

PHOTOMETRIC AND RADIOMETRIC PROBES



IRRADIANCE IN THE SPECTRAL BAND OF BLUE LIGHT

LP 471-BLUE

Item No. 700070

Probe for photo- and radiometer HD2302, illuminance in the spectral band of blue light

GENERAL:

The radiometric probe LP471-BLUE measures the irradiance (W/m²) in the spectral band of blue light. The probe consists of a photodiode and a corresponding filter and is equipped with a diffuser for cosine correction.

APPLICATION:

The spectral sensitivity curve of the probe enables the measurement of the radiation that is the cause of damage due to blue light (curve B (λ) according to the ACGIH/IC-NIRP standards) in the spectral range of 380..550 nm. Radiation in this part of the spectrum can cause photochemical damage to the retina. Another area of application is the monitoring of the irradiance with blue light as it is used, for example, in the treatment of neonatal jaundice.

TECHNICAL SPECIFICATIONS:

Measuring range (W/m ²):	1.0 · 10 ⁻³ ..999.9 · 10 ⁻³ 1,000..19,999 20.00..199.99 200.0..1,999.9
Resolution (W/m ²):	0.1 · 10 ⁻³ 0.001 0.01 0.01
Spectral range:	380..550 nm. Effect curve for damage caused by blue light B (λ)
Calibration uncertainty:	<10 %
f ₂ (sensitivity according to cosine law):	<6 %
f ₃ (linearity):	<3 %
f ₄ (read error of the device):	± 1 digit
f ₅ (fatigue):	<0.5 %
Drift after 1 year:	<2 %
Working temperature:	0 .. + 50 °C



ILLUMINATION LEVEL AND UVA IRRADIANCE LEVEL

HIGHLIGHTS:

- Non-destructive material measurement according to ISO 3059: 2001

LP 471 P-A

Item No. 700071

Probe LP 471 P-A with two sensors, combines illuminance and UVA irradiance

GENERAL:

Combined probe for the measurement of illuminance (lux) with standard photopic sensitivity and irradiance (μW/cm²) in the UVA spectral range (315..400 nm, with peak at 360 nm). Both sensors have a diffuser for correction according to the cosine law.

Measuring range for illuminance: 0.10..200 · 10³ lux
Measuring range for irradiance: 1.0 mW/m²..2,000 W/m². This probe offers a balanced relationship between UVA irradiance and illuminance in μW/lumen (decisive factor in museums). The probe is equipped with a SICRAM module and a 2 m long cable.

APPLICATION:

Lighting conditions and protection against UVA irradiance in museums. Measurement of illuminance and UVA irradiance in penetrant tests according to DIN EN ISO 3059 (crack/ surface test), ...

TECHNICAL SPECIFICATIONS:	ILLUMINANCE	UVA IRRADIANCE
Measuring range:	0.10..199.99 lux ..1,999.9 lux ..19,999 lux ..199.99 · 10 ³ lux	0.10..199.99 μW/cm ² ..1,999.9 μW/cm ² ..19,999 μW/cm ² ..199.99 · 10 ³ μW/cm ²
Resolution:	0.01 lux 0.1 lux 1 lux 0.01 · 10 ³ lux	0.01 μW/cm ² 0.1 μW/cm ² 1 μW/cm ² 0.01 · 10 ³ μW/cm ²
Spectral range:	in accordance with a photopic standard curve V (λ)	315..400 nm (peak 360 nm)
α (temperature coefficient) f ₆ (T):	<0.05 % K	
Calibration uncertainty:	<4 %	<5 %
f'1 (in agreement with photopic sensitivity V (λ)):	<6 %	
f ₂ (sensitivity according to cosine law):	<3 %	<6 %
f ₃ (linearity):	<1 %	<1 %
f ₄ (read error of the device):	<0.5 %	± 1 digit
f ₅ (fatigue):	<0.5 %	<0.5 %
Class:	B	
Drift after 1 year:	<1 %	<2 %
Working temperature:	0 .. + 50 °C	0 .. + 50 °C
Reference standards:	CIE n.69 - UNI 11142	



GLOBAL SOLAR IRRADIANCE

LP 471-SILI-PYRA

Item No. 700072

Probe for photo- and radiometer HD2302, global solar irradiance

GENERAL:

Solar meter with silicon photodiode for measuring global solar irradiance, diffuser for cosine correction. Spectral range 400..1,100 nm. Measuring range: 1.0 x 10⁻³..2,000 W/m² the probe is equipped with a SICRAM module and a 5 m long cable.

APPLICATION:

Efficiency control for photovoltaic panels in the home and industrial solar energy sector.

TECHNICAL SPECIFICATIONS:

Measuring range (W/m ²):	1.0 · 10 ⁻³ ..999.9 · 10 ⁻³ 1,000..19,999 20.00..199.99 200.0..1,999.9
Resolution (W/m ²):	0.1 · 10 ⁻³ 0.001, 01 0.01
Spectral range:	400..1,100 nm
Calibration uncertainty:	<3 %
f ₂ (sensitivity according to cosine law):	<3 %
f ₃ (linearity):	<1 %
f ₄ (read error of the device):	± 1 digit
f ₅ (fatigue):	<0.5 %
Drift after 1 year:	<2 %
Working temperature:	0 .. + 50 °C