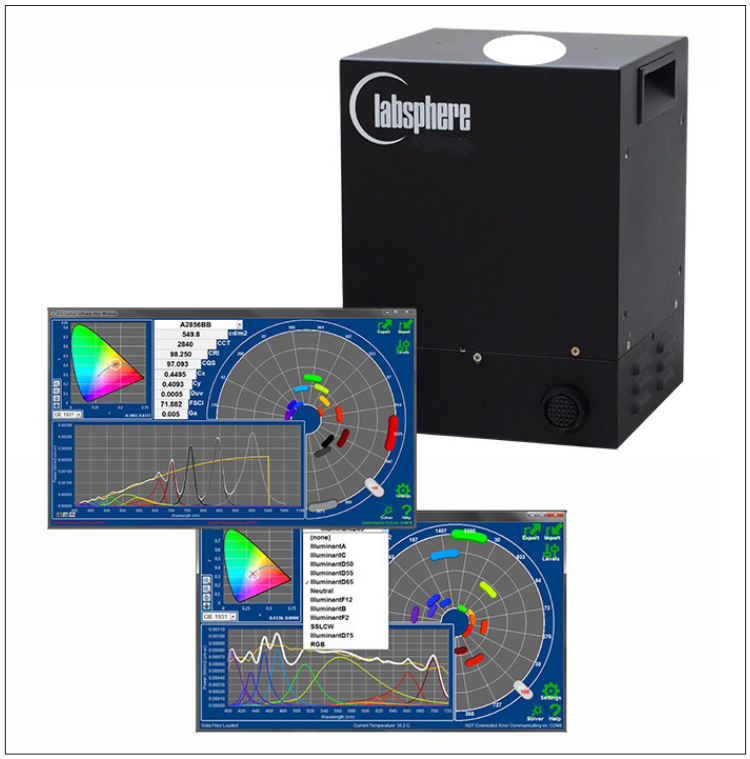
Tunable Ambient Light Sensor Calibration Sources



Highly Uniform Illumination

The 2.54 cm diameter port enables test and calibration with highly uniform illumination.

Trusted Test Data

Labsphere is a recognized leader in image sensor calibration sources. Our Tunable Image Sensor Characterization Sources are engineered for the high performance requirements in image sensor production testing and calibration.

Save Money, Save Space

One instrument produces multiple spectrums. Large area uniform luminance field in a compact and robust instrument. The sources are designed to easily mount in a production test station with active spectral feedback loop and user recalibration features.

Repeatable, Reproducible Results

With Labsphere's diffuse reflectance material, Spectralon®, and thermal-controlled LED module, long term repeatability and reproducibility are ensured.

PB-13091-000 Rev.05

Specifications

Light Source:	Integrating Sphere Tunable LED light engine and discrete color channels Current regulated DC driver control Spectral Range: CCS-1000-ALS: Visible, 850 nm and 940 nm, no spectrometer CCS-1100-ALS: Visible, 850 nm and calibration lamp, with spectrometer

Typical Spectral Output CIE 1931 Illuminants & more:

CCS-1000	CRI (Typical)	Duv Tolerance
Illuminant A	98	± 0.001
Illuminant B	98	± 0.002
Illuminant C	98	± 0.002
Illuminant D50	98	± 0.002
Illuminant D55	98	± 0.002
Illuminant D65	98	± 0.002
Illuminant D75	98	± 0.002
Illuminant F2	64	± 0.002
Illuminant F12	81	± 0.003
Neutral E	96	± 0.002
SSL-WW	81	± 0.003
840 nm		
950nm		

Luminance Spatial Uniformity:	>97%
Output Port:	25 mm diameter
Illuminance Range:	150 to 3000 lux
Long Term Stability:	+/- 1%
Short Term Stability:	+/- 0.1% COV after 500 msec
Initial Warm-Up Time:	500 msec between spectra
Control: Software Development Kit and LabVIEW User Software	Individual Light Channel Control Preset Functions for Illuminant Spectrums Illuminance, x, y, CCT, CRI, Duv Stability Indicator Active Spectral Feedback Loop Embedded User Recalibration Process
With Spectrometer Monitor Option	Spectral Irradiance (µW/cm^2-sr-µm) Illuminance (lux) Luminance (cd/m^2) (optional) CRI Duv
Operating Temperature:	20 - 40 degrees C, 0 - 70% RH
Computer Requirements:	Windows®, 32 bit RS-232 DB9 or USB
Power Input:	110/220 VAC, 50/60 Hz
Dimensions: Integrating Sphere Source Module	18 cm x 18 cm x 24 cm (H x W x L)
Power Module	13 cm x 23 cm x 37 cm (H x W x L)
Weight: Integrating Sphere Source Module	8 kg
Power Module	6 kg

Ordering Information

Order Number	Model Number	Description
AA-01367-400	CCS-1000-ALS	Tunable LED Source Without Spectrometer Includes Visible, 850nm and 940nm LEDs
AA-01367-500	CCS-1100-ALS	Tunable LED Source With Spectrometer Includes Visible, 850nm LED and calibration lamp

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