**OVERVIEW**

The L8425-01 light source is ideal for flaw inspection in transmission projection mode. The L8425-01 uses a Hamamatsu xenon lamp to ensure high output, high stability, and long service life. Its compact design allows a flexible layout without worrying about the installation space. A UV cut filter used at the light output window of the lamp housing prevents emission of short wavelength UV light harmful to the human body. The L8425-01 is easy to handle and is also designed with safety in mind.

**FEATURES**

- **Compact**  
  (100 mm [W] × 280 mm [H] × 100 mm [D]: Lamp housing)
- **Uses UV cut filter**
- **Large light output window** (Φ72 mm)
APPLIEDS

● Flaw detection and inspection
  • Film for liquid crystal display (LCD)
  • Glass substrate for liquid crystal display (LCD)
  • Other glass, film and plastics

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description / value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Built-in lamp and rating</td>
<td>150 W xenon lamp</td>
<td>—</td>
</tr>
<tr>
<td>Emission wavelength range</td>
<td>390 to 2000</td>
<td>nm</td>
</tr>
<tr>
<td>Light output Fluctuation (Max.)</td>
<td>1.0</td>
<td>% p-p</td>
</tr>
<tr>
<td>Light output Drift (Typ.)</td>
<td>0.5</td>
<td>%/h</td>
</tr>
<tr>
<td>Lamp housing output window material</td>
<td>UV cut filter</td>
<td>—</td>
</tr>
<tr>
<td>Lamp housing output window diameter</td>
<td>72</td>
<td>mm</td>
</tr>
<tr>
<td>Reflecting mirror Material</td>
<td>BK7 Al + MgF2 coating (total reflection)</td>
<td>—</td>
</tr>
<tr>
<td>Outside dimension</td>
<td>30</td>
<td>mm</td>
</tr>
<tr>
<td>Curvature</td>
<td>R30</td>
<td>mm</td>
</tr>
<tr>
<td>Optical axis height</td>
<td>140 (excluding rubber feet)</td>
<td>mm</td>
</tr>
<tr>
<td>Guaranteed lamp service life</td>
<td>1800</td>
<td>h</td>
</tr>
<tr>
<td>Hour display (comes equipped with power supply)</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Input voltage (AC) (manual switching)</td>
<td>100 V to 240 V (±10 %), 50 / 60 Hz</td>
<td>—</td>
</tr>
<tr>
<td>Power consumption</td>
<td>350</td>
<td>VA</td>
</tr>
<tr>
<td>Cooling (lamp housing, power supply)</td>
<td>Forced air cooling (built-in automatic cooling fan)</td>
<td>—</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>0 to +40</td>
<td>°C</td>
</tr>
<tr>
<td>Recommended operating temperature range</td>
<td>+5 to +35</td>
<td>°C</td>
</tr>
<tr>
<td>Operating humidity range</td>
<td>Below 85 (No condensation)</td>
<td>%</td>
</tr>
<tr>
<td>Weight Lamp housing</td>
<td>Approx. 2.9</td>
<td>kg</td>
</tr>
<tr>
<td>Power supply</td>
<td>Approx. 3.2</td>
<td>kg</td>
</tr>
</tbody>
</table>

NOTE: ① The life end is defined as the time when the light output intensity falls to 50 % of its initial value or when the output fluctuation (p-p) exceeds 1.0 %.
② When replacing the lamp, please specify the lamp type No. L2274.
③ The cooling fan automatically starts when the temperature rises inside the lamp housing.

CHARACTERISTICS

● SPECTRAL DISTRIBUTION

![Spectral Distribution Graph](image1)

WAVELENGTH (nm)

RELATIVE LIGHT OUTPUT

● LIGHT OUTPUT STABILITY

![Light Output Stability Graph](image2)

TIME (1 min/div.)

Measurement block diagram

- DEDICATED POWER SUPPLY
- LAMP HOUSING
- OPTICAL ILLUMINATOR LAMP L8425-01
- SILICON PHOTODIODE
- APERTURE 1 mm × 1 mm
- DIFFUSER PLATE
- AMMETER COMPUTER
- 300 mm
- 150 W XENON LAMP
- 1 % NO FILTER
- 3 % NO FILTER
**CHARACTERISTICS**

**ILLUMINANCE DISTRIBUTION CHARACTERISTICS** (Typical values)

- **SCREEN**: 1.5 m × 1.0 m
- **PROJECTIVE DISTANCE**: 2 m
- **PROJECTED LIGHT AREA**: φ2.4 m

**LIGHT DISTRIBUTION ON SCREEN**

- 120 lx (65 %)
- 183 lx (100 %)
- 129 lx (70 %)
- 125 lx (68 %)

Values in parentheses ( ) are percentages relative to a center illuminance defined as 100 %.

**DIMENSIONAL OUTLINES** (Unit: mm)

**LAMP HOUSING**

- **COOLING FAN**
- **M72 P=0.75**
- **UV CUT FILTER**
- **POWER INPUT CONNECTOR**

**FRONT VIEW**

**SIDE VIEW**

**BOTTOM VIEW**

4-M4

Plastic feet attached as standard features. These can be removed to use their holes for installation of lamp housing.

**POWER SUPPLY**

**CONNECTOR FOR LAMP HOUSING**

* A power supply cable (2 m) for connecting to the lamp housing is supplied with the unit.
**Related Products**

**Opto-Spectrum Generator L12194 Series**

The Opto-Spectrum Generator is a wavelength tunable light source ideal for evaluation and test of initial optical characteristics of glass and films. Any wavelength in a wide spectral range can be selectively emitted from one unit in 1 nm step. In addition to high output and high stability, the Opto-Spectrum Generator emits the desired wavelength with good reproducibility and so allows evaluation and test with even higher accuracy.

The product line-up covers a wide spectral range from the UV to visible region.

**Emission Spectrum Examples**

*Each graph shows emission spectra at a wavelength interval of 40 nm.*

**Visible type (390 nm to 700 nm)**

**Visible type (430 nm to 790 nm)**

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OCT. 2017 IP