

# STRADO LED

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GENERAL FAMILY CARD



PKP

to  
168  
lm/w



**LENA**  
LIGHTING

# STRADO LED

GENERAL FAMILY CARD



## TECHNICAL SPECIFICATIONS

Degree of tightness:	IP66
Impact resistance:	IK09, IK10
Rated luminaire power [W]*:	8 - 157
Luminaire luminous flux [lm]*:	650 - 21750
Colour temperature [K]:	2200 - 6500*
Colour rendering index (Ra):	CRI>70, CRI>80, CRI>90
Protection class:	I and II
Optics:	More than 80 distributions
Controls:	ON/OFF, IoT, autonomous power reduction
Body colour:	Default RAL9006 grey, optionally any RAL
Luminous efficacy of luminaire [lm/W]:	up to 168
Energy class:	to A
Body material:	Aluminium injected die-cast, painted powder-coated
Lampshade type:	transparent
Lampshade material:	Tempered glass
SDCM:	<4, <5
Socket type:	Optional Zhaga connector, NEMA 5/7 pin

\*DarkSky Approved with 3000K CCT or lower

## CHARACTERISTICS

Strado LED is a family of LED road luminaires. It uses directional multi-lens arrays, made of PMMA, with each lens having the same optics, ensuring that the luminous characteristics remain constant over time. Components from renowned manufacturers and state-of-the-art LED panels contribute to the very high luminous efficacy achieved at the output of the luminaire - reaching 168 lm/W. The upper part of the body has a separate electrical cavity in the body, which allows for efficient cooling of all power supply components, independent of the light module. The lower surface of the luminaire is finished entirely with toughened glass, providing high aesthetic qualities. The luminaire has an outgoing cable with a quick-release connector, which allows fast, convenient and reliable installation without opening the luminaire. Using standard tools, it is possible to service the luminaire, allowing any component to be replaced without soldering. The body and fixture are made of die-cast aluminium, powder-coated grey, and have a very high IP66 ingress protection rating and IK09, IK10 mechanical impact resistance. Standard equipment: fully programmable DALI driver; available functions for maintaining constant luminous flux during CLO and autonomous 5-stage power reduction; NTC protection against accidental overheating of the luminaire; filter to prevent condensation; outgoing cable with quick-connector. Additional options: NEMA, ZHAGA connectors on the top of the luminaire; interfacing with control systems; additional SP10kV protection outside the power supply, on/off power supply without power reduction function; painting in any RAL colour.

Certifications: CE, Zhaga D4i, ENEC, ENEC+, PEP environmental declaration, EMC compliance, Dark Sky.

## APPLICATION

Thanks to the use of dedicated optics, it is possible to illuminate objects such as: motorways, motorways, national roads, provincial roads, district roads, municipal roads, city roads, housing estates, area lighting. Optics are also available to illuminate: pedestrian crossings, pavements and cycle paths.

# STRADO LED

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### 4000K

Wariant	LED	LED module	Minimum luminaire power [W]	Maximum luminaire power [W]	Minimum luminous flux [lm]	Maximum luminous flux [lm]	Factor power	Minimum diode current [mA]	Maximum diode current [mA]
<b>STRADO LED XS</b>	16	1	18	54	1975	8275	do 0,99	80	520
<b>STRADO LED S</b>	16	1	8	37	1250	6150	do 0,99	80	380
	32	2	16	109	2525	16150	do 0,99	80	525
<b>STRADO LED M</b>	16	1	8	37	1250	5075	do 0,99	80	380
	32	2	14	76	2100	12125	do 0,99	70	390
	48	3	30	110	4450	14950	do 0,99	150	380
	64	4	20	157	3300	24350	do 0,99	50	450

### 3000K \*DarkSky Approved

Wariant	LED	LED module	Minimum luminaire power [W]	Maximum luminaire power [W]	Minimum luminous flux [lm]	Maximum luminous flux [lm]	Factor power	Minimum diode current [mA]	Maximum diode current [mA]
<b>STRADO LED XS</b>	16	1	18	54	925	7950	do 0,99	80	520
<b>STRADO LED S</b>	16	1	8	37	1200	5900	do 0,99	80	380
	32	2	16	109	2425	15500	do 0,99	80	525
<b>STRADO LED M</b>	16	1	8	37	1200	4875	do 0,99	80	380
	32	2	14	76	2025	11650	do 0,99	70	390
	48	3	30	110	4275	14350	do 0,99	150	380
	64	4	20	157	3175	23375	do 0,99	50	450

# STRADO LED

GENERAL FAMILY CARD

**2700K** \*DarkSky Approved

Wariant	LED	LED module	Minimum luminaire power [W]	Maximum luminaire power [W]	Minimum luminous flux [lm]	Maximum luminous flux [lm]	Factor power	Minimum diode current [mA]	Maximum diode current [mA]
<b>STRADO LED XS</b>	16	1	18	54	900	7600	do 0,99	80	520
<b>STRADO LED S</b>	16	1	8	37	1150	5650	do 0,99	80	380
	32	2	16	109	2325	14850	do 0,99	80	525
<b>STRADO LED M</b>	16	1	8	37	1150	4675	do 0,99	80	380
	32	2	14	76	1925	11150	do 0,99	70	390
	48	3	30	110	4100	13750	do 0,99	150	380
	64	4	20	157	3025	22400	do 0,99	50	450

## OTHER

Temperature colour	Minimum luminaire power [W]	Maximum luminaire power [W]	Minimum luminous flux [lm]	Maximum luminous flux [lm]
<b>5700K</b>	8	157	975	24350
<b>2400K*</b>	8	157	850	21425
<b>2200K*</b>	8	157	825	20950
<b>1800K*</b>	8	157	725	17775

\*DarkSky Approved

## ACCESSORIES AVAILABLE

index	Name
314049	WALL HANDLE - zinc plated
314056	WALL BRACKET - grey
842108	BACKSHIELD T Strado LED M RAL9006
842115	BACKSHIELD P Strado LED M RAL9006
842122	BACKSHIELD L Strado LED M RAL9006
842139	BACKSHIELD T Strado LED S RAL9006
842146	BACKSHIELD P Strado LED S RAL9006
842153	BACKSHIELD L Strado LED S RAL9006
842160	BACKSHIELD T Strado LED XS RAL9006
842177	BACKSHIELD P Strado LED XS RAL9006
842184	BACKSHIELD L Strado LED XS RAL9006

## ADDITIONAL INFORMATION

Possibility of powder coating of the optical and electrical chamber, possibility of equipping with a knife connector, possibility of equipping with an additional cable with a quick-connector, anti-vandal version equipped with stainless steel screws available.

\* DarkSky special items available for <=3000k with luminaire position adjustment + 0° to -10° and with dimmable driver

# STRADO LED

## GENERAL FAMILY CARD

### GENERAL DATA

<b>Operating temperature range</b>	-40 to +50
<b>Electrical protection class</b>	I / II
<b>Colour temperature</b>	2200 - 6500*
<b>CRI</b>	CRI>70, CRI>80, CRI>90
<b>ULOR</b>	0%
<b>Lumen maintenance</b>	L95B10
<b>luminous flux over time</b>	100 000h
<b>Guarantee</b>	5 years, 10 years or more by individual arrangement
<b>Control system</b>	Available as an option
<b>Photobiological risk group</b>	RG0/RG1
<b>McAdam steps</b>	<4, <5
<b>French law of 27 December 2018</b>	Compatible with application types a, b, c, d, e, f, g

\* DarkSky Approved for  $\leq 3000\text{K}$

### MECHANICAL DATA

<b>Mounting method</b>	on boom, on pole
<b>Adjustment range</b>	adjustment range $\pm 20^\circ$ depending on model*
<b>Luminaire colour</b>	Default RAL9006 grey, optionally any RAL
<b>Housing</b>	Pressure-injected aluminium, powder-coated
<b>Surface side exposed</b>	0,018 / 0,021
<b>Optics</b>	More than 80 light sources
<b>IK</b>	IK09 / IK10
<b>IP</b>	IP66
<b>Service access</b>	Access protected by screws; Warranty repair in service
<b>Electrical version</b>	Luminaire fitted as standard with a 0.7 m cable with a quick-connector; no need to open the luminaire during installation
<b>Additional options</b>	Powder coating of the interior of the optic-electric chamber; filter preventing condensation condensation; increased resistance corrosion resistance up to C5-M

\* DarkSky special items available for  $\leq 3000\text{K}$  with luminaire position adjustment  $+ 0^\circ$  to  $-10^\circ$  and with dimmable driver

### ELECTRICAL DATA

<b>Power factor</b>	up to 0.99
<b>Power factor at 50% dimming</b>	up to 0.98 up to 0.93
<b>Power supply efficiency</b>	230-240VAC
<b>Supply voltage</b>	202-254VAC
<b>AC supply voltage range</b>	186-250VDC
<b>Maximum number of luminaires on circuit breaker</b>	up to 42 pcs.
<b>THD</b>	<10%, <20%
<b>ESD</b>	8/4kV
<b>EMC</b>	In accordance with harmoni- sed standards: EN 55015, EN 61000-3-2, EN 61000-3-3
<b>Limitation of current</b>	yes
<b>SoftStart</b>	
<b>Overvoltage protection</b>	I st cl - 10kV II cl - 6kV/10kV additional up to 20kV
<b>Power control</b>	10% - 100%
<b>Other</b>	CLO; NTC thermal protec- tion, overload protection, short circuit protection, over voltage protection, 5-stage autonomous power reduction, QR code with dedicated application

### CERTIFICATES AND TESTS

<b>CE mark</b>	Yes
<b>ENEC certificate</b>	Yes
<b>ENEC+ Certificate</b>	Yes
<b>ROHS</b>	Yes
<b>Zhaga D4i</b>	Yes
<b>Vibration tests</b>	Yes
<b>Salt chamber tests</b>	1500h for version C5-M
<b>EPD</b>	Yes
<b>Dark Sky</b>	Yes*

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<b>STRADO LED XS</b>		<b>975LM</b>	<b>740</b>	<b>RM7</b>	<b>IP66</b>	<b>II CL.</b>	<b>2DIM</b>	<b>IK09</b>	<b>NEMA (8W)</b>	<b>RAL7016</b>
<b>Model</b>	STRADO LED XS STRADO LED S STRADO LED M									<b>Colour</b>
<b>Luminous flux [lm]</b>	Value in [lm] in increments of 25									<b>RALxxxx</b> PI - varnished interior of the luminaire
<b>CRI/ C T</b>	722, 727, 730, 735, <b>740</b> , 750, 757,765, 822, 827, 830, 835, 840, 850, 857, 865, 922, 927, 930, 935, 940, 950, 957, 965,									<b>Power [W].</b> Value [W] in increments of 1 W
<b>Optics</b>	AS-asymmetric, R-road, P-pedestrian; RP-parking, RMW-wet, N-narrow, M-medium, W-wide, L-left, P-right, 0-99 numbering optics, HE-high performance + LED type II									<b>Connector</b> <b>NEMA - NEMA connector</b> NEMA-7P - NEMA 7 Pin connector ZG - Zhaga connector from above no
<b>IP</b>	<b>IP66</b>									<b>IK</b> <b>IK09</b> IK10
<b>Protection class</b>	I cl. II cl.									<b>Control</b> no 1DIM <b>2DIM</b> DALI ON/OFF

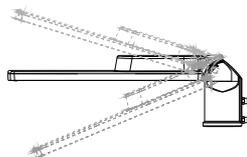
## DIMENSIONS

<b>Strado LED XS</b>			
<b>Strado LED S</b>			
<b>Strado LED M</b>			

## ANGLE ADJUSTMENT

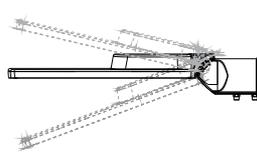
on the boom

from +20°  
to -20°



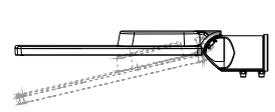
on a pole

from +20°  
to -20°



Dark Sky version

from +0°  
to -0°



# STRADO LED

GENERAL FAMILY CARD

## UNIQUE PARAMETERS

IP66 IK10

## APPLICATION AREAS

- illumination of motorways, motorways, national, provincial, district, municipal and housing estate roads
- illumination of car parks, cycle paths, pedestrian crossings, pavements and other outdoor areas such as squares and private areas
- lighting of non-public estate roads, construction sites and other internal and private areas



## AVAILABLE TECHNOLOGIES



The Skver LED luminaire is compatible with the Zhaga-D4i standard, enabling easy integration with intelligent lighting control systems such as Clue City. The connection to the system offers the possibility to remotely control, monitor and optimise energy consumption. By adjusting brightness and analysing data in real time, it allows the lighting to be adapted to current needs, ensuring efficiency and savings.



The DarkSky certificate is awarded to companies for outstanding contributions to the development of lighting technologies that reduce light pollution. DarkSky-certified products are distinguished by conservation-oriented design, innovation and the pursuit of harmony between light and the nightscape.



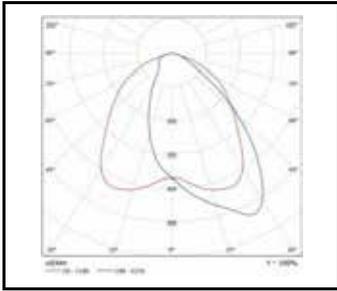
Skver LED is not just ordinary lighting - it is a powerful answer to the demands of industrial and marine conditions (C5-M). The Lena C5+ not only illuminates its surroundings, but also effectively addresses the challenges of the marine environment. As evidenced by 1,500 hours of testing under harsh environmental conditions according to international standards.



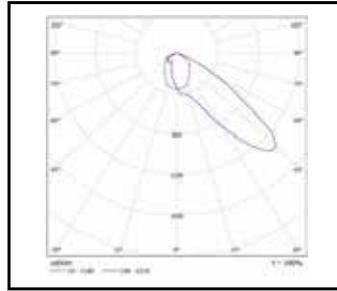
EPD environmental certification, confirming minimal environmental impact. Thanks to the closed-loop trading system and the calculation of the carbon footprint at each stage of the life cycle, the luminaires can be reused. They stand out for their high durability, resistance to external conditions and compatibility with intelligent control systems.

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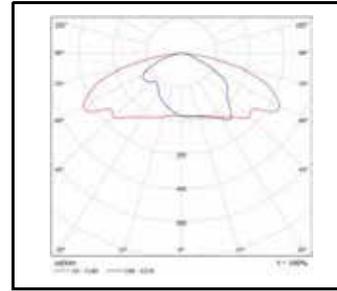
## GENERAL FAMILY CARD



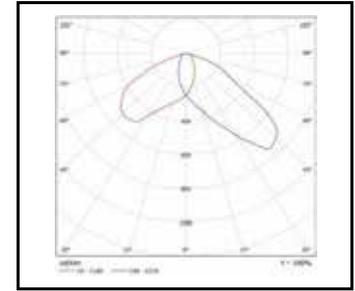
ASM2



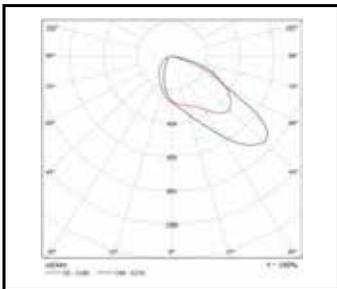
ASN



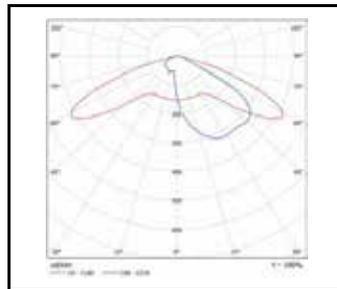
ASW



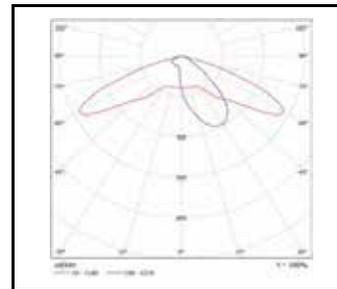
PL1



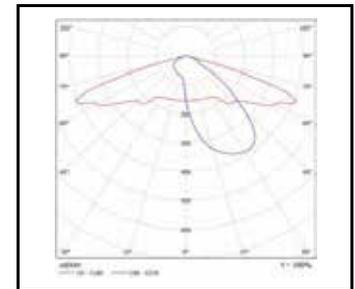
PP1



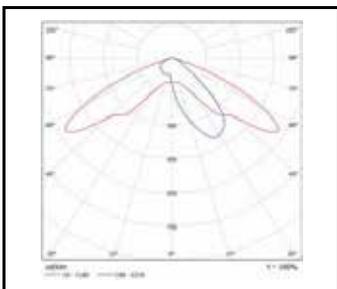
RM10



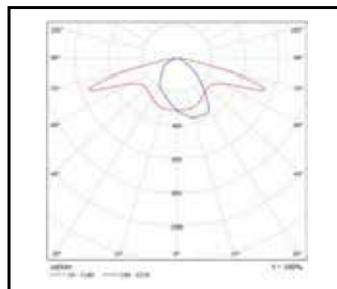
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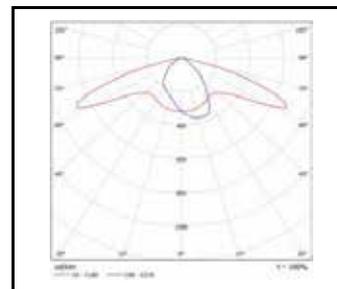
RM11+



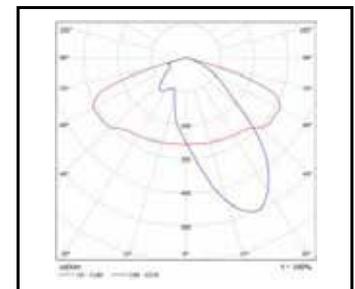
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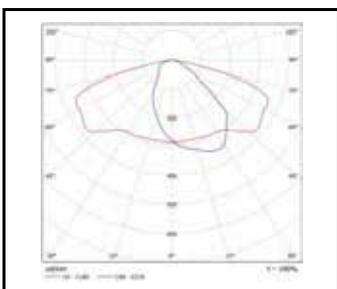
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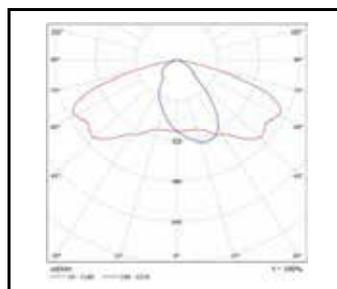
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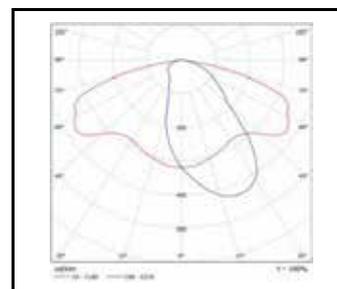
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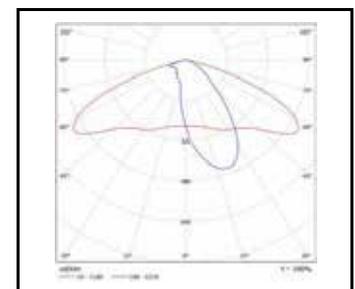
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RM14HE



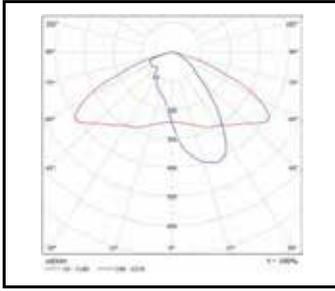
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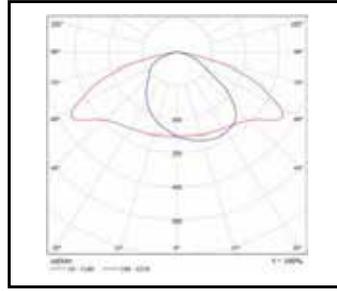
RM16

# STRADO LED

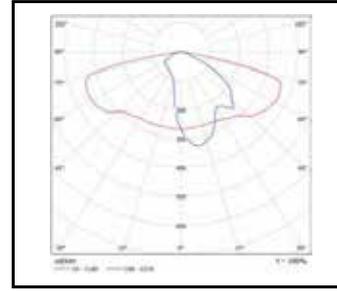
## GENERAL FAMILY CARD



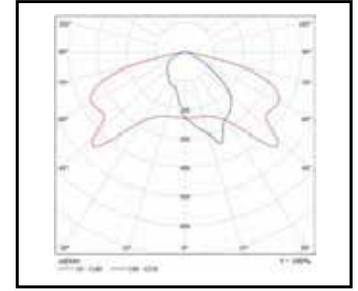
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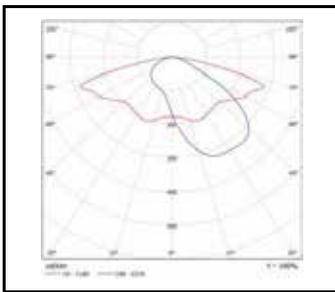
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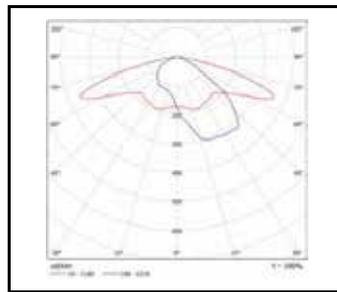
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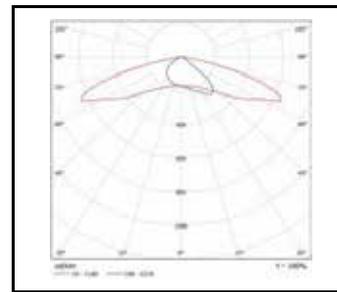
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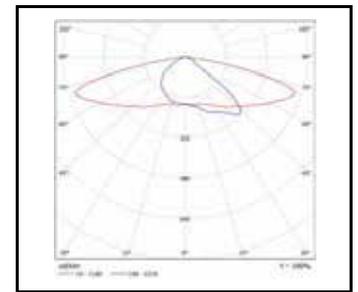
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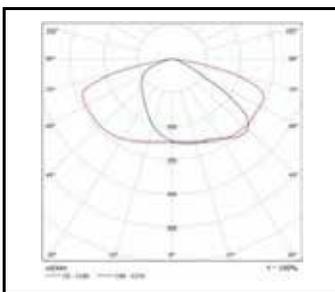
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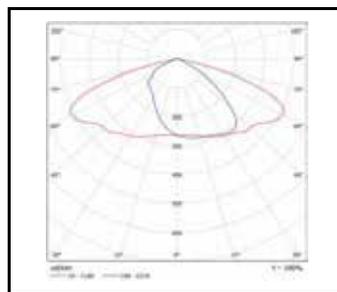
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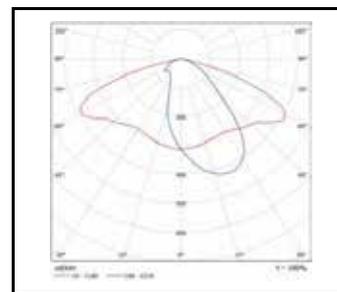
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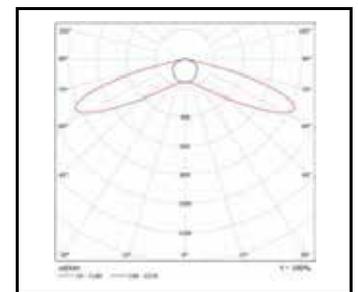
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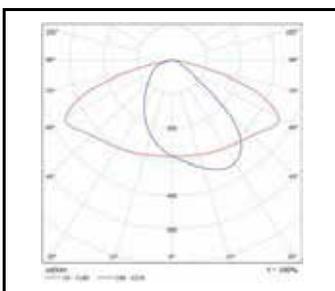
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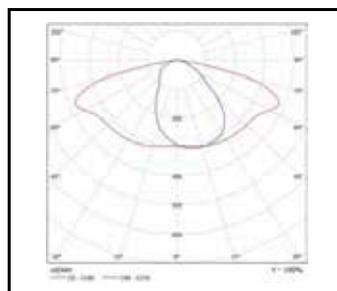
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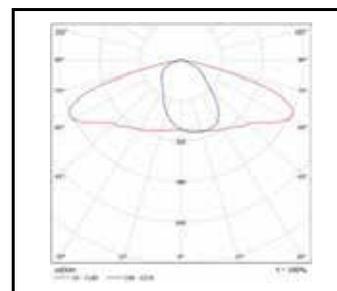
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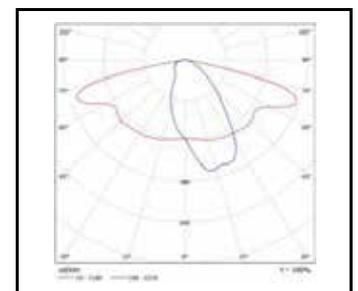
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RM7



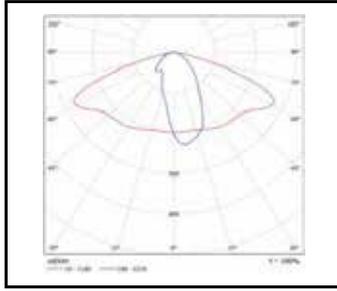
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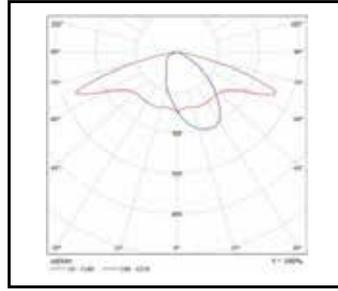
RM8+

# STRADO LED

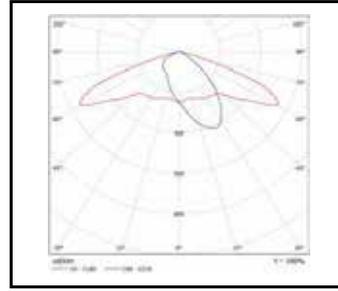
## GENERAL FAMILY CARD



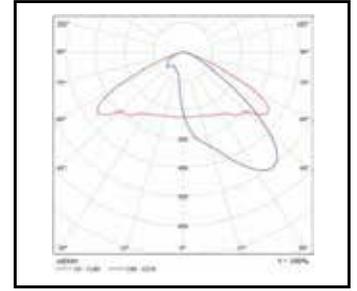
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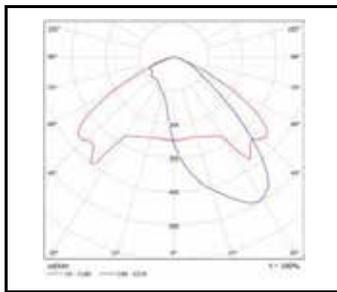
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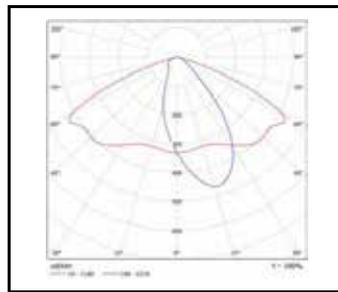
RM9HE



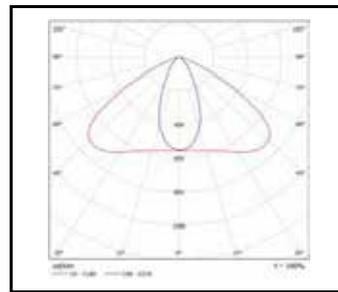
RMW



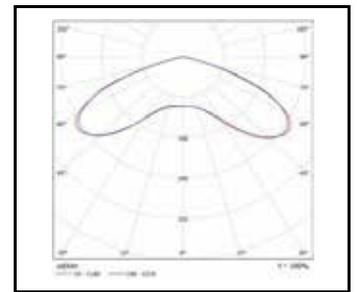
RMWHE



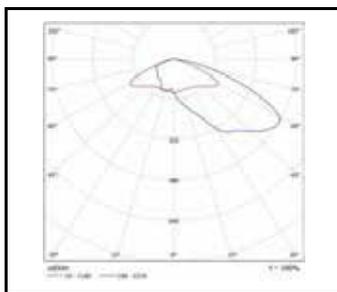
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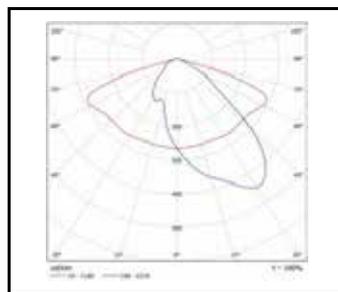
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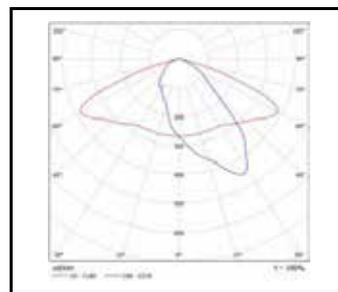
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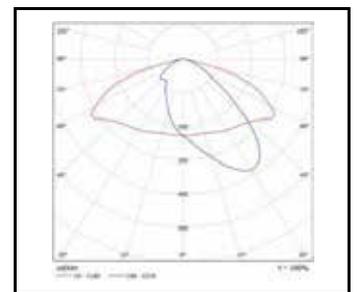
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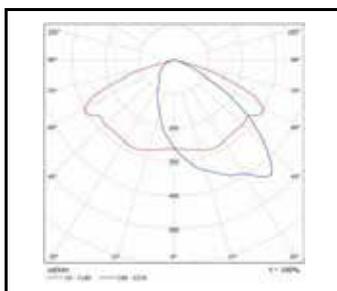
RW2



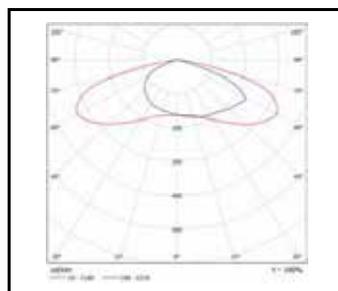
RW2HE



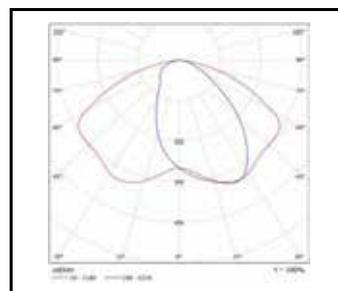
RW3



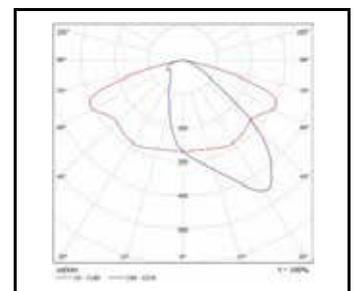
RW4



RW5



RW6

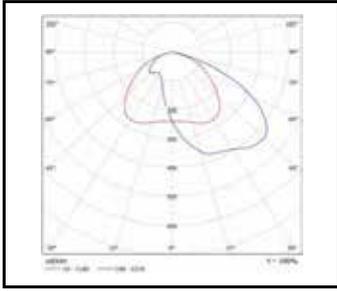


RW7

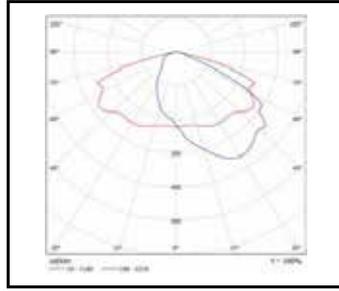
# STRADO LED

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## GENERAL FAMILY CARD



RW8



RW9