



**Measures incident quanta
between 400 and 700 nm**

Overview

The SKP215 measures incident quanta between 400 and 700 nm. Light in this waveband is used for photosynthesis and is often referred to as 'PAR' (Photosynthetically Active Radiation).

Quanta below 400 nm are not generally used in photosynthesis and those above 700 nm have insufficient

energy for the process. The number of quanta is related to sugar production and this measurement is now a standard referred to in scientific papers worldwide. Filtering in the sensor means that the measurement may be made accurately under any light source (sun, tungsten, fluorescent, xenon, etc.).

Benefits and Features

- › Modular mounting of components for easier field servicing and expansion
- › On-line processing for maxima, average, flux density or total flux
- › High-quality sensors for measurement of solar radiation and photosynthetically active radiation (PAR)
- › No power required
- › View data from multiple LoggerNet servers, Campbell Scientific data files, LNDB databases, HTTP dataloggers, and virtual data sources all in one RTMC project
- › Direct connection to datalogger
- › Low maintenance—extensive diagnostics let you know when maintenance is needed

Technical Description

Typical applications of the SKP215:

- › Comparison of photosynthetic efficiencies of light sources differing in spectral emission
- › Assessment of drift in radiation sources
- › Design of lighting arrays in greenhouses and environmental chambers
- › Predicting the efficiency of photosynthetic activity in plant growth, particularly under fluctuating light conditions such as plant canopies
- › Choice of planting sites in gardens or indoor growth facilities

Specifications

Light Sensitivity	Sensitive to light between 400 nm and 700 nm wavelength
Preset Output	1 mV per 100 $\mu\text{molm}^{-2}\text{s}^{-1}$
Cosine corrected head	(typical errors zero 0-70°, <10% 85-90°)
Operating Temperature	-35°C to +75°C
Absolute Accuracy	$\pm 5\%$ (typically $< \pm 3\%$)
Constructed from	Dupont 'Delrin' sensor head fully sealed to IP68

Blue-enhanced silicon photocell detector	with low fatigue characteristics
Calibrated in	units of $\mu\text{molm}^{-2}\text{s}^{-1}$. μmol is the new name for the unit $\mu\text{Einstein}$, which is one millionth of Avagadro's number of quanta or photons.
Standard Cable Length	3 m

For comprehensive details, visit: www.campbellsci.eu/skp215 



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