

Solarmeter® Model 9.2

Bilirubin Light Meter • 0-1999 $\mu\text{W}/\text{cm}^2$

Handheld Digital Bilirubin Radiometer
with Integral Sensor



Sensor

GaP Photodiode packaged in hermetically sealed UV glass window cap. Filter used to narrow response as shown on Spectral Response Graph.

Meter Operation

To operate your Solarmeter, aim the sensor window located on the top panel of the meter directly at a 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 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® Bilirubin Light Radiometer

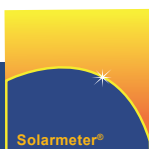
- Wear actinic eye protection when checking intense light sources.
- Allow lights to warm up prior to taking readings (at least 5 min).
- For individual light intensity, hold meter close to LED or lamp.
- For effective light intensity, hold meter at working distance from the light source.
- When checking aging of lights, keep measuring distance and locations constant.
- Lights should be replaced when output drops to about 70% of their original (new) readings.

Applications

- Monitoring Bilirubin Light Intensity and Aging
- Monitoring Blue Light / LED Intensity and Aging
- Monitoring Aquarium Lamp Intensity and Aging
- Monitoring Acne Lamp Intensity and Aging
- Measuring Blue Light From Household Appliances
- Measuring Photosynthetic Action Spectrum Blue Band
- Testing Eyewear Actinic Blocking Capabilities

Features and Benefits

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



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Proper Usage (continued)

- If unsure of what new values were, replace an adjacent light with a new identical one and compare the two.
- 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.

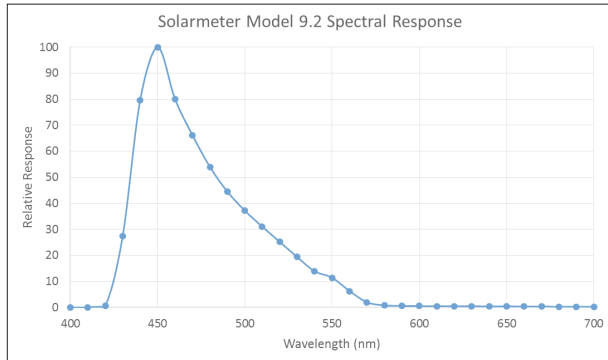


Fig. 1. Model 9.2 Spectral Response

SPECIFICATIONS

Model	9.2
Irradiation Range	0-1999 $\mu\text{W}/\text{cm}^2$ Blue Light
Peak Response	98% at 450 nm
Response	422-499 nm Blue Light
Resolution	1 $\mu\text{W}/\text{cm}^2$
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 90% RH
Accuracy	$\pm 10\%$ 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	GaP Photodiode with Filter
Agency Approval	CE Mark

Rev: sm/sensors/model9.2_6/2018
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.

