



lr77_Evo



TYPE OF PRODUCTS

Recessed LED luminaires IP65, access from the bottom. Installation in modular false ceilings T24 or smooth ceilings with cut-out.

MECHANICAL CONSTRUCTION

Luminaire structure made of 0,8mm steel, LaserWeld waterproof assembling technology, powder coated with KilBac white RAL 9003, certified qualicoat class 1 and antibacterial. The flat return of the structure allows an optimal application of the seal during installation. Lower frame in aluminium white lacquered, screwed on the luminaire structure through 4 or 6 stainless steel screws, closed by overlapping.

LED MODULES

White light : Zaghera 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. 3SDCM. Colour rendering index 85. Expected luminous flux : L80 at 70.000 h.

Inactinic light :

- Monochromatic amber (590 nm), aluminium circuits, Book7 Zaghera format, L28W6.
- Monochromatic Red (620 nm), aluminium circuits, Book7 Zaghera format, L28W6.
- Inactinique composé (LTO), aluminium circuits, low-emission led below 500 nm + additional filter.

OPTICS

- **OPMI** : opal diffuser in PMMA, high chemical resistance.
- **MPPC** : clear polycarbonate diffuser + inner microprismatic plate. High visual comfort and impact resistance.
- **MPVR** : clear 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).
- >> **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.

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 electronic driver. Rated voltage 220-240 V. Access to the luminaire from the bottom, interchangeable aluminium plate. DALI dimming (GDA) available in option.



OPTIONS



DALI Dimming

Driver to control the light flow with DALI protocol or push button. For hybrid inactinic luminaires, dimming is only possible with DALI protocol.



Housing INOX 304

For rooms where the risk of oxidation is high. We offer a housing made of 304 stainless steel, white lacquered.



WIELAND RST20i connector

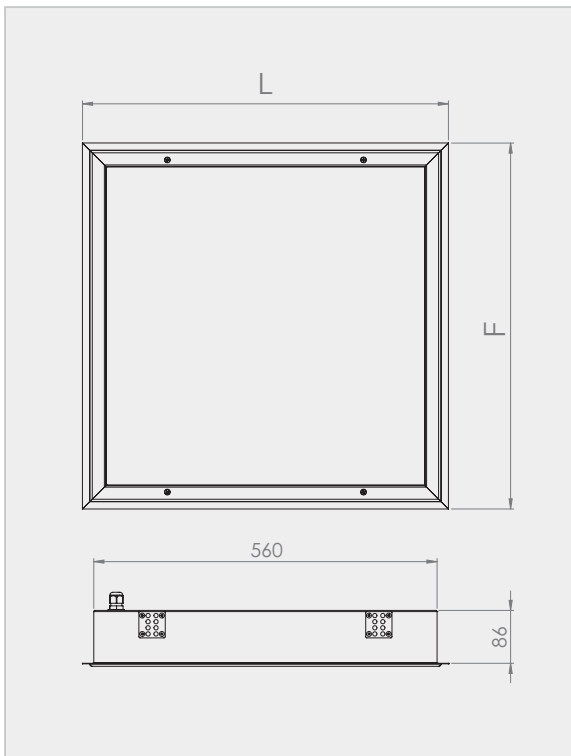
RST20i waterproof, male on 500 mm cord + female.



KS3 emergency kit

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

DIMENSIONS (mm) AND INSTALLATION



INSTALLATION

Installation of the housing in T24 modular false ceiling (excepted clip'in) or cut-out ceiling from 13 to 80 mm :

By clamping ISOFLEX waterproof (supplied with the luminaire), which allow to maintain watertightness even in maintenance position.

By suspension with threaded rods (not supplied) fixed to the housing

By optional mounting brackets (see page 56).

The sealing between the false ceiling and the lower frame must be applied at the installation.

POWER SUPPLY

Power supply through a PE13 cable gland on top of the luminaire :

White light

2-Pole terminal block + earth inside the luminaire. Access through the luminaire housing through a cable gland (rewiring impossible).

Hybrid white + inactinic light without dimming

Two independent circuits wired on a 5-pole terminal block : N1F1-N2F2-T

Hybrid white + inactinic light with dimming DALI

A single electrical circuit wired to a 5-pole terminal block : N1F1T-D1D2. One DALI bus but two addresses per luminaire. Switching on and off via DALI controller only (push button not possible).

DIMENSIONS AND CUT-OUT

TYPE	L (mm)	F (mm)	Minimum cut-outs (mm)
A	597	597	575x575
B	1197	297	1175x275
C	597	297	575x275

REFERENCES AND FEATURES

White light

CODE	REFERENCE	Radiation	Type	P (W)	Emitted flux (Lm)	Weight (Kg)
OPMI optics - Opal PMMA diffuser						
EDO2265EPF	Ir77 EVO OPMI 297/597 2500/2 20/840 EPF	4000 K - CRI 85	C	20	2500	4,5
EDO2239EPF	Ir77 EVO OPMI 597/597 4000/4 35/840 EPF	4000 K - CRI 85	A	35	4000	8
EDO2274EPF	Ir77 EVO OPMI 597/597 6000/4 55/840 EPF	4000 K - CRI 85	A	55	6000	8
EDO2240EPF	Ir77 EVO OPMI 297/1197 4400/6 36/840 EPF	4000 K - CRI 85	B	36	4400	9
EDO2271EPF	Ir77 EVO OPMI 297/1197 6000/6 57/840 EPF	4000 K - CRI 85	B	57	6000	9
MPPC optics - Clear polycarbonate diffuser + inner microprismatic - UGR<19						
EDO2263EPF	Ir77 EVO MPPC 597/597 4000/4 39/840 EPF	4000 K - CRI 85	A	39	4000	8
EDO2358EPF	Ir77 EVO MPPC 597/597 5500/1 50/840 EPF	4000 K - CRI 85	A	50	5500	8
EDO2264EPF	Ir77 EVO MPPC 297/1197 4000/6 43/840 EPF	4000 K - CRI 85	B	43	4000	8
MPVR optics - Clear glass diffuser + inner microprismatic - UGR<19						
EDO2283EPF	Ir77 EVO MPVR 597/597 4000/4 34/840 EPF	4000 K - CRI 85	A	34	4000	11
EDO2284EPF	Ir77 EVO MPVR 597/597 5000/4 45/840 EPF	4000 K - CRI 85	A	45	5000	11
EDO2285EPF	Ir77 EVO MPVR 297/1197 5000/6 45/840 EPF	4000 K - CRI 85	B	45	5000	11

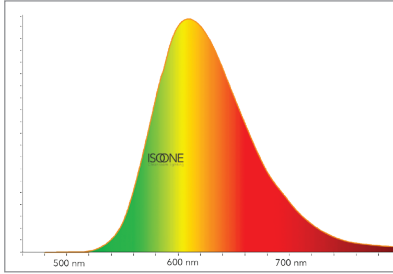
Light and power output tolerance \pm 10%

Inactinic and hybrid light

CODE	REFERENCE	Radiation	Type	P (W) White	Emitted flux White (Lm)	P (W) Inactinic	Emitted flux Inactinic (Lm)
OPMI optics - Opal PMMA diffuser - Inactinic amber spectrum							
EDO2378EPF	Ir77 EVO OPMI 597/597 3000/4 40/590 EPF	590 nm	A	13		40	3000
OPMI optics - Opal PMMA diffuser - Inactinic amber hybrid spectrum							
EDO2383EPF	Ir77 EVO OPMI 597/597 3000/3000/4 70/590/840 EPF	590 nm + 4000 K	A	30	3000	40	3000
OPMI optics - Opal PMMA diffuser - Composite inactinic spectrum LTO							
EDO2342EPF	Ir77 EVO OPMI LTO LED 597/597 3500/1 35/500 EPF	mini 500 nm	A			35	3500
OPM optics - Opal PMMA diffuser - Inactinic red spectrum							
EDO2273EPF	Ir77 EVO OPMI 597/597 750/3000/1 45/620/840 EPF	620 nm + 4000 K	A	30	3000	20	750
EDO2276EPF	Ir77 EVO OPMI 597/597 1500/1 35/620 EPF	620 nm	A				1500

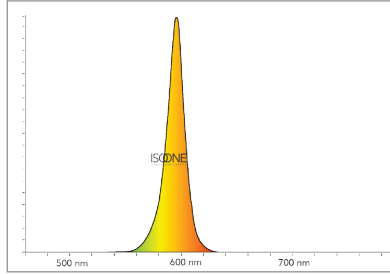
Light and power output tolerance \pm 10%

INACTINIC SOLUTIONS



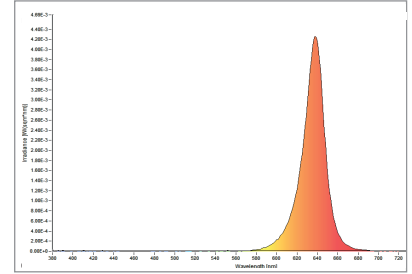
SPECTRUM OF THE LTO VERSION

- Higher luminous flux
- More colour in the spectrum
- Filter maintenance required
- Better Lm/€ solution
- Risk of light leakage below 500 nm < 1.5% (maintenance failure, breakage, end of filter lifetime...)



SPECTRUM OF THE MONOCHROMATIC 590 nm HP VERSION

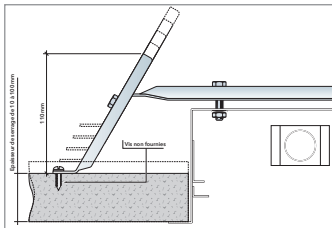
- Better Lm/W efficiency
- No filter, amber LEDs
- Lower luminous flux
- Lower Lm/€ ratio
- No risk of light leakage below 500 nm



SPECTRUM OF THE INACTINIC VERSION 620 nm

- Red light emission

ACCESSORIES



Clamping brackets

CODE	REFERENCE
Clamping brackets for false ceilings from 13 to 100 mm. Allow to increase the clamping pressure on the false ceiling.	
A1000ACC	PTTS DUO
A1001ACC	PTTS TRIO/QUARTO
Security steel cable	
A1021ACC	Rope kit Duo Ir77-Ra88 (for format type A, C and D)
A1022ACC	Rope kit Quarto Ir77-Ra88 (for format type B)

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 **lr77_Evo**

EDO2265EPF	EDO2240EPF	EDO2358EPF	EDO2284EPF	EDO2383EPF	EDO2276EPF
EDO2239EPF	EDO2271EPF	EDO2264EPF	EDO2285EPF	EDO2342EPF	
EDO2274EPF	EDO2263EPF	EDO2283EPF	EDO2378EPF	EDO2273EPF	

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 March 15th 2024

President, Frédéric Colombo

