



## High Quality

Blackened thermopile provides full solar spectrum range

### Overview

The LP02, manufactured by Hukseflux, is an ISO 9060:2018 spectrally flat Class C (second class) pyranometer that monitors solar radiation for the full solar spectrum range. It produces a

millivolt signal that is measured directly by a Campbell Scientific data logger. The LP02 can provide solar radiation measurements for a variety of meteorological applications.

### Benefits and Features

- ▶ Compatible with most Campbell Scientific data loggers
- ▶ Measures reflected solar radiation when inverted
- ▶ Provides measurements in direct sunlight, under plant canopies, when the sky is cloudy, and in artificial light
- ▶ Includes bubble level and leveling screws, eliminating the need for a separate leveling base and simplifying installation
- ▶ Acceptable for providing the solar radiation data used in stability estimations
- ▶ Dome protects thermopile and allows water to roll off of it
- ▶ Designed for continuous indoor and outdoor use

### Detailed Description

The LP02 measures solar radiation with a high-quality blackened thermopile protected by a dome. The blackened thermopile provides a flat spectral response for the full solar spectrum range, which enables the LP02 to be used under plant canopies or lamps, when the sky is cloudy, and for reflected radiation measurements.

The LP02 includes a bubble level, three adjusting screws, and a cable gland. The bubble level and adjusting screws allow the sensor to be leveled without using a leveling base. The gland facilitates cable replacement.

The LP02 produces a millivolt signal that is measured directly by a Campbell Scientific data logger.

Two LP02 pyranometers can be mounted back-to-back to make a low-cost albedometer. Contact Campbell Scientific for more information.

Because the LP02 is a second-class pyranometer, it is acceptable for providing the solar radiation data used in stability estimations (EPA Meteorological Monitoring Guidance for Regulatory Modeling Applications, pages 2-10).

## Specifications

Sensor	Blackened thermopile protected by a dome
Measurement Description	Monitors solar radiation for the full solar spectrum range
Spectral Range	285 to 3000 nm
Maximum Irradiance	2000 W/m <sup>2</sup>
Sensitivity	15 $\mu$ V/W/m <sup>2</sup> (nominal)
Operating Temperature Range	-40° to +80°C

Temperature Dependence	< 0.15% per °C
ISO Classification	ISO 9060:2018 spectrally flat Class C (second class)
Body Diameter	7.8 cm (3.1 in.)
Dome Diameter	3.0 cm (1.2 in.)
Height	5.9 cm (2.3 in.)
Weight	363 g (0.8 lb) with 4.6 m (15 ft) cable

For comprehensive details, visit: [www.campbellsci.com/lp02-l](http://www.campbellsci.com/lp02-l) 



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