

# SP-LITE Pyranometer



## Recommended use:

SP *LITE* is designed for routine measurement of solar radiation.

It is especially designed for:

- Photo Voltaic / solar energy module monitoring
- agricultural evapotranspiration estimation
- air pollution dispersion calculations using the Delta-T method
- educational purposes

SP *LITE* can be used under all weather conditions. The sensor measures the solar energy received from the entire hemisphere.

SP *LITE* is ideal for measuring available energy for use in solar energy applications, plant growth, thermal convection and evapotranspiration.

SP *LITE* uses a photodiode detector, which creates a voltage output that is proportional to the incoming radiation. Also due to the unique design of the diffuser, its sensitivity is proportional to the cosine of the angle of incidence of the incoming radiation, allowing for accurate and consistent measurements.

SP *LITE* is easy to use. It can be directly connected to voltmeter or data logger. Direct readout in Watts per square metre ( $\text{Wm}^{-2}$ ) can be derived from the measured voltage divided by the calibration coefficient.

The SP *LITE* Silicon Pyranometer compares favourably to ISO 9060-specified First Class Thermopile Pyranometers under clear and unobstructed natural daylight conditions, and fully complies with CE Directives.

## Specifications

Sensitivity:  $10 \mu\text{V}/\text{Wm}^{-2}$

Special response:  
equals silicon

Temperature range:  
 $-30 \text{ }^\circ\text{C}$  to  $+70 \text{ }^\circ\text{C}$

Response time:  
less than 1 sec

Range:  
 $+2000 \text{ Wm}^{-2}$

Temperature dependence:  
 $\pm 0.15\%/^\circ\text{C}$

Directional error:  
(up to 80 degrees)  
<10%

Spectral range:  
0.4–1.1 micron

