

H1_E



TYPE OF PRODUCTS

Very slim LED Panels (11 mm), especially made for cleanrooms. **IP65 from the top and the bottom**, resistant to hydrogen peroxide. Wide range of luminous flux, from 1500 to 5150 Lm. Available in 4000 K or 6500 K.

MECHANICAL CONSTRUCTION

Extruded aluminium frame welded and white powder-coated with high covering power to maintain the frame's heat dissipation capacity, RAL 9016. Double silicone gasket on top and bottom, cable gland and EPDM gasket fixed on the top part to ensure a reinforced seal. Top clamping plate in 0,8mm galvanized steel.

LED MODULES

LED PCB placed inside the aluminium edge. High efficiency LEDs encapsulated on a medium power Epistar chip size 26*46 mil to obtain a better efficiency and increase reliability.

OPTICS

Optical unit made with a reflective sheet incorporating Toray Lumirror technology, a Mitsubishi PMMA light guide and a PMMA diffuser film. Allow to reach an UGR lower than 19.

CONTAMINATION CONTROL

A set of technical seals ensures waterproofness, prevents the proliferation of bacteria, and reduces gas exchanges : **air cleanliness Class 1 in compliance with ISO 14644-14**. Certified by **Fraunhofer IPA** laboratory. The free ceiling space of clean rooms class 1 to 5 can be limited by the HVAC system.

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, see resistance in the reference table.

TEMPERATURE

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

Luminaire made with a not dimmable external electronic power supply (EPF) from PHILIPS. DALI dimming (GDA) available in option. Nominal voltage 220/240 V 50/60 Hz.

INSTALLATION

H1 is available in version :

- /E **installation on T24** modular ceiling module 600 or 625.

WIRING

Connection on the external power supply, with a traction stop system to be tightened and closed (accessories included). Foresee a reservation in the plenum for the power supply (70 cm of cable).



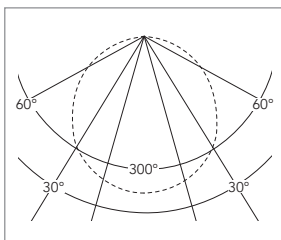
OPTION



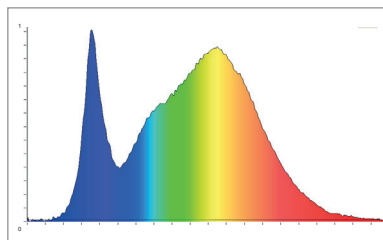
FRAUNHOFER IPA TEST



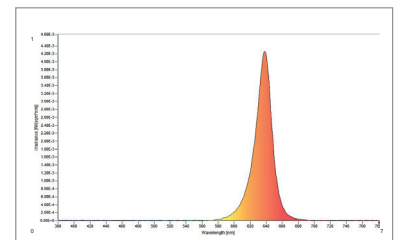
PHOTOMETRY



LIGHT SPECTRA

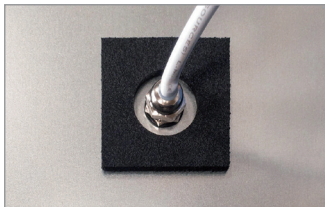


WHITE 4000 K



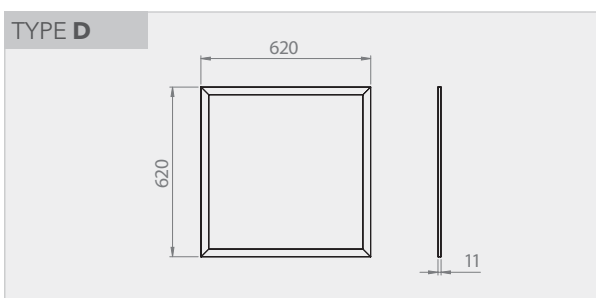
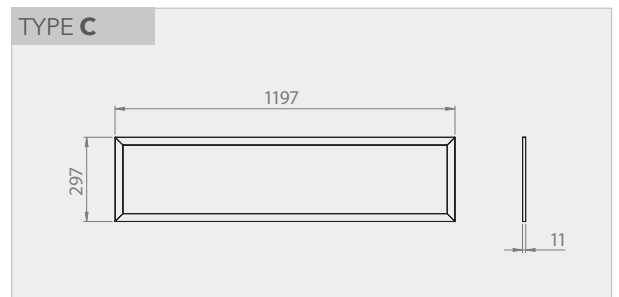
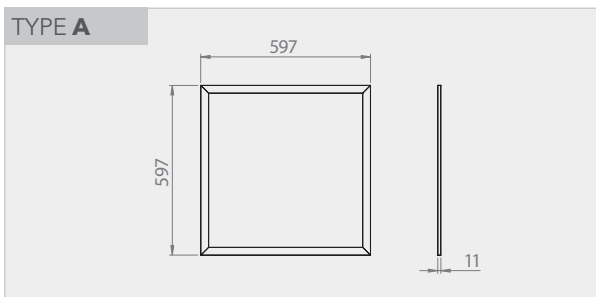
INACTINIC RED (620-640 nm)

DETAILS



Waterproofing of the power cable

DIMENSIONS (mm)



REFERENCES AND FEATURES

CODE	REFERENCE	Colour (K) temperature	IRC	Type	P (W)	Emitted flux (Lm)	Weight (Kg)	H ₂ O ₂
H1-E - INSTALLATION IN T24 FALSE CEILING - MODULE 600x600								
Installation on grid ceiling - Module 600x600								
SUR1028EPF	H1-E OP LED 597/597 4250/1 36/840 EPF	4000	>80	A	36	4250	4,5	●
SUR1041EPF	H1-E OP LED 597/597 4250/1 36/865 EPF	6500	>80	A	36	4250	4,5	●
SUR1029EPF	H1-E OP LED 297/1197 5150/1 54/840 EPF	4000	>80	C	54	5150	4,6	●
SUR1042EPF	H1-E OP LED 297/1197 5150/1 54/865 EPF	6500	>80	C	54	5150	4,6	●

H1-E - INSTALLATION IN T24 FALSE CEILING - MODULE 625x625

Installation on grid ceiling - Module 625x625								
EDO2252EPF	H1-E OP LED 620/620 4250/1 36/840 EPF	4000	>80	D	36	4250	4,5	●
EDO2253EPF	H1-E OP LED 620/620 4250/1 36/865 EPF	6500	>80	D	36	4250	4,5	●

CODE	REFERENCE	Colour (K) temperature	Type	P (W)	Emitted flux 4000K (Lm)	Emitted flux 625 nm (Lm)	H ₂ O ₂
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H1-E-WR - HYBRID INACTINIC LIGHTING - RED 625 nm/WHITE - MODULE 600x600

Installation without accessories, on grid ceiling - Module 600x600							
SUR1053EPF	H1-E OP W/R LED 597/597 3800/1 36/840 EPF	640nm/4000K	A	40+20	3800(white)	1000	●

Light and power output tolerance ± 10%

ACCESSORIES

CODE	REFERENCE
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Safety rope

A1013ACC	H1/P15 - Safety rope
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Frame for surface mounting - Thickness 50 mm - Can integrate the driver

A1051ACC	Adaptation frame for surface-mounting for H1 297/297
A1050ACC	Adaptation frame for surface-mounting for H1 597/597
A1079ACC	Adaptation frame for surface-mounting for H1 1197/297

Light and power output tolerance ± 10%

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 **H1_E**

SUR1028EPF	SUR1029EPF	EDO2252EPF	SUR1053EPF
SUR1041EPF	SUR1042EPF	EDO2253EPF	

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.

RESTRICTION OF DANGEROUS SUBSTANCES

2011/65/UE (08/06/2011) European directive « RoHS ».

Certificate issued on March 15th 2024

President, Frédéric Colombo