PROF. WACLAW DABROWSKI
INSTITUTE OF AGRICULTURAL
AND FOOD BIOTECHNOLOGY
STATE RESEARCH INSTITUTE

Food Quality Department in Lodz
Al. Marszałka J. Piłsudskiego 84
92-202 Łódź,
Tel. (42)636 92 11, 674-64-14
e-mail: zj@ibprs.pl

Instytut Biotechnologii Przemysłu Rolno-Spożywczego
im. prof. Wacława Dąbrowskiego-Państwowy Instytut Badawczy
ZAKŁAD JAKOŚCI ŻYWNOŚCI
92-202 Łódź, Al. Marszałka J. Piłsudskiego 84
tel. (42) 674 64 14, (42) 636 92 11
e-mail: zj@ibprs.pl https://www.ibprs.pl
NIP 525-000-82-54 REGON 000053835 KRS 0000126823

Lodz, 02-11-2021

Certificate of Analysis No K/350/01/2021 (1/1)

Subject of analysis: **UV-C STERILON CLEAN 216W (Philips 6 x 36 W UVC radiators)**

State of the subject: correct

Customer: **Lena Lighting S.A**
63-000 Środa Wlkp., ul. Kórnicka 52

The device for testing was delivered by the Customer 18-10-2021
The tests began: 26-10-2021
The tests finished: 01-11-2021

Type of analysis	Analytical method	Results	
Microbial parameters			
Testing of the level of air pollution during the operation of the purifier in a room of 25 m^2	Own methodology using a microbiological air sampler MAS-100 ECO™ Manual MAS-100 ECO™	*[cfu/1 m^3]	Microorganisms reduction
- Total Viable Count at time 0		**499**	-
- Total Viable Count after 2 hours		**119**	R_{2h} = 76.15%
- Total Viable Count after 6 hours		**72**	R_{6h} = 85.57 %
- Total Viable Count after 20 hours		**13**	R_{20h} = 97.39%
-Total Yeast and Mold Counts at time 0		**110**	-
- Total Yeast and Mold Counts after 2 hours		**60**	R_{2h} = 45.46%
- Total Yeast and Mold Counts after 6 hours		**24**	R_{6h} = 78.18 %
- Total Yeast and Mold Counts after 20 hours		**9**	R_{20h} = 91.82 %

* The results are the average number of microorganisms from two measurements

Authorized:

KIEROWNIK
Pracowni Mikrobiologii
dr inż. Anna Szosland-Fałtyn
Adiunkt

Accepted:

KIEROWNIK ZAKŁADU
JAKOŚCI ŻYWNOŚCI
dr Beata Bartodziejska

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Assessment of efficacy of UV-C STERILON CLEAN 216W (Philips 6 x 36 W UVC radiators)

The aim and scope of the research

The aim of the study was to determine the effectiveness of air disinfection using **UV-C STERILON CLEAN 216W (Philips 6 x 36 W UVC radiators)** (Certificate of Analysis No K/350/01/2021) on the basis of reduction in numbers of molds, yeasts and bacteria that are present naturally in air, using aspiration method after 2, 6 and 20 hours of lamp working in a room with an area of 25 m^2.

Test procedure

The studies were conducted in accordance with its methodology developed at the Laboratory and the manufacturer's manual MAS-100 ECO™ (Microbiological Air Sampler) in a room with an area of 25 m^2. Before turning on the device, the total viable count of microorganisms and the number of mold and yeast in the room air were examined (at 0 time). The bactericidal lamp was placed in the center of the room. The air pollution was measured after 2, 6 and 20 hours of operation. The tests were carried out using the aspiration method using the microbiological air sampler MAS-100 ECO™. Each time the device took 1000 liters of air through a perforated plate (suction time about 9 minutes). The air stream containing particles was directed to the PCA or YGC agar surface in a standard Petri dish. After completing the air sampling cycle, the Petri dishes were incubated at 30°C for 72h or 25°C for 5 days, then the colonies grown were counted and the number of microorganisms in 1 m^3 of air was determined, taking into account the correction of the Feller's statistical correction table.

KIEROWNIK
Pracowni Mikrobiologii
dr inż. Anna Szosland-Fałtyn
Adiunkt