

# Germicidal UV luminaires and solutions

We are living in unprecedented times. In the face of a global pandemic, Alkco germicidal UV luminaires utilize Signify UV-C technology to offer a layer of disinfection against bacteria, viruses, and fungal spores. Air and surface disinfection can play an important role in a broad range of applications such as schools, offices, industry, (food) retail and museums.

# Why UV-C?

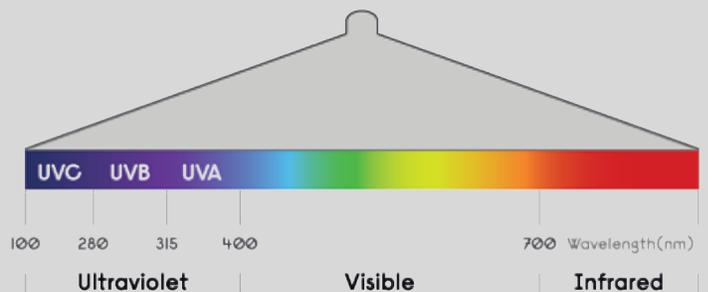


## The reason is simple...

UV-C radiation is a proven disinfectant for air, surfaces and water. It has been used extensively to mitigate the risk of acquiring infections for more than 40 years<sup>1</sup>. Many hundreds of bacteria and viruses have been tested to date, including various Coronaviruses, and all respond to UV-C radiation<sup>2</sup>. In laboratory testing, Signify's UV-C light sources inactivated 99% of SARS-CoV-2 virus on a surface with an exposure time of 6 seconds<sup>3</sup>. This is a clear indication that UV-C light can provide a sense of security in your disinfection strategy.

## How does UV-C work?

In the light spectrum, UV-C is found within the 100 to 280 nanometer (nm) range. It has a specific wavelength of 253.7nm, at which wavelength UVC light breaks down the DNA of bacteria, viruses and spores. This renders them harmless so they cannot replicate or cause disease.<sup>4</sup>



**Note:** The products depicted herein are not approved and/or certified as medical devices.

1. EPA Report, "Building Retrofits for Increased Protection Against Airborne Chemical and Biological Releases" Pg. 56.  
2. Fluence (UV Dose) Required to Achieve Incremental Log Inactivation of Bacteria, Protozoa, Viruses and Algae Revised, updated and expanded by Adel Haji Malayeri, Madjid Mohseni, Bill Cairns and James R. Bolton. With earlier contributions by Gabriel Chevretils (2006) and Eric Caron (2006) With peer review by Benoit Barbeau, Harold Wright (1999) and Karl G. Linden.  
3. Data made available to us by the National Emerging Infectious Diseases Laboratories (NEIDL) at Boston University (to be the subject of a forthcoming scientific publication) shows that Signify's UV-C light sources irradiating the surface of a material inoculated with SARS-CoV-2 (the virus that causes the COVID-19 disease) resulted in a 99% reduction of the SARS-CoV-2 virus at a UV-C dose of 5mJ/cm<sup>2</sup> (exposure time 6 seconds). This study further determined that a 99.9999% reduction of the SARS-CoV-2 virus would result from applying a UV-C dose of 22mJ/cm<sup>2</sup> (exposure time 25 seconds). Research variables are available upon request.  
4. A comparison of pulsed and continuous ultraviolet light sources for the decontamination of surfaces. McDonald K.F., Curry R.D., Clevenger T.E., Unklesbay K., Eisenstark A., Golden J., Morgan R.D. IEEE Trans. Plasma Sci. 2000;28:1581-1587. doi: 10.1109/27.901237.

# Signify UV-C



Signify is the market leader in UV-C light sources and has been manufacturing UV-C products for more than 30 years.



## Reliable Technology

All Signify UV-C low pressure mercury lamps contain a unique coating on the inner glass wall. This helps ensure the UV-C output never drops below 85% of initial output over the Rated Average Life<sup>1</sup> of the lamp.



## Proven Experience

We have a proven track record in innovative UV-C technology optimized for each application. All backed by solid development support.



## Application Knowledge

Signify is a leading manufacturer in providing solutions for professional purposes across a variety of applications. Our lighting products, systems and services enable our customers to have a unique quality of light and make people's lives safer and comfortable.



## Lowest Mercury Content

Our unique mercury capsules help optimize performance with precise dosing using very little mercury in the lamps, and no mercury emission during manufacturing.

1. Rated Average Life means the average length of operation at which point 50% of the lamps will be operational and 50% will not (B50).

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# UV-C Luminaires



### Germicidal UV indirect wall

1 lamp T5 Philips TUV (UIW120-UNV-1/1-EB)

- Precision formed 18 gauge cold-rolled steel housing
- High quality powder coated finish in matte white
- Specular aluminum reflector
- Die-cast aluminum end caps
- Electronic ballast
- Lamps are included with luminaire<sup>1</sup>



### Germicidal UV strip

1 or 2 lamp T8 Philips TUV (UST236-UNV-1/2-EB)

- Multiple knockouts for convenient installation
- Heavy duty channel of code gauge die formed steel
- High reflectance white baked enamel finish
- Quarter turn latch secures channel cover for easy wireway access
- Lamps are included with luminaire<sup>1</sup>



### Germicidal UV high bay

4 or 6 lamp T8 Philips TUV (UHB436-UNV-2/2-EB)

- Steel housing with white polyester powder finish
- Locking lamp-holders provide positive contact and secure retention of lamps
- Optional black external housing makes the luminaire disappear into unpainted ceilings
- Electronic ballast(s)
- Lamps are included with luminaire<sup>1</sup>



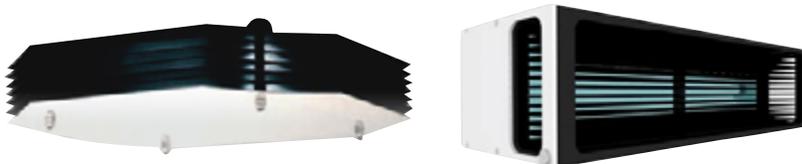
### Germicidal UV indirect industrial

1 or 2 lamp T8 Philips TUV (UIN236-UNV-1/2-EB)

- Steel housing and end caps with white polyester powder finish
- Locking lamp-holders provide positive contact and secure retention of lamps
- Optional black external housing makes the luminaire disappear into unpainted ceilings
- Provided 7/8" K.O. at each end of the luminaire for wiring
- End caps include mounting holes to use with chain or cable hangers (sold separately)
- Specular aluminum reflector
- Electronic ballast(s)
- Lamps are included with luminaire<sup>1</sup>

## Coming soon!

Germicidal ceiling and wall mount fixtures



1. Lamps shipped separately.

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# UV-C Solutions

## BioShift Pass-Through UV-C Chambers

- Chemical-free disinfection that inactivates a majority of viruses in a recommended five-minute disinfection cycle
- Maximizes bio-security protocols with easy-to-use, one button operation
- Digital LCD display with count-down timer and lamp maintenance log
- Heavy-duty stainless-steel chamber with rugged shelving supports heavy items
- Provides an effective disinfection option where no other methods exist
- Not intended to be used to disinfect medical devices.



## The power to protect in real-world applications



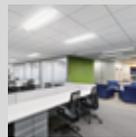
### Retail

Keep shelves and counters free from contamination



### Schools

Disinfect the classroom walls, floors, desks and surfaces



### Offices

Neutralize work rooms, meeting spaces and corridors



### Banking

Disinfect counters, cash machines and work surfaces



### Hospitality

Protect guest rooms, health facilities and reception areas



### Restrooms

Sterilize vanity units, basins and mirrors



### Grocery

Eliminate bacteria on preparation surfaces and equipment



To learn more about Signify UV-C Luminaires & Solutions, please visit

[www.signify.com/en-us/innovation/uv-c](http://www.signify.com/en-us/innovation/uv-c)

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