

Total Solar Eclipse of 2017 Aug 21

Ecliptic Conjunction = 18:31:19.4 TD (= 18:30:09.1 UT)

Greatest Eclipse = 18:26:40.2 TD (= 18:25:29.9 UT)

Eclipse Magnitude = 1.0306 Gamma = 0.4367

Saros Series = 145 Member = 22 of 77

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 10h04m03.9s

Dec. = +11°51'42.9"

S.D. = 00°15'48.7"

H.P. = 00°00'08.7"

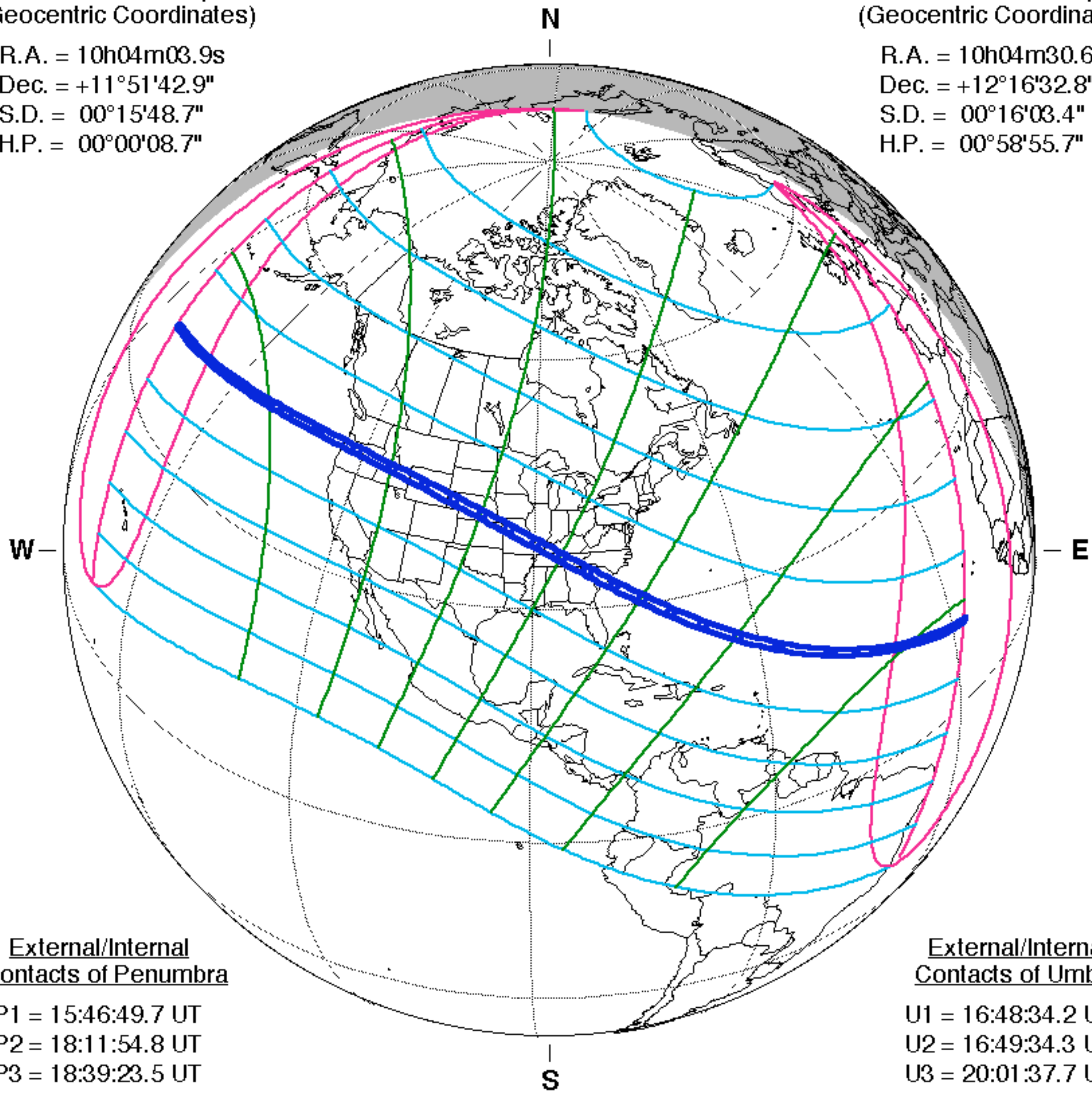
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 10h04m30.6s

Dec. = +12°16'32.8"

S.D. = 00°16'03.4"

H.P. = 00°58'55.7"



External/Internal Contacts of Penumbra

P1 = 15:46:49.7 UT

P2 = 18:11:54.8 UT

P3 = 18:39:23.5 UT

P4 = 21:04:21.4 UT

External/Internal Contacts of Umbra

U1 = 16:48:34.2 UT

U2 = 16:49:34.3 UT

U3 = 20:01:37.7 UT

U4 = 20:02:32.5 UT

Local Circumstances at Greatest Eclipse

Lat. = 36°58.0'N

Sun Alt. = 63.9°

Long. = 087°39.8'W

Sun Azm. = 197.9°

Path Width = 114.7 km Duration = 02m40.1s

Constants & Ephemeris

$\Delta T = 70.3$ s

$k_1 = 0.2724880$

$k_2 = 0.2722810$

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

Eph. = VSOP87/ELP2000-82

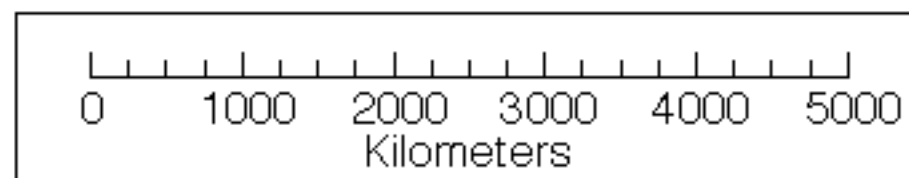
Geocentric Libration (Optical + Physical)

$l = 4.64^\circ$

$b = -0.57^\circ$

$c = 21.90^\circ$

Brown Lun. No. = 1171



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eclipse.gsfc.nasa.gov/eclipse.html