

### TYPE OF PRODUCTS

Cleanroom luminaires, circular, recessed LED, IP65, access from the top. Walkable solution.

### MECHANICAL CONSTRUCTION

Structure of the luminaire made of 1 mm steel continuously welded. Powder coated with KilBac white RAL 9003, certified qualicoat class 1 and antibacterial. Upper clamping frame made of 3 mm red lacquered aluminium. Top cover red lacquered of 1 mm steel.

### LED MODULES

Circular LED modules with an energy efficiency until 170 Lm/W. Assembled on a 2 mm aluminium plate to ensure an optimal heat dissipation for the lifespan of the LEDs. Low chromatic distortion: 3SDCM. Colour rendering index over 90. Expected luminous flux : L80 at 50.000 h.

### OPTICS

- OPMI : opal diffuser in special LED PMMA (Perspex).

### CONTAMINATION CONTROL

#### Reduced risk of microbial growth :

>> KilBac technology, broad spectrum antibacterial finish with silver ions (BioCote, validated according to ISO 22196).

The mechanical construction of the luminaire ensures a particle emission class 3 according to ISO 14644-14. This range is made without silicone.

### WALKABLE

Luminaires designed and tested to withstand the application of a 100 kg mass on the top cover corresponding to accidental feet pressure on the luminaire in the walkable plenum.

### H<sub>2</sub>O<sub>2</sub> 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% H<sub>2</sub>O<sub>2</sub> solution, see the resistance in the reference table.

### 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). For environments with a moisture content of more than 70%, we recommend the use of lacquered INOX 304 for the housing, in option.

### POWER SUPPLY

Luminaires supplied with European-branded EPF electronic driver. Rated voltage 220-240 V. DALI dimming (GDA) available in option Access from the top of the luminaire, without breaking the room classification.

### INSTALLATION

Installation in sandwich panels from 15 to 100 mm. Adaptations for different thicknesses are possible on request. Quick installation without opening the luminaire. The sealing between the false ceiling and the lower frame must be applied at the installation.

### WIRING

By a waterproof Wieland brand connector, RST20i, fixed to the top of the luminaire (installation on flexible cord).



OPTIONS

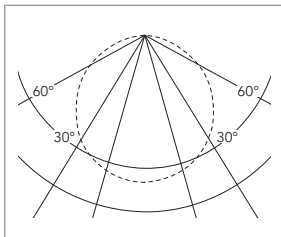


**Extra cover**  
Extra walkable protection on top the luminaire.



**KS3 emergency kit**  
Philips Trustsight BASIC kit, 3.6 V 4000 mAh NiMH battery, power supply 3 W for 3 h, approx. 300 Lm

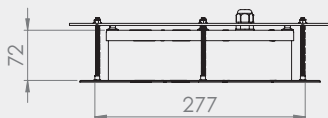
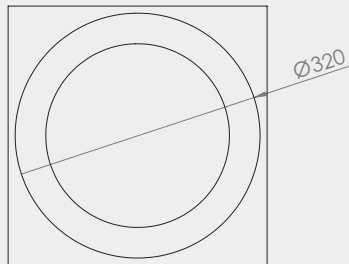
PHOTOMETRY



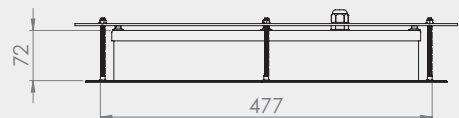
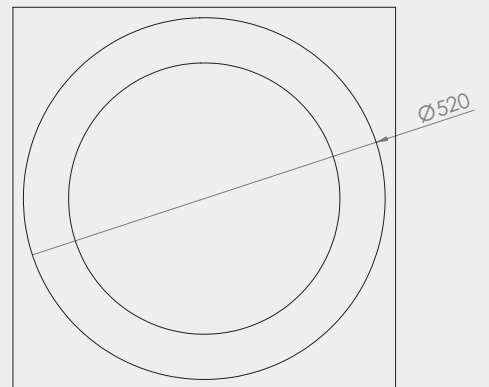
Opal

DIMENSIONS (mm)

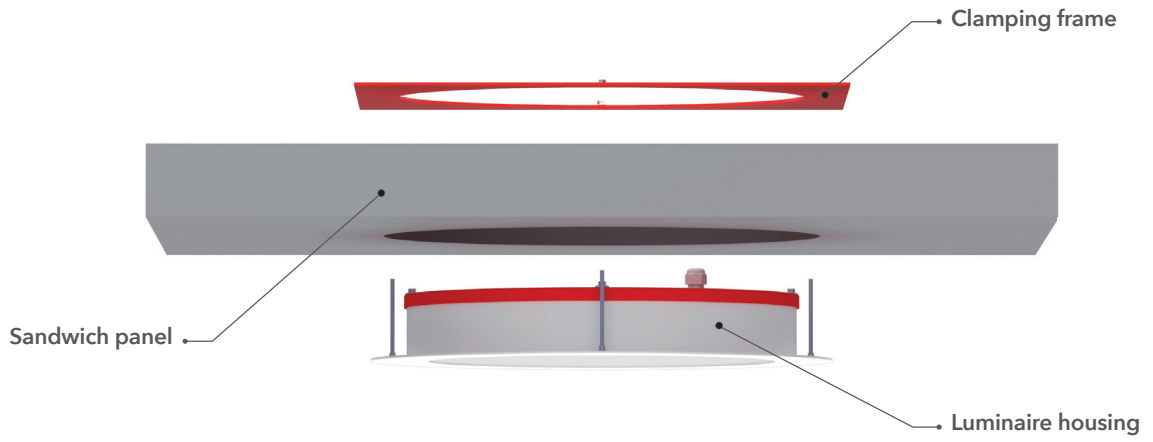
TYPE A



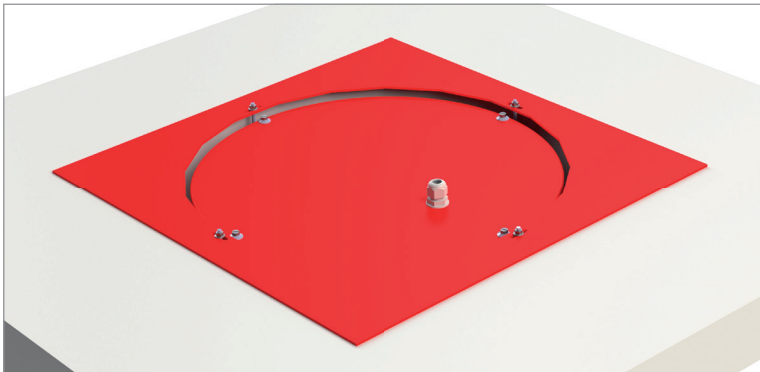
TYPE B



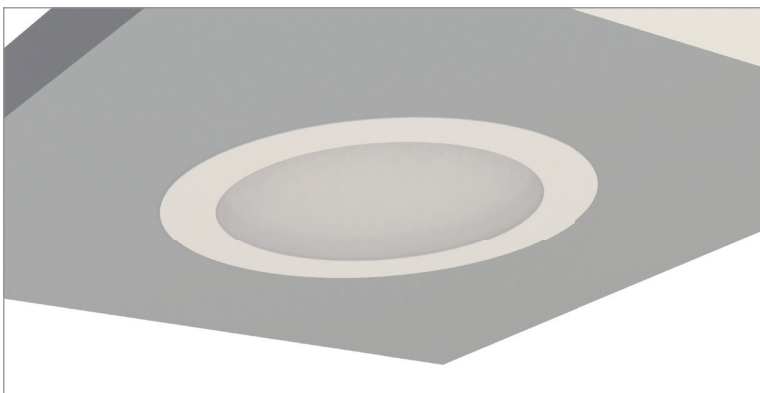
INSTALLATION PLAN



PHOTOGRAPHIC DETAILS



View from the plenum. An additional cover for closure and protection is available in option. Power cord included but not illustrated.



Installed luminaire, view from cleanroom side.

REFERENCES AND FEATURES

CODE	REFERENCE	Type	Cut-out (mm)	P (W)	Emitted flux (Lm)	Efficiency (Lm/W)	Weight (Kg)	H <sub>2</sub> O <sub>2</sub>
<b>OPMI optics - PMMA opal PERSPEX diffuser</b>								
EUP2208EPF	LUNA 500 OPMI / 4000/1 40/940 EPF	B	Diam 480	35	4000	115	8	●
EUP2209EPF	LUNA 300 OPMI / 2000/1 20/940 EPF	A	Diam 280	18	2000	110	6	●

Light and power output tolerance  $\pm$  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/](http://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 **LUNA**

EUP2208EPF

EUP2209EPF

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 $\leq 16$ 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 $\leq 16$ 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 May 15<sup>th</sup> 2023

President, Frédéric Colombo