

ECLIPSES DURING 2023

By Fred Espenak

Figure 6

Partial Lunar Eclipse of 2023 Oct 28

Greatest Eclipse = 20:15:17.0 TT (= 20:14:07.8 UTC)

Penumbral Magnitude = 1.1200
Umbral Magnitude = 0.1239

Gamma = 0.9472
Axis = 0.9362°

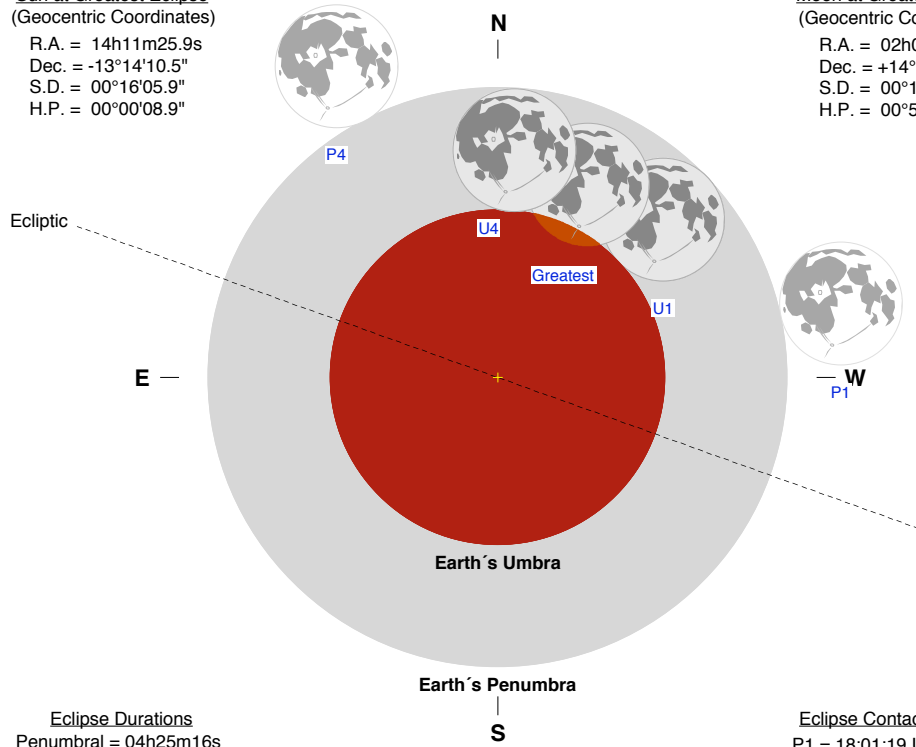
Saros Series = 146
Saros Member = 11 of 72

Sun at Greatest Eclipse
(Geocentric Coordinates)

R.A. = 14h11m25.9s
Dec. = -13°14'10.5"
S.D. = 00°16'05.9"
H.P. = 00°00'08.9"

Moon at Greatest Eclipse
(Geocentric Coordinates)

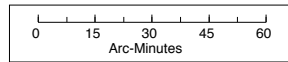
R.A. = 02h09m47.6s
Dec. = +14°05'01.6"
S.D. = 00°16'09.7"
H.P. = 00°59'18.9"



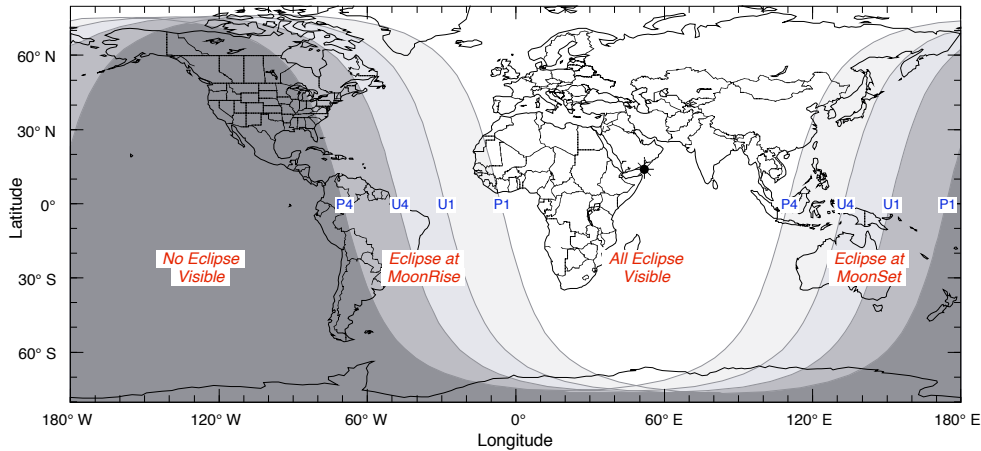
Eclipse Durations
Penumbral = 04h25m16s
Umbral = 01h18m09s

Eclipse Contacts
P1 = 18:01:19 UTC
U1 = 19:34:43 UTC
U4 = 20:52:52 UTC
P4 = 22:26:35 UTC

Eph. = JPL DE430
Rule = Herald-Sinnott
TT - UTC = 69.18 s



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Adapted from *21st Century Canon of Lunar Eclipses*, Fred Espenak, 2020.