



UTARGET

Powerful & portable UV LED curing pen

Optical flexibility thanks to its unique optical system

Long lifetime & few maintenances thanks to LED technology

Easy-to-use manually or with a PLC thanks to integrated smart electronics.



		UTARGET	UTARGET-AUTO
Electronics	Power supply	24 VDC $\pm$ 10% (maximal power consumption: 4W)	
	Connector	Jack connector for power	LEMO – 4pins male for power and signals
	Illumination mode	10 Levels from 0% to 100% of intensity	Continuous direct DIM signal [0-24V]
Optics	Wavelength	UVC: 255, 265, 275 nm UVB: 295, 305, 325, 340 nm UVA: 365, 385, 395, 405 nm VIS: 450, 465nm (Blue), 525nm (Green), 625nm (Red), IR, WHITE, Other on request...	
	Irradiance	Up to 2000 mW/cm ² in the UVA range Up to 100 mW/cm ² in the UVB/C range	
Mechanics	Width x Height x Length	150mm x 36mm (head diameter) & 22mm (body diameter)	
	Weight	130 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 - FCC - ICES-3/NMB-3	
	Environmental standards	RoHS III Directives - REACH Regulation - WEEE Regulation	



Product reference

Manual UV LED lamp UTARGET is available with two versions: manual (UTARGET-XXX) or PLC (UTARGET-XXX-AUTO)

UTARGET - XXX - AUTO

WAVELENGTH (nm)

UVC: 255, 265, 275
UVB: 295, 305, 325, 340
UVA: 365, 385, 395, 405
BLUE: 450, 465
GREEN: 525
RED: 625
IR: 780, 850, 940
WHITE: 000

PLC version

Each UTARGET version is available in a complete KIT:

KIT - UTARGET - XXX - AUTO

WAVELENGTH (nm)

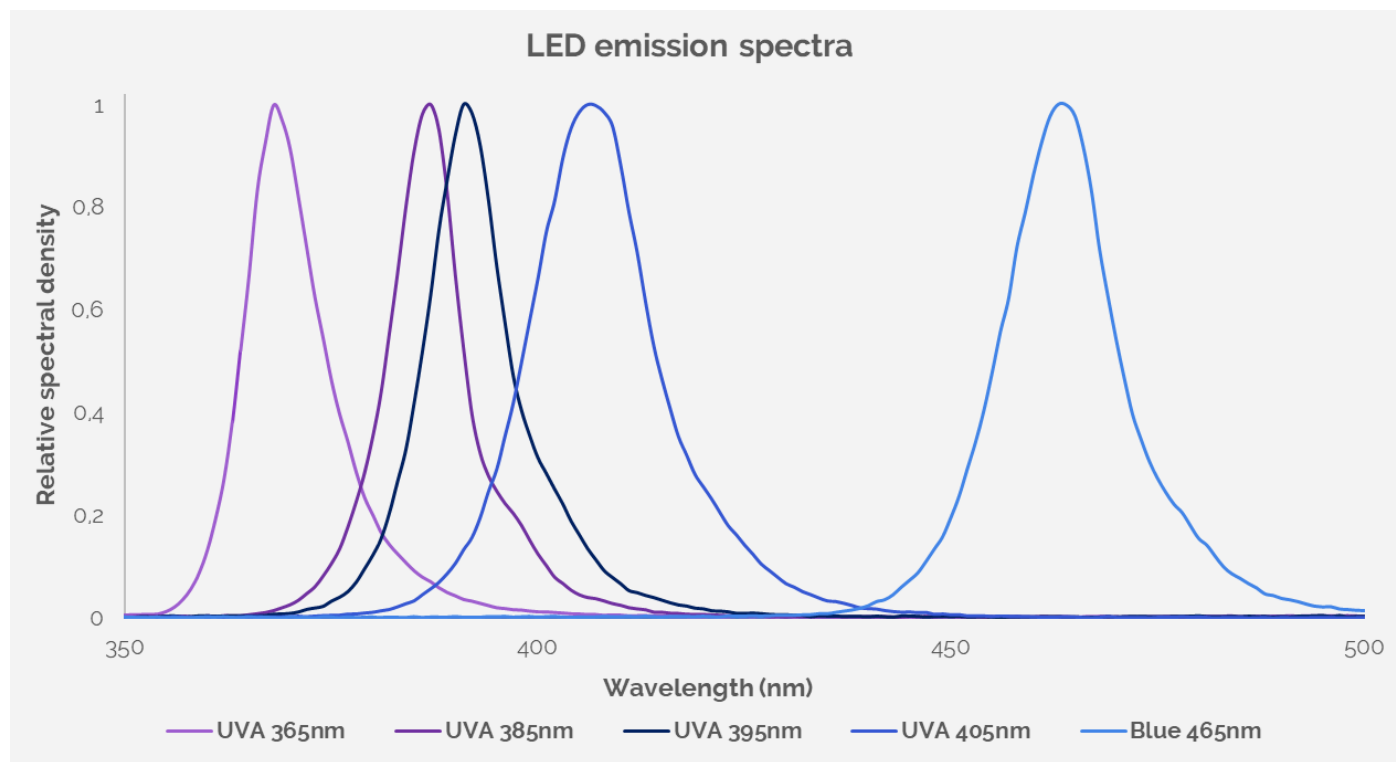
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Optical considerations

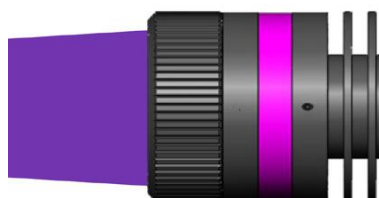
LED spectra



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

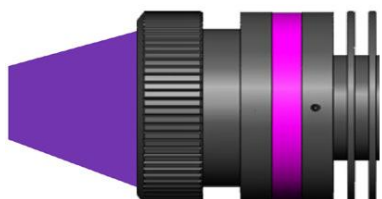
Adjustable optical system

Thanks to its own integrated optical system, this UV LED spotlight provides high irradiance and optical flexibility with two possible optical position: COLLIMATED or FOCUS.



COLLIMATED position

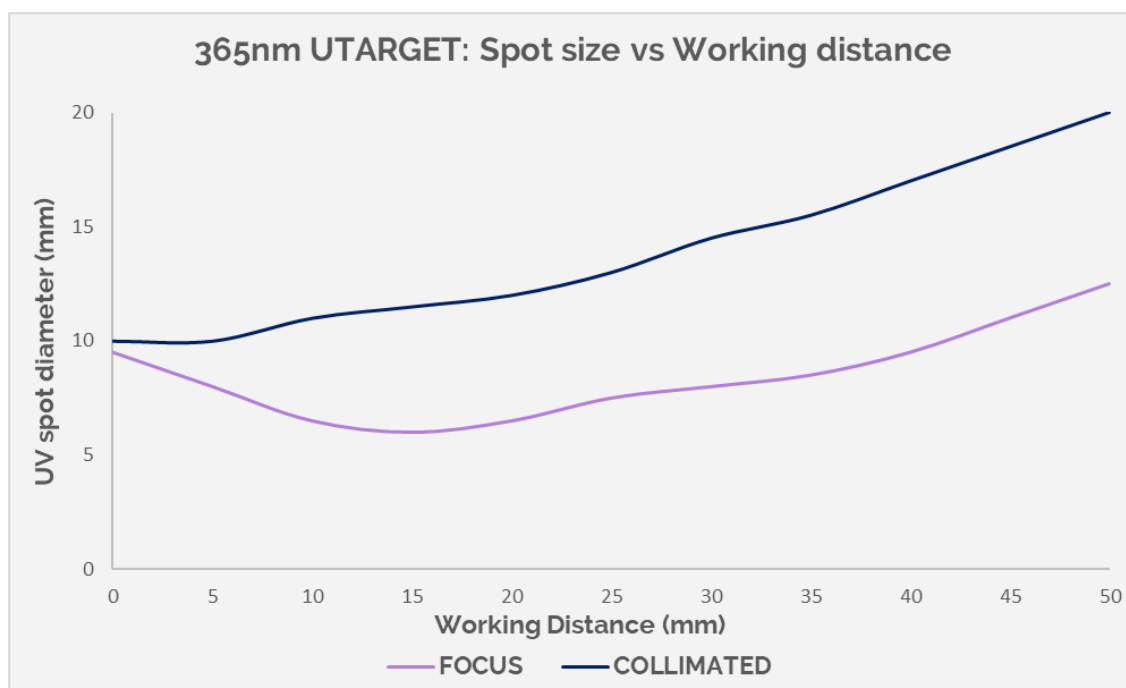
The light travels in straight lines without spreading or converging over a distance.



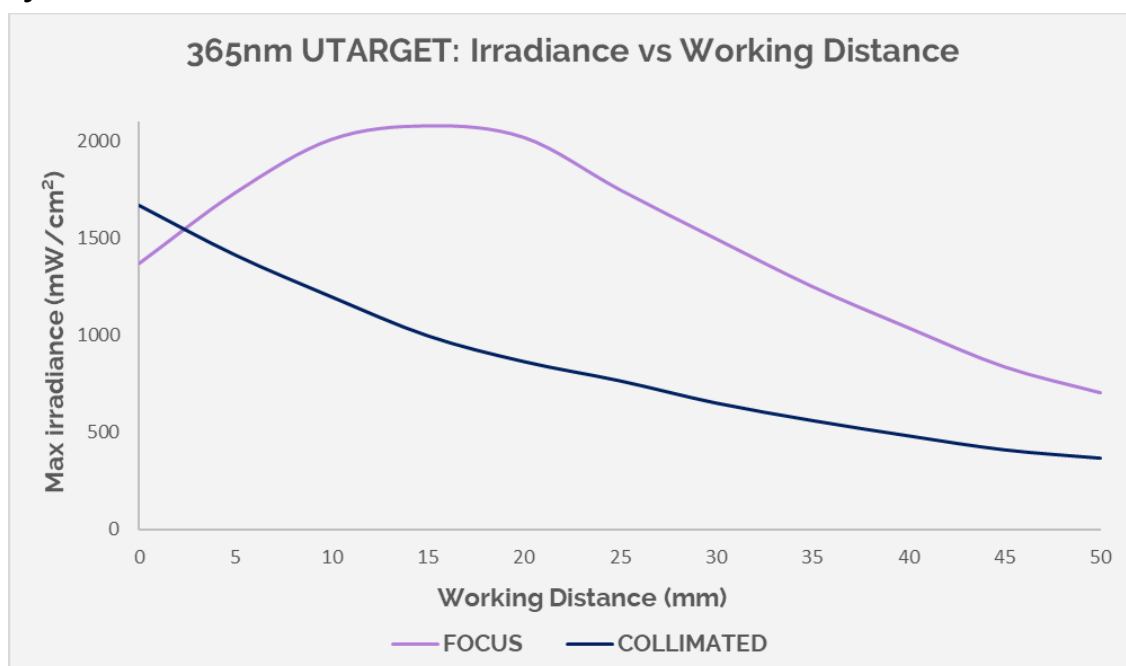
FOCUS position

The light is directed to a specific focal point to achieve more precision.

UV spot size



Photometry



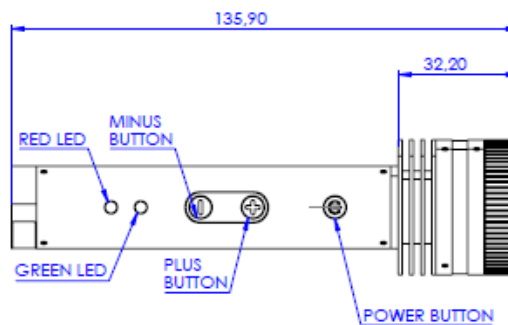
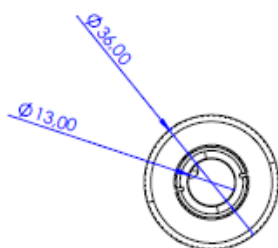
Curve plotted for UVA wavelength. Radiometer: GIGA HERTZ OPTIK RCH-116 (June 2023). For the UV spot graph, the spot size is the exposed area where the irradiance is higher than 50% of the maximum irradiance.



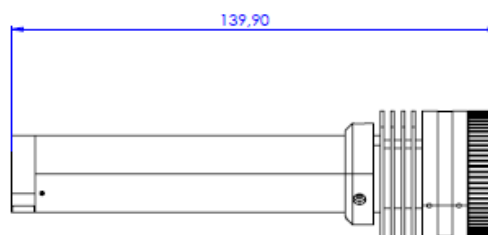
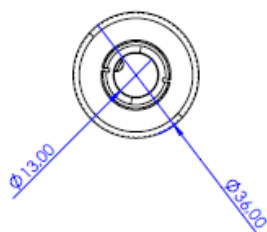
Mechanical characteristics

DIMENSIONS [in mm]

Manual version:



PLC version:



FIXING

For machine integration (.STEP file – 3D), please contact UWAVE team.



Electronical considerations

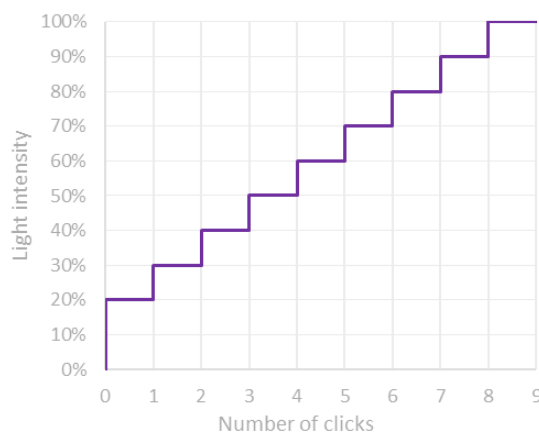
Manual version:

The UTARGET-XXX (manual version) requires 24V DC input power through the jack connector. It integrates smart electronical board to achieve stable optical power and manual use. Below a table about status LED and buttons:

Green LED		Red LED		Situation
OFF		OFF		The UTARGET is not plugged
OFF		ON		The UTARGET is plugged to an electrical source but does not emit UV
ON		OFF		The UTARGET is plugged to an electrical source and emits UV
ON		ON		The UTARGET is ON and it is at 100% of its power
BLINK		OFF		Change of the light intensity after pushing the button (+) or (-)
OFF		BLINK		Preventing the UTARGET from overheating



Manual Intensity Control with Buttons

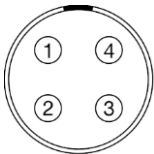


Once plugged the UTARGET (at 100%) is ready to be used.

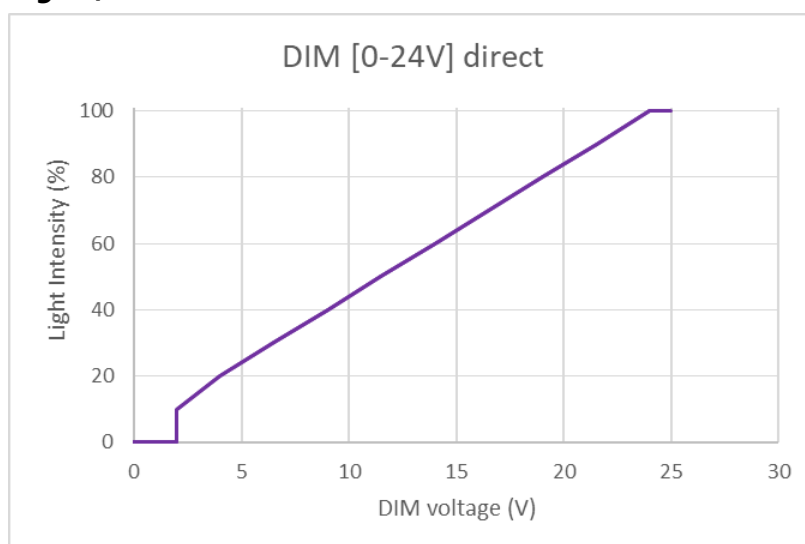
Use the buttons – (less) and + (more) to control the light intensity from 20% to 100%.

PLC version:

The UTARGET-XXX-AUTO (PLC version) requires 24V DC input power. It integrates smart electronical board to achieve stable optical power and exploitable output signals. It can be managed with a control unit (UPOWER – please refer to accessories part of this datasheet) or without a control unit through PLC wiring.

Contact arrangement	Pin number	Cable color	Designation
 Male LEMO 4pins	1	Brown	Power supply Input – 24V DC (1,5 A max)
	2	White	TEMPERATURE ERROR output – 24V DC if LED temperature is correct or 0V DC if device overheats.
	3	Blue	Power supply Input – 0V DC (GND)
	4	Black	Dimming Input – [0-24V] direct

Intensity Control (DIM signal)



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



KIT

Manual version:

In order to allow facilitated manual use of the **UTARGET-XXX**, UWAVE has developed a complete kit which contains the following components:



PLC version:

In order to allow facilitated manual use of the **UTARGET-XXX-AUTO**, UWAVE has developed a complete kit which contains the following components:





Accessories

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

Cables for PLC version 	One side with bare wire (towards PLC): UCAB - LEMO - FD - 4 - D - L A  2 5 10 Cable length in meters Both sides connector (power supply link): UCAB - LEMOM12 - FM - 4 - DD - L A  2 5 10 Cable length in meters
Compact power supply	USPWR-36W-24V-JACK-EU for power supplying of x1 UTARGET-XXX (Manual version). USPWR-36W-24V-LEMO-EU for ON/OFF control of x1 UTARGET-XXX-AUTO (PLC version).  UDIMMER can be added into UTARGET-XXX-AUTO setup to manually adjust UV power through dimming signal (two digits from 00 to 99 in %). 
Easy-to-use power supply	UPOWER-50W-24V-UTARGET for simultaneous control of up to x2 UTARGET-AUTO. 

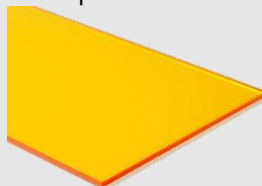


UV security

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.