

# **BigMan UVC Tower**

Professional Disinfection by Bigman UVC Disinfection Solution. Our anti-bacterial disinfectant will reduce 99.9% of bacteria and viruses in the air and viruses as well as surface bacteria.

Equipped by **PHILIPS** 



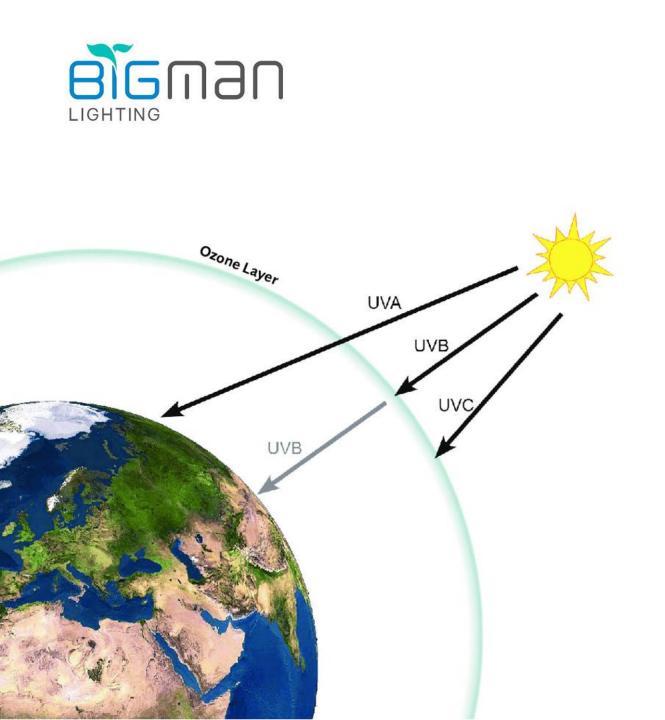
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### Virus is everywhere



https://www.youtube.com/watch?v=kGQEuuv9R6E

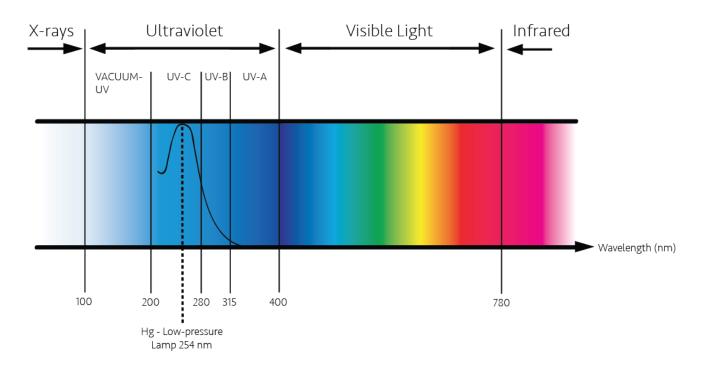


## **Different Types of UV radiation?**

Diagram showing how different types of UV radiation penetrate or interact with the ozone layer. The specific wavelength composition of sunlight, as well as of the layers of the atmosphere, determine the quality of the natural light entering the skin.



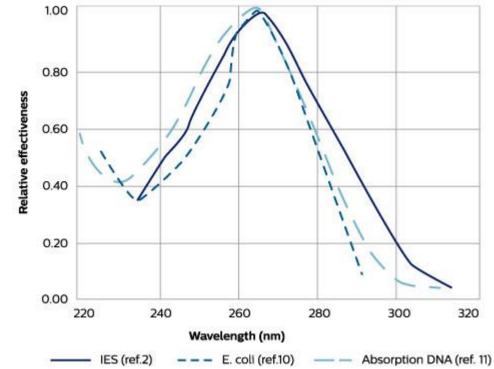
## What is UV technology?



#### Ultra-Violet (UV) Light is invisible to the human eyes

It can be subdivided into three categories:

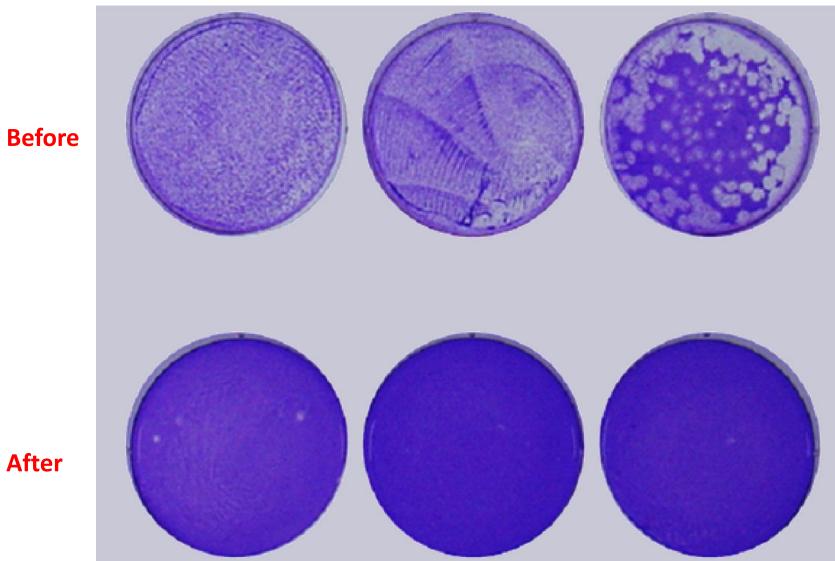
- UV-A from 315 to 400 nm -> insect trap & curing / 10
- UV-B from 280 to 315 nm -> medical purposes (311 nm)
- UV-C from 200 to 280 nm -> disinfection (254 nm)



Philips Low pressure UV-C lamps have their main emission at 254 nm where the action on DNA is 85% of the peak value and 80% on the IES curve. As a result, our germicidal lamps are extremely effective in breaking down the DNA of micro-organisms. This means that they cannot replicate and cause disease

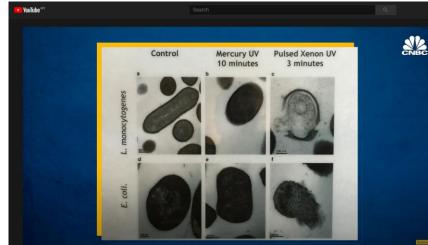


## Ultraviolet C Demonstrates 1 min virus kill





## How does UV-C work



https://www.youtube.com/watch?v=OJ08BuyejuE

#### **Common household germs**



E. Coli



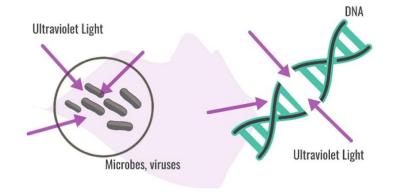


Candida Albicans





# Staphylococcus



When exposing microorganisms to UVC light, the light penetrates through their cell wall and disrupts structure of their DNA molecules, prohibiting reproduction.

UVC radiations with a specific wavelength of 253.7nm break the DNA of bacteria, viruses and spores, meaning that they leave them harmless.

# **UVC effect on Human**



This power allows UVC to break through an organism on a cellular level, effectively scrambling its DNA.

UVC's effects on the human body vary depending on length of exposure but can cause painful burns on the skin. It can also cause temporary damage to the cornea if observed directly, or acute photokeratitis.

#### **Reference:**

https://www.cdc.gov/infectioncontrol/guidelines/disinfection/disinfection-methods/miscellaneous.html https://www.cdc.gov/infectioncontrol/guidelines/disinfection/

https://youtu.be/8fh4LfUc-AI

https://www.theverge.com/2020/5/20/21265221/nyc-mta-ultraviolet-light-uvc-coronavirus-disinfect-puro-pictures



### **Benefits of UV-C technology**



#### **Defeats micro-organisms**

Proven effective against viruses, bacteria, molds and spores.



## Protects against microorganism growth

Keeps the surface of water reservoirs clean from biofilm. Keeps air treatment systems clean.



#### **Reliable disinfection**

Disinfection effect is directly related to UV dose (intensity and exposure time of micro-organisms). It's simple to measure effectiveness once system design is validated.



#### Easy and cost-effective

UV-C installations have low capital and operation costs and are easy to operate and maintain.



## **BigMan UVC Tower**

### UVC Tower Can Penetrate Behind Objects

- Cleaner Surroundings Result in Reduced infection rates
- Decreasing the concentration of Clostridium difficile
- Cleaning the places which manual disinfection may not reach
- Making a significant difference to room cleaning

### **Applications**



Commercial













**Office Building** 











Religion

GYM





Hospitality

H

**Private House** 

Transportation





### **Metro Train**

### **Operation Ward**

**Hospital** 







### **Public Buses**



### Restaurant

### **Shopping Mall**



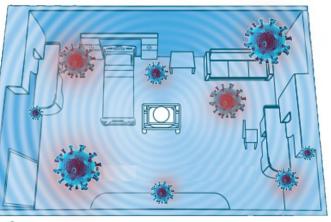




# DESTROY VIRUS

UVC Light destroys Bacteria, viruses DNA, So they can't multiply. 360° Degree

Surface disinfection



Before



After

KILLS 99.9%

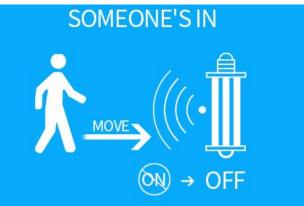
of common Household germs

# NOT TOXIC

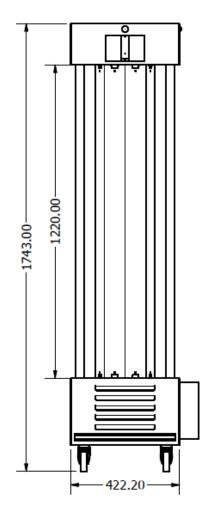
to humans and pets

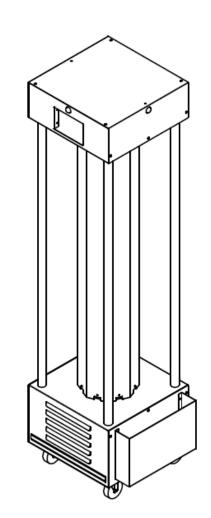
# NOBODY'S THERE











#### **Product Details**

Model Number Tare Weight of UVCT Pre-set Time (Default) Pre-set Time (1) Pre-set Time (2) **Motions Sensors** Light Indicator UV Tube Power Current, mA **Operator Interface** 

## Equipped with **PHILIPS**

- : BML-UVC-T-300 Ground Clearance : 20,30, 40 & 60 minutes : 5,10, 15 & 20 minutes Power Supply : 60,70, 80 & 90 minutes : PIR Motion Sensors : LED Light Indicator
- Overall Dimension (mm) **Operation Temperature** Disinfection Power, W Additional (Optional)
  - : 420 (L) x 500 (W) x 1743 (H)
  - : 100mm

**BigMan UVC Tower** 

- : 20°C to 40°
- : 300W
- : AC220 240V, 50 60Hz
- : 120V Input with Built-In Transformer



: 35.0 kg

: 8 nos. x 36W

functions

: OLED Screen Monitor

with Timer Selection

: 5.0A



Made in Poland



## **Disinfectant Solution Comparison**

	Cleaning detergent	Alcohol	Bleach (Sodium hypochlorite)	BIGMAN UV-C Tower
Form	Liquid	Liquid	Liquid	UVC Light
Corrosion	Non-corrosive	Non-corrosive	Corrosive	Non-corrosive
Odour	Mild	Strong	Strong	Mild
рН	рН 7-10	рН 3-7	pH 11-13	N / A
Side effect(s)	May cause nausea and mild irritation to the mouth and throat.	May cause nausea and strong irritation to the mouth and throat.	May cause nausea and strong irritation to the mouth and throat.	Non-irritating to the mouth and throat (less than 1% concentration)
Flammability	Non-flammable	Highly flammable	Non-flammable	Non-flammable
Effectiveness against viruses, bacteria and fungi	Removes visible dirt and certain germs	Kills common viruses, bacteria and fungi with 75% concentration	Kills common viruses, bacteria and fungi with high concentration	Kills 99.9% of viruses, bacteria and fungi with low concentration

\* Not all household cleaning products contain active virus-killing ingredients. Some antibacterial products may not be effective against viruses.



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