SPECTROLINE®

QUADRAN™365

Series

Versatile, Dual-Intensity, Multi-LED, Broad-Beam NDT Inspection Lamps!

QUADRAN™ 365 Series NDT lamps feature four ultra-hi-flux UV-A LEDs <u>plus</u> a convenient white light LED to quickly switch between fluorescent inspection and flaw location. A unique dual-intensity feature provides both high and standard UV-A <u>and</u> white light output for added versatility.

The lamps' broad-beam configuration produces an extremely wide coverage area, making them ideal for both handheld and in-line applications. Models are available either with or without integral black light filters to meet <u>your</u> specific inspection requirements.

FEATURES:

▸ Dual-intensity capability: High setting produces a nominal steady-state UV-A intensity as high as *8,000 µW/cm²*; standard setting produces a nominal steady-state intensity of *4,500 µW/cm²*, both at 15 inches (38 cm)

▸ Extremely large coverage area of up to 6 inches (15 cm), with a minimum UV-A intensity of *2,000 µW/cm²*

▸ Low visible light emission — <u>less</u> than 2 foot-candles (22 lux)

▸ Conveniently located rocker switches for quick and easy control of light sources

▸ Built-in fan keeps LEDs cool to maintain optimum light output during extended use

▸ Rubber bumper with Borofloat® glass lens protects LEDs from damage

▸ Rugged, modular construction allows for easy field serviceability

▸ Lamp handle pin receptacle allows for easy attachment of various Spectroline® mounting accessories for in-line inspection applications (accessories sold separately)

▸ Choice of standard 8 foot (2.4 m) or extra-long 20 foot (6.1 m) heavy-duty power cord with AC plug and rubber boot. Also available: Optional industrial power supply or in-line power supply with cord sets (sold separately). All power supplies available in 120V, 230V, 240V and 100V models.

Also Available:

QUADRAN™ 365 M-Series portable, battery-operated AC/DC lamp kits. Include QUADRAN™ 365 UV lamp, rechargeable NiMH battery pack, AC
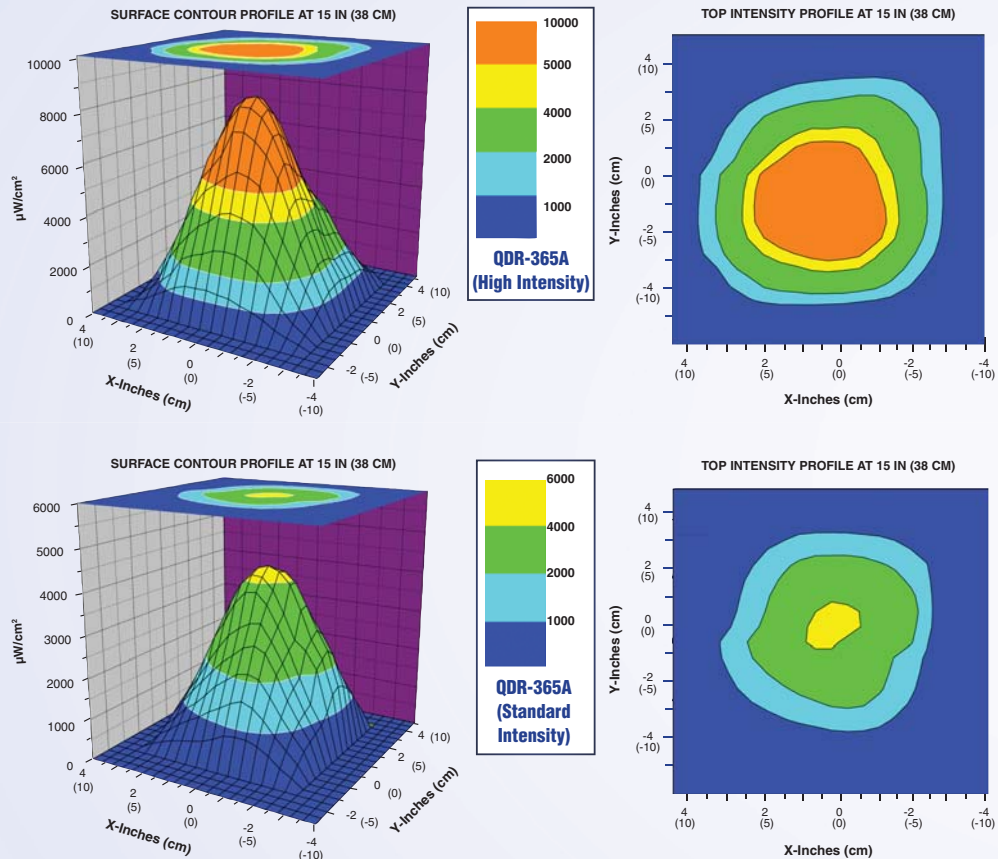
QDR-365A Model

UV-A Beam Profile

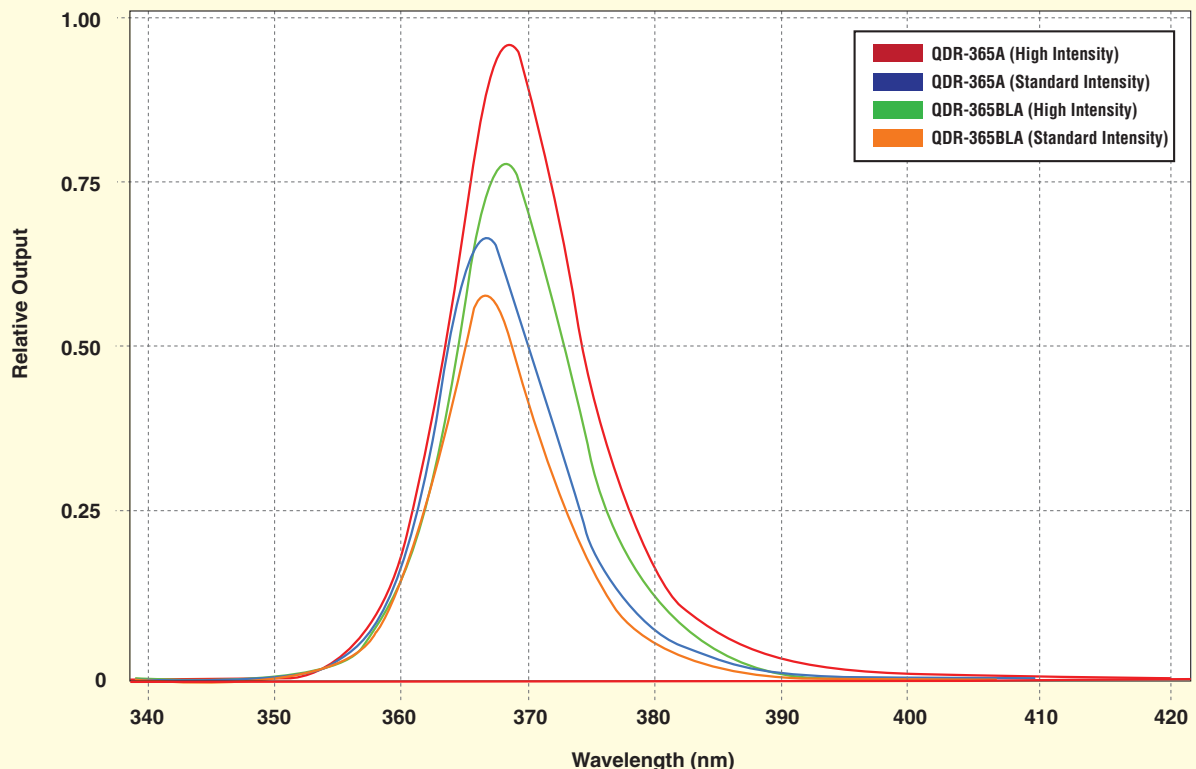When the **QDR-365A** is in *high intensity* mode, the lamp provides a nominal steady-state UV-A intensity of *8,000 µW/cm²* at 15 inches (38 cm).

When switched to the *standard intensity* mode, the QDR-365A provides a nominal steady-state UV-A intensity of *4,500 µW/cm²* at 15 inches (38 cm).

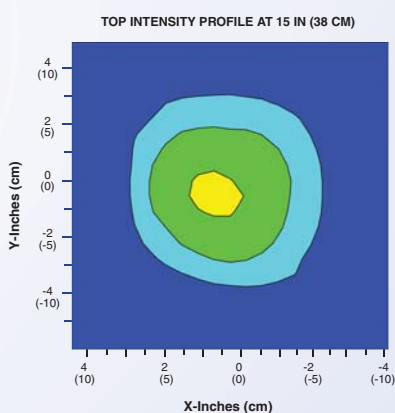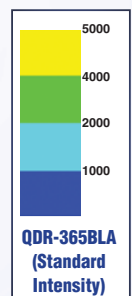In addition, the lamp has a high/low switch to control the white light LED output.

SURFACE CONTOUR PROFILE AT 15 IN (38 CM)

QDR-365A (High Intensity)

TOP INTENSITY PROFILE AT 15 IN (38 CM)

SURFACE CONTOUR PROFILE AT 15 IN (38 CM)

QDR-365A (Standard Intensity)
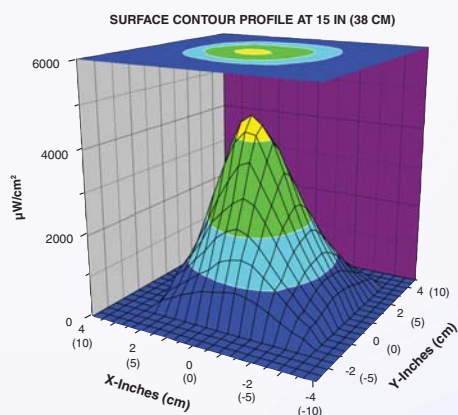
TOP INTENSITY PROFILE AT 15 IN (38 CM)

Normalized UV Irradiance

Typical wavelength output profile of QUADRAN™ 365 Series lamps with and without black light filter.

Relative Output vs Wavelength (nm)

- QDR-365A (High Intensity)
- QDR-365A (Standard Intensity)
- QDR-365BLA (High Intensity)
- QDR-365BLA (Standard Intensity)

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QDR-365BLA Model

UV-A Beam Profile

SURFACE CONTOUR PROFILE AT 15 IN (38 CM)

μW/cm²

X-Inches (cm)
Y-Inches (cm)

10000	
5000	
4000	
2000	
1000	

QDR-365BLA (High Intensity)

TOP INTENSITY PROFILE AT 15 IN (38 CM)

Y-Inches (cm)
X-Inches (cm)

SURFACE CONTOUR PROFILE AT 15 IN (38 CM)

μW/cm²

X-Inches (cm)
Y-Inches (cm)

5000	
4000	
2000	
1000	

QDR-365BLA (Standard Intensity)

TOP INTENSITY PROFILE AT 15 IN (38 CM)

Y-Inches (cm)
X-Inches (cm)

The **QDR-365BLA** is equipped with a faceplate with <u>integral black light</u> filters that reduce the output of wavelengths longer than 400 nm. When in the *high intensity* mode, the lamp provides a nominal steady-state UV-A intensity of *7,000 μW/cm²* at 15 inches (38 cm).

When switched to the *standard intensity* mode, the **QDR-365BLA** provides a nominal steady-state standard UV-A intensity of *4,500 μW/cm²* at 15 inches (38 cm).

In addition, the lamp has a high/low switch to control the white light LED output.

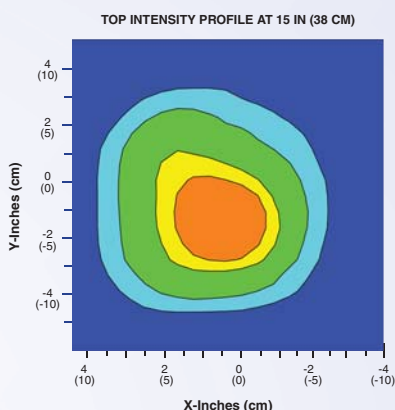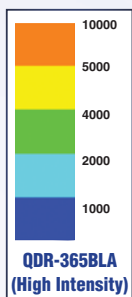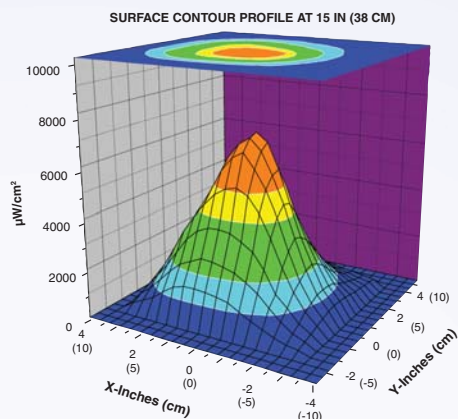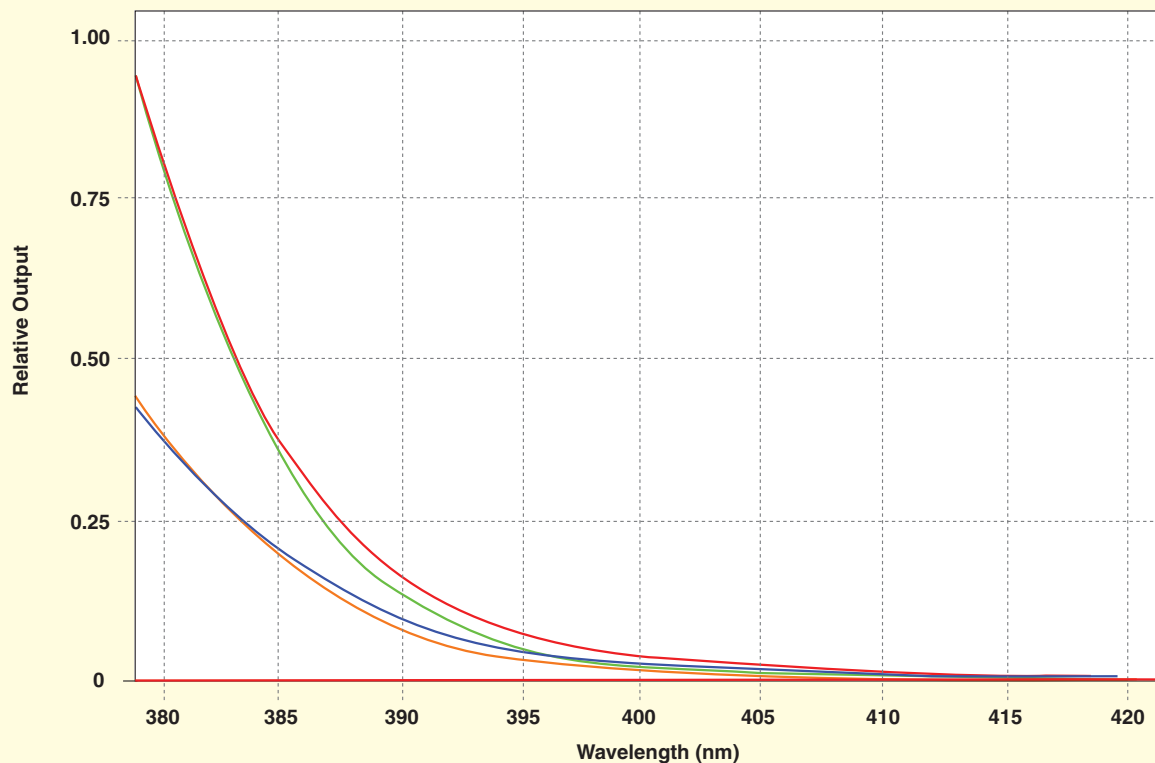## Wavelengths With and Without Black Light Filter

Relative Output

Wavelength (nm)

As the wavelength of the QUADRAN™ 365 moves into the visible light range, the black light filters significantly reduce the output of the lamp at 400 nm.

Specifications

The **QUADRAN™ 365** can be quickly mounted for in-line inspections using various Spectroline® accessories (FA-100 flexible arm shown).

UV Switch Setting	Nominal steady-state UV-A (365 nm) intensity at 15 inches (38 cm) ①	Visible light measurement	UV-A coverage area (at minimum 2,000 μW/cm²)
QDR-365A			
Standard	4,500 μW/cm² maximum	< 2 foot-candles (22 lux)	5 in (13 cm)
High	8,000 μW/cm²	< 2 foot-candles (22 lux)	6 in (15 cm)
QDR-365BLA			
Standard	4,500 μW/cm² maximum	< 2 foot-candles (22 lux)	4 in (10 cm)
High	7,000 μW/cm²	< 2 foot-candles (22 lux)	6 in (15 cm)

Light Source: 4 UV-A LEDs, 1 White Light LED
Lamp Style: Pistol grip
Lamp Head (WxH): 6 x 5.5 in (15 x 14 cm)
Length: 10 in (25 cm)
Weight: 3 lb (1.36 kg)
White Light LED Intensity:
High setting: 300 foot-candles (3,229 lux)
Low setting: 10 foot-candles (108 lux)

Power Requirement:
AC lamp
(QDR-365A, QDR-365BLA)   120VAC* power cord supplied with lamp
AC/DC lamp
(QDR-365MA, QDR-365MBLA)   120VAC*/12VDC
Battery Pack:
Type   12V, NiMH (rechargeable)
Run time
High intensity: 2.5 hours (continuous)
Standard intensity: 4.5 hours (continuous)
Charge time   2 hours

*Also available in 230V, 240V and 100V versions.

① All UV-A intensity readings were taken with Spectroline® AccuMAX™ Series meter, and are factory set to the values shown

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QUADRAN™ 365 faceplate shown with (top) and without (below) integral black light filters.

Replacement Parts & Accessories

129141	Standard, 8 foot (2.4 m) AC power cord
129145	Extra-long, 20 foot (6.1 m) AC power cord
129162	3.5 foot (1.1 m) DC power cord for "M" series lamps
127922	Particulate filter assembly
127944	Standard faceplate
128094	Faceplate with integral black light filters
B-6	Bench mount
BP-30	Battery pack with 12V rechargeable NiMH battery
BR-150A	Smart AC charger
CC-400	Soft carrying case
FA-100	Flexible arm
FP-550	Rubber bumper with Borofloat® glass
PSA-250A	AC/DC power supply adapter for "M" series lamps
PS-200A	Industrial power supply with cord set
PS-300A	In-line power supply
W-6	Bench mount with pin
WM-100	Wall mounting bracket
UL-100	UV-A lens
UVS-30	UV-absorbing spectacles