

RS-15 Total Flux Calibration Light Source



The Gamma Scientific RS-15 Total Flux Calibration Light Source is a precision source of total radiant flux, used primarily to calibrate integrating spheres, light measuring instrumentation and as stimuli to measure detection devices. Lamps are available from 5W-200W.

The RS-15 source may be used as a standard of spectral radiant flux or luminous flux, traceable to the National Institute of Standards Technology (NIST). To maintain almost constant radiant flux output, the RS-15 utilizes a tungsten halogen lamp. To power the source, the model RS-4, ultra-stable constant-current supply utilizes precision shunt current measurement and comparison circuits built into the source.

Precision Calibration Solutions

Robust, Reliable and Traceable

Features

- NIST Standards of Irradiance uncertainty of $\pm 2.5\%$
- Calibrated wavelength range from 300 to 1100 nm at 5 nm intervals
- Calibration reports in lumens, Watts and Watts per nanometer
- Tungsten halogen lamp for stable output
- NIST-traceable 12-month calibration cycle

Applications

- Integrating Sphere, Spectroradiometer, Photometer and Radiometer calibration
- SSL and LED test & measurement
- CCFL measurements
- Total flux measurements
- Luminaire testing

The RS-15-G4 Kelvin socket assembly is recommended with our RS-15 lamps. The use of the four wire socket with a separate current supply lead contact and sense lead contact for each lamp pin assures the low uncertainty reproduction of the lamp power conditions during the time of calibration, ensuring the highest accuracy possible.

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

RS-15 Light Source General Specifications

Calibrated Wavelength Range	300 to 1100 nm @ 5 nm interval
Calibration Interval	12 months
NIST Standards of Irradiance Output Uncertainty	± 2.5%
Calibration Traceability ⁽³⁾	Traceable to NIST with optional ISO/IEC 17025 accreditation

RS-15 Light Source Product Selection Guide

RS-15-5	Total flux (4 pi steradian), requires G4 lamp holder, 12 Volt, 5 Watt ⁽¹⁾
RS-15-5-2P	Forward flux (2 pi steradian), requires G4 lamp holder, 12 Volt, 5 Watt ⁽¹⁾
RS-15-10	Total flux (4 pi steradian), requires G4 lamp holder, 12 Volt, 10 Watt ⁽¹⁾
RS-15-10-2P	Forward flux (2 pi steradian), requires G4 lamp holder, 12 Volt, 10 Watt ⁽¹⁾
RS-15-20	Total flux (4 pi steradian), requires G4 lamp holder, 12 Volt, 20 Watt ⁽¹⁾
RS-15-20-2P	Forward flux (2 pi steradian), requires G4 lamp holder, 12 Volt, 20 Watt ⁽¹⁾
RS-15-35	Total flux (4 pi steradian), requires G4 lamp holder, 12 Volt, 35 Watt ⁽²⁾
RS-15-35-2P	Forward flux (2 pi steradian), requires G4 lamp holder, 12 Volt, 35 Watt ⁽²⁾
RS-15-50	Total flux (4 pi steradian), requires G4 lamp holder, 12 Volt, 50 Watt ⁽²⁾
RS-15-50-2P	Forward flux (2 pi steradian), requires G4 lamp holder, 12 Volt, 50 Watt ⁽²⁾
RS-15-75	Total flux (4 pi steradian), requires G4 lamp holder, 12 Volt, 75 Watt ⁽²⁾
RS-15-75-2P	Forward flux (2 pi steradian), requires G4 lamp holder, 12 Volt, 75 Watt ⁽²⁾
RS-15-100	Total flux (4 pi steradian), requires G4 lamp holder, 12 Volt, 100 Watt ⁽²⁾
RS-15-100-2P	Forward flux (2 pi steradian), requires G4 lamp holder, 12 Volt, 100 Watt ⁽²⁾

(1) Requires G4 lamp holder [P/N RS-15-G4-25]

(2) Requires GY6.35 lamp holder

(3) RS-4 series power supplies are required with RS-15 calibration standard lamps. Select the proper power supply based on current and voltage rating. RS-4 / RS-15 systems include ISO/IEC 17025 accredited calibration report.

RS-4 Power Supply General Specifications (Sold Separately)

Operating Mode	Constant Current
Measurement Technique	Poggendorf Comparison Method
Output Current	10A maximum
Voltage Compliance	15 V maximum
Power	220W maximum
Input	105 to 125 VAC or 210 to 250 VAC at 50/60 Hz

RS-4 Power Supply Product Selection Guide

RS-4-1-0833	Precision Lamp constant current power supply, 12V, 10W, 0.833A
RS-4-1-0850	Precision Lamp constant current power supply, 11.76V, 10W, 0.850A
RS-4-1-1667	Precision Lamp constant current power supply, 12V, 20W, 1.667A
RS-4-1-2917	Precision Lamp constant current power supply, 12V, 35W, 2.917A
RS-4-1-4167	Precision Lamp constant current power supply, 12V, 50W, 4.167A
RS-4-1-6250	Precision Lamp constant current power supply, 12V, 75W, 6.250A
RS-4-2-8333	Precision Lamp constant current power supply, 12V, 100W, 8.333A
RS-4-2-8500	Precision Lamp constant current power supply, 11.76V, 100W, 8.500A
RS-4-4-6600	Precision Lamp constant current power supply, 30.3V, 200W, 6.600A

Please see separate RS-4 Specification sheet for additional information.

All specifications are subject to change without notice.