



# UV LED Module

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for exposure devices

- ◆ High-irradiance
- ◆ Homogeneous treatment
- ◆ Achieves IHG spectrum
- ◆ Long service life

## High-irradiance

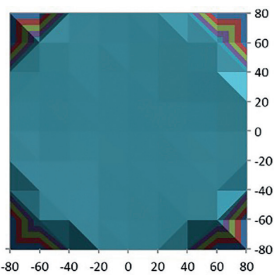
Ushio's optical module design technology could maximize the brightness of LEDs. "uLML" achieves brightness equivalent to the Multi-Light, and is equipped with a 500 W ultra-high pressure UV lamp.

Ushio's original optical system includes an incident surface at the optical integrator, which superimposes all LED images and achieves a high-utilization of LED energy

## Homogeneous Treatment

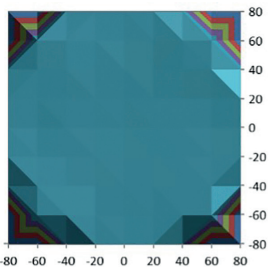
In the past, the use of multiple LED light sources has faced disadvantages in terms of uniformity, when compared to traditional lamps; however, Ushio combines an optical system with an optimal arrangement of multiple LEDs to minimize any impact on surface irradiation uniformity. This results in an acceptable level of homogeneity.

### LEDs are 100% active



- ◆ Irradiance at 71% power: 23 mW/cm<sup>2</sup>
- ◆ Collimation angle (HWHM): 1.6 deg
- ◆ Uniformity : +/-2.0%

### LEDs are 80% active



- ◆ Irradiance at 71% power: 20 mW/cm<sup>2</sup>
- ◆ Collimation angle (HWHM): 1.6 deg
- ◆ Uniformity: +/-2.5%

## Developing Solutions Together

Ushio is a partner that listens to your ideas and requirements. Let us optimise your processes according to your specifications and expectations. Use our expertise to develop a tailor-made solution that matches your needs.

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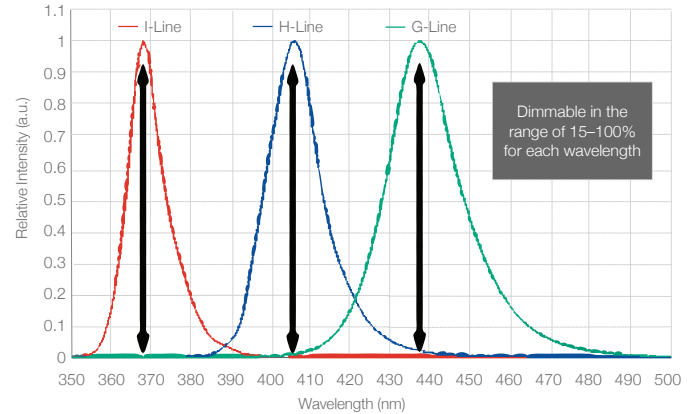
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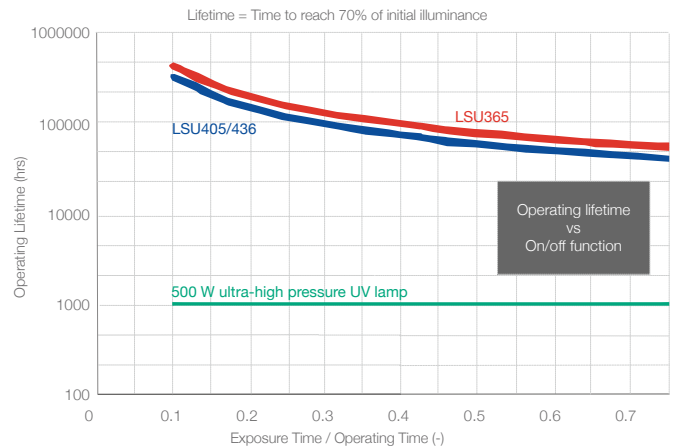
## Achieves IHG Spectrum

Each of the i-line, h-line, and g-line wavelengths can be dimmed independently across an intensity range of 15–100%. This allows complete control over the exposure spectrum and the creation of unique intensity recipes without the need for a filter.



## Long Service Life

The inclusion of an easy on/off function allows operators to prolong the lifetime of the UV LED module. This allows the light source to maintain its superior illuminance over ultra-high pressure lamps for a longer period of time.



Intended use: Specifically designed and exclusively approved for use in industrial applications that require a particularly high UV output

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