

Solarmeter® Model 6.0

UVB Meter • 0-19.99 mW/cm²

Handheld Digital UVB Radiometer
with Integral Sensor



Sensor

Silicon Carbide (SiC) Photodiode packaged in hermetically sealed UV Glass window cap. Interference filter blocks most UVA from response as shown on the Spectral Sensitivity Graph.

Meter Operation

To operate your Solarmeter, aim the sensor window located on the top panel of the meter directly at a UV source. Press and hold the push-button switch on the face of the meter. For best results take note of the distance the reading was taken from the UV source in order to ensure repeatable results.

Battery operation voltage is viable from 9V down to 6.5V. Below 6.5V, the numbers on the LCD display will begin to dim, indicating the need for battery replacement. Under typical service load, a standard 9V battery will last approximately 2 years.

Proper Usage of Solarmeter® Ultraviolet Radiometer

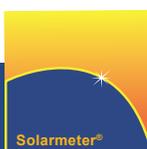
- Wear eye protection when checking UV lamps (Glasses that provide wrap around protection are ideal).
- Allow lamps to warm up prior to taking readings (at least 5 minutes).
- When checking lamp aging, make sure to use the same location and distance to ensure accurate readings.
- Lamps should be replaced when output drops to about 70% of their original (new) readings.
- If you are unsure of original lamp values, replace two adjacent lamps identical new ones and compare.

Applications

- Monitoring UV Lamp Intensity & Aging
- Monitoring UVB Phototherapy Lamp Intensity & Aging
- Testing Acrylic Shield Transmission
- Measuring Outdoor UVB
- Testing Eyewear UVB Blocking Capabilities
- Testing Window Tint / Film Transmission
- Choose Standard Model 6.0 For Outdoor / High Intensity Applications
- Choose Sensitive Model 6.2 For Indoor / Low Intensity Applications

Features and Benefits

- Compact, Handheld, and Durable
- Simple Single-Button Operation
- NIST Traceable Accuracy
- LCD Display
- Made In USA



Solarmeter® Model 6.0

UVB Meter • 0-19.99 mW/cm²

Proper Usage (continued)

- To determine percent UVB, divide Model 6.0 (UVB) reading by Model 5.0 (UVA + UVB) reading.
- Note: The black dot on the LCD is a decimal point.
- Use a dry, soft cloth to clean the instrument. Keep sensor free of oil, dirt, etc.
- Do not subject the meter to extremes in temperature, humidity, shock or dust.

Acrylic Testing

- When comparing different types of lamps consider readings to be relative rather than absolute.
- For acrylic testing, take readings with and without acrylic at a fixed distance. Model 6.0 is best for acrylic tests.
- SPSDs will read higher than ones peaking near 313 nm even if the total UVB output of both is the same.

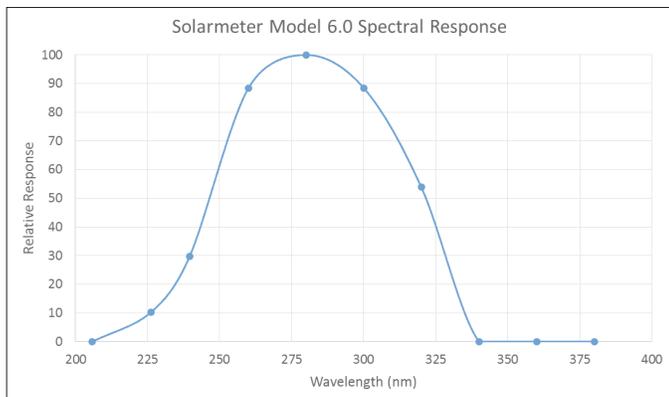


Fig. 1. Model 6.0 Spectral Response

SPECIFICATIONS

Model	6.0
Irradiation Range	0-19.99 mW/cm ² UVB
Response	235-330 nm UVB
Resolution	0.01 mW/cm ²
Conversion Rate	3.0 Readings / Sec
Display	3.5 Digit LCD
Digit Size	0.4" / 10.2 mm
Operational Temperature	32°F to 100°F / 0°C to 37.8°C
Operational Humidity	5% to 80% RH
Accuracy	±10% Ref. NIST
Meter Dimensions	4.2L x 2.4W x 0.9D in / 106.7L x 61W x 22.9D mm
Weight	4.5 oz / 128g Including Battery
Power Source	9-Volt DC Battery
Lens	UV Glass
Diffuser	Teflon
Agency Approval	CE Mark

Rev: sm/sensors/model6.0_6/2018
Specifications subject to change without notice.

Solar Light Company, Inc. is recognized worldwide for over 50 years as America's premier manufacturer of precision ultraviolet light sources, solar simulators, and radiometers. Our standard 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, OEM instrumentation and monitors, and accelerated ultraviolet radiation degradation testing of materials.

