



CL2
Spectral irradiance Standard 250-2500nm

CL2 Spectral irradiance Standard (250- 2500nm)

The CL2 is a quartz halogen lamp based spectral irradiance standard, supplied with an NMI traceable calibration at a defined distance from a datum face to the rear of the lamp.

Comprising a grit-blasted quartz halogen lamp on a mounting bracket compatible with all optical table and mounting systems, the CL2 is used to calibrate spectroradiometers, lux meters and radiometers.

The CL2 is typically supplied with a 100W lamp, and should be operated from a precision constant current DC

power supply such as the Bentham 610.

The spectral irradiance calibration is performed with respect to a standard lamp calibrated by the Physicalish Technische Bundesanstalt (PTB, Germany), providing traceability to a National Measurement Institute (NMI). Direct NMI calibration can be provided.

Mechanical	
Lamp Type	Grit-blasted Quartz Tungsten Halogen lamp,
Connector	4mm socket
Compatibility	Post mounting hole
Dimensions, LxWxH	91.2 x 44.4 x 76.2 mm

Electro-optical (typical values for 100W lamp)	
Nominal Lamp Power and	100W, 12V
Operating Current	8.5A
Expected Lifetime	2000 hours
Peak Wavelength (typ.)	860nm
Peak spectral Irradiance (typ.)	30 mW.m ⁻² .nm ⁻¹
Illuminance (typ.)	1150 lux
Correlated colour temperature	3200K
Chromaticity coordinates, CIE 1931 & 1976	x = 0.4281 y = 0.4010 u' = 0.2462 v' = 0.5188

Calibration	
Measurement Type	Spectral irradiance at 500mm from datum face
Wavelength Range	250-2500nm, with De Vos extrapolation to
Wavelength Interval	5nm
Temperature at Calibration	20°C
Traceability	Physicalish Technische Bundesanstalt (PTB,
Calibration Frequency	100 hours use/ Recommended annually

