

Mond- und Dämmerungstabelle 2024

für die visuelle Deep-Sky-Beobachtung

Deutschlandsberg 46.8161° N 15.2150° E

Berechnung: pyEphem
Textsatz: L^AT_EX

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°) 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₊ (Einbruch der astronomischen Nacht = Ende der astr. Abenddämmerung), M_v (Monduntergang), AN₋ (Ende der astronomischen Nacht = Beginn der astr. Morgendämmerung), M₇

(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°).

Spalte 10 Dauer der astr. Morgendämmerung.

Spalte 11 Beginn der naut. Morgendämmerung (Sonnenhöhe = -12°).

Spalte 12 Dauer der naut. Morgendämmerung.

Spalte 13 Beginn der bürg. Morgendämmerung (Sonnenhöhe = -6°).

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°).

Spalte 20 Dauer der naut. Abenddämmerung.

Spalte 21 Ende der naut. Abenddämmerung (Sonnenhöhe = -12°).

Spalte 22 Dauer der astr. Abenddämmerung.

Spalte 23 Ende der astr. Abenddämmerung (Sonnenhöhe = -18°).

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°) und kein Mond stört.

Spalte 27 Dauer der in Spalte 26 angegebenen Zeitspanne.

Spalte 28 Ereignisse, die die nutzbare Zeitspanne begrenzen: ND₊ (Beginn der »naut. Dunkelheit« = Ende der naut. Abenddämmerung), M_v (Monduntergang), ND₋ (Ende der »naut. Dunkelheit« = Beginn der naut. Morgendämmerung), M₇ (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
2024	Zeit- zone	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne			Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2024		
			Δt		Ph.	\nearrow	\searrow	Astr.	Δt	Naut.	Δt	Bürg.	Δt	\nearrow	Δt	\searrow	Δt	Bürg.	Δt	Naut.	Δt	Astr.	Δt	Δt		Δt		
Mo, 1. Jan		18:12–21:54	3h 41m	AN ₊ bis M ₇		21:54	10:56	05:52	36m	06:28	37m	07:06	37m	07:43	8h 37m	16:21	37m	16:58	37m	17:36	36m	18:12	15h 22m	11h 39m				Mo, 1. Jan
Di, 2. Jan		18:13–22:59	4h 45m	AN ₊ bis M ₇		22:59	11:11	05:52	36m	06:29	37m	07:06	37m	07:43	8h 38m	16:22	37m	16:59	37m	17:36	36m	18:13	15h 21m	11h 38m				Di, 2. Jan
Mi, 3. Jan		18:14–00:04*	5h 49m	AN ₊ bis M ₇		—:—	11:25	05:52	36m	06:29	37m	07:06	37m	07:43	8h 39m	16:23	37m	17:00	37m	17:37	36m	18:14	15h 20m	11h 37m				Mi, 3. Jan
Do, 4. Jan		18:15–01:10*	6h 55m	AN ₊ bis M ₇	☾	00:04	11:40	05:52	36m	06:29	37m	07:06	37m	07:43	8h 40m	16:24	37m	17:01	37m	17:38	36m	18:15	15h 19m	11h 36m				Do, 4. Jan
Fr, 5. Jan		18:16–02:20*	8h 03m	AN ₊ bis M ₇		01:10	11:56	05:52	36m	06:29	37m	07:06	37m	07:43	8h 41m	16:25	37m	17:02	37m	17:39	36m	18:16	15h 18m	11h 35m				Fr, 5. Jan
Sa, 6. Jan		18:17–03:33*	9h 16m	AN ₊ bis M ₇		02:20	12:15	05:52	36m	06:29	37m	07:06	36m	07:43	8h 42m	16:26	36m	17:03	37m	17:40	36m	18:17	15h 16m	11h 34m				Sa, 6. Jan
So, 7. Jan		18:18–04:49*	10h 31m	AN ₊ bis M ₇		03:33	12:39	05:52	36m	06:28	37m	07:06	36m	07:43	8h 44m	16:27	36m	17:04	37m	17:41	36m	18:18	15h 15m	11h 33m				So, 7. Jan
Mo, 8. Jan		18:19–05:52*	11h 32m	AN ₊ bis AN ₋		04:49	13:10	05:52	36m	06:28	37m	07:06	36m	07:42	8h 45m	16:28	36m	17:05	37m	17:42	36m	18:19	15h 14m	11h 32m				Mo, 8. Jan
Di, 9. Jan		18:20–05:51*	11h 31m	AN ₊ bis AN ₋		06:05	13:54	05:52	36m	06:28	37m	07:05	36m	07:42	8h 47m	16:29	36m	17:06	37m	17:43	36m	18:20	15h 12m	11h 31m				Di, 9. Jan
Mi, 10. Jan		18:21–05:51*	11h 30m	AN ₊ bis AN ₋		07:14	14:54	05:51	36m	06:28	37m	07:05	36m	07:42	8h 48m	16:30	36m	17:07	37m	17:44	36m	18:21	15h 11m	11h 30m				Mi, 10. Jan
Do, 11. Jan		18:22–05:51*	11h 29m	AN ₊ bis AN ₋	☾	08:11	16:09	05:51	36m	06:28	37m	07:05	36m	07:41	8h 50m	16:32	36m	17:08	37m	17:45	36m	18:22	15h 09m	11h 29m				Do, 11. Jan
Fr, 12. Jan		18:23–05:51*	11h 27m	AN ₊ bis AN ₋		08:55	17:34	05:51	36m	06:27	37m	07:04	36m	07:41	8h 51m	16:33	36m	17:09	37m	17:46	36m	18:23	15h 07m	11h 27m				Fr, 12. Jan
Sa, 13. Jan		19:01–05:50*	10h 49m	M _\ bis AN ₋		09:27	19:01	05:51	36m	06:27	37m	07:04	36m	07:40	8h 53m	16:34	36m	17:11	37m	17:48	36m	18:24	15h 05m	11h 26m				Sa, 13. Jan
So, 14. Jan		20:26–05:50*	9h 23m	M _\ bis AN ₋		09:53	20:26	05:50	36m	06:27	36m	07:04	36m	07:40	8h 55m	16:35	36m	17:12	36m	17:49	36m	18:25	15h 03m	11h 24m				So, 14. Jan
Mo, 15. Jan		21:48–05:50*	8h 01m	M _\ bis AN ₋		10:13	21:48	05:50	36m	06:26	36m	07:03	36m	07:39	8h 57m	16:37	36m	17:13	36m	17:50	36m	18:26	15h 02m	11h 23m				Mo, 15. Jan
Di, 16. Jan		23:08–05:49*	6h 41m	M _\ bis AN ₋		10:31	23:08	05:50	36m	06:26	36m	07:03	36m	07:39	8h 59m	16:38	36m	17:14	36m	17:51	36m	18:27	15h 00m	11h 21m				Di, 16. Jan
Mi, 17. Jan		00:26*–05:49*	5h 22m	M _\ bis AN ₋		10:49	—:—	05:49	36m	06:25	36m	07:02	36m	07:38	9h 01m	16:39	36m	17:15	36m	17:52	36m	18:28	14h 57m	11h 20m				Mi, 17. Jan
Do, 18. Jan		01:44*–05:48*	4h 03m	M _\ bis AN ₋	☾	11:08	00:26	05:49	36m	06:25	36m	07:01	35m	07:37	9h 03m	16:41	35m	17:17	36m	17:53	36m	18:30	14h 55m	11h 18m				Do, 18. Jan
Fr, 19. Jan		03:02*–05:48*	2h 45m	M _\ bis AN ₋		11:30	01:44	05:48	36m	06:24	36m	07:01	35m	07:37	9h 05m	16:42	35m	17:18	36m	17:55	36m	18:31	14h 53m	11h 16m				Fr, 19. Jan
Sa, 20. Jan		04:18*–05:47*	1h 29m	M _\ bis AN ₋		11:56	03:02	05:48	36m	06:24	36m	07:00	35m	07:36	9h 07m	16:44	35m	17:19	36m	17:56	36m	18:32	14h 51m	11h 14m				Sa, 20. Jan
So, 21. Jan		05:27*–05:46*	18m	M _\ bis AN ₋		12:30	04:18	05:47	36m	06:23	36m	06:59	35m	07:35	9h 09m	16:45	35m	17:21	36m	17:57	36m	18:33	14h 49m	11h 13m				So, 21. Jan
Mo, 22. Jan		—:—:—:—	–	Mond stört		13:13	05:27	05:46	35m	06:22	36m	06:59	35m	07:34	9h 12m	16:46	35m	17:22	36m	17:58	35m	18:34	14h 46m	11h 11m				Mo, 22. Jan
Di, 23. Jan		—:—:—:—	–	Mond stört		14:07	06:28	05:46	35m	06:22	36m	06:58	35m	07:33	9h 14m	16:48	35m	17:23	36m	18:00	35m	18:36	14h 44m	11h 09m				Di, 23. Jan
Mi, 24. Jan		—:—:—:—	–	Mond stört		15:10	07:16	05:45	35m	06:21	36m	06:57	35m	07:32	9h 16m	16:49	35m	17:25	36m	18:01	35m	18:37	14h 42m	11h 07m				Mi, 24. Jan
Do, 25. Jan		—:~:~:~:~	–	Mond stört	☾	16:18	07:53	05:44	35m	06:20	36m	06:56	35m	07:31	9h 19m	16:51	35m	17:26	36m	18:02	35m	18:38	14h 39m	11h 05m				Do, 25. Jan
Fr, 26. Jan		—:~:~:~:~	–	Mond stört		17:28	08:21	05:43	35m	06:19	36m	06:55	35m	07:30	9h 21m	16:52	35m	17:27	36m	18:03	35m	18:39	14h 37m	11h 03m				Fr, 26. Jan
Sa, 27. Jan		—:~:~:~:~	–	Mond stört		18:36	08:43	05:43	35m	06:18	36m	06:54	35m	07:29	9h 24m	16:54	35m	17:29	36m	18:05	35m	18:41	14h 34m	11h 01m				Sa, 27. Jan
So, 28. Jan		18:42–19:42	1h 00m	AN ₊ bis M ₇		19:42	09:01	05:42	35m	06:17	35m	06:53	34m	07:28	9h 27m	16:55	34m	17:30	35m	18:06	35m	18:42	14h 31m	10h 58m				So, 28. Jan
Mo, 29. Jan		18:43–20:47	2h 04m	AN ₊ bis M ₇		20:47	09:17	05:41	35m	06:16	35m	06:52	34m	07:27	9h 29m	16:57	34m	17:32	35m	18:07	35m	18:43	14h 29m	10h 56m				Mo, 29. Jan
Di, 30. Jan		18:44–21:52	3h 07m	AN ₊ bis M ₇		21:52	09:31	05:40	35m	06:15	35m	06:51	34m	07:26	9h 32m	16:58	34m	17:33	35m	18:09	35m	18:44	14h 26m	10h 54m				Di, 30. Jan
Mi, 31. Jan		18:46–22:57	4h 11m	AN ₊ bis M ₇		22:57	09:45	05:39	35m	06:14	35m	06:50	34m	07:25	9h 34m	17:00	34m	17:34	35m	18:10	35m	18:46	14h 23m	10h 52m				Mi, 31. Jan
Do, 1. Feb		18:47–00:04*	5h 17m	AN ₊ bis M ₇		—:—	10:00	05:38	35m	06:13	35m	06:49	34m	07:24	9h 37m	17:01	34m	17:36	35m	18:11	35m	18:47	14h 21m	10h 49m				Do, 1. Feb
Fr, 2. Feb		18:48–01:14*	6h 25m	AN ₊ bis M ₇		00:04	10:17	05:37	35m	06:12	35m	06:48	34m	07:22	9h 40m	17:03	34m	17:37	35m	18:13	35m	18:48	14h 18m	10h 47m				Fr, 2. Feb
Sa, 3. Feb		18:50–02:27*	7h 37m	AN ₊ bis M ₇	☾	01:14	10:38	05:36	35m	06:11	35m	06:47	34m	07:21	9h 43m	17:04	34m	17:39	35m	18:14	35m	18:50	14h 15m	10h 44m				Sa, 3. Feb
So, 4. Feb		18:51–03:42*	8h 50m	AN ₊ bis M ₇		02:27	11:05	05:35	35m	06:10	35m	06:45	34m	07:20	9h 46m	17:06	34m	17:40	35m	18:16	35m	18:51	14h 12m	10h 42m				So, 4. Feb
Mo, 5. Feb		18:52–04:53*	10h 00m	AN ₊ bis M ₇		03:42	11:42	05:34	35m	06:09	35m	06:44	34m	07:18	9h 49m	17:07	34m	17:41	35m	18:17	35m	18:52	14h 09m	10h 40m				Mo, 5. Feb
Di, 6. Feb		18:54–05:31*	10h 37m	AN ₊ bis AN ₋		04:53	12:32	05:32	35m	06:08	35m	06:43	33m	07:17	9h 51m	17:09	34m	17:43	35m	18:18	35m	18:54	14h 06m	10h 37m				Di, 6. Feb
Mi, 7. Feb		18:55–05:30*	10h 34m	AN ₊ bis AN ₋		05:55	13:39	05:31	35m	06:06	35m	06:42	33m	07:16	9h 54m	17:10	33m	17:44	35m	18:20	35m	18:55	14h 03m	10h 34m				Mi, 7. Feb
Do, 8. Feb		18:56–05:29*	10h 32m	AN ₊ bis AN ₋		06:45	14:59	05:30	35m	06:05	35m	06:40	33m	07:14	9h 57m	17:12	33m	17:46	35m	18:21	35m	18:56	14h 00m	10h 32m				Do, 8. Feb
Fr, 9. Feb		18:58–05:27*	10h 29m	AN ₊ bis AN ₋	☾	07:23	16:27	05:29	35m	06:04	35m	06:39	33m	07:13	10h 00m	17:14	33m	17:47	35m	18:22	35m	18:58	13h 57m	10h 29m				Fr, 9. Feb
Sa, 10. Feb		18:59–05:26*	10h 26m	AN ₊ bis AN ₋		07:52	17:56	05:27	35m	06:03	35m	06:38	33m	07:11	10h 03m	17:15	33m	17:49	35m	18:24	35m	18:59	13h 54m	10h 26m				Sa, 10. Feb
So, 11. Feb		19:23–05:25*	10h 01m	M _\ bis AN ₋		08:15	19:23	05:26	35m	06:01	35m	06:36	33m	07:10	10h 06m	17:17	33m	17:50	35m	18:25	35m	19:00	13h 51m	10h 24m				So, 11. Feb
Mo, 12. Feb		20:47–05:23*	8h 36m																									

Table with 29 columns (1-29) and 48 rows (Di, 20. Feb to Di, 9. Apr). Columns include dates, moon phases (Zeitzone, Astr. dunkel, Mond, etc.), and sunrise/sunset times. Includes special markers like MESZ and moon phase icons.

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
2024	Zeit- zone	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne					Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2024
			Δt		Ph.	\nearrow	\searrow	Astr.	Δt	Naut.	Δt	Bürg.	Δt	\nearrow	Δt	\searrow	Δt	Bürg.	Δt	Naut.	Δt	Astr.	Δt	Δt		Δt		
Fr, 19. Jul	MESZ	—:—:—:—	-	Mond stört		19:52	02:29	02:51	1h 03m	03:55	48m	04:44	39m	05:24	15h 22m	20:46	39m	21:25	48m	22:14	1h 03m	23:17	8h 38m	3h 37m				Fr, 19. Jul
Sa, 20. Jul	MESZ	—:—:—:—	-	Mond stört		20:43	03:31	02:54	1h 03m	03:57	48m	04:45	39m	05:25	15h 20m	20:45	39m	21:24	47m	22:12	1h 02m	23:14	8h 41m	3h 41m				Sa, 20. Jul
So, 21. Jul	MESZ	—:—:—:—	-	Mond stört	☉	21:22	04:46	02:56	1h 02m	03:58	47m	04:46	39m	05:26	15h 17m	20:44	39m	21:23	47m	22:11	1h 01m	23:12	8h 43m	3h 46m				So, 21. Jul
Mo, 22. Jul	MESZ	—:—:~:~	-	Mond stört		21:52	06:09	02:59	1h 01m	04:00	47m	04:48	39m	05:27	15h 15m	20:43	39m	21:22	47m	22:09	1h 00m	23:10	8h 45m	3h 51m				Mo, 22. Jul
Di, 23. Jul	MESZ	—:~:~:~	-	Mond stört		22:15	07:34	03:01	1h 00m	04:02	47m	04:49	39m	05:28	15h 13m	20:42	38m	21:21	46m	22:07	59m	23:07	8h 47m	3h 55m				Di, 23. Jul
Mi, 24. Jul	MESZ	—:~:~:~	-	Mond stört		22:35	08:58	03:03	59m	04:03	46m	04:50	38m	05:29	15h 11m	20:40	38m	21:19	46m	22:06	59m	23:05	8h 49m	4h 00m				Mi, 24. Jul
Do, 25. Jul	MESZ	—:~:~:~	-	Mond stört		22:53	10:20	03:06	59m	04:05	46m	04:52	38m	05:30	15h 09m	20:39	38m	21:18	46m	22:04	58m	23:03	8h 52m	4h 05m				Do, 25. Jul
Fr, 26. Jul	MESZ	23:00-23:11	10m	AN+ bis M _J		23:11	11:41	03:08	58m	04:07	46m	04:53	38m	05:31	15h 06m	20:38	38m	21:17	46m	22:03	57m	23:00	8h 54m	4h 10m				Fr, 26. Jul
Sa, 27. Jul	MESZ	22:58-23:30	32m	AN+ bis M _J		23:30	13:01	03:10	57m	04:08	46m	04:54	38m	05:33	15h 04m	20:37	38m	21:15	45m	22:01	56m	22:58	8h 56m	4h 14m				Sa, 27. Jul
So, 28. Jul	MESZ	22:55-23:53	57m	AN+ bis M _J	☉	23:53	14:22	03:13	56m	04:10	45m	04:56	38m	05:34	15h 01m	20:36	38m	21:14	45m	21:59	56m	22:55	8h 59m	4h 19m				So, 28. Jul
Mo, 29. Jul	MESZ	22:53-00:23*	1h 29m	AN+ bis M _J		—:—	15:43	03:15	56m	04:11	45m	04:57	38m	05:35	14h 59m	20:34	37m	21:12	45m	21:57	55m	22:53	9h 01m	4h 24m				Mo, 29. Jul
Di, 30. Jul	MESZ	22:51-01:00*	2h 09m	AN+ bis M _J		00:23	17:00	03:18	55m	04:13	45m	04:58	37m	05:36	14h 56m	20:33	37m	21:11	44m	21:56	54m	22:51	9h 04m	4h 29m				Di, 30. Jul
Mi, 31. Jul	MESZ	22:48-01:49*	3h 01m	AN+ bis M _J		01:00	18:11	03:20	54m	04:15	44m	05:00	37m	05:37	14h 54m	20:32	37m	21:09	44m	21:54	54m	22:48	9h 06m	4h 34m				Mi, 31. Jul
Do, 1. Aug	MESZ	22:46-02:50*	4h 03m	AN+ bis M _J		01:49	19:09	03:22	54m	04:17	44m	05:01	37m	05:39	14h 51m	20:30	37m	21:08	44m	21:52	53m	22:46	9h 09m	4h 38m				Do, 1. Aug
Fr, 2. Aug	MESZ	22:43-03:27*	4h 43m	AN+ bis AN-		02:50	19:54	03:25	53m	04:18	44m	05:02	37m	05:40	14h 49m	20:29	37m	21:06	43m	21:50	52m	22:43	9h 12m	4h 43m				Fr, 2. Aug
Sa, 3. Aug	MESZ	22:41-03:29*	4h 48m	AN+ bis AN-		03:58	20:28	03:27	53m	04:20	43m	05:04	37m	05:41	14h 46m	20:28	37m	21:05	43m	21:48	52m	22:41	9h 14m	4h 48m				Sa, 3. Aug
So, 4. Aug	MESZ	22:38-03:32*	4h 53m	AN+ bis AN-	☉	05:10	20:54	03:29	52m	04:22	43m	05:05	37m	05:42	14h 43m	20:26	36m	21:03	43m	21:47	51m	22:38	9h 17m	4h 53m				So, 4. Aug
Mo, 5. Aug	MESZ	22:36-03:34*	4h 57m	AN+ bis AN-		06:22	21:14	03:32	51m	04:23	43m	05:07	36m	05:44	14h 41m	20:25	36m	21:02	43m	21:45	51m	22:36	9h 20m	4h 57m				Mo, 5. Aug
Di, 6. Aug	MESZ	22:33-03:36*	5h 02m	AN+ bis AN-		07:31	21:30	03:34	51m	04:25	43m	05:08	36m	05:45	14h 38m	20:23	36m	21:00	42m	21:43	50m	22:33	9h 22m	5h 02m				Di, 6. Aug
Mi, 7. Aug	MESZ	22:31-03:38*	5h 07m	AN+ bis AN-		08:38	21:45	03:36	50m	04:27	42m	05:10	36m	05:46	14h 35m	20:22	36m	20:58	42m	21:41	50m	22:31	9h 25m	5h 07m				Mi, 7. Aug
Do, 8. Aug	MESZ	22:28-03:41*	5h 12m	AN+ bis AN-		09:43	21:59	03:38	50m	04:28	42m	05:11	36m	05:47	14h 32m	20:20	36m	20:57	42m	21:39	49m	22:28	9h 28m	5h 12m				Do, 8. Aug
Fr, 9. Aug	MESZ	22:26-03:43*	5h 16m	AN+ bis AN-		10:48	22:13	03:41	49m	04:30	42m	05:12	36m	05:49	14h 29m	20:19	36m	20:55	41m	21:37	49m	22:26	9h 31m	5h 16m				Fr, 9. Aug
Sa, 10. Aug	MESZ	22:28-03:45*	5h 17m	M _J bis AN-		11:53	22:28	03:43	49m	04:32	41m	05:14	36m	05:50	14h 27m	20:17	36m	20:53	41m	21:35	48m	22:23	9h 34m	5h 21m				Sa, 10. Aug
So, 11. Aug	MESZ	22:46-03:47*	5h 01m	M _J bis AN-		13:00	22:46	03:45	48m	04:34	41m	05:15	36m	05:51	14h 24m	20:15	35m	20:51	41m	21:33	48m	22:21	9h 37m	5h 26m				So, 11. Aug
Mo, 12. Aug	MESZ	23:08-03:49*	4h 41m	M _J bis AN-	☉	14:10	23:08	03:47	48m	04:35	41m	05:17	35m	05:53	14h 21m	20:14	35m	20:50	41m	21:31	47m	22:18	9h 40m	5h 30m				Mo, 12. Aug
Di, 13. Aug	MESZ	23:37-03:51*	4h 14m	M _J bis AN-		15:21	23:37	03:49	47m	04:37	41m	05:18	35m	05:54	14h 18m	20:12	35m	20:48	40m	21:29	47m	22:16	9h 42m	5h 35m				Di, 13. Aug
Mi, 14. Aug	MESZ	00:17*-03:54*	3h 36m	M _J bis AN-		16:32	—:—	03:51	47m	04:39	40m	05:20	35m	05:55	14h 15m	20:10	35m	20:46	40m	21:27	46m	22:13	9h 45m	5h 40m				Mi, 14. Aug
Do, 15. Aug	MESZ	01:10*-03:56*	2h 45m	M _J bis AN-		17:37	00:17	03:54	46m	04:40	40m	05:21	35m	05:56	14h 12m	20:09	35m	20:44	40m	21:25	46m	22:11	9h 48m	5h 44m				Do, 15. Aug
Fr, 16. Aug	MESZ	02:19*-03:58*	1h 38m	M _J bis AN-		18:33	01:10	03:56	46m	04:42	40m	05:22	35m	05:58	14h 09m	20:07	35m	20:42	40m	21:22	45m	22:08	9h 51m	5h 49m				Fr, 16. Aug
Sa, 17. Aug	MESZ	03:39*-04:00*	20m	M _J bis AN-		19:17	02:19	03:58	45m	04:44	40m	05:24	35m	05:59	14h 06m	20:05	35m	20:40	40m	21:20	45m	22:06	9h 54m	5h 53m				Sa, 17. Aug
So, 18. Aug	MESZ	—:~:~:~	-	Mond stört		19:50	03:39	04:00	45m	04:45	40m	05:25	35m	06:00	14h 03m	20:04	34m	20:39	39m	21:18	45m	22:03	9h 57m	5h 58m				So, 18. Aug
Mo, 19. Aug	MESZ	—:~:~:~	-	Mond stört	☉	20:16	05:05	04:02	45m	04:47	39m	05:27	34m	06:02	14h 00m	20:02	34m	20:37	39m	21:16	44m	22:01	10h 00m	6h 03m				Mo, 19. Aug
Di, 20. Aug	MESZ	—:~:~:~	-	Mond stört		20:38	06:32	04:04	44m	04:49	39m	05:28	34m	06:03	13h 57m	20:00	34m	20:35	39m	21:14	44m	21:58	10h 04m	6h 07m				Di, 20. Aug
Mi, 21. Aug	MESZ	—:~:~:~	-	Mond stört		20:57	07:57	04:06	44m	04:50	39m	05:30	34m	06:04	13h 54m	19:58	34m	20:33	39m	21:12	43m	21:56	10h 07m	6h 12m				Mi, 21. Aug
Do, 22. Aug	MESZ	—:~:~:~	-	Mond stört		21:15	09:21	04:08	43m	04:52	39m	05:31	34m	06:05	13h 51m	19:56	34m	20:31	38m	21:10	43m	21:53	10h 10m	6h 16m				Do, 22. Aug
Fr, 23. Aug	MESZ	—:~:~:~	-	Mond stört		21:34	10:44	04:10	43m	04:53	38m	05:32	34m	06:07	13h 47m	19:55	34m	20:29	38m	21:08	43m	21:51	10h 13m	6h 20m				Fr, 23. Aug
Sa, 24. Aug	MESZ	21:48-21:57	8m	AN+ bis M _J		21:57	12:08	04:12	43m	04:55	38m	05:34	34m	06:08	13h 44m	19:53	34m	20:27	38m	21:06	42m	21:48	10h 16m	6h 25m				Sa, 24. Aug
So, 25. Aug	MESZ	21:46-22:24	38m	AN+ bis M _J		22:24	13:31	04:14	42m	04:57	38m	05:35	34m	06:09	13h 41m	19:51	34m	20:25	38m	21:03	42m	21:46	10h 19m	6h 29m				So, 25. Aug
Mo, 26. Aug	MESZ	21:43-22:59	1h 15m	AN+ bis M _J	☉	22:59	14:51	04:16	42m	04:58	38m	05:37	34m	06:11	13h 38m	19:49	33m	20:23	38m	21:01	42m	21:43	10h 22m	6h 34m				Mo, 26. Aug
Di, 27. Aug	MESZ	21:41-23:45	2h 03m	AN+ bis M _J		23:45	16:04	04:18	42m	05:00	38m	05:38	33m	06:12	13h 35m	19:47	33m	20:21	37m	20:59	41m	21:41	10h 25m	6h 38m				Di, 27. Aug
Mi, 28. Aug	MESZ	21:38-00:42*	3h 03m	AN+ bis M _J		—:~	17:06	04:19	41m	05:01	38m	05:39	33m	06:13	13h 32m	19:45	33m	20:19	37m	20:57	41m	21:38	10h 29m	6h 42m				Mi, 28. Aug
Do, 29. Aug	MESZ	21:36-01:48*	4h 11m	AN+ bis M _J		00:42	17:55	04:21	41m	05:03	37m	05:41	33m	06:14	13h 28m	19:43	33m	20:17	37m	20:55	41m	21:36	10h 32m	6h 47m				Do, 29. Aug
Fr, 30. Aug	MESZ	21:34-02:59*	5h 25m	AN+ bis M _J		01:48	18:31	04:23	41m	05:04	37m	05:42	33m	06:16	13h 25m	19:42	33m	20:15	37m	20:53	41m	21:34	10h 35m	6h 51m				Fr, 30. Aug
Sa, 31. Aug	MESZ	21:31-04:10*	6h 39m	AN+ bis M _J		02:59	18:59	04:25	4																			

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	
2024/25	Zeitzone	Astr. dunkel und kein Mond			Mond			Beginn der Morgendämmerung					Sonne				Ende der Abenddämmerung					Nacht	Astr. N.	Naut. dunkel und kein Mond			2024/25		
		Δt			Ph.	\nearrow	\searrow	Astr.	Δt	Naut.	Δt	Bürg.	Δt	\nearrow	Δt	\searrow	Δt	Bürg.	Δt	Naut.	Δt	Astr.	Δt	Δt		Δt			
Mo, 16. Dez		—:—:—:—	—	Mond stört		16:54	09:09	05:45	36m	06:22	37m	07:00	37m	07:37	8h 33m	16:11	37m	16:49	37m	17:27	36m	18:03	15h 26m	11h 42m					Mo, 16. Dez
Di, 17. Dez		18:04–18:08	4m	AN ₊ bis M ₇		18:08	09:57	05:46	36m	06:23	37m	07:01	37m	07:38	8h 33m	16:12	37m	16:49	37m	17:27	36m	18:04	15h 27m	11h 42m					Di, 17. Dez
Mi, 18. Dez		18:04–19:24	1h 19m	AN ₊ bis M ₇		19:24	10:31	05:47	36m	06:24	37m	07:01	37m	07:39	8h 33m	16:12	37m	16:49	37m	17:27	36m	18:04	15h 27m	11h 42m					Mi, 18. Dez
Do, 19. Dez		18:05–20:38	2h 33m	AN ₊ bis M ₇		20:38	10:57	05:47	36m	06:24	37m	07:02	37m	07:39	8h 32m	16:12	37m	16:50	37m	17:28	36m	18:05	15h 27m	11h 43m					Do, 19. Dez
Fr, 20. Dez		18:05–21:49	3h 43m	AN ₊ bis M ₇		21:49	11:17	05:48	36m	06:25	37m	07:02	37m	07:40	8h 32m	16:13	37m	16:50	37m	17:28	36m	18:05	15h 27m	11h 43m					Fr, 20. Dez
Sa, 21. Dez		18:06–22:56	4h 50m	AN ₊ bis M ₇		22:56	11:33	05:48	36m	06:25	37m	07:03	37m	07:41	8h 32m	16:13	37m	16:51	37m	17:29	36m	18:06	15h 27m	11h 43m					Sa, 21. Dez
So, 22. Dez		18:06–00:01*	5h 55m	AN ₊ bis M ₇	☾	—:—	11:47	05:49	36m	06:26	37m	07:04	37m	07:41	8h 32m	16:14	37m	16:51	37m	17:29	36m	18:06	15h 27m	11h 43m					So, 22. Dez
Mo, 23. Dez		18:07–01:06*	6h 59m	AN ₊ bis M ₇		00:01	12:01	05:49	36m	06:26	37m	07:04	37m	07:41	8h 32m	16:14	37m	16:52	37m	17:30	36m	18:07	15h 27m	11h 42m					Mo, 23. Dez
Di, 24. Dez		18:07–02:12*	8h 04m	AN ₊ bis M ₇		01:06	12:16	05:50	36m	06:27	37m	07:04	37m	07:42	8h 33m	16:15	37m	16:52	37m	17:30	36m	18:07	15h 27m	11h 42m					Di, 24. Dez
Mi, 25. Dez		18:08–03:19*	9h 11m	AN ₊ bis M ₇		02:12	12:32	05:50	36m	06:27	37m	07:05	37m	07:42	8h 33m	16:16	37m	16:53	37m	17:31	36m	18:08	15h 26m	11h 42m					Mi, 25. Dez
Do, 26. Dez		18:09–04:29*	10h 20m	AN ₊ bis M ₇		03:19	12:51	05:50	36m	06:27	37m	07:05	37m	07:42	8h 33m	16:16	37m	16:54	37m	17:32	36m	18:09	15h 26m	11h 42m					Do, 26. Dez
Fr, 27. Dez		18:09–05:39*	11h 29m	AN ₊ bis M ₇		04:29	13:15	05:51	36m	06:28	37m	07:05	37m	07:43	8h 34m	16:17	37m	16:55	37m	17:32	36m	18:09	15h 25m	11h 41m					Fr, 27. Dez
Sa, 28. Dez		18:10–05:51*	11h 41m	AN ₊ bis AN ₋		05:39	13:46	05:51	36m	06:28	37m	07:06	37m	07:43	8h 34m	16:18	37m	16:55	37m	17:33	36m	18:10	15h 25m	11h 41m					Sa, 28. Dez
So, 29. Dez		18:11–05:51*	11h 40m	AN ₊ bis AN ₋		06:47	14:29	05:51	36m	06:28	37m	07:06	37m	07:43	8h 35m	16:19	37m	16:56	37m	17:34	36m	18:11	15h 24m	11h 40m					So, 29. Dez
Mo, 30. Dez		18:11–05:52*	11h 40m	AN ₊ bis AN ₋	☉	07:49	15:24	05:51	36m	06:28	37m	07:06	37m	07:43	8h 36m	16:20	37m	16:57	37m	17:35	36m	18:11	15h 23m	11h 40m					Mo, 30. Dez
Di, 31. Dez		18:12–05:52*	11h 39m	AN ₊ bis AN ₋		08:39	16:32	05:52	36m	06:28	37m	07:06	37m	07:43	8h 37m	16:20	37m	16:58	37m	17:35	36m	18:12	15h 22m	11h 39m					Di, 31. Dez
Mi, 1. Jan		18:13–05:52*	11h 38m	AN ₊ bis AN ₋		09:19	17:48	05:52	36m	06:28	37m	07:06	37m	07:43	8h 38m	16:21	37m	16:59	37m	17:36	36m	18:13	15h 21m	11h 38m					Mi, 1. Jan
Do, 2. Jan		19:08–05:52*	10h 43m	M _\ bis AN ₋		09:49	19:08	05:52	36m	06:29	37m	07:06	37m	07:43	8h 39m	16:22	37m	17:00	37m	17:37	36m	18:14	15h 20m	11h 37m					Do, 2. Jan
Fr, 3. Jan		20:28–05:52*	9h 23m	M _\ bis AN ₋		10:13	20:28	05:52	36m	06:29	37m	07:06	37m	07:43	8h 40m	16:23	37m	17:01	37m	17:38	36m	18:15	15h 19m	11h 37m					Fr, 3. Jan
Sa, 4. Jan		21:47–05:52*	8h 04m	M _\ bis AN ₋		10:33	21:47	05:52	36m	06:29	37m	07:06	37m	07:43	8h 41m	16:24	37m	17:01	37m	17:39	36m	18:16	15h 18m	11h 36m					Sa, 4. Jan
So, 5. Jan		23:05–05:52*	6h 46m	M _\ bis AN ₋		10:50	23:05	05:52	36m	06:29	37m	07:06	36m	07:43	8h 42m	16:26	36m	17:02	37m	17:40	36m	18:17	15h 17m	11h 35m					So, 5. Jan
Mo, 6. Jan		00:24*–05:52*	5h 28m	M _\ bis AN ₋		11:08	—:—	05:52	36m	06:28	37m	07:06	36m	07:43	8h 43m	16:27	36m	17:04	37m	17:41	36m	18:18	15h 15m	11h 34m					Mo, 6. Jan
Di, 7. Jan		01:44*–05:52*	4h 07m	M _\ bis AN ₋	☾	11:26	00:24	05:52	36m	06:28	37m	07:06	36m	07:43	8h 45m	16:28	36m	17:05	37m	17:42	36m	18:19	15h 14m	11h 33m					Di, 7. Jan
Mi, 8. Jan		03:07*–05:51*	2h 44m	M _\ bis AN ₋		11:47	01:44	05:52	36m	06:28	37m	07:05	36m	07:42	8h 46m	16:29	36m	17:06	37m	17:43	36m	18:20	15h 12m	11h 31m					Mi, 8. Jan
Do, 9. Jan		04:29*–05:51*	1h 21m	M _\ bis AN ₋		12:13	03:07	05:51	36m	06:28	37m	07:05	36m	07:42	8h 48m	16:30	36m	17:07	37m	17:44	36m	18:21	15h 11m	11h 30m					Do, 9. Jan
Fr, 10. Jan		05:48*–05:51*	3m	M _\ bis AN ₋		12:48	04:29	05:51	36m	06:28	37m	07:05	36m	07:41	8h 49m	16:31	36m	17:08	37m	17:45	36m	18:22	15h 09m	11h 29m					Fr, 10. Jan
Sa, 11. Jan		—:—:—:—	—	Mond stört		13:34	05:48	05:51	36m	06:27	37m	07:05	36m	07:41	8h 51m	16:33	36m	17:09	37m	17:46	36m	18:23	15h 08m	11h 28m					Sa, 11. Jan
So, 12. Jan		—:—:—:—	—	Mond stört		14:34	06:55	05:51	36m	06:27	37m	07:04	36m	07:41	8h 53m	16:34	36m	17:10	37m	17:47	36m	18:24	15h 06m	11h 26m					So, 12. Jan
Mo, 13. Jan		—:—:—:—	—	Mond stört	☉	15:45	07:48	05:50	36m	06:27	36m	07:04	36m	07:40	8h 55m	16:35	36m	17:11	37m	17:48	36m	18:25	15h 04m	11h 25m					Mo, 13. Jan
Di, 14. Jan		—:~:~:~:~	—	Mond stört		17:01	08:28	05:50	36m	06:26	36m	07:03	36m	07:39	8h 56m	16:36	36m	17:13	36m	17:50	36m	18:26	15h 02m	11h 23m					Di, 14. Jan
Mi, 15. Jan		—:~:~:~:~	—	Mond stört		18:17	08:57	05:50	36m	06:26	36m	07:03	36m	07:39	8h 58m	16:38	36m	17:14	36m	17:51	36m	18:27	15h 00m	11h 22m					Mi, 15. Jan
Do, 16. Jan		18:28–19:30	1h 01m	AN ₊ bis M ₇		19:30	09:19	05:49	36m	06:25	36m	07:02	36m	07:38	9h 00m	16:39	36m	17:15	36m	17:52	36m	18:28	14h 58m	11h 20m					Do, 16. Jan
Fr, 17. Jan		18:29–20:39	2h 10m	AN ₊ bis M ₇		20:39	09:37	05:49	36m	06:25	36m	07:02	35m	07:38	9h 02m	16:40	35m	17:16	36m	17:53	36m	18:29	14h 56m	11h 18m					Fr, 17. Jan
Sa, 18. Jan		18:30–21:46	3h 15m	AN ₊ bis M ₇		21:46	09:52	05:48	36m	06:24	36m	07:01	35m	07:37	9h 04m	16:42	35m	17:18	36m	17:54	36m	18:30	14h 54m	11h 17m					Sa, 18. Jan
So, 19. Jan		18:32–22:52	4h 19m	AN ₊ bis M ₇		22:52	10:06	05:48	36m	06:24	36m	07:00	35m	07:36	9h 07m	16:43	35m	17:19	36m	17:56	36m	18:32	14h 52m	11h 15m					So, 19. Jan
Mo, 20. Jan		18:33–23:57	5h 24m	AN ₊ bis M ₇		23:57	10:20	05:47	36m	06:23	36m	07:00	35m	07:35	9h 09m	16:45	35m	17:20	36m	17:57	36m	18:33	14h 49m	11h 13m					Mo, 20. Jan
Di, 21. Jan		18:34–01:04*	6h 29m	AN ₊ bis M ₇	☾	—:—	10:35	05:46	35m	06:22	36m	06:59	35m	07:34	9h 11m	16:46	35m	17:22	36m	17:58	36m	18:34	14h 47m	11h 11m					Di, 21. Jan
Mi, 22. Jan		18:35–02:12*	7h 36m	AN ₊ bis M ₇		01:04	10:53	05:46	35m	06:22	36m	06:58	35m	07:33	9h 14m	16:47	35m	17:23	36m	17:59	35m	18:35	14h 45m	11h 09m					Mi, 22. Jan
Do, 23. Jan		18:36–03:22*	8h 45m	AN ₊ bis M ₇		02:12	11:14	05:45	35m	06:21	36m	06:57	35m	07:33	9h 16m	16:49	35m	17:24	36m	18:01	35m	18:36	14h 42m	11h 07m					Do, 23. Jan
Fr, 24. Jan		18:38–04:31*	9h 52m	AN ₊ bis M ₇		03:22	11:42	05:44	35m	06:20	36m	06:56	35m	07:32	9h 18m	16:50	35m	17:26	36m	18:02	35m	18:38	14h 40m	11h 05m					Fr, 24. Jan
Sa, 25. Jan		18:39–05:35*	10h 55m	AN ₊ bis M ₇		04:31	12:19	05:44	35m	06:19	36m	06:55	35m	07:31	9h 21m	16:52	35m	17:27	36m	18:03	35m	18:39	14h 37m	11h 03m					Sa, 25. Jan
So, 26. Jan		18:40–05:42*	11h 01m	AN ₊ bis AN ₋		05:35	13:08	05:43	35m	06:18	36m	06:55	35m	07:3															