

Uniform sources

Uniform arc light source systems, 450 - 1200 W Xe

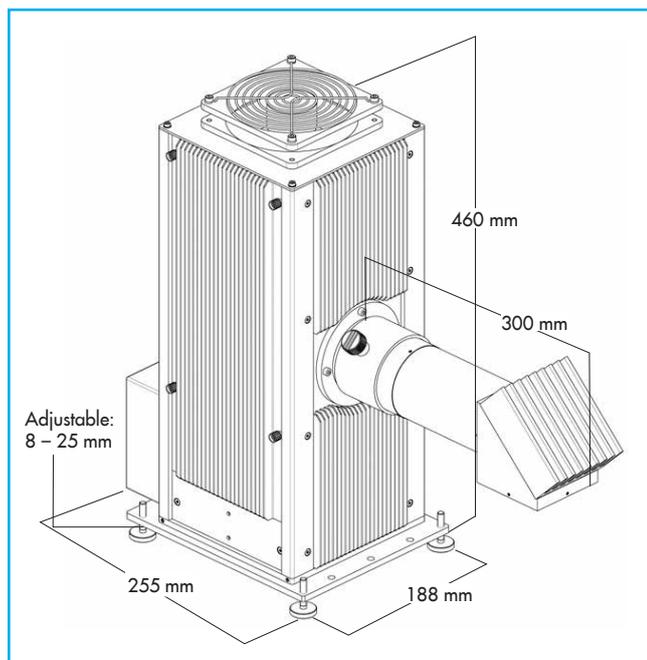
- 25 or 50 mm diam. collimated beam
- Uniform output, 15 %
- Range of application: 200 - 2500 nm
- Different irradiance levels with interchangeable lamps
- Variable spectral UV/ VIS output with optional filters

These arc light source systems have been designed for applications where a uniform illumination is required. The optical system of these sources produces a uniform collimated output beam with either 25 or 50 mm diameter. Optional mirrors turn the output by 90°. If a collimated beam is not required, larger illumination fields can be adjusted.

Housing and lamps

The housing is the LSH601 fan cooled housing. It operates different Xe, Hg and Hg(Xe) lamps under optimal and for these lamps necessary conditions. The housing holds the ignitor, collecting and collimating optics, external lamp adjusters and all necessary electronics.

The uniform arc light source system includes everything you need to begin operation, but no lamp and no beam turning mirror. You have to order the lamp and mirror separately when ordering the source.



Power supply

The highly regulated power supply LSN557 provides constant current to the arc lamp. The current is adjustable in order to maintain constant light output during lamp life. For specifications of the power supply go to "Arc lamp power supplies, specifications" on www.lot-qd.com/lightsources ("Arc light sources").

Variable spectral output

The uniform arc light source systems come with a 90° beam turner. The beam turner can be rotated 360° about the optical axis. It holds either an Al-mirror for full spectrum output (250 - 2500 nm) or different dichroic filters to shape the spectral output in the UV and VIS.

The UV and VIS dichroic mirrors efficiently reflect a defined range of UV or VIS wavelengths while reducing the VIS/IR output of the lamp to shape the spectral output. We offer four spectral ranges as shown in the ordering information.

The uniform arc light source system does not include a mirror. Choose the mirror from the ordering information and order it separately. Optional UV blocking filters or band pass filters can be used after the dichroic to further shape the spectral output.

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Accessories

If a different spectral shaping of the output is required, many additional solutions are available by adding filters to the optical path. We offer open and closed filter holders which directly mount to the light source output.

For measuring the spectrum output or adjusting the output intensity we provide handheld power meters with different detector heads for measurements in the range of μW to W. For accessories go to www.lot-qd.com/lightsources ("Light source accessories"), for detection systems go to www.lot-qd.com/lightmeters ("ILT 1400 USB").

Electronic shutter

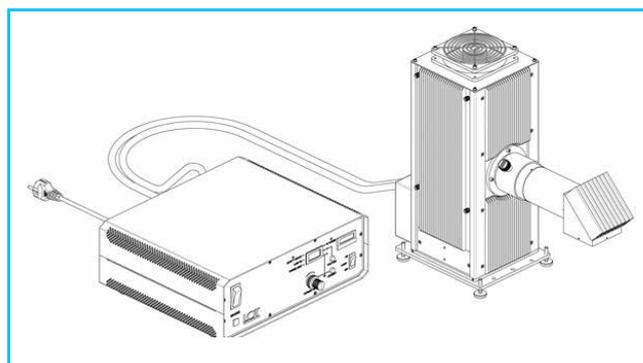
An electronic shutter is available that can be integrated into the optical system. It closes off the beam and especially prevents the target or probe from heating. The shutter requires 24 V DC (0,25 A) to open. The optional shutter driver provides an open/close switch on the front panel and a TTL input, allowing to drive the shutter from a computer or other source. A stand alone timer also is available, it operates together with the shutter driver, the time can be adjusted to 0,01 - 99 minutes or hours.

Safety

These light sources systems emit dangerous levels of UV radiation harmful to the eyes and skin. Personnel working near this source should wear UV protective goggles and avoid direct exposure of the output beam to the skin!

Specifications

Illumination field	25 mm or 50 mm diam.
Irradiance uniformity	$\pm 10\%$ @ 25 mm diam. $\pm 15\%$ @ 50 mm diam.
Working distance	25 mm beam: 8 - 10 cm 50 mm beam: 20 - 22 cm (recommended)
Light ripple	1 % (typ.)
Operating mode	standing
Input	90 - 250 VAC; 48 - 63 Hz



Ordering Information

LSU605	Uniform arc light source system, 25 mm uniform field	
LSU606	Uniform arc light source system, 50 mm uniform field	
LSU608	Uniform arc light source system with integrated shutter LSZ160, 50 mm uniform field	
All uniform arc light source systems come without lamp and beam turning mirror or filter. Choose lamp, mirror or filter from below.		
Lamps		
LSB540	450 Xe	
LSB541	450 Xe, UV	
LSB542	450 Xe OF	
LSB550	1000 Xe	
LSB551	1000 Xe OF	
LSB552	1000 Xe OF	
LSB553	1200 Xe OF	
For lamp specifications go to "DC short arc lamps, specifications" on www.lot-qd.com/lightsources ("Arc light sources").		
Mirrors and dichroic filters		
25 mm beam	50 mm beam	
LSZ170	LSZ270	Al-mirror, 200 nm - 30 μm
LSZ171	LSZ271	Dichroic filter, 260 - 320 nm
LSZ172	LSZ272	UV Long pass filter, 280 - 400 nm
LSZ173	LSZ273	Dichroic filter, 350 - 450 nm
LSZ174	LSZ274	Cold mirror, 320 - 680 nm
For specifications of the filters go to www.lot-qd.com/lightsources ("Light source accessories", "90° beam turner, dichroic filters").		
Accessories		
25 mm beam	50 mm beam	
LSZ123	LSZ323	Open filter holder for 50 mm square or diameter filters
LSZ124	LSZ324	Closed filter holder for 50 mm square or diameter filters
LSZ160	see LSU608	Electronic shutter
LSZ161/2	LSZ161/2	Optional shutter driver
LSZ162	LSZ162	Optional timer for shutter driver