

Total Solar Eclipse of 1878 Jul 29

Ecliptic Conjunction = 21:40:46.6 TD (= 21:40:51.3 UT)

Greatest Eclipse = 21:47:17.8 TD (= 21:47:22.5 UT)

Eclipse Magnitude = 1.0450 Gamma = 0.6232

Saros Series = 124 Member = 47 of 73

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 08h35m50.0s

Dec. = +18°38'42.9"

S.D. = 00°15'45.4"

H.P. = 00°00'08.7"

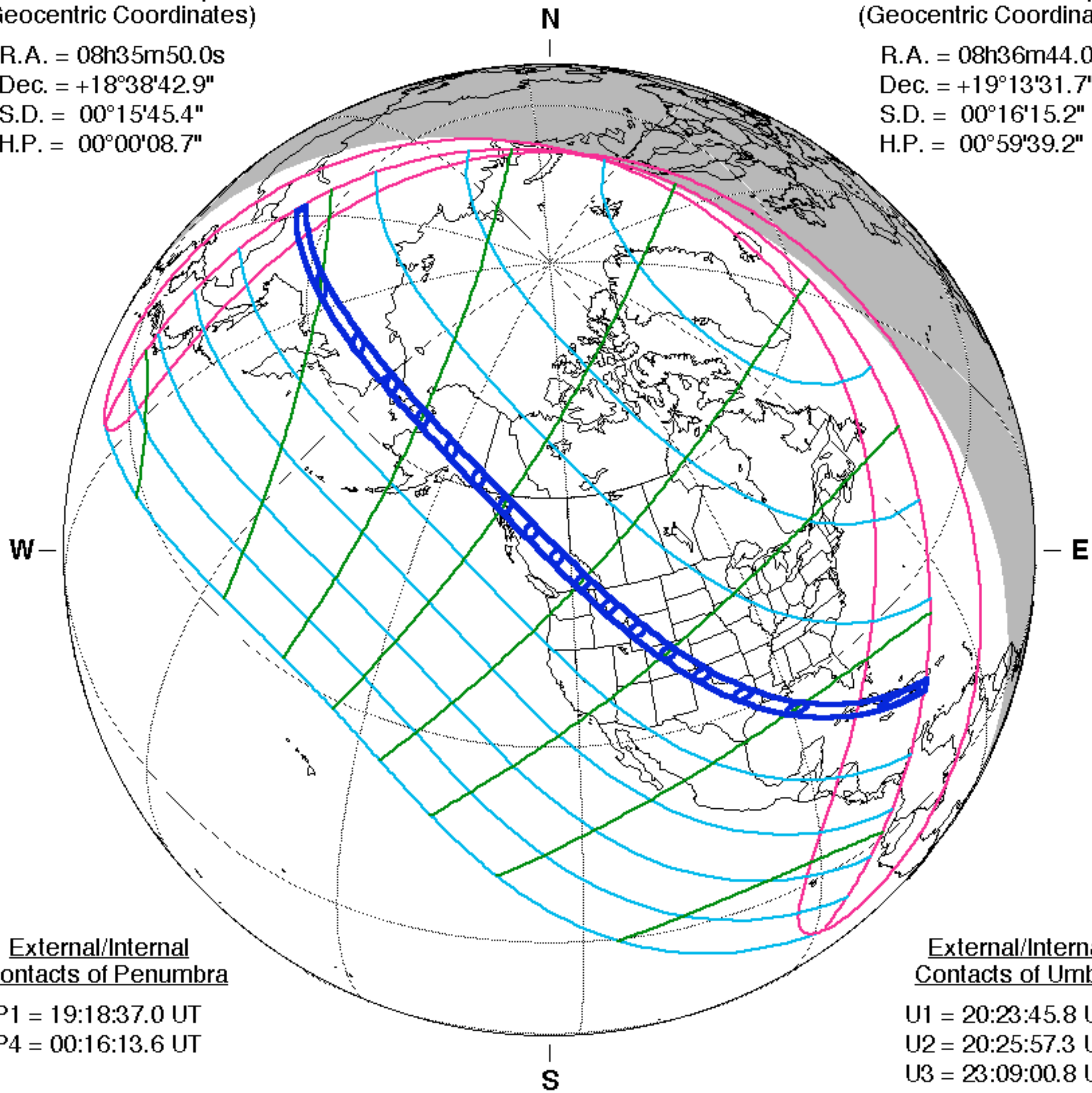
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 08h36m44.0s

Dec. = +19°13'31.7"

S.D. = 00°16'15.2"

H.P. = 00°59'39.2"



External/Internal Contacts of Penumbra

P1 = 19:18:37.0 UT

P4 = 00:16:13.6 UT

External/Internal Contacts of Umbra

U1 = 20:23:45.8 UT

U2 = 20:25:57.3 UT

U3 = 23:09:00.8 UT

U4 = 23:11:16.4 UT

Local Circumstances at Greatest Eclipse

Lat. = 53°49.4'N

Sun Alt. = 51.2°

Long. = 124°01.8'W

Sun Azm. = 213.3°

Path Width = 190.9 km Duration = 03m11.1s

Constants & Ephemeris

$\Delta T = -4.7$ s

$k_1 = 0.2724880$

$k_2 = 0.2722810$

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

Eph. = VSOP87/ELP2000-82

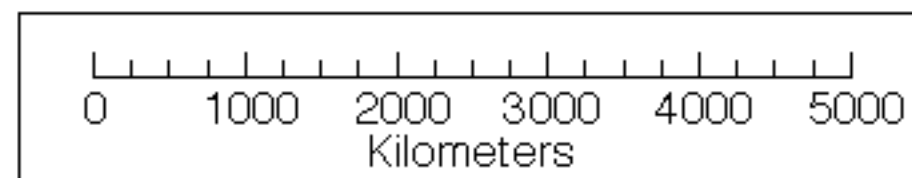
Geocentric Libration (Optical + Physical)

$l = -3.84^\circ$

$b = -0.80^\circ$

$c = 13.05^\circ$

Brown Lun. No. = -549



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eclipse.gsfc.nasa.gov/eclipse.html