Just the FAQs
About 365DisInFx™ UVC technology

365DisInFx™ technology

What is UV light?

We are exposed to the ultraviolet (UV) light spectrum every time we step outside into the sun. Ultraviolet light is a form of electromagnetic radiation that can also be emitted from man-made sources, like tanning lights.

There are three types of UV radiation—UVA, UVB and UVC—that are classified according to wavelength (from 100 nm to 400 nm). Lower wavelength sources emit less energy, and higher wavelength sources emit more energy.

UVA (315–400 nm) has the least energy of UV rays. UVC (200–280 nm) has the most energy of UV rays. And UVB (280–315 nm) is in between.

How does UVC fight germs?

Certain UVC wavelengths offer germicidal benefits by degrading the genetic structure (i.e., DNA) of viruses to the point they cannot replicate. UVC disinfection has been used in hospitals for years and increasingly in public spaces as emerging data supports UVC applications at doses below exposure levels defined by the International Electrotechnical Commission (IEC) and American Conference of Governmental Industrial Hygienists (ACGIH®).

Is UV safe for people?

Just like the sun, UV radiation from man-made sources can pose a risk of personal injury as overexposure can result in damage to eyes and bare skin. To reduce risk of overexposure, equipment must be installed in accordance with manufacturers' site planning and application recommendations. Today, LED products that more effectively deliver low UV doses (compared to traditional light sources like mercury lamps) are making UV disinfection more practical in occupied places.

Is your new product safe for people?

365DisInFx™ LPU Series devices from GE Current, a Daintree company, when installed and used as directed, operate under the limits specified by IEC 62471 photobiological safety standard for lamps and lamp systems for continuous 24-hour exposure in occupied spaces. We have also taken steps to assure that our products, when installed and used correctly, provide a UVC dose that is below ACGIH Threshold Limit Values (TLVs®) for exposure up to 24 hours a day.

Both the IEC 62471 standard and the ACGIH TLVs guidelines have been extensively researched and are based on human and laboratory studies. CIE Technical Report 187:2010 "UV-C Photocarcinogenesis Risks from Germicidal Lamps" provides additional information and calculations based on these and other studies, including quantification of risk. These reports and guidelines informed design decisions on the wavelengths, emission levels, durations and applications of UVC in Current's solution.

Is it effective against seasonal viruses and SARS-CoV-2, the virus that is known to cause COVID-19?

Current has completed in-situation testing with 365DisInFx™ UVC disinfection technology LPU devices on the aerosolized virus, bacteriophage MS2. Bacteriophage MS2 is a nonenveloped virus that is commonly used as a surrogate for viruses that are pathogenic to humans. Bacteriophage MS2 is generally understood to be more resistant than enveloped viruses (which include coronaviruses) to UVC.

The bacteriophage MS2 testing resulted in an 88% inactivation of the aerosolized virus in a 10' x 10' room in four hours. Based on these bacteriophage MS2 results, Current predicts continuous operation of the 365DisInFx™ LPU device will provide a 1-log reduction (90%) in less than three hours and a 2-log reduction (99%) in less than six hours for seasonal coronaviruses and SARS-CoV-2 in a typical room application.

What is a log reduction?

Log reduction is a tenfold measure of the reduction of the number of living ("active") pathogens in a space. Microbiologists use the logarithmic scale to make large numbers smaller and easier to work with.

To understand a 1-log reduction, imagine a room having 1,000 active virion—using UVC disinfection, this number would be reduced to 100 over the specified time interval (or 100 reduced to 10, and so forth).

Can I stop using masks and wipes?

No. 365DisInFx™ LPU devices provide an additional tool for helping to reduce airborne pathogens and should be used in conjunction with proper PPE, cleaning protocols and HVAC filtration as part of a complete indoor disinfection strategy. More information about how to protect yourself and others is provided by the CDC.

Where is your technology intended for use?

We envision continuous disinfection solutions for public spaces such as hospitals, schools, fitness centers, offices, stores, senior living facilities, food processing plants—any place where every precaution counts. Our focus is on shared spaces and high-traffic areas such as elevators, cafeterias, restrooms, gyms, changing rooms and meeting rooms where 365DisInFx™ LPU devices can be additive to other disinfection practices.

Our products are not intended for use as a stand-alone solution or for use as medical devices and have not been approved for such uses under any applicable laws.

365DisInFx™
UVC technology

About 365DisInFx™ LPU Series

Can anyone install your product?

No. Installation of 365DisInFx™ LPU devices should be performed only by qualified professionals as detailed in Current's installation guide.

Does it require lighting controls?

Our LPU Series does not require lighting controls.

What is the life of your product?

Assuming 24-hour operation and correct professional installation, the LPU Series should provide continuous air disinfection for approximately one year.

Will I eventually need to purchase a new unit?

Yes. The LPU Series is designed with a detachable UV-LED module that can be easily replaced.

How much does it cost?

Consult your Current rep or lighting agent for pricing and availability.

What coverage area does it provide?

On a typical 10-foot ceiling in a commercial building, a likely spacing would be a 6-foot-by-6-foot grid.

Is mounting height important?

Yes, the intensity of the device is preprogrammed at our factory to provide the proper and intended irradiance levels for specific mounting heights. Consult our LPU Series installation guide for more detail.

Does your product emit light?

The LPU Series emits UVC light, which is invisible to the human eye. We have designed our product with LED indicator lights to communicate device status, including when it is emitting UVC light.

Can I use it at home?

Our UV solutions are not recommended for dwellings or home use.

Why Current?

We believe light can bring us back together. Starting with Thomas Edison, we have always innovated with the goal of advancing our world. By applying our expertise to aid with disinfection, we hope to help create cleaner spaces by fighting germs throughout the day.

Current holds patents on applications leveraging the light spectrum that transmits rays for antibacterial efficacy. Patents are also pending for applications providing antiviral efficacy. We understand the light spectrum and how to harness specific benefits in LED luminaires.

Returning to old routines requires new products that are always vigilant. We are the first name in light with a reputation for responsible, transformative solutions that are second to none.

Ask an expert about continuous disinfection in occupied spaces.

GE current
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