



The Total Eclipse of the Moon, 1895, September 3

Author(s): C. D. Perrine

Source: *Publications of the Astronomical Society of the Pacific*, Vol. 7, No. 44 (October 1, 1895), pp. 289-291

Published by: Astronomical Society of the Pacific

Stable URL: <https://www.jstor.org/stable/40670842>

Accessed: 08-09-2018 14:11 UTC

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <https://about.jstor.org/terms>



JSTOR

Astronomical Society of the Pacific is collaborating with JSTOR to digitize, preserve and extend access to *Publications of the Astronomical Society of the Pacific*

edge of the Moon, at 9^h 57^m 58^s.3 P. S. T. The star was BD. -8°, 5996 (8.7 mag.).

During the middle of totality the disc of the Moon was nearly covered by a dark patch of shadow, extending from the N. E. to the S. W. edges; leaving narrow crescents of much brighter illumination at the S. E. and N.W. edges. R. H. TUCKER.

THE TOTAL ECLIPSE OF THE MOON, 1895, SEPTEMBER 3.

The following observations were made with the 12-inch equatorial, using a power of about 85.

The aperture was reduced to eight inches until totality began, after which the full aperture was used. The finder was used principally in observing the transit of the shadow across the disc.

There was a layer of smoke and haze near the horizon, but it did not extend very high. The top of this layer was not above our altitude, so that the sky overhead was clear, and the air very transparent.

The centre of the Earth's shadow was a very deep, but clear, pure copper color. This color became several shades lighter towards the outer edge of the shadow, where it mixed with the yellow, becoming a strong orange, and slightly green at the edge.

This eclipse was a darker one than that of March this year, although the Moon remained plainly visible all through the total phase, the main features being discernible with the naked eye, and distinct in the telescope. The Milky Way showed quite conspicuously during totality.

7 ⁿ 30 ^m	P. S. T.	Seeing poor; Moon low; some obscuration on S. E. limb.
7 ⁿ 50 ^m		The eastern limb has grown darker.
7 ⁿ 58 ^m 00 ^s		First contact with shadow.
8 ⁿ 00 ^m 00 ^s		A notch on the E. limb to the naked eye. First contact with shadow certainly past.
8 ⁿ 04 ^m 15 ^s		Shadow touches W. wall of <i>Grimaldi</i> .
8 ⁿ 06 ^m 25 ^s		Shadow reaches <i>Aristarchus</i> .
8 ⁿ 11 ^m 55 ^s		Shadow reaches <i>Kepler</i> . No color visible in shadow.
8 ⁿ 13 ^m 00 ^s		Shadow reaches E. edge of <i>Sinus Iridum</i> .

8 ^h 15 ^m	Tinge of copper on E. limb.
8 ^h 17 ^m 50 ^s	Shadow reaches <i>Laplace Promontory</i> .
8 ^h 18 ^m 46 ^s	Shadow reaches <i>Pytheas</i> .
8 ^h 18 ^m 58 ^s	Shadow reaches W. wall of <i>Gassendi</i> .
8 ^h 20 ^m 45 ^s	Shadow reaches W. wall of <i>Copernicus</i> and a small unnamed, but bright crater in south latitude 18° 8 and west longitude 36° 3.
8 ^h 24 ^m 00 ^s	Shadow reaches E. wall of <i>Plato</i> .
8 ^h 24 ^m 28 ^s	Shadow reaches <i>Pico</i> .
8 ^h 24 ^m 58 ^s	Shadow reaches W. wall of <i>Plato</i> .
8 ^h 26 ^m 10 ^s	Shadow reaches E. wall of <i>Archimedes</i> .
8 ^h 30 ^m 10 ^s	Shadow reaches <i>Flammarion</i> .
8 ^h 33 ^m 50 ^s	Shadow reaches E. wall of <i>Eudoxus</i> .
8 ^h 34 ^m 34 ^s	Shadow reaches E. wall of <i>Eratosthenes</i> .
8 ^h 38 ^m 00 ^s	Shadow reaches E. wall of <i>Tycho</i> and <i>Menelaus</i> .
8 ^h 41 ^m 05 ^s	Shadow reaches <i>Dionysius</i> .
8 ^h 43 ^m 35 ^s	Shadow reaches E. wall of <i>Endymion</i> .
8 ^h 44 ^m 38 ^s	Shadow reaches W. wall of <i>Endymion</i> .
8 ^h 49 ^m 50 ^s	Shadow reaches <i>Censorinus</i> .
8 ^h 52 ^m 15 ^s	Shadow reaches <i>Proclus</i> .
8 ^h 56 ^m 00 ^s	Shadow reaches <i>Eimmart</i> .
8 ^h 58 ^m 10 ^s	Shadow reaches <i>Cape Agarum</i> .
9 ^h 07 ^m 55 ^s	Totality begins.
10 ^h 48 ^m 00 ^s	Totality ends.
11 ^h 30 ^m 10 ^s	<i>Menelaus</i> reappears.
11 ^h 34 ^m 35 ^s	<i>Plinius</i> reappears.
11 ^h 35 ^m 26 ^s	W. wall of <i>Endymion</i> reappears.
11 ^h 39 ^m 20 ^s	<i>Censorinus</i> reappears.
11 ^h 45 ^m 05 ^s	<i>Proclus</i> reappears.
11 ^h 48 ^m 30 ^s	<i>Eimmart</i> reappears.
11 ^h 50 ^m 50 ^s	<i>Cape Agarum</i> reappears.
11 ^h 54 ^m 10 ^s	Shadow goes off.

The following occultations were observed, using a power of about 85:

S. D. -8° 5994.	Disappearance,	$9^{\text{h}} 39^{\text{m}} 16^{\text{s}}.0$	P. S. T.
$11 \pm$ mag. star.	“	$9^{\text{h}} 56^{\text{m}} 03^{\text{s}}.0$	
$11 \pm$ mag. star.	“	$9^{\text{h}} 57^{\text{m}} 08^{\text{s}}.0$	
S. D. -8° 5996.	“	$9^{\text{h}} 58^{\text{m}} 05^{\text{s}}.5$	
A star of $11 \pm$ mag.	“	$10^{\text{h}} 04^{\text{m}} 23^{\text{s}}.7$	
S. D. -7° 5900.	“	$10^{\text{h}} 09^{\text{m}} 37^{\text{s}}.9$	
12 to 13 mag. star.	“	$10^{\text{h}} 18^{\text{m}} 34^{\text{s}} \pm 1^{\text{s}}$	
S. D. -7° 5907.	“	$10^{\text{h}} 50^{\text{m}} 21^{\text{s}} \pm 1^{\text{s}}$	

Soon after totality commenced, I turned the telescope to the place of SWIFT's comet, but, as it was near the horizon, failed to see it. Just before totality ended, I again turned to the comet's place, and this time found it without difficulty. There was not sufficient time to adjust the micrometer and make an observation.

Its light was about the same as during the latter part of August, but its centre seemed a little more condensed.

C. D. PERRINE.

LICK OBSERVATORY,
September 25, 1895.

TOTAL ECLIPSE OF THE MOON, SEPTEMBER 3, 1895.

The total eclipse of the Moon was observed with a three-inch telescope with alt-azimuth mounting, and the times of contact were noted by a mean time chronometer. The first contact was not observed, and the last contact was observed with the naked eye.

The occultation of several stars was noted, but only one star was bright enough to be well observed.

Fifteen minutes after totality began, all the more prominent features of the Moon's surface could be distinguished easily in the telescope, and even in the middle of the eclipse *Tycho* and a few other craters could be seen clearly. To the naked eye, the contrast between the light and dark areas was well marked throughout the eclipse, the color varying from orange-red to a deep copper-red.

The following edge of the shadow was heavier and more sharply defined than the preceding.

The star occulted was estimated at 9.5 magnitude, in position angle 95° with reference to the Moon's centre. The star was