

Mg12



TYPE OF PRODUCTS

LED recessed luminaires for cleanrooms, with sandwich panel ceiling, with cut-out. Once installed, the luminaire is flush on the top and the bottom of the ceiling, its cover is walkable. The standard version allows access inside the luminaire from above only. In the HB version access is possible from above and from below. The TR trapdoor version has only an access from below and allow an access to the top of the ceiling.

MECHANICAL CONSTRUCTION

Luminaire structure made of two 1mm steel frames, clamped together on the panel, finished with white KilBac powder-coating. Reinforced upper cover in bright red lacquered steel.

The HB and TR version with access from below : bottom frame in white lacquered extruded aluminium to close the housing by overlapping. It is screwed to the housing of the luminaire with 4 stainless steel screws.

LED MODULES

Zagha LED modules Book7, L28W6, 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. Low chromatic distortion : 3SDCM. Colour rendering index over 80. Expected luminous flux : see table.

OPTICS

- MPVR : clear tempered glass diffuser + inner microprismatic plate. Low luminance.
- OPMI : opal diffuser in special LED PMMA (Perspex). 80% of light transmission.

MAINTENANCE

- From the top for the standard Mg12 version.
- From the top and/or the bottom for the Mg12 HB version.
- Only from the bottom for the TR trapdoor version.

CONTAMINATION CONTROL

Reduced risk of microbial growth :

- >> **KilBac** technology, broad spectrum antibacterial finish with silver ions (BioCote, validated according to ISO 22196).
- >> **CleanSeal** technology, use of two-component antimicrobial seals according to VDI-6022 and DIN EN ISO 846.

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. **Thanks to the mechanical configuration of the luminaire, the pressure is transmitted to the ceiling and not to the luminaire body in order to prevent any loss of airtightness in the room at the level of the luminaire.**

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 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 or the bottom depending on the model.

INSTALLATION

Installation in sandwich panels from 50 to 80 mm. Adaptations for different thicknesses are possible on request. The sealing between the false ceiling and the lower frame must be applied at the installation.

WIRING

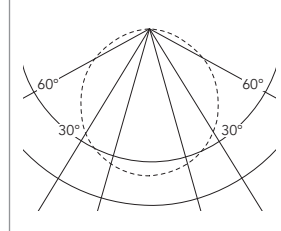
By a waterproof Wieland brand connector, RST20i, 90° angled, fixed to the top of the luminaire. This configuration allows a better organization of the wiring in the plenum.

OPTIONS

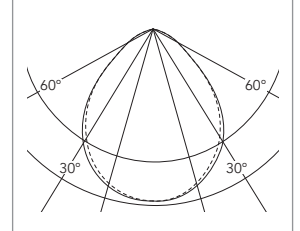


Kit secours KS3
Philips Trustsight BASIC kit, 3.6 V 4000 mAh NiMH battery, power supply 3 W for 3 h, approx. 300 Lm.

PHOTOMETRY



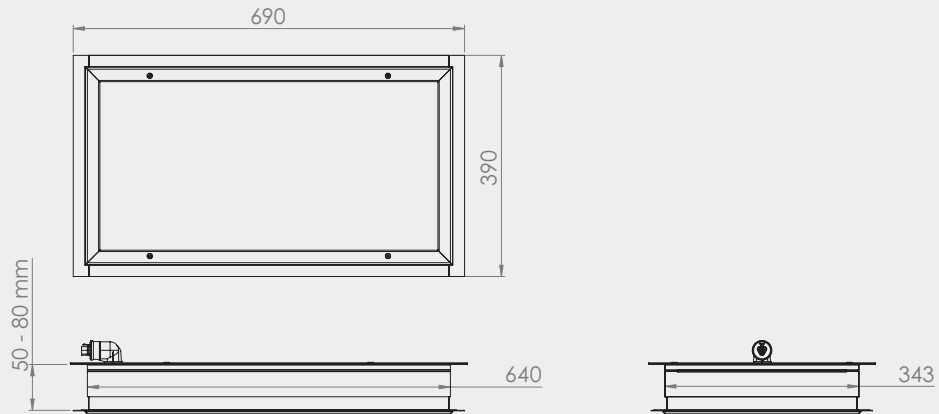
Opal



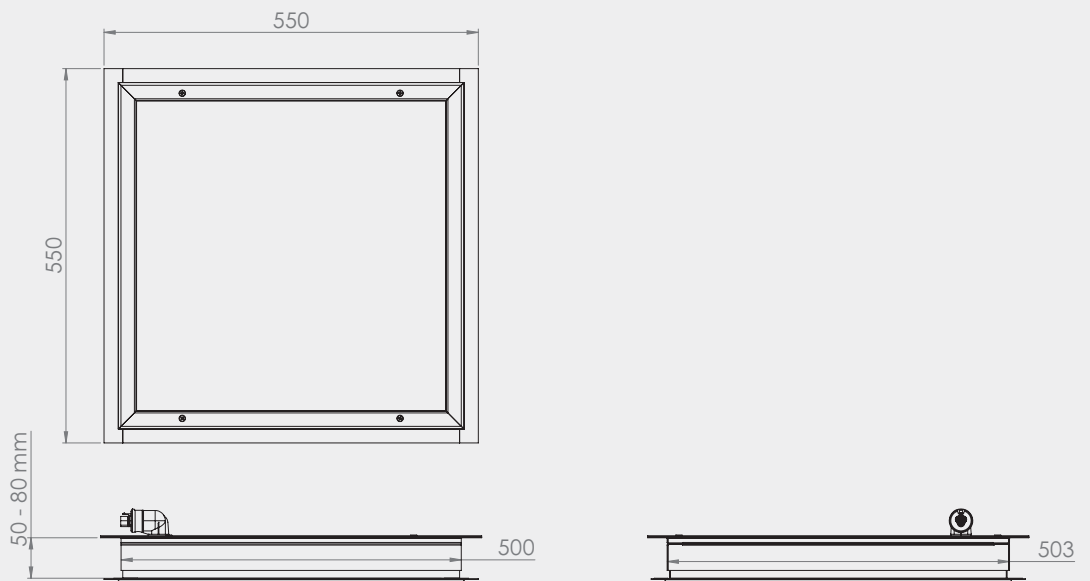
MPVR

DIMENSIONS (mm)

TYPE A



TYPE B



REFERENCES AND FEATURES

CODE	REFERENCE	L80 (x1000h)	Cut-out mini (mm)	P (W)	Emitted flux (Lm)	Weight (Kg)	H ₂ O ₂
Type A - Access from the top - Optics MPVR low luminance in tempered glass							
EUP2162EPF	Mg12 MPVR 700/400 5000/4 45/840 EPF	70	350x650	45	5000	11	●
EUP2170EPF	Mg12 MPVR 700/400 7000/4 70/840 EPF	70	350x650	70	7000	11	●

Type A - Access from the top - Optics OPMI in PMMA							
EUP2171EPF	Mg12 OPMI 700/400 5000/4 40/840 EPF	70	350x650	40	5000	9	●
EUP2172EPF	Mg12 OPMI 700/400 7000/4 60/840 EPF	70	350x650	60	7000	9	●

Type A - Access from the top and the bottom - Optics MPVR low luminance in tempered glass							
EUP2164EPF	Mg12-HB MPVR 700/400 5000/4 40/840 EPF	70	350x650	40	5000	11	●
EUP2165EPF	Mg12-HB MPVR 700/400 7000/4 60/840 EPF	70	350x650	60	7000	11	●

Type A - Access from the top and the bottom - Optics OPMI in PMMA							
EUP2167EPF	Mg12-HB OPMI 700/400 5000/4 40/840 EPF	70	350x650	40	5000	9	●
EUP2168EPF	Mg12-HB OPMI 700/400 7000/4 60/840 EPF	70	350x650	60	7000	9	●

CODE	REFERENCE	L80 (x1000h)	Cut-out mini (mm)	P (W)	Emitted flux (Lm)	Weight (Kg)	H ₂ O ₂
Type B - Access from the top - Optics MPVR low luminance in tempered glass							
EUP2178EPF	Mg12 MPVR 600/600 3800/1 43/840 EPF	50	510x510	43	3800	16	●
EUP2179EPF	Mg12 MPVR 600/600 5000/1 61/840 EPF	50	510x510	61	5000	16	●

Type B - Access from the top - Optics OPMI in PMMA							
EUP2176EPF	Mg12 OPMI 600/600 3800/1 35/840 EPF	50	510x510	35	3800	14	●
EUP2177EPF	Mg12 OPMI 600/600 5000/1 50/840 EPF	50	510x510	50	5000	14	●

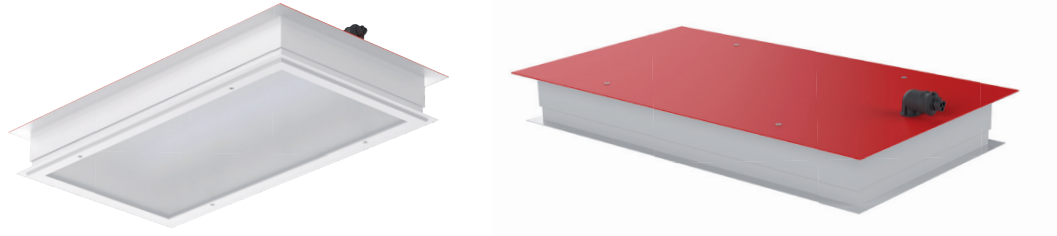
Type B - Access from the top and the bottom - Optics MPVR low luminance in tempered glass							
EUP2182EPF	Mg12-HB MPVR 600/600 3800/1 45/840 EPF	50	510x510	45	3800	16	●
EUP2183EPF	Mg12-HB MPVR 600/600 5000/1 60/840 EPF	50	510x510	60	5000	16	●

Type B - Access from the top and the bottom - Optics OPMI in PMMA							
EUP2180EPF	Mg12-HB OPMI 600/600 3800/1 35/840 EPF	50	510x510	35	3800	14	●
EUP2181EPF	Mg12-HB OPMI 600/600 5000/1 50/840 EPF	50	510x510	50	5000	14	●

CODE	REFERENCE	L80 (x1000h)	Cut-out mini (mm)	P (W)	Emitted flux (Lm)	Weight (Kg)	H ₂ O ₂
Type B - Version trappe - Access only from the bottom - Optics OPMI in PMMA							
EDO2310EPF	Mg12-TR OPMI 600/600 4000/4 35/840 EPF	50	510x510	35	3800	14	●
EDO2311EPF	Mg12-TR OPMI 600/600 5800/4 50/840 EPF	70	510x510	50	5800	14	●

Light and power output tolerance ± 10%

PHOTOGRAPHIC DETAILS



INTEGRATION IN SANDWICH PANEL



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 Mg12

EUP2162EPF	EUP2172EPF	EUP2167EPF	EUP2179EPF	EUP2182EPF	EUP2181EPF
EUP2170EPF	EUP2164EPF	EUP2168EPF	EUP2176EPF	EUP2183EPF	EDO2310EPF
EUP2171EPF	EUP2165EPF	EUP2178EPF	EUP2177EPF	EUP2180EPF	EDO2311EPF

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 May 15th 2023

President, Frédéric Colombo

