

Location:

Lat: 38.7151 N Long: 77.1811 W

Time from UTC: -4

Date	Sun		C Twi		N Twi		A Twi		Moon		Moon Illum
	R	S	B	E	B	E	B	E	R	S	
20240501	0610	2002	0542	2030	0507	2105	0430	2143	0239	1229	53.6%
20240502	0609	2002	0541	2031	0506	2107	0428	2144	0314	1344	42.4%
20240503	0608	2003	0540	2032	0504	2108	0426	2146	0343	1458	31.2%
20240504	0607	2004	0538	2033	0503	2109	0425	2147	0409	1611	20.9%
20240505	0606	2005	0537	2034	0502	2110	0423	2149	0435	1726	12.1%
20240506	0605	2006	0536	2035	0500	2111	0422	2150	0502	1841	5.4%
20240507	0604	2007	0535	2036	0459	2113	0420	2151	0531	1958	1.3%
20240508	0603	2008	0534	2037	0458	2114	0419	2153	0605	2115	0.1%
20240509	0602	2009	0533	2038	0456	2115	0417	2154	0645	2228	1.6%
20240510	0601	2010	0532	2039	0455	2116	0416	2156	0734	2334	5.6%
20240511	0600	2011	0531	2040	0454	2117	0414	2157	0831	----	11.7%
20240512	0559	2012	0529	2041	0453	2118	0413	2158	0934	0029	19.3%
20240513	0558	2013	0528	2042	0452	2120	0411	2200	1038	0114	28%
20240514	0557	2013	0527	2043	0450	2121	0410	2201	1143	0150	37.4%
20240515	0556	2014	0526	2044	0449	2122	0409	2202	1246	0219	47%
20240516	0555	2015	0526	2045	0448	2123	0407	2204	1346	0243	56.6%
20240517	0555	2016	0525	2046	0447	2124	0406	2205	1445	0305	65.8%
20240518	0554	2017	0524	2047	0446	2125	0405	2206	1543	0326	74.4%
20240519	0553	2018	0523	2048	0445	2126	0404	2208	1642	0346	82.2%
20240520	0552	2019	0522	2049	0444	2127	0403	2209	1743	0406	88.9%
20240521	0552	2020	0521	2050	0443	2128	0401	2210	1845	0429	94.2%
20240522	0551	2020	0520	2051	0442	2130	0400	2211	1951	0456	97.9%
20240523	0550	2021	0520	2052	0441	2131	0359	2213	2058	0529	99.7%
20240524	0550	2022	0519	2053	0440	2132	0358	2214	2204	0609	99.5%
20240525	0549	2023	0518	2054	0440	2133	0357	2215	2304	0700	97.1%
20240526	0549	2024	0518	2055	0439	2134	0356	2216	2357	0800	92.5%
20240527	0548	2024	0517	2056	0438	2135	0355	2217	----	0908	85.8%
20240528	0548	2025	0516	2056	0437	2135	0354	2219	0040	1021	77.3%
20240529	0547	2026	0516	2057	0437	2136	0354	2220	0116	1135	67.4%
20240530	0547	2027	0515	2058	0436	2137	0353	2221	0146	1247	56.4%
20240531	0546	2027	0515	2059	0436	2138	0352	2222	0212	1359	45%

Key

.... means sun or moon below horizon all day or
twilight never begins

**** means sun or moon above horizon all day
or twilight never ends

---- in rise column means no rise that day and
in set column - no set that day

R - Rise

S - Set

B - Beginning

E - Ending

C Twi - Civil Twilight: Sun is 6 deg below the horizon

N Twi - Nautical Twilight: Sun is 12 deg below the horizon

A Twi - Astonomical Twilight: Sun is 18 deg below the horizon

Moon Illumination is valid 00:01L for that day.