Schréder
Experts in lightability™

Lighting solutions for **industry**

Minimal energy and maintenance costs while ensuring safety and comfort

ENVIRONMENTS
PEOPLE
LOVE TO WORK IN

Contents

Who is **Schréder**

For more than 113 years, Schréder has dedicated itself to exploring everything there is to know about the potential of light, by constantly pushing the boundaries of technological innovations.

Expertise, passion, innovation, and sustainability drive our 2,600 employees to use the power of light for the safety and well-being of all, from public spaces to higher-risk environments, such as warehouses, factories and transport yards where the consequences of a dark or dimly lit workplace can lead to injuries.

Always pushing technological boundaries

We continually invest in R&D to stay at the forefront of technological development with the objective of providing the right light: the perfect control of light by optimising the optics and mechanical design of the luminaires. By integrating LEDs, our goal is always to offer intelligent and responsible solutions offering better light and flexibility in order to reduce energy consumption as well as the overall cost of management.

1999: Adtranz assembly and maintenance workshop - Amadora, Portugal

Why LED lighting?

Schréder LED lighting solutions can significantly reduce energy costs and carbon emissions by up to 80%. What is more, LEDs have a long life span so the lighting solution lasts decades, meaning that the whole life cost of lighting is dramatically reduced.

The quality of light is better too. LEDs provide visual accuracy in working environments where it is paramount, both in the ability to see clearly and move in complete safety and comfort.

Our commitment to technical quality, has led us to develop the most cost-effective and energy-efficient range of luminaires available on the market today for lighting industrial workplaces, even in the most remote and challenging environments.

They can be easily integrated into building management systems for flexible scheduling to optimise lighting networks and generate even more savings.

2018: Carrefour distribution centre - Cestas, France

Close to you

Present in more than 70 countries worldwide, we work closely with our customers to solve their most complex challenges. We are their one-stop partner; from lighting studies to design to after-sales, including light and control systems.

We deliver lighting solutions that not only meet their needs, but also exceed their expectations - turning exciting ideas into reality.

Experts in Lightability™

This ability to make a real difference in the spaces we light, to stretch the boundaries of what is possible, to delight our customers is what makes us unique.
It is what makes us Experts in Lightability™.

❝ Schréder has been lighting harsh industrial environments for more than 40 years with the goal of optimising costs without compromising on safety. Our commitment has led us to develop the most efficient high bay luminaire on the market today, the INDU BAY GEN3. And we will keep on innovating. ❞

Cédric Collard
Schréder Industry Business Segment Manager

ENVIRONMENTS
PEOPLE
LOVE TO WORK IN

Maximise your ROIs

Integrate sensors and control systems to achieve further savings and benefits. Adapt the light to where and when it is needed, enabling all employees to see clearly and move through spaces in complete safety and comfort, overall decreasing the risk of an injury and all associated costs.

Minimise and support your manufacturing quality metrics with the right light output. With structured ROI plans, you can ensure optimal payback and quick decisions.

In short, transform your lighting into a strategic asset and create an optimised work environment.

IT'S YOUR
INVESTMENT

Enhance operations

Get a new or renewed lighting design that harmonises to your operational needs without compromising on the quality of light, in both indoor and outdoor areas.

Choose from our extensive range of lighting solutions that facilitate a quick installation and deliver an energy-efficient and optimised light.

Minimise routine expenses and disruptions with low maintenance solutions, even in the toughest industrial environments.

IT'S YOUR
BUSINESS

Gain a lifetime of benefits

Connect your investment to the lifecycle of your business with a futureproof strategy. Provide a lighting system that is fully adapted to your business strategy needs. By significantly reducing your energy and operating costs, you can release funding for other business investments.

With control and sensors, further improve your carbon footprint. Our lighting solutions will help you achieve your sustainability objectives and increase the value of your commercial workspace.

IT'S YOUR
ENVIRONMENT

Optimise safety and productivity

Help your employees perform at their best with human-centric LED lighting systems. Improve the accuracy and well-being of your staff to boost their performance.

Ensure perfect visibility to improve safety, avoid accidents and support quality targets. Improve colour rendering to deliver a light that mimics daylight, supporting concentration, precision work and cognition.
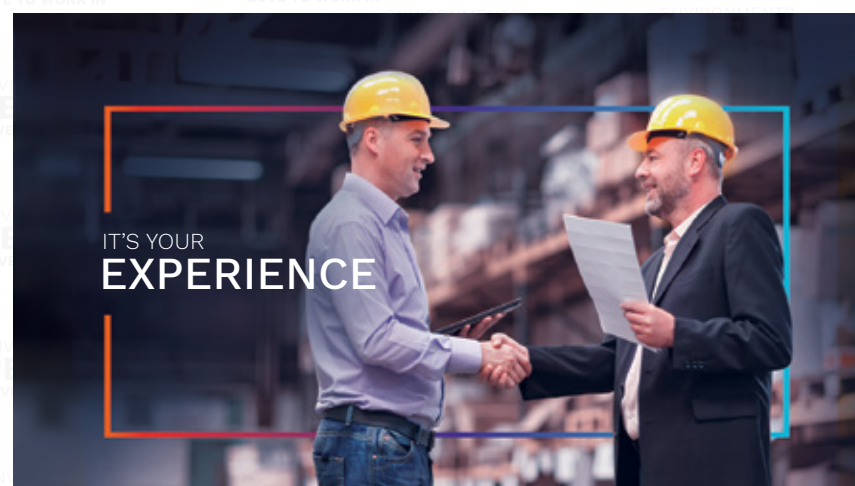
Our customers continue to share the benefits created by our lighting solutions for a long time to come.

IT'S YOUR
TEAM

Rely on one solution provider

Entrust your lighting to one full-service partner, from the lighting study to installation and commissioning, to save time and minimise costs. Futureproof your building and dynamically adjust the lighting to your operational needs with our sensors and intelligent control systems that not only maximise efficiency but also capture and process data to improve future objectives.

By adapting light to the real needs of employees, you create a statement of wellbeing and sustainability.

IT'S YOUR
EXPERIENCE

Complete solutions
for industrial environments

1 INDU LINE GEN3
2 INDU BAY GEN3
3 INDU FLOOD GEN2
4 INDU WALL PACK
5 INDU CONTILINE GEN2
6 INDU DOWNLIGHT
7 INDU PANEL
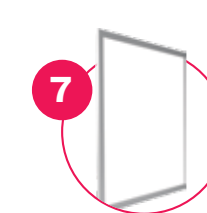
8 BOLLARD RANGE
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10 SHUFFLE
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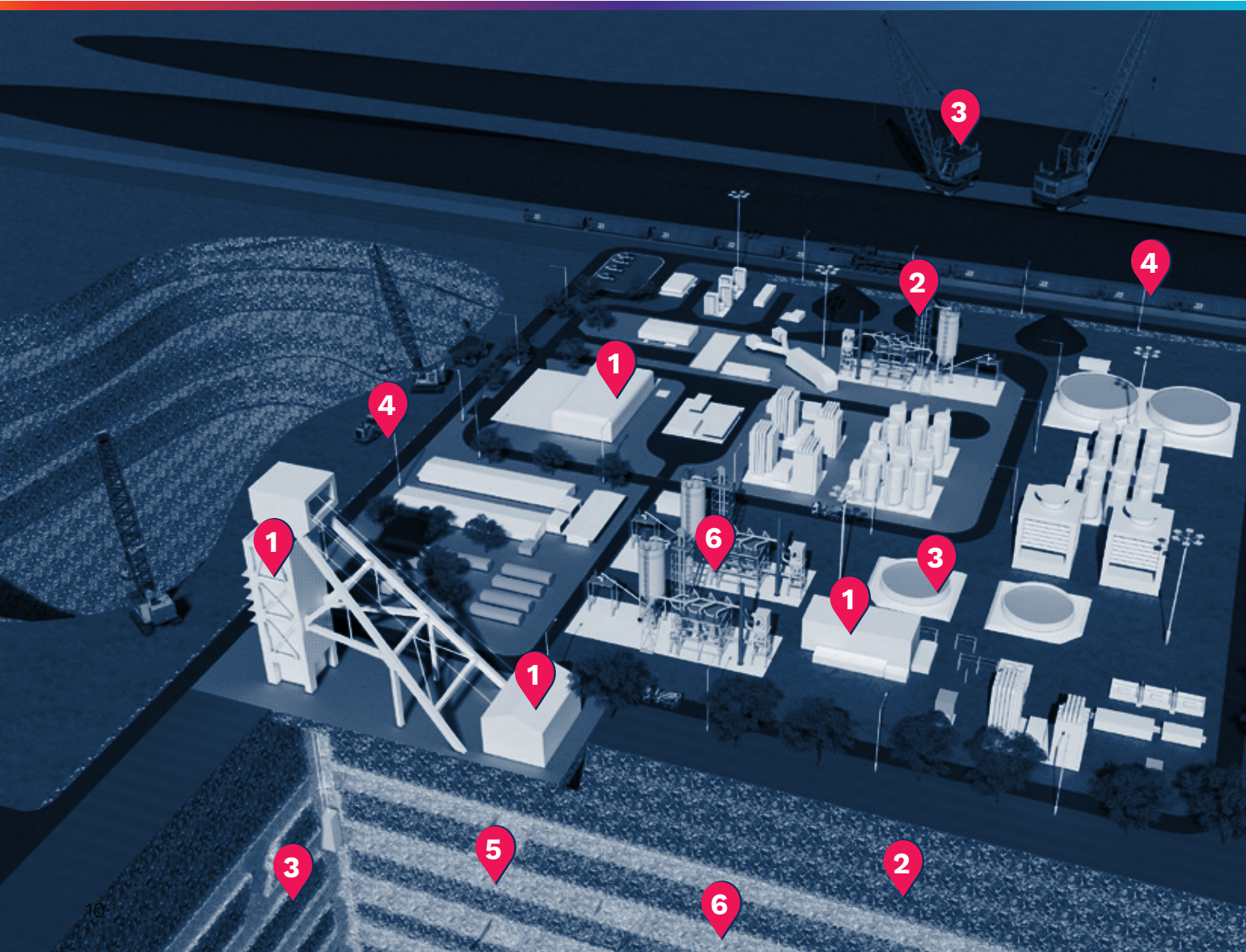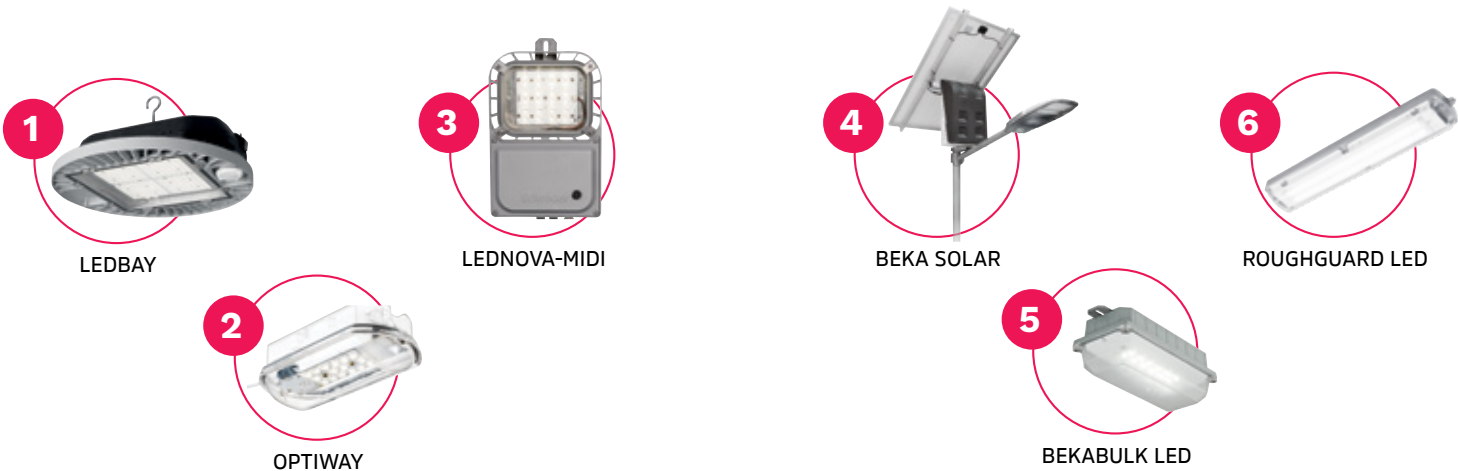12 OMNISTAR
13 AVENTO GEN2 S
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Lighting Solutions for
Mining Environments

Thanks to the vast experience of BEKA Schréder, our company in South Africa, in delivering lighting solutions for mines, we have a specialised portfolio of luminaires that enabled us to gain market leadership in this field.

Due to the sensitive nature of lighting mines, we support your projects after a full analysis of all the requirements and the regulations.

1 LEDBAY

2 OPTIWAY

3 LEDNOVA-MIDI

4 BEKA SOLAR

5 BEKABULK LED

6 ROUGHGUARD LED

Optimised
work environment

66 The LED lighting solution advocated by Schréder for the new industrial hall was an important tool to help us achieve our energy efficiency and productivity goals. 99

Jorge Silva
Managing Partner - Plastifoz Técnicos e Engenharia Lda

Schréder BE service centre - Bornem, Belgium

Plastifoz production hall - Figueira da Foz

INDU BAY GEN3

CE · ... · IP 66 · IK 10 · IK 08

TYPICAL LUMEN PACKAGE

	TYPICAL LUMEN PACKAGE
INDU BAY GEN3 1	15,200-21,100lm
INDU BAY GEN3 2	25,800-32,100lm
INDU BAY GEN3 HT*	9,800-10,700lm
EM*	500lm, 3h

* High Temperature (up to 70°C)

* Emergency option

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 and smart, it delivers the best solution on the market today for high-bay applications.
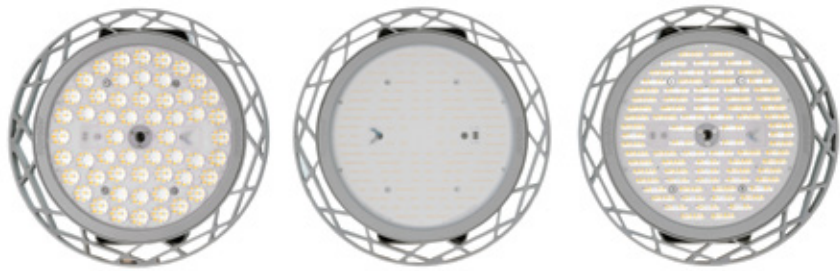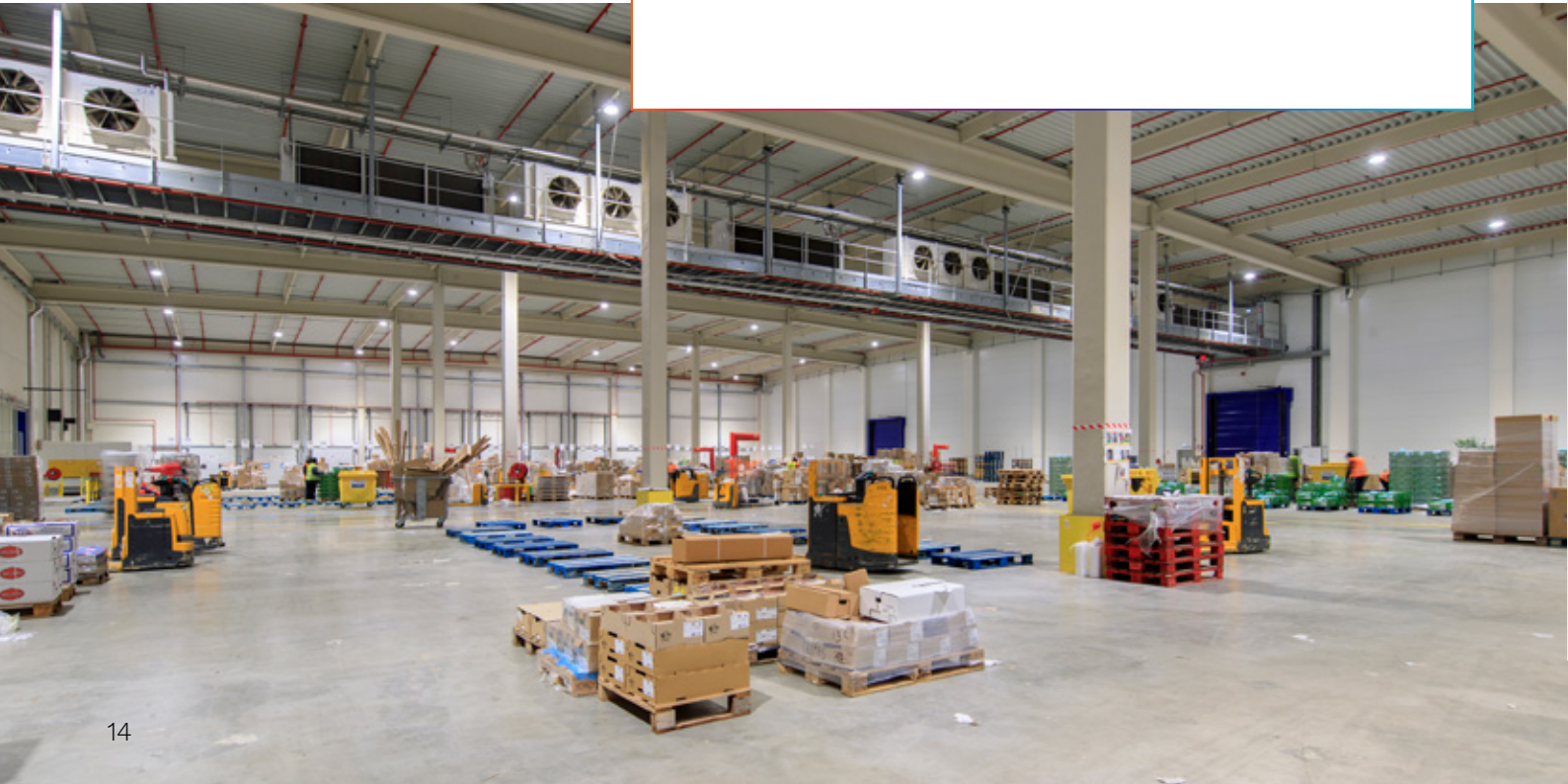
Available with four different lumen packages, various light distributions and mounting options, INDU BAY GEN3 adapts the lighting to meet the specific needs of your environment.

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

Thanks to its reliable performance, low dust accumulation and no need for relamping, INDU BAY GEN3 minimises maintenance costs.

Perfect solution to replace discharge lamps from 40 to 400W thanks to its 2 sizes, range of 4 typical lumen packages and 3 different light distributions.

Low acquisition and operating costs thanks to high efficacy (up to 151lm/W) and virtually no need for maintenance.

Easy integration in building management systems (DALI or 1-10V protocol) and light-on-demand feature thanks to optional motion sensor.

Excellent working conditions thanks to low glare (UGR <22) and high colour rendering index (CRI 80+).

In case of an emergency, the INDU EMERGENCY PACK can power the INDU BAY GEN3 for 3 hours to provide safety lighting.

Lighting a large warehouse

SPECIFICATIONS

Area: 60x40m
Height: 13m
Reflection coefficient:
Floor: 20 | Ceiling: 70 Walls: 50
**Maintenance factor:** 0.8

Less than 1W/m²/100lx

While fully meeting the strict specifications, INDU BAY GEN3 limits the power consumption to 6,475W for a total surface of 2,400m².

It means 0.81W/m²/100lx. This high efficiency provides 53% energy savings compared to the most efficient luminaires equipped with 400W discharge lamps.

Solution with INDU BAY GEN3
Results with 35 INDU BAY GEN3 3
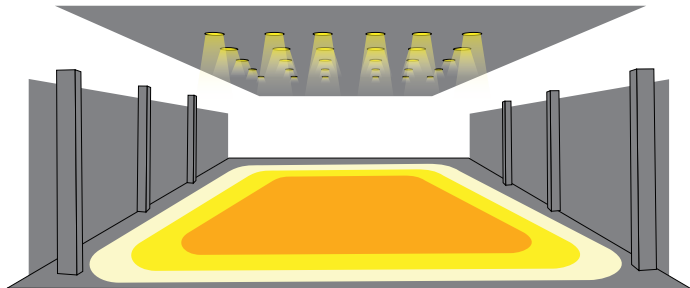
	REQUIRED LEVELS	RESULTS WITH INDU BAY GEN3
Illumination (Eav)	300lx	332lx
Glare (UGR)	<28	20
Uniformity (U$_o$)	Min 0.4	0.5

Measurements done at 0.85m (workplane) with 0.5m boundary zone.

INDU CONTILINE GEN2

IP 50 | IK 05 | IK 03

TYPICAL LUMEN PACKAGE

	TYPICAL LUMEN PACKAGE
INDU CONTILINE GEN2 1	8000lm
INDU CONTILINE GEN2 2	12,400lm
INDU CONTILINE GEN2 3	16,000lm
INDU CONTILINE GEN2 4	21,200lm

Modular, easy and efficient

INDU CONTILINE GEN2 is a fully flexible 13 pole trunking system with tool-free module installation. With its unique, optional roof accessory, it is considerably more resistant to dust and water accumulation. Thanks to its additional, integrated cable duct, this system is IoT-ready!

INDU CONTILINE GEN2 can be installed from the ground using a patented process.

INDU CONTILINE GEN2 offers additional benefits including emergency lighting and optimal light distribution with low glare to create optimal working conditions in industrial environments.
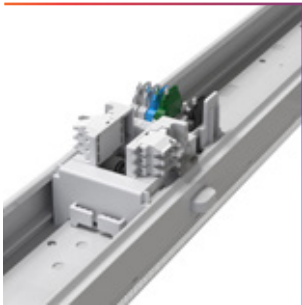

The INDU CONTILINE GEN2 trunking system offers versatility and openness to meet the requirements of any project.

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

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

In case of an emergency, an optional auxiliary battery (central UPS or local) provides 3 hours of safety lighting.

Lighting a warehouse

SPECIFICATIONS

Area: 30x24m
Height: 9m
Reflection coefficient:
Floor: 20 | Ceiling: 70 | Walls: 50
Maintenance factor: 0.8

Around 1W/m²/100lx

While fully meeting the strict specifications, INDU CONTILINE GEN2 limits the power consumption to 1,650W for a total surface of 720m².

It means 1.05W/m²/100lx. This high efficiency provides 40% energy savings compared to the most efficient luminaires equipped with 80W discharge lamps.

Solution with INDU CONTILINE GEN2
Results with 33 INDU CONTILINE GEN2 2
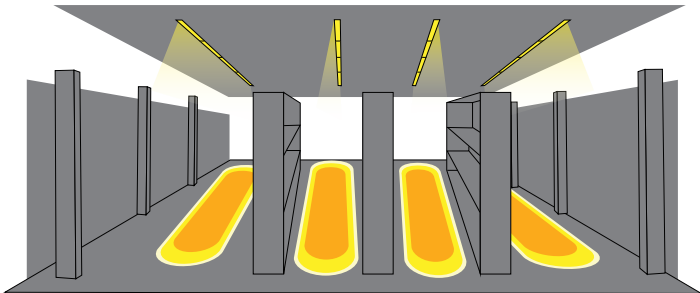
	REQUIRED LEVELS	RESULTS WITH INDU CONTILINE GEN2
Illumination (Eav)	200lx	237lx
Glare (UGR)	<28	16
Uniformity (U$_o$)	Min 0.4	0.60

Measurements done at floor height.

INDU CONTILINE GEN2
ROOF VERSION

INDU LINE GEN3

Fast installation to keep operations running:
Patented installation from the ground
Improved stability, less fixation points

Reduce cleaning and maintenance costs:
Less dust accumulation
Water runs off

Add technology to your installation:
Additional space for extra cables (fibre, CAT)

	TYPICAL LUMEN PACKAGE
INDULINE GEN3 1	2,500lm - 2,700lm
INDULINE GEN3 2	4,700lm - 5,200lm
INDULINE GEN3 3	6,900lm - 7,500lm

Efficiency & intelligence
made affordable

INDU LINE GEN3 offers a robust and efficient LED alternative for replacing fixtures fitted with T5/T8 fluorescent tubes. A light-on-demand feature is available thanks to an optional motion sensor.

Designed to provide a life-long solution for harsh industrial environments, INDU LINE GEN3 has a strong mechanical design that makes it highly resistant to shock and vibration while its IP rating makes it ideal for dusty and wet locations.

Connection is made on a sliding plate.
INDU LINE GEN3 is equipped with tool-less twist and lock cable glands.

With ingoing/outgoing cable glands,
INDU LINE GEN3 offers a daisy chain mounting.

In case of an emergency,
an optional auxiliary battery can power the INDU LINE GEN3 for 3 hours to provide safety lighting.

INDU WALL PACK

IP 65 | IK 09

Comfort and efficiency
for exterior building lighting

Available in two sizes, the INDU WALL PACK outperforms all conventional downlight fixtures by providing a bright and long lasting light for outdoor wall mounted applications, with optional light-on-demand feature.

	TYPICAL LUMEN PACKAGE
INDU WALL PACK 1	1,700 - 1,800lm
INDU WALL PACK 2	4,200 - 4,400lm

Delivers the most suitable solution thanks to two sizes, with an emergency option available for the size 2.

Thanks to its photometric performance, INDU WALL PACK optimises the spacing between two units.

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

INDU FLOOD GEN2

IP 66 | IK 09

Efficiency and versatility
for indoor and outdoor area lighting

With multiple combinations of lumen packages and light distributions, INDU FLOOD GEN2 is the ideal tool to provide an efficient multi-purpose lighting solution for industrial environments.

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

INDU FLOOD GEN2 provides a bright white light for excellent visibility and colour perception, delivering value beyond energy savings, with light-on-demand feature thanks to an optional motion sensor.

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

	TYPICAL LUMEN PACKAGE
INDU FLOOD GEN2 1	3,800lm - 10,000lm
INDU FLOOD GEN2 2	15,800lm - 30,400lm
INDU FLOOD GEN2 3	32,900lm - 60,900lm

The universal U-bracket includes a graduation system for precise on-site settings.

INDU FLOOD GEN2 provides easy access to the gear compartment.

The floodlight includes two cable glands at the back for daisy chain layout. It is designed for integration with BMS (building management system).

OMNISTAR

IP 66 · IK 08

Designed to generate
massive savings

OMNISTAR provides an unrivalled combination of performance and flexibility for lighting areas where high lumen packages are needed with the added advantages of an LED solution: low energy consumption, improved visibility with white light, limited maintenance and longer life.

OMNISTAR can be installed in various configurations (suspended, wall-mounted or post-top) with one to three optical units.

OMNISTAR is also certified IECex and is fit for hazardous or explosive environments.

	TYPICAL LUMEN PACKAGE
OMNISTAR	8,200lm - 57,300lm

The inclination angle can be easily adjusted on-site.

With up to 144 high-power LEDs, OMNISTAR delivers high lumen packages.

The explosion proof version is a perfect fit for hazardous environments.

OMNIstar is delivered with quick connectors for an easy installation.

INDU PANEL

IP 20 | IK 02

Comfort and safety for **office lighting**

INDU PANEL provides a beneficial LED alternative to luminaires with fluorescent lamps.

With its square or rectangular shape, it offers a uniform and comfortable lighting for typical professional 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.

TYPICAL LUMEN PACKAGE	
INDU PANEL 1	3,400lm - 3,600lm
INDU PANEL 2	3,300lm - 3,600lm

The electrical connection is performed at the back of the luminaire.

The fire-resistant INDU PANEL complies with the strictest indoor safety regulations (in option).

INDU PANEL is available in a square or rectangular shape.

INDU DOWNLIGHT

IP 20 | IK 03

Reliable, energy-efficient and affordable indoor lighting solution

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

Available in various sizes, INDU DOWNLIGHT has a low power consumption (savings of up to 90% compared with traditional spotlights), long lifetime, no specific maintenance requirements and control options.

TYPICAL LUMEN PACKAGE	
INDU DOWNLIGHT 1	900lm
INDU DOWNLIGHT 2	1,400lm
INDU DOWNLIGHT 3	2,700lm

The quick electrical connection is performed at the back of the luminaire.

A high visual comfort is provided with a high colour rendering index (CRI 80) and low glare.

INDU DOWNLIGHT is available in 3 sizes, each offering a typical lumen output.

ABS CONTROL SYSTEM

PHŒNIX CONTACT
For industrial component
and automation solutions

Scalability, reliability, comfort and energy savings

With the scalable and easy-to-integrate ABS control system, facility managers can extend energy savings by up to 80%, manage expenses more efficiently, improve maintenance and asset management as well as increase safety and visual comfort for the staff.

The ABS platform developed by Schréder and Phoenix Contact offers standard settings but can be customised based on your needs. A "visual fire alarm" scenario, for example, can be integrated to alert in case of emergency.

The creation of your ABS solution requires 3 steps:

1 - Definition Workshop: part of Schréder Industrial project approach, we define with you the neds in terms of automation.

2 - OFF-SITE programming with ABS Web Configurator:

- DALI floor plan: preparation of layouts (luminaires , sensors, devices) with automatic DIALux imports
- Definition of INPUTS: digital, analog, EnOcean devices, virtual buttons, calendars
- Definition of light PROGRAMMING
- Configuration export

3 - ON-SITE commissioning in a minimum time:

- Import Web Configuration in ABS
- Check Dali addressing
- Test & fine tune lighting scenario
- Connection with existing BMS if required

WHY USE
DALI?

DALI is a standardised (IEC 62386) protocol for digital communication between lighting devices enabling them to be addressed individually.
Our solutions are Dali 2.0 ready.

- Flexible
- Easy to control
- Manages and monitors
- Licence free software
- Energy efficient
- Autonomous and autohealing
- Sustainable
- Multi-master
- BMS-ready

BMS VISUALISATION

DALI
LIGHTING & BLINDS   AIR CONDITIONING   FIRE DETECTION   ACCESS CONTROL   AUDIO/VIDEO   SECURITY

Integration to BMS

Lighting control systems can also be part of an overall integrated energy management plan that can incorporate lighting control with heating, ventilation and air conditioning, security and building management systems (BMS).

The integration of lighting into a BMS allows flexible scheduling. Customised reporting enables facility managers to track and continuously monitor energy costs and savings throughout the entire facility. The lighting can also interface with other utilities to adapt to the different activities and events taking place.

As companies embrace Industry 4.0, the lighting can even interact to activate or improve efficiency in other utilities.

Time clock control

The time clock schedules when luminaires are switched on and off and sets lighting levels for different times of the day.

This control system has unlimited "on" and "off" settings.
It means that various scenarios can be planned for the different areas in a facility, taking into account the organisational use of the spaces.

Smart and sustainable controls

Our control system adapts the lighting levels of the luminaires to compensate for the lack of natural light and achieve the predefined levels of lux needed for each zone.

The lighting levels are gradually adapted so that people barely notice the changes, mimicking natural changes in daylight.

Efficient sensor technology

Motion detectors: for automatically switching on and off luminaires, or dimming.
Daylight sensors: for adjusting the light level in each area, depending on natural daylight.
Push buttons: for an additional manual command.
Other hardware inputs available on request: CO_2 sensors, acoustic detector, camera...
With our wireless and power less technology, our sensors are easy and faster to install with great flexibility.
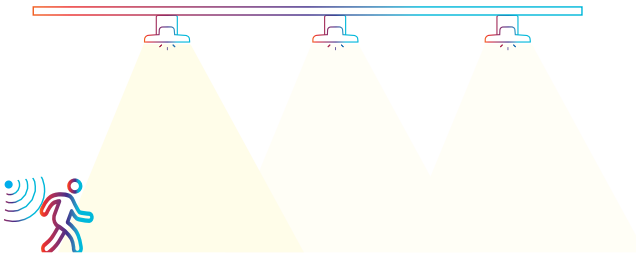
ADVANTAGES

Energy savings: only the energy that is absolutely necessary is consumed

Safety: ensures the right light in all areas when people are present

Comfort: guarantees a sense of well-being

Flexibility: lighting levels are adapted to the specific requirements

Tailored solution: the system is completely customised and adapted to specific needs

Easy to use: fully automatic lighting control

Peace of mind: luminaires switch off automatically when not needed

Scalability: the system is future-proof and enables easy addition of new devices and simple integration into Building Management Systems

Minimum impact on business: thanks to the Web Configurator which allows pre-programming, on-site commissioning is short and efficient

FLEXIA

Various designs, many configurations, one single DNA.

FLEXIA is the ultimate platform to create your unique outdoor lighting solution.

Focus on creating a unique ambiance for people walking through your outdoor spaces.

With no technical limitations, more design consistency and the guarantee of the latest innovations, FLEXIA offers a versatile technological platform with refined aesthetics.

IZYLUM

IZYLUM is a robust yet compact luminaire, designed with a focus on ease of installation and maintenance, enabling to extend its lifetime with future upgrades.

Available in five sizes, the IZYLUM range takes advantage of the latest photometric innovations and is designed to light a large range of environments and areas such as roads, access ways and car parks.

BOLLARD RANGE

Our bollard range takes up the challenge of creating both efficient visual guidance and a pleasant atmosphere for pedestrians.

It offers different photometrical options for symmetrical or asymmetrical distribution, and are proposed with a diffuse protector for maximised comfort or with a clear protector for high performance.

AVENTO GEN2 S

Compact yet powerful, light yet robust, affordable yet highly efficient, AVENTO provides the fastest return on investment for road, parking and area lighting.

AVENTO offers a superior lumen/watt ratio to deliver a high-performing, energy efficient, lighting solution at an affordable price.

AVENTO is available in four sizes to provide a consistent solution in terms of the right lumen package and light distribution for a broad range of environments. It ensures that the lighting meets the real needs of the place to be lit.

SCULP COLLECTION

With its clean and simple design, the SCULP Collection discreetly blends into the environment and provides the most accurate range of powerful, versatile and efficient LED floodlights to create astonishing effects for all façade lighting projects.

Corporate colours can be projected to create a strong brand identity or simply improve the visitor experience.

SHUFFLE

What makes a place great? What kind of services do workers like? How can you leverage your infrastructure to create value beyond lighting? Why could it help you to meet your social and business goals?

SHUFFLE is a connected, modular approach to outdoor hardware with plug-and-play rotatable modules that contain pre-certified hardware.

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

For managers

- Robust, integrated and aesthetic solution
- A clever, cost-effective way to leverage lighting infrastructure
- Data collection and analytics
- Security with CCTV algorithms
- Tool to inform, help and guide people

Choose your
ideal
SHUFFLE

SOS CAMPUS SECURITY LIGHT MOBILITY
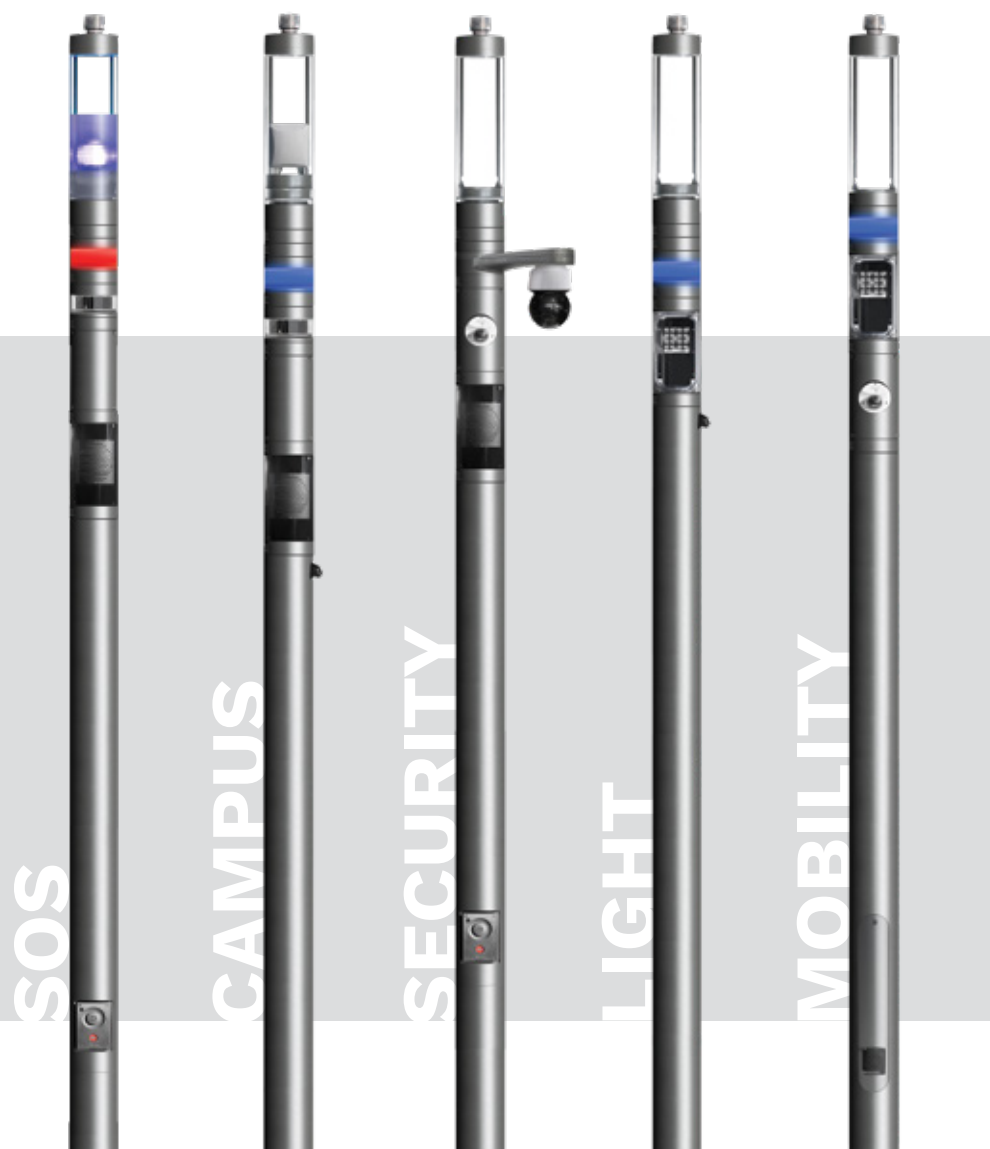
Columns & brackets

The perfect **addition**

Schréder offers a large range of columns, brackets and bollards to suit any challenges for your application, be it robustness, design or integration into the environment to be lit.

Straight columns

For decorative luminaires designed for low-height applications, Schréder provides straight columns in various heights, finishings and materials.

They blend into the environment and complement the design of the luminaires.

Post-top luminaires
Schréder offers a large range of luminaires designed for post-top mounting.

Brackets

For medium to high height applications, the columns can be combined with simple or double brackets.

Schréder has a range of aesthetic brackets that can integrate fine details such as coloured LEDs for accent lighting, to create a distinctive identity.

Our brackets are designed to resist the harshest conditions in terms of vibrations and wind force.

For crown mounting
Standard or custom designs for high-mast mounting with multiple luminaires.

For two luminaires
Double brackets or poles with front and rear low-height brackets.

Schréder & BREEAM

Using Schréder solutions, up to 17 credits can be achieved in the BREEAM assessment (according to BREEAM International New Construction 2016*).

The analysis and the substantiation in this brochure have been drawn up by the independent engineering firm Encon.

CATEGORIES		MAX CREDIT	INDOOR LIGHTING*	OUTDOOR LIGHTING*	CONTROL SOLUTION*
MANAGEMENT (MAN)	MAN03 Responsible construction practices	6	2	2	2
	MAN04 Commissioning and handover	4	3	3	3
	MAN05 Aftercare	3	2	2	2
HEALTH & WELLBEING (HEA)	HEA01 Visual comfort	4	1	1	1
	HEA06 Accessibility	2	1	1	1
ENERGY (ENE)	ENE01 Reduction of energy use and carbon emissions	15	2	2	2
	ENE02 Energy monitoring	2	0	0	2
	ENE03 External lighting	1	0	1	1
MATERIALS (MAT)	MAT01 Life cycle impact	6	1	1	1
POLLUTION (POL)	POL04 Night time light pollution	1	0	1	1
INNOVATION (INN)		10	1	1	1

*The credits can slightly differ according to national BREEAM adaptation.   Additional technical information: www.schreder.com

Turnkey solution provider

Schréder has developed a comprehensive approach to provide full scope solutions for industrial facilities, from design to after sales services, to create a state-of-the-art lighting system with unrivalled energy efficiency.
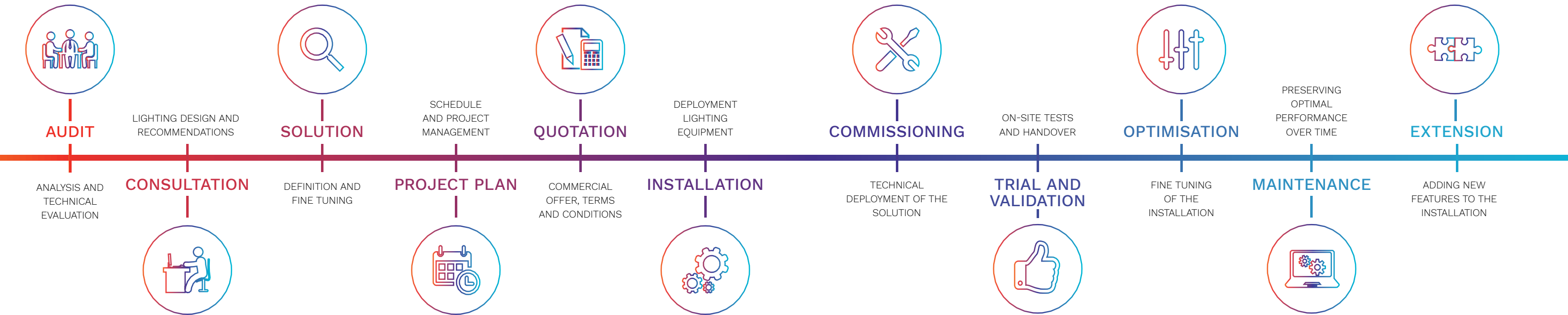
We can deliver adaptive lighting, intelligent control systems, security equipment, signage, loudspeakers, Wi-Fi and many other smart features to adapt the solution to your specific needs.

Our team of experts audit your environment and carry out application studies to design the best solution. Our simulation tools provide precise information about the efficiency, compliance, installation, energy savings and total cost of ownership.

With your consent, we define a plan, incorporating the Building Information Modelling (BIM) files if needed and manage the entire project, including the installation, commissioning, testing and validation. We can also provide after-sales services, with maintenance and optimisation.

Our goal is to facilitate a smooth installation with minimal disruption to your business and to give you peace of mind throughout the project.

Our dedicated solutions transform warehouses, distribution centres and manufacturing plants into safe, comfortable, sustainable and smart environments that provide excellent working conditions for staff and operational benefits for managers.
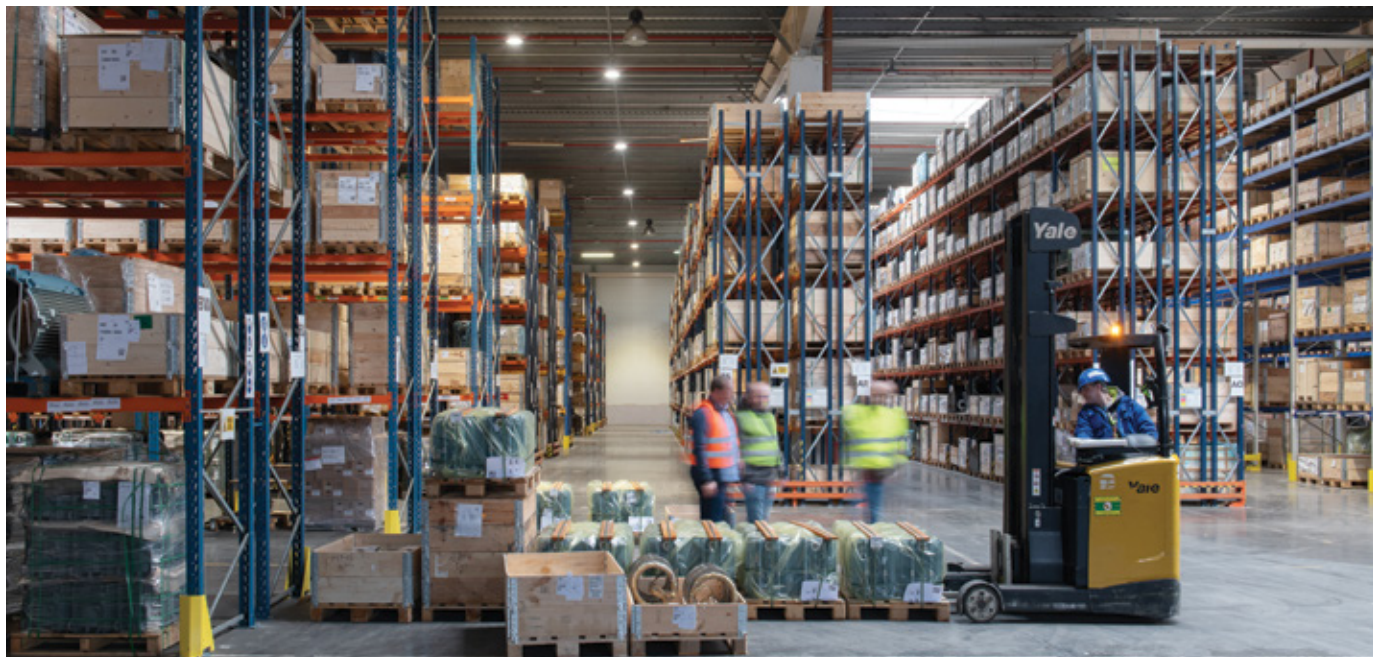

AUDIT

CONSULTATION

SOLUTION

Process timeline

AUDIT
ANALYSIS AND TECHNICAL EVALUATION

LIGHTING DESIGN AND RECOMMENDATIONS

CONSULTATION

SOLUTION
DEFINITION AND FINE TUNING

SCHEDULE AND PROJECT MANAGEMENT

PROJECT PLAN

QUOTATION
COMMERCIAL OFFER, TERMS AND CONDITIONS

DEPLOYMENT LIGHTING EQUIPMENT

INSTALLATION

COMMISSIONING
TECHNICAL DEPLOYMENT OF THE SOLUTION

ON-SITE TESTS AND HANDOVER

TRIAL AND VALIDATION

OPTIMISATION
FINE TUNING OF THE INSTALLATION

PRESERVING OPTIMAL PERFORMANCE OVER TIME

MAINTENANCE

EXTENSION
ADDING NEW FEATURES TO THE INSTALLATION

A few of our **projects**

Tehomet - Kangasniemi, Finland

Sistema Poland - Lodz, Poland

Schréder Socelec - Guadalajara, Spain

Phoenix Contact - Zaventem, Belgium

MaBe - Bermatingen, Germany

Habighorst - Hagen, Germany

Carrefour - Cestas, France

4 key factors
for a good lighting study

A good lighting design minimises energy consumption while ensuring safety and visual comfort for employees.

This is where our experts come into play by analysing the following key factors:

☑ **Building configuration:** this is the very first step. Visiting the facility and making an inventory of all the existing fixtures in the different work areas.

☑ **Business activity:** the horizontal and vertical illuminance will strongly depend on the type of activity. Pallet racks will require specific vertical illuminance while product quality inspection will require a defined level of lux at a specific workplane height.

☑ **Maintenance factor:** Maintenance factor is what makes sure your lights keep doing their job for long after they have been installed. It has to be carefully calculated and is a combination of several elements. For example, if a lamp fails, are you going to replace it immediately or wait for the next round of maintenance?

☑ **Surface reflection:** studies have shown the possibility of generating electrical energy savings of up to 45% by increasing surface reflection properties. It is essential to have this information to deliver the right light.

Schréder

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