

Total Lunar Eclipse of 2048 Jan 01

Ecliptic Conjunction = 06:58:19.8 TD (= 06:56:48.6 UT)

Greatest Eclipse = 06:53:54.8 TD (= 06:52:23.6 UT)

Penumbral Magnitude = 2.2141

P. Radius = 1.1988°

Gamma = -0.3745

Umbral Magnitude = 1.1280

U. Radius = 0.6566°

Axis = 0.3431°

Saros Series = 135 Member = 25 of 71

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 18h45m45.0s

Dec. = -23°01'00.1"

S.D. = 00°16'15.9"

H.P. = 00°00'08.9"

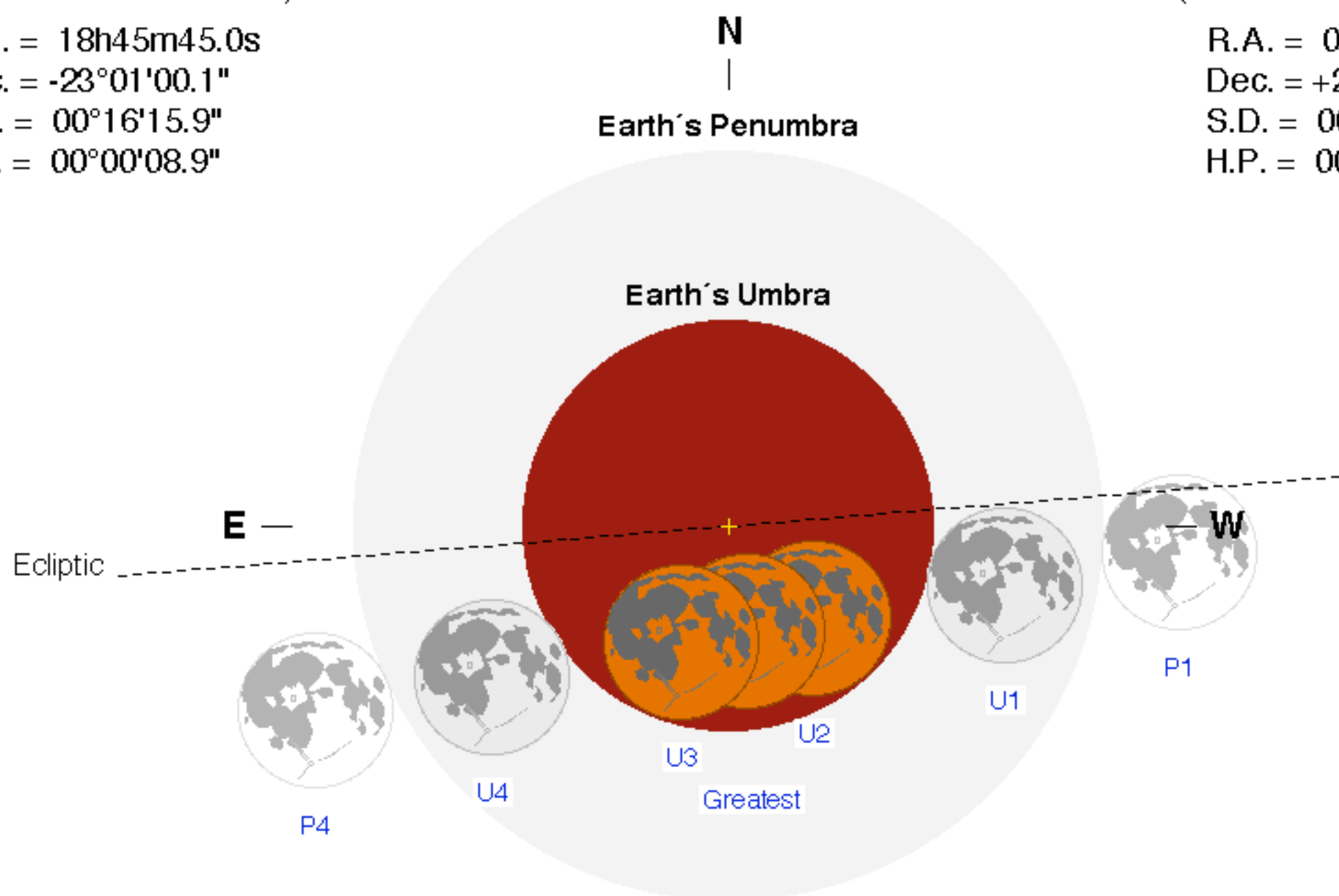
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 06h45m29.1s

Dec. = +22°40'44.8"

S.D. = 00°14'58.6"

H.P. = 00°54'57.7"



Eclipse Durations

Penumbral = 05h59m26s

Umbral = 03h34m16s

Total = 00h55m56s

$\Delta T = 91$ s

Rule = CdT (Danjon)

Eph. = VSOP87/ELP2000-85

Eclipse Contacts

P1 = 03:52:39 UT

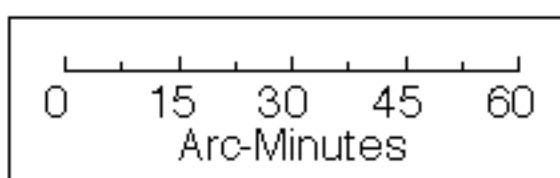
U1 = 05:05:17 UT

U2 = 06:24:27 UT

U3 = 07:20:23 UT

U4 = 08:39:33 UT

P4 = 09:52:05 UT



F. Espenak, NASA's GSFC
eclipse.gsfc.nasa.gov/eclipse.html

