UV CHAMBER DATASHEET

Plug & Play UV LED curing oven

Easy-to-use & secured equipment

High repeatability, long lifetime & few maintenances thanks to LED technology

Made In France

Electronics	Power supply	Single phase 64 to 240 VAC ± 10%, 50/60 Hz (maximal power consumption: Depending on the UCUBE version integrated)
	Connector	SUBD 13W3 – 13pins female for power and signals to the UCUBE
	User interface	TIMER (insolation time), POTENTIOMETER (UV power), START, STOP, LOCK KEY
	Door security	The UCUBE automatically shuts off when door is opened. No UV leaks.
Optics	One UCUBE (UV LED flood lamp) is integrated on top of the CHAMBER with the following optical specifications:	
	Wavelength	UVC: 275 nm - UVB: 305 nm - UVA: 365, 385, 395, 405 nm - VIS: 465 nm
	Irradiance	Up to 2000 mW/cm² in the UVA range Up to 150 mW/cm² in UVC & UVB range
Mechanics	Width x Height x Length	382mm x 306mm x 605mm
	Weight	16kg without UCUBE and maximum 22kg with UCUBE on the top.
	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

CHAMBER - AA - BB

AA
- 00: No UCUBE
- 10: UCUBE-10
- 15: UCUBE-15
- 20: UCUBE-20

BB
- Ø: No option
- N2: Nitrogen adaptation
- PC: Grommet setup
- D: Deported chamber
- T40: 40x40x40 cm^3 version

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Optical characteristics

UCUBE Guide

A UCUBE is integrated on top of the UV CHAMBER. Please follow the guide below to find out which UCUBE version is best suited to your needs:

UCUBE-10

UCUBE-10-HP

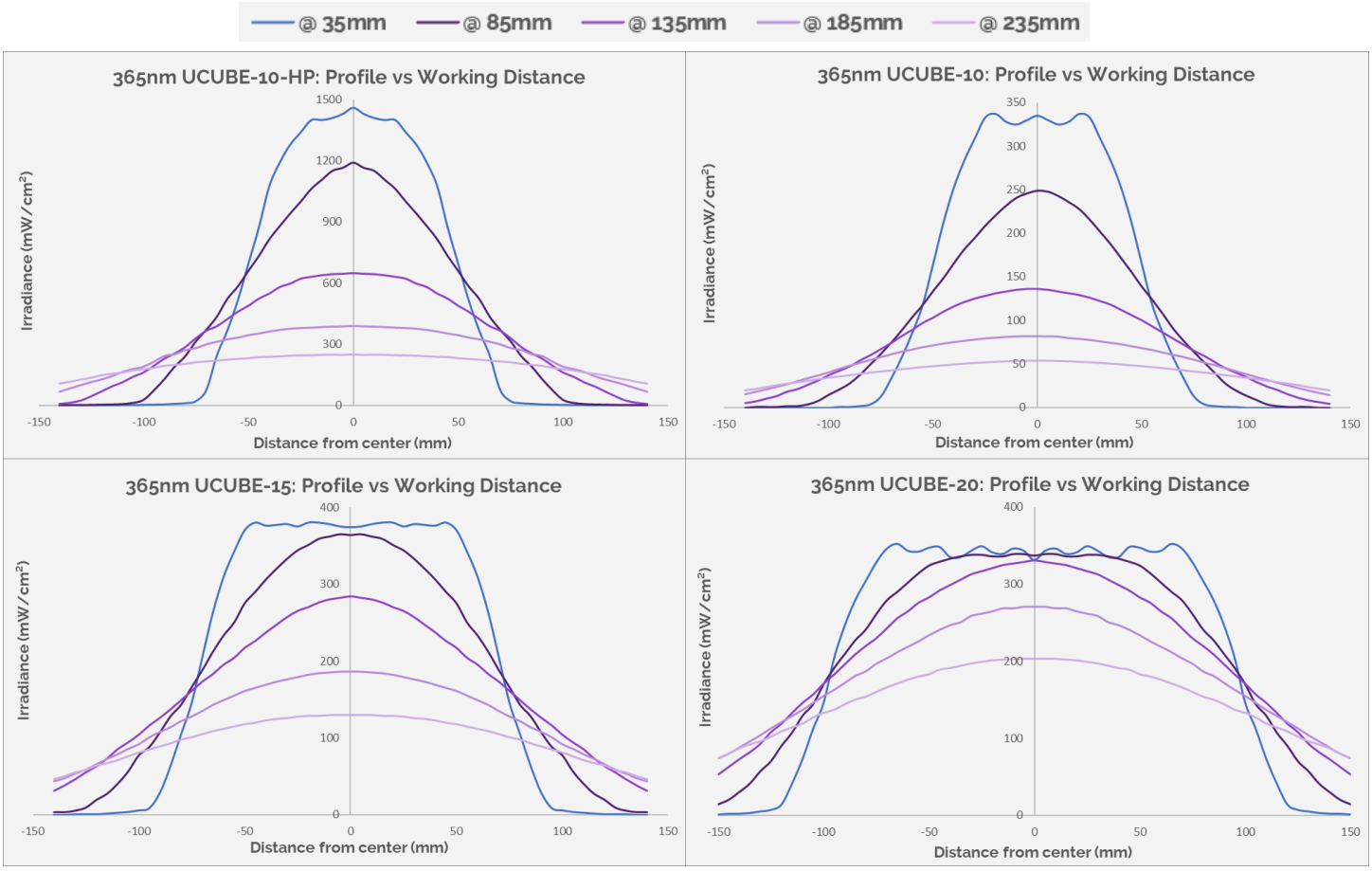
UCUBE-15

UCUBE-20

OPTICAL WINDOW	100mmx100mm	100mmx100mm	150mmx150mm	200mmx200mm
NUMBER OF LED	25 LED	100 LED	64 LED	100 LED
MAX IRRADIANCE	1,8 W/cm²	2,1 W/cm²	2,0 W/cm²	1,8 W/cm²

Optical Distribution

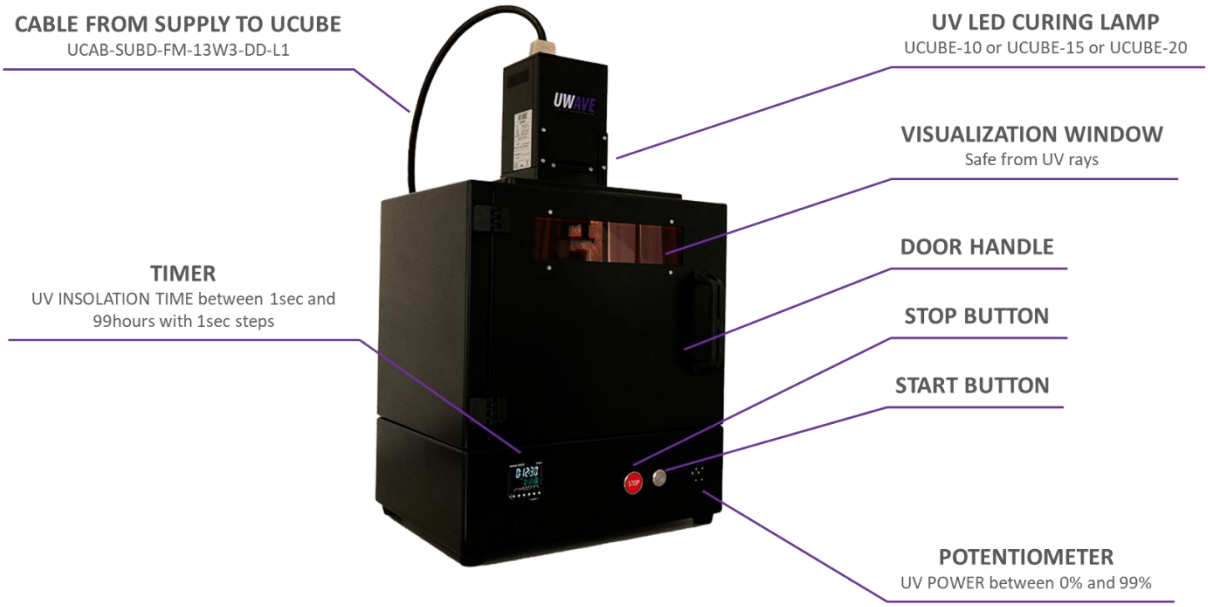
Below light distribution of each UCUBE for the 5 available tray positions inside the UV CHAMBER:



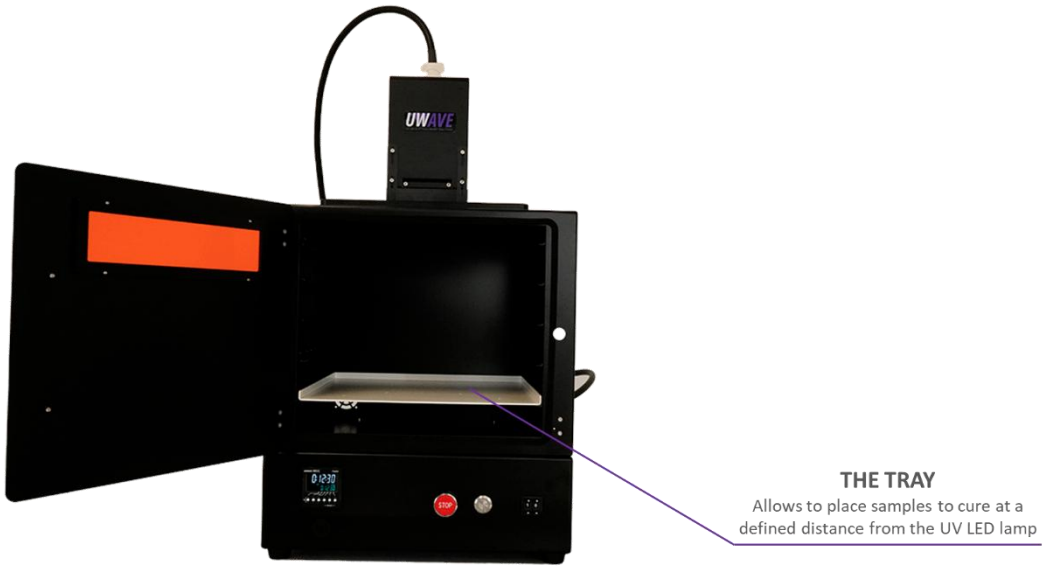
Working closer to the UCUBE improves the irradiance level to reduce processing time. On the contrary, working further to the UCUBE gives a wider and more homogeneous irradiated area for bigger samples and materials.
Please refer to the UCUBE-10, UCUBE-15, or UCUBE-20 datasheet for further optical information.

General Information

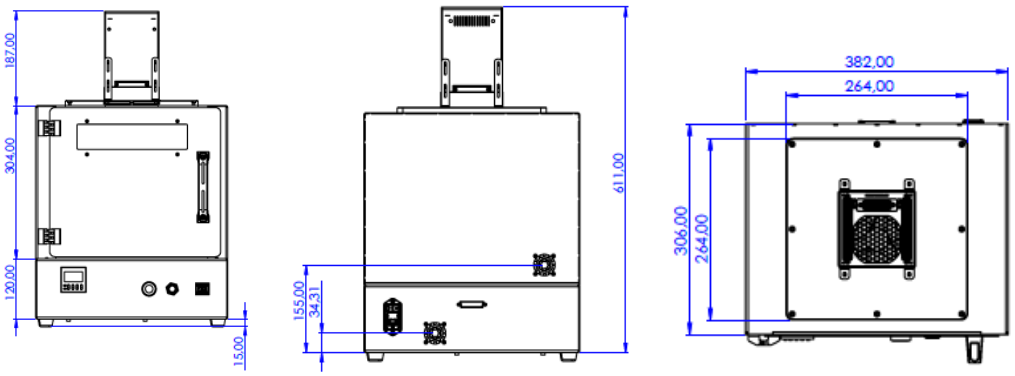
Presentation of parts



The UV CHAMBER is delivered with one 30x30 cm² tray which can be set inside at five different positions from the UV LED curing lamp (UCUBE): 35mm, 85mm, 135mm, 185mm and 235mm.



Mechanical considerations (in mm)



A UCUBE-10-XXX or a UCUBE-10-HP-XXX is integrated on top of the CHAMBER-10 as shown on the mechanical plan above. Global dimensions remain the same for all UCUBE versions. Please refer to the UCUBE-10, UCUBE-15, or UCUBE-20 datasheet for further mechanical information specifically about the UCUBE.

Electronical considerations

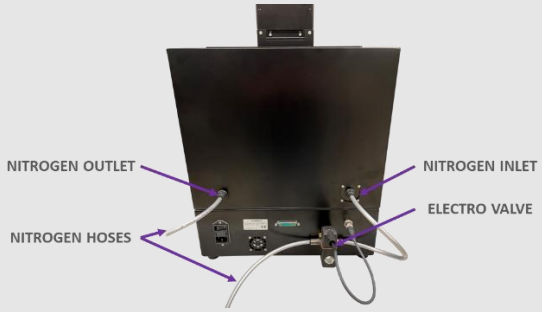
Electrical consumption table

TYPE OF UV CHAMBER	Electrical consumption at 100% of UV power
CHAMBER-10	150W with a UCUBE-10-XXX. 500W with a UCUBE-10-HP-XXX.
CHAMBER-15	300W with a UCUBE-15-XXX.
CHAMBER-20	500W with a UCUBE-20-XXX.

Please refer to the UCUBE-10, UCUBE-15, or UCUBE-20 datasheet for further electronical information.

Options

UWAVE offers a wide range of standard options to complete its UV CHAMBER expertise:

OPTION N2	UV CHAMBER which allows nitrogen circulation into the oven: - Specific mechanical adaptation – Fittings (8mm tube diameter) & security - Specific electrical adaptation - Electro valve installation & security	
OPTION PC	UV CHAMBER with a grommet into the door to let cables, hoses, probes be inserted inside the chamber unit and keep a high level of UV safety.	
OPTION D	UV CHAMBER separated from the power supply (reference: UPOWER-0600-48, please refer to the UPOWER datasheet for more information).	
OPTION T40	UV CHAMBER with taller mechanical dimensions: 40x40x40 cm3 instead of 30x30x30 cm3 for the standard version. It comes with two additional tray positions (285mm and 335mm) and a huger tray (40x40 cm^2).	
OTHER OPTIONS	Need for a customization or another UV lamp on top of the CHAMBER? UWAVE has a huge expertise with UV ovens. Do not hesitate to contact us to discuss your needs.	

Additional tray

The UV CHAMBER is delivered with one 30x30 cm^2 tray. Complementary tray reference: CHAMBER-TRAY-30. For T40 option, the additional tray reference is CHAMBER-TRAY-40.

Additional UCUBE

The UV CHAMBER is delivered with one UCUBE reference. As the UCUBE is easy to change on top of the CHAMBER, it's possible to work with one CHAMBER and several UCUBE references. For more information about it, please contact UWAVE team.

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UV security

UV CHAMBER and UV OVEN ranges from UWAVE are secured units to work safely without PPE like gloves or glasses and avoid direct exposition to UV rays:

- When a UV cycle is running, LED emission is stopped immediately if the door is opened by the user.
- No leaks of light through openings and edges thanks to smart mechanical designs.
- Visualization window allow the user to look inside the unit with no risks, with its 99,9% UV protection rate.

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

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.

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.

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