

SpectrALL

Spectra-CT Color Tunable Spectral Calibration Source

Ultra-uniform, high dynamic range, luminance/CCT tunable surface light source for camera and sensor calibration

Spectra-CT integrating sphere based uniform light sources utilize warm white and cool white LEDs controlled by a high-precision programmable DC power supply. With the active cooling system inside, the output is kept stable over a broad range of luminance levels up to 50,000 cd/m².

Simple and convenient software is provided together with the system for CCT selection, luminance adjustment together with related system information. For advanced applications such as multi-system integration, software API is available. Spectra-CT is an ideal source for camera and sensor calibrations in both R&D and manufacturing applications.



Features:

- Extremely high uniformity
- High dynamic luminance output range
- Accurate and fast LED control to achieve preset CCT and luminance
- Built-in luminance monitor for real-time luminance monitoring
- User friendly software and easy to use

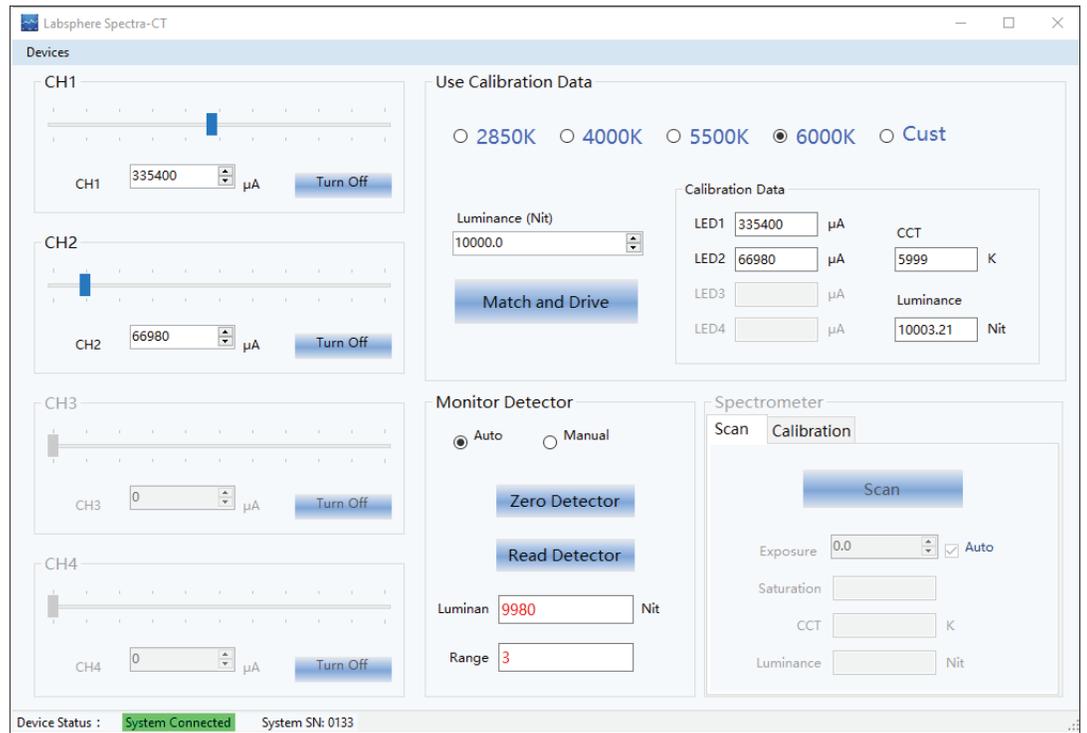
Applications:

Mainly used for camera calibration and characterization such as flat field correction, linearity calibration, dark correction in the areas of:

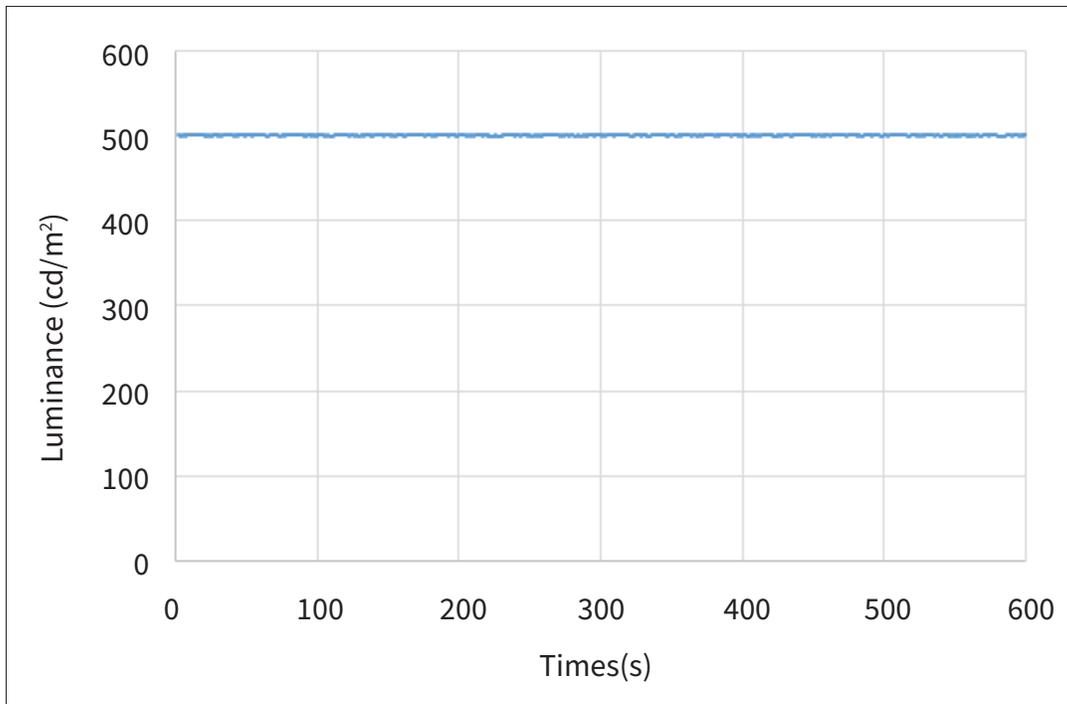
- Display panel inspection cameras
- In-vehicle cameras
- Cameras and ambient light sensors in consumer electronics
- Luminance meter and colorimeter response correction

Software Features:

- Light source programmable drive current
- User selectable luminance levels
- User selectable CCT between 2800K and 7500K
- Display:
 - Light source drive currents
 - Set luminance
 - Source luminance
 - Set CCT
 - Luminance monitors gain and control



Example of Software User Interface



Example of Luminance Stability over 10 min at 500 cd/m²

Specifications and Ordering Information

Model Number:	CT-1000-S	CT-1000-M	CT-1000-L
Order Number:	LCA-00389-200	LCA-00389-300	LCA-00389-500
System Components			
Integrating Sphere Diameter:	20 cm (8 inch)	30 cm (12 inch)	50 cm (20 inch)
Exit Port Diameter:	5 cm (2 inch)	10 cm (4 inch)	20 cm (8 inch)
Sphere Coating:	Spectrafect®	Spectrafect®	Spectrafect®
Monitor Detector:	Si	Si	Si
System Performance			
Luminance Range: (cd/m ²)*	1 ~ 50000	0.5 ~ 25000	0.1 ~ 5000
Luminance Uniformity COV:**	>99%	>99%	>99%
Uniformity Mapping:	>98%	>98%	>98%
Luminance Adjustable Steps:	5 x 10 ⁴	5 x 10 ⁴	5 x 10 ⁴
CCT Range: (K)	2800 ~ 7500	2800 ~ 7500	2800 ~ 7500
CCT Uniformity:	±15 K	±15 K	±15 K
Lamp Life Hours: (* manufacturers data)	>15000 hrs	>15000 hrs	>15000 hrs
Short Term Stability: (10 min)	±0.1%	±0.1%	±0.1%
LED Control:	DC current	DC current	DC current
Warm up Time:	30s	30s	30s
Voltage Input:	100 ~240 VAC 50/60 Hz	100 ~240 VAC 50/60 Hz	100 ~240 VAC 50/60 Hz
Software Specifications			
Interface Connections:	USB	USB	USB
Interface Protocol:	API	API	API
Supported Operating Systems:	Windows 10	Windows 10	Windows 10
System Specifications			
Dimensions: (cm)	35 x 38 x 28	51 x 48.5 x 33	72.5 x 71.5 x 57
Weight: (kg)	10	15	35

* Luminance range is achieved under certain CCT

** Luminance uniformity is under NIST COV(Coefficient of Variation) calculation method