

# Total Lunar Eclipse of 1989 Aug 17

Ecliptic Conjunction = 03:07:33.1 TD (= 03:06:36.5 UT)

Greatest Eclipse = 03:09:07.2 TD (= 03:08:10.6 UT)

Penumbral Magnitude = 2.5703

P. Radius = 1.2699°

Gamma = -0.1490

Umbral Magnitude = 1.5984

U. Radius = 0.7433°

Axis = 0.1482°

Saros Series = 128

Member = 39 of 71

## Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 09h46m01.9s

Dec. = +13°27'24.4"

S.D. = 00°15'47.9"

H.P. = 00°00'08.7"

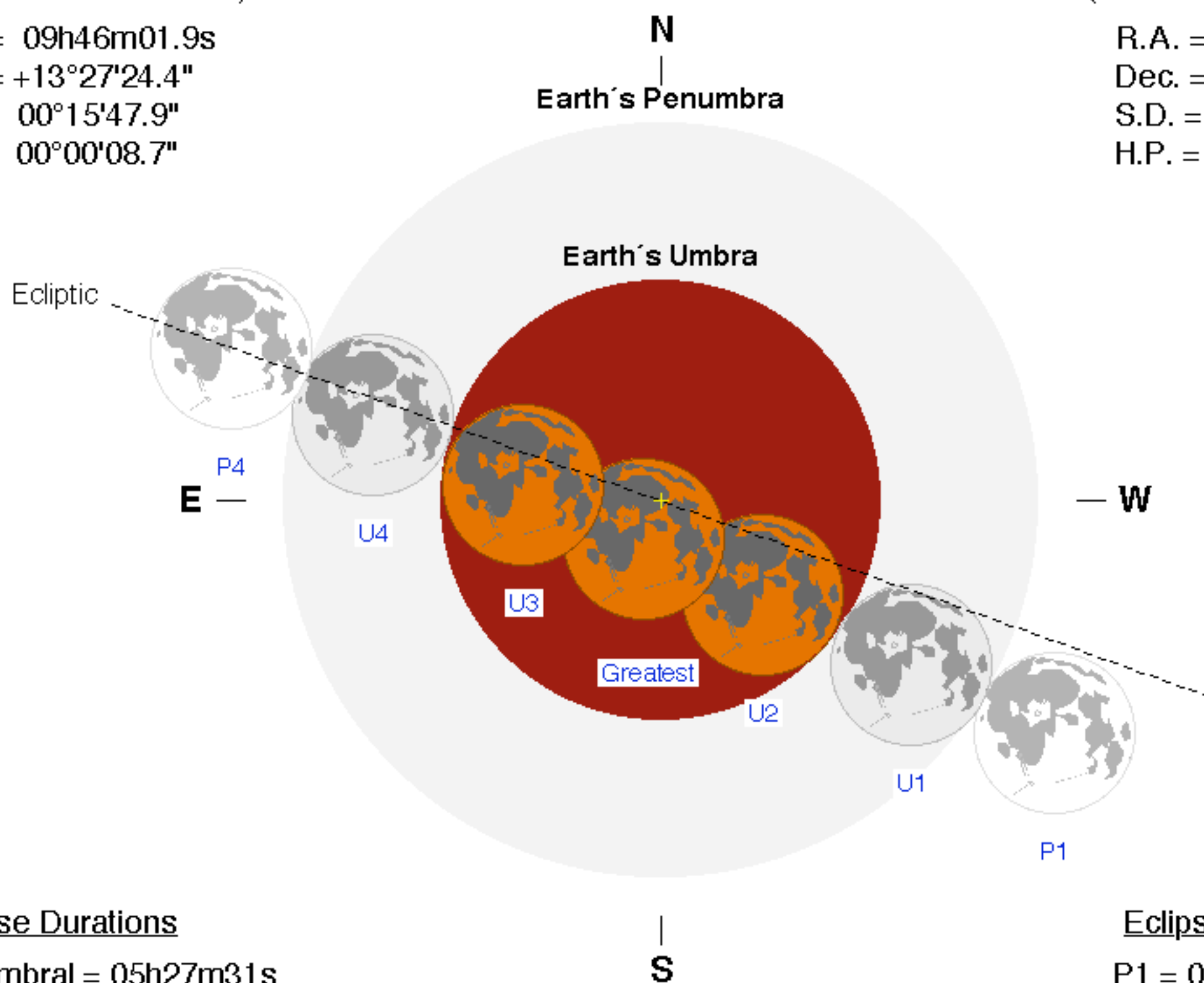
## Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 21h46m17.4s

Dec. = -13°35'27.7"

S.D. = 00°16'15.3"

H.P. = 00°59'39.3"



## Eclipse Durations

Penumbral = 05h27m31s

Umbral = 03h34m17s

Total = 01h35m48s

$\Delta T = 57$  s

Rule = CdT (Danjon)

Eph. = VSOP87/ELP2000-85

## Eclipse Contacts

P1 = 00:24:22 UT

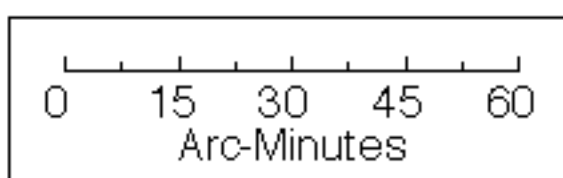
U1 = 01:21:03 UT

U2 = 02:20:17 UT

U3 = 03:56:05 UT

U4 = 04:55:20 UT

P4 = 05:51:54 UT



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

