LIGHT

Quantum Sensor for Leaf Chamber

- **Designed to match Hansatech leaf chamber**
- **Choice of two spectral responses**
- **Gives direct readout of light levels at leaf's surface**
- **Optional hand-held meter**

The unit is a full specification Quantum Sensor developed for Hansatech Ltd to compliment their range of leaf chambers.

The full system comprises a large area sensor machined to match with Hansatech Leaf Chamber, and a measuring unit giving direct readout of light levels at the leaf surface in µmol/m²/sec.

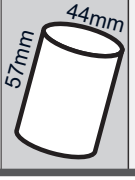
We offer two special responses:- a passband of in the leaf chamber and a standard 400-700nm Quantum response.

The sensor itself has two outputs, both proportional to light levels in µmol/m²/sec, both voltage and current.

Each unit comes with a calibration certificate and can be used with other control and measuring equipment if required.

The unit is sealed against moisture and may be kept clean with a moist cloth, but it is not suitable for immersion. If this sensor is required for immersion please contact Skye Instruments.

SKP 216 SPECIFICATIONS

Sensitivity -current (1)	Sensitivity -voltage	Working range (2)	Linearity error-to above level	Absolute calibration error (3)	Response time (7) - voltage output	Cosine error (4)	Azimuth error (5)	Temperature coefficient	Internal resistance - voltage output
7µA/100 µmol m^{-2} s^{-1}	1mV/100 µmol m^{-2} s^{-1}	0-5x10^4 µmol m^{-2} s^{-1}	<0.2%	typ. <3% 5% max	10ns	3%	<1%	+0.2%/°C	170 Ω
Longterm stability (6)	**Sensor**	**Filters**	**Weight**	**Detector**	**Temperature range**	**Humidity range**	**Dimensions**	**Construction**	**Cable**
±2%	Cosine corrected head	Optical glass	160g. (with 3m cable)	Silicon/ GASP	-30 to + 75°C	0-100% RH		Acetyl/ Dupont 'Delrin'.	2 core screened, 1.2m in length (or length to suit customer) DEF std 61-12/4.5

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.

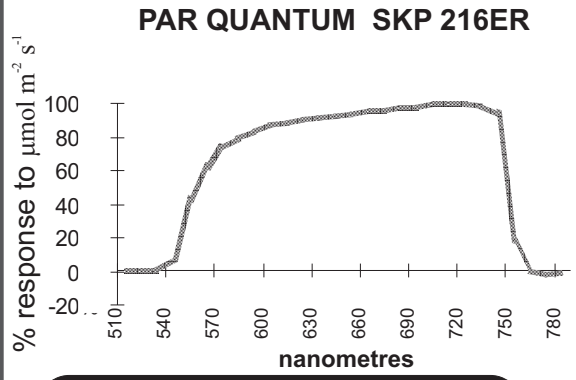
(4) Cosine error to 80º is typically 5% max. Figures shown are for normal use sources, e.g., sun plus sky, diffuse sun, growth chambers, etc.

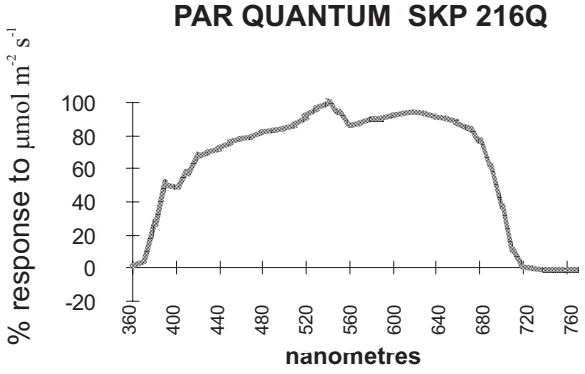
(5) Measured at 45º elevation over 360º

(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

GRAPH





ORDERING INFORMATION

Sensor

SKP 216ER	Quantum sensor for Hansatech Leaf Chamber 550-750nm
SKP 216Q	Quantum sensor for Hansatech Leaf Chamber 400-700nm

Accessories

SKL 140	Carrying case

Meters and dataloggers

SKP 200H	Display Meter
SDL 5000 series	DataHog datalogger

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