

Penumbral Lunar Eclipse of 2078 Oct 21

Ecliptic Conjunction = 02:57:01.5 TD (= 02:54:27.4 UT)

Greatest Eclipse = 03:08:02.6 TD (= 03:05:28.5 UT)

Penumbral Magnitude = 0.8171

P. Radius = 1.3002°

Gamma = -1.1021

Umbral Magnitude = -0.1462

U. Radius = 0.7648°

Axis = 1.1240°

Saros Series = 118 Member = 55 of 74

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 13h44m30.2s

Dec. = -10°48'16.0"

S.D. = 00°16'03.8"

H.P. = 00°00'08.8"

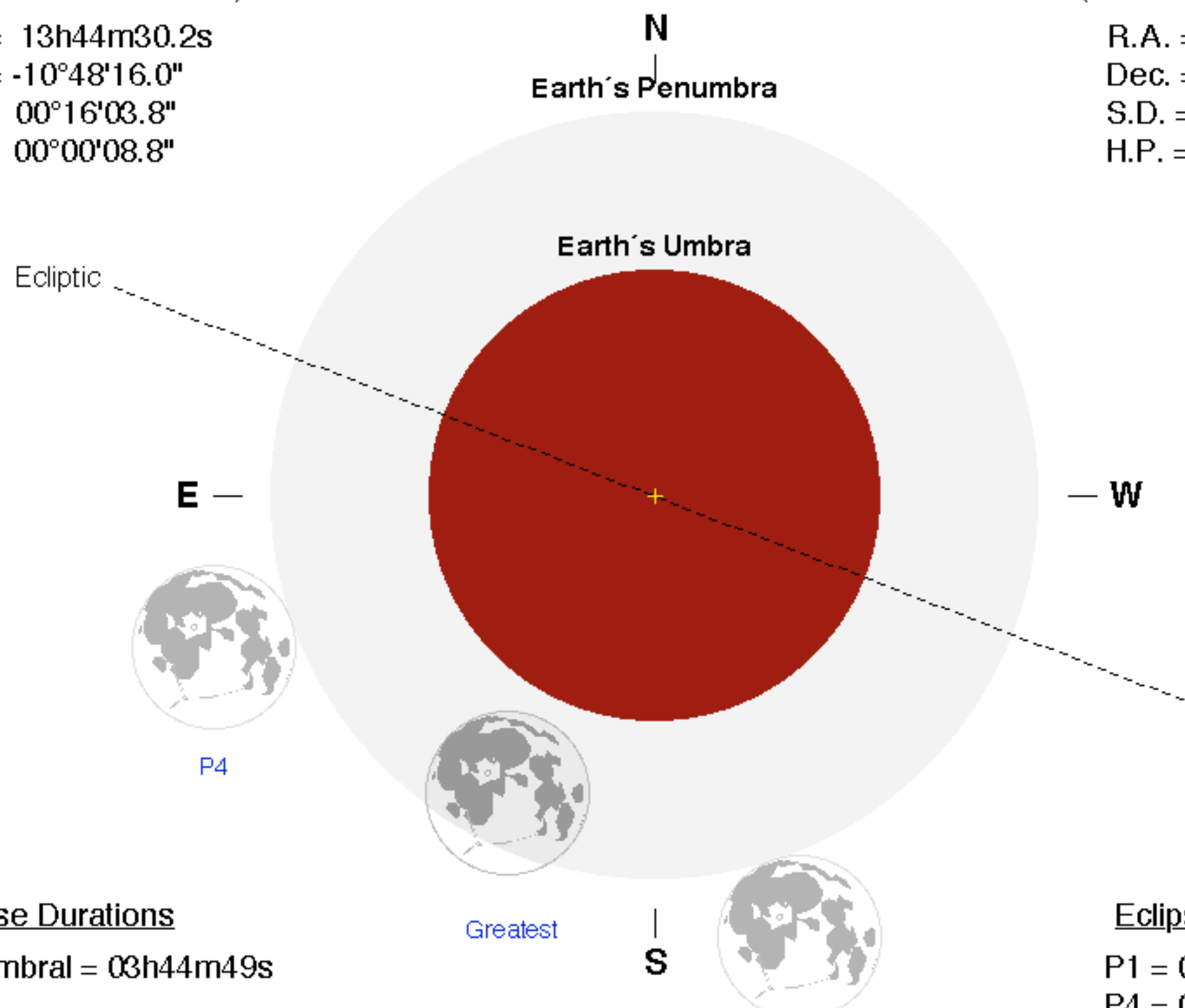
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 01h46m32.1s

Dec. = +09°47'51.2"

S.D. = 00°16'40.4"

H.P. = 01°01'11.6"



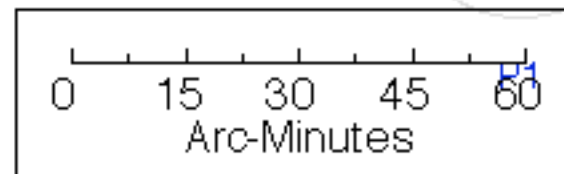
Eclipse Durations

Penumbral = 03h44m49s

Eclipse Contacts

P1 = 01:13:04 UT

P4 = 04:57:54 UT



$\Delta T = 154$ s

Rule = CdT (Danjon)

Eph. = VSOP87/ELP2000-85

F. Espenak, NASA's GSFC

eclipse.gsfc.nasa.gov/eclipse.html

