

VALINTA GROOVE



Holistic lighting solution for living cities

Every urban setting has a story to tell. With this belief in mind, we have created VALINTA GROOVE. Designed as both a luminaire for urban lighting and a floodlight for architectural enhancement, VALINTA GROOVE provides aesthetic and technical consistency for all types of application in the city, through various lumen packages, light distributions and LED types (white or RGBCW).

This holistic approach to urban lighting enables city planners, lighting designers and architects to explore the power of VALINTA GROOVE to beautify cities. From basic lighting to peak illumination, VALINTA GROOVE is your ally in revealing and magnifying every detail of the city.

IP 66

IK 09



UK
CA

CE



PLUS
02

ZD1



Concept

VALINTA GROOVE is a refined floodlight designed for both urban and architectural lighting. Its sophisticated organic shape, designed by Michel Tortel, brings both charm and character to any urban landscape. More than just a stylish luminaire, VALINTA GROOVE is a flexible lighting solution incorporating cutting-edge technologies, making it the perfect solution for both functional lighting and creation of ambiance.

The body, optic frame and fixation part of VALINTA GROOVE are made of robust die-cast aluminium to withstand the conditions of city life. Its high impact resistance and tightness level make it a robust and reliable outdoor lighting solution. Available in various sizes, VALINTA GROOVE provides a wide range of lumen packages and light distributions to offer refinement and technical consistency for all types of application in the city.

The luminaire version is equipped with the latest generation of LensoFlex® photometric engines, offering perfect visibility and high efficiency for any urban application, while the floodlight version is equipped with white or coloured LEDs (RGBCW) and collimators dedicated to architectural enhancement. The layout of the RGBCW LED PCBA is inspired by stained glass windows and provides consistency within the lighting installation. Its lighting spectrum is as low as 3 MacAdam ellipses, meaning there are no variations in light or intensity between the floodlights in the installation.

VALINTA GROOVE is compatible with surface and pole mounting. It has a unique mounting system requiring only one person for a two-step process. The bracket is tiltable, allowing a wide range of settings in both axes to direct light precisely where it is needed. As an option, the photometric engine can be orientated on site over a range of $\pm 90^\circ$.

VALINTA GROOVE is a smart, connected-ready solution, bringing urban and ambient lighting into the smart era of lighting technologies.



The urban lighting version of VALINTA GROOVE takes advantage of the latest generation of LensoFlex® photometric engines.



The floodlight version of VALINTA GROOVE relies on a unique LED PCBA layout, inspired by historical stained glass windows.

TYPES OF APPLICATION

- URBAN & RESIDENTIAL STREETS
- ACCENT & ARCHITECTURAL
- BRIDGES
- BIKE & PEDESTRIAN PATHS
- RAILWAY STATIONS & METROS
- CAR PARKS
- SQUARES & PEDESTRIAN AREAS

KEY ADVANTAGES

- Versatile platform: floodlight and luminaire
- High energy efficiency and LED consistency (as low as 3 McAdam ellipses)
- Unique mounting system for easy installation on flat surfaces or poles, by one person
- Various cabling options to facilitate application/installation
- Multiple on-site settings (lateral, vertical, optical block) for sharp-edge photometry
- Connected-ready



Unique smart mounting system requiring only one person for a quick and easy two-step process.

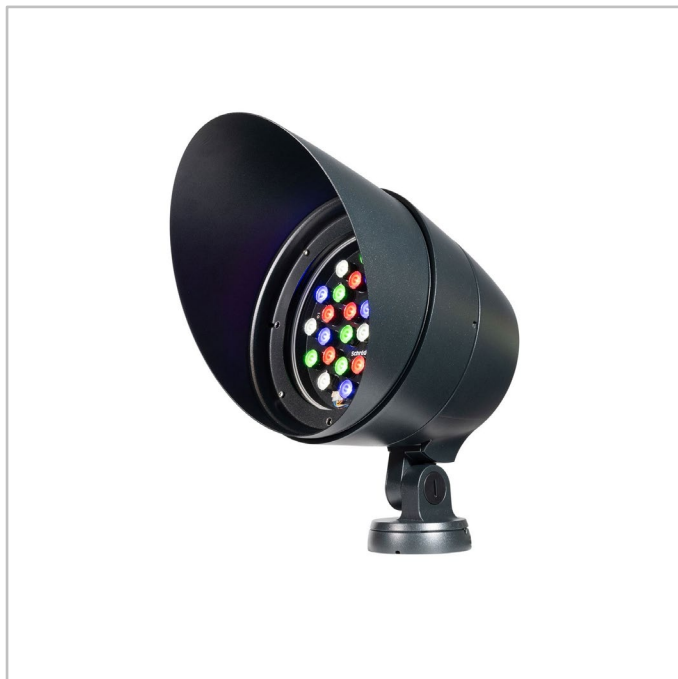


As an option, the photometric engine can be orientated on site over a range of $\pm 90^\circ$.

VALINTA GROOVE | With canon



VALINTA GROOVE | With hood

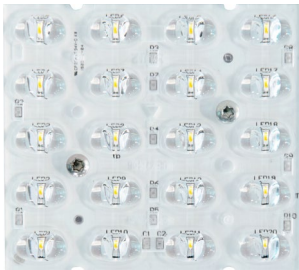




LensoFlex® 4

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.

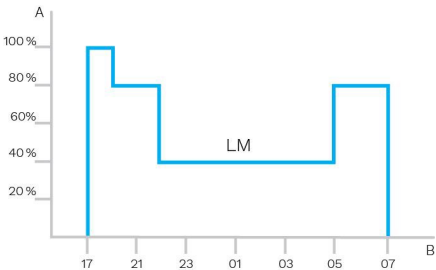




Custom dimming profile

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.

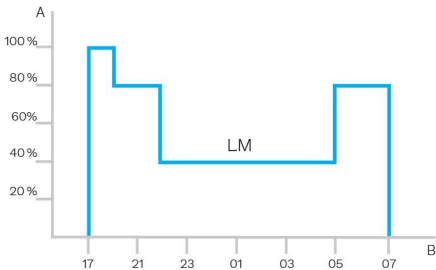


A. Dimming level | B. Time



Dimming through 0-10V or DMX-RDM

Intelligent luminaire 0-10V drivers enable to operate dimming profiles. DMX-RDM is a protocol that allows bi-directional communication between a lighting fixture and a controller over a standard DMX line. This protocol allows configuration, status monitoring, and control of the lighting fixture. The standard has been developed by the Entertainment Services and Technology Association (ESTA) and is the current standard on the market.



A. Performance | B. Time



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.

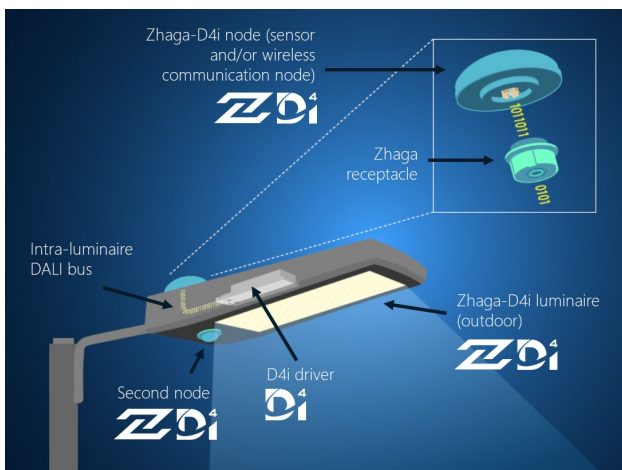
The Zhaga consortium joined forces with the DiiA and produced a single Zhaga-D4i certification that combines the Zhaga Book 18 version 2 outdoor connectivity specifications with the DiiA's D4i specifications for intra-luminaire DALI.

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

Circle Light label	Score ≥90 - The product fully meets circular economy requirements
CE mark	Yes
ENEC certified	Yes
ENEC+ certified	Yes
Zhaga-D4i certified	Yes
UKCA marking	Yes

HOUSING AND FINISH

Housing	Aluminium
Optic	PMMA
Protector	Tempered glass
Housing finish	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)
Tightness level	IP 66
Impact resistance	IK 09
Vibration test	Compliant with modified IEC 68-2-6 (0.5G)

OPERATING CONDITIONS

Operating temperature range (Ta)	-30°C up to +35°C / -22°F up to 95°F
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· Depending on the luminaire configuration. For more details, please contact us.

ELECTRICAL INFORMATION

Electrical class	Class I EU, Class II EU
Nominal voltage	220-240V – 50-60Hz
Surge protection options (kV)	10
Electromagnetic compatibility (EMC)	EN 55015 / EN 61000-3-2 / EN 61000-3-3 / EN 61547
Control protocol(s)	DALI, DMX-RDM
Control options	AmpDim, Bi-power, Custom dimming profile, Remote management
Socket	Zhaga (optional)
Associated control system(s)	Schröder EXEDRA

OPTICAL INFORMATION

LED colour temperature	2700K (WW 727) 2700K (WW 827) 3000K (WW 730) 3000K (WW 830) 4000K (NW 740) 4000K (NW 840) RGB CW
Colour rendering index (CRI)	>70 (WW 727) >80 (WW 827) >70 (WW 730) >80 (WW 830) >70 (NW 740) >80 (NW 840) RGB CW

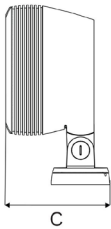
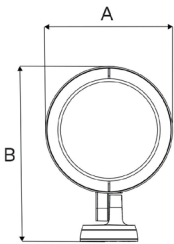
LIFETIME OF THE LEDS @ TQ 25°C

All configurations	100,000h - L95
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· Lifetime may be different according to the size/configurations. Please consult us.

DIMENSIONS AND MOUNTING

AxBxC (mm inch)	VALINTA GROOVE MINI : 195x296x216 7.7x11.7x8.5 VALINTA GROOVE MIDI : 266x366x212 10.5x14.4x8.3 VALINTA GROOVE MAXI : 325x430x201 12.8x16.9x7.9
Weight (kg lbs)	VALINTA GROOVE MINI : 5.0-5.5 11.0-12.1 VALINTA GROOVE MIDI : 7.1-7.5 15.6-16.5 VALINTA GROOVE MAXI : 10.0-10.5 22.0-23.1
Mounting possibilities	Surface mounting Direct mounting on poles



VALINTA GROOVE | Pole mounting – 2 x M8 screws



VALINTA GROOVE | Surface mounting – 3 x M8 screws





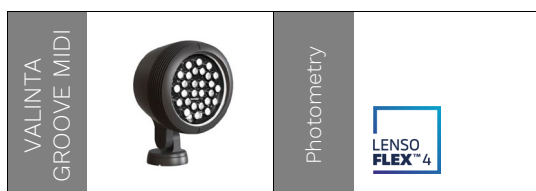
Luminaire output flux (lm)									Power consumption (W)		Luminaire efficacy (lm/W)
RGB CW		Warm White 827		Warm White 830		Neutral White 840					
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
16	1700	2000	2000	4000	2100	4300	2200	4300	6	38	137

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



Luminaire output flux (lm)									Power consumption (W)		Luminaire efficacy (lm/W)
RGB CW		Warm White 827		Warm White 830		Neutral White 840					
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
28	2500	3000	2700	7100	2900	7600	2900	7600	11	65	134

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



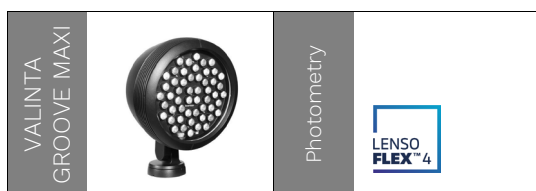
Luminaire output flux (lm)									Power consumption (W)		Luminaire efficacy (lm/W)
Warm White 727		Warm White 730		Warm White 830		Neutral White 740					
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
20	2300	5700	2500	6300	2300	5900	2500	6400	20	49	151

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



Luminaire output flux (lm)									Power consumption (W)		Luminaire efficacy (lm/W)
RGB CW		Warm White 827		Warm White 830		Neutral White 840					
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
52	5300	6400	5000	12400	5300	13100	5400	13300	19	110	145

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



Luminaire output flux (lm)									Power consumption (W)		Luminaire efficacy (lm/W)
Warm White 727		Warm White 730		Warm White 830		Neutral White 740					
Number of LEDs	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to
40	4600	10800	5000	11900	4700	11100	5200	12200	38	88	157

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

