

**CL7**  
Enclosed UV Spectral Irradiance Standard  
200-400nm

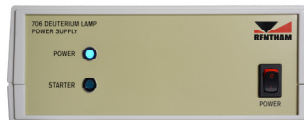
# CL7 Enclosed UV Spectral Irradiance Standard 200-400nm

The CL7 is an enclosed deuterium lamp based UV spectral irradiance standard, supplied with an NMI traceable calibration at a distance of 5.5mm from the plane of the front face of the source.

The CL7 houses a deuterium lamp at one end, whilst at the output end is a threaded aperture to which may be adapted a range of interchangeable adapters to ensure all Bentham's diffusers, radiometers and integrating spheres as well as many other devices are positioned at the calibration plane.

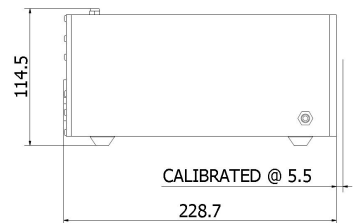
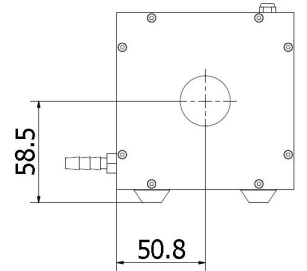
In this manner, the CL7 greatly simplifies the calibration of spectroradiometers and radiometers by removing the need for a dark room, precision optical bench, and alignment tools associated with conventional calibration lamps.

The CL7 is supplied with a 30W lamp, and should be operated from the Bentham 706 deuterium lamp power supply.



**706 Power Supply**

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



## Specifications

### Lamp

<b>Lamp Type</b>	Deuterium discharge lamp, projecting type, with spectrosil window
<b>Nominal Lamp Power and Voltage</b>	30W, 100V
<b>Operating Current</b>	300 mA
<b>Expected Lifetime</b>	500 hours
<b>Calibration Frequency</b>	100 hours use/ one year recommended

### Calibration (typical values)

<b>Measurement type</b>	Spectral irradiance at 5.5mm from plane of front face
<b>Wavelength range</b>	200-400nm in 2nm intervals
<b>Peak spectral irradiance</b>	7.5 mW.m <sup>-2</sup> .nm <sup>-1</sup> at 200nm
<b>200-400nm</b>	432 mW.m <sup>-2</sup>
<b>UV-A (315-400nm)</b>	53 mW.m <sup>-2</sup>
<b>UV-B (280-315nm)</b>	49 mW.m <sup>-2</sup>
<b>UV-C (200-280nm)</b>	327 mW.m <sup>-2</sup>