SchréderExperts in lightability™

Industry lighting solutions

For environments people love to work in



LUMINAIRE RANGE

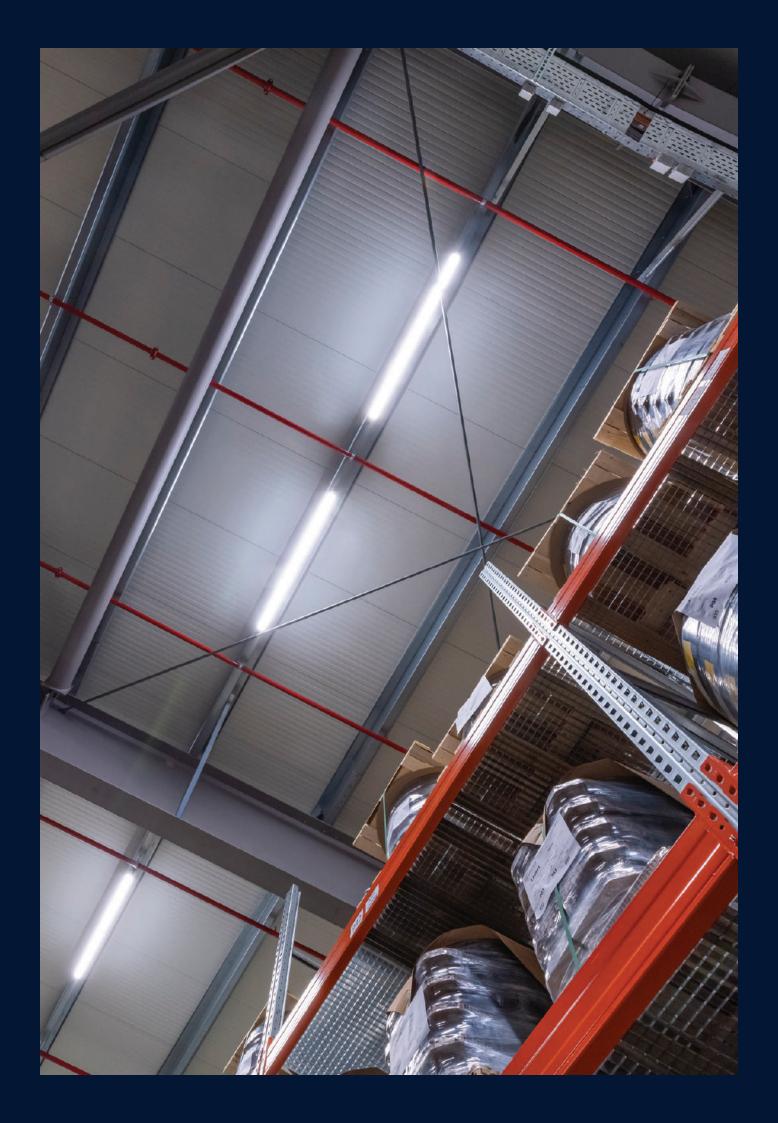


CONTROL SYSTEMS



SMART POLE





Your partner in sustainability



Schréder has developed a cohesive, companywide sustainability strategy called "Together for our Future". This commitment is structured around three axes encompassing the relevant prioritised **UN** Sustainable Development Goals (SDGs). Sustainability is embedded into our strategy, structure, processes and culture. At Schréder, we collaborate closely with our customers to develop robust and long-term solutions to meet the challenges they face, while adding value with a positive, lasting impact on society and the environment.

PLANET

Being responsible for the planet by reducing our own and our customers' environmental impact.

DEVELOPMENT GCALS



COMMUNITY

Being responsible for the community by having a resolutely positive impact on society through our solutions.

PEOPLE

Being responsible for our staff members by developing human growth through diversity and respect for human rights.

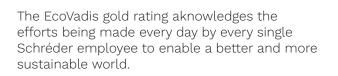
YOUR PARTNER IN SUSTAINABILIT

«Our role as market leader motivates us to take part in the global battle against climate change and contribute to respectful economic development. We help communities face their biggest challenges, making the world more sustainable »

> Werner de Wolf CEO - Schréder

A company strongly committed to sustainability

EcoVadis evaluates more than 85,000 organisations in over 160 countries and in over 200 industries every year. Based on 21 criteria, the rating assesses a company's performance in four categories: Environment, Labour and Human Rights, Ethics and Sustainable Procurement.

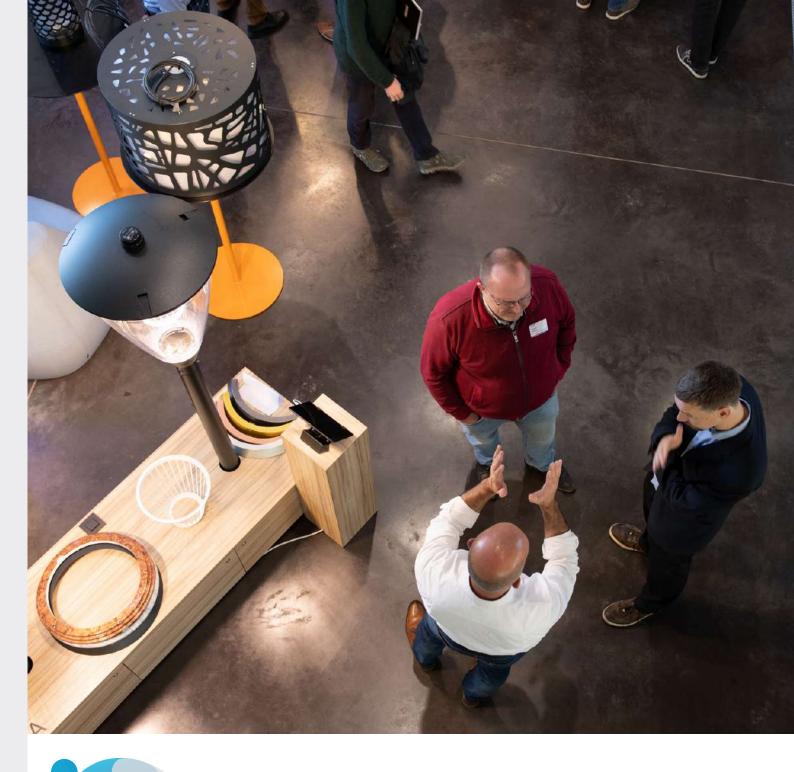


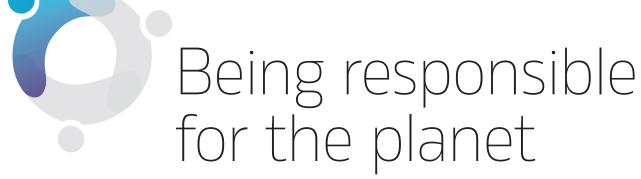
More information:



GOLD

2022





Manufacturing according to the highest environmental standards

All Schréder factories are certified ISO 14001:2015 which recognises their efforts for their environmental management system.

For each factory, a continuous improvement plan for resource efficiency and waste management is put into action by the quality manager.

More information:

www.iso.org



Transparency throughout the complete product life cycle

To provide our customers with clear information on the environmental impact of each luminaire, Schréder relies on **a product life cycle analysis tool** (Instant LCA), developed in collaboration with an independent agency (in accordance with the principles of ISO 14040:2006). The results are available in the **Product**

Environmental Profile (PEP) documents.

They summarise the luminaire's life cycle assessment, by examining its environmental impact throughout its life cycle, from raw material extraction to end of life.

The PEP documents are available upon request to all customers to help them demonstrate their regulatory compliance and commitment to minimising their environmental footprint.

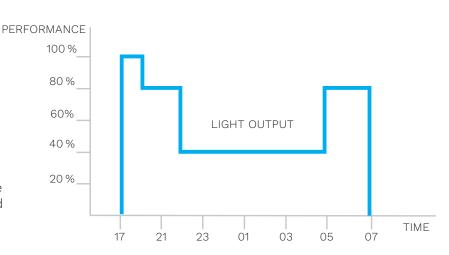




Solutions for maximised energy efficiency

CUSTOM FACTORY DRIVER SETTINGS

Intelligent luminaire drivers can be programmed in the factory with complex dimming profiles. 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.















SENSORS FOR AUTONOMOUS DYNAMIC SCENARIOS

Photoelectric sensors switch on the luminaires exactly when natural light becomes insufficient (cloudy day, night fall, etc.) so as to provide safety and comfort in the public space.

In places with little nocturnal activity, lighting can be dimmed to a minimum most of the time. By using **motion sensors such as PIR sensors or radars** (taking into account speed and direction criteria), levels can be raised as soon as a pedestrian or a vehicle is detected in the area.

ADVANCED REMOTE CONTROL SYTEMS

With its user-friendly remote control systems for intelligent lighting, Schréder integrates advanced features for **programming the most efficient dimming profiles based on endless variables** (calendar days, special events, seasons, etc.) while providing safety, comfort and a sense of well-being for people.

Schréder can integrate smart lighting applications such as the ability to adapt the colour of the light or build dynamic lighting scenarios through PIR sensors or radars. As they offer **complete interoperability**, Schréder control systems can manage controllers/sensors and control luminaires from other manufacturers



Towards environmental excellence of the built environment



We encourage our customers to think strategically about sustainability, co-creating solutions that improve their performance against a wide variety of sustainability criteria. By drawing on our long experience in designing high-performance, low-energy spaces, we can deliver lighting solutions with all the necessary documentation to help our customers achieve BREEAM certification.

BREEAM (Building Research Establishment Environmental Assessment Method) is a certification based on the leading sustainability assessment method for buildings, communities and infrastructure projects.

Using Schréder solutions, up to 17 credits (counting for 6 of the 10 criteria considered) can be achieved in the BREEAM assessment.



More information:



The right light where, when and how it is needed

The art of smart lighting consists of putting the kind of light you request where you need it, and taking it away from where you don't require it and when you don't want it. Schréder is your partner for **maximising the advantages** of lighting while taking care of the environment and improving your operational benefit.

With our modern and versatile technologies enabling a "**Dim It, Aim It, Tone It, Change It**" philosophy, we offers our customers complete flexibility to modulate light according to any environmental challenge.



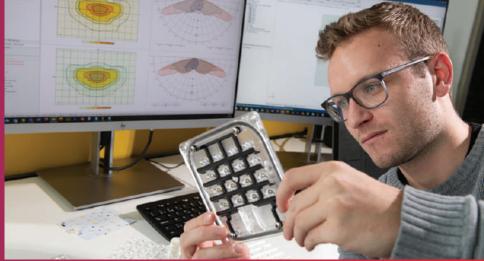
A guarantee of the best photometric solution

As pioneers in lighting technology, our lighting solutions deliver the right light in the right place.

We have developed **numerous photometric engines** over the years to provide **the best solution for every project** in terms of performance, comfort, desired outcome and return on investment. We constantly strive to innovate and develop solutions that are as positive for people as they are sustainable for the environment.

We combine our technical and photometrical know-how to **meet the most demanding lighting standards**.



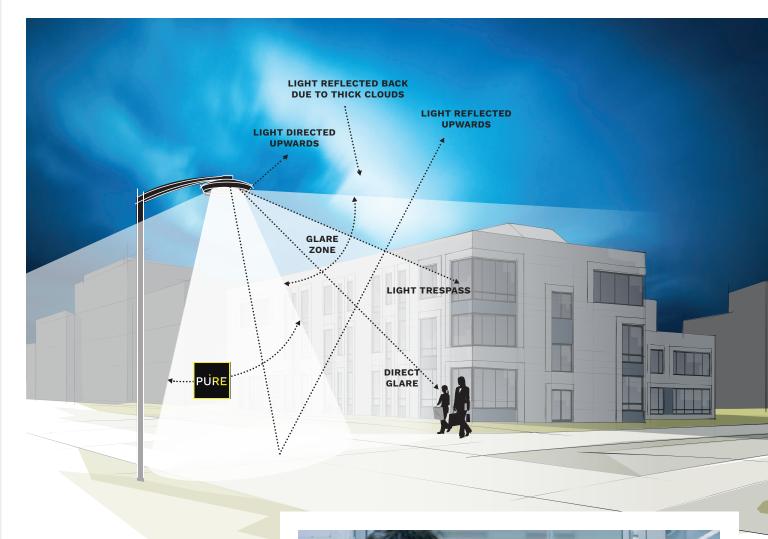


	LENSO FLEX*	MID FLEX ™	PRO FLEX ™	CONTI FLEX ™	BLAST FLEX ™	RE FLEXO ™
LED type	High-power 2mm²	Mid-power 2mm²	High-power 2mm²	High-power 2mm²	High-power 2 or 4mm²	High-power 2 or 4mm²
Optic	PMMA lenses	PMMA lenses	Polycarbonate lenses	PMMA lenses	PMMA collimators	Aluminium reflectors
Protector	Flat glass or deep protector	Flat glass	Lenses integrated in the PC protector	Flat glass	Flat glass or PC protector	Flat glass or PC protector
Options (depending on luminaire)	Back light control Glare limiter	-	Back light control	-	Back light control Glare limiter	-
Typical applications	All road, urban, tunnel applications and beyond	All road applications and beyond	All road applications and beyond	Continuous line lighting in tunnels	Floodlighting and large areas	Where very asymmetrical beams and visual comfort are both required
Number of optics	77	11	32	4	13	14

PureNight: dark sky, bright ideas



With its PureNight concept based on high-end lighting designs with state-of-the-art photometrical platforms and aiming accessories, Schréder offers the ultimate solution for bringing the night sky back without switching off cities. With Schréder PureNight solutions, you can **direct the light only where it is wanted and needed**.





YOUR PARTNER IN SUSTAINABILITY

The right colour temperature at any time



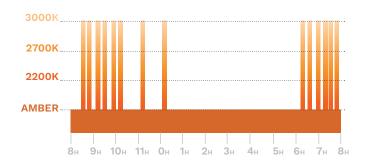
To choose is to forsake. When it comes to deciding which colour temperature you will opt for, it is never a happy moment. You know that a colder white light optimises performance while a warmer one is more preferable to people and animal natural cycles. What if you didn't have to choose? The Schréder FlexiWhite solution offers you the freedom to use the right colour temperature at any time.

Whether it relies on pre-programmed scenarios, works with the our remote control systems, uses sensors or a mix of all three, the FlexiWhite solution offers you the flexibility to provide the right level with the right colour temperature at the right place and the right time.

CASE #1

Preservation of nature, promotion of active mobility

Environment: Bike/pedestrian path FlexiWhite solution: Amber as default, 3000K upon detection.





AMBER Nature-friendly minimal safety lighting



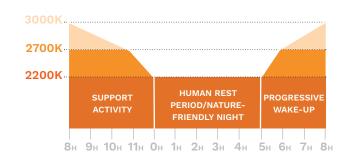
3000K people detection maximised safety

maximised safety and comfort (high visibility)

CASE #2

Attractiveness, ambiance and circadian rhythm

Environment: City centre FlexiWhite solution: 2200K, 3000K and everything in between.





3000K - 30lux

early evening/ early morning Stimulating atmosphere



2700K - 20lux

Quieter ambiance



2200K - 5lux

Night Completely calm mood

Complying with the strictest environmental regulations





Fauna and flora can suffer from high light intensity, the colour spectrum (blue light) and excessive lighting over time. Only experts can minimise the disturbance to the different species of fish, insects and endangered animals.

Trees and hedgerows are natural environments for bats, while rivers and canals are also important for foraging. Certain species of bat are very sensitive to light.

Light pollution, i.e. excessive lighting and uncontrolled light spill, contributes significantly to insect mortality.

The Schréder PureNight photometry meets darksky specifications (0% ULOR and 2200K) and take advantage of accessories (backlight control and glare limiter) to focus the light only where it is needed.

Schréder's FlexiWhite solution combines dimming and colour temperature changes according to fixed or on-demand scenarios with sensors for safe and

environmentally-friendly lighting.

The IP66 design of our luminaires prevent insects from entering and being captured in the housing. With low driving current, the outer surface of the housing maintains a low temperature, preventing insects from dying from the heat.

With the right luminaire design, photometry, colour temperature and dimming scenario, Schréder protects wildlife and contributes to the preservation of the ecosystem.





Being responsible with people

Valuing difference, being inclusive, and embracing diversity

At Schréder, every employee is valued for her or his skill set. We actively look for and choose employees based on their experience and the value they bring to the company. This concept is underlined in our **Code of Conduct**.

The diversity of the staff, in all its forms (skills, experience, age, gender, culture, etc.), is **a source of renewal, innovation and creativity**. In line with the UN's goals, we decided to focus our efforts primarily on gender diversity and equality, as this is still an ongoing concern in society as a whole.



Protecting human rights

Schréder has adopted the Responsible Business Alliance (RBA) Code of Conduct as its standard on human rights. Our goal is to **protect human rights directly and indirectly** by ensuring that Schréder's entities and their supply chain are safe and that workers are treated with respect and dignity. We require all our suppliers to confirm adherence and compliance with the RBA standard.

More info: www.responsiblebusiness.org

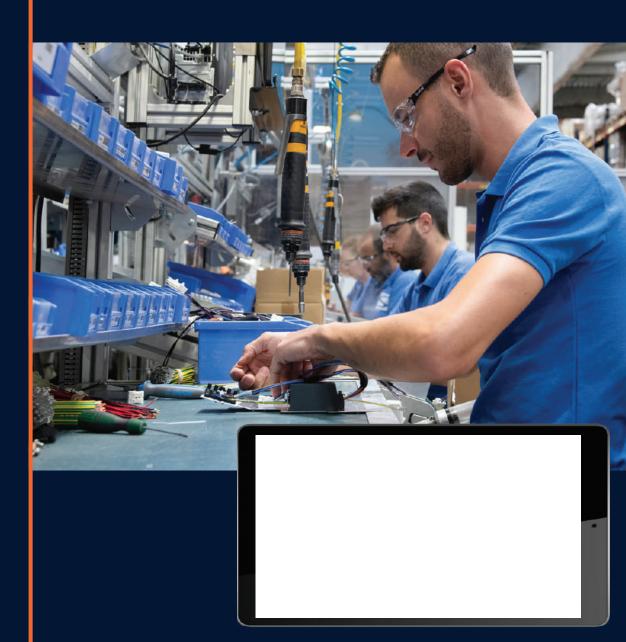




Training and education

Schréder has developed its own internal training academy called SKILL, which stands for Sharing Knowledge in Light and Lighting. SKILL's mission is to increase Schréder employees' and stakeholders' competencies to successfully face changes in the lighting market such as smart lighting and new control systems. SKILL also develops e-learning and online courses, both for Schréder employees and customers.





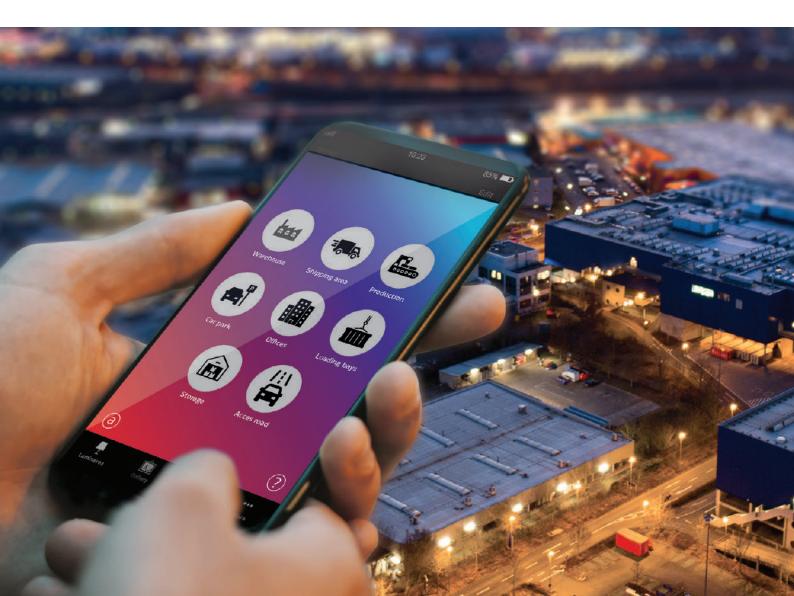
66 Lighting for environments people love to work in 99





The must-have **lighting control solution** for facilities

Schréder ITERRA offers site managers a robust, cost-effective and future-proof platform to run their infrastructure with the utmost flexibility for adapting the lighting to any scenario or activity while maximising energy savings and providing the best experience for employees, visitors and managers.



100% wireless control system for indoor and outdoor industrial facilities

Easy to operate with an intuitive visual interface

Works with all standard control protocols

High level of cyber security

LIGHT AT YOUR COMMAND

- > Dim the light to the right level
- > Adapt light colour temperature
- > Group luminaires in clusters
- > Create programmed lighting scenarios
- > Program lighting animations
- > Define calendar-based triggers

- > Integrate photocells to harvest daylight
- > Comfort: guarantees a sense of well-being
- Integrate sensors for light-on-demand scenarios
- > Control from the mobile App, a switch, or a remote
- > Manage access rights

Schréder ITERRA for all industrial and large area applications







SCHRÉDER ITERRA CONTRIBUTES TO

ENVIRONMENTS PEOPLE LOVE TO WORK IN



MAIN APPLICATIONS









INDUSTRIAL HALLS & WAREHOUSES

CAR PARKS

Setting the benchmark in high-bay lighting

With the 3rd generation INDU BAY, Schréder offers the leading luminaire for lighting industrial facilities with a minimised total cost of ownership.

More efficient, light, versatile, designed for the requirements of specific industries (metal, automotive, food and beverage, etc.) and smart, it delivers the best solution on the market today for high-bay applications.

It outperforms all other fixtures thanks to the substantial energy savings it generates and the performance it delivers over time.

Available with various lumen packages, light distributions and mounting options, INDU BAY adapts the lighting to meet the specific needs of your environment.

It not only lowers your investment. It maximises it by providing a comfortable environment for your staff while limiting energy consumption to what is absolutely necessary.

INDU BAY GEN3	1	1 HT	2 HT	2
Recommended installation height		4 to 12m	/ 13' to 39'	
Typical luminaire output flux (range)	15,500 to 21,100lm	9,800 to 10,700lm	22,600 to 24,900lm	25,800 to 32,100lm
Power consumption	115W to 140W	70W	150W	185W to 210W
Colour temperature		Neutral white 840	or cool white 857	
Nominal voltage		220-240V	/ / 50-60hz	
Surge protection		2 / 4	- / 6kV	







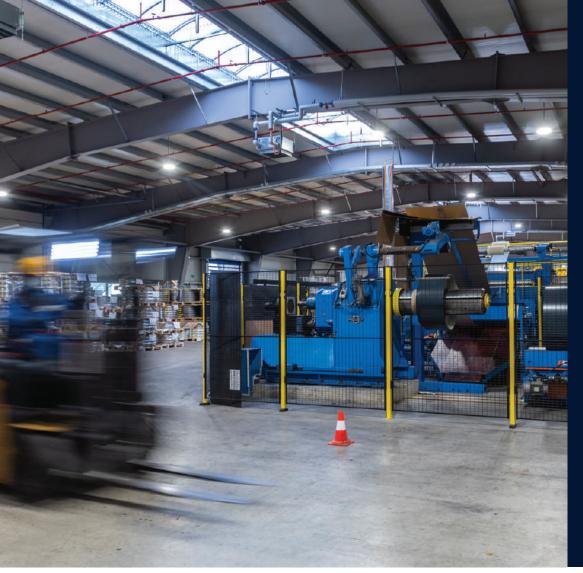












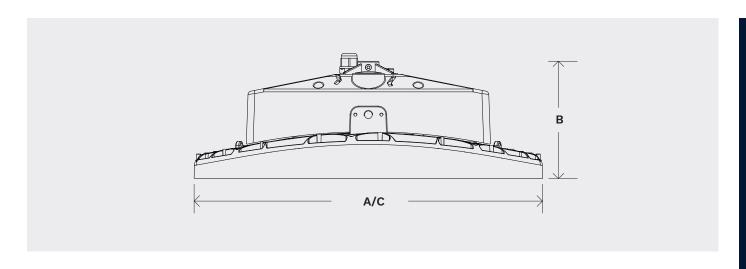
KEY ADVANTAGES

- > One-to-one replacement for HID fixtures from 40W to 400W
- > Light-on-demand feature with optional motion sensor
- > Emergency lighting with optional battery
- > High visual comfort
- > Compact housing optimised for heat dissipation and reduced dust accumulation
- > Dedicated range of mounting accessories
- > INDU BAY HT variant providing a dedicated solution for extremely hot environments
- > Compatible with Schréder's indoor and outdoor control system

DIMENSIONS | MOUNTING

INDU BAY GEN3	1	1 HT	2 HT	2
Α	330mm 13"	330mm 13"	400mm 15.7"	400mm 15.7"
В	122mm 4.8"	298mm 11.7"	135mm 5.3"	135mm 5.3"
С	330mm 13"	330mm 13"	400mm 15.7"	400mm 15.7"
KG	4.5kg 9.9lbs	5.6kg 12.3lbs	7.43kg 16.38lbs	6.8kg 15.0lbs

INDU BAY is delivered with a hook for a suspension chain (not included). A fork mounting system enables the luminaire to be inclined onsite for precise adjustment.



DESIGN HIGHLIGHTS



INDU BAY is equipped with a graduated U-bracket for precise on-site setting.



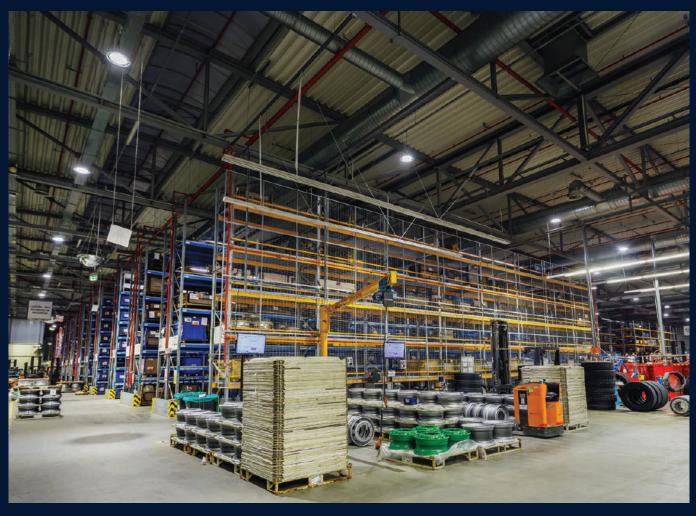
In case of an emergency, an optional auxiliary battery can power the INDU BAY for 3 hours to provide safety lighting.



INDU BAY HT offers a dedicated solution for extremely hot environments.



INDU BAY can be equipped with a motion sensor for light-on-demand scenarios.





MAIN APPLICATIONS



Modular, efficient and easy to assemble

INDU CONTILINE is a fully flexible 13 pole trunking system with tool-free module installation. With 2.25m trunking inserts and suspensions that can be mounted with a distance of up to 5m it can be installed in a fast and efficient manner.

With its unique, optional roof accessory, INDU CONTILINE is considerably more resistant to dust and water accumulation. Thanks to its additional, integrated cable duct, this system is IoT-ready!

INDU CONTILINE can be installed from the ground using a patented process. It facilitates mounting if the area for the elevator / scissor platform cannot be cleared or if the floor has not yet been cleared for traffic.

This patented process can also be used to your advantage on accessible crane systems without additional scaffolding.

INDU CONTILINE offers additional benefits including emergency lighting with an auxiliary battery and optimal light distribution with low glare to create optimal working conditions in industrial environments.

INDU CONTILINE GEN2	1	2
Typical luminaire output flux (range)	7,400 to 12,400lm	14,800 to 21,200lm
Power consumption	50W to 77W	100W to 133W
Colour temperature	Neutral white 840, cool whi	te 857 or very cool white 865
Nominal voltage		C – 50-60Hz 75V DC
Surge protection	1/2	/ 4kV

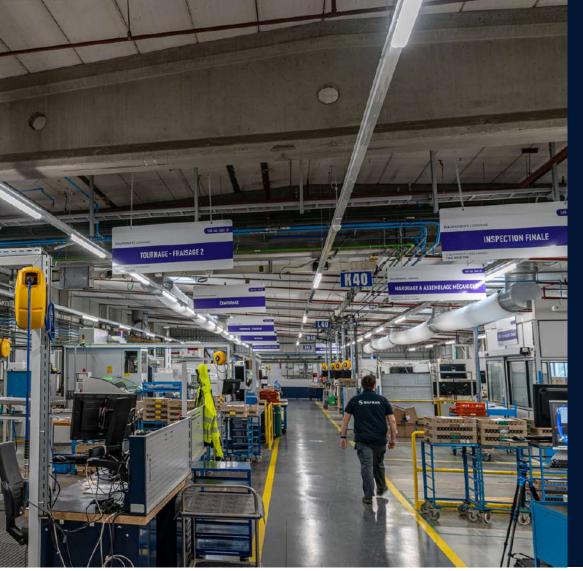










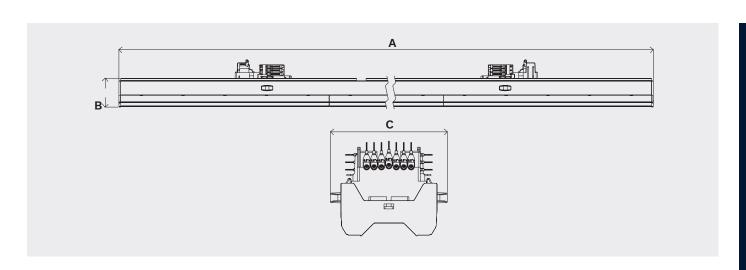


KEY ADVANTAGES

- > High efficiency with low operating costs
- > High visual comfort
- > Quick and easy tool-free installation
- > Versatility in lighting design with various distributions
- > Designed for surface or suspended mounting with dedicated mounting accessories

DIMENSIONS | MOUNTING

INDU CONTILINE GEN2	2.1	2.2
Α	1410mm 55.5"	2253mm 88.7"
В	36mm 1.4"	36mm 1.4"
С	78mm 3.1"	78mm 3.1"
KG	1.7kg 3.7lbs	3kg 6.6lbs



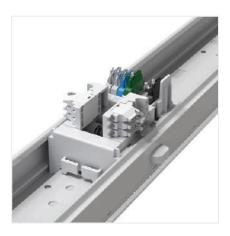
DESIGN HIGHLIGHTS



The INDU CONTILINE GEN2 trunking system offers versatility and openness to meet the requirements of any project



The main feed can be placed in the centre or at the extremity of the trunk.



The T13 block enables versatile positioning of the LED modules and combines power and control connections.



In case of an emergency, an optional auxiliary battery provides 3 hours of safety lighting.



The system can power auxiliary fixtures or any other device useful in an industrial environment.

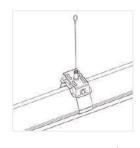
MOUNTING OPTIONS



Suspension with ropes (standard version)



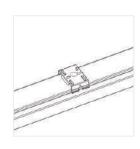
Suspension with chains (standard version)



Suspension with ropes (roof version)



Suspension with chains (roof version)



Ceiling mounting (standard version)



MAIN APPLICATIONS









INDUSTRIAL HALLS & WAREHOUSES

Efficiency and comfort for any industrial environment

INDU LINE offers a robust and efficient LED alternative for replacing fixtures fitted with T5/T8 fluorescent tubes.

Designed to perform in harsh industrial environments, INDU LINE GEN4 has a robust, compact mechanical design that makes it highly resistant and easy to install in any kind of infrastructure. Whether in sports facilities, warehouses, manufacturing plants with dusty or wet conditions, corridors, underground car parks, or underpasses, INDU LINE GEN4 offers a reliable lighting solution. Available in various materials, this luminaire meets any type of local requirement or legislation.

With a lifetime 5 times longer than a fluorescent tube, this modern linear LED luminaire lowers the total cost of ownership of a lighting installation with the guarantee of high efficiency.

INDU LINE GEN4 creates safe and comfortable working conditions thanks to its low glare and high colour rendering index to optimise productivity.

INDU LINE GEN3	1	2	3
Recommended installation height		4 to 6m / 13' to 20'	
Typical luminaire output flux (range)	3,100 to 3,400lm	3,400 to 8,500lm	4,200 to 10,800lm
Power consumption	24W	22W to 61W	27W to 77W
Colour temperature		Neutral white 840	
Nominal voltage		220-240V / 50-60Hz	

















KEY ADVANTAGES

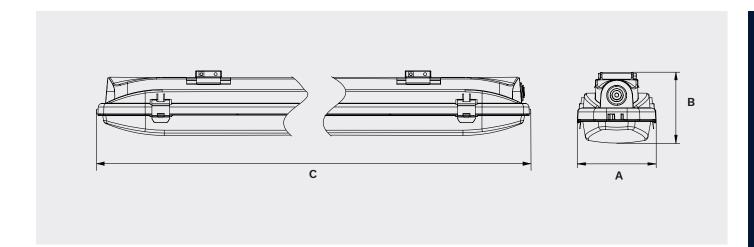
- > LED alternative for fixtures equipped with fluo T5/T8 lamps
- > Cuts energy costs by up to 50%
- > Easy installation and maintenance free
- > Light-on-demand feature with optional motion sensor
- > High luminaire efficiency
- > Efficient, uniform and glare-free light
- > Emergency lighting with optional battery
- > Long service life
- On-site lighting adjustment via driver's integrated DIP switch

DIMENSIONS | MOUNTING

INDU LINE GEN4	1	2	3
Α	102mm 4.0"	102mm 4.0""	102mm 4.0"
В	82mm 3.2"	80mm 3.1"	80mm 3.1"
С	614mm 24.2"	1174mm 46.2"	1454mm 57.2"
KG	0.9kg 2lbs	2kg 4.4lbs	2.2kg 4.8lbs



Standard mounting with stainless steel clips.





MAIN APPLICATIONS







INDUSTRIAL HALLS & WAREHOUSES

STRIAL TUNNELS LLS & UNDERPASS

IELS & CAR

Flexible and beneficial LED alternative to fluorescent tubes

Combining robustness, efficiency and flexibility, MY1 LED is a sustainable alternative to fluorescent tubes for lighting indoor areas such as industrial halls, warehouses, tunnels and car parks.

Thanks to its modern and elegant design, MY1 LED creates a visually appealing environment while offering safety and visual comfort.

Designed to provide operational benefits for site managers, this state-of-the-art LED linear lighting solution is characterised by its long lifetime, high efficiency, minimised energy costs, maintenance-free requirements and quick installation.

				المليا	E. E. S.	1 1 1
MY1 LED	1	2	3	4	5	6
Recommended installation height			3 to 8m ,	/ 10' to 26'		
Typical luminaire output flux (range)	1,400 to 2,000lm	2,500 to 3,700lm	3,700 to 5,600lm	5,400 to 8,100lm	6,200 to 9,500lm	7,200 to 11,100lm
Power consumption	20.4W	33.2W	46.5W	70W	76W	87W
Colour temperature	Warm white 830 or neutral white 740					
Nominal voltage	220-240V / 50-60hz					
Surge protection		4 /	10kV			

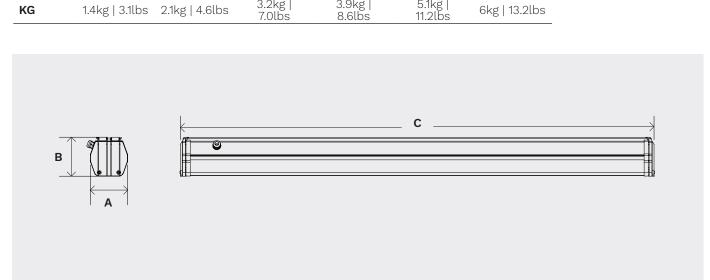












KEY ADVANTAGES

- Robust luminaire to replace fixtures with T5/ T8 fluorescent tubes
- > 6 different sizes
- > Extra high tightness level (IP 67)
- > Tool-free access for easy maintenance
- Full scope of photometries (narrow to wide symmetrical as well as asymmetrical)
- > Versatile mounting options
- > Retrofit kit available for previous generations of MY1 luminaires

DIMENSIONS | MOUNTING

MY1 LED	1	2	3	4	5	6
Α	126mm 5"	126mm 5"	126mm 5"	126mm 5"	126mm 5"	126mm 5"
В	131mm 5.2"	131mm 5.2"	131mm 5.2"	131mm 5.2"	131mm 5.2"	131mm 5.2"
С	295mm 11.6"	462mm 18.2"	672mm 26.5"	881mm 34.7"	1281mm 50.4"	1582mm 62.2"
KG	1.4kg 3.1lbs	2.1kg 4.6lbs	3.2kg 7.0lbs	3.9kg 8.6lbs	5.1kg 11.2lbs	6kg 13.2lbs



Standard mounting with stainless steel clips.





MAIN APPLICATIONS









INDUSTRIAL HALLS & WAREHOUSES

Efficiency and versatility for indoor and outdoor area lighting

With multiple combinations of lumen packages and light distributions, INDU FLOOD is the ideal tool to provide an efficient multi-purpose lighting solution for industrial environments.

Available in 3 sizes, this compact luminaire perfectly integrates environments to provide the exact lighting requirements for the space to be lit. Delivered with a mounting bracket and also available with a posttop fixation, it can be adjusted on-site for precise optical control. It is perfect for replacing fixtures with discharge lamps from 50 to 800W.

INDU FLOOD provides a bright white light for excellent visibility and colour perception, delivering value beyond energy savings.

Its robust design, with a high IP rating, guarantees performance for many years to come, even in the harshest conditions.

1	2	3
	3 to 16m / 10' to 52'	
3,400 to 10,000lm	14,500 to 30,400lm	29,700 to 60,900lm
31W to 63W	125W to 190W	250W to 375W
Warm white 72	2, Warm White 730 or ne	utral white 740
120-2	277V / 220-240V / 347-48 50-60Hz	30V /
urge protection 10kV		
	31W to 63W Warm white 72	3 to 16m / 10' to 52' 3,400 to 10,000lm 14,500 to 30,400lm 31W to 63W 125W to 190W Warm white 722, Warm White 730 or ne 120-277V / 220-240V / 347-48 50-60Hz

















KEY ADVANTAGES

- > High efficiency with low operating costs
- 3 sizes and multiple light distributions to replace discharge lamps from 50 to 800W
- > One design for aesthetic consistency in multipurpose applications
- > High energy savings compared to systems with traditional discharge lamps
- > Dimmable for even more energy savings
- > Light-on-demand feature with optional motion sensor
- > Fast ROI thanks to long life span and reduced maintenance

DIMENSIONS | MOUNTING

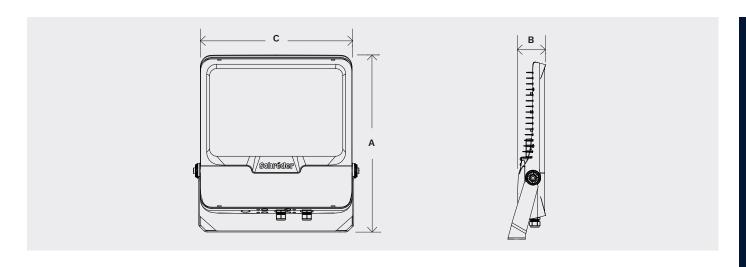
INDU FLOOD GEN2	1	2	3
Α	390mm 15.4"	492mm 19.4"	622mm 24.5"
В	77mm 3"	77mm 3"	90mm 3.5"
С	321mm 12.6"	421mm 16.6"	521mm 20.5"
KG	5.6kg 12.3lbs	8.8kg 19.4lbs	16.8kg 37lbs



Ø60mm Ø76mm



Fork enabling the inclination to be adjusted. Optional post-top mounting.



DESIGN HIGHLIGHTS



The universal U-bracket includes a graduation system for precise onsite setting.



INDU FLOOD provides easy access to the gear compartment.



The floodlight includes two cable glands at the back (in and out) for a daisy chain layout. It is designed for integration with building management systems (DALI 2.0 or 1-10V protocol).



As an option, INDU FLOOD can be equipped with a sensor (motion and daylight) for light-on-demand scenarios.



The post-top mounting enables easy adjustment of the tilt angle of the luminaire on site.



INDU FLOOD GEN2 offers post-top mounting with an optional adapter.





MAIN APPLICATIONS











INDUSTRIAL HALLS & WAREHOUSES

CAR PARKS

Comfort and efficiency for exterior lighting

Available in two sizes, INDU WALL PACK outperforms all conventional downlight fixtures by providing bright and longlasting light for outdoor wall-mounted applications. Its slim design ensures discreet integration without compromising on performance.

INDU WALL PACK delivers a bright white light to ensure perfect visibility and comfort at all times. Thanks to its high optical performance and strong mechanical design, it can achieve substantial energy and maintenance savings.

As an option, INDU WALL PACK can integrate a detection sensor and a battery for anti-panic lighting.

INDU WALL PACK	1	2	
Recommended installation height	3 to 6m /	10' to 20'	
Typical luminaire output flux (range)	1,700 to 1,800lm	4,400lm	
Power consumption	15W	35W	
Colour temperature	Warm white 830 or neutral white 840		
Nominal voltage	220-240V / 50-60hz		
Surge protection	1 / 2kV		

















KEY ADVANTAGES

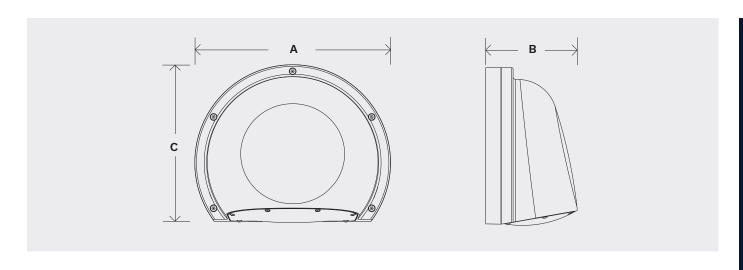
- > High energy savings compared to systems with traditional discharge lamps
- > Two sizes to provide the best solution
- > Robust yet discreet design to blend into any environment
- > High visual comfort
- > White light with a high colour rendering index
- > Easy installation with removable back plate
- > Integrated motion detection sensor (option)
- > Emergency lighting with optional battery

DIMENSIONS | MOUNTING

INDU WALL PACK	1	2	
Α	250mm 9.8"	320mm 12.6"	
В	117mm 4.6"	130mm 5.1"	
С	201mm 7.9"	257mm 10.1"	
KG	1.4kg 3.1lbs	2.1kg 4.6lbs	



INDU WALL PACK is secured to the surface with 4 screws.





MAIN APPLICATIONS







INDUSTRIAL

For comfortable, safe yet energyefficient indoor lighting

INDU PANEL provides a beneficial LED alternative to luminaires with fluorescent lamps. With its square or rectangular shape, it offers uniform and comfortable lighting for typical indoor venues such as reception areas, offices, conference rooms, corridors and lifts.

This well-designed LED system has the potential to replicate sunlight more accurately than fluorescent bulbs.

INDU PANEL provides managers with the right tool to boost people as it provides light that helps to stimulate the brain and subsequently improve concentration. It contributes to a brightlylit environment that creates a happier, healthier workforce, which is in turn more productive and likely to stick around.

INDU PANEL	1	2	3
Typical luminaire output flux (range)	3,400lm	3,200lm	3,700lm
Power consumption		30W	
Colour temperature	Neutral white 840		
Nominal voltage	220-240V / 50-60hz		
Surge protection		3kV	
	7		







IP 20 | IK 02

INDUSTRY



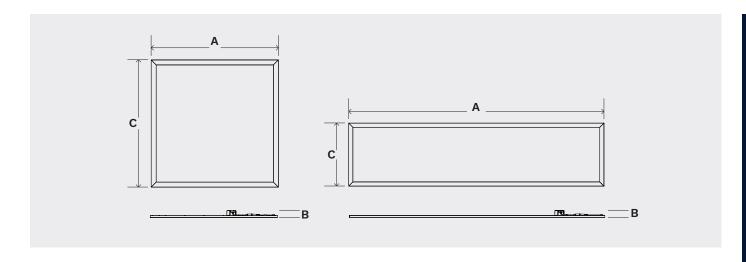
KEY ADVANTAGES

- > White light with a high colour rendering index
- > 2 sizes for flexibility
- > Elegant design for low height installation
- > Low power consumption
- > Easy installation and maintenance free
- > Efficient, uniform and glare-free light

DIMENSIONS | MOUNTING

INDU PANEL	1	2	3
Α	595mm 23.4"	1195mm 47"	620mm 24.4"
В	32mm 1.2"	32mm 1.2"	32mm 1.2"
С	595mm 23.4"	295mm 11.6"	620mm 24.4"
KG	2.1kg 4.6lbs	2.3kg 5.1lbs	2.2kg 4.8lbs

INDU PANEL is designed for recessed or pendant mounting.



Ι









INDUSTRIAL HALLS & WAREHOUSES

RAILWAY STATIONS & METROS

SPORT FACILITIES

Reliable,
energyefficient and
affordable
indoor lighting
solution

IP 20

IK 03

INDU DOWNLIGHT offers a beneficial LED alternative to fluorescent spotlights for typical indoor venues such as reception areas, offices, conference rooms, corridors and lifts.

Available in various sizes/lumen outputs, INDU DOWNLIGHT is a flexible solution with all the advantages of the latest LED technology: low power consumption (savings of up to 90% compared with traditional spotlights), long lifetime, no specific maintenance requirements and control options for dimming and light-on-demand features.

INDU DOWNLIGHT contributes to a brightly-lit environment that creates a happier, healthier workforce, which is in turn more productive and loyal.

		٥	
INDU DOWNLIGHT	1	2	3
Typical luminaire output flux (range)	900lm	1,400lm	2,700lm
Power consumption	9W	15W	25W
Colour temperature	Neutral white 840		
Nominal voltage	220-240V / 50-60hz		
Surge protection	1kV		
	·		



KEY ADVANTAGES

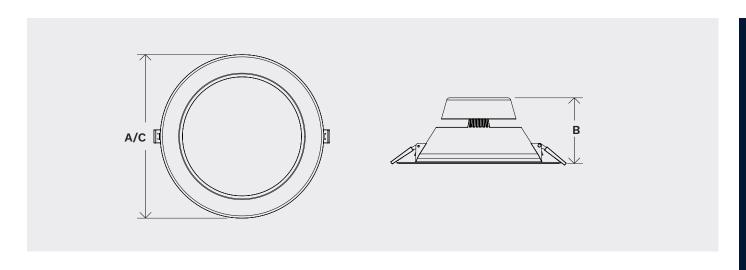
- > 3 sizes for flexibility
- > Easy installation and maintenance free
- > Cost-effective and efficient lighting solution
- > High visual comfort
- > White light with a high colour rendering index

DIMENSIONS | MOUNTING

INDU DOWNLIGHT	1	2	3
Α	145mm 5.7"	175mm 6.9"	245mm 9.6"
В	78.5mm 3.1"	84.5mm 3.3"	98.5mm 3.9"
С	145mm 5.7"	175mm 6.9"	245mm 9.6"
KG	0.14kg 0.3lbs	0.27kg 0.6lbs	0.49kg 1.1lbs



Recessed mounting with spring-retaining clips.



Z S

MAIN APPLICATIONS











TUNNELS & UNDERPASSES

LARGE AREAS

INDUSTRIAL HALLS & WAREHOUSES







SPORT ACCENT & FACILITIES ARCHITECTURAL

Designed to bring massive savings and benefits to area lighting

OMNISTAR provides a beneficial lighting solution in a variety of indoor and outdoor applications such as tunnels, docks, industrial buildings, sport facilities, large car parks and airports.

This platform 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 a LED solution: low energy consumption, improved visibility with white light, limited maintenance and longer life.

OMNISTAR can be installed in various configurations (suspended, surface-mounted or post-top) with one to three optical units. OMNISTAR can operate with a large range of outdoor and tunnel control solutions (daylight sensors, dimming, remote management, ATS 4, ABS) and a building management system with the DALI protocol to further maximise energy savings by adapting the lighting levels according to the real needs of the place to be lit.

OMNISTAR	1 optical unit
Recommended installation height	8 to 45m / 26' to 148'
Typical luminaire output flux (range)	7,800 to 76,000lm
Power consumption	75W to 594W
Colour temperature	Warm white (730 and 830), neutral white (740 and 940) or cool white (757 and 957)
Nominal voltage	220-240V / 120-277V / 347-480V 50-60Hz
Surge protection	10kV

















KEY ADVANTAGES

- Real beneficial LED alternative to HID floodlights for highpower applications
- > Flexibility: modular approach with wide range of lighting distributions
- > 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
- > Various control options including remote management systems

DIMENSIONS | MOUNTING

OMNISTAR

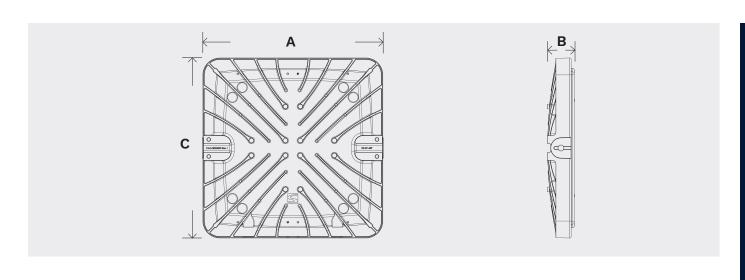
Α	532mm 20.9"
В	80mm 3.1"
С	530mm 20.9"
KG	14kg 30.8lbs



Ø60mm **Ø76mm** Ø76-108mm



Ø60mm Ø76mm OMNISTAR is available with various suspended mounting systems (fixed, tiltable or suspension with chains) for indoor areas and tunnels.



DESIGN HIGHLIGHTS



The standard bracket enables the luminaire to be angled on-site.



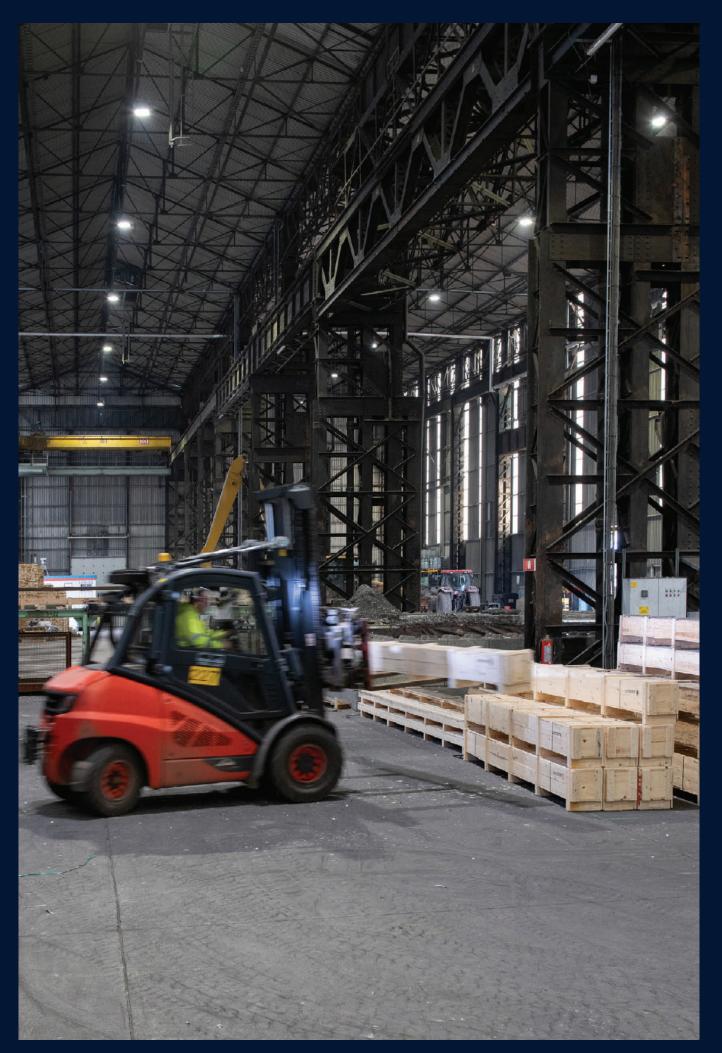
The OMNIBOX is an IP 66 universal remote gear box made of die-cast aluminium for up to 4 optical units.



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



OMNISTAR is delivered with quick connectors for easy installation.



Z S

MAIN APPLICATIONS









TUNNELS & UNDERPASSES

LARGE AREAS



BRIDGES

CAR PARKS

Complete, powerful lighting solution, dedicated to industrial and large area applications

OMNISTAR KIT is a combination of the powerful OMNISTAR optical unit and the innovative gear box - the OMNIBOX. Available in three versions, these luminaires offer amodular and powerful LED lighting solution for applications such as warehouses, high bays, tunnels, sports arenas, airports, car parks and large areas.

OMNISTAR KIT luminaires have been designed to provide unrivalled photometric performance for lighting areas where high lumen packages are needed, while benefiting from all the advantages of an economical LED solution: reduced energy consumption, limited maintenance and fast return on investment.

OMNISTAR KIT	STD	PRO	ECO
Recommended installation height		8 to 45m / 26' to 148'	
Typical luminaire output flux (range)	5,600 to 81,000lm	5,600 to 80,800lm	20,200 to 72,200lm
Power consumption	73W to 594W	73W to 594W	302W to 619W
Colour temperature	Warm white (730 and 830), neutral white (740 and 940) and cool white (957)		
Nominal voltage	120-277V / 220-240V / 347-480V / 50-60Hz		
Surge protection	10kV, 20kV		
	·	·	





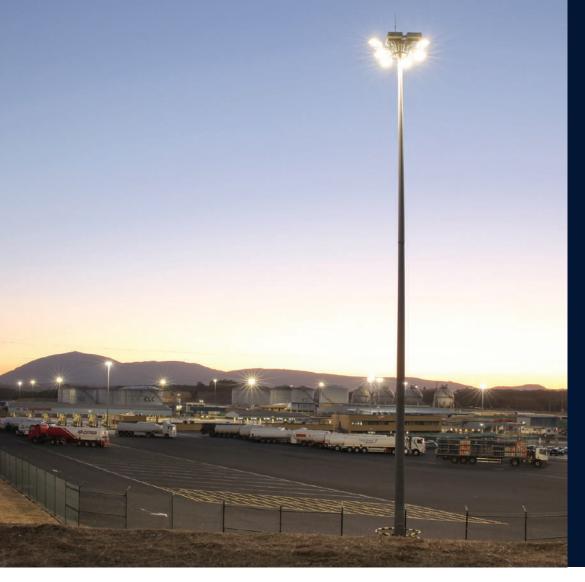












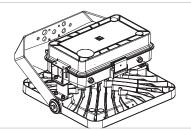
KEY ADVANTAGES

- Real beneficial LED alternative to HID floodlights for highpower applications
- Cost-effective and efficient to maximise energy and maintenance savings
- > 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
- > Various control options including remote management systems

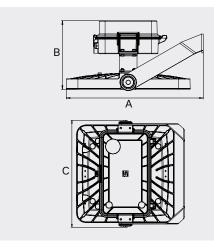
DIMENSIONS | MOUNTING

OMNISTAR KIT	STD	PRO	ECO
Α	586mm 23.1"	806mm 31.7"	530mm 20.9"
В	294mm 11.6"	355mm 14.0"	351mm 13.8"
С	581mm 22.9"	582mm 22.9"	582mm 22.9"
KG	28kg 6.16lbs	35kg 77lbs	25.6kg 56.3lbs





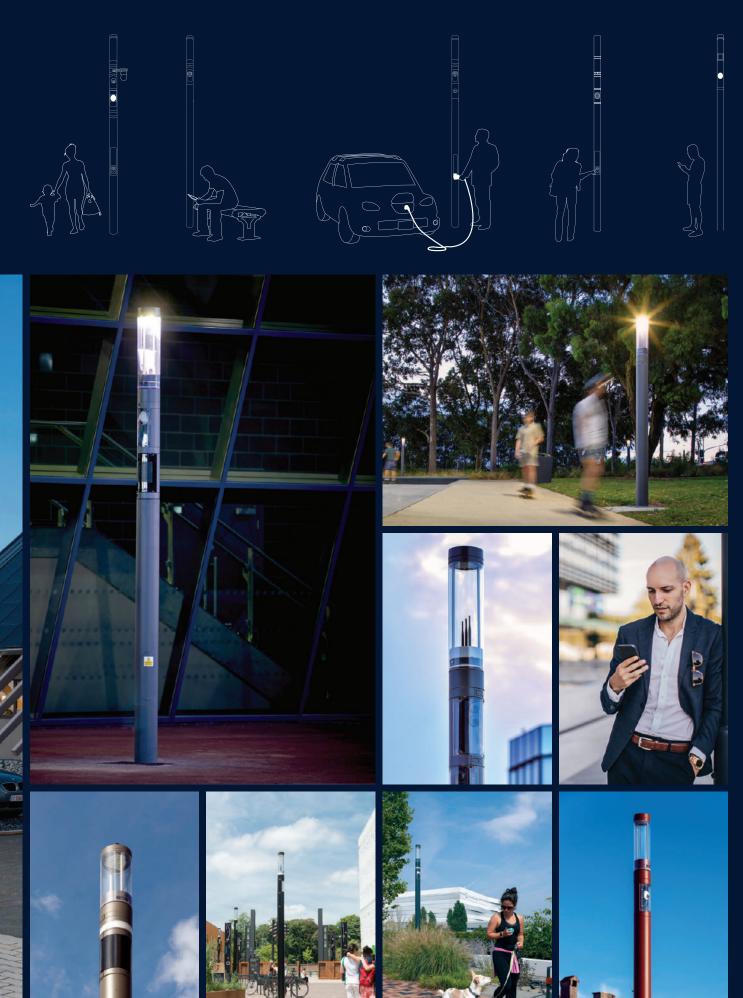
The U-shaped bracket enables surface mounting with on-site inclination.



It's time to SHUFFLE your world!









Decluttering cities on their journey to becoming smart

The SHUFFLE smart column is a connected, modular approach to city hardware. With plug-and-play rotatable modules that contain pre-certified hardware, it can be configured to suit your specific needs.

Redesign. Reorganisie. Improve Combine. Do these all at once with SHUFFLE, an integrated concept with unlimited opportunities to **bring the experience to a new level** in cities and venues. Information, identity, safety, communication, entertainment, mobility and much more. All your various features can be gathered elegantly into **one integrated platform**. Not set in stone, but with versatility and ready for future evolutions. You can create your personalised SHUFFLE by associating **up to 5 modules per column**, or pick one of our preconfigured variants.

KEY ADVANTAGES

- > Seamless integration of urban hardware in a refined column
- > Personalised combinations: up to 5 modules per column
- Preconfigured versions:
 Campus, SOS, Security,
 Light and Mobility
- > Total versatility with 360° rotatable modules
- > Patented system for easy installation
- Upgradable: modules can be added or replaced after installation
- > Fully connected platform

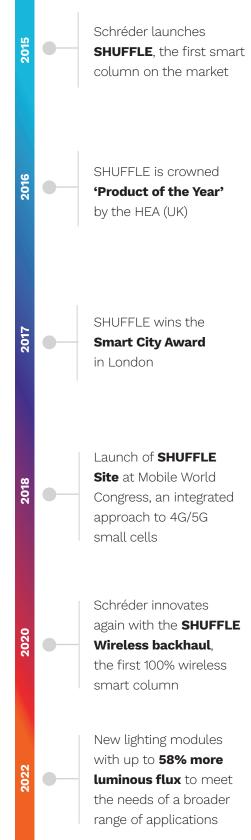




Leading with non-stop innovation

SHUFFLE was launched in 2015, and many enthusiastic customers who set out to shed extra light on their vibrant urban living spaces have installed it. And they went **beyond simple outdoor lighting.** They took the opportunity offered by this platform to bring new services into their environments, such as WiFi, surveillance cameras, loudspeakers, emergency buttons and EV chargers. Just a year after its launch, SHUFFLE was awarded `**Product of the**

Year 2016' by the Highway Electrical Association (HEA) in the UK. A little while later, in 2017, SHUFFLE received the 'Smart City Award' in London for its technology with great potential for smart cities. In 2020, Schréder made SHUFFLE independent from physical wiring for lightning-speed connectivity, creating the first wireless smart column. This spirit of constant innovation combined with exquisite design, attention to detail and a deep understanding of customer needs has positioned SHUFFLE as a benchmark in the market. Since their launch, SHUFFLE columns have delighted cities and private companies in more than 35 countries worldwide.







SHUFFLE CAMPUS

CREATING PLACES PEOPLE LOVE TO BE IN

SHUFFLE Campus is the right tool for ambitious companies, institutions, public services and cities wanting to offer a high-quality experience to their workers, customers, residents, citizens or visitors.

It is designed to provide multiple services, aesthetically and efficiently, to business facilities, condominiums, academic, medical or sport complexes, parks, shopping malls or transport infrastructures such as airports and train or bus stations. SHUFFLE Campus creates safe, pleasant places, connecting people to the internet, informing and entertaining them, while keeping an elegant and discreet presence that blends into any environment.

SHUFFLE Campus is **a great asset for placemaking** as it strengthens the connection between people and the urban environment with a minimal footprint.

	SHUFFLE CAMPUS BASIC	SHUFFLE CAMPUS CORE	SHUFFLE CAMPUS ACTIVE
Pole height	4370mm 14.34'	4370mm 14.34'	4370mm 14.34'
Control node	Yes	Yes	Yes
Module (top)	360° Lighting with WLAN (SH36LW2-CS/CX)	360° Lighting with WLAN (SH36LW2-JT)	360° Lighting with WLAN (SH36LW2-JT)
Module 2	-	Blue light ring (SHLR2-BL)	Blue light ring (SHLR2-BL)
Module 3	-	Analogue speaker (SH18S2-CP)	Quadview (SHCQV)
Module 4	-	-	Analogue speaker (SH18S2-CP)
Integrated in pole	PIR sensor (C0)	PIR sensor (C0)	PIR sensor (C0) Power sockets (SHPOLE2-G8)







SHUFFLE **SECURITY**

BUILDING CONFIDENCE IN OUTDOOR AREAS

Feeling secure is a basic human right. Your residents and visitors want to feel safe at all times. SHUFFLE Security delivers a strategic breakthrough to address this challenge with advanced lighting and security features.

It is designed to **create safe and pleasant outdoor areas**: tourist sites, parks and squares, outdoor spaces around public and private buildings (embassies, ministry buildings, banks, hospitals, schools, etc.), metro, bus or train stations, car parks and sports or leisure venues. SHUFFLE Security provides a monitoring system that enables bidirectional communication: from authorities to citizens or security companies to people in the environment, and vice versa, from end users to public/property managers.

SHUFFLE Security improves confidence in using outdoor environments. It encourages people to socialise, to contribute to the local economy and to develop a true sense of community.

	SHUFFLE SECURITY BASIC		SHUFFLE SECURITY ACTIVE
Pole height	4370mm 14.34'	4370mm 14.34'	4370mm 14.34'
Control node	Yes	Yes	Yes
Module (top)	360° Lighting (SH36L2)	4' 4370mm 14.34' 4370mm Yes Yes 360° Lighting (SH36L2) Universal cabracket (SHCQV) Analogue speaker (SH18S2-CP) Analogue speaker (SH18C2-Analogue speakers)	
Module 2	Camera without extra PC protector (SH18C2-JH)		Universal camera bracket (SHCBR)
Module 3	-		Camera without extra PC protector (SH18C2-JH)
Module 4	-	-	Analogue speaker (SH18S2-CP)
Integrated in pole	-	-	Intercom (SHPOIC2-GH)







SHUFFLE MOBILITY

MOVING TOWARDS NET ZERO

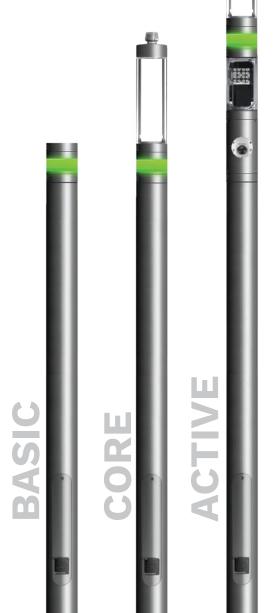
SHUFFLE Mobility is designed to charge electric vehicles and protect them from vandals. It can be installed in streets where it is difficult to establish infrastructure for electric vehicle charging.

SHUFFLE Mobility not only provides a charging solution for electric vehicles, it ensures **an outstanding experience for EV drivers** by helping them to find vacant chargers, by ensuring a high level of security for them and their car and by offering the best lighting solution at night.



	SHUFFLE MOBILITY BASIC	SHUFFLE MOBILITY CORE	SHUFFLE MOBILITY ACTIVE	
Pole height	4370mm 14.34'	4370mm 14.34'	4370mm 14.34'	
Control node	No	Yes	Yes	
Module (top)	Blue/green light ring (SHLR2-BL/GR)	een 360° Lighting 360° Lighting (SH36L2) (SH36L2)		
Module 2	-	Green/blue light ring (SHLR2-GR/FK)	Green/blue light ring (SHLR2-GR/FK)	
Module 3	-	-	180° Lighting Spot (SH18L)	
Module 4	-	-	Camera without extra PC protector (SH18C2-JH)	
Integrated in pole	EV charger 11kW (SHPOEV)	EV charger 11kW (SHPOEV)	EV charger 11kW (SHPOEV)	





SHUFFLE **LIGHT**

FOR ENDLESS CHALLENGES

SHUFFLE Light is designed to meet the various lighting needs of an area with elegance and high energy efficiency. Its aesthetic design integrates various lighting modules (360°, spot and light ring) with smart control features for dimming and light-on-demand scenarios.

The SHUFFLE Light smart column can be installed in any location where its versatility, connectivity and simplicity create additional value beyond basic lighting.

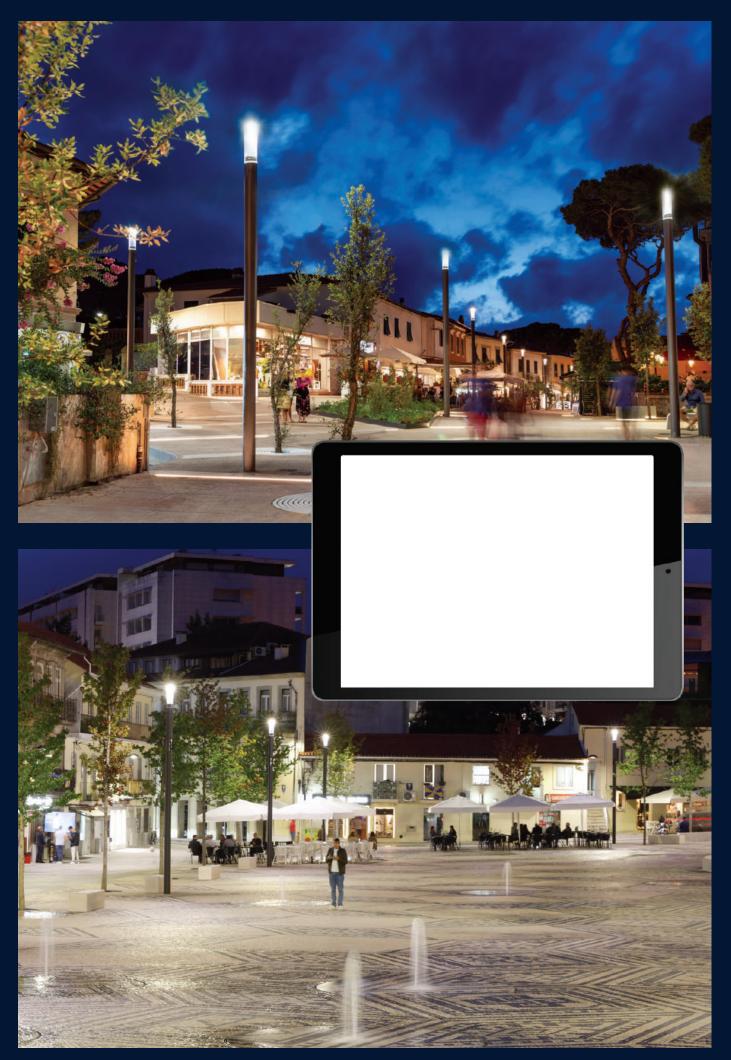
Designed to light roads, streets, squares and other places where creating a pleasant atmosphere is a key element, SHUFFLE Light benefits from **a wide range of photometries** and provides aesthetic consistency for various urban environments. It offers the perfect tool for placemaking as it frees up space that can then be used to enhance the urban experience and promote people's health, happiness and well-being.

	SHUFFLE SHUFFLE LIGHT BASIC LIGHT COR		SHUFFLE LIGHT ACTIVE	
Pole height	4370mm 14.34'	4370mm 14.34'	4370mm 14.34'	
Control node	Yes	Yes	Yes	
Module (top)	360° Lighting (SH36L2)	360° Lighting (SH36L2)	360° Lighting (SH36L2)	
Module 2	-	180° Lighting Spot (SH18L)	Blue light ring (SHLR2-BL)	
Module 3	-	-	180° Lighting Spot (SH18L)	
Integrated in pole	-	-	PIR sensor (C0)	











Professional and secure wireless network

- Available in a 360° lighting module or in a dedicated module
- Multiple concurrent users per access point
- Stable connections at higher data rates
- Divisible bandwidth: e.g. to assign a dedicated part to city operators and a restricted bandwidth for the general public
- Unmatched scalability, cloud or locally managed

4G/5G



Providing 4G/5G capacity and coverage

- High-speed mobile connection
- Blends into the urban environment
- Easy site acquisition for mobile operators
- Range of up to 100m
- Upgradable antenna can be added later, when additional capacity is needed
- The operator installs and owns the telecom equipment
- · Easy access for maintenance
- · Waterproof IP material
- Upgradable base module can be equipped for 5G networks



4G/5G antenna (SH18A-GD)



Side cabinet (SHSC-HA)



WIRELESS BACKHAUL





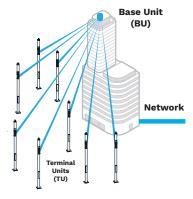
Base Unit (SH18WB2-JN)

Terminal Unit (SH18WB2-JM)

Wireless fibre communication network for smart city applications

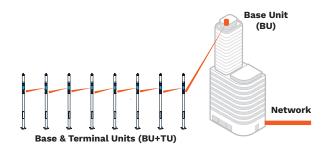
- Wireless extended fibre connections to and from a pole
- The speed of fibre (up to 2.3Gbps), the flexibility of wireless
- Easy street level deployment
- Reliable, virtually interference-free operation
- Connect up to 8 SHUFFLEs from one Base Unit
- 400m auto-aligned range
- AES encryption
- Integrated managed PoE switch
- · Operates in 60GHz V band

1 Building to SHUFFLE (star mode)



The Base Unit is mounted outdoors, on the side of a building or on a rooftop. It connects to 8 SHUFFLEs (Terminal Units) installed within a range of 400 metres max.

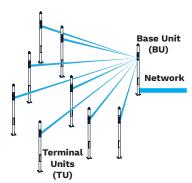
Building to SHUFFLE (linear mode)



The Base Unit is mounted outdoors, on the side of a building or on a rooftop. It connects to one SHUFFLE (Base and Terminal Units) that itself connects to another SHUFFLE having the same hardware (BU+TU) and so on, in a daisy chain layout. The spacing between two SHUFFLEs can be up to 400 metres (max).

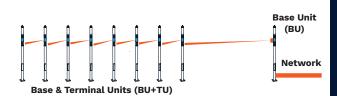


2 SHUFFLE to SHUFFLEs (star mode)



The Base Unit is integrated into a SHUFFLE. This connects to 8 SHUFFLEs (Terminal Units) installed within a range of 400 metres max.

SHUFFLE to SHUFFLEs (linear mode)



The Base Unit is integrated into a SHUFFLE. It connects to one SHUFFLE (Base and Terminal Units) that itself connects to another SHUFFLE having the same hardware (BU+TU) and so on, in a daisy chain layout. The spacing between two SHUFFLEs can be up to 400 metres (max).

SPEAKER (1)

Professional sound system for public service announcements, warnings and music

- Frequency range: 90 19,000Hz
- Full range speaker with dual cone
- Perfect sound up to 25W power output
- Weatherproof / adapted to indoor and outdoor applications
- Digitally connected network speaker

	Analogue speaker (SH18S2-CP)	Digital speaker (SH18S2-S8)
Frequency range	100 - 18000Hz	90 – 19000 Hz
Sound pressure level (1W/1m)	89dB	90dB
Max. power rating	20W	25W
Ethernet connection	No	Yes
Internal amplifier	No	Yes

POWER SUPPLY (*)

Auxiliary power source

- ·Secured access with locked door (T25 screws at the top of pole, key at the bottom)
- Integrated fuse
- Integrated cable retainer
- Passage to the outside for cables

	AL I	(6)
	Power sockets (SHPOLE2-G8)	Event lighting socket (SHPOLE2-FU)
Location	At the bottom of the pole	At the top of the pole
Number of sockets	2	1
Туре	Schuko Type F 16A 230V	Schuko Type F 16A 230V
Purpose	Power sockets for any need	Power socket for decorative lighting
Max. power	3500W	1200W

EV CHARGING &>>





EV charger (SHPOEV2)

Professional charging station

- AC charging 11kW
- European socket (type 2)
- Safety locking during charging
- Access unit (for cabinet mounting)



LIGHTING 💭



360° LensoFlex®2/ LensoFlex®4 (SH36L2)

Street lighting / Ambiance lighting /Pedestrian crossing lighting

- Lumen package range: from 1,500 to 8,100lm
- Back light control (optional)
- · Warm or neutral white LEDs
- · Optional internal diffuser or external diffuse protector for enhanced visual comfort



Up/down (on-site adjustment): architectural lighting



- •On-site inclination angle settings: -10/+40°
- · Warm or neutral white LEDs

180° LensoFlex®2 (SH18L)

Street lighting

- · Lumen package range: from 2,200 to 5,500lm
- Back-light control (optional)
- · Warm or neutral white LEDs

180° reflector (SH18L)

Down: Street lighting / Ambiance lighting / Area lighting **Up: Architectural lighting**

- · Lumen package range: from 2,300 to 6,000lm
- · Neutral or warm white LEDs

Light ring (SHLR2)

Signage / beautification (identity) / creation of ambiance



- · Static red, blue, green, warm or neutral white variants
- 1 or 2 alternating static colours
- · RGB for colour changing effects















Street lighting / Pedestrian crossing lighting

- For luminaire with mounting for Ø60mm/2.3"
- Inclination angle: +5°





CCTV - 180° ()



For professional camera networks

- Resolution: full HD (1920 x 1080)
- · Image optimisation (back-light, contrasts, night vision, high luminosity)
- Privacy layers
- ONVIF communication standard
- Event triggering: motion detection, video analytics, tampering, etc.
- · Digital zoom
- Data optimisation: selected and/or delayed transmission, on-site recording (SD memory slot)
- Compatible with video management systems











Camera with or without extra PC protector (SH18C2-HK)

Camera with or without extra PC protector (SH18C2-GC)

Camera with or without extra PC protector (SH18C2-JH)

Smart features	No	Yes	Yes ★★★ Horizontal: 108° Vertical: 59.3°	
Security features	★ ☆ ☆	***		
Angular field of view	Horizontal: 108° Vertical: 60°	Horizontal: 110° Vertical: 62°		
IR	15m	No	30m	
Power consumption	3W	6.4W	7.5W	

CCTV - 360° ()





QuadView

(SHCQV)

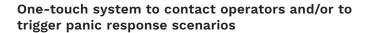
Integrated 360-degree video **CCTV** solution

- · Offers a 360° field of view
- · Contains 4 separate sensors with wide 113° horizontal field of view per sensor
- Vertical angle of view: 62°
- · Streams videos from four sensor units simultaneously
- Supports 1920x1200/1080 (1080p) resolution with up to 50/60fps (50/60Hz)
- Supports Wide Dynamic Range (WDR) Forensic Capture
- · Ideal for very bright and/or dark areas
- · Support for Zipstream technology lowers bandwidth and storage use
- · Withstands dust, rain, snow, vibrations, shocks and impacts
- IP connectivity through standard Ethernet ports
- Power over Ethernet or 8-28V DC
- Features two SD card slots for optional local storage



Integrated hanging bracket for PTZ cameras

- Compatible with most PTZ cameras on the market
- Excellent stability for minimal camera movement
- Concealed cable management



- · Vandal-resistant SIP and IP intercom
- Optional HD video at up to 30FPS (1440x1080px) and H.264 for integration with most video solutions
- · Crystal clear audio
- Active background noise cancellation
- · Automatic volume adjustment
- · Stainless steel front plate with one button
- Can interact with SHUFFLE Strobe, light ring, horn and cameras

	Intercom (SHPOIC2-GH)	Intercom with camera (SHPOIC2-GI)
Internal speaker amplifier	10W class D	10W class D
Microphone	Digital MEMS, omnidirectional	Digital MEMS, omnidirectional
Power supply	PoE or external power supply	PoE or external power supply
Camera	-	Fixed lens, 1440x1080 pixels
Power consumption	Idle 1.8W Max 12W	Idle 3.5W Max 12W



STROBE SOS



360° Lighting with strobe (SH36L2-HL/SH36L2-HM)

Vital visual aid for emergencies

- Lumen package range: from 1,500 to 8,100lm
- Flashing blue strobe light
- Can be triggered remotely or locally via the intercom button

HORN (1)

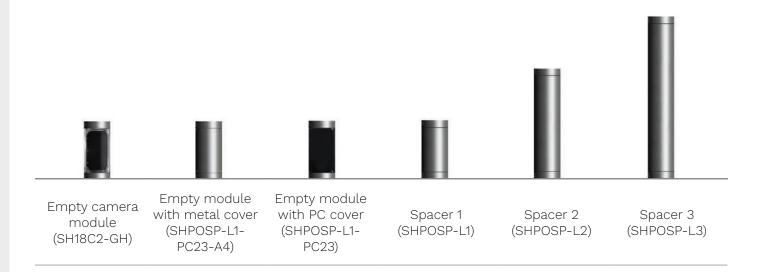


Horn (SH18S2-HN/SH18S2-HO)

Warning or alarm with a powerful electronic tone

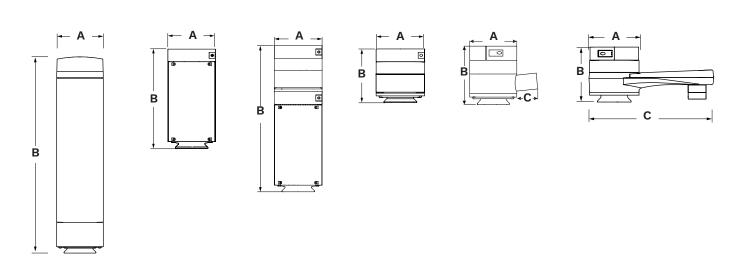
- Warning or alert to the nearby population
- · Supports voice-over IP
- Multi-tone up to 105dB
- · Can be triggered remotely
- Can be integrated into a global warning system
- Can be linked to SHUFFLE Intercom

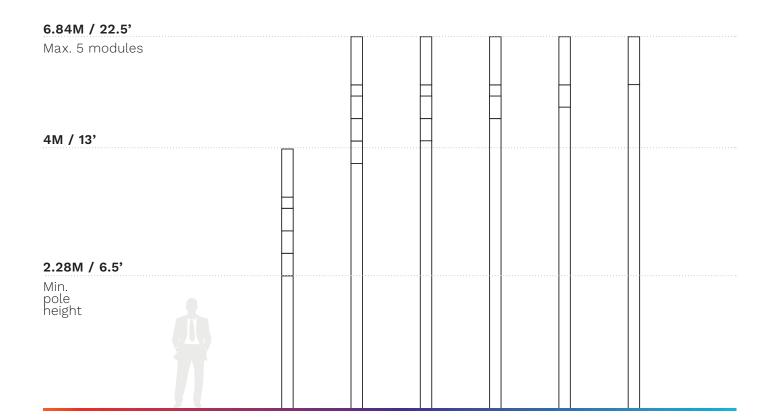




DIMENSIONS

	360° module	180° module	QuadView module	Light ring	Luminaire bracket (Ø60mm)	Camera bracket
Α	194mm 7.6"	194mm 7.6"	194mm 7.6"	194mm 7.6"	194mm 7.6"	194mm 7.6"
В	815mm 32"	403mm 15.9"	593mm 23.4"	215mm 8.5"	215mm 8.5"	215mm 8.5"
С	-	-	-	-	109mm 4.3"	490mm 19.3"

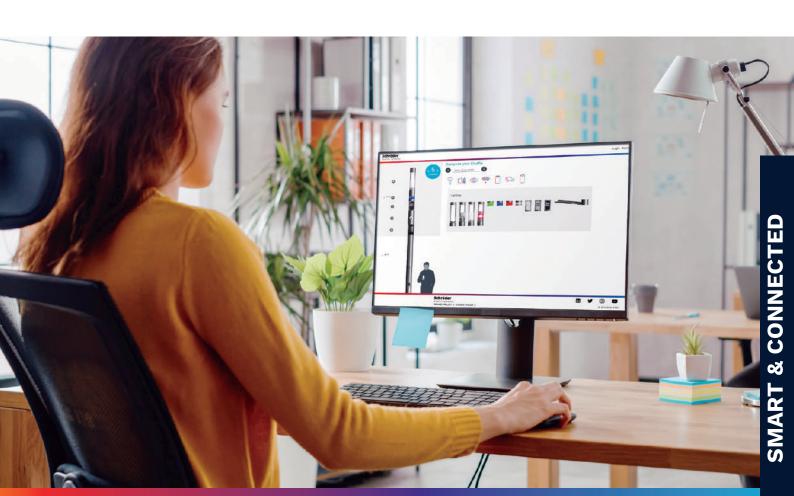




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