



# SKU 440 UV Index Sensor

Skye have been designing and manufacturing quality, fully calibrated light sensors since 1983. As well as this UV Index sensor, the range also includes UVA and UVB sensors (see separate datasheets).

This UVI Index 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. Each sensor is IP67.



## SKU 440 SPECIFICATIONS

<b>Construction</b> -	Anodised black aluminium, sealed to IP67	<b>Azimuth error (3)</b> -	< 1%
<b>Cable</b> -	Screened. 7-1-4-C military specification. Cable gland on sensor housing	<b>Longterm stability (4)</b> -	+/-2%
<b>Sensor</b> -	Cosine corrected head. Specially formulated diffuser	<b>Response time (5)</b> -	better than 50ms
<b>Detector</b> -	Filtered SiC Photodetector	<b>Mounting</b> -	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
<b>Spectral Response</b> -	Close to Erythema Action Spectrum	<b>Weight</b> -	200g with 3m cable
<b>Output Scaling</b> -	Nominal- 0 - 2V = 0 - 20UVI ( 0-0.5 Wm <sup>2</sup> )	<b>Temperature range</b> -	-20 to +70°C
<b>Thermal Drift of Output</b> -	0.075mV/°C max (-20 to +50°C)	<b>Humidity range</b> -	0-100% RH
<b>Absolute calibration error (1)</b> -	typ. <3%, (5% max)	<b>Dimensions</b> -	
<b>Cosine error (2)</b> -	3%		

## NOTES ON SPECIFICATIONS

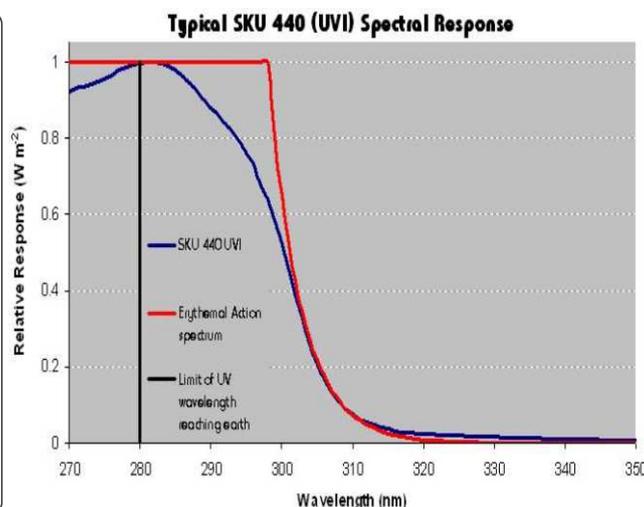
(1) Main source of this error is uncertainty of calibration of Reference. Skye calibration standards are directly traceable to N.P.L. standard references.

(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>Sensors:</b>	
SKU 440	UVI sensor with 3m cable
SKU 440/I	UVI sensor with 3m cable and DataHog connector
SKU 440/SS2	UVI sensor with 2m cable and SpectroSense2 connector
<b>Accessories, Meters &amp; Dataloggers:</b>	
SKM 222	Levelling unit
SKM 226	Long arm pole/wall mount
SKL 904	SpectroSense2, 4-channel display meter
SKL 908	SpectroSense2+ 8-channel logging meter
SDL 5000	DataHog2 datalogger range

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