

PHOTO RESEARCH®, Inc.

The LRS-462 Automated Calibration Standard



The LRS-462 is a fully automated NIST traceable, highly stable, self-contained luminance / correlated color temperature / spectral radiance calibration standard. It is an ideal tool for checking or calibrating photometers and spectroradiometers.

The LRS-462 system includes an integrating sphere containing a quartz halogen lamp and photopically corrected detector. The measuring port of the sphere is extremely uniform assuring accurate results regardless of the sampling size of the measuring instrument. The sphere assembly features a built-in filter holder capable of hold 81.3 mm x 64.8 mm x 13.7 mm filters making measurements of transmissive media quick and easy.

The system controller contains a highly stable lamp power supply and photometer. Luminance levels and lamp current (color temperature) are adjusted from the controller keyboard. the system can also be controlled by an applicaton over the standard RS232C interface.

The luminance can be varied while maintaining a constant color temperature, and inversely, the color temperature can be varied while keeping the luminance constant.

LRS-455 Specifications

Luminance Uncertainty (@ 2856K, 90% max. luminance)	± 0.5% relative to NIST
Color Temperature Range	2000 to 3000 K
Color Temperature Uncertainty	±25 K
Source Stability @ 2856 K Short Term	±0.5%
Long Term	±2% 100 hours/1 year
Spectral Radiance Uncertainty @ 550 nm	±2% relative to NIST
Sphere Coating (reflectance)	>99% (350 to 1100 nm)
Variable Aperture	Automated (Motorized)
Interfaces	RS232C (RS422 and GPIB Optional)
Shutter	Automated (Open / Closed)

LUMINANCE LEVELS (nominal)

Sphere Diameter	Port Diameter	Maximum Luminance			Display Resolution
		Uniformity	@2856 K	@3000 K	
6"	1½"	±0.5%	12,000 fL	20,000 fL	0.0001 fL
12"	3"	±0.5%	4,000 fL	6,400 fL	0.0001 fL

