LIGHT

2 Channel (SKR 1800) Sensor

- **Removable cosine correcting head**
- **Head on cosine corrected for incident light**
- **Head off narrow angled for reflected light**
- **Choose wavelengths between 280-1100 nm**
- **Ideal for NDVI, PRI and satellite ground truthing**

.Skye Instruments have been specialising in light and radiation sensors since 1983. All are designed, manufactured and calibrated to the highest standards. Each is supplied with a Calibration Certificate traceable to the UK's National Physical Laboratory (NPL).

This sensor is a 2 channel radiometer, essentially two sensors in one. It has a removable cosine correcting head offering a choice of light collecting geometries. With the head in place it is suitable for measuring incident or downwelling light. When the head is removed it receives light from a narrow 25° cone, suitable for measuring reflected light from a defined area.

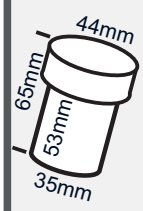
Usually a pair of identical sensors are used to measure incident and reflected light simultaneously, to eliminate variations in natural solar radiation during measurement. Sensors can be installed on a hand-held pole, on meteorological or CO_2 flux towers, or are light enough to be used on aircraft.

Skye's calibration facility scope is between 280 and 1100 nm with bandwidths from 5 nm to several hundred nm (broadband). Popular choices include Red & Far-Red, Red & Near Infra Red or channels matching satellite bands.

Sensors are suitable for use in natural solar radiation or any lamp or light source. Each is fully waterproof and guaranteed submersible to 4m depth.

As with all Skye sensors, the 2 Channel sensor has been quoted in many scientific references, please ask for a list of publications. They are compatible with Skye Display Meters, SpectroSense meters and DataHog loggers as well as instruments from other manufacturers.

SKR 1800 SPECIFICATIONS

Dimensions	Weight	Construction	Cable	Sensor	Detector	Filters	Sensitivity -current (1)	Working range (2)
	180g. (with 3m cable)	Removable cosine corrected head Material Dupont 'Delrin' Sealed to IP68	2 core screened DEF std	Cosine corrected head	Silicon Gap or GaAsP photocells	Metal interference and/or glass depending on wavelengths & bandwidths chosen, to military spec	Dependant on wavebands chosen	

Linearity error	Absolute calibration error (3)	Cosine error (4)	Azimuth error (5)	Temperature coefficient	Longterm stability (6)	Response time (7)	Temperature Range	Humidity Range
<0.2%	typ. <3% 5% max	3%	<1%	±0.1%/°C	±2%	10ns	-25 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 80º is typically 5% max. Figures shown are for normal use sources, e.g., sun plus sky, diffuse sun, growth chambers, etc.

(5) Measured at 45º elevation over 360º

(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

ORDERING INFORMATION

Sensor

SKR 1800	2 Channel sensor (Please specify centre wavelength and bandwidth)

Accessories

SKM 222	Levelling unit

Meters and dataloggers

SKR 100	Display Meter
SKL 904	SpectroSense2
SKL 908	SpectroSense2+
SDL 5000 series	DataHog datalogger

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