

**Table 5: Partial Lunar Eclipse of 2019 Jul 16  
Crater Immersion and Emersion Times**

UT of Immersion	Crater Name		UT of Emersion	Crater Name
20:12	Aristarchus		21:19	Billy
20:17	Plato		21:30	Grimaldi
20:24	Pytheas		21:56	Kepler
20:24	Timocharis		22:04	Aristarchus
20:26	Kepler		22:07	Copernicus
20:26	Aristoteles		22:15	Pytheas
20:29	Eudoxus		22:22	Timocharis
20:32	Copernicus		22:24	Dionysius
20:33	Grimaldi		22:25	Goclenius
20:42	Manilius		22:28	Manilius
20:44	Menelaus		22:32	Langrenus
20:48	Plinius		22:33	Menelaus
20:56	Dionysius		22:34	Plato
20:57	Billy		22:36	Plinius
20:57	Proclus		22:41	Taruntius
21:05	Taruntius		22:42	Eudoxus
21:21	Goclenius		22:43	Aristoteles
21:24	Langrenus		22:48	Proclus

Predictions include a ~1% enlargement of the umbral shadow due to Earth's atmosph

**"Eclipses During 2019", Fred Espenak,  
*Observer's Handbook 2019*, Royal Astronomical Society of Canada**