5'	N 14°32.5'	330°41.4'	N 14°50.9'
11	345°30.4'	N 13°17.1'	345°32.9'	N 13°36.5'	345°35.2'	N 13°55.6'	345°37.5'	N 14°14.6'	345°39.6'	N 14°33.3'	345°41.5'	N 14°51.7'
12	0°30.5'	N 13°17.9'	0°33.0'	N 13°37.3'	0°35.3'	N 13°56.4'	0°37.6'	N 14°15.4'	0°39.6'	N 14°34.0'	0°41.6'	N 14°52.5'
13	15°30.6'	N 13°18.7'	15°33.1'	N 13°38.1'	15°35.4'	N 13°57.2'	15°37.6'	N 14°16.1'	15°39.7'	N 14°34.8'	15°41.7'	N 14°53.2'
14	30°30.7'	N 13°19.6'	30°33.2'	N 13°38.9'	30°35.5'	N 13°58.0'	30°37.7'	N 14°16.9'	30°39.8'	N 14°35.6'	30°41.8'	N 14°54.0'
15	45°30.9'	N 13°20.4'	45°33.3'	N 13°39.7'	45°35.6'	N 13°58.8'	45°37.8'	N 14°17.7'	45°39.9'	N 14°36.4'	45°41.8'	N 14°54.8'
16	60°31.0'	N 13°21.2'	60°33.4'	N 13°40.5'	60°35.7'	N 13°59.6'	60°37.9'	N 14°18.5'	60°40.0'	N 14°37.1'	60°41.9'	N 14°55.5'
17	75°31.1'	N 13°22.0'	75°33.5'	N 13°41.3'	75°35.8'	N 14°00.4'	75°38.0'	N 14°19.3'	75°40.1'	N 14°37.9'	75°42.0'	N 14°56.3'
18	90°31.2'	N 13°22.8'	90°33.6'	N 13°42.1'	90°35.9'	N 14°01.2'	90°38.1'	N 14°20.0'	90°40.1'	N 14°38.7'	90°42.1'	N 14°57.0'
19	105°31.3'	N 13°23.6'	105°33.7'	N 13°42.9'	105°36.0'	N 14°02.0'	105°38.2'	N 14°20.8'	105°40.2'	N 14°39.4'	105°42.1'	N 14°57.8'
20	120°31.4'	N 13°24.4'	120°33.8'	N 13°43.7'	120°36.1'	N 14°02.8'	120°38.3'	N 14°21.6'	120°40.3'	N 14°40.2'	120°42.2'	N 14°58.6'
21	135°31.5'	N 13°25.2'	135°33.9'	N 13°44.5'	135°36.2'	N 14°03.6'	135°38.4'	N 14°22.4'	135°40.4'	N 14°41.0'	135°42.3'	N 14°59.3'
22	150°31.6'	N 13°26.0'	150°34.0'	N 13°45.3'	150°36.3'	N 14°04.4'	150°38.4'	N 14°23.2'	150°40.5'	N 14°41.7'	150°42.4'	N 15°00.1'
23	165°31.7'	N 13°26.8'	165°34.1'	N 13°46.1'	165°36.4'	N 14°05.1'	165°38.5'	N 14°23.9'	165°40.6'	N 14°42.5'	165°42.4'	N 15°00.8'
Zeitgl. 0h / 12h	+01:57 / +02:02		+02:07 / +02:12		+02:17 / +02:21		+02:26 / +02:30		+02:34 / +02:39		+02:43 / +02:46	
Kulmination UT	11:57:58		11:57:48		11:57:39		11:57:30		11:57:21		11:57:14	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

2030

Mai

Greenwich-Stundenwinkel und Deklination der Sonne · stündlich · Weltzeit (UT)

	Mi 01.05.		Do 02.05.		Fr 03.05.		Sa 04.05.		So 05.05.		Mo 06.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°42.5'	N 15°01.6'	180°44.3'	N 15°19.7'	180°45.9'	N 15°37.5'	180°47.4'	N 15°55.0'	180°48.7'	N 16°12.3'	180°49.9'	N 16°29.4'
01	195°42.6'	N 15°02.4'	195°44.4'	N 15°20.4'	195°46.0'	N 15°38.2'	195°47.4'	N 15°55.8'	195°48.8'	N 16°13.0'	195°50.0'	N 16°30.1'
02	210°42.7'	N 15°03.1'	210°44.4'	N 15°21.2'	210°46.0'	N 15°39.0'	210°47.5'	N 15°56.5'	210°48.8'	N 16°13.8'	210°50.0'	N 16°30.8'
03	225°42.8'	N 15°03.9'	225°44.5'	N 15°21.9'	225°46.1'	N 15°39.7'	225°47.6'	N 15°57.2'	225°48.9'	N 16°14.5'	225°50.1'	N 16°31.5'
04	240°42.8'	N 15°04.6'	240°44.6'	N 15°22.7'	240°46.2'	N 15°40.4'	240°47.6'	N 15°57.9'	240°48.9'	N 16°15.2'	240°50.1'	N 16°32.2'
05	255°42.9'	N 15°05.4'	255°44.6'	N 15°23.4'	255°46.2'	N 15°41.2'	255°47.7'	N 15°58.7'	255°49.0'	N 16°15.9'	255°50.2'	N 16°32.9'
06	270°43.0'	N 15°06.1'	270°44.7'	N 15°24.1'	270°46.3'	N 15°41.9'	270°47.7'	N 15°59.4'	270°49.0'	N 16°16.6'	270°50.2'	N 16°33.6'
07	285°43.1'	N 15°06.9'	285°44.8'	N 15°24.9'	285°46.3'	N 15°42.6'	285°47.8'	N 16°00.1'	285°49.1'	N 16°17.3'	285°50.3'	N 16°34.3'
08	300°43.1'	N 15°07.7'	300°44.8'	N 15°25.6'	300°46.4'	N 15°43.4'	300°47.9'	N 16°00.8'	300°49.2'	N 16°18.0'	300°50.3'	N 16°35.0'
09	315°43.2'	N 15°08.4'	315°44.9'	N 15°26.4'	315°46.5'	N 15°44.1'	315°47.9'	N 16°01.6'	315°49.2'	N 16°18.7'	315°50.4'	N 16°35.7'
10	330°43.3'	N 15°09.2'	330°45.0'	N 15°27.1'	330°46.5'	N 15°44.8'	330°48.0'	N 16°02.3'	330°49.3'	N 16°19.5'	330°50.4'	N 16°36.4'
11	345°43.3'	N 15°09.9'	345°45.0'	N 15°27.9'	345°46.6'	N 15°45.6'	345°48.0'	N 16°03.0'	345°49.3'	N 16°20.2'	345°50.4'	N 16°37.1'
12	0°43.4'	N 15°10.7'	0°45.1'	N 15°28.6'	0°46.7'	N 15°46.3'	0°48.1'	N 16°03.7'	0°49.4'	N 16°20.9'	0°50.5'	N 16°37.8'
13	15°43.5'	N 15°11.4'	15°45.2'	N 15°29.3'	15°46.7'	N 15°47.0'	15°48.1'	N 16°04.4'	15°49.4'	N 16°21.6'	15°50.5'	N 16°38.5'
14	30°43.6'	N 15°12.2'	30°45.2'	N 15°30.1'	30°46.8'	N 15°47.8'	30°48.2'	N 16°05.2'	30°49.5'	N 16°22.3'	30°50.6'	N 16°39.2'
15	45°43.6'	N 15°12.9'	45°45.3'	N 15°30.8'	45°46.8'	N 15°48.5'	45°48.2'	N 16°05.9'	45°49.5'	N 16°23.0'	45°50.6'	N 16°39.8'
16	60°43.7'	N 15°13.7'	60°45.4'	N 15°31.6'	60°46.9'	N 15°49.2'	60°48.3'	N 16°06.6'	60°49.6'	N 16°23.7'	60°50.7'	N 16°40.5'
17	75°43.8'	N 15°14.4'	75°45.4'	N 15°32.3'	75°47.0'	N 15°49.9'	75°48.4'	N 16°07.3'	75°49.6'	N 16°24.4'	75°50.7'	N 16°41.2'
18	90°43.9'	N 15°15.2'	90°45.5'	N 15°33.1'	90°47.0'	N 15°50.7'	90°48.4'	N 16°08.0'	90°49.7'	N 16°25.1'	90°50.8'	N 16°41.9'
19	105°43.9'	N 15°15.9'	105°45.6'	N 15°33.8'	105°47.1'	N 15°51.4'	105°48.5'	N 16°08.7'	105°49.7'	N 16°25.8'	105°50.8'	N 16°42.6'
20	120°44.0'	N 15°16.7'	120°45.6'	N 15°34.5'	120°47.1'	N 15°52.1'	120°48.5'	N 16°09.5'	120°49.7'	N 16°26.5'	120°50.8'	N 16°43.3'
21	135°44.1'	N 15°17.4'	135°45.7'	N 15°35.3'	135°47.2'	N 15°52.9'	135°48.6'	N 16°10.2'	135°49.8'	N 16°27.2'	135°50.9'	N 16°44.0'
22	150°44.1'	N 15°18.2'	150°45.8'	N 15°36.0'	150°47.3'	N 15°53.6'	150°48.6'	N 16°10.9'	150°49.8'	N 16°27.9'	150°50.9'	N 16°44.7'
23	165°44.2'	N 15°18.9'	165°45.8'	N 15°36.7'	165°47.3'	N 15°54.3'	165°48.7'	N 16°11.6'	165°49.9'	N 16°28.6'	165°51.0'	N 16°45.4'
Zeitgl. 0h / 12h	+02:50 / +02:54		+02:57 / +03:00		+03:04 / +03:07		+03:10 / +03:12		+03:15 / +03:17		+03:20 / +03:22	
Kulmination UT	11:57:06		11:57:00		11:56:53		11:56:48		11:56:43		11:56:38	
Halbmesser	15.9'		15.9'		15.9'		15.9'		15.9'		15.9'	

	Di 07.05.		Mi 08.05.		Do 09.05.		Fr 10.05.		Sa 11.05.		So 12.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°51.0'	N 16°46.1'	180°51.9'	N 17°02.6'	180°52.7'	N 17°18.7'	180°53.4'	N 17°34.6'	180°53.9'	N 17°50.2'	180°54.2'	N 18°05.5'
01	195°51.0'	N 16°46.8'	195°52.0'	N 17°03.2'	195°52.7'	N 17°19.4'	195°53.4'	N 17°35.3'	195°53.9'	N 17°50.9'	195°54.2'	N 18°06.2'
02	210°51.1'	N 16°47.5'	210°52.0'	N 17°03.9'	210°52.8'	N 17°20.1'	210°53.4'	N 17°36.0'	210°53.9'	N 17°51.5'	210°54.2'	N 18°06.8'
03	225°51.1'	N 16°48.2'	225°52.0'	N 17°04.6'	225°52.8'	N 17°20.8'	225°53.4'	N 17°36.6'	225°53.9'	N 17°52.2'	225°54.2'	N 18°07.4'
04	240°51.2'	N 16°48.9'	240°52.1'	N 17°05.3'	240°52.8'	N 17°21.4'	240°53.5'	N 17°37.3'	240°53.9'	N 17°52.8'	240°54.3'	N 18°08.1'
05	255°51.2'	N 16°49.6'	255°52.1'	N 17°06.0'	255°52.9'	N 17°22.1'	255°53.5'	N 17°37.9'	255°53.9'	N 17°53.5'	255°54.3'	N 18°08.7'
06	270°51.3'	N 16°50.2'	270°52.1'	N 17°06.6'	270°52.9'	N 17°22.7'	270°53.5'	N 17°38.6'	270°54.0'	N 17°54.1'	270°54.3'	N 18°09.3'
07	285°51.3'	N 16°50.9'	285°52.2'	N 17°07.3'	285°52.9'	N 17°23.4'	285°53.5'	N 17°39.2'	285°54.0'	N 17°54.7'	285°54.3'	N 18°09.9'
08	300°51.3'	N 16°51.6'	300°52.2'	N 17°08.0'	300°52.9'	N 17°24.1'	300°53.5'	N 17°39.9'	300°54.0'	N 17°55.4'	300°54.3'	N 18°10.6'
09	315°51.4'	N 16°52.3'	315°52.2'	N 17°08.7'	315°53.0'	N 17°24.7'	315°53.6'	N 17°40.5'	315°54.0'	N 17°56.0'	315°54.3'	N 18°11.2'
10	330°51.4'	N 16°53.0'	330°52.3'	N 17°09.3'	330°53.0'	N 17°25.4'	330°53.6'	N 17°41.2'	330°54.0'	N 17°56.7'	330°54.3'	N 18°11.8'
11	345°51.4'	N 16°53.7'	345°52.3'	N 17°10.0'	345°53.0'	N 17°26.1'	345°53.6'	N 17°41.8'	345°54.0'	N 17°57.3'	345°54.3'	N 18°12.5'
12	0°51.5'	N 16°54.4'	0°52.3'	N 17°10.7'	0°53.1'	N 17°26.7'	0°53.6'	N 17°42.5'	0°54.1'	N 17°57.9'	0°54.3'	N 18°13.1'
13	15°51.5'	N 16°55.1'	15°52.4'	N 17°11.4'	15°53.1'	N 17°27.4'	15°53.6'	N 17°43.1'	15°54.1'	N 17°58.6'	15°54.3'	N 18°13.7'
14	30°51.6'	N 16°55.7'	30°52.4'	N 17°12.0'	30°53.1'	N 17°28.1'	30°53.7'	N 17°43.8'	30°54.1'	N 17°59.2'	30°54.4'	N 18°14.3'
15	45°51.6'	N 16°56.4'	45°52.4'	N 17°12.7'	45°53.1'	N 17°28.7'	45°53.7'	N 17°44.4'	45°54.1'	N 17°59.8'	45°54.4'	N 18°14.9'
16	60°51.6'	N 16°57.1'	60°52.5'	N 17°13.4'	60°53.2'	N 17°29.4'	60°53.7'	N 17°45.1'	60°54.1'	N 18°00.5'	60°54.4'	N 18°15.6'
17	75°51.7'	N 16°57.8'	75°52.5'	N 17°14.1'	75°53.2'	N 17°30.0'	75°53.7'	N 17°45.7'	75°54.1'	N 18°01.1'	75°54.4'	N 18°16.2'
18	90°51.7'	N 16°58.5'	90°52.5'	N 17°14.7'	90°53.2'	N 17°30.7'	90°53.7'	N 17°46.4'	90°54.1'	N 18°01.7'	90°54.4'	N 18°16.8'
19	105°51.8'	N 16°59.2'	105°52.6'	N 17°15.4'	105°53.2'	N 17°31.4'	105°53.8'	N 17°47.0'	105°54.2'	N 18°02.4'	105°54.4'	N 18°17.4'
20	120°51.8'	N 16°59.8'	120°52.6'	N 17°16.1'	120°53.3'	N 17°32.0'	120°53.8'	N 17°47.7'	120°54.2'	N 18°03.0'	120°54.4'	N 18°18.1'
21	135°51.8'	N 17°00.5'	135°52.6'	N 17°16.7'	135°53.3'	N 17°32.7'	135°53.8'	N 17°48.3'	135°54.2'	N 18°03.6'	135°54.4'	N 18°18.7'
22	150°51.9'	N 17°01.2'	150°52.7'	N 17°17.4'	150°53.3'	N 17°33.3'	150°53.8'	N 17°49.0'	150°54.2'	N 18°04.3'	150°54.4'	N 18°19.3'
23	165°51.9'	N 17°01.9'	165°52.7'	N 17°18.1'	165°53.3'	N 17°34.0'	165°53.8'	N 17°49.6'	165°54.2'	N 18°04.9'	165°54.4'	N 18°19.9'
Zeitgl. 0h / 12h	+03:24 / +03:26		+03:28 / +03:29		+03:31 / +03:32		+03:33 / +03:35		+03:35 / +03:36		+03:37 / +03:37	
Kulmination UT	11:56:34		11:56:31		11:56:28		11:56:25		11:56:24		11:56:23	
Halbmesser	15.9'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Mo 13.05.		Di 14.05.		Mi 15.05.		Do 16.05.		Fr 17.05.		Sa 18.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°54.4'	N 18°20.5'	180°54.5'	N 18°35.2'	180°54.4'	N 18°49.6'	180°54.2'	N 19°03.6'	180°53.9'	N 19°17.4'	180°53.4'	N 19°30.8'
01	195°54.4'	N 18°21.2'	195°54.5'	N 18°35.8'	195°54.4'	N 18°50.2'	195°54.2'	N 19°04.2'	195°53.8'	N 19°17.9'	195°53.3'	N 19°31.3'
02	210°54.4'	N 18°21.8'	210°54.5'	N 18°36.4'	210°54.4'	N 18°50.8'	210°54.2'	N 19°04.8'	210°53.8'	N 19°18.5'	210°53.3'	N 19°31.9'
03	225°54.4'	N 18°22.4'	225°54.5'	N 18°37.0'	225°54.4'	N 18°51.4'	225°54.2'	N 19°05.4'	225°53.8'	N 19°19.1'	225°53.3'	N 19°32.4'
04	240°54.4'	N 18°23.0'	240°54.5'	N 18°37.6'	240°54.4'	N 18°52.0'	240°54.2'	N 19°06.0'	240°53.8'	N 19°19.6'	240°53.3'	N 19°33.0'
05	255°54.5'	N 18°23.6'	255°54.5'	N 18°38.2'	255°54.4'	N 18°52.5'	255°54.2'	N 19°06.5'	255°53.8'	N 19°20.2'	255°53.3'	N 19°33.5'
06	270°54.5'	N 18°24.2'	270°54.5'	N 18°38.8'	270°54.4'	N 18°53.1'	270°54.1'	N 19°07.1'	270°53.8'	N 19°20.8'	270°53.2'	N 19°34.1'
07	285°54.5'	N 18°24.9'	285°54.5'	N 18°39.4'	285°54.4'	N 18°53.7'	285°54.1'	N 19°07.7'	285°53.7'	N 19°21.3'	285°53.2'	N 19°34.6'
08	300°54.5'	N 18°25.5'	300°54.5'	N 18°40.0'	300°54.4'	N 18°54.3'	300°54.1'	N 19°08.3'	300°53.7'	N 19°21.9'	300°53.2'	N 19°35.2'
09	315°54.5'	N 18°26.1'	315°54.5'	N 18°40.6'	315°54.4'	N 18°54.9'	315°54.1'	N 19°08.8'	315°53.7'	N 19°22.4'	315°53.2'	N 19°35.7'
10	330°54.5'	N 18°26.7'	330°54.5'	N 18°41.2'	330°54.4'	N 18°55.5'	330°54.1'	N 19°09.4'	330°53.7'	N 19°23.0'	330°53.1'	N 19°36.3'
11	345°54.5'	N 18°27.3'	345°54.5'	N 18°41.8'	345°54.3'	N 18°56.1'	345°54.1'	N 19°10.0'	345°53.7'	N 19°23.6'	345°53.1'	N 19°36.8'
12	0°54.5'	N 18°27.9'	0°54.5'	N 18°42.4'	0°54.3'	N 18°56.7'	0°54.1'	N 19°10.6'	0°53.6'	N 19°24.1'	0°53.1'	N 19°37.4'
13	15°54.5'	N 18°28.5'	15°54.5'	N 18°43.0'	15°54.3'	N 18°57.2'	15°54.0'	N 19°11.1'	15°53.6'	N 19°24.7'	15°53.0'	N 19°37.9'
14	30°54.5'	N 18°29.1'	30°54.5'	N 18°43.6'	30°54.3'	N 18°57.8'	30°54.0'	N 19°11.7'	30°53.6'	N 19°25.2'	30°53.0'	N 19°38.5'
15	45°54.5'	N 18°29.8'	45°54.5'	N 18°44.2'	45°54.3'	N 18°58.4'	45°54.0'	N 19°12.3'	45°53.6'	N 19°25.8'	45°53.0'	N 19°39.0'
16	60°54.5'	N 18°30.4'	60°54.5'	N 18°44.8'	60°54.3'	N 18°59.0'	60°54.0'	N 19°12.8'	60°53.6'	N 19°26.4'	60°53.0'	N 19°39.5'
17	75°54.5'	N 18°31.0'	75°54.5'	N 18°45.4'	75°54.3'	N 18°59.6'	75°54.0'	N 19°13.4'	75°53.5'	N 19°26.9'	75°52.9'	N 19°40.1'
18	90°54.5'	N 18°31.6'	90°54.5'	N 18°46.0'	90°54.3'	N 19°00.2'	90°54.0'	N 19°14.0'	90°53.5'	N 19°27.5'	90°52.9'	N 19°40.6'
19	105°54.5'	N 18°32.2'	105°54.5'	N 18°46.6'	105°54.3'	N 19°00.7'	105°53.9'	N 19°14.5'	105°53.5'	N 19°28.0'	105°52.9'	N 19°41.2'
20	120°54.5'	N 18°32.8'	120°54.4'	N 18°47.2'	120°54.3'	N 19°01.3'	120°53.9'	N 19°15.1'	120°53.5'	N 19°28.6'	120°52.9'	N 19°41.7'
21	135°54.5'	N 18°33.4'	135°54.4'	N 18°47.8'	135°54.3'	N 19°01.9'	135°53.9'	N 19°15.7'	135°53.4'	N 19°29.1'	135°52.8'	N 19°42.2'
22	150°54.5'	N 18°34.0'	150°54.4'	N 18°48.4'	150°54.2'	N 19°02.5'	150°53.9'	N 19°16.2'	150°53.4'	N 19°29.7'	150°52.8'	N 19°42.8'
23	165°54.5'	N 18°34.6'	165°54.4'	N 18°49.0'	165°54.2'	N 19°03.1'	165°53.9'	N 19°16.8'	165°53.4'	N 19°30.2'	165°52.8'	N 19°43.3'
Zeitgl. 0h / 12h	+03:38 / +03:38		+03:38 / +03:38		+03:38 / +03:37		+03:37 / +03:36		+03:35 / +03:35		+03:33 / +03:32	
Kulmination UT	11:56:22		11:56:22		11:56:23		11:56:24		11:56:25		11:56:28	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	So 19.05.		Mo 20.05.		Di 21.05.		Mi 22.05.		Do 23.05.		Fr 24.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°52.7'	N 19°43.9'	180°52.0'	N 19°56.6'	180°51.1'	N 20°09.0'	180°50.0'	N 20°21.0'	180°48.9'	N 20°32.7'	180°47.6'	N 20°44.1'
01	195°52.7'	N 19°44.4'	195°51.9'	N 19°57.1'	195°51.0'	N 20°09.5'	195°50.0'	N 20°21.5'	195°48.8'	N 20°33.2'	195°47.5'	N 20°44.6'
02	210°52.7'	N 19°44.9'	210°51.9'	N 19°57.6'	210°51.0'	N 20°10.0'	210°49.9'	N 20°22.0'	210°48.8'	N 20°33.7'	210°47.5'	N 20°45.0'
03	225°52.7'	N 19°45.5'	225°51.9'	N 19°58.2'	225°50.9'	N 20°10.5'	225°49.9'	N 20°22.5'	225°48.7'	N 20°34.2'	225°47.4'	N 20°45.5'
04	240°52.6'	N 19°46.0'	240°51.8'	N 19°58.7'	240°50.9'	N 20°11.0'	240°49.9'	N 20°23.0'	240°48.7'	N 20°34.7'	240°47.3'	N 20°45.9'
05	255°52.6'	N 19°46.5'	255°51.8'	N 19°59.2'	255°50.9'	N 20°11.5'	255°49.8'	N 20°23.5'	255°48.6'	N 20°35.1'	255°47.3'	N 20°46.4'
06	270°52.6'	N 19°47.1'	270°51.8'	N 19°59.7'	270°50.8'	N 20°12.0'	270°49.8'	N 20°24.0'	270°48.6'	N 20°35.6'	270°47.2'	N 20°46.9'
07	285°52.5'	N 19°47.6'	285°51.7'	N 20°00.2'	285°50.8'	N 20°12.5'	285°49.7'	N 20°24.5'	285°48.5'	N 20°36.1'	285°47.2'	N 20°47.3'
08	300°52.5'	N 19°48.1'	300°51.7'	N 20°00.8'	300°50.7'	N 20°13.0'	300°49.7'	N 20°25.0'	300°48.5'	N 20°36.6'	300°47.1'	N 20°47.8'
09	315°52.5'	N 19°48.7'	315°51.7'	N 20°01.3'	315°50.7'	N 20°13.5'	315°49.6'	N 20°25.5'	315°48.4'	N 20°37.0'	315°47.1'	N 20°48.3'
10	330°52.4'	N 19°49.2'	330°51.6'	N 20°01.8'	330°50.7'	N 20°14.1'	330°49.6'	N 20°26.0'	330°48.3'	N 20°37.5'	330°47.0'	N 20°48.7'
11	345°52.4'	N 19°49.7'	345°51.6'	N 20°02.3'	345°50.6'	N 20°14.6'	345°49.5'	N 20°26.4'	345°48.3'	N 20°38.0'	345°46.9'	N 20°49.2'
12	0°52.4'	N 19°50.3'	0°51.5'	N 20°02.8'	0°50.6'	N 20°15.1'	0°49.5'	N 20°26.9'	0°48.2'	N 20°38.5'	0°46.9'	N 20°49.6'
13	15°52.3'	N 19°50.8'	15°51.5'	N 20°03.4'	15°50.5'	N 20°15.6'	15°49.4'	N 20°27.4'	15°48.2'	N 20°38.9'	15°46.8'	N 20°50.1'
14	30°52.3'	N 19°51.3'	30°51.5'	N 20°03.9'	30°50.5'	N 20°16.1'	30°49.4'	N 20°27.9'	30°48.1'	N 20°39.4'	30°46.8'	N 20°50.5'
15	45°52.3'	N 19°51.9'	45°51.4'	N 20°04.4'	45°50.4'	N 20°16.6'	45°49.3'	N 20°28.4'	45°48.1'	N 20°39.9'	45°46.7'	N 20°51.0'
16	60°52.2'	N 19°52.4'	60°51.4'	N 20°04.9'	60°50.4'	N 20°17.1'	60°49.3'	N 20°28.9'	60°48.0'	N 20°40.3'	60°46.6'	N 20°51.5'
17	75°52.2'	N 19°52.9'	75°51.3'	N 20°05.4'	75°50.4'	N 20°17.6'	75°49.2'	N 20°29.4'	75°48.0'	N 20°40.8'	75°46.6'	N 20°51.9'
18	90°52.2'	N 19°53.4'	90°51.3'	N 20°05.9'	90°50.3'	N 20°18.1'	90°49.2'	N 20°29.8'	90°47.9'	N 20°41.3'	90°46.5'	N 20°52.4'
19	105°52.1'	N 19°54.0'	105°51.3'	N 20°06.4'	105°50.3'	N 20°18.6'	105°49.1'	N 20°30.3'	105°47.9'	N 20°41.8'	105°46.5'	N 20°52.8'
20	120°52.1'	N 19°54.5'	120°51.2'	N 20°06.9'	120°50.2'	N 20°19.1'	120°49.1'	N 20°30.8'	120°47.8'	N 20°42.2'	120°46.4'	N 20°53.3'
21	135°52.1'	N 19°55.0'	135°51.2'	N 20°07.5'	135°50.2'	N 20°19.6'	135°49.0'	N 20°31.3'	135°47.7'	N 20°42.7'	135°46.3'	N 20°53.7'
22	150°52.0'	N 19°55.5'	150°51.2'	N 20°08.0'	150°50.1'	N 20°20.0'	150°49.0'	N 20°31.8'	150°47.7'	N 20°43.2'	150°46.3'	N 20°54.2'
23	165°52.0'	N 19°56.1'	165°51.1'	N 20°08.5'	165°50.1'	N 20°20.5'	165°48.9'	N 20°32.3'	165°47.6'	N 20°43.6'	165°46.2'	N 20°54.6'
Zeitgl. 0h / 12h	+03:31 / +03:29		+03:28 / +03:26		+03:24 / +03:22		+03:20 / +03:18		+03:15 / +03:13		+03:10 / +03:08	
Kulmination UT	11:56:31		11:56:34		11:56:38		11:56:42		11:56:47		11:56:52	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

	Sa 25.05.		So 26.05.		Mo 27.05.		Di 28.05.		Mi 29.05.		Do 30.05.	
UT	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec	Grt	Dec
00	180°46.2'	N 20°55.1'	180°44.6'	N 21°05.7'	180°42.9'	N 21°16.0'	180°41.2'	N 21°25.9'	180°39.3'	N 21°35.4'	180°37.3'	N 21°44.6'
01	195°46.1'	N 20°55.5'	195°44.5'	N 21°06.2'	195°42.9'	N 21°16.4'	195°41.1'	N 21°26.3'	195°39.2'	N 21°35.8'	195°37.2'	N 21°44.9'
02	210°46.0'	N 20°56.0'	210°44.5'	N 21°06.6'	210°42.8'	N 21°16.8'	210°41.0'	N 21°26.7'	210°39.1'	N 21°36.2'	210°37.1'	N 21°45.3'
03	225°46.0'	N 20°56.4'	225°44.4'	N 21°07.0'	225°42.7'	N 21°17.2'	225°40.9'	N 21°27.1'	225°39.0'	N 21°36.6'	225°37.0'	N 21°45.7'
04	240°45.9'	N 20°56.9'	240°44.3'	N 21°07.5'	240°42.7'	N 21°17.7'	240°40.9'	N 21°27.5'	240°38.9'	N 21°37.0'	240°36.9'	N 21°46.1'
05	255°45.8'	N 20°57.3'	255°44.3'	N 21°07.9'	255°42.6'	N 21°18.1'	255°40.8'	N 21°27.9'	255°38.9'	N 21°37.4'	255°36.8'	N 21°46.4'
06	270°45.8'	N 20°57.8'	270°44.2'	N 21°08.3'	270°42.5'	N 21°18.5'	270°40.7'	N 21°28.3'	270°38.8'	N 21°37.7'	270°36.7'	N 21°46.8'
07	285°45.7'	N 20°58.2'	285°44.1'	N 21°08.8'	285°42.4'	N 21°18.9'	285°40.6'	N 21°28.7'	285°38.7'	N 21°38.1'	285°36.6'	N 21°47.2'
08	300°45.7'	N 20°58.7'	300°44.1'	N 21°09.2'	300°42.4'	N 21°19.3'	300°40.5'	N 21°29.1'	300°38.6'	N 21°38.5'	300°36.6'	N 21°47.5'
09	315°45.6'	N 20°59.1'	315°44.0'	N 21°09.6'	315°42.3'	N 21°19.7'	315°40.5'	N 21°29.5'	315°38.5'	N 21°38.9'	315°36.5'	N 21°47.9'
10	330°45.5'	N 20°59.6'	330°43.9'	N 21°10.0'	330°42.2'	N 21°20.2'	330°40.4'	N 21°29.9'	330°38.4'	N 21°39.3'	330°36.4'	N 21°48.3'
11	345°45.5'	N 21°00.0'	345°43.9'	N 21°10.5'	345°42.1'	N 21°20.6'	345°40.3'	N 21°30.3'	345°38.4'	N 21°39.7'	345°36.3'	N 21°48.6'
12	0°45.4'	N 21°00.4'	0°43.8'	N 21°10.9'	0°42.1'	N 21°21.0'	0°40.2'	N 21°30.7'	0°38.3'	N 21°40.0'	0°36.2'	N 21°49.0'
13	15°45.3'	N 21°00.9'	15°43.7'	N 21°11.3'	15°42.0'	N 21°21.4'	15°40.1'	N 21°31.1'	15°38.2'	N 21°40.4'	15°36.1'	N 21°49.4'
14	30°45.3'	N 21°01.3'	30°43.7'	N 21°11.8'	30°41.9'	N 21°21.8'	30°40.1'	N 21°31.5'	30°38.1'	N 21°40.8'	30°36.0'	N 21°49.7'
15	45°45.2'	N 21°01.8'	45°43.6'	N 21°12.2'	45°41.8'	N 21°22.2'	45°40.0'	N 21°31.9'	45°38.0'	N 21°41.2'	45°35.9'	N 21°50.1'
16	60°45.1'	N 21°02.2'	60°43.5'	N 21°12.6'	60°41.8'	N 21°22.6'	60°39.9'	N 21°32.3'	60°37.9'	N 21°41.6'	60°35.9'	N 21°50.5'
17	75°45.1'	N 21°02.7'	75°43.4'	N 21°13.0'	75°41.7'	N 21°23.0'	75°39.8'	N 21°32.7'	75°37.9'	N 21°41.9'	75°35.8'	N 21°50.8'
18	90°45.0'	N 21°03.1'	90°43.4'	N 21°13.5'	90°41.6'	N 21°23.4'	90°39.7'	N 21°33.1'	90°37.8'	N 21°42.3'	90°35.7'	N 21°51.2'
19	105°44.9'	N 21°03.5'	105°43.3'	N 21°13.9'	105°41.5'	N 21°23.9'	105°39.7'	N 21°33.5'	105°37.7'	N 21°42.7'	105°35.6'	N 21°51.6'
20	120°44.9'	N 21°04.0'	120°43.2'	N 21°14.3'	120°41.5'	N 21°24.3'	120°39.6'	N 21°33.9'	120°37.6'	N 21°43.1'	120°35.5'	N 21°51.9'
21	135°44.8'	N 21°04.4'	135°43.2'	N 21°14.7'	135°41.4'	N 21°24.7'	135°39.5'	N 21°34.2'	135°37.5'	N 21°43.4'	135°35.4'	N 21°52.3'
22	150°44.7'	N 21°04.8'	150°43.1'	N 21°15.1'	150°41.3'	N 21°25.1'	150°39.4'	N 21°34.6'	150°37.4'	N 21°43.8'	150°35.3'	N 21°52.6'
23	165°44.7'	N 21°05.3'	165°43.0'	N 21°15.6'	165°41.2'	N 21°25.5'	165°39.3'	N 21°35.0'	165°37.3'	N 21°44.2'	165°35.2'	N 21°53.0'
Zeitgl. 0h / 12h	+03:05 / +03:02		+02:58 / +02:55		+02:52 / +02:48		+02:45 / +02:41		+02:37 / +02:33		+02:29 / +02:25	
Kulmination UT	11:56:58		11:57:05		11:57:12		11:57:19		11:57:27		11:57:35	
Halbmesser	15.8'		15.8'		15.8'		15.8'		15.8'		15.8'	

Fr 31.05.

UT	Grt	Dec
00	180°35.1'	N 21°53.3'
01	195°35.0'	N 21°53.7'
02	210°35.0'	N 21°54.1'
03	225°34.9'	N 21°54.4'
04	240°34.8'	N 21°54.8'
05	255°34.7'	N 21°55.1'
06	270°34.6'	N 21°55.5'
07	285°34.5'	N 21°55.8'
08	300°34.4'	N 21°56.2'
09	315°34.3'	N 21°56.5'
10	330°34.2'	N 21°56.9'
11	345°34.1'	N 21°57.2'
12	0°34.0'	N 21°57.6'
13	15°33.9'	N 21°57.9'
14	30°33.9'	N 21°58.3'
15	45°33.8'	N 21°58.6'
16	60°33.7'	N 21°59.0'
17	75°33.6'	N 21°59.3'
18	90°33.5'	N 21°59.7'
19	105°33.4'	N 22°00.0'
20	120°33.3'	N 22°00.4'
21	135°33.2'	N 22°00.7'
22	150°33.1'	N 22°01.1'
23	165°33.0'	N 22°01.4'

Zeitgl. 0h / 12h +02:21 / +02:16

Kulmination UT 11:57:44

Halbmesser 15.8'

Schalttafel für die Sonne

Der Grt der Sonne wächst gleichmäßig um 15°00,0' je Stunde. Für die Minuten und Sekunden nach der vollen Stunde den Zuwachs unten ablesen und zum Stunden-Grt addieren (Minutenwert + Sekundenwert).

Minuten → Grt-Zuwachs

00	0°00.0'	10	2°30.0'	20	5°00.0'	30	7°30.0'	40	10°00.0'	50	12°30.0'
01	0°15.0'	11	2°45.0'	21	5°15.0'	31	7°45.0'	41	10°15.0'	51	12°45.0'
02	0°30.0'	12	3°00.0'	22	5°30.0'	32	8°00.0'	42	10°30.0'	52	13°00.0'
03	0°45.0'	13	3°15.0'	23	5°45.0'	33	8°15.0'	43	10°45.0'	53	13°15.0'
04	1°00.0'	14	3°30.0'	24	6°00.0'	34	8°30.0'	44	11°00.0'	54	13°30.0'
05	1°15.0'	15	3°45.0'	25	6°15.0'	35	8°45.0'	45	11°15.0'	55	13°45.0'
06	1°30.0'	16	4°00.0'	26	6°30.0'	36	9°00.0'	46	11°30.0'	56	14°00.0'
07	1°45.0'	17	4°15.0'	27	6°45.0'	37	9°15.0'	47	11°45.0'	57	14°15.0'
08	2°00.0'	18	4°30.0'	28	7°00.0'	38	9°30.0'	48	12°00.0'	58	14°30.0'
09	2°15.0'	19	4°45.0'	29	7°15.0'	39	9°45.0'	49	12°15.0'	59	14°45.0'

Sekunden → Zuwachs

00	00.0'	15	03.8'	30	07.5'	45	11.2'
01	00.2'	16	04.0'	31	07.8'	46	11.5'
02	00.5'	17	04.2'	32	08.0'	47	11.8'
03	00.8'	18	04.5'	33	08.2'	48	12.0'
04	01.0'	19	04.8'	34	08.5'	49	12.2'
05	01.2'	20	05.0'	35	08.8'	50	12.5'
06	01.5'	21	05.2'	36	09.0'	51	12.8'
07	01.8'	22	05.5'	37	09.2'	52	13.0'
08	02.0'	23	05.8'	38	09.5'	53	13.2'
09	02.2'	24	06.0'	39	09.8'	54	13.5'
10	02.5'	25	06.2'	40	10.0'	55	13.8'
11	02.8'	26	06.5'	41	10.2'	56	14.0'
12	03.0'	27	06.8'	42	10.5'	57	14.2'
13	03.2'	28	07.0'	43	10.8'	58	14.5'
14	03.5'	29	07.2'	44	11.0'	59	14.8'

Beispiel Beobachtungszeit 09h 37m 24s UT. Stunden-Grt (09h) aus der Tagesspalte ablesen.
Dazu addieren: 37 min → 9°15,0' und 24 s → 6,0' → Gesamtzuwachs 9°21,0'.

Höhenbeschickung der Sonne

Aus der gemessenen Sextanthöhe H_s wird die beobachtete Höhe H_o : $H_o = H_s + \text{Indexfehler} - \text{Kimmtiefe}$

– Strahlenbrechung \pm Halbmesser (Unterrand +SD, Oberrand –SD; Halbmesser $SD \approx 15,8\text{--}16,3'$).

Strahlenbrechung & Gesamtbeschickung (Unterrand)

Kimmtiefe (Augenhöhe über Wasser)

Höhe [m]	Kimmtiefe	scheinb. Höhe	Refraktion	+ Halbm. → Gesamt
1	– 1.8'	4°	–11.7'	+ 4.3'
1.5	– 2.2'	5°	– 9.9'	+ 6.1'
2	– 2.5'	6°	– 8.5'	+ 7.5'
2.5	– 2.8'	8°	– 6.6'	+ 9.4'
3	– 3.0'	10°	– 5.4'	+10.6'
4	– 3.5'	12°	– 4.5'	+11.5'
5	– 3.9'	15°	– 3.6'	+12.4'
6	– 4.3'	20°	– 2.7'	+13.3'
8	– 5.0'	25°	– 2.1'	+13.9'
10	– 5.6'	30°	– 1.7'	+14.3'
		40°	– 1.2'	+14.8'
		50°	– 0.8'	+15.2'
		70°	– 0.4'	+15.6'
		90°	–0.0'	+16.0'

Hinweis

Die Spalte „Gesamt“ fasst Strahlenbrechung und Halbmesser des Unterrands zusammen. Kimmtiefe je nach Augenhöhe separat abziehen. Bei Messung des Oberrands den Halbmesser abziehen statt addieren.