

Total Solar Eclipse of 0968 Dec 22

Ecliptic Conjunction = 10:07:32.5 TD (= 09:38:31.6 UT)

Greatest Eclipse = 09:58:16.9 TD (= 09:29:16.0 UT)

Eclipse Magnitude = 1.0300 Gamma = 0.9105

Saros Series = 115 Member = 18 of 72

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 18h28m35.3s

Dec. = -23°24'32.4"

S.D. = 00°16'16.0"

H.P. = 00°00'08.9"

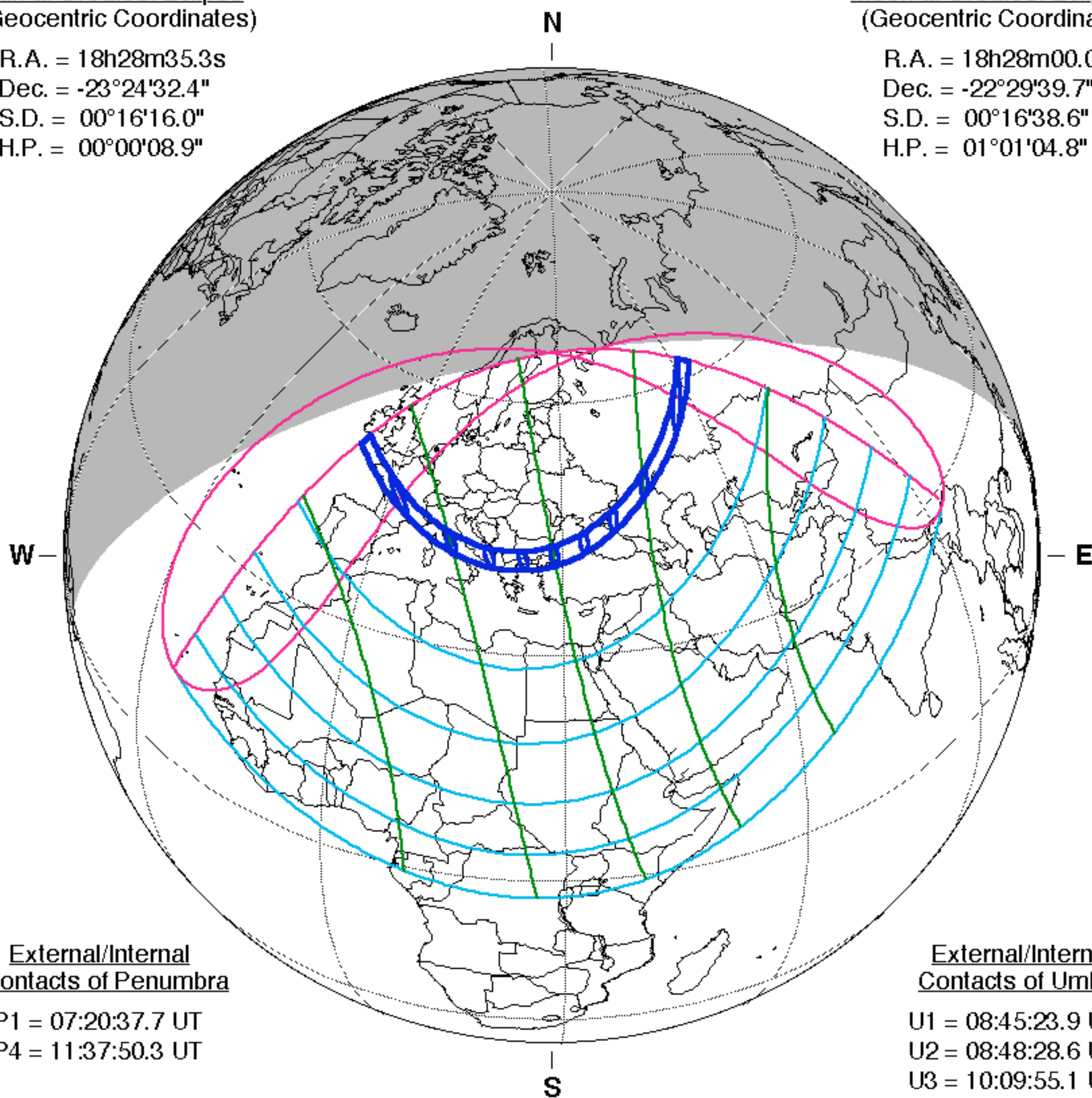
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 18h28m00.0s

Dec. = -22°29'39.7"

S.D. = 00°16'38.6"

H.P. = 01°01'04.8"



External/Internal Contacts of Penumbra

P1 = 07:20:37.7 UT

P4 = 11:37:50.3 UT

External/Internal Contacts of Umbra

U1 = 08:45:23.9 UT

U2 = 08:48:28.6 UT

U3 = 10:09:55.1 UT

U4 = 10:12:57.7 UT

Local Circumstances at Greatest Eclipse

Lat. = 41°50.4'N

Sun Alt. = 24.1°

Long. = 028°20.0'E

Sun Azm. = 169.6°

Path Width = 246.3 km Duration = 02m27.8s

Constants & Ephemeris

$\Delta T = 1741.0$ s

$k1 = 0.2724880$

$k2 = 0.2722810$

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

Eph. = VSOP87/ELP2000-82

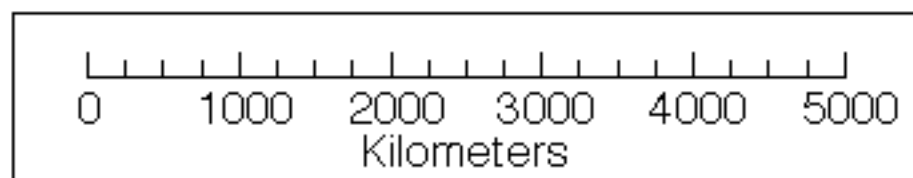
Geocentric Libration (Optical + Physical)

$l = 1.85^\circ$

$b = -1.19^\circ$

$c = -1.30^\circ$

Brown Lun. No. = -11799



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eclipse.gsfc.nasa.gov/eclipse.html