



Nd60_D



TYPE OF PRODUCTS

LED recessed luminaire for cleanroom. Installation in modular grid ceiling **T55 module 600**, access from below.

MECHANICAL CONSTRUCTION

Housing made of 10/10 steel. Powder coated with KilBac white RAL 9003, certified qualicoat class 1 and antibacterial. Lower frame in white lacquered aluminium, screwed on the luminaire structure through 8 or 10 stainless steel screws, closed by overlapping.

LED MODULES

Linear LED PCB from European brand, energy classification AA+, assembled on a 2 mm aluminium plate. Low chromatic distortion : 3SDCM. Expected luminous flux: L80 at 50.000 h or 70.000 h.

OPTICS

- **OPMI** : opal diffuser in PMMA (Perspex).
- **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.

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.

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 below for this D-version. DALI dimming (GDA) available in option.

INSTALLATION

Installation in modular T55 false ceiling. The luminaire can be fixed through clamping brackets, supplied with the false ceiling.

WIRING

By a Wieland waterproof connector, RST20i on cord + female connector.



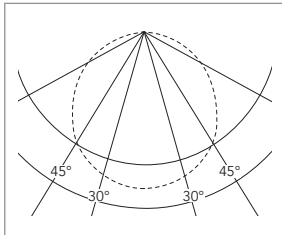
OPTIONS



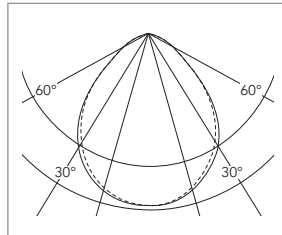
KS3 emergency kit

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

PHOTOMETRY



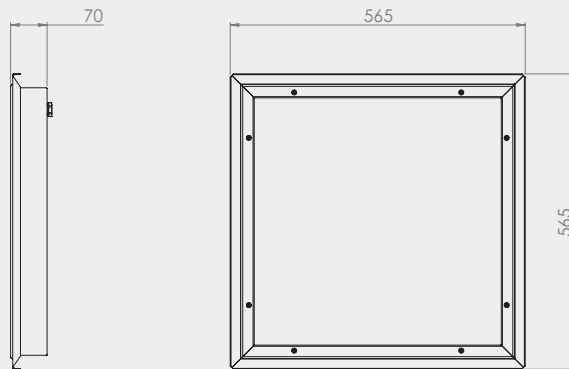
OPMI



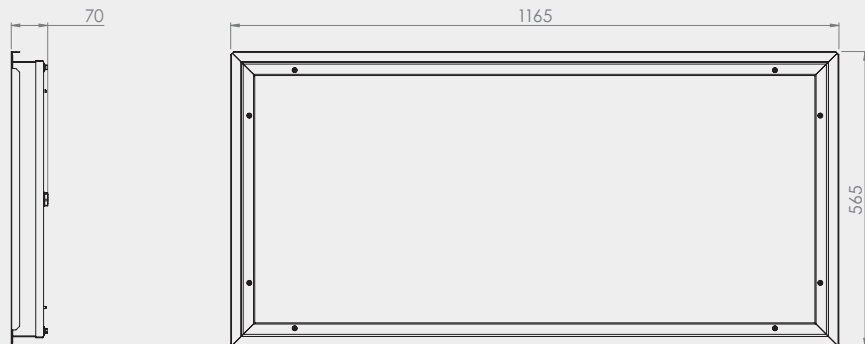
MPPC-MPVR

DIMENSIONS (mm)

TYPE A



TYPE B



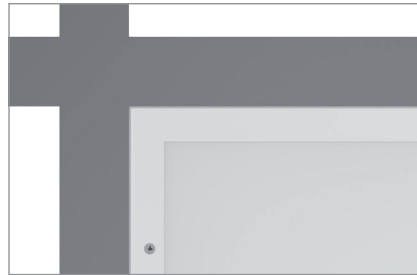
INTEGRATION DETAILS IN T55 GRID CEILING (mm)

D-Version, access from the bottom

Sectional view



Photographic details



REFERENCES AND FEATURES

CODE	REFERENCE	L80 (x1000h)	Type	P (W)	Emitted flux (Lm)	Weight (Kg)
T55 GRID CEILING, MODULE 600 - ACCESS FROM THE BOTTOM						
OPMI optics - Opal PMMA diffuser						
EDO2244EPF	Nd60 DM600 OPMI LED 565/565 5000/1 42/840 EPF	50	A	42	5000	6
EDO2245EPF	Nd60 DM600 OPMI LED 565/565 10000/5 87/840 EPF	50	A	87	10000	6
EDO2243EPF	Nd60 DM600 OPMI LED 1165/565 10000/12 87/840 EPF	70	B	87	10000	12
MPPC optics - Polycarbonate microprismatic diffuser - UGR lower than 19						
EDO2250EPF	Nd60 DM600 MPPC LED 565/565 4700/1 42/840 EPF	50	A	42	4700	6
EDO2251EPF	Nd60 DM600 MPPC LED 565/565 9500/5 87/840 EPF	50	A	87	9500	6
EDO2249EPF	Nd60 DM600 MPPC LED 1165/565 10000/12 87/840 EPF	70	B	87	10000	12
MPVR optics - Tempered glass diffuser + inner microprismatic						
EDO2301EPF	Nd60 DM600 MPVR LED 565/565 4500/1 45/840 EPF	50	A	45	4500	7

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/

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 Nd60_D

EDO2243EPF	EDO2245EPF	EDO2250EPF	EDO2301EPF
EDO2244EPF	EDO2249EPF	EDO2251EPF	

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