

Partial Lunar Eclipse of 2059 Nov 19

Ecliptic Conjunction = 13:10:59.4 TD (= 13:09:06.2 UT)

Greatest Eclipse = 13:01:36.0 TD (= 12:59:42.7 UT)

Penumbral Magnitude = 1.2037

P. Radius = 1.2761°

Gamma = 0.9004

Umbral Magnitude = 0.2079

U. Radius = 0.7367°

Axis = 0.8949°

Saros Series = 146

Member = 13 of 72

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 15h39m38.2s

Dec. = -19°31'36.6"

S.D. = 00°16'10.9"

H.P. = 00°00'08.9"

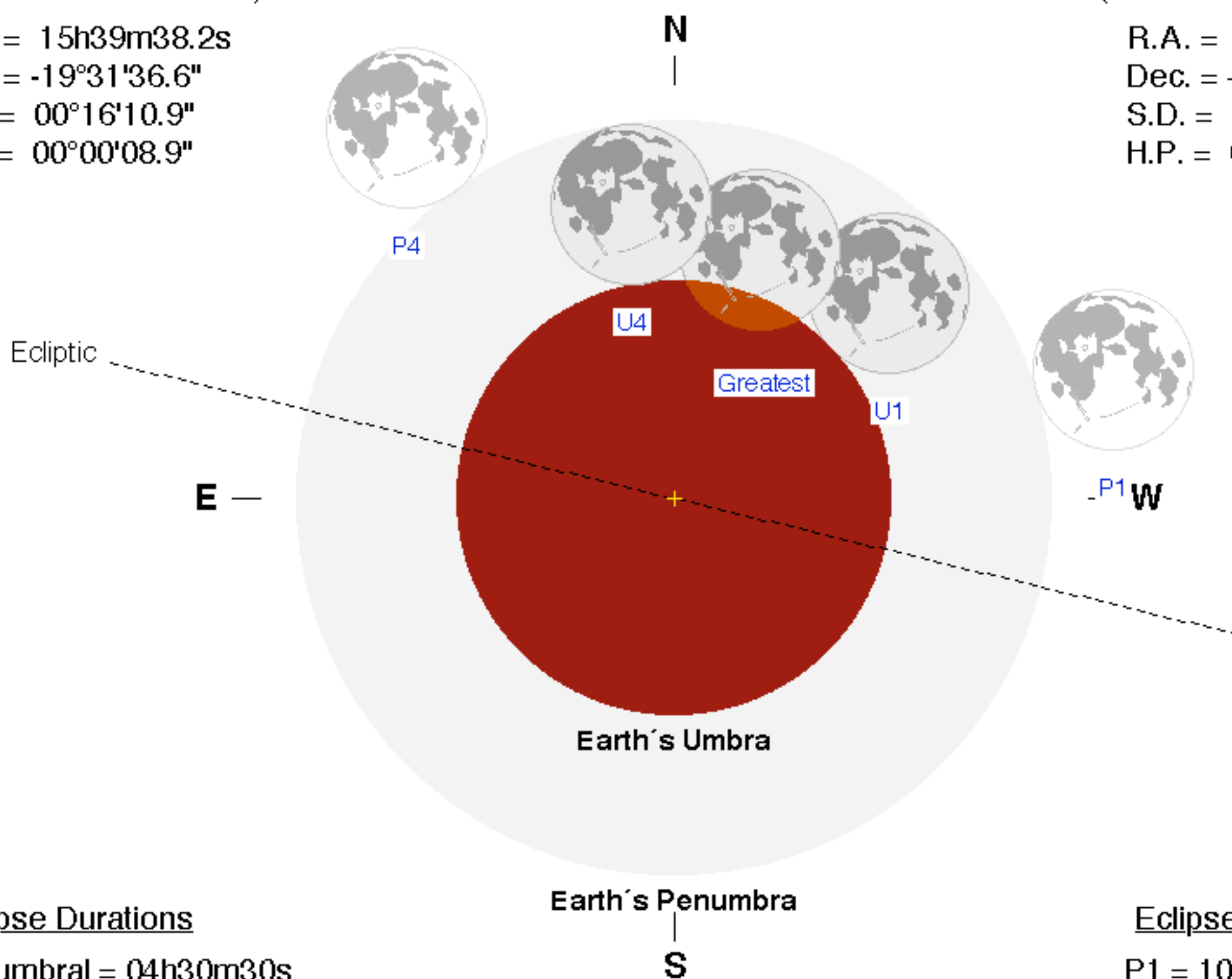
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 03h38m24.4s

Dec. = +20°22'25.3"

S.D. = 00°16'15.0"

H.P. = 00°59'38.3"



Eclipse Durations

Penumbral = 04h30m30s

Umbral = 01h39m15s

Eclipse Contacts

P1 = 10:44:28 UT

U1 = 12:10:01 UT

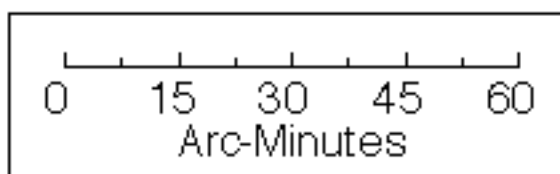
U4 = 13:49:16 UT

P4 = 15:14:57 UT

$\Delta T = 113$ s

Rule = CdT (Danjon)

Eph. = VSOP87/ELP2000-85



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

