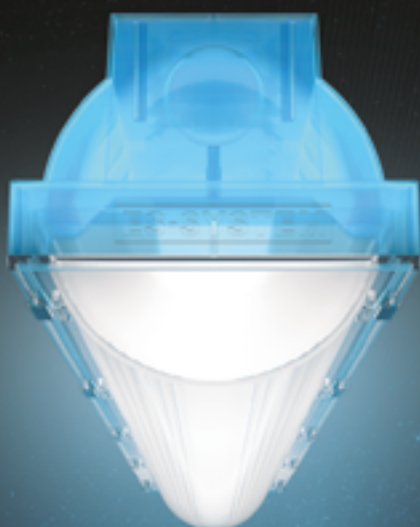


COSMO^{FX}



ES-SYSTEM
Light is Life

COSMO FX SYSTEM

Suitable for All Environments

COSMO ECLIPSE

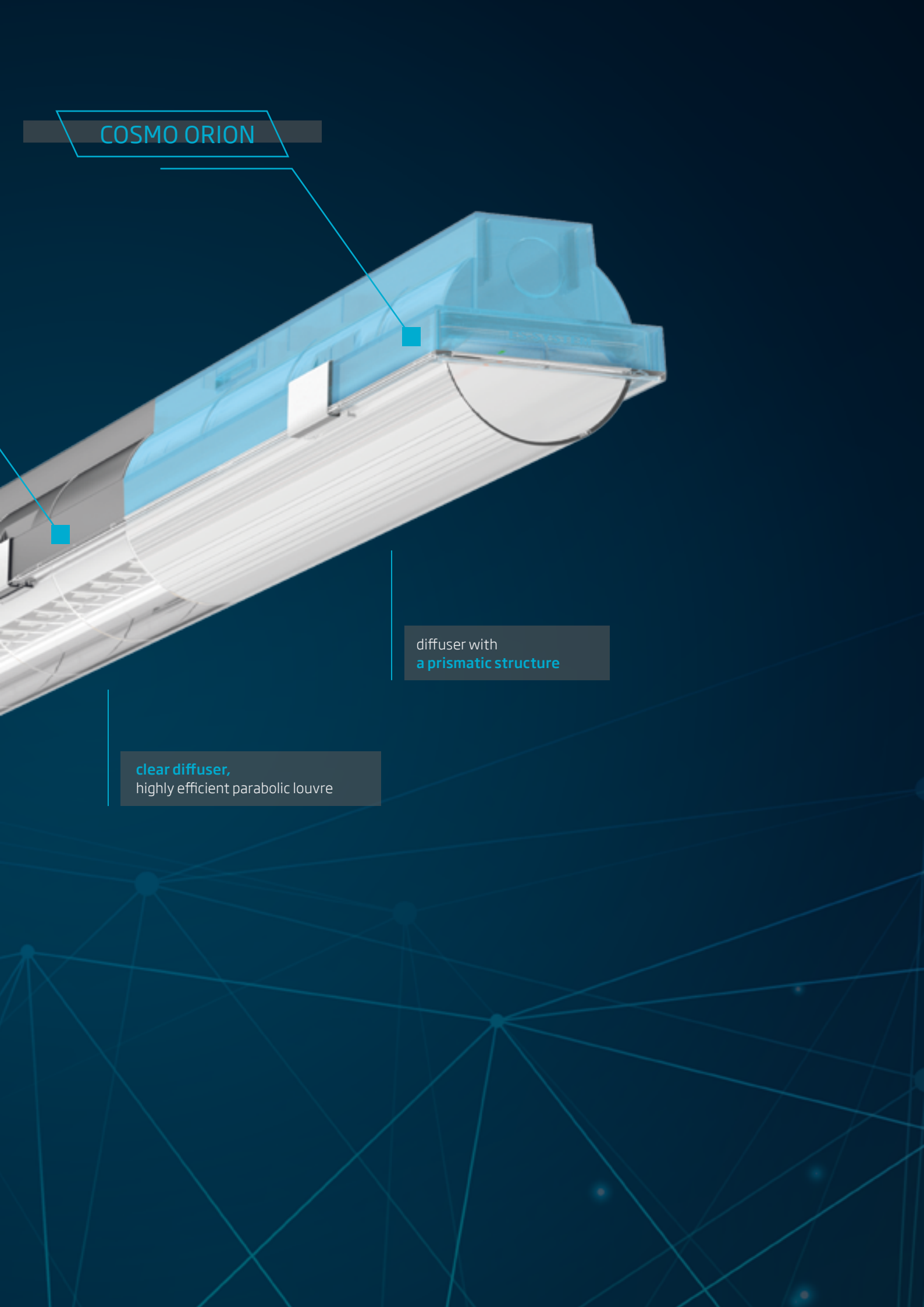
COSMO APEX

COSMO NOVA

diffuser with
a prismatic structure

3 dedicated lens optics,
a clear diffuser with a choice of me-
dium-wide, narrow and asymmetrical
beam angles

COSMO ORION



diffuser with
a prismatic structure

clear diffuser,
highly efficient parabolic louvre

Command center



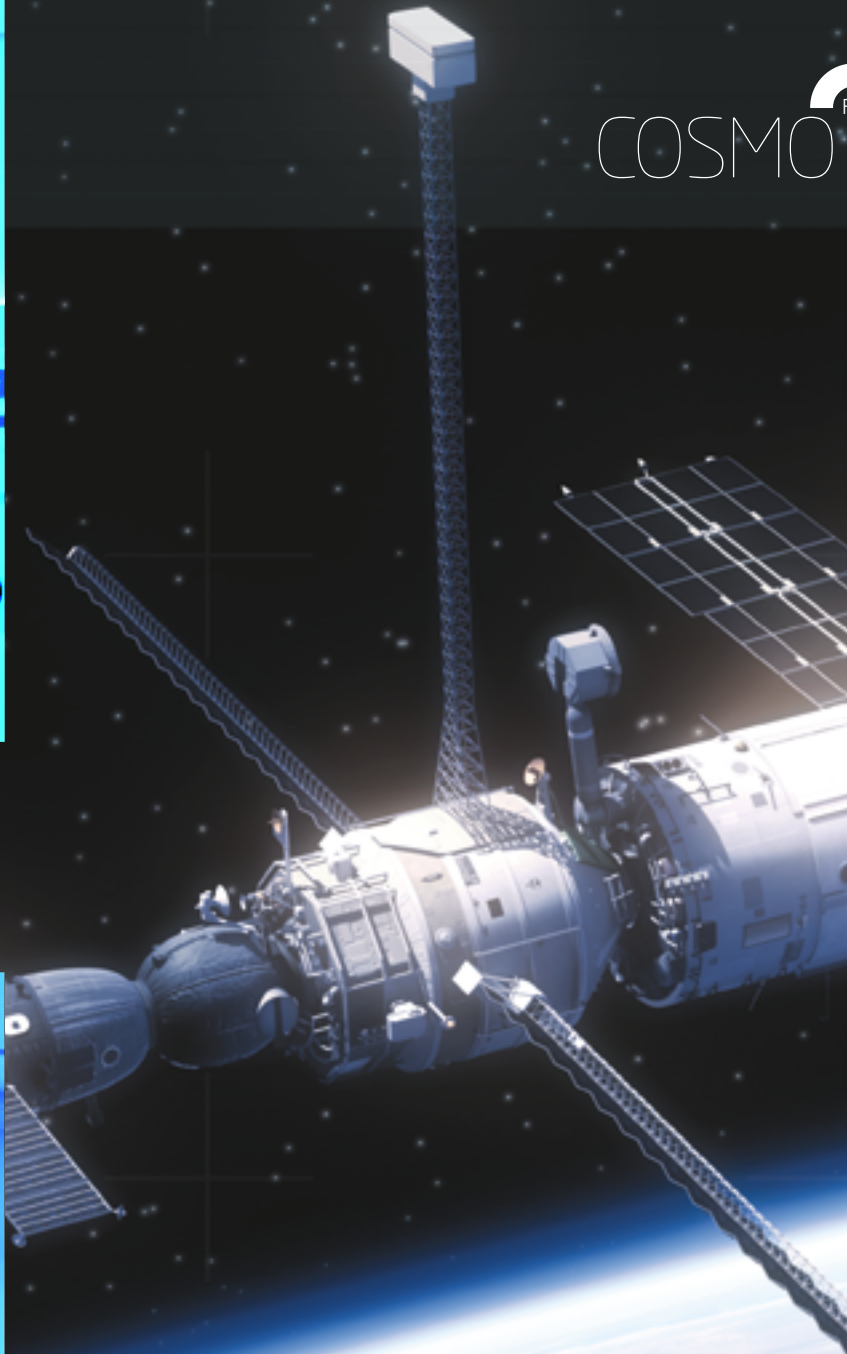
COSMO ECLIPSE
COSMO ORION

COSMO

Crew quarters

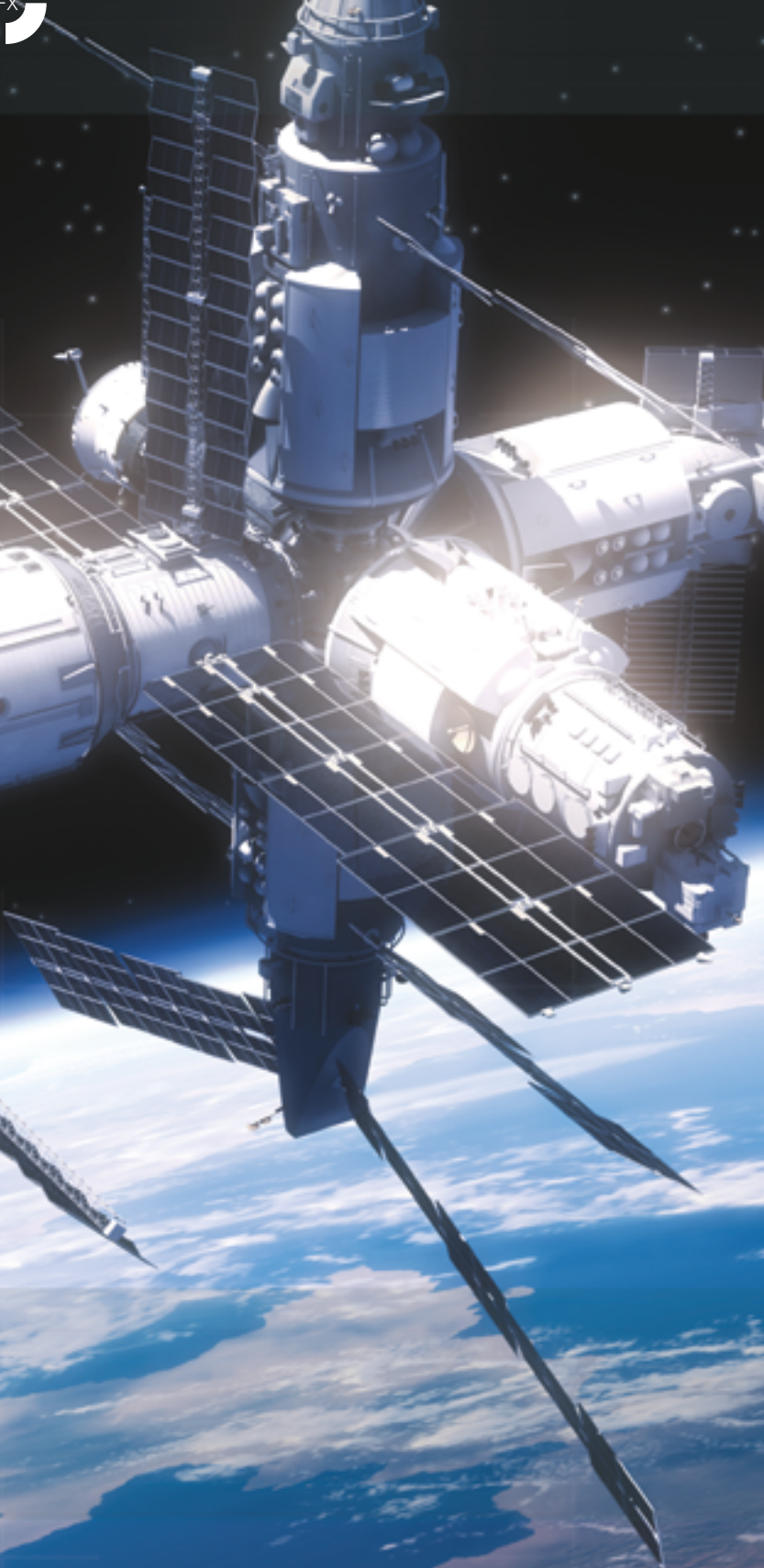


COSMO ECLIPSE
COSMO APEX

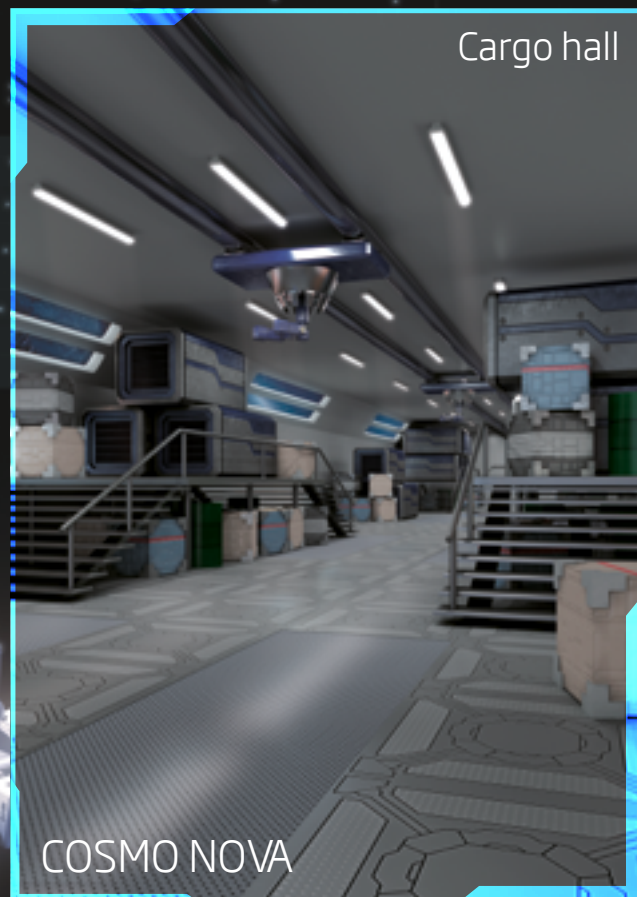


COSMO FX is a family of products designed to solve all types of lighting challenges using a single system

is versatile



Cargo hall

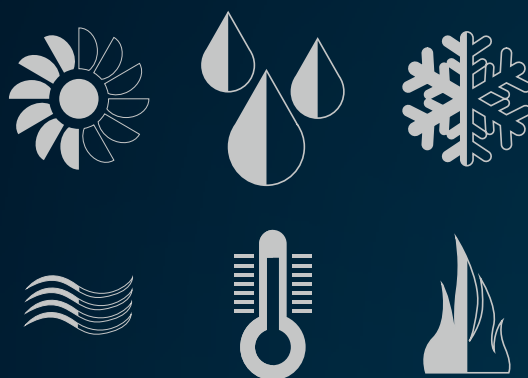


COSMO NOVA

Corridors



COSMO APEX
COSMO ORION



- EFFICIENT THERMAL MANAGEMENT
from -40°C to + 50°C
- MOISTURE PROOF
- IP66

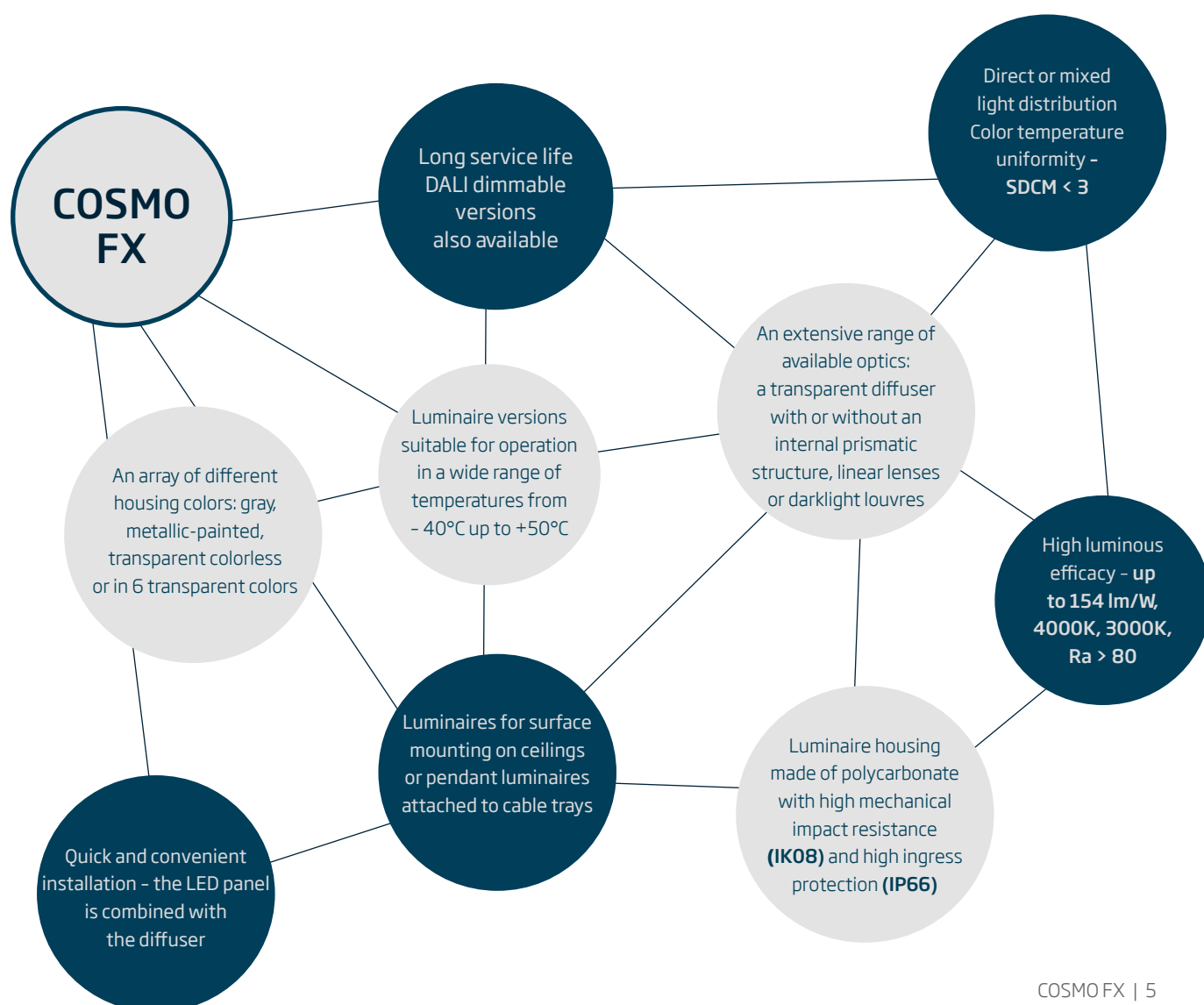
LED LUMINAIRES FOR VERSATILE APPLICATIONS

The COSMO FX luminaire family is dedicated to individual clients as well as professional lighting specialists, such as commercial and municipal investors, designers, architects, electricians and wholesale distributors. It features modern, versatile and easily maintained luminaires with an increased resistance to adverse environmental conditions.

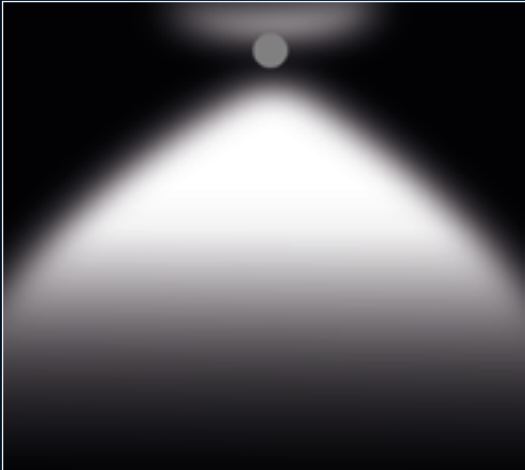
The luminaire housing is made of polycarbonate with high mechanical impact resistance rating of IK08 and IP66 ingress protection. Because the luminaires have been optimized for use with LED technology, their parameters exceed those achieved by similar competitive products, despite their compact size and low weight. In addition,

the original design of the housing has been emphasized by making several color options available. The use of varied optics provides high-quality lighting. All these features make the COSMO FX family a comprehensive solution that is a perfect fit for numerous lighting applications including residential, office buildings, schools and industrial facilities.

A versatile family of compact luminaires for general lighting which have been optimized for LED technology and are characterized by their unique design and increased resistance to adverse environmental conditions.



PERFECT LIGHT DISTRIBUTION



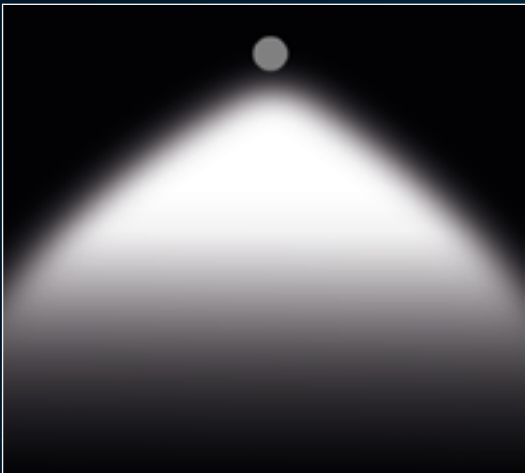
COSMO ORION

- mixed light distribution – direct and indirect
- direct light distribution is optimized to evenly illuminate the work area
- indirect light distribution is designed for accent lighting, also in color, giving the interior a unique character



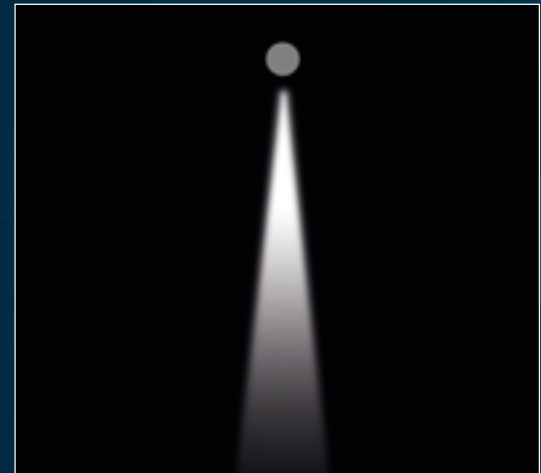
COSMO ECLIPSE

- uniform illumination of the work area with reduced glare
- a high-quality technical luminaire which is also suitable for use in offices



COSMO APEX

- in production areas, the emphasis is placed on the uniform illumination of surfaces
- machines and manufacturing areas can be planned and used independently of the lighting solution. This allows flexible production concepts without any need for action as far as luminaire positioning is concerned



COSMO NOVA

- illuminance levels have been optimized for medium and high racking; the focus is on aisle areas
- a specially designed and installed solution will provide uniform illumination of aisle areas and shelf surfaces

SMART LIGHTING

It has become increasingly important for employers to provide a comfortable working environment for their employees, while optimizing the installation cost. So how can we provide employees with a space that will contribute to working effectively and reduce office energy consumption?

The best solution is to create an “intelligent workplace” by using the latest in software, sensor and lighting technology. ES-SYSTEM uses the DALI system which makes it possible to program lighting precisely according to the customer’s preferences. Thanks to special multisensors, this solution not only saves energy by maintaining a constant light intensity on the work plane, but it also imitates natural daylight conditions. In addition, DALI technology allows you to personalize the selected luminaire and control it via mobile devices.

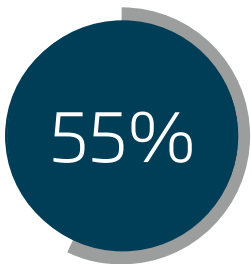
The system detects the presence of employees in individual spaces. The light then follows the employee, simultaneously taking into account the time of day and

even the weather outside. In the evenings, when there are only a few people or a cleaning crew left in the area, there is no need to light an entire floor of the building. Instead of keeping all the luminaires on, it’s better to target which workplaces should remain lit in order to provide working comfort. This solution grants the users complete control over the lighting and additionally protects against unauthorized use by applying a high level of encryption. Our system can also be used with software that provides a full bird’s eye visualization and monitoring of the lighting installation, collecting a multitude of data related to maintenance and energy consumption.

CASE STUDY

Luminaire	COSMO APEX
Floor space	10,000 m ²
Number of luminaires	528
Energy consumption	25,872 W
Energy consumption using conventional light sources	57,288 W
Energy demand	0.78 W/m ² /100 lx
Energy demand using conventional light sources	1.83 W/m ² /100 lx

Energy savings compared to conventional luminaires:



COUNTLESS

STORAGE

COSMO APEX

COSMO NOVA

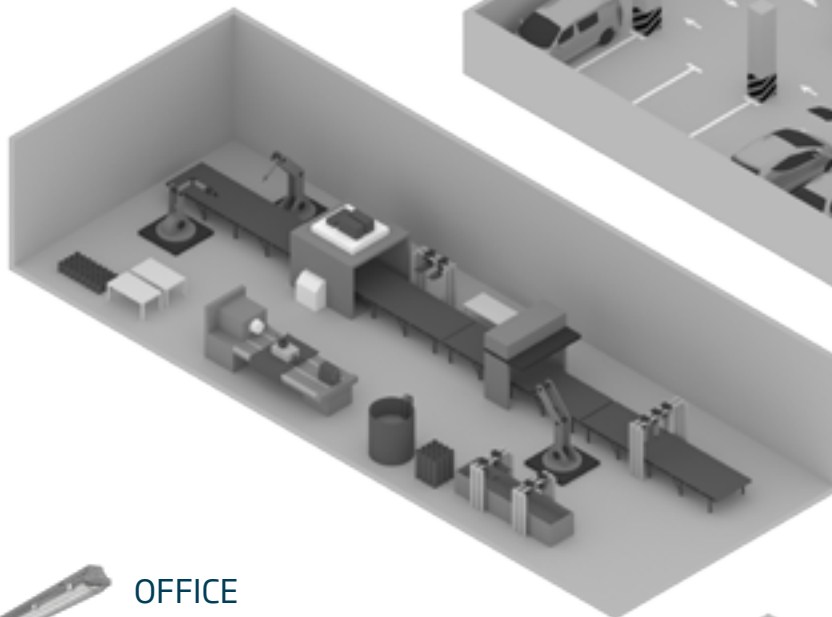
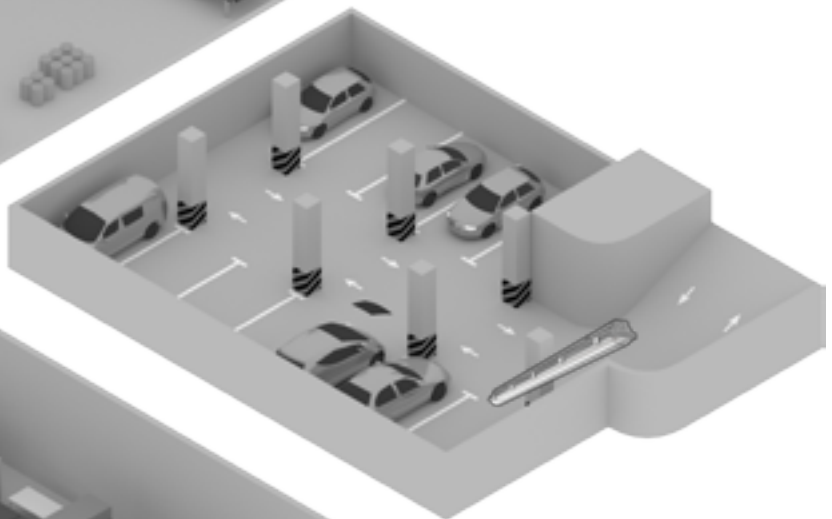


PARKING LOT

COSMO APEX

COSMO NOVA

COSMO ORION



PRODUCTION PLANT

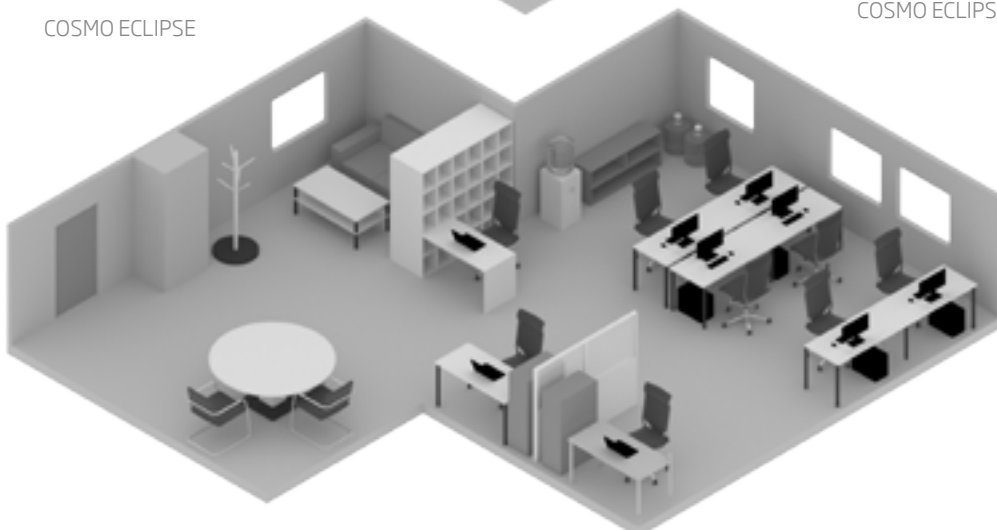
COSMO APEX

COSMO NOVA

COSMO ECLIPSE

OFFICE

COSMO ECLIPSE



APPLICATIONS



APARTMENT

COSMO ECLIPSE
COSMO ORION



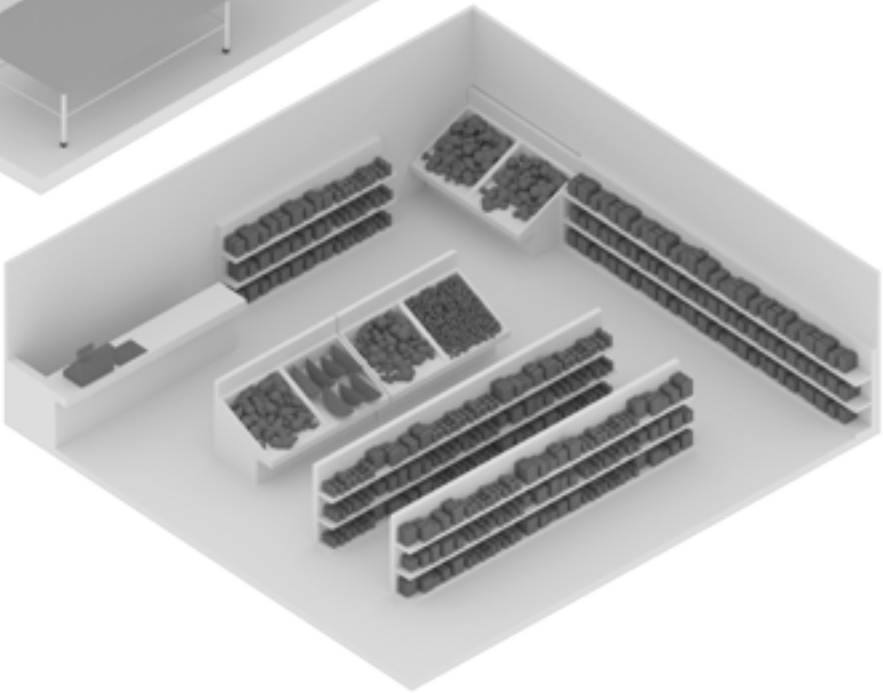
MEDICAL

COSMO ECLIPSE



RETAIL

COSMO APEX
COSMO NOVA
COSMO ORION



COSMO ORION

Practical, colorful, inspiring

A luminaire made of polycarbonate, with a transparent, illuminated and colorful housing and a diffuser with prismatic structure. This internal structure breaks up the direct view of the LEDs and provides uniform light distribution. An ideal product for areas requiring protection against the ingress of water, dust and solid objects that also makes it possible to creatively arrange spaces with a touch of color.

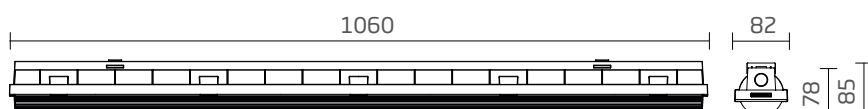
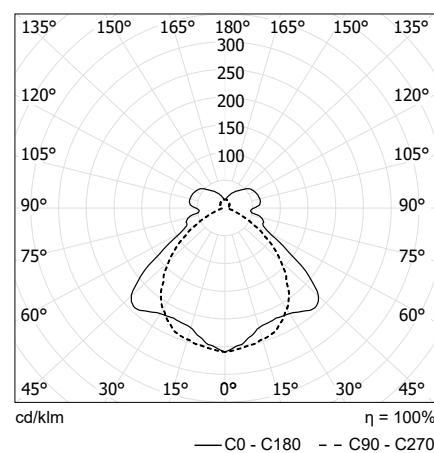


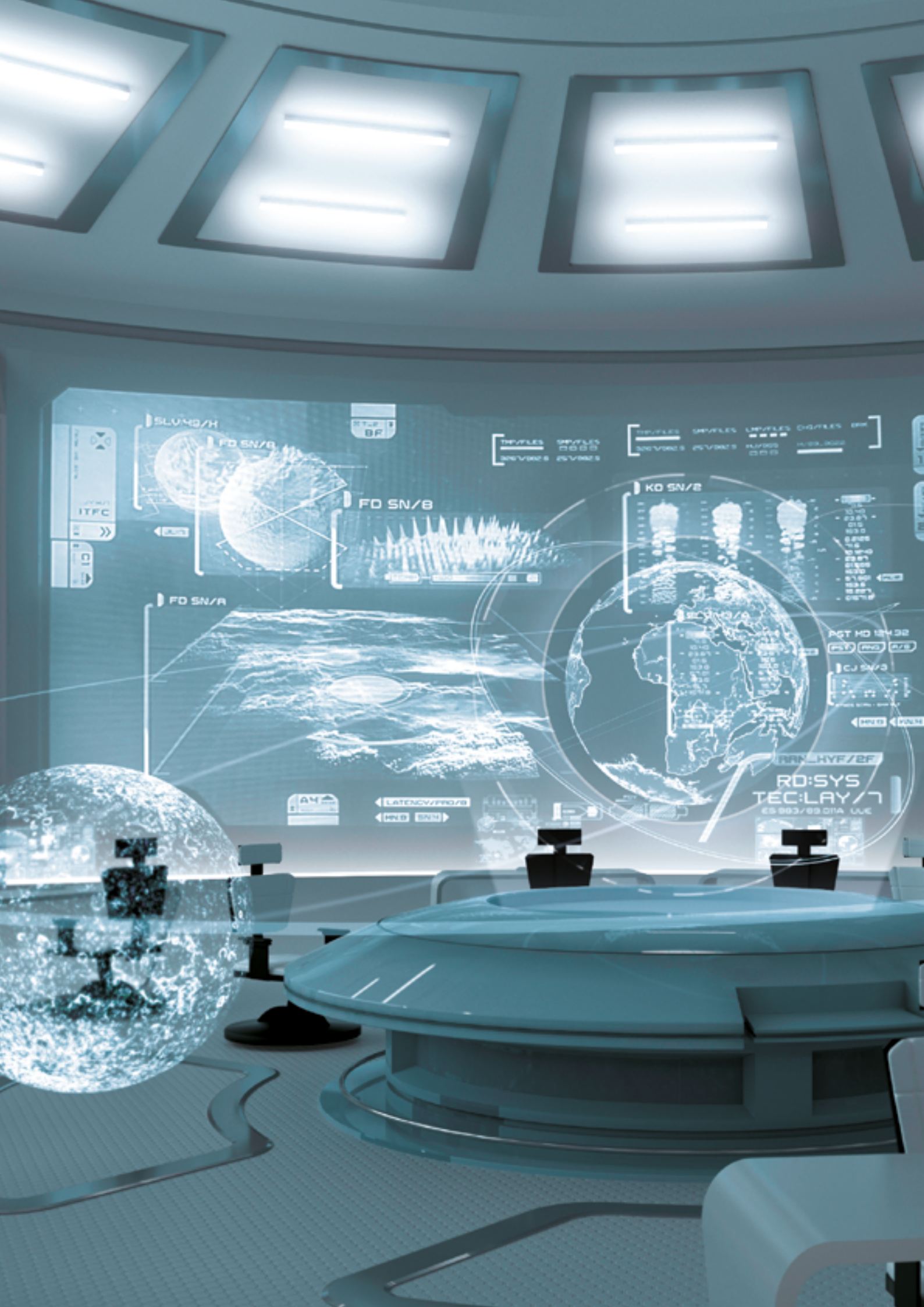
- Luminaire housing made of polycarbonate with high mechanical impact resistance (**IK08**) and high ingress protection (**IP66**)
- A backlit housing available in transparent colorless and colorful variants - mixed light distribution
- A diffuser with a prismatic structure which guarantees uniform distribution and reduces glare
- Long service life
- DALI dimmable versions also available
- Color temperature uniformity - SDCM < 3 for white light
- Casambi ready
- up to 144/118 lm/W
- 360° light distribution

COSMO ORION is a waterproof luminaire, class I, IP66, 230 V, for office or hospital as much as a tough industrial conditions, with low energy consumption and a luminaire efficacy: up to 144/118 lm/W, luminous flux: 4400-5200 lm, system power 44 W. High mechanical impact resistance (IK08). With high efficiency LED, DALI dim driver, 82 000 hours LED lifetime for L70B50 (nominal value); CRI > 80, 4000K neutral-white or 3000K warm light color, color temperature uniformity - SDCM < 3. Dimensions (LxWxH) 1060x82x78 mm. Easy ceiling-and wall fixation with a flexible bracket, accessories for chain suspension and screws included, low weight of only 1.9 kg. Pendant version also available. Housing made from polycarbonate, cover fixation clips from stainless steel. A backlit housing available in transparent colorless and colorful variants, mixed light distribution. A diffuser with internal light-diffusing structure which also reduces glare and makes the LEDs less visible. Luminaire versions suitable for operation in a wide range of ambient temperatures from -20°C up to +25°C. Equipped with numerous access holes for cabling. The luminaires' colors can be used to highlight certain separately defined areas in different spaces, such as different zones within large parking lots. The dominant color in a given room can be emphasized, or the color scheme of a particular brand can be accentuated. Visual guidance arrangements can be created in rooms, for example in the form of a colorful trail among COSMO ORION luminaires. Colorful geometric shapes can be arranged along a "pixel grid" created by evenly distributed COSMO ORION luminaires. Designed for communication areas, car parks, residential, offices, education, healthcare and creative installations.



Luminaire	ceiling mounted, wall mounted or pendant
Style	modern
Light - direction	direct and indirect
Light - allocation/distribution	mixed light distribution, wide beam
Shape /Form	rectangular
Color	a backlit housing available in transparent colorless and colorful variants
Housing material	polycarbonate
Optics	PC with an internal light-diffusing structure
CRI	> 80
Impact resistance	IK08
Dimming	On/Off or DALI
Max. efficacy	144/118 lm/W
Power	44 W
Luminous flux	4400-5200 lm
Ingress protection	IP66
Certification (approval mark /test symbol)	D - luminaires with a limited housing temperature according to EN 60598-2-24, CE
Safety class	I
Operation temp.	-20°C / +25°C
Net weight in kilograms	1.90 kg
Housing dimensions	1060x82x78 mm
Power supply	230V AC
Color temperature	3000K, 4000K
Additional options	presence and ambient light detection, Bluetooth Mesh light management





SLV48/H

FD SN/8

FD SN/8

KD SN/8

FD SN/R

RD:SYS
TEC:LAY/7
ES 883/89 DIA UUC

PST HD 124.32
CJ SN/3
PST HD 124.32
CJ SN/3

LATENCY/PROB
PROB SNM



HEALTHY LIGHT

LEDs provide better quality and healthier light. All ES-SYSTEM products are tested for photobiological safety and obtain relevant certificates. Assessing the level of photobiological threat that can come from optical radiation emitted from luminaires is a complicated process. It requires access to specialized, calibrated measuring equipment and laboratory personnel with the highest technical competences.

ES-SYSTEM has its own testing laboratory which operates according to SMT procedures (Supervised Manufacturer's Testing - one of two manufacturer laboratories of this type in Poland), performing comprehensive photobiological testing. The classification of luminaires in terms of their photobiological impact is based on risk groups which are defined as follows:

Risk-free group 0:

Luminaires that do not pose a threat due to photobiological hazards

Risk-free group 1:

Luminaires that are not hazardous in normal conditions of use

Risk-free group 2:

Luminaires that do not pose a threat due to an aversion to very bright light sources or thermal discomfort

Risk-free group 3:

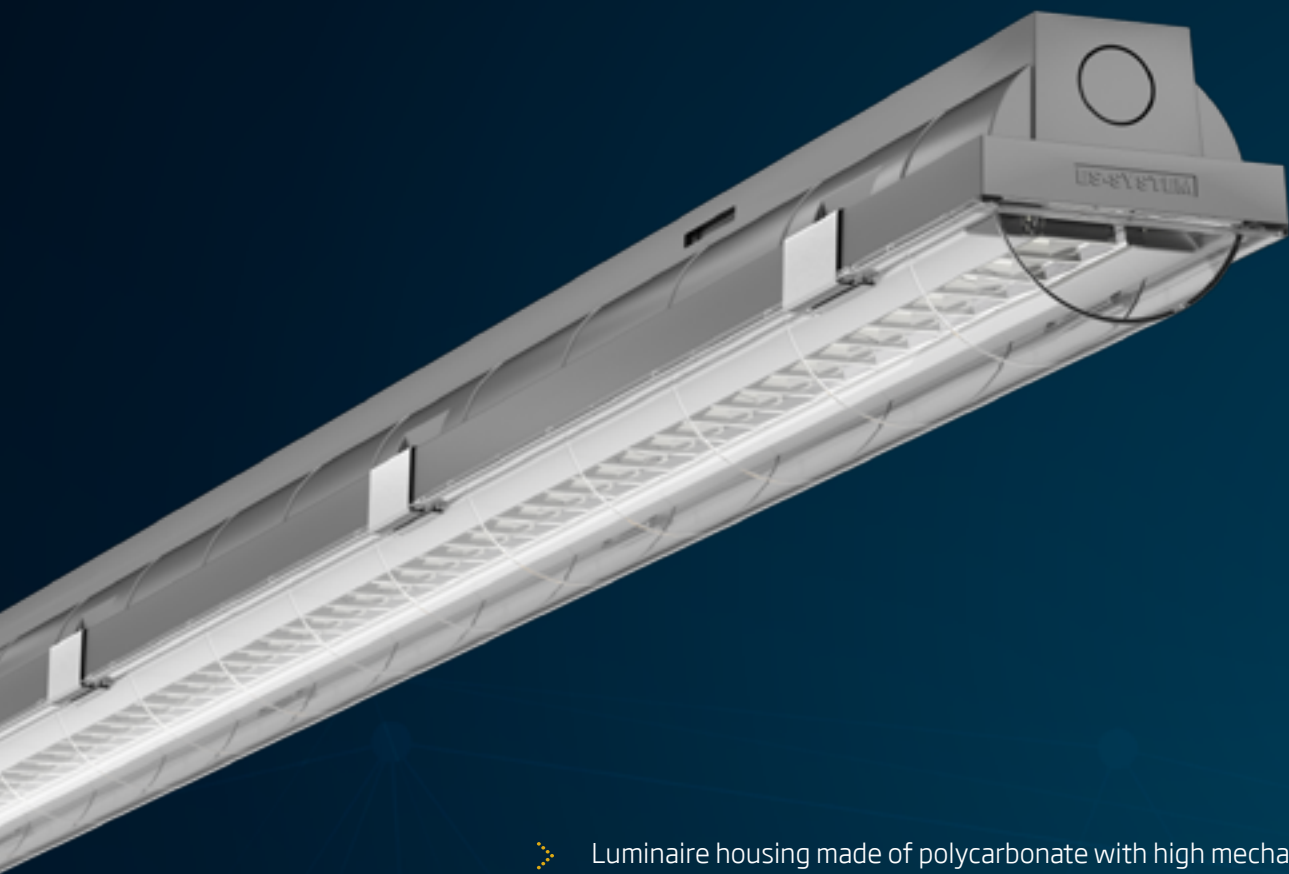
Luminaires that are hazardous even following temporary or brief exposure. Their use in general lighting is not permitted

Most ES-SYSTEM luminaires are classified as risk-free in group 0, which means that they do not pose a photobiological risk. This has been confirmed by the appropriate certificates.

COSMO ECLIPSE

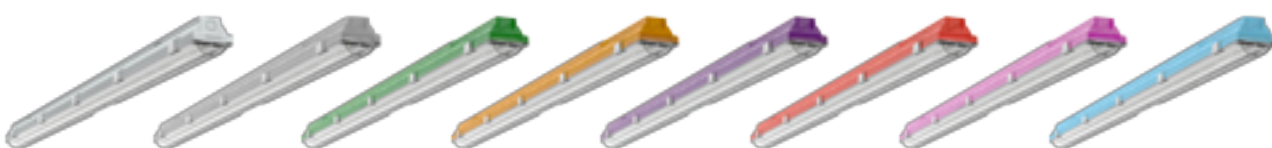
Low glare - „dark light“

High luminous efficacy, high ingress protection, smoothly adjustable light output, good color rendering and low glare thanks to the use of a high-quality parabolic louvre. The luminaire is a great choice for offices as much as tough industrial environments.

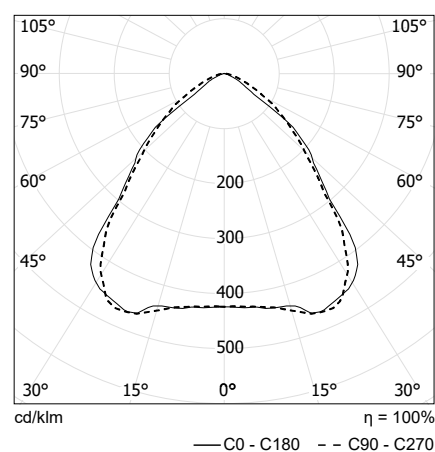


- Luminaire housing made of polycarbonate with high mechanical impact resistance (**IK08**) and high ingress protection (**IP66**)
- Metallic-painted or gray housing, versions in 7 transparent colors (available on request)
- A transparent diffuser with parabolic darklight louvre which reduces glare and enhances the luminaire's aesthetics
- High luminous efficacy - up to 128 lm/W, 4000K, 3000K, Ra > 80
- Long service life
- DALI dimmable versions also available
- Color temperature uniformity - SDCM < 3
- 60° cutoff angle

COSMOECLIPSE is a waterproof luminaire, class I, IP66, 230V, for office or hospital as much as a tough industrial conditions, with low energy consumption due to highly efficient precision lens optics, luminaire efficacy: up to 128 lm/W, luminous flux: 3500-6400 lm, system power 32-50 W. High mechanical impact resistance (IK08). A transparent diffuser with extra optics in the form of a parabolic darklight louvre which reduces glare and enhances the luminaire's aesthetics. With highly efficient quality LEDs, DALI dim driver, 76 000 hours LED lifetime for L70B50 (nominal value); CRI > 80, 4000K neutral-white or 3000K warm light color, color temperature uniformity - SDCM < 3. Dimensions (LxWxH) 1060x82x78 mm. Easy ceiling-and wall fixation with a flexible bracket, accessories for chain suspension and screws included, low weight of only 1.6 kg. Pendant version also available. Housing made from polycarbonate, cover fixation clips from stainless steel. Gray or metallic-painted housing. Luminaire versions suitable for operation in a wide range of ambient temperatures from -20°C up to +25°C. Equipped with numerous access holes for cabling. Designed for technical rooms with higher glare reduction requirements, apartments and office spaces, including rooms where work is done in front of a computer.



Luminaire	ceiling mounted, wall mounted or pendant
Style	modern
Light - direction	direct
Light - allocation/distribution	symmetrical, wide beam
Shape /Form	rectangular
Color	metallic painted PC housing, versions in 7 transparent colors, or gray, in mass colored PC available on request
Housing material	polycarbonate
Optics	transparent diffuser with extra optics in the form of a parabolic darklight louvre
CRI	> 80
Impact resistance	IK08
Dimming	On/Off or DALI
Max. efficacy	128 lm/W
Power	32-50 W
Luminous flux	3500-6400 lm
Ingress protection	IP66
Certification (approval mark /test symbol)	D - luminaires with a limited housing temperature according to EN 60598-2-24, CE
Safety class	I
Operation temp.	-20°C / +25°C
Net weight in kilograms	1.60 kg
Housing dimensions	1060x82x78 mm
Power supply	230V AC
Color temperature	3000K, 4000K
Additional options	presence and ambient light detection, Bluetooth Mesh light management







HIGH QUALITY LUMINAIRES – RELIABLE LIGHTING SYSTEMS

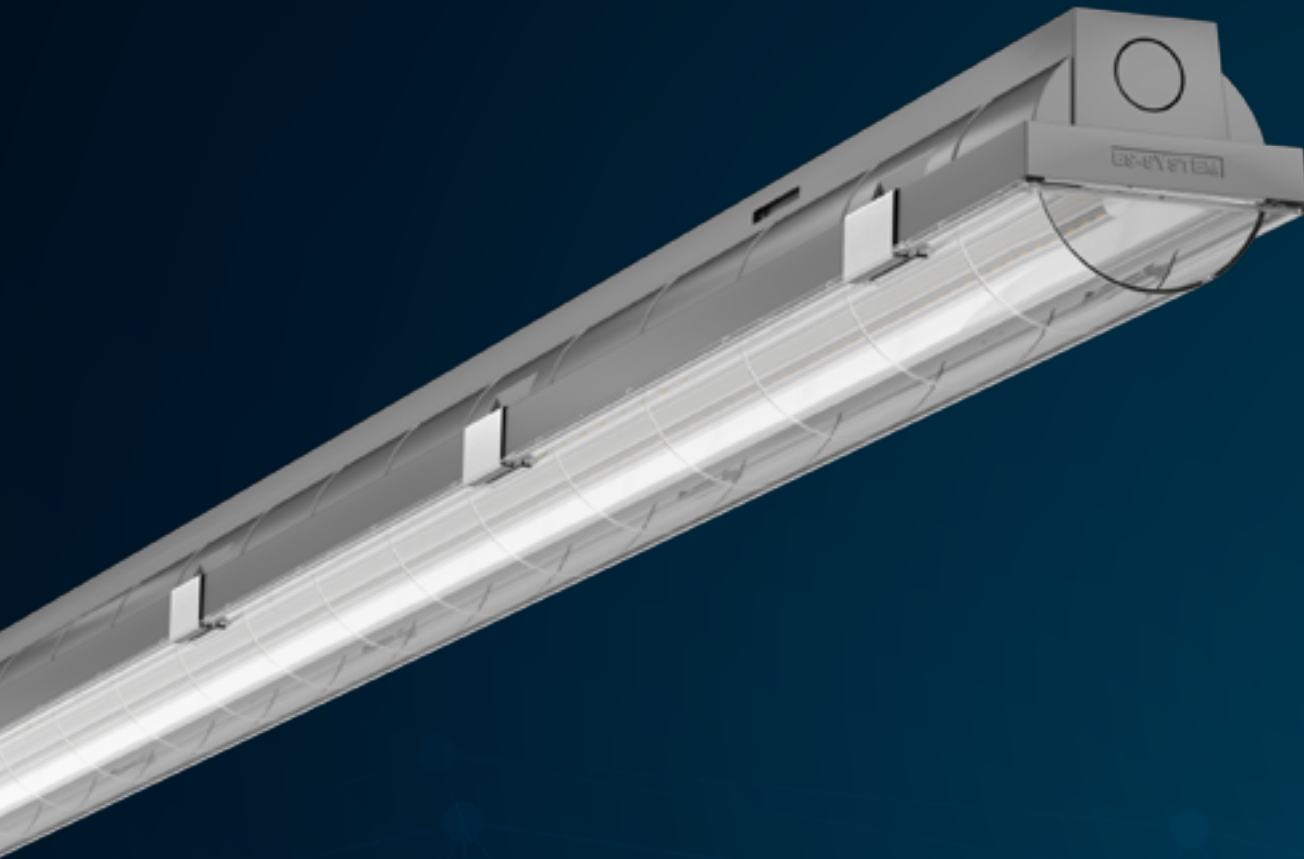
LED technology creates promising possibilities not only in terms of improving the energy efficiency of lighting installations; it also allows for a different, innovative approach towards lighting design challenges in a way that can guarantee the products' broadly defined quality.

High luminous efficacy and functional durability, an instant start and subsequent reignition with full luminous flux, high shock resistance, a smoothly adjustable light output and good color rendering are all factors that make LEDs an interesting alternative to other energy-efficient lighting systems in most applications. Poor quality LED luminaires usually lack most of the above-mentioned advantages, and difficult working conditions in industrial facilities very quickly highlight their imperfections. LED luminaire design that has not been properly thought through will not meet the requirements in terms of its resistance to a dusty and damp working environment or a high operating temperature, which drastically shortens service life.

COSMO NOVA

Suitable for challenging conditions

The choice of three types of lens optics with medium-wide, narrow, or asymmetrical light distribution optimizes the lighting effect while reducing glare. The clear diffuser protects the lenses and makes it easy to keep the luminaires clean.

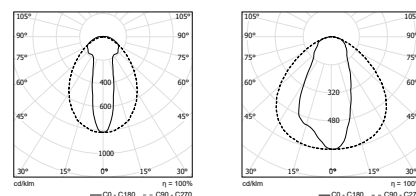
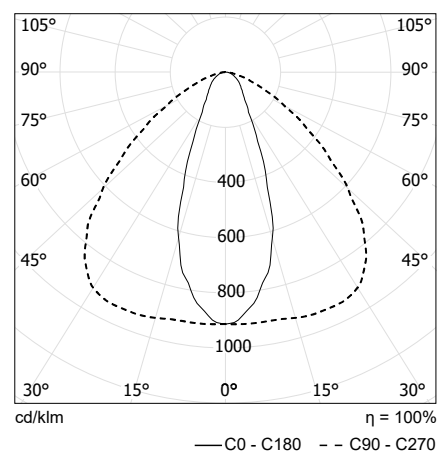


- Luminaire housing made of polycarbonate with high mechanical impact resistance (**IK08**) and high ingress protection (**IP66**)
- Gray or metallic-painted housing
- A transparent diffuser with linear lenses which reduce glare and enhance the lighting efficiency
- High luminous efficacy - up to 145 lm/W, 4000K, 3000K, Ra > 80
- Long service life
- DALI dimmable versions also available
- Color temperature uniformity - SDCM < 3
- Versions suitable for operation in a wide range of temperatures from -40°C to +50°C also available

COSMO NOVA is a waterproof luminaire, class I, IP66, 230 V, for indoor or covered, semi-open areas such as parking garages, with low energy consumption due to highly efficient precision lens optics, luminaire efficacy: up to 145 lm/W, luminous flux: 3800-6000 lm, system power 30-43 W. High mechanical impact resistance (IK08). Optimized 3 optical lenses available for medium wide, narrow or asymmetrical beam lighting distribution. With highly efficient quality LEDs, DALI dim driver, CRI > 80, 4000K neutral-white or 3000K warm light color, color temperature uniformity - SDCM < 3. Dimensions (LxWxH) 1060x82x78 mm. Easy ceiling-and wall fixation with a flexible bracket, accessories for chain suspension and screws included, low weight of only 1.6 kg. Pendant version also available. Housing made from polycarbonate, cover fixation clips from stainless steel. Gray or metallic-painted housing. A transparent diffuser with extra optics in the form of linear lenses which reduce glare and enhance the lighting efficiency. Luminaire versions suitable for operation in a wide range of ambient temperatures from -40°C up to +50°C. Equipped with numerous access holes for cabling. Designed for industry (including food, pharmaceuticals, cosmetics production facilities), and parking applications as well as technical rooms and low and high storage warehouses.



Luminaire	ceiling mounted, wall mounted or pendant
Style	modern
Light - direction	direct
Light - allocation/distribution	3 different optics available (symmetrical, medium wide, narrow or asymmetrical light distribution)
Shape /Form	rectangular
Color	gray or metallic-painted (available on request)
Housing material	polycarbonate
Optics	transparent diffuser with extra optics in the form of linear lenses
CRI	>80
Impact resistance	IK08
Dimming	On/Off or DALI
Max. efficacy	145 lm/W
Power	30-46 W
Luminous flux	3800-6000 lm
Ingress protection	IP66
Certification (approval mark /test symbol)	D - luminaires with a limited housing temperature according to EN 60598-2-24, CE
Safety class	I
Operation temp.	-40°C / +50°C
Net weight in kilograms	1.60 kg and 1.80 kg
Housing dimensions	1060x82x78 mm
Power supply	230V AC
Color temperature	3000K, 4000K
Additional options	presence and ambient light detection, Bluetooth Mesh light management







SPECIFICATION GRADE AND HIGH PERFORMANCE LIGHTING SOLUTIONS

If you are considering a new LED lighting system, you have several decisions to make. The conscious use of LED luminaires is extremely important, so that the products used are a perfect fit for the very specific requirements of each facility. In addition to ensuring the technical adequacy of the designed lighting, it is also essential to provide the users with proper visual comfort. People acquire more than 80% of information about the environment through eyesight, which should translate into being aware of how essential it is to have appropriate lighting that acts as the carrier of this information.

Suitable lighting conditions and the resulting visual comfort have a direct impact on the quality, safety and speed with which tasks are performed at work. When considering a new LED lighting system, we recommend asking 5 important questions:

- What are my current lighting levels?
- What are the best light levels for my facility?
- What color temperature and CRI are the best for my lighting application?
- What light planning and product documentation should I have?
- How do different products compare?

All ES-SYSTEM products are manufactured to exact specification standards and are provided with a photometric report, written documentation, a specification sheet, as well as a written warranty of their expected lifetime performance.

COSMO APEX

Top efficiency, best value

The appropriate distance between the LED modules and the diffuser that is semi-circular in section and has a prismatic structure ensure uniform illumination of its entire surface. COSMO APEX offers unique design and the best price/performance ratio for typical lighting applications in areas requiring increased luminaire ingress protection.

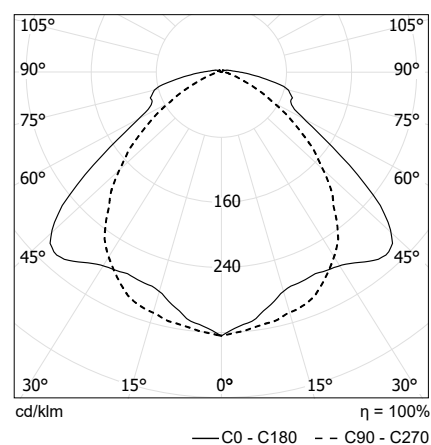


- Luminaire housing made of polycarbonate with high mechanical impact resistance (**IK08**) and high ingress protection (**IP66**)
- Gray or metallic-painted housing
- A diffuser with a prismatic structure which guarantees uniform light distribution, reduces glare and makes the LEDs less visible
- High luminous efficacy - up to 154 lm/W, 4000K, 3000K, Ra > 80
- Long service life
- DALI dimmable versions also available
- Versions suitable for operation in a wide range of temperatures from -40°C to +50°C also available
- Color temperature uniformity - SDCM < 3

COSMO APEX is a waterproof luminaire, class I, IP66, 230 V, for indoor or covered, semi-open areas such as parking garages, with low energy consumption, luminaire efficacy: up to 154 lm/W, luminous flux: 4000-7300lm, system power 27-49 W. High mechanical impact resistance (IK08). Optimized wide beam lighting distribution. Highly efficient quality LEDs, DALI dim driver, 82 000 hours LED lifetime for L7050 (nominal value); CRI >80, 4000K neutral-white or 3000K warm light color, color temperature uniformity - SDCM < 3. Dimensions (LxWxH) 1060x82x78 mm. Easy ceiling-and wall fixation with a flexible bracket, accessories for chain suspension and screws included, low weight of only 1.5 kg. Pendant version also available. Diffuser and housing in self-extinguishing, UV stabilized polycarbonate with a smooth external surface and cover fixation clips from stainless steel. Gray or metallic-painted housing. Reduced individual LED visibility thanks to a high-performance diffuser with prismatic structure that guarantees great lighting efficiency. Luminaire versions suitable for operation in a wide range of ambient temperatures from -40°C up to +50°C. Equipped with numerous access holes for cabling. Designed for industry and parking applications as well as technical rooms, warehouses and sports facilities.



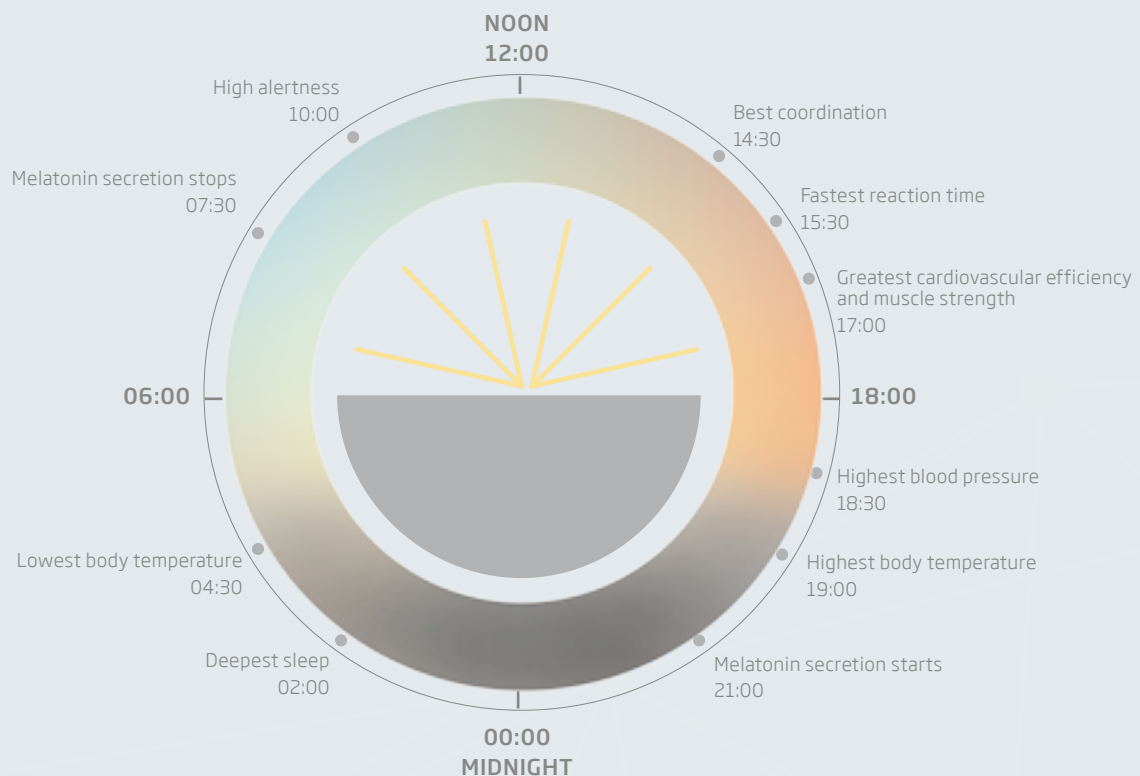
Luminaire	ceiling mounted, wall mounted or pendant
Style	modern
Light - direction	direct
Light - allocation/distribution	symmetrical, wide beam
Shape /Form	rectangular
Color	gray or metallic-painted (available on request)
Housing material	polycarbonate
Optics	PC diffuser with prismatic structure
CRI	>80
Impact resistance	IK08
Dimming	On/Off or DALI
Max. efficacy	154 lm/W
Power	27-49 W
Luminous flux	4000-7300 lm
Ingress protection	IP66
Certification (approval mark /test symbol)	D - luminaires with a limited housing temperature according to EN 60598-2-24, CE
Safety class	I
Operation temp.	-40°C / +50°C
Net weight in kilograms	1.50 or 1.70 kg
Housing dimensions	1060x82x78 mm
Power supply	230V AC
Color temperature	3000K, 4000K
Additional options	presence and ambient light detection, Bluetooth Mesh light management



CIRCADIAN TECHNOLOGY

Human Centric Lighting

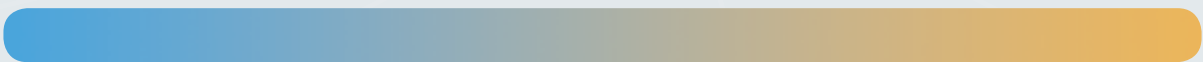
Since light is a potent regulator of the human circadian rhythm, the goal of lighting design should also be to provide illumination for human photobiological response as well as vision.



Nowadays more and more people are struggling with sleep disorders, irritability, apathy, and even depression. Scientists have unequivocally confirmed that these problems are caused by lacking access to daylight. Spending the majority of the day in rooms with limited access to daylight and the seasons with a significantly shorter daytime exposes people to the adverse phenomenon of releasing melatonin at the same level throughout the day. This results in numerous negative consequences, such as: lack of concentration, bad mood, drowsiness, apathy, fatigue, and even depression. This affects learning performance and work efficiency.

Unfortunately, ordinary fluorescent lamps and white LEDs are incapable of effectively replacing daylight. The solutions that are currently available on the market change the color of the light and can influence people's moods, they do not, however, affect the regulation of the circadian rhythm.

In order to minimize the effects of a disrupted circadian rhythm, ES-SYSTEM has expanded its product offer to include luminaires equipped with CIRCADIAN technology. 4000K white light has been enriched with blue and red beams with strictly defined wavelengths. Blue-enriched white light helps to improve alertness and boosts the reaction time only when you need it. On the other hand, red-enriched white light helps with better sleep, improves behavior and mood.



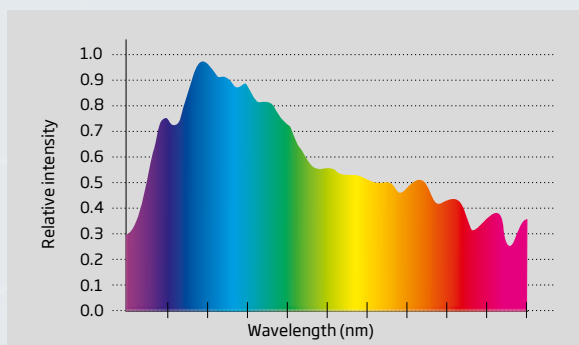
ENERGY IN THE MORNING → HAPPINESS AT MIDDAY → RELAXATION IN THE EVENING

4000K + **blue-enriched white**
light* = approx. 5000K

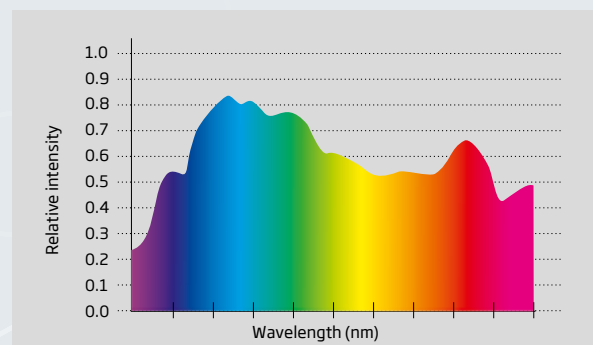
white 4000K

4000K + **red-enriched white**
light* = approx. 3000K

* at strictly defined wavelengths to stimulate non-visual biological effects



morning light spectrum



evening light spectrum

LIGHTING CONTROL SYSTEMS

DALI version

- An electrical installation with 5-core wiring – for power supply and the DALI communication bus
- Installation on the VERTEX controller's power board (code no. 8751003) supporting up to 192 CIRCADIAN luminaires
- For luminaire quantities above 192, the corresponding number of VERTEX controllers must be added via Ethernet
- Configuration using a convenient web-based application:

Automatic location of CIRCADIAN luminaires in the system

Assigning luminaires to control groups (zones)

Selecting predefined lighting schedule scenarios or configuring own scenarios

Configuration of control panels for manual control

CASAMBI version

- An electrical installation with traditional 3-core wiring for power supply – a control bus is not required
- Wireless control
- Ideal solution for small to medium installations without 5-core wiring electrical installation
- Planning and commissioning using a mobile app:

Creating a working network

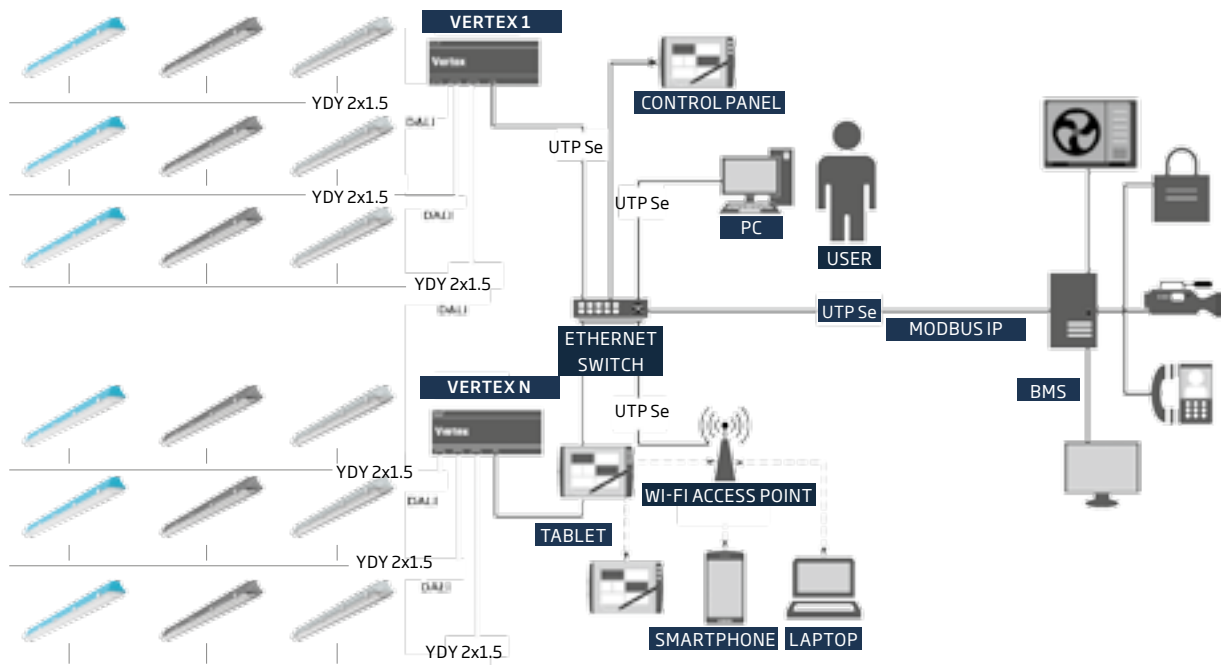
Authorization (adding) luminaires to the network,

Work group configuration

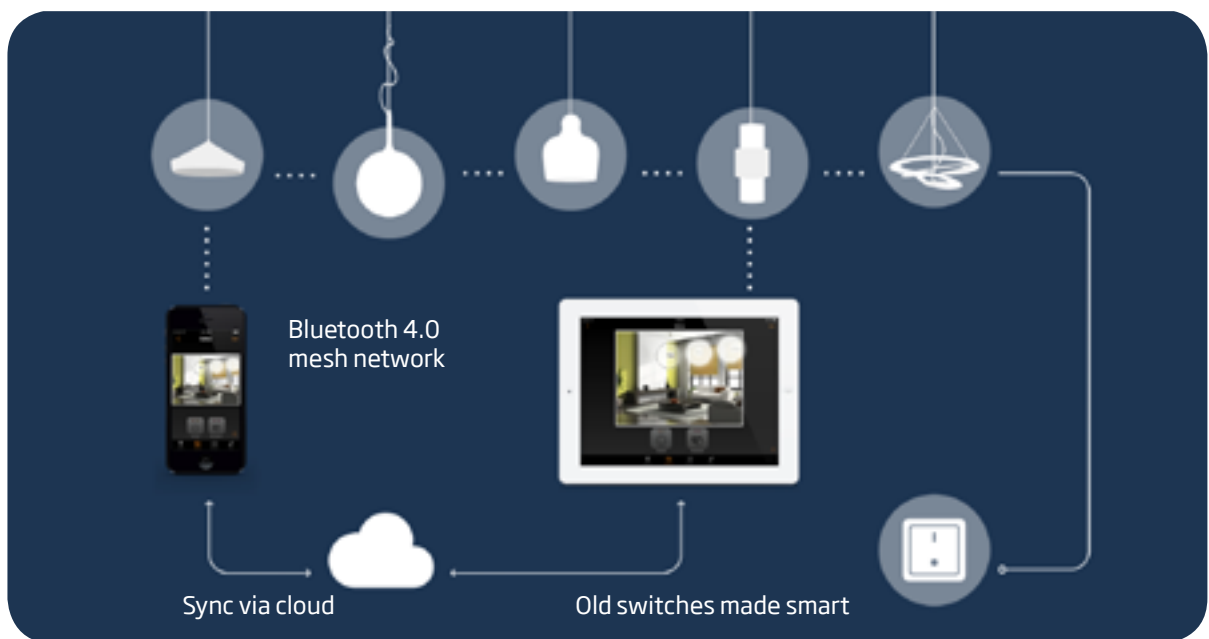
Configuration of scenes and lighting schedules

Configuration of control panels for manual control

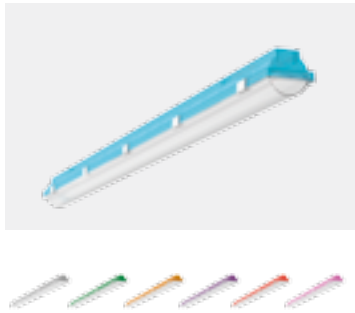
Vertex - DALI bus (up to 300 m - 1.5 mm², up to 192 luminaires per Vertex unit)



CASAMBI (up to 20 luminaires per CASAMBI module)



SYSTEM COSMO ORION



transparent housing									
51540?0	COSMO ORION 1060	LED 830	4000lm/5200lm	44W	144/118	230V AV	1,90		
51541?0	COSMO ORION 1060	LED 840	4000lm/5200lm	44W	144/118	230V AV	1,90		
transparent green housing									
51540?1	COSMO ORION 1060	LED 830	4000lm/5100lm	44W	144/116	230V AV	1,90		
51541?1	COSMO ORION 1060	LED 840	4000lm/5100lm	44W	144/116	230V AV	1,90		
transparent orange housing									
51540?2	COSMO ORION 1060	LED 830	4000lm/5000lm	44W	144/114	230V AV	1,90		
51541?2	COSMO ORION 1060	LED 840	4000lm/5000lm	44W	144/114	230V AV	1,90		
transparent violet housing									
51540?3	COSMO ORION 1060	LED 830	4000lm/4700lm	44W	144/107	230V AV	1,90		
51541?3	COSMO ORION 1060	LED 840	4000lm/4700lm	44W	144/107	230V AV	1,90		
transparent red housing									
51540?4	COSMO ORION 1060	LED 830	4000lm/4400lm	44W	144/100	230V AV	1,90		
51541?4	COSMO ORION 1060	LED 840	4000lm/4400lm	44W	144/100	230V AV	1,90		
transparent pink housing									
51540?5	COSMO ORION 1060	LED 830	4000lm/5000lm	44W	144/114	230V AV	1,90		
51541?5	COSMO ORION 1060	LED 840	4000lm/5000lm	44W	144/114	230V AV	1,90		
transparent blue housing									
51540?6	COSMO ORION 1060	LED 830	4000lm/4900lm	44W	144/111	230V AV	1,90		
51541?6	COSMO ORION 1060	LED 840	4000lm/4900lm	44W	144/111	230V AV	1,90		
.....?.. 0 - ON/OFF • 6 – DALI									

SYSTEM COSMO ECLIPSE



-20°C<Ta<+25°C									
51580?7	COSMO ECLIPSE 1060	LED 830	3500lm	32W	109	230V AC	1,60		
51581?7	COSMO ECLIPSE 1060	LED 840	3500lm	32W	109	230V AC	1,60		
51590?7	COSMO ECLIPSE 1060	LED 830	6400lm	50W	128	230V AC	1,60		
51591?7	COSMO ECLIPSE 1060	LED 840	6400lm	50W	128	230V AC	1,60		
.....?.. 0 – ON/OFF • 6 – DALI									
-20°C<Ta<+35°C Version available on request									

SYSTEM COSMO APEX



-20°C<Ta<+25°C

5152070	COSMO APEX 1060	LED 830	4000lm	27W	148	230V AC	1,50
5152170	COSMO APEX 1060	LED 840	4000lm	27W	148	230V AC	1,50
5139070	COSMO APEX 1060	LED 830	7300lm	49W	149	230V AC	1,50
5139170	COSMO APEX 1060	LED 840	7300lm	49W	149	230V AC	1,50

.....? 0 – ON/OFF • 6 – DALI

-20°C<Ta<+35°C

5152070	COSMO APEX 1060	LED 830	4000lm	27W	148	230V AC	1,50
5152170	COSMO APEX 1060	LED 840	4000lm	27W	148	230V AC	1,50
5139070	COSMO APEX 1060	LED 830	6300lm	41W	154	230V AC	1,50
5139170	COSMO APEX 1060	LED 840	6300lm	41W	154	230V AC	1,50

.....? 1 – ON/OFF • 7 – DALI

-40°C<Ta<+50°C DALI version

5152080	COSMO APEX 1060	LED 830	4000lm	27W	148	230V AC	1,70
5152180	COSMO APEX 1060	LED 840	4000lm	27W	148	230V AC	1,70
5139080	COSMO APEX 1060	LED 830	6300lm	41W	154	230V AC	1,70
5139180	COSMO APEX 1060	LED 840	6300lm	41W	154	230V AC	1,70

SYSTEM COSMO NOVA



-20°C<Ta<+25°C

5160270	COSMO NOVA 1060	LED 830	25x80°	5500lm	43W	128	230V AC	1,60
5160370	COSMO NOVA 1060	LED 840	25x80°	5500lm	43W	128	230V AC	1,60
5161270	COSMO NOVA 1060	LED 830	40x100°	6000lm	43W	140	230V AC	1,60
5161370	COSMO NOVA 1060	LED 840	40x100°	6000lm	43W	140	230V AC	1,60
5162270	COSMO NOVA 1060	LED 830	A20°	6000lm	43W	140	230V AC	1,60
5162370	COSMO NOVA 1060	LED 840	A20°	6000lm	43W	140	230V AC	1,60

.....? 0 – ON/OFF • 6 – DALI

-20°C<Ta<+35°C

5160270	COSMO NOVA 1060	LED 830	25x80°	4400lm	33W	133	230V AC	1,60
5160370	COSMO NOVA 1060	LED 840	25x80°	4400lm	33W	133	230V AC	1,60
5161270	COSMO NOVA 1060	LED 830	40x100°	4800lm	33W	145	230V AC	1,60
5161370	COSMO NOVA 1060	LED 840	40x100°	4800lm	33W	145	230V AC	1,60
5162270	COSMO NOVA 1060	LED 830	A20°	4800lm	33W	145	230V AC	1,60
5162370	COSMO NOVA 1060	LED 840	A20°	4800lm	33W	145	230V AC	1,60

.....? 1 – ON/OFF • 7 – DALI

-40°C<Ta<+50°C DALI version

5160280	COSMO NOVA 1060	LED 830	25x80°	3800lm	30W	127	230V AC	1,80
5160380	COSMO NOVA 1060	LED 840	25x80°	3800lm	30W	127	230V AC	1,80
5161280	COSMO NOVA 1060	LED 830	40x100°	4200lm	30W	140	230V AC	1,80
5161380	COSMO NOVA 1060	LED 840	40x100°	4200lm	30W	140	230V AC	1,80
5162280	COSMO NOVA 1060	LED 830	A20°	4200lm	30W	140	230V AC	1,80
5162380	COSMO NOVA 1060	LED 840	A20°	4200lm	30W	140	230V AC	1,80

COSMO | LUMINAIRE APPLICABILITY CHART

Room categories ■ / □ / -

Rooms with high humidity

Kitchens	□
Damp basements	■
Bathrooms	■
Laundry rooms	■
Greenhouses	□
Drying chambers	■
Beer and wine cellars	■
Swimming pools and water parks	-

Rooms with oil vapors

Large-scale kitchens	□
Car workshops	□
Vehicle repair shops	□
Private garages	■
Parking lots	■
Roofed gas stations	■
Underground garages	■
Production halls	□

Rooms with vapors of other chemical substances

Car washes	-
Livestock breeding facilities	-
Conventional mushroom farms	-
Organic waste storage areas	-
Waste processing rooms	-
Chemical plants	□
Paper factories	-
Textile factories	-
Electroplating plants	-

Rooms where special cleaning agents and disinfectants are used

Wineries	-
Bakeries	□
Dairy plants	-
Browary Breweries	□
Meat processing plants	-
Food processing plants	□
Water processing plants	□

Other rooms

Warehouses	■
Roofed railway stations	□
Dry waste storage areas	□
Carpentry shops	■
Roofed bus depots	□
Roofed driveways	□
Barns	■
Non-covered, exposed to UV rays	-

■ suitable for use / □ requires review / - not suitable for use

□ Each luminaire's suitability for use should be reviewed by the Technical Department. Particular attention should be paid to the parameters of the room, such as temperature, ventilation efficiency, exposure to UV rays, and the presence of chemical vapors.

COSMO | CHEMICAL COMPATIBILITY CHART

Chemical	■ / –	Chemical	■ / –
Acetone	–	Sulfuric acid	–
Isopropyl alcohol	–	Soapsuds	■
Methyl alcohol	–	Hydrogen peroxide < 30%	■
Amines	–	Ethyl acetate	–
Ammonia	–	Oil, mineral	–
Aniline	–	Diesel	–
Benzene	–	Oil, vegetable	■
Petrol	–	Silicone oil	–
Chlorine, wet gas	–	Oil, animal	–
Ammonium chloride	–	Pyridine	–
Sodium chloride	■	Sodium hypochlorite	–
Chlorophenol	–	Calcium hypochlorite	–
Chloroform	–	Caustic potash solution	–
Dichloromethane	–	Detergent solution	■
Dimethyl sulfoxide (DMSO)	–	Ammonium sulfate	–
Dioxane	–	Aluminum sulphate	■
Carbon dioxide, gas	■	Copper sulphate	■
Ethanol <30%	■	Hydrogen sulphide gas	–
Diethyl ether	–	Turpentine	–
Petroleum ether	–	Carbon tetrachloride	–
Phenol	–	Sodium thiosulphate	–
Glycerol	■	Carbon monoxide, gas	■
Glycol	■	Toluene	–
Ketones	–	Trichloroethane	–
Cresol	–	Sodium carbonate	■
Dimethyl benzene (xylene)	–	Hydrocarbons, aliphatic	■
Nitric acid <10%	–	Hydrocarbons, aromatic	–
Bromic acid	–	Water up to 60 °C	■
Hydrochloric acid	–	Sea water	–
Phosphoric acid	–	Sodium bisulfite	■
Lactic acid	■	Potassium hydroxide	–
Acetic acid <30%	–	Sodium hydroxide	–
Sulfurous acid	–	Calcium hydroxide	–

■ chemically resistant / – not chemically resistant

It is important to always consider the chemical compatibility of luminaires, which can be checked for the selected substances in the table above. The information contained therein is for guidance purposes only and valid for ambient temperatures not exceeding 35°C, higher temperatures of use should always be consulted with the Technical Department. The luminaire body can be washed with a diluted detergent and clean water. Pressure washing is not allowed.

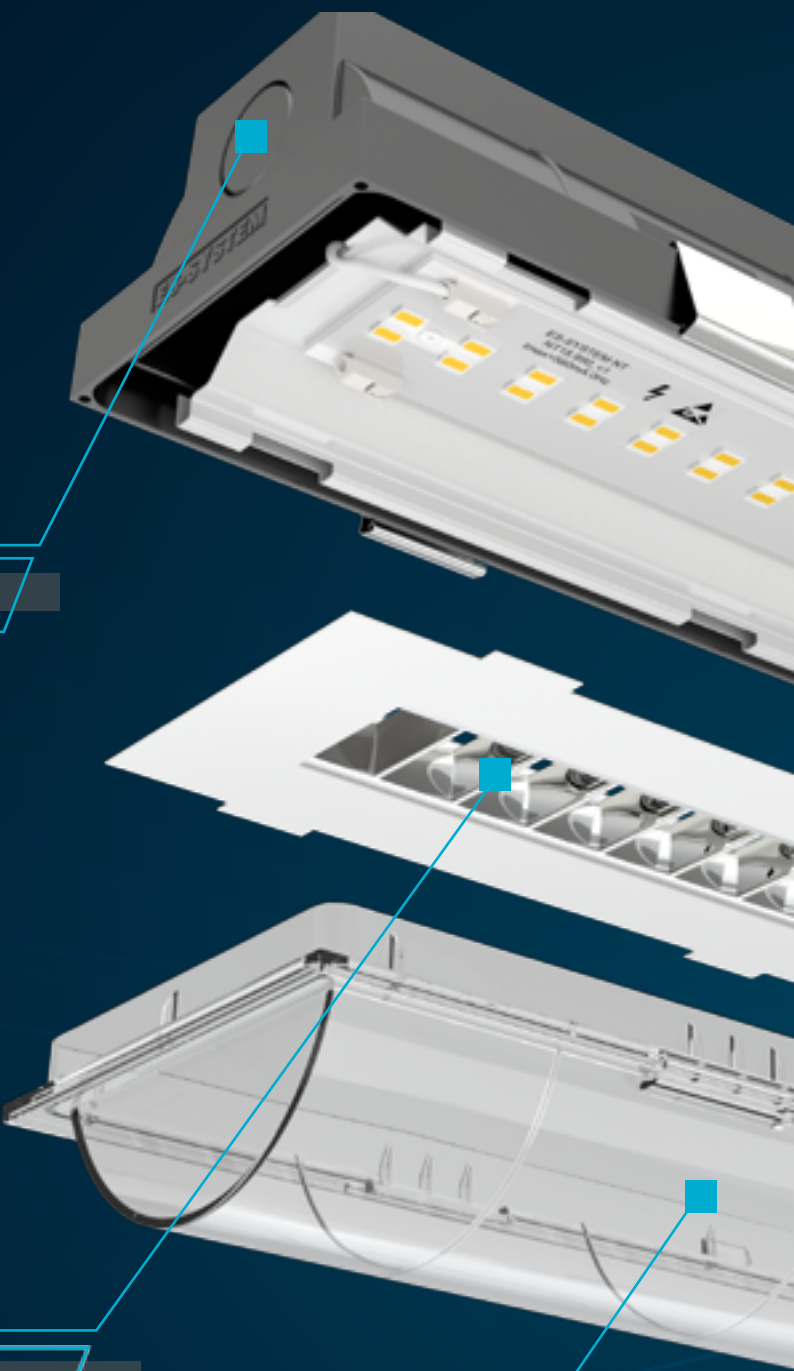
COSMO

| chemical compatibility

COSMO

THE ALL-NEW COSMO FX

CREATE SMARTER SPACES

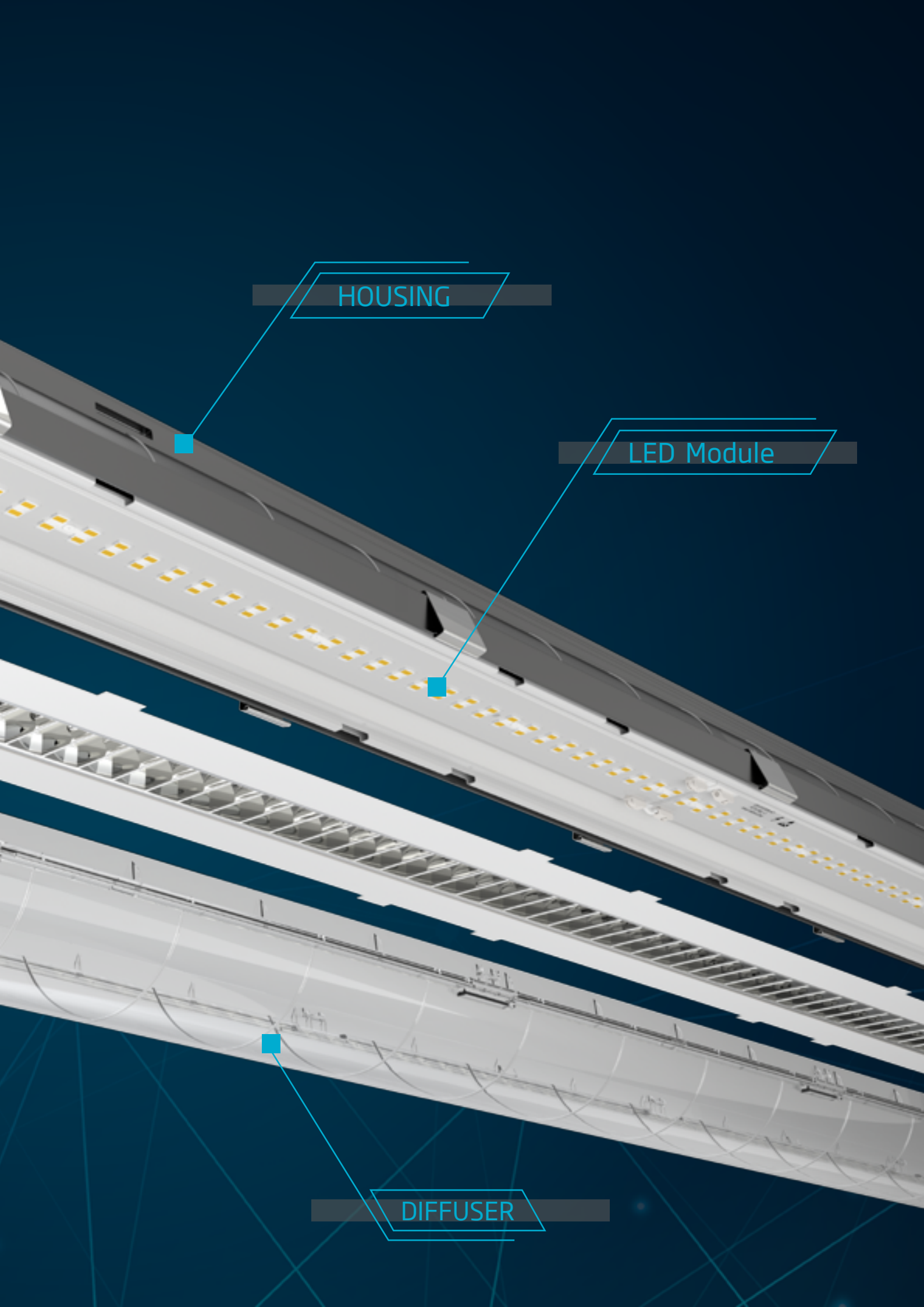


Optional through-wiring

The image shows an exploded view of the Cosmo FX lighting fixture. The top cover is shown at the top right, with a blue square marker indicating the through-wiring feature. Below it is the optical system, and at the bottom is the reflector. Blue lines connect the text labels to their respective components.

OPTICAL system

REFLECTOR



HOUSING

LED Module

DIFFUSER

ES-SYSTEM
Light is Life

Axioma
enlightening your business



www.essystem.pl