CREATE
any spectrum

Spectra-PT Power Tunable Spectral Calibration Sources

Simple uniform sources of luminance and radiance for high dynamic range test and calibration of imaging and non-imaging devices

Speed and accuracy in a simple design

Spectra-PT sources are designed for flat fielding and calibrating cameras and sensors for radiometric responses from low to high light levels. Spectra-PT yields high fidelity measurements while keeping the user experience simple and affordable with turnkey features and excellent dynamic range. A great all-around uniform source system for simple camera and sensor testing.

Spectralon®, a highly diffuse material inside the sphere, provides stable reflectance and repeatability over the lifetime of the system. The integrating sphere and control electronics are housed in a single enclosure for easy portability, and production ready features such as automation, and easy-to-use software interface with user defined and selectable light levels.

A 13.5 cm integrating sphere with a 5 cm exit port, precision automated variable attenuator, and built in photopic response photodetector allows for continuous adjustability and good dynamic range up to 50,000 cd/m^2.

The automated VA allows the user to quickly and accurately drive to a preset or selected luminance value. For cameras with wide angle FOV's, Spectra-PT features our WAF (Wide Angle Field Of View) version. Each system comes with a uniformity mapping and National Institute of Standards and Technology (NIST) traceable spectral radiance and luminance calibrations.

Types of test

- Luminance Responsivity
- Image Validation and Correction
- Uniformity
- Flat Fielding
- Variable CCT

Ideal for calibrating

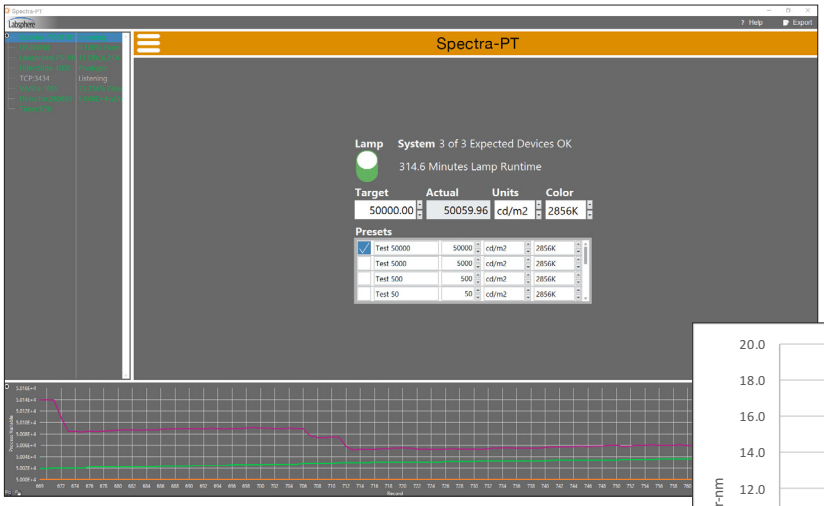
- CCD and CMOS cameras
- Small area remote sensing devices
- Electronic imaging devices
- Medical endoscopes
- Ambient light sensors
- Security cameras

PB-14088-000 Rev 07

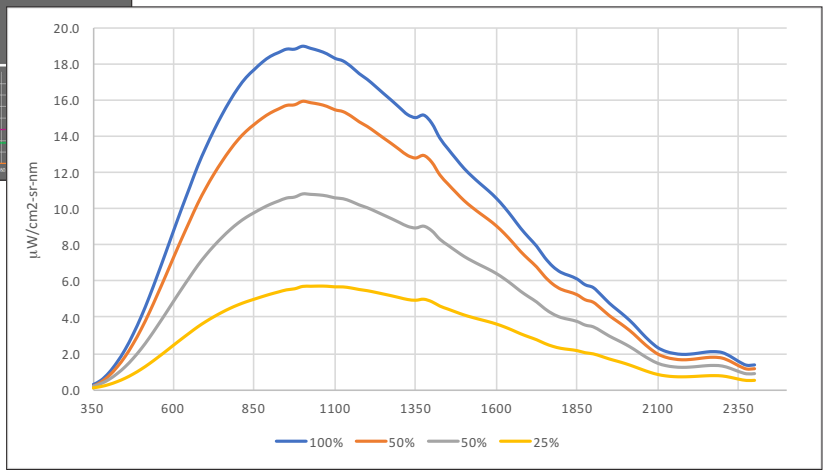
Specifications and Ordering Information

Model Number:	**PT-1000-S**	**PT-1000-W**
Order Number:	**AA-01578-001**	**AA-01578-000**
System Performance		
Correlated Color Temperature: CCT	2856K ± 75K	2856K ± 75K
Luminance Range: cd/m^2	0 to 50,000	0 to 20,000
Equivalent Illuminance at Port: lux	0 to 150,000	0 to 60,000
Peak Spectral Radiance: µW/cm^2-sr-nm @ 900 nm	1.80	0.70
Uniformity:	98%	96% over 180° FOV
Lamp Lifetime: hrs	> 500	> 500
Luminance Attenuator Steps:	1.20E+04	1.20E+04
Dynamic Range/Bits/dB - Full Range of System:	4.85E+04/15/93	4.85E+04/15/93
System Components		
Sphere Diameter: (ID)	13.5 cm	13.5 cm
Exit Port Diameter:	5 cm	5 cm Dome
Sphere Coating:	Spectralon®	Spectralon®
Inline Baffle	7.62 cm	N/A
Monitor Detector:	SD-S1, Silicon	SD-S1, Silicon
Light Source:	Quartz Halogen	Quartz Halogen
Detector Response:	Photopic & Unfiltered	Photopic & Unfiltered
System Software:	LSS-PT	LSS-PT
System Specifications		
Communication:	USB 3.0	USB 3.0
Operating System:	Windows 10	Windows 10
Dimensions: (L x W x H)	39 cm x 32 cm x 30 cm	39 cm x 32 cm x 30 cm
Weight: (approximate)	14 kg	14 kg
Included Calibrations (NIST traceable)		
Luminance*:	cd/m^2	cd/m^2
Correlated Color Temp: (factory set)	2856K	2856K
Spectral Radiance: (350 - 2400 nm)	at max luminance	at max luminance
Spatial Uniformity:	at max luminance	at max luminance

*Additional calibrations may be entered by user



Spectra-PT Main Window



Example: PT-1000-S Spectral Radiance at 2856K

Labsphere
Advancing the Technology of Light: Measure. Create. Reflect.

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