

Location:

Lat: 38.43 N Long: 77.11 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	
20251101	0736	1808	0708	1836	0636	1907	0605	1938	1555	0248	75.3%
20251102	0737	1807	0709	1835	0637	1906	0606	1937	1620	0359	84.2%

Time from UTC: -5

20251103	0637	1706	0610	1734	0539	1805	0508	1836	1547	0411	92%
20251104	0638	1705	0611	1733	0540	1804	0509	1835	1617	0528	97.2%
20251105	0639	1704	0612	1732	0541	1803	0509	1834	1654	0647	99.7%
20251106	0640	1703	0613	1731	0542	1802	0510	1833	1740	0809	99.2%
20251107	0642	1702	0614	1730	0543	1802	0511	1832	1835	0928	95.7%
20251108	0643	1701	0615	1729	0544	1801	0512	1832	1942	1038	89.5%
20251109	0644	1700	0616	1728	0544	1800	0513	1831	2054	1136	81.2%
20251110	0645	1659	0617	1728	0545	1759	0514	1830	2206	1220	71.5%
20251111	0646	1659	0618	1727	0546	1758	0515	1829	2317	1256	61%
20251112	0647	1658	0619	1726	0547	1758	0516	1829	----	1325	50.3%
20251113	0648	1657	0620	1725	0548	1757	0517	1828	0023	1349	40%
20251114	0649	1656	0621	1725	0549	1756	0518	1827	0126	1411	30.3%
20251115	0650	1655	0622	1724	0550	1756	0519	1827	0226	1432	21.7%
20251116	0651	1655	0623	1723	0551	1755	0520	1826	0326	1453	14.3%
20251117	0653	1654	0624	1723	0552	1755	0521	1826	0425	1516	8.3%
20251118	0654	1653	0625	1722	0553	1754	0522	1825	0526	1541	3.9%
20251119	0655	1653	0626	1722	0554	1754	0523	1825	0627	1611	1.2%
20251120	0656	1652	0627	1721	0555	1753	0524	1824	0729	1646	0.2%
20251121	0657	1652	0628	1721	0556	1753	0525	1824	0828	1729	1%
20251122	0658	1651	0629	1720	0557	1752	0525	1824	0924	1819	3.5%
20251123	0659	1651	0630	1720	0558	1752	0526	1823	1013	1916	7.8%
20251124	0700	1650	0631	1719	0559	1752	0527	1823	1056	2017	13.6%
20251125	0701	1650	0632	1719	0600	1751	0528	1823	1133	2122	20.9%
20251126	0702	1649	0633	1719	0601	1751	0529	1822	1203	2227	29.4%
20251127	0703	1649	0634	1718	0601	1751	0530	1822	1230	2333	39%
20251128	0704	1649	0635	1718	0602	1751	0531	1822	1255	----	49.3%
20251129	0705	1648	0636	1718	0603	1750	0532	1822	1320	0040	60%
20251130	0706	1648	0637	1718	0604	1750	0533	1822	1345	0149	70.5%

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.