

MEASURES ULTRAVIOLET RADIATION.

DESCRIPTION

The ultraviolet sensor measures the UV radiation between 250 and 400 nanometers in $\mu\text{mol m}^{-2} \text{s}^{-1}$ (micromols of photons per square meter per second). The self-cleaning dome-shaped head prevents water accumulation. The sensor head is potted solid to prevent internal condensation in humid environments.

Although the relative wavelengths of UV radiation differ among sunlight and electric lights our measurements, shown in the graph below, indicate that this sensor provides a close estimate of the UV radiation coming from electric lamps. This sensor is particularly useful for determining the UV filtering capacity of the transparent plastic and glass barriers that are commonly used below electric lamps.

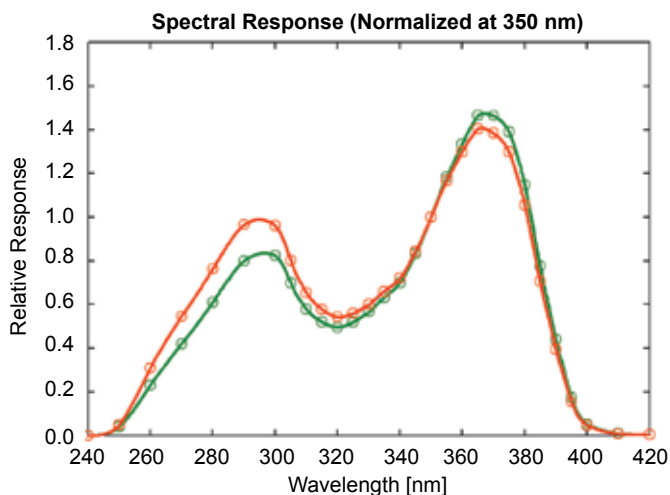
Our measurements confirm those of others and indicate that less than 0.4% of the photon flux from sunlight falls below 320 nm; 2.3% falls between 320 and 350 nm, and 6% falls between 350 and 400 nm. Although the UV radiation between 250 and 320 nm is critically important in photochemical and photobiological reactions, only about 5% of the UV photons are in this range. Because only a small fraction of the photons are in the UV-B range, this meter cannot be used to selectively measure UV-B radiation.



RECOMMENDED ACCESSORIES



AL-100 A leveling plate used to keep the sensor heads level.



The sensor is sensitive to UV-B radiation, but it is included with the UV-A radiation to provide a total measurement of UV radiation.

SPECIFICATIONS

ABSOLUTE ACCURACY

- $\pm 10\%$

UNIFORMITY

- $\pm 5\%$

REPEATABILITY

- $\pm 1\%$

RESPONSIVITY

- Approximately 0.15 mV per $\mu\text{mol m}^{-2} \text{s}^{-1}$

OUTPUT IN FULL SUNLIGHT

- Approximately 26 mV ($170 \mu\text{mol m}^{-2} \text{s}^{-1}$)

LINEAR RANGE

- 0 to 60 mV

SENSITIVITY

- Calibrated to approximately 6.5 $\mu\text{mol m}^{-2} \text{s}^{-1}$ per mV

INPUT POWER

- None, self-powered

OPERATING ENVIRONMENT

- Can be submerged in water with or without mounting bolt

MATERIALS

- Aluminum head, potted solid

MASS

- 75g

CABLE

- 5 meters of twisted-pair wire shielded w/ Santoprene casing
- Ending in pigtail leads
- Additional cable is available in multiples of 5 meters

WARRANTY

- 1 year against defects in materials and workmanship

MEASUREMENTS

