



MODEL 6.4

Vitamin D3 Meter • 0-1999 IU/min

Handheld Digital UV Radiometer
with Integral Sensor



APPLICATIONS

- Monitoring of Vitamin D Production in IU/min
- Monitoring UV Lamp Intensity and Aging
- Comparison of Sources in Terms of Vitamin D Production
- Measuring Solar Intensity in Terms of Vitamin D Production



ENVIRONMENT



PUBLIC HEALTH



OUTDOOR
ACTIVITIES

FEATURES AND BENEFITS

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

SENSOR

Silicon Carbide (SiC) Photodiode packaged in hermetically sealed UV Glass window cap. Interference filter blocks most non-erythema (non-D3) irradiance from 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. Reading represents IU/min D3 on 10% body surface.

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® D3 RADIOMETER

- Wear eye protection when checking UV lamps. Glasses that provide wrap around protection are ideal.
- Allow lights to warm-up prior to taking readings (at least 5 min).
- Keep track of exactly how long you are exposed to a UV source to properly calculate total vitamin D produced.
- 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.

100 East Glenside Avenue
Glenside, PA 19038 USA

SolarMeter.com

1.215.517.8700



ISO 9001
2015



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PROPER USAGE (CONTINUED)

- Please go to SolarMeter.com and choose the Solarmeter® Model 6.4 to receive a downloadable Vitamin D calculation utility to aid in your use of the meter.

- Some helpful formulas embedded in the utility:
1000 IU = 1 MED (Minimal Erythral Dose) The minimum dose of radiation that produces a sunburn.

1 IU/min = 1/1000 MED/min (or 0.06 MED/hr, which = 1/16.67 MED/Hr)

1 MED/Hr = 2.33 UVI and 1 MED/Hr = 16.67 IU/min.

The conversion constant for IU/min to UVI is
 $16.67 / 2.33 = 7.1$ UVI.

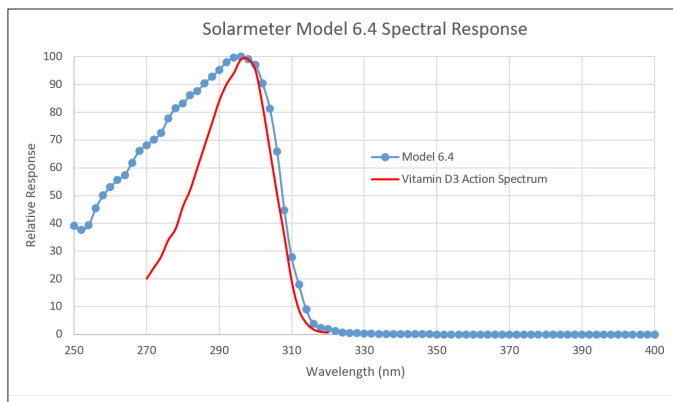


Fig. 1. Model 6.4 Spectral Response (Linear)

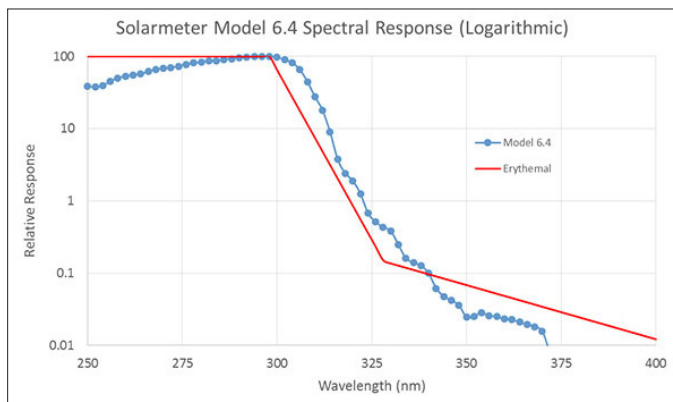


Fig. 2. Model 6.4 Spectral Response (Logarithmic)

SPECIFICATIONS

MODEL	6.4
IRRADIATION RANGE	0-1999 IU/min
RESPONSE	280-400 nm Diffey Erythral Action Spectrum
RESOLUTION	1 IU/min
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 C | MODEL 6.4 | Jan 2023
Specifications subject to change without notice.

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.