

# Partial Lunar Eclipse of 2093 Jul 08

Ecliptic Conjunction = 17:16:37.6 TD (= 17:13:30.2 UT)

Greatest Eclipse = 17:24:17.6 TD (= 17:21:10.2 UT)

Penumbral Magnitude = 1.4275

P. Radius = 1.2983°

Gamma = 0.7632

Umbral Magnitude = 0.4872

U. Radius = 0.7738°

Axis = 0.7810°

Saros Series = 121

Member = 60 of 84

## Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 07h15m09.4s

Dec. = +22°18'09.9"

S.D. = 00°15'43.9"

H.P. = 00°00'08.7"

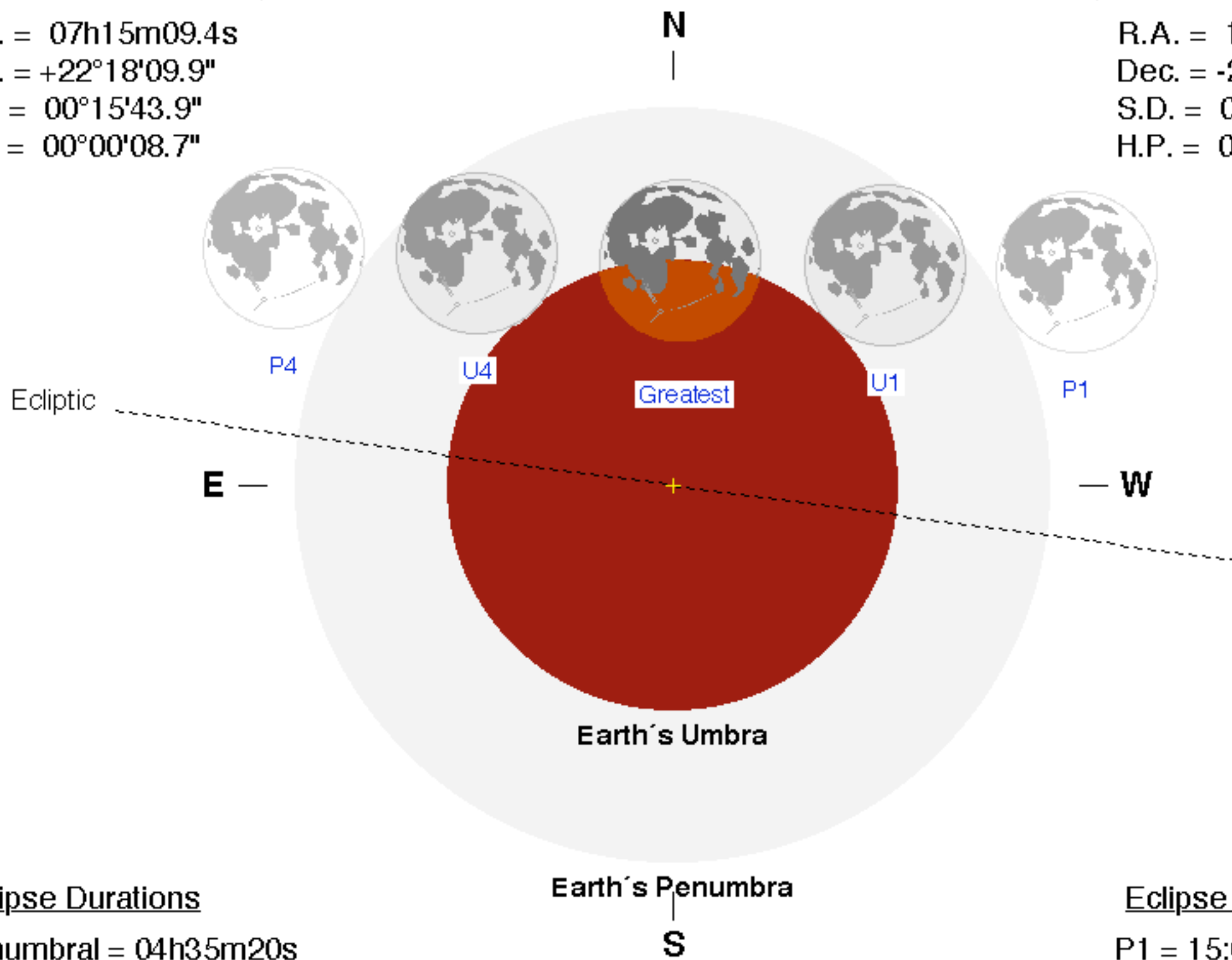
## Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 19h15m03.2s

Dec. = -21°31'19.6"

S.D. = 00°16'43.9"

H.P. = 01°01'24.3"



## Eclipse Durations

Penumbral = 04h35m20s

Umbral = 02h21m51s

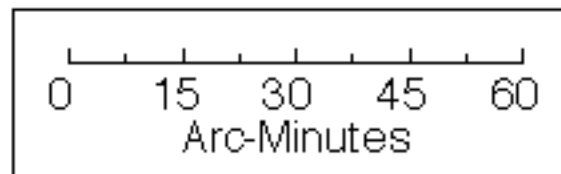
$\Delta T = 187$  s

Rule = CdT (Danjon)

Eph. = VSOP87/ELP2000-85

## Earth's Penumbra

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F. Espenak, NASA's GSFC

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

## Eclipse Contacts

P1 = 15:03:31 UT

U1 = 16:10:15 UT

U4 = 18:32:06 UT

P4 = 19:38:50 UT

