

RS-12DN NVIS Calibration Light Source



The RS-12DN is a NIST Traceable source that can be used as a white light standard of spectral radiance or luminance. The insertion of the filter/aperture assembly transforms the unit into an NVIS display simulation source approximating a green cockpit display with a designed level of near infrared output against which a spectroradiometer or radiometer can be calibrated.

Three calibrations and certificates are supplied. First, a white-light source calibration is performed from 380 to 1100 nm. The second calibration is with the filter inserted with nominal luminance output of 45 footlamberts, and the third calibration is with the filter and aperture. Nominal output is 1 footlambert and 10-10 AR (Anvis Radiance).

Precision Calibration Solutions Robust, Reliable and Traceable

Features

- Standard of spectral radiance and luminance
- RS-12D white-light standard without NVIS requirements
- Correlated color temperature of 2856 K \pm 25 K
- 3-inch diffuse exit diameter with \pm 3% uniformity
- ANVIS output with 10-10 AR
- NIST Traceable

Applications

- NVIS testing and calibration
- Calibrate spectroradiometers, radiometers and photometers
- Calibrate detector responsivity
- Measure reflectance and transmittance

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

RS-12DN Uniform Light Source	
Calibrated Wavelength Range @ Data Interval	380-1100 nm @ 5 nm
Nominal Radiance of Diffuser	2.5 x 10 ⁻⁸ W/cm ² *nm*sr at 380 nm 3.0 x 10 ⁻⁶ W/cm ² *nm*sr at 550 nm 9.5 x 10 ⁻⁶ W/cm ² *nm*sr at 800 nm 1.2 x 10 ⁻⁵ W/cm ² *nm*sr at 1100 nm
Nominal Luminance of Diffuser	2398 cd/m ² 700 fl (n ⁻¹ · cd/ft ²)
Nominal Luminance with ANVIS Filter	488 cd/m ² 140 fl (n ⁻¹ · cd/ft ²)
Nominal Luminance with ANVIS Filter and Low Level Aperture	6.6 cd/m ² 1.9 fl (n ⁻¹ · cd/ft ²)
Nominal NVIS “A” Radiance with ANVIS Filter and Low Level Aperture	450 x 10 ⁻¹⁰ NVIS “A” radiance
Correlated Color Temperature (CCT)	2856 ± 25K
Uniformity of Diffuser	±3% over 65 mm
NIST Standards of Irradiance Output Uncertainty	±2.5%
Size	197 mm (7.8 in) L x 216 mm (8.5 in) W x 203 mm (8.0 in) H 2.8 kg (6.25 lb)
Regulator Type	Constant current
Output Current	4A maximum
Current Accuracy, Long Term	Better than 0.5%
Temperature Range	15°C to 35°C

If uncalibrated output is acceptable for your application, please specify item number RS-12D at time of order. Custom calibration options available. Specifications are subject the change without notice.