

**Supplementary Figure**

**FIGURE 20C - LUNAR LIMB PROFILE FOR JULY 22 AT 02:00 UT**

**Total Solar Eclipse of 2009 Jul 22**

Maximum Eclipse = 02:00:00.0 UT

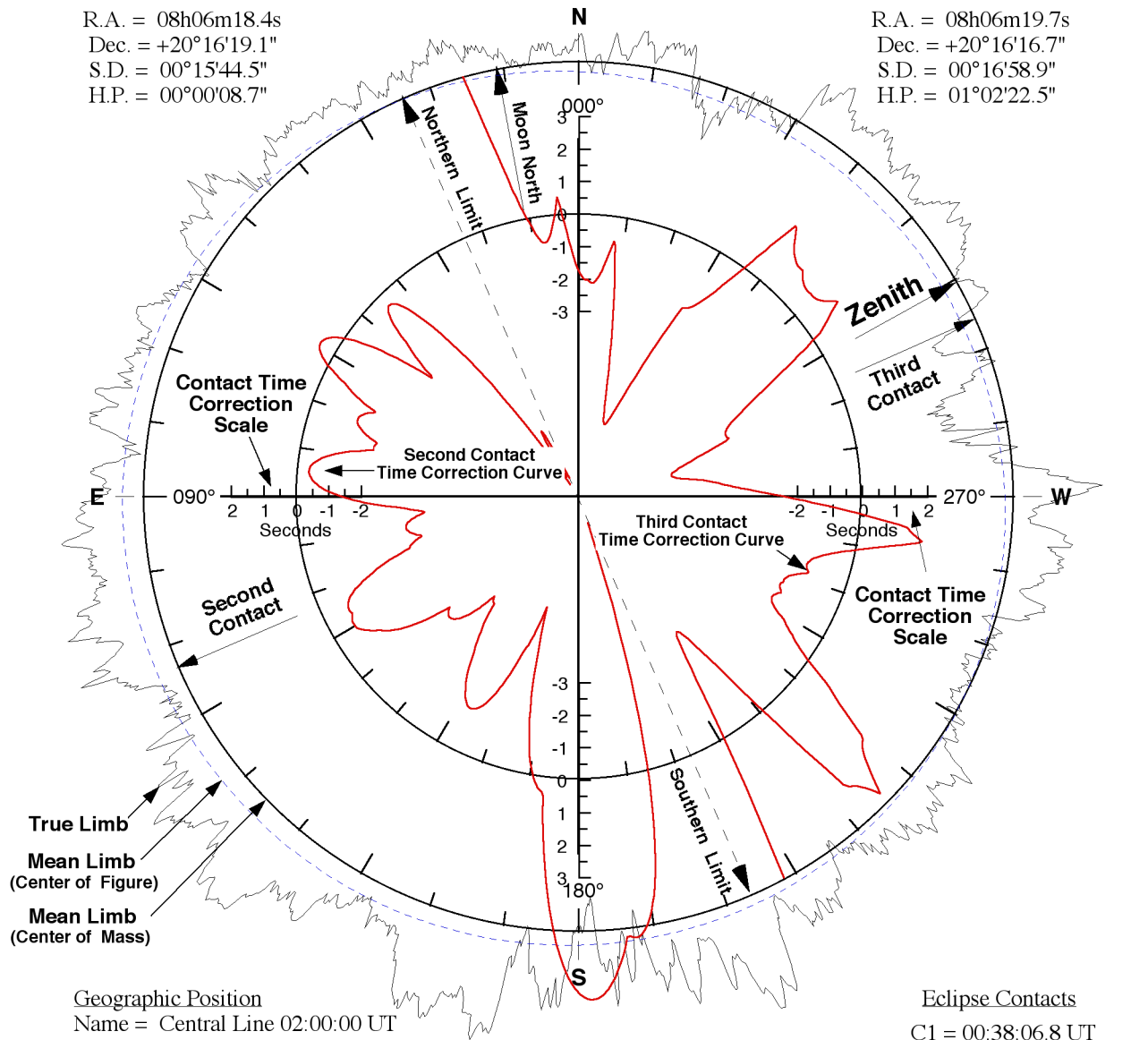
Magnitude = 1.0788      Ratio = 1.0788

Sun at Maximum Eclipse  
(Topocentric Coordinates)

R.A. = 08h06m18.4s  
Dec. = +20°16'19.1"  
S.D. = 00°15'44.5"  
H.P. = 00°00'08.7"

Moon at Maximum Eclipse  
(Topocentric Coordinates)

R.A. = 08h06m19.7s  
Dec. = +20°16'16.7"  
S.D. = 00°16'58.9"  
H.P. = 01°02'22.5"



**Geographic Position**

Name = Central Line 02:00:00 UT  
Lat. = 29°09'41.4"N  
Long. = 131°05'56.6"E  
Elev. = 0.0 m

**Ephemeris & Constants**

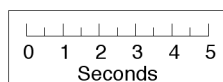
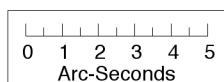
Eph. = DE200/LE200  
 $\Delta T = 65.9$  s  
k1 = 0.2725076  
k2 = 0.2722810  
 $\Delta b = 0.00''$      $\Delta l = 0.00''$

**Calculated Center of Figure**

$\Delta b' = -0.25''$      $\Delta l' = 0.47''$

**Local Circumstances at Maximum Eclipse**

Sun Alt. = 69.4°      Path Width = 254.6 km  
Sun Azm. = 110.9°      Duration = 06m24.3s  
PA(N.Limit) = 23.6°    A.Vel. (M:S) = 0.387"/s



F. Espenak, NASA/GSFC - 2007 Dec 18

**Eclipse Contacts**

C1 = 00:38:06.8 UT  
C2 = 01:56:48.2 UT  
C3 = 02:03:12.5 UT  
C4 = 03:25:09.2 UT

**Limb Corrected Contacts**

C2\* = 01:56:47.1 UT (-1.0s)  
C3\* = 02:03:08.7 UT (-3.8s)

**Topocentric Libration  
(Optical + Physical)**

l = 0.96°  
b = -0.02°  
c = 10.51°