LIGHT

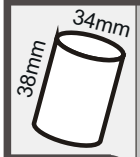
Lux Sensor

- The design of buildings including all types of architectural models. Variations in levels of lighting are obviously a very important criterion when considering design
- Specific lighting conditions under which animal experiments are carried out
- Design of lighting levels in psychological experiments
- Lighting for animal housing, e.g. poultry houses

Visible light can be defined as the part of the wavelength spectrum perceived by the human vision in a manner similar to the eye. This response to the human eye to light can be expressed as a spectral reponse curve which has the form shown on reverse. There is a peak sensitivity at 555nm for the light adapted eye. This curve is know as the photopic curve or CIE Standard Observer Curve. The response curve for this filtered sensor is almost indistinguishable from the Photopic curve shown on the reverse. Light falling within the curve is measured in Lux units.

Appropriate levels of light measured in Lux units are important in many areas of human activity such as close field work, general reading, relaxation and can have important psychological effects.

SKL 310 SPECIFICATIONS

Dimensions	Weight	Construction	Cable	Sensor	Detector	Filters	Sensitivity -current (1)	Sensitivity -voltage	Working range (2)
	130g. (with 3m cable)	Material Dupont 'Delrin' fully sealed to IP68	2 core screened DEF std 61-12/4.5	Cosine corrected head	Silicon photocell. Low fatigue character-istics	Multi-Element with 555nm peak	1.6µA/ 10kLux	1mV/ 10kLux	0-500 kLux

Linearity error-to above level	Absolute calibration error (3)	Cosine error (4)	Azimuth error (5)	Temperature coefficient	Longterm stability (6)	Response time (7) - voltage output	Internal resistance - voltage output	Operating range	Humidity range
<0.2%	typ. <3% 5% max.	3%	<1%	±0.1%/°C	±2%	10ns	c.650 ohms	-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.

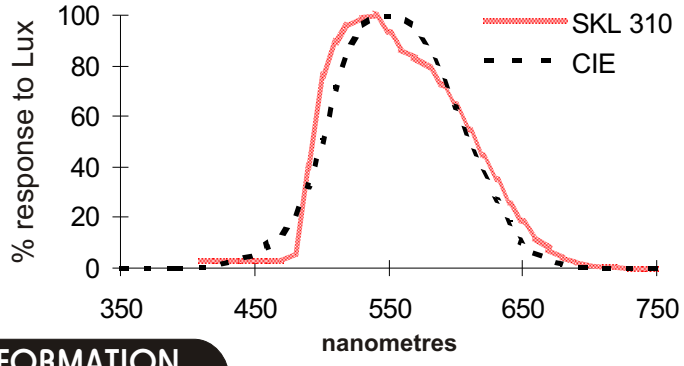
(4) Cosine error to 80º is typically 5% max. Figures shown are for normal use sources, e.g., sun plus sky, diffuse sun, growth chambers, etc.

(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

(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

SKL 310	Photometric or Lux sensor

Accessories

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

Meters and dataloggers

SKL 300	Display meter
SKL 900	Spectr Sense
SDL 5000 series	DataHog datalogger

DataHogs also available for 'plug-in' sensors. Please inquire.

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