UFIBER DATASHEET

Very compact UV LED curing spotlight

Full UV range available: UVC, UVB and UVA

Long lifetime & few maintenances thanks to LED technology

Easy-to-use with a PLC thanks to deported electronics.

Made In France

Electronics	Power supply	24 VDC ± 10% (maximal power consumption: 3W)
	Connector	LEMO – 4pins male for power and signals
	Illumination mode	Continuous with a direct DIM signal [0-24V]
Optics	Wavelength	UVC : 275nm – UVB : 305nm – UVA: 365, 385, 395, 405 nm – VIS: 465 nm
	Irradiance	Up to 1500 mW/cm² in the UVA range
Mechanics	Width x Height x Length	95mm x 12mm (diameter)
	Weight	20 g
	Material	Device body: Aluminum alloy
	IP rating	IP40
Environment	Operation	Temperature: 10°C to 35°C – Humidity: 20% to 80% humidity (with no condensation) – Altitude: Up to 2000m
	Regulations & marking	CE - UKCA
	Environmental standards	RoHS III Directives - REACH Regulation - WEEE Regulation

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Product reference

UFIBER standard version:

UFIBER - XXX

WAVELENGTH (nm)
- 275 (UVC)
- 305 (UVB)
- 365
- 385 (UVA)
- 395
- 405
- 465 (BLUE)

UFIBER standard optical systems available:

OPTIC - AAAA - UFIBER

- WINDOW
- LARGE
- MEDIUM
- FOCUS

UFIBER collimated (specific optical system) version:

UFIBER - XXX - COL

WAVELENGTH (nm)
- 365
- 385
- 395 (UVA)
- 405
- 465

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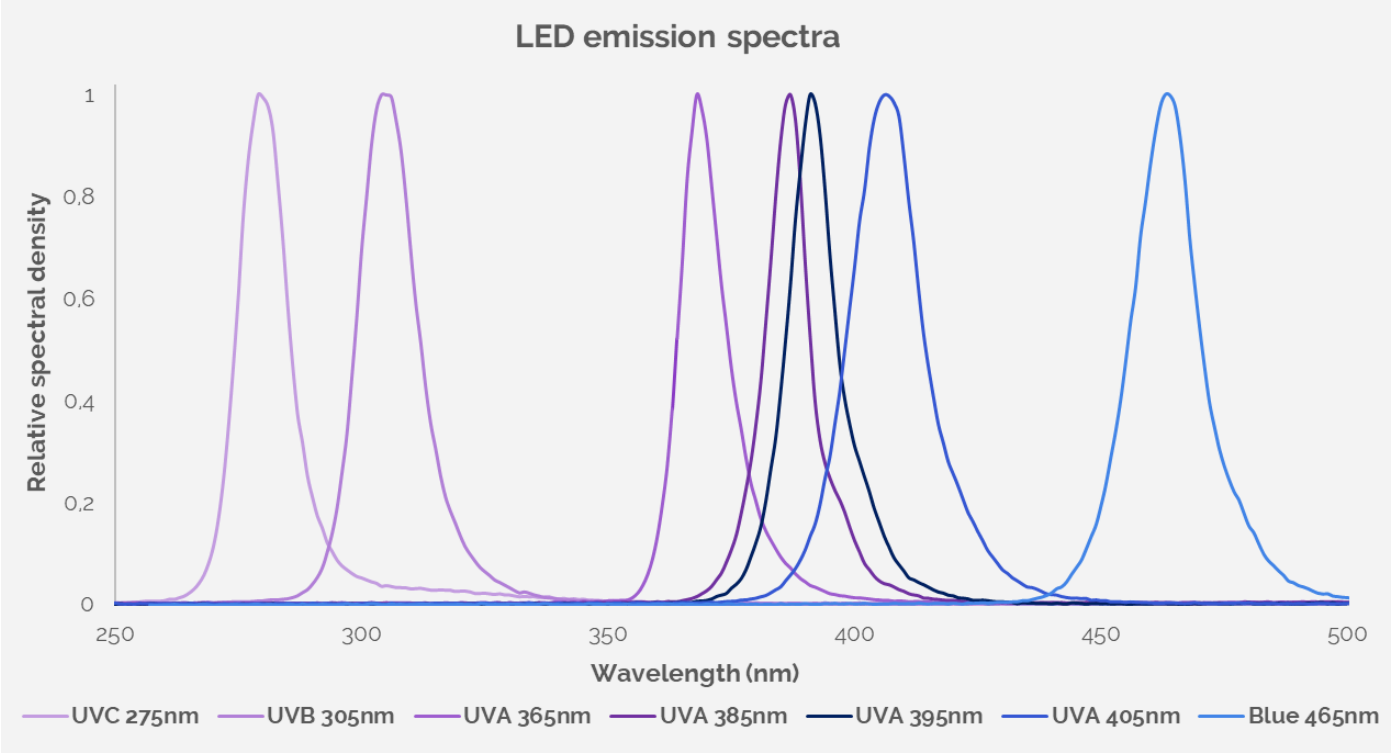
Optical considerations

LED spectra

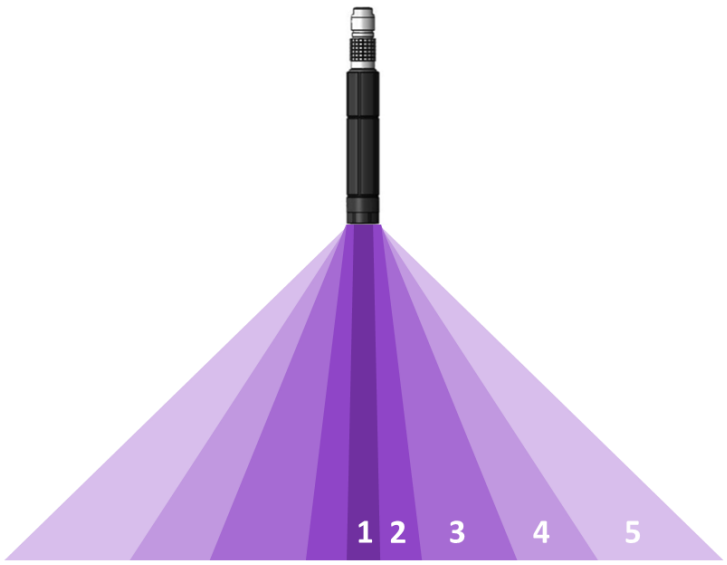


For other wavelengths (UVC / UVB / UVA / VISIBLE / IR), feel free to ask us!

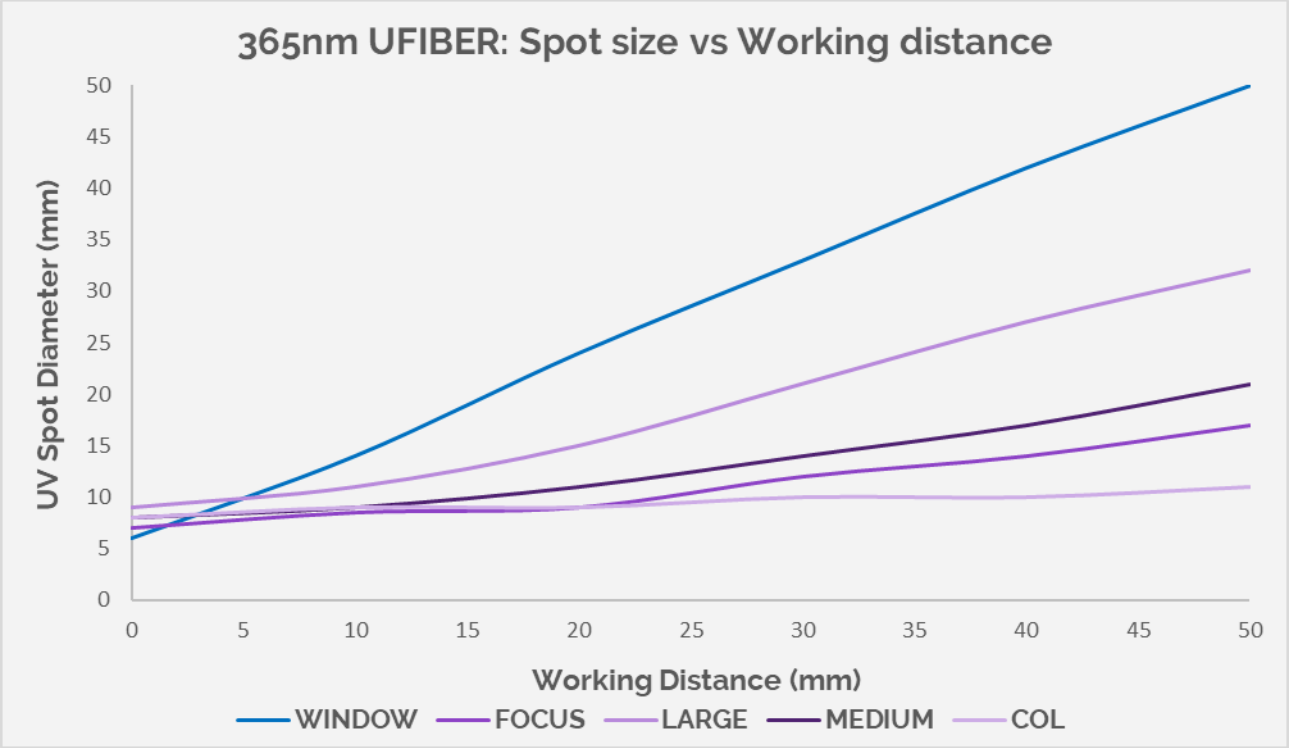
Optical system available

5 different lenses can be set on the UFIBER to get different optical performances (power, spot size...):

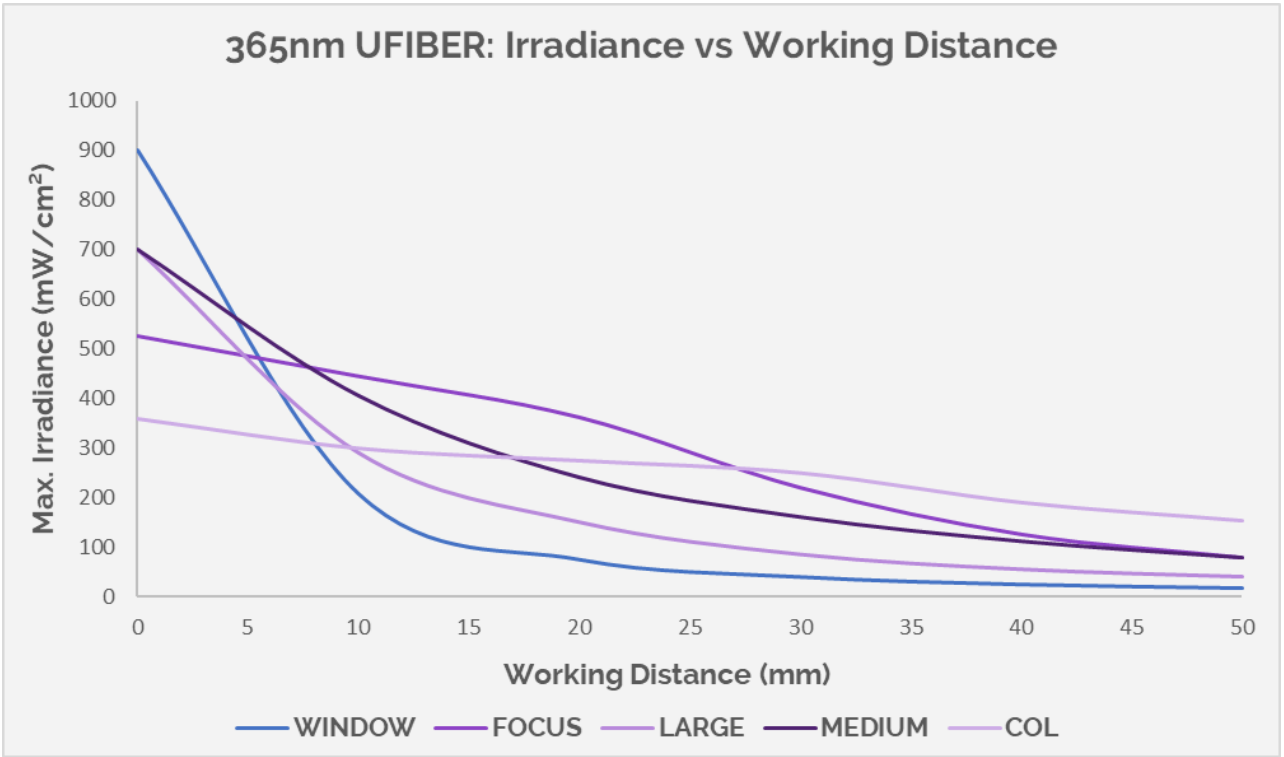
1. **COL**
2. **FOCUS**
3. **MEDIUM**
4. **LARGE**
5. **WINDOW**



UV spot size



Photometry



Curve plotted for UVA wavelength. For UVC & UVB irradiance, please divide the irradiance value by a factor of 40. Radiometer: GIGA HERTZ OPTIK RCH-116 (June 2023). For the UV spot graph, the spot size is the exposed area where the irradiance is higher than 50% of the maximum irradiance.

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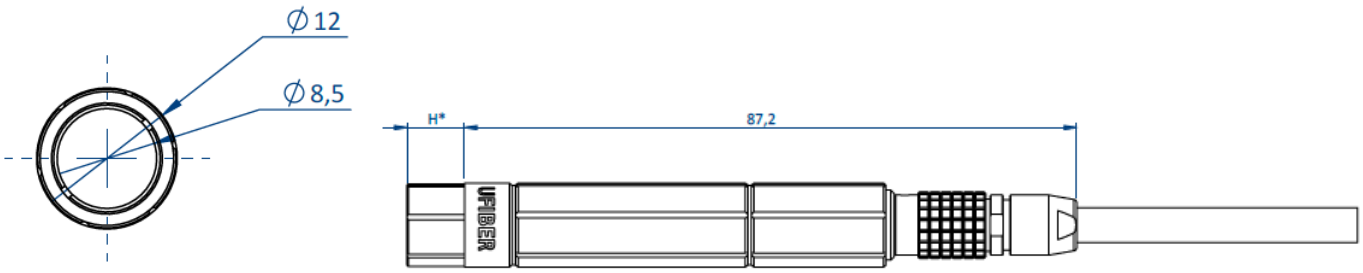
Mechanical considerations (mm)

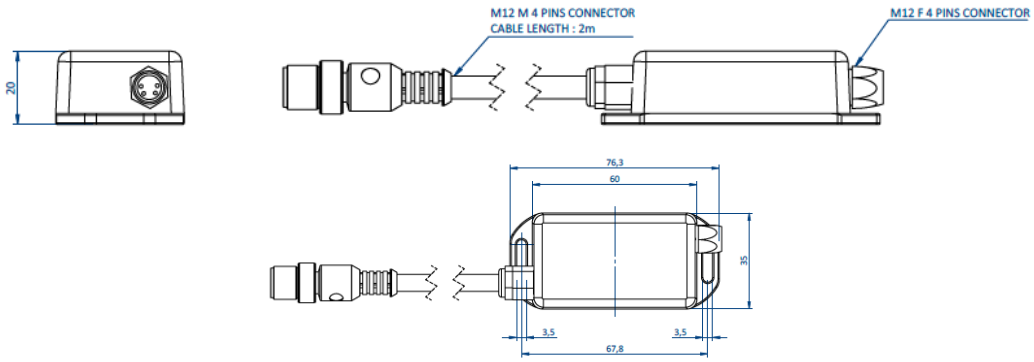
UFIBER-XXX



Total length of the UFIBER is depending on the optical system installed. The array below gives exact mechanical dimensions in each case:

OPTICAL SYSTEM	H* (mm)	Total mechanical length (mm)
WINDOW	2,6	89,6
LARGE / MEDIUM	4,8	92
FOCUS / COL	9,2	95,4

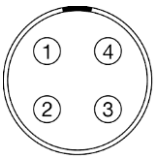
UDRIV (Accessory)



Electronical considerations

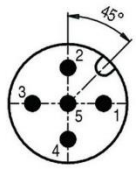
Wiring layout

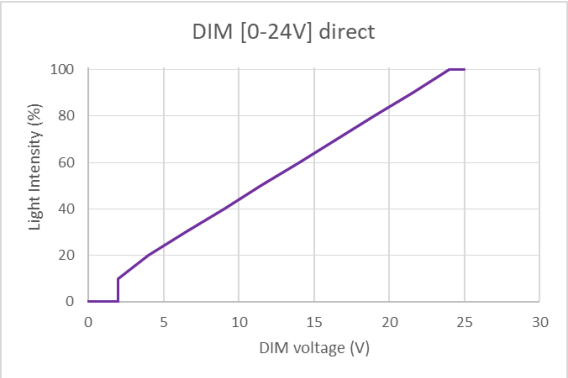
The UFIBER is a direct LED current product. That means it must be associated with a UWAVE power supply which integrates LED driver.

Contact arrangement	Pin number	Cable color	Designation
 Male LEMO 4pins	1	Brown	Not used
	2	White	LED -
	3	Blue	LED + (max 350 mA dc)
	4	Black	Not used

The UFIBER can be controlled by two different setups:

1. **UDRIV**
   The UDRIV is a very compact driver box which requires 24V DC input power (supplied by a USPWR-36W-24V-102-EU or by the PLC). It integrates a LED driver for the UFIBER with a male M12 4pins connector as an input (length of 2m) and a female M8 4pins connector as an output (to connect UCAB-M8LEMO-FM-4-DD-LX).

Contact arrangement	Pin number	Cable color	Designation
 Male M12 4pins	1	Brown	Power supply Input – 24V DC (0,5 A max)
	2	White	Not used
	3	Blue	Power supply Input – 0V DC (GND)
	4	Black	Dimming Input – [0-24V] direct



Other Dimming signals are available upon request: 0-24V indirect, 0-10V direct, 0-10V indirect, 0-5V direct or 0-5V indirect.

2. **UPOWER**
   The UFIBER can be controlled by different types of UPOWER. Please refer to the UPOWER general datasheet to find the most adapted one.

Accessories

UWAVE offers a wide range of accessories to complete its UV LED lighting solution:

Cables 	Both sides connector (power supply link): **UCAB - M8LEMO - FM - 5 - DD - L A** 2 5 Cable length in meters 10
Compact driver box	UDRIV-UFIBER for control of x1 UFIBER. 
Compact power supply	USPWR-36W-24V-102-EU for ON/OFF control of x1 USPOT.  UDIMMER can be added to manually adjust UV power through dimming signal. 
Easy-to-use power supply	UPOWER-50W-24V-UFIBER for simultaneous control of up to x2 UFIBER. 
Advanced power supply	UPOWER-0200-24-xM8 for simultaneous control of x2, x4 or x6 UFIBER. UPOWER-0200-24-xM8-I for independent control of x2, x4 or x6 UFIBER.  *For other controlling configurations, please contact directly UWAVE team.*

UV security

UWAVE products come under the standard DIN EN 62471:2008 which classified sources of optical radiation into risk groups subject to their potential photo biological hazard. Due to the emission of high UV irradiation, our products belong to Risk Group 3 (hazardous even for momentary exposure) therefore special safety measures, detailed in the following, must be observed.

Thanks to its experience and knowledge about UV risks, UWAVE offers to its customer a wide range of UV protections & services:

Eyes protection	UGLASS-02: To protect eyes from direct rays. 	UGLASS-03: To cover all the face. 	
Body protection	UGLOVE-01: to protect hands. 	UV-SHIELD: To protect all workers around. 	
UV measurement	EIT LEDCURE: UV values recording. 	GIGAHERTZ OPTIK: Direct UV value reading. 	
UWAVE expertise	EXPOSURE LIMIT VALUE  According to European Directive 2006/25/EC.	PERFORMANCES QUALIFICATION  Monitoring of all performances of your device.	MAINTENANCE & REPAIR  Preventive maintenance on site & LED repair service.