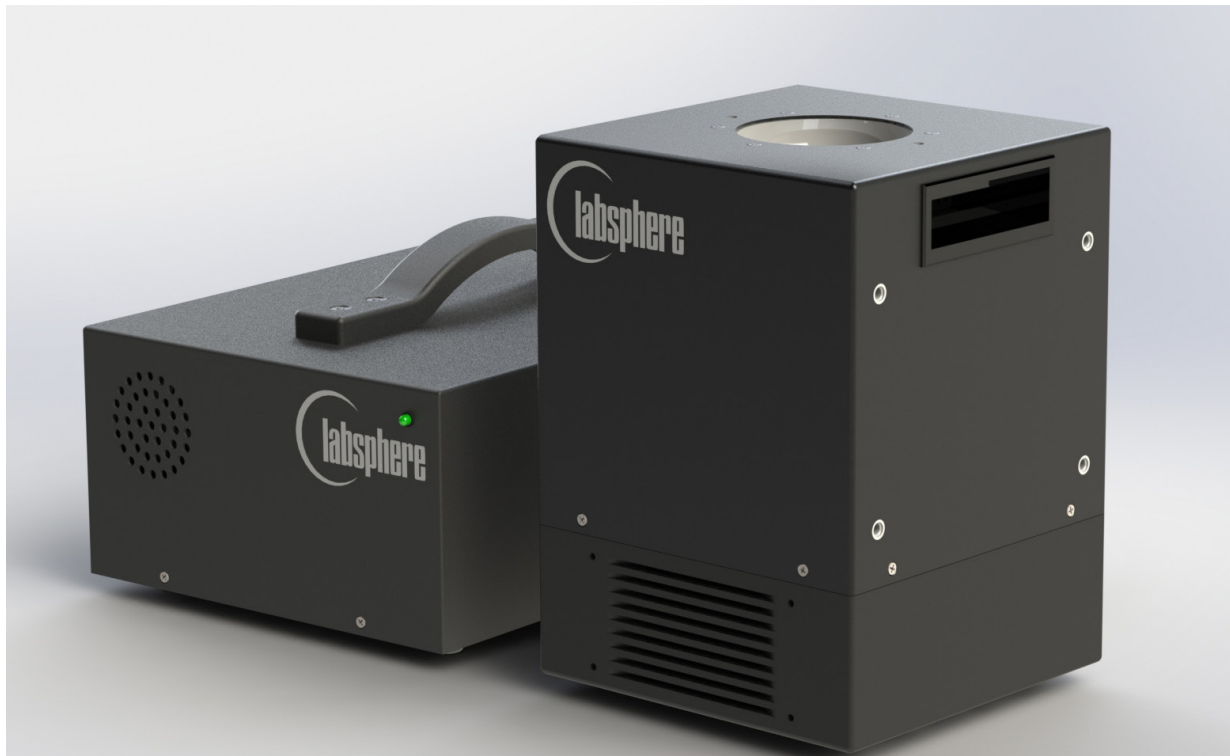


Wide Angle FOV Color Tunable Sources for Image Sensor Characterization



Highly Uniform Illumination Over Wide FOV

The 7.5 cm diameter port enables test and calibration with highly uniform illumination over 360° x 200° field of view. **Ideal for flat fielding fish eye lens imagers.**

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.

Repeatable, Reproducible Results

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

Light Source:

Integrating Sphere
 Tunable LED light engine and discrete color channels
 Current regulated DC driver control
 Spectral Range:
 CCS-1000-WAF: Visible, 850 nm and 940 nm
 CCS-1100-WAF: Visible, 850 nm and calibration lamp

Typical Spectral Output CIE 1931 Illuminants and more:

CCS-1000-WAF	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-WWW	81	± 0.003
840 nm		
950nm		

Luminance Spatial Uniformity:

>94% over 360° x 200° field of view

Output Port:

75 mm diameter

Luminance Range:

10 to 700 cd/m²

Long Term Stability:

+/- 1%

Short Term Stability:

+/- 0.1% COV after 500 msec

Initial Warm-Up Time:

500 msec

Control: Software Development Kit
 and LabVIEW User Software

Individual Light Channel Control
 Preset Functions for Illuminant Spectrums
 Luminance, x, y, CCT, CRI, Duv
 Stability indicator

With Spectrometer Monitor Option

Spectral Radiance (µW/cm²-sr-µm)
 Luminance (cd/m²)
 Illuminance (lux) (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
 Power Module

25 cm x 18 cm x 18 cm (H x W x L)
 14 cm x 23 cm x 37 cm (H x W x L)

Weight: Integrating Sphere Source Module
 Power Module

8 kg
 6 kg

AA-01367-200

CCS-1000-WAF

Tunable LED Source Without Spectrometer
 Wide angle field of view. Includes Visible,
 850nm and 940nm LEDs.

AA-01367-300

CCS-1100-WAF

Tunable LED Source With Spectrometer
 Wide angle field of view. Includes Visible,
 850nm LED and calibration lamp.