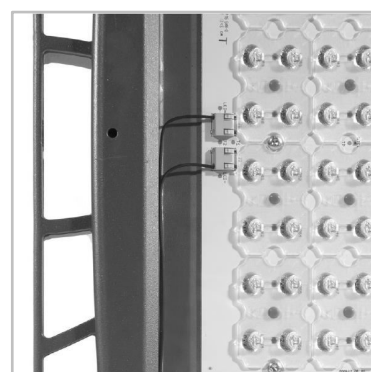


OMNISTAR



Designed to generate massive savings and bring benefits to area and tunnel lighting

OMNISTAR is setting a new standard by providing a performing LED alternative to HID luminaires for high-mast, high bay, tunnel and other high-power applications with a minimum total cost of ownership.

This luminaire has been designed to provide an unrivalled combination of performance and flexibility for lighting areas where high lumen packages are needed with the added advantages of an LED solution: low energy consumption, improved visibility with white light, limited maintenance and longer life.

In addition to maximising energy savings, the OMNISTAR is a connected-ready lighting solution to meet your future smart city or tunnel requirements.

OMNISTAR can be installed in various configurations (suspended, surface-mounted or post-top) with one to three optical units.

IP 66

IK 08



UL 1598
CSA C22.2
No. 250.0



ACCENT
& ARCHITECTURAL



TUNNELS
& UNDERPASSES



CAR PARKS



LARGE AREAS



INDUSTRIAL HALLS
& WAREHOUSES



ROADS
& MOTORWAYS



SPORT FACILITIES

Concept

OMNISTAR provides a complete solution for applications requiring high lumen packages. It is composed of an optical unit (up to 240 high-power LEDs), a remote gear box, cables with quick connectors and various mounting systems.

OMNISTAR combines the energy efficiency of LED technology with the performance of the photometric concepts developed by Schröder. The design of the LensoFlex® photometric engines and the flexibility of the photometric distributions ensure safe and pleasant conditions for users while offering superior efficacy.

OMNISTAR can be also be fitted with reflectors to provide a counter beam lighting solution (ReFlexo™ photometries) for sports, tunnel and apron applications.

Dedicated collimator optics (BlastFlex™) and louvres are also available to deliver the requested beams for specific sport and architectural lighting applications.

Composed of robust materials, OMNISTAR is highly resistant to shocks and corrosion in harsh environments. As an option, an explosion proof version is available to meet specific industrial requirements.

OMNISTAR offers a modular concept of optical units which enables 1, 2 or 3 modules to be grouped on the same bracket to meet the specifications of the area to be lit. On-site adjustment guarantees the perfect lighting.

A separate driver box can be easily plugged in to an LED optical unit with quick connectors to facilitate both installation and maintenance operations. This also means that the OMNISTAR will be able to take advantage of future technological developments.



OMNISTAR is delivered with quick connectors for an easy installation.



The OMNIBOX is an IP 66 universal remote gear box for up to 4 optical units.

TYPES OF APPLICATION

- ACCENT & ARCHITECTURAL
- TUNNELS & UNDERPASSES
- CAR PARKS
- LARGE AREAS
- INDUSTRIAL HALLS & WAREHOUSES
- ROADS & MOTORWAYS
- SPORT FACILITIES

KEY ADVANTAGES

- Real beneficial LED alternative to HID floodlights for high-power applications
- Cost-effective and efficient to maximise energy and maintenance savings
- Flexibility: modular approach with wide range of lighting distributions
- Easy to dim: can adapt to the different lighting regimes required
- Highly efficient light distributions reduce the quantity of luminaires to be installed
- Various mounting options and inclination possibilities on-site for optimal photometry
- Explosion proof variant for use in industrial environments with a hazardous atmosphere
- Compact size: for tunnels with restrictive heights and to avoid any damage
- Various control options including remote management systems



The inclination angle can be easily adjusted on-site.



With up to 240 high-power LEDs, OMNISTAR delivers high lumen packages.

OMNISTAR | standard U bracket



OMNISTAR | large U bracket (wall mounting)



OMNISTAR | large U bracket (pole mounting)



OMNISTAR | tiltable ceiling mounting



OMNISTAR | fixed ceiling mounting



OMNISTAR | suspended with chains



OMNISTAR | 2 optical units, tiltable together



OMNISTAR | 2 optical units, tiltable independently



OMNISTAR | 3 optical units, tiltable together



OMNISTAR | OMNIBOX | fixed ceiling mounting





LensoFlex®2

LensoFlex®2 is based upon the addition principle of photometric distribution. Each LED is associated with a specific PMMA lens that generates the complete photometric distribution of the luminaire. The number of LEDs in combination with the driving current determines the intensity level of the light distribution.



LensoFlex®3

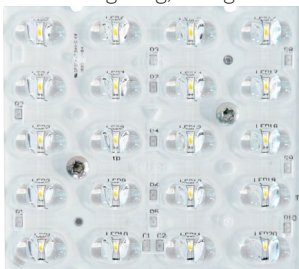
LensoFlex®3 uses lenses made of mouldable and optical-grade silicon offering superior transparency and excellent photothermal stability. This withstands high driving currents and delivers maximised lumen output over time. As silicon offers a higher thermal resistance compared to PMMA, temperature is not as critical for LensoFlex®3 engines. This offers two distinct advantages; LensoFlex®3 ensures enhanced performance in warm climates and enables a high driving current to be used to increase the lumen output and a higher lm/kg ratio. It also does not suffer from yellowing over time.



LensoFlex®4

LensoFlex®4 maximises the heritage of the LensoFlex® concept with a very compact yet powerful photometric engine based upon the addition principle of photometric distribution. The number of LEDs in combination with the driving current determines the intensity level of the light distribution. With optimised light distributions and very high efficiency, this fourth generation enables the products to be downsized to meet application requirements with an optimised solution in terms of investment.

LensoFlex®4 optics can feature backlight control to prevent intrusive lighting, or a glare limiter for high visual comfort.



ReFlexo™

Using metal reflectors with a superior reflective co-efficient, the ReFlexo™ photometric engine delivers high performance for specific applications such as counter beam lighting in tunnels or very extensive light distributions for sports or apron lighting.

Another key advantage of the ReFlexo™ is its' ability to direct all the light to the front of the luminaire, ensuring that no back light is emitted. This photometric engine guarantees glare free lighting for excellent visual comfort and the creation of ambiance.





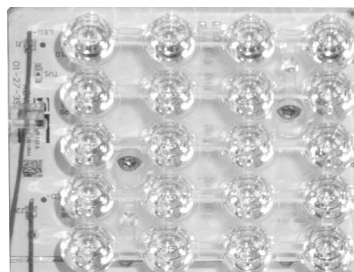
BlastFlex™

Using silicon collimators, the BlastFlex™ photometric engine offers the highest efficacy for directional beams dedicated to specific applications in architectural and sports lighting. The ability to control the light with the highest accuracy reduces the light spill in the surroundings and contributes to an optimal use of the energy consumed. Thanks to a superior thermal resistance, the BlastFlex™ optics can work with very high currents to provide large lumen packages and do not suffer from the yellowing effect over time.



BlastFlex™4

Using collimators made of high-transmission PMMA, the BlastFlex™4 photometric engine offers the highest efficiency for directional beams dedicated to specific applications in architectural and sports lighting. The ability to control the light with the highest accuracy reduces light spill in the surroundings, improves uniformity on the area to be lit and contributes to optimal use of the energy consumed.

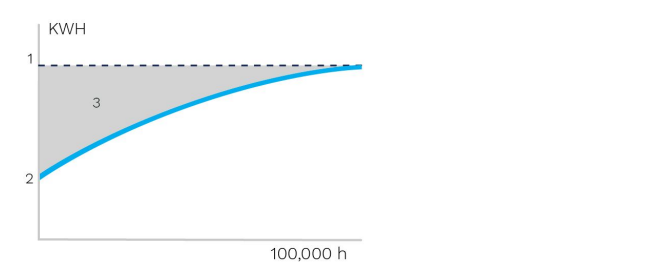




Constant Light Output (CLO)

This system compensates for the depreciation of luminous flux to avoid excess lighting at the beginning of the installation's service life. Luminous depreciation over time must be taken into account to ensure a predefined lighting level during the luminaire's useful life.

Without a CLO feature, this simply means increasing the initial power upon installation in order to make up for luminous depreciation. By precisely controlling the luminous flux, the energy needed to reach the required level can be maintained throughout the luminaire's life.



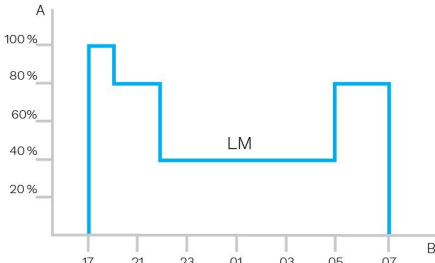
1. Standard lighting level | 2. LED lighting consumption with CLO | 3. Energy savings



Custom dimming profile

Intelligent luminaire drivers can be programmed with complex dimming profiles. Up to five combinations of time intervals and light levels are possible. This feature does not require any extra wiring.

The period between switching on and switching off is used to activate the preset dimming profile. The customised dimming system generates maximum energy savings while respecting the required lighting levels and uniformity throughout the night.



A. Dimming level | B. Time

Advanced Tunnel Solution (ATS)

The ATS (Advanced Tunnel Solution) is a control system that manages luminaire controllers (Lumgates) to deploy pre-defined lighting scenarios or to take charge of the lighting installation at any moment.

The ATS controller can operate as a standalone unit or can be linked to the main tunnel control system to interact with features not directly related to lighting (traffic management, ventilation, fire detection etc.).



Luminance meter (L20)

The luminance meter measures the luminance provided by natural light in the access zone from the safe stopping distance. It sends the data to the ATS control system that adjusts the lighting levels to avoid any visual adaptation problems.



Lumgate

The Lumgate is an RS485 closed-loop device connected to the luminaire drivers to control the light intensity and provide command/reporting features.

One Lumgate can control several luminaires.



Tunnel Control System (TCS)

The Tunnel Control System (TCS) is a gateway ensuring the connection/control of the multiple ATS controllers as well as the communication with the central management system of the tunnel infrastructure (SCADA) if applicable.

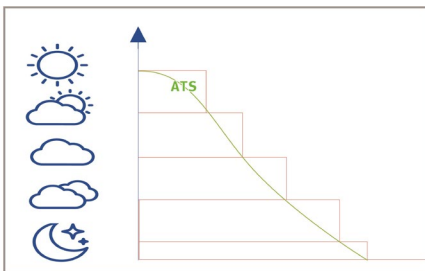




Jointly developed by Schröder and Phoenix Contact, the Advanced Tunnel Solution (ATS) has been designed to control every lighting point or clusters of luminaires to perfectly adapt the lighting level according to conditions in the tunnel, to monitor the power consumption and to report the burning hours or any failure to facilitate maintenance. The system includes a self-commissioning feature and enables scenarios to be adapted remotely at any moment.

PRECISE AND CONTINUOUS DIMMING

ATS provides 25 different dimming levels to precisely adapt the lighting to the real needs. Without any over-lighting, the energy consumption is limited to what is absolutely necessary to ensure safe and comfortable driving conditions.



FLEXIBILITY

Flexible redundancy offers security on multi-level applications, not only for the lighting.

PLUG AND PLAY COMMISSIONING

The tunnel lighting study can be directly imported into the ATS control system.

This unique feature, in combination with the auto-addressing of the Lumgates, leads to an extremely short commissioning time once the fixtures have been installed.

Each luminaire or cluster of luminaires is attributed the precise dimming profile linked to its position and characteristics.

INTERACTION WITH THIRD PARTY SYSTEMS

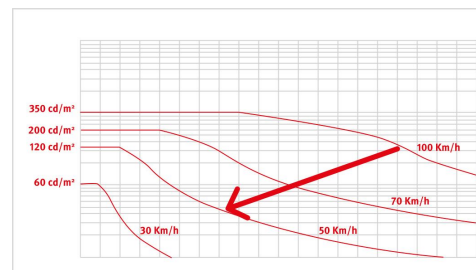
Every command or signal sent to or coming from a tunnel component (emergency exit, smoke extraction system, traffic management system...) can be used to trigger a responsive lighting scenario. All of the tunnel equipment can be controlled through the same bus command.

MAXIMISED SAFETY

The system enables the easy set-up of emergency and disaster management scenarios.

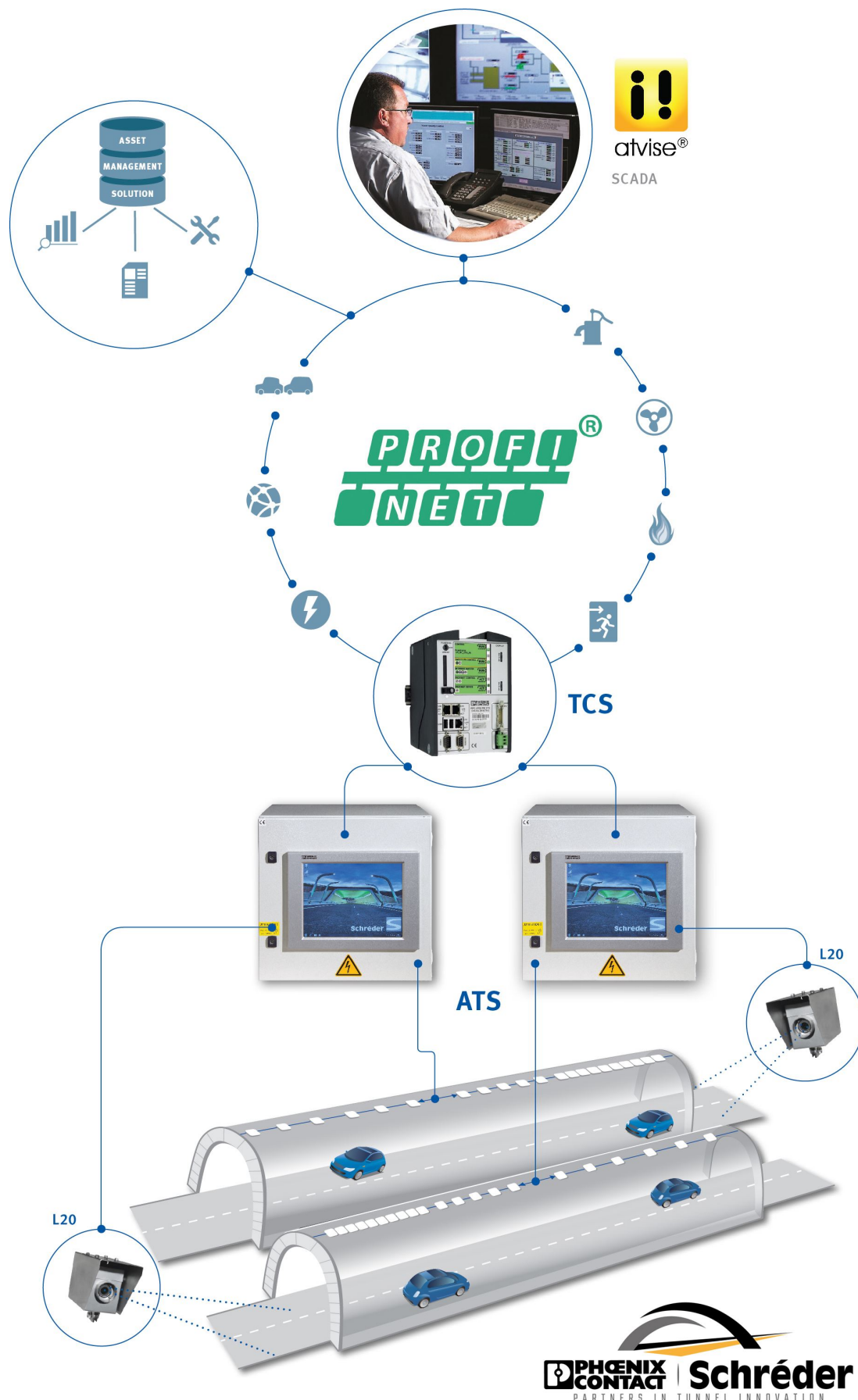
ADAPTIVE LIGHTING ACCORDING TO SPEED

The ATS can be linked to a traffic monitoring system to obtain data regarding speed or density to adapt the lighting level according to safety standards. This option further reduces energy consumption and increases the lifetime of the installation while ensuring the best driving conditions for motorists.



ADAPTIVE LIGHTING ACCORDING TO POLLUTION

Based on cleaning cycles, the ATS can take into account the depreciation of the flux due to dirt accumulation to continuously provide the requested lighting level in the tunnel. No more, no less. This feature offers additional energy savings while providing safety and comfort for users.





Schröder EXEDRA is the most advanced lighting management system on the market for controlling, monitoring and analysing streetlights in a user-friendly way.



Tailored experience

Schröder EXEDRA includes all advanced features needed for smart device management, real-time and scheduled control, dynamic and automated lighting scenarios, maintenance and field operation planning, energy consumption management and third-party connected hardware integration. It is fully configurable and includes tools for user management and multi-tenant policy that enables contractors, utilities or big cities to segregate projects.

A powerful tool for efficiency, rationalisation and decision making

Data is gold. Schröder EXEDRA brings it with all the clarity managers need to drive decisions. The platform collects massive amounts of data from end devices and aggregates, analyses and intuitively displays them to help end-users take the right actions.

Protected on every side

Schröder EXEDRA provides state-of-the-art data security with encryption, hashing, tokenisation, and key management practices that protect data across the whole system and its associated services.

Standardisation for interoperable ecosystems

Schröder plays a key role in driving standardisation with alliances and partners such as uCIFI, TALQ or Zhaga. Our joint commitment is to provide solutions designed for vertical and horizontal IoT integration. From the body (hardware) to the language (data model) and the intelligence (algorithms), the complete Schröder EXEDRA system relies on shared and open technologies.

Schröder EXEDRA also relies on Microsoft™ Azure for cloud services, provided with the highest levels of trust, transparency, standards conformance and regulatory compliance.

Breaking the silos

With EXEDRA, Schröder has taken a technology-agnostic approach: we rely on open standards and protocols to design an architecture able to interact seamlessly with third-party software and hardware solutions. Schröder EXEDRA is designed to unlock complete interoperability, as it offers the ability to:

- control devices (luminaires) from other brands
- manage controllers and to integrate sensors from other brands
- connect with third-party devices and platforms

A plug-and-play solution

As a gateway-less system using the cellular network, an intelligent automated commissioning process recognises, verifies and retrieves luminaire data into the user interface. The self-healing mesh between luminaire controllers enables real-time adaptive lighting to be configured directly via the user interface.

GENERAL INFORMATION

Recommended installation height	8m to 45m 26' to 148'
FutureProof	Easy replacement of the photometric engine and electronic assembly on-site
Driver included	No
CE mark	Yes
CB mark	Yes
ENEC certified	Yes
ENEC+ certified	Yes
UL certified	Yes
ROHS compliant	Yes
French law of December 27th 2018 - Compliant with application type(s)	a, b, c, d, e, f, g
Testing standard	LM 79-08 (all measurements in ISO17025 accredited laboratory)

HOUSING AND FINISH

Housing	Aluminium
Optic	Aluminium reflector PMMA Silicon
Protector	Tempered glass Frosted glass Polycarbonate
Housing finish	Polyester powder coating Standard polyester powder coating (C2-C3 according to the ISO 9223-2012 standard) Optional "seaside" polyester powder coating (C4 according to the ISO 9223-2012 standard) Optional "seafront" polyester powder coating with anodisation (C5-CX according to the ISO 9223-2012 standard)
Standard colour(s)	AKZO grey 900 sanded
Tightness level	IP 66
Impact resistance	IK 08
Vibration test	Compliant with ANSI 1.5G and 3G and modified IEC 68-2-6 (0.5G)
Access for maintenance	Tool-less access to gear compartment
Safety compliance against ball throwing	DIN18 032-3:1997-04 according to EN 13 964 Annex D
Explosion proof compliance	IECEx / ATEX according to EN 60079 TÜV 16 ATEX 7895 X Ex II 3 G Ex nR IIC T4 Gc TÜV 16 ATEX 7896 X Ex II 2 D Ex tb IIIC T100°C Db IECEx TUR 16.0037X

· Any other RAL or AKZO colour upon request

ELECTRICAL INFORMATION

Electrical class	Class 1US, Class I EU, Class II EU
Electromagnetic compatibility (EMC)	EN 61547 / EN 61000-4-2, -3, -4, -5, -6, -8, -11
Control protocol(s)	1-10V, DALI, DMX-RDM
Control options	Lumgate, Custom dimming profile, Photocell, Remote management
Socket	NEMA 3-pin (optional) NEMA 7-pin (optional)
Associated control system(s)	Schröder EXEDRA Advanced Tunnel Solution (ATS) Nicolaudie Pharos

· Electrical information given for the gear box

OPTICAL INFORMATION

LED colour temperature	2200K (Warm White 722) 2700K (Warm White 727) 3000K (Warm White 730) 3000K (Warm White 830) 4000K (Neutral White 740) 4000K (Neutral White 840) 4000K (Neutral White 940) 5700K (Cool White 757) 5700K (Cool White 957)
Colour rendering index (CRI)	>70 (Warm White 722) >70 (Warm White 727) >70 (Warm White 730) >80 (Warm White 830) >70 (Neutral White 740) >80 (Neutral White 840) >90 (Neutral White 940) >70 (Cool White 757) >90 (Cool White 957)
Upward Light Output Ratio (ULOR)	0%

LIFETIME OF THE LEDS @ TQ 25°C

All configurations	100,000h - L85
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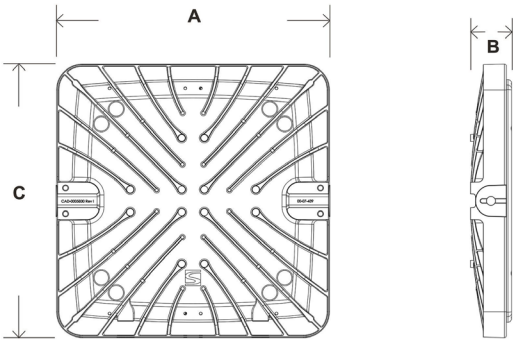
OPERATING CONDITIONS

Operating temperature range (Ta)	-30°C up to +55°C / -22° F up to 131°F
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· Depending on the luminaire configuration. For more details, please contact us.

DIMENSIONS AND MOUNTING

AxBxC (mm inch)	532x80x530 20.9x3.1x20.9
Weight (kg lbs)	14 30.8
Aerodynamic resistance (CxS)	0.17
Mounting possibilities	Hook(s) for suspension Side-entry slip-over – Ø76mm Post-top slip-over – Ø76mm Post-top slip-over – Ø76-108mm Bracket enabling adjustable inclination Surface mounting Direct mounting on ceiling





			Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Neutral White 740		Luminaire output flux (lm) Warm White 830		Luminaire output flux (lm) Cool White 757		Luminaire output flux (lm) Cool White 957		Luminaire output flux (lm) Neutral White 940		W	lm/W	
OMNISTAR	Number of LEDs	mA	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		Up to	Photometry
	72	350	8200	11200	8400	11600	-	-	-	-	-	-	-	-	78	155	LENSE FLEX ² BLAST FLEX ³ RE FLEXO ⁴
	72	350	-	-	9300	11600	8100	10100	9300	11600	8100	10200	7800	9800	76	159	BLAST FLEX ³ LENSE FLEX ² RE FLEXO ⁴
	72	500	11200	15400	11600	15900	-	-	-	-	-	-	-	-	111	143	LENSE FLEX ² BLAST FLEX ³ RE FLEXO ⁴
	72	500	-	-	12900	16200	11300	14100	12900	16200	11300	14200	10900	13700	108	150	BLAST FLEX ³ LENSE FLEX ² RE FLEXO ⁴
	72	700	15100	20400	15600	21100	-	-	-	-	-	-	-	-	156	138	LENSE FLEX ² BLAST FLEX ³ RE FLEXO ⁴
	72	700	-	-	17500	21800	15200	19000	17500	21800	15300	19200	14800	18500	151	147	BLAST FLEX ³ LENSE FLEX ² RE FLEXO ⁴
	72	1000	20000	27500	20700	28400	-	-	-	-	-	-	-	-	225	126	LENSE FLEX ² BLAST FLEX ³ RE FLEXO ⁴
	72	1000	-	-	24000	30100	20900	26200	24000	30100	21100	26400	20300	25400	218	138	BLAST FLEX ³ LENSE FLEX ² RE FLEXO ⁴
	72	1200	-	-	27800	34700	24300	30200	27800	34700	24400	30400	23500	29300	265	131	BLAST FLEX ³ LENSE FLEX ² RE FLEXO ⁴
	144	350	16400	22400	16900	23200	-	-	-	-	-	-	-	-	156	155	LENSE FLEX ² RE FLEXO ⁴ BLAST FLEX ³
	144	350	-	-	18600	23300	16200	20300	18600	23300	16300	20500	15700	19700	152	160	BLAST FLEX ³ LENSE FLEX ² RE FLEXO ⁴
	144	500	22800	30700	23500	31700	-	-	-	-	-	-	-	-	222	143	LENSE FLEX ² RE FLEXO ⁴ BLAST FLEX ³
	144	500	-	-	26300	33000	23000	28800	26300	33000	23100	29000	22300	27900	216	153	BLAST FLEX ³ LENSE FLEX ² RE FLEXO ⁴
	144	700	30000	40600	31100	42000	-	-	-	-	-	-	-	-	312	137	LENSE FLEX ² RE FLEXO ⁴ BLAST FLEX ³
	144	700	-	-	34600	44400	30200	38700	34600	44400	30300	38900	29200	37500	302	150	BLAST FLEX ³ LENSE FLEX ² RE FLEXO ⁴
	144	1000	39300	52800	40600	54600	-	-	-	-	-	-	-	-	450	121	LENSE FLEX ² RE FLEXO ⁴ BLAST FLEX ³
	144	1000	-	-	47600	59300	41500	51800	47600	59300	41800	52100	40300	50200	436	136	BLAST FLEX ³ LENSE FLEX ² RE FLEXO ⁴
	144	1200	-	-	54700	67800	47700	59100	54700	67100	48000	59500	46300	57300	530	128	LENSE FLEX ² BLAST FLEX ³ RE FLEXO ⁴

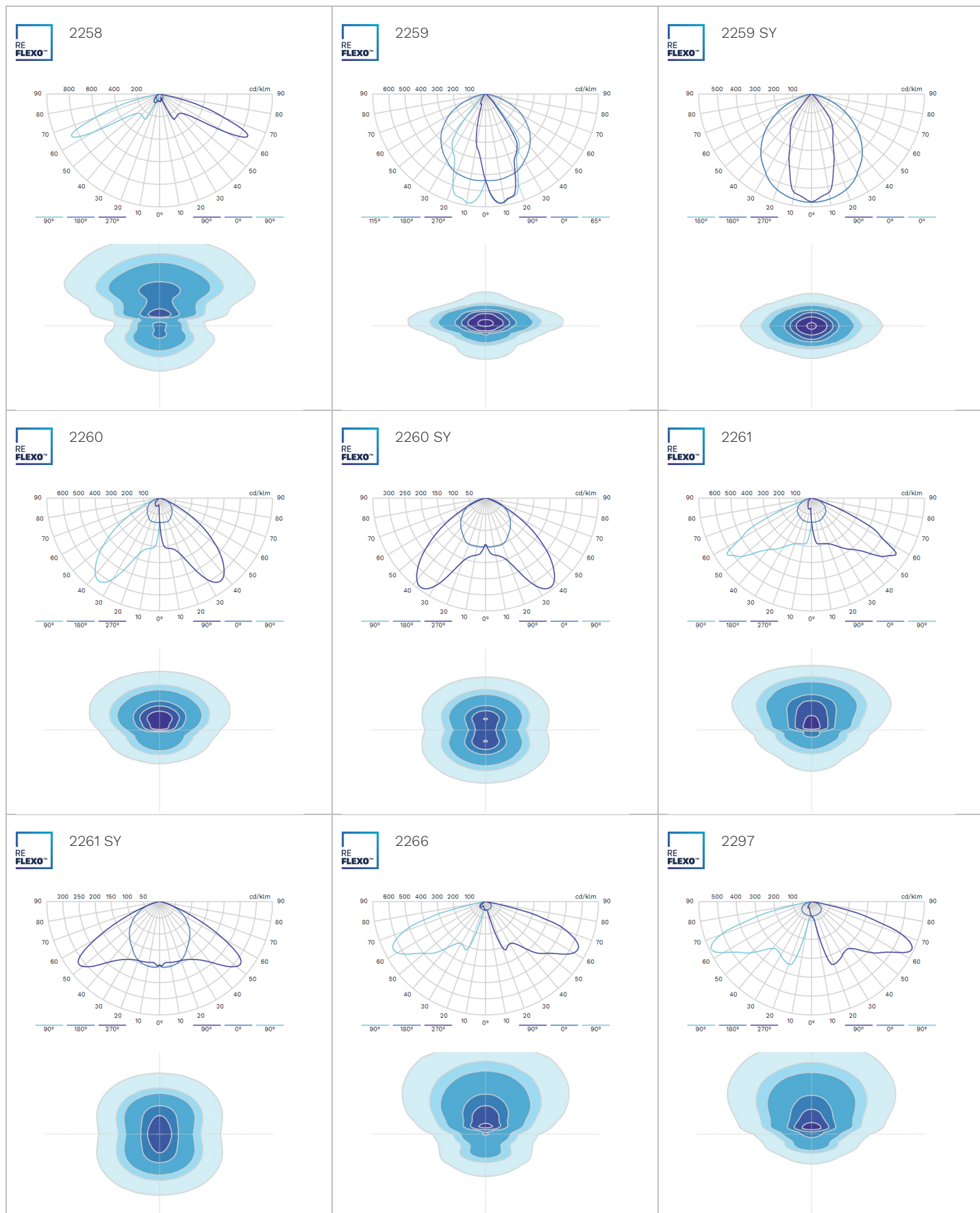
Tolerance on LED flux is ± 7% and on total luminaire power ± 5 %

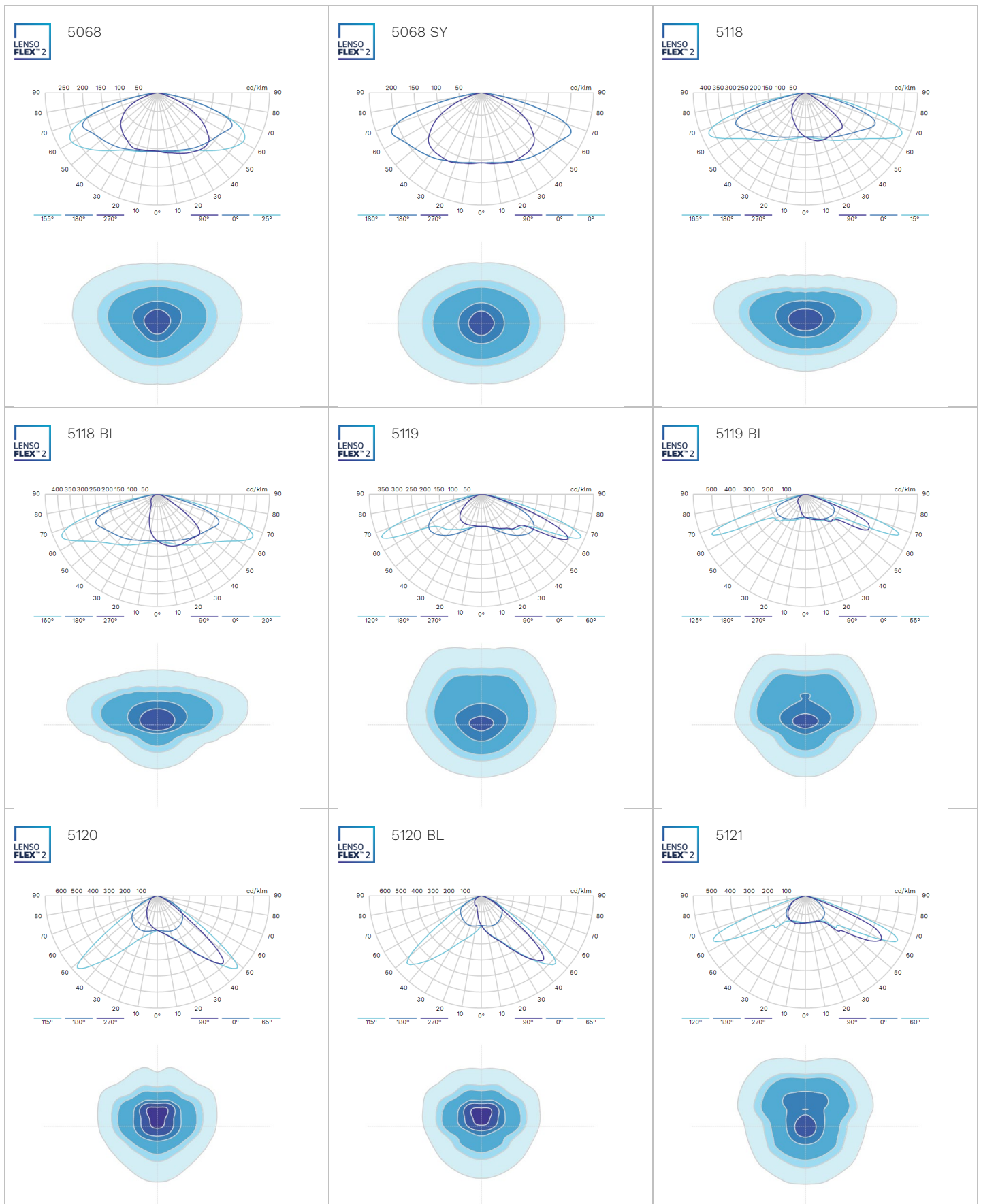
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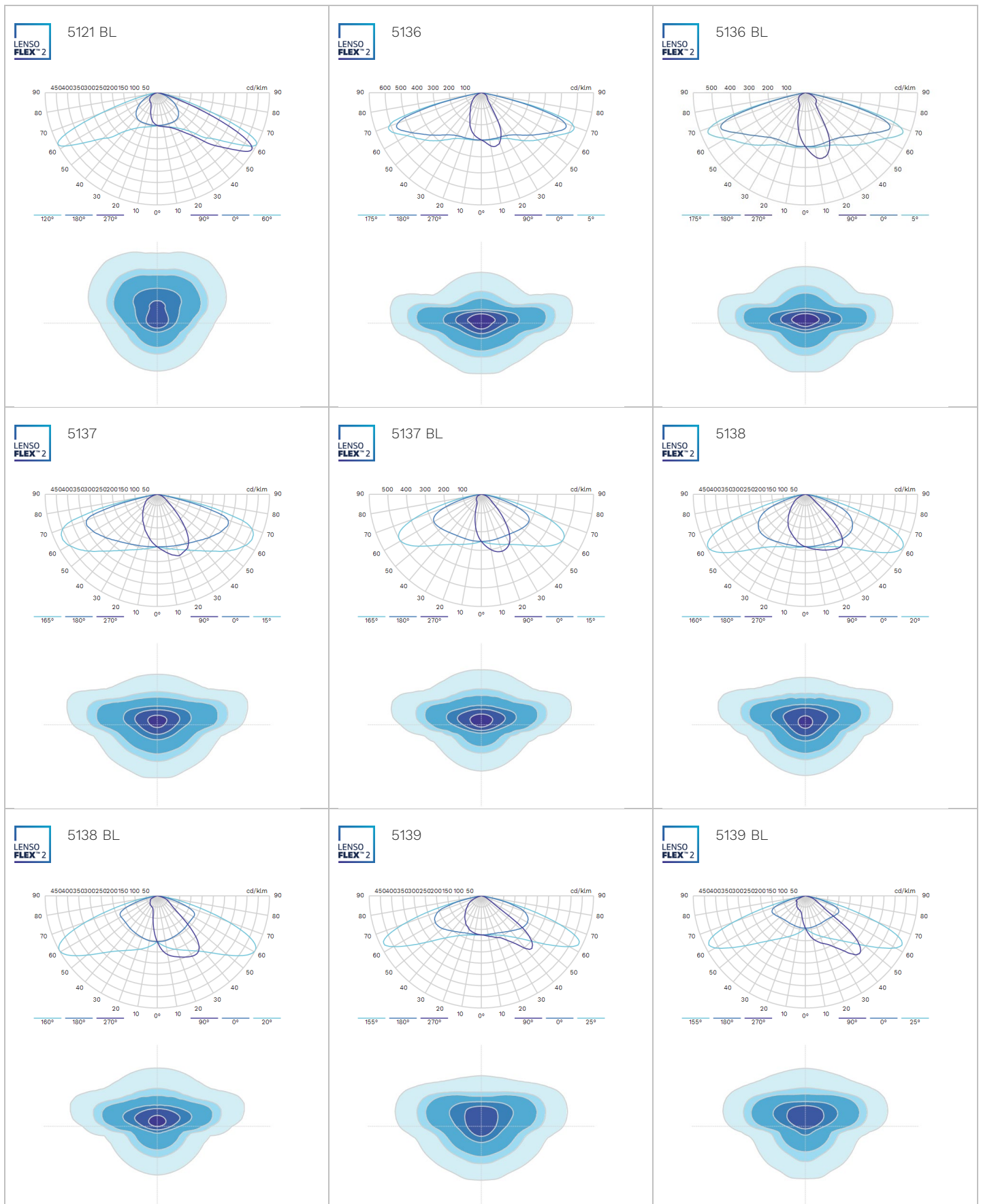


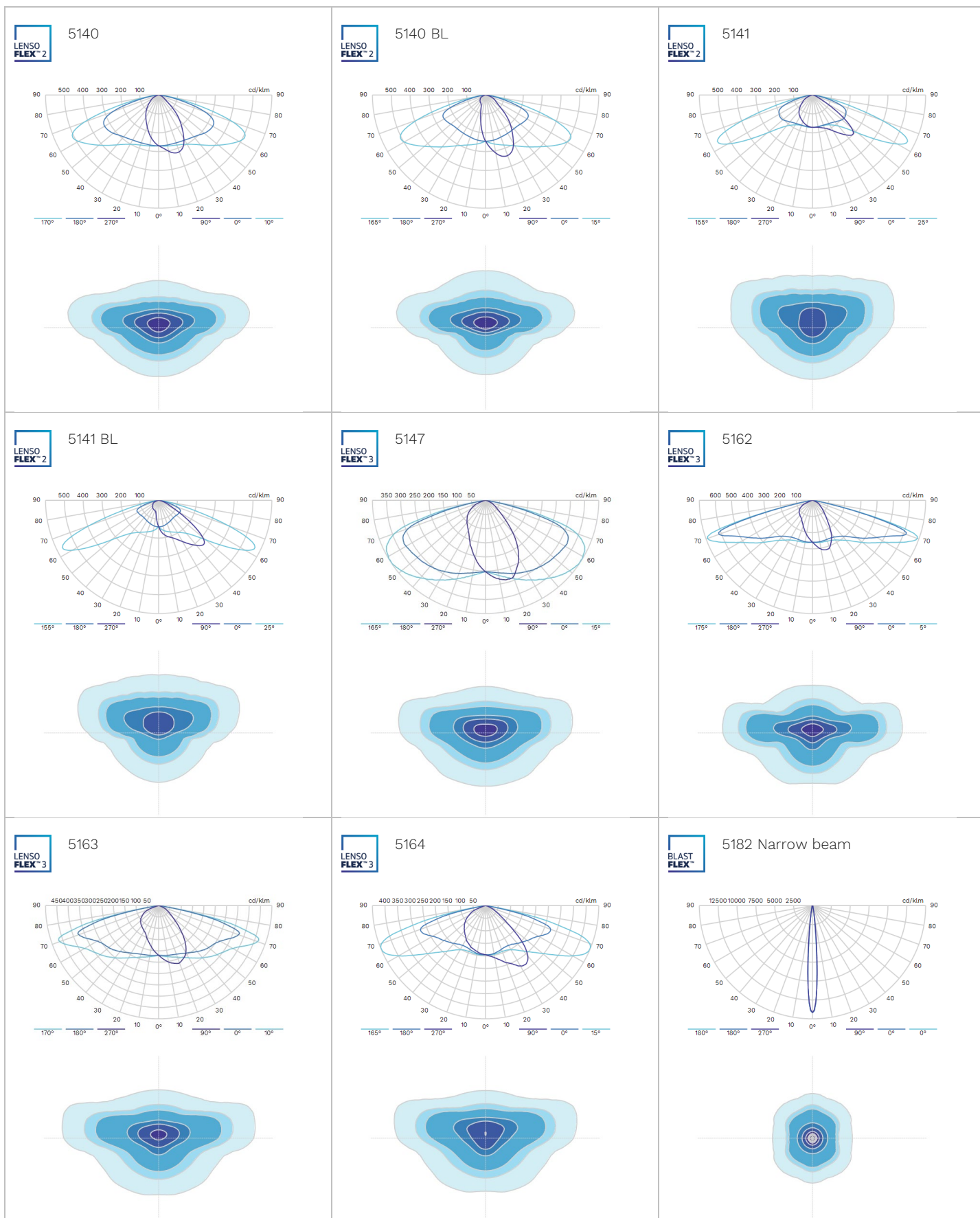
			Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Neutral White 740		Luminaire output flux (lm) Warm White 830		Luminaire output flux (lm) Warm White 722		Luminaire output flux (lm) Warm White 727		W	lm/W		
	Number of LEDs	mA	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		Up to	Photometry	
OMNISTAR	160	350	12000	25000	12600	26400	11200	23500	9000	18800	11200	23500	168	157	LENSO FLEX ⁴ BLAST FLEX ⁴	
	160	400	13500	28200	14200	29800	12600	26500	10100	21100	12600	26500	194	154	LENSO FLEX ⁴ BLAST FLEX ⁴	
	160	500	16300	34100	17200	36000	15300	32000	12200	25600	15300	32000	244	148	LENSO FLEX ⁴ BLAST FLEX ⁴	
	160	600	19000	39800	20100	42000	17900	37300	14300	29800	17900	37300	294	143	LENSO FLEX ⁴ BLAST FLEX ⁴	
	160	700	21500	45000	22700	47500	20200	42200	16100	33700	20200	42200	344	138	LENSO FLEX ⁴ BLAST FLEX ⁴	
	160	800	23800	49700	25100	52500	22300	46700	17800	37300	22300	46700	402	131	LENSO FLEX ⁴ BLAST FLEX ⁴	
	160	900	25900	54100	27300	57100	24300	50700	19400	40500	24300	50700	454	126	LENSO FLEX ⁴ BLAST FLEX ⁴	
	160	1000	27800	58000	29300	61200	26100	54400	20800	43500	26100	54400	508	120	LENSO FLEX ⁴ BLAST FLEX ⁴	
	240	350	33300	37500	35100	39600	31200	35200	24900	28100	31200	35200	258	153	LENSO FLEX ⁴ BLAST FLEX ⁴	
	240	400	37400	42100	39500	44500	35200	39600	28100	31600	35200	39600	294	151	LENSO FLEX ⁴ BLAST FLEX ⁴	
	240	500	45100	50900	47700	53700	42400	47800	33800	38200	42400	47800	369	146	LENSO FLEX ⁴ BLAST FLEX ⁴	
	240	600	52200	58800	55100	62100	49000	55200	39100	44100	49000	55200	441	141	LENSO FLEX ⁴ BLAST FLEX ⁴	
	240	700	58400	65900	61700	69600	54900	61900	43800	49400	54900	61900	516	135	LENSO FLEX ⁴ BLAST FLEX ⁴	
	240	800	64000	72100	67500	76100	60100	67700	48000	54100	60100	67700	594	128	LENSO FLEX ⁴ BLAST FLEX ⁴	

Tolerance on LED flux is $\pm 7\%$ and on total luminaire power $\pm 5\%$



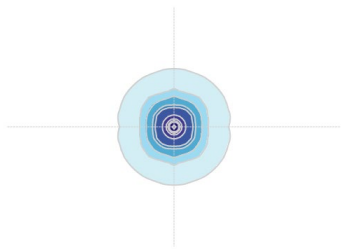
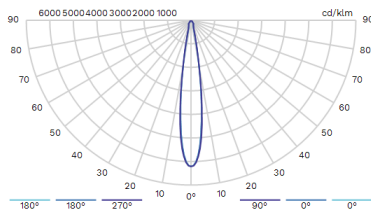






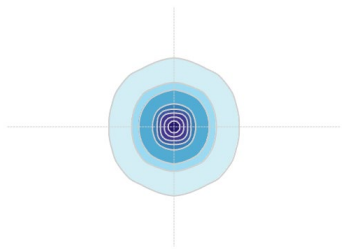
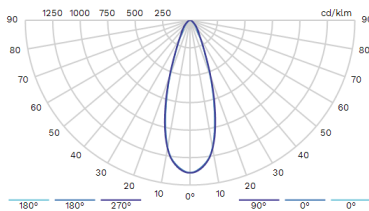
BLAST
FLEX™

5184 Medium beam



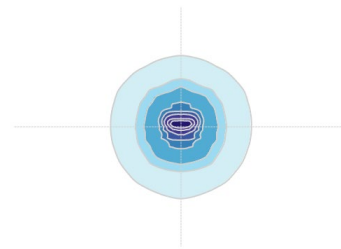
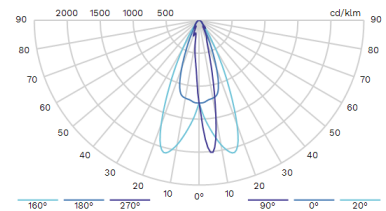
BLAST
FLEX™

5185 Wide beam



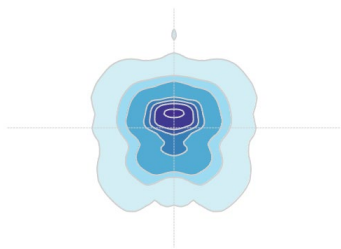
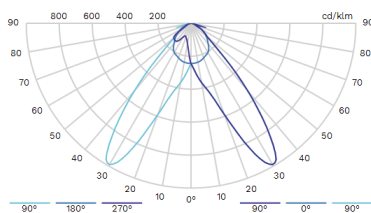
BLAST
FLEX™

5186 Asymmetrical 10°



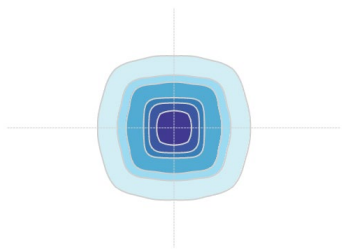
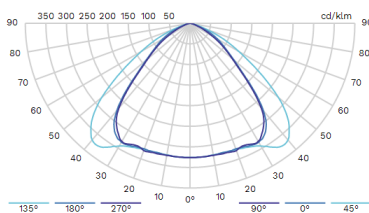
LENZO
FLEX™ 3

5188



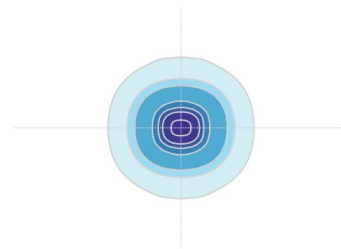
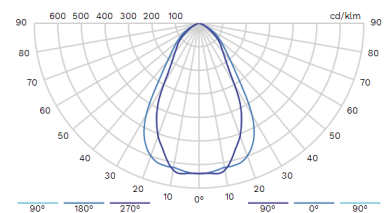
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FLEX™ 2

5251



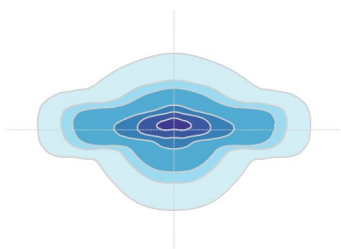
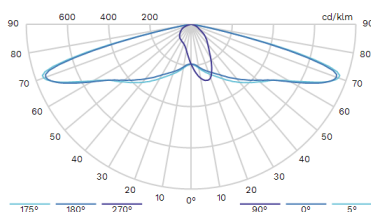
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FLEX™ 2

5253



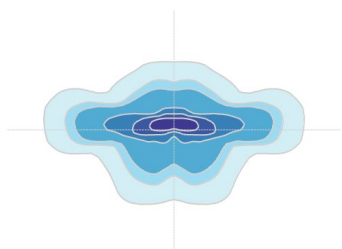
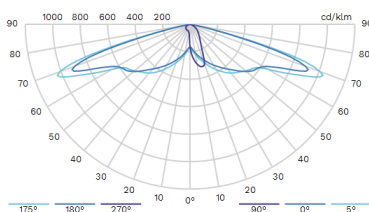
LENZO
FLEX™ 2

5283



LENZO
FLEX™ 4

5300



LENZO
FLEX™ 4

5300 BL

