Total Lunar Eclipse of 2011 Dec 10

Ecliptic Conjunction = 14:37:29.1 TD (= 14:36:21.6 UT)
Greatest Eclipse = 14:32:56.5 TD (= 14:31:49.0 UT)

Penumbral Magnitude = 2.1860 P. Radius = 1.2023° Gamma = -0.3882
Umbral Magnitude = 1.1061 U. Radius = 0.6609° Axis = 0.3571°

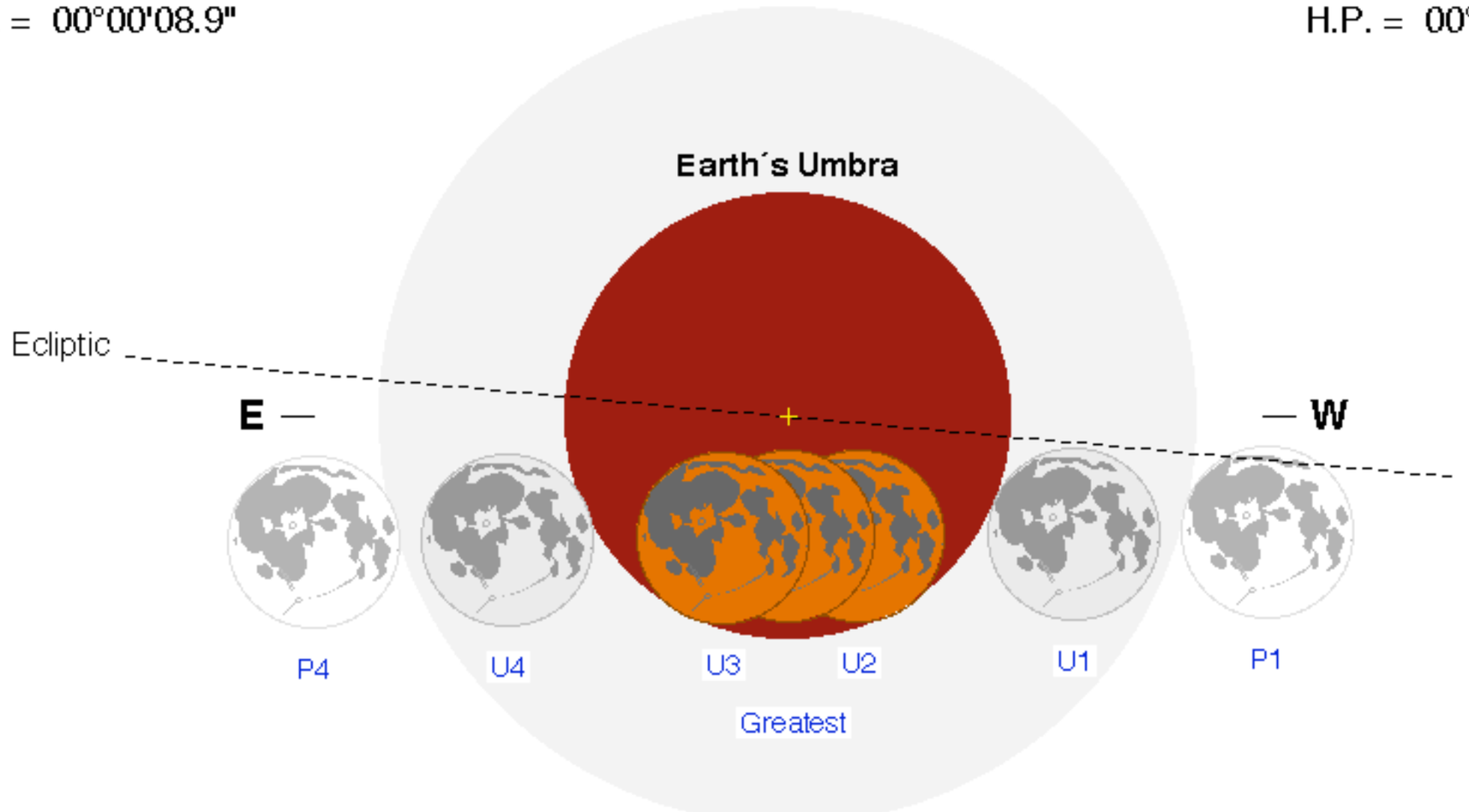
Saros Series = 135 Member = 23 of 71

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

R.A. = 17h08m35.0s
Dec. = -22°54'38.7"
S.D. = 00°16'14.5"
H.P. = 00°00'08.9"

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

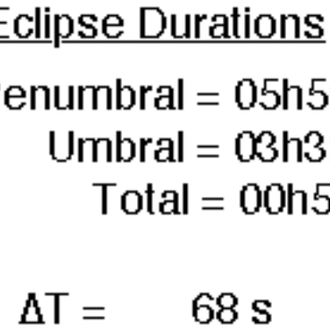
R.A. = 05h08m33.9s
Dec. = +22°33'13.3"
S.D. = 00°15'02.4"
H.P. = 00°55'11.7"



<u>Eclipse Durations</u>

Penumbral = 05h56m21s
Umbral = 03h32m15s
Total = 00h51m08s

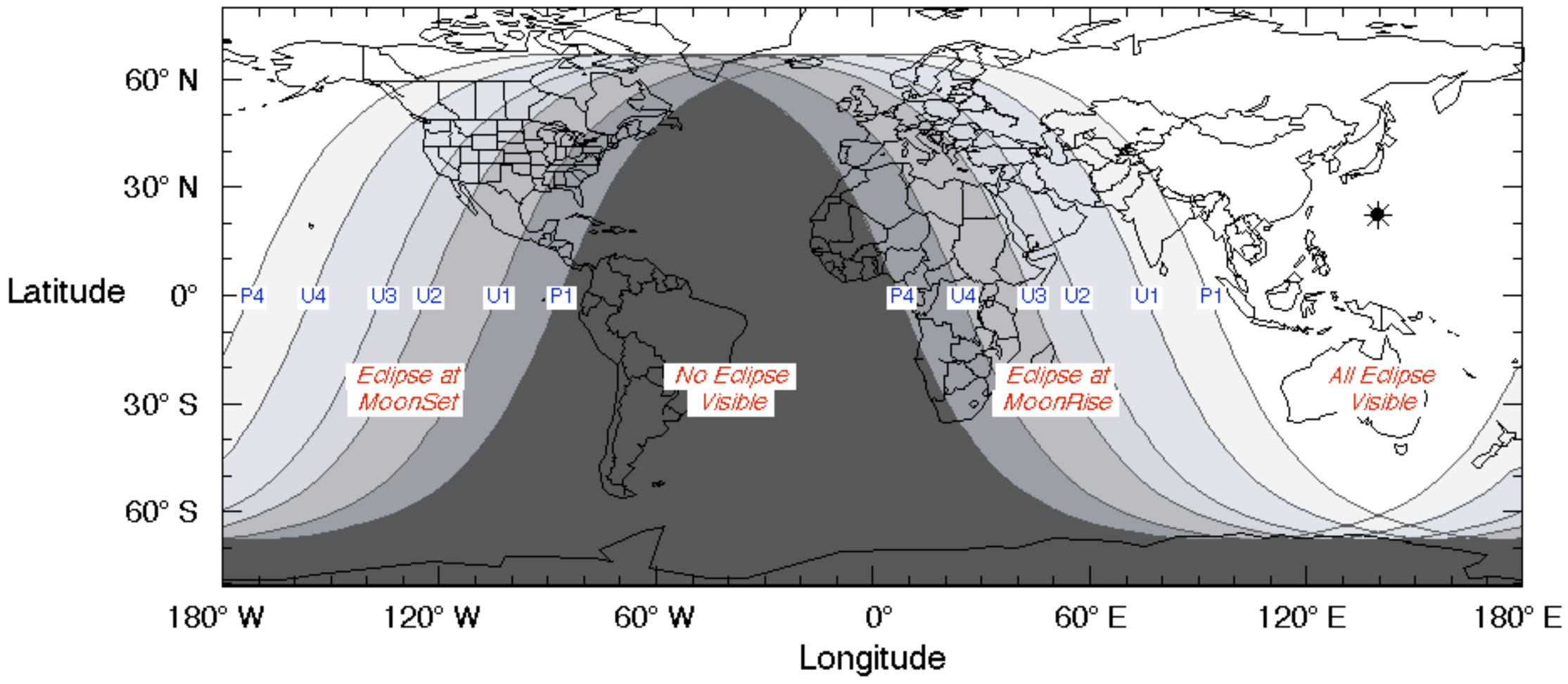
ΔT = 68 s
Rule = CdT (Danjon)
Eph. = VSOP87/ELP2000-85



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

<u>Eclipse Contacts</u>

P1 = 11:33:36 UT
U1 = 12:45:43 UT
U2 = 14:06:16 UT
U3 = 14:57:24 UT
U4 = 16:17:58 UT
P4 = 17:29:57 UT



2009 Apr 29