

# Total Lunar Eclipse of 0828 Dec 25

Ecliptic Conjunction = 03:06:19.2 TD (= 02:21:10.8 UT)

Greatest Eclipse = 03:01:13.9 TD (= 02:16:05.5 UT)

Penumbral Magnitude = 2.1184

P. Radius = 1.1935°

Gamma = 0.4284

Umbral Magnitude = 1.0261

U. Radius = 0.6514°

Axis = 0.3902°

Saros Series = 96

Member = 23 of 72

Sun at Greatest Eclipse  
(Geocentric Coordinates)

R.A. = 18h36m06.5s

Dec. = -23°19'46.6"

S.D. = 00°16'15.9"

H.P. = 00°00'08.9"

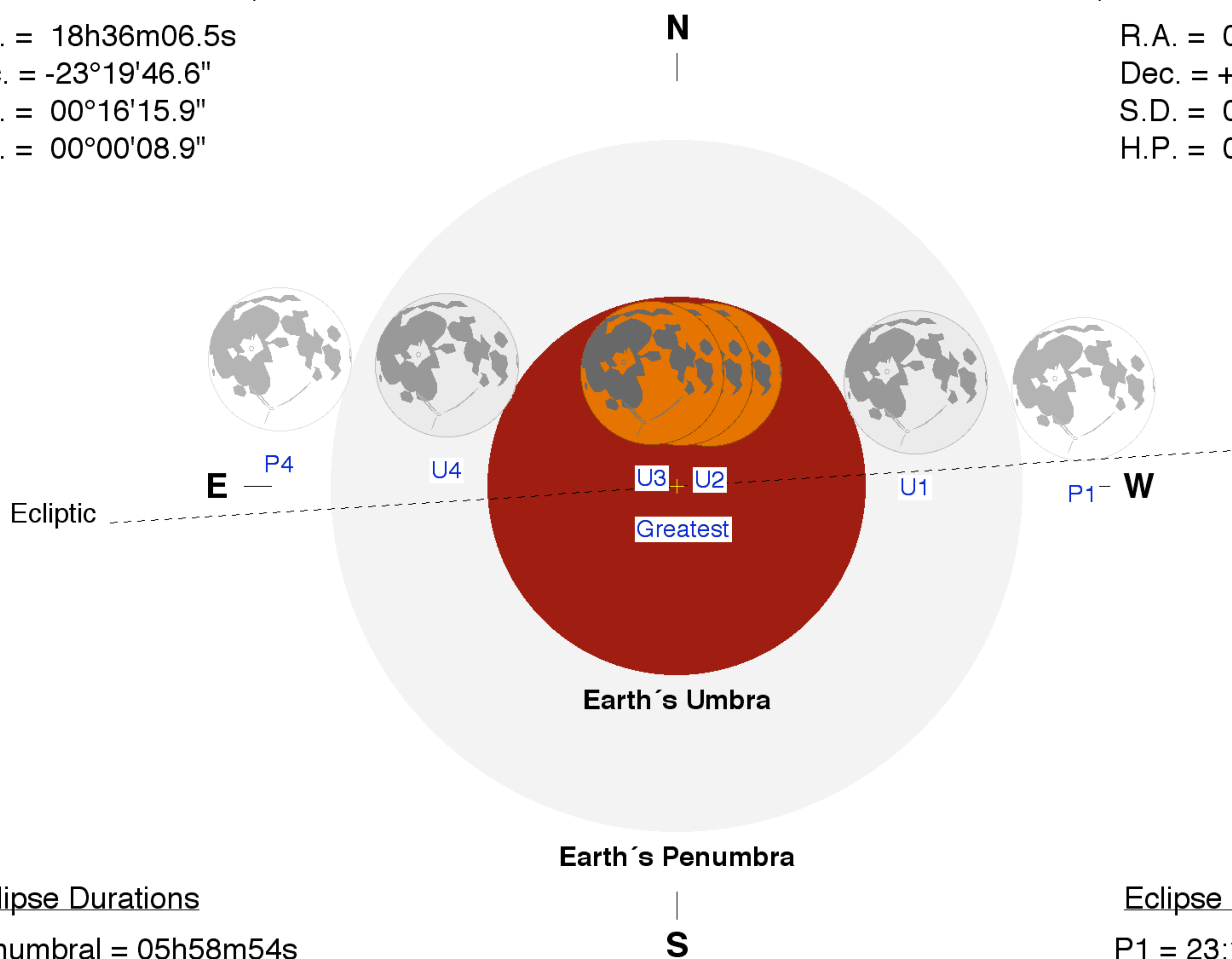
Moon at Greatest Eclipse  
(Geocentric Coordinates)

R.A. = 06h36m02.6s

Dec. = +23°43'10.3"

S.D. = 00°14'53.5"

H.P. = 00°54'39.0"



## Eclipse Durations

Penumbral = 05h58m54s

Umbral = 03h29m38s

Total = 00h26m15s

$\Delta T = 2708$  s

Rule = CdT (Danjon)

Eph. = VSOP87/ELP2000-85

## Eclipse Contacts

P1 = 23:16:40 UT

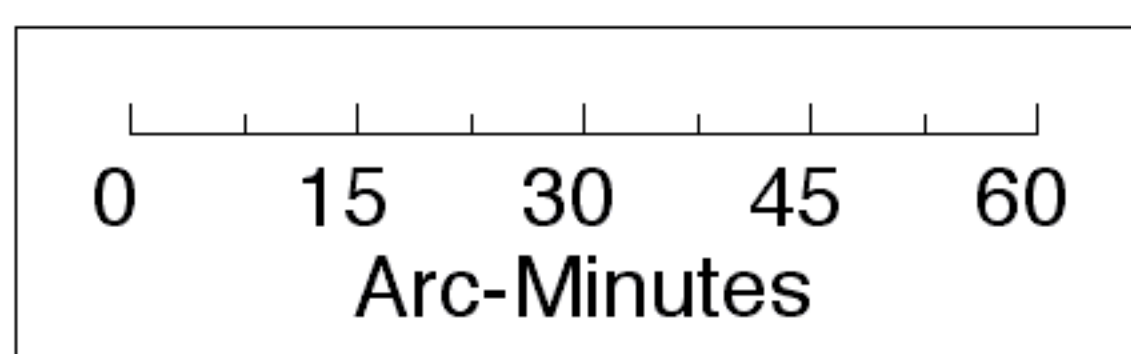
U1 = 00:31:15 UT

U2 = 02:02:57 UT

U3 = 02:29:12 UT

U4 = 04:00:53 UT

P4 = 05:15:34 UT



F. Espenak, NASA's GSFC  
[eclipse.gsfc.nasa.gov/eclipse.html](http://eclipse.gsfc.nasa.gov/eclipse.html)

