

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

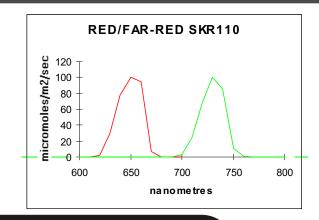
datalogger;
ii) integral with the Skye
DataHog datalogger for a
cable-less system;
iii) with a Skye hand-held
meter, which gives absolute
values of each channel, and
the ratio of one channel to
another; or
iv) wire-ended for use with
dataloggers from other

manufacturers.

SKR 110 SPECIFICATIONS Dimensions Weight Construction Sensor Detector Sensitivity Sensitivity Working **Filters** 660 channel 730 channel range (2) 660 730 160g. <2,000 Material 2 core Cosine GaAsP Optical channel channel Dupont (with 3m screened corrected µmol/m²/ glass 'Delrin' approx. approx. cable) DEF std head sec fully sealed 30 mol/ 30 mol/ to IP68 61-12/4.5 amp amp Longterm stability (6) Humidity Absolute Cosine error Azimuth Temperature['] Temperature Linearity Response calibration (4)error (5) coefficient range error time (7) error (3) - voltage output 0-100% -35 to <0.2% typ. <3% 3% <1% +0.1%/°C <u>+</u>2% 10ns RH +75°C 5% max. 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 skyemail@skyeinstruments.com WEB http://www.skyeinstruments.com