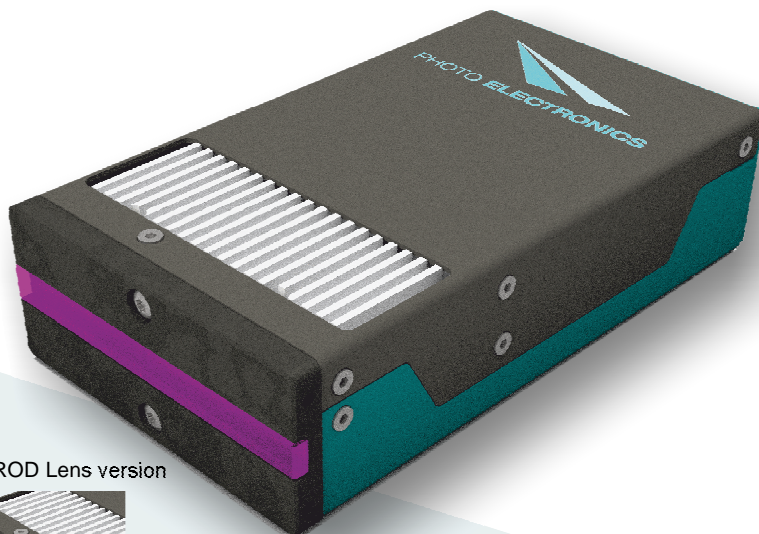


DROLED L76 UV LED Lamps

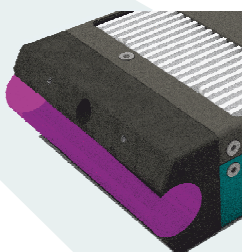
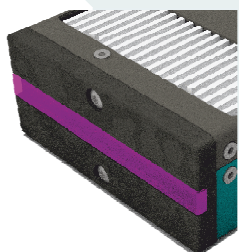
For UV Curing and Drying



FLAT WINDOW version

ROD Lens version

ANGLED ROD Lens version



1. DROLED L76 UV LED lamps series - General features

The series of UV LED lamps called Droled L76 represents **the model with the compact and light dimensions**. Considering the minimum weight, they are ideal to fix to inkjet mobile printhead for the polymerization or gelification. These lamps' performances are suitable to obtain the gelification of inks, but they give out a twofold amount of radiant energy compared to L75 lamps.

Like other lamps of the Droled series, also the L76 offers the possibility to be placed side by side in modules for radiate a wide printing surface.

They are available in the **Flat Window** optical version, in **ROD lens** and in the **Angled ROD lens** version.

2. UV LED Lamps by Photo Electronics - Advantages

CONSUMPTION	Very low power consumption compared to traditional UV Mercury lamps.
INSTANT RELIGHTING	On and off instant switching. No preheating time, the lamp immediately emits 100% UV energy. Repeated starts and stops do not affect the lamp life.
HIGH PERFORMANCE	UV LED modular system, available in different emission frequencies 365, 385, 395 and 405nm and peak powers up to 16W / cm ²
LOW HEATING	Low heat emission. It is possible to treat heat-sensitive substrates, avoiding deformation or thermal alterations
SAFETY	No production of ozone, no emission of UVB and UVC does not need vapour and ozone extraction systems, plastics and metal parts if irradiated do not oxidize.
INTEGRATED ELECTRONICS	Electronics microprocessor managed, integrated and complete. Alarm management and intelligent logic, allows it to be externally and easily controlled via digital/analog signals or via an RS485 bus.
RELIABILITY AND MAINTENANCE	Long emitters lifetime, no replacement lamps need and minimal maintenance. Guaranteed lifetime of 20,000 hours. Power on / off does not reduce lamp life. High reliability even in heavy duty industrial conditions.

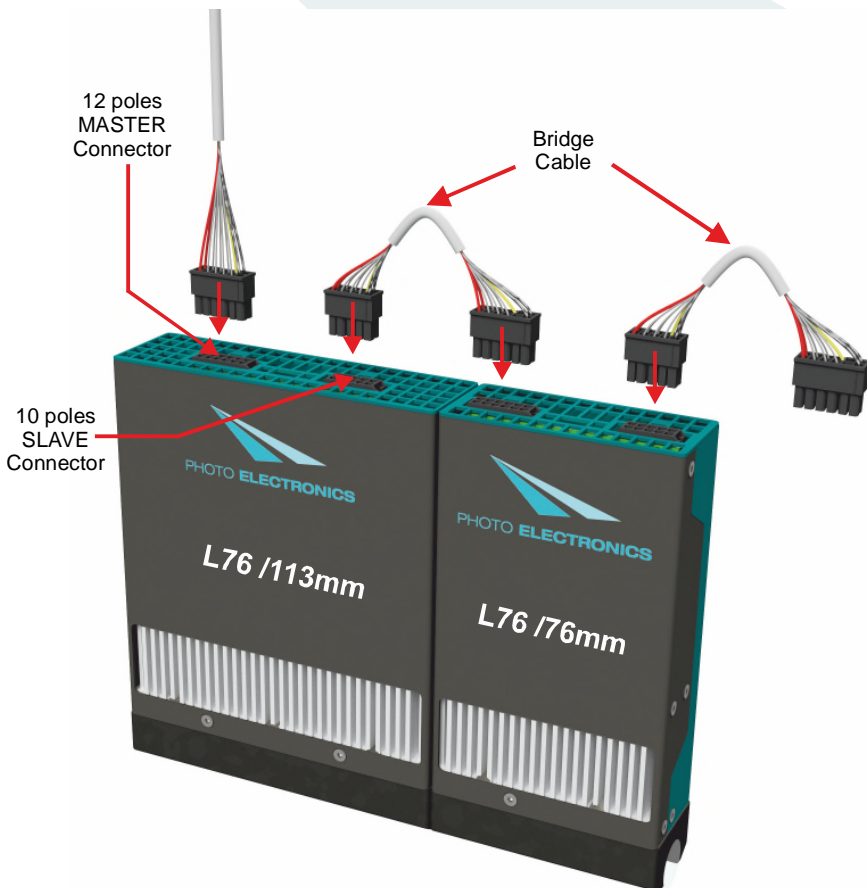
3. Base models available

DROLED UV LED lamps L76 series, are currently available in the following models (see table) with circuitry and modular configuration, allowing you to compose the most suitable system. Standard emission frequencies 365 or 395nm. Frequencies 385 and 405nm available at request.

DROLED L76				
Peak wavelength (nm)	365nm		385 / 395 / 405nm	
Peak Irradiance value (W/cm ²) FLAT WINDOW	5 W/cm ² (Flat Window)		7 W/cm ² (Flat Window)	
Peak Irradiance value (W/cm ²) ROD LENS	3 W/cm ² (ROD Lens)		4 W/cm ² (ROD Lens)	
Emitting window width (mm)	76	113	76	113
Typical power consumption (48Vin)	140W / 3,0A	210W / 4,4A	140W / 3,0A	210W / 4,4A
Maximum power consumption (48Vin)	160W / 3,3A	240W / 5,0A	160W / 3,3A	240W / 5,0A

4. Designed to be placed side by side to cover even large working widths.

All UV LED lamps are designed to be placed side by side in groups, even with different irradiation width, thus obtaining UV Led systems with specific working dimension. The irradiation resulting from more lamps side by side, is always homogeneous across the entire width.



12 Poles MASTER Connector: power supply and control signals connection.

10 Poles SLAVE Connector: used to connect other lamps placed end to end

By a single MASTER Connector, **using the accessory Bridge Cable, can be supplied and controlled more L76 lamps placed side by side**, for a maximum of 10.0A total allowable current:

- up to 3 Lamp Units L76 /76mm
- up to 2 Lamp Units L76 /113mm

The above DROLED L76 table shows the current absorption values of each Lamp Unit.

The pinout of MASTER 12 poles connector is described in the table at page 4.

Example of UV Led lamps placed side by side

The assembly example is composed by the following lamps (placed side by side):

- Nr.1 L76 76mm width Lamp Unit
- Nr.1 L76 113mm width Lamp Unit

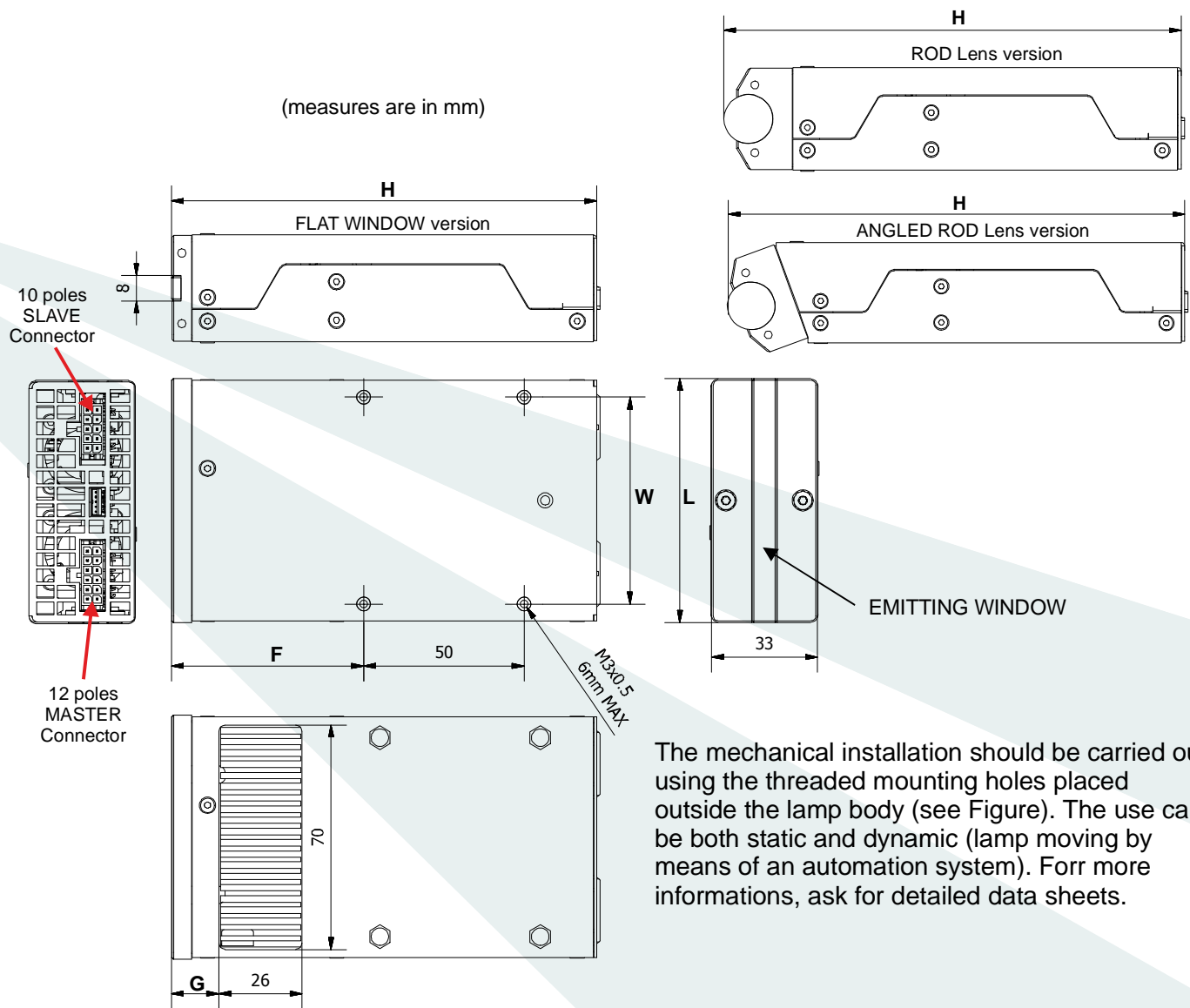
Possible Irradiation Width:

L76 =76mm

L76 = 113mm

L76 (76mm) + L76 (113mm) = 189mm

4. Dimensions, weights and mechanical fixing



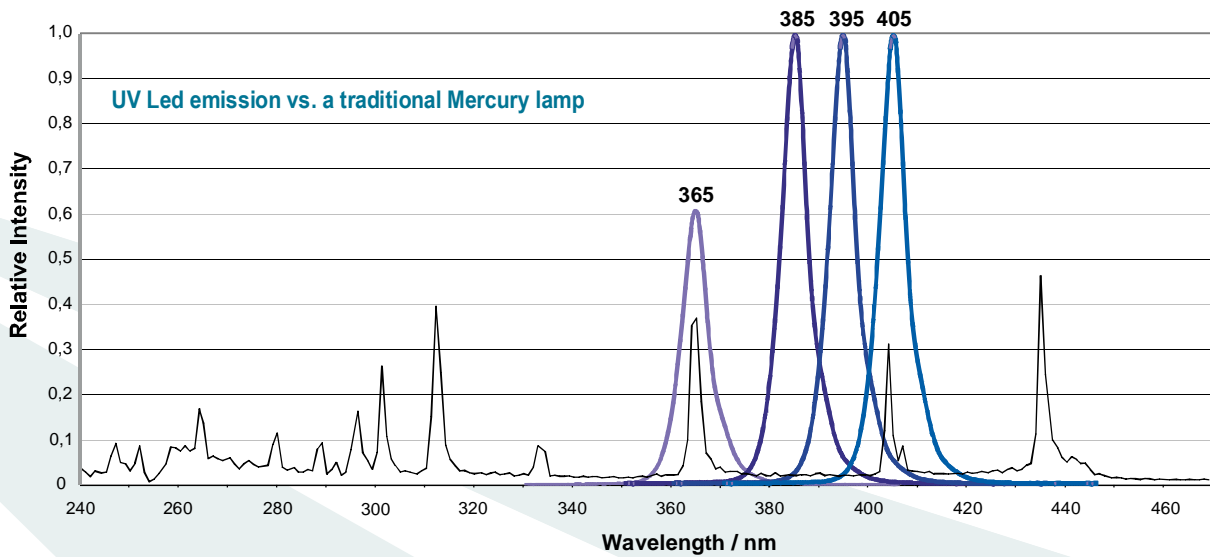
The mechanical installation should be carried out using the threaded mounting holes placed outside the lamp body (see Figure). The use can be both static and dynamic (lamp moving by means of an automation system). For more informations, ask for detailed data sheets.

The table shows DROLED L76 dimensions
The dimension L corresponds to the lamp maximum irradiation width.

DROLED L76						
Emitting window (mm)	76 mm Flat Window	113 mm Flat Window	76 mm Rod Lens	113 mm Rod Lens	76 mm Angled Rod Lens	113 mm Angled Rod Lens
Dimensions (mm)						
L	76	113	76	113	76	113
H	132,5	132,5	148	148	152	152
W	64,5	64,5	64,5	64,5	64,5	64,5
F	59,9	59,9	75,9	75,9	79,9	79,9
G	14,7	14,7	30,7	30,7	34,7	34,7
Weight (Kg)	0,29	0,40	0,36	0,50	0,39	0,54

5. Emission frequencies standard available

DROLED L76 UV LED lamps are available in 4 emission frequencies to best suit the chemistry of the products that must be polymerized.



6. Cooling System and connections

Each UV LED Droled lamp is equipped with a forced air cooling system, which is integrated into the lamp housing and it operates independently. Cooling air enters through the back grid and it comes out from the slots placed on the lamp side.

The electronics inside independently manages and controls the cooling system. The lamp has to be powered by standard 48 Volt switching AC/DC power supply available on the market. The lamp can be easily managed through analog/digital signals present on the master connector.

PINOUT 12 POLES MASTER CONNECTOR

PIN	I/O	RANGE MIN/MAX	FUNCTION	DETAILED DESCRIPTION
1	IN	GND	LAMP SUPPLY	48Vdc Power Supply (GND side)
2	IN	GND	LAMP SUPPLY	48Vdc Power Supply (GND side)
3	OUT	10Vdc fixed	VOLTAGE REFERENCE	+10Vdc FIXED voltage reference, useful to wire a potentiometer directly to INTENSITY CONTROL (pin 4) input
4	IN	PE	PE - Ground	PE (yellow/green) protection conductor. It must be earthed.
5	IN	Digital 0Vdc or 24Vdc	ENABLING CH3	0-24Vdc digital input. 0Vdc (or not connected) = Channel 3 LAMP OFF, 24Vdc = Channel 3 LAMP ON
6	OUT	24Vdc fixed	VOLTAGE REFERENCE	+24Vdc FIXED voltage reference, useful to wire a micro-switch directly to ENABLE CH1(pin 5), CH2(pin 6), CH3(pin 7) inputs
7	IN	Digital 0Vdc or 24Vdc	ENABLING CH1	0-24Vdc digital input. 0Vdc (or not connected) = Channel 1 LAMP OFF, 24Vdc = Channel 1 LAMP ON
8	IN	Digital 0Vdc or 24Vdc	ENABLING CH2	0-24Vdc digital input. 0Vdc (or not connected) = Channel 2 LAMP OFF, 24Vdc = Channel 2 LAMP ON
9	OUT	Digital 0Vdc or 24Vdc	LAMP READY	0-24Vdc digital out, indicates that lamp is ready to be turned on or it is already turned on and there are no anomalies. 0Vdc=Lamp not ready, 24Vdc=Lamp ready
10	IN	da 0 a 10Vdc analogico	INTENSITY CONTROL	0-10Vdc Analog Input for lamp intensity control. 1.0V corresponds to 10% and 10.0V corresponds to 100%. Voltage reference value can be from an external PLC of the user, or from a potentiometer directly connected to the connector. If potentiometer is used, it must be used +10Vdc reference voltage of pin1
11	IN	48±2Vdc	LAMP SUPPLY	Power Supply +48Vdc±2Volt
12	IN	48±2Vdc	LAMP SUPPLY	Power Supply +48Vdc±2Volt

