

LIGHT

Light Meter for Quality Assurance

- **Ideal for controlled environment chambers**
- **Plant growth rooms or photostability cabinets**
- **Essential for audit checks of lamp outputs**
- **Indispensable for uniformity measurements**
- **Accurate, calibrated sensors and meter**
- **Lux, UV or PAR response**



Photographs courtesy of Weiss Gallenkamp and IGER

Skye Instruments are world renowned for the design and manufacture of high quality light and radiation sensors for both indoor and outdoor use. Since 1983 much development time has been invested to produce sensors which meet expected and published spectral responses, and all are individually calibrated and traceable to National Standards (National Physical Laboratory, UK).

The SpectroSense2 meter system for Controlled Environments is ideal for quality control audits to check actual light levels and the uniformity of these levels throughout the cabinet or chamber.

It is also useful for monitoring the

efficiency of the lighting equipment itself by recording individual lamp outputs over time to decide optimum intervals for replacing bulbs or tubes, or cleaning the reflectors and diffusers.

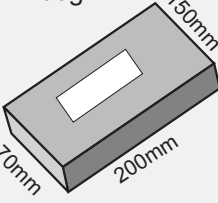
Controlled Environment sensors are available to measure light in Lux for human or animal use, PAR for plant and crop applications, or ultraviolet radiation in the UV-A or UV-B wavebands for photostability studies. UV-A sensors are usually filtered for use under UV lamps only, but can be adjusted for use under all light sources if required. Please ask for datasheets on the outdoor range of sensors to see the exact response curves for each version. All sensors can be scaled to

suit your own range of lighting levels, offering maximum resolution of measurement.


The SpectroSense2 multichannel meter will display calibrated light measurements from up to 4 sensors simultaneously, whilst having a 'library' in memory of up to 16 sensors for easy interchange between sensors. There are ratio functions for displaying relative light intensities between sensors, and a Hold button for freezing the 4 line display while reading. The SpectroSense2+ meter version also has logging features for automatic recording over time.



SPECIFICATIONS - Meter

Operating range	Construction	Dimensions & Weight	Power	Modes
-20°C to +70°C 0-100% RH	Black ABS, sealed to IP54 Binder subminiature connectors 20 x 4 line LCD membrane keypad	700g 	1 x miniature 9 volt / MN1604 / 6LF22 Battery life 60 hours	SpectroSense2 a) 4 sensor / channel display b) Ratios display c) Integration display d) Set up mode SpectroSense2+ As above plus e) 8 channels f) logging functions g) PC connection

SPECIFICATIONS - Sensors

Operating Range	Construction	Dimensions & Weight	Detectors & Filters	Working range (1)
-20°C to +70°C 0 - 100% RH	Material Dupont 'Delrin' sealed to IP64 Cosine corrected head Screened cable	 150g (with 3m cable)	Photocell and Optical Glass	Each sensor is calibrated individually to National Standards (2) PAR - 0-3000 $\mu\text{mol m}^{-2} \text{s}^{-1}$ Lux - 0-200 kLux UVA - 0-100 W m^{-2} UVB - 0-5 W m^{-2}

FURTHER INFORMATION

(1) All Skye sensors will work at levels of irradiance well above that found in terrestrial sunlight conditions, room or growth chamber lighting, but can be scaled individually as required.

(2) Calibration check recommended at least every two years.

Further information on using and monitoring lighting in controlled environments can be found on the website of the UK Controlled Environments Users Group:

<http://www.fbs.leeds.ac.uk/ceug/index.htm>

ORDERING INFORMATION

Sensor Type	Order Code	Use
PAR	SKP 217/SS2	Response 400-700nm. For use with any light source
Lux	SKL 312/SS2	Conforms to CIE (human eye) photopic curve. For use with any light source
UVA	SKU 425/SS2	Response 320-380 (FWHM) for use with UVA lamps only
UVA	SKU 426/SS2	Response 320-380 (FWHM) For use with any light source.
UVB	SKU 435/SS2	Response 280-315 (FWHM) for use with any light source.
Meters	SKL 904 SKL 908	SpectroSense2 display meter SpectroSense2+ logging meter
Accessory	SKM 221	Levelling unit - advisable for keeping light sensors level

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