

# E 1000 SPECTRAL IRRADIANCE RECEIVER

Expand the usability of your Labsphere spectrometer with a spectral irradiance receiver



E 1000 SPECTRAL IRRADIANCE RECEIVER

## RELIABLE

Labsphere's E 1000 is an optical head designed to measure spectral irradiance when connected to a Labsphere spectrometer with LightMtrX spectral light measurement software.

The receiver is a Spectralon® integrating sphere with 1 cm<sup>2</sup> flashed opal diffuser entrance aperture for near cosine reception. The diffuser protects the integrating sphere, which spatially integrates the flux entering the sphere such that the irradiance on the surface of the diffuser is proportional to the sphere wall radiance. An SMA connector allows connection via an optical fiber to any of Labsphere's spectrometers. The spectrometer, irradiance head and software can be calibrated to measure spectral irradiance.

## FEATURES:

Simple, one touch measurement of spectral irradiance and associated photometric and colorimetric properties

Meets today's standards for LED measurement

Results are traceable to NIST

Small footprint for a clutter free workspace

Flexible design expands usability of Labsphere light measurement packages

User calibration ability for in-house calibration and validation

Robust Design

## KEY APPLICATIONS:

Irradiance

Illuminance and color characterization of light sources and luminaries

## EASY-TO-USE

The receiver allows the user to measure flux density on a surface or at a specific distance from a source on an optical bench. A tapped ¼-20 hole allows for easy mounting and alignment on an optical bench or rail. It can be purchased with a spectrometer and calibrated at Labsphere at the time of purchase or it can be sold as an upgrade to your Labsphere light measurement package. Users can validate performance of the E 1000 themselves with Labsphere's IES 1000, saving time and money.

The compact design of the E 1000 keeps the workspace clutter free, while its robustness allows for fast and repeatable results. The receiver provides practical means for determining product performance in research and development, verifying product performance in production, and for determining product quality. The E 1000 also provides data for improved statistical process control, leading to improved product quality.

## COMPATIBLE

Labsphere's E 1000 is designed to work with any of Labsphere's spectrometers. The receiver can also be calibrated by any user with Labsphere's IES 1000 intensity standard and LightMtrX software. It will measure spectral irradiance, irradiance, illuminance and color.



E 1000 IRRADIANCE RECEIVER WITH CDS 1100

# Specifications

**Part Number**  
E 1000 Spectral Irradiance Receiver

**Order Number**  
AS-02700-000

## Component Properties and Performance

Measurement Geometry	E 1000
Measurement Distance	Flux density $W/cm^2 \cdot nm$ ( $W/cm^2$ , lux)
Receiver Area	Any distance
Collection Optics	1 $cm^2$
Fiber Connector	Near cosine receiver with opal flashed diffuser and Spectralon® interior Integrating sphere
Mounting	SMA
Finish	Table-top or post mount (1/4-20)
Weight	Black Anodized
Dimensions (D x H)	0.5 lbs (0.22 kg)
	2.25 x 1.70 in (4.3 x 1.1 cm)