



# Accurate, Versatile

## Compatible with most Campbell Scientific dataloggers

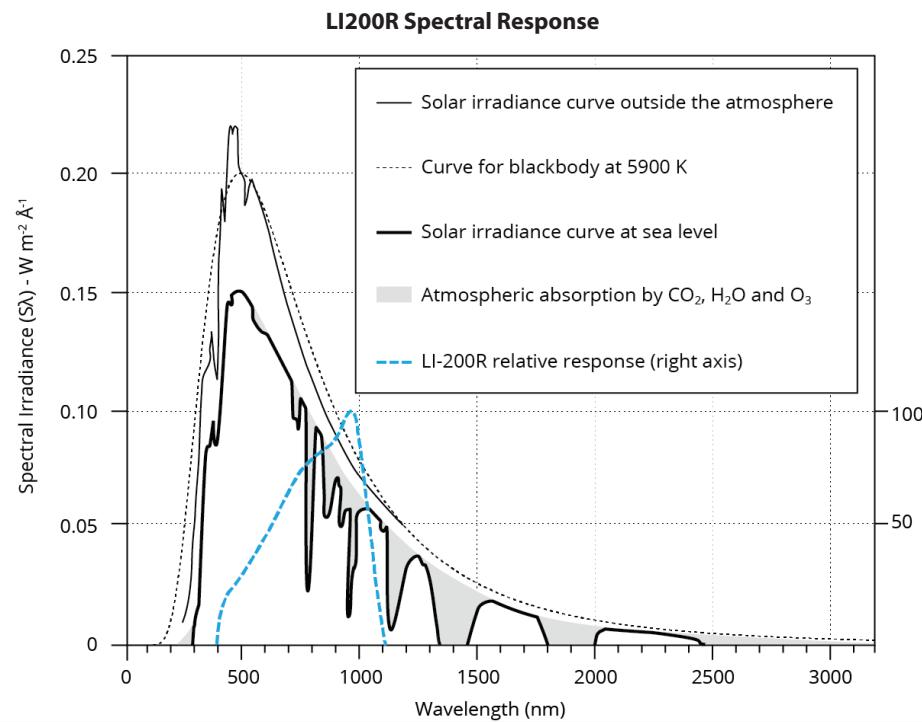
### Overview

The LI200R<sup>1</sup> silicon pyranometer accurately monitors sun plus sky radiation for solar, agricultural, meteorological, and hydrological applications. It uses a silicon photovoltaic detector mounted in a cosine-corrected head to measure solar radiation. A shunt resistor

in the sensor's cable converts the signal from microamps to millivolts, allowing this sensor to be measured directly by a Campbell Scientific datalogger<sup>2</sup>.

### Benefits and Features

- Calibrated against an Eppley precision spectral pyranometer (PSP) for the daylight spectrum (400 to 1100 nm)<sup>3</sup>
- Uniform sensitivity up to 82° incident angle



<sup>1</sup>The LI200R is manufactured by LI-COR®.

<sup>2</sup>The LI200R is not compatible with the CR200(X)-series dataloggers.

<sup>3</sup>The LI200R should not be used under vegetation or artificial lights because it is calibrated for the daylight spectrum.



## Mounting

To ensure accurate measurements, the sensor should be leveled using a LI2003S leveling fixture which incorporates a bubble level and three adjusting screws. The LI2003S leveling fixture mounts

to a crossarm using the CM225 mount. These sensors should be mounted away from all obstructions and reflective surfaces that might adversely effect the measurement.

## Ordering Information

### Solar Radiation Sensors

**LI200R-L** LI-COR® Silicon Pyranometer with user-specified lead length. Enter length, in feet, after the -L.

### Cable Termination Options (choose one)

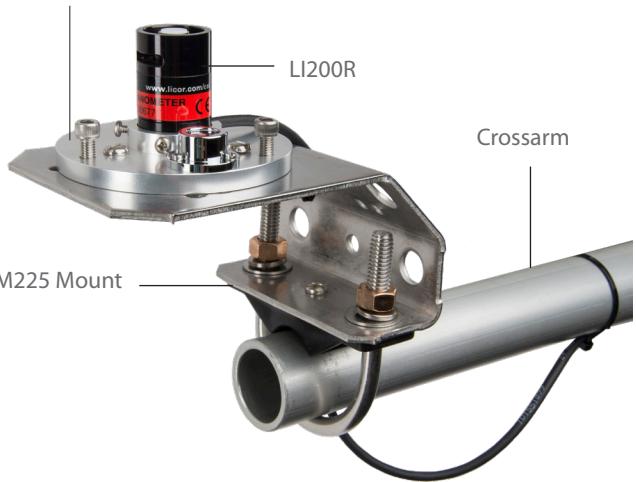
- PT Cable terminates in stripped and tinned leads for direct connection to a datalogger's terminals.
- CWS Cable terminates in a connector for attachment to a CWS900 interface. Connection to a CWS900 interface allows the LI200R to be used in a wireless sensor network.

### Accessories

**LI2003S** Base and leveling fixture used to level the sensor.

**CM225** Solar Sensor Mounting Stand that's used to attach the LI2003S and sensor to a crossarm.

LI2003S (required)



## Specifications

- Stability: <±2% change over a 1 year period
- Response Time: < 1 μs
- Cosine Correction: Cosine corrected up to 82° angle of incidence
- Operating Temperature Range: -40° to +65°C
- Temperature Dependence: ±0.15% per °C maximum
- Relative Humidity Range: 0 to 100%
- Detector: High stability silicon photovoltaic detector (blue enhanced)
- Accuracy: Absolute error in natural daylight is ±5% maximum; ±3% typical

- Sensitivity: Typically  $0.13 \text{ kW m}^{-2} \text{ mV}^{-1}$
- Linearity: Maximum deviation of 1% up to  $3000 \text{ W m}^{-2}$
- Shunt Resistor:  $100 \Omega$ , 1%, 50 ppm
- Light Spectrum Waveband: 400 to 1100 nm
- Sensor Housing: Weatherproof anodized aluminum case with acrylic diffuser and stainless steel hardware; O-ring seal on the removable base and cable assembly.
- Diameter: 2.36 cm (0.93 in)
- Height: 3.63 cm (1.43 in)
- Weight: 84 g (2.96 oz)