

Total Lunar Eclipse of 2003 Nov 09

Ecliptic Conjunction = 01:14:26.0 TD (= 01:13:21.5 UT)

Greatest Eclipse = 01:19:38.0 TD (= 01:18:33.5 UT)

Penumbral Magnitude = 2.1139

P. Radius = 1.1816°

Gamma = -0.4319

Umbral Magnitude = 1.0178

U. Radius = 0.6434°

Axis = 0.3891°

Saros Series = 126

Member = 45 of 72

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 14h54m59.9s

Dec. = -16°41'23.6"

S.D. = 00°16'08.7"

H.P. = 00°00'08.9"

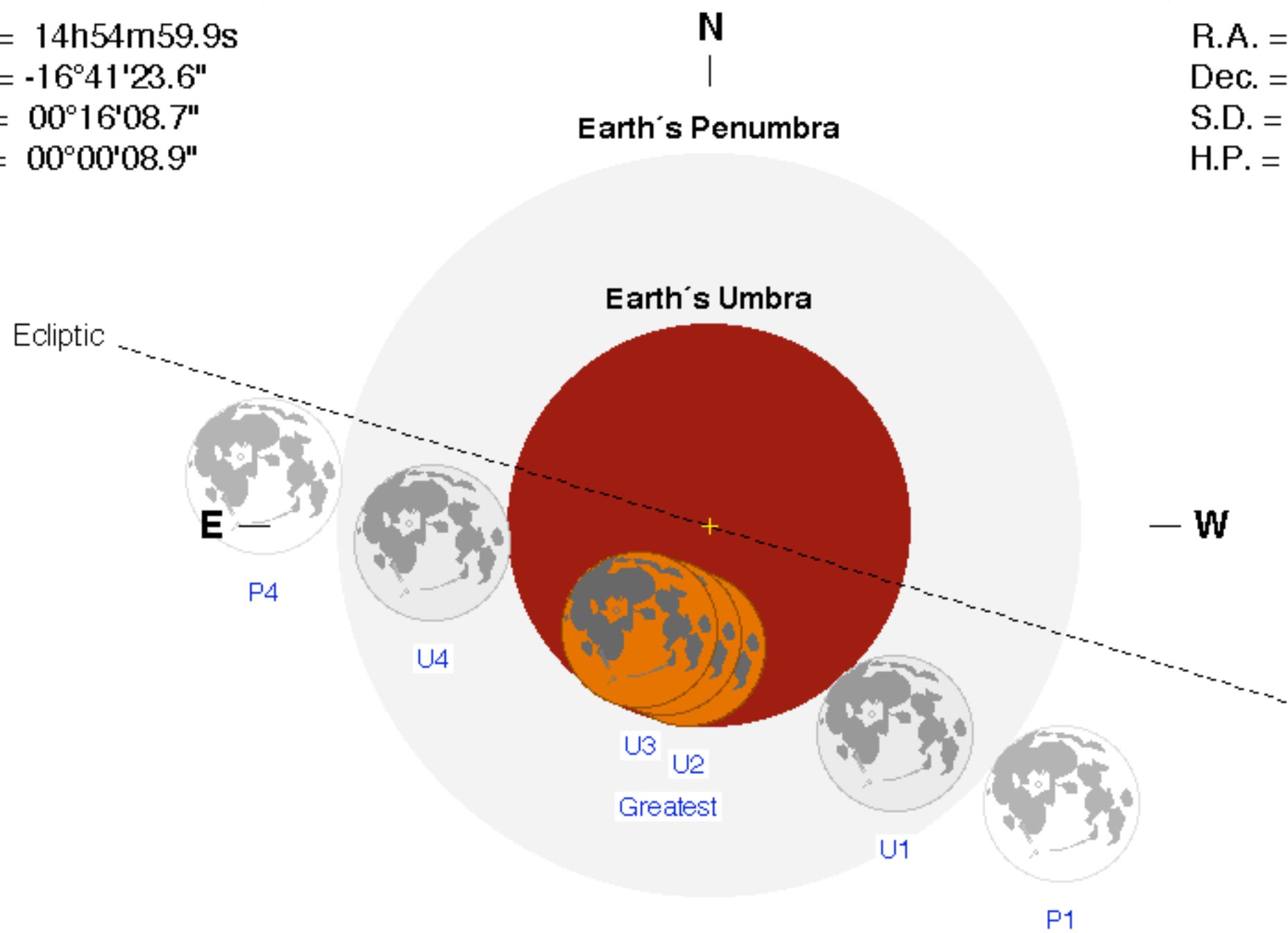
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 02h55m37.1s

Dec. = +16°19'48.8"

S.D. = 00°14'43.8"

H.P. = 00°54'03.6"



Eclipse Durations

Penumbral = 06h03m10s

Umbral = 03h31m25s

Total = 00h21m58s

$\Delta T = 64$ s

Rule = CdT (Danjon)

Eph. = VSOP87/ELP2000-85

Eclipse Contacts

P1 = 22:16:59 UT

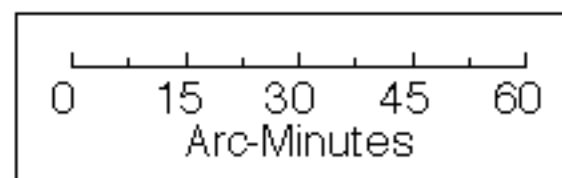
U1 = 23:32:50 UT

U2 = 01:07:34 UT

U3 = 01:29:32 UT

U4 = 03:04:15 UT

P4 = 04:20:08 UT



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eclipse.gsfc.nasa.gov/eclipse.html

