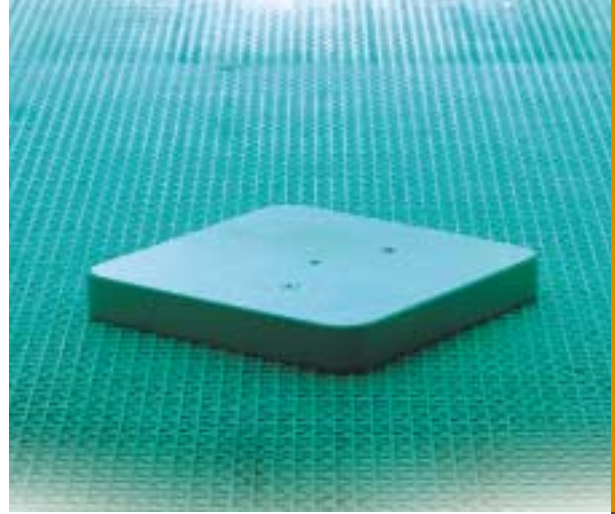


# Light Cure

## Light Meters




Decreased radiant power related to the degradation of UV lamps, light guides, and reflectors results in declines in process efficiency or incomplete curing of UV light curing products. Loctite® brand ZETA® Light Meters are used to check the intensity of ultraviolet light emitted from a light source. These units are useful for quality measures, maintenance, and troubleshooting of ultraviolet emitting light sources. Selection of a Loctite® brand ZETA® Light Meter is based on the type of light source that is required to be measured.



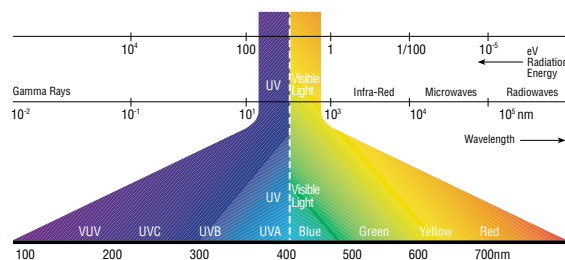
**Loctite® ZETA® 7011-A  
Dosimeter-Radiometer**

**Loctite® ZETA® 7011-V  
Dosimeter-Radiometer**

**Loctite® ZETA® 7021  
Spot Radiometer**

			
<b>Item #</b>	98086	98089	98048
<b>Page Reference</b>	49	49	49
<b>Measured Spectral Range</b>	320-400 nm	350-500 nm	280-400 nm
<b>Used to Measure Output of</b>	Chambers, Conveyors, Flood Systems	Chambers, Conveyors, Flood Systems	3 mm and 5 mm diameter Wands

**The Electromagnetic Spectrum**



## Loctite® ZETA® 7011-A/7011-V Dosimeter-Radiometers, Items 98086, 98089

The Loctite® ZETA® 7011-A and 7011-V Dosimeter-Radiometers are self-contained, electro-optic meters that measure and display total energy (J/cm<sup>2</sup>) and irradiance (W/cm<sup>2</sup>). They are designed to withstand the extremes of UV light and high temperature that are part of the UV curing environment. The carefully designed optical sensing system measures only certain wavelengths, rejecting those that are not relevant to the process. The output of the sensing system is converted to digital form and displays a liquid crystal readout. The Loctite® ZETA® 7011-A measures across the ultraviolet spectrum from 320 to 400 nanometers (UVA region). The Loctite® ZETA® 7011-V measures across the ultraviolet spectrum from 350 to 500 nanometers (UVV region). These units are designed to monitor the performance of a light curing system.

### Features

- Measures energy and irradiance lamp performance to determine lamp efficiency
- Establishes energy and irradiance level for proper curing when implementing a new process
- Calibration is required only once per year
- Meets ISO-9000 requirements by providing a device that will allow for recording of lamp performance data
- Dual display of energy and irradiance allows for convenient, same screen viewing
- Centrally located sensor allows for easy alignment
- Calibration is traceable to the National Institute of Standard Technology (NIST)

### Theory of Operation

An operator will turn the radiometer on, reset the unit, and place the eye of the unit under the light source for no more than 5 seconds. The reading will be displayed on the liquid crystal readout.

### Technical Specifications

Operating Temperature:	0° to 75°C internal temperature, Note: tolerates much higher external temperatures for short periods; audible alarm indicates when temperature is too high.
Automatic Shut-Off:	5 minutes (if no buttons are pressed)



### Technical Specifications (continued)

Display:	4 digit LCD
Spectral Range:	320 to 400 nm (ZETA® 7011-A) 350 to 500 nm (ZETA® 7011-V)
Power Source:	Two AAA alkaline batteries (not included)
Typical Battery Life:	3,000 readings or 2,000 hours
Case Material:	Aluminum, stainless steel
Size:	4" L x 4" W x 0.52" D
Weight:	8.6 oz. (245 g)

### Order Information

98086	Loctite® ZETA® 7011-A Dosimeter-Radiometer
98089	Loctite® ZETA® 7011-V Dosimeter-Radiometer

### List of Loctite® Brand Parts Supplied

- (1) ZETA® 7011-A or 7011-V Dosimeter-Radiometer
- (1) Manual

## Loctite® ZETA® 7021 Spot Radiometer, Item 98048

The Loctite® ZETA® 7021 is a self-contained, electro-optic instrument designed to measure and display the UV irradiance emitted by a UV spot curing system. The units displayed are watts per square centimeter. Decreased radiant power related to the degradation of UV lamps, light guides, and reflectors can result in declines in process efficiency or incomplete curing of UV light curing products. The Loctite® ZETA® 7021 is designed to provide the operator with instant feedback as to the performance of the spot curing system. It accepts both 3 mm and 5 mm diameter wands. The unique detachable sensor head requires re-calibration only once per year (vs. every 6 months for competitive models). Requires a 9 volt alkaline battery (not included).

### Features

- Measures UV wand curing system performance
- Measures UV lamp performance
- Measures light guide degradation
- Optimizes dual light guide balancing
- Determines proper UV intensity required for curing various materials
- Meets ISO-9000 requirements
- Calibration is traceable to the National Institute of Standard Technology (NIST)

### Theory of Operation

An operator will place the UV wand in the opening of the sensor head. The light to be measured will be emitted for approximately 2-4 seconds. The reading will immediately display.

### Technical Specifications

Radiant Power Range:	0-19.99 W/cm <sup>2</sup>
Resolution:	0.01 W/cm <sup>2</sup>
Accuracy:	+/- 5% typical, +/- 10% max.
Display:	1.0" W x 0.5" H LCD
Reading Exposure Time:	2-4 seconds



### Technical Specifications (continued)

Spectral Range:	280 to 400 nm (UVA&B region)
Power Source:	9 volt alkaline battery (not included)
Size:	3.0" H x 2.5" W x 1.2" D
Weight:	0.4 lbs.

### List of Loctite® Brand Parts Supplied

- (1) ZETA® 7021 Spot Radiometer
- (1) Manual

### Options

Loctite® UV Wand Systems