SP *LITE*

Silicon Pyranometer

SP *Lite* Specifications

Sensitivity (nominal):	100 µV/Wm^{-2}
Spectral response:	equals silicon
Temperature range:	-30 °C to +70 °C
Response time:	less than 1 sec
Range:	+2000 Wm^{-2}
Temperature dependence:	± 0.15 %/°C
Directional error: (up to 80 degrees)	< 10%
Spectral range:	0.4 - 1.1 micron

The **SP *LITE*** is designed for routine global solar radiation measurements on a plane surface.

Application Include:

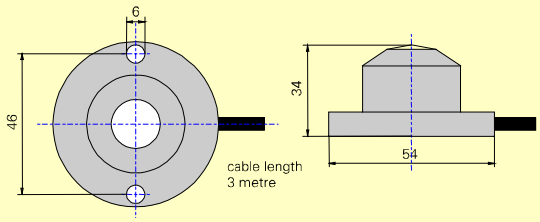
- Photo Voltaic / solar energy module monitoring
- agricultural evapotranspiration estimation
- air pollution dispersion calculations using the Delta-T method
- educational purposes

The **SP *LITE*** suitable for all weather operation. The sensor measures the solar energy received from the entire hemisphere. The **SP *LITE*** is ideal for measuring available energy: solar energy applications, plant growth, thermal convection and evapotranspiration estimation.

The **SP *LITE*** employs a Hamamatsu photo-diode detector that generates a voltage output signal, proportional to the total amount of incoming solar radiation. Sensor sensitivity is proportional to the cosine of the solar angle of incidence, allowing for accurate and consistent measurement. The sensors good cosine response performance is due to the unique conical shaped self-cleaning diffuser design.

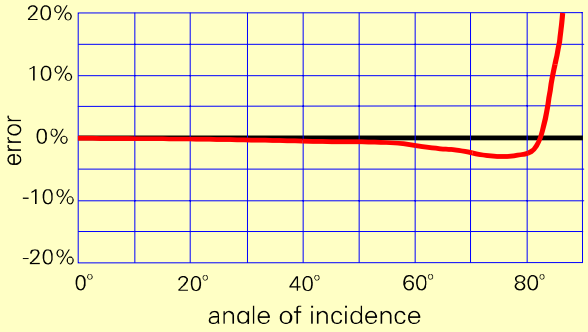
The **SP *LITE*** is suitable for use with a digital voltmeter, or data logger. Irradiance in W/m^2 units can be derived, by dividing sensor output signal voltage by the factory supplied calibration coefficient.

Dimensions

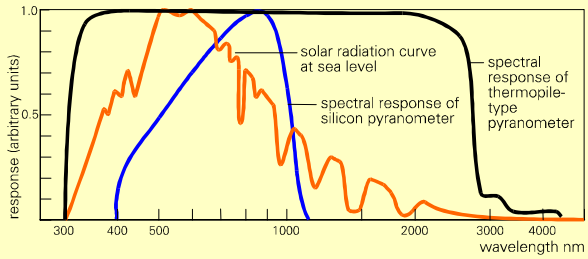


Dimensions in mm.

Directional response



Spectral response



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

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