

# Total Lunar Eclipse of 1978 Mar 24

Ecliptic Conjunction = 16:20:47.8 TD (= 16:19:59.0 UT)

Greatest Eclipse = 16:23:10.5 TD (= 16:22:21.7 UT)

Penumbral Magnitude = 2.4790

P. Radius = 1.2345°

Gamma = -0.2140

Umbral Magnitude = 1.4518

U. Radius = 0.6998°

Axis = 0.2044°

Saros Series = 122

Member = 54 of 75

## Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 00h13m28.3s

Dec. = +01°27'32.7"

S.D. = 00°16'02.4"

H.P. = 00°00'08.8"

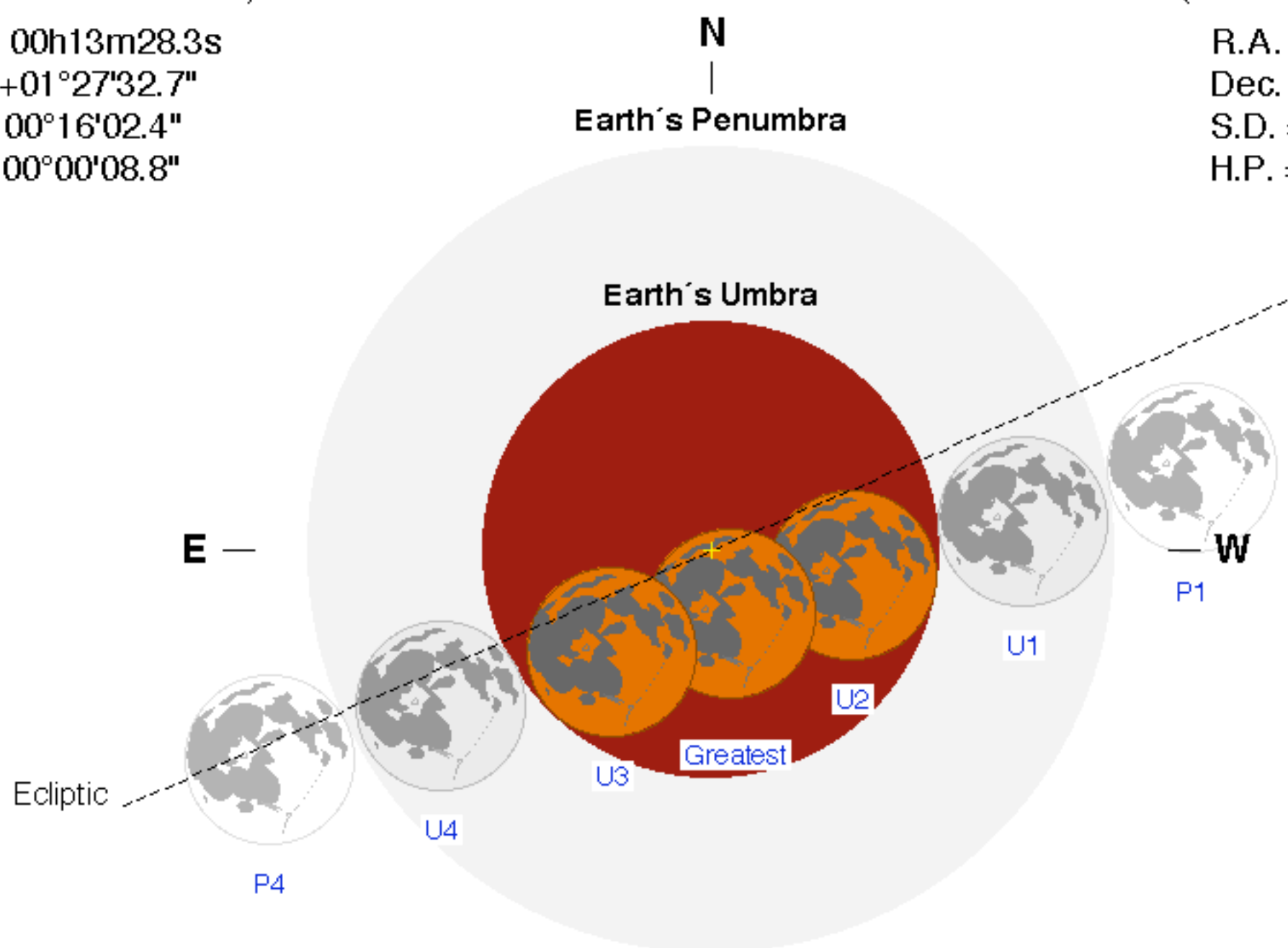
## Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 12h13m13.4s

Dec. = -01°39'13.7"

S.D. = 00°15'36.9"

H.P. = 00°57'18.4"



## Eclipse Durations

Penumbral = 05h44m56s

Umbral = 03h38m33s

Total = 01h30m40s

$\Delta T = 49$  s

Rule = CdT (Danjon)

Eph. = VSOP87/ELP2000-85

## Eclipse Contacts

P1 = 13:29:51 UT

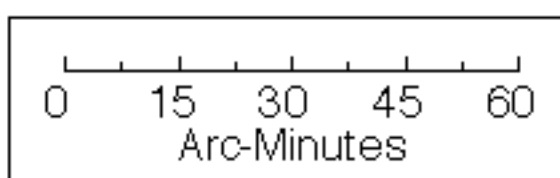
U1 = 14:33:07 UT

U2 = 15:37:03 UT

U3 = 17:07:43 UT

U4 = 18:11:40 UT

P4 = 19:14:47 UT



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

