

# Penumbral Lunar Eclipse of 2078 Apr 27

Ecliptic Conjunction = 04:21:25.5 TD (= 04:18:52.5 UT)

Greatest Eclipse = 04:35:44.1 TD (= 04:33:11.1 UT)

Penumbral Magnitude = 0.6558

P. Radius = 1.1762°

Gamma = 1.2222

Umbral Magnitude = -0.4246

U. Radius = 0.6464°

Axis = 1.0998°

Saros Series = 113

Member = 67 of 71

## Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 02h19m59.8s

Dec. = +13°57'32.8"

S.D. = 00°15'53.7"

H.P. = 00°00'08.7"

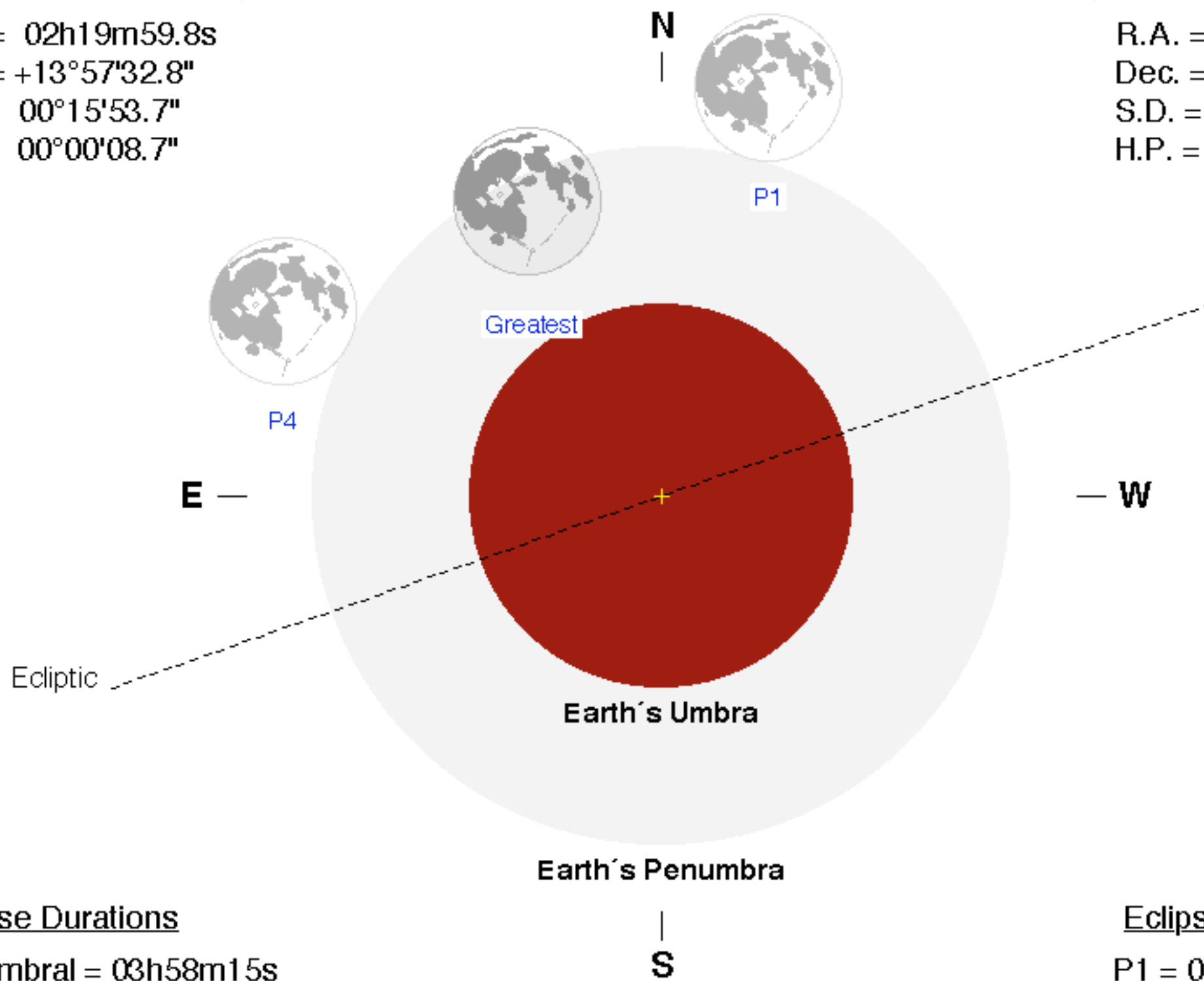
## Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 14h21m52.6s

Dec. = -12°57'31.9"

S.D. = 00°14'42.7"

H.P. = 00°53'59.6"



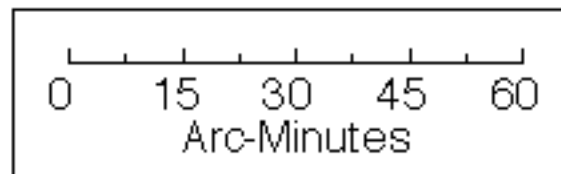
## Eclipse Durations

Penumbral = 03h58m15s

## Eclipse Contacts

P1 = 02:34:04 UT

P4 = 06:32:18 UT



$\Delta T = 153$  s

Rule = CdT (Danjon)

Eph. = VSOP87/ELP2000-85

F. Espenak, NASA's GSFC

[eclipse.gsfc.nasa.gov/eclipse.html](http://eclipse.gsfc.nasa.gov/eclipse.html)

