Partial Lunar Eclipse of 2019 Jul 16

Ecliptic Conjunction = 21:39:22.1 TD (= 21:38:10.8 UT)
Greatest Eclipse = 21:31:54.8 TD (= 21:30:43.5 UT)

Penumbral Magnitude = 1.7037 P. Radius = 1.1900° Gamma = -0.6430
Umbral Magnitude = 0.6531 U. Radius = 0.6655° Axis = 0.5890°

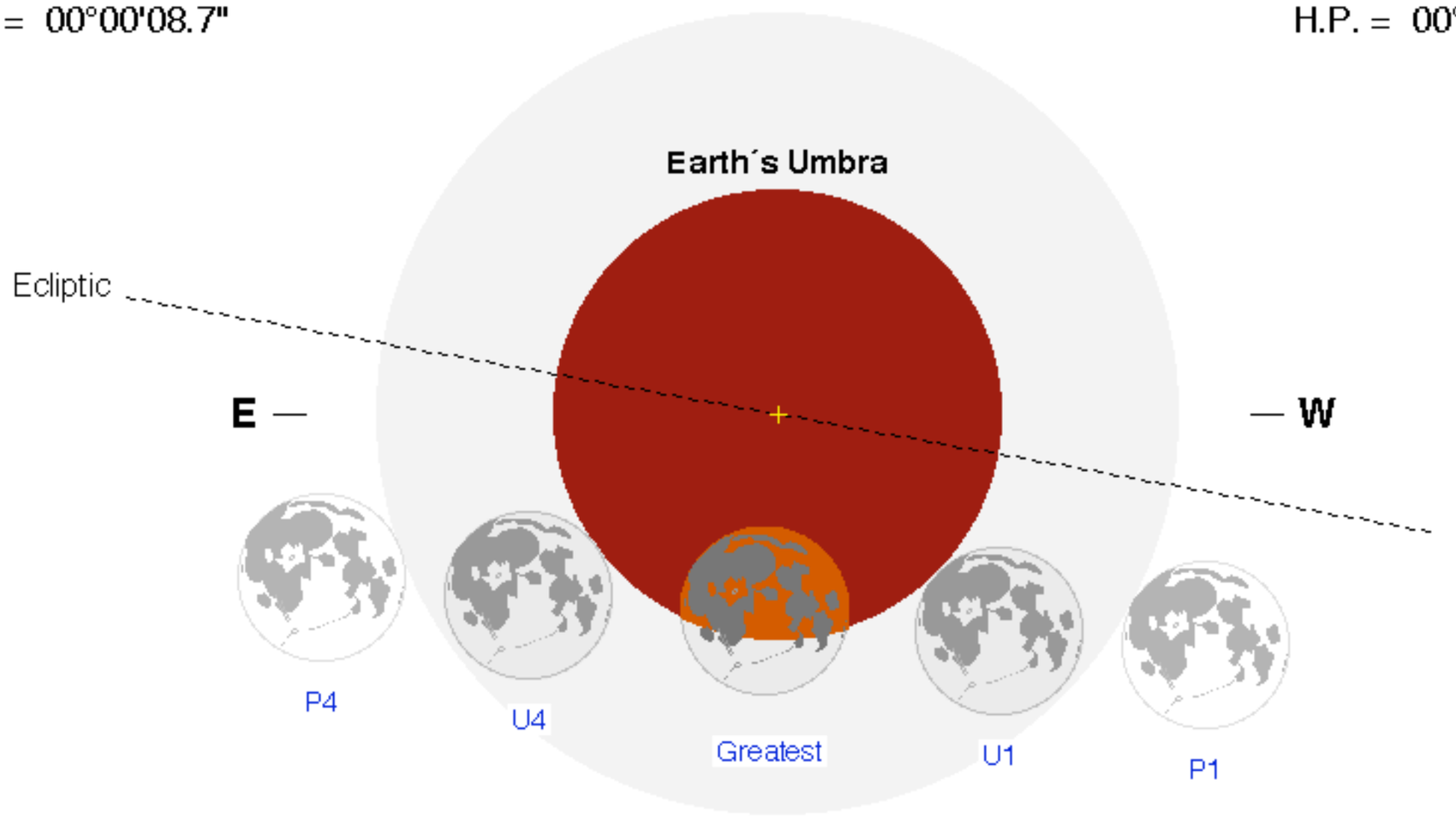
Saros Series = 139 Member = 22 of 81

<u>Sun at Greatest Eclipse</u>
(Geocentric Coordinates)

R.A. = 07h43m48.8s
Dec. = +21°17'38.5"
S.D. = 00°15'44.1"
H.P. = 00°00'08.7"

<u>Moon at Greatest Eclipse</u>
(Geocentric Coordinates)

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



<u>Eclipse Durations</u>

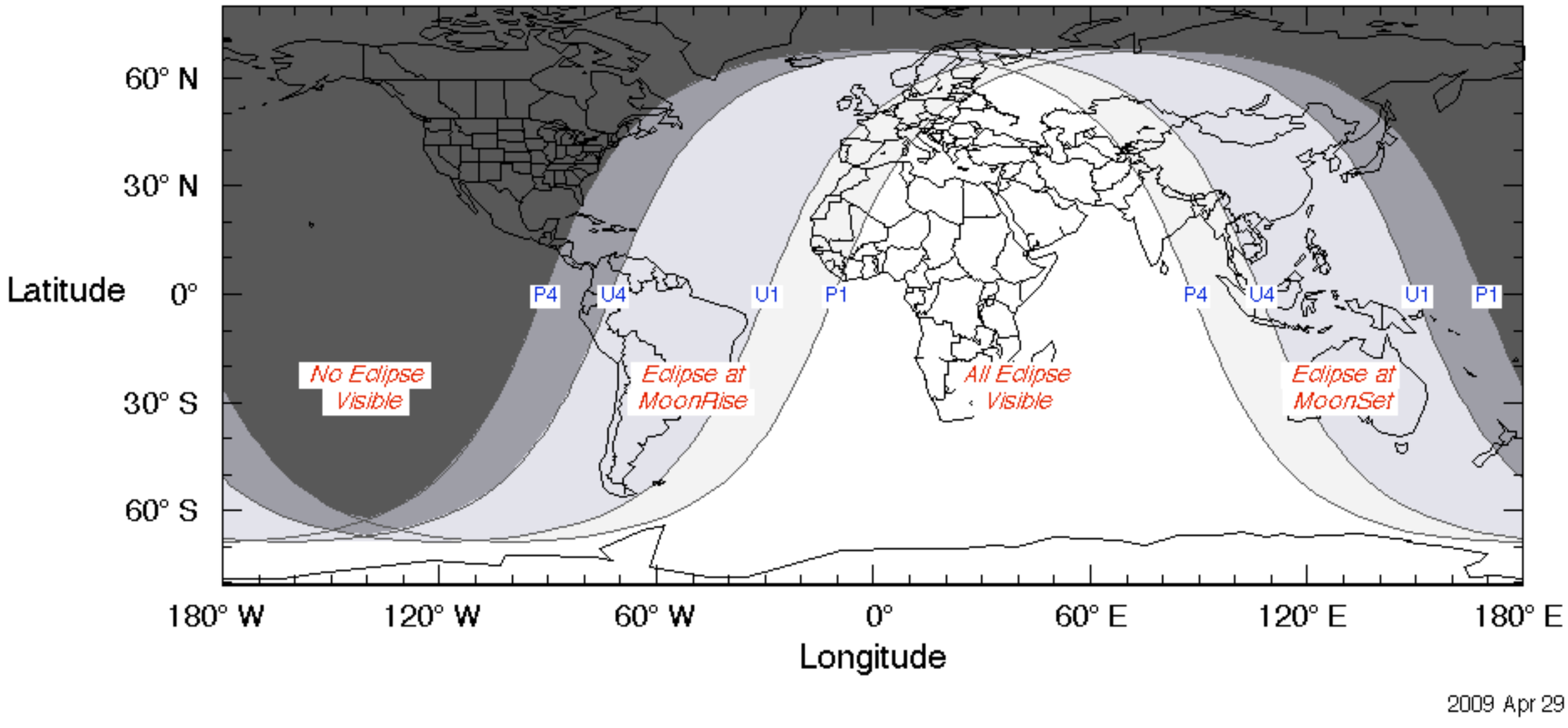
Penumbral = 05h33m43s
Umbral = 02h57m56s

ΔT = 71 s
Rule = CdT (Danjon)
Eph. = VSOP87/ELP2000-85

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

<u>Eclipse Contacts</u>

P1 = 18:43:53 UT
U1 = 20:01:43 UT
U4 = 22:59:39 UT
P4 = 00:17:36 UT



2009 Apr 29