

# Solarmeter® Model 7.0

UV Erythemally Effective (Eeff) Meter • 0-199.9 MED/Hr

Handheld Digital UV Radiometer  
with Integral Sensor



## Applications

- Monitoring Instantaneous UV In MED/Hr
- Monitoring UV Lamp Intensity and Aging
- Measuring Solar Intensity In MED/Hr
- Comparison Of Sources In MED/Hr
- Tracking Of UV In MED/hr Over Time

## 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 erythral 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).
- 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 25 cm above the bench with canopy closed.
- To take individual lamp readings, hold the meter against the acrylic with canopy open.



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## Proper Usage (continued)

- Time (in minutes) to 4 MEDs = 240/(meter reading in MED/Hr).
- 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.

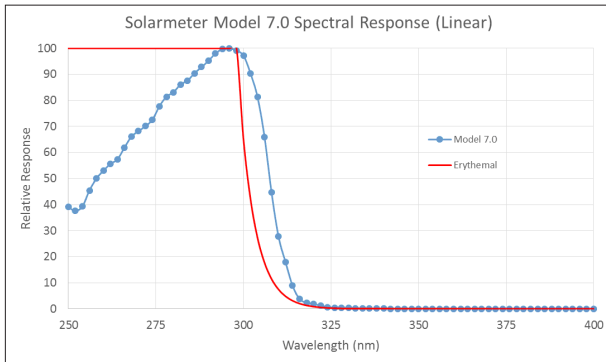


Fig. 1. Model 7.0 Spectral Response (Linear)

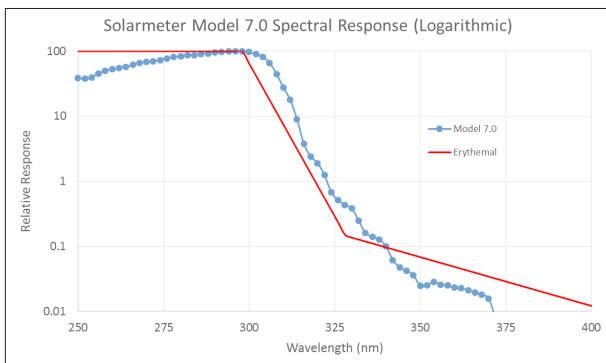


Fig. 2. Model 7.0 Spectral Response (Logarithmic)

## SPECIFICATIONS

<b>Model</b>	7.0
<b>Irradiation Range</b>	0-199.9 MED/Hr
<b>Response</b>	280-400 nm Diffey Erythemat Action Spectrum
<b>Resolution</b>	0.1 MED/Hr
<b>Conversion Rate</b>	3.0 Readings / Sec
<b>Display</b>	3.5 Digit LCD
<b>Digit Size</b>	0.4" / 10.2 mm
<b>Operational Temperature</b>	32°F to 100°F / 0°C to 37.8°C
<b>Operational Humidity</b>	5% to 80% RH
<b>Accuracy</b>	±10% Ref. NIST
<b>Meter Dimensions</b>	4.2L x 2.4W x 0.9D in / 106.7L x 61W x 22.9D mm
<b>Weight</b>	4.5 oz / 128g Including Battery
<b>Power Source</b>	9-Volt DC Battery
<b>Lens</b>	UV Glass
<b>Diffuser</b>	Teflon
<b>Detector</b>	SiC Photodiode w/IF
<b>Agency Approval</b>	CE Mark

Rev: sm/sensors/model7.0\_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.

