IL6, IL7 and IL8 Light Sources

The IL6/7/8 range of modular light sources offers a flexible means of configuring single, double, and triple light sources covering the spectral range 200nm to 30μm.

A variety of different lamp types and power ratings, specified separately, can be fitted into the lamp housings.
The 'S' version lamp housings are stand-alone single source units whereas the 'D' and 'T' versions are used in conjunction with the IL-DSC dual source changeover unit and the IL-TSC triple source changeover unit respectively.

IL6/8-DSC

Although primarily designed for use with Bentham's range of monochromators and spectrometer systems, these light sources can be readily incorporated into most optical and spectroscopic set-ups requiring highly stable, focused broadband illumination.
All of the light sources can be directly mounted onto any Bentham monochromator, collimator, fibre optic bundle and other accessories.
An efficient, dual-element lens (f/1 input, f/4 output) precisely matches the acceptance cone of the monochromator thus maximising light transfer while minimising scattered light.

The Bentham 218 Optical Chopper can also be directly attached.

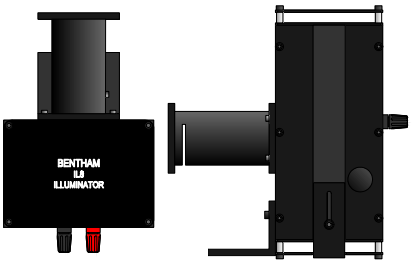
The IL6x and IL8x housings are essentially the same except for the lens assembly materials which are selected to match the various spectral ranges as defined in the table below.

The IL7x is a special version of the IL6x. It is always fitted with a 150w Xe lamp and incorporates the required ignitor circuitry for this type of lamp.

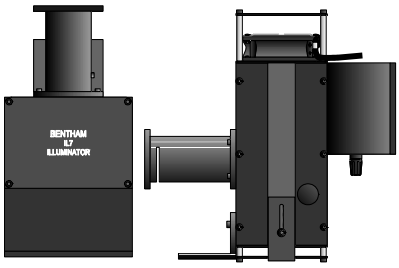
Specification

IL6	200 - 3000 nm	for use with deuterium / QH lamps
IL7	200 - 1100 nm	always fitted with 150W Xe lamp
IL8	1 - 30 μm	for use with glowbar or Nernst element

IL6S/IL8S



IL7S



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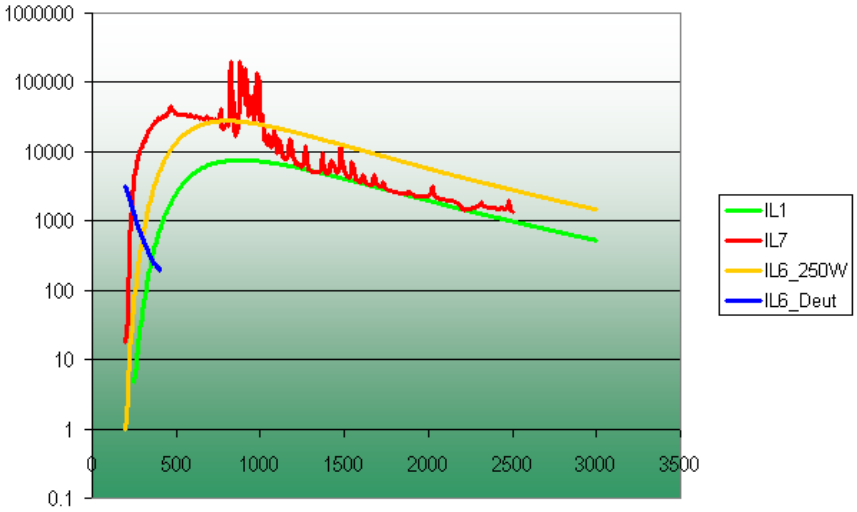
Tel.+44 118 975 1355 Fax.+44 118 931 2971 Email: sales@bentham.co.uk Website: www.bentham.co.uk

IL6, IL7, IL8

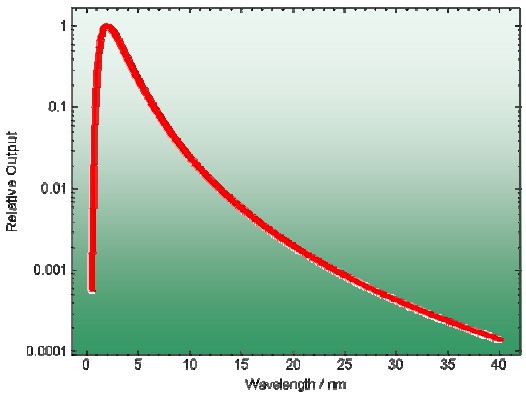
The following lamp types can be fitted to the IL6/7/8x light sources:

Model No.	For use in housing type...	Lamp type	Recommended spectral range	Operating current	Recommended PSU
6/100W	IL6S/D/T	100W Quartz Halogen	250 - 2500nm	8.5A	605
6/150W	IL6S/D/T	150W Quartz Halogen	250 - 2500nm	6.3A	605
6/250W	IL6S/D/T	250W Quartz Halogen	250 - 2500nm	10.4A	605
6/DEUT	IL6S/D/T	30W Deuterium	200 - 400 nm	-	705
8/GB	IL8S/D/T	Glowbar	3 - 30 μm	8.5A	605
8/Nernst	IL8S/D/T	Nernst element	3 - 30 μm	8.5A	605
Supplied as part of IL7x	IL7S/D/T	150W Xe	200 - 1100 nm	8.5A	605

Spectral Irradiance of typical Deuterium, QTH and Xe lamps



Nernst



General guidelines on lamp type selection:

Deuterium	•	Normal choice for UV measurements (200-350nm), especially if using single monochromator
Quartz Halogen	•	Most frequently used lamp type 250-2500nm
	•	Unsurpassed stability by any other source
	•	Should always be first choice when it provides sufficient output in wavelength range required
Xenon	•	Greatest output power 250-1000nm
	•	Less stable than QH
	•	Spectral output includes variety of emission lines
Nernst	•	Highest output IR source, 3-30um

Power Supplies

605
Constant current
p.s.u. for use with QH, Glowbar, Xe,
and Nernst element light sources

705
Matched p.s.u.
for deuterium lamp

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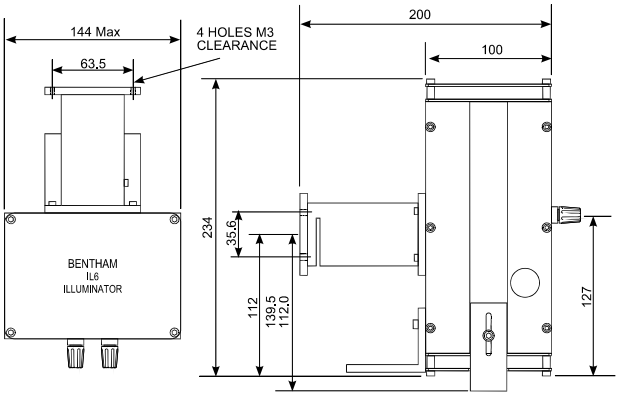
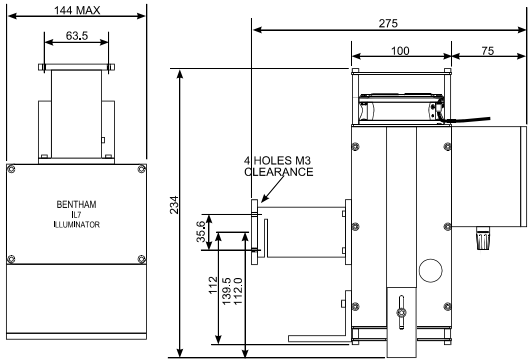
IL6, IL7, IL8 Light Sources

Dimensions

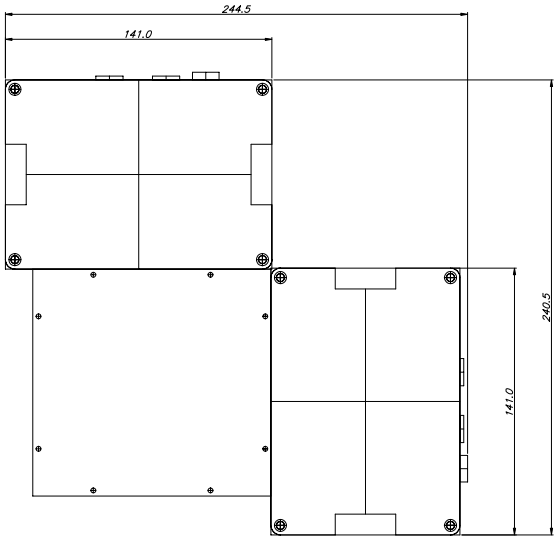
IL6S/IL8S



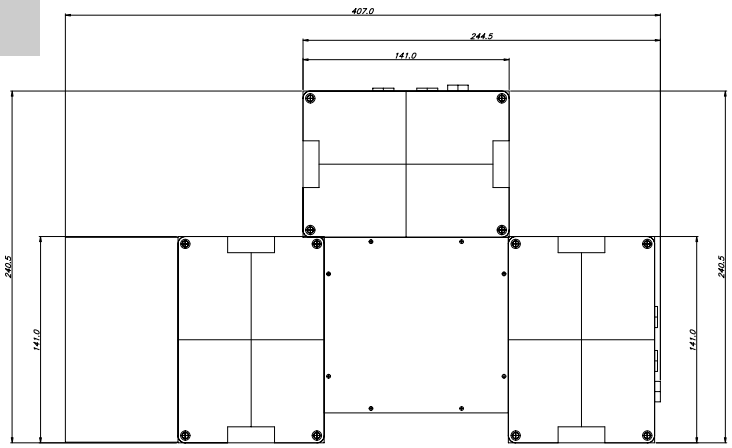
IL7S



2 units with IL-DSC



3 units with IL-TSC



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