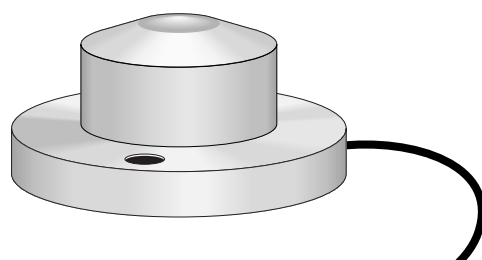


# Solar Radiation Sensor

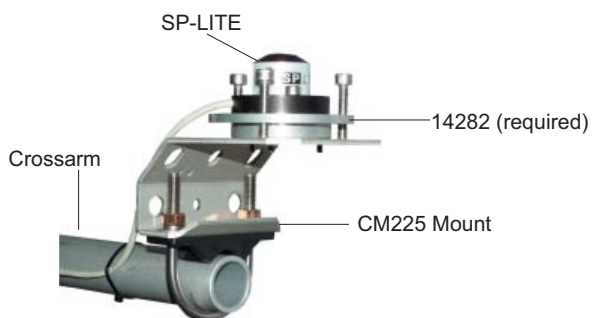
## Model SP-LITE

The SP-LITE is a rugged pyranometer manufactured by Kipp & Zonen. It measures incoming global solar irradiance using a silicon photovoltaic detector mounted in a cosine-corrected diffuser. The diffuser houses a shunt resistor that converts the signal from  $\mu\text{A}$  to  $\text{mV}$  allowing the SP-LITE to be measured directly by a Campbell Scientific datalogger. The SP-LITE is calibrated for the daylight spectral range of 400 to 1100 nm and therefore should not be used under vegetation or artificial lights.



### Mounting

To ensure accurate measurements, the SP-LITE should be leveled using a 14282 leveling fixture, which incorporates a bubble level and three adjusting screws. The 14282 leveling fixture mounts to a tripod or tower using the CM225 mount. For most applications, Campbell Scientific recommends attaching the CM225 to a CM202, CM204, or CM206 crossarm. The CM225 can also be attached to a tripod or tower mast.



*To attach the CM225 to a horizontal crossarm, place the u-bolt in the holes on the bottom of the bracket (shown). To attach the CM225 to a vertical mast or pole, place the u-bolt in the holes in the side of the bracket.*

### Ordering Information

SP-LITE-L Pyranometer with user-specified lead length. Specify the lead length in feet after the -L. The standard lead length provided with the sensor is 16' (SP-LITE-L16). A 24' or 34' length is suggested for mounting the sensor to the top of the UT20 or UT30 towers, respectively (recommended only where shading at lower heights is a problem).

14282 Leveling Fixture includes mounting and leveling screws.

17906 CM225 Mount for attaching the 14282 and sensor to a crossarm or mast.



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## Specifications

Light Spectrum Waveband:	400 to 1100 nm
Sensitivity:	10 $\mu\text{V W}^{-1} \text{m}^2$
Response Time:	<1 second
Temperature Dependence:	$\pm 0.15\% / ^\circ\text{C}$
Temperature Range:	$-30^\circ$ to $70^\circ\text{C}$
Directional Error:	<10% up to $80^\circ$
Dimensions:	2.2" (55 mm) diameter 1.3" (34 mm) height
Weight:	6.4 oz. (181 g), 12.8 oz. (362 g) with 14282
Datalogger Requirements:	One differential or single-ended analog channel
CE Compliance:	CE compliant under the European Union's EMC Directive



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