

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 | 300-1100 nm @ 5 nm |
| Nominal Radiance of Diffuser | $2.5 \times 10^{-8} \text{ W/cm}^2 \cdot \text{nm} \cdot \text{sr}$ at 380 nm $3.0 \times 10^{-6} \text{ W/cm}^2 \cdot \text{nm} \cdot \text{sr}$ at 550 nm $9.5 \times 10^{-6} \text{ W/cm}^2 \cdot \text{nm} \cdot \text{sr}$ at 800 nm $1.2 \times 10^{-5} \text{ W/cm}^2 \cdot \text{nm} \cdot \text{sr}$ at 1100 nm |
| Nominal Luminance of Diffuser | 2398 cd/m^2 $700 \text{ fl (n}^{-1} \cdot \text{cd/ft}^2)$ |
| Nominal Luminance with ANVIS Filter | 488 cd/m^2 $140 \text{ fl (n}^{-1} \cdot \text{cd/ft}^2)$ |
| Nominal Luminance with ANVIS Filter and Low Level Aperture | 6.6 cd/m^2 $1.9 \text{ fl (n}^{-1} \cdot \text{cd/ft}^2)$ |
| Nominal NVIS "A" Radiance with ANVIS Filter and Low Level Aperture | 450×10^{-10} NVIS "A" radiance |
| Correlated Color Temperature (CCT) | $2856 \pm 25\text{K}$ |
| Uniformity of Diffuser | $\pm 3\%$ over 65 mm |
| NIST Standards of Irradiance Output Uncertainty | $\pm 2.5\%$ |
| 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 to change without notice.