

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 RAL 9003, 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_LC teardrop lighting can be installed on all kind of rigid ceilings by :

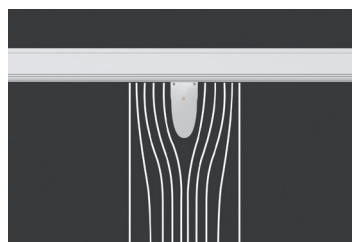
- **Direct screwing, V version**, two 8 mm diameter holes on the luminaire housing.
- Each continuous line module is supplied with an intermediate cap.
- A separate bag of end caps must be ordered for each luminaire line.

WIRING

Cable entry at the bottom of the luminaire through a membrane plug. Integrated through-wiring. Connection inside the profile on 2-pole + ground terminal block.



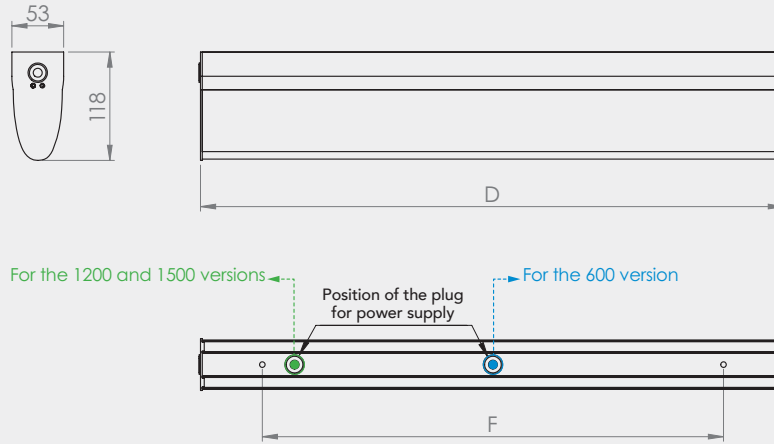
LAMINAR AIR FLOW



Schematic drawing of the airflow behaviour around the H2O_LC luminaire

DIMENSIONS (mm)

TYPE A

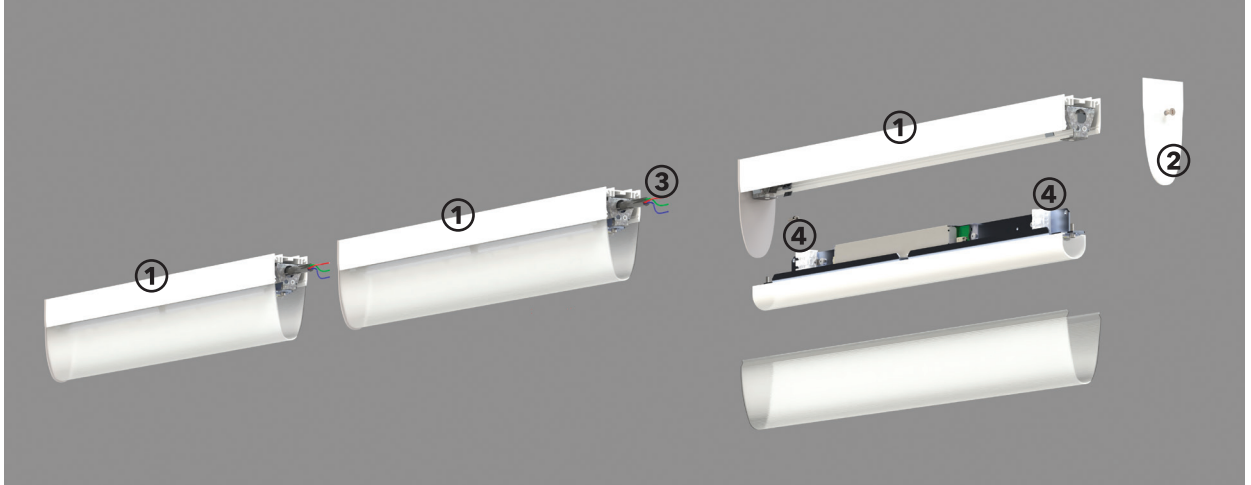


REFERENCES AND FEATURES - WHITE LIGHT

CODE	REFERENCE	D (mm)	Center distance F (mm)	P (W)	Emitted flux (Lm)	Efficiency (Lm/W)
White light, 4000 K, CRI 85 - Screw fixation for continuous line wiring						
SUR1238EPF	H2O-V-LC PC 600/50 3000/1 23/840 EPF	602	500	23	3000	130
SUR1234EPF	H2O-V-LC PC 1200/50 4500/1 32/840 EPF	1202	1100	32	4500	140
SUR1235EPF	H2O-V-LC PC 1500/50 8000/1 60/840 EPF	1502	1400	60	8000	140
LTO Combined inactinic light - Screw fixation for continuous line wiring						
SUR1239EPF	H2O-V-LC PC LTO 600/50 2000/1 30/840 EPF	602	500	30	2000	
SUR1236EPF	H2O-V-LC PC LTO 1200/50 4000/1 60/840 EPF	1202	1100	32	4000	
SUR1237EPF	H2O-V-LC PC LTO 1500/50 5000/1 75/840 EPF	1502	1400	32	5000	
Monochromatic amber 590 nm HP inactinic light - Screw fixation for continuous line wiring						
SUR1262EPF	H2O-V-LC PC HP2 600/50 1500/1 20/590 EPF	602	500	20	1500	
SUR1263EPF	H2O-V-LC PC HP2 1200/50 3000/1 37/590 EPF	1202	1100	37	3000	
SUR1267EPF	H2O-V-LC PC HP2 1500/50 4000/1 48/590 EPF	1502	1400	48	4000	
Ends caps for continuous line wiring						
A1168ACC	Kit embout H2O LC (2u.)					

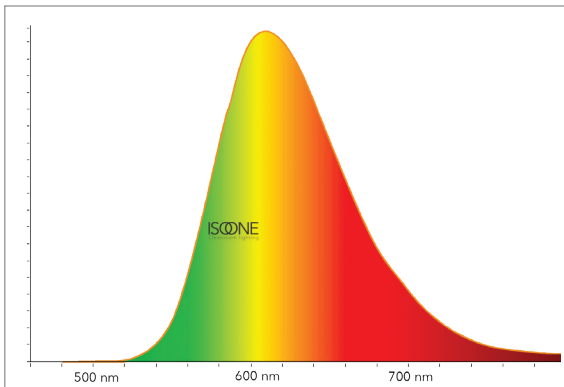
Light and power output tolerance $\pm 10\%$

DETAIL FROM A CONTINUOUS LINE WIRING



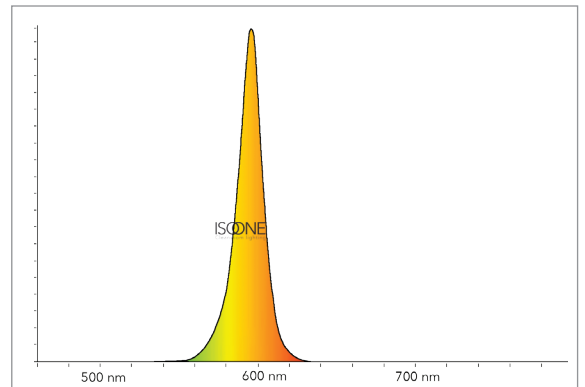
- ① Continuous line module
- ② End cap kit, 1 per line
- ③ Connecting cables, not included
- ④ Internal through-wiring terminal block

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

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_LC**

SUR1238EPF	SUR1235EPF	SUR1236EPF	SUR1262EPF	SUR1267EPF
SUR1234EPF	SUR1239EPF	SUR1237EPF	SUR1263EPF	

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