

TYPE OF PRODUCTS

LED surface-mounted lighting with aerodynamic section, for installation in cleanroom **when the air flow must be laminar**. Available in white light or inactinic amber 590 nm.

MECHANICAL CONSTRUCTION

Housing in extruded aluminium lacquered white RAL9003, end caps made of 2 mm aluminium. Aerodynamically shaped polycarbonate diffuser clipped on the housing.

LED MODULES

White light : Zaghera LED modules, with an energy efficiency until 185 Lm/W, rated AA+. Assembled on a 2 mm aluminium plate to ensure an optimal heat dissipation for the lifespan of the LEDs. 3SDCM. Colour rendering index 85. Expected luminous flux : L80 at 70.000 h.

Inactinic light :

- LTO version : LEDs with limited radiation emission below 500 + 500 nm high pass filter.
- HP version : high power monochromatic amber leds 590 nm.

OPTICS

Transparent polycarbonate diffuser, ribbed on the inside to reduce the luminance of the LEDs.

CONTAMINATION CONTROL

Air cleanliness Class 1 in compliance with ISO 14644-14. Luminaire adapted to be used in cleanroom with laminar flow.

H₂O₂ RESISTANCE

The components that may come into contact with hydrogen peroxide during the decontamination process were tested by cyclic, direct and prolonged contact with a 35% H₂O₂ solution.

TEMPERATURE AND HUMIDITY

Reference ambient temperature : 20°C / 68°F. Operating temperature range : 5 to 25°C / 41 to 77°F (the temperature affects the lifetime of the LEDs).

POWER SUPPLY

Luminaires supplied with electronic driver from European brand. Rated voltage 220-240V 50/60Hz. DALI dimming (GDA) available in option. Access from the bottom.

INSTALLATION

The H2O teardrop lighting can be installed on all kind of rigid ceilings by :

- Direct screwing, V version, two 8 mm diameter holes on the luminaire housing.
- External clamping on T55 grid-ceiling, version T55.

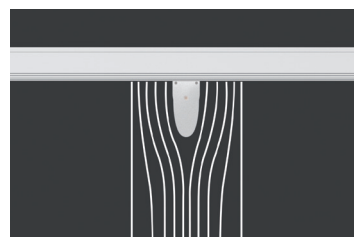
WIRING

V version : cable entry at the back of the luminaire through a membrane cap. Connection inside the on a 2-pole + earth terminal block, without possibility to make a continuous wiring through the luminaires.

T55 version : luminaire provided with 1m cable without connector. External installation : there is no need to open the light during installation.



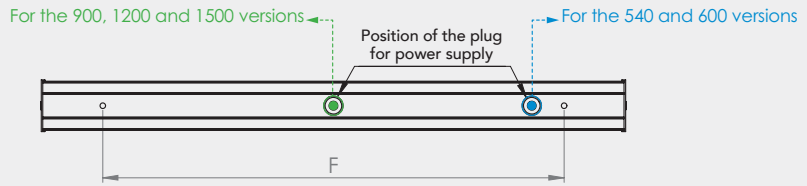
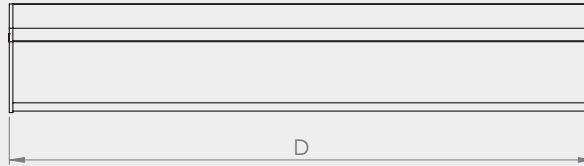
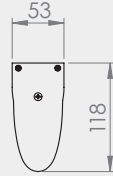
LAMINAR AIR FLOW



Schematic drawing of the airflow behaviour around the H2O luminaire

DIMENSIONS (mm)

TYPE A



REFERENCES AND FEATURES - WHITE LIGHT

CODE	REFERENCE	D (mm)	Center distance F (mm)	P (W)	Emitted flux (Lm)	Efficiency (Lm/W)
White light, 4000K, CRI 85 - Screw fixing						
SUR1147EPF	H2O-V PC 540/50 2400/1 19/840 EPF	540	407	19	2400	126
SUR1141EPF	H2O-V PC 600/50 3000/1 23/840 EPF	604	500	23	3000	130
SUR1155EPF	H2O-V PC 900/50 3500/1 35/840 EPF	904	800	35	3500	100
SUR1140EPF	H2O-V PC 1200/50 6000/1 46/840 EPF	1204	1100	46	6000	130
SUR1145EPF	H2O-V PC 1200/50 4500/1 32/840 EPF	1204	1100	32	4500	140
SUR1226EPF	H2O-V PC 1500/50 8000/1 60/840 EPF	1504	1400	60	8000	135
White light, 4000K - Mounting on T55 grid-ceiling with bottom groove						
SUR1209EPF	H2O-T55 PC LED 600/50 3000/1 23/840 EPF	604	500	23	2400	104
SUR1210EPF	H2O-T55 PC LED 900/50 3500/1 35/840 EPF	904	800	35	3000	100
SUR1207EPF	H2O-T55 PC LED 1200/50 4500/1 32/840 EPF	1204	1100	32	3500	140
SUR1208EPF	H2O-T55 PC LED 1200/50 6000/1 46/840 EPF	1204	1100	46	6000	130
SUR1211EPF	H2O-T55 PC LED 1500/50 8000/1 60/840 EPF	1504	1400	60	8000	135

Light and power output tolerance $\pm 10\%$

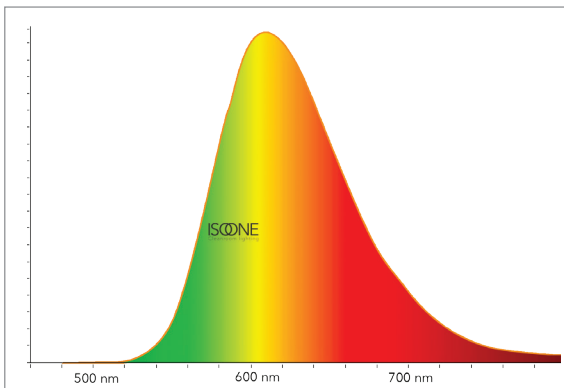
REFERENCES AND FEATURES - INACTINIC LIGHT

CODE	REFERENCE	D (mm)	Center distance F (mm)	P (W)	Emitted flux (Lm)	L80*
LTO Combined inactinic light - Screw fixing						
SUR1221EPF	H2O-V PC LTO 600/50 2000/1 30/500 EPF	604	500	30	2000	50.000 h
SUR1222EPF	H2O-V PC LTO 900/50 3000/1 45/500 EPF	904	800	45	3000	50.000 h
SUR1223EPF	H2O-V PC LTO 1200/50 4000/1 60/500 EPF	1204	1100	60	4000	50.000 h
SUR1220EPF	H2O-V PC LTO 1500/50 5000/1 75/500 EPF	1504	1400	75	5000	50.000 h
LTO Combined inactinic light - Mounting on T55 grid-ceiling with bottom groove						
SUR1217EPF	H2O-T55 PC LTO 600/50 2000/1 30/500 EPF	604	500	30	2000	50.000 h
SUR1218EPF	H2O-T55 PC LTO 900/50 3000/1 45/500 EPF	904	800	45	3000	50.000 h
SUR1219EPF	H2O-T55 PC LTO 1200/50 4000/1 60/500 EPF	1204	1100	60	4000	50.000 h
SUR1216EPF	H2O-T55 PC LTO 1500/50 5000/1 75/500 EPF	1504	1400	75	5000	50.000 h
Monochromatic amber 590 nm HP2 inactinic light - Screw fixing						
SUR1256EPF	H2O-V PC HP2 600/25 1500/1 20/590 EPF	604	500	20	1500	50.000 h
SUR1259EPF	H2O-V PC HP2 900/25 2000/1 27/590 EPF	904	800	27	2000	50.000 h
SUR1257EPF	H2O-V PC HP2 1200/40 3000/1 37/590 EPF	1204	1100	37	3000	50.000 h
SUR1258EPF	H2O-V PC HP2 1500/50 4000/1 48/590 EPF	1504	1400	48	4000	50.000 h

Light and power output tolerance $\pm 10\%$

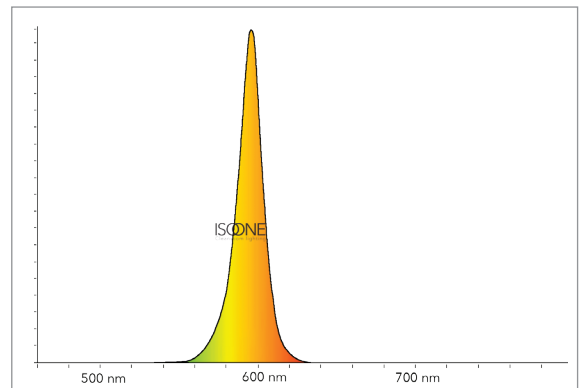
* Maintenance of the LED flow, excluding potential deterioration of the filter, to be checked every year.

INACTINIC SOLUTIONS



SPECTRUM OF THE LTO VERSION

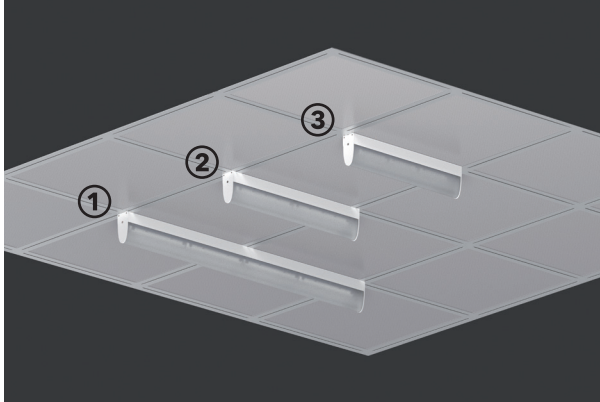
- Higher luminous flux
- More colour in the spectrum
- Filter maintenance required
- Better Lm/€ solution
- Risk of light leakage below 500 nm < 1.5% (maintenance failure, breakage, end of filter lifetime...)



SPECTRUM OF THE HP VERSION

- Better Lm/W efficiency
- No filter, amber LEDs
- Lower luminous flux
- Lower Lm/€ ratio
- No risk of light leakage below 500 nm

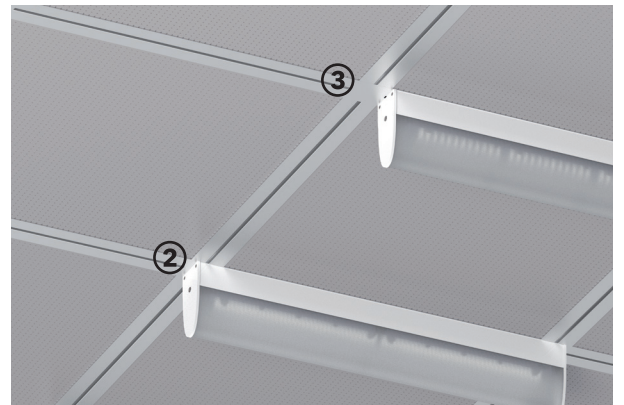
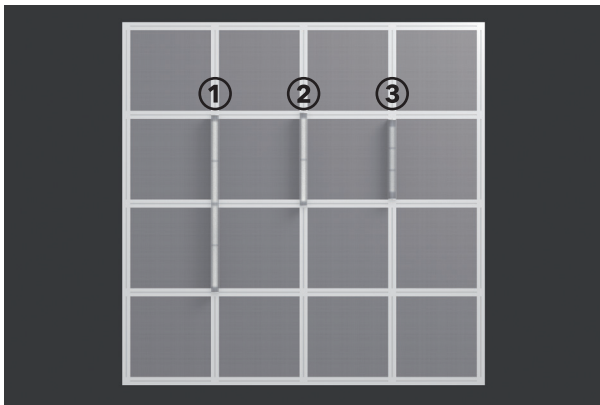
EXAMPLES OF INSTALLATION IN T55 FALSE CEILING



Mounting example in T55 false ceiling module 600 mm of the 3 lengths :

- ① Length of 1200 mm
- ② Length of 600 mm
- ③ Length of 540 mm

The H2O brand car also be mounted in false ceiling with cut-out or metal ceiling.



Standards and warranty

Compliance : information on the compliance of our products with the relevant standards and directives is available on our website.

Warranty : our warranty conditions are indicated in our general terms and conditions of sale. There are special conditions depending on the product range. These conditions can be checked on our website : www.isoone-cleanroom-lighting.com/conditions-generales-de-vente/

Temperature and switches on : the operating temperature and the number of daily switches have an influence on the lifetime of the products. Our luminaires are designed to withstand at least 15.000 switches on following EU 1194/2012.

Please consult us for more information.

Note

ISOONE reserves the right to modify or update this document at any time within the framework of the technological evolution and the updating of our technical documentation. Despite the care taken in the design and the updating of this card, it can not under any circumstances constitute a contractual document.

UE Declaration of Conformity

LA MANUFACTURE DE FRANCE SAS
18 rue Jean Monnet
31240 Saint-Jean

CERTIFIES,
under its own responsibility, that the ISOONE luminaires **H2O**

SUR1147EPF	SUR1226EPF	SUR1211EPF	SUR1217EPF	SUR1259EPF
SUR1141EPF	SUR1209EPF	SUR1221EPF	SUR1218EPF	SUR1257EPF
SUR1155EPF	SUR1210EPF	SUR1222EPF	SUR1219EPF	SUR1258EPF
SUR1140EPF	SUR1207EPF	SUR1223EPF	SUR1216EPF	
SUR1145EPF	SUR1208EPF	SUR1220EPF	SUR1256EPF	

are designed and manufactured in accordance with the following harmonized directives and standards :

SECURITY

2014/35/UE (26/02/2014)	Electrical equipment designed for use within certain voltage limits.
EN 60598-1 : 2015	Luminaires - Part 1 : General requirements and tests.
EN 60598-2-2 : 2012	Luminaires - Part 2-1 : Particular requirements - Fixed luminaires for general lighting.
EN 62493 : 2015	Assessment of lighting equipment related to human exposure to electromagnetic Field.
EN 62471 : 2008	Photobiological safety of lamps and devices using lamps.

ELECTROMAGNETIC COMPATIBILITY

2014/30/UE (26/02/2014)	European « EMC » Directive.
EN 55015 : 2013 + A1 : 2015	Limits and methods of measurement of electrical radio interference from electrical lighting and similar equipment.
EN 61000-3-2 : 2019	Electromagnetic compatibility (EMC) - Part 3-2 : Limits - Limits for harmonic current emissions (current drawn by equipment ≤ 16 A per phase).
EN 61000-3-3 : 2014	Electromagnetic compatibility (EMC) - Part 3-3 : Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection.
EN 61547 : 2009	General purpose lighting equipment - EMC immunity requirements.

ECO-CONCEPTION

2009/125/CE (21/10/2009) + 2019/2020 (01/10/2019)	European « ErP » directive + regulation.
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RESTRICTION OF DANGEROUS SUBSTANCES

2011/65/UE (08/06/2011)	European directive « RoHS ».
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Certificate issued on March 15th 2024

President, Frédéric Colombo