

LIGHT

Sensors for Horticultural Lighting Control

- Accurate, calibrated sensors
- Plant PAR response
- Control supplementary lighting in darker seasons
- Control shading in brighter seasons
- Low cost



Skye Instruments manufacture a range of high quality light sensors for many applications.


This sensor for Lighting Control compliments the hand-held Light Meter for Growers for use in crop production. Both sensors respond to the sun's spectrum in the PAR range, the portion of solar radiation which is used in photosynthesis.

They accurately measure the exact amount of PAR light reaching the crop, and with the sensor linked to a control system, supplementary lighting or shading can automatically be added according to the plant's exact needs. Skye sensors are accurate and calibrated to National Standards, yet are low cost. PAR sensors are available in a choice of units, $W m^{-2}$ or $\mu mol m^{-2} s^{-1}$ as preferred.

The Lighting Control sensor is compatible with glasshouse control computers and is easily integrated into a management system. The correct and efficient control of crop lighting will invariably lead to an increase in crop quality and profitability.



SPECIFICATIONS

Dimensions & weight	Construction	Cable	Sensor	Detector	Filters	Output Signal	Zero offset range	Working range (1)	Linearity (0-1v with 9v power supply)
 34mm 50mm 150g (with 3m cable)	Material Dupont 'Delrin' sealed to IP64	Screened cable	Cosine corrected head	Photocell	Optical glass	1,2,3,4, or 5 volts up to 10V full scale	Each sensor is calibrated individually	0-1000 Watts/m ² Or 0-3000 micromoles/m ² /sec	Better than 1%
Absolute calibration error (2)	Thermal drift of output (-20 to +50°C)	Thermal drift of zero offset (-20 to +50°C)	Longterm stability (3)	Response time (4)	Output impedance	Operating range	Power supply requirements		
Typical <3% max 5%	0.025mV/°C Max	Typically 0.01 mV/°C	±2%	Better than 10mS	500Ω	-20°C to +70°	0-100% RH	Full Scale 1,2 & 3 volts 4 volts 5 volts 10 volts	Voltage 5-15volts 7-15volts 9-15volts 12-15volts

NOTES ON SPECIFICATIONS

- (1) All Skye sensors will work at levels of irradiance well above that found in terrestrial sunlight conditions, room or growth chamber lighting
- (2) Main source of this error is uncertainty of calibration of Reference Lamp. Skye calibration standards are directly traceable to N.P.L. standard references.
- (3) Maximum change in one year. Calibration check recommended at least every two years. Experience has shown that changes are typically much less than figures quoted
- (4) Times are generally less than the figure quoted, which is in milliseconds. They may be slightly increased if long leads are fitted, or those of a higher capacity cable

ORDERING INFORMATION

Sensor Type	Order Code	Use
PAR Quantum	SKP 212	Calibrated in $\mu\text{mol m}^{-2} \text{s}^{-1}$
PAR Energy	SKP 515	Calibrated in W m^{-2}

Accessories

SKM 221	Levelling unit
SKL 904	SpectroSense2 4 channel display meter
SKL 908	SpectroSense2 8 channel display & logging meter
SDL 5000	DataHog datalogger

Skye Instruments Ltd

21, Ddole Enterprise Park
Llandrindod Wells
Powys LD1 6DF
United Kingdom

TEL +44 (0)1597 824811

FAX +44 (0)1597 824812

EMAIL skyeemail@skyeinstruments.com

TECHNICAL EMAIL technical@skyeinstruments.com

SALES EMAIL sales@skyeinstruments.com

WEB <http://www.skyeinstruments.com>

