Develop a compact light intensity recording device that takes samples every minute.

- Small Size
- Cost Effective
- Low Power Consumption
- Accurate Data
- Graphical Display of Data

In order to capture low angle light, a dome was used as a Lambertian surface. Lambert’s cosine law states that the luminous intensity of an object is proportional to the incident angle of light.

- The light sensor is built using a transimpedance amplifying circuit. The circuit uses three scaled resistor values that correlate to specific lux ranges. The resistors are scaled to produce a series of gain arrays that allow the microcontroller the ability to measure the entire light intensity range of the sun.