

# Mond- und Dämmerungstabelle 2023

für die visuelle Deep-Sky-Beobachtung

Güssing 47.0592° N 16.3231° E

Berechnung: pyEphem  
Textsatz: L<sup>A</sup>T<sub>E</sub>X

## Atmosphären-Einstellungen in pyEphem

Standort.pressure = 1010.0  
Standort.horizon = '0:00:00.0'

Alle Zeitangaben beziehen sich auf den in der jeweiligen Zeile angegeben Kalendertag. Liegt ein Ereignis bereits nach Mitternacht, also schon am Folgetag, ist die Zeitangabe mit einem \* gekennzeichnet, z.B.: 00:20\*.

**Spalte 1** Kalendertag.

**Spalte 2** Bei »MESZ« sind alle Zeitangaben in dieser Zeile in Mitteleuropäischer Sommerzeit, ansonsten standardmäßig in MEZ.

**Spalte 3** Die für Deep-Sky-Beobachtungen nutzbare Zeitspanne: Es ist astronomisch dunkel (Sonne steht tiefer als  $-18^\circ$ ) und kein Mond stört.

**Spalte 4** Dauer der für Deep-Sky-Beobachtungen nutzbaren Zeitspanne.

**Spalte 5** Ereignisse, die die für Deep-Sky-Beobachtungen nutzbare Zeitspanne begrenzen: AN<sub>+</sub> (Einbruch der astronomischen Nacht = Ende der astr. Abenddämmerung), M<sub>v</sub> (Monduntergang), AN<sub>-</sub> (Ende der astronomischen Nacht = Beginn der astr. Morgendämmerung), M<sub>7</sub>

(Mondaufgang), Astr. MD (Astronomische Mitternachtsdämmerung), Naut. MD (Nautische Mitternachtsdämmerung).

**Spalte 6** Mondphase.

**Spalte 7** Mondaufgang.

**Spalte 8** Monduntergang.

**Spalte 9** Beginn der astr. Morgendämmerung (Sonnenhöhe =  $-18^\circ$ ).

**Spalte 10** Dauer der astr. Morgendämmerung.

**Spalte 11** Beginn der naut. Morgendämmerung (Sonnenhöhe =  $-12^\circ$ ).

**Spalte 12** Dauer der naut. Morgendämmerung.

**Spalte 13** Beginn der bürg. Morgendämmerung (Sonnenhöhe =  $-6^\circ$ ).

**Spalte 14** Dauer der bürg. Morgendämmerung.

**Spalte 15** Sonnenaufgang.

**Spalte 16** Taglänge.

**Spalte 17** Sonnenuntergang.

**Spalte 18** Dauer der bürg. Abenddämmerung.

**Spalte 19** Ende der bürg. Abenddämmerung (Sonnenhöhe =  $-6^\circ$ ).

**Spalte 20** Dauer der naut. Abenddämmerung.

**Spalte 21** Ende der naut. Abenddämmerung (Sonnenhöhe =  $-12^\circ$ ).

**Spalte 22** Dauer der astr. Abenddämmerung.

**Spalte 23** Ende der astr. Abenddämmerung (Sonnenhöhe =  $-18^\circ$ ).

**Spalte 24** Länge der Nacht.

**Spalte 25** Länge der astr. Nacht.

**Für Beobachter, die zu Zeiten der Mitternachtsdämmerung während der astr. Dämmerung beobachten möchten:**

**Spalte 26** Nutzbare Zeitspanne: Es ist »nautisch dunkel« (Sonne steht tiefer als  $-12^\circ$ ) und kein Mond stört.

**Spalte 27** Dauer der in Spalte 26 angegebenen Zeitspanne.

**Spalte 28** Ereignisse, die die nutzbare Zeitspanne begrenzen: ND<sub>+</sub> (Beginn der »naut. Dunkelheit« = Ende der naut. Abenddämmerung), M<sub>v</sub> (Monduntergang), ND<sub>-</sub> (Ende der »naut. Dunkelheit« = Beginn der naut. Morgendämmerung), M<sub>7</sub> (Mondaufgang), Naut. MD (Nautische Mitternachtsdämmerung).

**Spalte 29** Identisch zu Spalte 1.

| 1           | 2             | 3                          | 4          | 5                                   | 6    | 7          | 8          | 9                          | 10         | 11    | 12         | 13    | 14         | 15         | 16         | 17                      | 18         | 19    | 20         | 21    | 22         | 23       | 24                         | 25         | 26 | 27         | 28 | 29          |
|-------------|---------------|----------------------------|------------|-------------------------------------|------|------------|------------|----------------------------|------------|-------|------------|-------|------------|------------|------------|-------------------------|------------|-------|------------|-------|------------|----------|----------------------------|------------|----|------------|----|-------------|
| 2023        | Zeit-<br>zone | Astr. dunkel und kein Mond |            |                                     | Mond |            |            | Beginn der Morgendämmerung |            |       |            |       | Sonne      |            |            | Ende der Abenddämmerung |            |       |            |       | Nacht      | Astr. N. | Naut. dunkel und kein Mond |            |    | 2023       |    |             |
|             |               |                            | $\Delta t$ |                                     | Ph.  | $\nearrow$ | $\searrow$ | Astr.                      | $\Delta t$ | Naut. | $\Delta t$ | Bürg. | $\Delta t$ | $\nearrow$ | $\Delta t$ | $\searrow$              | $\Delta t$ | Bürg. | $\Delta t$ | Naut. | $\Delta t$ | Astr.    | $\Delta t$                 | $\Delta t$ |    | $\Delta t$ |    |             |
| So, 1. Jan  |               | 03:27*–05:48*              | 2h 20m     | M <sub>\</sub> bis AN <sub>\</sub>  |      | 12:36      | 02:16      | 05:48                      | 36m        | 06:25 | 37m        | 07:02 | 37m        | 07:40      | 8h 35m     | 16:16                   | 37m        | 16:53 | 37m        | 17:31 | 36m        | 18:08    | 15h 24m                    | 11h 39m    |    |            |    | So, 1. Jan  |
| Mo, 2. Jan  |               | 04:38*–05:48*              | 1h 10m     | M <sub>\</sub> bis AN <sub>\</sub>  |      | 12:58      | 03:27      | 05:48                      | 36m        | 06:25 | 37m        | 07:02 | 37m        | 07:40      | 8h 36m     | 16:17                   | 37m        | 16:54 | 37m        | 17:32 | 36m        | 18:09    | 15h 23m                    | 11h 39m    |    |            |    | Mo, 2. Jan  |
| Di, 3. Jan  |               | 05:46*–05:48*              | 1m         | M <sub>\</sub> bis AN <sub>\</sub>  |      | 13:24      | 04:38      | 05:48                      | 36m        | 06:25 | 37m        | 07:02 | 37m        | 07:40      | 8h 37m     | 16:17                   | 37m        | 16:55 | 37m        | 17:33 | 36m        | 18:10    | 15h 22m                    | 11h 38m    |    |            |    | Di, 3. Jan  |
| Mi, 4. Jan  |               | —:—:—:—                    | –          | Mond stört                          |      | 13:58      | 05:46      | 05:48                      | 36m        | 06:25 | 37m        | 07:02 | 37m        | 07:40      | 8h 38m     | 16:19                   | 37m        | 16:56 | 37m        | 17:34 | 36m        | 18:10    | 15h 21m                    | 11h 37m    |    |            |    | Mi, 4. Jan  |
| Do, 5. Jan  |               | —:—:—:—                    | –          | Mond stört                          |      | 14:40      | 06:49      | 05:48                      | 36m        | 06:25 | 37m        | 07:02 | 37m        | 07:40      | 8h 40m     | 16:20                   | 37m        | 16:57 | 37m        | 17:34 | 36m        | 18:11    | 15h 19m                    | 11h 36m    |    |            |    | Do, 5. Jan  |
| Fr, 6. Jan  |               | —:—:—:—                    | –          | Mond stört                          |      | 15:31      | 07:44      | 05:48                      | 36m        | 06:25 | 37m        | 07:02 | 37m        | 07:39      | 8h 41m     | 16:21                   | 37m        | 16:58 | 37m        | 17:35 | 36m        | 18:12    | 15h 18m                    | 11h 35m    |    |            |    | Fr, 6. Jan  |
| Sa, 7. Jan  |               | —:—:~:~:~                  | –          | Mond stört                          | ○    | 16:30      | 08:29      | 05:48                      | 36m        | 06:24 | 37m        | 07:02 | 37m        | 07:39      | 8h 42m     | 16:22                   | 37m        | 16:59 | 37m        | 17:36 | 36m        | 18:13    | 15h 17m                    | 11h 34m    |    |            |    | Sa, 7. Jan  |
| So, 8. Jan  |               | —:~:~:~:~                  | –          | Mond stört                          |      | 17:34      | 09:05      | 05:48                      | 36m        | 06:24 | 37m        | 07:02 | 37m        | 07:39      | 8h 44m     | 16:23                   | 37m        | 17:00 | 37m        | 17:37 | 36m        | 18:14    | 15h 15m                    | 11h 33m    |    |            |    | So, 8. Jan  |
| Mo, 9. Jan  |               | 18:15–18:41                | 25m        | AN <sub>+</sub> bis M <sub>7</sub>  |      | 18:41      | 09:33      | 05:47                      | 36m        | 06:24 | 37m        | 07:02 | 36m        | 07:39      | 8h 45m     | 16:24                   | 36m        | 17:01 | 37m        | 17:39 | 36m        | 18:15    | 15h 14m                    | 11h 31m    |    |            |    | Mo, 9. Jan  |
| Di, 10. Jan |               | 18:16–19:48                | 1h 32m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 19:48      | 09:56      | 05:47                      | 36m        | 06:24 | 37m        | 07:01 | 36m        | 07:38      | 8h 47m     | 16:25                   | 36m        | 17:02 | 37m        | 17:40 | 36m        | 18:16    | 15h 12m                    | 11h 30m    |    |            |    | Di, 10. Jan |
| Mi, 11. Jan |               | 18:17–20:55                | 2h 37m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 20:55      | 10:15      | 05:47                      | 36m        | 06:24 | 37m        | 07:01 | 36m        | 07:38      | 8h 48m     | 16:27                   | 36m        | 17:03 | 37m        | 17:41 | 36m        | 18:17    | 15h 10m                    | 11h 29m    |    |            |    | Mi, 11. Jan |
| Do, 12. Jan |               | 18:18–22:02                | 3h 43m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 22:02      | 10:31      | 05:47                      | 36m        | 06:23 | 37m        | 07:01 | 36m        | 07:37      | 8h 50m     | 16:28                   | 36m        | 17:04 | 37m        | 17:42 | 36m        | 18:18    | 15h 08m                    | 11h 28m    |    |            |    | Do, 12. Jan |
| Fr, 13. Jan |               | 18:19–23:09                | 4h 49m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 23:09      | 10:47      | 05:46                      | 36m        | 06:23 | 37m        | 07:00 | 36m        | 07:37      | 8h 52m     | 16:29                   | 36m        | 17:06 | 37m        | 17:43 | 36m        | 18:19    | 15h 07m                    | 11h 26m    |    |            |    | Fr, 13. Jan |
| Sa, 14. Jan |               | 18:21–00:19*               | 5h 58m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | —:—        | 11:03      | 05:46                      | 36m        | 06:23 | 37m        | 07:00 | 36m        | 07:36      | 8h 54m     | 16:30                   | 36m        | 17:07 | 37m        | 17:44 | 36m        | 18:21    | 15h 05m                    | 11h 25m    |    |            |    | Sa, 14. Jan |
| So, 15. Jan |               | 18:22–01:32*               | 7h 10m     | AN <sub>+</sub> bis M <sub>7</sub>  | ●    | 00:19      | 11:20      | 05:46                      | 36m        | 06:22 | 37m        | 06:59 | 36m        | 07:36      | 8h 56m     | 16:32                   | 36m        | 17:08 | 37m        | 17:45 | 36m        | 18:22    | 15h 03m                    | 11h 23m    |    |            |    | So, 15. Jan |
| Mo, 16. Jan |               | 18:23–02:49*               | 8h 26m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 01:32      | 11:40      | 05:45                      | 36m        | 06:22 | 37m        | 06:59 | 36m        | 07:35      | 8h 58m     | 16:33                   | 36m        | 17:09 | 37m        | 17:46 | 36m        | 18:23    | 15h 01m                    | 11h 21m    |    |            |    | Mo, 16. Jan |
| Di, 17. Jan |               | 18:24–04:10*               | 9h 45m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 02:49      | 12:06      | 05:45                      | 36m        | 06:21 | 36m        | 06:58 | 36m        | 07:34      | 9h 00m     | 16:34                   | 36m        | 17:11 | 36m        | 17:48 | 36m        | 18:24    | 14h 59m                    | 11h 20m    |    |            |    | Di, 17. Jan |
| Mi, 18. Jan |               | 18:25–05:30*               | 11h 05m    | AN <sub>+</sub> bis M <sub>7</sub>  |      | 04:10      | 12:40      | 05:44                      | 36m        | 06:21 | 36m        | 06:57 | 36m        | 07:34      | 9h 02m     | 16:36                   | 36m        | 17:12 | 36m        | 17:49 | 36m        | 18:25    | 14h 56m                    | 11h 18m    |    |            |    | Mi, 18. Jan |
| Do, 19. Jan |               | 18:26–05:43*               | 11h 16m    | AN <sub>+</sub> bis AN <sub>\</sub> |      | 05:30      | 13:27      | 05:44                      | 36m        | 06:20 | 36m        | 06:57 | 36m        | 07:33      | 9h 04m     | 16:37                   | 36m        | 17:13 | 36m        | 17:50 | 36m        | 18:26    | 14h 54m                    | 11h 16m    |    |            |    | Do, 19. Jan |
| Fr, 20. Jan |               | 18:28–05:43*               | 11h 15m    | AN <sub>+</sub> bis AN <sub>\</sub> |      | 06:43      | 14:31      | 05:43                      | 36m        | 06:19 | 36m        | 06:56 | 35m        | 07:32      | 9h 06m     | 16:39                   | 35m        | 17:15 | 36m        | 17:51 | 36m        | 18:28    | 14h 52m                    | 11h 15m    |    |            |    | Fr, 20. Jan |
| Sa, 21. Jan |               | 18:29–05:42*               | 11h 13m    | AN <sub>+</sub> bis AN <sub>\</sub> | ●    | 07:42      | 15:51      | 05:43                      | 36m        | 06:19 | 36m        | 06:55 | 35m        | 07:31      | 9h 08m     | 16:40                   | 35m        | 17:16 | 36m        | 17:53 | 36m        | 18:29    | 14h 50m                    | 11h 13m    |    |            |    | Sa, 21. Jan |
| So, 22. Jan |               | 18:30–05:41*               | 11h 11m    | AN <sub>+</sub> bis AN <sub>\</sub> |      | 08:27      | 17:19      | 05:42                      | 36m        | 06:18 | 36m        | 06:55 | 35m        | 07:30      | 9h 11m     | 16:42                   | 35m        | 17:17 | 36m        | 17:54 | 36m        | 18:30    | 14h 47m                    | 11h 11m    |    |            |    | So, 22. Jan |
| Mo, 23. Jan |               | 18:47–05:40*               | 10h 53m    | M <sub>\</sub> bis AN <sub>\</sub>  |      | 08:59      | 18:47      | 05:41                      | 36m        | 06:17 | 36m        | 06:54 | 35m        | 07:29      | 9h 13m     | 16:43                   | 35m        | 17:19 | 36m        | 17:55 | 36m        | 18:31    | 14h 45m                    | 11h 09m    |    |            |    | Mo, 23. Jan |
| Di, 24. Jan |               | 20:12–05:40*               | 9h 27m     | M <sub>\</sub> bis AN <sub>\</sub>  |      | 09:25      | 20:12      | 05:40                      | 36m        | 06:17 | 36m        | 06:53 | 35m        | 07:28      | 9h 16m     | 16:44                   | 35m        | 17:20 | 36m        | 17:56 | 36m        | 18:32    | 14h 42m                    | 11h 07m    |    |            |    | Di, 24. Jan |
| Mi, 25. Jan |               | 21:32–05:39*               | 8h 06m     | M <sub>\</sub> bis AN <sub>\</sub>  |      | 09:45      | 21:32      | 05:40                      | 35m        | 06:16 | 36m        | 06:52 | 35m        | 07:27      | 9h 18m     | 16:46                   | 35m        | 17:21 | 36m        | 17:58 | 36m        | 18:34    | 14h 40m                    | 11h 05m    |    |            |    | Mi, 25. Jan |
| Do, 26. Jan |               | 22:49–05:38*               | 6h 48m     | M <sub>\</sub> bis AN <sub>\</sub>  |      | 10:04      | 22:49      | 05:39                      | 35m        | 06:15 | 36m        | 06:51 | 35m        | 07:26      | 9h 21m     | 16:47                   | 35m        | 17:23 | 36m        | 17:59 | 35m        | 18:35    | 14h 37m                    | 11h 03m    |    |            |    | Do, 26. Jan |
| Fr, 27. Jan |               | 00:04*–05:37*              | 5h 33m     | M <sub>\</sub> bis AN <sub>\</sub>  |      | 10:22      | —:—        | 05:38                      | 35m        | 06:14 | 36m        | 06:50 | 35m        | 07:25      | 9h 23m     | 16:49                   | 35m        | 17:24 | 36m        | 18:00 | 35m        | 18:36    | 14h 35m                    | 11h 00m    |    |            |    | Fr, 27. Jan |
| Sa, 28. Jan |               | 01:17*–05:36*              | 4h 19m     | M <sub>\</sub> bis AN <sub>\</sub>  | ●    | 10:40      | 00:04      | 05:37                      | 35m        | 06:13 | 36m        | 06:49 | 35m        | 07:24      | 9h 26m     | 16:50                   | 35m        | 17:26 | 36m        | 18:02 | 35m        | 18:38    | 14h 32m                    | 10h 58m    |    |            |    | Sa, 28. Jan |
| So, 29. Jan |               | 02:29*–05:35*              | 3h 06m     | M <sub>\</sub> bis AN <sub>\</sub>  |      | 11:01      | 01:17      | 05:36                      | 35m        | 06:12 | 36m        | 06:48 | 34m        | 07:23      | 9h 28m     | 16:52                   | 34m        | 17:27 | 36m        | 18:03 | 35m        | 18:39    | 14h 29m                    | 10h 56m    |    |            |    | So, 29. Jan |
| Mo, 30. Jan |               | 03:38*–05:34*              | 1h 56m     | M <sub>\</sub> bis AN <sub>\</sub>  |      | 11:26      | 02:29      | 05:35                      | 35m        | 06:11 | 35m        | 06:47 | 34m        | 07:22      | 9h 31m     | 16:53                   | 34m        | 17:28 | 35m        | 18:04 | 35m        | 18:40    | 14h 27m                    | 10h 54m    |    |            |    | Mo, 30. Jan |
| Di, 31. Jan |               | 04:43*–05:33*              | 50m        | M <sub>\</sub> bis AN <sub>\</sub>  |      | 11:58      | 03:38      | 05:34                      | 35m        | 06:10 | 35m        | 06:46 | 34m        | 07:21      | 9h 34m     | 16:55                   | 34m        | 17:30 | 35m        | 18:06 | 35m        | 18:41    | 14h 24m                    | 10h 51m    |    |            |    | Di, 31. Jan |
| Mi, 1. Feb  |               | —:~:~:~:~                  | –          | Mond stört                          |      | 12:37      | 04:43      | 05:33                      | 35m        | 06:09 | 35m        | 06:45 | 34m        | 07:19      | 9h 37m     | 16:57                   | 34m        | 17:31 | 35m        | 18:07 | 35m        | 18:43    | 14h 21m                    | 10h 49m    |    |            |    | Mi, 1. Feb  |
| Do, 2. Feb  |               | —:~:~:~:~                  | –          | Mond stört                          |      | 13:25      | 05:40      | 05:32                      | 35m        | 06:08 | 35m        | 06:44 | 34m        | 07:18      | 9h 39m     | 16:58                   | 34m        | 17:33 | 35m        | 18:08 | 35m        | 18:44    | 14h 18m                    | 10h 47m    |    |            |    | Do, 2. Feb  |
| Fr, 3. Feb  |               | —:~:~:~:~                  | –          | Mond stört                          |      | 14:22      | 06:28      | 05:31                      | 35m        | 06:07 | 35m        | 06:42 | 34m        | 07:17      | 9h 42m     | 17:00                   | 34m        | 17:34 | 35m        | 18:10 | 35m        | 18:45    | 14h 15m                    | 10h 44m    |    |            |    | Fr, 3. Feb  |
| Sa, 4. Feb  |               | —:~:~:~:~                  | –          | Mond stört                          |      | 15:25      | 07:07      | 05:30                      | 35m        | 06:06 | 35m        | 06:41 | 34m        | 07:16      | 9h 45m     | 17:01                   | 34m        | 17:36 | 35m        | 18:11 | 35m        | 18:47    | 14h 13m                    | 10h 42m    |    |            |    | Sa, 4. Feb  |
| So, 5. Feb  |               | —:~:~:~:~                  | –          | Mond stört                          | ○    | 16:32      | 07:37      | 05:29                      | 35m        | 06:04 | 35m        | 06:40 | 34m        | 07:14      | 9h 48m     | 17:03                   | 34m        | 17:37 | 35m        | 18:13 | 35m        | 18:48    | 14h 10m                    | 10h 39m    |    |            |    | So, 5. Feb  |
| Mo, 6. Feb  |               | —:~:~:~:~                  | –          | Mond stört                          |      | 17:40      | 08:01      | 05:28                      | 35m        | 06:03 | 35m        | 06:39 | 34m        | 07:13      | 9h 51m     | 17:04                   | 34m        | 17:38 | 35m        | 18:14 | 35m        | 18:49    | 14h 07m                    | 10h 37m    |    |            |    | Mo, 6. Feb  |
| Di, 7. Feb  |               | —:~:~:~:~                  | –          | Mond stört                          |      | 18:47      | 08:21      | 05:26                      | 35m        | 06:02 | 35m        | 06:37 | 34m        | 07:11      | 9h 54m     | 17:06                   | 34m        | 17:40 | 35m        | 18:15 | 35m        | 18:51    | 14h 04m                    | 10h 34m    |    |            |    | Di, 7. Feb  |
| Mi, 8. Feb  |               | 18:52–19:54                | 1h 01m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 19:54      | 08:38      | 05:25                      | 35m        | 06:01 | 35m        | 06:36 | 33m        | 07:10      | 9h 57m     | 17:07                   | 33m        | 17:41 | 35m        | 18:17 | 35m        | 18:52    | 14h 01m                    | 10h 31m    |    |            |    | Mi, 8. Feb  |
| Do, 9. Feb  |               | 18:54–21:01                | 2h 07m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 21:01      | 08:53      | 05:24                      | 35m        | 05:59 | 35m        | 06:35 | 33m        | 07:08      | 10h 00m    | 17:09                   | 33m        | 17:43 | 35m        | 18:18 | 35m        | 18:54    | 13h 58m                    | 10h 29m    |    |            |    | Do, 9. Feb  |
| Fr, 10. Feb |               | 18:55–22:09                | 3h 13m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 22:09      | 09:09      | 05:23                      | 35m        | 05:58 | 35m        | 06:33 | 33m        | 07:07      | 10h 03m    | 17:10                   | 33m        | 17:44 | 35m        | 18:19 | 35m        | 18:55    | 13h 55m                    | 10h 26m    |    |            |    | Fr, 10. Feb |
| Sa, 11. Feb |               | 18:56–23:19                | 4h 23m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 23:19      | 09:25      | 05:21                      | 35m        | 05:57 | 35m        | 06:32 | 33m        | 07:05      | 10h 06m    | 17:12                   | 33m        | 17:46 | 35m        | 18:21 | 35m        | 18:56    | 13h 51m                    | 10h 23m    |    |            |    | Sa, 11. Feb |
| So, 12. Feb |               | 18:58–00:33*               | 5h 35m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | —:~        | 09:43      | 05:20                      | 35m        | 05:55 | 35m        | 06:30 | 33m        | 07:04      | 10h 09m    | 17:14                   | 33m        | 17:47 | 35m        | 1     |            |          |                            |            |    |            |    |             |

| 1           | 2             | 3                          | 4          | 5                                   | 6    | 7          | 8          | 9                          | 10         | 11    | 12         | 13    | 14         | 15         | 16         | 17         | 18                      | 19    | 20         | 21    | 22         | 23    | 24         | 25                         | 26 | 27         | 28   | 29 |             |
|-------------|---------------|----------------------------|------------|-------------------------------------|------|------------|------------|----------------------------|------------|-------|------------|-------|------------|------------|------------|------------|-------------------------|-------|------------|-------|------------|-------|------------|----------------------------|----|------------|------|----|-------------|
| 2023        | Zeit-<br>zone | Astr. dunkel und kein Mond |            |                                     | Mond |            |            | Beginn der Morgendämmerung |            |       |            |       | Sonne      |            |            |            | Ende der Abenddämmerung |       |            |       |            | Nacht | Astr. N.   | Naut. dunkel und kein Mond |    |            | 2023 |    |             |
|             |               |                            | $\Delta t$ |                                     | Ph.  | $\nearrow$ | $\searrow$ | Astr.                      | $\Delta t$ | Naut. | $\Delta t$ | Bürg. | $\Delta t$ | $\nearrow$ | $\Delta t$ | $\searrow$ | $\Delta t$              | Bürg. | $\Delta t$ | Naut. | $\Delta t$ | Astr. | $\Delta t$ | $\Delta t$                 |    | $\Delta t$ |      |    |             |
| Mo, 20. Feb |               | 19:09–05:06*               | 9h 57m     | AN <sub>+</sub> bis AN <sub>-</sub> | ●    | 07:23      | 17:38      | 05:08                      | 35m        | 05:43 | 34m        | 06:18 | 32m        | 06:51      | 10h 34m    | 17:26      | 33m                     | 17:59 | 34m        | 18:34 | 35m        | 19:09 | 13h 23m    | 9h 57m                     |    |            |      |    | Mo, 20. Feb |
| Di, 21. Feb |               | 19:10–05:05*               | 9h 54m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 07:46      | 19:03      | 05:06                      | 35m        | 05:41 | 34m        | 06:16 | 32m        | 06:49      | 10h 38m    | 17:27      | 32m                     | 18:00 | 34m        | 18:35 | 35m        | 19:10 | 13h 20m    | 9h 54m                     |    |            |      |    | Di, 21. Feb |
| Mi, 22. Feb |               | 20:24–05:03*               | 8h 38m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 08:05      | 20:24      | 05:05                      | 35m        | 05:40 | 34m        | 06:14 | 32m        | 06:47      | 10h 41m    | 17:29      | 32m                     | 18:02 | 34m        | 18:36 | 35m        | 19:12 | 13h 16m    | 9h 51m                     |    |            |      |    | Mi, 22. Feb |
| Do, 23. Feb |               | 21:43–05:01*               | 7h 18m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 08:24      | 21:43      | 05:03                      | 35m        | 05:38 | 34m        | 06:13 | 32m        | 06:46      | 10h 44m    | 17:30      | 32m                     | 18:03 | 34m        | 18:38 | 35m        | 19:13 | 13h 13m    | 9h 47m                     |    |            |      |    | Do, 23. Feb |
| Fr, 24. Feb |               | 22:59–04:59*               | 6h 00m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 08:42      | 22:59      | 05:01                      | 35m        | 05:36 | 34m        | 06:11 | 32m        | 06:44      | 10h 48m    | 17:32      | 32m                     | 18:05 | 34m        | 18:39 | 35m        | 19:15 | 13h 10m    | 9h 44m                     |    |            |      |    | Fr, 24. Feb |
| Sa, 25. Feb |               | 00:14*–04:58*              | 4h 43m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 09:03      | —:—        | 04:59                      | 35m        | 05:35 | 34m        | 06:09 | 32m        | 06:42      | 10h 51m    | 17:33      | 32m                     | 18:06 | 34m        | 18:41 | 35m        | 19:16 | 13h 06m    | 9h 41m                     |    |            |      |    | Sa, 25. Feb |
| So, 26. Feb |               | 01:27*–04:56*              | 3h 29m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 09:27      | 00:14      | 04:58                      | 35m        | 05:33 | 34m        | 06:08 | 32m        | 06:40      | 10h 54m    | 17:35      | 32m                     | 18:07 | 34m        | 18:42 | 35m        | 19:18 | 13h 03m    | 9h 38m                     |    |            |      |    | So, 26. Feb |
| Mo, 27. Feb |               | 02:35*–04:54*              | 2h 19m     | M <sub>\</sub> bis AN <sub>-</sub>  | ◐    | 09:56      | 01:27      | 04:56                      | 35m        | 05:31 | 34m        | 06:06 | 32m        | 06:38      | 10h 57m    | 17:36      | 32m                     | 18:09 | 34m        | 18:44 | 35m        | 19:19 | 13h 00m    | 9h 35m                     |    |            |      |    | Mo, 27. Feb |
| Di, 28. Feb |               | 03:36*–04:52*              | 1h 16m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 10:33      | 02:35      | 04:54                      | 35m        | 05:29 | 34m        | 06:04 | 32m        | 06:36      | 11h 01m    | 17:38      | 32m                     | 18:10 | 34m        | 18:45 | 35m        | 19:20 | 12h 56m    | 9h 31m                     |    |            |      |    | Di, 28. Feb |
| Mi, 1. Mär  |               | 04:27*–04:50*              | 23m        | M <sub>\</sub> bis AN <sub>-</sub>  |      | 11:18      | 03:36      | 04:52                      | 35m        | 05:28 | 34m        | 06:02 | 32m        | 06:35      | 11h 04m    | 17:39      | 32m                     | 18:12 | 34m        | 18:46 | 35m        | 19:22 | 12h 53m    | 9h 28m                     |    |            |      |    | Mi, 1. Mär  |
| Do, 2. Mär  |               | —:—:—:—                    | –          | Mond stört                          |      | 12:13      | 04:27      | 04:50                      | 35m        | 05:26 | 34m        | 06:00 | 32m        | 06:33      | 11h 07m    | 17:41      | 32m                     | 18:13 | 34m        | 18:48 | 35m        | 19:23 | 12h 50m    | 9h 25m                     |    |            |      |    | Do, 2. Mär  |
| Fr, 3. Mär  |               | —:—:—:—                    | –          | Mond stört                          |      | 13:15      | 05:08      | 04:49                      | 35m        | 05:24 | 34m        | 05:58 | 32m        | 06:31      | 11h 11m    | 17:42      | 32m                     | 18:15 | 34m        | 18:49 | 35m        | 19:25 | 12h 46m    | 9h 21m                     |    |            |      |    | Fr, 3. Mär  |
| Sa, 4. Mär  |               | —:—:~:~:~                  | –          | Mond stört                          |      | 14:21      | 05:40      | 04:47                      | 35m        | 05:22 | 34m        | 05:57 | 32m        | 06:29      | 11h 14m    | 17:44      | 32m                     | 18:16 | 34m        | 18:51 | 35m        | 19:26 | 12h 43m    | 9h 18m                     |    |            |      |    | Sa, 4. Mär  |
| So, 5. Mär  |               | —:~:~:~:~                  | –          | Mond stört                          |      | 15:29      | 06:06      | 04:45                      | 35m        | 05:20 | 34m        | 05:55 | 32m        | 06:27      | 11h 18m    | 17:45      | 32m                     | 18:18 | 34m        | 18:52 | 35m        | 19:28 | 12h 40m    | 9h 15m                     |    |            |      |    | So, 5. Mär  |
| Mo, 6. Mär  |               | —:~:~:~:~                  | –          | Mond stört                          |      | 16:37      | 06:27      | 04:43                      | 35m        | 05:18 | 34m        | 05:53 | 32m        | 06:25      | 11h 21m    | 17:47      | 32m                     | 18:19 | 34m        | 18:54 | 35m        | 19:29 | 12h 36m    | 9h 11m                     |    |            |      |    | Mo, 6. Mär  |
| Di, 7. Mär  |               | —:~:~:~:~                  | –          | Mond stört                          | ○    | 17:44      | 06:44      | 04:41                      | 35m        | 05:16 | 34m        | 05:51 | 32m        | 06:23      | 11h 24m    | 17:48      | 32m                     | 18:20 | 34m        | 18:55 | 35m        | 19:31 | 12h 33m    | 9h 08m                     |    |            |      |    | Di, 7. Mär  |
| Mi, 8. Mär  |               | —:~:~:~:~                  | –          | Mond stört                          |      | 18:52      | 07:00      | 04:39                      | 35m        | 05:15 | 34m        | 05:49 | 32m        | 06:21      | 11h 28m    | 17:49      | 32m                     | 18:22 | 34m        | 18:56 | 35m        | 19:32 | 12h 29m    | 9h 04m                     |    |            |      |    | Mi, 8. Mär  |
| Do, 9. Mär  |               | 19:34–20:00                | 26m        | AN <sub>+</sub> bis M <sub>7</sub>  |      | 20:00      | 07:16      | 04:37                      | 35m        | 05:13 | 34m        | 05:47 | 32m        | 06:19      | 11h 31m    | 17:51      | 32m                     | 18:23 | 34m        | 18:58 | 35m        | 19:34 | 12h 26m    | 9h 01m                     |    |            |      |    | Do, 9. Mär  |
| Fr, 10. Mär |               | 19:35–21:11                | 1h 35m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 21:11      | 07:32      | 04:35                      | 35m        | 05:11 | 34m        | 05:45 | 32m        | 06:17      | 11h 34m    | 17:52      | 32m                     | 18:25 | 34m        | 18:59 | 35m        | 19:35 | 12h 23m    | 8h 57m                     |    |            |      |    | Fr, 10. Mär |
| Sa, 11. Mär |               | 19:37–22:24                | 2h 46m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 22:24      | 07:49      | 04:33                      | 35m        | 05:09 | 34m        | 05:43 | 32m        | 06:16      | 11h 38m    | 17:54      | 32m                     | 18:26 | 34m        | 19:01 | 36m        | 19:37 | 12h 19m    | 8h 53m                     |    |            |      |    | Sa, 11. Mär |
| So, 12. Mär |               | 19:38–23:40                | 4h 01m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 23:40      | 08:10      | 04:31                      | 35m        | 05:07 | 34m        | 05:41 | 32m        | 06:14      | 11h 41m    | 17:55      | 32m                     | 18:28 | 34m        | 19:02 | 36m        | 19:38 | 12h 16m    | 8h 50m                     |    |            |      |    | So, 12. Mär |
| Mo, 13. Mär |               | 19:40–00:57*               | 5h 16m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | —:—        | 08:36      | 04:29                      | 36m        | 05:05 | 34m        | 05:39 | 32m        | 06:12      | 11h 45m    | 17:57      | 32m                     | 18:29 | 34m        | 19:04 | 36m        | 19:40 | 12h 13m    | 8h 46m                     |    |            |      |    | Mo, 13. Mär |
| Di, 14. Mär |               | 19:41–02:11*               | 6h 29m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 00:57      | 09:11      | 04:27                      | 36m        | 05:03 | 34m        | 05:37 | 32m        | 06:10      | 11h 48m    | 17:58      | 32m                     | 18:30 | 34m        | 19:05 | 36m        | 19:41 | 12h 09m    | 8h 43m                     |    |            |      |    | Di, 14. Mär |
| Mi, 15. Mär |               | 19:43–03:17*               | 7h 33m     | AN <sub>+</sub> bis M <sub>7</sub>  | ◑    | 02:11      | 09:58      | 04:24                      | 36m        | 05:01 | 34m        | 05:35 | 32m        | 06:08      | 11h 51m    | 17:59      | 32m                     | 18:32 | 34m        | 19:07 | 36m        | 19:43 | 12h 06m    | 8h 39m                     |    |            |      |    | Mi, 15. Mär |
| Do, 16. Mär |               | 19:45–04:10*               | 8h 25m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 03:17      | 11:00      | 04:22                      | 36m        | 04:59 | 34m        | 05:33 | 32m        | 06:06      | 11h 55m    | 18:01      | 32m                     | 18:33 | 34m        | 19:08 | 36m        | 19:45 | 12h 02m    | 8h 35m                     |    |            |      |    | Do, 16. Mär |
| Fr, 17. Mär |               | 19:46–04:18*               | 8h 31m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 04:10      | 12:16      | 04:20                      | 36m        | 04:57 | 34m        | 05:32 | 32m        | 06:04      | 11h 58m    | 18:02      | 32m                     | 18:35 | 34m        | 19:10 | 36m        | 19:46 | 11h 59m    | 8h 31m                     |    |            |      |    | Fr, 17. Mär |
| Sa, 18. Mär |               | 19:48–04:16*               | 8h 28m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 04:51      | 13:40      | 04:18                      | 36m        | 04:55 | 34m        | 05:30 | 32m        | 06:02      | 12h 01m    | 18:04      | 32m                     | 18:36 | 35m        | 19:11 | 36m        | 19:48 | 11h 56m    | 8h 28m                     |    |            |      |    | Sa, 18. Mär |
| So, 19. Mär |               | 19:49–04:14*               | 8h 24m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 05:22      | 15:06      | 04:16                      | 36m        | 04:53 | 34m        | 05:28 | 32m        | 06:00      | 12h 05m    | 18:05      | 32m                     | 18:38 | 35m        | 19:13 | 36m        | 19:49 | 11h 52m    | 8h 24m                     |    |            |      |    | So, 19. Mär |
| Mo, 20. Mär |               | 19:51–04:12*               | 8h 20m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 05:46      | 16:31      | 04:14                      | 36m        | 04:50 | 35m        | 05:25 | 32m        | 05:58      | 12h 08m    | 18:07      | 32m                     | 18:39 | 35m        | 19:14 | 36m        | 19:51 | 11h 49m    | 8h 20m                     |    |            |      |    | Mo, 20. Mär |
| Di, 21. Mär |               | 19:53–04:09*               | 8h 16m     | AN <sub>+</sub> bis AN <sub>-</sub> | ●    | 06:07      | 17:54      | 04:12                      | 36m        | 04:48 | 35m        | 05:23 | 32m        | 05:56      | 12h 12m    | 18:08      | 32m                     | 18:40 | 35m        | 19:16 | 37m        | 19:53 | 11h 45m    | 8h 16m                     |    |            |      |    | Di, 21. Mär |
| Mi, 22. Mär |               | 19:54–04:07*               | 8h 12m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 06:26      | 19:14      | 04:09                      | 36m        | 04:46 | 35m        | 05:21 | 32m        | 05:54      | 12h 15m    | 18:09      | 32m                     | 18:42 | 35m        | 19:17 | 37m        | 19:54 | 11h 42m    | 8h 12m                     |    |            |      |    | Mi, 22. Mär |
| Do, 23. Mär |               | 20:33–04:05*               | 7h 31m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 06:44      | 20:33      | 04:07                      | 37m        | 04:44 | 35m        | 05:19 | 32m        | 05:52      | 12h 18m    | 18:11      | 32m                     | 18:43 | 35m        | 19:19 | 37m        | 19:56 | 11h 39m    | 8h 08m                     |    |            |      |    | Do, 23. Mär |
| Fr, 24. Mär |               | 21:51–04:03*               | 6h 11m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 07:04      | 21:51      | 04:05                      | 37m        | 04:42 | 35m        | 05:17 | 32m        | 05:50      | 12h 22m    | 18:12      | 32m                     | 18:45 | 35m        | 19:20 | 37m        | 19:58 | 11h 35m    | 8h 04m                     |    |            |      |    | Fr, 24. Mär |
| Sa, 25. Mär |               | 23:08–04:00*               | 4h 52m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 07:26      | 23:08      | 04:03                      | 37m        | 04:40 | 35m        | 05:15 | 32m        | 05:48      | 12h 25m    | 18:14      | 32m                     | 18:46 | 35m        | 19:22 | 37m        | 19:59 | 11h 32m    | 8h 01m                     |    |            |      |    | Sa, 25. Mär |
| So, 26. Mär | MESZ          | 01:20*–04:58*              | 3h 37m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 08:54      | 00:08      | 05:00                      | 37m        | 05:38 | 35m        | 06:13 | 32m        | 06:46      | 12h 29m    | 19:15      | 32m                     | 19:48 | 35m        | 20:23 | 37m        | 21:01 | 11h 28m    | 7h 57m                     |    |            |      |    | So, 26. Mär |
| Mo, 27. Mär | MESZ          | 02:26*–04:56*              | 2h 29m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 09:28      | 01:20      | 04:58                      | 37m        | 05:36 | 35m        | 06:11 | 32m        | 06:44      | 12h 32m    | 19:16      | 32m                     | 19:49 | 35m        | 20:25 | 37m        | 21:03 | 11h 25m    | 7h 53m                     |    |            |      |    | Mo, 27. Mär |
| Di, 28. Mär | MESZ          | 03:22*–04:53*              | 1h 31m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 10:10      | 02:26      | 04:56                      | 37m        | 05:34 | 35m        | 06:09 | 32m        | 06:42      | 12h 35m    | 19:18      | 32m                     | 19:50 | 35m        | 20:26 | 38m        | 21:04 | 11h 22m    | 7h 49m                     |    |            |      |    | Di, 28. Mär |
| Mi, 29. Mär | MESZ          | 04:07*–04:51*              | 43m        | M <sub>\</sub> bis AN <sub>-</sub>  | ◒    | 11:02      | 03:22      | 04:53                      | 38m        | 05:31 | 35m        | 06:07 | 32m        | 06:40      | 12h 39m    | 19:19      | 32m                     | 19:52 | 35m        | 20:28 | 38m        | 21:06 | 11h 18m    | 7h 45m                     |    |            |      |    | Mi, 29. Mär |
| Do, 30. Mär | MESZ          | 04:43*–04:49*              | 6m         | M <sub>\</sub> bis AN <sub>-</sub>  |      | 12:02      | 04:07      | 04:51                      | 38m        | 05:29 | 35m        | 06:05 | 32m        | 06:38      | 12h 42m    | 19:21      | 32m                     | 19:53 | 36m        | 20:29 | 38m        | 21:08 | 11h 15m    | 7h 40m                     |    |            |      |    | Do, 30. Mär |
| Fr, 31. Mär | MESZ          | —:~:~:~:~                  | –          | Mond stört                          |      | 13:07      | 04:43      | 04:49                      | 38m        | 05:27 | 35m        | 06:03 | 32m        | 06:36      | 12h 46m    | 19:22      | 32m                     | 19:55 | 36m        | 20:31 | 38m        | 21:10 | 11h 11m    | 7h 36m                     |    |            |      |    | Fr, 31. Mär |
| Sa, 1. Apr  | MESZ          | —:~:~:~:~                  | –          | Mond stört                          |      | 14:15      | 05:10      | 04:46                      | 38m        | 05:25 | 36m        | 06:01 | 32m        | 06:34      | 12h 49m    | 19:23      | 32m                     | 19:56 | 36m        | 20:32 | 38m        | 21:11 | 11h 08m    | 7h 32m                     |    |            |      |    | Sa, 1. Apr  |
| So, 2. Apr  | MESZ          | —:~:~:~:~                  | –          | Mond stört                          |      | 15:23      | 05:32      | 04:44                      | 38m        | 05:23 | 36m        | 05:59 | 32m        | 06:32      | 12h 52m    | 19:25      | 32m                     | 19:58 | 36m        | 20:34 | 39m        | 21:13 | 11h 05m    | 7h 28m                     |    |            |      |    |             |

| 1           | 2     | 3                          | 4          | 5                                   | 6    | 7          | 8          | 9                          | 10         | 11    | 12         | 13    | 14         | 15         | 16         | 17                      | 18         | 19    | 20         | 21    | 22         | 23       | 24                         | 25         | 26 | 27         | 28 | 29          |
|-------------|-------|----------------------------|------------|-------------------------------------|------|------------|------------|----------------------------|------------|-------|------------|-------|------------|------------|------------|-------------------------|------------|-------|------------|-------|------------|----------|----------------------------|------------|----|------------|----|-------------|
| 2023        | Zeit- | Astr. dunkel und kein Mond |            |                                     | Mond |            |            | Beginn der Morgendämmerung |            |       |            |       | Sonne      |            |            | Ende der Abenddämmerung |            |       |            |       | Nacht      | Astr. N. | Naut. dunkel und kein Mond |            |    | 2023       |    |             |
|             | zone  |                            | $\Delta t$ |                                     | Ph.  | $\nearrow$ | $\searrow$ | Astr.                      | $\Delta t$ | Naut. | $\Delta t$ | Bürg. | $\Delta t$ | $\nearrow$ | $\Delta t$ | $\searrow$              | $\Delta t$ | Bürg. | $\Delta t$ | Naut. | $\Delta t$ | Astr.    | $\Delta t$                 | $\Delta t$ |    | $\Delta t$ |    |             |
| Di, 11. Apr | MESZ  | 21:30–02:12*               | 4h 41m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 01:03      | 08:54      | 04:22                      | 40m        | 05:03 | 37m        | 05:41 | 33m        | 06:14      | 13h 22m    | 19:37                   | 33m        | 20:11 | 37m        | 20:49 | 41m        | 21:30    | 10h 35m                    | 6h 50m     |    |            |    | Di, 11. Apr |
| Mi, 12. Apr | MESZ  | 21:32–03:08*               | 5h 36m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 02:12      | 09:51      | 04:20                      | 41m        | 05:01 | 37m        | 05:39 | 33m        | 06:13      | 13h 25m    | 19:39                   | 33m        | 20:12 | 37m        | 20:50 | 41m        | 21:32    | 10h 32m                    | 6h 45m     |    |            |    | Mi, 12. Apr |
| Do, 13. Apr | MESZ  | 21:34–03:52*               | 6h 17m     | AN <sub>+</sub> bis M <sub>7</sub>  | ☾    | 03:08      | 11:02      | 04:17                      | 41m        | 04:59 | 37m        | 05:37 | 33m        | 06:11      | 13h 29m    | 19:40                   | 33m        | 20:14 | 38m        | 20:52 | 41m        | 21:34    | 10h 28m                    | 6h 41m     |    |            |    | Do, 13. Apr |
| Fr, 14. Apr | MESZ  | 21:36–04:13*               | 6h 36m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 03:52      | 12:22      | 04:15                      | 41m        | 04:57 | 38m        | 05:35 | 33m        | 06:09      | 13h 32m    | 19:41                   | 33m        | 20:15 | 38m        | 20:53 | 42m        | 21:36    | 10h 25m                    | 6h 36m     |    |            |    | Fr, 14. Apr |
| Sa, 15. Apr | MESZ  | 21:38–04:10*               | 6h 32m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 04:24      | 13:45      | 04:13                      | 42m        | 04:55 | 38m        | 05:33 | 33m        | 06:07      | 13h 35m    | 19:43                   | 34m        | 20:17 | 38m        | 20:55 | 42m        | 21:38    | 10h 22m                    | 6h 32m     |    |            |    | Sa, 15. Apr |
| So, 16. Apr | MESZ  | 21:40–04:08*               | 6h 27m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 04:50      | 15:08      | 04:10                      | 42m        | 04:53 | 38m        | 05:31 | 34m        | 06:05      | 13h 39m    | 19:44                   | 34m        | 20:18 | 38m        | 20:57 | 42m        | 21:40    | 10h 19m                    | 6h 27m     |    |            |    | So, 16. Apr |
| Mo, 17. Apr | MESZ  | 21:42–04:05*               | 6h 23m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 05:11      | 16:30      | 04:08                      | 42m        | 04:50 | 38m        | 05:29 | 34m        | 06:03      | 13h 42m    | 19:45                   | 34m        | 20:20 | 38m        | 20:59 | 43m        | 21:42    | 10h 15m                    | 6h 23m     |    |            |    | Mo, 17. Apr |
| Di, 18. Apr | MESZ  | 21:44–04:03*               | 6h 18m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 05:29      | 17:49      | 04:05                      | 43m        | 04:48 | 38m        | 05:27 | 34m        | 06:01      | 13h 45m    | 19:47                   | 34m        | 20:21 | 38m        | 21:00 | 43m        | 21:44    | 10h 12m                    | 6h 18m     |    |            |    | Di, 18. Apr |
| Mi, 19. Apr | MESZ  | 21:46–04:00*               | 6h 14m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 05:47      | 19:07      | 04:03                      | 43m        | 04:46 | 38m        | 05:25 | 34m        | 06:00      | 13h 48m    | 19:48                   | 34m        | 20:23 | 39m        | 21:02 | 43m        | 21:46    | 10h 09m                    | 6h 14m     |    |            |    | Mi, 19. Apr |
| Do, 20. Apr | MESZ  | 21:48–03:58*               | 6h 09m     | AN <sub>+</sub> bis AN <sub>-</sub> | ☀    | 06:06      | 20:26      | 04:00                      | 43m        | 04:44 | 39m        | 05:23 | 34m        | 05:58      | 13h 51m    | 19:50                   | 34m        | 20:24 | 39m        | 21:04 | 44m        | 21:48    | 10h 06m                    | 6h 09m     |    |            |    | Do, 20. Apr |
| Fr, 21. Apr | MESZ  | 21:50–03:55*               | 6h 05m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 06:27      | 21:44      | 03:58                      | 44m        | 04:42 | 39m        | 05:21 | 34m        | 05:56      | 13h 55m    | 19:51                   | 34m        | 20:26 | 39m        | 21:05 | 44m        | 21:50    | 10h 03m                    | 6h 05m     |    |            |    | Fr, 21. Apr |
| Sa, 22. Apr | MESZ  | 22:59–03:53*               | 4h 53m     | M <sub>7</sub> bis AN <sub>-</sub>  |      | 06:52      | 22:59      | 03:55                      | 44m        | 04:40 | 39m        | 05:19 | 34m        | 05:54      | 13h 58m    | 19:52                   | 34m        | 20:27 | 39m        | 21:07 | 45m        | 21:52    | 10h 00m                    | 6h 00m     |    |            |    | Sa, 22. Apr |
| So, 23. Apr | MESZ  | 00:10*–03:50*              | 3h 40m     | M <sub>7</sub> bis AN <sub>-</sub>  |      | 07:23      | —:—        | 03:53                      | 45m        | 04:38 | 39m        | 05:17 | 34m        | 05:52      | 14h 01m    | 19:54                   | 35m        | 20:29 | 40m        | 21:09 | 45m        | 21:54    | 9h 56m                     | 5h 55m     |    |            |    | So, 23. Apr |
| Mo, 24. Apr | MESZ  | 01:11*–03:48*              | 2h 36m     | M <sub>7</sub> bis AN <sub>-</sub>  |      | 08:02      | 00:10      | 03:50                      | 45m        | 04:36 | 40m        | 05:16 | 35m        | 05:51      | 14h 04m    | 19:55                   | 35m        | 20:30 | 40m        | 21:11 | 45m        | 21:56    | 9h 53m                     | 5h 51m     |    |            |    | Mo, 24. Apr |
| Di, 25. Apr | MESZ  | 02:02*–03:45*              | 1h 42m     | M <sub>7</sub> bis AN <sub>-</sub>  |      | 08:51      | 01:11      | 03:48                      | 45m        | 04:33 | 40m        | 05:14 | 35m        | 05:49      | 14h 07m    | 19:56                   | 35m        | 20:32 | 40m        | 21:12 | 46m        | 21:59    | 9h 50m                     | 5h 46m     |    |            |    | Di, 25. Apr |
| Mi, 26. Apr | MESZ  | 02:42*–03:43*              | 1h 00m     | M <sub>7</sub> bis AN <sub>-</sub>  |      | 09:48      | 02:02      | 03:45                      | 46m        | 04:31 | 40m        | 05:12 | 35m        | 05:47      | 14h 10m    | 19:58                   | 35m        | 20:33 | 40m        | 21:14 | 46m        | 22:01    | 9h 47m                     | 5h 41m     |    |            |    | Mi, 26. Apr |
| Do, 27. Apr | MESZ  | 03:12*–03:40*              | 27m        | M <sub>7</sub> bis AN <sub>-</sub>  | ☾    | 10:52      | 02:42      | 03:43                      | 46m        | 04:29 | 40m        | 05:10 | 35m        | 05:45      | 14h 13m    | 19:59                   | 35m        | 20:35 | 41m        | 21:16 | 47m        | 22:03    | 9h 44m                     | 5h 36m     |    |            |    | Do, 27. Apr |
| Fr, 28. Apr | MESZ  | 03:36*–03:37*              | 1m         | M <sub>7</sub> bis AN <sub>-</sub>  |      | 11:59      | 03:12      | 03:40                      | 47m        | 04:27 | 41m        | 05:08 | 35m        | 05:44      | 14h 16m    | 20:01                   | 35m        | 20:36 | 41m        | 21:18 | 47m        | 22:05    | 9h 41m                     | 5h 32m     |    |            |    | Fr, 28. Apr |
| Sa, 29. Apr | MESZ  | —:—:—:—                    | –          | Mond stört                          |      | 13:07      | 03:36      | 03:37                      | 47m        | 04:25 | 41m        | 05:06 | 35m        | 05:42      | 14h 19m    | 20:02                   | 35m        | 20:38 | 41m        | 21:19 | 48m        | 22:08    | 9h 38m                     | 5h 27m     |    |            |    | Sa, 29. Apr |
| So, 30. Apr | MESZ  | —:—:—:—                    | –          | Mond stört                          |      | 14:15      | 03:56      | 03:35                      | 48m        | 04:23 | 41m        | 05:05 | 35m        | 05:41      | 14h 22m    | 20:03                   | 36m        | 20:39 | 41m        | 21:21 | 48m        | 22:10    | 9h 35m                     | 5h 22m     |    |            |    | So, 30. Apr |
| Mo, 1. Mai  | MESZ  | —:—:—:—                    | –          | Mond stört                          |      | 15:23      | 04:13      | 03:32                      | 48m        | 04:21 | 41m        | 05:03 | 36m        | 05:39      | 14h 25m    | 20:05                   | 36m        | 20:41 | 42m        | 21:23 | 49m        | 22:12    | 9h 32m                     | 5h 17m     |    |            |    | Mo, 1. Mai  |
| Di, 2. Mai  | MESZ  | —:—:~:~:~                  | –          | Mond stört                          |      | 16:31      | 04:28      | 03:30                      | 49m        | 04:19 | 42m        | 05:01 | 36m        | 05:37      | 14h 28m    | 20:06                   | 36m        | 20:42 | 42m        | 21:25 | 49m        | 22:14    | 9h 29m                     | 5h 12m     |    |            |    | Di, 2. Mai  |
| Mi, 3. Mai  | MESZ  | —:~:~:~:~                  | –          | Mond stört                          |      | 17:41      | 04:44      | 03:27                      | 49m        | 04:17 | 42m        | 04:59 | 36m        | 05:36      | 14h 31m    | 20:07                   | 36m        | 20:44 | 42m        | 21:27 | 50m        | 22:17    | 9h 26m                     | 5h 08m     |    |            |    | Mi, 3. Mai  |
| Do, 4. Mai  | MESZ  | —:~:~:~:~                  | –          | Mond stört                          |      | 18:54      | 05:00      | 03:25                      | 50m        | 04:15 | 42m        | 04:58 | 36m        | 05:34      | 14h 34m    | 20:09                   | 36m        | 20:45 | 42m        | 21:28 | 50m        | 22:19    | 9h 23m                     | 5h 03m     |    |            |    | Do, 4. Mai  |
| Fr, 5. Mai  | MESZ  | —:~:~:~:~                  | –          | Mond stört                          | ☉    | 20:10      | 05:18      | 03:22                      | 50m        | 04:13 | 42m        | 04:56 | 36m        | 05:33      | 14h 37m    | 20:10                   | 36m        | 20:47 | 43m        | 21:30 | 51m        | 22:21    | 9h 21m                     | 4h 58m     |    |            |    | Fr, 5. Mai  |
| Sa, 6. Mai  | MESZ  | —:~:~:~:~                  | –          | Mond stört                          |      | 21:30      | 05:41      | 03:20                      | 51m        | 04:11 | 43m        | 04:54 | 36m        | 05:31      | 14h 40m    | 20:11                   | 37m        | 20:48 | 43m        | 21:32 | 51m        | 22:24    | 9h 18m                     | 4h 53m     |    |            |    | Sa, 6. Mai  |
| So, 7. Mai  | MESZ  | 22:26–22:49                | 22m        | AN <sub>+</sub> bis M <sub>7</sub>  |      | 22:49      | 06:11      | 03:17                      | 51m        | 04:09 | 43m        | 04:53 | 37m        | 05:30      | 14h 42m    | 20:13                   | 37m        | 20:50 | 43m        | 21:34 | 52m        | 22:26    | 9h 15m                     | 4h 48m     |    |            |    | So, 7. Mai  |
| Mo, 8. Mai  | MESZ  | 22:29–00:03*               | 1h 34m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | —:—        | 06:50      | 03:15                      | 52m        | 04:07 | 43m        | 04:51 | 37m        | 05:28      | 14h 45m    | 20:14                   | 37m        | 20:51 | 44m        | 21:35 | 53m        | 22:29    | 9h 12m                     | 4h 43m     |    |            |    | Mo, 8. Mai  |
| Di, 9. Mai  | MESZ  | 22:31–01:05*               | 2h 33m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 00:03      | 07:44      | 03:12                      | 53m        | 04:05 | 44m        | 04:49 | 37m        | 05:27      | 14h 48m    | 20:15                   | 37m        | 20:53 | 44m        | 21:37 | 53m        | 22:31    | 9h 10m                     | 4h 38m     |    |            |    | Di, 9. Mai  |
| Mi, 10. Mai | MESZ  | 22:33–01:52*               | 3h 18m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 01:05      | 08:52      | 03:10                      | 53m        | 04:04 | 44m        | 04:48 | 37m        | 05:25      | 14h 51m    | 20:17                   | 37m        | 20:54 | 44m        | 21:39 | 54m        | 22:33    | 9h 07m                     | 4h 33m     |    |            |    | Mi, 10. Mai |
| Do, 11. Mai | MESZ  | 22:36–02:28*               | 3h 52m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 01:52      | 10:10      | 03:07                      | 54m        | 04:02 | 44m        | 04:46 | 37m        | 05:24      | 14h 53m    | 20:18                   | 37m        | 20:56 | 44m        | 21:41 | 55m        | 22:36    | 9h 04m                     | 4h 28m     |    |            |    | Do, 11. Mai |
| Fr, 12. Mai | MESZ  | 22:38–02:55*               | 4h 16m     | AN <sub>+</sub> bis M <sub>7</sub>  | ☾    | 02:28      | 11:33      | 03:05                      | 55m        | 04:00 | 44m        | 04:45 | 37m        | 05:23      | 14h 56m    | 20:19                   | 38m        | 20:57 | 45m        | 21:43 | 55m        | 22:38    | 9h 02m                     | 4h 23m     |    |            |    | Fr, 12. Mai |
| Sa, 13. Mai | MESZ  | 22:41–03:00*               | 4h 18m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 02:55      | 12:55      | 03:02                      | 55m        | 03:58 | 45m        | 04:43 | 38m        | 05:21      | 14h 59m    | 20:20                   | 38m        | 20:59 | 45m        | 21:44 | 56m        | 22:41    | 8h 59m                     | 4h 18m     |    |            |    | Sa, 13. Mai |
| So, 14. Mai | MESZ  | 22:43–02:57*               | 4h 14m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 03:17      | 14:15      | 03:00                      | 56m        | 03:56 | 45m        | 04:42 | 38m        | 05:20      | 15h 01m    | 20:22                   | 38m        | 21:00 | 45m        | 21:46 | 57m        | 22:43    | 8h 57m                     | 4h 14m     |    |            |    | So, 14. Mai |
| Mo, 15. Mai | MESZ  | 22:46–02:55*               | 4h 09m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 03:35      | 15:33      | 02:57                      | 57m        | 03:55 | 45m        | 04:40 | 38m        | 05:19      | 15h 04m    | 20:23                   | 38m        | 21:02 | 46m        | 21:48 | 58m        | 22:46    | 8h 54m                     | 4h 09m     |    |            |    | Mo, 15. Mai |
| Di, 16. Mai | MESZ  | 22:48–02:52*               | 4h 04m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 03:53      | 16:49      | 02:55                      | 58m        | 03:53 | 46m        | 04:39 | 38m        | 05:18      | 15h 06m    | 20:24                   | 38m        | 21:03 | 46m        | 21:50 | 58m        | 22:48    | 8h 52m                     | 4h 04m     |    |            |    | Di, 16. Mai |
| Mi, 17. Mai | MESZ  | 22:51–02:50*               | 3h 59m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 04:10      | 18:06      | 02:52                      | 58m        | 03:51 | 46m        | 04:38 | 38m        | 05:16      | 15h 09m    | 20:25                   | 38m        | 21:04 | 46m        | 21:51 | 59m        | 22:51    | 8h 49m                     | 3h 59m     |    |            |    | Mi, 17. Mai |
| Do, 18. Mai | MESZ  | 22:53–02:48*               | 3h 54m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 04:30      | 19:23      | 02:50                      | 59m        | 03:50 | 46m        | 04:36 | 38m        | 05:15      | 15h 11m    | 20:27                   | 39m        | 21:06 | 47m        | 21:53 | 1h 00m     | 22:53    | 8h 47m                     | 3h 54m     |    |            |    | Do, 18. Mai |
| Fr, 19. Mai | MESZ  | 22:56–02:45*               | 3h 49m     | AN <sub>+</sub> bis AN <sub>-</sub> | ☀    | 04:52      | 20:39      | 02:48                      | 1h 00m     | 03:48 | 47m        | 04:35 | 39m        | 05:14      | 15h 13m    | 20:28                   | 39m        | 21:07 | 47m        | 21:55 | 1h 01m     | 22:56    | 8h 45m                     | 3h 49m     |    |            |    | Fr, 19. Mai |
| Sa, 20. Mai | MESZ  | 22:58–02:43*               | 3h 44m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 05:21      | 21:52      | 02:45                      | 1h 01m     | 03:46 | 47m        | 04:34 | 39m        | 05:13      | 15h 15m    | 20:29                   | 39m        | 21:09 | 47m        | 21:56 | 1h 02m     | 22:58    | 8h 42m                     | 3h 44m     |    |            |    | Sa, 20. Mai |
| So, 21. Mai | MESZ  | 23:01–02:40*               | 3h 39m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 05:56      | 22:58      | 02:43                      | 1h 02m     | 03:45 | 47m        | 04:33 | 39m        | 05:12      | 15h 18m    | 20:30                   | 39m        | 21:10 | 48m        | 21:58 | 1h 02m     | 23:01    | 8h 40m                     | 3h 39m     |    |            |    | So, 21. Mai |
| Mo, 22. Mai | MESZ  | 23:54–02:38*               | 2h 44m     | M <sub>7</sub> bis AN <sub>-</sub>  |      | 06:41      | 23:54      | 02:40                      | 1h 02m     | 03:43 | 48m        | 04:31 | 39m        | 05:11      | 15h 20m    | 20:31                   | 39m        | 21:11 | 48m        | 22:00 | 1h 03m     | 23:03    | 8h 38m                     | 3h 34m     |    |            |    | Mo,         |

| 1           | 2     | 3                          | 4          | 5                                   | 6    | 7          | 8          | 9                          | 10         | 11    | 12         | 13    | 14         | 15         | 16         | 17                      | 18         | 19    | 20         | 21    | 22         | 23       | 24                         | 25         | 26 | 27         | 28 | 29          |
|-------------|-------|----------------------------|------------|-------------------------------------|------|------------|------------|----------------------------|------------|-------|------------|-------|------------|------------|------------|-------------------------|------------|-------|------------|-------|------------|----------|----------------------------|------------|----|------------|----|-------------|
| 2023        | Zeit- | Astr. dunkel und kein Mond |            |                                     | Mond |            |            | Beginn der Morgendämmerung |            |       |            |       | Sonne      |            |            | Ende der Abenddämmerung |            |       |            |       | Nacht      | Astr. N. | Naut. dunkel und kein Mond |            |    | 2023       |    |             |
|             | zone  |                            | $\Delta t$ |                                     | Ph.  | $\nearrow$ | $\searrow$ | Astr.                      | $\Delta t$ | Naut. | $\Delta t$ | Bürg. | $\Delta t$ | $\nearrow$ | $\Delta t$ | $\searrow$              | $\Delta t$ | Bürg. | $\Delta t$ | Naut. | $\Delta t$ | Astr.    | $\Delta t$                 | $\Delta t$ |    | $\Delta t$ |    |             |
| Mi, 31. Mai | MESZ  | —:—:—:—                    | —          | Mond stört                          |      | 16:32      | 03:04      | 02:20                      | 1h 11m     | 03:32 | 50m        | 04:22 | 41m        | 05:03      | 15h 37m    | 20:41                   | 41m        | 21:22 | 51m        | 22:13 | 1h 12m     | 23:25    | 8h 21m                     | 2h 52m     |    |            |    | Mi, 31. Mai |
| Do, 1. Jun  | MESZ  | —:—:—:—                    | —          | Mond stört                          |      | 17:47      | 03:21      | 02:18                      | 1h 12m     | 03:30 | 51m        | 04:22 | 41m        | 05:03      | 15h 38m    | 20:42                   | 41m        | 21:23 | 51m        | 22:15 | 1h 13m     | 23:28    | 8h 20m                     | 2h 48m     |    |            |    | Do, 1. Jun  |
| Fr, 2. Jun  | MESZ  | —:—:~:~:~                  | —          | Mond stört                          |      | 19:05      | 03:42      | 02:16                      | 1h 13m     | 03:29 | 51m        | 04:21 | 41m        | 05:02      | 15h 40m    | 20:43                   | 41m        | 21:24 | 51m        | 22:16 | 1h 14m     | 23:30    | 8h 18m                     | 2h 44m     |    |            |    | Fr, 2. Jun  |
| Sa, 3. Jun  | MESZ  | —:~:~:~:~                  | —          | Mond stört                          |      | 20:26      | 04:08      | 02:14                      | 1h 14m     | 03:28 | 51m        | 04:20 | 41m        | 05:02      | 15h 41m    | 20:44                   | 41m        | 21:25 | 51m        | 22:17 | 1h 15m     | 23:32    | 8h 17m                     | 2h 40m     |    |            |    | Sa, 3. Jun  |
| So, 4. Jun  | MESZ  | —:~:~:~:~                  | —          | Mond stört                          | ○    | 21:45      | 04:44      | 02:12                      | 1h 15m     | 03:28 | 51m        | 04:20 | 41m        | 05:01      | 15h 43m    | 20:44                   | 41m        | 21:26 | 52m        | 22:18 | 1h 16m     | 23:34    | 8h 16m                     | 2h 36m     |    |            |    | So, 4. Jun  |
| Mo, 5. Jun  | MESZ  | —:~:~:~:~                  | —          | Mond stört                          |      | 22:54      | 05:33      | 02:11                      | 1h 16m     | 03:27 | 52m        | 04:19 | 41m        | 05:01      | 15h 44m    | 20:45                   | 41m        | 21:27 | 52m        | 22:19 | 1h 17m     | 23:37    | 8h 14m                     | 2h 32m     |    |            |    | Mo, 5. Jun  |
| Di, 6. Jun  | MESZ  | 23:39–23:48                | 9m         | AN <sub>+</sub> bis M <sub>7</sub>  |      | 23:48      | 06:37      | 02:09                      | 1h 17m     | 03:26 | 52m        | 04:18 | 41m        | 05:00      | 15h 45m    | 20:46                   | 41m        | 21:28 | 52m        | 22:21 | 1h 18m     | 23:39    | 8h 13m                     | 2h 28m     |    |            |    | Di, 6. Jun  |
| Mi, 7. Jun  | MESZ  | 23:41–00:29*               | 48m        | AN <sub>+</sub> bis M <sub>7</sub>  |      | —:—        | 07:55      | 02:07                      | 1h 18m     | 03:25 | 52m        | 04:18 | 41m        | 05:00      | 15h 47m    | 20:47                   | 42m        | 21:29 | 52m        | 22:22 | 1h 18m     | 23:41    | 8h 12m                     | 2h 24m     |    |            |    | Mi, 7. Jun  |
| Do, 8. Jun  | MESZ  | 23:43–00:59*               | 1h 16m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 00:29      | 09:19      | 02:05                      | 1h 18m     | 03:24 | 52m        | 04:17 | 42m        | 04:59      | 15h 48m    | 20:47                   | 42m        | 21:30 | 53m        | 22:23 | 1h 19m     | 23:43    | 8h 11m                     | 2h 21m     |    |            |    | Do, 8. Jun  |
| Fr, 9. Jun  | MESZ  | 23:44–01:22*               | 1h 37m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 00:59      | 10:43      | 02:04                      | 1h 19m     | 03:24 | 53m        | 04:17 | 42m        | 04:59      | 15h 49m    | 20:48                   | 42m        | 21:30 | 53m        | 22:24 | 1h 20m     | 23:44    | 8h 10m                     | 2h 17m     |    |            |    | Fr, 9. Jun  |
| Sa, 10. Jun | MESZ  | 23:46–01:42*               | 1h 55m     | AN <sub>+</sub> bis M <sub>7</sub>  | ◐    | 01:22      | 12:04      | 02:02                      | 1h 20m     | 03:23 | 53m        | 04:17 | 42m        | 04:59      | 15h 50m    | 20:49                   | 42m        | 21:31 | 53m        | 22:25 | 1h 21m     | 23:46    | 8h 09m                     | 2h 14m     |    |            |    | Sa, 10. Jun |
| So, 11. Jun | MESZ  | 23:48–01:59*               | 2h 11m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 01:42      | 13:23      | 02:01                      | 1h 21m     | 03:23 | 53m        | 04:16 | 42m        | 04:59      | 15h 50m    | 20:49                   | 42m        | 21:32 | 53m        | 22:25 | 1h 22m     | 23:48    | 8h 08m                     | 2h 12m     |    |            |    | So, 11. Jun |
| Mo, 12. Jun | MESZ  | 23:49–01:59*               | 2h 09m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 01:59      | 14:39      | 02:00                      | 1h 22m     | 03:22 | 53m        | 04:16 | 42m        | 04:58      | 15h 51m    | 20:50                   | 42m        | 21:32 | 53m        | 22:26 | 1h 23m     | 23:49    | 8h 08m                     | 2h 09m     |    |            |    | Mo, 12. Jun |
| Di, 13. Jun | MESZ  | 23:51–01:58*               | 2h 06m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 02:17      | 15:54      | 01:59                      | 1h 23m     | 03:22 | 53m        | 04:16 | 42m        | 04:58      | 15h 52m    | 20:51                   | 42m        | 21:33 | 53m        | 22:27 | 1h 23m     | 23:51    | 8h 07m                     | 2h 06m     |    |            |    | Di, 13. Jun |
| Mi, 14. Jun | MESZ  | 23:52–01:57*               | 2h 04m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 02:35      | 17:09      | 01:58                      | 1h 23m     | 03:22 | 53m        | 04:16 | 42m        | 04:58      | 15h 53m    | 20:51                   | 42m        | 21:34 | 54m        | 22:28 | 1h 24m     | 23:52    | 8h 06m                     | 2h 04m     |    |            |    | Mi, 14. Jun |
| Do, 15. Jun | MESZ  | 23:53–01:56*               | 2h 02m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 02:56      | 18:24      | 01:57                      | 1h 24m     | 03:21 | 54m        | 04:15 | 42m        | 04:58      | 15h 53m    | 20:52                   | 42m        | 21:34 | 54m        | 22:28 | 1h 24m     | 23:53    | 8h 06m                     | 2h 02m     |    |            |    | Do, 15. Jun |
| Fr, 16. Jun | MESZ  | 23:54–01:56*               | 2h 01m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 03:22      | 19:38      | 01:56                      | 1h 24m     | 03:21 | 54m        | 04:15 | 42m        | 04:58      | 15h 54m    | 20:52                   | 42m        | 21:35 | 54m        | 22:29 | 1h 25m     | 23:54    | 8h 06m                     | 2h 01m     |    |            |    | Fr, 16. Jun |
| Sa, 17. Jun | MESZ  | 23:55–01:55*               | 1h 59m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 03:54      | 20:46      | 01:56                      | 1h 25m     | 03:21 | 54m        | 04:15 | 42m        | 04:58      | 15h 54m    | 20:52                   | 42m        | 21:35 | 54m        | 22:29 | 1h 25m     | 23:55    | 8h 05m                     | 1h 59m     |    |            |    | Sa, 17. Jun |
| So, 18. Jun | MESZ  | 23:56–01:55*               | 1h 58m     | AN <sub>+</sub> bis AN <sub>-</sub> | ◑    | 04:35      | 21:45      | 01:55                      | 1h 25m     | 03:21 | 54m        | 04:15 | 42m        | 04:58      | 15h 54m    | 20:53                   | 42m        | 21:35 | 54m        | 22:30 | 1h 26m     | 23:56    | 8h 05m                     | 1h 58m     |    |            |    | So, 18. Jun |
| Mo, 19. Jun | MESZ  | 23:57–01:55*               | 1h 58m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 05:26      | 22:34      | 01:55                      | 1h 26m     | 03:21 | 54m        | 04:15 | 42m        | 04:58      | 15h 54m    | 20:53                   | 42m        | 21:36 | 54m        | 22:30 | 1h 26m     | 23:57    | 8h 05m                     | 1h 58m     |    |            |    | Mo, 19. Jun |
| Di, 20. Jun | MESZ  | 23:57–01:55*               | 1h 57m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 06:26      | 23:12      | 01:55                      | 1h 26m     | 03:21 | 54m        | 04:16 | 42m        | 04:58      | 15h 55m    | 20:53                   | 42m        | 21:36 | 54m        | 22:30 | 1h 26m     | 23:57    | 8h 05m                     | 1h 57m     |    |            |    | Di, 20. Jun |
| Mi, 21. Jun | MESZ  | 23:57–01:55*               | 1h 57m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 07:31      | 23:41      | 01:55                      | 1h 26m     | 03:21 | 54m        | 04:16 | 42m        | 04:58      | 15h 55m    | 20:54                   | 42m        | 21:36 | 54m        | 22:31 | 1h 26m     | 23:57    | 8h 05m                     | 1h 57m     |    |            |    | Mi, 21. Jun |
| Do, 22. Jun | MESZ  | 00:04*–01:55*              | 1h 51m     | M <sub>7</sub> bis AN <sub>-</sub>  |      | 08:39      | —:—        | 01:55                      | 1h 26m     | 03:21 | 54m        | 04:16 | 42m        | 04:59      | 15h 55m    | 20:54                   | 42m        | 21:36 | 54m        | 22:31 | 1h 26m     | 23:57    | 8h 05m                     | 1h 58m     |    |            |    | Do, 22. Jun |
| Fr, 23. Jun | MESZ  | 00:22*–01:56*              | 1h 33m     | M <sub>7</sub> bis AN <sub>-</sub>  |      | 09:46      | 00:04      | 01:55                      | 1h 26m     | 03:22 | 54m        | 04:16 | 42m        | 04:59      | 15h 54m    | 20:54                   | 42m        | 21:37 | 54m        | 22:31 | 1h 26m     | 23:57    | 8h 05m                     | 1h 58m     |    |            |    | Fr, 23. Jun |
| Sa, 24. Jun | MESZ  | 00:39*–01:57*              | 1h 18m     | M <sub>7</sub> bis AN <sub>-</sub>  |      | 10:53      | 00:22      | 01:56                      | 1h 26m     | 03:22 | 54m        | 04:16 | 42m        | 04:59      | 15h 54m    | 20:54                   | 42m        | 21:37 | 54m        | 22:31 | 1h 25m     | 23:57    | 8h 05m                     | 1h 59m     |    |            |    | Sa, 24. Jun |
| So, 25. Jun | MESZ  | 00:54*–01:57*              | 1h 03m     | M <sub>7</sub> bis AN <sub>-</sub>  |      | 11:59      | 00:39      | 01:57                      | 1h 25m     | 03:22 | 54m        | 04:17 | 42m        | 05:00      | 15h 54m    | 20:54                   | 42m        | 21:37 | 54m        | 22:31 | 1h 25m     | 23:57    | 8h 05m                     | 2h 00m     |    |            |    | So, 25. Jun |
| Mo, 26. Jun | MESZ  | 01:08*–01:58*              | 49m        | M <sub>7</sub> bis AN <sub>-</sub>  | ◒    | 13:05      | 00:54      | 01:57                      | 1h 25m     | 03:23 | 54m        | 04:17 | 42m        | 05:00      | 15h 54m    | 20:54                   | 42m        | 21:37 | 54m        | 22:31 | 1h 25m     | 23:56    | 8h 06m                     | 2h 02m     |    |            |    | Mo, 26. Jun |
| Di, 27. Jun | MESZ  | 01:24*–01:59*              | 35m        | M <sub>7</sub> bis AN <sub>-</sub>  |      | 14:13      | 01:08      | 01:58                      | 1h 25m     | 03:23 | 54m        | 04:18 | 42m        | 05:00      | 15h 53m    | 20:54                   | 42m        | 21:37 | 54m        | 22:31 | 1h 24m     | 23:55    | 8h 06m                     | 2h 04m     |    |            |    | Di, 27. Jun |
| Mi, 28. Jun | MESZ  | 01:43*–02:01*              | 17m        | M <sub>7</sub> bis AN <sub>-</sub>  |      | 15:24      | 01:24      | 01:59                      | 1h 24m     | 03:24 | 54m        | 04:18 | 42m        | 05:01      | 15h 53m    | 20:54                   | 42m        | 21:36 | 54m        | 22:31 | 1h 24m     | 23:55    | 8h 07m                     | 2h 06m     |    |            |    | Mi, 28. Jun |
| Do, 29. Jun | MESZ  | —:~:~:~:~                  | —          | Mond stört                          |      | 16:40      | 01:43      | 02:01                      | 1h 24m     | 03:25 | 54m        | 04:19 | 42m        | 05:01      | 15h 52m    | 20:54                   | 42m        | 21:36 | 53m        | 22:30 | 1h 23m     | 23:54    | 8h 07m                     | 2h 08m     |    |            |    | Do, 29. Jun |
| Fr, 30. Jun | MESZ  | —:~:~:~:~                  | —          | Mond stört                          |      | 17:59      | 02:06      | 02:02                      | 1h 23m     | 03:25 | 53m        | 04:19 | 42m        | 05:02      | 15h 51m    | 20:54                   | 42m        | 21:36 | 53m        | 22:30 | 1h 22m     | 23:52    | 8h 08m                     | 2h 11m     |    |            |    | Fr, 30. Jun |
| Sa, 1. Jul  | MESZ  | —:~:~:~:~                  | —          | Mond stört                          |      | 19:19      | 02:36      | 02:04                      | 1h 22m     | 03:26 | 53m        | 04:20 | 42m        | 05:02      | 15h 51m    | 20:54                   | 42m        | 21:36 | 53m        | 22:29 | 1h 21m     | 23:51    | 8h 09m                     | 2h 13m     |    |            |    | Sa, 1. Jul  |
| So, 2. Jul  | MESZ  | —:~:~:~:~                  | —          | Mond stört                          |      | 20:34      | 03:19      | 02:05                      | 1h 21m     | 03:27 | 53m        | 04:21 | 42m        | 05:03      | 15h 50m    | 20:53                   | 42m        | 21:36 | 53m        | 22:29 | 1h 21m     | 23:50    | 8h 10m                     | 2h 16m     |    |            |    | So, 2. Jul  |
| Mo, 3. Jul  | MESZ  | —:~:~:~:~                  | —          | Mond stört                          | ○    | 21:37      | 04:16      | 02:07                      | 1h 21m     | 03:28 | 53m        | 04:21 | 42m        | 05:04      | 15h 49m    | 20:53                   | 42m        | 21:35 | 53m        | 22:28 | 1h 20m     | 23:49    | 8h 11m                     | 2h 20m     |    |            |    | Mo, 3. Jul  |
| Di, 4. Jul  | MESZ  | —:~:~:~:~                  | —          | Mond stört                          |      | 22:24      | 05:30      | 02:09                      | 1h 20m     | 03:29 | 53m        | 04:22 | 42m        | 05:04      | 15h 48m    | 20:53                   | 42m        | 21:35 | 53m        | 22:28 | 1h 19m     | 23:47    | 8h 12m                     | 2h 23m     |    |            |    | Di, 4. Jul  |
| Mi, 5. Jul  | MESZ  | —:~:~:~:~                  | —          | Mond stört                          |      | 22:59      | 06:55      | 02:11                      | 1h 19m     | 03:30 | 53m        | 04:23 | 42m        | 05:05      | 15h 47m    | 20:52                   | 41m        | 21:34 | 52m        | 22:27 | 1h 18m     | 23:45    | 8h 13m                     | 2h 27m     |    |            |    | Mi, 5. Jul  |
| Do, 6. Jul  | MESZ  | —:~:~:~:~                  | —          | Mond stört                          |      | 23:25      | 08:23      | 02:12                      | 1h 18m     | 03:31 | 52m        | 04:24 | 41m        | 05:06      | 15h 46m    | 20:52                   | 41m        | 21:34 | 52m        | 22:26 | 1h 17m     | 23:44    | 8h 14m                     | 2h 30m     |    |            |    | Do, 6. Jul  |
| Fr, 7. Jul  | MESZ  | 23:42–23:47                | 4m         | AN <sub>+</sub> bis M <sub>7</sub>  |      | 23:47      | 09:48      | 02:15                      | 1h 17m     | 03:32 | 52m        | 04:25 | 41m        | 05:06      | 15h 45m    | 20:51                   | 41m        | 21:33 | 52m        | 22:26 | 1h 16m     | 23:42    | 8h 15m                     | 2h 34m     |    |            |    | Fr, 7. Jul  |
| Sa, 8. Jul  | MESZ  | 23:40–00:05*               | 25m        | AN <sub>+</sub> bis M <sub>7</sub>  |      | —:~        | 11:10      | 02:17                      | 1h 16m     | 03:33 | 52m        | 04:25 | 41m        | 05:07      | 15h 43m    | 20:51                   | 41m        | 21:33 | 52m        | 22:25 | 1h 15m     | 23:40    | 8h 17m                     | 2h 38m     |    |            |    | Sa, 8. Jul  |
| So, 9. Jul  | MESZ  | 23:38–00:23*               | 44m        | AN <sub>+</sub> bis M <sub>7</sub>  |      | 00:05      | 12:28      | 02:19                      | 1h 15m     | 03:34 | 52m        | 04:26 | 41m        | 05:08      | 15h 42m    | 20:50                   | 41m        | 21:32 | 51m        | 22:24 | 1h 14m     | 23:38    | 8h 18m                     | 2h 42m     |    |            |    | So, 9. Jul  |
| Mo, 10. Jul | MESZ  | 23:36–00:41*               | 1h 04m     | AN <sub>+</sub> bis M <sub>7</sub>  | ◑    | 00:23      | 13:45      | 02:21                      | 1h 14m     | 03:36 | 51m        | 04:27 | 41m        | 05:09      | 15h 41m    | 20:50                   | 41m        | 21:31 | 51m        | 22:23 | 1h 13m     | 23:36    | 8h 19m                     | 2h 46m     |    |            |    | Mo, 10. Jul |
| Di, 11. Jul | MESZ  | 23:34–01:01*               | 1h 26m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 00:41      | 15:00      | 02:23                      | 1h 13m     | 03:37 | 51m        | 04:28 | 41m        | 05:10      | 15h 39m    | 20:49                   | 41m        | 21:30 | 51m        |       |            |          |                            |            |    |            |    |             |

| 1           | 2             | 3                          | 4          | 5   | 6    | 7          | 8          | 9                          | 10         | 11    | 12         | 13    | 14         | 15         | 16         | 17         | 18         | 19                      | 20         | 21    | 22         | 23    | 24         | 25         | 26                         | 27         | 28 | 29   |             |
|-------------|---------------|----------------------------|------------|---|------|------------|------------|----------------------------|------------|-------|------------|-------|------------|------------|------------|------------|------------|-------------------------|------------|-------|------------|-------|------------|------------|----------------------------|------------|----|------|-------------|
| 2023        | Zeit-<br>zone | Astr. dunkel und kein Mond |            |   | Mond |            |            | Beginn der Morgendämmerung |            |       |            |       | Sonne      |            |            |            |            | Ende der Abenddämmerung |            |       |            |       | Nacht      | Astr. N.   | Naut. dunkel und kein Mond |            |    | 2023 |             |
|             |               |                            | $\Delta t$ |   | Ph.  | $\nearrow$ | $\searrow$ | Astr.                      | $\Delta t$ | Naut. | $\Delta t$ | Bürg. | $\Delta t$ | $\nearrow$ | $\Delta t$ | $\searrow$ | $\Delta t$ | Bürg.                   | $\Delta t$ | Naut. | $\Delta t$ | Astr. | $\Delta t$ | $\Delta t$ |                            | $\Delta t$ |    |      |             |
| Do, 20. Jul | MESZ          | 23:15–02:47*               | 3h 32m     | AN <sub>+</sub> bis AN <sub>-</sub>       |      | 07:36      | 22:28      | 02:45                      | 1h 05m     | 03:50 | 48m        | 04:39 | 40m        | 05:19      | 15h 23m    | 20:42      | 39m        | 21:22                   | 48m        | 22:10 | 1h 04m     | 23:15 | 8h 37m     | 3h 32m     |                            |            |    |      | Do, 20. Jul |
| Fr, 21. Jul | MESZ          | 23:12–02:50*               | 3h 37m     | AN <sub>+</sub> bis AN <sub>-</sub>       |      | 08:43      | 22:44      | 02:47                      | 1h 04m     | 03:51 | 48m        | 04:40 | 39m        | 05:20      | 15h 21m    | 20:41      | 39m        | 21:21                   | 48m        | 22:09 | 1h 03m     | 23:12 | 8h 39m     | 3h 37m     |                            |            |    |      | Fr, 21. Jul |
| Sa, 22. Jul | MESZ          | 23:10–02:52*               | 3h 42m     | AN <sub>+</sub> bis AN <sub>-</sub>       |      | 09:48      | 22:59      | 02:50                      | 1h 03m     | 03:53 | 48m        | 04:41 | 39m        | 05:21      | 15h 19m    | 20:40      | 39m        | 21:19                   | 47m        | 22:07 | 1h 02m     | 23:10 | 8h 41m     | 3h 42m     |                            |            |    |      | Sa, 22. Jul |
| So, 23. Jul | MESZ          | 23:14–02:54*               | 3h 40m     | M <sub>\searrow</sub> bis AN <sub>-</sub> |      | 10:54      | 23:14      | 02:52                      | 1h 02m     | 03:54 | 47m        | 04:42 | 39m        | 05:22      | 15h 16m    | 20:39      | 39m        | 21:18                   | 47m        | 22:06 | 1h 01m     | 23:07 | 8h 44m     | 3h 47m     |                            |            |    |      | So, 23. Jul |
| Mo, 24. Jul | MESZ          | 23:29–02:57*               | 3h 28m     | M <sub>\searrow</sub> bis AN <sub>-</sub> |      | 12:00      | 23:29      | 02:54                      | 1h 01m     | 03:56 | 47m        | 04:44 | 39m        | 05:23      | 15h 14m    | 20:38      | 39m        | 21:17                   | 47m        | 22:04 | 1h 00m     | 23:05 | 8h 46m     | 3h 51m     |                            |            |    |      | Mo, 24. Jul |
| Di, 25. Jul | MESZ          | 23:46–02:59*               | 3h 13m     | M <sub>\searrow</sub> bis AN <sub>-</sub> |      | 13:08      | 23:46      | 02:57                      | 1h 00m     | 03:58 | 47m        | 04:45 | 39m        | 05:24      | 15h 12m    | 20:37      | 39m        | 21:16                   | 46m        | 22:03 | 59m        | 23:03 | 8h 48m     | 3h 56m     |                            |            |    |      | Di, 25. Jul |
| Mi, 26. Jul | MESZ          | 00:06*–03:02*              | 2h 56m     | M <sub>\searrow</sub> bis AN <sub>-</sub> | ☾    | 14:20      | —:—        | 02:59                      | 59m        | 03:59 | 46m        | 04:46 | 39m        | 05:25      | 15h 10m    | 20:35      | 38m        | 21:14                   | 46m        | 22:01 | 59m        | 23:00 | 8h 51m     | 4h 01m     |                            |            |    |      | Mi, 26. Jul |
| Do, 27. Jul | MESZ          | 00:32*–03:04*              | 2h 32m     | M <sub>\searrow</sub> bis AN <sub>-</sub> |      | 15:35      | 00:06      | 03:02                      | 59m        | 04:01 | 46m        | 04:48 | 38m        | 05:27      | 15h 07m    | 20:34      | 38m        | 21:13                   | 46m        | 21:59 | 58m        | 22:58 | 8h 53m     | 4h 06m     |                            |            |    |      | Do, 27. Jul |
| Fr, 28. Jul | MESZ          | 01:07*–03:07*              | 1h 59m     | M <sub>\searrow</sub> bis AN <sub>-</sub> |      | 16:54      | 00:32      | 03:04                      | 58m        | 04:03 | 46m        | 04:49 | 38m        | 05:28      | 15h 05m    | 20:33      | 38m        | 21:12                   | 46m        | 21:58 | 57m        | 22:55 | 8h 55m     | 4h 11m     |                            |            |    |      | Fr, 28. Jul |
| Sa, 29. Jul | MESZ          | 01:56*–03:09*              | 1h 13m     | M <sub>\searrow</sub> bis AN <sub>-</sub> |      | 18:10      | 01:07      | 03:07                      | 57m        | 04:04 | 46m        | 04:50 | 38m        | 05:29      | 15h 02m    | 20:32      | 38m        | 21:10                   | 45m        | 21:56 | 56m        | 22:53 | 8h 58m     | 4h 16m     |                            |            |    |      | Sa, 29. Jul |
| So, 30. Jul | MESZ          | 03:02*–03:12*              | 9m         | M <sub>\searrow</sub> bis AN <sub>-</sub> |      | 19:19      | 01:56      | 03:09                      | 56m        | 04:06 | 45m        | 04:52 | 38m        | 05:30      | 15h 00m    | 20:30      | 38m        | 21:09                   | 45m        | 21:54 | 56m        | 22:50 | 9h 00m     | 4h 21m     |                            |            |    |      | So, 30. Jul |
| Mo, 31. Jul | MESZ          | —:—:—:—                    | –          | Mond stört                                |      | 20:13      | 03:02      | 03:12                      | 56m        | 04:08 | 45m        | 04:53 | 38m        | 05:31      | 14h 57m    | 20:29      | 37m        | 21:07                   | 45m        | 21:52 | 55m        | 22:48 | 9h 03m     | 4h 26m     |                            |            |    |      | Mo, 31. Jul |
| Di, 1. Aug  | MESZ          | —:—:—:—                    | –          | Mond stört                                | ☾    | 20:54      | 04:23      | 03:14                      | 55m        | 04:09 | 45m        | 04:55 | 37m        | 05:33      | 14h 55m    | 20:28      | 37m        | 21:06                   | 44m        | 21:50 | 54m        | 22:45 | 9h 05m     | 4h 31m     |                            |            |    |      | Di, 1. Aug  |
| Mi, 2. Aug  | MESZ          | —:—:~:~                    | –          | Mond stört                                |      | 21:25      | 05:52      | 03:16                      | 54m        | 04:11 | 44m        | 04:56 | 37m        | 05:34      | 14h 52m    | 20:26      | 37m        | 21:04                   | 44m        | 21:49 | 54m        | 22:43 | 9h 08m     | 4h 35m     |                            |            |    |      | Mi, 2. Aug  |
| Do, 3. Aug  | MESZ          | —:~:~:~                    | –          | Mond stört                                |      | 21:49      | 07:21      | 03:19                      | 54m        | 04:13 | 44m        | 04:57 | 37m        | 05:35      | 14h 49m    | 20:25      | 37m        | 21:03                   | 44m        | 21:47 | 53m        | 22:40 | 9h 11m     | 4h 40m     |                            |            |    |      | Do, 3. Aug  |
| Fr, 4. Aug  | MESZ          | —:~:~:~                    | –          | Mond stört                                |      | 22:09      | 08:47      | 03:21                      | 53m        | 04:15 | 44m        | 04:59 | 37m        | 05:36      | 14h 47m    | 20:24      | 37m        | 21:01                   | 43m        | 21:45 | 52m        | 22:38 | 9h 13m     | 4h 45m     |                            |            |    |      | Fr, 4. Aug  |
| Sa, 5. Aug  | MESZ          | —:~:~:~                    | –          | Mond stört                                |      | 22:27      | 10:10      | 03:23                      | 52m        | 04:16 | 43m        | 05:00 | 37m        | 05:38      | 14h 44m    | 20:22      | 37m        | 20:59                   | 43m        | 21:43 | 52m        | 22:35 | 9h 16m     | 4h 50m     |                            |            |    |      | Sa, 5. Aug  |
| So, 6. Aug  | MESZ          | 22:33–22:45                | 12m        | AN <sub>+</sub> bis M <sub>\nearrow</sub> |      | 22:45      | 11:30      | 03:26                      | 52m        | 04:18 | 43m        | 05:02 | 37m        | 05:39      | 14h 41m    | 20:21      | 36m        | 20:58                   | 43m        | 21:41 | 51m        | 22:33 | 9h 19m     | 4h 55m     |                            |            |    |      | So, 6. Aug  |
| Mo, 7. Aug  | MESZ          | 22:30–23:05                | 34m        | AN <sub>+</sub> bis M <sub>\nearrow</sub> |      | 23:05      | 12:48      | 03:28                      | 51m        | 04:20 | 43m        | 05:03 | 37m        | 05:40      | 14h 39m    | 20:19      | 36m        | 20:56                   | 43m        | 21:39 | 51m        | 22:30 | 9h 22m     | 5h 00m     |                            |            |    |      | Mo, 7. Aug  |
| Di, 8. Aug  | MESZ          | 22:28–23:28                | 1h 00m     | AN <sub>+</sub> bis M <sub>\nearrow</sub> | ☾    | 23:28      | 14:04      | 03:30                      | 51m        | 04:21 | 43m        | 05:05 | 36m        | 05:41      | 14h 36m    | 20:18      | 36m        | 20:54                   | 42m        | 21:37 | 50m        | 22:28 | 9h 25m     | 5h 05m     |                            |            |    |      | Di, 8. Aug  |
| Mi, 9. Aug  | MESZ          | 22:25–23:56                | 1h 30m     | AN <sub>+</sub> bis M <sub>\nearrow</sub> |      | 23:56      | 15:20      | 03:33                      | 50m        | 04:23 | 42m        | 05:06 | 36m        | 05:43      | 14h 33m    | 20:16      | 36m        | 20:53                   | 42m        | 21:35 | 50m        | 22:25 | 9h 27m     | 5h 09m     |                            |            |    |      | Mi, 9. Aug  |
| Do, 10. Aug | MESZ          | 22:22–00:31*               | 2h 08m     | AN <sub>+</sub> bis M <sub>\nearrow</sub> |      | —:—        | 16:31      | 03:35                      | 50m        | 04:25 | 42m        | 05:07 | 36m        | 05:44      | 14h 30m    | 20:14      | 36m        | 20:51                   | 42m        | 21:33 | 49m        | 22:22 | 9h 30m     | 5h 14m     |                            |            |    |      | Do, 10. Aug |
| Fr, 11. Aug | MESZ          | 22:20–01:16*               | 2h 56m     | AN <sub>+</sub> bis M <sub>\nearrow</sub> |      | 00:31      | 17:35      | 03:37                      | 49m        | 04:27 | 42m        | 05:09 | 36m        | 05:45      | 14h 27m    | 20:13      | 36m        | 20:49                   | 41m        | 21:31 | 48m        | 22:20 | 9h 33m     | 5h 19m     |                            |            |    |      | Fr, 11. Aug |
| Sa, 12. Aug | MESZ          | 22:17–02:10*               | 3h 52m     | AN <sub>+</sub> bis M <sub>\nearrow</sub> |      | 01:16      | 18:29      | 03:39                      | 48m        | 04:28 | 41m        | 05:10 | 36m        | 05:47      | 14h 24m    | 20:11      | 36m        | 20:47                   | 41m        | 21:29 | 48m        | 22:17 | 9h 36m     | 5h 24m     |                            |            |    |      | Sa, 12. Aug |
| So, 13. Aug | MESZ          | 22:15–03:12*               | 4h 57m     | AN <sub>+</sub> bis M <sub>\nearrow</sub> |      | 02:10      | 19:13      | 03:42                      | 48m        | 04:30 | 41m        | 05:12 | 36m        | 05:48      | 14h 21m    | 20:10      | 35m        | 20:45                   | 41m        | 21:27 | 47m        | 22:15 | 9h 39m     | 5h 28m     |                            |            |    |      | So, 13. Aug |
| Mo, 14. Aug | MESZ          | 22:12–03:46*               | 5h 33m     | AN <sub>+</sub> bis AN <sub>-</sub>       |      | 03:12      | 19:47      | 03:44                      | 47m        | 04:32 | 41m        | 05:13 | 35m        | 05:49      | 14h 18m    | 20:08      | 35m        | 20:44                   | 41m        | 21:25 | 47m        | 22:12 | 9h 42m     | 5h 33m     |                            |            |    |      | Mo, 14. Aug |
| Di, 15. Aug | MESZ          | 22:10–03:48*               | 5h 38m     | AN <sub>+</sub> bis AN <sub>-</sub>       |      | 04:19      | 20:13      | 03:46                      | 47m        | 04:33 | 41m        | 05:15 | 35m        | 05:50      | 14h 15m    | 20:06      | 35m        | 20:42                   | 40m        | 21:23 | 47m        | 22:10 | 9h 45m     | 5h 38m     |                            |            |    |      | Di, 15. Aug |
| Mi, 16. Aug | MESZ          | 22:07–03:50*               | 5h 43m     | AN <sub>+</sub> bis AN <sub>-</sub>       | ☾    | 05:27      | 20:34      | 03:48                      | 47m        | 04:35 | 40m        | 05:16 | 35m        | 05:52      | 14h 12m    | 20:05      | 35m        | 20:40                   | 40m        | 21:21 | 46m        | 22:07 | 9h 48m     | 5h 43m     |                            |            |    |      | Mi, 16. Aug |
| Do, 17. Aug | MESZ          | 22:05–03:52*               | 5h 47m     | AN <sub>+</sub> bis AN <sub>-</sub>       |      | 06:34      | 20:51      | 03:50                      | 46m        | 04:37 | 40m        | 05:18 | 35m        | 05:53      | 14h 09m    | 20:03      | 35m        | 20:38                   | 40m        | 21:19 | 46m        | 22:05 | 9h 51m     | 5h 47m     |                            |            |    |      | Do, 17. Aug |
| Fr, 18. Aug | MESZ          | 22:02–03:54*               | 5h 52m     | AN <sub>+</sub> bis AN <sub>-</sub>       |      | 07:40      | 21:06      | 03:52                      | 46m        | 04:39 | 40m        | 05:19 | 35m        | 05:54      | 14h 06m    | 20:01      | 35m        | 20:36                   | 40m        | 21:16 | 45m        | 22:02 | 9h 54m     | 5h 52m     |                            |            |    |      | Fr, 18. Aug |
| Sa, 19. Aug | MESZ          | 22:00–03:57*               | 5h 56m     | AN <sub>+</sub> bis AN <sub>-</sub>       |      | 08:45      | 21:21      | 03:54                      | 45m        | 04:40 | 40m        | 05:20 | 35m        | 05:56      | 14h 03m    | 19:59      | 35m        | 20:34                   | 39m        | 21:14 | 45m        | 22:00 | 9h 57m     | 5h 56m     |                            |            |    |      | Sa, 19. Aug |
| So, 20. Aug | MESZ          | 21:57–03:59*               | 6h 01m     | AN <sub>+</sub> bis AN <sub>-</sub>       |      | 09:51      | 21:35      | 03:57                      | 45m        | 04:42 | 40m        | 05:22 | 35m        | 05:57      | 14h 00m    | 19:58      | 34m        | 20:32                   | 39m        | 21:12 | 44m        | 21:57 | 10h 00m    | 6h 01m     |                            |            |    |      | So, 20. Aug |
| Mo, 21. Aug | MESZ          | 21:55–04:01*               | 6h 06m     | AN <sub>+</sub> bis AN <sub>-</sub>       |      | 10:58      | 21:51      | 03:59                      | 44m        | 04:44 | 39m        | 05:23 | 34m        | 05:58      | 13h 57m    | 19:56      | 34m        | 20:30                   | 39m        | 21:10 | 44m        | 21:55 | 10h 03m    | 6h 06m     |                            |            |    |      | Mo, 21. Aug |
| Di, 22. Aug | MESZ          | 22:09–04:03*               | 5h 53m     | M <sub>\searrow</sub> bis AN <sub>-</sub> |      | 12:07      | 22:09      | 04:01                      | 44m        | 04:45 | 39m        | 05:25 | 34m        | 06:00      | 13h 54m    | 19:54      | 34m        | 20:29                   | 39m        | 21:08 | 44m        | 21:52 | 10h 06m    | 6h 10m     |                            |            |    |      | Di, 22. Aug |
| Mi, 23. Aug | MESZ          | 22:32–04:05*               | 5h 32m     | M <sub>\searrow</sub> bis AN <sub>-</sub> |      | 13:20      | 22:32      | 04:03                      | 44m        | 04:47 | 39m        | 05:26 | 34m        | 06:01      | 13h 51m    | 19:52      | 34m        | 20:27                   | 39m        | 21:06 | 43m        | 21:50 | 10h 10m    | 6h 15m     |                            |            |    |      | Mi, 23. Aug |
| Do, 24. Aug | MESZ          | 23:02–04:07*               | 5h 04m     | M <sub>\searrow</sub> bis AN <sub>-</sub> | ☾    | 14:36      | 23:02      | 04:05                      | 43m        | 04:48 | 39m        | 05:28 | 34m        | 06:02      | 13h 48m    | 19:50      | 34m        | 20:25                   | 38m        | 21:04 | 43m        | 21:47 | 10h 13m    | 6h 19m     |                            |            |    |      | Do, 24. Aug |
| Fr, 25. Aug | MESZ          | 23:43–04:09*               | 4h 25m     | M <sub>\searrow</sub> bis AN <sub>-</sub> |      | 15:51      | 23:43      | 04:07                      | 43m        | 04:50 | 38m        | 05:29 | 34m        | 06:03      | 13h 44m    | 19:48      | 34m        | 20:23                   | 38m        | 21:01 | 43m        | 21:44 | 10h 16m    | 6h 24m     |                            |            |    |      | Fr, 25. Aug |
| Sa, 26. Aug | MESZ          | 00:39*–04:11*              | 3h 31m     | M <sub>\searrow</sub> bis AN <sub>-</sub> |      | 17:02      | —:—        | 04:09                      | 43m        | 04:52 | 38m        | 05:30 | 34m        | 06:05      | 13h 41m    | 19:47      | 34m        | 20:21                   | 38m        | 20:59 | 42m        | 21:42 | 10h 19m    | 6h 28m     |                            |            |    |      | Sa, 26. Aug |
| So, 27. Aug | MESZ          | 01:52*–04:12*              | 2h 20m     | M <sub>\searrow</sub> bis AN <sub>-</sub> |      | 18:01      | 00:39      | 04:11                      | 42m        | 04:53 | 38m        | 05:32 | 34m        | 06:06      | 13h 38m    | 19:45      | 34m        | 20:19                   | 38m        | 20:57 | 42m        | 21:39 | 10h 22m    | 6h 33m     |                            |            |    |      | So, 27. Aug |
| Mo, 28. Aug | MESZ          | 03:16*–04:14*              | 58m        | M <sub>\searrow</sub> bis AN <sub>-</sub> |      | 18:47      | 01:52      | 04:12                      | 42m        | 04:55 | 38m        | 05:33 | 34m        | 06:07      | 13h 35m    | 19:43      | 33m        | 20:17                   | 38m        | 20:55 | 42m        | 21:37 | 10h 25m    | 6h 37m     |                            |            |    |      | Mo, 28. Aug |
| Di, 29. Aug | MESZ          | —:~:~:~                    | –          | Mond stört                                |      | 19:22      | 03:16      | 04:14                      | 42m        | 04:57 | 38m        | 05:35 | 33m        | 06:09      | 13h 32m    | 19:41      | 33m        | 20:15                   | 37m        | 20:53 | 41m        | 21:35 | 10h 29m    | 6h 41m     |                            |            |    |      | Di, 29. Aug |
| Mi, 30. Aug | MESZ          | —:~:~:~                    | –          | Mond stört                                |      | 19:48      | 04:46      |                            |            |       |            |       |            |            |            |            |            |                         |            |       |            |       |            |            |                            |            |    |      |             |

| 1           | 2             | 3                          | 4          | 5                                   | 6    | 7          | 8          | 9                          | 10         | 11    | 12         | 13    | 14         | 15         | 16         | 17         | 18                      | 19    | 20         | 21    | 22         | 23    | 24         | 25                         | 26 | 27         | 28   | 29 |             |
|-------------|---------------|----------------------------|------------|-------------------------------------|------|------------|------------|----------------------------|------------|-------|------------|-------|------------|------------|------------|------------|-------------------------|-------|------------|-------|------------|-------|------------|----------------------------|----|------------|------|----|-------------|
| 2023        | Zeit-<br>zone | Astr. dunkel und kein Mond |            |                                     | Mond |            |            | Beginn der Morgendämmerung |            |       |            |       | Sonne      |            |            |            | Ende der Abenddämmerung |       |            |       |            | Nacht | Astr. N.   | Naut. dunkel und kein Mond |    |            | 2023 |    |             |
|             |               |                            | $\Delta t$ |                                     | Ph.  | $\nearrow$ | $\searrow$ | Astr.                      | $\Delta t$ | Naut. | $\Delta t$ | Bürg. | $\Delta t$ | $\nearrow$ | $\Delta t$ | $\searrow$ | $\Delta t$              | Bürg. | $\Delta t$ | Naut. | $\Delta t$ | Astr. | $\Delta t$ | $\Delta t$                 |    | $\Delta t$ |      |    |             |
| Fr, 8. Sep  | MESZ          | 21:10–00:03*               | 2h 53m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | —:—        | 16:27      | 04:33                      | 39m        | 05:12 | 36m        | 05:49 | 33m        | 06:22      | 12h 59m    | 19:21      | 32m                     | 19:54 | 36m        | 20:31 | 39m        | 21:10 | 11h 01m    | 7h 24m                     |    |            |      |    | Fr, 8. Sep  |
| Sa, 9. Sep  | MESZ          | 21:08–01:03*               | 3h 55m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 00:03      | 17:14      | 04:34                      | 39m        | 05:14 | 36m        | 05:50 | 33m        | 06:23      | 12h 56m    | 19:19      | 32m                     | 19:52 | 36m        | 20:29 | 39m        | 21:08 | 11h 05m    | 7h 28m                     |    |            |      |    | Sa, 9. Sep  |
| So, 10. Sep | MESZ          | 21:05–02:09*               | 5h 03m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 01:03      | 17:50      | 04:36                      | 39m        | 05:15 | 36m        | 05:51 | 32m        | 06:24      | 12h 52m    | 19:17      | 32m                     | 19:50 | 36m        | 20:26 | 38m        | 21:05 | 11h 08m    | 7h 32m                     |    |            |      |    | So, 10. Sep |
| Mo, 11. Sep | MESZ          | 21:03–03:17*               | 6h 13m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 02:09      | 18:18      | 04:38                      | 38m        | 05:17 | 36m        | 05:53 | 32m        | 06:26      | 12h 49m    | 19:15      | 32m                     | 19:48 | 36m        | 20:24 | 38m        | 21:03 | 11h 11m    | 7h 36m                     |    |            |      |    | Mo, 11. Sep |
| Di, 12. Sep | MESZ          | 21:00–04:24*               | 7h 23m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 03:17      | 18:40      | 04:39                      | 38m        | 05:18 | 36m        | 05:54 | 32m        | 06:27      | 12h 46m    | 19:13      | 32m                     | 19:46 | 35m        | 20:22 | 38m        | 21:00 | 11h 14m    | 7h 40m                     |    |            |      |    | Di, 12. Sep |
| Mi, 13. Sep | MESZ          | 20:58–04:43*               | 7h 44m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 04:24      | 18:58      | 04:41                      | 38m        | 05:19 | 36m        | 05:56 | 32m        | 06:28      | 12h 43m    | 19:11      | 32m                     | 19:44 | 35m        | 20:20 | 38m        | 20:58 | 11h 18m    | 7h 44m                     |    |            |      |    | Mi, 13. Sep |
| Do, 14. Sep | MESZ          | 20:56–04:44*               | 7h 48m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 05:31      | 19:14      | 04:43                      | 38m        | 05:21 | 35m        | 05:57 | 32m        | 06:30      | 12h 39m    | 19:09      | 32m                     | 19:42 | 35m        | 20:18 | 38m        | 20:56 | 11h 21m    | 7h 48m                     |    |            |      |    | Do, 14. Sep |
| Fr, 15. Sep | MESZ          | 20:53–04:46*               | 7h 52m     | AN <sub>+</sub> bis AN <sub>-</sub> | ●    | 06:37      | 19:28      | 04:44                      | 38m        | 05:22 | 35m        | 05:58 | 32m        | 06:31      | 12h 36m    | 19:07      | 32m                     | 19:40 | 35m        | 20:16 | 37m        | 20:53 | 11h 24m    | 7h 52m                     |    |            |      |    | Fr, 15. Sep |
| Sa, 16. Sep | MESZ          | 20:51–04:48*               | 7h 56m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 07:43      | 19:43      | 04:46                      | 37m        | 05:24 | 35m        | 06:00 | 32m        | 06:32      | 12h 33m    | 19:05      | 32m                     | 19:38 | 35m        | 20:13 | 37m        | 20:51 | 11h 28m    | 7h 56m                     |    |            |      |    | Sa, 16. Sep |
| So, 17. Sep | MESZ          | 20:49–04:49*               | 8h 00m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 08:50      | 19:58      | 04:48                      | 37m        | 05:25 | 35m        | 06:01 | 32m        | 06:34      | 12h 29m    | 19:03      | 32m                     | 19:36 | 35m        | 20:11 | 37m        | 20:49 | 11h 31m    | 8h 00m                     |    |            |      |    | So, 17. Sep |
| Mo, 18. Sep | MESZ          | 20:46–04:51*               | 8h 04m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 09:59      | 20:15      | 04:49                      | 37m        | 05:27 | 35m        | 06:02 | 32m        | 06:35      | 12h 26m    | 19:01      | 32m                     | 19:34 | 35m        | 20:09 | 37m        | 20:46 | 11h 34m    | 8h 04m                     |    |            |      |    | Mo, 18. Sep |
| Di, 19. Sep | MESZ          | 20:44–04:52*               | 8h 08m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 11:10      | 20:36      | 04:51                      | 37m        | 05:28 | 35m        | 06:04 | 32m        | 06:36      | 12h 23m    | 18:59      | 32m                     | 19:32 | 35m        | 20:07 | 37m        | 20:44 | 11h 38m    | 8h 08m                     |    |            |      |    | Di, 19. Sep |
| Mi, 20. Sep | MESZ          | 21:02–04:54*               | 7h 51m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 12:24      | 21:02      | 04:52                      | 37m        | 05:30 | 35m        | 06:05 | 32m        | 06:37      | 12h 19m    | 18:57      | 32m                     | 19:30 | 35m        | 20:05 | 37m        | 20:42 | 11h 41m    | 8h 11m                     |    |            |      |    | Mi, 20. Sep |
| Do, 21. Sep | MESZ          | 21:38–04:55*               | 7h 16m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 13:39      | 21:38      | 04:54                      | 37m        | 05:31 | 35m        | 06:06 | 32m        | 06:39      | 12h 16m    | 18:55      | 32m                     | 19:27 | 35m        | 20:03 | 37m        | 20:40 | 11h 44m    | 8h 15m                     |    |            |      |    | Do, 21. Sep |
| Fr, 22. Sep | MESZ          | 22:27–04:57*               | 6h 29m     | M <sub>\</sub> bis AN <sub>-</sub>  | ☾    | 14:50      | 22:27      | 04:55                      | 37m        | 05:32 | 35m        | 06:08 | 32m        | 06:40      | 12h 12m    | 18:53      | 32m                     | 19:25 | 35m        | 20:01 | 36m        | 20:37 | 11h 48m    | 8h 19m                     |    |            |      |    | Fr, 22. Sep |
| Sa, 23. Sep | MESZ          | 23:32–04:58*               | 5h 26m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 15:52      | 23:32      | 04:57                      | 36m        | 05:34 | 35m        | 06:09 | 32m        | 06:41      | 12h 09m    | 18:51      | 32m                     | 19:23 | 35m        | 19:58 | 36m        | 20:35 | 11h 51m    | 8h 23m                     |    |            |      |    | Sa, 23. Sep |
| So, 24. Sep | MESZ          | 00:49*–05:00*              | 4h 11m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 16:42      | —:—        | 04:58                      | 36m        | 05:35 | 35m        | 06:10 | 32m        | 06:43      | 12h 06m    | 18:49      | 32m                     | 19:21 | 34m        | 19:56 | 36m        | 20:33 | 11h 55m    | 8h 27m                     |    |            |      |    | So, 24. Sep |
| Mo, 25. Sep | MESZ          | 02:14*–05:01*              | 2h 47m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 17:19      | 00:49      | 05:00                      | 36m        | 05:37 | 35m        | 06:12 | 32m        | 06:44      | 12h 02m    | 18:47      | 32m                     | 19:19 | 34m        | 19:54 | 36m        | 20:31 | 11h 58m    | 8h 30m                     |    |            |      |    | Mo, 25. Sep |
| Di, 26. Sep | MESZ          | 03:41*–05:03*              | 1h 21m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 17:48      | 02:14      | 05:01                      | 36m        | 05:38 | 34m        | 06:13 | 32m        | 06:45      | 11h 59m    | 18:45      | 32m                     | 19:17 | 34m        | 19:52 | 36m        | 20:29 | 12h 01m    | 8h 34m                     |    |            |      |    | Di, 26. Sep |
| Mi, 27. Sep | MESZ          | —:—:—:—                    | –          | Mond stört                          |      | 18:11      | 03:41      | 05:03                      | 36m        | 05:39 | 34m        | 06:14 | 32m        | 06:47      | 11h 56m    | 18:43      | 32m                     | 19:15 | 34m        | 19:50 | 36m        | 20:26 | 12h 05m    | 8h 38m                     |    |            |      |    | Mi, 27. Sep |
| Do, 28. Sep | MESZ          | —:—:—:—                    | –          | Mond stört                          |      | 18:31      | 05:08      | 05:04                      | 36m        | 05:41 | 34m        | 06:16 | 32m        | 06:48      | 11h 52m    | 18:41      | 32m                     | 19:13 | 34m        | 19:48 | 36m        | 20:24 | 12h 08m    | 8h 41m                     |    |            |      |    | Do, 28. Sep |
| Fr, 29. Sep | MESZ          | —:—:—:—                    | –          | Mond stört                          | ☾    | 18:50      | 06:32      | 05:06                      | 36m        | 05:42 | 34m        | 06:17 | 32m        | 06:49      | 11h 49m    | 18:39      | 32m                     | 19:11 | 34m        | 19:46 | 36m        | 20:22 | 12h 11m    | 8h 45m                     |    |            |      |    | Fr, 29. Sep |
| Sa, 30. Sep | MESZ          | —:—:~:~:~                  | –          | Mond stört                          |      | 19:09      | 07:56      | 05:07                      | 36m        | 05:44 | 34m        | 06:18 | 32m        | 06:51      | 11h 46m    | 18:37      | 32m                     | 19:09 | 34m        | 19:44 | 36m        | 20:20 | 12h 15m    | 8h 48m                     |    |            |      |    | Sa, 30. Sep |
| So, 1. Okt  | MESZ          | —:~:~:~:~                  | –          | Mond stört                          |      | 19:30      | 09:18      | 05:09                      | 36m        | 05:45 | 34m        | 06:20 | 32m        | 06:52      | 11h 42m    | 18:35      | 32m                     | 19:07 | 34m        | 19:42 | 35m        | 20:18 | 12h 18m    | 8h 52m                     |    |            |      |    | So, 1. Okt  |
| Mo, 2. Okt  | MESZ          | —:~:~:~:~                  | –          | Mond stört                          |      | 19:54      | 10:40      | 05:10                      | 36m        | 05:46 | 34m        | 06:21 | 32m        | 06:53      | 11h 39m    | 18:33      | 32m                     | 19:05 | 34m        | 19:40 | 35m        | 20:16 | 12h 21m    | 8h 55m                     |    |            |      |    | Mo, 2. Okt  |
| Di, 3. Okt  | MESZ          | 20:14–20:25                | 11m        | AN <sub>+</sub> bis M <sub>7</sub>  |      | 20:25      | 12:00      | 05:12                      | 35m        | 05:48 | 34m        | 06:22 | 32m        | 06:55      | 11h 36m    | 18:31      | 32m                     | 19:03 | 34m        | 19:38 | 35m        | 20:14 | 12h 25m    | 8h 59m                     |    |            |      |    | Di, 3. Okt  |
| Mi, 4. Okt  | MESZ          | 20:12–21:05                | 52m        | AN <sub>+</sub> bis M <sub>7</sub>  |      | 21:05      | 13:14      | 05:13                      | 35m        | 05:49 | 34m        | 06:24 | 32m        | 06:56      | 11h 32m    | 18:29      | 32m                     | 19:01 | 34m        | 19:36 | 35m        | 20:12 | 12h 28m    | 9h 02m                     |    |            |      |    | Mi, 4. Okt  |
| Do, 5. Okt  | MESZ          | 20:10–21:54                | 1h 44m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 21:54      | 14:18      | 05:15                      | 35m        | 05:50 | 34m        | 06:25 | 32m        | 06:58      | 11h 29m    | 18:27      | 32m                     | 18:59 | 34m        | 19:34 | 35m        | 20:10 | 12h 31m    | 9h 06m                     |    |            |      |    | Do, 5. Okt  |
| Fr, 6. Okt  | MESZ          | 20:08–22:52                | 2h 44m     | AN <sub>+</sub> bis M <sub>7</sub>  | ☾    | 22:52      | 15:11      | 05:16                      | 35m        | 05:52 | 34m        | 06:27 | 32m        | 06:59      | 11h 26m    | 18:25      | 32m                     | 18:57 | 34m        | 19:32 | 35m        | 20:08 | 12h 35m    | 9h 09m                     |    |            |      |    | Fr, 6. Okt  |
| Sa, 7. Okt  | MESZ          | 20:06–23:57                | 3h 51m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 23:57      | 15:51      | 05:18                      | 35m        | 05:53 | 34m        | 06:28 | 32m        | 07:00      | 11h 22m    | 18:23      | 32m                     | 18:56 | 34m        | 19:30 | 35m        | 20:06 | 12h 38m    | 9h 13m                     |    |            |      |    | Sa, 7. Okt  |
| So, 8. Okt  | MESZ          | 20:04–01:05*               | 5h 00m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | —:—        | 16:22      | 05:19                      | 35m        | 05:55 | 34m        | 06:29 | 32m        | 07:02      | 11h 19m    | 18:21      | 32m                     | 18:54 | 34m        | 19:28 | 35m        | 20:04 | 12h 41m    | 9h 16m                     |    |            |      |    | So, 8. Okt  |
| Mo, 9. Okt  | MESZ          | 20:02–02:13*               | 6h 10m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 01:05      | 16:46      | 05:20                      | 35m        | 05:56 | 34m        | 06:31 | 32m        | 07:03      | 11h 16m    | 18:19      | 32m                     | 18:52 | 34m        | 19:26 | 35m        | 20:02 | 12h 45m    | 9h 20m                     |    |            |      |    | Mo, 9. Okt  |
| Di, 10. Okt | MESZ          | 20:00–03:20*               | 7h 20m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 02:13      | 17:05      | 05:22                      | 35m        | 05:57 | 34m        | 06:32 | 32m        | 07:04      | 11h 13m    | 18:17      | 32m                     | 18:50 | 34m        | 19:24 | 35m        | 20:00 | 12h 48m    | 9h 23m                     |    |            |      |    | Di, 10. Okt |
| Mi, 11. Okt | MESZ          | 19:58–04:26*               | 8h 28m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 03:20      | 17:21      | 05:23                      | 35m        | 05:59 | 34m        | 06:33 | 32m        | 07:06      | 11h 09m    | 18:15      | 32m                     | 18:48 | 34m        | 19:22 | 35m        | 19:58 | 12h 51m    | 9h 26m                     |    |            |      |    | Mi, 11. Okt |
| Do, 12. Okt | MESZ          | 19:56–05:26*               | 9h 29m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 04:26      | 17:36      | 05:25                      | 35m        | 06:00 | 34m        | 06:35 | 32m        | 07:07      | 11h 06m    | 18:14      | 32m                     | 18:46 | 34m        | 19:21 | 35m        | 19:56 | 12h 54m    | 9h 29m                     |    |            |      |    | Do, 12. Okt |
| Fr, 13. Okt | MESZ          | 19:54–05:27*               | 9h 33m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 05:32      | 17:50      | 05:26                      | 35m        | 06:01 | 34m        | 06:36 | 32m        | 07:09      | 11h 03m    | 18:12      | 32m                     | 18:44 | 34m        | 19:19 | 35m        | 19:54 | 12h 58m    | 9h 33m                     |    |            |      |    | Fr, 13. Okt |
| Sa, 14. Okt | MESZ          | 19:52–05:29*               | 9h 36m     | AN <sub>+</sub> bis AN <sub>-</sub> | ●    | 06:39      | 18:05      | 05:27                      | 35m        | 06:03 | 34m        | 06:37 | 32m        | 07:10      | 10h 59m    | 18:10      | 32m                     | 18:42 | 34m        | 19:17 | 35m        | 19:52 | 13h 01m    | 9h 36m                     |    |            |      |    | Sa, 14. Okt |
| So, 15. Okt | MESZ          | 19:50–05:30*               | 9h 39m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 07:48      | 18:21      | 05:29                      | 35m        | 06:04 | 34m        | 06:39 | 32m        | 07:11      | 10h 56m    | 18:08      | 32m                     | 18:41 | 34m        | 19:15 | 35m        | 19:50 | 13h 04m    | 9h 39m                     |    |            |      |    | So, 15. Okt |
| Mo, 16. Okt | MESZ          | 19:49–05:31*               | 9h 42m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 09:00      | 18:41      | 05:30                      | 35m        | 06:05 | 34m        | 06:40 | 32m        | 07:13      | 10h 53m    | 18:06      | 32m                     | 18:39 | 34m        | 19:13 | 35m        | 19:49 | 13h 08m    | 9h 42m                     |    |            |      |    | Mo, 16. Okt |
| Di, 17. Okt | MESZ          | 19:47–05:33*               | 9h 45m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 10:14      | 19:06      | 05:31                      | 35m        | 06:07 | 34m        | 06:41 | 32m        | 07:14      | 10h 50m    | 18:04      | 32m                     | 18:37 | 34m        | 19:12 | 35m        | 19:47 | 13h 11m    | 9h 45m                     |    |            |      |    | Di, 17. Okt |
| Mi, 18. Okt | MESZ          | 19:45–05:34*               | 9h 49m     | AN <sub>+</sub> bis AN <sub>-</sub> |      | 11:30      | 19:39      | 05:33                      | 35m        | 06:08 | 34m        | 06:43 | 32m        | 07:16      | 10h 46m    | 18:02      | 32m                     | 18:35 | 34m        | 19:10 | 35m        | 19:45 | 13h 14m    | 9h 49m                     |    |            |      |    | Mi, 18. Okt |
| Do, 19. Okt | MESZ          | 20:23–05:36*               | 9h 12m     | M <sub>\</sub> bis AN <sub>-</sub>  |      |            |            |                            |            |       |            |       |            |            |            |            |                         |       |            |       |            |       |            |                            |    |            |      |    |             |

| 1           | 2             | 3                          | 4          | 5                                   | 6    | 7          | 8          | 9                          | 10         | 11    | 12         | 13    | 14         | 15         | 16         | 17                      | 18         | 19    | 20         | 21    | 22         | 23       | 24                         | 25         | 26 | 27         | 28 | 29          |
|-------------|---------------|----------------------------|------------|-------------------------------------|------|------------|------------|----------------------------|------------|-------|------------|-------|------------|------------|------------|-------------------------|------------|-------|------------|-------|------------|----------|----------------------------|------------|----|------------|----|-------------|
| 2023        | Zeit-<br>zone | Astr. dunkel und kein Mond |            |                                     | Mond |            |            | Beginn der Morgendämmerung |            |       |            |       | Sonne      |            |            | Ende der Abenddämmerung |            |       |            |       | Nacht      | Astr. N. | Naut. dunkel und kein Mond |            |    | 2023       |    |             |
|             |               |                            | $\Delta t$ |                                     | Ph.  | $\nearrow$ | $\searrow$ | Astr.                      | $\Delta t$ | Naut. | $\Delta t$ | Bürg. | $\Delta t$ | $\nearrow$ | $\Delta t$ | $\searrow$              | $\Delta t$ | Bürg. | $\Delta t$ | Naut. | $\Delta t$ | Astr.    | $\Delta t$                 | $\Delta t$ |    | $\Delta t$ |    |             |
| Sa, 28. Okt | MESZ          | —:—:—:—                    | —          | Mond stört                          | ○    | 17:30      | 06:48      | 05:46                      | 35m        | 06:22 | 35m        | 06:57 | 33m        | 07:30      | 10h 15m    | 17:45                   | 33m        | 18:19 | 35m        | 18:54 | 35m        | 19:29    | 13h 46m                    | 10h 18m    |    |            |    | Sa, 28. Okt |
| So, 29. Okt |               | —:—:—:—                    | —          | Mond stört                          |      | 16:53      | 07:11      | 04:48                      | 35m        | 05:23 | 35m        | 05:58 | 33m        | 06:32      | 10h 12m    | 16:44                   | 33m        | 17:17 | 35m        | 17:52 | 35m        | 18:27    | 13h 49m                    | 10h 21m    |    |            |    | So, 29. Okt |
| Mo, 30. Okt |               | —:—:—:—                    | —          | Mond stört                          |      | 17:21      | 08:33      | 04:49                      | 35m        | 05:24 | 35m        | 05:59 | 33m        | 06:33      | 10h 08m    | 16:42                   | 33m        | 17:16 | 35m        | 17:51 | 35m        | 18:26    | 13h 52m                    | 10h 24m    |    |            |    | Mo, 30. Okt |
| Di, 31. Okt |               | —:—:—:—                    | —          | Mond stört                          |      | 17:57      | 09:51      | 04:50                      | 35m        | 05:26 | 35m        | 06:01 | 33m        | 06:35      | 10h 05m    | 16:40                   | 33m        | 17:14 | 35m        | 17:49 | 35m        | 18:25    | 13h 55m                    | 10h 26m    |    |            |    | Di, 31. Okt |
| Mi, 1. Nov  |               | 18:23–18:42                | 19m        | AN <sub>+</sub> bis M <sub>7</sub>  |      | 18:42      | 11:02      | 04:52                      | 35m        | 05:27 | 35m        | 06:02 | 33m        | 06:36      | 10h 02m    | 16:39                   | 33m        | 17:13 | 35m        | 17:48 | 35m        | 18:23    | 13h 58m                    | 10h 29m    |    |            |    | Mi, 1. Nov  |
| Do, 2. Nov  |               | 18:22–19:38                | 1h 16m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 19:38      | 12:01      | 04:53                      | 35m        | 05:28 | 35m        | 06:04 | 33m        | 06:38      | 9h 59m     | 16:37                   | 33m        | 17:11 | 35m        | 17:47 | 35m        | 18:22    | 14h 01m                    | 10h 32m    |    |            |    | Do, 2. Nov  |
| Fr, 3. Nov  |               | 18:21–20:42                | 2h 21m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 20:42      | 12:48      | 04:54                      | 35m        | 05:30 | 35m        | 06:05 | 33m        | 06:39      | 9h 56m     | 16:36                   | 33m        | 17:10 | 35m        | 17:45 | 35m        | 18:21    | 14h 04m                    | 10h 34m    |    |            |    | Fr, 3. Nov  |
| Sa, 4. Nov  |               | 18:19–21:50                | 3h 30m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 21:50      | 13:23      | 04:55                      | 35m        | 05:31 | 35m        | 06:06 | 34m        | 06:40      | 9h 53m     | 16:34                   | 34m        | 17:08 | 35m        | 17:44 | 35m        | 18:19    | 14h 07m                    | 10h 37m    |    |            |    | Sa, 4. Nov  |
| So, 5. Nov  |               | 18:18–22:58                | 4h 40m     | AN <sub>+</sub> bis M <sub>7</sub>  | ●    | 22:58      | 13:49      | 04:57                      | 35m        | 05:32 | 35m        | 06:08 | 34m        | 06:42      | 9h 51m     | 16:33                   | 34m        | 17:07 | 35m        | 17:43 | 35m        | 18:18    | 14h 10m                    | 10h 39m    |    |            |    | So, 5. Nov  |
| Mo, 6. Nov  |               | 18:17–00:06*               | 5h 49m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | —:—        | 14:10      | 04:58                      | 35m        | 05:34 | 35m        | 06:09 | 34m        | 06:43      | 9h 48m     | 16:32                   | 34m        | 17:06 | 35m        | 17:41 | 35m        | 18:17    | 14h 13m                    | 10h 42m    |    |            |    | Mo, 6. Nov  |
| Di, 7. Nov  |               | 18:16–01:12*               | 6h 56m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 00:06      | 14:27      | 04:59                      | 35m        | 05:35 | 35m        | 06:11 | 34m        | 06:45      | 9h 45m     | 16:30                   | 34m        | 17:05 | 35m        | 17:40 | 35m        | 18:16    | 14h 16m                    | 10h 44m    |    |            |    | Di, 7. Nov  |
| Mi, 8. Nov  |               | 18:15–02:18*               | 8h 03m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 01:12      | 14:42      | 05:01                      | 35m        | 05:36 | 35m        | 06:12 | 34m        | 06:46      | 9h 42m     | 16:29                   | 34m        | 17:03 | 35m        | 17:39 | 35m        | 18:15    | 14h 19m                    | 10h 47m    |    |            |    | Mi, 8. Nov  |
| Do, 9. Nov  |               | 18:13–03:25*               | 9h 11m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 02:18      | 14:57      | 05:02                      | 35m        | 05:38 | 35m        | 06:13 | 34m        | 06:48      | 9h 39m     | 16:28                   | 34m        | 17:02 | 35m        | 17:38 | 35m        | 18:13    | 14h 21m                    | 10h 49m    |    |            |    | Do, 9. Nov  |
| Fr, 10. Nov |               | 18:12–04:33*               | 10h 20m    | AN <sub>+</sub> bis M <sub>7</sub>  |      | 03:25      | 15:11      | 05:03                      | 35m        | 05:39 | 35m        | 06:15 | 34m        | 06:49      | 9h 36m     | 16:26                   | 34m        | 17:01 | 35m        | 17:37 | 35m        | 18:12    | 14h 24m                    | 10h 52m    |    |            |    | Fr, 10. Nov |
| Sa, 11. Nov |               | 18:11–05:06*               | 10h 54m    | AN <sub>+</sub> bis AN <sub>-</sub> |      | 04:33      | 15:27      | 05:04                      | 35m        | 05:40 | 35m        | 06:16 | 34m        | 06:51      | 9h 34m     | 16:25                   | 34m        | 17:00 | 35m        | 17:36 | 35m        | 18:11    | 14h 27m                    | 10h 54m    |    |            |    | Sa, 11. Nov |
| So, 12. Nov |               | 18:10–05:07*               | 10h 56m    | AN <sub>+</sub> bis AN <sub>-</sub> |      | 05:44      | 15:45      | 05:06                      | 35m        | 05:41 | 35m        | 06:17 | 34m        | 06:52      | 9h 31m     | 16:24                   | 34m        | 16:59 | 35m        | 17:35 | 35m        | 18:10    | 14h 30m                    | 10h 56m    |    |            |    | So, 12. Nov |
| Mo, 13. Nov |               | 18:09–05:08*               | 10h 58m    | AN <sub>+</sub> bis AN <sub>-</sub> | ●    | 06:59      | 16:08      | 05:07                      | 35m        | 05:43 | 36m        | 06:19 | 34m        | 06:54      | 9h 28m     | 16:23                   | 34m        | 16:57 | 36m        | 17:34 | 35m        | 18:09    | 14h 32m                    | 10h 58m    |    |            |    | Mo, 13. Nov |
| Di, 14. Nov |               | 18:08–05:09*               | 11h 01m    | AN <sub>+</sub> bis AN <sub>-</sub> |      | 08:15      | 16:39      | 05:08                      | 35m        | 05:44 | 36m        | 06:20 | 35m        | 06:55      | 9h 26m     | 16:21                   | 35m        | 16:56 | 36m        | 17:33 | 35m        | 18:08    | 14h 35m                    | 11h 01m    |    |            |    | Di, 14. Nov |
| Mi, 15. Nov |               | 18:07–05:11*               | 11h 03m    | AN <sub>+</sub> bis AN <sub>-</sub> |      | 09:31      | 17:20      | 05:09                      | 35m        | 05:45 | 36m        | 06:22 | 35m        | 06:57      | 9h 23m     | 16:20                   | 35m        | 16:55 | 36m        | 17:32 | 35m        | 18:07    | 14h 37m                    | 11h 03m    |    |            |    | Mi, 15. Nov |
| Do, 16. Nov |               | 18:15–05:12*               | 10h 56m    | M <sub>\</sub> bis AN <sub>-</sub>  |      | 10:40      | 18:15      | 05:11                      | 35m        | 05:47 | 36m        | 06:23 | 35m        | 06:58      | 9h 20m     | 16:19                   | 35m        | 16:54 | 36m        | 17:31 | 35m        | 18:07    | 14h 40m                    | 11h 05m    |    |            |    | Do, 16. Nov |
| Fr, 17. Nov |               | 19:24–05:13*               | 9h 48m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 11:37      | 19:24      | 05:12                      | 36m        | 05:48 | 36m        | 06:24 | 35m        | 07:00      | 9h 18m     | 16:18                   | 35m        | 16:53 | 36m        | 17:30 | 35m        | 18:06    | 14h 42m                    | 11h 07m    |    |            |    | Fr, 17. Nov |
| Sa, 18. Nov |               | 20:43–05:14*               | 8h 31m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 12:21      | 20:43      | 05:13                      | 36m        | 05:49 | 36m        | 06:26 | 35m        | 07:01      | 9h 16m     | 16:17                   | 35m        | 16:53 | 36m        | 17:29 | 36m        | 18:05    | 14h 45m                    | 11h 09m    |    |            |    | Sa, 18. Nov |
| So, 19. Nov |               | 22:05–05:15*               | 7h 10m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 12:54      | 22:05      | 05:14                      | 36m        | 05:50 | 36m        | 06:27 | 35m        | 07:02      | 9h 13m     | 16:16                   | 35m        | 16:52 | 36m        | 17:28 | 36m        | 18:04    | 14h 47m                    | 11h 11m    |    |            |    | So, 19. Nov |
| Mo, 20. Nov |               | 23:27–05:17*               | 5h 49m     | M <sub>\</sub> bis AN <sub>-</sub>  | ◐    | 13:19      | 23:27      | 05:15                      | 36m        | 05:52 | 36m        | 06:28 | 35m        | 07:04      | 9h 11m     | 16:15                   | 35m        | 16:51 | 36m        | 17:27 | 36m        | 18:04    | 14h 50m                    | 11h 13m    |    |            |    | Mo, 20. Nov |
| Di, 21. Nov |               | 00:48*–05:18*              | 4h 29m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 13:40      | —:—        | 05:17                      | 36m        | 05:53 | 36m        | 06:29 | 35m        | 07:05      | 9h 08m     | 16:14                   | 35m        | 16:50 | 36m        | 17:27 | 36m        | 18:03    | 14h 52m                    | 11h 14m    |    |            |    | Di, 21. Nov |
| Mi, 22. Nov |               | 02:07*–05:19*              | 3h 11m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 13:58      | 00:48      | 05:18                      | 36m        | 05:54 | 36m        | 06:31 | 35m        | 07:07      | 9h 06m     | 16:13                   | 35m        | 16:49 | 36m        | 17:26 | 36m        | 18:02    | 14h 54m                    | 11h 16m    |    |            |    | Mi, 22. Nov |
| Do, 23. Nov |               | 03:26*–05:20*              | 1h 53m     | M <sub>\</sub> bis AN <sub>-</sub>  |      | 14:15      | 02:07      | 05:19                      | 36m        | 05:55 | 36m        | 06:32 | 36m        | 07:08      | 9h 04m     | 16:13                   | 36m        | 16:49 | 36m        | 17:25 | 36m        | 18:02    | 14h 56m                    | 11h 18m    |    |            |    | Do, 23. Nov |
| Fr, 24. Nov |               | 04:46*–05:21*              | 35m        | M <sub>\</sub> bis AN <sub>-</sub>  |      | 14:33      | 03:26      | 05:20                      | 36m        | 05:56 | 36m        | 06:33 | 36m        | 07:09      | 9h 02m     | 16:12                   | 36m        | 16:48 | 36m        | 17:25 | 36m        | 18:01    | 14h 59m                    | 11h 20m    |    |            |    | Fr, 24. Nov |
| Sa, 25. Nov |               | —:—:—:—                    | —          | Mond stört                          |      | 14:54      | 04:46      | 05:21                      | 36m        | 05:58 | 36m        | 06:35 | 36m        | 07:11      | 9h 00m     | 16:11                   | 36m        | 16:47 | 36m        | 17:24 | 36m        | 18:00    | 15h 01m                    | 11h 21m    |    |            |    | Sa, 25. Nov |
| So, 26. Nov |               | —:~:~:~:~                  | —          | Mond stört                          |      | 15:19      | 06:07      | 05:22                      | 36m        | 05:59 | 37m        | 06:36 | 36m        | 07:12      | 8h 58m     | 16:10                   | 36m        | 16:47 | 37m        | 17:24 | 36m        | 18:00    | 15h 03m                    | 11h 23m    |    |            |    | So, 26. Nov |
| Mo, 27. Nov |               | —:~:~:~:~                  | —          | Mond stört                          | ○    | 15:51      | 07:26      | 05:23                      | 36m        | 06:00 | 37m        | 06:37 | 36m        | 07:13      | 8h 56m     | 16:10                   | 36m        | 16:46 | 37m        | 17:23 | 36m        | 18:00    | 15h 05m                    | 11h 24m    |    |            |    | Mo, 27. Nov |
| Di, 28. Nov |               | —:~:~:~:~                  | —          | Mond stört                          |      | 16:32      | 08:41      | 05:25                      | 36m        | 06:01 | 37m        | 06:38 | 36m        | 07:15      | 8h 54m     | 16:09                   | 36m        | 16:45 | 37m        | 17:23 | 36m        | 17:59    | 15h 06m                    | 11h 26m    |    |            |    | Di, 28. Nov |
| Mi, 29. Nov |               | —:~:~:~:~                  | —          | Mond stört                          |      | 17:24      | 09:47      | 05:26                      | 36m        | 06:02 | 37m        | 06:39 | 36m        | 07:16      | 8h 52m     | 16:08                   | 36m        | 16:45 | 37m        | 17:22 | 36m        | 17:59    | 15h 08m                    | 11h 27m    |    |            |    | Mi, 29. Nov |
| Do, 30. Nov |               | 17:58–18:25                | 27m        | AN <sub>+</sub> bis M <sub>7</sub>  |      | 18:25      | 10:40      | 05:27                      | 36m        | 06:03 | 37m        | 06:41 | 36m        | 07:17      | 8h 50m     | 16:08                   | 36m        | 16:45 | 37m        | 17:22 | 36m        | 17:58    | 15h 10m                    | 11h 29m    |    |            |    | Do, 30. Nov |
| Fr, 1. Dez  |               | 17:58–19:33                | 1h 34m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 19:33      | 11:20      | 05:28                      | 36m        | 06:04 | 37m        | 06:42 | 36m        | 07:18      | 8h 48m     | 16:07                   | 36m        | 16:44 | 37m        | 17:22 | 36m        | 17:58    | 15h 12m                    | 11h 30m    |    |            |    | Fr, 1. Dez  |
| Sa, 2. Dez  |               | 17:58–20:42                | 2h 44m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 20:42      | 11:50      | 05:29                      | 36m        | 06:05 | 37m        | 06:43 | 36m        | 07:20      | 8h 47m     | 16:07                   | 36m        | 16:44 | 37m        | 17:21 | 36m        | 17:58    | 15h 13m                    | 11h 31m    |    |            |    | Sa, 2. Dez  |
| So, 3. Dez  |               | 17:58–21:51                | 3h 52m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 21:51      | 12:13      | 05:30                      | 36m        | 06:06 | 37m        | 06:44 | 36m        | 07:21      | 8h 45m     | 16:07                   | 36m        | 16:43 | 37m        | 17:21 | 36m        | 17:58    | 15h 15m                    | 11h 33m    |    |            |    | So, 3. Dez  |
| Mo, 4. Dez  |               | 17:57–22:58                | 5h 00m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 22:58      | 12:32      | 05:31                      | 36m        | 06:07 | 37m        | 06:45 | 37m        | 07:22      | 8h 44m     | 16:06                   | 36m        | 16:43 | 37m        | 17:21 | 36m        | 17:57    | 15h 16m                    | 11h 34m    |    |            |    | Mo, 4. Dez  |
| Di, 5. Dez  |               | 17:57–00:03*               | 6h 05m     | AN <sub>+</sub> bis M <sub>7</sub>  | ◑    | —:—        | 12:47      | 05:32                      | 36m        | 06:08 | 37m        | 06:46 | 37m        | 07:23      | 8h 42m     | 16:06                   | 37m        | 16:43 | 37m        | 17:21 | 36m        | 17:57    | 15h 18m                    | 11h 35m    |    |            |    | Di, 5. Dez  |
| Mi, 6. Dez  |               | 17:57–01:09*               | 7h 11m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 00:03      | 13:02      | 05:33                      | 36m        | 06:09 | 37m        | 06:47 | 37m        | 07:24      | 8h 41m     | 16:06                   | 37m        | 16:43 | 37m        | 17:20 | 36m        | 17:57    | 15h 19m                    | 11h 36m    |    |            |    | Mi, 6. Dez  |
| Do, 7. Dez  |               | 17:57–02:15*               | 8h 18m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 01:09      | 13:16      | 05:34                      | 36m        | 06:10 | 37m        | 06:48 | 37m        | 07:25      | 8h 40m     | 16:05                   | 37m        | 16:43 | 37m        | 17:20 | 36m        | 17:57    | 15h 20m                    | 11h 37m    |    |            |    | Do, 7. Dez  |
| Fr, 8. Dez  |               | 17:57–03:24*               | 9h 27m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 02:15      | 13:31      | 05:34                      | 36m        | 06:11 | 37m        | 06:49 | 37m        | 07:26      | 8h 38m     | 16:05                   | 37m        | 16:43 | 37m        | 17:20 | 36m        | 17:57    | 15h 22m                    | 11h 38m    |    |            |    | Fr, 8. Dez  |
| Sa, 9. Dez  |               | 17:57–04:37*               | 10h 39m    | AN <sub>+</sub> bis M <sub>7</sub>  |      | 03:24      | 13:48      | 05:35                      | 36m        | 06:12 | 37m        | 06:50 | 3          |            |            |                         |            |       |            |       |            |          |                            |            |    |            |    |             |

| 1           | 2             | 3                          | 4       | 5                                   | 6    | 7          | 8          | 9                          | 10         | 11    | 12         | 13    | 14         | 15         | 16         | 17                      | 18         | 19    | 20         | 21    | 22         | 23       | 24                         | 25         | 26 | 27         | 28 | 29          |
|-------------|---------------|----------------------------|---------|-------------------------------------|------|------------|------------|----------------------------|------------|-------|------------|-------|------------|------------|------------|-------------------------|------------|-------|------------|-------|------------|----------|----------------------------|------------|----|------------|----|-------------|
| 2023/24     | Zeit-<br>zone | Astr. dunkel und kein Mond |         |                                     | Mond |            |            | Beginn der Morgendämmerung |            |       |            |       | Sonne      |            |            | Ende der Abenddämmerung |            |       |            |       | Nacht      | Astr. N. | Naut. dunkel und kein Mond |            |    | 2023/24    |    |             |
|             |               | $\Delta t$                 |         |                                     | Ph.  | $\nearrow$ | $\searrow$ | Astr.                      | $\Delta t$ | Naut. | $\Delta t$ | Bürg. | $\Delta t$ | $\nearrow$ | $\Delta t$ | $\searrow$              | $\Delta t$ | Bürg. | $\Delta t$ | Naut. | $\Delta t$ | Astr.    | $\Delta t$                 | $\Delta t$ |    | $\Delta t$ |    |             |
| So, 17. Dez |               | 21:16–05:42*               | 8h 26m  | M <sub>\</sub> bis AN <sub>\</sub>  |      | 11:23      | 21:16      | 05:41                      | 37m        | 06:19 | 38m        | 06:57 | 37m        | 07:34      | 8h 31m     | 16:06                   | 37m        | 16:44 | 38m        | 17:22 | 37m        | 17:59    | 15h 28m                    | 11h 43m    |    |            |    | So, 17. Dez |
| Mo, 18. Dez |               | 22:37–05:43*               | 7h 05m  | M <sub>\</sub> bis AN <sub>\</sub>  |      | 11:45      | 22:37      | 05:42                      | 37m        | 06:19 | 38m        | 06:57 | 37m        | 07:35      | 8h 31m     | 16:06                   | 37m        | 16:44 | 38m        | 17:22 | 37m        | 17:59    | 15h 29m                    | 11h 43m    |    |            |    | Mo, 18. Dez |
| Di, 19. Dez |               | 23:57–05:43*               | 5h 46m  | M <sub>\</sub> bis AN <sub>\</sub>  | ☾    | 12:04      | 23:57      | 05:43                      | 37m        | 06:20 | 38m        | 06:58 | 37m        | 07:36      | 8h 31m     | 16:07                   | 37m        | 16:44 | 38m        | 17:22 | 37m        | 18:00    | 15h 29m                    | 11h 43m    |    |            |    | Di, 19. Dez |
| Mi, 20. Dez |               | 01:14*–05:44*              | 4h 29m  | M <sub>\</sub> bis AN <sub>\</sub>  |      | 12:21      | —:—        | 05:43                      | 37m        | 06:20 | 38m        | 06:58 | 37m        | 07:36      | 8h 30m     | 16:07                   | 37m        | 16:45 | 38m        | 17:23 | 37m        | 18:00    | 15h 29m                    | 11h 43m    |    |            |    | Mi, 20. Dez |
| Do, 21. Dez |               | 02:32*–05:44*              | 3h 12m  | M <sub>\</sub> bis AN <sub>\</sub>  |      | 12:39      | 01:14      | 05:44                      | 37m        | 06:21 | 38m        | 06:59 | 37m        | 07:37      | 8h 30m     | 16:08                   | 37m        | 16:45 | 38m        | 17:23 | 37m        | 18:00    | 15h 29m                    | 11h 43m    |    |            |    | Do, 21. Dez |
| Fr, 22. Dez |               | 03:50*–05:45*              | 1h 54m  | M <sub>\</sub> bis AN <sub>\</sub>  |      | 12:58      | 02:32      | 05:44                      | 37m        | 06:21 | 38m        | 06:59 | 37m        | 07:37      | 8h 30m     | 16:08                   | 37m        | 16:46 | 38m        | 17:24 | 37m        | 18:01    | 15h 29m                    | 11h 43m    |    |            |    | Fr, 22. Dez |
| Sa, 23. Dez |               | 05:09*–05:45*              | 36m     | M <sub>\</sub> bis AN <sub>\</sub>  |      | 13:21      | 03:50      | 05:45                      | 37m        | 06:22 | 38m        | 07:00 | 37m        | 07:38      | 8h 30m     | 16:09                   | 37m        | 16:46 | 38m        | 17:24 | 37m        | 18:01    | 15h 29m                    | 11h 43m    |    |            |    | Sa, 23. Dez |
| So, 24. Dez |               | —:—:—:—                    | –       | Mond stört                          |      | 13:49      | 05:09      | 05:45                      | 37m        | 06:22 | 38m        | 07:00 | 37m        | 07:38      | 8h 31m     | 16:09                   | 37m        | 16:47 | 38m        | 17:25 | 37m        | 18:02    | 15h 29m                    | 11h 43m    |    |            |    | So, 24. Dez |
| Mo, 25. Dez |               | —:—:—:—                    | –       | Mond stört                          |      | 14:26      | 06:24      | 05:46                      | 37m        | 06:23 | 38m        | 07:01 | 37m        | 07:38      | 8h 31m     | 16:10                   | 37m        | 16:47 | 38m        | 17:26 | 37m        | 18:03    | 15h 29m                    | 11h 43m    |    |            |    | Mo, 25. Dez |
| Di, 26. Dez |               | —:—:—:—                    | –       | Mond stört                          |      | 15:13      | 07:33      | 05:46                      | 37m        | 06:23 | 38m        | 07:01 | 37m        | 07:39      | 8h 31m     | 16:10                   | 37m        | 16:48 | 38m        | 17:26 | 37m        | 18:03    | 15h 28m                    | 11h 43m    |    |            |    | Di, 26. Dez |
| Mi, 27. Dez |               | —:—:—:—                    | –       | Mond stört                          | ☉    | 16:11      | 08:30      | 05:46                      | 37m        | 06:23 | 37m        | 07:01 | 37m        | 07:39      | 8h 32m     | 16:11                   | 37m        | 16:49 | 37m        | 17:27 | 37m        | 18:04    | 15h 28m                    | 11h 42m    |    |            |    | Mi, 27. Dez |
| Do, 28. Dez |               | —:—:~:~                    | –       | Mond stört                          |      | 17:17      | 09:15      | 05:47                      | 37m        | 06:24 | 37m        | 07:02 | 37m        | 07:39      | 8h 32m     | 16:12                   | 37m        | 16:50 | 37m        | 17:28 | 37m        | 18:05    | 15h 27m                    | 11h 42m    |    |            |    | Do, 28. Dez |
| Fr, 29. Dez |               | 18:05–18:26                | 20m     | AN <sub>+</sub> bis M <sub>7</sub>  |      | 18:26      | 09:49      | 05:47                      | 37m        | 06:24 | 37m        | 07:02 | 37m        | 07:40      | 8h 33m     | 16:13                   | 37m        | 16:50 | 37m        | 17:28 | 37m        | 18:05    | 15h 26m                    | 11h 41m    |    |            |    | Fr, 29. Dez |
| Sa, 30. Dez |               | 18:06–19:35                | 1h 29m  | AN <sub>+</sub> bis M <sub>7</sub>  |      | 19:35      | 10:15      | 05:47                      | 37m        | 06:24 | 37m        | 07:02 | 37m        | 07:40      | 8h 33m     | 16:14                   | 37m        | 16:51 | 37m        | 17:29 | 37m        | 18:06    | 15h 26m                    | 11h 41m    |    |            |    | Sa, 30. Dez |
| So, 31. Dez |               | 18:07–20:43                | 2h 36m  | AN <sub>+</sub> bis M <sub>7</sub>  |      | 20:43      | 10:35      | 05:47                      | 37m        | 06:24 | 37m        | 07:02 | 37m        | 07:40      | 8h 34m     | 16:14                   | 37m        | 16:52 | 37m        | 17:30 | 37m        | 18:07    | 15h 25m                    | 11h 40m    |    |            |    | So, 31. Dez |
| Mo, 1. Jan  |               | 18:08–21:49                | 3h 41m  | AN <sub>+</sub> bis M <sub>7</sub>  |      | 21:49      | 10:52      | 05:48                      | 36m        | 06:25 | 37m        | 07:02 | 37m        | 07:40      | 8h 35m     | 16:15                   | 37m        | 16:53 | 37m        | 17:31 | 36m        | 18:08    | 15h 24m                    | 11h 40m    |    |            |    | Mo, 1. Jan  |
| Di, 2. Jan  |               | 18:08–22:54                | 4h 45m  | AN <sub>+</sub> bis M <sub>7</sub>  |      | 22:54      | 11:07      | 05:48                      | 36m        | 06:25 | 37m        | 07:02 | 37m        | 07:40      | 8h 36m     | 16:16                   | 37m        | 16:54 | 37m        | 17:32 | 36m        | 18:08    | 15h 23m                    | 11h 39m    |    |            |    | Di, 2. Jan  |
| Mi, 3. Jan  |               | 18:09–23:59                | 5h 49m  | AN <sub>+</sub> bis M <sub>7</sub>  |      | 23:59      | 11:21      | 05:48                      | 36m        | 06:25 | 37m        | 07:02 | 37m        | 07:40      | 8h 37m     | 16:17                   | 37m        | 16:55 | 37m        | 17:32 | 36m        | 18:09    | 15h 22m                    | 11h 38m    |    |            |    | Mi, 3. Jan  |
| Do, 4. Jan  |               | 18:10–01:06*               | 6h 55m  | AN <sub>+</sub> bis M <sub>7</sub>  | ☾    | —:—        | 11:35      | 05:48                      | 36m        | 06:25 | 37m        | 07:02 | 37m        | 07:40      | 8h 38m     | 16:18                   | 37m        | 16:56 | 37m        | 17:33 | 36m        | 18:10    | 15h 21m                    | 11h 37m    |    |            |    | Do, 4. Jan  |
| Fr, 5. Jan  |               | 18:11–02:16*               | 8h 04m  | AN <sub>+</sub> bis M <sub>7</sub>  |      | 01:06      | 11:51      | 05:48                      | 36m        | 06:25 | 37m        | 07:02 | 37m        | 07:40      | 8h 39m     | 16:19                   | 37m        | 16:57 | 37m        | 17:34 | 36m        | 18:11    | 15h 20m                    | 11h 36m    |    |            |    | Fr, 5. Jan  |
| Sa, 6. Jan  |               | 18:12–03:29*               | 9h 17m  | AN <sub>+</sub> bis M <sub>7</sub>  |      | 02:16      | 12:09      | 05:48                      | 36m        | 06:25 | 37m        | 07:02 | 37m        | 07:39      | 8h 40m     | 16:20                   | 37m        | 16:58 | 37m        | 17:35 | 36m        | 18:12    | 15h 18m                    | 11h 35m    |    |            |    | Sa, 6. Jan  |
| So, 7. Jan  |               | 18:13–04:46*               | 10h 32m | AN <sub>+</sub> bis M <sub>7</sub>  |      | 03:29      | 12:33      | 05:48                      | 36m        | 06:25 | 37m        | 07:02 | 37m        | 07:39      | 8h 42m     | 16:22                   | 37m        | 16:59 | 37m        | 17:36 | 36m        | 18:13    | 15h 17m                    | 11h 34m    |    |            |    | So, 7. Jan  |
| Mo, 8. Jan  |               | 18:14–05:47*               | 11h 33m | AN <sub>+</sub> bis AN <sub>\</sub> |      | 04:46      | 13:05      | 05:48                      | 36m        | 06:24 | 37m        | 07:02 | 37m        | 07:39      | 8h 43m     | 16:23                   | 37m        | 17:00 | 37m        | 17:37 | 36m        | 18:14    | 15h 15m                    | 11h 33m    |    |            |    | Mo, 8. Jan  |
| Di, 9. Jan  |               | 18:15–05:47*               | 11h 32m | AN <sub>+</sub> bis AN <sub>\</sub> |      | 06:01      | 13:49      | 05:47                      | 36m        | 06:24 | 37m        | 07:02 | 36m        | 07:39      | 8h 45m     | 16:24                   | 36m        | 17:01 | 37m        | 17:38 | 36m        | 18:15    | 15h 14m                    | 11h 32m    |    |            |    | Di, 9. Jan  |
| Mi, 10. Jan |               | 18:16–05:47*               | 11h 31m | AN <sub>+</sub> bis AN <sub>\</sub> |      | 07:11      | 14:48      | 05:47                      | 36m        | 06:24 | 37m        | 07:01 | 36m        | 07:38      | 8h 46m     | 16:25                   | 36m        | 17:02 | 37m        | 17:39 | 36m        | 18:16    | 15h 12m                    | 11h 31m    |    |            |    | Mi, 10. Jan |
| Do, 11. Jan |               | 18:17–05:47*               | 11h 29m | AN <sub>+</sub> bis AN <sub>\</sub> | ☉    | 08:08      | 16:03      | 05:47                      | 36m        | 06:24 | 37m        | 07:01 | 36m        | 07:38      | 8h 48m     | 16:26                   | 36m        | 17:03 | 37m        | 17:40 | 36m        | 18:17    | 15h 11m                    | 11h 29m    |    |            |    | Do, 11. Jan |
| Fr, 12. Jan |               | 18:18–05:47*               | 11h 28m | AN <sub>+</sub> bis AN <sub>\</sub> |      | 08:51      | 17:28      | 05:47                      | 36m        | 06:23 | 37m        | 07:01 | 36m        | 07:37      | 8h 50m     | 16:28                   | 36m        | 17:04 | 37m        | 17:42 | 36m        | 18:18    | 15h 09m                    | 11h 28m    |    |            |    | Fr, 12. Jan |
| Sa, 13. Jan |               | 18:55–05:46*               | 10h 50m | M <sub>\</sub> bis AN <sub>\</sub>  |      | 09:24      | 18:55      | 05:47                      | 36m        | 06:23 | 37m        | 07:00 | 36m        | 07:37      | 8h 51m     | 16:29                   | 36m        | 17:05 | 37m        | 17:43 | 36m        | 18:19    | 15h 07m                    | 11h 26m    |    |            |    | Sa, 13. Jan |
| So, 14. Jan |               | 20:21–05:46*               | 9h 24m  | M <sub>\</sub> bis AN <sub>\</sub>  |      | 09:49      | 20:21      | 05:46                      | 36m        | 06:23 | 37m        | 07:00 | 36m        | 07:36      | 8h 53m     | 16:30                   | 36m        | 17:07 | 37m        | 17:44 | 36m        | 18:20    | 15h 05m                    | 11h 25m    |    |            |    | So, 14. Jan |
| Mo, 15. Jan |               | 21:43–05:45*               | 8h 01m  | M <sub>\</sub> bis AN <sub>\</sub>  |      | 10:09      | 21:43      | 05:46                      | 36m        | 06:22 | 37m        | 06:59 | 36m        | 07:36      | 8h 55m     | 16:31                   | 36m        | 17:08 | 37m        | 17:45 | 36m        | 18:21    | 15h 03m                    | 11h 23m    |    |            |    | Mo, 15. Jan |
| Di, 16. Jan |               | 23:03–05:45*               | 6h 41m  | M <sub>\</sub> bis AN <sub>\</sub>  |      | 10:27      | 23:03      | 05:45                      | 36m        | 06:22 | 37m        | 06:59 | 36m        | 07:35      | 8h 57m     | 16:33                   | 36m        | 17:09 | 37m        | 17:46 | 36m        | 18:23    | 15h 01m                    | 11h 22m    |    |            |    | Di, 16. Jan |
| Mi, 17. Jan |               | 00:22*–05:44*              | 5h 22m  | M <sub>\</sub> bis AN <sub>\</sub>  |      | 10:45      | —:—        | 05:45                      | 36m        | 06:21 | 36m        | 06:58 | 36m        | 07:34      | 8h 59m     | 16:34                   | 36m        | 17:10 | 36m        | 17:47 | 36m        | 18:24    | 14h 59m                    | 11h 20m    |    |            |    | Mi, 17. Jan |
| Do, 18. Jan |               | 01:40*–05:44*              | 4h 03m  | M <sub>\</sub> bis AN <sub>\</sub>  | ☾    | 11:03      | 00:22      | 05:44                      | 36m        | 06:21 | 36m        | 06:58 | 36m        | 07:34      | 9h 01m     | 16:36                   | 36m        | 17:12 | 36m        | 17:49 | 36m        | 18:25    | 14h 57m                    | 11h 19m    |    |            |    | Do, 18. Jan |
| Fr, 19. Jan |               | 02:58*–05:43*              | 2h 45m  | M <sub>\</sub> bis AN <sub>\</sub>  |      | 11:25      | 01:40      | 05:44                      | 36m        | 06:20 | 36m        | 06:57 | 36m        | 07:33      | 9h 03m     | 16:37                   | 36m        | 17:13 | 36m        | 17:50 | 36m        | 18:26    | 14h 55m                    | 11h 17m    |    |            |    | Fr, 19. Jan |
| Sa, 20. Jan |               | 04:14*–05:43*              | 1h 28m  | M <sub>\</sub> bis AN <sub>\</sub>  |      | 11:51      | 02:58      | 05:43                      | 36m        | 06:20 | 36m        | 06:56 | 35m        | 07:32      | 9h 06m     | 16:38                   | 35m        | 17:14 | 36m        | 17:51 | 36m        | 18:27    | 14h 53m                    | 11h 15m    |    |            |    | Sa, 20. Jan |
| So, 21. Jan |               | 05:24*–05:42*              | 17m     | M <sub>\</sub> bis AN <sub>\</sub>  |      | 12:24      | 04:14      | 05:43                      | 36m        | 06:19 | 36m        | 06:56 | 35m        | 07:31      | 9h 08m     | 16:40                   | 35m        | 17:16 | 36m        | 17:52 | 36m        | 18:28    | 14h 50m                    | 11h 13m    |    |            |    | So, 21. Jan |
| Mo, 22. Jan |               | —:~:~:~                    | –       | Mond stört                          |      | 13:07      | 05:24      | 05:42                      | 36m        | 06:18 | 36m        | 06:55 | 35m        | 07:31      | 9h 10m     | 16:41                   | 35m        | 17:17 | 36m        | 17:54 | 36m        | 18:30    | 14h 48m                    | 11h 11m    |    |            |    | Mo, 22. Jan |
| Di, 23. Jan |               | —:~:~:~                    | –       | Mond stört                          |      | 14:01      | 06:24      | 05:41                      | 36m        | 06:17 | 36m        | 06:54 | 35m        | 07:30      | 9h 13m     | 16:43                   | 35m        | 17:18 | 36m        | 17:55 | 36m        | 18:31    | 14h 45m                    | 11h 09m    |    |            |    | Di, 23. Jan |
| Mi, 24. Jan |               | —:~:~:~                    | –       | Mond stört                          |      | 15:04      | 07:13      | 05:41                      | 36m        | 06:17 | 36m        | 06:53 | 35m        | 07:29      | 9h 15m     | 16:44                   | 35m        | 17:20 | 36m        | 17:56 | 36m        | 18:32    | 14h 43m                    | 11h 07m    |    |            |    | Mi, 24. Jan |
| Do, 25. Jan |               | —:~:~:~                    | –       | Mond stört                          | ☉    | 16:12      | 07:50      | 05:40                      | 35m        | 06:16 | 36m        | 06:52 | 35m        | 07:28      | 9h 17m     | 16:46                   | 35m        | 17:21 | 36m        | 17:57 | 36m        | 18:33    | 14h 41m                    | 11h 05m    |    |            |    | Do, 25. Jan |
| Fr, 26. Jan |               | —:~:~:~                    | –       | Mond stört                          |      | 17:22      | 08:18      | 05:39                      | 35m        | 06:15 | 36m        | 06:51 | 35m        | 07:27      | 9h 20m     | 16:47                   | 35m        | 17:22 | 36m        | 17:59 | 35m        | 18:35    | 14h 38m                    | 11h 03m    |    |            |    | Fr, 26. Jan |
| Sa, 27. Jan |               | —:~:~:~                    | –       | Mond stört                          |      | 18:31      | 08:40      | 05:38                      | 35m        | 06:14 | 36m        | 06:50 | 35m        | 07:26      | 9h 23m     | 16:49                   | 35m        | 17:24 | 36m        | 18:00 | 35m        | 18:36    | 14h 35m                    | 11h 01m    |    |            |    | Sa, 27. Jan |
| So, 28. Jan |               | 18:37–19:37                | 1h 00m  | AN <sub>+</sub> bis M <sub>7</sub>  |      | 19:37      | 08:57      | 05:37                      | 35m        | 06:13 | 36m        | 06:49 | 35m        | 07:24      | 9h 25m     | 16:50                   | 35m        |       |            |       |            |          |                            |            |    |            |    |             |