

TYPE OF PRODUCTS

Very slim LED Panels (11 mm), especially made for cleanrooms. Smooth luminaire section, curved. **IP65 from the top and the bottom**, resistant to hydrogen peroxide, under-face plated mounting to create a joint. Wide range of luminous flux, from 1800 to 6500 Lm. Available in 4000K or 6500K. CRI 90 and R9 (red) above 50.

MECHANICAL CONSTRUCTION

Extruded aluminium frame welded and white powder-coated with high covering power to maintain the frame's heat dissipation capacity, RAL9016. 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 0,8 mm 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 220/240V 50/60Hz.

INSTALLATION

H1_Evo is available in several versions :

- /C installation by clips on metal ceiling.
 - /TF installation through threaded rod for laminate panel.
 - /V direct clamping by visible tapered head screws.
- Except for the /V versions, the fixings are invisible.

WIRING

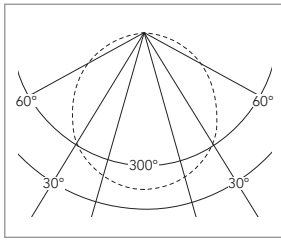
Connection on the external power supply, with a traction stop system to be tightened and closed (accessories included). Foresee a reservation in the plenum for the power supply (70 cm of cable).



OPTION



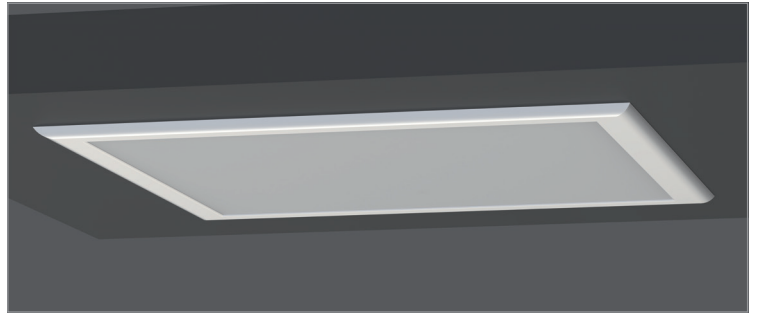
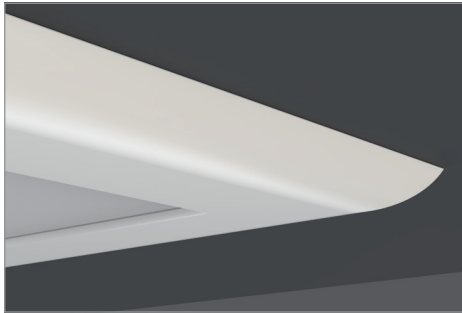
PHOTOMETRY



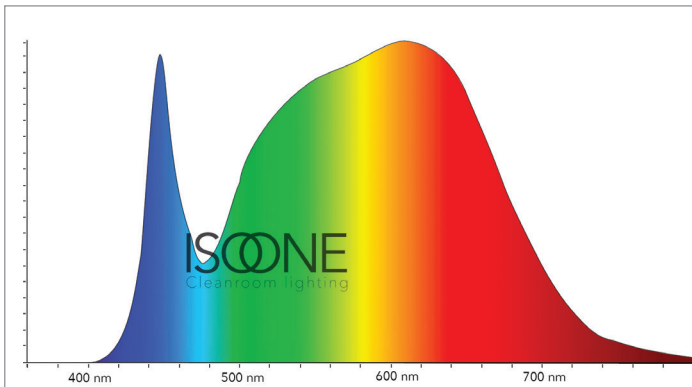
FRAUNHOFER IPA TEST



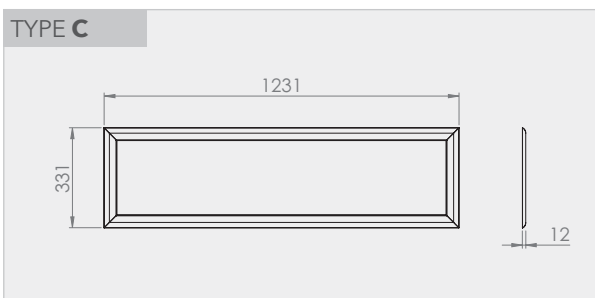
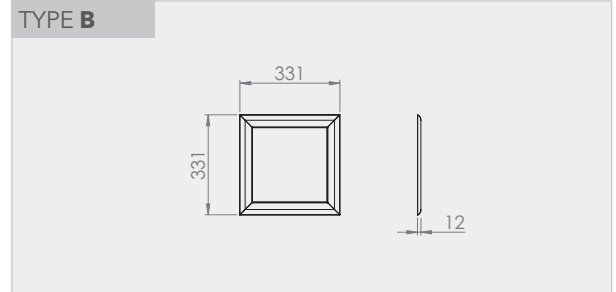
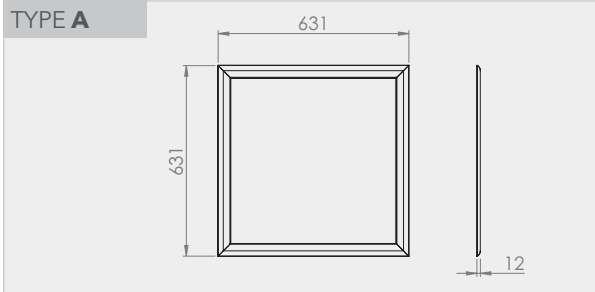
DETAILS



LIGHT SPECTRUM (VERSION 940)



DIMENSIONS (mm)



REFERENCES AND FEATURES

CODE	REFERENCE	Colour (K) temperature	IRC	Type	P (W)	Emitted flux (Lm)	Weight (Kg)	H ₂ O ₂
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H1 EVO - 940

Foresee a reservation for the driver in the plenum. For the TF et C version, it is necessary to order a drilling template.

Installation by clips on smooth metal panel - 940

SUR1192EPF	H1 EVO - C OP LED 631/631 4300/1 38/940 EPF	3950	>90	A	40	4300	4,5	●
SUR1193EPF	H1 EVO - C OP LED 331/1231 6500/1 65/940 EPF	3950	>90	C	65	6500	4,5	●
SUR1194EPF	H1 EVO - C OP LED 331/331 2200/1 22/940 EPF	3950	>90	B	22	2200	1,5	●

Installation by screws - 940

SUR1189EPF	H1 EVO - V OP LED 631/631 4300/1 36/940 EPF	3950	>90	A	40	4300	4,5	●
SUR1190EPF	H1 EVO - V OP LED 331/1231 6500/1 54/940 EPF	3950	>90	C	65	6500	4,5	●
SUR1191EPF	H1 EVO - V OP LED 331/331 2200/1 22/940 EPF	3950	>90	B	22	2200	1,5	●

H1 EVO - 965

Foresee a reservation for the driver in the plenum. For the TF et C version, it is necessary to order a drilling template.

Installation by clips on smooth metal panel - 965

SUR1201EPF	H1 EVO - C OP LED 631/631 4300/1 36/965 EPF	6500	>90	A	40	4300	4,5	●
SUR1202EPF	H1 EVO - C OP LED 331/1231 6500/1 54/965 EPF	6500	>90	C	65	6500	4,5	●
SUR1203EPF	H1 EVO - C OP LED 331/331 2200/1 22/965 EPF	6500	>90	B	22	2200	1,5	●

Installation by screws - 965

SUR1198EPF	H1 EVO - V OP LED 631/631 4300/1 36/965 EPF	6500	>90	A	40	4300	4,5	●
SUR1199EPF	H1 EVO - V OP LED 331/1231 6500/1 54/965 EPF	6500	>90	C	65	6500	4,5	●
SUR1200EPF	H1 EVO - V OP LED 331/331 2200/1 22/965 EPF	6500	>90	B	22	2200	1,5	●

Light and power output tolerance ± 10%, colour temperature ±3%, IRC 2%

ACCESSORIES

CODE	REFERENCE	CODE	REFERENCE
Drilling template			
A1012ACC	H1/C - Drilling template 300/300		
A1009ACC	H1/C - Drilling template 600/600		
A1010ACC	H1/C - Drilling template 300/1200		
Extension cables and cords			
A1194ACC	Extension cable H1 1500 2P M+F	A1196ACC	Cord H1 1500 2P F
A1195ACC	Extension cable H1 3000 2P M+F	A1197ACC	Cord H1 3000 2P F
TRU - Panel feed-through accessory			
A1202ACC	TRU H1 E70mm D110mm	A1204ACC	TRU H1 E80mm D110mm
A1203ACC	TRU H1 E60mm D110mm	A1181ACC	TRU H1 E100mm D110mm

EXTENSION CABLES ET CORDS

EXTENSION CABLES

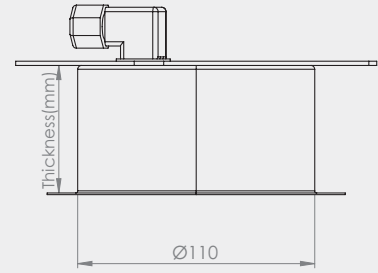
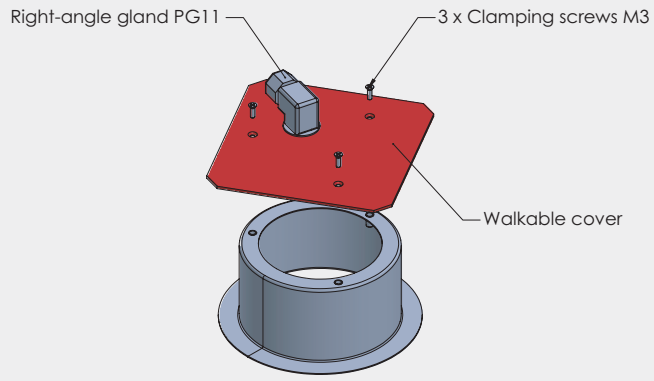
Extension cable with male and female connectors, enabling you to extend the power supply by 3m without having to replace the cords.

CORDS

1.5m or 3m cord to replace the female cord originally fitted to the power supply, fitted with a female connector at one end and stripped at the other, enabling the cord to be cut to the required size before being reconnected to the power supply.

TRU - H1 CABLE ENTRY ACCESSORY SANDWICH PANEL

TRU - H1



Thickness(mm) > (see table ACCESSORIES)

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_Evo**

SUR1192EPF	SUR1189EPF	SUR1201EPF	SUR1198EPF
SUR1193EPF	SUR1190EPF	SUR1202EPF	SUR1199EPF
SUR1194EPF	SUR1191EPF	SUR1203EPF	SUR1200EPF

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 Mach 15th 2024

President, Frédéric Colombo