

ACCU-CAL™ 50 Radiometer

- Simple to Operate
- Set Screw Locks Lightguide in Place
- PTB and NIST Traceable

Consistent UV light curing requires periodic monitoring of UV intensity or dose. The ACCU-CAL™ 50 radiometer is simple to operate and offers repeatable measurement of UV light. The ACCU-CAL™ 50 can measure UV light emitted from lightguides (3 mm, 5 mm, and 8 mm), UV flood systems, and UV conveyors. With a spectral sensitivity from 320 to 395 nm (UVA), the ACCU-CAL™ 50 measures intensities from 1 mW/cm^2 to 40 W/cm^2. A specially designed photo-sensor assembly protects the photo-sensor from the high temperatures sometimes associated with today's high intensity UV spot lamps.

Three Reasons to Use a UV/Visible Radiometer

- Maintaining a Light-Curing Process – A radiometer measures whether a light-curing system is providing intensity above the "bulb change" intensity. Radiometers provide the same monitoring control for light curing processes that thermometers provide for thermal processes.
- Providing a Worker Friendly Light-Curing Process – The ACCU-CAL™ 50 is sufficiently sensitive to measure the intensity of stray or reflected UV light (as little as 1 mW/cm^2). Dymax recommends that worker UVA exposure not exceed 1 mW/cm^2. For reference, UV (320-395 nm) intensity on a sunny day can range from 2-6 mW/cm^2.
- Measuring Transmission Rates Through Substrates – A radiometer can be used to measure the transmission rates of various wavelengths through substrates that absorb UV and/or visible light. To assure an effective curing process it is critical to measure the light intensity reaching the resin below the intervening substrate.

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Specifications

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Spectral Sensitivity	320 to 395 nm
Intensity Range	1 mW/cm^2 to 40 W/cm^2
Resolution	Intensity (1 mW/cm^2; to three significant digits) Dose (1 mJ/cm^2)
Calibration Period	12 months
Operating Temperature Ranges	Optometer: +5 to +40°C Detector: 120°C continuous, Peak 200°C
Measurement Modes	Intensity (mW/cm^2 and W/cm^2) Peak Intensity (mW/cm^2 and W/cm^2) Dose (J/cm^2)
Light Sources	Lightguides (3 mm, 5 mm, and 8 mm) Floods/Conveyors
Power Supply	Two (2) AA batteries
Battery Life	250 hours (automatic shutoff after 1 hour)
Sensor Dimensions	Photo-Sensor Diameter = 9 mm Diameter = 37 mm Thickness = 8 mm Cable Length = 1 M
Meter Dimensions	120 mm x 65 mm x 23 mm (Length x Width x Thickness)

Radiometer Calibration

Dymax recommends calibrating the ACCU-CAL™ 50 radiometer annually to ensure proper operation of the instrument. Calibration services are available through Dymax. Please contact Dymax Customer Support for more information.

Ordering Information

Product	Part Number	Description
ACCU-CAL™ 50 for Flood Lamps and Conveyors	39561	Complete radiometer (without lightguide adapters or lightguide simulator*); includes storage/carrying case
ACCU-CAL™ 50 for Spot and Flood Lamps and Conveyors	39560	Complete radiometer with lightguide adapters (3 mm, 5 mm, and 8 mm) and lightguide simulator*; includes storage/carrying case
Flood to Spot Adapter Kit	39554	Kit includes three lightguide adapters (3 mm, 5 mm, and 8 mm) and a lightguide simulator*
Lightguide Adapter	39556	Fits 3 mm ID lightguides (5 mm OD)
	39557	Fits 5 mm ID lightguides (7 mm OD)
	39558	Fits 8 mm ID lightguides (10 mm OD)
Lightguide Simulator (5 mm)	38408	5 mm lightguide simulator with a standard D connection

*A lightguide simulator is used to measure direct spot lamp intensity (required to calculate lightguide transmission)



ACCU-CAL™ 50 for measuring spots, floods, and conveyors PN 39560



ACCU-CAL™ 50 for measuring floods and conveyors only PN 39561