

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 395 to 465 nm (blue portion of the visible spectrum), the ACCU-CAL 50V measures intensities from 1 mW/cm² to 40 W/cm². 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

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/cm²).
- **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

Spectral Sensitivity	395 to 465 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 (Length) x 65 mm (Width) x 23 mm (Thickness)

RADIOMETERS and ACCESSORIES

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*
3 mm Lightguide Adapter	39556	Fits 3 mm ID lightguides (5 mm OD)
5 mm Lightguide Adapter	39557	Fits 5 mm ID lightguides (7 mm OD)
8 mm Lightguide Adapter	39558	Fits 8 mm ID lightguides (10 mm OD)
5 mm Lightguide Simulator	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)

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