

Total Solar Eclipse of 1842 Jul 08

Ecliptic Conjunction = 07:01:32.0 TD (= 07:01:26.4 UT)

Greatest Eclipse = 07:06:27.1 TD (= 07:06:21.6 UT)

Eclipse Magnitude = 1.0543 Gamma = 0.4727

Saros Series = 124 Member = 45 of 73

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 07h07m53.4s

Dec. = +22°32'34.5"

S.D. = 00°15'43.8"

H.P. = 00°00'08.6"

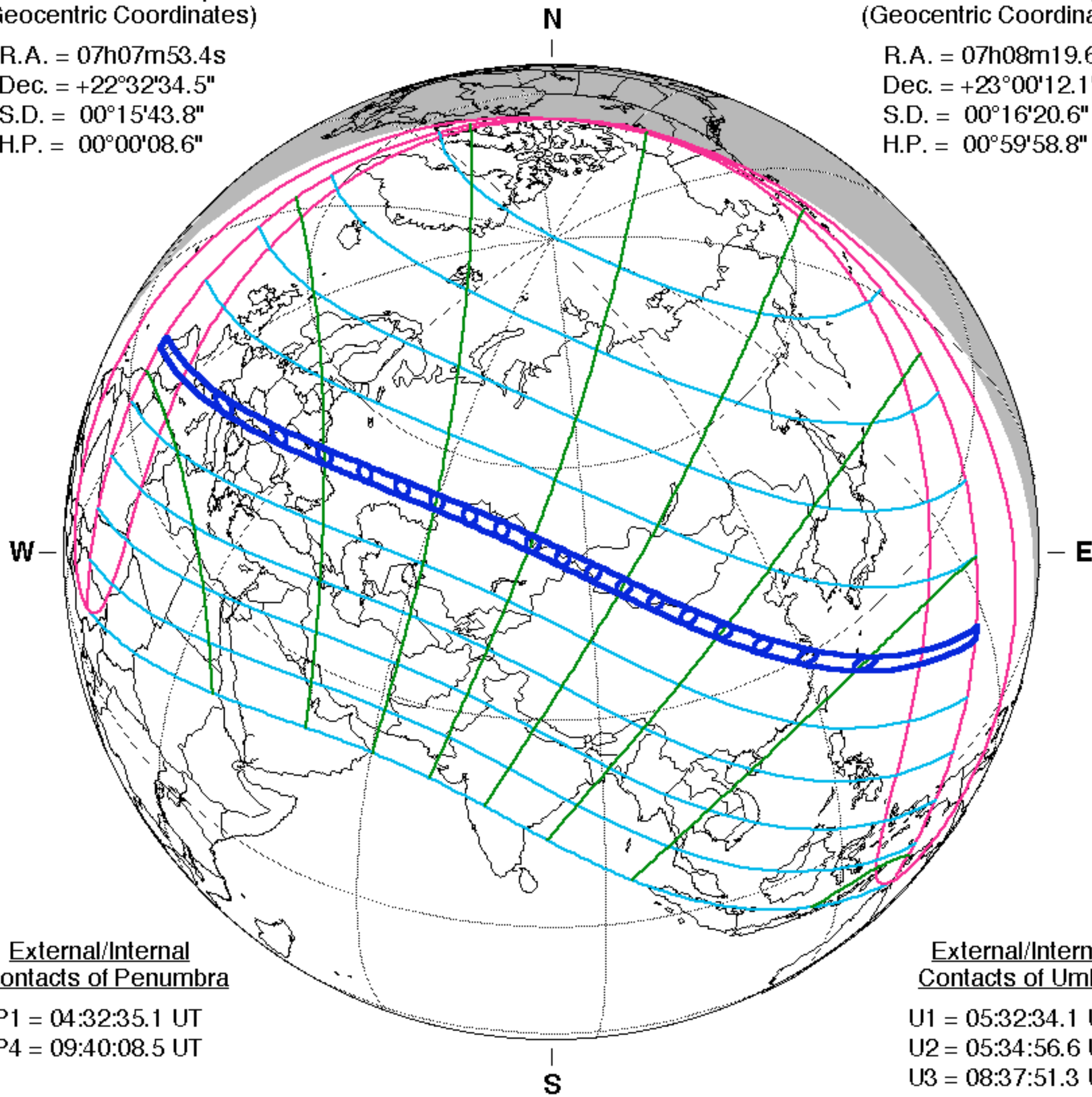
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 07h08m19.6s

Dec. = +23°00'12.1"

S.D. = 00°16'20.6"

H.P. = 00°59'58.8"



External/Internal Contacts of Penumbra

P1 = 04:32:35.1 UT

P4 = 09:40:08.5 UT

External/Internal Contacts of Umbra

U1 = 05:32:34.1 UT

U2 = 05:34:56.6 UT

U3 = 08:37:51.3 UT

U4 = 08:40:17.7 UT

Local Circumstances at Greatest Eclipse

Lat. = 50°05.7'N

Sun Alt. = 61.6°

Long. = 083°34.9'E

Sun Azm. = 197.7°

Path Width = 203.6 km Duration = 04m05.3s

Constants & Ephemeris

$\Delta T = 5.6$ s

$k_1 = 0.2724880$

$k_2 = 0.2722810$

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

Eph. = VSOP87/ELP2000-82

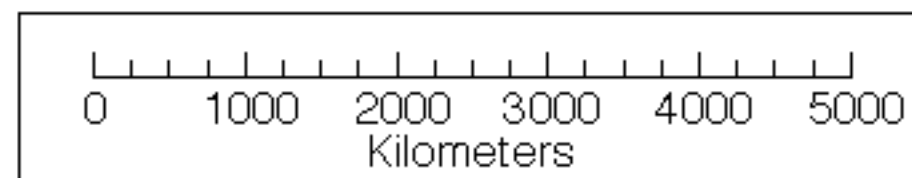
Geocentric Libration (Optical + Physical)

$l = -3.59^\circ$

$b = -0.61^\circ$

$c = 5.20^\circ$

Brown Lun. No. = -995



F. Espenak, NASA's GSFC

eclipse.gsfc.nasa.gov/eclipse.html