

SRS12
Spectral radiance 380-800nm

SRS12 Spectral Radiance Standard 300-1400nm

The SRS12 is a quartz halogen lamp based spectral radiance standard, supplied with an NMI traceable calibration.

Comprising a baffled, grit-blasted quartz halogen lamp inside a 300mm diameter BaSO₄ coated integrating sphere, and having a 100mm diameter open exit port, the SRS12 constitutes a uniform Lambertian source.

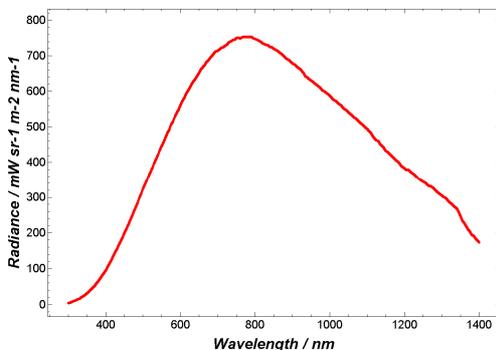
Designed initially to complement the Bentham TEL310 telescope in the evaluation of lamp photobiological safety according to EN/IEC62471, the SRS12 is also of use for the calibration of spectroradiometers, telephotometers and luminance meters.

The SRS12 is fitted with a 100W lamp, and should be operated from a precision constant current DC power supply such as the Bentham 610.

The calibration is performed with respect to the Physikalisch-Technische Bundesanstalt (PTB), providing traceability to a National Measurement Institute (NMI). Direct PTB calibration can be provided.



610 constant current power supply



Lamp Specification

Lamp Type	Grit-blasted quartz halogen lamp, G6.35 base
Nominal Lamp Power and Voltage	100W, 12V
Operating Current	8.500A
Expected Lifetime	2000 hours
Calibration Frequency	100 hours use/ recommended annually

Calibration (typical values)

Measurement type	Spectral radiance over a circular central area of diameter 10mm
Wavelength range	300-1400nm, 5nm intervals
Peak spectral radiance (typ.)	490 mW.m ⁻² .sr ⁻¹ .nm ⁻¹ at 750nm
Luminance (typ.)	24,600 cd.m ⁻²
Correlated colour temperature (typ.)	3360 K
Chromaticity coordinates, CIE 1931 & 1976	x = 0.4146 y = 0.3984 u' = 0.2386 v' = 0.5158