



## How to Protect the Health, Safety and Wellbeing of People in Your Building

The Energy Harness® Active-Airflow fixture is designed to eliminate airborne pathogens. It can be installed into standard commercial ceiling grids located in most office buildings, schools and medical facilities.

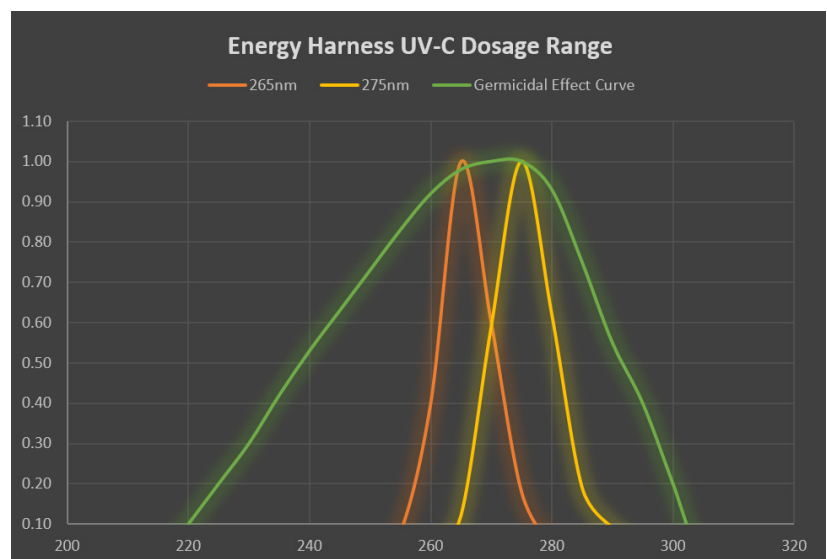
The CDC says the principal mode by which people are infected with SARS-CoV-2 is through exposure to respiratory droplets. The CDC specifies using ultraviolet germicidal irradiation (UVGI) as the only recognized treatment to inactivate airborne virus pathogens such as COVID-19.

The Active-Airflow fixture circulates room air many times per hour through encapsulated UV-C light eliminating pathogens while keeping humans safe. Built with advanced solid-state LED technology, it delivers precise UV-C dosages for effective, quiet and reliable operation.

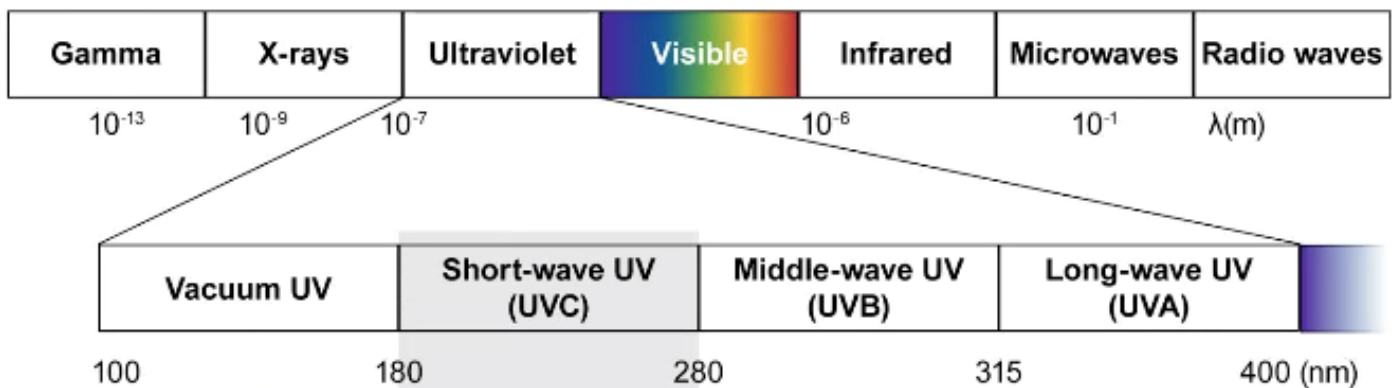
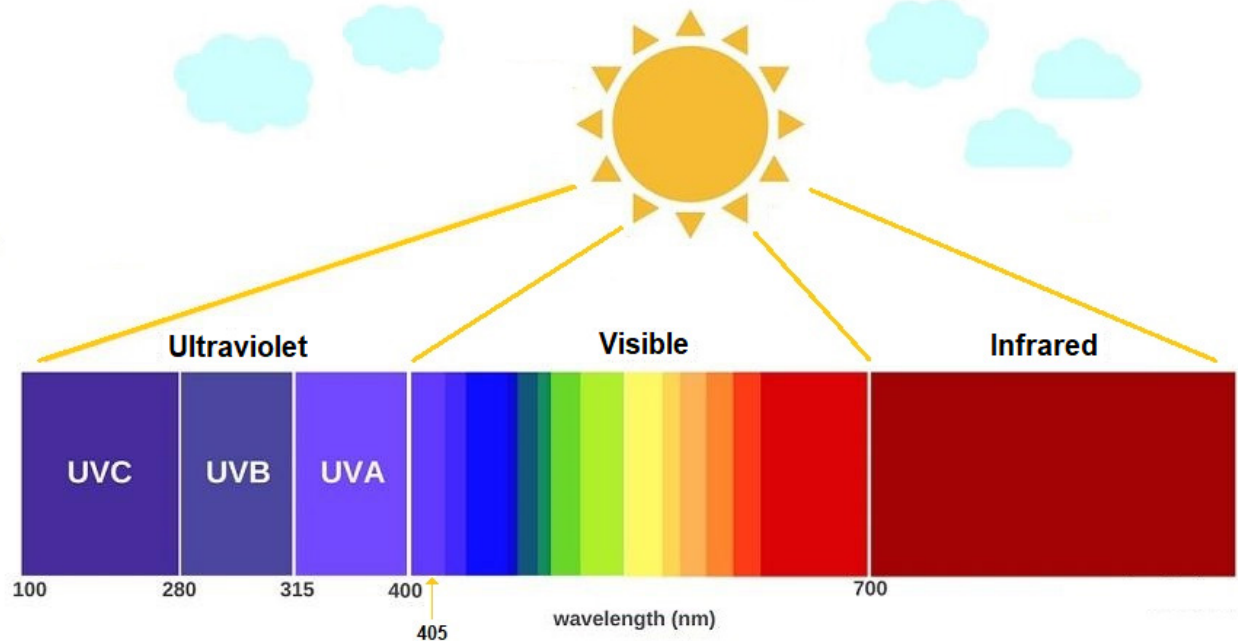
By applying LED technology to the science of how ultraviolet light affects micro-organisms, we have developed a system to effectively protect indoor areas, and the people in them, against airborne pathogens.

### Features

- High dosage short-wave UV-C applied to airflow for controlled duration period.
- Solid-state LED technology to deliver precise UV-C reliability.
- Exact nanometer wavelengths are used to cover germicidal vulnerability spectrum.
- Air circulation up to 131CFM can help to clean room or area air many times per hour.
- Standard 2'x 4' fixture size fits into any commercial ceiling grid configuration.
- Easy installation compatible with all standard 120-277VAC electrical systems.
- Replaceable LED modules allow for years of reliable service with the same fixture.
- Filters are easily changed or cleaned to increase longevity and efficiency.



# Visible and Invisible Light Spectrum



## Ultraviolet Light and Visible Light

- Visible Light is between 400nm and 700nm
- Ultraviolet Light is between 100nm and 400nm
- The wavelengths nearest 268nm (nanometer) are the most effective for germicidal eradication effectiveness.

Ultraviolet Dosage		90% Disinfection	99.9% Disinfection
MICROORGANISM	DISEASE	mJ/cm <sup>2</sup>	mJ/cm <sup>2</sup>
Cornynebacterium diptheriae	Diphtheria	3.4	10
Eberthella typhosa	Typhoid Fever	2.1	6.3
E. coli	Diarrhea	3	9
Legionella pneumophila	Legionnaires' disease	0.92	2.76
Micrococcus sphaeroides	Pneumonia	10	30
Neisseria catarrhalls	Sinusitis	4.4	13
Pseudomonas aeruginosa	Blood & Lung infections	5.5	16.5
S.typhimurium	Gastroenteritis	8	24
Serratia marcescens	Pneumonia	2.5	7.2
Shigella Paradysenteriae	Dysentery	1.7	5.2
Spirillum rubrum	Lyme Disease	4.4	13
Staphylococcus aureus	Skin Infections	4.9	14.8
Streptococcus hemolyticus	Scarlet Fever, Pneumonia	2.2	6.6
Streptococcus lactis	Endocarditis	6.1	18
Streptococcus viridans	Meningitis	2	6
Baccillus tuberculi	Tuberculosis	10	30
Poliovirus	Polio	3.2	9.6
Infectus Hepatitis	Hepatitis	5.8	17.4
Influenza	Flu	3.4	10.2

Log Reduction	% Reduction	Dosage Required mJ/cm <sup>2</sup>
3-log reduction COVID family	SARS-CoV-2 virus family 99.9%	3.7
4-log reduction COVID family	SARS-CoV-2 virus family 99.99%	5
5-log reduction COVID family	SARS-CoV-2 virus family 99.999%	8
6-log reduction COVID family	SARS-CoV-2 virus family 99.9999%	12

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Patent Pending