

# CDS-800 Mini CCD Array Spectrometer

Comprehensive spectral measurements in fractions of a second



## Accurate

The highly sensitive CDS-800 Mini CCD Array Spectrometer offers low noise and a broad spectral response with calibrated ranges from 200 to 1100 nm. When coupled with a Labsphere integrating sphere, the spectrometer avoids the inherent photometric errors associated with filter-based photometers; data is accurate even for narrow-band light sources such as LEDs, solid state lighting, fluorescent lamps, and discharge lamps. In production, these systems can increase the throughput of quality assurance testing which facilitates improved statistical process control for higher manufacturing consistency and greater product quality.

## Fast

Labsphere's CDS Mini CCD Array Spectrometer is a multi-channel spectral analyzer designed for real-time spectral analysis. Instantaneous spectral acquisition provides the radiometric, photometric, and color characteristics of the device under test (DUT). Fast results help to increase the rate of product development, decrease the time to market, and reduce development costs.

## Easy to use

The CDS Spectrometer easily connects to a PC via an USB-2 port and uses a fiber optic cable to connect to the optical head, enabling the remote positioning of the spectrometer. Windows® software guides the user through testing procedures making complex spectral measurements simple while still meeting the needs of experienced researchers.

## Value

- Wide spectral range
- Comprehensive light measurement software
- < 2.0 nm spectral resolution
- Wavelength accuracy <0.5 nm
- Fast CCD array detector
- 3 m fiber optic input cable

## Measure

- Packaged LEDs
- Clustered LEDs
- Miniature lamps
- Entertainment lighting
- Automotive lighting

# Ordering Information

## Model Number

CDS-800 CCD Array Spectrometer

- Labsphere's CDS CCD Array Spectrometer
- 3 meter fiber optic input
- 2 meter USB-2 cable

## Order Number

AS-81080-000

## Required, Sold Separately

- Application Software: (Integral®, HelioSense®)

The CDS CCD Array Spectrometer is designed for use with Labsphere's illumia®Plus, HELIOS®Plus, and SpectrALL products.

# Specifications

## Model Number

**CDS-800**

## Spectroscopic

Wavelength Range:	200 - 1100 nm
Signal-to-Noise Ratio:	330:1 (at full signal)
A/D Resolution:	6 MHz
Dark Noise: (correctable)	16 RMS counts
Dynamic Range:	3330
Integration Time:	30 $\mu$ s to 40 s
Stray Light:	0.2 - 1%

## Electronics

Power:	USB, 500 mA
Computer Operating Systems:	Windows
Computer Interfaces:	USB 2.0

## Physical

Dimensions:	95 mm x 68 mm x 70 mm
Weight:	175 grams

## Detector

Detector:	HAM S11639
Detector Range:	200 - 1100 nm
Pixels:	2048 pixels
Pixel Size:	14 $\mu$ m x 200 $\mu$ m

## Compatible With:

Integral® Application Software  
HELIOsense® Application Software  
Spectra-UT Ultra Tunable Spectral Calibration Sources  
Spectra-FT Fine Tunable Spectral Calibration Sources

