



Overview

The NR-Lite is a rugged net radiometer manufactured by Kipp & Zonen. Net radiometers measure the energy balance between incoming short-wave and long-wave IR radiation relative to surface-reflected short-wave and outgoing long-wave IR radiation. This net radiometer includes two black conical absorbers, one facing upward and the other facing

downward. They are coated in PTFE, making them resistant to weather without requiring a fragile plastic dome. Both absorbers are calibrated to an identical sensitivity coefficient.

The only difference between the NR-Lite and the NR-Lite2 is the color of the wires.

Benefits and Features

► Compatible with most Campbell Scientific data loggers

Technical Description

The NR-Lite Net Radiometer 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. This rugged device 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. They are calibrated to an identical sensitivity coefficient.

The NR-Lite includes a bubble level to ensure proper installation and a rod that deters birds from roosting on the sensor. It produces a millivolt signal that is measured directly by a Campbell Scientific datalogger; most of our dataloggers are compatible.

The only difference between the NR-Lite and the NR-Lite2 is the color of the wires.

Specifications

Sensor	Blackened thermopile
Spectral Response	0 to 100 μm
Sensitivity	10 $\mu\text{V W}^{-1}\text{m}^2$ (nominal)
Output Range	± 25 mV

Measurement Range	± 2000 W m^{-2}
Operating Temperature Range	-30° to $+70^\circ\text{C}$ (manufacturer)
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)

