

# 1000W High Power Solar Simulator - Model LS1000

- Every product is calibrated to NIST traceable standards before shipment.
- 1 year Standard Warranty.
- Lifetime free telephone technical support.
- Extended warranty plans available.

The LS1000 is a turnkey Solar Simulator with lamp, power supply, filters, and high grade optics. It comes standard with an option of vertical or horizontal beam output. The spot output can be customized from 2 to 8 inches in either a round or square shape.

## Applications:

- Photobiological studies of plants, animals, and cell cultures
- Semiconductor testing
- Photovoltaic testing
- Phototoxicity research
- Material degradation research
- Accelerated UV and solar exposure testing of color fastness and material stability for paints, textiles and plastics.
- Atmospheric photochemical pollution research



**WITH Air mass 1.5 = 952 w/m2 (the following charts apply)**

## LS1000 Solar Simulator Energy Output Chart (Round Output)

Size/shape output	2 inch round	4 inch round	6 inch round	8 inch round
Area of output	3.14 inches	12.56 inches	28.27 inches	50.24 inches
Intensity at working plane	9000 w/m <sup>2</sup>	2251 w/m <sup>2</sup>	1000 w/m <sup>2</sup>	562 w/m <sup>2</sup>

## LS1000 Solar Simulator Energy Output Chart (Square Output)

Size/shape output	2 inch square	4 inch square	6 inch square	8 inch square
Area of output	4.0 inches	16.0 inches	36.0 inches	64.0 inches
Intensity at working plane	7068 w/m <sup>2</sup>	1767 w/m <sup>2</sup>	785 w/m <sup>2</sup>	441 w/m <sup>2</sup>

## FEATURES

- Reproduce UV and other spectra using Xenon, Xenon-Mercury, or Mercury short arc lamps
- Standard and customizable simulators meet FDA, ASTM, ANSI, ISO, and COLIPA test protocols
- Optional filters allow for user changeable spectra
- UV, Air Mass 0, and Air Mass 1.5 spectra available
- Round or Square beam sizes of 2", 4", 6" and 8"
- Beam uniformity across illuminated area better than +/- 5%
- High efficiency, 1000 watt regulated switching power supply with adjustable current for variable intensity
- Internal electric shutter
- Ellipsoidal mirror captures up to 85% of lamp output
- Forced air cooling system
- Available with precision dose control system (see next page)

## Testing - Dose Control System

The Testing Dose Control System monitors and controls the UVA, UVB, UVA+UVB, or full spectrum light being output by our light sources.

The PMA DCS cumulates the light being outputted by the simulator and then automatically stops the light exposure when the preset dose of UV has been reached. This type of exposure system provides an accurate and reliable method for exposing test samples to exact amounts of light in degradation testing.

### Single Port Dose Control System:

#### **For UV Simulators**

- > PMA2100 Dose Controller and Meter
- > PMA2114 UVA Detector
- > PMA2106 UVB Detector
- > Dose Controller Shutter Power Board
- > Automatic Shutter option for 16S

#### **For Full Spectrum Simulators**

- > PMA2100 Dose Controller and Meter
- > PMA2141 Pyranometer
- > Dose Controller Shutter Power Board
- > Automatic Shutter option for 16S

#### **Specifications:**

- > Dynamic range  $>2 \times 10^5$
- > Accuracy 0.2% FS all ranges
- > Nonlinearity max 0.02% FS within each range
- > Temperature coefficient max 50 ppm/°C
- > Operating temperature 0 to 50°C
- > Power source 4xAA NiCd or Alkaline batteries; external 9-12V AC or DC adapter
- > Weight 17 oz (480 grams)
- > Size 4"W x 7.6"H x 1.75"D (10x19.5x4.5 cm)



Sold By:

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