

FAQ – Myth of UV-C

Frequently Asked Questions

Question: How does UV-C LED Lighting work?

Answer: UV-C LED works through damaging the DNA and RNA of microorganisms and preventing them from reproducing, which then inhibits the spread of illnesses. UVGI is 99.9% effective in killing microorganisms and preventing the spread of bacteria.

Question: Do germicidal lamps kill viruses?

Answer: UVGI wavelengths are able to deactivate viruses, helping to prevent them from being spread. Once deactivated, the virus dies. UVGI lamps have been proven to be 99.9% effective against viruses.

Question: Can UV-C effectively inactivate the SARS-CoV-2 virus?

Answer: Yes , if the virus is directly illuminated by UV-C LED at the effective dose level. Several groups have demonstrated that UVC radiation can quickly deactivate the SARS CoV 2 virus that causes COVID-19. To be effective, however, the delivery dose needs to be high enough. The higher the dose, the faster the process, and the greater the percentage of virus deactivated.

Question: How much Intensity do I need to kill certain organisms?

Answer: The exposure of germicidal ultraviolet is the product of time and intensity. High intensities for a short period and low intensities for a long period are fundamentally equal in lethal action on bacteria.

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Question: Is UVC Light safe for Humans?

Answer: With proper PPE, yes. UVC is completely safe when the eyes and skin are protected. Without any PPE, prolonged, direct exposure to UVC light can cause temporary skin redness and eye irritation, but does not cause skin cancer or cataracts.

Question: How is UV-LED different from conventional UV Lamps (mercury lamps)?

Answer: Unlike conventional UV lamps , UV-LEDs are more compact and require less power. Other than power requirement , one major difference is that UV lamps contain mercury which is hazardous heavy metal. UV-LEDs do not contain mercury and are environmental friendly alternative of traditional UV lamps.

Question: Will UV-C LED lighting damage materials?

Answer: Many types of materials will slowly degrade with extended exposure to UVC materials. The type and extent of damage depend on the materials exposed.

Question: How long should I wait after the LED UVGI downlight is turned off before I can step in the room?

Answer: Biological effects of UV radiation (e.g., to the eye and skin) are limited when receiving direct exposure. UV-C radiation produces no toxic byproducts (including air emissions and volatile compounds), so you can safely enter the room when the system does not emit UV-C (including soon after switched off).

Question: Is it safe if I am pregnant?

Answer: The UV-C radiation from lighting is used to sterilize surfaces and air, but it cannot penetrate the dead layer of skin that lines the surface of your body. Since the radiation cannot penetrate your body, there is no effect of the UV-C light on your unborn baby.

