

LIGHT

660/730 Sensor (Red/Far Red)

- Disease and infestation studies
- Plant Biomass studies and prediction
- Phytochrome studies
- Interpretation of Landsat and ground truths



This is a two channel radiometer with a cosine-corrected head that is fully sealed and is suitable for permanent external mounting. It has a common light collecting area for both channels.


This sensor is most frequently ordered with filters

for Red and Far Red light (660 and 730 nm). This being a nominal standard around which much research work has been done. However, any two filter wavelengths can be chosen between 400 and 1000nm.

The sensor can be supplied:
i) with a plug for connection to the Skye DataHog

datalogger;
ii) integral with the Skye DataHog datalogger for a cable-less system;
iii) with a Skye hand-held meter, which gives absolute values of each channel, and the ratio of one channel to another; or
iv) wire-ended for use with dataloggers from other manufacturers.

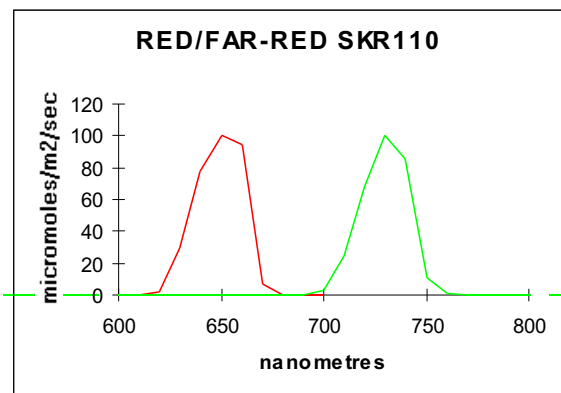
SKR 110 SPECIFICATIONS

Dimensions	Weight	Construction	Cable	Sensor	Detector	Filters	Sensitivity 660 channel (1)	Sensitivity 730 channel (1)	Working range (2)
	160g. (with 3m cable)	Material Dupont 'Delrin' fully sealed to IP68	2 core screened DEF std 61-12/4.5	Cosine corrected head	GaAsP	Optical glass	660 channel approx. 30 mol/ amp	730 channel approx. 30 mol/ amp	<2,000 ⁴ µmol/m ² / sec
Linearity error	Absolute calibration error (3)	Cosine error (4)	Azimuth error (5)	Temperature coefficient	Longterm stability (6)	Response time (7) - voltage output	Temperature range	Humidity range	
<0.2%	typ. <3% 5% max.	3%	<1%	±0.1%/°C	±2%	10ns	-35 to +75°C	0-100% RH	

NOTES ON SPECIFICATIONS

- (1) Current output varies from sensor to sensor. Each individual unit will have a slightly different output. A calibration certificate is supplied with each sensor
- (2) All Skye sensors will work at levels of irradiance well above that found in terrestrial sunlight conditions, room or growth chamber lighting
- (3) Main source of this error is uncertainty of calibration of Reference Lamp. Skye calibration standards are directly traceable to N.P.L. standard references.
- (4) Cosine error to 80° is typically 5% max. Figures shown are for normal use sources, e.g., sun plus sky, diffuse sun, growth chambers, etc.
- (5) Measured at 45° elevation over 360°
- (6) 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
- (7) Times are generally less than the figure quoted, which is in nanoseconds. They may be slightly increased if long leads are fitted, or those of a higher capacity cable

GRAPH



ORDERING INFORMATION

Sensor

SKR 110 660/730 (Red/Far red) Sensor

Accessories

SKM 221 Levelling unit
SKM 226 Long arm pole/wall mount

Meters and dataloggers

SKR 100 Display meter
SDL 5000 series 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

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