

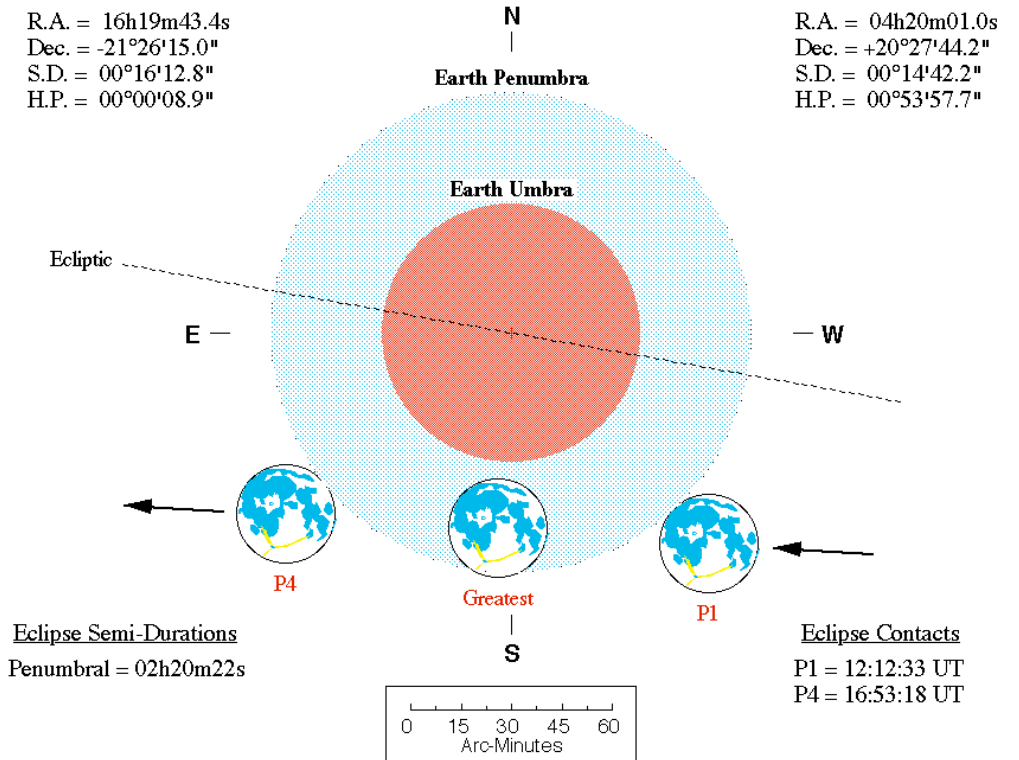
Penumbral Lunar Eclipse of 2012 Nov 28

Geocentric Conjunction = 14:23:48.2 UT J.D. = 2456260.09986
 Greatest Eclipse = 14:32:56.0 UT J.D. = 2456260.10620
 Penumbral Magnitude = 0.9416 P. Radius = 1.1940° Gamma = -1.0871
 Umbral Magnitude = -0.1832 U. Radius = 0.6427° Axis = 0.9775°

Saros Series = 145 Member = 11 of 71

Sun at Greatest Eclipse
 (Geocentric Coordinates)
 R.A. = 16h19m43.4s
 Dec. = -21°26'15.0"
 S.D. = 00°16'12.8"
 H.P. = 00°00'08.9"

Moon at Greatest Eclipse
 (Geocentric Coordinates)
 R.A. = 04h20m01.0s
 Dec. = +20°27'44.2"
 S.D. = 00°14'42.2"
 H.P. = 00°53'57.7"



Eclipse Semi-Durations
 Penumbral = 02h20m22s

Eclipse Contacts
 P1 = 12:12:33 UT
 P4 = 16:53:18 UT

Eph. = Newcomb/ILE
 ΔT = 69.5 s

F. Espenak, NASA's GSFC - 2004 Jul 07

<http://sunearth.gsfc.nasa.gov/eclipse/eclipse.html>

