Penumbral Lunar Eclipse of 2013 Oct 18

Ecliptic Conjunction = 23:38:46.7 TD  ( = 23:37:38.3 UT )
Greatest Eclipse = 23:51:25.3 TD  ( = 23:50:16.9 UT )

Penumbral Magnitude = 0.7649  P. Radius = 1.2270°  Gamma = 1.1508
Umbral Magnitude = -0.2718  U. Radius = 0.6917°  Axis = 1.0902°

Saros Series = 117  Member = 52 of 72

Sun at Greatest Eclipse
(Geocentric Coordinates)
R.A. = 13h35m31.9s
Dec. = -09°57'15.0"
S.D. = 00°16'03.4"
H.P. = 00°00'08.8"

Moon at Greatest Eclipse
(Geocentric Coordinates)
R.A. = 01h34m19.6s
Dec. = +11°00'12.3"
S.D. = 00°15'29.3"
H.P. = 00°56'50.7"

Eclipse Durations
Penumbral = 03h59m06s

ΔT = 68 s
Rule = CdT (Danjon)
Eph. = VSOP87/ELP2000-85

Earth's Umbra

Eclipse Contacts
P1 = 21:50:41 UT
P4 = 01:49:47 UT

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

Eclipse at Moonrise
All Eclipse Visible
Eclipse at Moonset
No Eclipse Visible