

## PHOTOMETRIC AND RADIOMETRIC PROBES



## HIGHLIGHTS:

- Non destructive material measurement by ISO 3059:2001

ILLUMINANCE AND  
UVA IRRADIANCE

## LP 471 P-A

Art. no. 700071

Combined probe LP 471 P-A with two sensors for the measure of illuminance and UVA irradiance

## General:

Combined probe for measuring illuminance (lux), with standard photopic response, and irradiance ( $\mu\text{W}/\text{cm}^2$ ) in the UVA spectral range (315 ... 400 nm, with peak at 360 nm). Both the sensors are equipped with diffuser for the correction according to the cosine law.

Illuminance measuring range: 0.10 ... 200·10<sup>3</sup> lux

Irradiance measuring range: 1.0 mW/m<sup>2</sup> ... 2.000 W/m<sup>2</sup>.

This probe provides the ratio between UVA irradiance and illuminance in  $\mu\text{W}/\text{lumen}$  (quantity of interest in museums). The probe is equipped with SICRAM module and cable 2 m long.

## Application:

Lighting conditions and protection from UVA radiation in museums. Measurement of lighting strength and UVA radiation strength with penetration testing according to DIN EN ISO 3059 (crack/surface testing), ...

## Specifications Illuminance:

**Measuring range (lux):** 0.10 ... 199.99 ... 1.999.9 ... 19.999 ... 199.99·10<sup>3</sup>

**Resolution (lux):** 0.01 0.1 1 0.01·10<sup>3</sup>

**Spectral range:** in agreement with standard photopic curve V( $\lambda$ )

**$\alpha$  (temp. coefficient)  $f_6$  (T):** <0.05 % K

**Calibration uncertainty:** <4 %

**$f_1$  (in agreement with photopic response V( $\lambda$ )):** <6 %

**$f_2$  (response according to the cosine law):** <3 %

**$f_3$  (linearity):** <1 %

**$f_4$  (instrument reading error):** <0.5 %

**$f_5$  (fatigue):** <0.5 %

**Class:** B

**Drift after 1 year:** <1 %

**Working temperature:** 0 ... 50 °C

**Reference standards:** CIE n.69 – UNI 11142

## Specifications UVA Irradiance:

**Measuring range ( $\mu\text{W}/\text{cm}^2$ ):** 0.10 ... 199.99 ... 1.999.9 ... 19.999 ... 199.99·10<sup>3</sup>

**Resolution ( $\mu\text{W}/\text{cm}^2$ ):** 0.01 0.1 1 0.01·10<sup>3</sup>

**Spectral range:** 315 ... 400 nm (Peak 360 nm)

**Calibration uncertainty:** <5 %

**$f_2$  (response according to the cosine law):** <6 %

**$f_3$  (linearity):** <1 %

**$f_4$  (instrument reading error):**  $\pm 1$  digit

**$f_5$  (fatigue):** <0.5 %

**Drift after 1 year:** <2 %

**Working temperature:** 0 ... 50 °C



GLOBAL SOLAR RADIATION

## LP 471-SILI-PYRA

Art. no. 700072

Probe for the measure of global solar radiation

## General:

Solarmeter with silicon photodiode for measuring the global solar irradiance, diffuser for cosine correction. Spectral range 400 ... 1100 nm.

Measuring range: 1.0·10<sup>-3</sup> ... 2.000 W/m<sup>2</sup>. The probe is equipped with a SICRAM module and a 5 m cable.

## Application:

Efficiency control of photovoltaic panels in home and industrial solar power applications.

## Specifications:

**Measuring range (W/m<sup>2</sup>):** 1.0·10<sup>-3</sup> ... 999.9·10<sup>-3</sup> 1.000 ... 19.999  
20.00 ... 199.99 200.0 ... 1.999.9

**Resolution (W/m<sup>2</sup>):** 0.1·10<sup>-3</sup> 0.001 .01 0.01

**Spectral range:** 400 ... 1.100 nm

**Calibration uncertainty:** <3 %

**$f_2$  (response according to the cosine law):** <3 %

**$f_3$  (linearity):** <1 %

**$f_4$  (instrument reading error):**  $\pm 1$  digit

**$f_5$  (fatigue):** <0.5 %

**Drift after 1 year:** <2 %

**Working temperature:** 0 ... 50 °C