

FireEdge™ FE410

Product Specifications

SLM™, TargetCure™, WhisperCure™ Technologies

Phoseon's patented technologies encapsulate LEDs, arrays, optics and cooling to maximize UV LED curing performance. The FireEdge™ FE410 UV LED light source provides high output power in an extremely compact mechanical package for high-speed pinning and full cure applications. The FE410 UV LED source is CE, UL, RoHS, and REACH compliant.

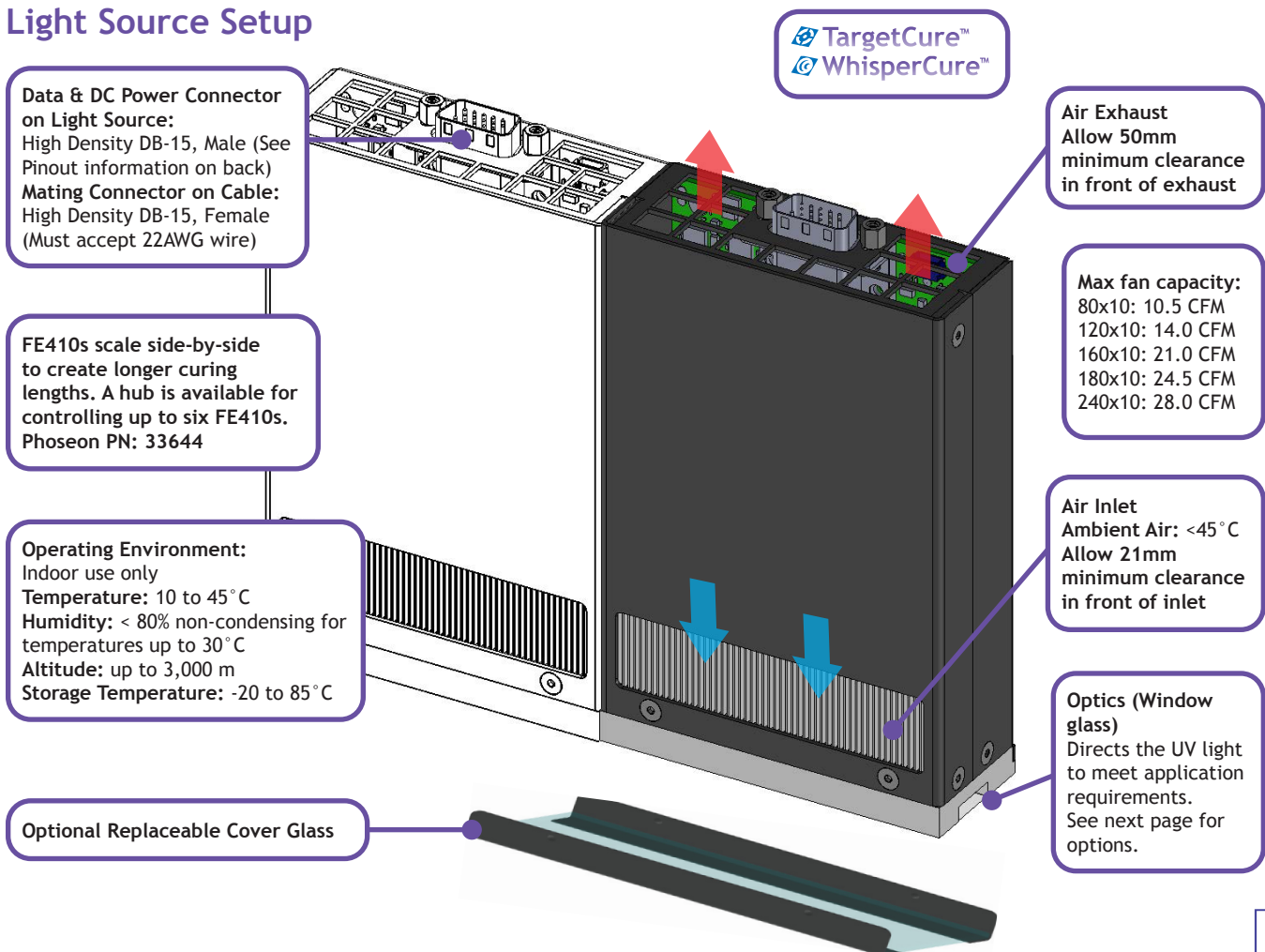


Performance

	365nm					385, 395, 405nm				
Peak Irradiance*	6W/cm ²					10W/cm ²				
Emitting Window (mm)	80x10	120x10	160x10	180x10	240x10	80x10	120x10	160x10	180x10	240x10
48Vdc Power In (Maximum)	143W 3.0A	227W 4.7A	269W 5.6A	322W 6.7A	432W 9.0A	201W 4.2A	280W 5.8A	385W 8.0A	401W 8.4A	502W 10.5A

*Peak Irradiance is expected to drop by 10% after replaceable cover glass is mounted.

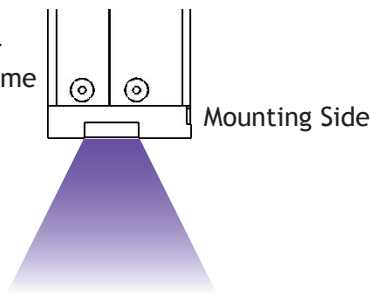
Light Source Setup



Available Optics

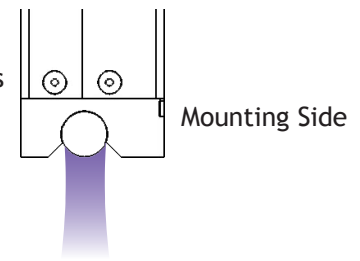
Flat Glass

Wide footprint for maximum dwell time



Rod Lens

Minimum light spread reduces stray light effects

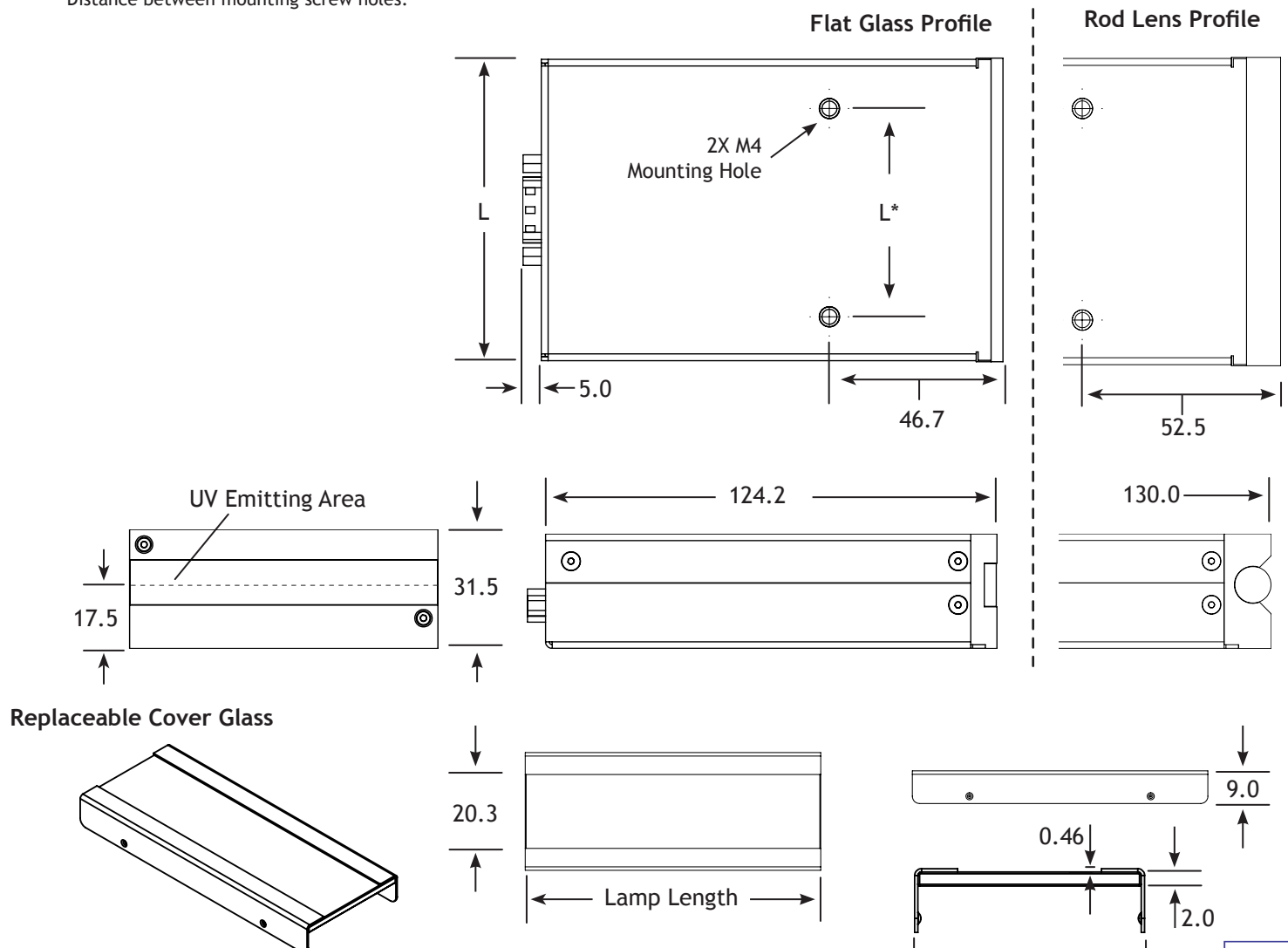


Dimensions

Units of measurement: mm

FireEdge FE410					
UV Emitting Window (mm)	80x10	120x10	160x10	180x10	240x10
Length	81.6	121.6	161.6	181.6	241.6
Length*	56.0		116.0		
Weight (kg)					
Flat Glass	0.28	0.36	0.5	0.56	0.7
Rod Lens	0.31	0.42	0.58	0.64	0.8

*Distance between mounting screw holes.



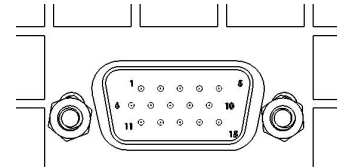
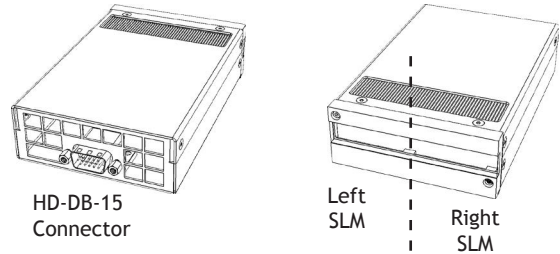
Note: The replaceable cover protector increases the height by 2.46mm.

PLC Interface

- 2 **Intensity Control: (Voltage Input)**
0.5V = 5% of full power, 10V = 100% of full power
The internal resistive load on this Pin is 11kΩ
- 3 **Enable High: (24V PLC Input)**
0 to 4V (ground/open input) = OFF or 16 to 24V = ON
Refer to pin equivalent circuit for internal resistive load.
- 4 **Low Intensity Mode (24V PLC Input)**
0 to 4V (ground/open input) = OFF (Default Mode) or 16 to 24V = ON (Low Intensity Mode)
In Low Intensity Mode the Peak Irradiance is reduced by a factor of 10
The internal resistive load on this Pin is 200kΩ.

	Pin 2 Intensity Control	
	0.5V (5%)	10V (100%)
Default Mode	500mW/cm ²	10.0W/cm ²
Low Intensity Mode	50mW/cm ²	1.0W/cm ²

- 5 **Lamp Ready:**
0 to 4V = Not Ready or 16 to 24V = Lamp Ready
The external resistive load on this Pin must be >3kΩ
The NOT Ready state is triggered by:
Insufficient DC Input voltage
Excessive internal temperature



- 7 **Disable Left SLM™ (24V PLC Input)**
0 to 4V (ground/open input) = OFF (Default Mode) or 16 to 24V = ON (SLM Disabled)
Refer to pin equivalent circuit for internal resistive load.
 - 13 **Disable Right SLM™ (24V PLC Input)**
0 to 4V (ground/open input) = OFF (Default Mode) or 16 to 24V = ON (SLM Disabled)
Refer to pin equivalent circuit for internal resistive load.
- 1, 6, 11, 12 +48Vdc Input
8, 9, 10, 14, 15 Ground (+48Vdc Return)

Note: Low Intensity, Disable Left SLM, and Disable Right SLM are light source configuration switches. Phoseon does not recommend dynamic switching of these lines. Allow at least 250ms for the mode to enable or disable.

The equivalent circuits inside the FE410 UV light source are shown below:

