

Total Solar Eclipse of 0059 Apr 30

Ecliptic Conjunction = 15:01:35.2 TD (= 12:15:49.3 UT)

Greatest Eclipse = 15:04:34.4 TD (= 12:18:48.5 UT)

Eclipse Magnitude = 1.0191 Gamma = 0.2762

Saros Series = 68 Member = 39 of 72

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 02h19m13.1s

Dec. = +14°03'25.9"

S.D. = 00°15'45.7"

H.P. = 00°00'08.7"

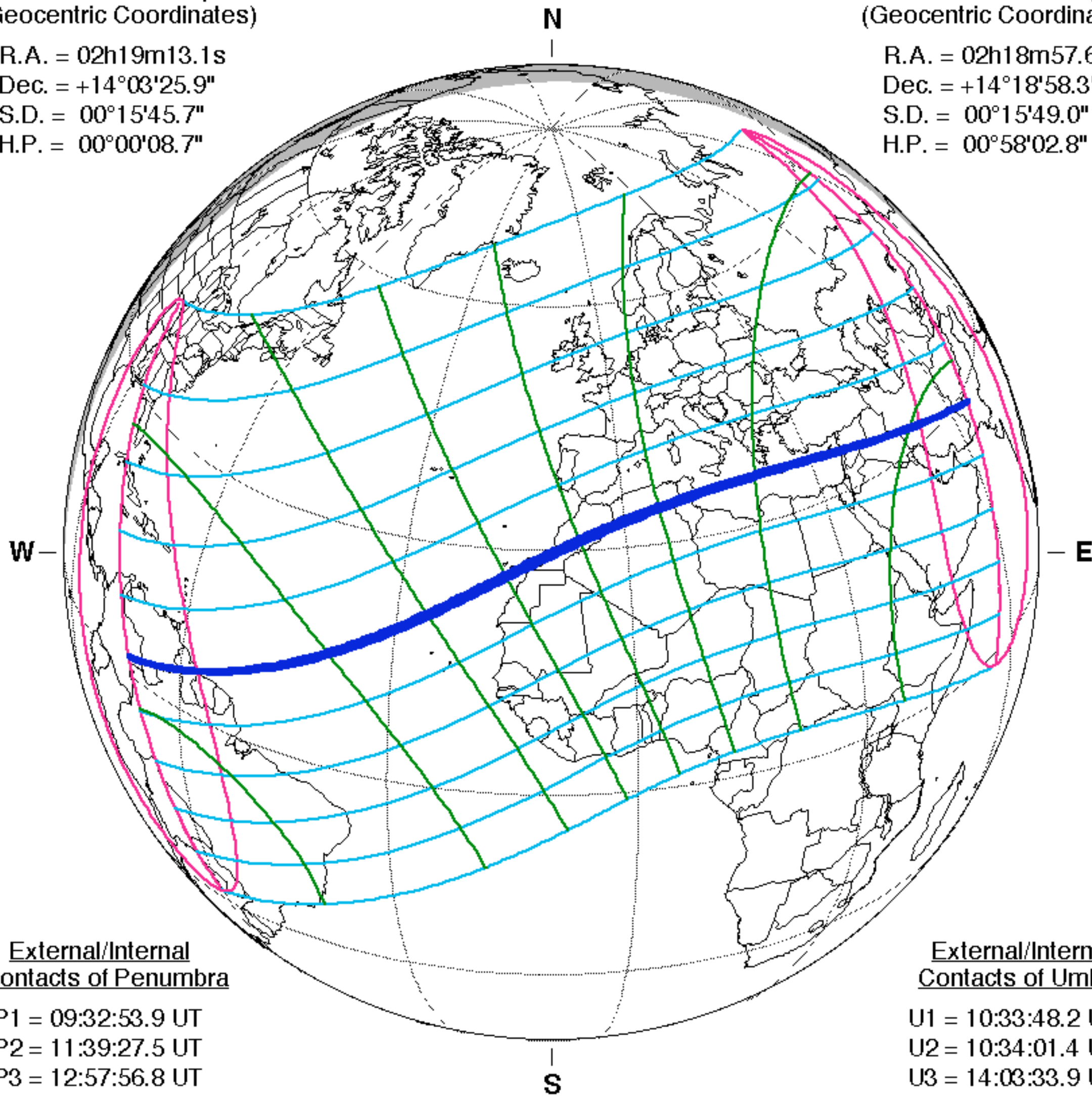
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 02h18m57.6s

Dec. = +14°18'58.3"

S.D. = 00°15'49.0"

H.P. = 00°58'02.8"



External/Internal Contacts of Penumbra

P1 = 09:32:53.9 UT

P2 = 11:39:27.5 UT

P3 = 12:57:56.8 UT

P4 = 15:04:45.7 UT

External/Internal Contacts of Umbra

U1 = 10:33:48.2 UT

U2 = 10:34:01.4 UT

U3 = 14:03:33.9 UT

U4 = 14:03:41.5 UT

Local Circumstances at Greatest Eclipse

Lat. = 29°46.2'N

Sun Alt. = 73.8°

Long. = 010°12.7'W

Sun Azm. = 164.9°

Path Width = 68.0 km Duration = 01m50.1s

Constants & Ephemeris

$\Delta T = 9945.9$ s

$k1 = 0.2724880$

$k2 = 0.2722810$

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

Eph. = VSOP87/ELP2000-82

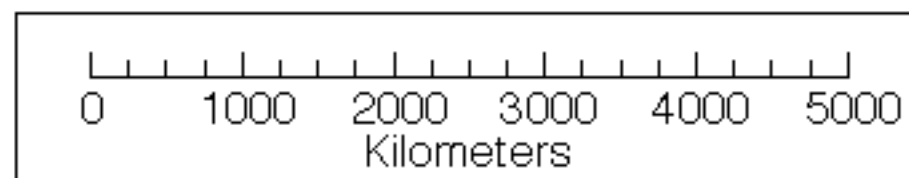
Geocentric Libration (Optical + Physical)

$l = 4.83^\circ$

$b = -0.28^\circ$

$c = -20.80^\circ$

Brown Lun. No. = -23050



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eclipse.gsfc.nasa.gov/eclipse.html