

## ILLUMINATION



# **LUXEON UV U Line**

Highest power density, superior efficiency, powered by leading Chip Scale Package (CSP) technology



At a micro package size compared to other ultraviolet and violet LEDs, LUXEON UV U Line LEDs are SMT devices that can be assembled in tight arrays with spacing of only 200 microns, which enables high power density (W/cm<sup>2</sup>) systems for superior efficiency and design freedom. These products are undomed for precise optical control and include a portfolio of 1mm<sup>2</sup> and 2mm<sup>2</sup> die sizes covering ultraviolet and violet light. The superior power density, excellent robustness of CSP technology and real world efficacy enable leading performance and efficient solution development in a wide variety of UV specialty lighting applications.

#### FEATURES AND BENEFITS

Offering ultraviolet in 380-400nm and violet (400–420nm) for a range of options

Small 2.2 to 3.6mm<sup>2</sup> SMT footprint enables highest W/cm<sup>2</sup> power density, design freedom

1A per mm<sup>2</sup> die size maximum drive current allows more power per LED

Up to 50%+ efficiency reduces heat output

AlN package  $\rm R_{th}$  as low as 1.8 K/W for better thermal management

#### **PRIMARY APPLICATIONS**

#### Specialty Lighting

- Analytical Instrumentation
- Curing
- Medical
- Security
- UV Photoreaction

## LUXEON UV U1 product performance at 500mA and 1000mA, T<sub>i</sub>=25°C.

PEAK WAVELENGTH [1]	TYPICAL RADIOMETRIC POWER <sup>[2]</sup> (mW)		PART NUMBER
	500mA	1000mA	TAKI NOMBER
415 ±5nm	725	1378	LHUV-0415-A070
405 ±5nm	675	1283	LHUV-0405-A065
	725	1378	LHUV-0405-A070
395 ±5nm	625	1188	LHUV-0395-A060
	675	1283	LHUV-0395-A065
385 ±5nm	425	808	LHUV-0385-A040
	475	903	LHUV-0385-A045

Notes:

Lumileds maintains a tolerance of ±2nm for peak wavelength measurements.
Lumileds maintains a tolerance of ±10% for radiometric power measurements.

## LUXEON UV U2 product performance at 1000mA and 2000mA, T<sub>i</sub>=25°C.

PEAK WAVELENGTH <sup>[1]</sup>	TYPICAL RADIOMETRIC POWER <sup>[2]</sup> (mW)		PART NUMBER
	1000mA	2000mA	TAKI NOMPER
410-420nm	1450	2610	L1F3-U410200014000
400–410nm	1300	2340	L1F3-U400200012000
390–400nm	1300	2340	L1F3-U390200012000
380–390nm	700	1260	L1F3-U380200006000
	900	1620	L1F3-U380200008000

0<u>.66 ±0.10</u>\*

SIDE VIEW

Notes:

1. Lumileds maintains a tolerance of  $\pm 2nm$  for peak wavelength measurements. 2. Lumileds maintains a tolerance of  $\pm 10\%$  for radiometric power measurements

### Mechanical Dimensions.



LUXEON UV U1





LUXEON UV U2

Notes: 1. Drawings are not to scale.

2. All dimensions are in millimeters.

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