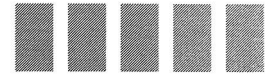


**LUG**[®]**LUG Light Factory Sp. z o.o.**
Producent Profesjonalnych Rozwiązań Oświetleniowych LED

STATEMENT

LUG Light Factory declares that the products from the PURELIGHT LUG family ensure high efficiency in neutralising microorganisms and pathogens, in particular viruses and bacteria, fungi and other microorganisms – both in the air and on decontaminated surfaces.

In PURELIGHT LUG devices, we rely on the commonly known, published, proven and accepted knowledge on the methodology of the elimination of pathogens (including SARS-COV2 virus)* persistent in the air and on surfaces using the technology of electromagnetic wave radiation in the UV-C range.

LUG devices use only UV-C radiators from recognised manufacturers, which guarantee the optimal emission of electromagnetic radiation with a wavelength of 253.7 nm.

The PURELIGHT LUG product portfolio includes both direct-acting luminaires (DIRECT, DIRECT OPTI, HYBRID) and flow-through devices for air decontamination (FLOW, HYBRID)

Due to the fact that, on the basis of many publications and the research of scientists, the doses of UVC energy radiation required to deactivate appropriate strains of bacteria and viruses are commonly known, our devices have been designed in such a way as to obtain appropriate doses of UV-C radiation, which destroys pathogens, during their operation.

All our products have been tested for human safety as well as for their effectiveness in eliminating microorganisms, and the results of these tests have fully confirmed our assumed efficacy.

DIRECT LUMINAIRES – DESCRIPTION

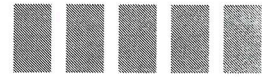
DIRECT luminaires are characterised by direct emission of UV-C radiation onto a decontaminated surface. As a result of appropriate laboratory measurements with a spectroradiometer and the analysis of the technical data of catalogue cards provided by the manufacturer of the radiators and their internal verification, we indicate and guarantee the intensity of irradiation from UVC radiators in PURELIGHT LUG luminaires.

The time is calculated using the formula:

$$Time [s] = \frac{Dose [J/m^2]}{Radiant\ intensity [W/m^2]}$$



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FLOW DEVICES – DESCRIPTION

FLOW luminaires neutralise viruses and bacteria suspended in aerosols by taking the air in the room and subjecting it to direct radiation inside the UV-C lamp. Therefore, its efficiency is defined in relation to the maximum size of the room in which it can be installed. In order to prevent the virus from moving along the wall of the luminaire, we have designed the fan in such a way that it induces the air to swirl. In addition, PURELIGHT luminaires are long enough and the UV-C intensity is set at an appropriate level to ensure effective exposure time.

We guarantee that the air entering the chamber of the PURELIGHT FLOW device during one cycle is 90% (30W) and 99.9% (36W) decontaminated, respectively, and the effectiveness of room decontamination has been proven by the Professor Waclaw Dąbrowski Institute of Agricultural and Food Biotechnology in Łódź.

THE EFFICACY OF PURELIGHT LUG PRODUCTS IS GUARANTEED BY:

- Proven effectiveness of electromagnetic radiation with a wavelength of 253.7 nm in neutralising pathogens, including the SARS-COV2 virus.
- The use of UV-C radiators from recognised manufacturers in PURELIGHT LUG products, guaranteeing optimal emission of electromagnetic radiation with a wavelength of 253.7 nm.
- Simulation and testing of the actual UV-C radiation intensities obtained in an internal certified laboratory.
- Conducted tests of decontamination effectiveness at the *Professor Waclaw Dąbrowski Institute of Agricultural and Food Biotechnology in Łódź*.

LUG Light Factory Sp. z o.o.
Pracownik Laboratorium/Laboratory Manager

mgr inż. Marcin Białas

Laboratory Manager

MARCIN BIAŁAS



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CZŁONEK ZARZĄDU

Mariusz Ejsmont

Member of the Management Board of LUG Light
Factory Sp. z o.o. / Technical Director

MARIUSZ EJSMONT

*Source:

Research by the University of Boston on the effectiveness of UV-C neutralisation of SARS-COV2: <https://assets.researchsquare.com/files/rs-65742/v2>

Tables of UV-C intensity required for neutralisation of individual pathogens according to the WHO: https://www.who.int/health-topics/ultraviolet-radiation#tab=tab_1