RS-50VF Projection Light Source

The RS-50VF source is primarily used for generating irradiance levels at distances from 6 to 30 meters or for uniformly illuminating areas of up to 50 cm or more in diameter. The calibration of the source is given at a specified distance from the exit pupil. Beyond 6 meters the source has the characteristics of a point source, and approximate illuminance and irradiance levels may be generated using the inverse square law.

The RS-50VF may also be used uncalibrated to illuminate various materials of interest. The correlated color temperature of the RS-50VF source is set at CIE Illuminant A at 2856 ± 20K. The area of illumination may be varied by changing the field apertures. An RS-4 Series Constant Current Power Supply (sold separately) is used for ultra-stable, constant-current power.

Robust, Reliable Light Source Solutions

Key Features

- NIST-traceable calibration for Luminous Intensity (cd), Illuminance (lux), and Irradiance (W/cm^2)
- Light delivery system with variable focal distance
- Illuminant A spectrum curve
- 2856K night-time color standard
- Tungsten-halogen lamps for stable output

Applications

- Calibrate spectroradiometers, radiometers, and photometers
- Measure reflectance and transmittance
- Illuminate various materials
- Perform calibration reports in units of luminance, illuminance, radiance and irradiance

In addition to our exceptional technical and functional capabilities, Gamma Scientific is ISO/IEC 17025 accredited by NVLAP (NVLAP lab code 200823-0).

RS-50VF 14 Projection Light Source System

RS-50VF Light Source Specifications	
Calibrated Wavelength Range	380 to 830 nm (300 to 1100 on request)
Luminous Intensity	2700 cd
Illuminance	12 lux at a distance of 15m (1.1 fc) at 2856 ± 20 K
Uniformity of Illuminated Area	± 4% over 460 mm diameter
Exit Pupil Size	25 mm with symmetrical distribution on the optical axis
Illuminated Area at 15 m	300 mm diameter (Standard) 460 mm diameter
Dimensions	127 mm (5 in) L x 127 mm (5 in) W x 310 mm (12.2 in) H 2.7 kg (6.3 lb)
NIST Traceable Calibration	Luminous Intensity (cd) Illuminance (lux) Irradiance (W/cm^2)

RS-4 Power Supply (purchased separately)	
Operating Mode	Constant Current
Measurement Technique	Poggendorf Comparison Method
Meter	Null type (zero center)
Output Current	10A maximum
Voltage Compliance	15 V maximum
Current Accuracy, Long Term	> 99.95%
Set Accuracy Error	> 0.02%
Temperature Drift	< 50 ppm per °C
Temperature Range	15 to 35°C
Thermal Drift After 8 min. Warmup	< 0.01%
Regulation	± 0.02% change for line voltage change of of 10V
Current Ramp On/Off Time	< 30 seconds
Power	220W maximum
Line Voltage	100 to 240 VAC 50/60 Hz
Relative Humidity	Up to 99% (non-condensing)
Dimensions	254 mm (10 in) L x 216 mm (8.5 in) W x 89 mm (3.5 in) H 2 kg (4.4 lbs)

Specifications are subject to change without notice.

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