



LUXIONA

UV-C LUMINAIRES
Specialized Disinfection Lighting

troll

DISINFECTION OF AIR AND SURFACE WITH UV-C RAYS

TYPES OF THE UV SPECTRUM AND ITS PROPERTIES

UV-C radiation irreversibly terminates bacteria, viruses, molds, fungi and all other microorganisms as soon as they are in the range of rays emitted by direct action lamps.

UV ultraviolet radiation belongs to electromagnetic wave radiation, the same like X-rays, radio or light waves.

For practical use, the UV spectrum has been divided into three categories:

UV-A - long-wave 400 nm - 315 nm

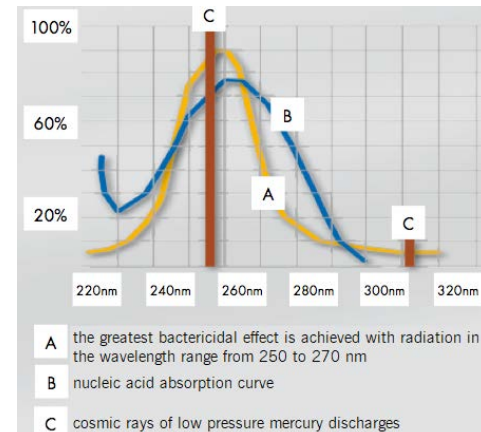
Natural rays from the sun. Refers to photochemical processes, pigmentation. The erythral effect is negligible.

UV-B - medium wave 315 nm - 280 nm

It has basic application in therapy. Creates provitamin D. There is a pigmentation and erythral effect.

UV-C - short wave 280 nm - 100 nm

It has a strong bactericidal and germicidal effect. Causes skin burns (Eritema) and conjunctivitis (conjunctive effect).



HOW DOES UV DISINFECTION WORK?

UV-C radiation is created at low-pressure mercury discharges (germicidal radiators). Radiation with a wavelength below 200 nm creates ozone in the air. This is a harmful situation. For the manufacture of UV radiators, special quartz glass was used, which has a high transmission rate for bactericidal radiation, whereby the glass absorbs undesirable UV radiation with a wavelength below 200 nm. So UV radiators produce a negligible amount of ozone and only during the first 100 hours of lighting.

It was found that the greatest bactericidal effect occurs at radiation wavelengths from 250 to 270 nm. The bactericidal mechanism involves the absorption of UV-C radiation energy by nucleic acids and proteins, which induces chemical reactions in the testicles, it kills microorganisms.

CHOOSING THE RIGHT LUMINAIRE

The selection of this type of equipment largely depends on the dimensions of the room and the air parameters (humidity and level of dust). Direct-acting germicidal lamps irreversibly terminate viruses, bacteria, fungi, molds and yeast when nobody is in the room. Their strong impact could harm staff and patients, so make sure that everyone leaves the room before starting the device.

From a practical point of view, we can assume that we will achieve a sufficient degree of microbiological purity* using:

- 15 W lamp on an area up to 6 m²
- 2x15 W lamp on an area up to 10 m²
- 30 W lamp on an area up to 12 m²
- 2x30 W lamp on an area up to 18 m²

* - in a room 2.5 to 3 m high in room conditions.

HOW TO USE?

2 to 8 hours - depending on the purpose of the room (patient room, doctor's office, treatment room, operating room).

15 to 20 min. - to obtain an immediate effect of disinfection of air in the room (e.g. between two treatments).

LUXIONA POLAND UV-C PRODUCTS



Luxiona Poland is a leader offering clean room lighting systems. A wide range of CLEAN luminaires guarantees the quality and safety of lighting in clean places such as: operating rooms, rooms surrounded by operating rooms, sterilization rooms, laboratories, pharmacy and other specialized solutions. The luminaires are manufactured in our factory, which has a quality management system for the production of Medical Devices ISO 13485 - a certificate in the field of design and manufacture of lighting fittings for medical use.

All UV products can be optionally equipped bactericidal coating in accordance with the same technology which our luminaires up to class I, II and III cleanliness are carried out. In addition, each fitting can be equipped in motion sensor. The emitted UV-C radiation is harmful to humans and they should not be in the room with the luminaire attached during ongoing disinfection. The sensor helps to immediately disconnect the power supply if detected in the room of human presence.



AGALINE UV-C

Linear luminaire for clean and industrial rooms

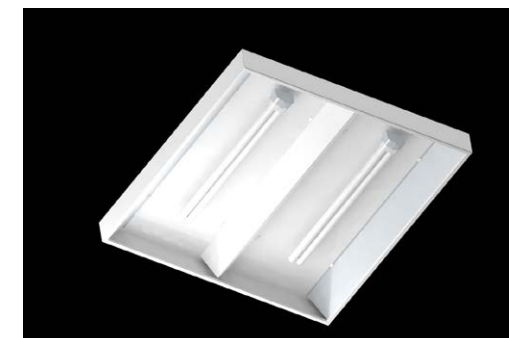
- T8 linear fluorescent lamps
- Power 1 x 15/30/36 W or 2 x 15/30/36 W
- Holder with adjustable work position
- Wall or ceiling mounting
- Can be mounted on an optional portable stand
- Optional retrofit with reflector cover and source protection grid
- A protective foil for fluorescent lamps that protects the glass in the event of breakage



UNIVERSAL UV-C

Modular luminaire for disinfecting office rooms

- TC-L compact fluorescent lamps
- 2 x 36 W or 2 x 55 W
- Ceiling mounting or in suspended ceiling



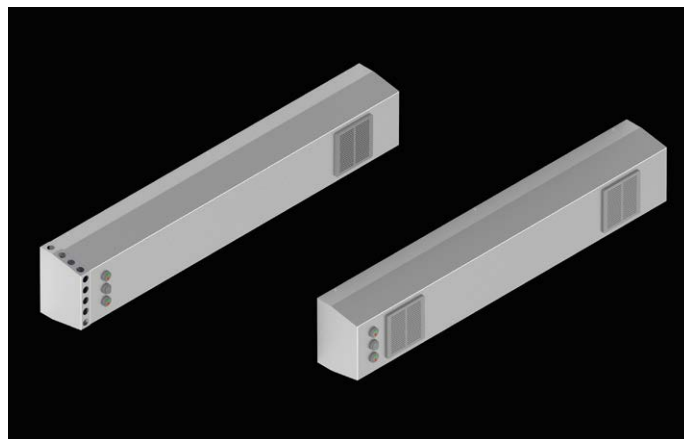
OKTAN UV-C

Compact floor-standing luminaire

- TC-L compact fluorescent lamps
- Small size, high power
- 1 x 36/55 W or 2 x 36/55 W
- Standing and portable luminaire
- Can be mounted on an optional portable stand



FLOW LUMINAIRE AIRSTREAM UV-C



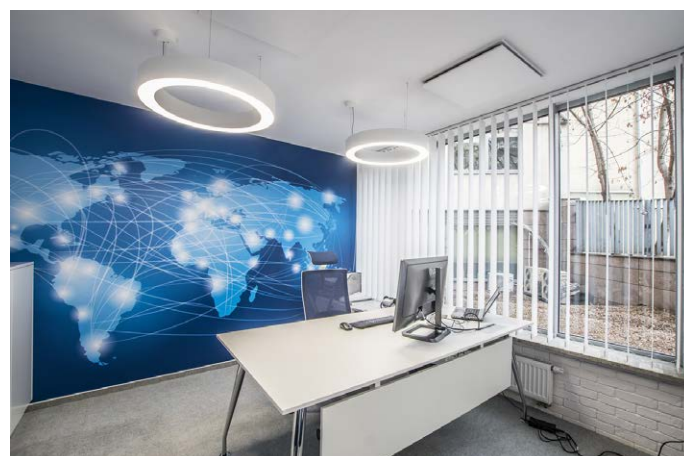
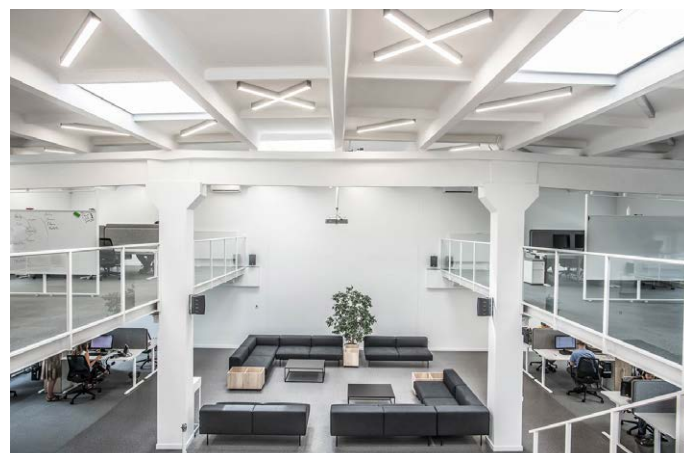
The most important features:

- ✕ A closed structure where the disinfection process takes place in an internal chamber
- ✕ Tight housing prevents air from flowing through the gaps
- ✕ Oblique construction protecting against dust settling
- ✕ Housing protected by anti-bacterial coat
- ✕ Power 1 x 30 W or 2 x 30 W
- ✕ The ignition system is placed in a separate chamber to protect against the ingress of pollen that can cause voltage breakdown on the housing
- ✕ The components used are resistant to UV rays
- ✕ Replaceable air filter to prevent pollen from entering the disinfection chamber
- ✕ Filter change without opening the housing
- ✕ Air inlet on the front together with the outlet grid air or with a filter on the end cap which ensures greater efficiency of governance.

Optional:

- ✕ Signaling system informing about burnout of light sources
- ✕ Protective foil for T8 sources (glass protection in case of a broken fluorescent lamp)
- ✕ Mounting on a dedicated stand
- ✕ Mounting on a dedicated stand with wheels

Bactericidal luminaire with forced air circulation, designed for T8 fluorescent lamps and adapted for wall mounting. It is a luminaire that has an internal closed and sealed disinfection chamber and the whole process takes place thanks to the air flow. Due to the fact that the entire disinfection process takes place inside the luminaire, it is completely safe and recommended for work in rooms where working staff must stay at the same time.



APPLICATION

Air purification

Ultraviolet (UV) purification is a very effective method to clean the air of biological pollutants such as bacteria, viruses and fungal spores. UV germicidal lamps can be installed in ventilation ducts to clean the air passing through them. UV air purification is more economical and efficient than other air filtration and cleaning methods.

For air purification in:

- ✕ Hospitals
- ✕ Doctors' practices
- ✕ Clean rooms
- ✕ Offices with or without air-conditioning systems
- ✕ Cars
- ✕ Storage rooms
- ✕ Food processing
- ✕ Rooms with frequent public access
- ✕ Animal stalls



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AGALINE UV-C

Bactericidal UV-C luminaires

The luminaire produced in a factory with ISO 13485 medical certificate



Bactericidal luminaire produced in the plant, which is the only one in Poland, it has a quality management system for production Medical Devices ISO 13485 - design certificate and making lighting fittings for medical use. luminaire dedicated for T8 emitting fluorescent lamps UV-C radiation in the wave range from 200 to 280 nm, effectively and irretrievably eliminating all viruses, bacteria and fungi. Housing made of steel with mounted reflector aluminum. Rotary holder included for a ceiling or wall mounting. Optional: installation on a dedicated stand allowing it to be left behind fixtures anywhere. Dedicated to disinfect rooms in hospitals, doctor's offices, processing plants and food warehouses, offices without air conditioning systems, public spaces used daily by a large number of people.



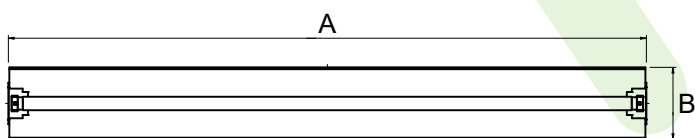
Pictograms:



Main parameters:

Name	Luminous flux LED [lm]	Power of luminaire [W]	Socket	Dimensions A x B x H [mm]
AGALINE W/GM UV-C	T8	1 x 15	G13	473 x 140 x 170
AGALINE W/GM UV-C	T8	1 x 30	G13	930 x 140 x 170
AGALINE W/GM UV-C	T8	1 x 36	G13	1235 x 140 x 170
AGALINE W/GM UV-C	T8	2 x 15	G13	473 x 140 x 170
AGALINE W/GM UV-C	T8	2 x 30	G13	930 x 140 x 170
AGALINE W/GM UV-C	T8	2 x 36	G13	1235 x 140 x 170

Technical drawing:



Light and electrical features:

Light source	T8
Voltage	220..240 V, 50..60 Hz
Lifetime of light source [h]	9000
Operating temperature range [°C]	5 ÷ 30
Driver	profesional ballast

Biocidal features:

Dominant wavelength [nm]	254
Range	1x15/30/36 W - to 6/10/12 m ² 2x15/30/36 W - to 12/18/25 m ²
UV-C Radiation intensity	1x15/30/36 W: 1,0 ÷ 2,1 W/m ² 2x15/30/36 W: 2,1 ÷ 2,8 W/m ²
Others	small amount of mercury no ozone
Photobiological risk class (IEC/EN 62471)	RG3 (high risk) Lamps can threat even during a short exposure. Using them together with general lighting is not allowed.
Optional	protective foil for T8 sources (glass protection in the case of fluorescent lamp cracks) version with bactericidal coating
Timer (optional)	Monitoring the hours of lamp source operation Modes of operation: Delayed shutdown Delayed switching on Cyclic shutdown Cyclical switching Delayed momentary switching on

Mechanical features:

Assembly	direct to the ceiling or on the wall (version W) on the portable stand with wheels (version GM)
Material	steel sheet
Color	white
Others (optional)	mounting on a dedicated stand mounting on a dedicated stand with wheels metal cover to protect the reflector and source protective grid motion sensor (turns off the luminaire in the case of detecting human presence)

Akcesoria*:

* - necessary for the version AGALINE GM UV-C

Name	STOJAK AGALINE / OKTAN 34
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Picture	



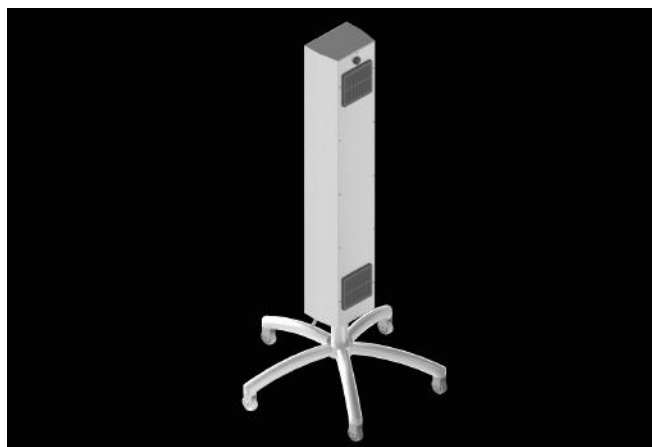
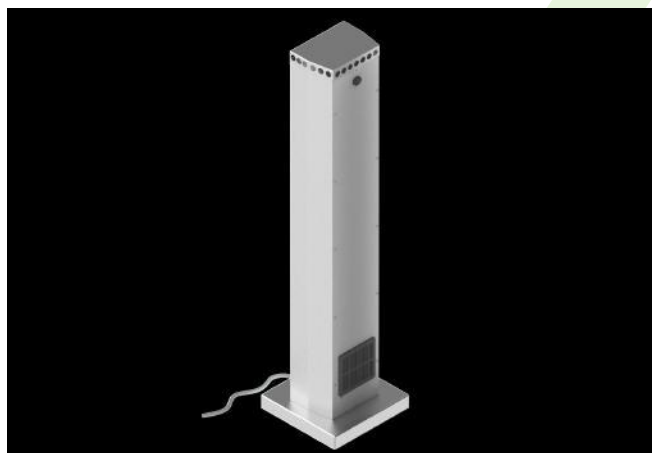
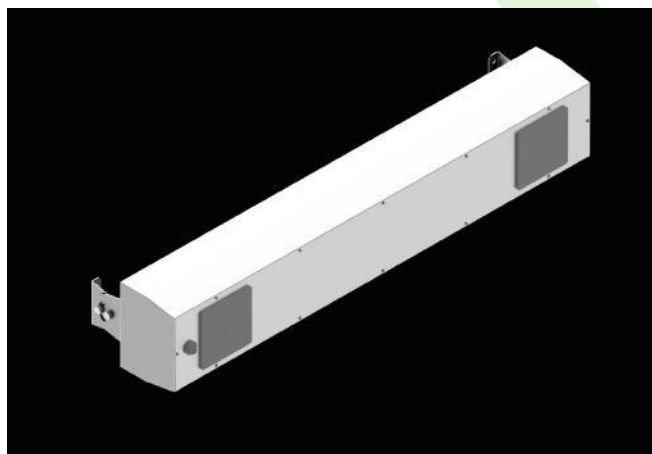
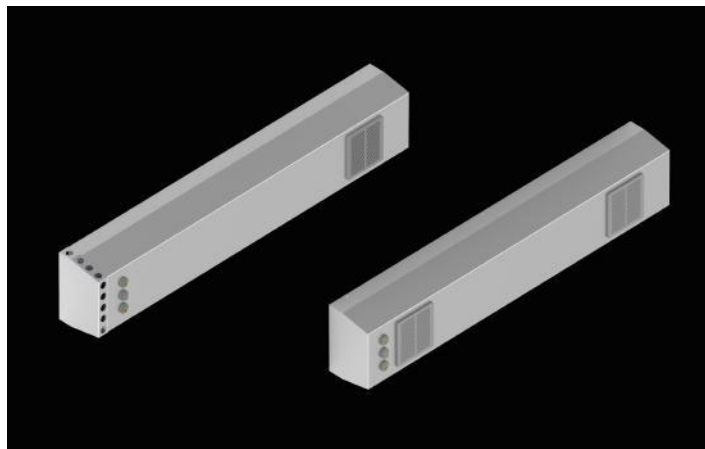
Specifications are subject to change.
Pictures of the luminaires may differ from reality.
Date of last update: 31-03-2020



AIRSTREAM UV-C

Bactericidal UV-C luminaires

The luminaire produced in a factory with ISO 13485 medical certificate



Bactericidal luminaire produced in the plant, which is the only one in Poland, it has a quality management system for production Medical Devices ISO 13485 - design certificate and making lighting fittings for medical use. Luminaire with forced air circulation, designed for T8 fluorescent lamps and adapted for wall mounting. This is a luminaire that has an internal closed and sealed chamber for disinfection and the whole process takes place thanks to the air flow. The high-quality housing does not draw air through the gaps but its the oblique design prevents dust from forming during horizontal work position. In addition, the housing is protected with an antibacterial coating. Ignition ballast placed in a separate and sealed chamber protected against the ingress of dust that may cause negative effects such as short circuit on the housing. The components used are UV-resistant: covered lampholders, power supply, cords and fan. Air inlet equipped comes with a replaceable filter to prevent dust from entering inside the luminaire. Filter replacement is carried out without necessity opening the entire luminaire. Built-in industrial fan in the outlet with ball bearings. Two variants of the air inlet:

- 1) inlet on the front together with the air outlet grille (F);
- 2) inlet together with a filter on the side end cap which ensures greater efficiency devices (S).

Due to the fact that the entire disinfection process takes place inside housing, it is completely safe and recommended for work in rooms where it must be at the same time with working staff.

Versions:

NS / NF – ceiling mounting

WS / WF – wall mounting

GS / GF – mounting on mobile floor stand

MGS / MGF – mounting on mobile floor stand with wheels

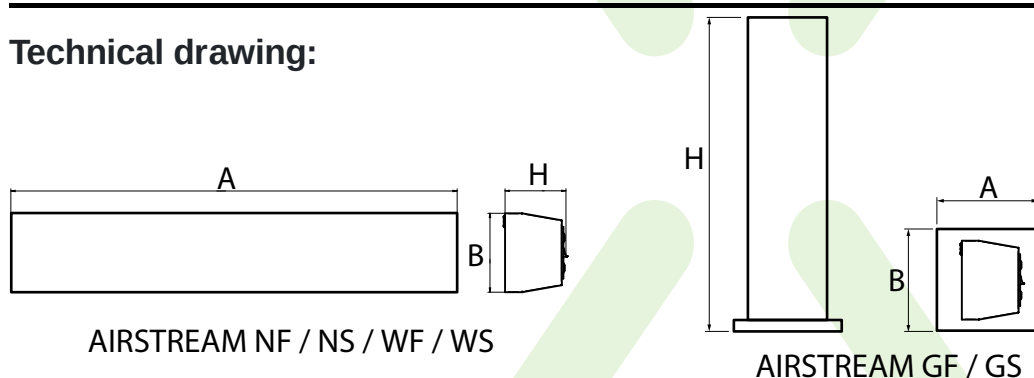
Pictograms:



Main parameters:

Name	Type of UV-C source	Power of luminaire [W]	Socket	Dimensions A x B x H [mm]
AIRSTREAM NS / WS UV-C	T8	1 x 30 / 2 x 30	G13	1030 x 180 x 140
AIRSTREAM NS / WS UV-C	T8	1 x 36 / 2 x 36	G13	1330 x 180 x 140
AIRSTREAM NF / WF UV-C	T8	1 x 30 / 2 x 30	G13	1000 x 180 x 140
AIRSTREAM NF / WF UV-C	T8	1 x 36 / 2 x 36	G13	1300 x 180 x 140
AIRSTREAM GS UV-C	T8	1 x 30 / 2 x 30	G13	1070 x 250 x 250
AIRSTREAM GS UV-C	T8	1 x 36 / 2 x 36	G13	1370 x 250 x 250
AIRSTREAM GF UV-C	T8	1 x 30 / 2 x 30	G13	1040 x 250 x 250
AIRSTREAM GF UV-C	T8	1 x 36 / 2 x 36	G13	1340 x 250 x 250

Technical drawing:



Light and electrical features:

Light source	T8
Voltage	220..240 V, 50..60 Hz
Lifetime of light source [h]	9000
Operating temperature range [°C]	5 ÷ 30
Driver	profesional ballast

Biocidal features:

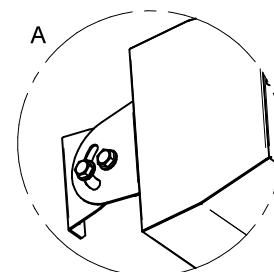
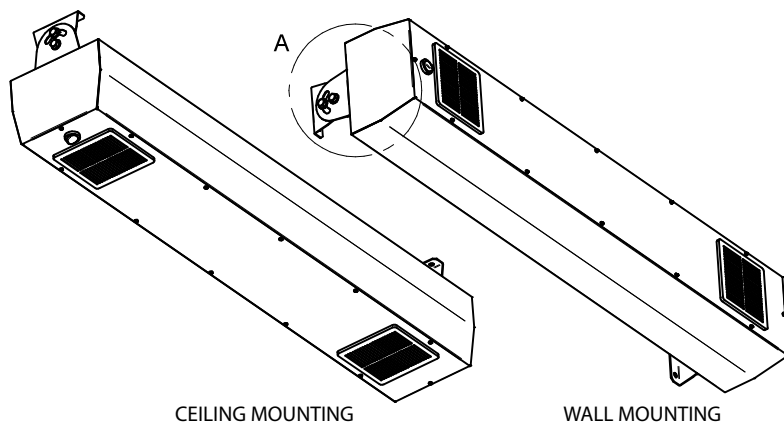
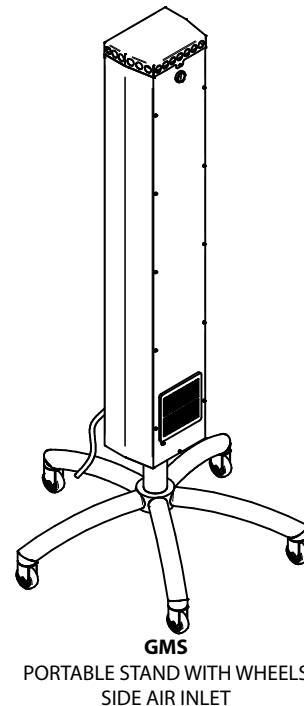
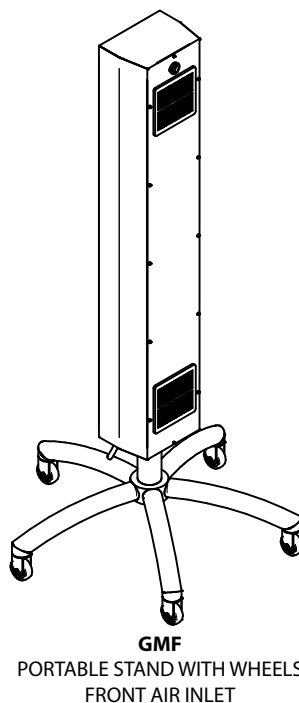
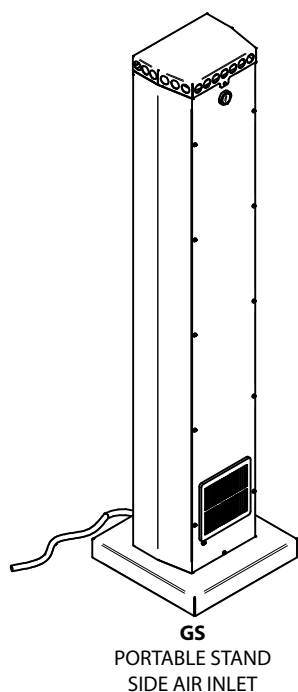
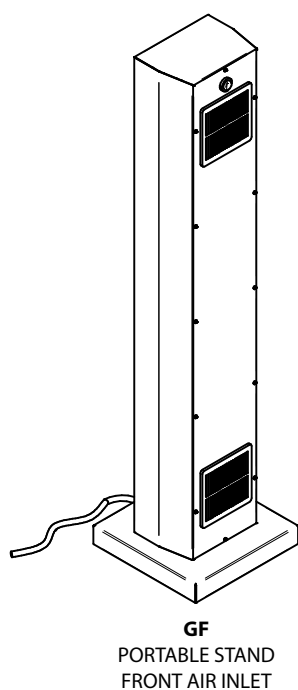
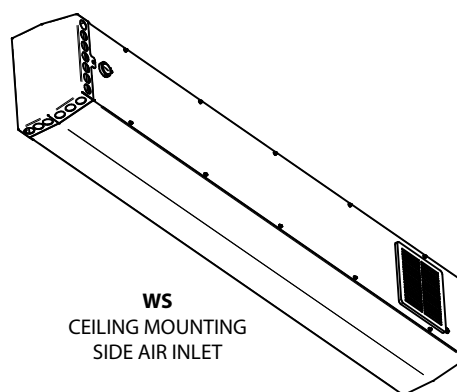
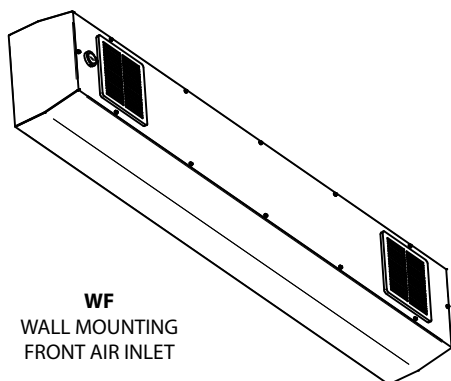
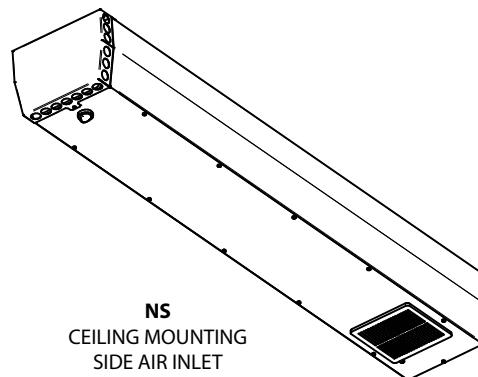
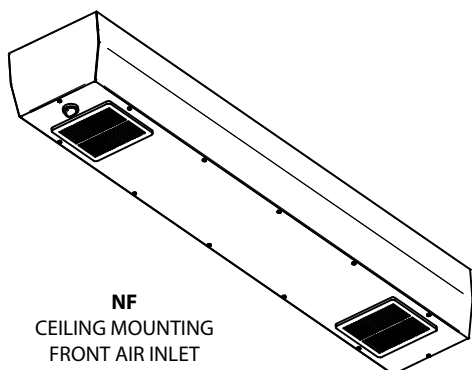
Dominant wavelength [nm]	254
Others	small amount of mercury no ozone
Fan efficiency	130 m³/h
Disinfected cubature	25÷50 m³/h
Max room size	10÷20 m²
Optional	protective foil for T8 sources (glass protection in the case of fluorescent lamp cracks)

Mechanical features:

Assembly	on the wall (version WS/WF) direct to ceiling (version NS/NF) on portable stand (version GS/GF) on portable stand with wheels (version GMS/GMF)
Material	steel sheet
Color	white (antibacterial paint)
Others (optional)	signalisation system informing about burnout of light sources
Timer (optional)	Monitoring the hours of lamp source operation Modes of operation: Delayed shutdown Delayed switching on Cyclic shutdown Cyclical switching Delayed momentary switching on
Accessories	rotary holders for wall/ceiling mounting (for version NF/WF/NS/WS)



Description



FOR VERSION NS / NF / WS / WF POSSIBILITY
TO ADD SET OF ROTARY HOLDERS



OKTAN UV-C

Bactericidal UV-C luminaires

The luminaire produced in a factory with ISO 13485 medical certificate



Bactericidal luminaire produced in the plant, which is the only one in Poland, it has a quality management system for production Medical Devices ISO 13485 - design certificate and making lighting fittings for medical use. Dedicated for TC-L compact fluorescent lamps. Compact design. Wall mounting. Optionally, it can be equipped with a portable stand, which is recommended for use in places where is no possibility of mounting the fixture permanently.



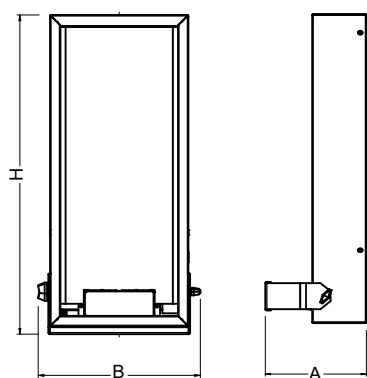
Pictograms:



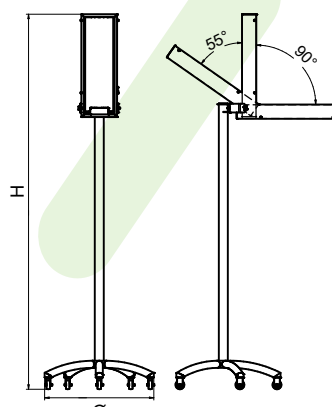
Main parameters:

Name	Luminous flux LED [lm]	Power of luminaire [W]	Socket	Dimensions A x B x H [mm]
OKTAN W UV-C	TC-L	2 x 36	2G11	150 x 234 x 575
OKTAN W UV-C	TC-L	2 x 55	2G11	150 x 234 x 575
OKTAN GM UV-C	TC-L	2 x 36	2G11	ø 600 x 2100
OKTAN GM UV-C	TC-L	2 x 55	2G11	ø 600 x 2100

Technical drawing:



OKTAN W UV-C



OKTAN GM UV-C

Light and electrical features:

Light source	TC-L
Voltage	220..240 V, 50..60 Hz
Lifetime of light source [h]	9000
Operating temperature range [°C]	5 ÷ 30
Driver	profesional ballast

Mechanical features:

Assembly	on the wall (version Oktan W) on portable stand with wheels (version Oktan GM)
Material	steel sheet
Color	white
Others (optional)	motion sensor (turns off the luminaire in the case of detecting human presence)

Biocidal features:

Dominant wavelength [nm]	254
Range	2x36W - do 20m ² 2x55W - do 30m ²
UV-C Radiation intensity	2x36W: 2,8W/m ² 2x55W: 3,6W/m ²
Others	small amount of mercury no ozone
Photobiological risk class (IEC/EN 62471)	RG3 (high risk) Lamps can threat even during a short exposure. Using them together with general lighting is not allowed.
Optional	version with bactericidal coating
Timer (optional)	Monitoring the hours of lamp source operation Modes of operation: Delayed shutdown Delayed switching on Cyclic shutdown Cyclical switching Delayed momentary switching on

Akcesoria*:

* - necessary for the version OKTAN GM UV-C

Name	STOJAK AGALINE / OKTAN 34
Indekx	0B1AO-ST
Picture	



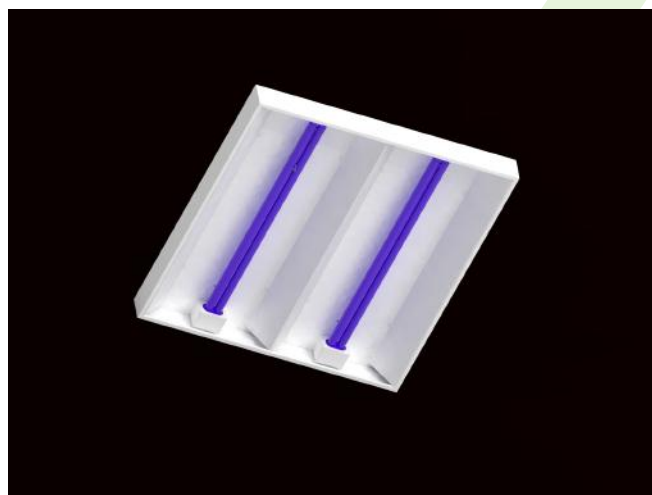
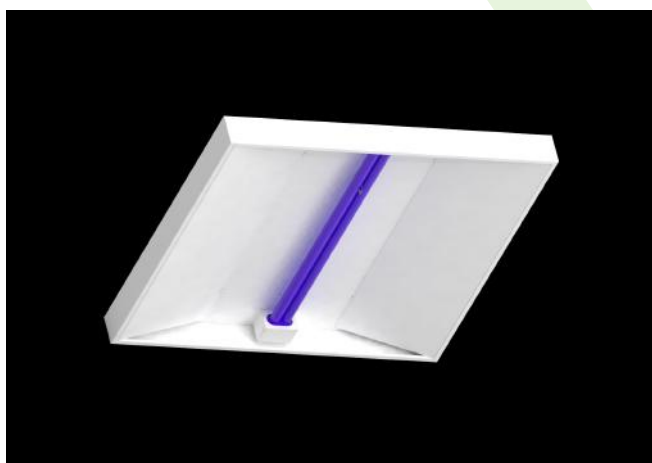
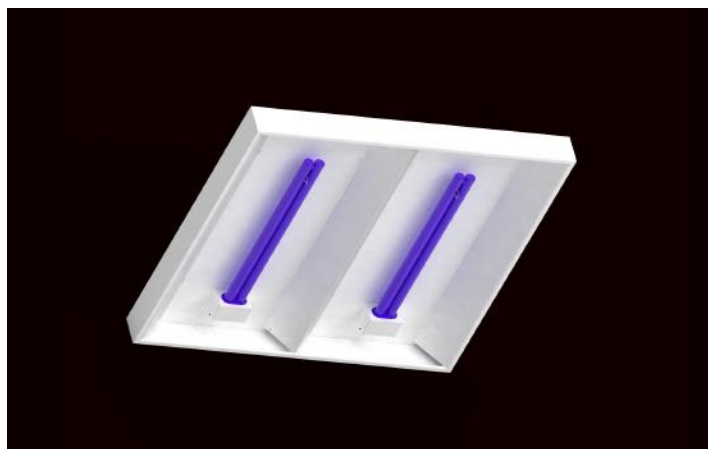
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Bactericidal UV-C luminaires

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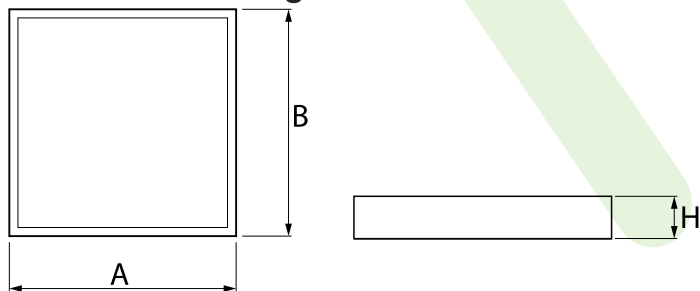
Pictograms:



Main parameters:

Name	Luminous flux LED [lm]	Power of luminaire [W]	Socket	Dimensions A x B x H [mm]
UNIVERSAL UV-C	TC-L	1 x 36	2G11	592 x 592 x 60
UNIVERSAL UV-C	TC-L	1 x 55	2G11	592 x 592 x 60
UNIVERSAL UV-C	TC-L	2 x 36	2G11	592 x 592 x 60
UNIVERSAL UV-C	TC-L	2 x 55	2G11	592 x 592 x 60

Technical drawing:



Light and electrical features:

Light source	TC-L
Voltage	220..240 V, 50..60 Hz
Lifetime of light source [h]	9000
Operating temperature range [°C]	5 ÷ 30
Driver	profesional ballast

Mechanical features:

Assembly	direct to the ceiling or in modular suspended ceiling or in plasterboard ceilings using a dedicated frame
Material	steel sheet
Color	white
Others (optional)	motion sensor (turns off the luminaire in the case of detecting human presence)

Biocidal features:

Dominant wavelength [nm]	254
Range	1x36/55 W - 13 to 15m ² 2x36/55 W - 20 to 30m ²
UV-C Radiation intensity	1x36/55 W: 1,0 to 1,9 W/m ² 2x36/55 W: 2,8 to 3,6 W/m ²
Others	small amount of mercury no ozone
Photobiological risk class (IEC/EN 62471)	RG3 (high risk) Lamps can threat even during a short exposure. Using them together with general lighting is not allowed.
Optional	version with bactericidal coating