# Light is protecting AirZing™ PRO

The special **AirZing™ PRO** luminaire is powered by OSRAM germicidal fluorescent lamp (HNS 36W or HNS 30W), which emits shortwave ultraviolet UV-C radiation with a wavelength of 253,7 nm. This radiation is used to disinfect air, water and surfaces and is then fully absorbed by oxygen and ozone in the atmosphere. It effectively destroys bacteria and viruses, including corovirus (COVID-19).



Application in hospitals: Hospital and Office building in Wuhan Pulmonary Hospital



**AirZing™ PRO** is equipped with a delay starting (switched on after 30 seconds when the serving staff is out of reach radiation range) and the motion sensor. This means that the luminaire switches off safely in case of undesired movement of persons in the irradiated area.

Efficient	Precise	Premium	Premium Powerful			
<b>99,9%</b> Sterilization efficiency	<b>253,7 nm</b> UV wave length	Ozone Free	<b>360°</b> Coverage Area	IR Sensor		

# **AREA OF APPLICATIONS:**

#### **Air purification**

Ultraviolet (UV) purification is a very effective method to clean the air of biological pollutants such as bacteria, viruses and fungal spores. UV germicidal lamps can be installed in ventilation ducts to clean the air passing through them. UV air purification is more economical and efficient than other air filtration and cleaning methods.

- Hospitals
- Doctors' practices
- Clean rooms
- Offices with or without AC systems
- Cars
- Storage rooms
- Food processing
- Rooms with frequent public access
- Animal stalls

### Surface cleaning

For packaging pharmaceuticals and food, in aseptic zones in hospitals and for surface cleaning of equipment and instruments objects are exposed directly to UV radiation.

- Hospitals and other aseptic zones
- Health care
- Food and pharmaceutical industry



Beijing XTS hospital



## Light is OSRAM



The cell nucleus of micro-organisms(bacteria and virus) contains thymine, a chemical element of the DNA / RNA. This element absorbs UV-C at a specific wavelength of 253.7 nm and changes to such an extent (formation of thymine dimers) that the cell is no longer capable of multiplying and surviving.

UV-C (253.7nm) penetrates the cell wall of the micro-organism
 The high energy photons of the UV-C are absorbed by the cell proteins and DNA / RNA

UV-C damages the protein structure causing metabolic disruption DNA/RNA is chemically altered so organisms can no longer replicate Organisms are unable to metabolize and replicate, CAN'T cause disease or spoilage



#### How to use AirZing™

AirZingTM can be ceiling mounted or wall mounted, the installation height of general space is between 2.5m-4m. The coverage area of one set of fixture is 15-20m<sup>2</sup> (36W)

			Height 3 m
10 m <sup>2</sup>	15 m²	20 m <sup>2</sup>	
30 mins			
45 m			
	ins	AirZing™ PRO 5040 (36W)	

Source: CIE 155:2003 ULTRAVIOLET AIR DISINFECTION 8.1

## **UV-C** impacts on Human

<10m<sup>2</sup>, 30 mins is recommended;
10 - 15m<sup>2</sup>, 45 mins is recommended;
15 - 20m<sup>2</sup>, 60 mins is recommended;
>20m<sup>2</sup>, multiple fixtures are recommended.

#### Exposure to UV can cause injury to the eyes and skin

Overexposure to UV- C can result in transient conjunctival irritation (photoconjunctivitis) and skin irritation (erythema), which disappear within a 24-48 hour period without lasting biological damage (CIE, 2002).

#### For example:

- 36W AirZing is installated at **2.5m**
- UV-C irradiation is 0.22w/m<sup>2</sup>
- UV Index is 8.8 = 0.22 x 40 very high

It is therefore necessary to prevent unwanted radiation of persons, animals and plants!

AirZing <sup>™</sup> PRO	
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Product	Product	V	Hz	W	A	A	Power	THD	UV-C output	Initial UV-C irradiance	Lamp life time	Warranty	L/W/H [mm]	g	Operation Temperature	Storage Temperature [°C]
Reference	Number				Input	output	1 40101	[/0]	[W]	W/m* @1M	[h]	Board	lunu		[°C]	[°C]
AirZing™ PRO 5030	4062172156622	220-240	50/60	34	0.16	360	> 0,9	< 20	11-12	1.2	9,000	3	1058/54/78	1.3	-10~40	-20~60
AirZing™ PRO 5040	4062172152655	220-240	50/60	40	0.19	430	> 0,9	< 20	14-15	1.4	9,000	3	1363/54/78	1.5	-10~40	-20~60

\* 253.7 nm

#### AirZing<sup>™</sup> can be used in ...

