

Eclipse Measurement Data Sheet

1. Use the Interactive Eclipse Map at <https://go.nasa.gov/2vB21K8> to fill in the missing information in the table below. Then calculate the angle needed for your light sensor to be perpendicular to the Sun's rays. Remember, zero degrees is the horizon and 90 degrees is straight up.

| | | | |
|--|-----------------|--------------------|--------------------|
| Location: _____ | latitude: _____ | longitude: _____ | |
| Percent of sun eclipsed by the moon: _____ | | | |
| | Time | Sun altitude angle | Light sensor angle |
| Start of Partial Eclipse | | | |
| Start of Totality (if applicable) | | | |
| Maximum Eclipse | | | |
| End of Totality (if applicable) | | | |
| End of Partial Eclipse | | | |

2. Use a lux meter app to measure the light from the Sun. Take six lux readings at the times indicated in the table below. You will need to calculate the approximate Sun altitude angle based on the data in the table above.

Safety Note: Do not look directly at the Sun. Do not look at the Sun through your phone's camera, or view the partial eclipse without certified eclipse glasses or a solar filter. For more information on safe eclipse viewing, visit the NASA Eclipse website at eclipse2017.nasa.gov

| | Time | Sun altitude angle | Light sensor angle | Lux | % of full brightness |
|-------------------------------|------|--------------------|--------------------|-----|----------------------|
| 5 min before start of partial | | | | | |
| 5 min. after start of partial | | | | | |
| Midway to maximum | | | | | |
| Maximum eclipse | | | | | |
| Midway past maximum | | | | | |
| 5 min before end of partial | | | | | |

3. Compare your lux measurements to other groups. Are they the same, close, or very different? What might account for those differences? Complete on back of page.