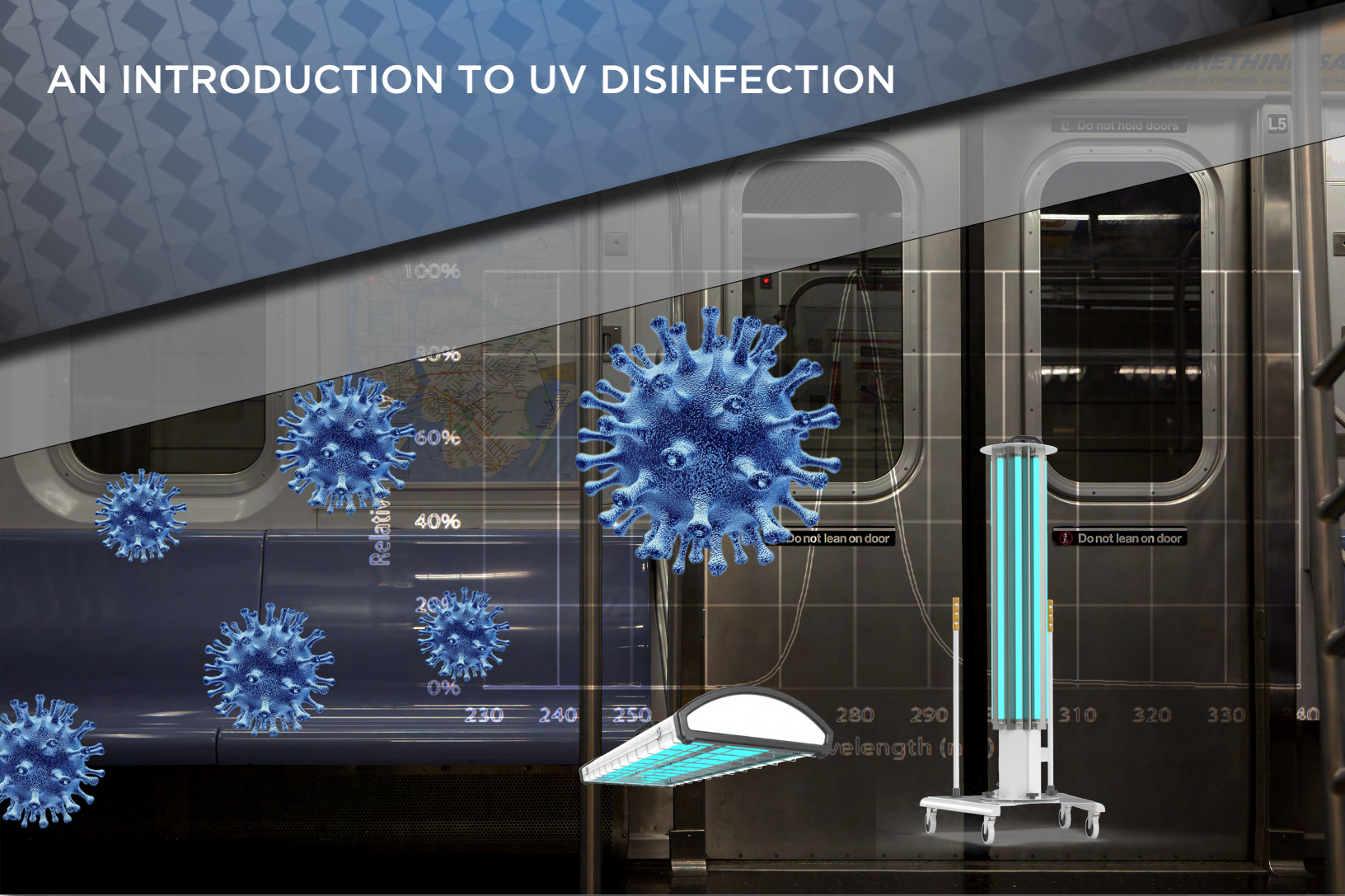


UV-C HIGH POWER ULTRAVIOLET DISINFECTION SYSTEM

INACTIVATES BACTERIA AND VIRUSES

AN INTRODUCTION TO UV DISINFECTION



What is Ultraviolet (UV) Light?

Ultraviolet (UV) rays are the wavelengths outside of the visible light portion of the electromagnetic spectrum ranging from 100 nm - 400 nm. Broad spectrum UV rays are naturally occurring, and are emitted from the sun, but UVC gets absorbed in the ozone layer of earth's atmosphere.

Within the range of UV exists a range of rays called UVC (100 - 280 nanometers). These rays are medically categorized as germicidal, giving any rays in this range the ability to inactivate bacteria, viruses, fungi, and protozoa, including the coronavirus. Additionally, this technology is commonly used in water sterilization, medical facilities, and HVAC ducting at low power. It is environmentally friendly and chemical free.

How UV Works

When ultraviolet rays enter a cell, it disables the cell by damaging critical nucleic acids and proteins rendering the organism inactive or unable to reproduce.

UVC	UVB	UV
100-280 nm	280-315 nm	315-400 nm
Short wavelength	Medium wavelength	Long wavelength
Germicidal	Photo therapy	Deep penetration

Three types of UV light within the electromagnetic spectrum

Can UVC help Prevent COVID-19 Transimssion?

Based on results of experiments, existing evidence shows that exposure to UVC can inactivate common microbes and serve as an effective method to no-touch disinfection.

All bacteria and viruses tested to date respond to UV disinfection. Some organisms are more susceptible to UV disinfection than others, but all tested so far do respond at the appropriate doses.

How UVC Disinfection works?

UV rays operate at a shorter wavelength than all visible light. The UV wavelength can penetrate viruses, bacteria, other infectious particles, and cause physical destruction. The destruction of these particles renders them unable to infect and therefore disinfects the surface, liquid, or air where they reside.

“UV Disinfection for COVID-19,” International Ultraviolet Association Inc - UV Disinfection for COVID-19. [Online]. Available: <http://www.iuva.org/IUVA-Fact-Sheet-on-UV-Disinfection-for-COVID-19>. [Accessed: 26-May-2020]

Is UV Disinfecton Safe?

Ultraviolet rays has been used for disinfection purposes for many years, so we know that with proper precautions in place, UV is safe to use for disinfection. As long as those operating the disinfection devices are trained in the use of UV light and are themselves protected, the process is safe.

XtraLight's UV-C High Power Ultraviolet Disinfection Systems

features **RAPID inactivation times**



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