



Logistics and Industry



Logistic and industry is always evolving! Are you?

Gone are the days of dusty dark shelves in poorly lit warehouses; today warehousing capabilities are an important economic and service benefit to businesses. Logistic platforms and warehouses are continually growing in size and importance due to the exponential growth of e-commerce and mail order selling.

The logistics and industry sector has evolved significantly over the last decade, reflecting the changing way in which goods are produced and distributed. Vast warehouses are becoming an established part of the industrial landscape, constantly evolving to keep pace with developments.

Lighting is essential to these unique working environments. With few windows, high ceilings and large floor surfaces Logistic and Industry buildings require specific lighting that adapts and conforms to their specific needs.

Lighting best practices

All lighting solutions should consider:

Maintenance

- + Dust and moisture resistance (IP65+)
- + Corrosion resistance (including special versions for corrosive atmospheres)
- + Smooth external surfaces, to avoid build-up of dust and grease and allows for the fitting to be easily cleaned



Quality of Design

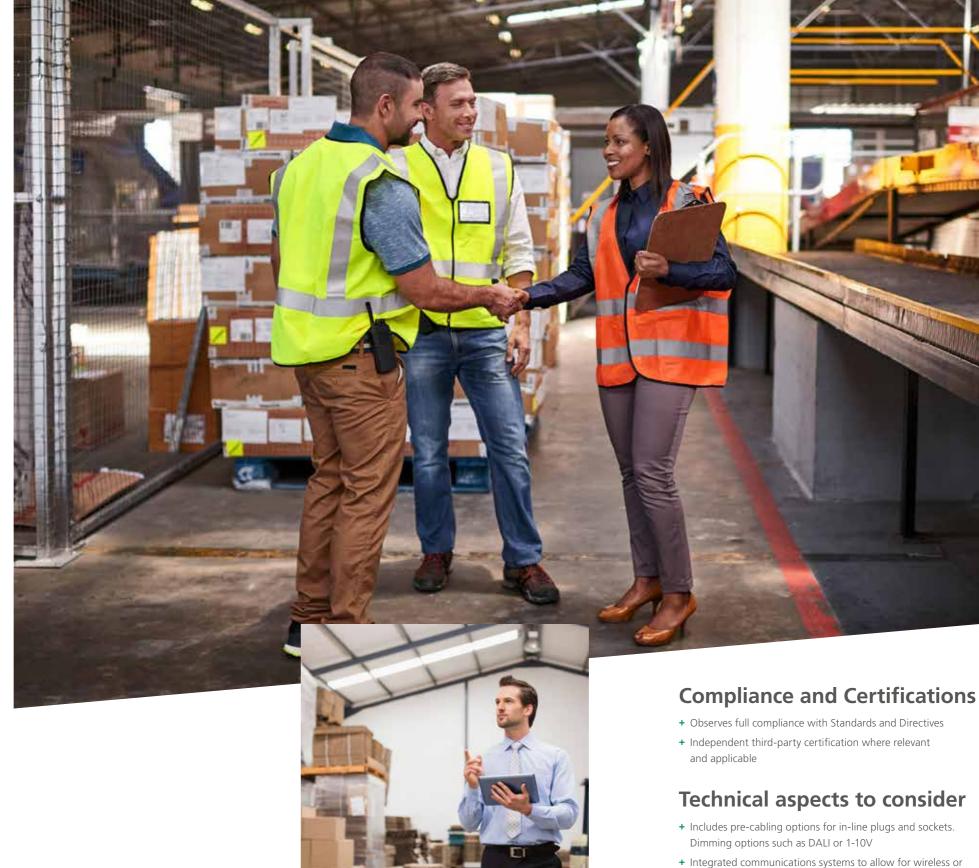
- ► Efficient aesthetic design
- + Durable & robust construction suitable for harsh environments and intensive usage (24h/7)
- + Ease and speed of installation
- + Offers a range of mounting options
- + Comes with different body colours to help with visual management or simply match brand guidelines
- Ability to fit in additional accessories such as protective grille/wire guard that will enhance the durability of the fitting
- Range of optics suitable for different situations (open areas, aisles, high racks,...)
- + Modular design allows for upgradeability and easy disassembly



- Maximised Energy Efficiency (best Im/W)
- + Good light levels and uniformity
- + Colour stability of light over batch and over life
- + Limited surface temperatures especially for dusty environments

Glare and Flicker

- + Minimised glare many other LED high-bay and low-bay products do not achieve good glare control or limitation
- + Low optical flicker and stroboscopic effects essential wherever moving and/or rotating machinery is in use



- + Observes full compliance with Standards and Directives
- + Independent third-party certification where relevant

Technical aspects to consider

- + Includes pre-cabling options for in-line plugs and sockets. Dimming options such as DALI or 1-10V
- + Integrated communications systems to allow for wireless or power-line carrier, controls and sensors
- + Low inrush current and maximised number of fittings per
- + Availability of high temperature versions for hot countries or for high temperature industrial halls and other specific
- + Complementary self-contained emergency lighting solution



'Lights Out' Objectives

Trends in automation and data management often talk about the ideal 'Lights Out' factory – one that is autonomous, intelligent and requires minimal human intervention. An ideal scenario requires common business objectives and considerations to achieve them, such as ...



Ensuring compliance

Emergency lighting is a critical component in the modern factory /warehouse but often overlooked. Smarter facilities find ways to reduce or remove the burden of testing emergency lighting, through automatic, centralised self-testing. Critically, these systems rely on the installation of LEDs, which can help to achieve compliance in meeting increasingly stringent emissions targets and improving overall energy efficiency.



Enhancing Wellbeing

A well-lit factory impacts on the wellbeing of employees. In logistics, where shift work is prevalent, creating a more 'naturally' lit environment is particularly important. The optimum lighting system will carefully balance the need for high bay illumination with the comfort of operators.



Optimising Pick Rates

Suitable lighting in the workplace directly influences productivity.

This is of paramount importance in a very complex environment such as warehouses and logistic platforms where a variety of people, machinery, racking and vehicles in constant motion coexists.

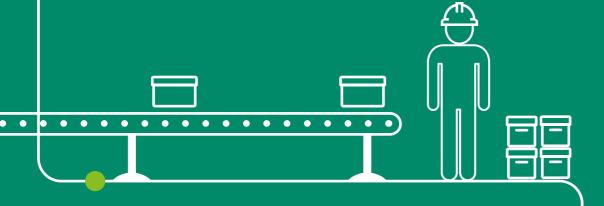
Improved lighting levels can increase productivity by 10% and reduce errors in manufacturing by 30%.



Reducing Maintenance time

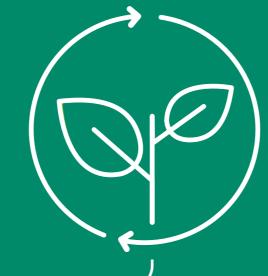


Maintenance is key, but can be difficult for the high bay lighting native to warehouses, factories and distribution centres. Managing maintenance remotely through LEDs and centralised control systems reduces the need for zonal shut down and reduces downtime. Smart lighting systems can help Facilities Managers to optimise their maintenance schedules, by using occupancy detection to control usage and extend life-cycles.



Saving Energy

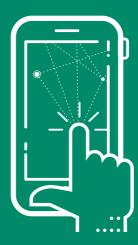
As energy costs increase, there are huge opportunities to reduce energy usage by taking a more efficient approach to lighting and extending lighting life-cycles. The first step is to understand how and where it is used and where inefficiencies exist by undertaking an Energy Audit of your facility to determine output and possible wastage. Once LED systems are in place, smarter use should be made of their capabilities.



Saving Money

A switch-over to LED, an evolution to Smarter technologies, or a combination of both, can reap considerable financial rewards for factories, warehouses and distribution centres. So can more innovative approaches to financing. Sylvania can assist with intelligent, efficient lighting solutions, and help you to afford upgrades with new financing models.



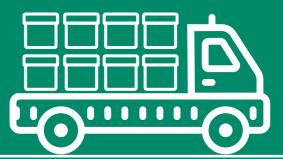


Taking Control

Smart controls such as Sylvania's SylSmart use the very latest technology to continuously detect human presence and natural light levels, adjusting the levels of artificial lighting to match the needs of each facility in real time. Busy areas will stay bright and well lit, whereas quieter areas will automatically dim gradually to save energy. Ease of installation of LED combined with solutions that lower maintenance and replacement, plus Smart solutions that offer control, connectivity, digitisation and monitoring.

Safety and Efficiency

Congested and dangerous areas of a warehouse or distribution centre require effective lighting installations. With the risk of accidents and damage to stock, good night and day visibility is critical for on-site safety. With the right lighting scheme in place, traffic flows can be better managed, loading cycles improved and wait times for drivers lowered.





requirements. Many of the buildings are running 24/7 and need an intelligent lighting solution that's energy and cost-efficient, low maintenance and sustainable. Sylvania offer smarter solutions to help

deliver this to any project.

LED

Our solutions bring light to life.

Not only do Sylvania design, manufacture and install lighting solutions, we push the boundaries of technology and strive to innovate in everything we do. Our LED luminaires and lamps transform interiors and light the way for businesses. With a heritage that stretches back decades, we've put our knowledge and expertise to use across hundreds of challenging lighting projects, from multi-site businesses to stunning urban landscapes.

SylSmart

Smarter lighting. Smart Choice.

The addition of robust and secure smart lighting solutions will secure greater operational savings, add greater scalability, flexibility and reliability to your industrial facility. Rapidly installed and easy to commission, SylSmart systems enable flexible lighting control, delivering maximum energy efficiency whilst maintaining a safe work environment.

SylSmart Standalone allows wireless control of smaller application areas simply by using the App and comes with fast, hassle-free installation. SylSmart Connected Industry is designed for large scale premises and provides insight into the operation of your building assets, advanced lighting controls, status monitoring and energy metering.

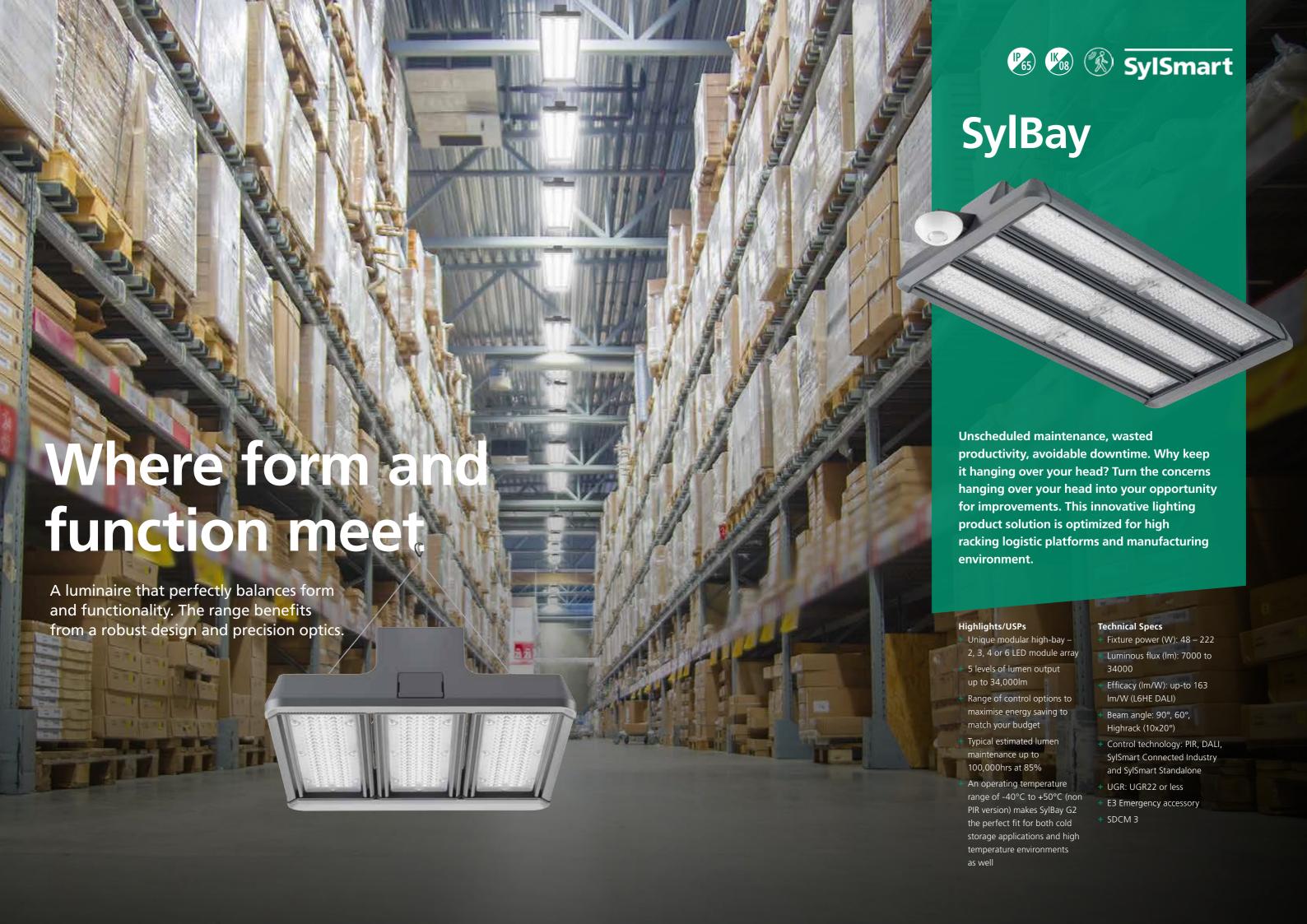
Achieve more through smarter control.

SmartServices

Total solution for a complete peace of mind

Smart Services are designed to provide you with a total solution service. From Audit and Design, through to Project Management, Installation, Measurement & Verification and Commissioning, Sylvania's Smart Services work for you.

Our Smart Services "toolkit" can facilitate projects of any size and complexity to make your life easier and your projects run smoothly.



Energy efficient Long lasting

START Highbay







START Highbay offers an extensive range of high efficiency LED industrial fixtures developed for factory floor production areas, storage warehouses, airports, supermarkets, DIY superstores and large commercial areas. With a nominal average lifetime of 50,000 hours, a 5 year warranty and energy efficient LED technology operational costs and lower your energy consumption.











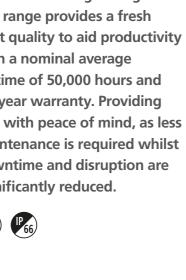






START Highbay HE comes as a high efficient extension to the well known START Highbay range. START Highbay HE has been developed to be energy efficient and long lasting. The range provides a fresh light quality to aid productivity with a nominal average lifetime of 50,000 hours and a 5 year warranty. Providing you with peace of mind, as less START Highbay can reduce your maintenance is required whilst downtime and disruption are significantly reduced.





Highbay Features

- + High performance: delivers 26,000lm (luminaire lumen output on 200W version), with up to 130lm/W (total system efficiency) and a lumen maintenance of 60,000 hrs L90B50
- + Three lumen packages (13klm, 19.5klm, 26klm) and two beam angles (60° and 90°)
- + Low glare value, <25 (90°), <22 (60°) recommended for industrial application
- + Operating temperature from 30 to +50°C
- + Additional accessories: Three types of reflector hood (aluminum, aluminum black and PC) and mounting brackets for usage in different applications

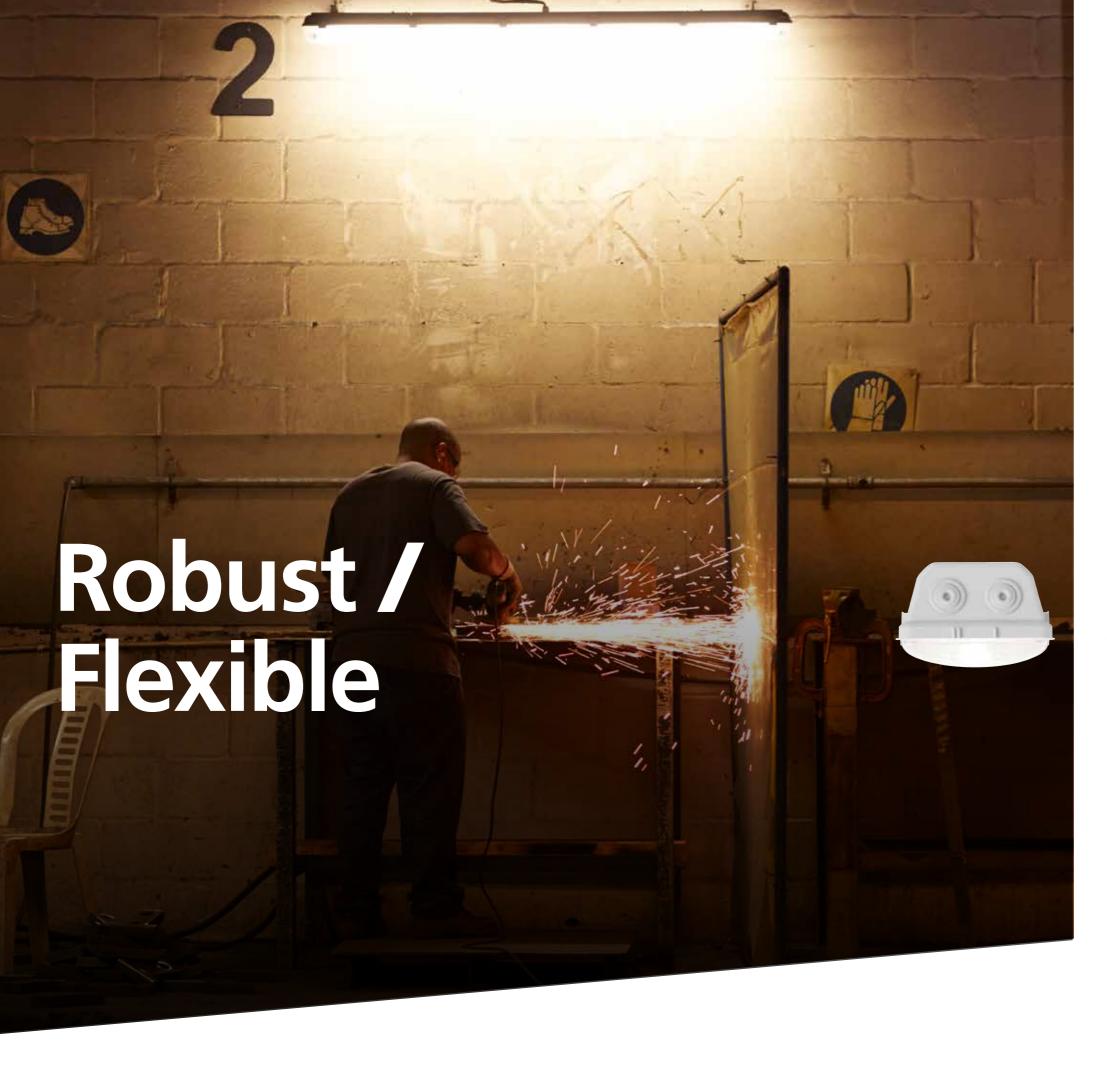
Highbay HE Features

- + Extraordinary performance: delivers up to 35,000Lm (luminaire lumen output on 228 W version), with up to 155 Lm/W (total system efficiency) and a lumen maintenance of 60,000hrs L90B50
- + 2 different lumen packages (30klm and 35klm) and 2 different beam angles (60° and 80°)
- + Low glare value <25 WB and <22 MB recommended for industrial application
- + Operating temperature from 30 to +50°C

Highbay / Highbay HE - Shared Features

- + Available in 1-10V and DALI version
- + Available in neutral white (4,000K) and cool white (6,500K) colours
- + Photobiological risk group: RG1
- + Compatible with PIR sensor (Code: 2657747) which can control up to 10 luminaires on the 1-10V output





Sylproof Superia







Sylproof Superia is ideal for use in dusty or moisture-rich environments, where high protection and flexibility are essential.

Greater efficiency, better color consistency are just some of the many benefits Sylvania's Sylproof Superia provides without compromising superior light quality. Suitable for both retrofit and new build applications, Sylproof Superia luminaires are extremely low maintenance with a nominal average lifetime of 50,000 hours.



Highlights / USPs

- + Highly efficient up to 155lm/W with a lumen maintenance of 60,000hrs (L80B10)
- + SylSmart Connected Building options available
- + Heat and impact resistant polycarbonate body (IK08)
- + Smooth body finish optimised for LEDs
- + Slimmer diffuser optimised for LED
- + UV stabilised polycarbonate body and diffuser ensures no discolouration will occur over time
- + Clear prismatic PC diffuser for improved uniformity
- + Stainless steel fixing brackets for ceiling mounting
- + Through wiring kit available on request
- + Suitable for suspension mounting
- + 5 year warranty as standard
- + MW function with dimming option
- + DALI EM version

Resilient Smart

Hydroproof



Vibration. Water. Dust. Chemicals.

Hydroproof's body is built from extremely durable glass-reinforced polyester, constructed to withstand abrasive chemical exposure for optimal performance in a highly corrosive environment.

Suitable for complex environments with challenging demands, its clear PMMA diffuser (IK04) enhances uniformity and emits a softened, controlled light with minimal glare. Hydroproof is extremely low maintenance with a nominal average lifetime of 50,000 hours.

Future proofing with SylSmart

SylSmart elevates industrial lighting to a higher calibre. It evolves with your needs, ensuring your future access and remote upgrades to the latest technology through investment in smart lighting today.











SylSmart

elements? Constructed from polycarbonate body and diffuser, Start Waterproof LED offers great energy savings. The luminaire benefits from a water and dust resistant polycarbonate body and diffuser offering IP65 protection and an impact rating of IK08. The linear prismatic diffuser structure optimises light output, simultaneously reducing damaging glare.

Technical specs

- + Fixture power (W): 12-74
- + Luminous flux (lm): 1,400 9,800
- + Efficacy (lm/W): up to 132
- + Beam angle: 100°
- + Control technology: Switched or DALI
- + Available in SylSmart Standalone and Connected Industry options



START Flood IP66





Highly efficient, durable die-cast aluminium body makes START Flood a perfect choice for building facade, parking lot or area lighting applications providing 1:1 replacement of conventional technologies. The family comes in 5 different sizes, available in Symmetric and Asymmetric beam angles and offering wide range of accessories.

Highlights / USPs

- + Includes a 1m pre-wired stripped cable and fitting bracket for quick and easy installation
- + Low maintenance cost due to the long lifetime thanks to the efficient LED technology
- + Universal mounting bracket allows wall or surface mounting with the possibility of vertical tilting
- + A wide range of lumen packages from 7.400 -42.800lm (50w-300w) to cover many different applications
- + Neutral white (4,000K) colour temperature
- + Symmetrical or Asymmetrical light distribution

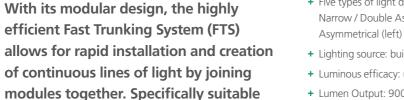




FTS - LED







for use in open space environments such as department stores, warehouses and production facilities.

Highlights / Technical features

- + Five types of light distribution beam available: Wide / Narrow / Double Asymmetrical / Asymmetrical (right) /
- + Lighting source: built-in LED module
- + Luminous efficacy: up to 152 lm/W
- + Lumen Output: 9000 lm & 18000 lm
- + Color Temperature: 4000K Neutral White
- + CRI: >80
- + Lifetime: 50,000 h L80B50
- + Chromaticity: <3 SDCM
- + Mounting: Suspended, In-line
- + Housing: Supporting rails and gear trays made of profiled steel sheet, white pre-lacquered
- + Ta (min/max): -20°C / +35°C
- + Two sizes available: 1720 mm (9000 lm) / 3440 mm (18,000 lm)

Syl-Line



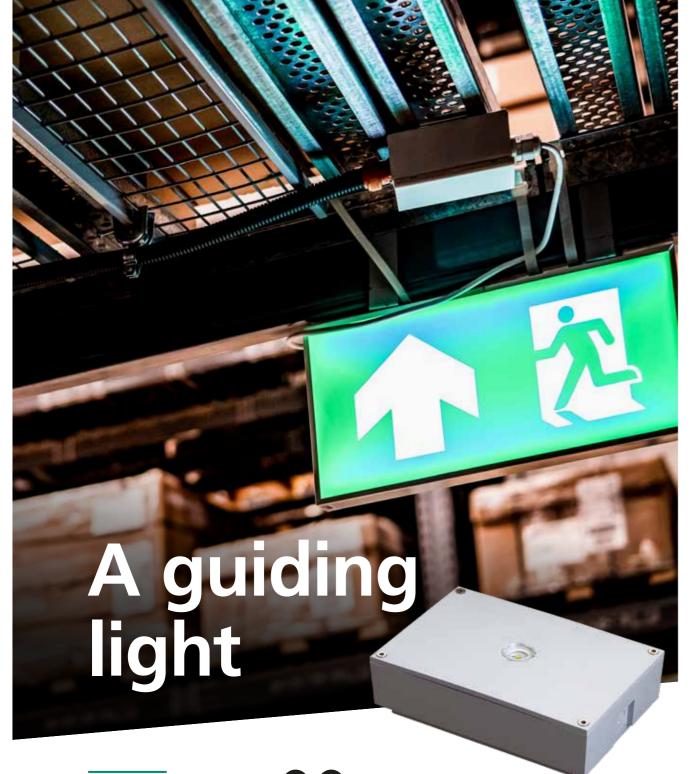


Syl-Line is a versatile LED lighting system, suitable as a superstructure or as a pendulum system, making it the perfect solution for both retrofit and new applications. This system makes the creation of modular lighting systems easy and suitable for applications in open spaces such as assembly halls, warehouses or storage areas.

Syl-Line delivers an impressive light output: with 133lm/w even the darkest spaces without natural light can be effectively illuminated.

Highlights / Technical features

- + 1.72m or 3.44m trunking modules
- + High performance and efficiency: delivers 6535lm (luminaire lumen output on Double Asymmetric version), equating to 133 lm/W (total system efficiency)
- + Energy-efficient electronic equipment, equipped as standard with an electronic non-dimmable or DALI dimmable ballast and emergency lighting 3 hours
- + Optics: Wide beam (WD), Narrow beam (NB) or Double Asymmetrical (DASY)
- + Available with Neutral White (4000K) colour temperature
- + Prepared for easy mechanical and electrical connection of continuous line
- + Plug-and-Play internal electrical connectors
- + Lumen maintenance: 50,000 hours (L70 B50)

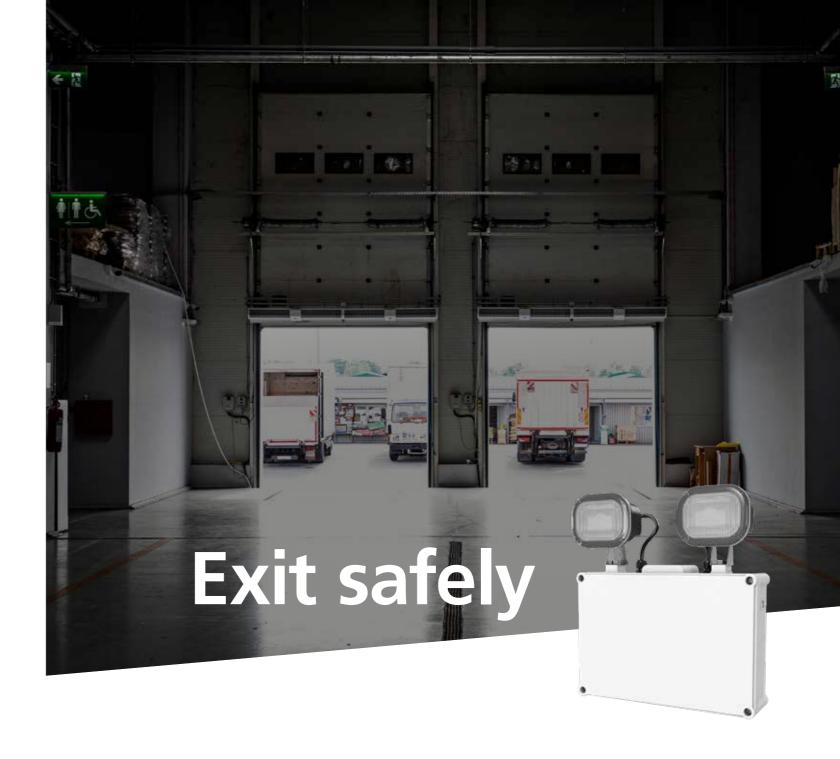




A high performance IP65 rated surface mount luminaire is suitable for highbay, mid-bay, open area and escape route applications. SylSafe Bay is a self-contained LED emergency luminaire offering peace of mind. Its durable IP65 housing creates a sense of security and performance in challenging environments.

Highlights / USPs

- + Emergency lighting luminaires for high ceiling industrial applications
- + IP65 Rated
- + Surface mounted version
- + 5 different light distributions for height flexibility
- + Self contained versions come with 3 hours duration as standard. One hour versions available upon request
- + Central battery versions also available
- + Autotest DALI versions carry out regular tests automatically and use the indicator light to display results.
- + Complete system control and monitoring is also available with DALI versions connected to the separately available N-Light system



SylSafe Twin





With Sylvania emergency fixtures you can gurantee that our lights stay on when others fail.

Sylsafe Twin is perfect for large open areas or high ceiling installations. They emit a large spread of light to facilitate safe building exit. Our Autotest versions carry out regular tests upon themselves automatically, ensuring safety is paramount at all times 24/7.

Highlights / USPs

- + IP65 Rated
- + Surface mounted version
- + Self contained versions come with 3 hours duration
- + Two individually adjustable heads each delivering 200lm
- + Autotest versions carry out regular tests automatically and use the indicator light to display results
- + DALI versions are remote monitoring capable if connected to SylSafe N-LIGHT monitoring unit (sold separately)

Maximum control.

Minimum installation

SylSmart

Standalone

SylSmart Standalone is a multifunctional, easy to control, wireless and plug & play lighting control solution.

You can control your luminaires and manage your space efficiently with multifunctional lighting controls. All of the components are communicating wirelessly, they only need to connect to the mains. Ideal for applications where you need an easy to install, low upfront cost and low maintenance lighting control solution. The core functions of the system such as occupancy control, daylight linking, grouping and scheduling offer plenty of opportunities in very different areas.

What does the solution offer?

Key Features



Minimum installation

Plug & play design.
Simply connect the luminaires to the mains.



Easy programming and intuitive usage

Setting scenes, creating groups and make changes at the touch of a button.



Dynamic lighting options

Through timers, schedules, grouping.



High energy efficiency

Lights can be automatically controlled by occupancy sensor or using timers set by users.



Cost effective smart lighting solution

Good value, feature full solution with low maintenance that allows energy saving and scene programming with minimal disruption.



Reliable and robust wireless controls

Distributed intelligence, each luminaire has its own brain. If any of the components fail, the system will keep working for you. You only need to change the failed luminaire.



Flexibility

Add & move devices if the space has changed. The controls are integrated into the luminaire and use wireless mesh networking between luminaires. No re-wiring and no complex re-programming needed.



Security

Secured system which can be tailored to user's needs. Four different levels of security can be selected. Sharing, administrator only, password protected & open network.



Future proof

With wireless updates, the system can be updated automatically to ensure your controls are always up-to-date and running smoothly, all you need is a smartphone with Internet connection.





Wireless luminaire

- + Integrated wireless controls offering seamless plug-andplay compatibility
- + No additional control cables needed
- + Office, retail & hospitality and industry

Sensor – PIR & Daylight (Optional)

- + Automatically controls luminaires based on presence or available natural light
- + Only mains needed
- + Highbay and lowbay

Wall Switch:

- + No wires or batteries
- + Energy harvesting
- + No maintenance required

100% app setup

100% luminaire setup via the app.

- + Set up luminaires
- + Create energy-efficient profiles
- + Set energy efficient profile scenes
- + Set up wall switch
- + Set timers
- + Intuitive and fast
- + Ultimate flexibility to place the switch where needed



SylSmart Connected Industry is a highly intelligent lighting control. Providing an easy to install and commission experience, the solution is robust, secure, flexible, scalable whilst delivers high efficiency with low maintenance throughout.

Connected Industry has been designed to meet the challenges of industrial environments by using robust and secure wireless frequencies combined with tough and highly capable industrial grade sensors and luminaires. Intelligent controls deliver maximum energy savings. Each luminaire is enabled with occupancy and daylight sensing. With advanced monitoring capabilities, Connected industry can also help reduce operational costs. Industrial applications have many

different areas of use, so a solution that is flexible to meet these different needs is key. As business requirements change, facility layout requirements also need to adapt and SylSmart controls can be re-commissioned and adapt to changes with minimal disruption. No matter the size of your site, Connected industry is scalable to meet your needs, allowing you to start with a single site and expand across your entire estate.

"Smarter lighting controls combined with energy monitoring and central control can deliver up to 90% energy saving"

90% energy saving

Edward Lees, Global Head of Technical Development – Smart Lighting

Key Features



No additional control cables: Each luminaire is wireless making installation quick and easy.



Maximise energy saving: Each luminaire offers high grain control delivering up to 90% energy reduction.



Local control: With wireless grouping and scheduling choose your precise lighting controls needs to meet your application.



Centralised Monitoring: Connected Industry helps you control your costs through optimisation of lighting controls and planning maintenance more effectively.



Building system integration: Can be linked to Building Management Systems to become smarter and more efficient.



Tough luminaires, tough controls: All luminaires and their controls are IP65 rated to ensure they can withstand the elements.



Built for you: Connected Industry is a system you control without the need to call in expensive engineers.

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SmartServices can assist you in delivering your projects to achieve energy efficiency, carbon savings, compliance, piece of mind or simply discovering what is actually in your estate.

Audit

This can be as simple as creating an asset register, to as critical as ensuring Emergency Lighting compliance.

A Sylvania Audit can also discover the opportunities for your business to make efficiency gains and savings.

Design

What's best for your project?
Where do the fixtures need to go?
Is my Emergency Lighting in the right place? Use a Sylvania Design service to provide you a professional lighting design and all the associated outputs.

Turnkey installation

As a 'one stop shop' Sylvania will Project Manage your project, install the new lighting equipment, remove and recycle the old equipment and ensure your new equipment is set up, optimised and customised to suit your operation.

Commissioning

You've got your new lighting infrastructure - ensure that it is set up in the most efficient manner, ensure it is compliant or just have some changes made post a space reorganisation - use the Sylvania Commissioning option.

Measurement & Verification

Our M&V service captures real time energy consumption of the existing and the new lighting solution of your premise, verifies actual savings compared to proposed ROI. Through the remote M&V online tool it allows you to oversee your site: detect anomalous working, receive notifications and reports. The power is in your hands!

Maintenance

Keep your infrastructure in tip top condition; ensure continued compliance and efficient operation.





Tailored solution with 2,3 years payback & turnkey service

Turnkey service

Metal Factory Elterlein

Adaptive & customized Sector: Logistics Client: Transgourmet Location: Cestas, France Solution: SylSmart Connected industry, Turnkey Installation Service, Start Waterproof MW, Panels & Downlights

Transgourmet

















Although every effort has been made to ensure accuracy in the compilation of the technical detail within this publication, specifications and performance data are constantly changing. Current details should therefore be checked with Feilo Sylvania International Group Limited...

Feilo Sylvania International Group Kft., March 2020

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