OmniCure®
UV Curing • In Control

OmniCure® LS200 UV LED
Radiometry and Calibration System

Achieve Maximum Reliability and Control for Your UV Curing Process

Small form factor fits into limited working areas

Peak hold function detects and records peak measurements

Broad linear dynamic range for measuring from any LED light source

Multi-point wavelength calibration for accurate measurements

Consistent measurements via accurate positioning of a light beam

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OmniCure LED Light Meter

The OmniCure LED Light Meter offers the ability to accurately measure power and irradiance from an OmniCure UV LED curing system, or any other UV LED source, directly at the cure site.

The OmniCure LS200 UV LED radiometry and calibration system ensures precise measurement and calibration of UV LED power or irradiance directly at the cure site, enabling manufacturers to reliably control light output to ensure a precise and repeatable curing process. The LS200 features seamless integration with the LX500 UV LED Spot curing system for calibration, and offers optional accessories, wide measurement range (1 mW to 2000 mW or 50 mW/cm^2 to 40 W/ cm^2), exceptional precision, and sensor optimization for monochromatic LED sources.

Accurate Measurement and Calibration:
Crafted with precision in mind, the LS200 boasts a remarkable accuracy of +/- 10% and a resolution of 1mw/cm^2 for Irradiance and 1mw for Power. With a fine aperture that is precision calibrated, accurate and consistent measurements can be obtained over a broad dynamic range. The LS200 sensor is factory calibrated to standards traceable to the NRC, ensuring unparalleled accuracy and reliability.

Versatile Measurement Range:
Tailor measurements to your specific needs by choosing between irradiance measurement (W/cm²) with the LS200, or optical power measurement (W) with the LS200P. Covering a broad range of power (1mW to 2000 mW) and irradiance (50 mW/cm^2 to 40 W/cm^2), and featuring selectable wavelengths programmable from 320-750 nm, the LS200 seamlessly accommodates various applications.

Compact Design:
The LS200 sensor has been designed to take measurements directly at the curing site in even the most confined areas. The sensor can be seamlessly linked to either the LM2011 light meter or the LX500 controller for real-time viewing of optical measurements.

Automation Capability:
The LM2011 light meter is equipped with a USB port, enabling communication between the LS200 light sensor and a PC through a user-friendly GUI or an alternative command-line interface to simplify integration into automated workflows.
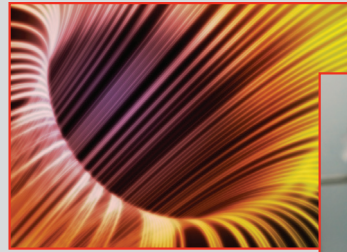
Optimized for UV LED Curing Systems:
Calibrated with a near monochromatic source, the LS200 eliminates the potential for inaccuracies in measurement that can otherwise occur due to the narrow spectral distribution of UV LED sources.

Paired with the OmniCure Beam Positioning Kit, the LS200 seamlessly integrates with the LX500 controller, delivering unmatched control and repeatability in output measurements of OmniCure UV LED Heads.

Dimensions

3.9 in [100 mm]

6.5 in [165 mm]

.47 in [11.95 mm]

Cable Length: 39.3 in [1000 mm]

.98 in [25 mm]

.49 in [12 mm]

1.48 in [38 mm]

2.95 in [75 mm]

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OmniCure
Beam Positioning Kit

Key Benefits:

- Consistent measurements by accurately positioning the beam on the detector aperture.

- Reduction in calibration time and cost with its easy to use alignment and setup.

- Elimination of the need for expensive and bulky alignment tools.

| FEATURE	BENEFIT
Precision screw drive XY axis positioner	Enables accurate positioning of the beam on the detector aperture for consistent measurements.
Graduated block with stop screw	Presets focal distance for the lens type in use to measure peak irradiance.
Small form factor	Easily slides in the curing station for quick measurement.

Designed to ensure accurate measurements while reducing set-up time and costs.

The ability to accurately measure light intensity in UV LED spot curing is challenging for the UV assembly manufacturer and is a critical piece to controlling a UV curing process.

Focused UV LED light sources with LED at the tip of the head are accompanied by individual lenses in order to accommodate the various spot sizes and high irradiance requirements at the cure site. The need for a measuring system is essential for measuring peak irradiance by capturing the narrow beam at the center of the detector aperture with the exact focal height. By combining an accurate radiometer with a precise alignment fixture allows users to efficiently measure the peak irradiance accurately and consistently on every measurement in an assembly manufacturing environment.

The beam positioning kit consists of an XY stage and a metal block. The detector is positioned in the XY stage which is precisely aligned using the stage screws to center the beam on the detector aperture, and the metal block sets the exact offset height in order to capture the focal point of the beam. This allows quick and accurate measurement of the peak irradiance without altering the curing setup, saving time and increasing productivity.

This accessory kit can be combined with the OmniCure LED Light Meter and the LX500 to provide a complete UV LED curing solution for assembly manufacturing.

1.89 in [48 mm]
1.18 in [30 mm]
1.57 in [40 mm]
3.93 in [100 mm]
0.59 in [15 mm]
2.11 in [53.5 mm]
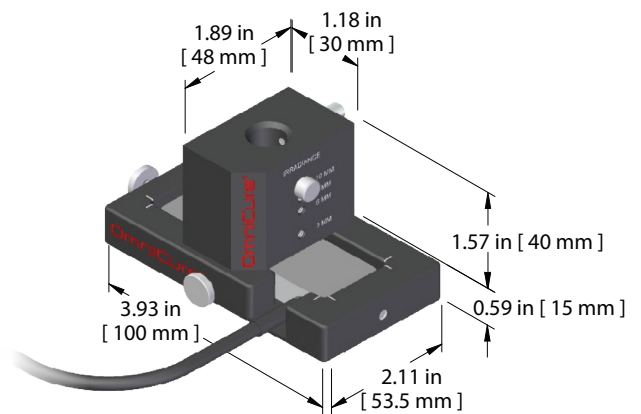
SPECIFICATIONS

Spectral Sensitivity	Selectable wavelengths programmable from 320-750 nm
Measurement Range	Irradiance: 50 mW/cm² to 40 W/cm² Power: 1 mW to 2000 mW
Accuracy	+/- 10%
Resolution	Irradiance: 1 mW/cm² Power: 1 mW
Calibration Cycle	One Year
Battery Life	Two Years, Typical (intermittent use)
Operating Temperature Range	Ambient to 40° Centigrade
Certification	Complies with IEC, Canadian and US Standards, RoHS compliant
Functions	Peak Hold, Power On/Off, λ nm (Wavelength selection), Power/Irradiance
Traceability	NRC Compliant
Sensor Dimension (L x W x H)	75 mm x 25 mm x 11.95 mm
Meter Dimension (L x W x H)	165 mm x 100 mm x 44 mm

PART NUMBERS

Part Number	Description
019-00427R	LS200 LED Light Meter System (Includes LM2011 Light Meter and LS200 Sensor)
019-00409R*	Beam Positioning Kit for V3 UV LED Heads

* Can be ordered as an accessory to the LED Light Meter

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