

Total Solar Eclipse of 2024 Apr 08

Ecliptic Conjunction = 18:22:00.7 TD (= 18:20:46.8 UT)

Greatest Eclipse = 18:18:29.4 TD (= 18:17:15.4 UT)

Eclipse Magnitude = 1.0566 Gamma = 0.3431

Saros Series = 139 Member = 30 of 71

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 01h11m36.9s

Dec. = +07°35'29.4"

S.D. = 00°15'58.2"

H.P. = 00°00'08.8"

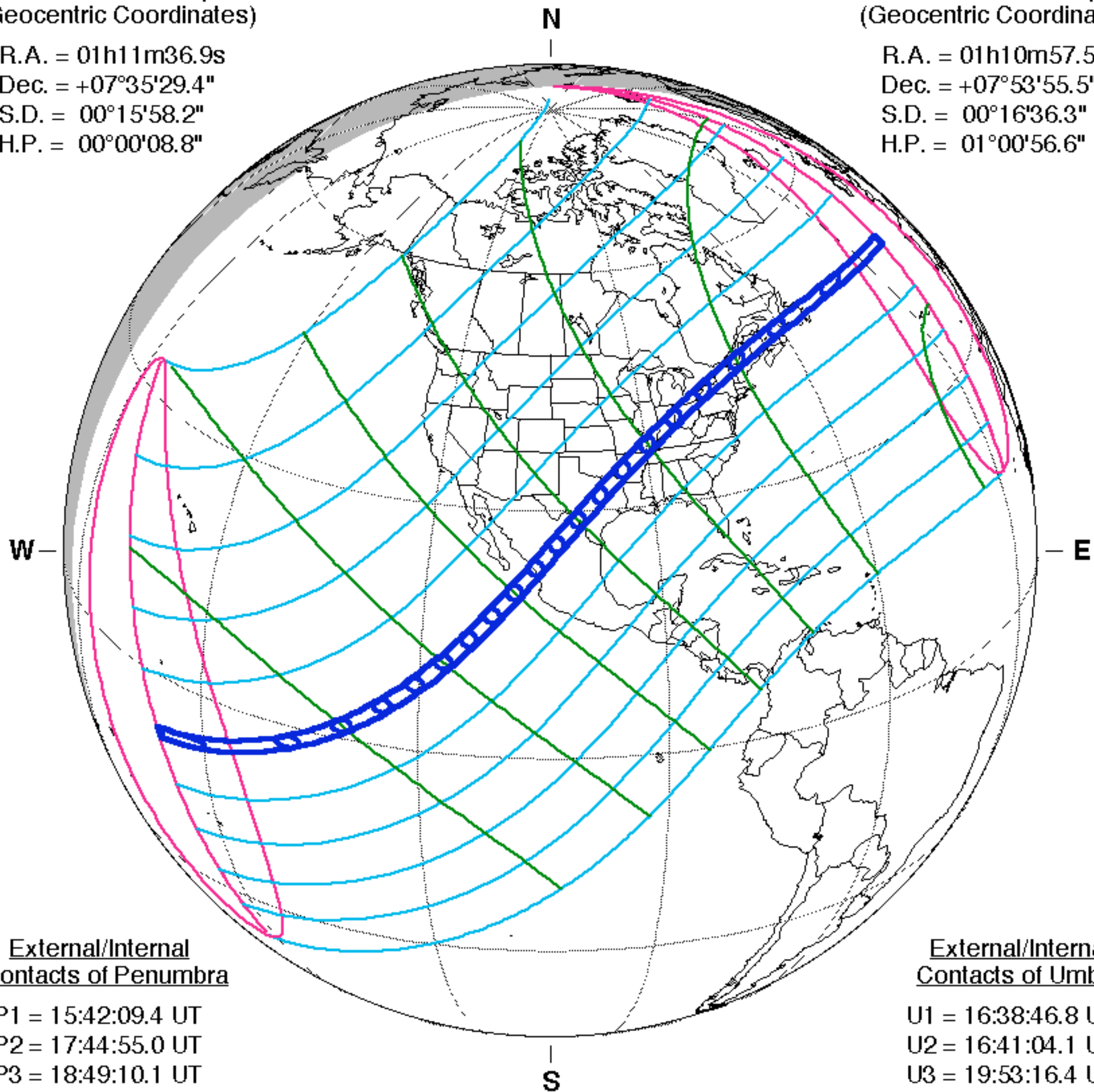
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 01h10m57.5s

Dec. = +07°53'55.5"

S.D. = 00°16'36.3"

H.P. = 01°00'56.6"



External/Internal Contacts of Penumbra

P1 = 15:42:09.4 UT

P2 = 17:44:55.0 UT

P3 = 18:49:10.1 UT

P4 = 20:52:16.3 UT

External/Internal Contacts of Umbra

U1 = 16:38:46.8 UT

U2 = 16:41:04.1 UT

U3 = 19:53:16.4 UT

U4 = 19:55:31.6 UT

Local Circumstances at Greatest Eclipse

Lat. = 25°17.4'N

Sun Alt. = 69.8°

Long. = 104°07.7'W

Sun Azm. = 149.4°

Path Width = 197.5 km Duration = 04m28.1s

Constants & Ephemeris

$\Delta T = 74.0$ s

$k_1 = 0.2724880$

$k_2 = 0.2722810$

$\Delta b = 0.0''$ $\Delta l = 0.0''$

Eph. = VSOP87/ELP2000-82

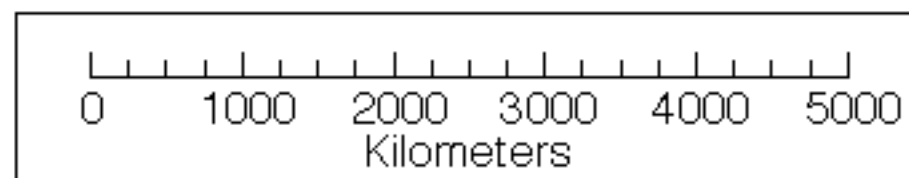
Geocentric Libration (Optical + Physical)

$l = 1.97^\circ$

$b = -0.44^\circ$

$c = -20.75^\circ$

Brown Lun. No. = 1253



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eclipse.gsfc.nasa.gov/eclipse.html