Total Lunar Eclipse of 2029 Dec 20

Ecliptic Conjunction = 22:47:40.4 TD (= 22:46:22.9 UT)
Greatest Eclipse = 22:43:11.8 TD (= 22:41:54.3 UT)

Penumbral Magnitude = 2.2008 P. Radius = 1.2006° Gamma = -0.3811
Umbral Magnitude = 1.1174 U. Radius = 0.6586° Axis = 0.3498°

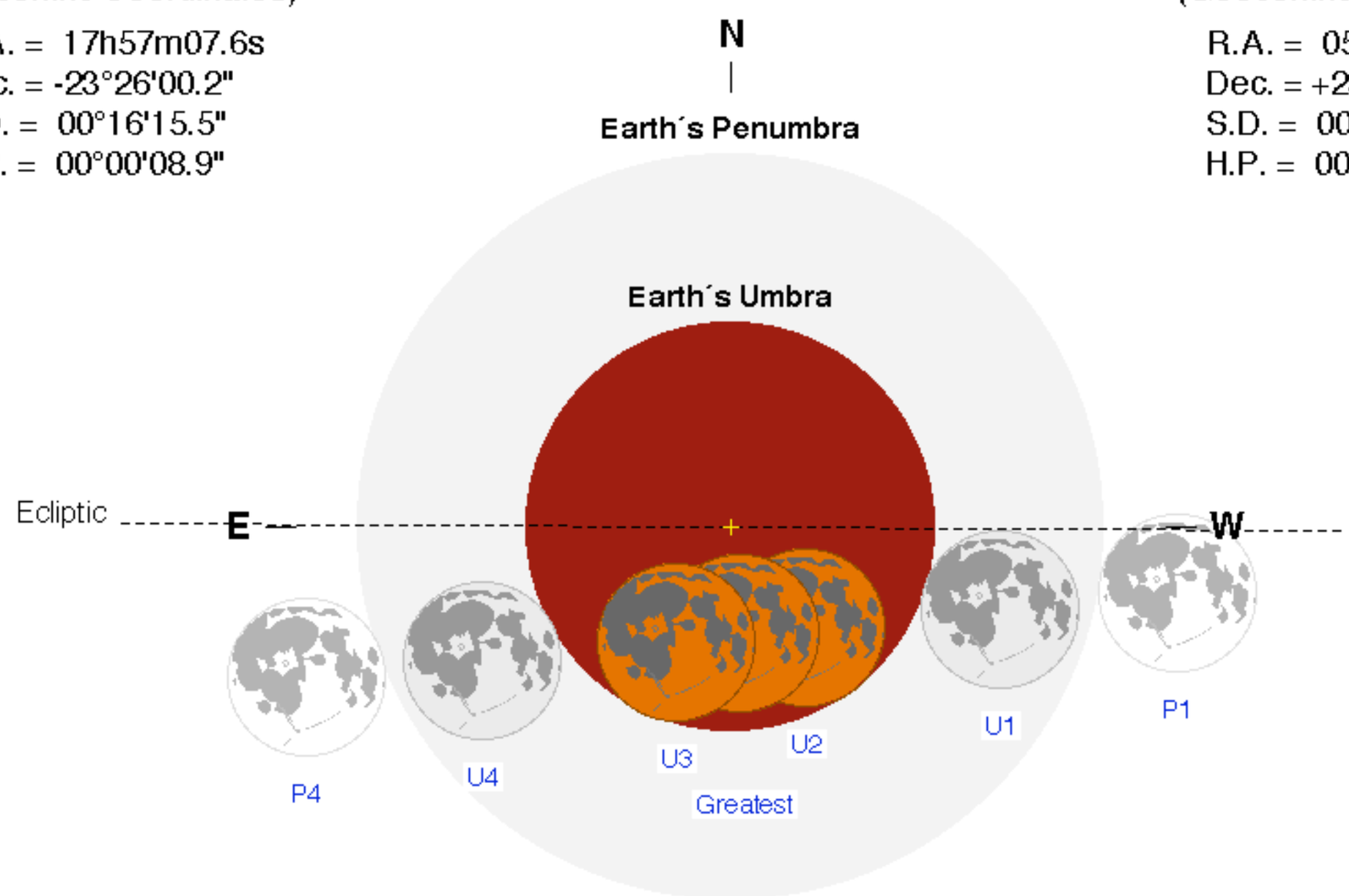
Saros Series = 135 Member = 24 of 71

Sun at Greatest Eclipse
(Geocentric Coordinates)

R.A. = 17h57m07.6s
Dec. = -23°26'00.2"
S.D. = 00°16'15.5"
H.P. = 00°00'08.9"

Moon at Greatest Eclipse
(Geocentric Coordinates)

R.A. = 05h56m59.0s
Dec. = +23°05'06.7"
S.D. = 00°15'00.4"
H.P. = 00°55'04.6"



Eclipse Durations

Penumbral = 05h57m58s
Umbral = 03h33m17s
Total = 00h53m40s

ΔT = 78 s
Rule = CdT (Danjon)
Eph. = VSOP87/ELP2000-85

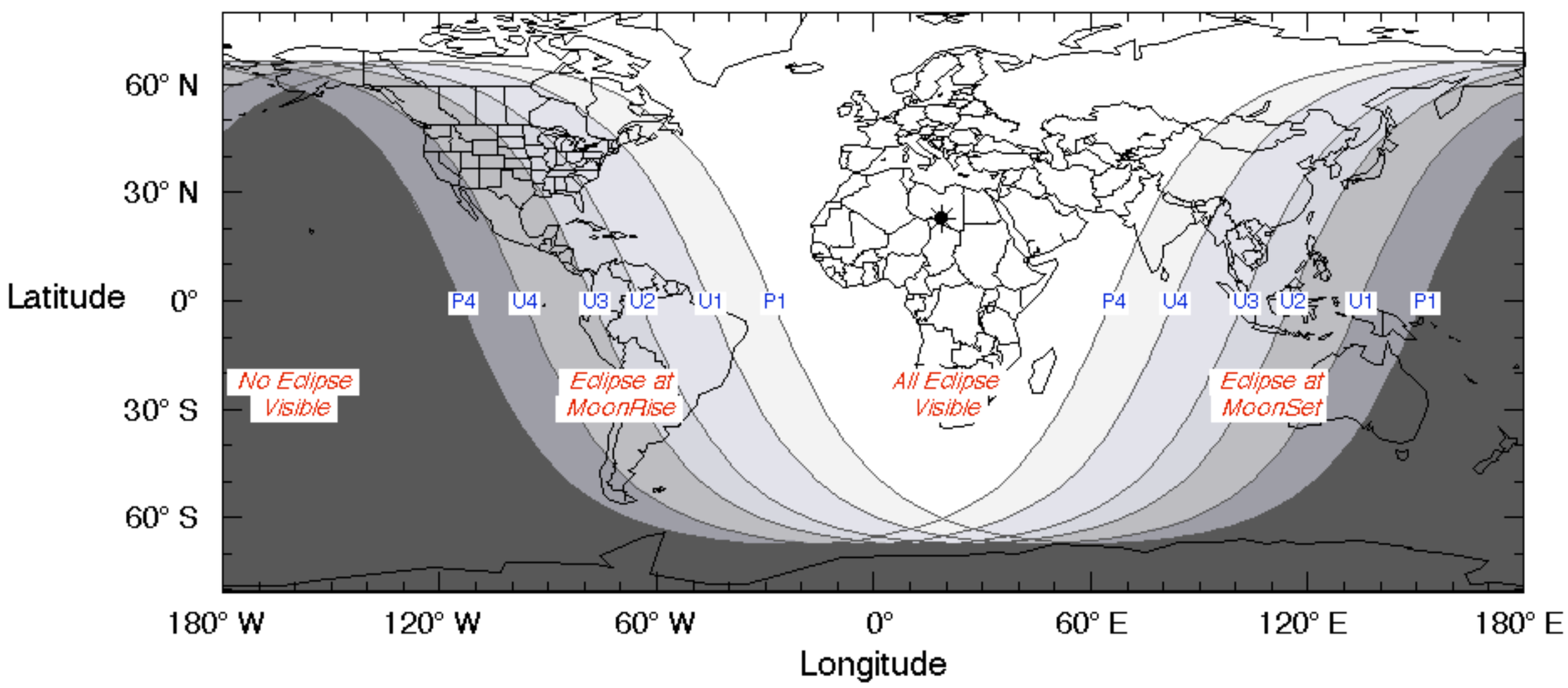
S

0 15 30 45 60
Arc-Minutes

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

Eclipse Contacts

P1 = 19:42:53 UT
U1 = 20:55:17 UT
U2 = 22:15:05 UT
U3 = 23:08:45 UT
U4 = 00:28:34 UT
P4 = 01:40:51 UT



2009 Apr 29