

# ACCU-CAL™ 50V Visible Radiometer

CE Marked – Available Globally

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<sup>2</sup> to 40 W/cm<sup>2</sup>. A specially designed photo sensor assembly protects the photo sensor from the high temperatures sometimes associated with today's high-intensity spot lamps.

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



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



ACCU-CAL 50V for measuring spots, floods, and conveyors PN 40043

## 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<sup>2</sup>).
- **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.

## SPECIFICATIONS

<b>Spectral Sensitivity</b>	400 to 470 nm
<b>Intensity Range</b>	1 mW/cm <sup>2</sup> to 40 W/cm <sup>2</sup>
<b>Resolution</b>	Intensity (1 mW/cm <sup>2</sup> ; to three significant digits) Dose (1 mJ/cm <sup>2</sup> )
<b>Calibration Period</b>	12 months
<b>Operating Temperature Ranges</b>	Optometer: +5 to +40°C Detector: 120°C continuous, Peak 200°C
<b>Measurement Modes</b>	Intensity (mW/cm <sup>2</sup> and W/cm <sup>2</sup> ) Peak Intensity (mW/cm <sup>2</sup> and W/cm <sup>2</sup> ) Dose (J/cm <sup>2</sup> )
<b>Light Sources</b>	Lightguides (3 mm, 5 mm, and 8 mm) Floods/Conveyors
<b>Power Supply</b>	Two (2) AA batteries
<b>Battery Life</b>	250 hours (automatic shutoff after 1 hour)
<b>Sensor Dimensions</b>	Photo Sensor Diameter = 9 mm Diameter = 37 mm Thickness = 8 mm Cable Length = 1 M
<b>Meter Dimensions</b>	120 mm (Length) x 65 mm (Width) x 23 mm (Thickness)

## RADIOMETERS and ACCESSORIES

Product	Part Number	Description
ACCU-CAL™ 50V for Flood Lamps and Conveyors	<b>40044</b>	Complete radiometer (without lightguide adapters or lightguide simulator*); includes storage/carrying case
ACCU-CAL 50V for Spot and Flood Lamps and Conveyors	<b>40043</b>	Complete radiometer with lightguide adapters (3 mm, 5 mm, and 8 mm) and lightguide simulator*; includes storage/carrying case
Flood to Spot Adapter Kit	<b>39554</b>	Kit includes three lightguide adapters (3 mm, 5 mm, and 8 mm) and a lightguide simulator*
3 mm Lightguide Adapter	<b>39556</b>	Fits 3 mm ID lightguides (5 mm OD)
5 mm Lightguide Adapter	<b>39557</b>	Fits 5 mm ID lightguides (7 mm OD)
8 mm Lightguide Adapter	<b>39558</b>	Fits 8 mm ID lightguides (10 mm OD)
5 mm Lightguide Simulator	<b>38408</b>	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)

### RADIOMETER CALIBRATION

Dymax recommends recalibrating 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.



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