

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	
20240901	0638	1938	0611	2005	0539	2037	0505	2111	0501	1917	3.5%
20240902	0639	1937	0612	2004	0540	2036	0506	2109	0603	1940	0.8%
20240903	0640	1935	0613	2002	0541	2034	0508	2107	0703	2000	0%
20240904	0641	1934	0614	2000	0542	2032	0509	2106	0802	2020	1.1%
20240905	0642	1932	0615	1959	0543	2030	0510	2104	0900	2040	3.9%
20240906	0643	1931	0616	1957	0544	2029	0511	2102	0958	2101	8.4%
20240907	0643	1929	0616	1956	0545	2027	0512	2100	1058	2125	14.4%
20240908	0644	1927	0617	1954	0546	2025	0513	2058	1200	2153	21.7%
20240909	0645	1926	0618	1953	0547	2024	0514	2056	1304	2226	30.1%
20240910	0646	1924	0619	1951	0548	2022	0515	2055	1407	2309	39.4%
20240911	0647	1923	0620	1949	0549	2020	0517	2053	1510	----	49.3%
20240912	0648	1921	0621	1948	0550	2019	0518	2051	1606	0001	59.6%
20240913	0649	1919	0622	1946	0551	2017	0519	2049	1656	0103	69.7%
20240914	0650	1918	0623	1945	0552	2015	0520	2048	1737	0214	79.3%
20240915	0651	1916	0624	1943	0553	2014	0521	2046	1812	0330	87.7%
20240916	0652	1915	0625	1941	0554	2012	0522	2044	1842	0447	94.4%
20240917	0652	1913	0626	1940	0555	2010	0523	2042	1910	0605	98.6%
20240918	0653	1911	0627	1938	0556	2009	0524	2040	1937	0722	100%
20240919	0654	1910	0627	1936	0557	2007	0525	2039	2004	0839	98.3%
20240920	0655	1908	0628	1935	0558	2005	0526	2037	2034	0957	93.7%
20240921	0656	1907	0629	1933	0558	2004	0527	2035	2110	1115	86.6%
20240922	0657	1905	0630	1932	0559	2002	0528	2034	2152	1231	77.6%
20240923	0658	1903	0631	1930	0600	2001	0529	2032	2242	1343	67.4%
20240924	0659	1902	0632	1928	0601	1959	0530	2030	2341	1445	56.7%
20240925	0700	1900	0633	1927	0602	1957	0531	2028	----	1538	46.1%
20240926	0701	1858	0634	1925	0603	1956	0532	2027	0044	1620	35.9%
20240927	0701	1857	0635	1924	0604	1954	0533	2025	0149	1654	26.5%
20240928	0702	1855	0636	1922	0605	1953	0534	2023	0253	1722	18.3%
20240929	0703	1854	0637	1920	0606	1951	0535	2022	0356	1746	11.4%
20240930	0704	1852	0637	1919	0607	1950	0536	2020	0456	1806	6.1%
20241001	0705	1850	0638	1917	0608	1948	0537	2019	0555	1826	2.3%

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.