LENA
LIGHTING



DATA CENTRE LIGHTING

CERTIFIED LIGHTING

For us, the quality of our products is more than proof of our expertise as a leading Polish lighting manufacturer. It also reflects our environmentally responsible approach.

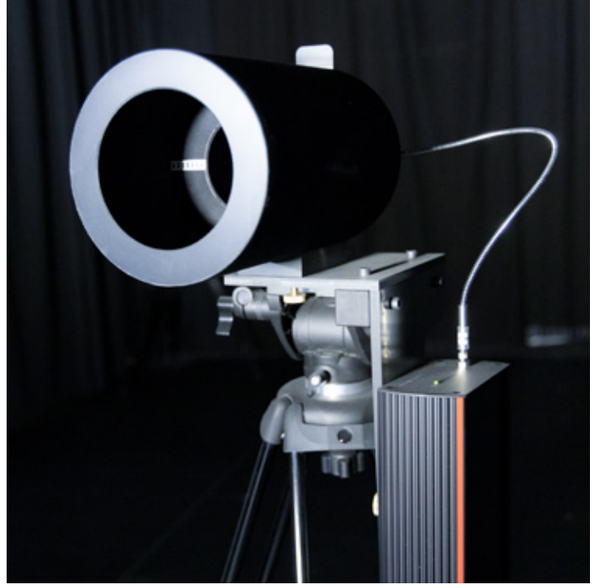
Reliability, durability, long service life and good product design are all essential to sustainable manufacturing and environmental protection. The high quality of Lena Lighting solutions is one of the key factors that have enabled us to build a loyal customer base worldwide.

Our certificates:

ISO 9001 · ISO 14001 · ISO 17025 · ISO 45001 · EK · EK PLUS

Book 13 · Book 15 · Book 18 · ZDI · DALI Alliance · EPD

IVM · CNBOP-PIB · RoHS · REACH · CTF Stage-3 · AD







YOUR DATA CENTRE EXPERT

Lena Lighting supports data centre investors and designers at every stage of a project – from the initial design and luminaire selection through to commissioning, servicing and warranty support.

We understand the specific requirements of this environment and know how to reconcile the technical and operational requirements with the visual and aesthetic expectations placed on lighting in a data centre.

We follow the direction set by EU climate policy – including the target for data centres to achieve climate neutrality by 2030 (European strategy for data, Climate Neutral Data Centre Pact) and the requirement to report the energy performance of data centres with an installed IT power demand of at least 500 kW (Energy Efficiency Directive (EED), Commission Delegated Regulation (EU) 2024/1364) – and design lighting solutions that make a tangible contribution to these objectives.

We also optimise lighting to help improve PUE (Power Usage Effectiveness), a key industry metric: energy-efficient luminaires and intelligent controls are among the measures that directly affect its value.

- Thoughtful design
- The right parameters
- Visual comfort and glare control
- Energy efficiency
- Safety
- Durability, quality and robustness
- Control
- Focus on well-being
- Environment / sustainability
- Partnership and trust



APPLICATION AREAS

		Illuminance	UGR	Ra
TECHNICAL AND IT AREAS				
1	UPS and battery rooms	200 lx	≤ 25	≥ 80*
2	Server room / Data hall	500 lx	≤ 19	≥ 80**
ROOFTOP AREAS				
3	Roof / Technical rooms	200 lx	≤ 25	≥ 80

* ≥ 90 recommended

** additionally ≥ 200 lx in maintenance areas on the vertical plane at rack fronts

		Illuminance	UGR	Ra
ADMINISTRATIVE AREAS				
4	Network Operations Centre (NOC)	500 lx	≤ 19	≥ 80
5	Offices and meeting rooms	500 lx	≤ 19	≥ 80
SECURITY AREAS				
6	Reception and circulation areas	300 lx	≤ 22	≥ 80
7	Changing rooms	200 lx	≤ 25	≥ 80
8	Security room	500 lx	≤ 19	≥ 80
EXTERNAL INFRASTRUCTURE				
9	Outdoor areas	20 lx	≤ 50*	≥ 70
10	Car park	20 lx	≤ 50*	≥ 70
11	Paths and walkways	15 lx	≤ 50*	≥ 70

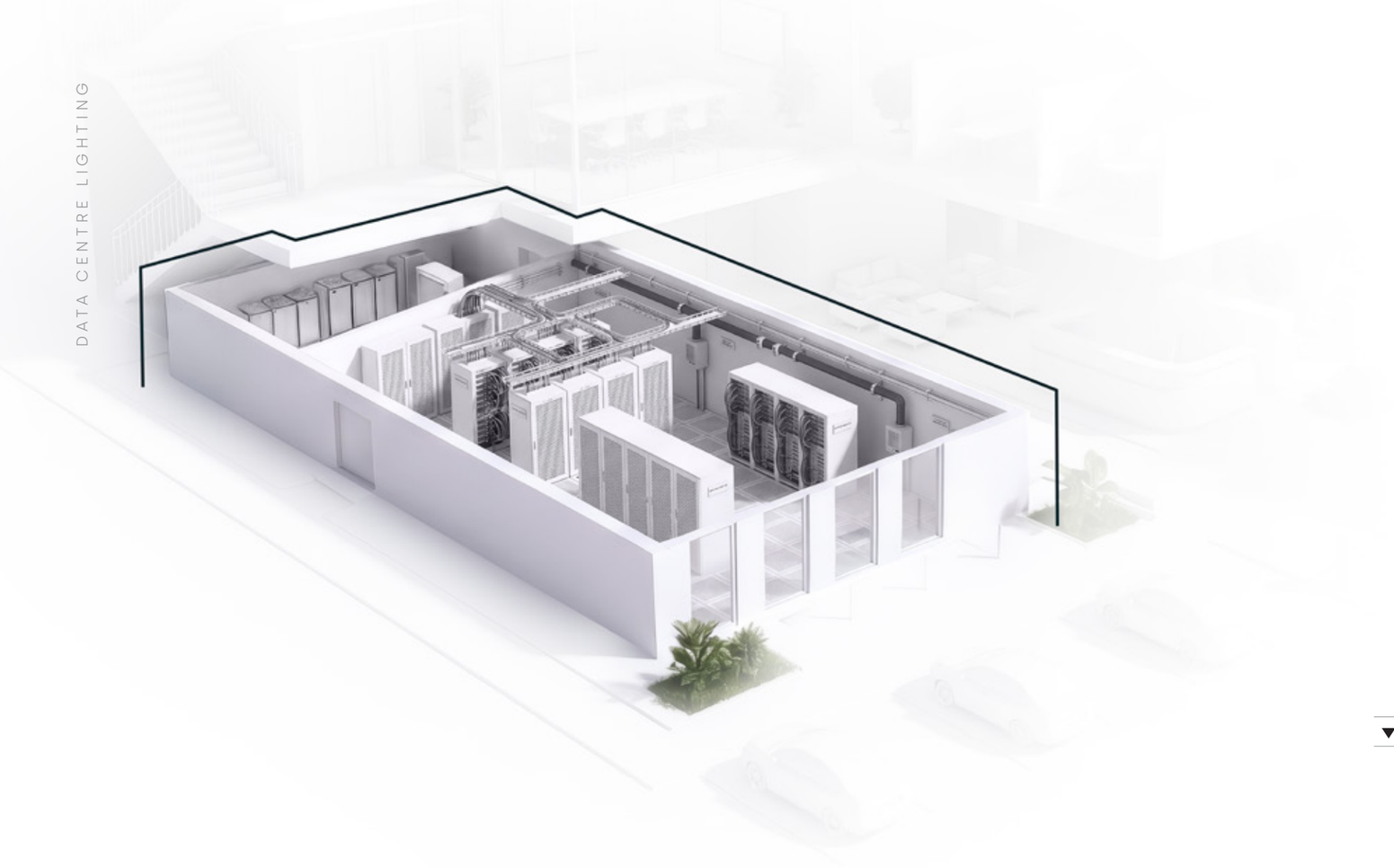
* for outdoor areas, Glare Rating (GR) in accordance with EN 12464-2

REQUIREMENTS FOR TECHNICAL AND IT AREAS

Server rooms, UPS rooms, battery rooms and data halls require lighting that enables accurate visual assessment when working on switchgear and busbar trunking. High illuminance uniformity (U_O), with no shadows between battery racks, and a minimum Ra/CRI of 80 (above 90 recommended) are essential for correct identification of phase markings and status indicators on UPS modules. Glare should be limited to UGR < 25 and, in areas where maintenance work is performed for extended periods, to UGR < 19.



Surface reflectance directly affects lighting requirements. Black rack cabinets absorb light, requiring more luminaires and a higher installed load. Light-coloured racks can reduce the required number of luminaires by up to 37%, lowering CAPEX and OPEX while improving PUE. We therefore select the luminaire optics – asymmetric or wide-beam – individually to suit the colour scheme of the customer's IT infrastructure.



REQUIREMENTS FOR TECHNICAL AND IT AREAS

▼ Area	▼ Parameter	▼ Requirement	▼ Notes
UPS and battery rooms	Illuminance	Adequate on vertical and horizontal planes	As specified in the design
	Illuminance uniformity (U_o)	High	No deep shadows between battery racks
	Colour rendering (Ra)	≥ 80, > 90 recommended	Clear identification of cables, markings and indicators
	Glare (UGR)	≤ 25, ≤ 19 recommended	Particularly in maintenance areas
	Vertical illuminance	High	UPS cabinet fronts and all levels of battery racks
Battery rooms	Explosion protection	ATEX – if required	Depending on the risk assessment and the presence of Zones 1/2
	Ingress protection (IP)	min. IP65 / IP66 / IP69K	Protection against moisture, electrolyte vapours and wash-down
	Chemical resistance	High	Enclosure resistant to chemical exposure
	Impact resistance (IK)	min. IK08–IK10	Protection against accidental impacts
Rooms UPS	Ingress protection (IP)	min. IP40–IP54	Protection against dust and small metal particles
	Impact resistance (IK)	min. IK08	Resistance to mechanical damage
	Durability / continuous operation	24/7	High reliability and reduced maintenance requirements
	Temperature tolerance	High	Resistance to temperature fluctuations in hot/ cold aisles
Server room / Data hall	Ingress protection (IP)	min. IP20 recommended IP40–IP54**	Standard server-room conditions (enclosed, controlled environment)
	Impact resistance (IK)	min. IK08	Protection against accidental impacts during maintenance work
	Durability / continuous operation	24/7	High reliability and reduced maintenance requirements
	Temperature tolerance	High	Resistance to elevated temperatures in hot aisles
	Vertical illuminance	More than 200 lx at rack fronts	Legibility of labels, LED indicators and patch panels in aisles

** Controlled clean environment (ISO Class 8 recommended in accordance with ISO 14644-1) – smooth enclosures that minimise dust accumulation

OUR LUMINAIRES

TECHNICAL AND IT AREAS

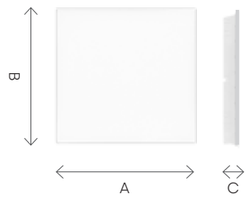


Lumedic SM

IP	IK	lm/W
65	09	164

rated power [W]	22 - 86
luminous flux [lm]	1725 - 13275
mounting method	flush-mounted, surface-mounted
body material	powder-coated steel
body colour	☐
diffuser material	tempered glass
diffuser type	PRM, PLX
dimensions [mm]	595/595/65

- Smooth recessed design that minimises the accumulation of contaminants
- Steel housing and sealed optics suitable for stringent cleaning procedures
- Service access from the technical side without compromising the clean zone





OUR LUMINAIRES

TECHNICAL AND IT AREAS

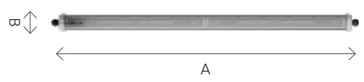


Tuba IP69K

IP	IK	lm/W
69 K	10	194

rated power [W]	10 - 59
luminous flux [lm]	1350 - 11150
mounting method	surface, suspended
body material	stainless steel
body colour	
diffuser material	SZKŁO, PC, PMMA
diffuser type	transparent
dimensions [mm]	1250/64.5, 660/64.5, 697/64.5, 1281/64.5, 661/64.5

- Maximum IP69K protection – fully sealed against dust and water jets at 100 bar and 80 °C
- Durable construction – chemically resistant materials (PMMA, borosilicate glass, acid-resistant stainless steel)
- Designed for the most demanding conditions



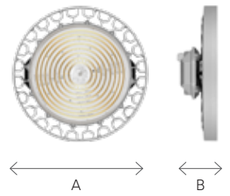


Oculus LED Endura

IP	IK	lm/W
66	09	140

rated power [W]	203
luminous flux [lm]	26600 - 28300
mounting method	suspended, surface-mounted
body material	powder-coated aluminium
body colour	
diffuser material	PC, tempered glass
diffuser type	transparent
dimensions [mm]	Ø371/106

- Durable aluminium body
- A separate driver compartment, connected to the luminaire by a 10 m cable, ensures optimum thermal operating conditions for the driver
- Suitable for operation at ambient temperatures up to +75 °C



OUR LUMINAIRES

TECHNICAL AND IT AREAS



Linea S LED

IP	IK	lm/W
40, 54	03	206

rated power [W]	15 - 146
luminous flux [lm]	2550 - 25300
mounting method	suspended, surface-mounted
body material	coated steel
body colour	■ □
diffuser material	PC
diffuser type	MAT, transparent
dimensions [mm]	588-5292/60/50

- Available in IP40 and IP54 versions
- Tool-free connection of light modules
- Quick assembly line
- 11-core wiring
- 10 light distribution options
- Compatible with Clue and HCL control systems
- LED lifetime up to 196,000 h
- The system can be expanded with additional components, such as emergency lighting, spotlights and sensors

OUR LUMINAIRES

TECHNICAL AND IT AREAS

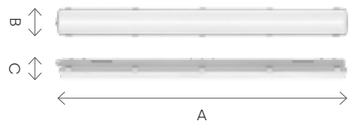


Tytan 2 LED

IP 66 | IK 09 | lm/W 171

rated power [W]	14 - 75
luminous flux [lm]	2500 - 12000
mounting method	surface-mounted suspended
body material	PC, ABS
body colour	
diffuser material	PC, PCT-G
diffuser type	MATT
dimensions [mm]	1152/85/80, 1432/85/80

- Various versions available to suit different applications
- Very high efficiency
- High impact resistance and ingress protection
- Resistant to ammonia and sulphuric acid vapours
- GREENGUARD certified



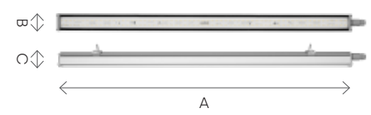


Industry IP66 LED

IP 66 | IK 08 | lm/W 163

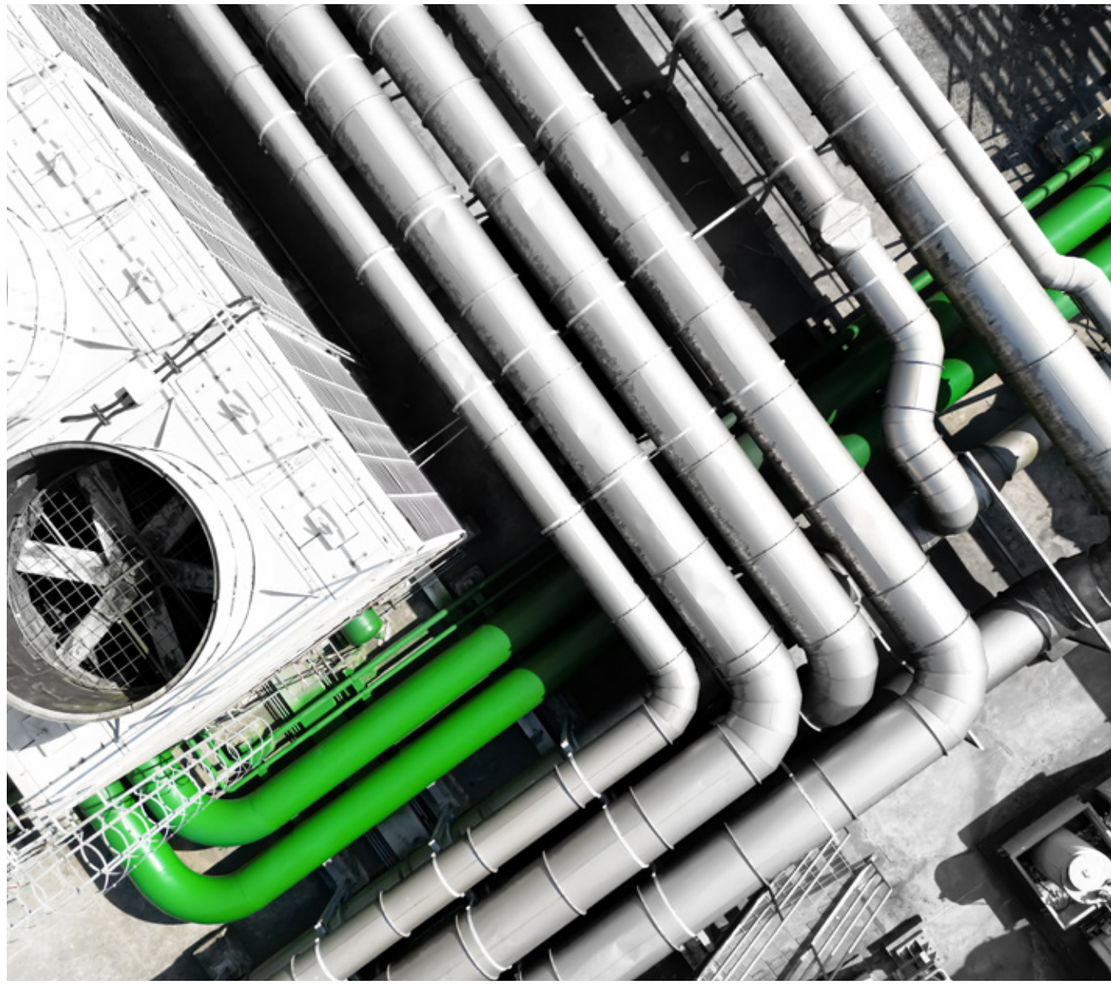
rated power [W]	14 - 212
luminous flux [lm]	2150 - 34000
mounting method	surface, suspended
body material	aluminium
body colour	
diffuser material	tempered glass
diffuser type	transparent, PRM, MAT
dimensions [mm]	575/63/55, 1150/63/55, 1250/135/104, 1450/63/55, 1550/135/55

- Aluminium body and tempered-glass diffuser
- Quick connector for safe and quick mounting
- Slim luminaire – does not collect dirt
- Designed for harsh industrial environments
- 3 light distributions, dedicated to high rooms



REQUIREMENTS FOR ROOFTOP AREAS

Rooftop HVAC systems require maintenance and inspection, often at night or in adverse weather conditions, so the lighting must enable service personnel to move safely along walkways and service platforms and between pipework. High illuminance uniformity and good colour rendering (Ra/CRI) are also required, for example, to identify the colours of electrical wiring in the control cabinets of outdoor chillers.



Rooftop luminaires must also withstand moisture, UV radiation and temperature fluctuations as well as proximity to cooling equipment, which calls for a high degree of ingress protection (IP66) and high enclosure impact resistance (IK08–IK10). Integration with DALI-2 and motion sensors keeps lighting at a minimum when the area is unoccupied, while providing full illumination immediately when maintenance personnel enter.



REQUIREMENTS FOR ROOFTOP AREAS

▼ Area	▼ Parameter	▼ Requirement	▼ Notes
Roof / technical rooms	Illuminance	Adequate on horizontal and vertical planes	Safe movement along walkways, platforms and between installations
	Illuminance uniformity (U_O)	High	Uniform illumination of maintenance and inspection areas
	Colour rendering (Ra)	≥ 80	Easy identification of cable colours and markings
	Glare (UGR)	Limited	Comfort during maintenance and inspections
	Ingress protection (IP)	min. IP66 / IP67	Resistance to rain, snow, ice and pressure washing
	Impact resistance (IK)	min. IK08–IK10	Resistance to hail, wind and accidental impacts from tools
Roof / technical rooms	Operating temperature range	Wide	Resistance to frost and high temperatures caused by heating of the roof surface
	UV resistance	High	Housings and diffusers resistant to prolonged UV exposure
	Corrosion resistance	min. C4–C5-M	Recommended for harsh weather conditions, including coastal areas
	Emergency lighting	CBS – recommended	Power supplied from a central battery located inside the building
	Light pollution control	Dark Sky / ULOR = 0%	No light emission towards the sky
	CCTV integration	Compatible with surveillance systems	No excessive glare or interference with camera images

OUR LUMINAIRES

ROOFTOP AREAS



Quest LED EVO

IP	IK	lm/W
67	10	193

rated power [W]	20 - 297
luminous flux [lm]	2800 - 48900
mounting method	surface-mounted, suspended, high-bay (surface-mounted), recessed
body material	powder-coated die-cast aluminium
body colour	■
diffuser material	tempered glass
diffuser type	transparent
dimensions [mm]	XS: 279/220/57 S: 263/403/57 M:324/550/57 L: 375/550/57

- RGBW versions available for illuminating building façades
- 7.5° graduated steel arm attached to the body
- Die-cast aluminium body in corrosion class C5
- A wide selection of optics, including asymmetric options, provides extensive configuration flexibility



OUR LUMINAIRES

ROOFTOP AREAS

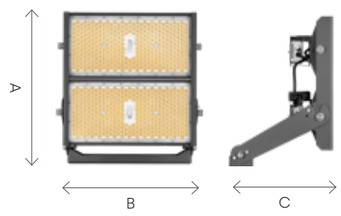


Factor LED XL

IP	IK	lm/W
66	09	171

rated power [W]	101 - 1124
luminous flux [lm]	14600 - 150800
mounting method	on a pole, construction barriers, flat surfaces or a bracket
body material	powder-coated aluminium
body colour	
diffuser material	PC, tempered glass
diffuser type	lenticular arrays, transparent
dimensions [mm]	191/425/217, 385/425/340, 580/425/340, 774/425/340 1084/624/238

- High luminous efficiency
- High ingress protection (IP66) and impact resistance (IK09)
- Passive cooling system
- Capable of performing in high-temperature conditions



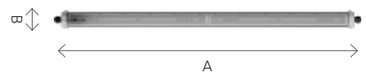


Tuba IP69K

IP	IK	lm/W
69 K	10	194

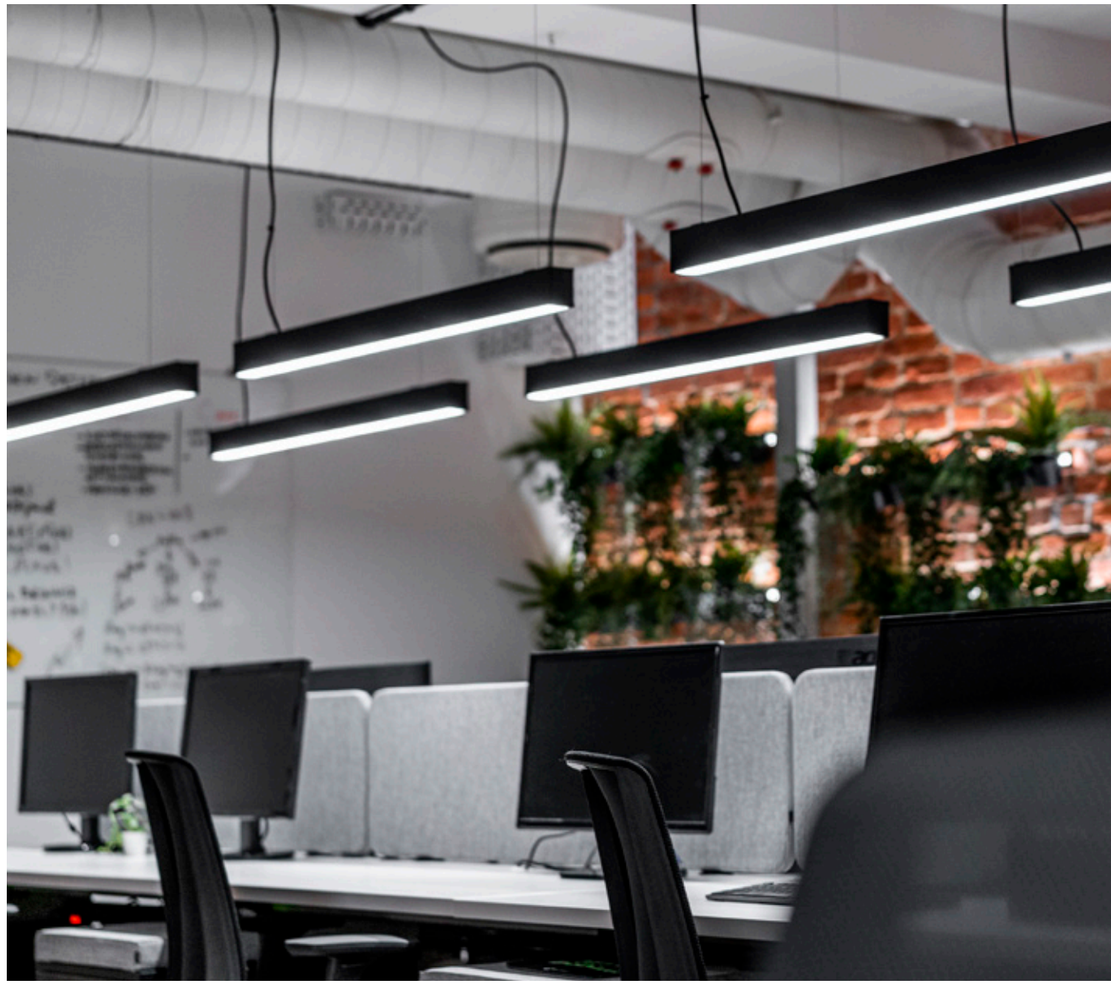
rated power [W]	10 - 59
luminous flux [lm]	1350 - 11150
mounting method	surface, suspended
body material	stainless steel
body colour	
diffuser material	SZKŁO, PC, PMMA
diffuser type	transparent
dimensions [mm]	1250/64.5, 660/64.5, 697/64.5, 1281/64.5, 661/64.5

- Maximum IP69K protection – fully sealed against dust and water jets at 100 bar and 80 °C
- Durable construction – chemically resistant materials (PMMA, borosilicate glass, acid-resistant stainless steel)
- Designed for the most demanding conditions



REQUIREMENTS FOR ADMINISTRATIVE AREAS

The Network Operations Centre (NOC) is the heart of facility monitoring, where operators work continuously, 24/7/365, monitoring screens and the Video Wall. Excessive ambient light reduces screen contrast, so lighting at the work surface must be continuously dimmable, with a minimum illuminance uniformity U0 of 0.60, with glare limited to UGR ≤ 19 (≤ 16 recommended) – a critical parameter.



These rooms require luminaires with microprismatic optics or indirect lighting to eliminate screen reflections, with Ra/CRI > 80 (> 90 recommended).

NOC areas require a quiet environment that supports concentration, while precision HVAC systems generate intrusive background noise. Terra Balance acoustic luminaires are an effective solution: their sound-absorbing housing helps reduce room noise and improve operator comfort.



REQUIREMENTS FOR ADMINISTRATIVE AREAS

▼ Area	▼ Parameter	▼ Requirement	▼ Notes
NOC / administrative and office areas	Illuminance	500 lx, continuously dimmable	Consistent working conditions at monitor-based and office workstations
	Illuminance uniformity (U_o)	min. 0.60	Uniform illumination of workstations
	Glare (UGR)	≤ 19, ≤ 16 recommended	Minimisation of reflections on monitors and the Video Wall
	Colour rendering (Ra)	≥ 80, ≥ 90 recommended	Natural colour rendering and visual comfort
	Tunable White / HCL	2700 - 6500 K	Adjustment of colour temperature to the time of day and operating mode
	Light level control	Dimming	Adjustment of light level for screen-based work and the Video Wall
	Flicker-free	High-quality LED drivers	Reduced flicker and eye strain

▼ Area	▼ Parameter	▼ Requirement	▼ Notes
NOC / administrative and office areas	Daylight Harvesting	DALI-2	Automatic lighting adjustment based on available daylight
	Presence sensors	PIR / MWD	Automatic switching off or dimming of the lighting
	Vertical illuminance	Adequate illumination of faces	Reduced shadows under the eyes and under the nose during video conferences
	AV integration	DALI / Crestron / Extron	Lighting can be controlled via the AV system
	Lighting scenes	Presentation / Meeting / Video conference	Lighting tailored to the function of the room
	Emergency lighting	In accordance with EN 1838	Safe evacuation and wayfinding for users

OUR LUMINAIRES

ADMINISTRATIVE AREAS

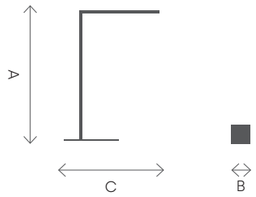


Baris Stand

IP	IK	lm/W
20	03	131

rated power [W]	81
luminous flux [lm]	10150 - 10650
mounting method	free standing
body material	aluminium
body colour	■□
optics material	PC
types of optics	lens
dimensions [mm]	2108/51/1325

- Colour temperature
  2700 - 6500 K
- Dual-zone lighting with automatic light-level adjustment
- Mobile design ideal for dynamic office spaces
- Motion and light sensors optimise energy consumption





OUR LUMINAIRES

ADMINISTRATIVE AREAS

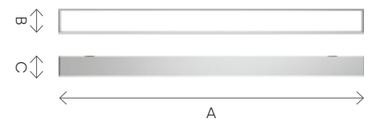


Baris LED

IP	IK	lm/W
44	06	150

rated power [W]	14 - 84
luminous flux [lm]	1750 - 9900
mounting method	suspended, surface-mounted, flush-mounted
body material	aluminium
body colour	
diffuser material	PC
diffuser type	OPAL, PRM, UGR, transparent
dimensions [mm]	1143-5623/52/69

- DIR/IND Single and UGR Plus versions available
- For creating lines up to 6 meters long without profile joints and up to 25 m with no need to join the diffuser
- Modular design facilitating replacement of components
- Flexible choice of diffuser, colour and length (in 14 cm increments)



OUR LUMINAIRES

ADMINISTRATIVE AREAS

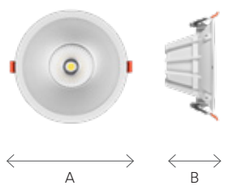


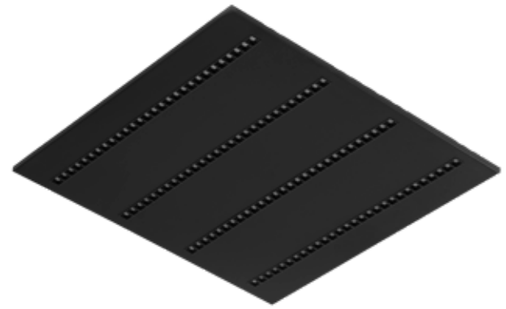
Tiunne Plus 90/160/200

IP 65/20 | IK 08 | lm/W 120

rated power [W]	8 - 36
luminous flux [lm]	360 - 3800
mounting method	flush-mounted
body material	powder-coated aluminium
body colour	■□
diffuser material	PC
diffuser type	transparent
dimensions [mm]	Ø215/108,5, Ø170/98, Ø96/73

- Low UGR<14
- Aluminium body guarantees a low COB temperature, ensuring longer lifespan
- 15° and 60° light distributions
- Design tailored to the interior. Reflectors available in white, black, metallised and satin finishes.



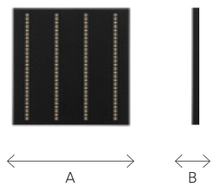


Terra 3 LED

IP 20 | IK 03 | lm/W 157

rated power [W]	14 - 56
luminous flux [lm]	1800 - 8600
mounting method	flush-mounted, suspended, surface-mounted
body material	powder-coated steel
body colour	■□
diffuser material	lens
diffuser type	HE louvre
dimensions [mm]	595/295/32, 595/595/32, 1195/295/32

- Robust metal body
- Glare-limiting louvres at optimal UGR levels, even at high luminous flux levels
- High degree of light uniformity SDCM ≤3
- Wide range of mounting, size and colour variants







Terra Balance

IP 20 | lm/W 111

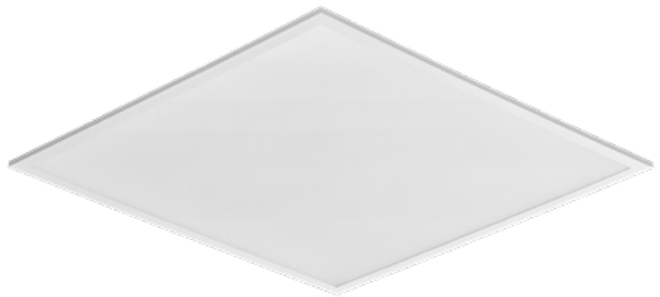
rated power [W]	16 - 50
luminous flux [lm]	1650 - 5200
mounting method	surface-mounted, flush-mounted suspended
body material	ecoPET / steel
body colour	
diffuser material	PC
types of optics	lens
dimensions [mm]	600/600/50, 1200/600/52, 1440/300/48

- Environmentally friendly luminaires made of PET felt
- LED technology and UGR < 19 ensure comfortable, glare-free working conditions
- Various mounting options and colour variants available.
- Durable, moisture-resistant, easy to clean and fully recyclable



OUR LUMINAIRES

ADMINISTRATIVE AREAS

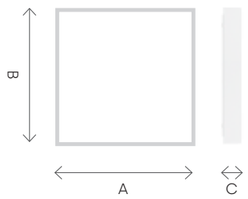


Contra II LED

IP	IK	lm/W
44/20	04	163

rated power [W]	24 - 36
luminous flux [lm]	3500 - 5850
mounting method	flush-mounted, surface-mounted suspended
body material	coated aluminium
body colour	☐
diffuser material	PS
diffuser type	PRM, MAT
dimensions [mm]	1195/295/30, 595/595/30

- Low, slim profile and elegant appearance
- Suitable for flush installation in modular ceilings, surface mounting, or suspension using an additional frame (available as an accessory).
- Perfect light diffusion



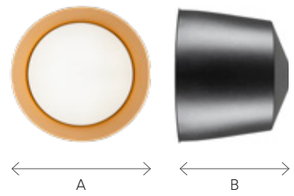


Piatto LED 340

IP	IK	lm/W
20	03	60

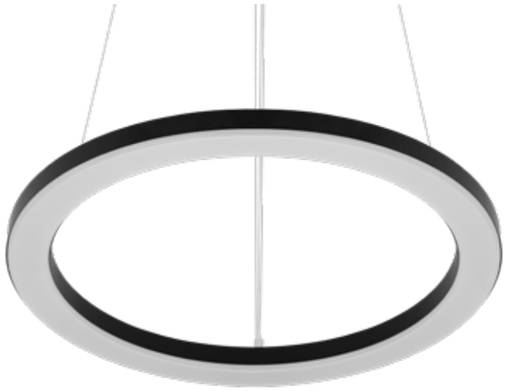
rated power [W]	9
luminous flux [lm]	520, 560
mounting method	suspended
body material	powder-coated aluminium
body colour	
diffuser material	PC
diffuser type	OPAL
dimensions [mm]	ø340/280

- Elegant design
- Decorative style
- Minimalist design
- Contemporary colour combinations



OUR LUMINAIRES

ADMINISTRATIVE AREAS

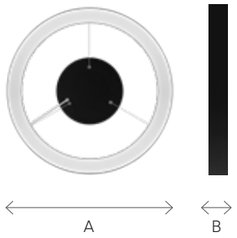


Solanto

rated power [W]	30 - 68
luminous flux [lm]	1890 - 6100
mounting method	suspended
body material	steel
body colour	■ □
diffuser material	PS, PMMA (1200 model)
diffuser type	OPAL
dimensions [mm]	Ø602/32, Ø900/32, Ø1200/32

IP	lm/W
20	94

- Classic circle-shaped design
- Thermoformed diffuser
- Multi versions with adjustable power and luminous flux settings
- Perfect uniform light distribution
- Versions with DIMM - DALI control





OUR LUMINAIRES

ADMINISTRATIVE AREAS

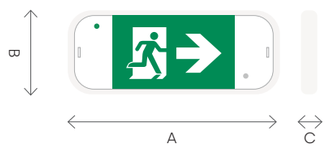


Safelite

IP	IK	lm/W
65/42	08	85

rated power [W]	1.2, 3.2
luminous flux [lm]	100, 250
mounting method	surface-mounted, flush-mounted
body material	PC
body colour	□
diffuser material	PC
diffuser type	PRM
dimensions [mm]	270/119, 371/170

- Versions intended for illuminating directional evacuation signs available
- High ingress protection – IP65
- Operating mode: emergency or emergency–network
- Autonomy: 1h/3h
- Ni-Cd battery



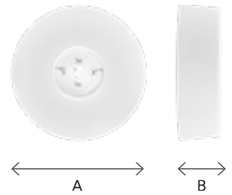


Dot CS LED Evo

IP	IK	lm/W
65	07	150

rated power [W]	3
luminous flux [lm]	450
mounting method	surface-mounted, flush-mounted
body material	PC
body colour	■□
diffuser material	PMMA
diffuser type	lens
dimensions [mm]	ø140/40

- Self-contained 3 W LED emergency luminaire (450 lm) with a built-in Li-ion battery (1 h or 3 h)
- Available with four optic options: general and corridor optics, each in wide and narrow versions.
- Self-test version
- CNBOP certified
- 5-year warranty



REQUIREMENTS FOR SECURITY AREAS

At authorisation, identification and access-control points, where passes and identity documents are checked, and in areas used for completing documents, appropriate general lighting and sufficient task illuminance on the work surface are essential. Glare must be limited to UGR < 19 (a mandatory requirement), as security staff monitor a wall of CCTV, VMS and PIDS screens throughout their shift; reflections on the displays can quickly cause eye strain and lead to missed incidents.



Flicker-free operation is also essential to prevent a stroboscopic effect that could interfere with CCTV images. A colour temperature of 4000 K is recommended to support alertness during night shifts, while UPS power ensures continuity of monitoring in the event of a power failure.



REQUIREMENTS FOR SECURITY AREAS

▼ Area	▼ Parameter	▼ Requirement	▼ Notes
Security / gatehouse	Illuminance	As specified in the design	Adequate lighting of the work surface and general area
	Glare (UGR)	≤ 19	Minimisation of reflections on CCTV, VMS and PIDS monitors
	Colour rendering (Ra)	≥ 80, ≥ 90 recommended	Accurate identification of documents, passes and markings
	Light level control	DALI, 10 - 100%	Ability to reduce the light level at night
	Task lighting	Directional	For document work and pass verification
	Flicker-free	Required	Reduced eye strain during shift work
Reception / entrance area	Illuminance	As specified in the design	Reception desks, waiting areas, lobbies and circulation areas
	Glare (UGR)	≤ 19 at the reception desk; ≤ 22 in other areas	Visual comfort for staff and users
	Vertical illuminance	Adequate at face height	Supports CCTV and facial recognition systems
	Colour temperature	3000 - 4000 K	Depending on the function of the area
	Tunable White / HCL	2700 - 6500 K	Optional adjustment of colour temperature to the time of day
Changing rooms / welfare areas / washrooms	Illuminance	As specified in the design	Tailored to the function of the room
	Ingress protection (IP)	min. IP44	Toilets and changing rooms – protection against splashing water
	Ingress protection (IP) – wet areas	min. IP65	Shower cubicles and areas exposed to water jets
	Impact resistance (IK)	IK07–IK08	Resistance to impact and heavy use
	Control:	DALI-2 + PIR / HF	Automatic occupancy-based control
	Standby mode	10% or off	Reduced energy consumption when unoccupied
Service and security areas	Emergency lighting	In accordance with EN 1838	Safe evacuation of staff and visitors

OUR LUMINAIRES

SECURITY AREAS



Quest LED EVO

IP	IK	lm/W
67	10	193

rated power [W]	20 - 297
luminous flux [lm]	2800 - 48900
mounting method	surface-mounted, suspended, high-bay (surface-mounted), recessed
body material	powder-coated die-cast aluminium
body colour	■
diffuser material	tempered glass
diffuser type	transparent
dimensions [mm]	XS: 279/220/57 S: 263/403/57 M:324/550/57 L: 375/550/57

- RGBW versions available for illuminating building façades
- 7.5° graduated steel arm attached to the body
- Die-cast aluminium body in corrosion class C5
- A wide selection of optics, including asymmetric options, provides extensive configuration flexibility

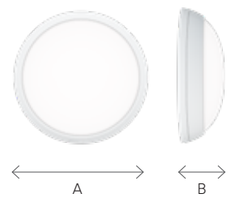


Dione LED Plus

IP	IK	lm/W
65	10	133

rated power [W]	21 - 32
luminous flux [lm]	1500 - 3800
mounting method	surface-mounted
body material	ABS
body colour	□
diffuser material	PC
diffuser type	OPAL
dimensions [mm]	ø340/115

- Multi version with adjustable power and luminous flux settings; versions with asymmetric light distribution also available
- High impact resistance
- Very high ingress protection
- High luminous efficiency
- Branded components



OUR LUMINAIRES

SECURITY AREAS

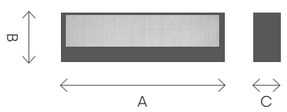


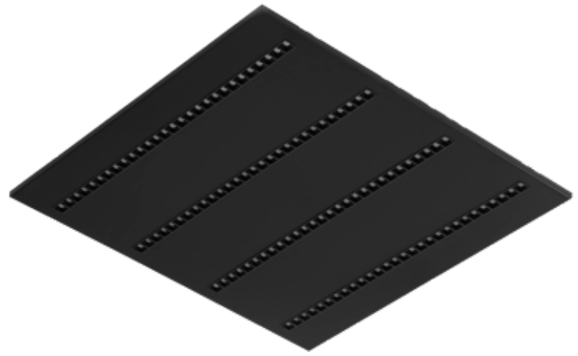
Terraco LED

IP	IK	lm/W
54	04	133

rated power [W]	8 - 17
luminous flux [lm]	250 - 1600
mounting method	surface-mounted
body material	aluminium
body colour	■ ■ ■ □
diffuser material	PMMA
diffuser type	OPAL
dimensions [mm]	260/110/100

- A wide range of versions with different luminous surfaces allows the luminaire to be used in many locations and orientations – vertically or horizontally
- Its small dimensions enhance its versatility – it can effectively light up recessed areas and hard-to-reach spots



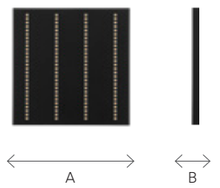


Terra 3 LED

IP	IK	lm/W
20	03	157

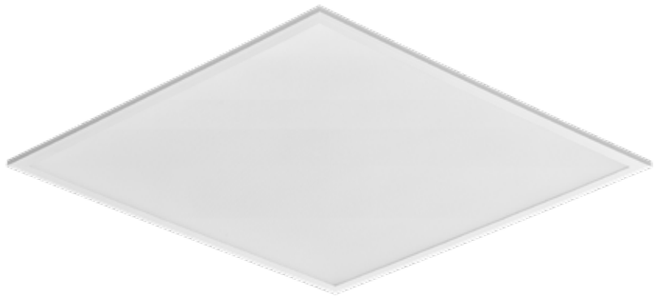
rated power [W]	14 - 56
luminous flux [lm]	1800 - 8600
mounting method	flush-mounted, suspended, surface-mounted
body material	powder-coated steel
body colour	■ □
diffuser material	lens
diffuser type	HE louvre
dimensions [mm]	595/295/32, 595/595/32, 1195/295/32

- Robust metal body
- Glare-limiting louvres at optimal UGR levels, even at high luminous flux levels
- High degree of light uniformity SDCM ≤3
- Multitude of versions available in different sizes, colours and power and mounting options



OUR LUMINAIRES

SECURITY AREAS

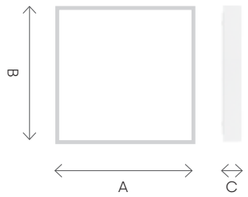


Contra II LED

IP	IK	lm/W
44/20	04	163

rated power [W]	24 - 36
luminous flux [lm]	3500 - 5850
mounting method	flush-mounted, sur-face-mounted suspended
body material	coated aluminium
body colour	☐
diffuser material	PS
diffuser type	PRM, MAT
dimensions [mm]	1195/295/30, 595/595/30

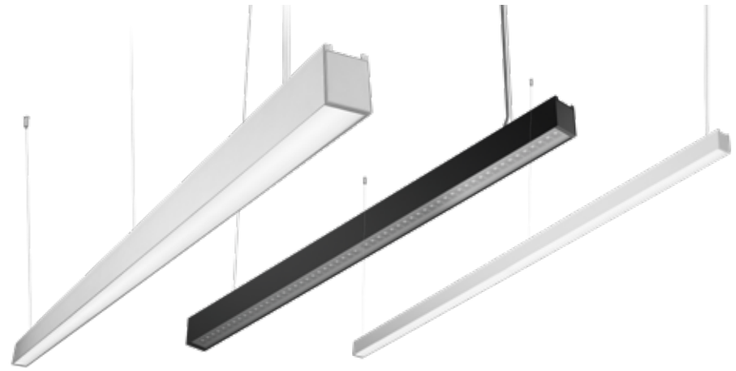
- Low, slim profile and elegant appearance
- Suitable for flush installation in modular ceilings, surface mounting, or suspension using an additional frame (available as an accessory).
- Perfect light diffusion





OUR LUMINAIRES

SECURITY AREAS

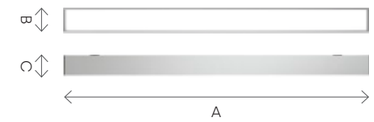


Baris LED

IP	IK	lm/W
44	06	150

rated power [W]	14 - 84
luminous flux [lm]	1750 - 9900
mounting method	suspended, surface-mounted
body material	aluminium
body colour	
diffuser material	PC
diffuser type	OPAL, PRM, UGR, transparent
dimensions [mm]	1143-5623/52/69

- DIR/IND Single and UGR Plus versions available
- For creating lines up to 6 meters long without profile joints and up to 25 m with no need to join the diffuser
- Modular design facilitating replacement of components
- Flexible choice of diffuser, colour and length (in 14 cm increments)



OUR LUMINAIRES

SECURITY AREAS

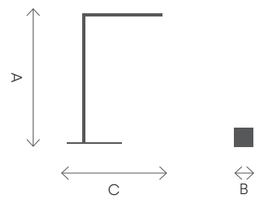


Baris Stand

IP 20 | IK 03 | lm/W 131

rated power [W]	81
luminous flux [lm]	10150 - 10650
mounting method	free standing
body material	aluminium
body colour	■□
optics material	PC
types of optics	lens
dimensions [mm]	2108/51/1325

- Colour temperature 2700 - 6500 K
- Dual-zone lighting with automatic light-level adjustment
- Mobile design ideal for dynamic office spaces
- Motion and light sensors optimise energy consumption



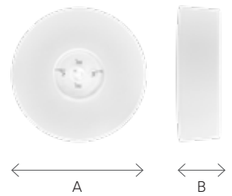


Dot CS LED Evo

IP 65 | IK 07 | lm/W 150

rated power [W]	3
luminous flux [lm]	450
mounting method	surface-mounted, flush-mounted
body material	PC
body colour	■□
diffuser material	PMMA
diffuser type	lens
dimensions [mm]	ø140/40

- Self-contained 3 W LED emergency luminaire (450 lm) with a built-in Li-ion battery (1 h or 3 h)
- Available with four optic options: general and corridor optics, each in wide and narrow versions
- Self-test version
- CNBOP certified
- 5-year warranty



OUR LUMINAIRES

SECURITY AREAS



Safelite

IP	IK	lm/W
65/42	08	85

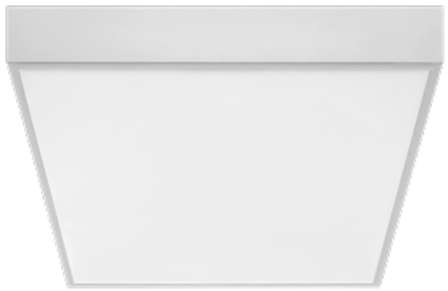
rated power [W]	1.2, 3.2
luminous flux [lm]	100, 250
mounting method	surface-mounted, flush-mounted
body material	PC
body colour	☐
diffuser material	PC
diffuser type	PRM
dimensions [mm]	270/119, 371/170

- Versions intended for illuminating directional evacuation signs available
- High ingress protection – IP65
- Operating mode: emergency or emergency–network
- Autonomy: 1h/3h
- Ni-Cd battery



OUR LUMINAIRES

SECURITY AREAS

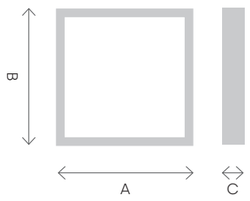


SQ 300 LED Plus

IP	IK	lm/W
54	08	96

rated power [W]	13 - 31
luminous flux [lm]	1300 - 3100
mounting method	surface-mounted
body material	ABS
body colour	■□
diffuser material	PS
diffuser type	OPAL
dimensions [mm]	300/300/58

- The luminaire is ENEC certified
- Low weight
- Fast, simple installation
- High impact resistance
- High ingress protection class



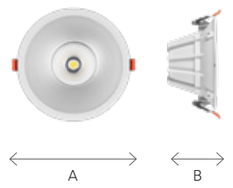


Tiunne Plus 90/160/200

IP	IK	lm/W
65/20	08	120

rated power [W]	8 - 36
luminous flux [lm]	360 - 3800
mounting method	flush-mounted
body material	powder-coated aluminium
body colour	■□
diffuser material	PC
diffuser type	transparent
dimensions [mm]	Ø215/108,5, Ø170/98, Ø96/73

- Low UGR<14
- Aluminium body guarantees a low COB temperature, ensuring longer lifespan
- 15° and 60° light distributions
- Design tailored to the interior. Reflectors available in white, black, metallised and satin finishes.



EXTERNAL INFRASTRUCTURE REQUIREMENTS

External infrastructure and car park lighting serves two functions: physical site security (integration with CCTV and PIDS) and the safety of heavy-vehicle traffic. Tier III/Tier IV facilities require enhanced perimeter security, which influences the specification of the luminaires.

It is essential for the lighting to be continuously dimmable. In standby mode, lighting along the fence can operate at reduced output (10 - 20%), significantly reducing energy consumption. When PIDS detects a breach, however, the affected section should immediately increase to 100% output, dazzling the intruder and giving CCTV cameras optimum conditions for identification.



The angle of incidence must also be selected to protect the site's own cameras – light directed straight into the lens overexposes the image, helping to conceal rather than reveal an intruder. Asymmetric optics are therefore a good solution, directing the luminous flux along the fence line and downwards without spilling light towards the camera.

The same requirement (ULOR = 0%) protects the surroundings: all light is directed onto the ground rather than escaping into the sky or towards neighbouring properties. This can help address objections raised by local communities, which are common when new data centres are developed.



EXTERNAL INFRASTRUCTURE REQUIREMENTS

▼ Area	▼ Parameter	▼ Requirement	▼ Notes
External infrastructure	Illuminance	As specified in the design	Tailored to the function of each area
	Vertical illuminance	Adequate at face height and at number-plate level	Supports ANPR and CCTV systems
	Glare	Limited	No glare for drivers or security staff
Perimeter fence / PIDS zone	Illuminance	10 - 20 lx	Continuous illumination of the strip along the fence
	Integration with PIDS / CCTV	Automatic control	Ability to increase output to 100% in the event of an alarm

▼ Area	▼ Parameter	▼ Requirement	▼ Notes
Car parks / loading docks / access roads	Impact resistance (IK)	min. IK09–IK10	Resistance to impacts, vibration and heavy-vehicle traffic
	Ingress protection (IP)	min. IP66 / IP67	Protection against dust, rain and water jets
	Impact resistance (IK)	min. IK08–IK10	Protection against vandalism and mechanical damage
	Operating temperature range	Wide	Operation in winter and summer conditions
	Surge protection (SPD)	min. 10 kV / 20 kV	Protection of LED drivers and the control bus
	Dark Sky / ULOR	ULOR = 0%	No light emission towards the sky
	CCTV / Smart Outdoor	Integration with the control system	Intelligent lighting control and integration with the monitoring system

OUR LUMINAIRES

EXTERNAL INFRASTRUCTURE



Quest LED EVO

IP	IK	lm/W
67	10	193

rated power [W]	20 - 297
luminous flux [lm]	2800 - 48900
mounting method	surface-mounted, suspended, high-bay (surface-mounted), recessed
body material	powder-coated die-cast aluminium
body colour	
diffuser material	tempered glass
diffuser type	transparent
dimensions [mm]	XS: 279/220/57 S: 263/403/57 M:324/550/57 L: 375/550/57

- RGBW versions available for illuminating building façades
- 7.5° graduated steel arm attached to the body
- Die-cast aluminium body in corrosion class C5
- A wide selection of optics, including asymmetric options, provides extensive configuration flexibility



OUR LUMINAIRES

EXTERNAL INFRASTRUCTURE

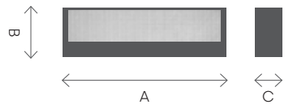


Terraco LED

IP	IK	lm/W
54	04	133

rated power [W]	8 - 17
luminous flux [lm]	250 - 1600
mounting method	surface-mounted
body material	aluminium
body colour	
diffuser material	PMMA
diffuser type	OPAL
dimensions [mm]	260/110/100

- A wide range of versions with different luminous surfaces allows the luminaire to be used in many locations and orientations – vertically or horizontally
- Its small dimensions enhance its versatility – it can effectively light up recessed areas and hard-to-reach spots



OUR LUMINAIRES

EXTERNAL INFRASTRUCTURE

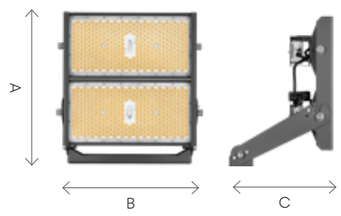


Factor LED XL

IP	IK	lm/W
66	09	171

rated power [W]	101 - 1124
luminous flux [lm]	14600 - 150800
mounting method	on a pole, construction barriers, flat surfaces or a bracket
body material	powder-coated aluminium
body colour	■
diffuser material	PC, tempered glass
diffuser type	lenticular arrays, transparent
dimensions [mm]	191/425/217, 385/425/340, 580/425/340, 774/425/340 1084/624/238

- C5-M and XL versions available
- Very high power
- Resistant to moisture, dust and temperature extremes
- Compliant with EN 60598-2
- Passive cooling system
- Suitable for operation at elevated temperatures, C5-M





Tiara 2 LED

IP	IK	lm/W
66	09	193

rated power [W]	8 - 109
luminous flux [lm]	900 - 13200
mounting method	to the pole -30°+30° on the bracket -30°+30°
body material	high-pressure aluminium powder coated
body colour	■
diffuser material	tempered glass
diffuser type	transparent lens
dimensions [mm]	424/251/105, 424/186/105

- Tool-free access to the control gear compartment
- Compatible with the ClueCITY system (NEMA, ZHAGA connectors)
- NTC thermal protection
- Quick disassembly of the optical/electrical assembly without removing the luminaire

COMPLETE LUMINAIRE OVERVIEW

▼ Product	▼ Rooms and areas	▼ IP	▼ IK	▼ lm /W	▼ Notes
Linea S LED	Server rooms, data halls, UPS rooms	IP40	IK03	up to 206	Tool-free connection of light modules, quick connection of modules into lines, 11-core wiring
Linea S LED IP54	Server rooms, data halls, UPS rooms	IP54	IK03	up to 206	Protection against dust and moisture, lens optics, quick installation and servicing
Tytan LED Pro	Battery rooms, UPS rooms, technical areas	IP66	IK09	up to 178	Replaceable light module, INOX clips, high impact resistance and ingress protection
Tytan 2 LED Chemo	Battery rooms	IP66	IK09	up to 171	Resistant to ammonia and sulphuric acid vapours; GREENGUARD certified
Tuba IP69K	Battery rooms, roof, external infrastructure	IP69K	IK10	up to 194	Acid-resistant stainless steel, withstands pressure washing at 100 bar at 80 °C
Lumedic SM	Server rooms, data halls (clean rooms)	IP65	IK09	up to 164	Smooth design that minimises contaminant build-up; service access from above
Industry IP66 LED	Data halls, technical rooms	IP66	IK08	up to 163	Aluminium body, tempered glass, 3 light distribution options
Oculus LED Endura	Plant rooms, fan rooms, CRAC/CRAH rooms, high-bay technical areas, rooftops	IP66	IK09	up to 140	Operation at temperatures up to +75 °C; separate driver compartment
Baris 52 LED	Offices, meeting rooms, NOC	IP44	IK06	up to 150	UGR < 19 louvre versions available; Tunable White (HCL); DALI-2
Baris 40 LED UGR Plus	Offices, meeting rooms, NOC	IP44 /20	IK03	up to 150	Parabolic louvre, compatible with DALI control systems
Baris Stand	Offices, meeting rooms, reception	IP20	IK03	up to 131	UGR < 19, DIR/IND lighting, Tunable White (HCL), DALI-2, sensors, mobility
Tiunne Plus	Reception, corridors, offices, washrooms	IP65 /20	IK08	up to 120	UGR < 14, aluminium body ensuring a low COB operating temperature, design suited to interiors
Terra 3 LED	Offices, meeting rooms, reception	IP20	IK03	up to 157	Glare-limiting louvres, high colour consistency: SDCM ≤ 3
Terra Balance	Offices, meeting rooms, reception	IP20	—	up to 111	Acoustic lighting panel made of recycled PET felt, UGR 12 - 19, Tunable White 2700 - 6500 K, DALI integration
Quest LED EVO XS, S, M, L	Roof, car parks, external infrastructure	IP67	IK10	up to 193	Corrosion class C5, RGBW versions, ULOR = 0 (Dark Sky)
Factor LED XL	Roof, masts, car parks	IP66	IK09	up to 171	Passive cooling system, C5-M versions, operation at elevated temperatures
Tiara 2 LED S	Car parks, access roads, external infrastructure	IP66	IK09	up to 193	Compatible with ClueCITY (NEMA, ZHAGA), NTC thermal protection, SPD
Dot CS LED Evo	All areas (evacuation)	IP65	IK07	up to 150	Emergency luminaire, self-test, CNBOP certified, Li-ion battery
Safelite	All areas (evacuation and directional)	IP65 /42	IK08	up to 85	Illuminated escape route signs; emergency duration 1 h/3 h
Contra II LED	Reception, corridors, offices	IP44 /20	IK04	up to 163	Wide range of applications, MULTI version, low UGR with PRM, competitive price
Solanto	Reception, corridors	IP20	—	up to 100	Classic design for public-access areas
Piatto	Reception, corridors, canteen	IP20	IK03	up to 60	Elegant decorative luminaire for public-access areas
Dione LED Plus / AS	Corridors, changing rooms, washrooms, building entrances	IP65	IK10	up to 133	Universal round bulkhead luminaire with high ingress protection and impact resistance, vandal-resistant version
SQ 300 LED Plus	Corridors, changing rooms	IP54	IK08	up to 96	Universal square bulkhead luminaire with high ingress protection and impact resistance
Terraco LED	Building entrances, façades	IP54	IK04	up to 133	Supplementary façade luminaire with dedicated optics

LIGHT
UNDER CONTROL





In a data centre, lighting operates in three modes tailored to the status of the facility: when the area is unoccupied, output is reduced to the level required by CCTV; when personnel enter, presence sensors activate the entrance area and circulation routes; during maintenance, luminaires in the relevant aisle switch to full working output. In CCTV-monitored areas, the lighting never switches off completely – it is only dimmed to standby level.

Control is provided via the DALI-2/D4i protocol, with each luminaire individually addressable. The system reports energy consumption and technical status to the BMS/DCIM, while emergency luminaires perform self-tests with automatic reporting.
The DALI bus is non-routable and physically isolated from the data network. The BMS gateway is installed on a segregated OT network, in line with operators' cybersecurity requirements for the infrastructure.

Web app

Smartphone app

DAY LIGHT HARVESTING

TUNABLE WHITE

HUMAN CENTRIC **LIGHTING**

NOT JUST PARAMETERS

In data centres, lighting is increasingly moving away from a single fixed setting. Illuminance is adjusted to current needs and to the amount of natural daylight entering the room. In NOC areas, gatehouses and administrative rooms, Lena Lighting also uses Tunable White luminaires with colour temperature adjustable from 2700 K to 6500 K, supporting the circadian rhythm of employees working in shifts around the clock, 24/7/365 (Human Centric Lighting).

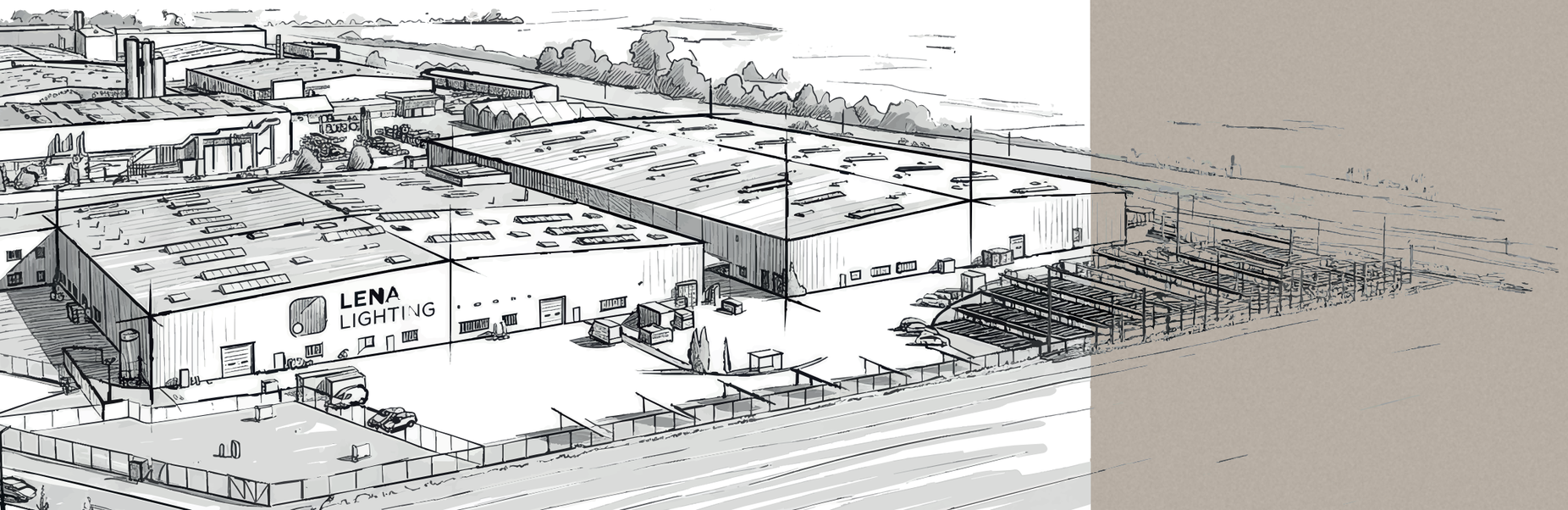
Control is based on the open DALI-2 protocol, allowing HCL control, presence sensors (PIR/MWD, PIR/HF) and daylight sensors (Daylight Harvesting) to be integrated into a single, coherent building management system. In meeting rooms, the system integrates with AV panels (Crestron, Extron) to run pre-programmed lighting scenes tailored to the type of meeting.

Regardless of the area, the drivers in all controlled luminaires meet stringent flicker-free criteria (PstLM ≤ 1.0; SVM ≤ 0.4 – in accordance with Regulation (EU) 2019/2020) – essential for long hours of work in front of monitors and video walls, and for maintaining CCTV image quality.

MADE IN POLAND

As a lighting manufacturer with 37 years of market presence, we know everything about luminaires and lighting systems: we design, test and manufacture them comprehensively. We combine practical experience with modern technology.

37+ YEARS OF EXPERIENCE



ADVANCED PRODUCTION FACILITIES

Our modern infrastructure provides a high level of flexibility and operational efficiency.

LIGHTING MARKET LEADER

Every year, we manufacture millions of luminaires, strengthening our position both in Poland and internationally.

INNOVATIVE DESIGN

We use the latest technological advances to create modern, energy-efficient solutions.

COOPERATION WITH GLOBAL LEADERS

We work with leading manufacturers of electrical components, which enables us to implement unique solutions.

ENERGY EFFICIENCY AND LIGHTING QUALITY

Our technological innovations reduce energy consumption while improving lighting performance.

CONTINUOUS TECHNOLOGICAL IMPROVEMENT

We continuously develop our know-how, implementing the latest LED technologies and lighting control systems.



IT REALLY MATTERS

WE MANUFACTURE IN ACCORDANCE WITH
THE HIGHEST ENVIRONMENTAL STANDARDS

Our awareness of how important environmental responsibility is for us and future generations motivates us to make every effort to offer top-quality, energy-efficient products, while ensuring that the entire manufacturing process and the technologies used have no negative impact on the ecosystem.

Our efforts and their effectiveness have been confirmed by ISO 14001 certification. This means that Lena Lighting has successfully implemented an environmental management system. The primary objective of this system is to create conditions for the company to operate while minimising its negative impact on the natural environment.
We have already achieved this, but we continue – and will continue – to invest in technology and expertise aimed, among other things, at protecting the natural environment.

ECO
FRIENDLY

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