ACCU-CAL™ 50V Visible Radiometer

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

Consistent curing requires periodic monitoring of visible energy intensity or dose. The ACCU-CAL™ 50V radiometer is simple to operate and offers repeatable measurement of visible light. The ACCU-CAL 50V can measure visible light energy emitted from lightguides (3 mm, 5 mm, and 8 mm), flood systems, and conveyors. With a spectral sensitivity from 400 to 470 nm (blue portion of the visible spectrum), the ACCU-CAL 50V 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 spot lamps.

Three Reasons to Use a 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 50V is sufficiently sensitive to measure the intensity of stray or reflected visible light (as little as 1 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

Specifications	
Spectral Sensitivity	400 to 470 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™ 50V 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™ 50V for Flood Lamps and Conveyors	40044	Complete radiometer (without lightguide adapters or lightguide simulator*); includes storage/carrying case
ACCU-CAL™ 50V for Spot and Flood Lamps and Conveyors	40043	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™ 50V for measuring spots, floods, and conveyors PN 40043

ACCU-CAL™ 50V for measuring floods and conveyors only PN 40044

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Please note that most dispensing system applications are unique. Dymax does not warrant the fitness of the product for the intended application. Any warranty applicable to the product, its application and use is strictly limited to that contained in Dymax standard Conditions of Sale published on our website. Dymax recommends that any intended application be evaluated and tested by the user to ensure that desired performance criteria are satisfied. Dymax is willing to assist users in their performance testing and evaluation. Data sheets are available for valve controllers or pressure pots upon request. **PB069 12/08/2012**