

FIGURE 2.15: LUNAR LIMB PROFILE FOR JANUARY 15 AT 07:00 UT

Annular Solar Eclipse of 2010 Jan 15

Maximum Eclipse = 07:00:00.0 UT

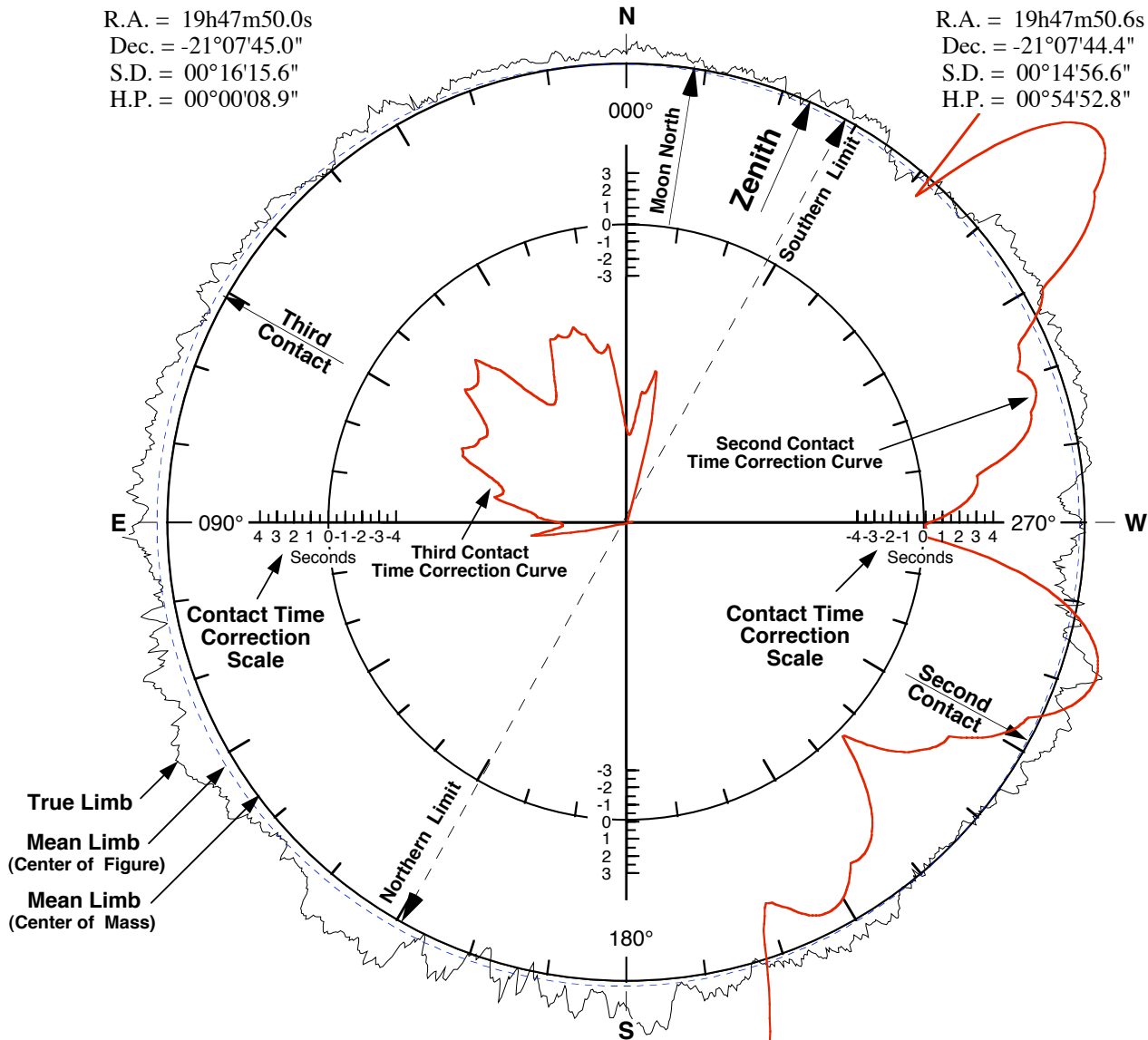
Moon/Sun Diameter Ratio = 0.9190

Sun at Maximum Eclipse
(Topocentric Coordinates)

R.A. = 19h47m50.0s
Dec. = -21°07'45.0"
S.D. = 00°16'15.6"
H.P. = 00°00'08.9"

Moon at Maximum Eclipse
(Topocentric Coordinates)

R.A. = 19h47m50.6s
Dec. = -21°07'44.4"
S.D. = 00°14'56.6"
H.P. = 00°54'52.8"



Geographic Position

Name = Central Line at 07:00 UT
Lat. = 00°49'54.3"N
Long. = 067°52'06.9"E
Elev. = 0.0 m

Ephemeris & Constants

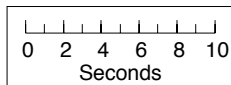
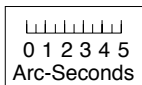
Eph. = DE200/LE200
 $\Delta T = 66.0$ s
 $k1 = 0.2725076$
 $k2 = 0.2722810$
 $\Delta b = 0.00''$ $\Delta l = 0.00''$

Calculated Center of Figure

$\Delta b' = -0.24''$ $\Delta l' = 0.46''$

Local Circumstances at Maximum Eclipse

Sun Alt. = 66.2° Path Width = 335.4 km
Sun Azm. = 157.7° Duration = 11m10.0s
PA(N.Limit) = 151.1° A.Vel. (M:S) = 0.236"/s



Eclipse Contacts

C1 = 04:53:13.0 UT
C2 = 06:54:24.7 UT
C3 = 07:05:34.7 UT
C4 = 09:05:25.5 UT

Limb Corrected Contacts

C2* = 06:54:32.6 UT (7.9s)
C3* = 07:05:27.2 UT (-7.5s)

Topocentric Libration
(Optical + Physical)

$l = 1.58^\circ$
 $b = -0.12''$
 $c = -8.84''$