SOLAR® LIGHT

Analog Sensors
UVA Probe PMA1112

Measures Ultraviolet Radiation from 320 to 400nm

Solar Light's Model PMA1112 Analog High Intensity UVA Probe is a useful tool for UV curing applications. It measures UVA radiation in the range from 320-400nm (with peak sensitivity at the 365nm mercury emission line) via a diffuser mounted at the end of its 18" (45.7 cm) probe. The light is delivered to the sensor through a quartz light guide encapsulated in a metal envelope inside the probe, making it suitable for high temperature applications up to 400°C. The UVA sensor's high dynamic range allows measurement of signals as strong as 10 W/cm^2 and as weak as 0.1 mW/cm^2. The probe is milled with a guide slot for repeatable positioning.

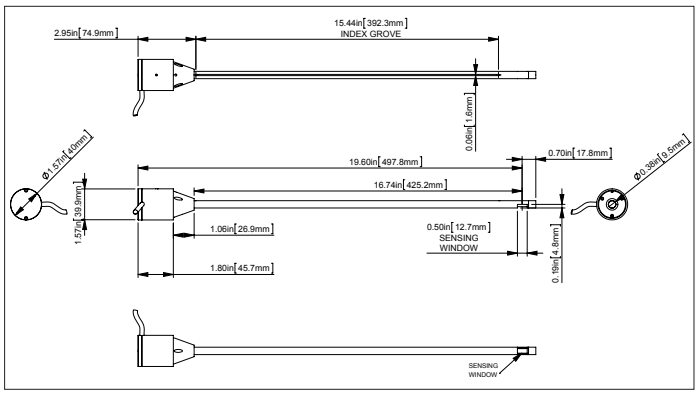
Applications

- UV Curing, Printing and Photolithography
- Monitoring of UV Sources Stability and Lifetime
- Measurements in Hazardous Environment
- Industrial Radiometry

Features and Benefits

- High Sensitivity
- High Dynamic Range
- High Temperature Operation
- Durable Construction
- Excellent Long-Term Stability
- NIST Traceable Calibration
- Radiometric Units
- Probe Electrically Isolated from the Meter
- Easy to Install
- Guide Slot for Repeatable Positioning

High Intensity UVA Probe



Est. Weight: 10 oz. (280 g)

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SPECIFICATIONS	
Spectral Response	320-400nm, Figure 1
Angular Response	5% for Angle ≤ 60°
Input	±5-12 VDC @ <1 mA
Output	0-5 VDC (0 to Supply -0.5 Volts)
Range	10 [W/cm^2] or 10,000 [mW/cm^2]
Operating Environment	**Tip** - -56 to 750°F (-50 to +400°C)
	Sensor - 32 to 120°F (0 to +50°C)
Temperature Coefficient	Negligible
Cable Length	6ft (1.82m)
Dimensions and Weight	**See Outline Drawing*

WIRE CONNECTIONS	
Wire Color	**PMA1112 Signal**
White and Yellow	Analog Output (0 to Supply - 0.5 Volts) Connect Wires Together
Green and Blue	Analog/Power Ground, Connect Wires Together
Red	+5V to +12V Power Input
Orange	-5V to -12V Power Input
Braid	Cable Shield

Part Number: 210029
Revision Level: A
Specifications subject to change without notice.

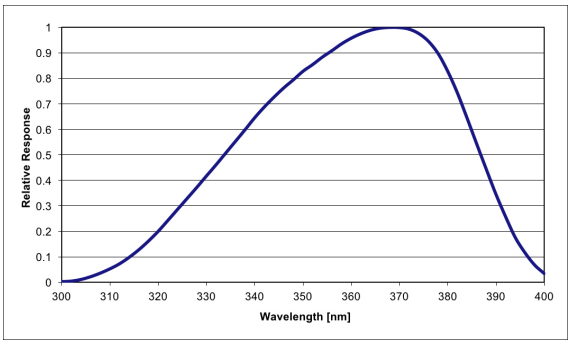

Fig. 1. Linear Spectral Response

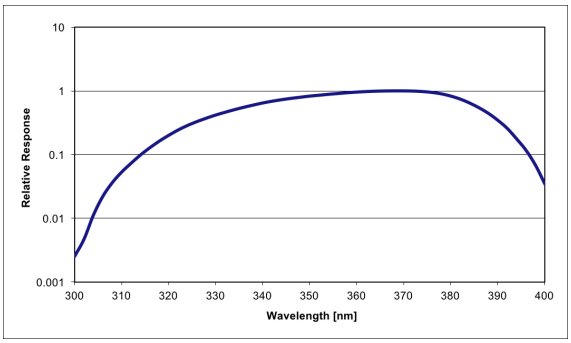

Fig. 2. Log Spectral Response

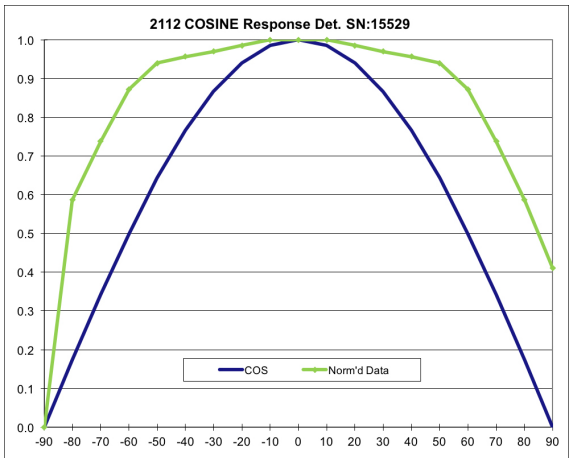

Fig. 3. Vertical Cosine Response

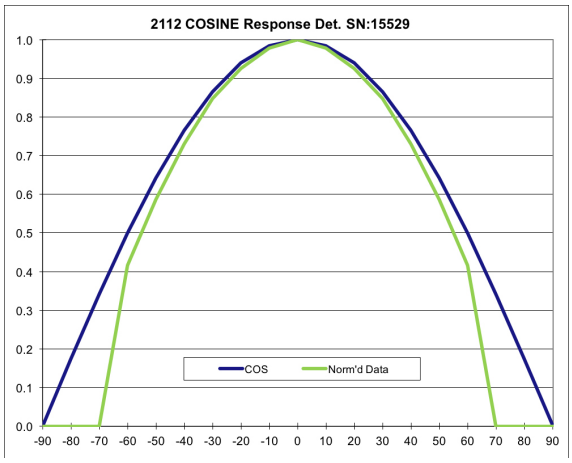

Fig. 4. Horizontal Cosine Response

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Since 1967, Solar Light Company, Inc. has been recognized worldwide as America's premier manufacturer of Precision Solar Simulators and Light Sources, Light Measurement Instrumentation, UV Transmittance Analyzers, Meteorological Instrumentation, and Digital and Analog Sensors. Our advanced line of UV, visible, and IR radiometers and light meters measure laboratory, industrial, environmental, and health related light levels with NIST traceable accuracy. Column ozone, aerosol, and water vapor thickness measurements, in addition to long-term global ultraviolet radiation studies all over the world are performed using our atmospheric line of instrumentation. Solar Light also provides NIST traceable spectroradiometric analyses, calibrations for light meters and light sources, accelerated ultraviolet radiation degradation testing of materials, and OEM instrumentation and monitors. Please visit our website for more details, specifications, and pictures!

State Of The Art Solar Simulators available in 150-1000+ watt UV or AM variations for a variety of applications including PV Cell Testing, Materials Testing, Pre-Irradiation for In Vitro Broad Spectrum Sunscreen Testing, SPF Testing, and much more.

Multi-Functional Professional Grade Radiometers available with and without data logging, and compatible with over 130 Solar Light PMA-Series Sensors to measure UV, Visible and IR wavelengths. Specialty Meters also available to measure UV Radiation, SUV/UVA, Scotopic/ Photopic Spectra, and much more.

Advanced NIST-Traceable Sensors for accurate measurement of UVA, UVB, UVA+B, UVC, Visible, IR, Photostability, Temperature, and Custom Wavelength – well over 130 models in both digital and analog configurations, all compatible with our Radiometers.

Ultraviolet Transmittance Analyzers available as complete integrated turnkey systems to meet the latest ISO24443 requirements.

Handheld Ozonometers and Sunphotometers for fast and dependable Column Ozone, Aerosol, and Water Vapor Thickness measurements, in addition to long-term global ultraviolet radiation studies.

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