

Total Solar Eclipse of 1871 Dec 12

Ecliptic Conjunction = 04:01:45.3 TD (= 04:01:46.3 UT)

Greatest Eclipse = 04:03:38.1 TD (= 04:03:39.0 UT)

Eclipse Magnitude = 1.0465 Gamma = 0.1836

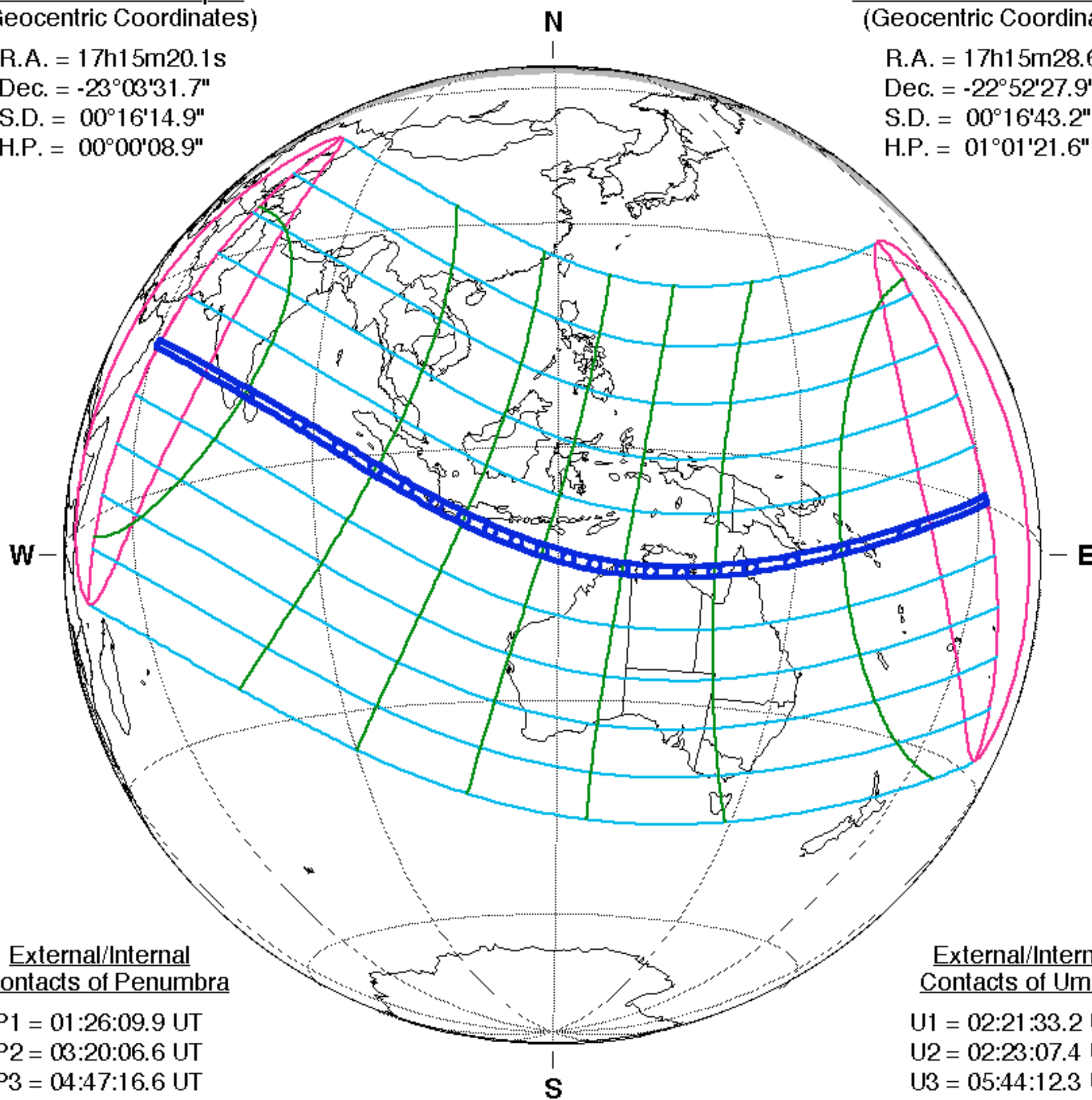
Saros Series = 130 Member = 44 of 73

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 17h15m20.1s
Dec. = -23°03'31.7"
S.D. = 00°16'14.9"
H.P. = 00°00'08.9"

Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 17h15m28.6s
Dec. = -22°52'27.9"
S.D. = 00°16'43.2"
H.P. = 01°01'21.6"



External/Internal Contacts of Penumbra

P1 = 01:26:09.9 UT
P2 = 03:20:06.6 UT
P3 = 04:47:16.6 UT
P4 = 06:41:08.4 UT

External/Internal Contacts of Umbra

U1 = 02:21:33.2 UT
U2 = 02:23:07.4 UT
U3 = 05:44:12.3 UT
U4 = 05:45:47.6 UT

Constants & Ephemeris

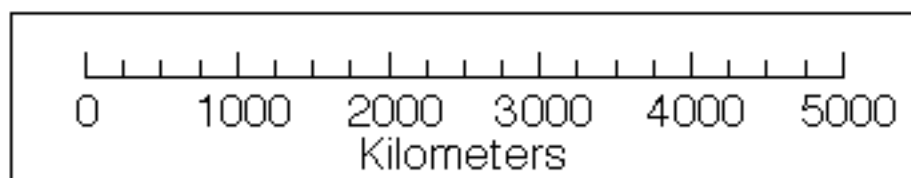
$\Delta T = -1.0$ s
 $k_1 = 0.2724880$
 $k_2 = 0.2722810$
 $\Delta b = 0.0''$ $\Delta l = 0.0''$
Eph. = VSOP87/ELP2000-82

Local Circumstances at Greatest Eclipse

Lat. = 12°42.9'S Sun Alt. = 79.5°
Long. = 119°23.6'E Sun Azm. = 189.6°
Path Width = 157.5 km Duration = 04m22.6s

Geocentric Libration (Optical + Physical)

$l = -0.95^\circ$
 $b = -0.22^\circ$
 $c = 2.89^\circ$



Brown Lun. No. = -631

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eclipse.gsfc.nasa.gov/eclipse.html