



Overview

The NR-LITE2* is a rugged net radiometer that measures the energy balance between incoming short-wave and long-wave infrared radiation relative to surface-reflected short-wave and

outgoing long-wave infrared radiation. It is directly connected to a Campbell Scientific datalogger and is widely used in agriculture and hydrology applications.

COMPONENT

NR-LITE2

Benefits and Features

- Compatible with most Campbell Scientific dataloggers
- Integrated bubble level ensures proper installation
- Includes a rod that deters birds from roosting on the radiometer
- > PTFE-coated absorbers are weather resistant without using a fragile plastic dome

Technical Description

The NR-LITE2 includes two black conical absorbers—one facing upward and the other facing downward. The absorbers are coated in PTFE, making them resistant to weather without using a fragile plastic dome. Both absorbers are calibrated to an identical sensitivity coefficient. The net radiometer outputs a millivolt signal that is measured directly by a Campbell Scientific datalogger. Please note that the NR-LITE2 is not compatible with our CR200(X)-series dataloggers.

*The NR-LITE2 is manufactured by Kipp and Zonen but cabled for use with Campbell Scientific dataloggers.



Mounting

To avoid shading/reflections and to promote spatial averaging, the NR-LITE2 should be mounted at least 1.5 m above the ground or crop canopy and away from all obstructions or reflective surfaces that might adversely effect the measurement. Campbell Scientific recommends mounting the NR-LITE2 to a separate vertical pipe at least 25 feet away from other mounting structures. The 26120 Net Radiation Sensor Mounting Kit is used to mount the NR-LITE2 to a vertical pole or a horizontal crossarm such as the CM202, CM203, CM204, or CM206.

Ordering Information

Net Radiometer

NR-LITE2-L Kipp & Zonen Net Radiometer with user-specified cable length. Enter the cable length in feet after the -L. A 48-ft cable length is recommended. Must choose a cable termination option (see below).

Cable Termination Options (choose one)

- -PT Cable terminates in stripped and tinned leads for direct connection to a datalogger's terminals.
- -PW Cable terminates in connector for attachment to a prewired enclosure.

Mount

26120 Net Radiation Sensor Mounting Kit for mounting the radiometer to a vertical pole or horizontal crossarm.



The 26120 Net Radiation Sensor Mounting Kit allows the radiometer to be mounted to a vertical pole or horizontal crossarm.

Specifications

- > Sensor: Blackened thermopile
- Spectral Response: 0 to 100 µm
- Response Time (e⁻¹): 20 s (nominal)
- Sensitivity: 10 µV W⁻¹ m² (nominal)
- > Output Range: ±25 mV
- Measurement Range: ±2000 W m⁻²

- Sensor Diameter: 8.0 cm (3.1 in)
- Support Arm Diameter: 1.6 cm (0.6 in)
- Support Arm Length: 80 cm (31.5 in)
- Sensor Weight: 200 g (7.0 oz)
- > Support Arm Weight: 635 g (23 oz)
- > Operating Temperature Range: -30° to 70°C



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