ISOONE
Cleanroom lighting

LED

RECESSED Luminaires IP65

Ir77_HLED

LED
L 80 70.000h
3 SDCM
RISQUE PHOTO-BIOLOGIQUE 0
3 14644
IP65
IK07 OPMI
IK08 PC/VR
960° PC/VR
650° OPMI
CE

TYPE OF PRODUCTS
Recessed LED luminaire IP65 with smooth opal polycarbonate, PMMA optics, or glass. Access from the top. Wide range of powers and dimensions. Installation in sandwich panels.

MECHANICAL CONSTRUCTION
Luminaire structure made of 1 mm steel. Powder coated with KilBac white RAL 9003, certified qualicoat class 1 and antibacterial. Upper clamping frame in white lacquered steel. Upper cover red lacquered for a better identification of the luminaires.

LED MODULES
European LED circuits with very high efficiency (> 150 Lm/W), screwed on a internal plate made of steel to ensure an optimal heat dissipation for the lifespan of the LEDs. 3SDCM. Expected luminous flux: L80 at 70.000 h.

OPTICS
Optical assembly bonded with silicone-free sealant, certified for use in clean rooms :
- **OPPC :** opal polycarbonate plate with high resistance to impact.
- **OPMI :** opal plate in PMMA with high resistance to chemical agents.
- **MPVR :** tempered glass diffuser + inner microprismatic plate. High visual comfort, easy cleaning excellent ageing.

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

H_2O_2 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_2O_2 solution.

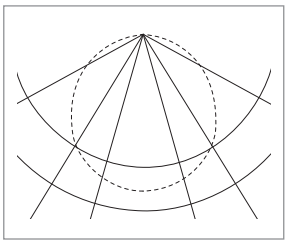
TEMPERATURE AND HUMIDITY
Reference ambient temperature: 20°C / 68°F. Operating temperature range : 5 to 25°C / 41 to 77 °F (the temperature affects the lifetime of the LEDs). For environments with a moisture content of more than 70%, we recommend the use of lacquered INOX 304 for the housing, in option.

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 of the luminaire structure from the bottom, clamping of the holding frame from the top with 4 or 6 knurled nuts, without any need to open the luminaire. Luminaire made for installation in false ceilings from 15 to 100 mm. 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).

PHOTOMETRY



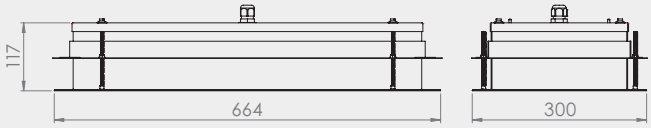
OPTIONS

DALI GDA | INOX 304 Caisson | Emergency

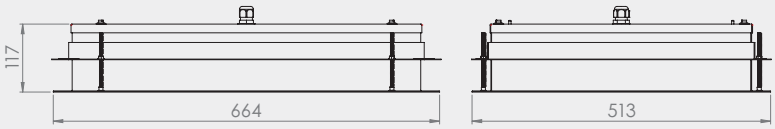
KS3 emergency kit
Philips Trustsight BASIC kit, 3.6 V battery 4000 mAh NiMH battery, power supply 3 w for 3 h, approx. 300 Lm.

DIMENSIONS (mm)

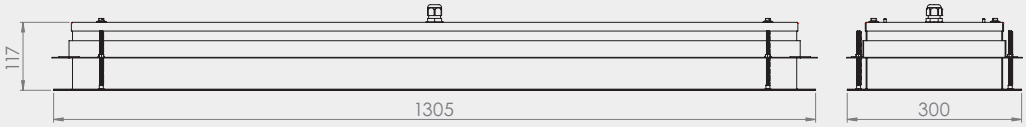
TYPE **A**



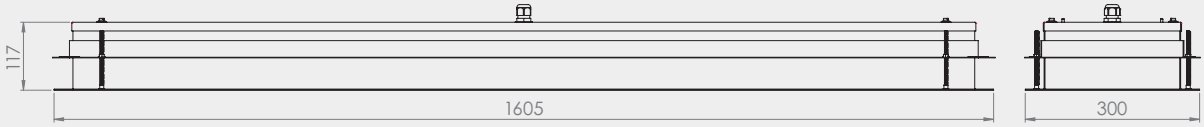
TYPE **B**



TYPE **C**



TYPE **D**



REFERENCES AND FEATURES

CODE	REFERENCE	Type	Cut-out (mm)	P (W)	Emitted flux (Lm)	Weight (Kg)
OPMI optics - Opal PMMA diffuser						
EUP2072EPF	Ir77-HLED OPMI 665/300 2800/2 28/840 EPF	A	275x640	28	2800	8
EUP2070EPF	Ir77-HLED OPMI 665/515 4000/3 39/840 EPF	B	490x640	39	4000	11
EUP2090EPF	Ir77-HLED OPMI 665/515 5500/4 54/840 EPF	B	490x640	54	5500	11
EUP2071EPF	Ir77-HLED OPMI 1305/300 4000/2 39/840 EPF	C	1275x275	39	4000	11
EUP2113EPF	Ir77-HLED OPMI 1305/300 5500/2 60/840 EPF	C	1275x275	60	5500	11
EUP2088EPF	Ir77-HLED OPMI 1605/300 7000/2 70/840 EPF	D	1575x275	70	7000	15
OPPC optics - Polycarbonate opal diffuser						
EUP2075EPF	Ir77-HLED OPPC 665/300 2000/2 28/840 EPF	A	275x640	28	2000	8
EUP2073EPF	Ir77-HLED OPPC 665/515 3200/3 39/840 EPF	B	490x640	39	3200	11
EUP2091EPF	Ir77-HLED OPPC 665/515 4200/4 54/840 EPF	B	490x640	54	4200	11
EUP2074EPF	Ir77-HLED OPPC 1305/300 3200/2 39/840 EPF	C	1275x275	39	3200	11
EUP2114EPF	Ir77-HLED OPPC 1305/300 4200/2 54/840 EPF	C	1275x275	54	4200	11
EUP2112EPF	Ir77-HLED OPPC 1605/300 5500/2 60/840 EPF	D	1575x275	60	5500	15
MPVR optics - Tempered glass diffuser + inner microprismatic plate						
EUP2202EPF	Ir77-HLED MPVR 665/300 3000/2 25/840 EPF	A	275x640	25	3000	8
EUP2200EPF	Ir77-HLED MPVR 665/515 5000/4 45/840 EPF	B	490x640	45	5000	11
EUP2201EPF	Ir77-HLED MPVR 1305/300 7000/4 65/840 EPF	C	1275x275	65	7000	11

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.

ISOONE
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ANNEX

Ir77_HLED

UE Declaration of Conformity

ISOONE Cleanroom lighting

UE Declaration of Conformity

Certificate N° **CE_Ir77_HLED_20231105**

LA MANUFACTURE DE FRANCE SAS
18 rue Jean Monnet
31240 Saint-Jean

CERTIFIES,
under its own responsibility, that the ISOONE luminaires Ir77_HLED

EUP2072EPF	EUP2071EPF	EUP2075EPF	EUP2074EPF	EUP2202EPF
EUP2070EPF	EUP2113EPF	EUP2073EPF	EUP2114EPF	EUP2200EPF
EUP2090EPF	EUP2088EPF	EUP2091EPF	EUP2112EPF	EUP2201EPF

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 May 15th 2023

President, Frédéric Colombo