

# ECLIPSES DURING 2024 (Fred Espenak)

Figure 1

## Penumbral Lunar Eclipse of 2024 Mar 25

Greatest Eclipse = 07:14:00.1 TT (= 07:12:50.9 UTC)

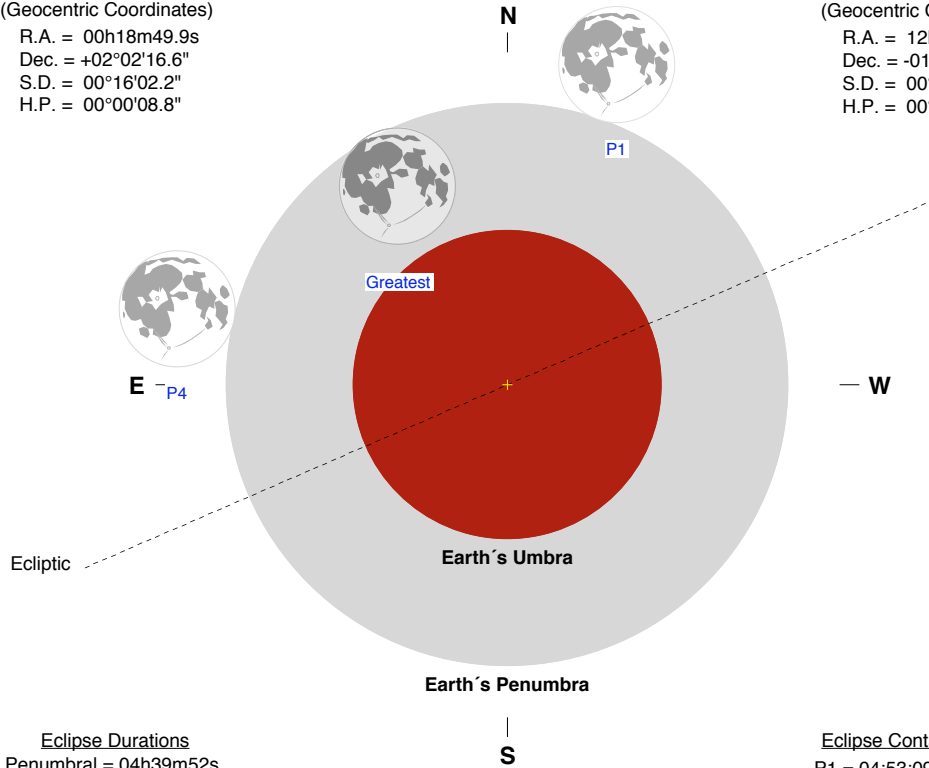
Penumbral Magnitude = 0.9577  
Umbral Magnitude = -0.1304

Gamma = 1.0610  
Axis = 0.9564°

Saros Series = 113  
Saros Member = 64 of 71

Sun at Greatest Eclipse  
(Geocentric Coordinates)  
R.A. = 00h18m49.9s  
Dec. = +02°02'16.6"  
S.D. = 00°16'02.2"  
H.P. = 00°00'08.8"

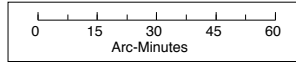
Moon at Greatest Eclipse  
(Geocentric Coordinates)  
R.A. = 12h20m41.3s  
Dec. = -01°12'05.6"  
S.D. = 00°14'44.3"  
H.P. = 00°54'05.4"



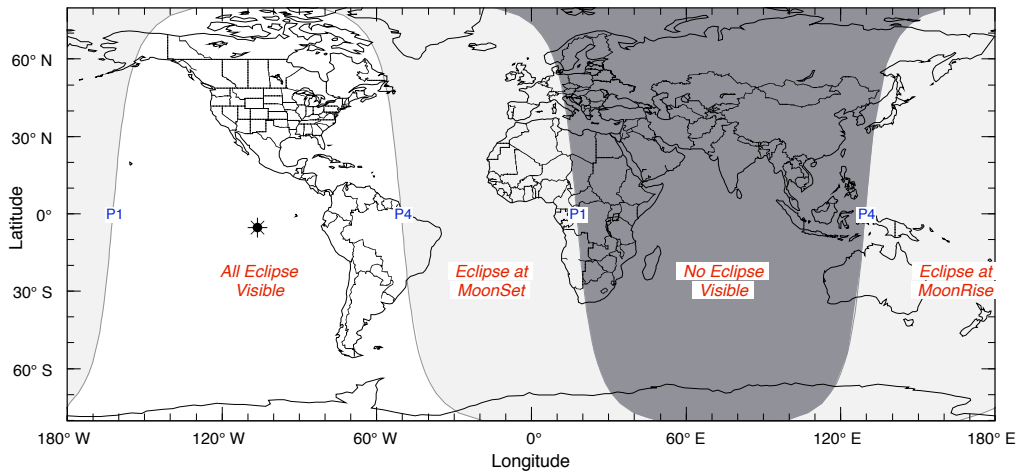
Eclipse Durations  
Penumbral = 04h39m52s

Eclipse Contacts  
P1 = 04:53:09 UTC  
P4 = 09:33:01 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.