

**FIGURE 3.7: LUNAR LIMB PROFILE FOR JULY 11 AT 19:30 UT**

**Total Solar Eclipse of 2010 Jul 11**

Maximum Eclipse = 19:30:00.0 UT

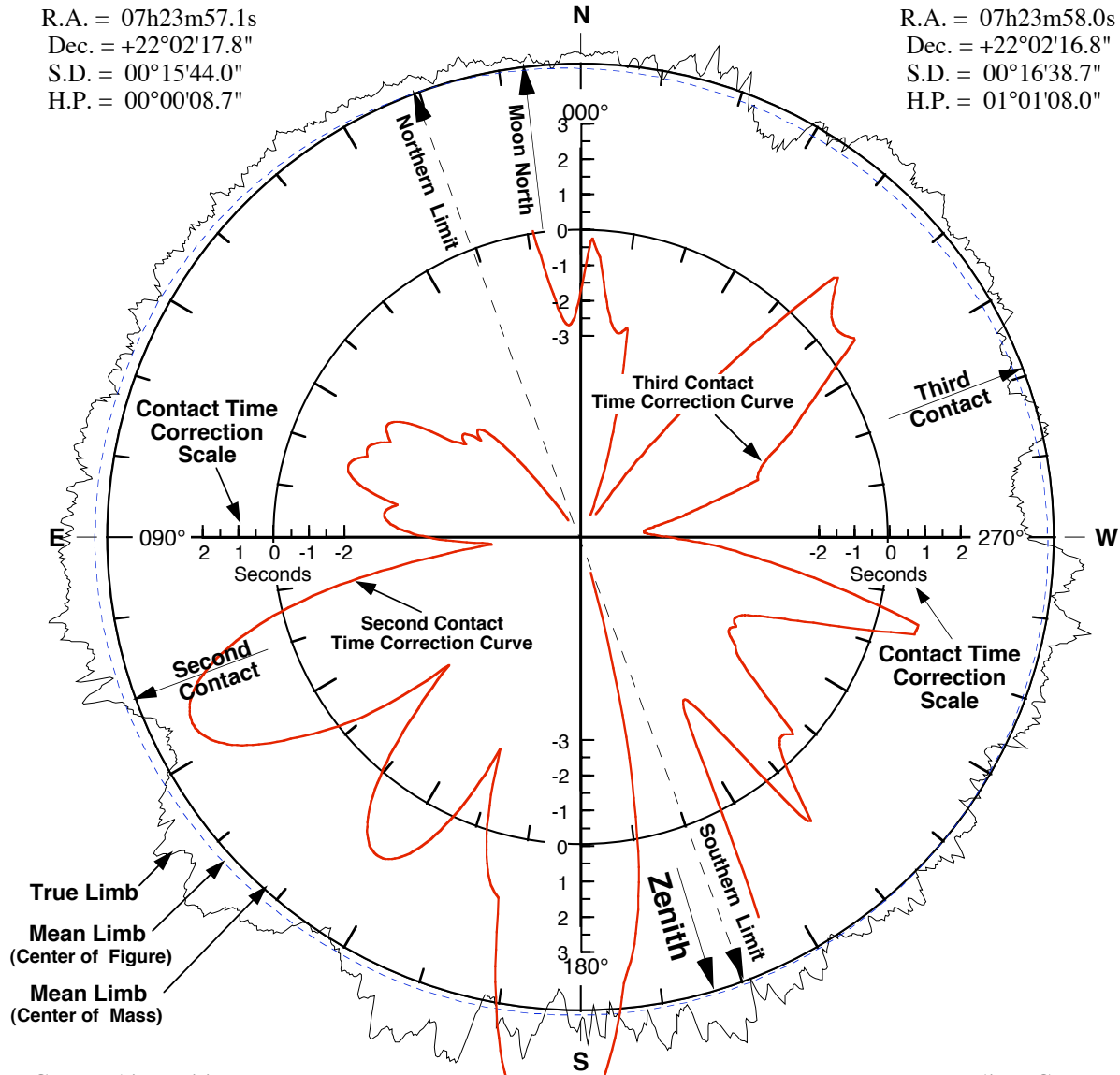
Moon/Sun Diameter Ratio = 1.0580

Sun at Maximum Eclipse  
(Topocentric Coordinates)

R.A. = 07h23m57.1s  
Dec. = +22°02'17.8"  
S.D. = 00°15'44.0"  
H.P. = 00°00'08.7"

Moon at Maximum Eclipse  
(Topocentric Coordinates)

R.A. = 07h23m58.0s  
Dec. = +22°02'16.8"  
S.D. = 00°16'38.7"  
H.P. = 01°01'08.0"



Geographic Position

Name = Central Line at 19:30 UT  
Lat. = 19°18'36.1"S  
Long. = 122°59'21.3"W  
Elev. = 0.0 m

Ephemeris & Constants

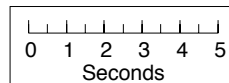
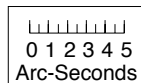
Eph. = DE200/LE200  
 $\Delta T = 66.2$  s  
 $k1 = 0.2725076$   
 $k2 = 0.2722810$   
 $\Delta b = 0.00''$   $\Delta l = 0.00''$

Calculated Center of Figure

$\Delta b' = -0.19''$   $\Delta l' = 0.52''$

Local Circumstances at Maximum Eclipse

Sun Alt. = 47.1° Path Width = 260.0 km  
Sun Azm. = 16.3° Duration = 05m20.2s  
PA(N.Limit) = 20.4° A.Vel. (M:S) = 0.342"/s



NASA 2010 Eclipse Bulletin, Espenak & Anderson

Eclipse Contacts

C1 = 17:57:56.4 UT  
C2 = 19:27:20.1 UT  
C3 = 19:32:40.3 UT  
C4 = 21:03:36.0 UT

Limb Corrected Contacts

C2\* = 19:27:22.9 UT ( 2.8s)  
C3\* = 19:32:37.0 UT (-3.3s)

Topocentric Libration  
(Optical + Physical)

$l = -3.13^\circ$   
 $b = 0.18''$   
 $c = 6.68''$