

Radiometer • VITAMIN D UV

MODEL 6.4

A Hand Held Digital UV Radiometer with Integral Sensor



Applications

- Vitamin D Dose in IU/min
- Lamp Intensity in Terms of Vitamin D Production
- Solar Intensity in Terms of Vitamin D Production

Features and Benefits

- Hand Held Integral Sensor
- Accurate Calibration
- NIST Traceable
- Compact and Durable
- LCD Readout

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 the sun or UV lamp 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 around 2 years.

Proper Usage of Solarmeter® D3 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).
- 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.

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Please go to www.solarmeter.com and choose the Solarmeter Model 6.4 page to receive a downloadable interactive Vitamin D calculation utility to aid in your use of the meter.

Some helpful formulas embedded in the utility found at www.solarmeter.com.

- 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.

Specifications	
Irradiation Range	0-1999 IU/min
Response	280-400nm Diffey Erythral Action Spectrum
Resolution	1 IU/Min
Conversion Rate	3.0 Readings/Sec
Display	3.5 Digit LCD
Digit Size	0.4 inch High
Operation Temperature	32° F to 90° F
Operation Humidity	5% to 80% RH
Accuracy	±10% REF. NIST
Dimensions	4.2L x 2.4W x 0.9D (in.)
Weight	4.5 OZ. (Including Battery)
Power Source	9-Volt DC Battery
Lens	UV Glass with Diffuser
Ordering Information	
Model 6.4	D3 Radiometer

SM/Sensors/Model 6.4 RL_09/2015

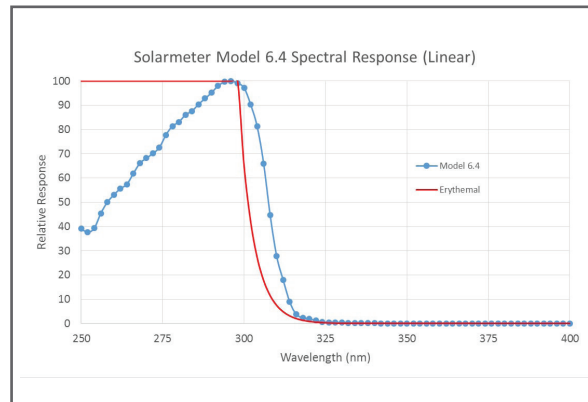


Fig. 1. Model 6.4 Spectral Response (Linear)