

# FLEXIA DP

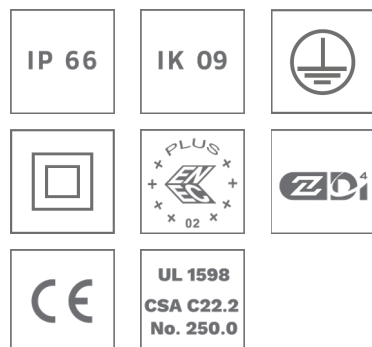


Designer : iOL Design



## The ultimate platform for your unique urban lighting solution

Various designs, many configurations, one single DNA. FLEXIA is the ultimate platform to create your unique urban lighting solution. Focus on creating a unique ambiance for people living and visiting your spaces instead of dealing with non-stop constraints. With no technical limitations, more design consistency and the guarantee of the latest innovations, FLEXIA offers a versatile technological platform with refined aesthetics. FLEXIA incorporates a refined design with an advanced and interchangeable technology compatible with a circular economy. Ideal for large boulevards, city centres, public squares, bike paths and other urban outdoor areas, FLEXIA delivers a high-quality lighting with design consistency and lowers the carbon footprint for towns and cities - creating a safe and attractive environment.



## Concept

FLEXIA DP is a versatile suspended decorative luminaire, designed to provide the greatest modularity and easy customisation.

It is composed of an aluminum body sealed with a deep polycarbonate protector.

FLEXIA DP is part of the FLEXIA range and shares the same technical architecture for more consistency and interchangeability. It relies on the new LensoFlex®4 photometrical engine, developed on a concept of performance, dark-sky compliance (PureNight) and versatility, and use the same CR-Kit that regroups the LEDs, lenses, gear and electrical accessories on a tool-free removable unit. This standardisation of internal components enables an easier and more cost-effective management of spare parts. For aesthetic cohesion, FLEXIA DP integrates the same protector as the FLEXIA TOP, creating harmonious urban furniture.

Create remarkable lighting effects with FLEXIA DP accessories like Coppa and Quattro and give your city its own identity.

To simplify installation, FLEXIA DP is delivered pre-cabled. It also uses the patented IzyHub compact connection and connectivity module which is designed for quick, error-proof wiring.

FLEXIA DP offers tool-free access to the gear compartment. For safety reasons, it includes an instant electrical disconnection on opening.

It is available with various connectivity options (NEMA or Zhaga), sensors and the FlexiWhite solution that adapts the colour temperature of the lighting to the need of the space and the moment. Thanks to tool-free access to the optical compartment, Cromax coloured filters can be added any time to create a special atmosphere for events.

Built with recyclable materials and with an architecture designed for easy service, FLEXIA DP is a role model for a circular economy.



FLEXIA DP can be personalised with a wide range of accessories to enhance your city identity.



FLEXIA DP is designed for suspended mounting.



FLEXIA DP includes an instant electrical disconnection on opening and a complete tool-free removable LED engine.



To remain as open and interoperable as possible, FLEXIA DP is available with both NEMA or Zhaga sockets and complies with the new ZD4i standard.

## TYPES OF APPLICATION

- URBAN & RESIDENTIAL STREETS
- BIKE & PEDESTRIAN PATHS
- CAR PARKS
- LARGE AREAS
- SQUARES & PEDESTRIAN AREAS

## KEY ADVANTAGES

- State-of-the-art LED modular platform that can be endlessly customised
- Design consistency for all urban applications
- Various suspended mounting options
- Tool-free philosophy: opening, cabling and LED engine removal
- PureNight: dark-sky and low-glare lighting distributions
- FlexiWhite option for human-centric and nature-friendly scenarios
- Supplied pre-cabled to facilitate its installation
- Connected-ready for your future Smart cities' requirements
- Based on open and interoperable standards
- Compatible with Schröder EXEDRA control platform
- Zhaga-D4i certified

FLEXIA DP | Standard



FLEXIA DP | With Croma filter



FLEXIA DP | With Coppa accessory



FLEXIA DP | With Coppa + Croma filter



## FLEXIA DP | With Quattro accessory

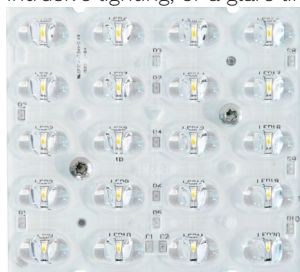




LensoFlex®4

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.

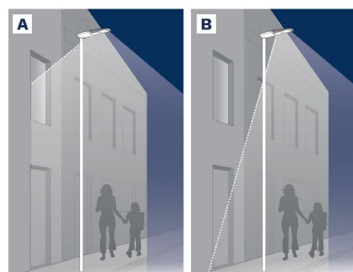
LensoFlex®4 optics can feature backlight control to prevent intrusive lighting, or a glare limiter for high visual comfort.



## Back Light control

As an option, the LensoFlex®2 and LensoFlex®4 modules can be equipped with a Back Light control system.

This additional feature minimises light spill from the back of the luminaire to avoid intrusive light towards buildings.



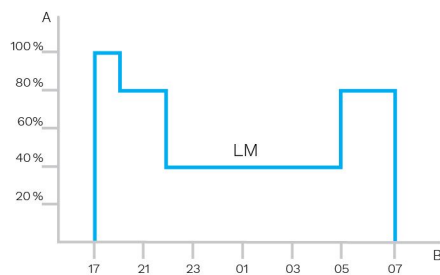
A. Without Back Light control | B. With Back Light control



## 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.

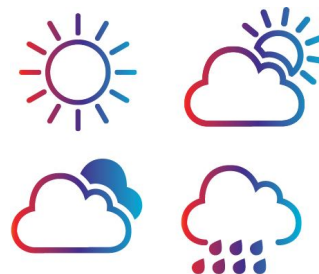


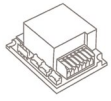
A. Dimming level | B. Time



## Daylight sensor / photocell

Photocell or daylight sensors switch the luminaire on as soon natural light falls to a certain level. It can be programmed to switch on during a storm, on a cloudy day (in critical areas) or only at nightfall so as to provide safety and comfort in public spaces.





## IzyHub

IzyHub is an innovative device that aims to keep luminaire installation and maintenance hassle-free. This single central connection hub distributes electricity and control information to all parts of the luminaire, ensuring that all components work together and offering reliable, long-term performance.

Its compact size and error-proof connections enable smaller and lighter luminaires that are easier to maintain and upgrade.



### Surge Protection

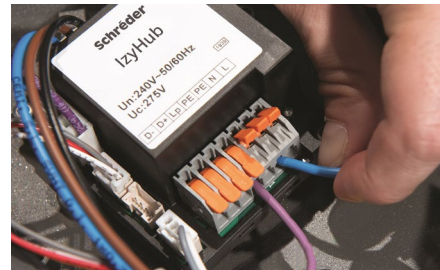
IzyHub features a built-in surge protection device. This prevents electrical surges resulting from lightning strikes and other transient voltages that originate from the mains network from damaging the luminaire, even in the most demanding conditions. The protective device also includes an end-of-life LED warning light, indicating that the luminaire is protected correctly.

### User-friendly

Installing a luminaire has never been easier. IzyHub features tool-free connector as the main connection terminal. It enables 30% shorter installation times compared with standard solutions. Lever actuated spring-loaded electrical connectors provide optimal contact throughout the entire life of the product.

### Easy maintenance

On the rare occasion that a component needs to be replaced in the luminaire, IzyHub makes sure that operations are carried out quickly and easily. Luminaire component connections are keyed so that mixing up electrical connections is physically impossible. Installers do not need to trace wires individually: plug it in, and it works straight away.



### Versions and upgrades

IzyHub has several versions featuring different connectivity options. IzyHub can include an SPD, can work with external dimming and operate with all type of control sockets. It is also able to provide bi-power control and to include fuse options.

These options provide flexibility for future upgrades by only having to replace the IzyHub to connect the new equipment. No complicated re-wiring needed.



The Schröder Bluetooth solution consists of 3 main components:

- A Bluetooth dongle plugged into the modular driver of the luminaire (BLE transceiver)
- A Bluetooth antenna fitted on the luminaire
- A smartphone application called Sirius BLE



## Easy to use

The Schröder Bluetooth solution is ideal for the on-site configuration of individual outdoor luminaires using Bluetooth. From the ground, the user is able to switch the luminaire on or off, adapt the dimming curve, read diagnostic data and much more. A user-friendly application called Sirius BLE provides an easy and secure access to the control and configuration functions.

Whether you are managing a lighting network in an urban or a residential area, this solution will make it easy to control your outdoor luminaires while simply standing by the pole.

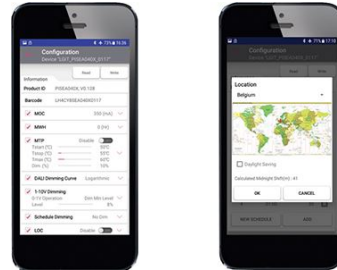
## Quick and easy pairing

Get the Sirius App from Schröder. Go to the menu. Press the "SCAN DEVICE (START)" button, to search for the surrounding BLE modules. They will be displayed with a bar graphic (signal intensity) to indicate the closest and the most distant one you can reach. Click on the device you want to connect to and enter your personal access key to control the luminaire.



## Defining the settings

Once you are connected to a luminaire, you can set various parameters such as the maximum output current, minimum dimming level and custom dimming profile.



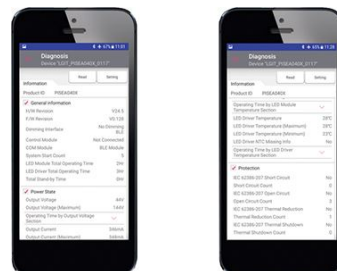
## Manual dimming control

The App enables you to do a manual override to adapt the dimming levels instantly. Simply tap on the "Dimming" button in the main menu and adjust the dimming using the wheel and button. Predefined dimming levels can be applied immediately. The corresponding value is displayed on the wheel. This enables you to test the ON / OFF and dimming features of the luminaire paired to the smartphone.



## On-site diagnostic

When a luminaire is paired, you can access various diagnostic information: total number of power up events, operation time of LED module and driver, total energy consumption of LED driver... etc. You can also track operating events (short circuits, thermal shutdowns...). The diagnostic values may be the current state or values accumulated to date.







## Cost-effective solution

A Zhaga-D4i certified luminaire includes drivers offering features that had previously been in the control node, like energy metering, which has in turn simplified the control device therefore reducing the price of the control system.

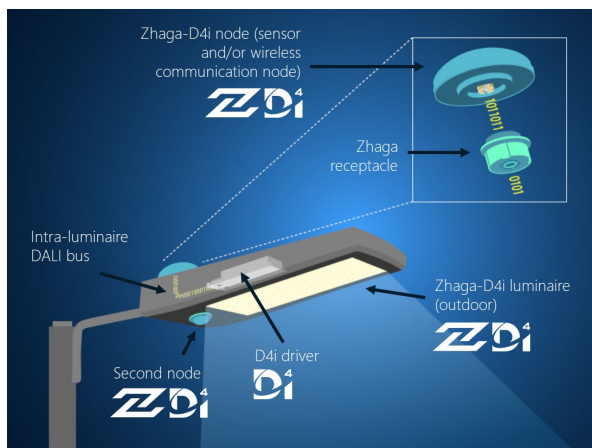
The Zhaga consortium joined forces with the DiiA and produced a single Zhaga-D4i certification that combines the Zhaga Book 18 version 2 outdoor connectivity specifications with the DiiA's D4i specifications for intra-luminaire DALI.

## Standardisation for interoperable ecosystems

As a founding member of the Zhaga consortium, Schröder has participated in the creation of, and therefore supports, the Zhaga-D4i certification program and the initiative of this group to standardise an interoperable ecosystem. The D4i specifications take the best of the standard DALI2 protocol and adapt it to an intra-luminaire environment but it has certain limitations. Only luminaire mounted control devices can be combined with a Zhaga-D4i luminaire. According to the specification, control devices are limited respectively to 2W and 1W average power consumption.

## Certification program

The Zhaga-D4i certification covers all the critical features including mechanical fit, digital communication, data reporting and power requirements within a single luminaire, ensuring plug-and-play interoperability of luminaires (drivers) and peripherals such as connectivity nodes.





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	4 m to 10 m   13' to 33'
FutureProof	Easy replacement of the photometric engine and electronic assembly on-site
Circle Light label	Score >90 - The product fully meets circular economy requirements
Driver included	No
CE mark	Yes
CB mark	No
ENEC+ certified	Yes
UL certified	Yes
Zhaga-D4i certified	Yes

## HOUSING AND FINISH

Housing	Aluminium
Optic	PMMA
Protector	Polycarbonate
Housing finish	Polyester powder coating
Standard colour(s)	AKZO grey 900 sanded
Tightness level	IP 66
Impact resistance	IK 09
Access for maintenance	Tool-less access to gear compartment

## OPERATING CONDITIONS

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

## ELECTRICAL INFORMATION

Electrical class	Class 1 US, Class I EU, Class II EU
Nominal voltage	120-277V – 50-60Hz 220-240V – 50-60Hz
Power factor (at full load)	0.9
Surge protection options (kV)	10 20
Electromagnetic compatibility (EMC)	EN 55015 / EN 61000-3-2 / EN 61000-3-3 / EN 61547
Control protocol(s)	Bluetooth, 1-10V, DALI
Control options	AmpDim, Bi-power, Custom dimming profile, Remote management
Socket	Zhaga (optional) NEMA 7-pin (optional)
Associated control system(s)	Sirius BLE Schröder EXEDRA

## OPTICAL INFORMATION

LED colour temperature	2200K (FlexiWhite 722 722) 2600K (FlexiWhite 722 726) 2700K (Warm White 727) 3000K (Warm White 730) 3000K (Warm White 830) 3000K (FlexiWhite 730 730) 4000K (Neutral White 740)
Colour rendering index (CRI)	>70 (FlexiWhite 722 722) >70 (FlexiWhite 722 726) >70 (Warm White 727) >70 (Warm White 730) >80 (Warm White 830) >70 (FlexiWhite 730 730) >70 (Neutral White 740)
Upward Light Output Ratio (ULOR)	<4%

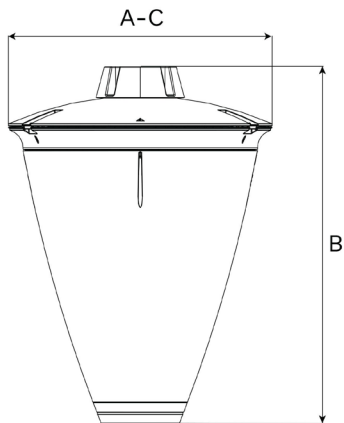
## LIFETIME OF THE LEDS @ TQ 25°C

All configurations	100,000h - L95
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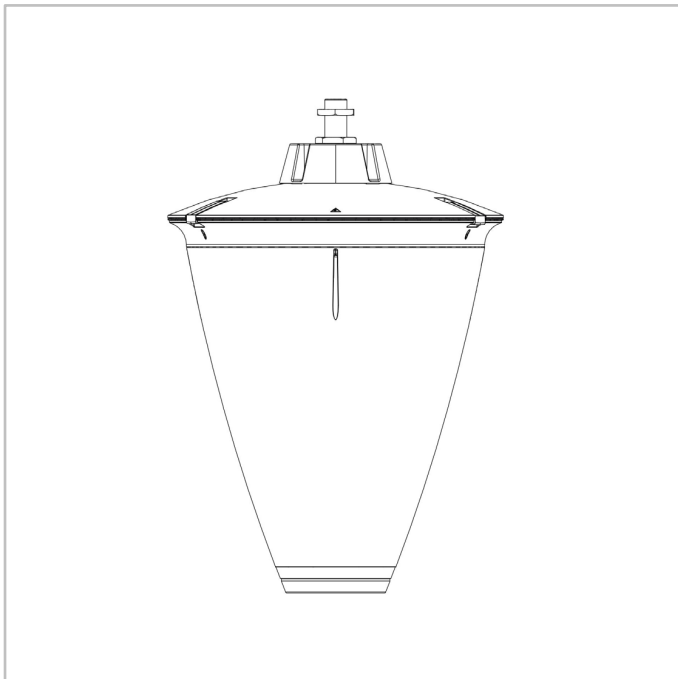
DIMENSIONS AND MOUNTING

AxBxC (mm   inch)	504x682x504   19.8x26.9x19.8
Weight (kg   lbs)	12.63   27.8
Aerodynamic resistance (CxS)	0.04
Mounting possibilities	Suspended mounting

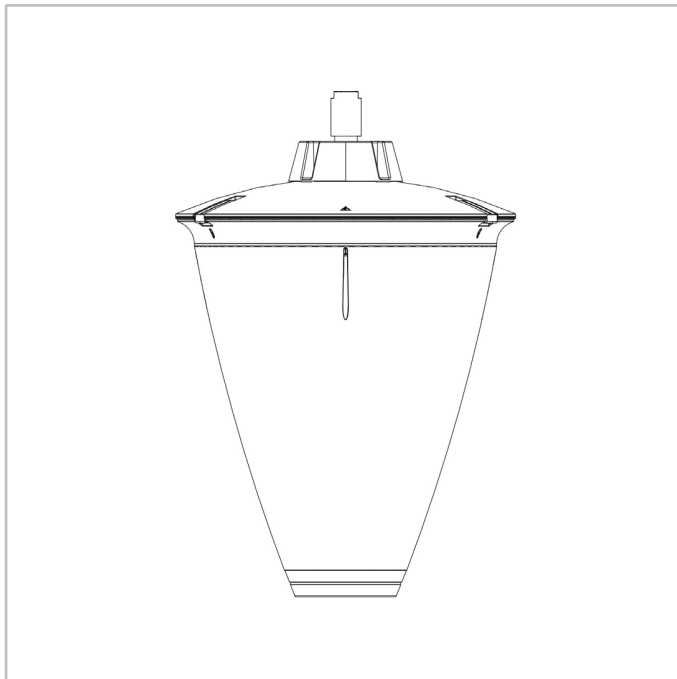
· For more information about mounting possibilities, please consult the installation sheet.



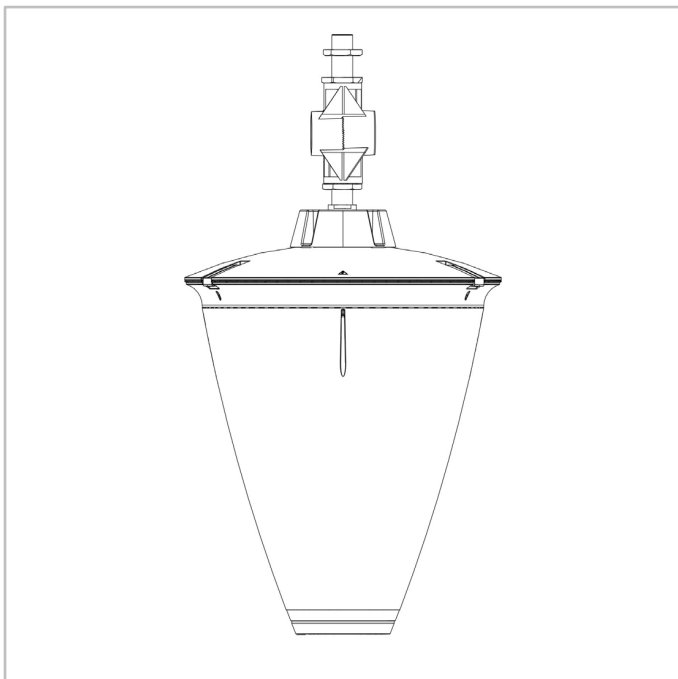
FLEXIA DP | Suspended with fixed 1" gas mounting



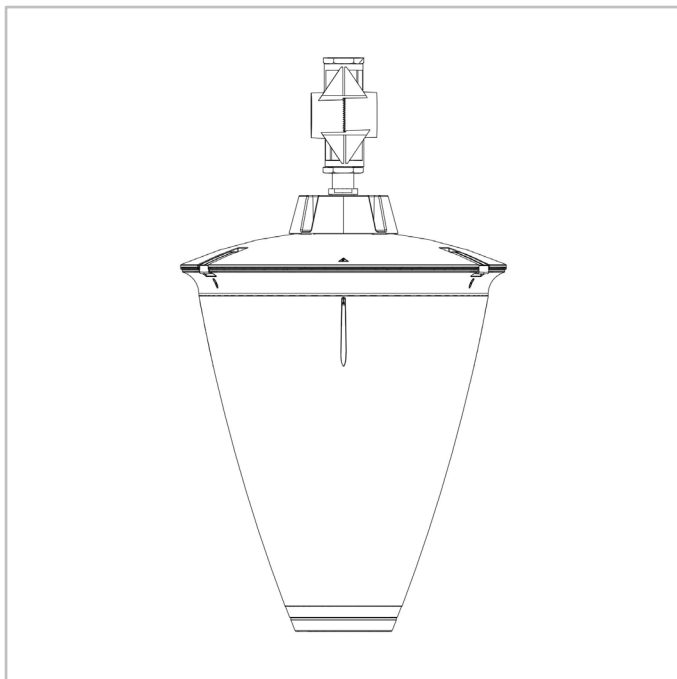
FLEXIA DP | Suspended with 1" gas enclosing mounting



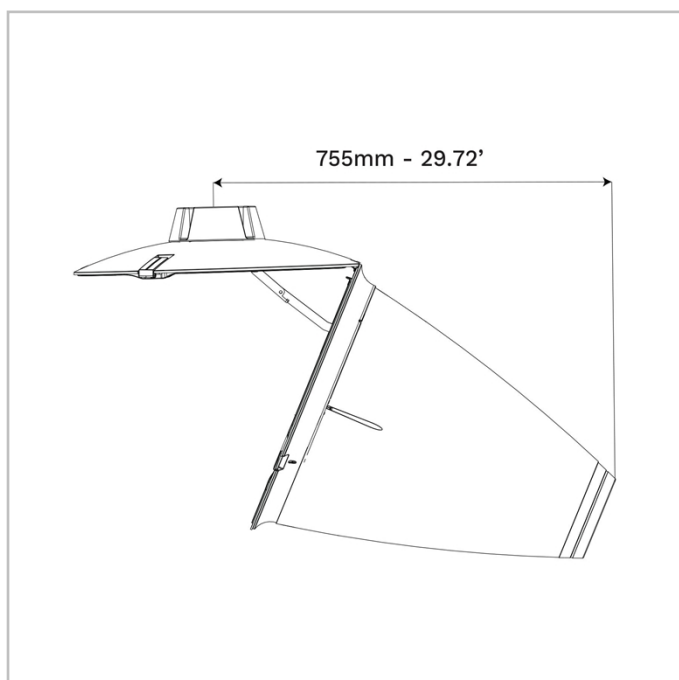
FLEXIA DP | Suspended with knuckle joint 1" gas mounting























FLEXIA DP | Suspended with knuckle joint 1" gas enclosing mounting



## FLEXIA DP | Luminaire opening clearance





			Luminaire output flux (lm) Warm White 727		Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Warm White 830		Luminaire output flux (lm) Neutral White 740		Luminaire output flux (lm) FlexiWhite 722 722		Luminaire output flux (lm) FlexiWhite 722 726		Luminaire output flux (lm) FlexiWhite 730 730		W	lm/W	
	Number of LEDs	mA	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		Up to	Photometry
FLEXIA DP MIDI	10	200	700	800	700	900	700	800	800	900	-	-	-	-	-	-	7.8	115	
	10	300	1000	1200	1100	1300	1000	1200	1100	1400	-	-	-	-	-	-	10.8	130	
	10	300	-	-	-	-	-	-	-	-	800	1000	900	1100	1000	1200	10.5	114	
	10	400	1300	1600	1400	1700	1300	1600	1500	1800	-	-	-	-	-	-	13.8	130	
	10	400	-	-	-	-	-	-	-	-	1100	1300	1200	1500	1300	1600	13.6	118	
	10	500	1600	1900	1700	2000	1600	1900	1800	2200	-	-	-	-	-	-	17	129	
	10	500	-	-	-	-	-	-	-	-	1300	1600	1500	1800	1600	1900	17.1	111	
	10	600	1800	2200	2000	2400	1800	2200	2100	2500	-	-	-	-	-	-	20.5	122	
	10	600	-	-	-	-	-	-	-	-	1500	1800	1700	2100	1900	2200	20.4	108	
	10	650	2000	2400	2100	2500	2000	2400	2200	2700	-	-	-	-	-	-	22.2	122	
	10	700	-	-	-	-	-	-	-	-	1800	2200	2000	2400	2200	2600	23.7	110	
	10	730	-	-	-	-	-	-	-	-	1800	2200	2000	2400	2200	2600	24.7	105	
	20	200	1400	1700	1500	1800	1400	1700	1600	1900	-	-	-	-	-	-	13.8	138	
	20	200	-	-	-	-	-	-	-	-	1200	1400	1300	1600	1400	1700	13.3	128	
	20	300	2000	2500	2200	2600	2000	2500	2300	2800	-	-	-	-	-	-	19.8	141	
	20	300	-	-	-	-	-	-	-	-	1700	2000	1900	2300	2100	2500	19.3	130	
	20	350	-	-	2700	2900	2500	2700	2900	3100	-	-	-	-	-	-	22.9	135	
	20	370	2500	3000	2600	3200	2500	3000	2800	3400	-	-	-	-	-	-	24.1	141	
	20	400	2700	3200	2800	3400	2700	3200	3000	3600	-	-	-	-	-	-	25.9	139	

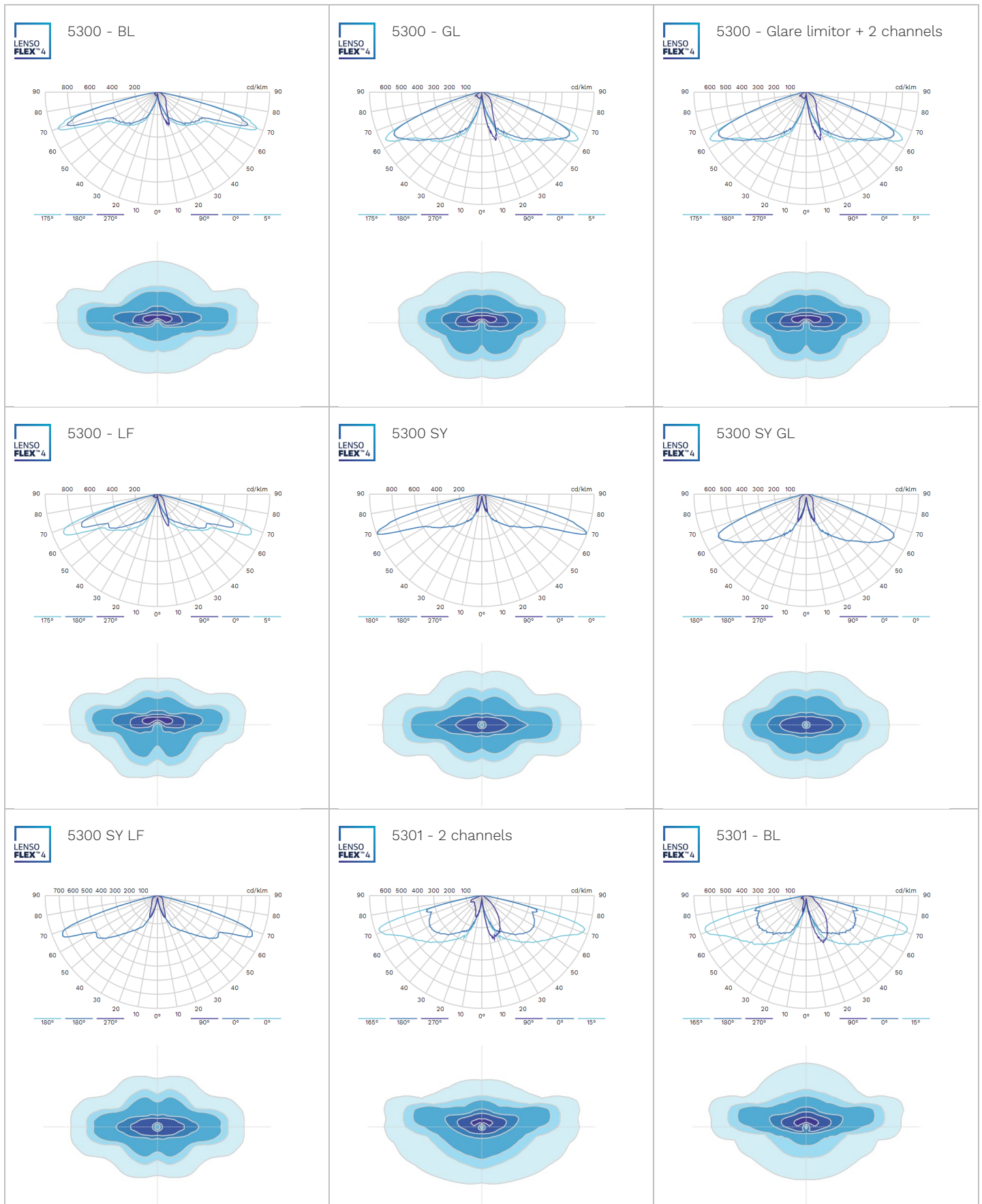
Tolerance on LED flux is  $\pm 7\%$  and on total luminaire power  $\pm 5\%$

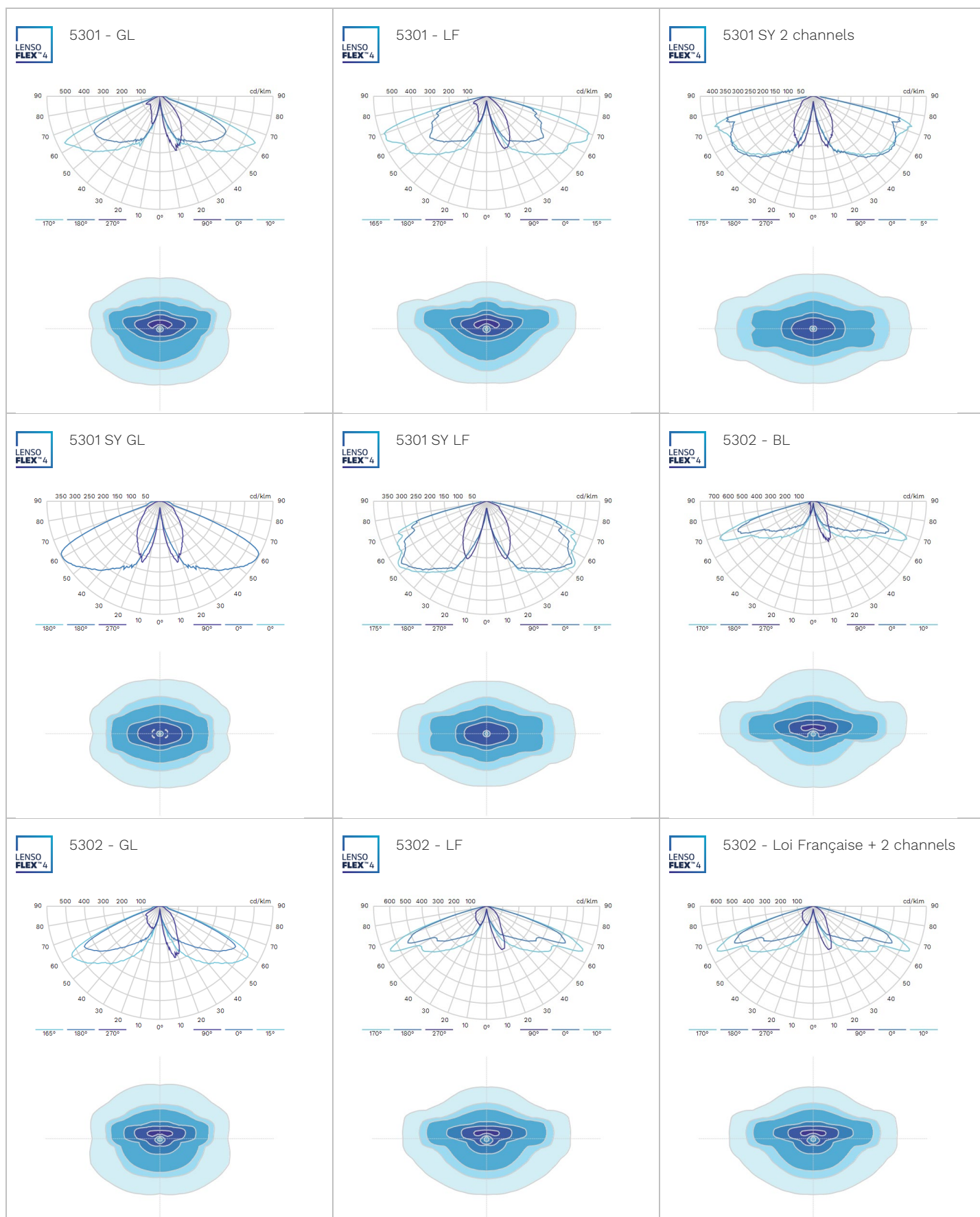


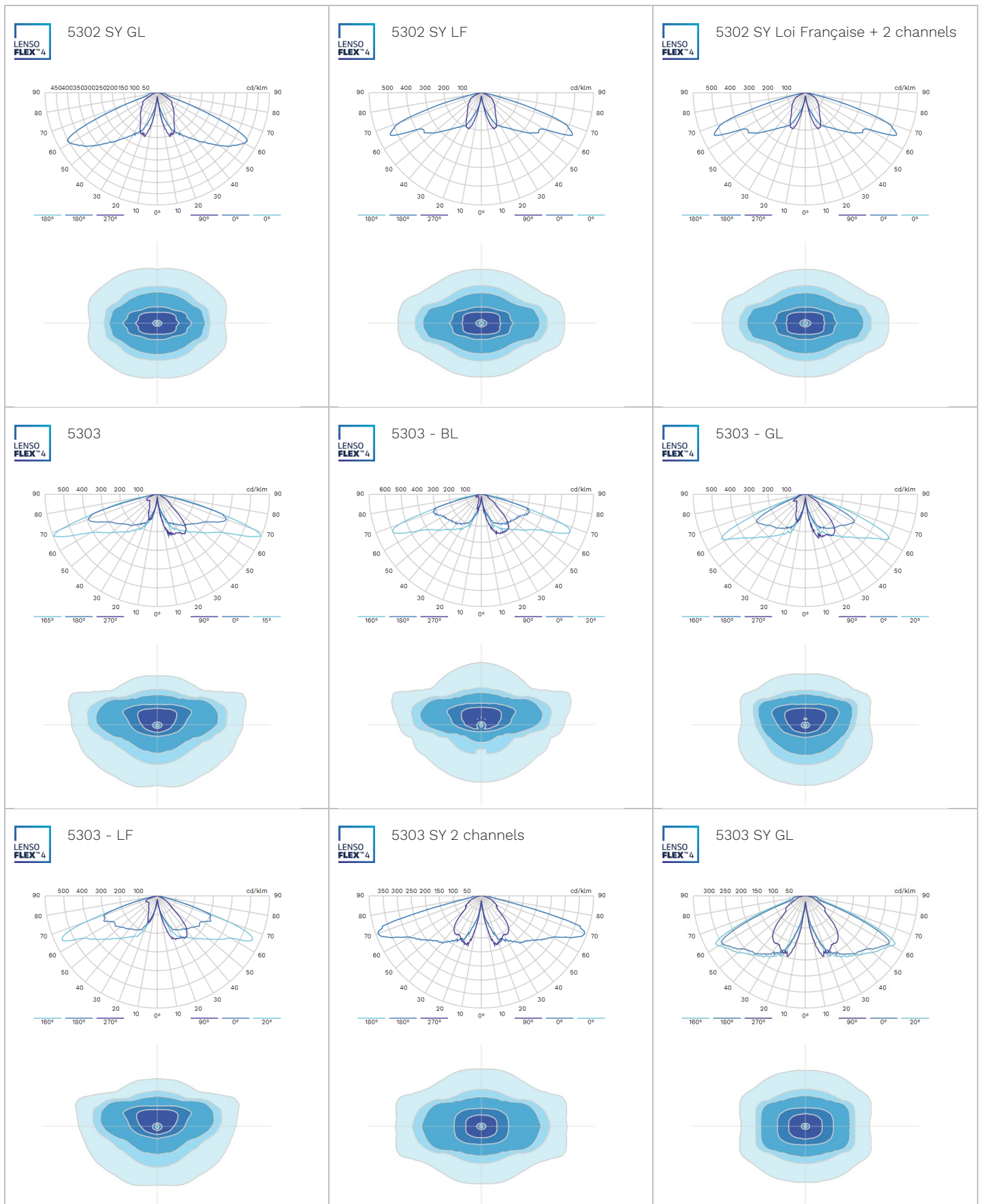
			Luminaire output flux (lm) Warm White 727		Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Warm White 830		Luminaire output flux (lm) Neutral White 740		Luminaire output flux (lm) FlexiWhite 722 722		Luminaire output flux (lm) FlexiWhite 726 726		Luminaire output flux (lm) FlexiWhite 730 730		W	lm/W	
	Number of LEDs	mA	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		Up to	Photometry
FLEXIA DP MIDI	20	400	-	-	-	-	-	-	-	-	2200	2700	2500	3000	2700	3200	25.5	125	
	20	500	3200	3900	3400	4200	3200	3900	3600	4400	-	-	-	-	-	-	32.3	136	
	20	500	-	-	-	-	-	-	-	-	2700	3300	3100	3700	3300	3900	31.9	122	
	20	600	3800	4600	4000	4900	3800	4600	4300	5100	-	-	-	-	-	-	38.9	131	
	20	600	-	-	-	-	-	-	-	-	3200	3800	3600	4300	3900	4600	38.2	120	
	20	700	-	-	-	-	-	-	-	-	3700	4400	4100	4900	4400	5300	44	120	
	20	800	-	-	-	-	-	-	-	-	4100	4900	4600	5500	4900	5900	50.5	117	
	20	900	-	-	-	-	-	-	-	-	4500	5400	5000	6000	5400	6500	57	114	
	20	1000	-	-	-	-	-	-	-	-	4900	5800	5500	6500	5900	7000	64	109	
	40	200	2800	3400	3000	3700	2800	3400	3200	3900	-	-	-	-	-	-	25.9	151	
	40	220	3100	3700	3300	4000	3100	3700	3500	4200	-	-	-	-	-	-	28.3	148	
	40	300	4100	5000	4400	5300	4100	5000	4600	5600	-	-	-	-	-	-	37.8	148	
	40	350	-	-	5100	6100	4800	5700	5300	6500	-	-	-	-	-	-	44	148	
	40	400	5300	6400	5700	6900	5300	6400	6000	7300	-	-	-	-	-	-	50	146	
	40	500	6500	7800	6900	8300	6500	7800	7300	8800	-	-	-	-	-	-	62	142	
	40	600	7500	9100	8000	9600	7500	9100	8400	10200	-	-	-	-	-	-	75	136	
	40	700	8400	10200	9000	10900	8400	10200	9500	11500	-	-	-	-	-	-	88	131	

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



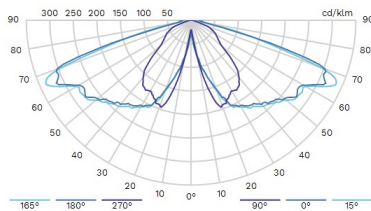






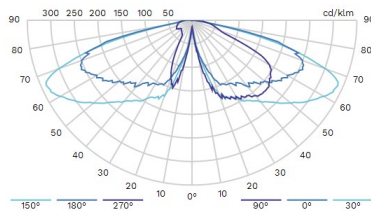
LENSO  
FLEX<sup>4</sup>

5303 SY LF



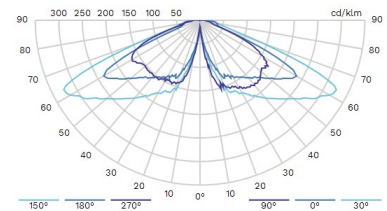
LENSO  
FLEX<sup>4</sup>

5304 - BL



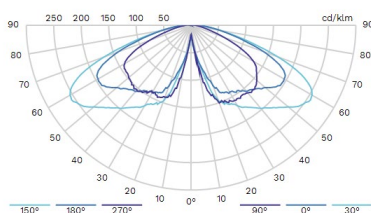
LENSO  
FLEX<sup>4</sup>

5304 - GL



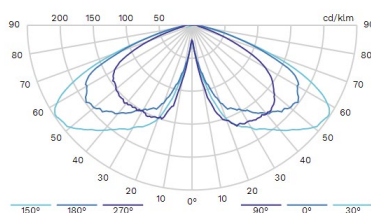
LENSO  
FLEX<sup>4</sup>

5304 Diffuse protector



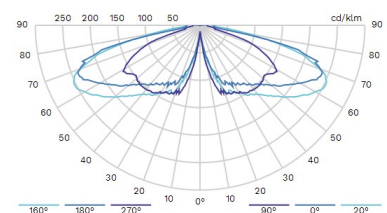
LENSO  
FLEX<sup>4</sup>

5304 Diffuse protector LF



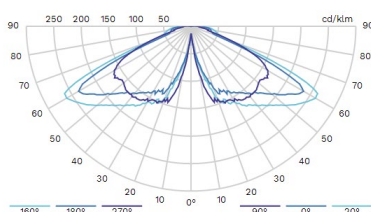
LENSO  
FLEX<sup>4</sup>

5304 SY



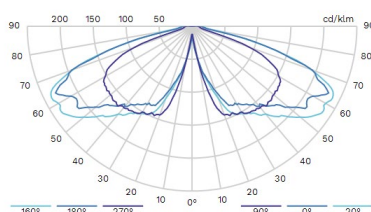
LENSO  
FLEX<sup>4</sup>

5304 SY GL



LENSO  
FLEX<sup>4</sup>

5304 SY LF



LENSO  
FLEX<sup>4</sup>

5305 - 2 channels

