

# WHEN EFFECTIVENESS IS CRUCIAL: UV-C-LAMPS FROM LEDVANCE

**INACTIVATE  
99%\* OF ALL  
BACTERIA,  
VIRUSES  
AND FUNGI**



# LEDVANCE UV-C LAMPS: RADIATING A BETTER QUALITY

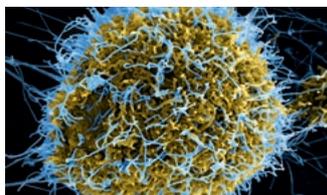
Microorganisms can seriously impact people's health and well-being. By means of the germicidal LEDVANCE UV-C lamps, we help developers and manufacturers create disinfection solutions that provide greater protection for people's health and enhance their quality of life.

## CHEMICAL-FREE, FAST, ALL-PURPOSE

It has long been known that UV-C radiation has a disinfecting effect. The specific section of the UV-C wavelength range (100–280 nm) responsible for this effect is the "Germicidal spectrum" between 250 and 270 nm.

**Ozone-free technology: the special glass used in LEDVANCE UV-C lamps reliably filters out the ozone-generating wavelengths around 185 nm.**

## EFFECTIVE AGAINST ALL MICROORGANISMS



Viruses



Bacteria



Molds

UV-C radiation alters the DNA or RNA structure of microorganisms, so preventing further replication. It has proven to be effective against viruses, bacteria and fungal spores. Recent studies have confirmed that UV-C is also able to effectively inactivate the SARS-CoV-2-virus.<sup>1-4</sup>

<sup>1</sup> „Ultraviolet Germicidal Irradiation Handbook; UVGI for Air and Surface Disinfection; Wladyslaw Kowalski, 2009.“ [Online].

<sup>2</sup> Innovative Bioanalysis. „Efficacy of a wall mounted device against aerosolized SARS-CoV-2.“ LED professional Review (LPR), Issue 84, Mar-Apr, 2021, p-16.

<sup>3</sup> Storm, N., et al., „Rapid and complete inactivation of SARS-CoV-2 by ultraviolet-C irradiation.“ Nature Sci Rep 10, 22421 (2020).

<sup>4</sup> A. Bianco, et al., „UV-C irradiation is highly effective in inactivating and inhibiting SARS-CoV-2 replication.“ medRxiv 2020.06.05.20123463.

# OF LIFE

Technologies of this kind have been in use for quite some time now, in the food industry or for water purification, for example. Since the start of the Covid-19 pandemic, however, demand for UV-C-based solutions has risen enormously. Here are the most important advantages:

- Extremely effective disinfection without chemicals or toxic compounds
- Works in a matter of seconds or minutes (depending on the dose and application situation)
- Wide range of application scenarios for thorough disinfection of air, water and surfaces
- Can be used to kill all microorganisms: viruses, bacteria, fungi
- Pathogens are unable to form resistance to UV-C radiation
- Particularly economic method of disinfection

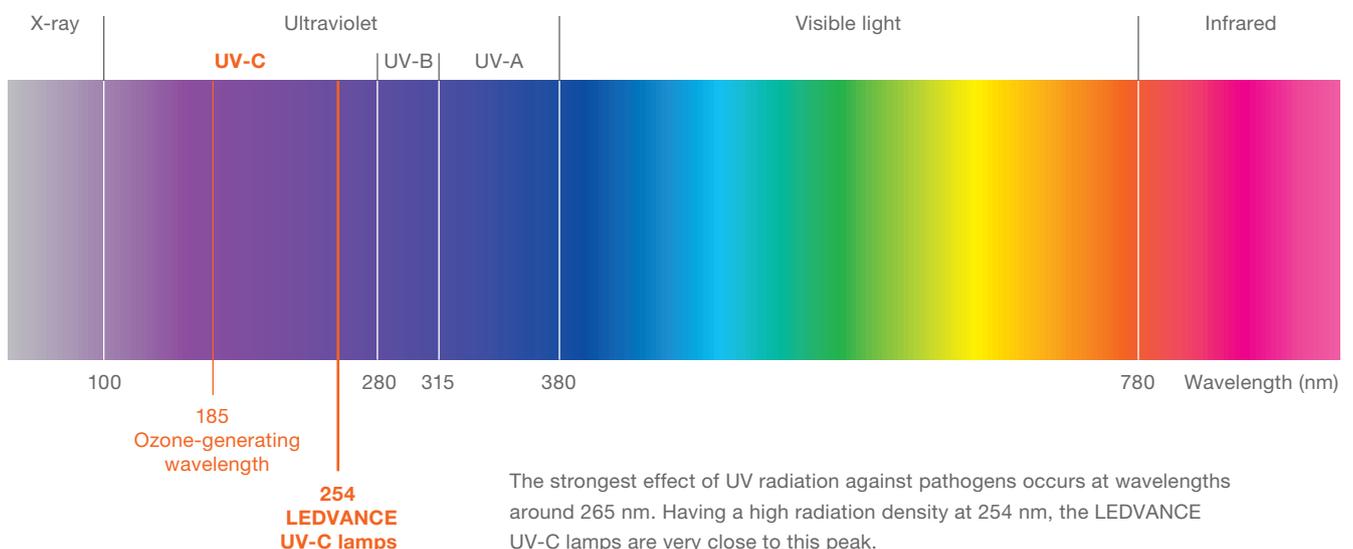
## SUCCESSFULLY PROTECTING HEALTH WITH LEDVANCE

Low-pressure mercury discharge lamps (LPD) are currently the most efficient known converters of electrical energy into disinfecting UV-C radiation. As one of the leading suppliers of LPD lamps worldwide, LEDVANCE offers UV-C lamps of outstanding quality for a wide range of application areas.

## SAFETY IS KEY

Without appropriate safety measures, UV-C radiation can be dangerous for humans – eyes and skin should never be exposed to direct or reflected UV-C rays. UV-C lamps from LEDVANCE conform to the most stringent quality and safety standards (including ISO 9001/14001 and CB certification). In doing so, they fulfill a critical prerequisite for developing safe solutions to combat health-threatening pathogens.

### THE ELECTROMAGNETIC SPECTRUM



# ONE TECHNOLOGY – A FASCINATING NUMBER OF APPLICATION SCENARIOS

Air-conditioning, air purifiers, water purification systems, disinfection cabinets, UV ceiling luminaires for cleaning inside air, disinfection robots, and many others. In contrast to other disinfection methods that are very limited in their areas of application, UV-C lamps can be used in an extremely wide range of scenarios.

Especially in recent times, innovative engineers have come up with a whole series of new uses for UV-C technology. The UV-C portfolio from LEDVANCE contains suitable and reliable radiation sources for a broad range of requirements

**UV-C radiation can be used in a wide range of scenarios for thorough disinfection of air, water and surfaces.**

- Hospitals and doctors' surgeries
- Clean rooms
- Office rooms
- Air-conditioning systems
- Schools, daycare centers, locker rooms
- Warehouses
- Food processing
- Publicly accessible rooms

## AIR PURIFICATION

The air in closed rooms can contain a large number of microorganisms. As part of fine aerosols, they can remain in the air for a considerable period of time. The air in medical facilities, labs, offices, schools, food processing plants and many other locations can be efficiently disinfected and purified by using UV-C lamps installed in fixtures such as air ducts, air-conditioning systems, air purifiers and ceiling luminaires.



- Water companies
- Sewage systems
- Swimming pools
- Water dispensers
- Ultrapure water systems
- Food processing

### WATER DISINFECTION

Bacteria, viruses and fungi can quickly turn water into an undrinkable or even health-threatening substance. By means of continuous UV-C irradiation – in special flow chambers, for example – any microorganisms can be eliminated within a short space of time. Key advantage: The disinfection requires no chemical additives, making it an odorless process without any troublesome side-effects.

- Hospitals and doctors' surgeries
- Other aseptic zones
- Healthcare and nursing
- Food and pharmaceutical industries



### SURFACE DISINFECTION

Microorganisms can survive on surfaces for up to a number of days. Even thorough mechanical cleaning cannot remove them entirely. In particularly sensitive areas – such as clinics, doctors' surgeries or food processing plants – UV-C irradiation brings a crucial boost to the level of hygiene. A further plus is that the disinfection requires no chemical additives or cleaning agents, making it an odorless process without any troublesome side-effects.

Important: The surfaces requiring treatment must be directly exposed to the UV-C radiation. It has no impact on areas that are in shadow or only indirectly exposed.



# QUALITIES YOU CAN RELY ON: LEDVANCE UV-C LAMPS



The LEDVANCE UV-C portfolio boasts a broad range of UV-C low-pressure mercury vapor lamps with different sizes, wattages, currents and radiated power in the relevant wavelength area from 200 to 280 nm.

The outstanding quality of our products is the result of our decades of experience as global leader in the area of low-pressure discharge lamps, with over 50 patents in this field. LEDVANCE is also actively involved in the UV-C working groups of the leading trade associations.<sup>1</sup>

Our factory in Smolensk has been manufacturing UV-C lamps since 2012. This factory (just like all other LEDVANCE locations) has been certified in accordance with ISO 9001 and ISO 14001. CB certification by an independent third-party is also an integral part of our qualification process.

## LEDVANCE UV-C LAMPS: BENEFITS AT A GLANCE

- UV-C lamps of outstanding quality
- Effective and environmentally-friendly disinfection without chemicals
- High UV-C radiation density at around 254 nm
- Sophisticated and reliable technology
- Glass bulbs with filter function absorb the ozone-generating 185 nm range.
- Long lifespan (up to 10800 hours) due to special coating
- Low mercury content

<sup>1</sup> Global Lighting Association, Lighting Europe Association, ZVEI, IEC TC34 AG17 Standardization

## TECHNICAL DATA

Product name	Product number (EAN10)	Nominal wattage (W)	Nominal voltage (V)	Nominal current (A)	Operating frequency (Hz)	Energy consumption	Lamp shape
UVC T8 15W G13	4058075502604	15	55	0.31	50...60	15 kWh/1 000h	Tube, double-ended
UVC T8 25W G13	4058075502628	25	46	0.6	50...60	25 kWh/1 000h	Tube, double-ended
UVC T8 30W G13	4058075502642	30	96	0.37	50...60	30 kWh/1 000h	Tube, double-ended
UVC T8 36W G13	4058075502666	36	103	0.43	50...60	36 kWh/1000h	Tube, double-ended
UVC T8 55W G13	4058075502680	55	83	0.77	50...60	55 kWh/1000h	Tube, double-ended
UVC T8 75W G13	4058075502703	75	110	0.84	50...60	75 kWh/1000h	Tube, double-ended

Product name	Product number (EAN10)	Length (mm)	Diameter (mm)	Nominal lifespan (h)	Socket (nominal designation)	Mercury content of lamp (mg)
UVC T8 15W G13	4058075502604	436	25.5	10800	G13	4.3
UVC T8 25W G13	4058075502628	436	25.5	10800	G13	4.3
UVC T8 30W G13	4058075502642	893	25.5	10800	G13	4.3
UVC T8 36W G13	4058075502666	1198	25.5	10800	G13	4.3
UVC T8 55W G13	4058075502680	893	25.5	10800	G13	4.3
UVC T8 75W G13	4058075502703	1198	25.5	10800	G13	4.3



## ABOUT LEDVANCE



# LEDVANCE

With offices in more than 50 countries and business activities in more than 140 countries, LEDVANCE is one of the world's leading general lighting providers for professional users and end consumers. Having emerged from OSRAM's general lighting division, LEDVANCE offers a wide-ranging portfolio of LED luminaires for a broad spectrum of applications, intelligent lighting products for Smart Home and Smart Building solutions, one of the most comprehensive ranges of advanced LED lamps in the lighting industry, traditional light sources, an LED Strip System and light management systems.

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LEDVANCE is the expert partner for installers and lighting professionals. To match our extensive range of luminaires we also offer a large portfolio of innovative LED lamps in excellent brand quality. Further information about our range of lamps and services is available online at [www.ledvance.com](http://www.ledvance.com)

Partner:



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