KOOPTECH®

UV-C Disinfection BOX DB60.0

For Optical and Sunglasses

RELIABLE REDUCTION of BACTERIA, VIRUSES and FUNGI

KOOPTECH® – CINEMA

RELIABLE REDUCTION of BACTERIA, VIRUSES and FUNGI

UV-C DB60.0 was designed to provide safety in eyewear shops. Trying out eyeglasses multiple times by different customers creates a significant risk of disease transmission, especially because they have close contact with the skin and mucus from the nose and mouth. Therefore, it is recommended that they are treated with UV-C.

Regardless their primary purpose, the device can be used to disinfect also other everyday items.

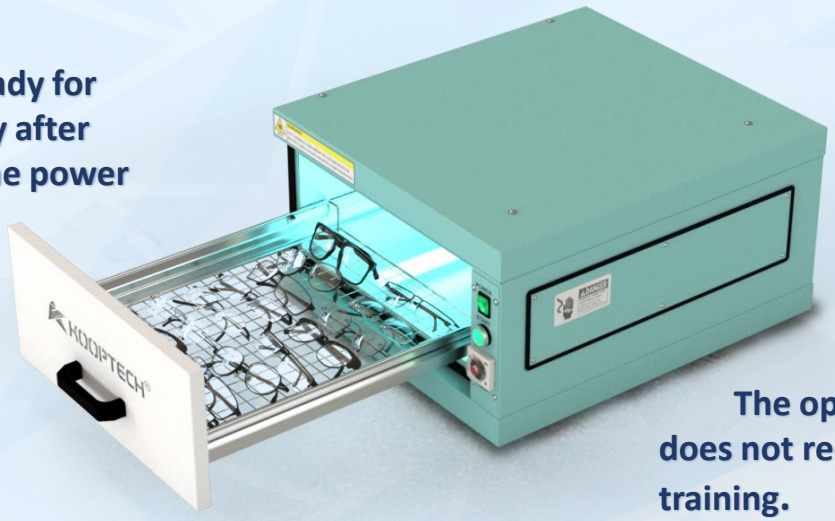
The process of UV-C radiation significantly reduces the risk of exposure to disease-causing pathogens[1]. UV-C radiation is one of the disinfection methods recommended by US CDC[2] (Centers for Disease Control and Prevention) in the face of the SARS-CoV-2 virus pandemic which causes the COVID-19 disease. For years, it has been successfully used in many industries, including food, medical, and others.

Optimal placement of lamps inside the **DB60.0 Box** and the use of a highly reflective coating creates a uniform UV-C irradiation inside the box and maximizes the efficacy of UV-C irradiation on the glasses.

DB60.0 Box has been certified by accredited laboratory.

UV-C Disinfection Box is aesthetic and compact. Displayed in the right place, not only it fulfills its disinfecting function, but also increases the sense of safety and builds confidence in Clients.

The device is ready for use immediately after connecting to the power



The operation is simple and does not require any specialized training.

1. Derraik, J.G.B.; Anderson , A.W.; Connelly, E.A.; Anderson, Y.C. 2020. Rapid evidence summary on SARS-CoV-2 survivorship and disinfection, and a reusable PPE protocol using a double-hit process, medRxiv DOI: 2020.04.02.20051409; https://doi.org/10.1101/2020.04.02.20051409.
2. Centers for Desease Control and Prevention, 2020: Decontamination and Reuse of Filtering Facepiece Respirators https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/decontamination-reuse-respirators.html

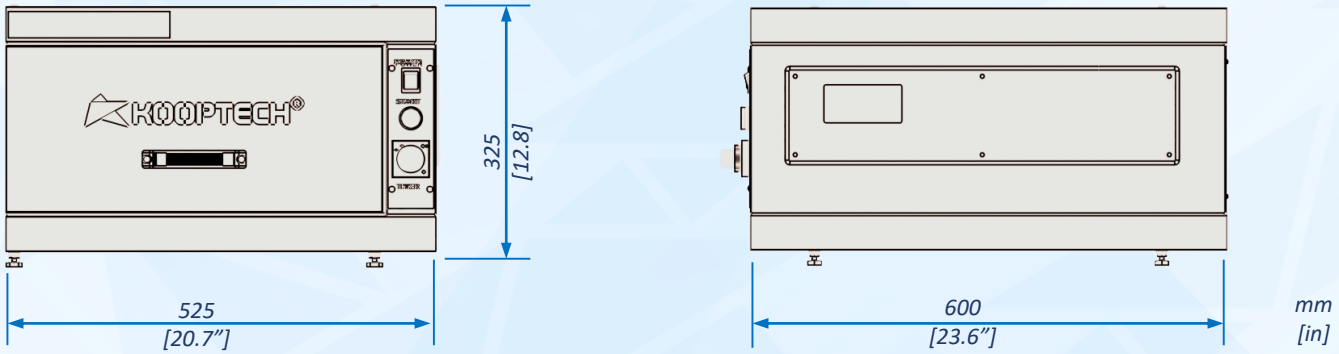
GERMICIDAL EFFECT

The typical value of UV-C irradiation inside the **UV-C DB60.0 Box**, at a distance of 100 mm away from the lamps, is 10 W/m² (1 mW/cm²). With a typical treatment time of 150 seconds, **the effective dose of UV-C irradiation is then equal to 1500 J/m² (150 mJ/cm²).**

Based on data published by IUVA, the table on next pages presents examples of bacteria, viruses and fungi, and effective doses of UV-C 254 nm irradiation required for various levels of reduction of microorganisms (highlighted are values below the typical **150 mJ/cm²** of the **Kooptech® UV-C DB90.1**).

microbe	typical values for surface treatment				
	K [m²/J]	dose [mJ/cm²] for reduction by			
		90%	99%	99.9%	99.99%
bacteria (veg.)	0.14045	2	3	5	7
viruses	0.03156	7	15	22	29
bacterial spores	0.01823	13	25	38	51
fungal cells/yeast	0.00700	33	66	99	132
fungal spores	0.00789	29	58	88	117

Kooptech® UV-C DB60.0 Box provides an average dose of min. 150 mJ/cm² - **higher than typical doses required for 99.99% reduction of microbes**



TECHNICAL SPECIFICATION

parameter	Kooptech® UV-C DB60.0 Box
dimensions (W x H x D)	20.7" x 12.8" x 23.6" (525 mm x 325 mm x 600 mm)
weight (without baskets)	55.1 lbs. (25.0 kg)
nominal supply voltage	1-phase, 110 VAC or 230 VAC (selectable), 50-60 Hz
connection power	60 W
power connection cable length	4.9 ft (1.5 m)
cycle time	adjustable – from 1 min to 3 min
max ambient temperature	95°F (35°C)
max ambient humidity	80% (no condensation)
UV-C lamps specification	4x 15 W T8 UV-C (254 nm germicidal lamps)
UV-C lamps life	9 000 hrs*
minimum UV-C irradiance 100 mm away from the lamps	10 W/m²

*With Philips TUV T8 15W UV-C lamps, at depreciation of UV-C output by -10% (based on manufacturer's data)

MANUFACTURER

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