

General features

Description: LED spotlight

Insulation class: class II

Nominal voltage: 230 V 50 Hz

Protection level: IP66

Protection against impact: IK08

Power factor: > 0.9

Ambient temperature Ta: -30°C +50°C

Weight: 9.00 kg

Maximum exposed surface: 0.11 m² (dimensioned for wind 160 Km/h)

Exposed lateral surface: 0.035 m² (dimensioned for wind 160 Km/h)

Common mode surge protection: 10 kV

Differential mode surge protection: 10 kV

Driver: included

Marks and Certifications: ENEC / CE / Resistance to thrown balls

Materials

Body: die-cast aluminium alloy UNI EN AB 47100 (copper content < 1%)

Screen: flat tempered glass

Seal: anti-age expanded silicone

External screws and metal components: stainless steel

Finish: phosphochromatisation-treated and polyester powder-coated in 16 phases for optimal weather resistance

Colours

Sablé 100 Noir

Grey RAL9006

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Installation and maintenance

Installation: wall / pole / ceiling

Mounting: steel bracket

Ø power cable: 10 ÷ 14 mm

1 x 0.75 mm² double-insulated silicone rubber flexible cable

Cable gland: PG16

Power supply compartment: independent from the optical unit. The electrical component compartment can be accessed from the rear by unscrewing the locking screws with standard supply tools. During these operations the optical compartment remains protected by a flat glass screen.

Optical system

Provided with 4000 K and 3000 K white emitters fitted via a "pick and place" system to a heat sinking printed circuit board (MCPCB). Optical system composed of high-efficiency metallised polycarbonate reflectors developed in order that each light source provides full photometry. This solution guarantees that the malfunctioning of an individual LED will not lead to less-illuminated areas, but at most will cause an overall decrease in the percentage of light over the entire area covered.

Colour rendering index (CRI): ≥ 70

Chromatic consistency (SDCM): ≤ 4

Optical unit life expectancy: >100,000h @ 700 mA @ Ta 25°C TM21 L80B20; >85,000h @ 700 mA @ Ta 25°C TM21 L80B10

Driver life expectancy: > 70,000 h @ 700 mA @ Ta 25°C

Photobiological safety class: EXEMPT GROUP

ULOR: 0 %

DLOR: 100 %

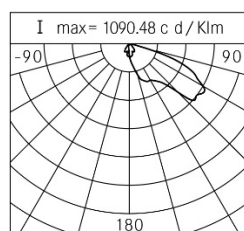
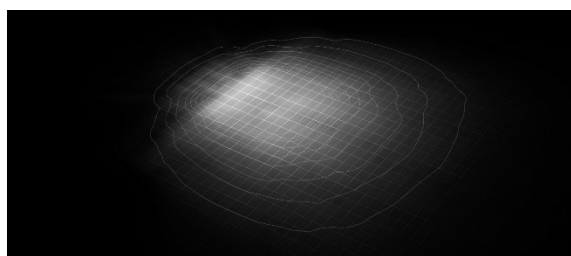
Light intensity category: G*3 asymmetrical; G*6 asymmetrical wide beam and symmetrical

Normative framework

EN60598-1 / EN60598-2-5 / EN62471 / EN61547

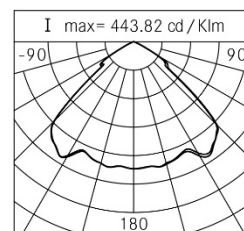
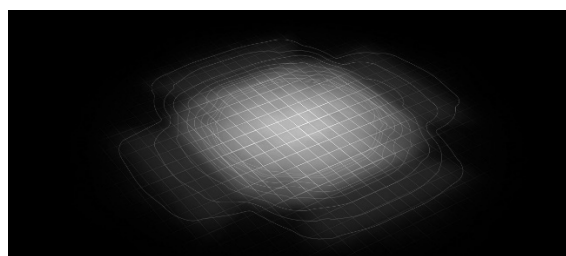
Asymmetrical optics

AS



Symmetrical optics

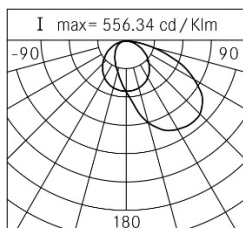
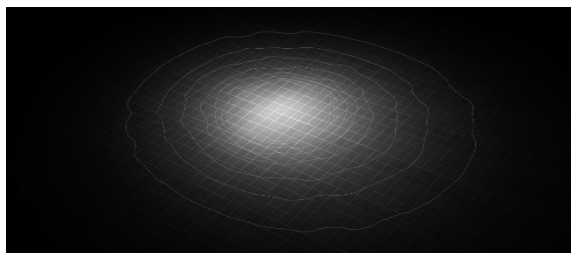
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Asymmetrical wide beam optics

AS-D



Performance data

ASYMMETRICAL OPTICS								
Sources	mA	K	φ mod [lm]	P mod [W]	η mod [lm/W]	φ app [lm]	P app [W]	η app [lm/W]
9 LED	350	4000	6345	35	181	5330	39,5	135
9 LED	525	4000	9000	53	170	7560	59,5	127
9 LED	700	4000	11525	71,5	161	9680	78,5	123
18 LED	350	4000	12615	70	180	10600	79,5	133
18 LED	525	4000	17805	106	168	14960	118	127
18 LED	700	4000	22595	142,5	159	18980	155,5	122

ASYMMETRICAL OPTICS								
Sources	mA	K	φ mod [lm]	P mod [W]	η mod [lm/W]	φ app [lm]	P app [W]	η app [lm/W]
9 LED	350	3000	5730	35	164	4815	39,5	122
9 LED	525	3000	8130	53	153	6830	59,5	115
9 LED	700	3000	10410	71,5	146	8745	78,5	111
18 LED	350	3000	11395	70	163	9575	79,5	120
18 LED	525	3000	16085	106	152	13510	118	114
18 LED	700	3000	20405	142,5	143	17145	155,5	110

ASYMMETRICAL WIDE BEAM OPTICS								
Sources	mA	K	φ mod [lm]	P mod [W]	η mod [lm/W]	φ app [lm]	P app [W]	η app [lm/W]
9 LED	350	4000	12615	70	180	9100	79,5	114
9 LED	525	4000	17805	106	168	12740	118	108
9 LED	700	4000	22595	142,5	159	16340	155,5	105

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ASYMMETRICAL WIDE BEAM OPTICS								
Sources	mA	K	φ mod [lm]	P mod [W]	η mod [lm/W]	φ app [lm]	P app [W]	η app [lm/W]
9 LED	350	3000	11395	70	163	8220	79,5	103
9 LED	525	3000	16085	106	152	11500	118	97
9 LED	700	3000	20405	142,5	143	14760	155,5	95

SYMMETRICAL OPTICS								
Sources	mA	K	φ mod [lm]	P mod [W]	η mod [lm/W]	φ app [lm]	P app [W]	η app [lm/W]
9 LED	350	4000	12730	70	182	11460	79,5	144
9 LED	525	4000	18125	106	171	16315	118	138
9 LED	700	4000	23265	142,5	163	20940	155,5	135

SYMMETRICAL OPTICS								
Sources	mA	K	φ mod [lm]	P mod [W]	η mod [lm/W]	φ app [lm]	P app [W]	η app [lm/W]
9 LED	350	3000	11500	70	164	10350	79,5	130
9 LED	525	3000	16375	106	154	14735	118	125
9 LED	700	3000	21015	142,5	147	18915	155,5	122

Data of the lighting source flux and efficiency refer to the LED module, without lenses. In case you need data of the LED module complete with lenses, please multiply the mentioned data by 0.9 factor.
Values indicated in this technical sheet are to be considered nominal values with a tolerance of +/-7%.

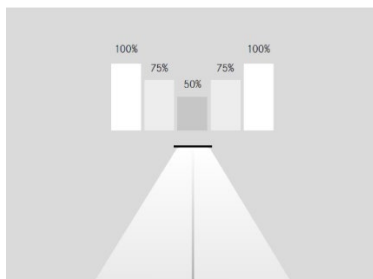
Legend

mA = Power supply
K = Colour temperature
 φ mod [lm] = Source flux
P mod [W] = Source power
 η mod [lm/W] = Source efficiency
 φ app [lm] = Unit flux
P app [W] = Unit power
 η app [lm/W] = Unit efficiency

Flux regulation

Custom programmable virtual midnight self-learning (code ending in _HM4)

Custom programmable versions are available at the customer's request. Using a virtual midnight algorithm, a precise reduction can be made in the luminaire's luminous flux percentage or its electrical power input.



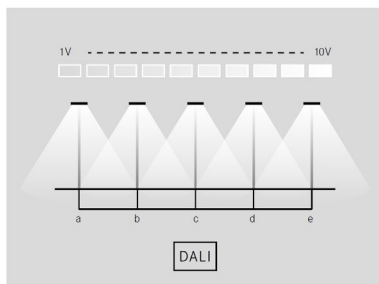
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Group Management: flow adjustment in 1-10 V and DALI (on request)

On request, the system is available with 1-10V regulation and can be programmed to function with DALI protocol.

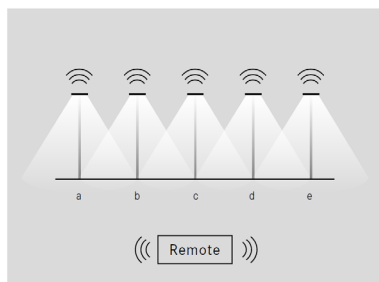
1-10V — This is an analogical control system based on the distribution of a voltage signal of between 1 and 10 Volts, where 1 V corresponds to the minimum light intensity value and 10 V corresponds to the maximum value.

DALI — This is a digital control system where every device is assigned a unique address that allows individual light points to be controlled and control groups to be created.



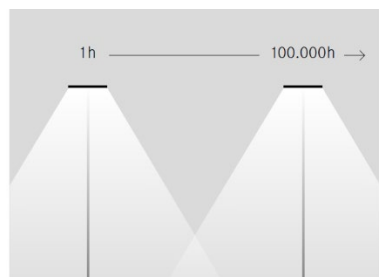
PLC power line communication remote management (on request)

Using PLC communications, i.e. with no extra system wiring, it is possible to communicate with each individual light point. The system allows each individual unit to be monitored and consumption profiles to be modified remotely.



Constant Lumen Output CLO (on request)

The aim of CLO is to compensate the natural deterioration of the luminous flux of the LEDs. Through a gradual pre-programmed increase in current, the luminous flux is maintained over time and in any case never drops below pre-set limits.



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