

# OmniCure®

## LED Light Measurement System



**Ensures maximum reliability and control  
in UV assembly manufacturing processes**

- 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



# OmniCure® LED Light Meter

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

With the narrow wavelengths emitted from an LED spot source, specific challenges arise when measured with a radiometer calibrated using a broadband source. The OmniCure® LED Light Meter is specially designed to allow manufacturers the ability to select specific wavelengths for measurement. When used with the sensor calibrated with a near monochromatic source, the LED Light Meter eliminates the potential for inaccuracies in measurement that would normally occur due to the narrow spectral distribution of a UV LED source.

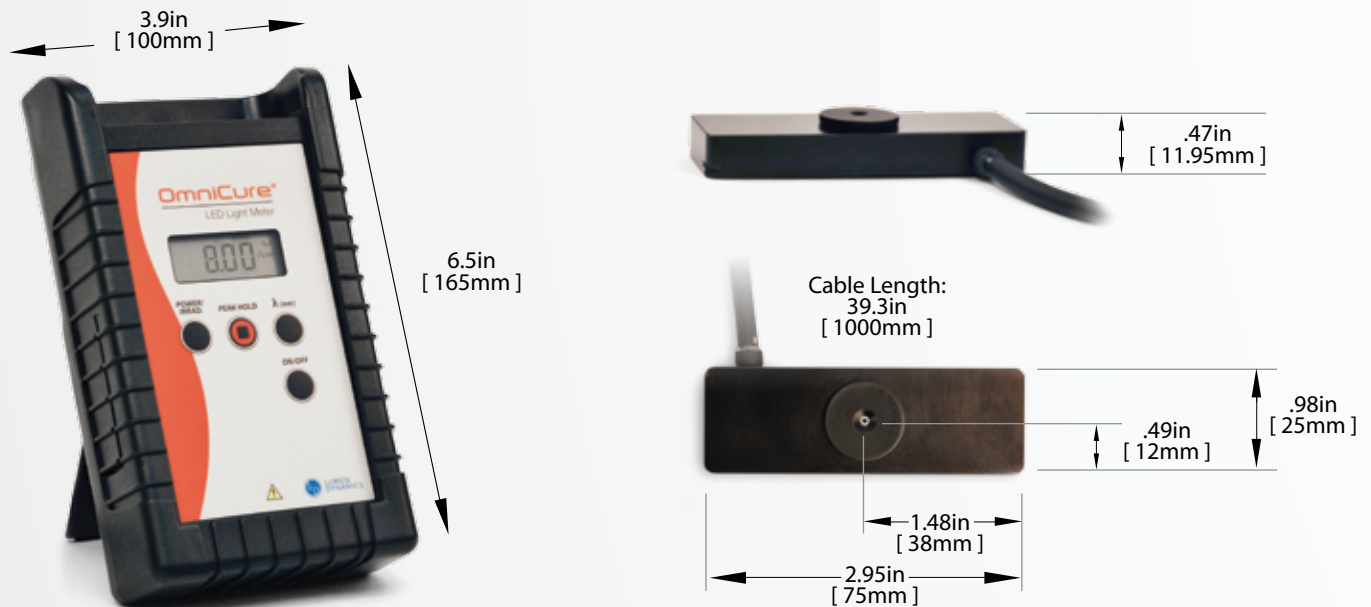
Featuring a peak hold function, the OmniCure® LED Light Meter allows users the ability to easily measure narrow beam patterns

for capturing peak irradiance. With a fine aperture that is calibrated with precision, accurate and consistent measurements can be obtained over a broad dynamic range. Manufacturers are able to achieve greater accuracy with ease of use while maintaining a reliable and controlled UV assembly process. The OmniCure® LED Light Meter is calibrated according to protocol standards traceable to NIST\* and NRC\*\*.

\*NIST - National Institute of Standards and Technology

\*\*NRC - National Research Council

## Dimensions



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

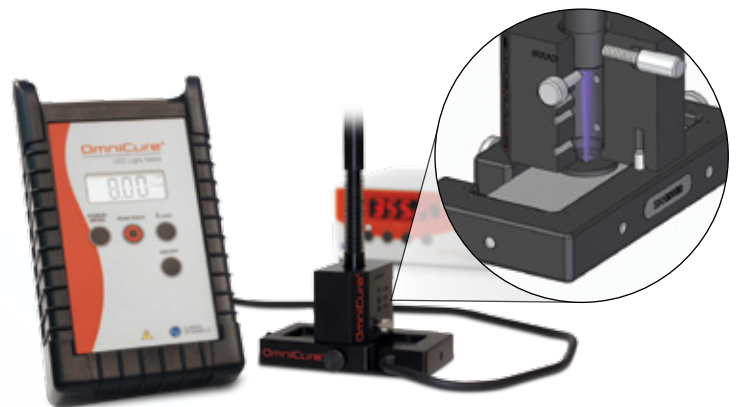
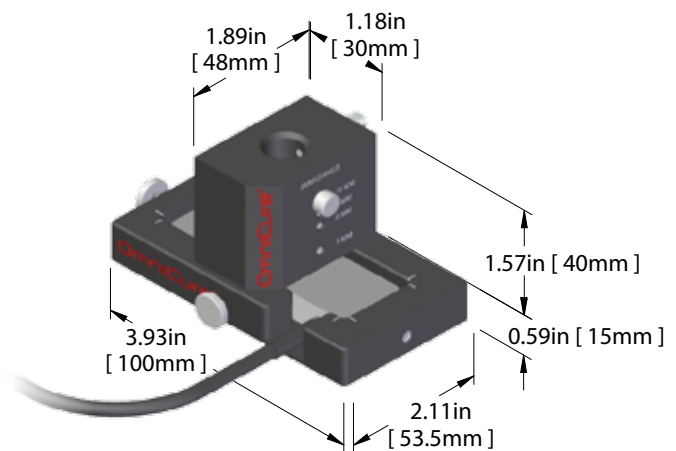
## Designed to ensure accurate measurements while reducing set-up time and costs.

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; 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 LX400+ to provide a complete UV LED curing solution for assembly manufacturing.



# OmniCure® LED Light Meter

## SPECIFICATIONS

<b>Spectral Sensitivity</b>	Selectable wavelengths programmable from 320-750nm
<b>Measurement Range</b>	Irradiance: 50mW/cm <sup>2</sup> to 25 W/cm <sup>2</sup> Power: 1mW to 500mW
<b>Accuracy</b>	+/- 10%
<b>Resolution</b>	Irradiance: 1mW/cm <sup>2</sup> Power: 1mW
<b>Calibration Cycle</b>	One Year
<b>Battery Life</b>	Two Years, Typical (intermittent use)
<b>Operating Temperature Range</b>	Ambient to 40° Centigrade
<b>Certification</b>	Complies with IEC, Canadian and US Standards, RoHS compliant
<b>Functions</b>	Peak Hold, Power On/Off, λ nm (Wavelength selection), Power/Irradiance
<b>Traceability</b>	NIST and NRC Compliant
<b>Sensor Dimension (LxWxH)</b>	75mm x 25mm x 11.95mm
<b>Meter Dimension (LxWxH)</b>	165mm x 100mm x 44mm

## PART NUMBER

## DESCRIPTION

**010-00281R**

OmniCure® LED Light Meter (Complete with Meter & Sensor)

## ACCESSORY

**019-00131R \***

OmniCure® Beam Positioning Kit

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



2260 Argentia Road,  
Mississauga, Ontario,  
L5N 6H7 CANADA

[www.LDGI-OmniCure.com](http://www.LDGI-OmniCure.com)

Telephone: +1 905 821-2600  
Toll Free (USA and Canada): +1 800 668-8752  
Facsimile: +1 905 821-2055

[OmniCure@LDGI.com](mailto:OmniCure@LDGI.com)



For a detailed look at our application solutions visit: [www.LDGI-OmniCure.com/applications.php](http://www.LDGI-OmniCure.com/applications.php)

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