

# UvClenz

Sanitisation made easy

A photograph of a modern hospital corridor. The floor is highly reflective, showing the ceiling lights and the red chairs. The walls are white, and there are large windows at the end of the corridor. A blue exit sign is visible on the ceiling. A UV-C light fixture is hanging from the ceiling in the center of the corridor.

## Disinfection with the power of light

UV-C light is a proven and effective way  
to disinfect air, surfaces and objects



# Absolute confidence, in a world of uncertainty

We are living in unprecedented times. In the face of a global pandemic, the world is demanding a proven and effective way to protect people from harmful micro-organisms.

Bacteria and viruses can cause a wide range of common infections. They can live in air, on surfaces and on objects, even after normal cleaning routines. That means any contamination left behind in the air we breathe and on the surfaces we touch can have a profound effect on our day – to – day health and wellbeing.

## UV-C disinfection

UV-C lighting disinfects radiated air and surfaces which contain bacteria and viruses and helps to reduce them from spreading further. All micro-organisms tested to date respond to UV-C lighting<sup>1</sup>.

ideal for use in offices, retail outlets, factories; in hospitality areas, schools and public washrooms and even on modes of transport such as aircraft, buses and trains.

<sup>1</sup> Fluence (UV Dose) Required to Achieve Incremental Log Inactivation of Bacteria, Protozoa, Viruses

and Algae Revised, updated and expanded by Adel Haji Malayeri, Madjid Mohseni, Bill Cairns and James R. Bolton. With earlier contributions by Gabriel Chevretils (2006) and Eric Caron (2006) With peer review by Benoit Barbeau, Harold Wright (1999) and Karl G. Linden.





# Shining a light on UV technology

UV-C radiation is a known disinfectant for air, surfaces and objects that can help mitigate the risk of acquiring an infection.

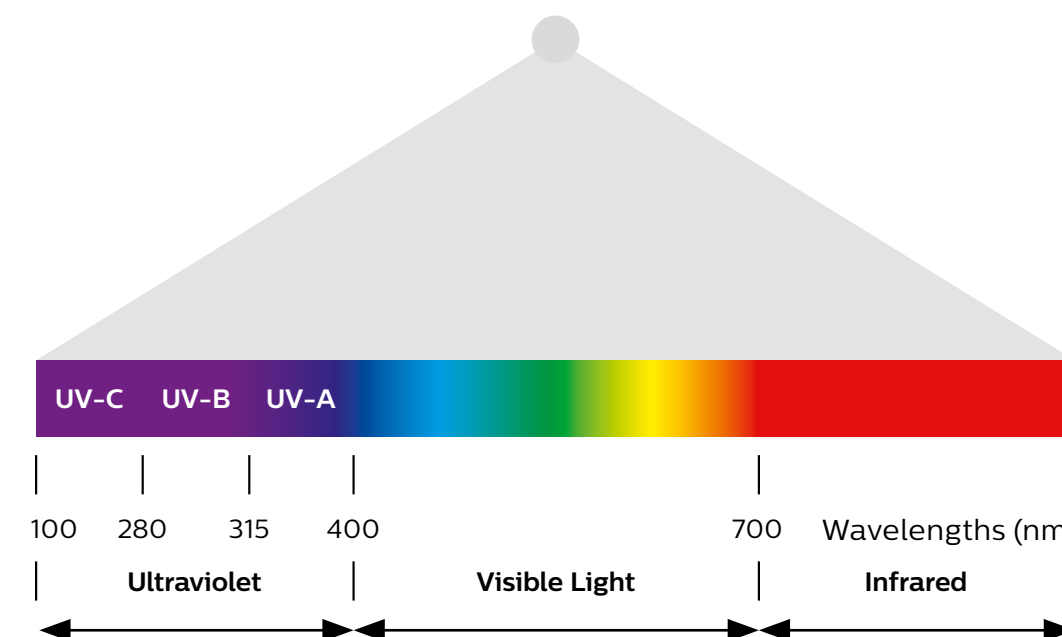
## What is UV technology?

Ultra-Violet (UV) light is invisible to the human eye and is divided into UV-A, UV-B and UV-C.

UV-C is found within 100–280 nm range. The germicidal action is maximized at 265 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. As a result, our germicidal lamps are extremely effective in breaking

down the DNA and RNA of micro-organisms. This means that they cannot replicate and cause disease<sup>2</sup>.

The technology has primarily been used in areas where there is a risk of microbiological contamination, and has been used safely and effectively for more than 40 years<sup>3</sup>.



“

Our test results show that above a specific dose of UV-C radiation, viruses were completely inactivated: in a matter of seconds we could no longer detect any virus.”

Dr. Anthony Griffiths, Associate Professor of Microbiology at Boston University School of Medicine.

<sup>2</sup> A comparison of pulsed and continuous ultraviolet light sources for the decontamination of surfaces. McDonald K.F., Curry R.D., Clevenger T.E., Unklesbay K., Eisenstark A., Golden J., Morgan R.D. IEEE Trans. Plasma Sci. 2000;28:1581–1587. doi: 10.1109/27.901237.

<sup>3</sup> EPA Report, “Building Retrofits for Increased Protection Against Airborne Chemical and Biological Releases” Pg. 56.



# Professional air, surfaces and objects disinfection

Everywhere it's needed

UV-C disinfection can be used to disinfect air, surfaces and objects in a wide range of applications.

These include hospitality areas, schools and public washrooms. In offices, retail outlets and factories. Even on modes of transport such as aircraft, buses and trains.

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## The power to protect in real-world applications



### Retail

Disinfecting shopping carts, shelves and counters



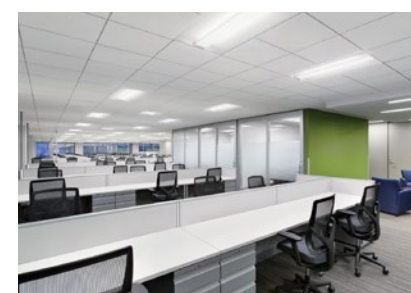
### Hair and beauty salons

Disinfect client rooms, floor, mirror, chair, counter surfaces and other sensitive areas



### Schools

Disinfect classroom walls, floors, desks and surfaces



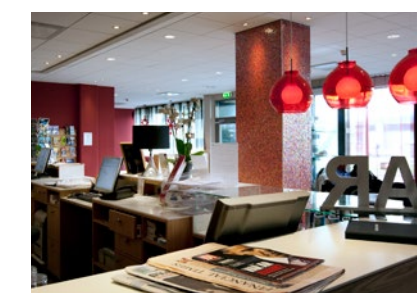
### Offices

Disinfect work rooms, meeting spaces and corridors



### Banking

Disinfect counters, cash machines and work surfaces



### Hospitality

Disinfect guest rooms, reception areas and health club facilities



### Food outlets

Disinfect preparation surfaces and equipment



### Washrooms

Disinfect vanity units, basins and mirrors



### Transport

Disinfect interior and exterior surfaces of different vehicles and passengers' waiting spaces



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## Sanitisation made easy



### Designed for Efficacy

All viruses and bacteria tested to date effectively respond to UV-C disinfection.<sup>1</sup>



### A lifetime of reliability

Made from durable, UV-C resistant materials, UV-C solutions are designed to provide reliable disinfection over the useful long lifetime of the lamp. This is supported by stringent manufacturing and testing processes to guarantee the highest quality.



### Environmentally friendly

For added peace of mind, all our UV-C solutions are also environmentally friendly. We guarantee that no ozone gases will be emitted during or after use.

## Compact solution for professional applications

TUV PL-L lamps are compact UVC (germicidal) lamps used in professional water and air disinfection units. The compact size of the lamp allows for a small system design and design flexibility. TUV PL-L lamps offer almost constant UV output over their complete lifetime, for maximum security of disinfection and high system efficacy. Thanks to the single-ended lamp base, lamp replacement is easy.

### Benefits

- Security of effective disinfection over the useful lifetime of the lamp
- High system efficacy because it is not required to over-design the purification system to maintain effectiveness of disinfection features
- Short-wave UV radiation with a peak at 253.7 nm (UVC) for disinfection purposes
- Protective inside coating ensures constant UV output over the complete lifetime of the lamp
- Special lamp glass filters out the 185 nm ozone-forming radiation
- High Output versions contain wind-chill correction for improved performance in moving air and reducing amount of required lamps
- High Output versions for optimum UVC output per lamp length, allowing for reduction of system size
- Warning sign on lamp indicates that the lamp radiates UVC

### Application

- Deactivation of bacteria, viruses and other micro-organisms
- Residential drinking water units
- Fish pond and process water units
- In-duct air treatment units
- Stand alone air purifiers
- Air disinfection systems in for example hospitals, universities and laboratories warnings and Safety

### DANGER

- Risk Group 3 Ultra Violet product. These lamps emit high-power UV radiation that can cause severe injury to skin and eyes. Avoid eye and skin exposure to unshielded product. Use only in an enclosed environment which shields users from the radiation.
- A lamp breaking is extremely unlikely to have any impact on your health. If a lamp breaks, ventilate the room for 30 minutes and remove the parts, preferably with gloves. Put them in a sealed plastic bag and take it to your local waste facilities for recycling. Do not use a vacuum cleaner.

