

# Total Lunar Eclipse of 2076 Dec 10

Ecliptic Conjunction = 11:37:14.3 TD (= 11:34:44.3 UT)

Greatest Eclipse = 11:34:51.5 TD (= 11:32:21.5 UT)

Penumbral Magnitude = 2.4990

P. Radius = 1.2260°

Gamma = 0.2102

Umbral Magnitude = 1.4460

U. Radius = 0.6847°

Axis = 0.1983°

Saros Series = 136

Member = 23 of 72

## Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 17h13m25.1s

Dec. = -22°59'52.7"

S.D. = 00°16'14.5"

H.P. = 00°00'08.9"

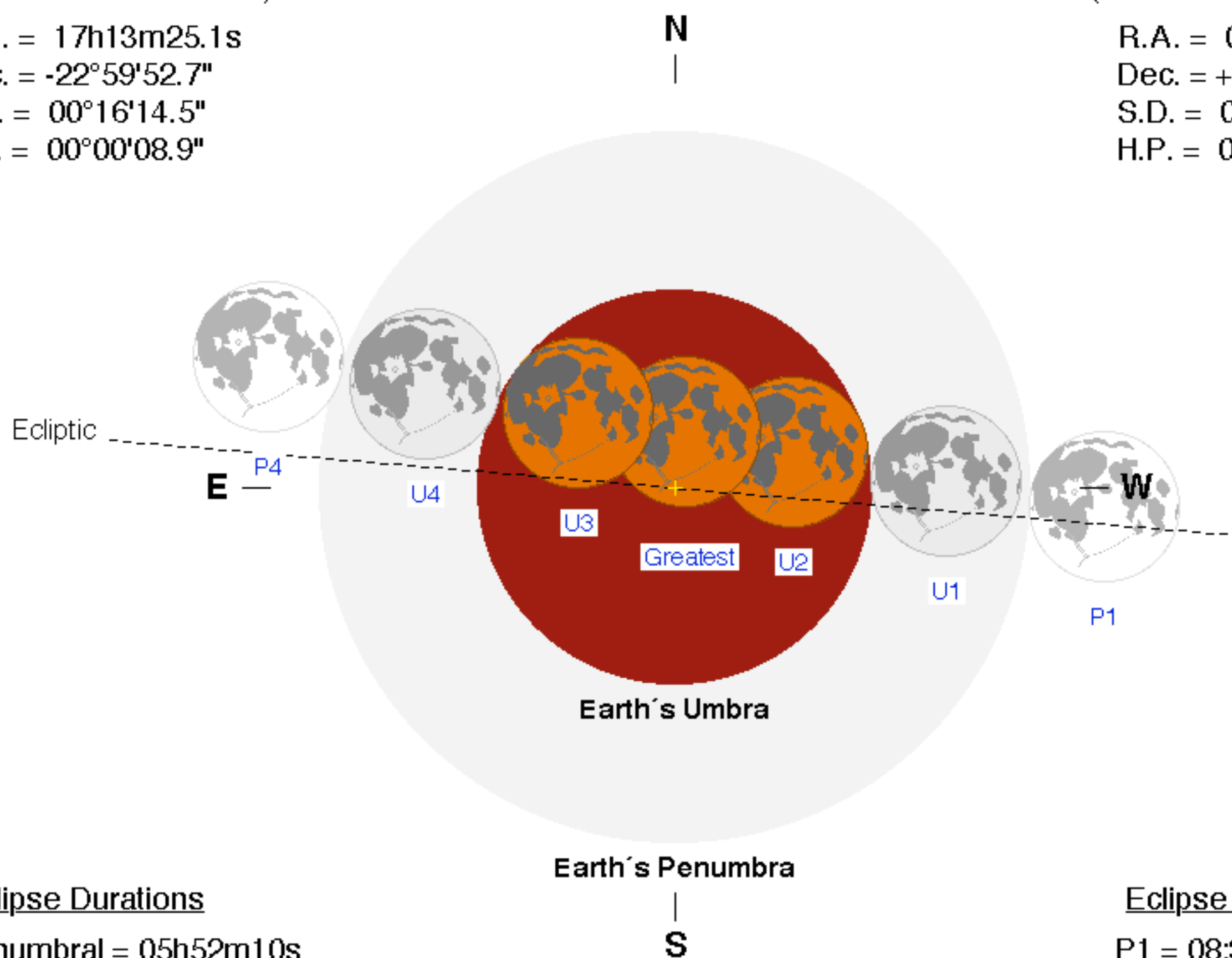
## Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 05h13m15.9s

Dec. = +23°11'35.0"

S.D. = 00°15'25.4"

H.P. = 00°56'36.4"



## Eclipse Durations

Penumbral = 05h52m10s

Umbral = 03h40m37s

Total = 01h30m47s

$\Delta T = 150$  s

Rule = CdT (Danjon)

Eph. = VSOP87/ELP2000-85

## Eclipse Contacts

P1 = 08:36:20 UT

U1 = 09:42:02 UT

U2 = 10:46:57 UT

U3 = 12:17:44 UT

U4 = 13:22:39 UT

P4 = 14:28:30 UT

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

