

# Lambda LS

## STAND-ALONE XENON ARC LAMP AND POWER SUPPLY

SUTTER INSTRUMENT



The **Lambda LS** is a stand-alone lighting system consisting of a xenon-arc lamp, lamp housing, cold mirror and power supply in a single enclosure. The Lambda LS is designed to be used with a liquid light guide which transmits remarkably flat, intense, illumination to the optical train of the user's microscope or other instrumentation. The lamp's cabinet accommodates a standard Sutter Instrument filter wheel that slides easily in and out of a slot in the light path. If desired, a second filterwheel can be mounted on the outside of the cabinet. When used with appropriate adapters, the light guide output is compatible with most common microscope systems. Unlike the arc lamps used with most fluorescence microscopes, the xenon bulb is pre-aligned using a parabolic mirror and does not require alignment, focusing or collimation. In the standard configuration, the Lambda LS bulb is capable of producing light output from 330nm to a cutoff of 650nm determined by the cold mirror. An optional enhanced UV bulb produces output much lower into the UV (cut off near 200nm). As with any UV generating light source, the optional bulb generates significant quantities of ozone and must be used in an adequately ventilated environment.

The **Lambda LS** utilizes a compact design, which places power supply, lamp house, arc lamp and cold mirror in a single enclosure. This system eliminates a common failure associated with standard arc lamp designs: when using a remote power supply aging may lead to a decreased ability to light the lamp due to loss of the

insulating characteristics of the lengthy high-tension line. As with all our equipment, the power supply has been designed to minimize electrical noise that can be picked up by physiological recording equipment.

### FEATURES

- 175W xenon lamps provide light levels which exceed those of standard microscope fluorescence lamps
- Equipped with a cold mirror to eliminate IR heating of down stream optical components
- Compact stand-alone lamphousing-power supply enclosure
- Pre-aligned bulb eliminates common focusing problems
- Integrated hour meter for convenient monitoring of lamp life
- Modular construction allows use of optional liquid light guide for flexible direction of light output
- Easily accommodates sutter instrument filter wheels or SmartShutter within the body of the lamp.
- Can be coupled via a liquid light guide to many standard microscopes (Nikon, zeiss, leica and Olympus). Microscope coupling requires special adaptors (not included).

### SPECIFICATIONS

<b>Output Range:</b>	Standard bulb 330nm to 650nm (optional full-spectrum bulb) 200nm to 650nm
<b>Lamp Type:</b>	175 or 300 W xenon (pre-aligned to produce collimated output)
<b>Radiant Output:</b>	2.5 W (175W lamp), 4.5 W (300W lamp), (broadband, full beam)
<b>Lamp Life:</b>	1000 hours (Bulb warrantied for 500 hours. Longer life depends on application. Expected life is 1000 hours.)
<b>Power Consumption:</b>	175 W or 300 W
<b>Dimensions:</b>	26.7cm x 21.4cm x 25.4cm
<b>Weight:</b>	4.8kg
<b>Electrical:</b>	115/230 V; 50/60 Hertz power line

### ORDERING INFORMATION

#### Basic System

**LB-LS/FS17** Includes 175 Watt **full spectrum** lamp, cold mirror, power supply and lamp housing, support base with mounting rods, drop-in filter holder and manual

**LB-LS/OF17** Includes 175 Watt **ozone free** lamp, cold mirror, power supply and lamp housing, support base with mounting rods, drop-in filter holder and manual

**LB-LS/FS30** Includes 300 Watt **full spectrum** lamp, cold mirror, power supply and lamp housing, support base with mounting rods, drop-in filter holder and manual

**LB-LS/OF30** Includes 300 Watt **ozone free** lamp, cold mirror, power supply and lamp housing, support base with mounting rods, drop-in filter holder and manual

**LB-LS/OF30R<sup>1</sup>** Includes 300 Watt **ozone free** lamp, cold mirror that reflects to 780, power supply and lamp housing, support base with mounting rods, drop-in filter holder and manual

#### Bulbs

**O661176** Ozone free 175 W xenon bulb (attenuated output below 340nm)

**O661175** Full spectrum 175W xenon bulb

**O661301** Ozone free 300 W xenon bulb, replacement for early LS units (attenuated output below 340nm)

**O661300** Full spectrum 300 W xenon bulb

**O661115** Housing and heat sink for bulb (bulb will be installed when ordering at same time as housing)

#### Accessories

**LLG** Liquid light guide and coupling adaptor (2 meters, 3mm dia.), c-mount, lens and lens tube

**LLG/380<sup>2</sup>** Liquid light guide and coupling adaptor (2 meters, 3mm dia.), c-mount, lens and lens tube

**DROP-IN** Drop-in filterholder (25mm)

Mounting Adapters for Nikon, Zeiss, Leica and Olympus microscopes are available. Please call SPT for more information.

<sup>1</sup> Order with LLG/380

<sup>2</sup> Allows light input into near IR