Glamox

lux & lumen

• NEWS • PRODUCTS • IDEAS 2024

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News magazine and product guide 2024

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Sales terms
All products listed in this publication are covered by the company's general terms of sale. These are available upon request.

Please refer to our website for information about our 5 year warranty.

The Glamox Group

Glamox develops, manufactures and distributes professional lighting solutions for the global market.

Quality brands and solutions
The Group owns a range of quality lighting brands. Glamox is committed to meeting customer needs and expectations by providing quality products and solutions, service and support.

Technology and expertise
Our products and solutions are developed and tested by our engineers at our own research and testing facilities, and manufactured and certified in accordance with all relevant quality and environmental standards. They are based on the latest technology and expertise – and generations of experience.

Our product brands for land based lighting

Glamox is a leading lighting brand for professional markets, onshore and offshore, established in 1947. The wide assortment of Glamox products is of superior technical quality, and available for a wide range of applications – including challenging environments.

For more than 80 years Luxo has designed mainly arm-based innovative, ergonomic lighting products. Luxo products improve lighting conditions, taking particular care of individual needs.

Küttel is a leading supplier of professional lighting solutions, based in Kriens in Switzerland. Products from Küttel combine quality, up-to-date technology and contemporary design.

Since 1986, Luxonic has excelled in the design and manufacture of energy efficient, aesthetically pleasing lighting products, for the education, health-care, commercial, retail and industrial sectors.

ES-SYSTEM's mission is to deliver energy- efficient, innovative and compre-hensive lighting solutions while minimizing its negative impact on the natural environment and maximizing care for the users' comfort and health.

lumen

lux

lumen (lm) is the unit of luminous flux; a measure of the total amount of visible light emitted by a light source.

lux (lx) is the unit of illuminance, measuring luminous flux per unit area; a measure of the intensity of light that hits a surface.

A new era in lighting

As we move beyond 2023, traditional light sources are giving way to a new era in lighting. The RoHS directive has reshaped our approach to illumination, promising significant energy efficiency gains. At Glamox, we are proud to have delivered projects where our customers have achieved energy savings of over 90%.

While these advancements bring challenges, they also present opportunities. Upgrading to energy-efficient LED lighting with wireless controls not only benefits new projects but also offers advantages for retrofitting older establishments.

Over the past year, Glamox has undertaken a Human Centric Lighting (HCL) tour across Europe. Our goal was to emphasize the profound impact light has on humans. The right light at the right time can influence everything from our sleep to how we feel and perform.

Whether planning a new lighting project or considering an upgrade, it is crucial to understand that lighting goes beyond meeting regulations or managing costs. The primary concern is the quality of light. Lighting serves to aid people in their tasks, ensure comfort, and promote safety.

At Glamox, our mission is clear: "Creating light for a better life." Ultimately, it is about people. Join us in embracing this new era in lighting.

Modern products and solutions

We offer a range of lighting brands, and provide our customers with expert advice and solutions. Our products are engineered for easy installation, with modern electronic components and light sources for the best energy efficiency and economy. Our lighting solutions help create the experience of comfortable, flexible and stimulating working environments – enhancing efficiency and performance, while taking care of individual needs.

Glamox is certified in accordance with ISO 9001 and ISO 14001.

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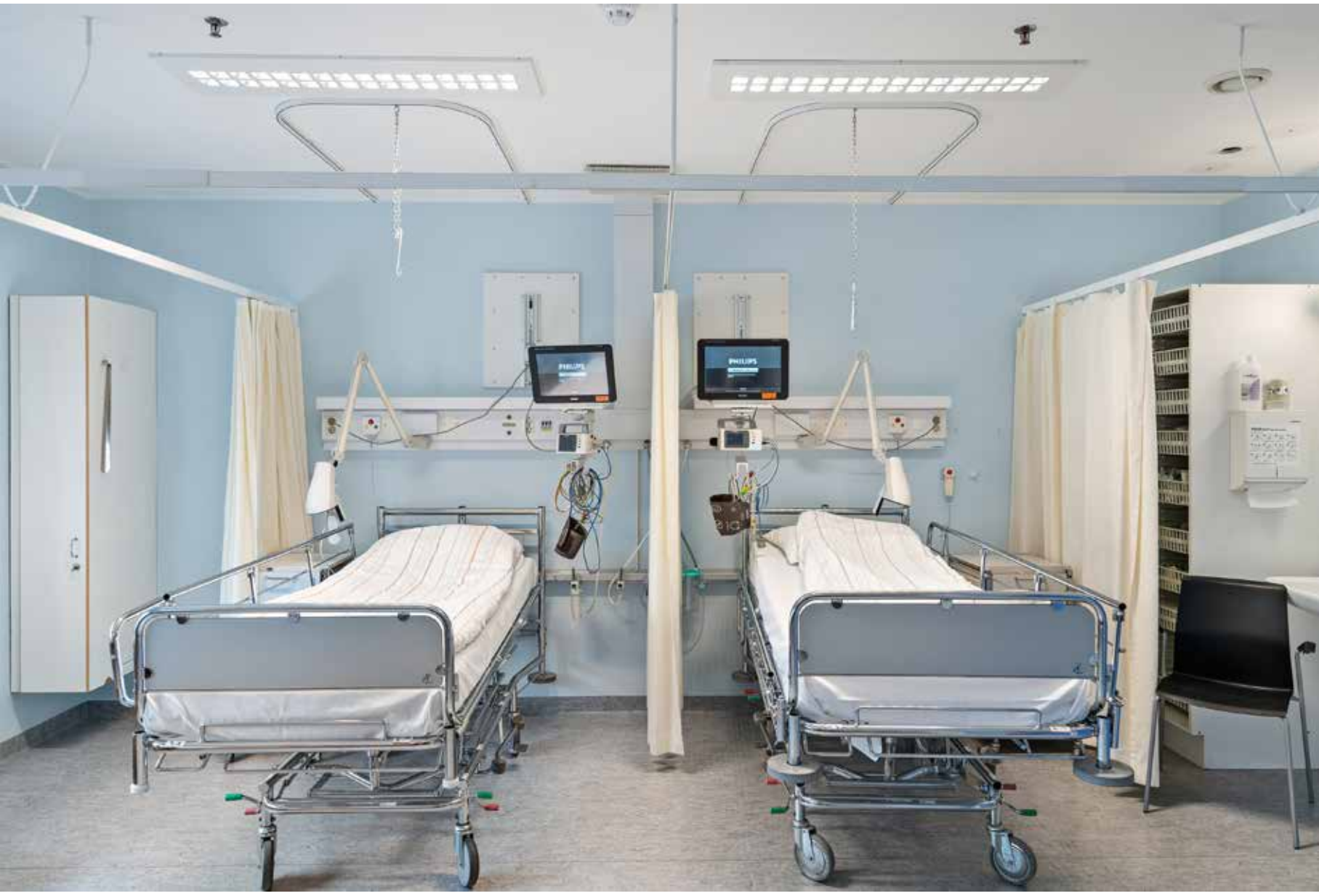
Glamox 2024

Lighting replacement without shutdown

All patient rooms at the University Hospital of North Norway (UNN) have been given new and improved luminaires without needing to shut down the hospital or take apart the ceilings.


PHILIPS
PHILIPS

OPENED IN 2001, the state-of-the-art hospital is the biggest in Northern Norway. A total of 34,000 luminaires will be replaced at UNN over the next two years. All patient rooms have now been given new lighting via a simple upgrade that eliminates the need to shut down the facility or clean the rooms.

The EU RoHS directive, which came into effect on 25 August 2023, prohibits further use of T8 fluorescent lamps. This is the main reason why UNN chose to replace its old fluorescent lamps. In a busy hospital environment, it is crucial for this work to be done as quickly and seamlessly as possible.

Replaced in five minutes

TThe solution was our simple LED kit, which replaces the technology in the old luminaires without replacing the luminaires' housings and without any changes being made to the ceiling. The entire replacement takes just five minutes.

The new light sources have different optics that improve the way light is distributed in the room.
In addition to better lighting, UNN has achieved energy savings of 75% compared to before the replacement. This means the light sources will pay for themselves in just 2.5 years.

The UNN luminaires have been supplied without any sensors or a lighting control system, but many of the newly installed LED luminaires in the hospital are connection-ready. This means that smart lighting control systems for precise monitoring and control can be integrated at a later stage – a feature that will, in turn, lead to even greater savings in terms of both energy consumption and economy.

> Our LED luminaires will enable the hospital to make substantial power savings on lighting and reduce its carbon footprint!
>
> Astrid Simonsen Joos, CEO of Glamox

Reducing our carbon footprint

"Having our luminaires selected for this project is really special to me, because I was born and raised in Tromsø," says Astrid Simonsen Joos, CEO of Glamox. "UNN is a pioneer in doing what is right for patients, staff and the environment. I am also delighted that the transition to our LED luminaires will enable the hospital to make substantial power savings on lighting and reduce its carbon footprint."

Upgrading the lighting in the patient rooms was the first step in the delivery of our products to the hospital. The rest of the 34,000 luminaires will be replaced in the next two years.


Learning Market

The Catalyst

Education Lighting controls

The Catalyst is a new-build, 8,800 m^2 , four-storey college building, designed for apprenticeships and skills-based teaching in a flexible, digitally-enabled space.

LOCATED AT STAFFORDSHIRE University's Leek Road Campus in Stoke-on-Trent, The Catalyst offers social and academic activities in a space that can also be used for events, community activities and much more. Sustainability and social value commitments were at the heart of the project. Open 24/7, it is expected that The Catalyst will facilitate more than 6300 apprenticeships by 2030.

The Brief

The customer required a complete lighting solution incorporating several different elements, and 'a one-stop shop' was desired. Having previously worked on numerous projects with us, the customer was aware that Glamox could meet all their needs due to our large range of luminaires and cutting-edge lighting controls.

The customer demanded a variety of luminaires designed for specific tasks, such as outdoor, pathway lighting, and indoor track-mounted spotlights. A wireless lighting control system was also required. The largest meeting room, which can be converted into 1, 2, or 3 separate rooms, needed flexibility for the lights to be controlled independently of each other or as one complete lighting system.

The Solution

The entire lighting project was specified using our wireless lighting control system, 'Glamox Radio'. This provided the highest level of flexibility, monitoring, and control, as well as the ability to modify parameters in the controlling software. This was used to maximise energy efficiency and optimise the use of the staff's time.

Almost 1900 luminaires were supplied for The Catalyst building project. The products supplied were wide-ranging in terms of the tasks they were designed for as well as aesthetics. Outdoor products ranged from, the wall-mounted,

vandal-resistant, O10 luminaire, to the pole-mounted, O55 luminaire for street and pathway lighting. Indoor products comprised of the S80 track-mounted spotlights and elegant, suspended, C90 luminaires.

Some of the luminaires required a design modification specifically to meet the customer's need for emergency light fittings to maintain wireless connectivity, while connected to a central battery system. Normally, batteries are integrated into the emergency luminaires. An easy-to-use lighting control switch was provided and software set up to allow for the separate lighting control of each of the three meeting rooms, or joint control when using the space as one large meeting room.

The Result

All the customer's requirements were met. Today, The Catalyst has a state-of-the-art lighting system installed. Where presence detector sensors are fitted in luminaires integrally, space usage can be identified and the lighting system controlled to maximise energy savings.

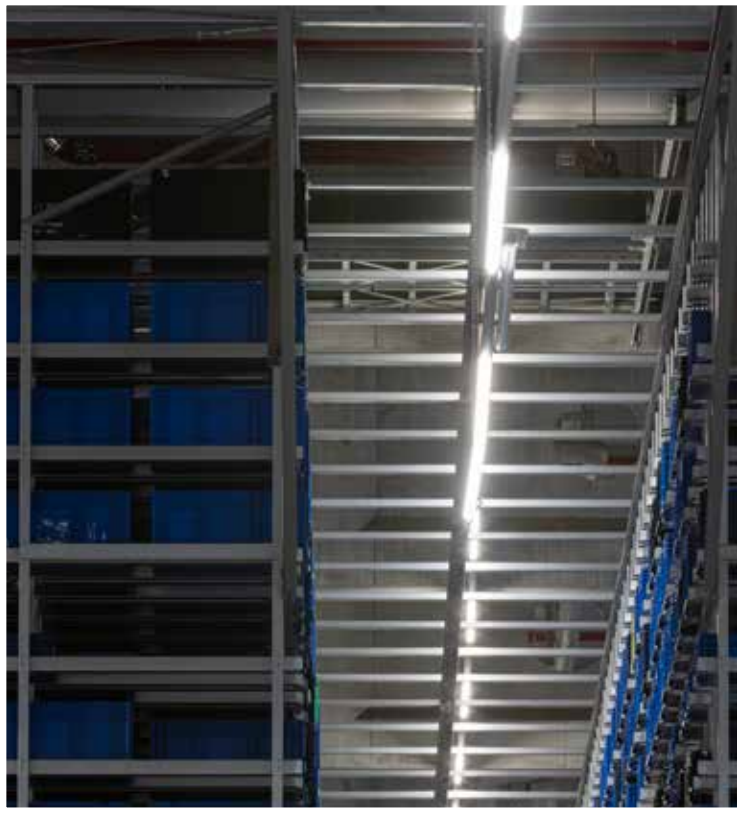
The status and health of the system, as well as emergency luminaires, can be monitored remotely. This means that staff don't have to walk around physically checking for issues. The lighting can be controlled, and reports viewed, via a hand-held tablet. After some training, users were able to easily configure the lighting system's operational programming themselves. This proved useful when the lighting regime was changed to accommodate The Catalyst being open 24/7.

Following on from this project, Glamox supplied lighting for Staffordshire University's Woodlands Day Nursery and Forest School. The roll-out of wireless technology and emergency lighting throughout the University is being considered.

Successful conversion

About Robert Bosch Fahrzeugelektrik Eisenach GmbH

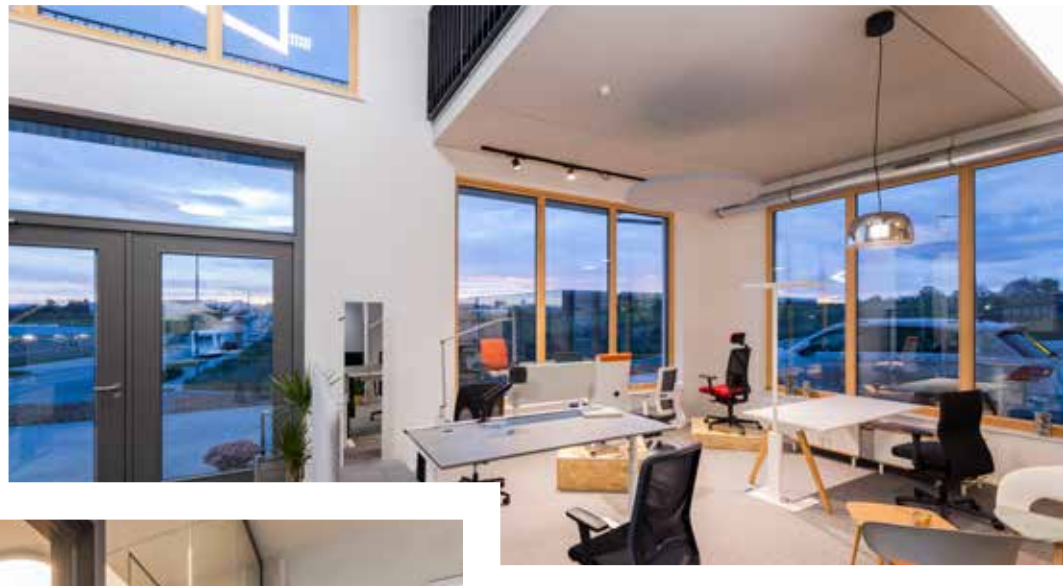
Robert Bosch Fahrzeugelektrik Eisenach GmbH was founded in September 1990. With over 1,700 employees, the company has grown into one of the largest industrial employers in Thuringia. Sensors, transmission controls and 48-volt batteries are manufactured on 45,000m2 of usable space and are supplied to customers in the automotive industry worldwide.



THE BOSCH GROUP is a world-leading technology and services company with numerous locations across Europe, Asia and the USA. The company improves the quality of life for people around the world through innovative products and services. The production site in Eisenach manufactures sensors, transmission controls and 48-volt batteries that make driving safer, more efficient and more comfortable. In order to cover the increased need for space in the plant, Robert Bosch Fahrzeugelektrik Eisenach GmbH decided to expand its production and logistics areas as well as modernise existing areas. For the conversion of a production hall, our lighting experts developed a lighting concept that enabled Bosch to convert the outdated fluorescent tube technology into LED lighting quickly and easily. The energy-efficient, single-component continuous rooflights were installed in one step, which equates to a reduction in the installation time of around 70% compared to conventional quick-mount systems. As the traditional carrier rails are not needed for REDOX continuous rooflights, the ceiling was installed in just a few minutes. In daily use, the IP66-certified REDOX continuous rooflight system offers extremely high luminous efficacy with minimal energy consumption. The seven-pin REDOX generates continuous, shadow-free light and offers effective LED technology in a range of module lengths. The LED luminaire comes with a light colour temperature of 4000K as standard, with a colour rendering value of Ra 80. The product's efficient temperature management ensures a high useful lifetime of at least 100,000 hours. REDOX can be used in temperature ranges from +45°C to -25°C, while dimmable lighting can be added as an option through DALI. Each luminaire has been extensively tested and bears the European ENEC mark for certified safety.

An ergonomic sense of comfort

Lighting design is about more than just illumination. It shapes the ergonomics, style, and ambience of a space. Kienzle Büroplanung und Einrichtung GmbH has been developing lighting concepts for business premises throughout Germany together with Glamox experts for many years.



IN 2022, THE SIBLINGS HEIKE AND DANIEL KIENZLE drew on their experience of long standing in the design of their own business premises. The newly erected Kienzle building, spanning more than 400 m^2 in Backnang, is hallmarked by a modern, sustainable, feel-good ambience in a Scandinavian style. Clear shapes, combined with wooden elements, colourful rugs, and seating furniture result in a visually harmonious overall concept that optimally takes into account the diverse needs and requirements of modern working environments. Just like the interior design, the lighting solution follows the desire for Scandinavian warmth and comfort combined with ergonomic functionality. In the spacious meeting room, the round Glamox C95 luminaire for recessed mounting creates homogeneous, glare-free light. Integrating the luminaire into an acoustically effective panel adds a distinctive look to the luminaire and the entire room. A triangular Glamox TRIANGLE pendant light illuminates the corridors and atrium. In the atrium, the three-dimensional, floating structures of the luminaire convey a sense of height and width. In the stairwells, the TRIANGLE serves as a luminous guide to the upper floor. Glamox floor lamps Linea and Free Floor are used in the workplaces. Both luminaires offer excellent light distribution with low energy consumption as well as an attractive combination of direct and indirect light. With their slim aluminium lamp heads, the floor lamps remain discreetly in the background while creating an open and modern office atmosphere. The lounge areas are illuminated by SNÖ, SVA, ELV and L1-P pendant lights. All luminaires offer an attractive combination of functionality and design, and blend seamlessly into the clear design of the rooms. The semi-transparent, reflective glass domes of the SNÖ and ELV luminaires in particular are among the visual highlights of the well-conceived design concept.

About Kienzle Büroplanung und Einrichtung GmbH

Kienzle Büroplanung und Einrichtung GmbH has been providing expert advice from planning to the finished office for more than 28 years.

Eximius Park
Zabierzów Poland

Eximius Park in Zabierzow was created with a very ambitious mission – it was meant to become a place where work would harmonise with passion. Each element of this modern office complex was designed with the comfort, satisfaction, and safety of its users in mind.

THE AESTHETICS OF EXIMIUS PARK'S sophisticated interior gained even more originality thanks to our custom lighting solutions.

The Eximius Park complex consists of four main buildings – 200, 400, 800, and 1000 – with a total area of more than 50,000 m2. In addition to large office spaces, this huge area includes a fitness club, a conference centre, and several lunch bars. Each of the facilities also has a spacious reception lobby that can be used for organising various events.

The visual aspects of this representative space are what immediately comes to the forefront. Light, as the fourth dimension of architecture, has a tremendous impact on the aesthetics of a given space – it can emphasise its elegance, bring out details, and even be decorative in itself. Customised lighting solutions are the perfect way to fully utilise the potential of the spacious foyers in the Eximius office buildings.

Even the most exquisite décor can lose its allure without the proper lighting. That is why our task was to equip the hallways of the 200 and 1000 buildings at Eximius Park with well thought-out, astonishing lighting. The considerable area of both rooms – more than 300 m2, with a height of 20 metres – made for exceptionally demanding conditions. Above all, the proposed luminaires had to have a striking appearance in the massive space in addition to evenly illuminating it and creating the right atmosphere.

In order to meet all these requirements, we combined our many years of experience and advanced manufacturing technologies with the artistic sense of the specialists from the MOFO Architekci design studio in Warsaw.

The unique arrangements we created together using the S6000 FLOW luminaires were a true challenge in terms of lighting parameters, their construction and the installation itself. We additionally had to keep in mind the special requirements of the customer, including providing exceptionally thorough documentation. In addition, the impressive structures in terms of size and complexity had to be adapted to the applicable standards to ensure 100% reliability and safety of use.

A spatial lighting arrangement was created in the atrium of building 200 using 15 S6000 FLOW luminaires suspended at 6 different heights on a reinforced support structure with a diameter of 4 metres. Due to the considerable weight of the luminaires, a special winch was installed above the ceiling, making it possible to adjust their height and facilitate maintenance work.

Most importantly, the reception lobbies in buildings 200 and 1000 were adorned with an astounding decoration that attracts attention from a distance. The fantastic composition illuminates the entire space, looks stunning, and perfectly highlights the atmosphere of the facility, where work can be a real pleasure.

Another significant advantage of this project is the flexibility in the selection of light scenes made possible by the state-of-the-art DALI lighting control. This excellent feature offers complete control over every luminaire and lets the users set up any desired lighting schedules. In addition, motion and dusk sensors make it possible to maintain a constant light intensity during varied operating hours. At
night, the luminaire brightness is reduced to 20%, bringing electricity consumption down to only 150 W.


1000

Human Centric Lighting –

Bringing healthy lighting to the masses

FOLLOWING ITS HUGELY SUCCESSFUL Human Centric Lighting Tour of European cities in 2023, Glamox spoke to Dr. Shelley James – one of the tour's special guest speakers and an international expert on light and wellbeing – about the importance of light and the lasting impact it can have on our mental and physical wellbeing.

The HCL (Human Centric Lighting) Europe Tour of events visited 12 European cities, captivating audiences with its inspiring talks from special guests, technical presentations, round table debates, interactive lighting demonstrations and client meetings – with the primary message being 'the transformative power of good lighting'. In terms of educating audiences and improving their understanding of how lighting can improve our lives, the tour was a resounding success and should lead to even more innovative lighting solutions in the future.

The 2023 tour was split into two stages: the Spring tour visited Tallinn in Estonia, Oslo in Norway, Kriens in Switzerland, Helsinki in Finland, Rotterdam in the Netherlands, and Copenhagen in Denmark. The Autumn 2023 Tour then took in Krakow and Warsaw in Poland, Dortmund in Germany, ending with Stockholm and Gothenburg in Sweden.

Dr. Shelley James, a special guest presenter on the tour, is a global expert on light and wellbeing. She is also a trained glass artist, electrician, WELL Advisor, keynote speaker, and Visiting Lecturer at the Royal College of Art. Shelley is on a mission to inspire others to harness the power of light to be healthier, happier and more productive. A recent social media campaign to raise awareness of the impact of light on teenagers was translated into 3 languages and reached over 2.5 million young people globally. Shelley's TedX talks have also gained her many followers.

An interest in light

At one point in her life, Shelley sustained a traumatic head injury following a cycling accident, leading to extreme photosensitivity. With a neurologist's help, she retrained her eye-brain connections over 5-6 years. An MA in printmaking came next, and led to a PhD in 'Vision and Imaging' – i.e. the way we process visual. A variety of commissions and collaborations followed, including Collect at the Saatchi Gallery, Science Gallery Dublin, the Medical Research Council and the opportunity to work with Sir Roger Penrose and the Mathematics Institute in Oxford.

"Light became a central part of my creative practice, but technical support for my work was lacking. I therefore returned to college to train as an electrician and a lighting designer. I started working with other artists and scientists to use light in their work."

In 2020, things took an unexpected break when the COVID-19 lockdown hit. "During this period, I was staying with my mother and my nieces in Bridport. It was a real struggle being indoors with badly-wired lightbulbs in their back bedrooms and watching them struggle with depression, gaining weight and bad behaviour," she explains. It was during this challenging period that Shelley realised that there was a serious lack of information about the effects of poor lighting.

With her brother's help, Shelley created LunaTM, a series of educational YouTube videos about the right kind of lighting for environments people found themselves in during lockdown. The series featured short and in-depth videos with solutions and interviews with scientists and education specialists around the world, as well as lighting manufacturers – and soon enough, it went viral. LunaTM then expanded to LunaPro, connecting with professionals across the business chain – from designers and architects, to facilities managers, lighting specifiers and installers. The focus is on the value of investing in good lighting.

"There's a growing awareness that the people who buy lights and the decisions that are made about lighting for we send our most vulnerable people – have little or no training at all. They tend to buy on price," Shelley says.
"I've been collaborating with Glamox for several years now. I like what they do and how they do things. Glamox has a mission that goes beyond commercial success; everyone there is passionate about the power of light to change people's lives for the better."

Educate, inform, demonstrate

The HCL Europe tour was a huge success, helping to educate the audiences from a variety of markets including healthcare, industrial and education. Each event was geared towards one of these specific markets.

"For Human Centric Lighting – whether or not you agree with the term itself – there is now enough solid scientific evidence to show that lighting which is designed for the visual and non-visual system, is better for the brain and body. HCL can keep the body and brain in better shape, mood, concentration and sleep. There's enough science and research available to talk confidently about the positive effects of lighting. HCL is not a lighting product, it's a solution. If you think about it in an integrated systems approach, which includes lighting controls, there is now reliable global consensus from scientists that light affects us in ways that we didn't understand until recently. My message here is that any responsible, forward-thinking, success-oriented organisation should include lighting as a key part of their thinking about the spaces they provide for people."

Shelley continues: "We already knew that the circadian cycle was critical in terms of mood regulation. But brand new evidence in the last few years means the science is now here to back it up. It's not just about bright light therapy; lighting can also provoke different behaviours and mood swings in people."

Meeting the standards

HCL is starting to appear in the lighting standards. For example, the European standard EN 12464-1 for office lighting was updated in 2021. As Shelley explains: “The standard has increased the light levels that you need to help the body clock stay on track during the day. It doesn’t specifically mention HCL, but the light levels are now at a point where that will be sufficient for circadian entrainment and also enough for older people whose vision is not what it used to be. In building regulations such as BREEAM it recommends that lighting should be installed that mimics the changing light qualities during the day.

“There are basically two parts to HCL: the visual dimension, i.e. visual comfort and the ability to change the colour temperature so that it feels comfortable for people depending on their gender, age and so on. Then we have circadian lighting, which is all about regulating the body clock using dynamic lighting. People often use these two terms interchangeably, but they are not quite the same thing. With body clock lighting, younger people will predominantly rely on their blue photosensitive cells in the eye to regulate their body clock. But as we get older our eyes don’t take in as much light, in particular, blue light starts to be filtered out by cells in the eye. Dynamic lighting, even though it may not be enough to trigger the non-visual system, lighting that shifts across the course of the day, whether or not it has that circadian system, does seem to improve sleep. If you give your body and brain clear signals about what time of day it is, then it helps them do what they needs to do next.”

HCL is becoming the new norm for some environments. “There are places where we are starting to see people understand the real value of good lighting. Those people who do buy into it become absolute converts and champions of it”

Shelley concludes: “These lighting changes are happening quickly but not always in the places they are needed the most, so the people who need good lighting the most are not actually benefitting. However, I believe in the future that people will become more enlightened about HCL and understand that even small, affordable changes to the lighting can help them run more successful businesses. The role of darkness and proper lighting during the day will become more of the conversation.”

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