

The flashlight model of sunlight striking the earth's surface (a physical model).

- (1) On a piece of white paper, draw a small square or circle (say, ~1 square inch). This will be a "unit of area".
- (2) Shine the flashlight on the unit of area so that the light inside it is uniform.
- (3) While keeping the distance between the head of the flashlight and the unit of area constant, change the angle between the light beam and the paper as much as possible. Note any changes in the brightness of the light on the unit of area.
- (4) While keeping the angle constant, vary the distance between the light and the unit of area as much as possible. Note any changes of brightness on the unit of area.