

Total Solar Eclipse of 0029 Nov 24

Ecliptic Conjunction = 12:07:42.5 TD (= 09:17:07.2 UT)

Greatest Eclipse = 12:15:20.6 TD (= 09:24:45.4 UT)

Eclipse Magnitude = 1.0217 Gamma = 0.7424

Saros Series = 62 Member = 52 of 71

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 15h55m10.3s

Dec. = -20°34'18.9"

S.D. = 00°16'16.5"

H.P. = 00°00'08.9"

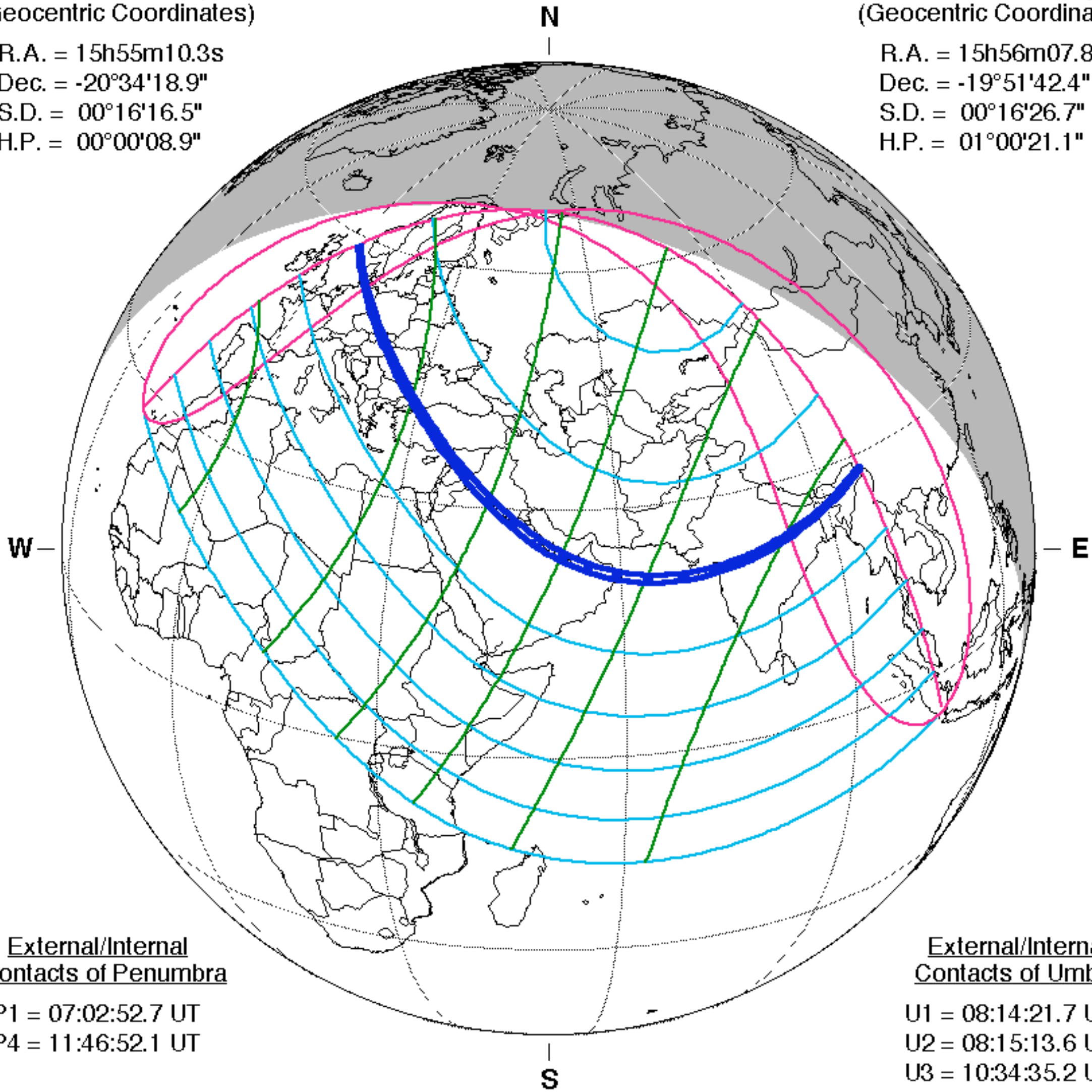
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 15h56m07.8s

Dec. = -19°51'42.4"

S.D. = 00°16'26.7"

H.P. = 01°00'21.1"



External/Internal Contacts of Penumbra

P1 = 07:02:52.7 UT

P4 = 11:46:52.1 UT

External/Internal Contacts of Umbra

U1 = 08:14:21.7 UT

U2 = 08:15:13.6 UT

U3 = 10:34:35.2 UT

U4 = 10:35:23.3 UT

Local Circumstances at Greatest Eclipse

Lat. = 25°27.9'N

Sun Alt. = 41.9°

Long. = 050°49.1'E

Sun Azm. = 198.2°

Path Width = 109.2 km Duration = 01m59.2s

Constants & Ephemeris

$\Delta T = 10235.2$ s

$k_1 = 0.2724880$

$k_2 = 0.2722810$

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

Eph. = VSOP87/ELP2000-82

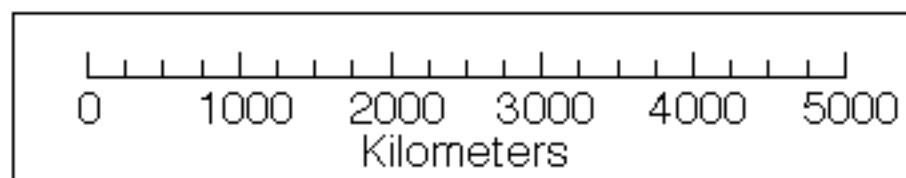
Geocentric Libration (Optical + Physical)

$l = 3.34^\circ$

$b = -0.91^\circ$

$c = 10.43^\circ$

Brown Lun. No. = -23414



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eclipse.gsfc.nasa.gov/eclipse.html