TLS-EQ-77

Laser-Driven Tunable Light Source

The TLS-EQ-77 is a compact, fully integrated and highly stable tunable broadband light source based on proven Laser-Driven Light Source (LDLS™) technology. The TLS-EQ-77 utilizes the EQ-77 LDLS™ broadband source and features the highest brightness and output flux available in a tunable broadband light source.

Designed with high throughput applications in mind, the LDTLS can be run continuously and has an extremely long lifetime of more than 10,000 hours between bulb changes. It has high stability, very low noise and is coupled with a precision high-performance monochromator for accurate wavelength selection and repeatable light output across the broad range of 350nm-1100nm.

The spectral resolution can be customized for application specific purposes and ranges in bandwidth from 1nm to 10nm. The fiber coupled output is both flexible and convenient for delivering wavelength selected light precisely where it is needed.

* Multiple Patents Worldwide

Features and Benefits

• Highest output flux in the industry for higher throughput

• Long lifetime of ~10,000 hours between bulb changes for low cost-of-ownership

• Low noise and high stability for precise measurements

• Fast wavelength tuning up to 200nm per second for faster measurements

• Convenient optical fiber output easily integrates into a range of applications

• Achromatic reflective coupling optics for aberration free radiation collection and focusing

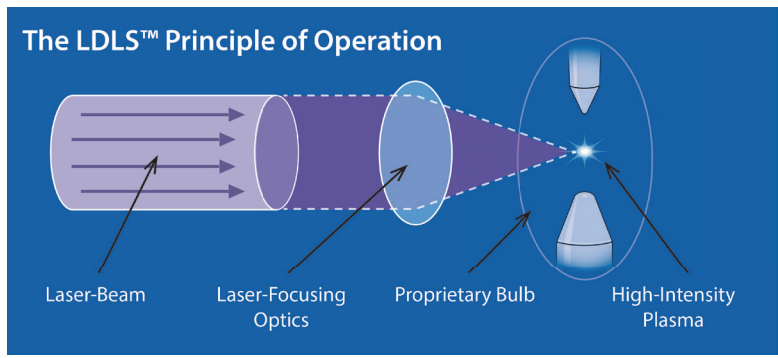• Etendue-matched monochromator with high efficiency optical design for maximum light throughput

Applications

• Optical Sensor Testing
• Process Monitoring and Control
• VIS/NIR Spectroscopy
• Scientific Research
• Thin-Film Measurements
• Materials Characterization

About Energetiq

Energetiq Technology, Inc. is a wholly-owned subsidiary of Hamamatsu Photonics. Energetiq combines its deep understanding of the plasma physics needed for high-brightness light generation with its long experience in building rugged industrial & scientific products. The result is that users can expect the highest levels of performance combined with the highest reliability.

The LDLS™ Principle of Operation

Laser-Beam   Laser-Focusing Optics   Proprietary Bulb   High-Intensity Plasma

TLS-EQ-77 with power supply

Spectral Output

TLS-EQ-77 offers enhanced spectral output across a broad wavelength range. The chart on the right shows the spectral output from 350nm - 1100nm.

Optimization for specific OEM applications available.

LDTLS In-Band Flux for 6.5nm Spectral Bandwidth

— LDTLS Flux (mW)

In-Band Flux (mW) vs Wavelength (nm)
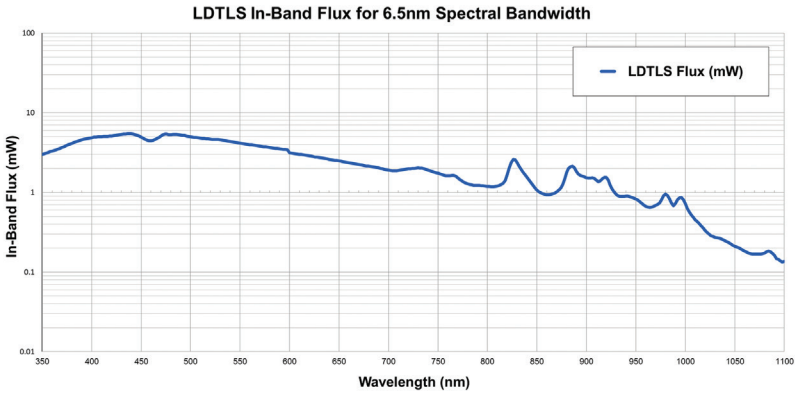
Specifications

Overview

- Spectral Range: 350nm to 1100nm
- Typical Bulb Life: >10,000 hours
- Optical fiber output via SMA connector
- Up to 3mW output power (Wavelength Dependent – 6.5nm bandwidth and 1500µm fiber optics)

Physical Specifications

TLS-EQ-77	System Dimensions (H x W x D)	Weight
• Tunable Light Source	266mm x 432mm x 222mm	16.6 kg (36.5 lb)
• Power Supply	152mm x 250mm x 132mm	2.9 kg (6.5 lb)

Utility Requirements

• Electrical	100-240 VAC, 50/60Hz
• Cooling Water	1.0 liter/min (.27 gal/min)
• Purge Nitrogen	0.4 liter/min
• Compliance	CE Mark

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Specifications are subject to change without notice.
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