

ECLIPSES FOR YEAR 1887.

IN the year 1887 there will be two Eclipses of the SUN and two of the MOON.

I.—A Partial Eclipse of the MOON, February 7-8, 1887, invisible at Greenwich.

The first contact with the Shadow occurs at 52° from the Northernmost point of the Moon's limb towards the East.

The last contact at 27° towards the West; in each case, for direct image.

II.—An Annular Eclipse of the SUN, February 22, 1887, invisible at Greenwich.

Begins on the Earth generally, February 22, 6h, 40m, 8, Mean Time at Greenwich, in Longitude $165^{\circ} 25'$ E. of Greenwich, and Latitude $37^{\circ} 39'$ S.

Central Eclipse begins generally, February 22, 7h, 58m, 7, in Longitude $146^{\circ} 47'$ E. of Greenwich, and Latitude $51^{\circ} 50'$ S.

Central Eclipse at Noon, February 22, 9h, 13m, 1, in Longitude $134^{\circ} 52'$ W. of Greenwich, and Latitude $49^{\circ} 10'$ S.

Central Eclipse ends generally, February 22, 11h, 7m, 4, in Longitude $69^{\circ} 27'$ W. of Greenwich, and Latitude $21^{\circ} 31'$ S.

Ends on the Earth generally, February 22, 12h, 25m, 4, in Longitude $91^{\circ} 41'$ W. of Greenwich, and Latitude $7^{\circ} 1'$ S.

III.—A Partial Eclipse of the MOON, August 3, 1887, visible at Greenwich.

The first contact with the Shadow occurs at 130° from the Northernmost point of the Moon's limb towards the East.

The last contact at 151° towards the West; in each case, for direct image.

At Greenwich the Moon will rise at 7h, 35m.

IV.—A Total Eclipse of the SUN, August 18, 1887, partly visible as a Partial Eclipse at Greenwich.

Begins on the Earth generally, August 18, 15h, 5m, 5, Mean Time at Greenwich, in Longitude $34^{\circ} 36'$ E. of Greenwich, and Latitude $37^{\circ} 27'$ N.

Central Eclipse begins generally, August 18, 16h, 11m, 1, in Longitude $11^{\circ} 25'$ E. of Greenwich, and Latitude $51^{\circ} 38'$ N.

Central Eclipse at Noon, August 18, 17h, 15m, 5, in Longitude $102^{\circ} 0'$ E. of Greenwich, and Latitude $53^{\circ} 47'$ N.

Central Eclipse ends generally, August 18, 18h, 53m, 2, in Longitude $173^{\circ} 32'$ E. of Greenwich, and Latitude $24^{\circ} 34'$ N.

Ends on the Earth generally, August 18, 19h, 58m, 9, in Longitude $153^{\circ} 26'$ E. of Greenwich, and Latitude $9^{\circ} 57'$ N.