



# SKU 440 UV Index Sensor

Skye have been designing and manufacturing quality, fully calibrated light sensors since 1983. The range has included UVA and UVB sensors since 1992 and has now been further expanded with the addition of the UV Index sensor.

This sensor has a response closely matching the Erythema Action Spectrum, the damaging portion of the solar radiation spectrum associated with sunburn and skin cancer.

The UV Index sensor gives a voltage output which can be easily scaled to UVI values with an appropriate meter e.g. Apollo Display Meter (SKA 400) i.e. ranging from 0, low risk of sunburn to 11+, dangerous levels of UV).

The sensor is calibrated against a reference traceable to National Standards under full sunlight conditions, and so is ideal for long term datalogging on meteorological stations.

It is fully waterproof (Ip67)

Each sensor is provided with its unique radiation response curve and Calibration Certificate.



Measures skin-damaging ultra violet radiation (erythemal dose)

Fully waterproof, suitable for long term datalogging

Also compatible with Skye MiniMet & other weather stations

## SKU 440 SPECIFICATIONS

Construction: Anodised black aluminium, sealed to Ip67

Cable: Screened, 7/14-C military specification. Cable gland on sensor housing.

Sensor: Cosine corrected head. Specially formulated diffuser.

Detector: Filtered SiC Photodetector

Spectral Response: Close to Erythema Action Spectrum

Output Scaling: Nominal = 0.2V = 0.20UVI = 0.0.5 Wm<sup>2</sup>

Thermal Drift of Output (-20 to +50°C): 0.075mV/°C max

Thermal Drift of Zero Offset (-20 to +50°C): Typically 0.03 mV/°C

Output Impedance: 500

Power Supply: 5/15VDC

Absolute calibration error (1): typ. <3%, (5% max)

Cosine error (2): 3%

Azimuth error (3): <1%

Longterm stability (4): +/-2%

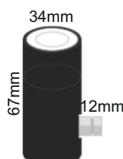
Response time (5): better than 50ms

Weight: 200g (with 3m cable)

Temperature range: -30 to +60°C

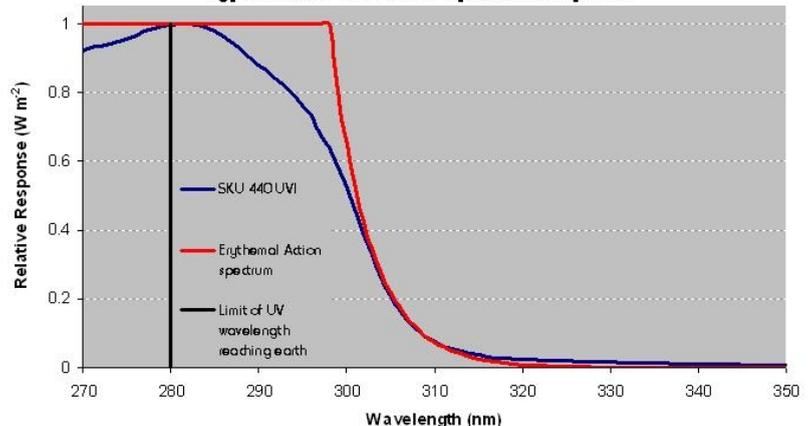
Mounting - M6 x 7mm tapped hole in base. Sensor supplied with: M6 x 16mm screw + 4x 1.5mm washers to suit panel thickness of 3-10mm

Dimensions:



## SKU 440 Spectral Response

### Typical SKU 440 (UVI) Spectral Response



## NOTES ON SPECIFICATIONS

(1) Main source of this error is uncertainty of calibration of Reference. Skye calibration standards are directly traceable to N.P.L. standard references.

(2) 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.

(3) Measured at 45° elevation over 360°.

(4) 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.

(5) 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

<b>Sensor</b>	
SKU 440	UV Index sensor with 3m cable
SKU 440/I	UV index sensor with 3m cable and Apollo/DataHog connector
SKU 440/SS2	UV index sensor with 2m cable and SpectroSense2 connector
<b>Meters and dataloggers (see separate datasheet)</b>	
SKA 400	Apollo Display Meter (1-channel)
SKL 908	SpectroSense2+ 8-channel logging meter
SDL 5030/UVI	DataHog2 logger with built-in UVI sensor
<b>Accessories (see separate datasheet)</b>	
SKM 222	Levelling unit
SKM 226	Long arm pole/wall mount

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