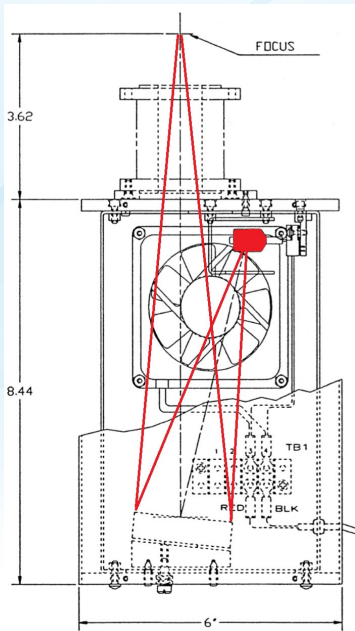


LSH Illuminator

Compact Scientific Light Source

| |
|------------------------------|
| ELEMENTAL ANALYSIS |
| FLUORESCENCE |
| GRATINGS & OEM SPECTROMETERS |
| OPTICAL COMPONENTS |
| CUSTOM SOLUTIONS |
| PARTICLE CHARACTERIZATION |
| RAMAN / AFM-RAMAN / TERS |
| SPECTROSCOPIC ELLIPSOmetry |
| SPR IMAGING |

Compact lamp housing for a variety of types of light sources from the UV to the IR including deuterium, tungsten halogen and glow bar



Features and Benefits

- Illumination from 180 nm to 2 microns (lamp dependent)
- Universal housing accommodates,
 - Deuterium
 - Tungsten-halogen
 - Glow bar
- More compact
- Environmentally friendly, producing no ozone and consuming less energy
- Less expensive

Applications

Applications for compact arc lamp housings cover a broad range of scientific, OEM and research applications. Arc lamp illuminators are used for a broad range of applications almost as diverse as the wavelength range across which they emit.

- Solar simulators
- Photochemistry
- Photo-activation
- Photobiology
- Spectroscopy
- Optical teaching labs
- Pump probe
- Dermatology
- Catheter illumination

Arc lamp systems are the light sources of choice for a variety of spectroscopy systems, such as:

- Fluorometers
- UV-Vis spectrometers
- CD spectrometers
- Stopped-flow spectrometers
- Microscopes
- Tunable illuminators



Specifications

Optical Specifications

| | LSH-D | LSH-100 | LSH-T250 | LSH-GB | LSH-GC |
|---|--|---------------------------------------|--|---------------------------------|-----------------------------|
| Lamp type | 100 W Deuterium | 100 W Tungsten Halogen | 250 W Tungsten Halogen | 140 W Glow Bar | 22 W Ceramic |
| Reflector | f/4 | f/4. | f/4 | f/4 | f/4 |
| Broadband optical power at focal point | 0.001 W | 1 W | 2 W | 0.001 W | 0.005 W |
| Nominal image size | 22 | 9.5 mm H x 6.2 mm W (flattened helix) | 11.7 mm H x 5.5 mm W (cylindrical helix) | 17.5 mm H x 6.4 mm Ø (cylinder) | 10 mm H x 3 mm Ø (cylinder) |
| Color temp. at rated power | N/A | 3300 K | 3400 K | 1000 -1050 K | 16000 - 2000 K |
| Focal distance | 3.62 inches, 92 mm, from front of housing | | | | |
| Housing dimensions | 8.44 x 6 x 5.19 inches, 214 x 152 x 132 mm (L x W x H) | | | | |
| Weight | 12 pounds, 5.45 kg | | | | |

LPS-QTH Power Supply Specifications (for TH, GB & GC sources)

| | | |
|-----------------------------------|---|--|
| Constant voltage operation | Regulation | Line regulation ≤ 5 mV, Load regulation ≤ 5 mV |
| | Ripple & noise | ≤ 5 mV rms, 100 mV p-p 20Hz ~ 20 MHz |
| | Recovery time | ≤ 500 μ s (50% load change, minimum load 0.5 A) |
| | Temp. coefficient | ≤ 100 ppm/ $^{\circ}$ C |
| | Output range | 0 to rating voltage continuously adjustable |
| Constant current operation | Regulation | Line regulation ≤ 3 mA, Load regulation ≤ 3 mA |
| | Ripple current | ≤ 10 mArms |
| | Output range | 0 to rating current continuously adjustable (Hi/Lo range switchable) |
| Meter | Type: 3 1/2 Digit 0.39" LED Display, Accuracy: \pm (0.5% of rdg + 2 digits) | |
| Insulation | Chasis & terminal: 20 M Ω or above (DC 500V), Chasis & AC cord: 30 M Ω or above (DC 500V) | |

1684P Deuterium Power Supply Specifications (for Deuterium sources)

| | | |
|---|---|--|
| Input | Voltage | AC 100/240 V, 50/60 Hz |
| | Current (Max) | 0.9 A |
| Output | Voltage (DC) | 80 V (Typ.) with Load, 200 V (Min.) without Load |
| | Current (DC) | 300 +/- 30 mA |
| | Current fluctuation (p-p) | 0.005% (Typ.) |
| | Current drift at +25$^{\circ}$C | +/- 0.02%/h (Typ.) |
| | Warm-up time | 20 seconds (Approx.) |
| | Trigger voltage | 600 V peak (Approx.) |
| | Oper. ambient temp. | 0 to +40 $^{\circ}$ C |
| Storage temperature | -10 to +60 $^{\circ}$ C | |
| Operating & storage humidity | Below 80% (no condensation) | |
| Weight | 1.8 kg | |

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