



LUXIBEL[®]

UVC DISINFECTION SYSTEMS

AN ADDITIONAL LAYER OF SAFETY IN PUBLIC SPACES

Anti-Covid-19

www.luxibel.com



UVC DISINFECTION SYSTEMS

Increasingly, we spend more time indoors, for example at work, in airplanes, schools and shopping malls.

The air we breathe in these environments is anything but clean. In fact, it's often re-circulated along with all the bacteria, viruses, pollen, smoke and toxic gases that are trapped along with it.

In hospitals this can be a real problem. hospital-acquired infections affect around 10% of patients during their stay. And there is increasing evidence that up to 20% of these infections, like the flu, moulds, pneumonia and MRSA, is transmitted via the air, at a huge price,

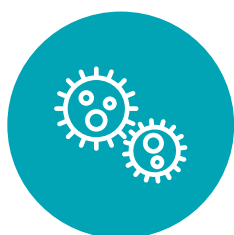
both in terms of human life and financial costs. Tuberculosis is even 100% transmitted via the air. Luxibel UVC purification lamp systems provide a safe, reliable and sustainable solution. Ideal for use in ventilation air ducts, air disinfection units or stand-alone air purifiers.

These types of **UVC purification systems** from **Luxibel** can also be used for **surface** and/or **air disinfection** in the food and beverage industries, hospital rooms, pharmacy shops, surface disinfection in public transport like buses, airplanes etc. They help protect against airborne pathogens, creating a safer and healthier indoor environment with the power of light.

Made in Europe with high quality Philips light sources.



CAN UVC HELP PREVENT COVID-19 TRANSMISSION BY REDUCING CONTAMINATION?



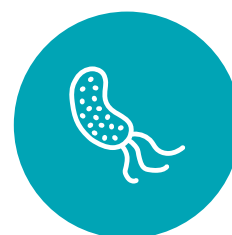
Antibacterial



Antivirus



Antifungal



Anti-mold

The International Ultraviolet Association (IUVA) believes that UV disinfection technologies can play a role in a multiple barrier approach to reducing the transmission of the virus causing COVID-19, SARS-CoV-2,

based on current disinfection data and empirical evidence. UV is a known disinfectant that can help to mitigate the risk of acquiring an infection in contact with the COVID-19 virus when applied correctly.

BENEFITS OF UVC TECHNOLOGY



Effective

UVC radiation has been proven to be effective against waterborne and airborne pathogenic micro-organisms including those responsible for cholera, hepatitis, polio, typhoid, giardia, cryptosporidium and many other bacterial, viral and parasitic diseases.



Measureable

The UVC disinfection effect is directly related to the UV dose (which is the product of intensity and exposure time of the micro-organisms) so its effectiveness can be simply measured once the system design is validated.



Instant result

UVC radiation works instantly and the effectiveness does not depend on the temperature.



Eco-friendly

UVC technology is environmentally friendly and has no harmful effect when overdosed on surfaces, water or air.



Low-cost

UVC installations have low capital and operation cost.



Physical process

UVC disinfection is a physical process: no chemical substances are added.





UVC IS APPLICABLE IN ALL PUBLIC SPACES

Signify, the world leader in lighting, together with the National Emerging Infectious Diseases Laboratories (NEIDL) at Boston University in the US have conducted research that validates the effectiveness of Signify's UV-C light sources on the inactivation of SARS-CoV-2, the virus that causes COVID-19.

Since the start of the SARS CoV-2 pandemic, Dr. Anthony Griffiths, Associate Professor of Microbiology at Boston University School of Medicine and his team have been working on developing tools to support scientific advancement in this field. During their research, they have treated inoculated material with different doses of UV-C radiation coming from a Signify light source and assessed the inactivation capacity under various conditions. The team applied a dose of 5mJ/cm², resulting in a reduction of the SARS-CoV-2 virus of 99% in 6 seconds. Based on the data, it was determined that a dose of 22mJ/cm² will result in a reduction of 99.9999% in 25 seconds.

"Our test results show that above a specific dose of UV-C radiation, viruses were completely inactivated: in a matter of seconds we could no longer detect any virus. We're very excited about these findings and hope that this will accelerate the development of products that can help limit the spread of COVID-19," Dr. Griffiths added.

Signify is the leader in UV-C light sources and has been at the forefront of UV technology for more than 35 years. It has a proven track record of innovation in UV-C lighting, which is designed, manufactured and installed in line with the highest safety standards.

Eric Rondolat (CEO of Signify): "I'm very happy about the fruitful cooperation with Boston University in the fight against the coronavirus. Boston University has validated the effectiveness of our light sources as a preventive measure for companies and institutions

as they seek ways to provide virus-free environments. Given the potential of the technology to aid the fight against the coronavirus, Signify will not keep the technology for its exclusive use but make it available to other lighting companies. To service the growing need for disinfection we will increase our production capacity multifold in the coming months."

Source: www.signify.com





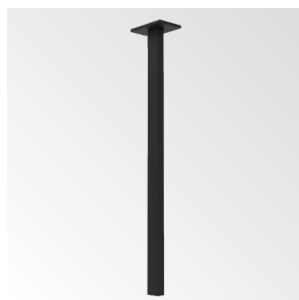


B DIRECT FAMILY

The B Direct family comes in two versions: **B Direct** and **B Direct II**. Both disinfect air and surface, prevent secondary infections and eliminate bacteria, viruses and fungal and mold spores in the air. Use in production halls, hospitals, health care facilities, pharmacies, public transport and many more. All direct radiating fixtures are equipped with a double security with movement sensor and LED light + sound alarm.

- Lamp life: > 9.000hrs
- Disinfection time < 15min
- Mounting: wall, ceiling or tripod
- 360° RF movement sensor
- Visual and audio alarm (70dB)
- Protective foil for lamp (on request)
- Lamp replacement: once a year

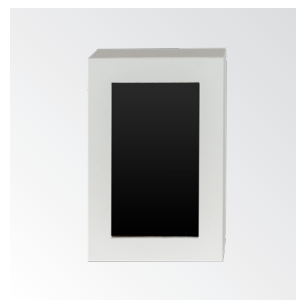
Available accessories



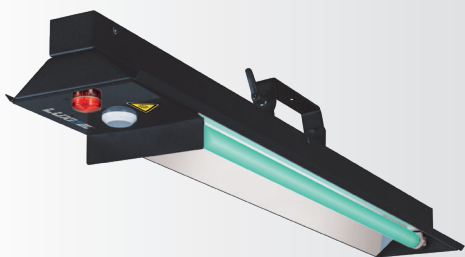
Mounting arm



Wireless individual control



Movement sensor



Available in any RAL colour on request

B DIRECT

💡 1x TUV 55W HO

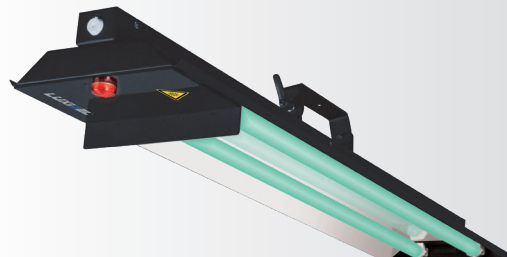
☂ IP20

⚡ 57W AC 230V - 50Hz

 1.080 x 135 x 164 mm | 42.52 x 5.31 x 6.5 in

📦 5kg | 10lb

Irradiance @ 1m: 150 microW/cm³



Available in any RAL colour on request

B DIRECT II

💡 2x TUV 55W HO

☂ IP20

⚡ 112W AC 230V - 50Hz

 1.080 x 135 x 245 mm | 42.52 x 5.31 x 9.65 in

📦 5,3kg | 11.7lb

Irradiance @ 1m: 300 microW/cm³

B HYBRID

The **B Hybrid** combines direct and indirect disinfection. The indirect module makes 24 hour disinfection possible in the presence of people and animals. It eliminates airborne bacteria, viruses and fungal and mold spores. Use in production halls, health care facilities, pharmacies, public transport, shops and many more.



Available in any RAL colour on request

- Lamp life: > 9.000hrs
- Disinfection time < 15min
- Mounting: wall, ceiling or tripod
- Recommended uptime: 24h
- 360° RF movement sensor
- Visual and audio alarm (70dB)
- Lamp replacement: once a year
- Air filter replacement: twice a year recommended
- Irradiance @ 1m: 150 microW/cm³

117m³/h fan capacity

1x TUV 55W HO

2x TUV 55W HO

IP20

184W AC 230V - 50Hz

1.150 x 235 x 320 mm

45.28 x 9.25 x 12.6 in

14,7kg | 32.41lb

Available accessories



Mounting arm



Wireless individual control



Movement sensor
(standard incl.)



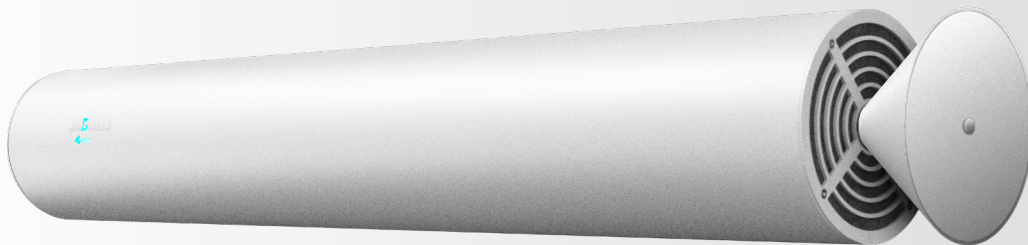
Replacement set:
dust filter with carbon



B AIR V2

The **B Air V2** takes care of 24h air disinfection in the presence of people and animals and eliminates bacteria, viruses and fungal and mold spores in the air. This indirect UVC air disinfection unit can be used in production halls, health care facilities, pharmacies, public transport, shops and many more.

The B Air V2 comes with a B Nozzle standard included to use Luxibel's patented Mid-Air Disinfection System (MADS).



Available in any RAL colour on request

- Lamp life: > 9.000hrs
- Mounting: wall, ceiling or tripod
- Recommended uptime: 24h
- Lamp replacement: once a year
- Air filter replacement: twice a year recommended
- B Nozzle (Mid-Air Disinfection System)

117m³/h fan capacity

2x TUV 55W HO

IP20

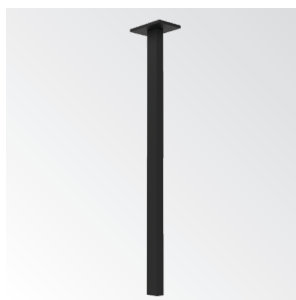
129W AC 230V - 50Hz

1.150 x 180 x 235 mm

45.28 x 7.09 x 9.25 in

9kg | 19.8lb

Available accessories



Mounting arm



Wireless individual control



B Nozzle
(standard incl.)



Replacement set:
dust filter with carbon



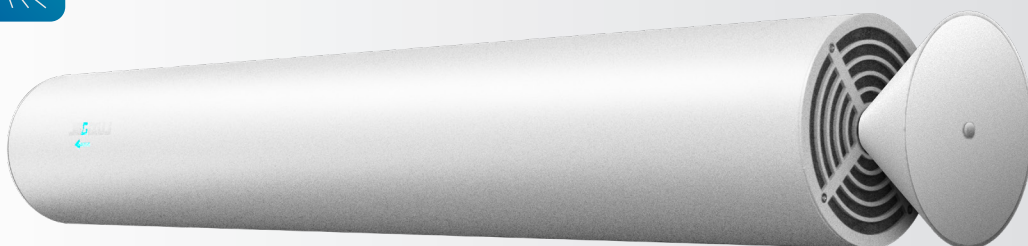


MID-AIR DISINFECTION SYSTEM (MADS)

THE COMBINATION OF UVC AIR DISINFECTION AND AERODYNAMICS

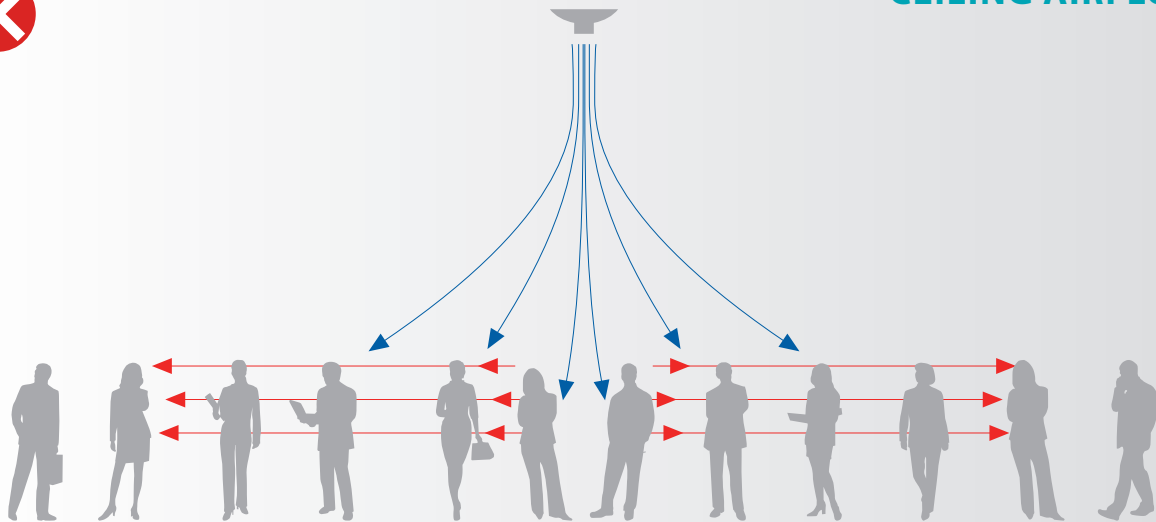
The **MADS** system is developed for larger spaces with an audience where air circulation needs to be taken into account. The main advantage of this installation is ensuring that the air breathed out by guests is sucked upwards by the **aerodynamically-patented system**. Micro-organisms such as bacteria and viruses are neutralised and germ-free air is blown back into the room or venue. When we meet up in enclosed spaces with groups of people, air disinfection will contribute to reducing infection rates.

Signify (formerly Philips Lighting) published the results of tests on UVC light on the coronavirus. Through scientific testing by researchers at Boston University they concluded that UVC radiation is highly effective in neutralizing the coronavirus. There is no risk of harmful radiation to people, as Luxibel carries out the UVC disinfection process within a fully-enclosed device.

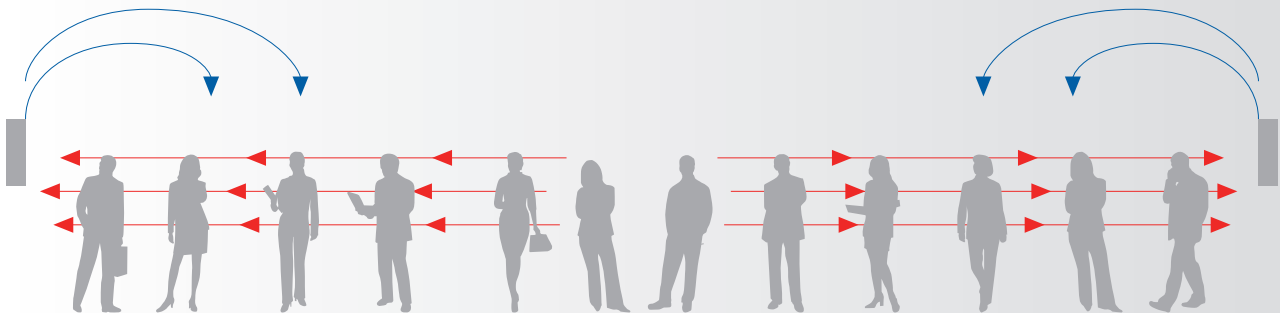




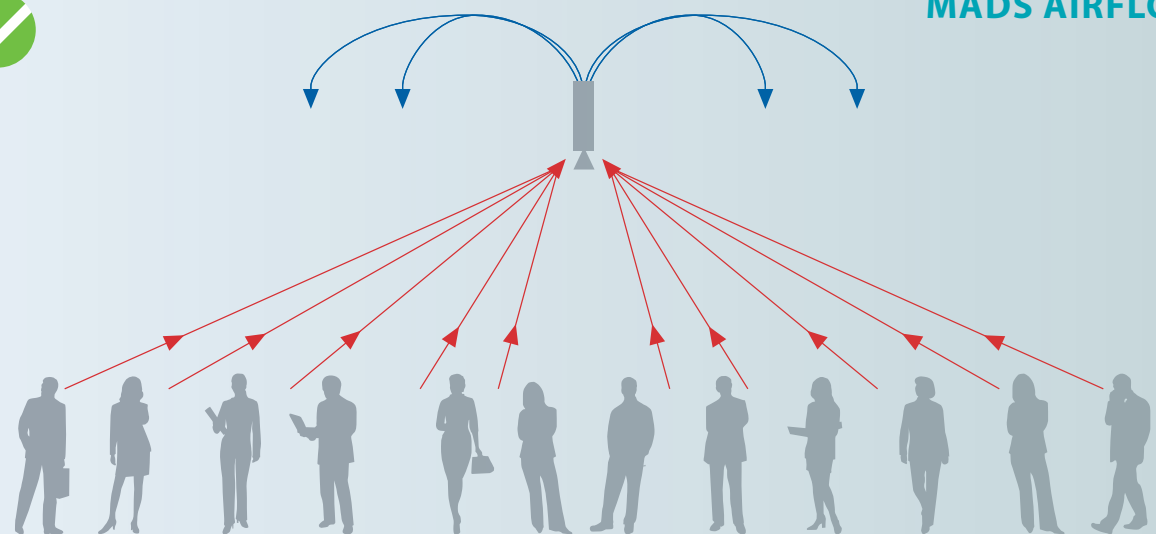
CEILING AIRFLOW



WALL AIRFLOW



MADS AIRFLOW



All representations above are in scale 1:60.

EXTRA INFORMATION



Though there hasn't been any research looking at how UVC affects Covid-19 specifically, studies have shown that it can be used against other coronaviruses, such as Sars. The radiation warps the structure of their genetic material and prevents the viral particles from making more copies of themselves. As a result, a concentrated form of UVC is now on the front line in the fight against Covid-19.

- BBC

Articles

IUVA Fact Sheet on UV Disinfection for COVID-19

International Business Times: Can UV Light Kill Coronavirus?

Digital Trends: UV light is nature's disinfectant

Research shows airflow needed to prevent spread of COVID-19 in business and restaurants

Videos

Similar solutions available for UV radiation have already been selected from various cities in this city of Shanghai, where UV disinfection is available on all city buses.

Fox News: coronavirus spreads from a single cough in a supermarket

Fight germs with UV-C lighting

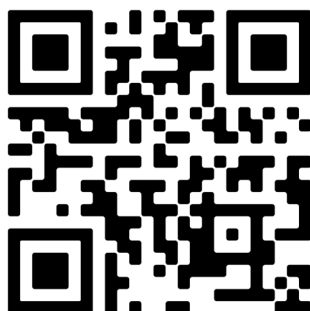




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