Researchers using light for imaging and analytical spectroscopy in the life sciences and materials sciences need light sources capable of providing extremely high brightness across a broad wavelength range. Traditionally, multiple lamps (Tungsten/Halogen, Xenon-arc, Deuterium) have been used to cover this broad spectral range. However, combining multiple lamps is costly and optically inefficient, and the use of electrodes within these lamps limits their ability to achieve the high brightness or power needed for the most demanding applications. Furthermore, traditional electrode-driven light sources have short life, need to be changed frequently, and during their life the lamp output declines constantly. To address this problem, Energetiq has developed a revolutionary single-light source technology called the LDLS® Laser-Driven Light Source that enables extreme high brightness over a broad spectral range, from 170nm through visible into the near infrared, combined with lifetimes an order of magnitude longer than traditional lamps.

The LDLS technology is fully embodied in the compact EQ-99 — a high brightness, high stability broadband source that is specifically designed for demanding imaging and spectroscopy applications. The Energetiq EQ-99 offers excellent spatial and power stability for highly repeatable measurements across the broad spectrum. Utilizing a patented laser-driven bulb technology*, the EQ-99 is ideal for applications requiring ultra-long lamp life.


**Features & Benefits**

- CW laser plasma discharge
- Very high brightness across complete spectrum
  - UV-Vis-NIR (170nm - 2100nm)
- Eliminates need for multiple lamps (replaces D2/Tungsten/Xenon Arc)
  - Simplified optical system to cover multiple wavelengths
- Excellent spatial stability
  - Repeatable measurements
- Superior short and long term power stability
  - Repeatable measurements
- Electrodeless operation for long life
  - Reduced consumable costs
  - Minimal recalibration of instrument

**Applications**

- UV-Vis Spectrometry
- Monochromator Source
- Optical Component Testing
- Microscope Illuminators
- Environmental Analysis
- Materials Characterization
- Gas Phase Measurements
- Applications requiring long lamp life
## Specifications

### Overview
- Spectral output from 170nm to 2100nm
- Large collectable view angle – Numerical Aperture (NA): up to 0.47
- Typical bulb life > 5,000 hrs.
- Flexible optical interface for free-space or fiber optics
- Various precision reflective coupling optics are available from Energetiq - call for details

### Physical Specifications

<table>
<thead>
<tr>
<th>System Dimensions (H x W x D)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lamp</strong> 82.3 x 85.7 x 76.2 mm (3.2 x 3.4 x 3.0 in)</td>
<td>0.7 kg (1.5 lbs)</td>
</tr>
<tr>
<td><strong>Power Supply</strong> 107 x 111 x 254 mm (4.2 x 4.4 x 10 in) (excl feet)</td>
<td>1.4kg (3 lbs)</td>
</tr>
</tbody>
</table>

### Utility Requirements

- **Electrical** 100-240v, 50/60Hz, 2.5A
- **Cooling** Ambient air, no auxiliary cooling necessary
- **Nitrogen** Optional purging for DUV operation, Grade 6
- **Compliance** CE Mark, Class 1 Laser Product

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**About Energetiq**

Energetiq Technology, Inc. is a developer and manufacturer of advanced light sources that enable the analysis and manufacture nano-scale structures and products. The Energetiq team combines its deep understanding of the high power plasma physics needed for high-brightness light generation with its long experience in building rugged industrial and scientific products. The result is that users can expect the highest levels of performance combined with the highest reliability.