



MODEL 7.5

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

*Handheld Digital UV Radiometer
with Integral Sensor*



SENSOR

Silicon Diode (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 min).
- When checking aging of lights, keep measuring distance and locations constant.
- Lights 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 the body position, hold the meter about 25cm above the bench with canopy closed.

APPLICATIONS

- Monitoring UV Lamp Intensity & 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



PUBLIC HEALTH



METROLOGY



ENVIRONMENT



OUTDOOR
ACTIVITIES

FEATURES AND BENEFITS

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

100 East Glenside Avenue
Glenside, PA 19038 USA

SolarMeter.com

1.215.517.8700



ISO 9001
2015



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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 with identical new ones and compare.
- When comparing different types of lamps considering readings to be relative rather than absolute.
- 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.
- 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 readings much lower than the rest. In either case, allow lamps to warm up about 5 minutes to stabilize.

| SPECIFICATIONS | |
|-------------------------|--|
| MODEL | 7.5 |
| IRRADIATION RANGE | 0-19.99 W/m ² |
| RESPONSE | 280-400 nm Diffey Erythema Action Spectrum |
| RESOLUTION | 0.01 W/m 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 |
| DETECTOR | SIC Photodiode w/IF |
| AGENCY APPROVAL | CE Mark |

REV D | MODEL 7.5 | Jan 2023
Specifications subject to change without notice.

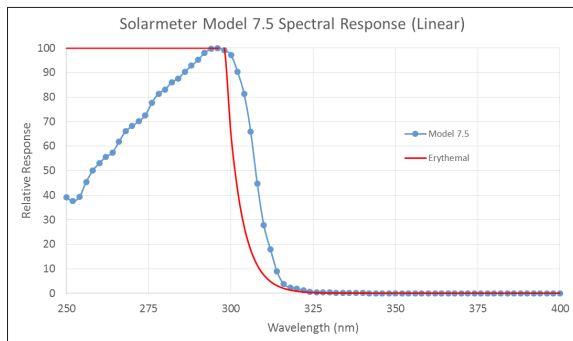


Fig. 1. Model 7.5 Spectral Response (Linear)

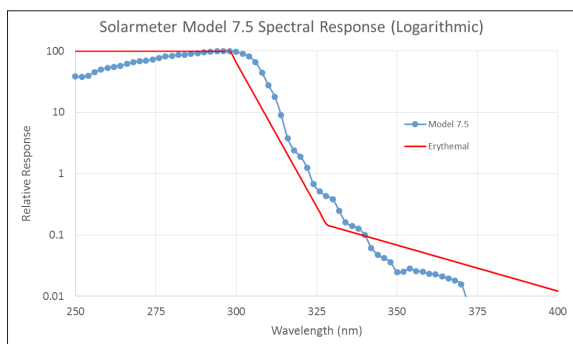


Fig. 2. Model 7.5 Spectral Response (Logarithmic)

SOLARMETER® by Solar Light Company, LLC is the industry standard for UV and visible light radiometers that measure both indoor and outdoor light sources. Our NIST Traceable meters are used to monitor lamp irradiance and aging for UV sterilization, reptile husbandry, indoor tanning, red/blue light phototherapy, UV curing and UV Index.

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