Solarmeter® Model 7.5

UV Erythemally Effective (Eeff) Meter • 0-19.99 W/m²

Handheld Digital UV Radiometer with Integral Sensor

Applications

- Monitoring UV Lamp Intensity and Aging
- Monitoring Instantaneous UV in W/m²
- Monitoring Tanning Lamp Output Regulations
- Measuring Solar Intensity in W/m²
- Testing Window Tint / Film Transmission
- Testing Acrylic Shield Transmission
- Testing Eyewear UV Blocking Capabilities

Features and Benefits

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

Sensor

Silicon Carbide (SiC) Photodiode in hermetically sealed UV glass window cap. Interference filter blocks UV above erythemal response as shown on 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.
- To take the overall reading at the center of the tanning bed, place meter pointing up with canopy closed.
- To take readings at body position, hold the meter about 25cm above the bench with canopy closed.

Official Distributor • www.solarmeter.fr • contact@solarmeter.fr
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Proper Usage *(continued)*

- To take individual lamp readings, hold the meter against the acrylic with canopy open.
- If you are unsure of original lamp values, replace two adjacent lamps identical new ones and compare.
- When comparing different types of lamps consider readings to be relative rather than absolute.
- Do not subject the meter to extremes in temperature, humidity, shock or dust.
- Use a dry, soft cloth to clean the instrument. Keep sensor free of oil, dirt, etc.
- Note: The black dot on the LCD is a decimal point.

Acrylic Testing

- For acrylic testing, take readings with and without acrylic at a fixed distance.
- When comparing different types of lamps consider readings to be relative rather than absolute.

How to Use Model 7.5

For tanning beds, hold meter on bottom acrylic (bench) pointing up at closed canopy in center of bed for overall reading. Also can check individual lamps at acrylic to see if there are any reading much lower than the rest. In either case, allow lamps to warm up about 5 minutes to stabilize.

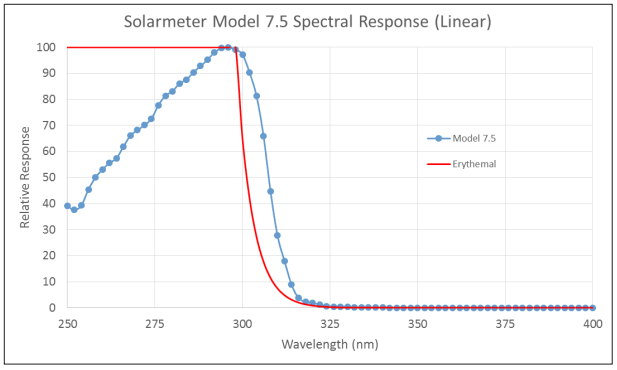

Fig. 1. Model 7.5 Spectral Response (Linear)

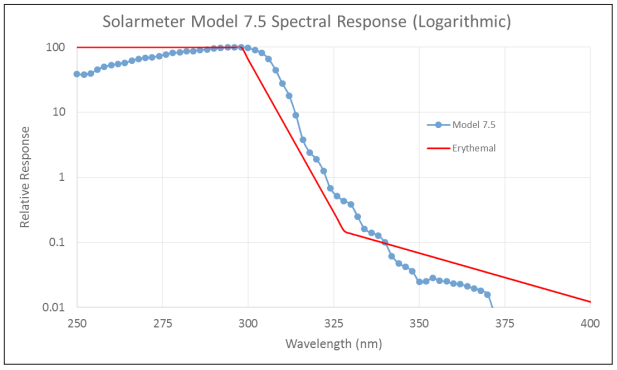

Fig. 2. Model 7.5 Spectral Response (Logarithmic)

SPECIFICATIONS	
Model	7.5
Irradiation Range	19.99 W/m²
Response	280-400 nm Diffey Erythemal Action Spectrum
Resolution	0.01 W/m²
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
Detector	SIC Photodiode w/IF
Agency Approval	CE Mark

Rev: sm/sensors/model7.5_5/2018
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.