

Partial Lunar Eclipse of 2019 Jul 16

Greatest Eclipse = 21:31:54.9 TD (= 21:30:45.6 UT1)

Penumbral Magnitude = 1.7037
Umbral Magnitude = 0.6531

Gamma = -0.6430
Axis = 0.5890°

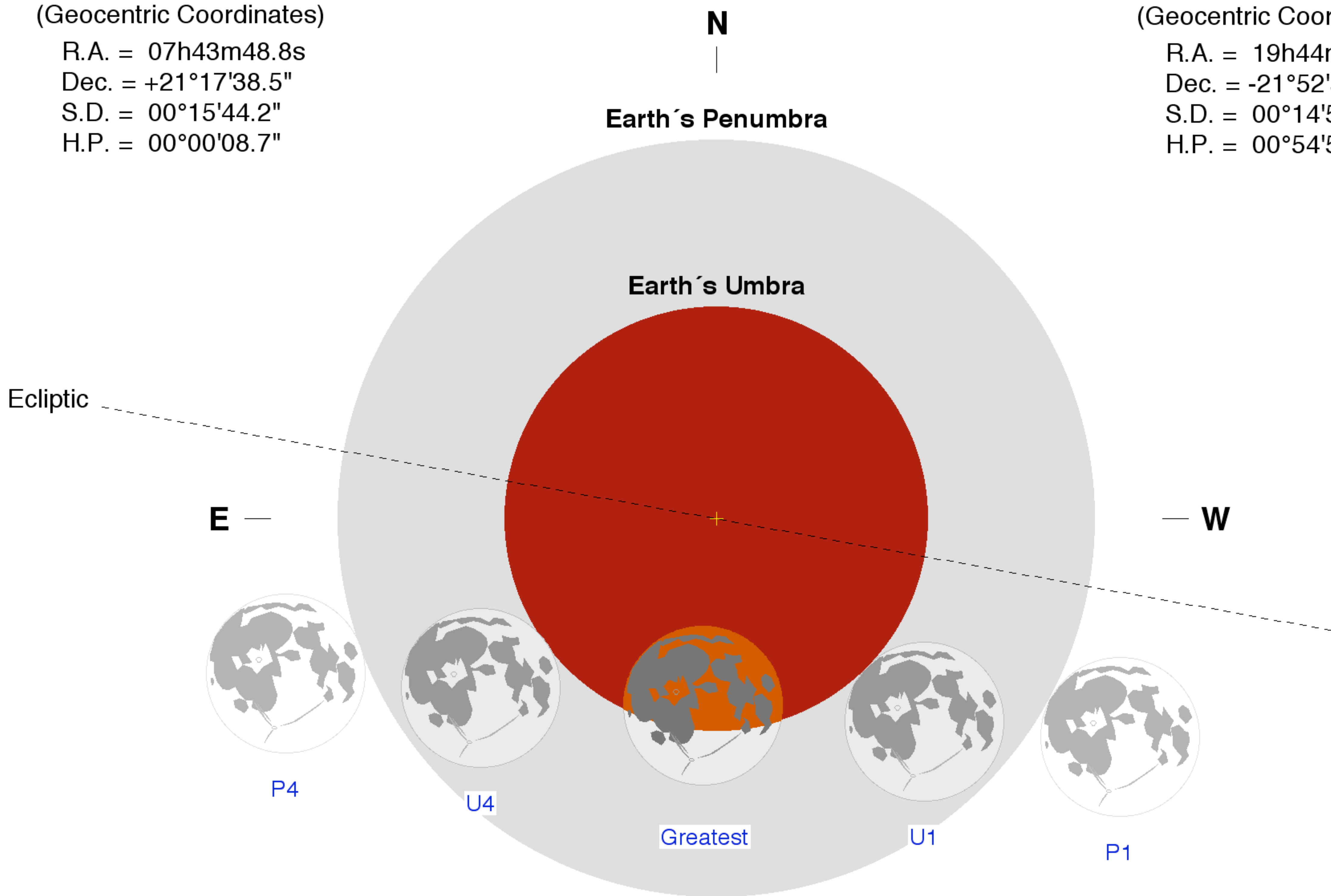
Saros Series = 139
Saros Member = 21 of 79

Sun at Greatest Eclipse
(Geocentric Coordinates)

R.A. = 07h43m48.8s
Dec. = +21°17'38.5"
S.D. = 00°15'44.2"
H.P. = 00°00'08.7"

Moon at Greatest Eclipse
(Geocentric Coordinates)

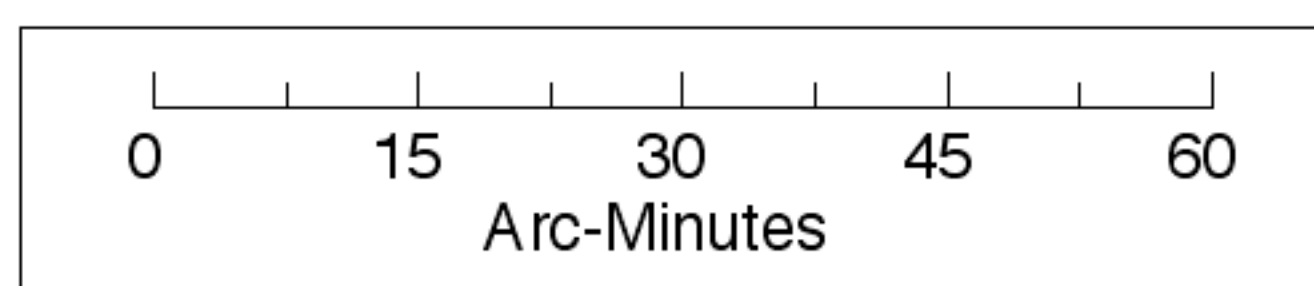
R.A. = 19h44m00.3s
Dec. = -21°52'53.0"
S.D. = 00°14'58.7"
H.P. = 00°54'58.2"



Eclipse Durations
Penumbral = 05h33m50s
Umbral = 02h57m58s

Eclipse Contacts
P1 = 18:43:52 UT1
U1 = 20:01:44 UT1
U4 = 22:59:42 UT1
P4 = 00:17:41 UT1

Eph. = JPL DE405
Rule = Danjon
 $\Delta T = 69$ s



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