

# EV6000

## LED UV Lamp

### GENERAL DESCRIPTION

The EV6000 is the latest in LED technology from Magnaflux, building on 5 years of LED UV lamp designs and over 85 years in the non-destructive testing industry. UV-A radiation is generated by special high-performance LEDs and focused through custom-designed optics to provide the maximum irradiated area available from any hand-held lamp on the market. Each unit is shipped with a manufacturer's certificate of conformance which meets or exceeds all current specifications for use with fluorescent liquid penetrant and magnetic particle testing.



### BENEFITS

- **Wide, Uniform Beam with No Hot-Spots**

Inspections of large structures and areas can be done faster with the EV6000, thanks to the widest beam on the market from a hand-held lamp. At 9 inches wide, the beam is a full 33% wider than an average UV light. Custom-designed optics provide an extremely intense and even coverage of UV-A for clearly visible indications, and the included filter ensures minimal visible light emission.
- **Rugged and Durable Design**

Fluorescent inspection is not only done in a laboratory, it's done out in the real world. The EV6000 is designed to stand up to the kinds of environments that NDT professionals deal with. With reinforced construction and a sealed enclosure using chemical-resistant materials, there are no fan-cooling systems to clog or fail. And clouded optics are a thing of the past with Magnaflux's custom-designed optics that do not solarize.
- **Improved Operator and Environmental Safety**

Faster inspections and rugged design are not the only reason to switch to the EV6000. Its compact, lightweight, easy-to-hold design weighs in a full 30% less than mercury-vapor UV lamps, reducing stress and fatigue in the inspection booth. Cool-running LEDs and passive heat dissipation prevent any risk of operator burns, eliminating the need for a cooling fan to further reduce energy costs. Making the switch to LED is an environmental plus as well, eliminating the need for fragile mercury-vapor lamps and the hazardous waste associated with them.
- **Certified to Latest Specifications**

Each EV6000 unit is individually certified to the latest ASTM standards for LED UV lamps. With its controlled emission and included UV filter, the EV6000 meets or exceeds all Aerospace Prime and OEM specifications for emission spectrum and beam profile, including Rolls Royce RRES 90061.

**SPECIFICATIONS**

<b>Maximum Irradiance</b> (at 15 in / 38 cm)	5,000 $\mu\text{W}/\text{cm}^2$
<b>Peak Wavelength</b>	365 $\pm$ 5 nm
<b>Typical Irradiated Area</b> (beam profile at 15 in / 38 cm)	Circular spot, 9 in / 23 cm diameter, > 1,000 $\mu\text{W}/\text{cm}^2$ UV-A intensity
<b>Emission Spectrum</b>	
<ul style="list-style-type: none"> <li>• Full Width at Half Maximum (FWHM) <math>\leq</math> 15 nm</li> <li>• Longest Wavelength at Half Max (LWHM) <math>\leq</math> 377 nm</li> <li>• +/- Width at Half Maximum <math>\leq</math> <math>\pm</math>10 nm</li> <li>• Full Width at 10% Maximum (FW10%) <math>\leq</math> 30 nm</li> <li>• +/- Width at 10% Maximum <math>\leq</math> <math>\pm</math> 15 nm</li> </ul>	
<b>Excitation Irradiance</b> (347-382 nm)	$\geq$ 2,000 $\mu\text{W}/\text{cm}^2$
<b>Wavelength Drift</b> (at elevated temperature)	$\leq$ 5 nm
<b>Working Distances</b>	
<ul style="list-style-type: none"> <li>• ASTM</li> <li>• RRES 90061</li> </ul>	Min. WD $\leq$ 6 in / 13 cm  Min. WD = 15 in / 38 cm Max. WD = 36 in / 92 cm
<b>Typical Visible Emission</b>	
<ul style="list-style-type: none"> <li>• ASTM range (400-760 nm)</li> <li>• RRES 90061 range (390-800 nm)</li> </ul>	$\leq$ 2 ft-candles at 15 in / 38 cm $\leq$ 20 lux at 15 in / 38 cm (min. WD) $\leq$ 5 lux at 36 in / 92 cm (max. WD)
<b>Operating Environment</b>	40-120°F / 5-49°C max. 90% relative humidity
<b>Warm-Up Time</b> (ambient conditions)	5 minutes
<b>Maximum Housing Temperature</b>	< 120°F / 49°C
<b>Lamp Cord Length</b>	17 ft / 5.18 m
<b>Power Supply Cord Length</b>	9 ft / 2.75 m
<b>Weight</b>	2 lb / 0.9 kg
<b>Power In</b>	100-240 VAC / 50-60 Hz / < 1 A
<b>Specification Compliance</b>	ASTM E3022 RRES 90061

**RECOMMENDED ACCESSORIES**

Description	Part No.
UV-A Meter	625024
Visible Light Meter	623338
UV Absorbing Safety Glasses	506249