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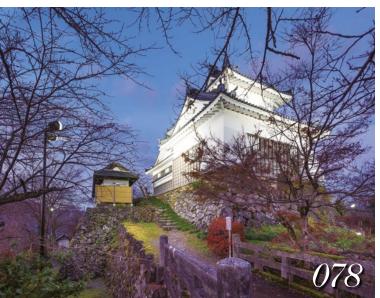














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THE UNHERALDED HERO'S BEHIND EVERY PROJECT

A tribute to all the people who nearly anonymously contribute to the success of a project

When you are the head designer and front man in a project it is easy to claim credits and as the boss of my company I am often in the limelight when we successfully complete a project. The truth is that I may be the boss but without a dedicated and committed loyal team we would not be able to achieve the success. I often say that a product or service is as good as the people behind it and it is certainly true in our profession of lighting design. It is time to put the people who really deserve it in the sunshine!

In a practice like ours we have the project leaders which in turn are assisted by a team of dedicated lighting designers, renderers and production staff complemented with our admin who makes sure everything gels together and flows smoothly. I may be the face of the company but ultimately if my team does not perform, the company that has my name on it fails as a whole. A practice is as good as its weakest link and as a team we need to make sure that we cover each other's back and deliver to our clients as a team representative of the quality standards we stand for and the client is expecting from us. Easier said than done, but it is elementary to the delivery process in each and every project.

As the boss I need to lead by example so the bug (starts and) stops with me. I cannot hide behind my team, I am as responsible, so I need to make sure I provide my team with the motivation, support and guidance they need to carry out the project. The same holds for my project team leaders, they need to provide the same motivating guidance and wisdom to the rest of the team. To allow them to lead they need to be knowledgeable, confident and clear about the design so that they can guide their own team, making sure the client and the rest of the project team are on the same page. Diplomacy (listening and patience!) and due diligence are necessary skills as some times clients and other consultants team members can be difficult and short fused bogged down within their own frame of mind. This generally means taking the time to explain what we are actually doing and trying to achieve, rather than just dumping our lighting solutions on to them. This is called communication! Often underestimated, our project leaders and senior designers spent a lot of unappreciated time in "communicating" with our clients and fellow project consultants to get everyone on the same page! Lighting design requires patience and consensus.

Further down the ranks we find our support design team, our drafters, our renderers, and the production team. They may not work in the frontline but they are ever so crucial in delivering our lighting concepts, our drawings, technical documentation and our site implementation supervision. A lot of time, research and detailing goes into providing the final service and each part of the chain is a crucial element in the ultimate delivery to the client. We treasure and value each of them. Along the way we need to help develop and improve the team skills with guidance and training from the leadership down, a must in my opinion for any company that wants to grow and improve its skills and service deliveries. Personal growth of each individual ultimately benefits the company as a whole...it's a two way street.

The unsung heroes are similarly found inside the companies we deal with in the process of delivering the project to a successful

end. On every level there are interactions, with the lighting suppliers for instance, who are at times pressured to deliver along near impossible timelines at cut throat pricing...competition can be tough! But they are a crucial part of the success chain and unless we collaborate to achieve the success within the financial constrains that always exist, they risk being side-lined and not a part of the solution! I greatly appreciate their patience and tireless efforts to the many challenges that projects bring along. As there are monetary rewards for their company at the end of the rainbow, cooperation makes sense, but not all of them appreciate that.

It is a different story when we talk about project design consultants like architects and interior designers, with the difference being... ego! Designers of any kind are known to have ego's, some small, some big and acting like little kings or queens in their kingdoms, which often transcends down from management to the team members. But in successful projects most of the time success is the result of the "invisible" team members from various consultants who slog it out between them to come to a satisfying solution.

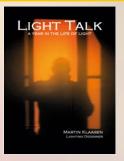
The same happens during the implementation of the project on site...it is the everyday work of the site contractor's team, the many site visits by and the constant communication between the design team and the site implementation team that defines the final success.

From when a presentation is made to the client during the design stages to when the project is finally completed, the hard work done behind the screens only shows as a finished product. Most of the time those who put in the most hours remain unseen and unknown...they are our unheralded heroes! Thank you!

Follow Martin's daily blog about lighting, Light Talk, at:

http://lighttalk.via-verlag.com





Martin's Book, 'Light Talk, A Year in the Life of Light'

(ISBN: 978-981-07-0120-8), To order a hard copy →

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MESSE FRANKFURT LAUNCH "BUILDING ZONE" — TO FOLLOW LIGHT + BUILDING SHOW THEME AS WELL AS BRING BACK SECUTECH THAILAND 2017 TO SERVE GLOBAL AMBITIOUS TOWARD INDUSTRY 4.0

With the continued strength of economy of Thailand together with infrastructure development plan and business-friendly regulations, Messe Frankfurt see great potential in Thailand as a business hub for ASEAN. Good proof would be a success story of Thailand Lighting Fair, a lighting trade exhibition, which has been launched in 2015 and now the show has become a leading lighting technology in ASEAN. This year Messe Frankfurt together with The Exhibiz launch "building zone" - to follow light + building show theme as well as bring back Secutech Thailand 2017 in which the organiser strongly believes that the timing is right and the market condition is right.

Messe Frankfurt in collaboration with The Exhibiz and continuous support from the Provincial Electricity Authority (PEA) officially announced the third consecutive year of its 'Thailand Lighting Fair 2017' (THLF 2017). Due to the positive feedbacks of THLF 2016 and in response to industry 4.0, THLF 2017 will be organised in concurrent with Secutech Thailand 2017 under the main theme of "Smart City. Safe City.". The shows will cover ranges of technologies and solutions from upstream services to downstream supplies needed for Smart City and Safe City development in the Digital Era from lighting, security to building automation under one roof. The show will offer promising benefits for lighting manufacturers, distributors and visitors. THILF 2017 will be held at the Bangkok International Trade & Exhibition Centre (BITEC), Hall 102-104, from 16-18 November 2017.

As ASEAN's one-stop sourcing marketplace for lighting technology, design, solutions which connects leading lighting manufacturers and distributors from all over the world with potential buyers plus the fair is an excellent educational platform that guide absolute alternative solutions and necessary up-to-date information for the players in the industry. A wide array of innovative lighting



technologies will be made available at the trade show, presented by more than 350 leading lighting companies from around the globe, taking over 10,000 square metres of exhibition space enabling it to serve over 10,000 trade visitors across the region.

Additionally, THLF 2017's highlights will lighting up new business opportunities with highlight zone "Smart City & Safe City Landmark" – an intense business platform for exhibitors to convince target customers in virtual environment, Smart City Investment Zone - A zone for developer of smart city project in Thailand and ASEAN to showcase and present their projects to pitch for investors, ASEAN Smart City Conference 2017 and ASEAN Architecture & Lighting Design Conference 2017, and series of international seminars and certificate courses -Live at THLF 2017.

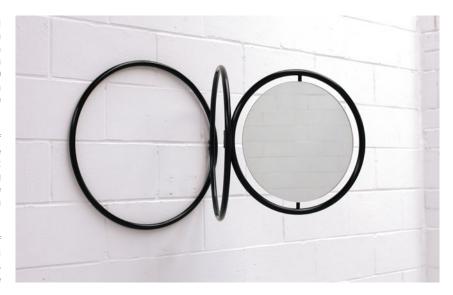
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and Heritage, will host an exhibition of British contemporary design with Design Days Dubai. Curated by Suzanne Trocmé, award-winning designer/author/curator, 'Britain Takes Shape' will feature the work of 10 pioneers of British design. All of the designs on display have been produced in the UK as one-off pieces or in batch production and are shown for the first time in the UAE. Running alongside the exhibition, will be a series of talks and workshops hosted by the British-based designers, giving unparalleled access to UAE audiences.

Trocmé who has selected British designers and objects with a distinct and original design vocabulary said: "Spirited and gifted, the creators of the pieces collated for Britain Takes Shape, whether British by birth or by adoption and choice, are all pioneers in very different ways, some invigorating old industries, others pushing processes in the name of advancement. All pieces show individuality and the mark of the hand, whether in the design process or in physical construction. Britain Takes Shape offers a thoughtful journey into the minds of creators who are not afraid to push boundaries."

Design Days Dubai has established a reputation as a farreaching international platform and this year welcomes debut exhibitors Leclaireur (Paris/LA), Territoire(s) (Paris/ Dubai) and Todd Merrill Studio (NYC) bringing with them a range of highly-collectible contemporary creations from best-in-class American and European designers.

These include headline-grabbing Middle Eastern premieres suitable for either residential or commercial installation: 'Metamorphosis' bronze collection by pioneering French designer and Maître d'Art Pierre Bonnefille (Maître d'Art); the sparkling, over-sized 'Flying Chair' light installation by French sculptress Geraldine Gonzales, her most ambitious piece to date the unique; and, 'Walking' free-standing screen-scuplture by Irish designer Niamh Barry made of solid bronze inlaid with opaque glass and LED lights.

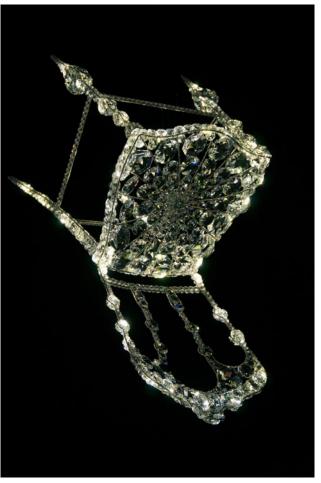
From the region, premieres abound including: Lebanese jewellery designer turned lighting designer Marie Munier's Spirale II', a hand-crafted brass and LED lighting sculpture (edition of 10); leading Emirati designer Aljoud Lootah's hotly-anticipated first ceramic collection; a series of table innovatively combining wood and resin by emerging design duo Tarek Hreish and Farah Kayyal of Aperçu Designs, Jordan; and, new organic form-inspired wall pieces by Irish-born Dubai-based designer maker, Michael Rice.

On exhibiting for the first time, Rice said: "Design Days Dubai is the most exciting and important event of the year for me and no doubt many others in the design community, bringing together so much regional and international talent to such a highly visible stage, providing designers and makers a platform to really show what they can do along with the sales, marketing and networking opportunities, there really is nothing else quite like it."

Parallel to the exhibitor programme is an exciting array of special projects as well as installations and live designin-the-making performances from the likes of Dutch rising design duo Os & Oos; American Hardwood Export Council, which collaborates with seven UAE-based designers on its 'Seed to Seat' project; Coletivo Amor de Madre from Sao Paulo, exhibitors since launch edition in 2012; along with a curated audio landscape by Molecule Radio.

These special projects, combined with Design Days Dubai's programme of talks and hands-on workshops which includes appearances by leading designers Sebastian Wrong (UK), Fabio Novembre (Italy) and Marko Brajovic (Brazil/Croatia), open the fair to a broader audience and ensure a visitor experience that will appeal to design enthusiasts, the design curious and collectors alike. "Design Days Dubai











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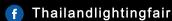
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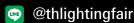
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this year is about losing yourself to design," said the fair's Head of Programming, Rawan Kashkoush.

Design Days Dubai is owned and managed by Art Dubai Group and is held under Art Week, an umbrella initiative bringing together the UAE's arts and culture-centred happenings in the month of March with the aim of promoting the cultural activities of the region to both residents and visitors.

About Design Days Dubai

Design Days Dubai is presented under the Patronage of H.H. Sheikh Hamdan Bin Mohammed Bin Rashid Al Maktoum, Crown Prince of Dubai and is held in partnership with the Dubai Culture and Arts Authority, the Emirate's dedicate Authority for culture, arts and heritage.

Returning for its sixth edition, Design Days Dubai is the Middle East and South Asia's only annual fair dedicated to collectible modern and contemporary design works, this year taking place from March 14-17, 2017. Positioned as a fair of discovery, the fair's unique format provides an international platform for the region's emerging design studios and furniture makers to debut their contemporary designs, featuring them alongside an eclectic mix of the world's leading design galleries. Running parallel to the exhibitor line-up is a programme of special projects, talks, workshops and guided tours allowing visitors to discover and engage with the design community and the works on display.

For more information, visit www.designdaysdubai.ae.

THE NEW ERCO RANGE OF RECESSED SPOTLIGHTS WITH GIMBAL SUSPENSION OFFERS A MODERN INTERPRETATION OF A FASCINATING TECHNICAL PRINCIPLE FEATURING DIGITAL ERCO **PHOTOMETRICS**



As a comprehensive system or nighting color and light sizes, covering a wide variety of wattages and light s a comprehensive system of lighting tools in different distributions in a compact design, Gimbal is quick and easy to adjust with pinpoint precision - making it the ideal tool for retail projects. Its unique design blends seamlessly with interiors and brand architecture reflecting sophisticated technology.

Effective lighting is paramount for the presentation of objects - be it in retail projects or in exhibitions. This requires a set of versatile lighting tools that combine the highest standards of light quality and efficiency with a design that achieves the right visual effect in its architectural setting. Gimbal offers an elegant solution with a technoid aesthetic that transcends mere style, emanating directly from the unique mechanical and photometric features applied to the new product range. This explains the fact that Gimbal luminaires are effective as authentic details in a technology-oriented environment such as a car showroom or science museum, but yet strike a compelling contrast to minimalist or historic architecture.

Cardanic Motion Based On Nautical Compass

Gerolamo Cardano (1501-1576), a polymath born in the Lombardy region of northern Italy, was the first to describe a particular type of swivel mechanism that today bears his name. A cardan suspension - better known as a gimbal - is a device consisting of two intersecting rings that are



connected with bearings to rotate around orthogonal axes, thereby providing free motion in suspension. The concept behind it is as old as Leonardo da Vinci, who suggested its use in a nautical compass to keep it horizontal even during the movements of a ship. Cradled in a gimbal suspension, the ERCO Gimbal luminaires can be tilted easily by up to 40° in any direction – with absolute precision and minimum effort

A Compelling System For Brilliant Lighting Design

The convenient swivel mechanism and the slim compact design of the luminaire are, in themselves, ample argument to suggest Gimbal as a great tool for scenic lighting concepts. In addition, the highly efficient photometrics of ERCO's luminaires enable broad use with seven light distributions based on a combination of LED modules, collimators and interchangeable Spherolit lenses. With rotationally symmetrical characteristics from narrow spot through to spot, flood, wide flood and extra wide flood, Gimbal offers an appropriate solution for lighting tasks ranging from high-contrast accentuation of objects through to uniform floodlighting, while the axially symmetrical distribution pattern with oval flood characteristic and the asymmetrical wallwash option ensure superbly uniform vertical illuminance. Different sizes with various lumen packages make Gimbal an exceptionally versatile lighting tool that lends itself for use in shops with ceiling heights of three to ten metres.

Snoots are available as accessories for narrow beam luminaires and wallwashers where situations require optimum glare control. Gimbal allows for a wide range of variations with three sizes, each with two different lumen packages and the two colour temperatures warm white (3000K) and neutral white (4000K). Control gear options include switchable, phase dimmable or DALI version. The system includes mounting rings in black or white, for flush or covered mounting, using the same design principle as the Quintessence range and are just as quick and easy to install. In addition to superior product quality and high visual comfort, the Gimbal range offers a logic and scope that makes it the preferred choice for designers.

For more information, visit www.erco.com.



YAHAM Lighting

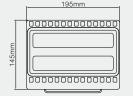
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SHOWLIGHT 2017 IS DELIGHTED TO ANNOUNCE MORE ILLUSTRIOUS SPEAKERS FROM ACROSS THE INDUSTRY WHO ARE WILLING TO LEND THEIR TIME AND EXPERTISE TO THIS UNIQUE QUADRENNIAL IN FLORENCE

The Showlight Quadrennial is one of the few international events organised specifically for lighting professionals by lighting professionals across the performance, television, film, architectural and event worlds. If you are involved in entertainment or architectural lighting, passionate about what you do and open to ideas, both new and old, then Showlight 2017 is the event for you. Showlight is regarded as being one of the best networking events in the business, with the next event, taking place in May 2017 in Florence, Italy.

The following designers are now on target to entertain us in May:

Andreas Huber

Andreas, who works for Osram, says that in our industry there is already a lot curiosity but, at the same time, some confusion when we mention the word 'laser'. On the contrary this kind of light source has a huge potential and there are already several projects running regarding new fixtures that employ this light-source.

Durham Marenghi

Durham will focus on the remarkable story of the Closing Ceremony for the Rio Olympics, rather than the oft-covered Opening Ceremony, and the challenges presented by a budget much smaller than London 2012, a limited number of rigging positions, and no chance of a rehearsal.

Frieder Weiss

Frieder is an outstanding projection artist who works with interactive contents. He will speak on the pixel mapping effects for a show he directed on a large cruise ship stage, all of which was based on infrared tracking of the performers.

Isabel Nielen

Isabel will tell of lighting a concert in a Dutch valley using lasers to outline objects on the far side.



Jim Tetlow, Fred Foster, Ryan Fletcher, and Fabiano Besio on the LED lighting panel at Showlight 2013

James Simpson

James tells of his work at the Royal Opera House in harnessing Virtual Reality to aid the design process, to help plan and create better productions.

Karl Taylor

Karl will give a brief overview of the work and time taken in delivering some of the more unusual items that create the magic of theatre, from hand lamps to wands and spinning tops to flying 5Kw HMIs. Following the journey from interpreting a concept to engineering a solution, Karl will use anecdotes and examples to help demystify the process of getting ideas made.

Paul Russell

Paul will regale us with his use of candles at the Globe Theatre and the Sam Wanamaker Playhouse, also in Farinelli in the West End.

Phil Meheux

DoP, former President of BSC and recipient of highest ASC Honour, Phil has lit Casino Royale, Goldeneye, The Long Good Friday, The Mask of Zorro, Smurfs 1 & 2, and successfully worked through the step from film to digital.

For more information, visit www.showlight.org.

CRESTRON, THE GLOBAL LEADER IN ADVANCED CONTROL AND AUTOMATIÓN SYSTEMS, EXPANDS INTO INDIA, NORTH EAST ASIA AND CHINA



he official expansion into these markets now allows the company to further enhance its service and support to customers in the region. The expanded presence and business strategy is being overseen by Stuart Craig, CEO, Asia Pacific, Crestron, who is based out of the Crestron APAC Head Office in Sydney, Australia.

Each of the three new facilities includes a fully functional Crestron Experience Centre (CEC), with state-of-the-art training facilities and various active workspaces. Guests can experience the latest Crestron solutions first-hand, which allows people to control entire environments with the push of a button, integrating systems such as A/V, lighting, shading, IT, security, unified communications, BMS, and HVAC to provide greater comfort, convenience, and security. These facilities allow the local Crestron team to provide hands-on, comprehensive training and education on the latest solution offerings to partners and customers.

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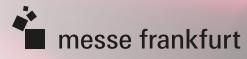
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The new, wholly owned Crestron subsidiary in India includes a headquarters at RMZ Ecoworld, Bangalore, and supporting regional offices. In Hong Kong, a new facility in Quarry Bay is supported by a dedicated presence in all key North East Asia markets including Korea, Macau and Taiwan. The Hong Kong headquarters will be expanded by mid year to offer a full Crestron Experience Centre, yet the facility is currently fully operational and the new training facility will open in early April.

Further, in exclusive partnership with Shanghai Golden Bridge, Crestron China brings a tailored local presence to the region, establishing facilities in Shanghai, Beijing, Guangzhou, Jinan, Chengdu, Hefei, Kunming and Guiyang. The Crestron China HQ with CEC is being built in Shanghai and is scheduled to be open in May.

Stuart Craig, CEO, Asia Pacific, Crestron, said: "Asia Pacific is an increasingly important market for Crestron and we are investing to support our customers, ensuring opportunities for all. Crestron is committed to providing our partners in the region with the highest level of customer experience and the tools and technologies to help our partners grow their business. Our goal is to provide the full range of our market leading technologies locally and to ensure our customer service leads the industry."

"In all regions we are open for business today and over the coming weeks customers will see all of our facilities expand even further. As we approach the upcoming Integrated Systems Europe, which will see many new generation solutions released, our APAC customers can feel very assured and confident in the investments Crestron is making across the board," said Craig.



The new direct footprint will allow Crestron to help grow the business of its local partners and resellers, allowing more clients in the Asia Pacific region to optimise their biggest investments spanning people, spaces and technology.

Crestron works with customers in Asia Pacific across various industry sectors including education, corporate, government and defence, hospitality, healthcare and residential.

For more information, visit www.crestron.com.

LUMINOTHÉRAPIE: LOOP'S GIANT ILLUMINATED WHEELS TAKE OVER THE PLACE DES FESTIVALS





This winter the Quartier des spectacles Partnership invites Montrealers and visitors to discover Loop, an original installation on the Place des Festivals, on the Quartier des spectacles. The work, which will be presented from December 8 to January 29, consists of 13 giant zoetropes - an optical toy that was a forerunner of animated film. When a zoetrope is activate, images are shown in rapid succession, creating the illusion of motion.

This illuminated musical installation, featuring a distinctive retro-futuristic look, uses cylinders two metres in diameter. Members of the public are invited to sit down inside and activate the mechanism, causing beautiful images inspired by 13 fairy tales to come to life. It's magical! Loop is sure to spark children's imagination and revive their parents' childhood memories.

Loop is a cross between a music box, a zoetrope and a railway handcar - the pump-powered vehicles familiar from Bugs Bunny cartoons. The retro-futuristic machine plays animated fairy-tale loops set in motion when visitors work the lever together. When the cylinder starts spinning, it lights up, making the series of still images appear to move. A flickering strobe effect accompanies the black and white images, like in the very first movies. The animation is visible from inside or outside the cylinder and can be viewed from up close or far away. The speed at which the images move, the frequency of the flickering and the tempo of the music are determined by how fast the participants move the lever.

Superb video projections by Ottoblix will be shown on two buildings overlooking the Place des Festivals: UQAM's Pavillon Président-Kennedy and, for the first time, the side



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Fast Facts

- Myanmar's construction sector registered a 7.2% compound annual growth rate from 2011 to 2015, and is set to carry a 10.37% annual growth rate from 2016 to 2020.
- Myanmar construction industry's value stood at US\$8.2 billion in 2015, and is anticipated to value US\$13.5 billion in 2020.
- FDI in 2015-16 real estate sector raked in roughly \$345 million worth of foreign investment flowed into the real estate market in Myanmar through the end of January 2016 with nearly \$100 million of that sum invested in January alone.

Growing Number of Visitors

2014	2,879
2015	4,942
2016	5.986

Exhibitor's Feedback



Rated the exhibition as a value marketing tool to reach to targeted customers

Rated the quality of visitors as good and excellent

76%

Meet exhibitor's objective





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of the new Wilder Building Espace Danse. The projections feature characters and evocations of the mysterious settings of fairy tales, as well as a series of images representing the looping nature of zoetrope movies.

"Luminothérapie is a superb cultural experience in the middle of our winter, in the heart of downtown Montreal. This temporary installation will delight Montrealers and visitors with its marriage of cutting-edge technology and top creative talent. I want to thank the designers and the Quartier des spectacles Partnership for giving us another large-scale work that will make all Montrealers proud of their city." Denis Coderre, mayor of Montreal

About Luminothérapie: The Winter Competition

Luminothérapie is Quebec's largest competition for temporary public art installations. Each year, Luminothérapie presents an original, interactive, captivating winter experience in Montreal's Quartier des spectacles, with a major installation in the Place des Festivals. Luminothérapie aims to stimulate creativity in the design of urban installations and digital art. Several cities around the world have shown interest in the event, which has become a springboard for international tours of works created in the Quartier. In the coming weeks, three works produced for previous editions of Luminothérapie will be enjoyed abroad and elsewhere in Canada: Impulse in Brussels and Lugano; Entre les rangs in Cergy-Pontoise, France; and Prismatica in Ottawa and Georgetown (Washington, D.C.).

For more information, visit www.quartierdesspectacles.com.



WHITE LIGHT OVERSEES LIGHTING INSTALLATION AT PARISIAN THEATRE IN MACAU



'he Parisian is an integrated resort located on the Cotai Strip in Macau, China. It officially opened on September 13th 2016 and contains a halfscale Eiffel Tower along with a luxury hotel which houses 3,000 guest rooms, covering 200,000 square metres. The site is also filled with attractions, including the recently-opened Parisian Theatre which is located on the hotel's fifth floor. The construction of the Theatre was overseen by Shalleck Collaborative and, following a successful tendering process, White Light was brought on board as the Specialist Contractor, tasked with providing the theatrical lighting installation along with the production lighting system.

The Parisian Theatre is a 1,200 seat theatre that is not only designed for theatre performances but also conferences, themed events and even weddings. WL's Special Projects Director Simon Needle comments: "Our role was to supply and install the lighting equipment and infrastructure for the space, which included kit fixtures, dimming and power controls, lighting control desks, architectural control and dimming. We would essentially be helping turn an empty auditorium into a space fit for performance".

Working from the architectural specification, WL worked closely with Shalleck Collaborative to develop an intricate set-up. Simon adds: "The theatre is quite large and had to be multi-purpose. The equipment needed to be adaptable, have longevity and, most importantly, be able to get the most out of the space".

The lighting fixtures used included ETC Source Fours, City Theatrical Ellipsoidal Spotlights, MA Lighting grandMA2 desk, Martin MAC Viper Washes, Martin MAC Viper Airs, Philips Vari*Lite VL1100s, ROBE Lighting 1200 LED Washes and Robert Juliet Victor 1800w MSRs.

Simon adds: "One of the briefs was to make the entire theatre as user-friendly as possible, which would benefit the various productions using the space. We also supplied ETC Unison Heritage Button Stations across all Technical & FOH areas with Touchscreens in the Box Office and Stage Managers corner. This allowed complete control

of the architectural and working light system".

WL spent three months on-site with a team consisting of Simon, Jim Beagley and Billy Wong. However, as The Perisian Hotel was still being built, this meant that WL had to work alongside the construction team.

Simon states: "With any project similar to this, it's about collaboration. We had to work within the limits of what was essentially a construction site yet ensure we provided the best service we possibly could. Similarly, as tickets were already on sale for the opening production, Thriller, we had a definitive date in which we had to be ready by, meaning that going over schedule simply wasn't an option".

Following three months on-site, WL then spent two weeks handing over to the in-house crew as the installation was completed. Thriller has now opened to sell out audiences and the theatre has announced its new season.

This marks the second large-scale project which WL has worked on in Macau, following the company's work on The House of Dancing Water which



is actually situated opposite The Parisian. It also marks yet another example of WL's ever expanding overseas work, with the company supplying projects extending as far as India, Saudi Arabia, Singapore and the UAE.

Simon comments: "Our reputation of being able to work in spaces and transform them with the latest lighting technology is now international and we were delighted to be involved with the Parisian Theatre which has become a star attraction of the entire resort. It proved once again how we are able to work on any project at any stage and ensure that we provide the very best lighting solutions, tailored specifically for our clients".

For more information, visit www.whitelight.ltd.uk.

NEWCASTLE'S WATERFRONT RESTAURANT, SCRATCHLEY'S ON THE WHARF, HAS EXPANDED, ADDING THE NEW BAR AND FUNCTION SPACE 'BATTLESTICKS AT SCRATCHLEY'S' TO ITS WESTERN END



he new architect-designed space opens to the water, stretching it's white 'wings' that function as blinds to break-up the energy of the sun reflecting off the harbour. This has led some locals to dub the structure 'Newcastle's Opera House'. With the new build came the opportunity to update and expand the venue's sound and vision capabilities, with local provider Your Vision | Sound Solutions installing an integrated system from Harman, supplied by Jands.

The new space not only includes the eponymous bar, but also new function rooms and kitchens. With total flexibility, the entire complex can be turned into a restaurant or bar, and the function rooms can be utilised stand-alone

summed together. Even the kitchens get their own independent AV zone. With Scratchley's running entertainment and functions seven days a week, the new audio system had to be able to handle live performances, background music, meetings, and paging, all without an operator present. Brett Coxon and Your Vision chose a solution that integrates JBL loudspeakers, BSS processing, and Crown amplification.

"The new development has doubled Scratchley's footprint," explained Brett. "Battlesticks has raked ceilings on a 15 degree angle, with walls at 45 degrees to the architectural 'wings' that extend outside. There's geometrically patterned acoustic tiles, and a strong aesthetic. I chose JBL Control 65P/T pendant speakers to fit in with the décor, and they really suit the room. The space has a clean palette, with lots of white. We used white pendants and a silver-tinged figure-eight, double insulated cable to run down to the speakers. They're all running on 100V line, tapped at 60W."

The brief Brett was given was that performers and entertainers should not need to bring in any equipment. "To achieve that, I set up four input channels on the BSS-Blu 101 DSP that are patched via two XLRs, labelled mic one and two, and two combo jack/XLR connectors for instruments," Brett expanded. "All the performers need to do is plug in their microphones, guitars, or keys. They're then handed an iPad running Harman's HiQnet software with a simple mixer interface. They have an output to stage for monitoring via a JBL EON610 as foldback."

Five JBL Control 65P/T full range pendant speakers augmented by two JBL Control 60PS/T pendant subwoofers ably cover the bar's patrons. "The pedants cover a circular area of about 5 metres in diameter each at ear-height," Brett continued. "We positioned the subs in the middle of the room, and we've got excellent coverage. The clarity is surprising. The space has a nice natural reverb, and it sounds fantastic. It's had so much positive feedback. I took in my own guitar during set-up and was blown away that we could achieve that kind of sound with just pendant speakers."

Your Vision updated the existing flatroof sections of Scratchley's with JBL Control 45C/T ceiling speakers, and added JBL Control 8128 and 8124 ceiling speakers to the bathrooms and kitchens. A cluster of JBL Control 25AV compact outdoor speakers run outside along the harbour esplanade, functioning as a paging system for Scratchley's new take-away window as well as creating atmosphere when approaching or leaving the venue. The multi-zone solution is designed around the use of the Crown DCI8|300N amplifier which supplies 300W per



channel which is switchable in pairs between 100V line and low ohm operation to suit the speaker requirement in each area. Two JBL CSA 280 amplifiers handle the feeds to the kitchens and bathrooms. All audio is processed by the 12-in, eight-out BSS-Blu 101 DSP.

"The BSS Blu-101 and DCi8|300 combine the function rooms when the partitions are opened," said Brett. "There's a local input in each zone, with iPad control, and a master PC in the main rack. Each zone has source selection and volume control, which can be isolated to local or combine from the other rooms, with each also having the ability to bring in the feed from the bar or restaurant. If it's busy, every space can combine to become part of the restaurant or part of bar. Even the kitchens have their own independent speakers, inputs and volume controls, which means we can automatically schedule them to clone the main areas at a lower volume during service."

Brett chose to install an integrated system from Harman for some sound practical reasons. "When you put together a system from multiple manufacturers, it's never really complete," mused Brett. "And if something's not right, you never get the support you need. We use more or less the same system in all our venues, and have found that with one supplier, you support them and you get the support back. That's what we've got with Jands - they're the only supplier who can cover all the bases of what we do. They've been excellent with loan stock, demos and support. We currently have several jobs on the go, and Jands are assisting with each of them. Yes, the products are great, but it's the support that's really important to us."

For more information, visit www.jands.com.au.

THE FLOATING CHRISTMAS TREE IN GEELONG NEAR MELBOURNE, AUSTRALIA HAS BECOME EXTREMELY POPULAR WITH THE COMMUNITY AND THIS YEAR THE EXPERIENCE HAS BEEN ENHANCED THROUGH THE LAUNCH OF PERSONALISED LIGHTING SHOWS

eelong-based Total Events began the installation at the start of November with the Christmas Tree operating from 11th November - 7th January. The lights run from 18.30pm - midnight, with six minute programmed light and audio shows from 20.30pm every fifteen minutes. The eight-week long installation is broken into three periods, with a different show running for each period. The second period also incorporated an interactive element, where the public could control the colour of different elements of the tree in between shows.

The Christmas Tree is 25m tall, 10m wide, covered in 12,000 shimmering discs, and is continually moored in Port

Philip Bay. The size and scale of the project, along with the challenges of remote access, seawater, and extreme weather to account for over the two month period, meant that this was always going to be an interesting project to deliver.

Over fifty LED wash and moving head fixtures, and almost 100 LED tubes with individual pixel control light the tree, spread over twenty-four universes and all run over a custom Artnet wireless solution.

A Jands Vista 16384 channel dongle was utilised to achieve the twenty-four universes - 8500 channels.

In control was Jands Vista v2 running on a beefy PC with another running tracking backup ready to swap to, but it was never required.

The Jands Vista's date/time events feature controlled everything including striking and dousing fixtures as well as playing back the various shows. Other Vista features key to the installation included audio playback from cues, and serial control to take commands from the interactive controller.

"Lighting designer Mark Hammer was impressed at how easy editing cues and adjusting playback timing was, as well as the simple yet powerful 'Undo' command," commented Greg Edge from Total Events. "Jands also added a few features to the audio playback side of things to improve ease of editing.

The interactive element consisted of four touch pads on the nearby 'Carousel' building's window which controlled the main colour of the tree, the LED tubes, the main star, and the smaller stars around the tree. The four touch pads were connected to a local controller, which sent commands to Vista over a separate custom wireless system.

"Jands Vista was up to the task, and performed flawlessly for the entire show run, firing off all 24 universes for every show as programmed," remarked Greg. "The custom features allowed all of the elements to be incorporated into Vista without needing external software or servers. Total Events are proud both to have been involved in the project as well as with the final delivery and has increased its moving head and LED wash inventory again."

For more information, visit www.jands.com.au.



lighting in the news | america

BLACK LIGHT ARTIST USES ANTARI UV LIGHTS TO REVEAL UNIQUE WORKS OF ART



he Black Light King is a successful black light artist based in Los Angeles who creates spectacular black light art and installations that are visual treats for the eye and mind. Black art only pops when exposed to UV light so when creating his art he often turns to Antari UV lights to reveal the glow effect that makes black light art so unique.

The contemporary artist has been working in this medium for over 15 years and often has his art highlighted at electronic music festivals and underground warehouse art shows in the Los Angeles area. He also works with experimental film and photography that require art installations and lighting. The Black Light King was also on hand at the Antari booth at last year's LDI show in Las Vegas, where visitors could watch him paint his distinct pieces.

The Black Light King often uses the Antari Dark FX Spot 670™ to illuminate smaller canvas work and the Antari DarkFX Wash 2000™ for luminescent body art and art installations. "I love the way the Antari UV lights are built to be a true LED black light and can pick up all the colors I use in my work," he commented. "They give a variety of UV effects and are by far the best for glowing color effects. The range on the lights is incredible and can make the colors glow from a variety of angles and distances. They have a large projection and make the art glow exactly the way I want it to. They also give me a variety of settings to make my work glow with intensity like the control systems

where they can be made to strobe or hooked up to a sound board to strobe with music."

Black light art is a powerful medium that evokes both wonder and emotion. Combine that with a talented artist and the effect is stunning. The Black Light King (BlackLightKingdom.com) describes his art and the role of UV light as such: "My works consist of surreal imaginative symbolisms that play with the color spectrum of ultraviolet color spectrums. My subject matter includes dreams, surreal worlds and psycho-analysis based out of my own subconscious mind and experiences. The works are made to be seen under the UV black light as to reinvent the negative spaces and make the color glow in intensity. The black light king is a symbol of the kingdom which we all possess in finding the kingdom within the imagination. By using different color spectrums under intense lighting we can look at color and form in an extraordinary new way and build a perfect kingdom within the imagination of the mind."

For a recent body art photoshoot the artist worked with model Sayuri, placing her in a dark background and painting psychedelic wings to blend her into the art piece. With the use of UV paint he was able to make a smooth transition from her body to the artwork symbolic of eyes turning into wings. "The colors became more intense after we used the UV lights and managed to pick up all the small subtle color blends and highlights that I added," he

For more information, visit www.elationlighting.com.





CHRISTIE BRINGS TWO EXHIBITS OUT TO PLAY; EXPLORES THE SPACE BETWEEN AT ISE 2017



he company continues to showcase the latest models from across its broad portfolio of AV and ProAV display systems. Though the focus for Christie's main exhibit examines the space between the displayed image and its audience.

Jennifer Smith, EVP Global Market Solutions & Engineering explains, "For decades Christie has worked to develop technologies and solutions that share entertainment, knowledge and the wow factor experience that memories are built on. For all of this work there has been one constant: the space between the displayed image and its audience. The space between in many ways has been the motivation for our industry to develop better content, improved image reproduction and larger displays - to achieve a more immersive experience and

engage the audience; to try to bridge the space between.'

"The Space Between" presentation utilises an almost end to end Christie solution, with the support of projection screen manufacturer Da Lite and Belgian-based content specialist, New Solid.

Six of Christie's multi-award-winning Boxer 4K30 pro-venue projectors work in conjunction with the newly launched version 6 of Pandoras Box media and show control server, Pandoras Box Manager, Widget Designer, gesture control and realtime tracking to create an interactive space not for 1 to 1 engagement, but for 1 to many. The system showcases not only gesture control for multiple users, but the use of real time user-tracking as a means to influence the 16m wide screen and its content.

continues; "Mobile wearable displays have embraced the direct physical engagement of displayed content, revolutionizing communication and our relationship with technology. Our goal at ISE 2017 is to show delegates that Christie has the tools and know-how to do the same today, and more in the future, for the big screen."

A guided presentation for "The Space Between" will be made every hour on the hour from 11.00 from stand 1-H70. The last presentation of the day is given at 17.00, except for Friday 10th when it is made at 15.00 local time.

This is not the first time Christie has looked to showcase a "tool-kit" of systems for AV integrators to support largeaudience presentations. At Infocomm 2016, the company presented Christie Mystique to support the design, installation, and operation of sports venues and other location-based entertainment (LBE). Mystique included pre-visualization VR, 3D print-scale-and-model systems, camera alignment tools and system-level monitoring tools. And the same tool-kit is on show at ISE 2017 for those that missed it, albeit on a smaller scale.

Christie's Dale Miller, Executive Vice President, Global Sales adds: "For more than 80 years, from our very beginning in fact, Christie has looked to pioneer large format display and advance the shared experience it offers. What started with film projection for cinema exhibition has over the last thirty years expanded; to include other large format display systems, technologies. Christie's goal of advancing the shared experience now extends beyond entertainment to business, education and industry.'

He adds: "We're confident Christie has the expertise to utilise the best these technologies have to offer and choose not to settle on a single technology platform. Where the company has wanted to expand its capability is the glue between them. To make it easy for integrators to deliver their value-add with Christie systems. So Christie embarked on a series of acquisitions and product initiatives that continues today; Spyder, Phoenix EP, Mystique, Pandoras Box etc... the market's leading support products for distributed content, big-screen and multiscreen applications. These presentations help to show our customers what is possible when they look beyond the commoditization of AV products."

For more information, visit www.christiedigital.com/EMEA.

- lighting in the news | europe

PREMIER GLOBAL PRODUCTION IN NASHVILLE PROVIDES RED HOT CHILI PEPPERS WITH LARGE COMPLEMENT OF VERSATILE CLAYPAKY A.LEDA B-EYE K20 FIXTURES FOR THE TOURS



he band's busy schedule commenced last spring with festival dates in North America, Asia and Europe. The European leg of the world arena tour began last fall, and now the Red Hot Chili Peppers have launched their North American world tour with arenas booked through June. The tour is in support of the band's eleventh and latest LP, "The Getaway."

Premier Global Production, which also counts Metallica, Tim McGraw and Josh Groban among its tour customers, acquired the B-EYE K20s at the request of Scott Holthaus,

lighting designer and show designer for the Red Hot Chili Peppers. "We're not gear junkies, but Scott specified them for the tours and we try to meet or exceed our clients' expectations," says James Vollhoffer, vice president of touring at Premier Global Production. "The B-EYEs looked to be very road worthy.'

For the festival tour Holthaus deployed 44 B-EYE K20s. "I put them radiating from the vertically-hung circle pods and 40-foot half-arc," he explains. "For outside shows without any smoke or haze, it is important for the audience to see the source. Having overhead lighting is a mistake in that situation, so I made sure 90 percent of the show was upstage and pointed at the audience through the band. The B-EYEs have such a big source that they were perfect for the job."

When the band began its world arena tour Holthaus increased the roster of B-EYE K20s to 64, 52 of them active. "They worked so well on the festival show that they are the main source for side and all floor lighting on the indoor show touring now," he reports.

"The more shows I do the less I ballyhoo and slam color, but I'm making more bold looks," Holthaus notes. "The B-EYEs are strong enough to hold those looks. They also have a great dimmer curve for LED fixtures.".

Francesco Romagnoli, Claypaky Area Manager for North and Latin America, added, "Mr. Holthaus has been using our fixtures for The Red Hot Chili Peppers for quite some time and it's gratifying to see him to continue that."

For more information, visit www.claypaky.it.





B.LUX PRESENTS A NEW COLLECTION OF SUSPENSION LAMPS INSPIRED BY THE GINKGO TREE





fter the success of its Overlay collection, the manufacturer of contemporary Adesign lamps, B.lux, collaborates once again with the designer Tim Brauns. This time the result is the Ginkgo suspension lamp, available in diameters of 20, 40 or 50 cm.

This new collection of lamps owes its forms and name to the Oriental tree, whose leaves have rounded edges. This is precisely the shape of the shade, made of aluminium and available in natural matte finishes, like brown and pink. Its most unique feature is its suspension cable, actually forming part of the lamp's design, as it does not extend directly from the ceiling into the bulb socket.

Ginkgo emits direct and indirect light, and is equipped with two high luminous efficiency LED bulbs. It is one of the new releases presented at the 2016 Light + Building Fair by B.lux, a lamp manufacturer based in the Basque Country, since 1980.

For more information, visit www.grupoblux.com.

CLAYPAKY SCENIUS SPOTS ILLUMINATE SHAKESPEARE'S DARK SIDE FOR STUDENT-PRODUCED "MACBETH" AT WEBSTER UNIVERSITY



When Webster University's Conservatory of Theater Arts staged a production of Shakespeare's "Macbeth" last fall students enhanced the lighting rig with four Claypaky Scenius moving head spotlights.

The Conservatory, based in Webster Groves, Missouri, stages six studentdesigned and student-produced shows and a dance theater each season at the Lorreto Hilton Center. A classical version of "Macbeth" was directed by Bruce Longworth and played seven performances before Thanksgiving.

Student lighting designer, Josh Murphy, expressed an interest in "beefing up" the school's lighting rig for "Macbeth," so consulting lighting designer Seth Jackson called A.C.T Lighting, Inc. with whom he's had a 20-year relationship dating from his concert touring work.

"We have our own lighting inventory, but Josh wanted more tools than we had on hand," says Jackson, head of the concert design program and assistant professor of theatrical design. "The winners of a student competition to attend LDI had seen the Scenius fixtures at the convention and were eager to try them. A.C.T Lighting provided the opportunity for our students to put Scenius to work."

Jackson emphasizes that Conservatory differs from many other college theatrical programs in its goal



of "training professionals from day one. We run with Equity rules and like to have technology fresh out of the gate for the students." The student productions at the Lorreto Hilton Center share space with the Repertory Theater of St. Louis, whose season overlaps that of the school, and the Opera Theater of St. Louis, which plays a summer season. "A lot of our students also work on those productions," Jackson explains.

The stage is a three-quarter thrust with an expansive overhead grid. The four Scenius spots hung in the grid where Murphy and his team "used pretty much every attribute of the light, including the strobe for lighting effects," says Jackson. The Scenius fixtures were also used to give a lot of texture and treatments to surfaces.

He reports that the students "liked the quality of the beam - its brightness and flat-fieldness – as well as the quality of the color temperature. Our sound team also liked how quiet Scenius was - that was a big deal for them."

A.C.T Lighting is the exclusive North American distributor for Claypaky.

Francesco Romagnoli, Claypaky Area Manager for North and Latin America, added, "I'm glad to see our top fixtures used by up and coming student designers. We thank Mr. Jackson for specifying the Scenius."

For more information, visit www.claypaky.it.

DREAM THEATER TOURS EUROPE WITH SOLARIS FLARES; FIRST LEG OF THEIR IMAGES, WORDS & BEYOND TOUR CLOSES IN HELSINKI THIS MONTH

ream Theater is once again bringing their progressive metal sound to Europe. They will resume in April in the UK and close in Vienna in May. Keeping pace with the fiery brilliance of the band's veteran metal shredders are eight blazing Solaris Flares.

"On this tour we're using the Flares for overhead wash and strobe effects," says tour Lighting Designer and Director, Steve Baird. "What I really like about Flares is their awesome power! They're extremely bright and their multiple functions make them ultra-versatile. We're using the Flares in full advanced mode and they've been rock solid performers. We haven't had to replace a single unit thus far."

Baird adds, "Jon Greaves and Andy Scott at Lite Alt recommended the Flares to us last year and we were more than pleased. This year we knew what we were getting and we plan to use them again and again."

At Steve's side on the Dream Theater lighting team are Roger Taillefer and Kris Lundberg. Lite Alternative is the lighting supplier for the European segment. Later this year Dream Theater will be touring in Asia and America.



Solaris Flares have been specified and used by professionals on countless concert tours, shows and spectacles worldwide. A new Flare Q+, recently introduced, has all the features of its predecessor, plus the added benefit of revolutionary Q+ Technology™. New Q+ LED driver technology increases brightness by over 40%, up to an amazing 52,000 lumens in the 96-LED format, and 58,000 in the new Flare Q+ LR linear 108-LED unit. A "Theatre Mode, with slightly reduced output, is effectively silent, yet still 8% brighter than the original Flare. Both the Flare Q+ and Flare Q+ LR fixtures have a calibration function that allows matching of intensity and color with earlier generation Flares.

For more information, visit www.tmb.com.

NEW ELATION LIGHTING FOR COLOGNE'S BOOTSHAUS, ONE OF WORLD'S TOP CLUBS: LASERFRAME INSTALLS HYBRID PLATINUM HFXTM MOVERS AND ACL 360 BARTM EFFECTS FOR MAIN DANCE



erman production company LaserFrame recently Ginstalled Elation Professional Platinum HFX™ hybrid moving heads and ACL 360 Bar™ effect lights into one of the world's top clubs, Bootshaus in Cologne. Used for a variety of stunning effects in the popular club's main dance area, the new lighting is another important step in the club's continued rise up lists of the best clubs in the world. Bootshaus ranks 17th on DJ Magazine's list of the world's best nightclubs and 2nd in Germany.

Located at the Cologne shipyard, Bootshaus has been an integral part of the city's club culture for more than a decade. Primarily a techno club, Bootshaus attracts a clientele of sophisticated clubbers who often dance to the beats of top DJs like David Guetta, Avicii, Hardwell, Afrojack and Tiesto. The club is all about quality and as a top club maintains high standards when it comes to its lighting and sound systems. Pyro, Co2, lasers and confetti are part of the standard repertoire as well.

Bootshaus houses three rooms - the Mainfloor, the BLCKBX and the Dreherei, an old workshop - plus a large



outdoor area where open air parties can be celebrated. The Mainfloor is the largest space with a total capacity of 1200 guests. It is here that 16 Elation Platinum HFX and 20 Elation ACL 360 Bars are used as part of an integrated lighting concept around the dance floor.

The Platinum HFX is a multi-functional fixture that offers many options in one fixture from beam effects to big flower looks to color washes. Packed with color, graphics and effects options, the mid-sized light houses a 280W Philips™ MSD Platinum 14R lamp and can emit up to 12,000 lumens of power. "We decided on the HFX due to its excellent price:performance stated LaserFrame owner ratio." Schütz. He adds, "From Guido my perspective it was the best on the market. We tested it against hybrid lights from some of the top manufacturers and it came out on top. The most convincing fact about the HFX is that it's a fantastic and bright spot-moving head that can also do a fantastic beam - that is the guite the opposite at all other manufacturers." Located in the town of Kerpen, near Cologne, LaserFrame is a general contractor for Bootshaus and handles all things technical for the club from installation and programming to lighting operation at special events.

Schütz adds that the club was also looking for a unique effect light to add high energy looks to the dance floor,



and as LaserFrame preferred to acquire lighting from only one manufacturer, decided on Elation's ACL 360 Bar™ LED batten. The high-output colorchanging LED batten with continuous rotation is incorporated as a key element of the design. Its dynamic movement effects and individual pixel control work with the other lights in the rig to give a number of one-of-a-kind design options.

"It is a stunning install," Schütz says. "A couple of the special people I want to acknowledge are Christian Sudhop for the implementation of the concept and David Jungbluth for the implementation of the concept and the extensive programming. Christian and David are indispensable on these types of projects."

LaserFrame also used their ACL 360 Bars along with another light in Elation's ACL series, the ACL 360i™ compact beam effect, on a Rockstars after-show party for Dmexco 2016, an international exposition and conference for the digital industry that takes place every September in Cologne. The ACL 360 Bars were used as the main effect light for a dance area while the ACL 360i fixtures provided multi-colored moving beam effects on a performance stage. LaserFrame was again general contractor for the event and supplied all of the Elation lighting.

For more information, visit www.elationlighting.com.

WHITE LIGHT INSTALLS BRAND NEW HOUSE LIGHTING AT YOUNG VIC THEATRE



Located on The Cut near London's South Bank, the Young Vic is one of the capital's most exciting theatres, showcasing work and artists from across the globe. The venue recently decided to replace the house lights in their Main House space and approached White Light to oversee the installation.

Chris Harris, WL's Installations Business Development Manager, comments: "The Main House at the Young Vic is really impressive, spread across three floors with a capacity of up to 550. Every one of these seats needs house lighting, both for practical purposes as well as adding to the mood of the in-house production. The original house lights were GU10 Birdies and had been in there for 10 years so it was definitely time for a change".

The project was overseen by the Young Vic's Head of Lighting Nicki Brown and Senior Lighting Technician Nicole Smith. Nicki states: "A major problem was that the previous fittings simply did not provide enough coverage for all of the seats, resulting in some being lit and others being missed. To counter this limited coverage, we would have to run extra birdies in from our theatre stock, which became problematic – especially as we had to do it in a different configuration for each show!".

WL worked closely with GDS to improve the original set-up. This included installing a series of GDS MR16s as part of the Inner and Outer Ring. With the MR16 being a compact LED unit that only consumes 10 watts, it was the ideal product to provide illumination for the house seating and WL installed 60 of these on the first floor balcony alone. To control the lighting, WL picked up the power from the existing circuits and used this to run new data across all three levels. This was all controlled by LSC DMX Splitters.

Due to the layout of the Main House space, the house lighting had to integrate with the theatrical lighting rig. Chris states: "On the bridges, where the theatrical lighting rig is positioned, there were twelve ETC Source 4 Parnels. These were positioned to light the first three rows of the audience. Therefore we had to find a replacement that was a similar size to the Source 4 Parnel, as anything larger would block the main lighting rig and potentially cause patches on the stage".

After demoing a range of lights, it was decided that the ETC Colour Source PAR was the ideal solution. Chris adds: "The ETC Colour Source PARs are compact yet extremely powerful. They also produce a range of colours with the touch of a button meaning there doesn't need to be any jarring between the house lights and the pre-set lighting on stage. Rather, the two can blend seamlessly".

WL also worked with GDS to formulate a solution for the Exit signs. Chris states: "A problem with many productions is that the Exit signs are often both visible and bright during a performance. To counter this, we created custom-made Exit signs using Philip Payne signage with GDS Drivers that could be remotely dimmed using DMX. This means that the show can achieve a perfect blackout if needed. Similarly, we created portable Exit signs that could be moved around according to the production's requirements, working with the bigger sets that might use the most of the space".

The installation took three weeks to complete and there have already been five shows in the space utilising the new set-up.

For more information, visit www.whitelight.ltd.uk.

WHITE LIGHT IN THE LION'S DEN FOR RUNNING WILD TOUR





riginally performed at the Chichester Festival Theatre before transferring to Regent's Park Open Air Theatre, Running Wild is now back and embarking on a UK tour. The show is based on Michael Morpungo's best-selling novel and uses live-action puppetry to tell the story of Will, whose visit to Indonesia sees her and elephant Oona having to ride deep into the jungle in order to escape a tsunami. As one of the leading suppliers to UK theatre productions, White Light was called upon to provide the lighting equipment.

Running Wild is being produced by the Children's Touring Partnership, which is a collaboration between producers Fiery Angel, CFT and a consortium of regional theatres.

The lighting design for the tour is by James Whiteside. He comments: "This is an extremely busy show, with the setting ranging from the Indonesia rainforest to a rural part of England to the tsunami itself. The highly stylised set is based around the debris left by the destruction of the tsunami. We have a full blown ceiling and masking legs of debris which form the jungle. One of my biggest tasks was to get the light pouring through the ceiling which would create the dappled light of the jungle".

As the ceiling made it impossible to focus any lights above it, this meant that James would need to rely on moving fixtures. As a result, he drew on a series of 16 x Martin MAC 700 Washes for the backlight above the ceiling pieces. James also drew on Elation SixPar RGBW LEDs which provided additional colours to accentuate the jungle scenes.

James comments: "The show opens with a pair of sails upstage onto which we perform shadow play and project clouds and windows. The shadow play is handled by 2 \times Strand Bambino 5KW Fresnels while the window projection comes from a pair of Martin Mac 700 Profiles. These were chosen after much discussion with WL"

James drew on 6 x Martin MAC TW1s to provide specials and a moving tungsten wash. He also used 2 x JEM Glaciator X-Stream Smoke Machines which were utilised specifically for an ambitious fire sequence.

As this was a touring production, James had to create a rig that was able to be installed within a day, with this then being repeated week in, week out.





James adds: "Physically, this is a huge production that genuinely manages to recreate the feel of the Indonesian rainforest on stage. That said, with it visiting venues across the country, we had to keep the size of the rig manageable; something we were able to achieve thanks to a brilliant production team and the help of WL".

Running Wild recently opened at Chichester Festival Theatre. It will now visit venues in Coventry, Sheffield, High Wycombe, London, Blackpool, Leeds, Salford, Norwich, Edinburgh, Newcastle, Plymouth, Northampton, Canterbury and Wolverhampton.

For more information, visit www.whitelight.ltd.uk.

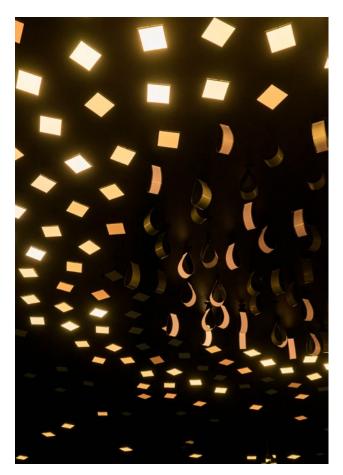
The pavilion, in collaboration of LG Electronics and Jason Bruges Studio, was created to portray "the design philosophy and the core essence of sophistication and class" of the LG SIGNATURE products.

LG Display OLED light panels were installed on the ceiling of the pavilion, portraying the "constellation of rays scattered throughout space" to express the "wonderful qualities and extreme white and dark contrasts" of the LG SIGNATURE OLED TV. The 80 plastic-based flexible OLED light panels were installed in the middle of the pavilion ceiling with 700 100x100mm rigid square OLED light panels surrounding the flexible panels, forming the OLED light constellation.

Known for its natural illumination with a uniform and comfortable light, the LG Display OLED light panels are thin and lightweight, providing customers a next-level light experience. LG Display OLED light panels are flexible with a bending radius of 20mm, creating form factor advantages for the lighting designers and architects. Since LG Display OLED light panels generate no heat and emit minimal glare, they are suitable for products that normally would not be considered to contain lighting sources.

To raise awareness of OLED lighting and to promote the premium light quality offered by OLED lighting, LG Display has collaborated with renowned designers and architects to highlight OLED light benefits and characteristics in artistic ways. LG Display OLED light is collaborating with renowned Ron Arad at 100% Design, London from September 21st to 24th. This collaboration is a must-see for people who want to view new experiences created by light.

For more information, visit www.lgoledlight.com.



lighting in the news | asia pacific -

I LIGHT MARINA BAY 2017 PROMISES A SPECTACULAR SHOWCASE OF LIGHT ART INSTALLATIONS THAT WILL ILLUMINATE THE MARINA BAY WATERFRONT PROMENADE

From 3 to 26 March, visitors can enjoy 20 stunning artworks designed by local and international artists. Beyond the light art installations, this year's festival will feature a greater variety of community-centric activities that will give the public opportunities to participate directly and contribute to community causes.

Enjoy Sensory Treats At Three Festival Hubs While Supporting Good Causes

Organised by the Urban Redevelopment Authority (URA), the fifth edition of Asia's leading sustainable light art festival will feature three distinct festival hubs – Art-Zoo for imaginative play, The Fantastical World of eco.me for sustainability-themed activities and Gastro Beats for food and music.

Art-Zoo, a festival hub at The Float @ Marina Bay, will house 11 larger-than-life inflatable art installations in a

giant play-garden. From plants, animals, to ecosystems that represent different letters of the alphabet, Art-Zoo explores nature through the perspective of art in an imaginative landscape. From manoeuvring through a Giraffe maze to walking through the belly of a Whale or taking pictures with a towering Spider, this interactive and visual adventure promises great fun for the young and the young-at-heart while learning more about wildlife and creating a sustainable world.

Art-Zoo creator and Creative Director of local multidisciplinary creative agency BLACK, Mr Jackson Tan, said, "With Art-Zoo, we want to recreate fond childhood memories of visiting the Singapore Zoo with our families, but adding a twist by bringing the zoo into the city, and combining it with the concept of an art gallery. We hope that through these interactive installations, visitors will be able to learn about nature and environmental sustainability in a fun and engaging way." Visitors to Art-Zoo can also do their part for charity with part of proceeds going to beneficiaries from Students Care Service and Focus on the Family Singapore. Ticketing details on Art-Zoo can be found on www.artzoo.sg.

The second festival hub, Fantastical World of eco.me, will present a myriad of sustainabilitythemed activities at The Promontory @ Marina Bay. With highlights such as a recycling and upcycling marketplace, a kinetic energy playground and an urban garden, the public can explore and discover something new about environmental sustainability at the hub from 3 to 5 March and 9 to 12 March.

After the festival, the upcycled furniture at the hub - comprising 70 tables and 80 benches - made of wooden pallets, as well as 300 colourful planters made of painted beer crates, will be made available for public adoption to minimise wastage. Donations will go towards the Culture Plus Fund managed by Global Cultural Alliance Ltd.

The festival also welcomes visitors to bask in music, food and fun at the third festival hub, GastroBeats. The public can patroniseGastroBeats held at the Bayfront Event Space - to grab gastronomic delights from food artisans, indulge in some old-school fun with carnival rides, as well as put on their dancing shoes for a night of Silent Disco where participants wear wireless noise-cancelling headphones to enjoy live-streamed music of their choice at the Marina Bay City Gallery.

Bring A Light Art Installation Home

Linking the festival hubs together is a necklace of 20 light art installations, curated to the theme "Light & Nature", lining the Marina Bay waterfront promenade. Designed by artists from nine countries, including Singapore, the light art installations are created energy-saving lighting or environmentally-friendly materials to serve as reminders of the importance of sustainable habits and to reinforce Marina Bay's position as a sustainable precinct.

For the first time, festival goers can give an installation a second lease of life after the festival by bringing it home. Local artist Lee Yun Qin will be offering some 800 intricate stalks from her work, MoonFlower, for public adoption. Made of wire mesh and lit with a solarpowered LED bulb, each moonflower can be adopted at a minimum of \$5 with all proceeds going towards the Garden City Fund. The public can adopt the moonflowers on https://pozible.com/ project/moonflower-i-light-marina-bay and collect the moonflowers after the festival period.





Festival Director and Director (Place Management) of URA, Mr Jason Chen, said "We are happy to have the support of many festival partners and sponsors to create multiple touchpoints where visitors can consider environmental sustainability from different perspectives. Beyond the sensory experience i Light Marina Bay has always offered, the festival this year will see a stronger emphasis on interactivity with the line-up of activities in the festival hubs and opportunities for visitors to contribute to meaningful causes. With the festival taking place over three weeks at Marina Bay, the public can take their time to explore and discover something new with their family and friends. Beyond the festival, we hope festival goers will remember our sustainability message and adopt more sustainable habits.'

Be Part Of The Change

Other programmes during this year's festival for the community to pledge their support include the annual Switch Off, Turn Upcampaign that will see participating buildings and organisations switch off non-essential lighting and turn up air-conditioning temperatures throughout the festival period. The resulting energy savings will help to offset the power consumption of the light art installations at the festival.

To further encourage the public to adopt sustainable habits, the festival will switch off the light art installations and join the rest of Singapore in the onehour lights out event during Earth Hour on 25 March, 8.30pm to 9.30pm.

Festival goers can also participate in other complementary partner programmes, such as exchanging their incandescent light bulbs for energy-saving LED bulbs through Philips Lighting's Gift of Light LED light bulb exchange programme.

For more information, visit www.ilightmarinabay.sg

show preview

Guangzhou International Lighting Exhibition 2017

9th – 12th June 2017 China Import and Export Fair Complex Guangzhou, China



Guangzhou International Lighting Exhibition 2017 continues with THINKLIGHT: The convergent future. It offers a comprehensive coverage of production, technology and lighting sectors to facilitate industry collaboration.

The 22nd edition of the Guangzhou International Lighting Exhibition (GILE), the most influential and comprehensive lighting and LED event in Asia, is set to take place from 9 – 12 June 2017 at the China Import and Export Fair Complex in Guangzhou, China. Based on positive feedback from the industry, the "THINKLIGHT" show concept was a resounding success and will

continue to develop at the 2017 show under the theme "The convergent future". In the LED era, lighting has capabilities that are greater than basic on/off and dimming functions. The totality of lighting has moved beyond the scope of illumination and the industry is witnessing the creation of a future that converges different sectors and elements that revolve around human wellbeing.

Commenting on next year's show theme, Ms Lucia Wong, Deputy General Manager of Messe Frankfurt (Shanghai) Co Ltd, stated: "The shifts in the lighting industry have led to the convergence of distinct







As a trusted platform among industry experts worldwide, the show makes business opportunities, the latest technologies and design concepts available to the lighting community. Together with a wide-ranging concurrent event programme, the expo will address hot topics surrounding convergence in the world of lighting. Current market trends reveal that lighting is being increasingly and more intelligently integrated into people's lives through many avenues.

Lighting And Smart Cities

Intelligent lighting networks will far exceed the cost-saving objectives of basic illumination and offer opportunities for revenue-generating services. Intelligent lighting infrastructures will contribute to various smart city applications that can improve safety, efficiency and the quality of life by establishing a platform for video surveillance, electric vehicle charging, public Wi-Fi and much more.

Lighting And Digital Art

Owing to the Information Age and rapid development of LED technologies, digital art has become mainstream and taken on many versatile forms. Media facades, for



example, have transformed architectural lighting and can either serve purely artistic purposes or be used for exhibitions, buildings or indoors. Other digital lighting is even capable of transforming an entire city's skyline.

Lighting And Smart Homes

With a shift in attention from energy efficiency to intelligent solutions, lighting controls and smart bulbs are gaining market popularity. Technological advancements in the lighting industry have transformed items such as LED lighting to smart bulbs that can connect to the Internet and offer features such as playing music.

Lighting And Furniture

There are endless possibilities for incorporating LED lighting into furnishing design. Making use of energy-saving lamps and advanced LED technologies, illuminated furniture combines light and colour to create attractive lighting options for both indoor and outdoor use. Lighting furniture dually serves as a light source and decorative, yet functional accessory.

Lighting And Wellness

Not only have technological advancements enhanced lighting functionality and efficiency, but they have also improved living comfort through the adjustment of colour and intensity of white light. Low-intensity warm white light emits a soothing effect to minimise users' stress levels, while high-intensity cool white light has an energising effect.

Comprehensive Coverage Of Production, Technology And Lighting Sectors To Facilitate Industry Collaboration

GILE is a distinct and integrated platform for information exchange, networking and new business development. The fair is segmented into three sections, namely production, technology and applications, to offer solutions covering the entire industry spectrum from components and materials to packaging and implementation.

Production Sector

The fair's extensive exhibit profile is on track to address important aspects of lighting production. These include components, materials and manufacturing equipment.

Technology Sector

Also to be spotlighted are technologies and how they relate to lighting quality, thermal management, reliability and more. Related exhibits will be comprised of chips, packaged LEDs, drivers, power supplies, modules and light engines.

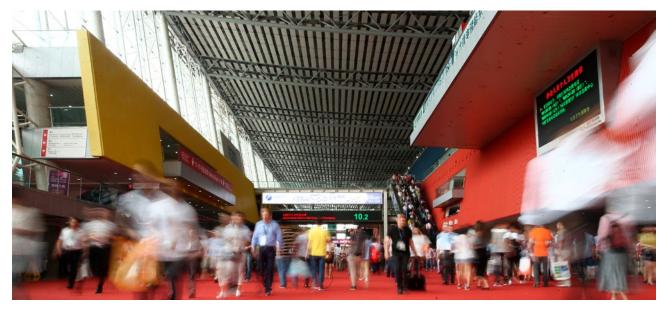
<u>Applications Sector</u>

The fair will put into perspective how lighting and its many applications can influence people's daily lives and boost living comfort. The showcase will be inclusive of residential, commercial, industrial, urban and architectural applications, as well as electric light sources.















Regarding the exhibition's inclusive scope, Ms Wong added: "The comprehensiveness of GILE brings together elements from every corner of the industry to facilitate collaboration across diverse market segments, while simultaneously providing participants a complete and candid view of the lighting world to better offer total sourcing solutions. Having remained synchronised with the lighting industry for over 20 years, we, the organiser, will continue to strive to bring vital new insights, breakthrough ideas and key business relationships to industry professionals to better equip them for a fast-paced and constantly evolving market."

The Guangzhou International Lighting Exhibition will run concurrently with Guangzhou Electrical Building Technology. Both are a part of Messe Frankfurt's building and energy shows, headed by the biennial Light + Building event which will take place from 18 – 23 March 2018 in Frankfurt, Germany.

Messe Frankfurt also offers a series of other light and building technology events worldwide, including the Shanghai International Lighting Fair, BIEL Light + Building in Argentina, Light Middle East in the United Arab Emirates, Interlight Moscow powered by Light + Building in Russia as well as Light India, the LED Expo New Delhi, and the LED Expo Mumbai in India.

For more information, visit www.light.messefrankfurt.com.cn.

show preview

Hong Kong International Lighting Fair 6th – 9th April 2017 Hong Kong Convention and Exhibition Centre Wanchai, Hong Kong



The 9th edition of HKTDC Hong Kong International Lighting Fair (Spring Edition) will be staged from 6 to 9 April 2017 at the Hong Kong Convention and Exhibition Centre. Around 1,300 exhibitors are expected to join the fair, offering global buyers a one-stop sourcing platform for all finished products, parts and components.

LED Lighting and Smart Technology Continues to Drive the Industry

HKTDC Research conducted a survey on prospects for the lighting market at the end of 2016. Findings indicated that LED and related green lighting products (as chosen by 40% of respondents) continue to be

viewed as the category with highest growth potential in 2017. In terms of LED product applications, respondents believed that indoor household lighting (32%) and smart lighting systems (21%) will see the largest increase in the coming two years. As regards to future development, the majority of the respondents (84%) indicated that smart technology will drive the evolution of the lighting industry over the next two years.

Various Thematic Zones for Easy Sourcing

With energy efficiency being one of the significant trends in the global lighting industry, LED & Green







Lighting zone continues to be the highlighted zone, featuring both functional and decorative LEDs and Green Lighting products.

The lighting industry is actively developing smart lighting technologies and products in response to the development of "smart city and smart home" driven by the Internet of Things. In order to cater market demand, the inaugural Smart Lighting & Solutions zone is established this year, showcasing state-of-the-art lighting systems, remote control and smart lighting products. Furthermore, the inaugural Startup Zone is set up for young designers and startup to showcase their original ideas and new concepts, as well as to communicate with global industry players.

Another highlighted zone, Hall of Aurora provides an elegant and extraordinary setting for top-notch branded collections of lighting fixtures. Interior designers and architects, as well as fashion-forward retailers can find high quality and trendy lighting products in the zone. Leading brands taking part in the zone include Viribright, Forest Lighting, Jaykal, SKY-LIGHTING and many more.

Avenue of Chandeliers spotlights glittering and splendid chandelier collections. Chandeliers in both modern and traditional styles are having a fashion resurgence, which is desirable to interior decorators and stylists, also contractors outfitting hotels, restaurants, shopping malls and other development. And World of Professional & Industrial Lighting will cover a broad range of situation-specific lighting, including lighting for warehousing, stadiums and other commercial purposes, safety lighting and emergency lighting. Other product zones include Advertising Display Lighting, Commercial Lighting, Outdoor Lighting and Lighting Accessories, Parts & Components, etc.

Enlightening Events

Different seminars and buyer forums are organized to keep traders abreast of the latest market information. Co-organised with the Hong Kong Institution of Engineers - Electronics Division and Hong Kong Electronics & Technologies Association, the Asian Lighting Forum covers subjects such as global market trends and applications of smart lighting. In a range of informative events, buyers will share market insights at forums on business opportunities in different markets, and industry representatives will give the latest update on lighting design trends.

The 10th Hong Kong Lighting Design Competition organised by HKTDC returns. The theme of this year's competition is "Blooming Aura", which aims to stimulate participants' innovation and demonstrate the feeling of liveliness and vibrancy brought about by blooming lights. The Hong Kong Lighting Design Competition Award Presentation Ceremony will be held on Day 1 (6 April) of the fair and all winners' and finalists' works will be showcased at Hall 1C Concourse during the fair period.

For more information, visit www.hktdc.com/hklightingfairse.

show review

i-Light Marina Bay 2017

3rd – 26th March 2017

Marina Bay Waterfront Singapore



i Light Marina Bay sets the Bay aglow with 20 sustainable light art installations taking centrestage at the Marina Bay waterfront. Running from 3 to 26 March 2017, the fifth edition of Asia's leading sustainable light art festival featured, for the first time, three themed festival hubs that created a festive atmosphere and experience.

Held since 2010, i Light Marina Bay is a showcase of light art installations created by artists from Singapore and around the world. Installed around the Marina Bay waterfront, the light art installations are designed

with energy-saving lighting or environmentally-friendly materials to reinforce Marina Bay's position as a sustainable precinct and serve as reminders to encourage festival goers and the general public to adopt sustainable habits in their everyday lives. The festival also features a range of fringe activities for visitors to enjoy, bringing vibrancy to the public spaces in the precinct.

As the iconic Marina Bay transforms into a kaleidoscopic playground of light and nature, visitors got to soak in



the glittering atmosphere of i Light Marina Bay 2017 – come experience the "Aurora Borealis", giant floating urchins, constellations of lights, and hundreds of fireflies that react to their every move.

Organised by the Urban Redevelopment Authority (URA), the fifth edition of i Light Marina Bay will illuminate the Marina Bay waterfront with 20 light art installations by local and international artists from nine countries, as well as three themed festival hubs, from 3 to 26 March. See how light can be integrated artistically with elements of the nature, and how the interactive artwork and programmes make each visitor's experience unique.









About Marina Bay Sands

Located at the Southern tip of Singapore, Marina Bay is a 360ha waterfront development designed to seamlessly extend Singapore's central business district and further support the city-state's continuing growth as a major business and financial hub in Asia.

Home to the Merlion, integrated resort Marina Bay Sands and many other attractions and public spaces, Marina Bay is a 24/7 thriving and energetic place where people live, work and play.

Discover a rich variety of shopping, dining, entertainment and recreational options at Marina Bay. Visitors can enjoy breathtaking, panoramic views of the city atop the 165m-high Singapore Flyer. Nature lovers can revel in the spectacular display of flowers at Gardens by the Bay. Theatre lovers can catch a performance at Esplanade – Theatres on the Bay, the city's world-class performance arts centre. And for those who are looking for a nice place to relax, enjoy strolling along the scenic waterfront promenade to catch the splendid view of the Bay.

For more information, visit www.ilightmarinabay.sg.

show review

The Big 5 Construct Indonesia 2016

9th – 11th November 2016

Jakarta Convention Centre Jakarta, Indonesia



With Indonesians moving to the cities at a faster pace than anyone else in Asia, the construction industry in the country is booming. US\$ 550 billion worth of government investments are planned by 2019 to meet the burgeoning demand of an economy that is expected to be the world's fifth by 2030.

"By 2025, it is estimated that about 68% of the population will be living in urban areas in Indonesia, according to the Oxford Business Group. With US\$22.9 billion worth of State budget allocated for infrastructure development in 2016, there's a growing demand for construction materials and technologies in the country," Patrick Gedeon, Event Manager of The Big 5 Construct Indonesia 2016 said.

Over 300 manufacturers from more than 25 countries, including Germany, Italy, Turkey and China, will gather

and meet thousands of buyers and construction industry professionals looking for the latest solutions for the built environment at the Jakarta Convention Center from 9-11 November 2016. On its second edition, The Big 5 Construct Indonesia will host world renowned companies of the construction sector like Acrow Misr, Alcubond, BMW, Durkee America, Hoffman, Insutech, JCB, Kirby, Leica, Pedax and Robert Bosch, exhibiting products never before seen in Indonesia.

Co-located with Konstruksi Indonesia 2016 and part of Indonesia Infrastructure Week, Indonesia's largest gathering of infrastructure stakeholders and decision makers, The Big 5 Construct Indonesia 2016 will host many new exhibitors and product launches.

Precast Software Engineering, a leading provider of software solutions for the precast industry

headquartered in Salzburg, will present its high-performance software, PLANBAR and TIM, offering integrated and model-based precast parts design with visualisation along the entire process. "At present, precast parts factories frequently need to submit their offers on the basis of rudimentary layout plans or very basic models of the building contractors.

"In practice, this often does not lead to the required precisions cost certainty," Christiane Ganster, spokesperson of Precast Software Engineering, explained. "The SalesManager we developed, calculates quickly and easily quantities automatically from the building model, generates lists and graphic reports and transfers the data to a calculation programme. It also offers complete visualisation, which can then be sent to the customer as a 3D PDF."

For the first time at The Big 5 Construct Indonesia, multinational company ALUCOBOND®, a leading brand of aluminum composite material for architecture and cladding applications, will showcase its innovative finishes. "We will present unique applications using ALUCOBOND materials that will be of huge interest to architects, façade consultants and developers in Indonesia," Aditya Kothari, Director Marketing Architecture & Display Asia at ALUCOBOND®, said.

The event will also host the launch of the world's first floor drain cover that mitigates smell and insects, while saving water. Singaporean exhibitor, llet Pte Itd, a one stop solution provider from design development to engineering and installation, will take part for the first time at The Big 5 Construct Indonesia bringing its sustainable solutions that also help reducing energy and plastic waste.

According to industry expert Ir. Davy Sukamta, principal and founder of Davy Sukamta & Partners, "The Indonesian construction industry must make a breakthrough in the use of high-quality material and workmanship, using cutting edge technologies, while maintaining 'construct for longer life-use expectancy' philosophy in their work."





Ir. Sukamta, who is also President of HAKI (Indonesian Society of Civil and Structural Engineers), will host a session dedicated to "The Design of a supertall building. The Indonesian Experience: Indonesia-Satu Tower" at The Big 5 Construct Indonesia 2016 on Nov 10. Beyond the exhibition, the event will host in fact more than 20 CPD certified and free to attend workshops, offering insights into challenges and opportunities facing the country's construction industry.

Hot topics like the adoption of BIM and sustainable infrastructures in Indonesia will be debated by industry experts like Arief Rahman, BIM Manager PP Construction, and Ir. Iwan Prijanto, Strategic Master Planner & Urban Transit Designer & Chairman IABHI. Luke Devine, Foreign Legal Consultant Hadiputranto, Hadinoto & Partners will navigate the audience through the complexities of infrastructure project finance in Indonesia, while Martin Wierikis, Managing Director SEPAM Consultants, will deliver a presentation on "Smart cities and technologies for urban development and water management".

A free to attend Green Building Council Indonesia Seminar themed 'We are the last generation to save planet earth' will take place on the third day of the event, Nov 11, exploring the Green Building Industry and the necessary requirements to meet globally recognized Green Building certification. In addition, free to attend workshops from the Association of Architects in Indonesia (IAI), The Indonesia Association of Precast and Prestress Companies (AP3I), and the National Contractors Association of Indonesia (GAPENSI) will also be running alongside the show, making The Big 5 Construct Indonesia the perfect platform for participants to upskill in the latest construction related topics.

Features like the "Excavator Challenge" and the "Selfies at Height" will entertain the expected 10,000 visitors at The Big 5 Construct Indonesia 2016 and the co-located Konstruksi Indonesia 2016. Indonesia Infrastructure Week will also host the first ASEAN G2B (government-to-business) Infrastructure Investment Forum, where both the public and private sectors across ASEAN countries can meet to discuss development challenges and the Global Meetings Programme, an online and onsite free business matching and networking tool open to all IIW participants.

For more information, visit www.thebig5constructionindonesia.com.







Opened in 2007, Stadium MK is located in the Denbigh district of Milton Keynes in Buckinghamshire, England. The 30,500-capacity stadium, which was designed by global architect firm Populous, is home to Milton Keynes Dons Football Club (MK Dons FC). The stadium also hosted three matches during the 2015 Rugby World Cup when the stadium experienced a record attendance of 30,048.

Innovation in Milton Keynes

The development of Stadium MK and the adjacent 3,420m² three-floor Arena MK was led by Pete Winkelman and his company Inter MK Group. Winkelman is also the chairman of Milton Keynes Dons Football Club and continues to drive development of the 'MK One' site around the stadium. The stadium and surrounding site is one of the most dynamic areas in Milton Keynes, and now includes a hotel, conference centre and cinema, as well as a retail park with a number of leading shops and restaurants.

MK Dons FC needed to replace an existing column and streetlight at the front of the MK Dons Box Office & Superstore and MK Arena entrance. The bland column was an eyesore, and the developers wanted a lighting product that would be in keeping with the modern architectural surroundings.

The Shuffle Solution

MK Dons FC chose to install the Shuffle by Schréder, a smart, modular and interactive column designed to encourage social connectivity in public areas. The Shuffle combines state-of-the art LED lighting technology alongside cameras, speakers, internet connectivity and a range of charging applications.

Schréder installed a Shuffle at the MK Dons Box Office & Superstore that includes a 360° light module (16 LEDs), closed-circuit television (CCTV) aimed at the reception entrance and a public address (PA) speaker for match day announcements and WIFI connectivity. The CCTV system and PA speaker are both connected to the MK Dons control room to allow instant access and remote control.

The modular nature of the Shuffle makes it FutureProof: it can be upgraded at any point to include additional functionality such as mobile device charging, specialist advertising features and other innovative ideas.

"The unique Shuffle by Schréder is a fantastic product as it not only looks great but also replaces the need for multiple independent lighting, CCTV and Wifi columns and I only wish it had been invented sooner." Pete Winkelman, Chairman MK Dons and InterMK Group.

The new Shuffle blends well with the aesthetic environment and presents a more modern and iconic face to the MK Dons Box Office & Superstore. In fact, the company is so happy with the Shuffle, they plan to install more in the near future.

For more information, please visit www.schreder.com.

About the Schréder Group

Schréder is a worldwide leader in outdoor lighting. The company, founded in 1907, is serving its customers around the world through 48 subsidiaries and 5 R&D centres. As Your Partner Beyond Light, we design and develop intelligent solutions that transform public and private spaces into safe, comfortable, sustainable and smart environments with engaging experiences for the users and operational benefits for the managers.









"Our team is humbled to be part of this amazing honor in recognition of the combined value and design we contributed" said M+M Creative Studio CEO Chris Mitchell. "The relationship that we developed with this client allowed us to strive for something that was certainly outside the standard kit of design parts and we knew we had built something one-of-a-kind when we saw groups of people seamlessly using the space to create and energize their own brand of corporate culture."

With floors and two outdoor space totaling 143,000 square feet, Edmunds' "EdQuarters" is an inventive space that weaves together a cross-section of tech and automotive-themed designs. The first floor is anchored and highlighted by two Corvettes mounted and turning in unison above the mirror-polished stainless steel reception desk. Other design features on the first floor include a long and elegant coffee bar where employees are encouraged to gather and interact, a mosaic of 2,472 'Matchbox' cars assembled to form Edmunds' logo, and a 1948 Cadillac that has been converted into a beer tap and bar. The bulk of the second floor is comprised of a plank-desking





system that allows flexibility in linear feet per person, as well as additional smaller meeting rooms dispersed throughout and miscellaneous programmatic requirements such as quiet rooms ('Rest Stops') and an IT service desk (the 'Pit Stop'). Meanwhile, a 10,000 square-foot exterior central atrium offers both larger social and more intimate spaces connected to the adjacent interior spaces with over 130 linear feet of retractable glass doors. Inside the atrium itself, the multiple 15' long raised linear planters, gurgling water features and in-ground LED lighting run in parallel lanes like cars seen from above passing on a super-sized highway.

"We came to M+M Creative Studio with a grand vision of a facility that would stand out as an icon of Los Angeles' Silicon Beach tech community," said Edmunds.com CEO Avi Steinlauf. "But more importantly, we wanted a space where we could focus on the needs of our employees first. Chris, Sandra and their team successfully delivered a uniquely vibrant environment where our teams can freely collaborate, think and innovate."

About M+M Creative Studio

Established in 2010 by the award-winning husband and wife team of Chris + Sandra Mitchell, M+M Creative Studio specializes in creating spaces that enhance the everyday experience. M+M brings focus and accountability to each client's unique vision through tailored solutions and exceptional hands-on service. Its expertise and global perspective derive from over 48+ cumulative years of architectural and interior design creating spaces that are equal parts design and value-add service.







the City of Oceanside recently installed more than 7,700 GE LED roadway fixtures equipped with a GPS-enabled controls system.

Expected to drive energy and maintenance savings of approximately \$600,000 annually, the installation of GE LED fixtures with LightGrid™ controls continues to position the city as a leader in connected and energy-saving solutions.

GPS-Enabled Roadway Fixtures

As part of the LightGrid controls system, Oceanside's Public Works team now has a real-time view of how each of the 7,700 street lights across the city is operating. The solution includes a GPS chip on every fixture via

monitor each light through a Web-based interface and immediately respond to maintenance or operational needs.

The controls system also allows the city to activate more precise "on/off" and street-light dimming schedules, particularly in low-traffic areas and during overnight hours, to save the city in energy-related costs.

"Illuminating our city with GE's LED street lights with LightGrid gives us control like we've never had before," said Kiel Kroger, Oceanside Public Works division manager. "We're able to efficiently light roadways in a way that makes sense for how our city operates day to day, all while reducing our energy bills."





Intelligent City

Energy-efficient lighting is a part of a greater initiative—the Green Oceanside campaign, which was established to educate residents, businesses and visitors and to implement programs for energy efficiency, recycling, water conservation, energy conservation and more.

The Oceanside Public Works department was driven to complete this lighting project because of its potential to realize large energy and maintenance savings.

Replacing legacy high pressure sodium (HPS) street lights is expected to reduce annual carbon dioxide emissions by 1.7 million pounds, which is equal to removing nearly 150 cars from the road or adding more than 200 acres of forest.

"The feedback from citizens and city staff has been just as important as the anticipated energy and cost savings," said Kroger. "Citizens of Oceanside like the fixture style and the light quality produced, while city staff are also pleased by the energy and maintenance savings and expected return on investment."

In addition, it helps the city promote energy efficiency and inch closer to its goal of leveraging data and operating as a more intelligent city, Kroger said.

Additional upgrades include 900 city park light fixtures, parking lights, pier and decorative lights in the downtown area.

GE Lighting

GE Lighting is changing the way people light and think about their world in commercial, industrial, municipal and residential settings. Light brightens our path to a better way of being. Today, light is intelligent. Light listens, learns and sees. GE. Where Light Is Bright. www.gelighting.com.

About GE

GE (NYSE: GE) imagines things others don't, builds things others can't and delivers outcomes that make the world work better. GE brings together the physical and digital worlds in ways no other company can. In its labs and factories and on the ground with customers, GE is inventing the next industrial era to move, power, build and cure the world. www.ge.com



PHILIPS LIGHTING TO DELIVER 'FANS-FIRST' LIGHTING FOR UNRIVALLED SPECTATOR EXPERIENCE AT NEW MULTI-PURPOSE PERTH STADIUM

By Philips Lighting

Philips Lighting (Euronext Amsterdam ticker: LIGHT), a global leader in lighting, today announced the largest LED stadium lighting system of its type for Australia's newest sporting venue, Perth Stadium. The stadium plans to use LED lighting to support its mission to become the premier, multi-purpose venue in the southern hemisphere.

As part of the West Australian Government's 'fans-first' approach for the stadium, it demonstrates the lighting design capabilities which Philips Lighting can bring to a project of this scale. The holistic LED stadium lighting system includes more than 15,000 controllable LED light fittings which are managed through a control platform. It has the flexibility to create a completely immersive lighting experience for the venue with a capacity of 60,000, making it ideal for a variety of events.

The lighting has the flexibility to create a multi-purpose arena for fans to watch anything from their home football and cricket teams to world-famous rock concerts. Music and lighting can be merged together in advance by the lighting operator for seamless implementation, creating visually stunning pre-match light shows. In addition, the LED floodlights meet the requirements for HDTV broadcasting standards for sports lighting.

Chris Palandri Regional Director for Multiplex, the stadium builder, said, "LED stadium lighting is an integral part of the plan to make Perth Stadium the premier multi-purpose venue in, not only Western Australia, but also the entire southern hemisphere. The lighting will be crucial to delivering an amazing fan experience whether it's for Australian Rules Football, cricket, a rock concert, or for a completely different type of event. The stadium will represent a beacon for the entire community."

The venue showcases the Philips Arena Experience capability. The centerpiece is the Philips Arena Vision LED pitch lighting system comprising LED floodlights and a control panel. This system can be synchronized with external lighting consoles for other types of lightshows and events. The stadium façade and roof canopy will be lit by Philips' Colour Kinetics architectural LED lighting with connected LED light points that can be easily controlled.

The roof canopy acts as a giant canvas upon which spectacular light shows can be created with patterns and imagery via the connected light points. Philips Lighting also provided LED lighting for offices and hospitality areas inside the stadium.

David Gardner, general manager, Philips Lighting ANZ said, "On completion, this project will be Philips Lighting's largest complete LED stadium implementation in the world, and the largest LED multi-purpose stadium lighting implementation of its type in the world. The scale of the project really demonstrates how seriously Australians take their sport and events. We at Philips Lighting are proud to install this world-class LED stadium lighting system together with Multiplex, the stadium builder, for the enjoyment of fans."

The Stadium will be used for, amongst others, Australian Rules Football, Cricket, Rugby Union and Rugby League, Soccer and entertainment events. It is scheduled to open in time for the start of the 2018 Australian Rules Football season. The facility will be serviced by a train and bus station, as well as a pedestrian bridge connection across the Swan River to the city centre.

For more information, visit www.newsroom.lighting.philips.com.





HIS MAJEST'S THEATRE

Perth crnr Hay Street / King Street

Project Area: Façade Lighting

Location: Perth crnr Hay Street / King Street

Lighting Designers: Klaasen Lighting Design - Martin Klaasen / Stan White

Client: Perth Theatre Trust / Heritage Perth

Electrical Consultant: ETC Heritage Consultant: Phil Griffiths

Installation Contractor: Tech Works - Electrical Solutions - Todd Chapman

Lighting Equipment: IGuzzini Supplier: Mondoluce

Project Write-up: Martin Klaasen, principal KLD Photo Credits: Ron Tan, Martin Klaasen

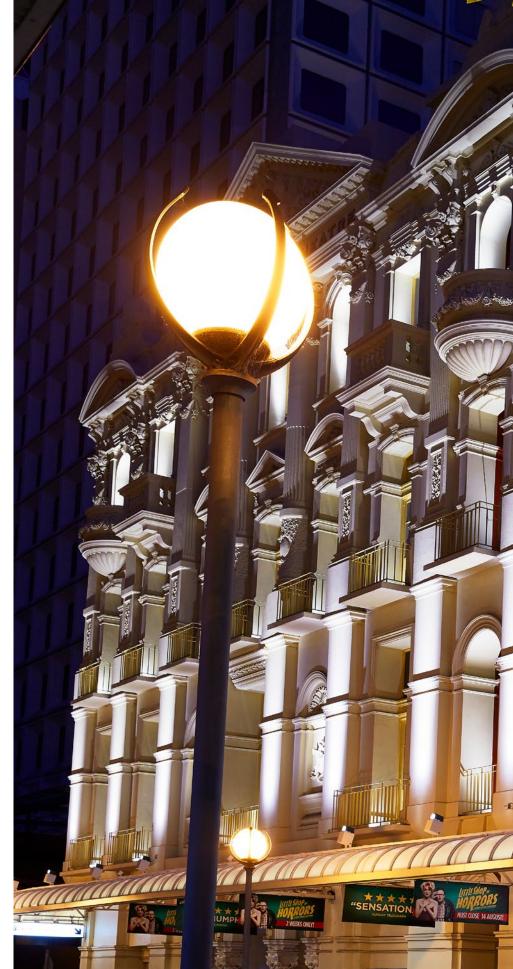


Introduction

His Majesty's Theatre in Perth is one of Perth's oldest and most iconic heritage buildings and one of the key buildings in Heritage Perth's "Light up the City" program. After a near 5 yearlong design and implementation process the façade lighting was recently unveiled with much media fanfare and to great acclaim from the general public. Together with my team at KLD, we are extremely proud and honoured to have been associated with this project and likes to specifically acknowledge Heritage Perth, the Perth Theatre Trust for its trust in KLD as the lighting designers of this majestic project. Using low energy consuming LED technology, the lighting design fully complies with the sustainable guidelines of the Light up the City program and has managed to validate the buildings architectural features without compromising the buildings heritage façade.

Concept Design Brief:

The initial request for the lighting of the building's façade came from Heritage Perth who had shortlisted the grand old Maj as one of the key buildings to be lit as part of the Light Up Perth program with grants available for façade lighting. There was no specific brief other than that the heritage building was classified as a Perth icon and deserved to be lit at night. The building façade was renovated some 5 years ago but had failed to include façade lighting. With funding now available KLD was tasked to develop a lighting concept for its façade from the canopy upwards.

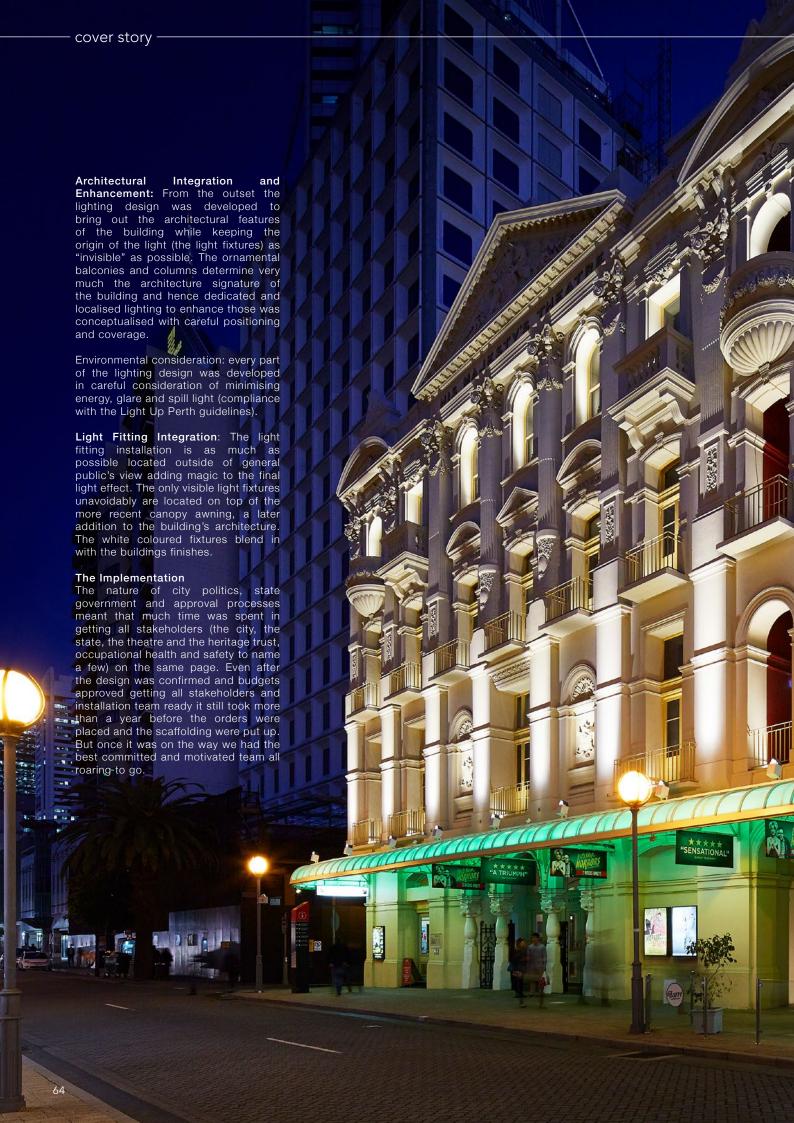


Limitations

The two main limitations from the onset where the heritage classification of the building and the budget limited at the start to the size of the grant (\$200,000). The heritage fabric of the building obviously meant that no structures or light fixtures could be mounted directly on to its façade, resulting in serious limitations for the running of cables and conduits. Since the theatre is home to an impressive stage having hosted world class performances, power provision was no issue, but getting the power to the façade was the main challenge. After developing the initial concept it soon became clear that the grant would not be enough to create a lighting effect worth the icon. To help alleviate the cost KLD brokered a sponsorship deal with IGuzzini to make the concept a reality and as a result IGuzzini became a partner from the early days. However when the final quotes came in for the installation it was clear that still extra funding was needed for the installation and Perth Theatre Trust agreed to add in some additional funds to realise the project. It was decided to leave out the roof top lighting (the lions and roof edge) due to the excessive cost of scaffolding required for installation and the relatively limited opportunity to view this. KLD agreed as it was felt that omitting it would not majorly affect the end result. The intent is to implement it at a future date. Also originally proposed as a permanent installation but later changed to a temporary set up due to cost reasons are special events Gobo projectors that can be mounted under the canopy projecting images related to ongoing shows on the pavement.













Technology Progress: We note that along the way the light fixtures specified were upgraded to keep up with the ever improving lighting technology. One round of specification upgrades was done at the final budget. Another was executed just prior to the final order confirmation to assure that we had the latest technology upgrade on offer.

Energy Effectiveness: The overall energy load ended up a little over 1Kw for the whole façade (!), a great achievement considering the extent and intricacy of the architecture. Both energy consumption and brightness comply with the cities guidelines for building lighting (Light Up Perth).

Project Launch and Media Planning

As work finally progressed to actual installation in 2016, the project was deemed to deserve a worthy grand launch and public introduction. The City of Perth and the Perth Theatre Trust decided on an opening date (in this case the start of a one year celebration of 50 years of West Australian Opera, coinciding with the opening night of a new opera called The Elixir of Love) and subsequently started "launch procedures" by inviting exclusively the local Channel 7 TV station and leading newspaper The West Australian to cover the event. However in order to provide them with proper materials

(and avoid any stuff ups on the day) press releases were prepared and pre-recordings were organised of the light up launch program, specially developed by KLD for the grand opening event.

A week before the grand opening, lighting effects and countdown were programmed and tested, two days before the event CH 7 came to pre-record the countdown which consisted in gradually switching on all the lights from ground upwards. Interviews with lead opera actors and key stakeholders were carried out as well.

The Grand Opening

On the (wintery) grand opening night the lighting up countdown was timed to be broadcast "live" during the 6 o'clock news. But while the channel switched live to the news reporter present, the actual countdown was shown in an abbreviated version (from the pre-recordings) in line with todays' fast pace style of reporting. The West carried the story exclusively in next morning's edition.

The reactions have been overwhelmingly positive with many deeming the light up long overdue and a pride for the city! The lighting is on every night from dusk to dawn.

For more information, visit www.kldesign.co.

Hillion Mall

Singapore

Architect: Design Link Architects Pte Ltd Supplier: Light-Pro Furnishings Pte Ltd Developer: Sim Lian Group, Sim Lian JV (BP Retail) Pte Ltd Photo and Text Credit: Hella Asia Singapore Pte Ltd









The Eco Stateline series impresses with its newest project – the long awaited trans-urban development Hillion Mall, located adjacent to existing Bukit Panjang LRT Station and the Bukit Panjang MRT station. Based in Singapore, Hillion Mall is poised to be one of the upcoming commercial and residential hotspots in town. With amenity convenience and easy transportation connectivity, this lofty residence promises urban living in style. It is only deserving that this rising neighbourhood amps up their view with Eco Stateline.

The Eco Stateline is a new development of LED technology that does away with the usually-used cooling fins that other industry players are still using. At 20,000lm, the thinness of Eco Stateline's fins is a remarkable trait.

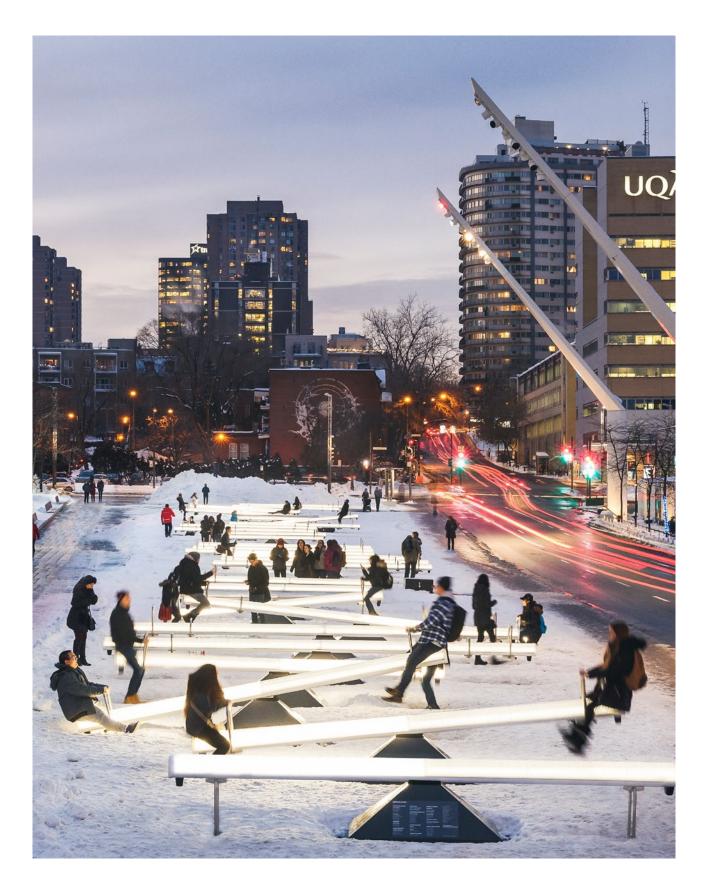
With the open interfaces, motion sensor lighting, centrally controlled lighting, energy consumption measurement and traffic counting comes at an easy toggling by the user. No matter the requirement, Eco Stateline can be customized to fit into its needs.

With the fundamental concept advocating "Simplicity. Innovative. Sustainability", the Eco Stateline series is streamlined in a modular design. With the plug and play connection system, the LED unit and smartbox (which houses all the electrical components) can be easily replaced without the need for any tools and within a matter of seconds.

The Eco StateLine series is developed and produced in Germany factory under subsidiary of Wünsche Group, Germany. It does not require skilled technical staff to operate the maintenance works. Furthermore, the innovative side-mounted and top-mounted luminaires' new optical concept integrates the LED and the optics. This powerful lighting can be applied to all outdoor areas such as service roads, local distributor roads and main roads. \blacksquare

Impulse

Lugano, Switzerland







Made-in-Montreal high-tech art will have some new international showcases this December. Three interactive installations created in collaboration with the Quartier des spectacles Partnership will be part of the Holiday magic in three cities in Europe and North America.

After a stop in London in October, Impulse continues its European tour with stops in Brussels and Lugano. From November 25 to January 1, the Belgian capital will host the famous illuminated seesaws as part of the city's Plaisir d'hiver winter festival, where the installation will be one of the centrepieces of the popular event's program. This is the second time Brussels has featured works first presented in the Quartier des spectacles: the city also hosted the immersive Iceberg by ATOMIC3 in the Place de la Monnaie in 2014.

Meanwhile, the city of Lugano, Switzerland, has decided to make Impulsion a winter attraction for its new cultural centre, Lugano Arte e Cultura, one of the country's largest cultural institutions. The installation, created by Lateral Office and CS Design, was first presented in Montreal's Place des Festivals last winter. Lugano residents can explore and play with it from December 3 to January 8.

The agglomeration of Cergy-Pontoise, one of the regional centres of the Greater Paris area, will present the illuminated field of Entre les rangs, which delighted Montrealers three years ago. With its 28,000 flexible stems topped with reflectors, the work by KANVA is a luminous metaphor for a windswept wheat field. The installation will glitter in Grande Centre district of Cergy from December 10 to January 1, as part of the Lumières d'hiver event.









Also in December, Prismatica will be installed on Parliament Hill in Ottawa (December 7 to January 7) as part of the city's participation in the Christmas Lights Across Canada event. The same installation will also be a feature attraction on the banks of the Potomac River in Washington, D.C., on the occasion of the Georgetown GLOW exhibition of illuminated public art (December 1 to January 1). Created by RAW Design in collaboration with ATOMIC3, the participatory installation features 50 multi-coloured prisms that will collectively form giant kaleidoscopes on their respective sites in the two national capitals. Prismatica was originally presented in the Quartier des spectacles in the winter of 2014-15 as part of Luminothérapie.

In recent years, international audiences have enjoyed several works created for the Quartier des spectacles, including 21 Balançoires/21 Swings and McLarena by Daily tous les jours, Trouve Bob by the Champagne Club Sandwich collective, and Iceberg by ATOMIC3 and Appareil Architecture. Numerous cities around the world have expressed interest in the digital art created in the Quartier. Our artists' work is garnering significant attention, and other export initiatives should be announced shortly.

"The mix of art, creativity and light found in the Quartier des spectacles is an inspiration to cultural districts in cities around the world," said Jacques Primeau, chair of the Quartier des spectacles Partnership's board of directors. "There is real enthusiasm for the model developed by the Quartier des spectacles Partnership for the animation of public spaces. This approach allows our artists to gain international exposure and positions Montreal as a cultural metropolis. We are very proud of what we have achieved, and intend to continue on the same path".

International interest in the Quartier des

spectacles is driven to a significant extent by Luminothérapie, Quebec's largest open competition for temporary installations. The event's mission is to create an original interactive winter experience for visitors and stimulate creativity in urban installations and digital art.

This international recognition is also the result of the Partnership's efforts to promote its artists, creations and expertise on the international scene. The Partnership is opening more discussions with other cultural cities and is a member of major international networks, including the Connecting Cities Network, the Lighting Urban Community International (LUCI), and the Global Cultural Districts Network (GCDN), an association of cities committed to joining forces and pooling expertise in the management of cultural districts.

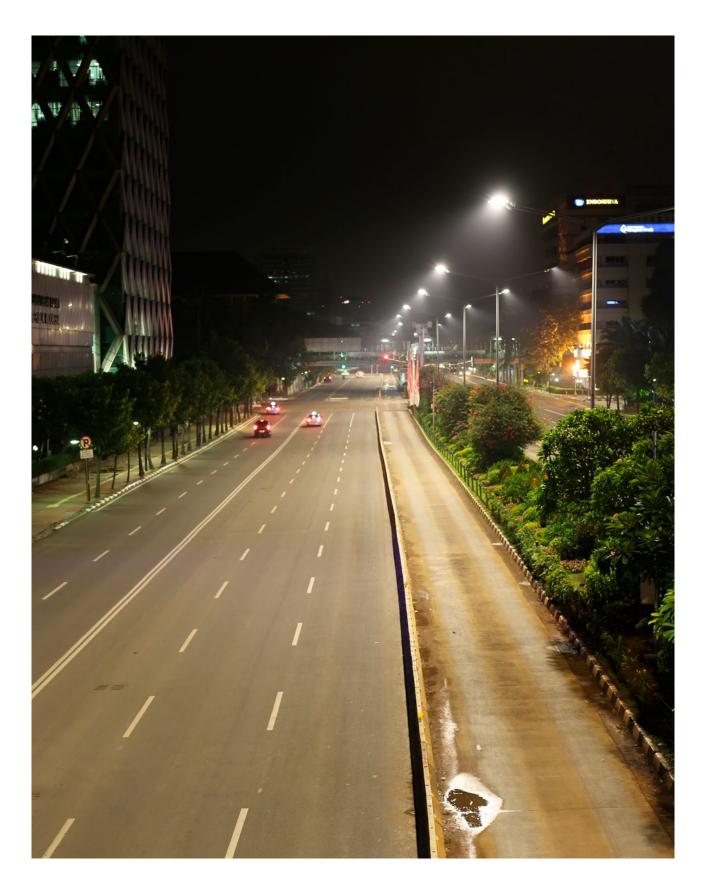
About the Quartier des spectacles and the Partnership

The Quartier des spectacles is Montreal's cultural heart, boasting North America's most concentrated and diverse group of cultural venues as well as numerous festivals and events. The Quartier also hosts innovative urban installations involving cutting-edge lighting design and immersive environments. The Quartier des spectacles has become an international showcase for digital public art.

The Quartier des spectacles Partnership is a non-profit organization responsible for operating and programming the Quartier's lively public spaces, for illuminating the area through distinctive lighting design as well as for promoting this must-visit cultural destination. The Partnership is a member of several international networks, including the Connecting Cities Network and Lighting Urban Community International (LUCI), as well as the Global Cultural Districts Network. ■

Street Lights

Jakarta, Indonesia



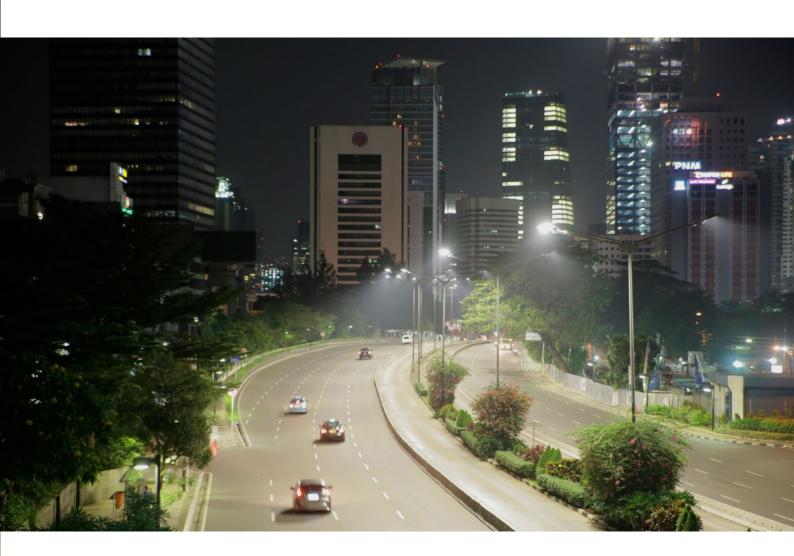


The project, a significant milestone in Jakarta's ongoing transformation into a smart city, involves upgrading nearly 90,000 street luminaires with energy efficient LED lights connected to a Philips CityTouch lighting management system. The project is on target for completion in only seven months with approximately 430 light points being connected per day. This makes it the world's fastest street lighting retrofit and remote management project undertaken to date.

"During the last few years, we have focused on urgently improving public services including street lighting. Our aim is to turn Jakarta into a smart city where everything is connected to enable our citizens to live safely and more comfortably in a city that is beautiful day and night. At the same time, we are convinced that connected lighting will help us reduce our energy expenses and improve public services," according to the DKI Jakarta Government Office. "This is not the first project with Philips Lighting, since we have previously partnered on other lighting projects, including the illumination of the Jakarta National Monument (Monas), the iconic Tugu Selamat Datang (Welcome Monument) in the Hotel Indonesia Roundabout and various public spaces or parks."

With over nine million inhabitants, Jakarta is one of the world's most populous and fastest growing urban centers. Before the project, the city's streets and public areas relied almost entirely on conventional lighting technology with no remote monitoring capabilities. The key benefit of Philips CityTouch is that each light point is connected and performance data will be sent





through existing cellular networks to the city's lighting office (Industry & Energy Department) or operator. The data will enable the city officials to efficiently monitor the city's lighting infrastructure and remotely manage illumination levels to match different needs by district. For example, in the evening when traffic is low, Jakarta's lighting office can dim the lighting by 50 percent, resulting in additional energy savings.

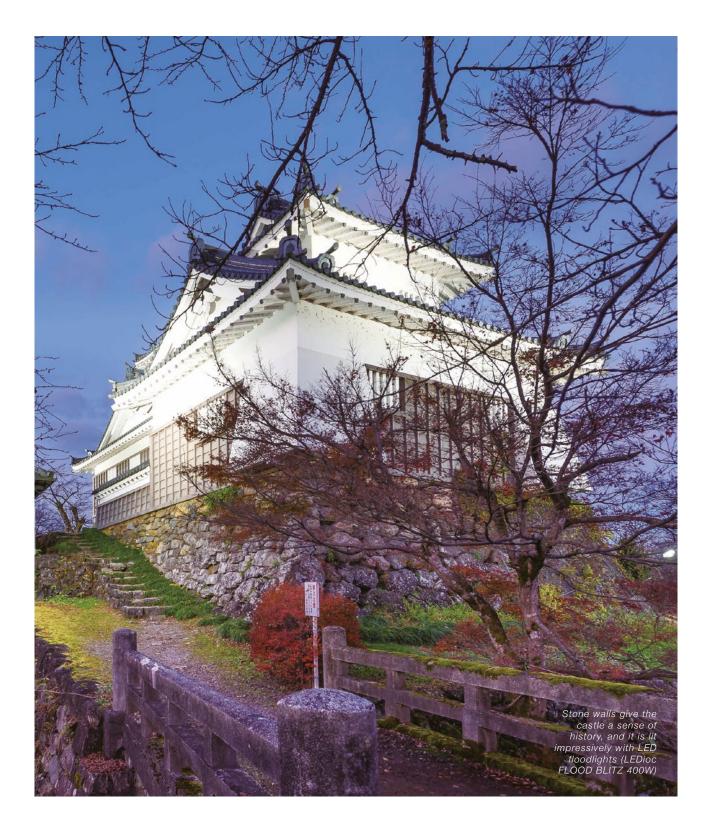
"Since its launch in 2012, our Philips CityTouch street lighting system has been installed in over 700 projects across 35 countries. Governments have set a high priority on reducing their carbon footprint by upgrading their street lighting with our highly energy-efficient connected lighting. Installation is quick due to our built-in wireless networking capability, and maintenance time is significantly reduced because each street light reports on its performance and status," said Chandra Vaidyanathan, President Director, Philips Lighting in Indonesia. "Only two percent of the world's 300 million street lights are connected in this way. The forward-thinking smart city plan for Jakarta is setting the pace for Southeast Asia."

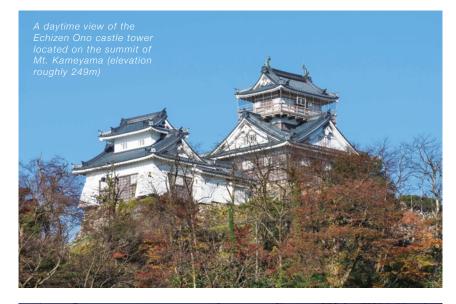
Although the Jakarta installation is one of the largest in the world, Philips CityTouch technology can be also scaled to deliver significant benefits for small- or medium-sized conurbations. The combination of LED luminaires and remote monitoring using the Philips CityTouch lighting management system enables energy and operational savings.

Echizen Ono Castle

Ono City, Fukui Prefecture, Japan

Lighting Solution: Iwasaki Electric Co Ltd Photo Credit: Iwasaki Electric Co Ltd



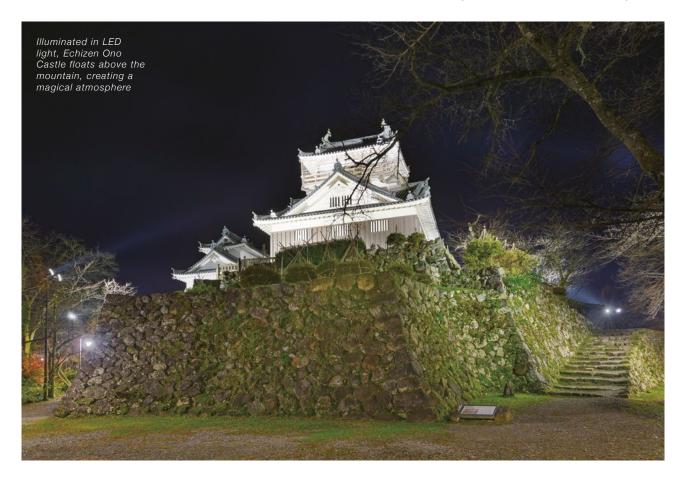




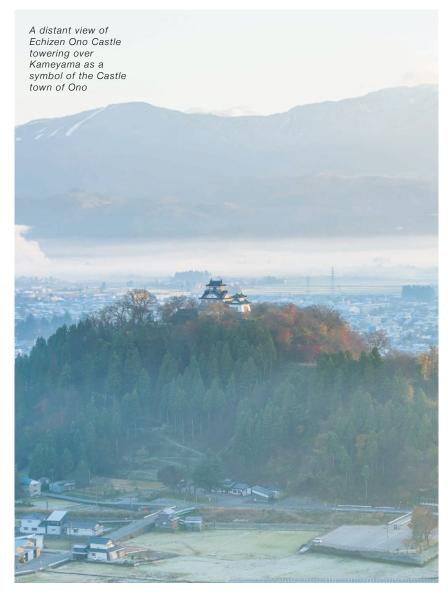
Chizen Ono Castle is a flatland-mountain castle towering over Kameyama, located at an elevation of 249m in the Ono Basin, situated in the mid-west section of Ono City. The Castle has recently been getting attention with the catchphrase of a castle in the sky."

Built over a period of five years from 1575, Echizen Ono Castle is a symbol of Ono City, and the current castle tower was rebuilt in 1968. The Ono Basin is surrounded by mountains in all four directions, and from spring until autumn, when the area is blanketed in morning mist, you can see Echizen Ono Castle floating on a sea of clouds -"a castle in the sky."

Illumination of the Castle had previously taken place, and with the change to LED lighting, the building's white plaster walls are all the more prominent, creating a magical atmosphere. The change to LED lighting aimed for power savings along with increased brightness compared to the previously installed HID floodlights. LED floodlights (LEDioc FLOOD BLITZ 400W) were







installed on the existing lighting poles, and the light distribution was carefully scrutinized to ensure proper illumination from those same positions. The floodlights are painted with the designated color of dark brown, taking harmony with the surrounding environment into account.

Furthermore, there were no floodlights on the western side of the castle, so lighting poles and LED floodlights were added there. With the addition of one lighting pole, a night-time view of the castle can be seen from 360°, at any location in the town, with Echizen Ono Castle creating some magical night-time scenery floating on top of the mountain.

About Iwasaki Electric Co Ltd

Iwasaki Electric, EYE, a worldwide supplier of lighting products and industrial systems, renowned for its highly reliable and technologically advanced products. As a group of true light technology professionals, they will continue to grow and shine by delivering customers the products of proven "Quality" and "Value" backed by their light technology.

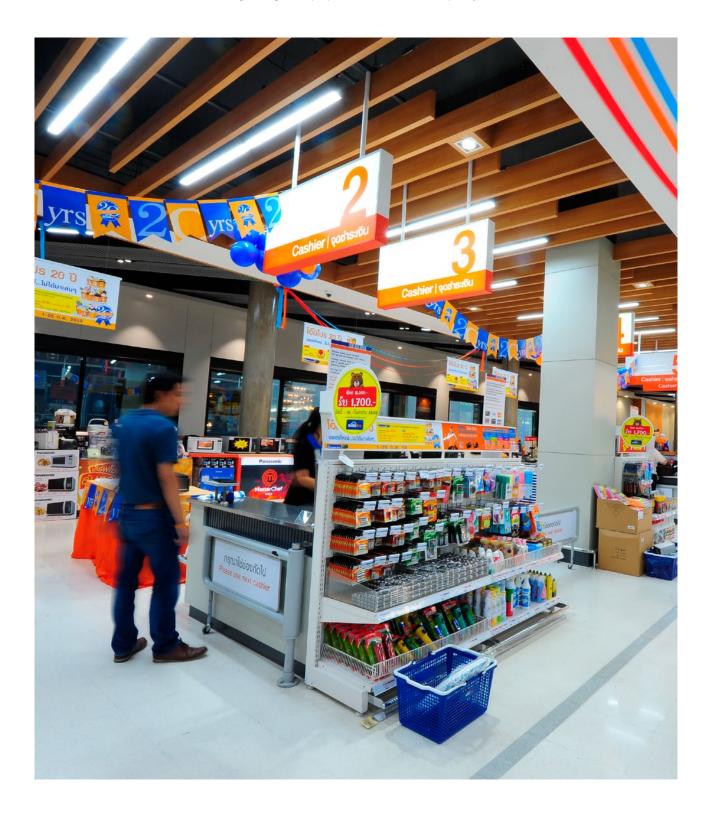


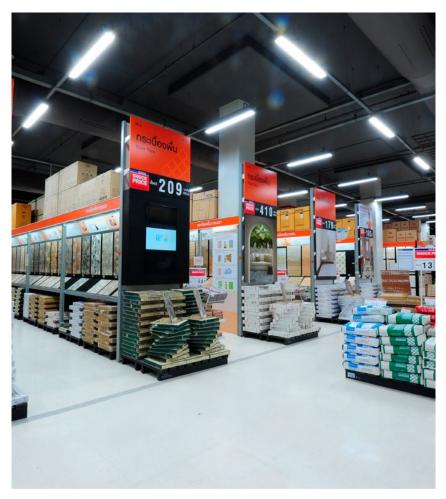
HomePro Rama3

Bangkok, Thailand

Architect: 760i

Lighting Solution: Lighting & Equipment Public Company Limited (L&E)
Photo Credit: Lighting & Equipment Public Company Limited (L&E)





In the age of technology and innovation of communications that consumers seem to prefer the convenience of online shopping as a major approach, it is then a challenge of all shopping centers to make their brands different. Therefore, the market leader in home furnishings like Homepro opts to create a new shopping experience to meet the demand of the consumers, which is more than the conventional shopping, by integrating all lifestyles of the new generation into the shopping center to become a new social network in Rama 3 district.

To respond to the fast-growing consumption of this area, Homepro Rama 3 is designed to become a modern shopping center of 12,000 sq.m. in a style that is different from what we are familiar with. There are various stores for all target customers: electronics and technology stores, famous restaurants, including a full-service bike shop, to be worthy of a new meeting place for the brands and shoppers for exchanging experiences, which definitely cannot be found from online shopping.

Lighting is one important component that will create the memorable image of this Homepro branch. The lighting concept is completely different from











the other branches: the general lighting in the spacious area is integrated with the different lightings of various functional areas, making an interesting rhythm of light and allocating the merchandise areas divisibly.

High quality linear LED from L&E provides luminance both horizontally and vertically, making the products more outstanding and the atmosphere comfortable. Also, the high color accuracy helps display the true colors of the products beautifully. The accent lighting is carefully placed with an appropriate light diffusion that is suitable for the products without eye-irritating glare, which modern LED technology must be thanked for its qualifications of both fidelity and gamut.

The building exterior is also designed for a modern and friendly appearance. Façade lighting is changed from floodlight to an integration of linear LED to the building for the pattern and rhythm of the light that enhance the remarkableness of the architecture. Indirect lighting post top is a good alternative to illuminate the circulation as the light is gentle and with a friendly shape.

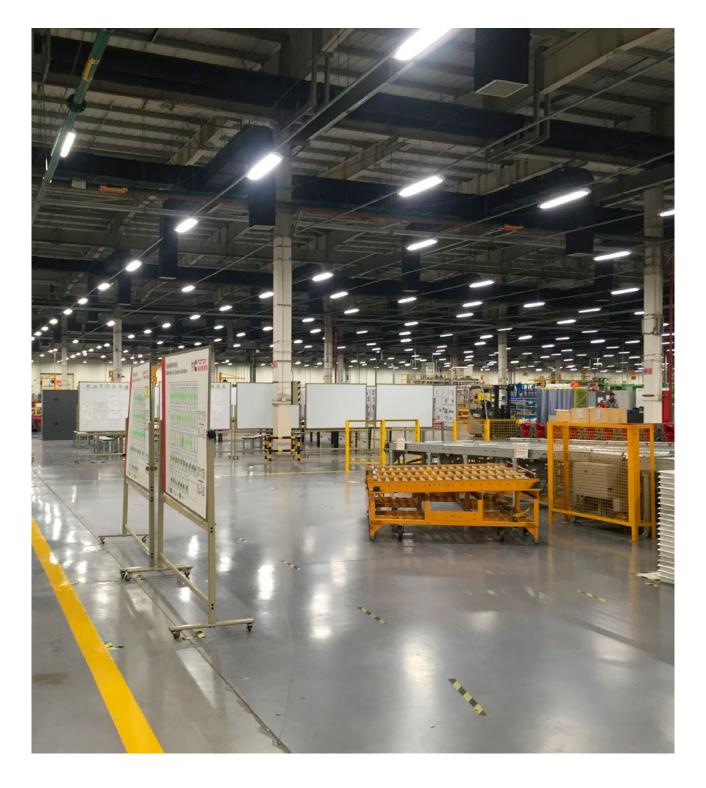
About I &F

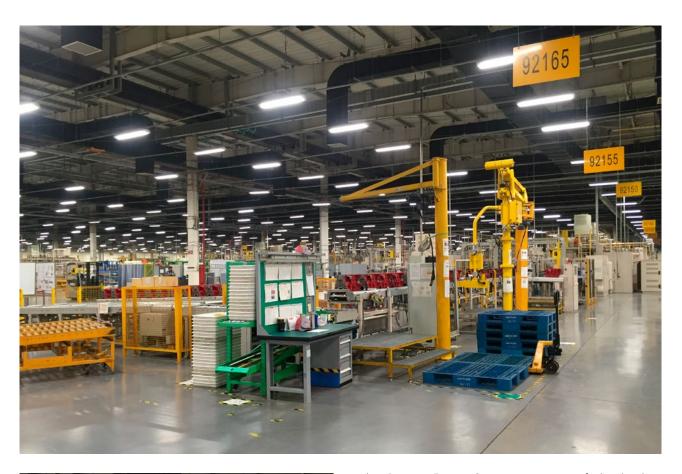
L&E is a lighting equipment manufacturer and lighting solution provider based in Bangkok, Thailand. We have been specialists in lighting for more than 20 years and engaged in many prominent projects in Thailand and other Asian countries. For more information, please visit www.lighting.co.th.

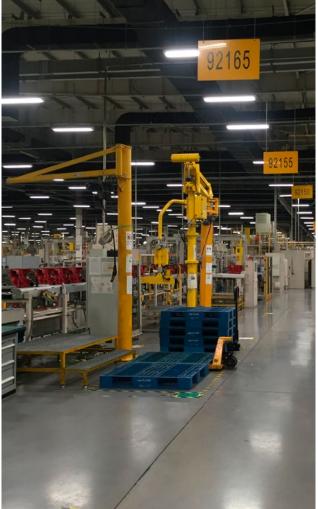
Beijing Foton Factory

Beijing, China

Lighting Designer: Beijing SIGTO Technology Co., Ltd Builder / Contractor: Beijing SIGTO Technology Co., Ltd Lighting Manufacturer: Vossloh-Schwabe Photo Credit: Vossloh-Schwabe







The Beijing Foton Company is one of the leading international suppliers of commercial vehicles and transport solutions headquartered in Beijing, China. Foton is ranked first in the global commercial vehicle industry in terms of production and sales.

The projects sole objective was to replace existing T8 fluorescent lamps with an ideal LED solution. Vossloh-Schwabe's LED Line SMD Kit fit the bill perfectly. The built-in LED module for integration into luminaires were the optimum option to illuminate an impressive 25,000 square meters of factory space.

A total of 4040 pieces of WU-M-481-HB-840 in 4000 K neutral white powered up by 2020 pieces of ComfortLine LED drivers; ECXe 700. 147 220-240 V were used. The very efficient one row optic system from VS with 60° light distribution guaranteed a homogeneous and low glaring light level at the working floor.

The LED SMD Kit is highly efficient with up to 183 lm/W at $T_{\rm p}$ 50 °C. It also has a long service life time of 50,000 hours (L80, B10) and comes with two power classes. Available in 2 lengths of 280 / 560 mm, LED Lime SMD Kit has a colour tolerance of 3-step MacAdam and has a on-board push terminal system.

ComfortLine constant-current LED drivers are convenient with intelligent functions and designed for use in office, industrial and retail lighting.

- Up to 100,000 hours expected service life time
- Easy selection of output current over output terminal
- Highly efficient up to 94%
- Power factor up to 0.97
- Very low output ripple / flicker

Shopping Nord Graz

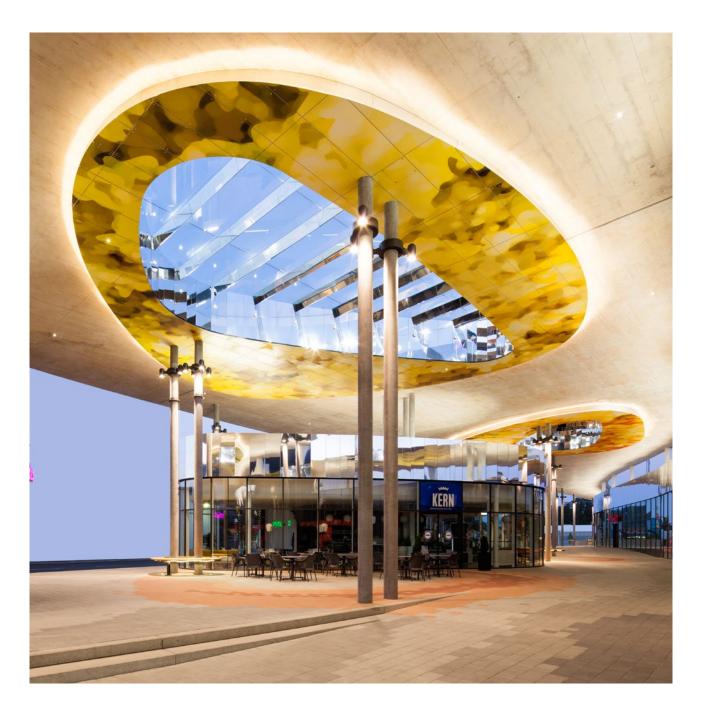
Austria, Europe

Location: Wiener Straße 341, 8051 Graz, Austria

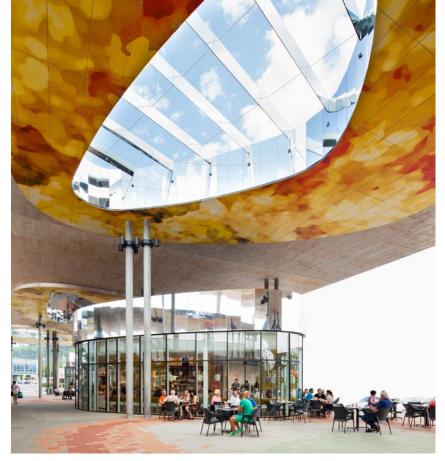
Area: 10,600 m²

Client: Kovac Management GmbH Architects: BEHF Corporate Architects Design and Concept: Armin Ebner Project Manager: Alexander Körözsi Collaborators: Christian Schwarzinger

Photo Credit: Markus Kaiser







The largest shopping centre north of Graz/Austria, owned by the Austrian Kovac corporate group, has been converted and extended by the architects to meet actual and anticipated evolving, future standards. It also boasts state-of-the-art technical refurbishment.

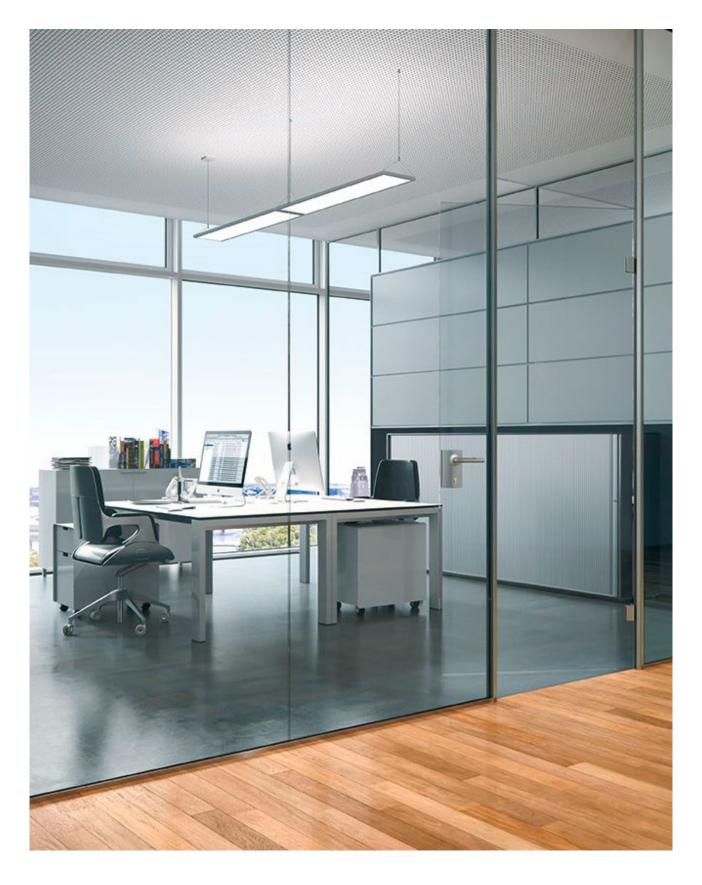
Significant architectural highlights of Shopping Nord Graz are two new transparent pavilions housing retail and gastronomy outlets and restaurants connected to the main building by a single, free-standing roof to create a unique - almost ten meter high - canopy. This is built on reinforced concrete stilts that appear randomly arranged to create a lively and bright space. The effect is accentuated by a glazed, asymetrical and circular roof opening to allow plenty of natural light that also illuminates seating areas on the curved and colourful paved promenade further enhancing user enjoyment. The soffit of the exposed concrete roof is not only broken up by the three free-form skylights, but also shines as a result of the colour applied to areas of the ceiling around the skylights.





Natural Light

Frankfurt, Germany



The luminaire manufacturer Waldmann has substantially expanded its range of office lights and presents its new suspended, integrated and mounted luminaires at Light & Building for the first time. The company offers a holistic lighting solution for a high-quality, people-friendly lighting in the office from a single source. With its expanded product portfolio and comprehensive planning support, Waldmann enables implementation of intelligent lighting concepts. The main focus of which is to combine biodynamic daylight tracing with maximum energy efficiency.

At Light + Building 2016, Waldmann presents for the first time its enhanced portfolio that meets all requirements for modern office lighting. In addition to the freestanding, desk-mounted and task luminaires, the range now includes various suspended, integrated and mounted luminaires. The Engineer of Light thus offers a comprehensive range of luminaires for implementing complete biodynamic lighting solutions suitable for both workplaces and rooms.

The Claim: "Natural Light for Human Needs"

In combination with the light management system PULSE VTL, the new and proven luminaires offer particularly high visual comfort and people-friendly lighting in the office. With its different free-standing and room luminaires, Waldmann offers solutions for a biodynamic light for simulating the course of daylight time indoors. Office workers who spend a large part of the day indoors thus experience the natural daylight. This experience facilitates the human sleep-wake rhythm and promotes well-being and the ability to concentrate. Waldmann has always been a pioneer in the area of the biodynamic lighting. For more than 11 years, the company has been using the light management system PULSE VTL, which was developed in-house, in the care and health sector. With its extensive experience and concentrated expertise, Waldmann supports customers and planners in implementing contemporary lighting concepts.

New: Product Family IDOO

At the leading trade fair, Waldmann introduces the new luminaire family IDOO for equipping open-plan and cubicle offices. Designer Burkhard Schlee, who has already developed the multi-award winning task luminaire PARA.MI together with Waldmann, focuses on a discreet look, high functionality and user-friendliness. With its strikingly flat shape and understated design, the LED suspended luminaire IDOO.pendant fits into every office concept. The direct light component ensures a uniform, glare-fee light at workstations with computer monitors, while the wide-angle indirect light component creates a pleasant ambient lighting in the room. Available as individual or linked luminaires, IDOO.pendant meets various lighting requirements in the office.

The linear system IDOO.line ensures even more flexibility: the LED light line with direct and indirect light distribution as well as efficiency enhancing reflector technology enables a standard, homogeneous office lighting – and it has what it takes to become the new favourite of architects. Thanks to the modular system design of IDOO.line, various start, middle and end luminaires can be flexibly linked to one another without using tools. This high potential for customisation enables versatile implementation of different lighting concepts





for offices in various sizes in a continuous design. The multi-purpose linear system is impressive with its understated elegance and clear lines. As an ideal lighting solution for a custom interior design, IDOO.line fits into the overall architectural concept and accentuates the distinctiveness of the room. With its outstanding light yield of 105 lumens per watt, the system also leads in the matters of energy efficiency.

The innovative integrated and mounted luminaire IDOO. fit completes the new product family. Its dual luminous intensity distribution including a direct component facing downwards and a soft indirect light for the sides creates an unusual look and a particularly pleasant ambient lighting: luminaire and light harmonize particularly well with the room architecture.

New: Suspended Luminaire LAVIGO

The product family LAVIGO, which was introduced in 2014, now has even more variants too: at Light + Building, Waldmann unveils for the first time a LAVIGO suspended luminaire. Just like the established free-standing and desk-mounted luminaires of the product family, the new product also has clear lines and simple elegance. Designed by Jürgen Schubert, from Structurelab architects (Düsseldorf), LAVIGO is an ideal symbiosis of identity, functionality and simplicity. All essential components of the luminaire have a simple, rectangular form with slightly rounded edges. Moreover, the new suspended luminaire also offers different output levels and a light yield of over 100 lumens per watt, which meets the energy efficiency requirements.

LED Module and Converter 12 V & 24 V For Outdoor Applications

By Vossloh-Schwabe www.vossloh-schwabe.com







ALULED IP66/67 - 24 V

Electronic Converters 24 V

Electronic Converters 12 V

Photo Credit: Vossloh-Schwabe

ALULED IP66/67

Vossloh-Schwabe's plug & play AluLED IP66/IP67 is ideal for outdoor protected applications under humid conditions (excluding direct UV exposure) and the slim and flat design is extremely flexible for low profile lighting design mounting.

A key advantage of AluLED is the extremely slim and flat design, which makes it suitable for illuminating complex structures or places where space is too limited to permit traditional light sources to be installed. AluLED IP66/IP67 is made in Germany and is available in white, blue and RGB.

Typical Applications

- Outdoor protected border lighting
- Outdoor protected architectural illumination
- Outdoor protected illuminated path markings
- Bathrooms and rooms with high humidity
- · Refrigerated food counters

Electronic Converters for LED Modules 12 V & 24 V

The electronic converters made by Vossloh-Schwabe guarantee a broad output range at a voltage of 12 V and 24 V. Typical areas of application are architectural and general lighting, the replacement of halogen lamps as well as furniture lighting.

Devices with the particularly high IP67 degree of protection are designed for use in outdoor applications.

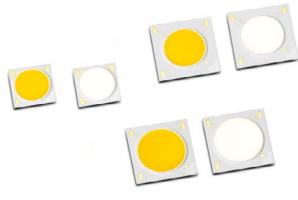
Advantages

- Overload and temperature protection
- Constant supply of 12 V / 24 V
- Different shapes for different applications
- IP20 / IP67 rated
- Cost-efficient
- Up to 100,000 hours expected service life time



LED Module and Drivers For Retail Applications

By Vossloh-Schwabe www.vossloh-schwabe.com



LUGA Shop Gen. 5



EasyLine LED Drivers

Photo Credit: Vossloh-Schwabe

<u>LUGA Shop Gen. 5 - 1000 lm to 20,000 lm</u>

Based on established COB technology, Vossloh-Schwabe's LUGA Shop Gen. 5 LED modules are best suited for retail and industry environments. It features brilliant white light optimized for fashion and clothes lighting and has similar colour impression to CMH lamps. Typical applications include integration in reflector luminaires and downlights.

- Narrow colour tolerances: 2 step MacADAM (CRI 85/95)
- High electrical isolation due to ceramic COB technology
- Special colours: Food, Pearl White and Clear White
- Ready-to-built-in variant: Module + Tim + Holder as one unit
- Highly efficient: up to 180 lm/W
- Long service life time: 100,000 hours

LED Constant Current Driver - EasyLine Shop

Slim and compact casing shape including cord grip optional for built-in or independent operation.

350 mA / max. 15 W 500 mA / max. 21.5 W

700 mA / max. 30 W / 38.5 W

1050 mA / max. 45 W



Smart Functions of Eco Stateline

By Hella Asia Singapore Pte Ltd

The new Eco StateLine series opens up a myriad of lighting possibilities. With a SmartBox specifically developed according to the user's wishes, this intelligent design is equipped with a completely protected IP67 system, changeable without additional tools. Besides the electronic driver, the other smart model components can be easily integrated.

Using the open interfaces, the luminaires can be customized and configured individually for each customer, independent of the system. Variable options such as "companion light", central luminaire control, consumption measurement, proactive maintenance or traffic monitoring are selectable for the user as well. Thanks to the plug and play connection and complete electrical isolation, the luminaire is easy to operate even without any technical knowledge.

For more information, email to singapore@hella.com.



Outdoor Wall Mount Lighting (WLL 160 & WLL 161)

By L&E www.lighting.co.th



WLL 161

L&E's recently brought to market surface wallmount luminaire line, which comprises the models WLL 160 and WLL 161, immediately captivates the eye through its elegant and minimal, framed in black and white design. The series fascinates by its indirect and wide up and downlight beam, which serves perfectly to accentuate walls or facades.

With a color temperature of 3000K, the presented models are mostly used within residential spaces and the hospitality sector to create a warm and friendly ambience. Apart from its precise appearance, the WLL family also convinces through its longevity of up to 30,000 hours, solid IP 55 protection and low energy consumption. The available 6W and 9W LED COB lamps are designed to replace 1x13W TCD and 1x18W TCD, respectively.

About L&E

L&E is a lighting equipment manufacturer and lighting solution provider based in Bangkok, Thailand. They have been specialists in lighting for more than 20 years and engaged in many prominent projects in Thailand and other Asian countries.

YAHAM's Slim LED Street Light Delivers Type III Beam Distribution For Pedestrians And Drivers

By YAHAM Lighting www.yahamlighting.com















Options

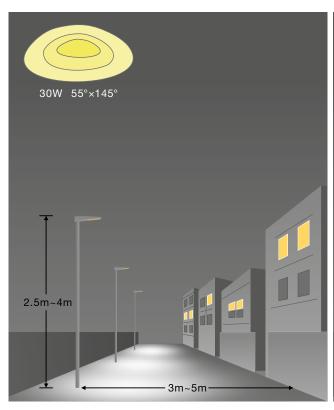
- Light sensor plug-in, extensive energy saving

- Solar panel compatible
 10KV Surge Protection
 Silver gray, dark grey, black, and white lamp color
 Alternative mounting methods

Types of Application

- Parks
- Gardens and courtyardsBike paths

- SidewalksResidential Streets
- Rural Road







YAHAM'S COMPACT V LED HIGH BAY LIGHT

By YAHAM Optoelectronics Co., Ltd www.yahamlighting.com

Compact V series LED high bay lights offer more than 130lm/W light efficacy, and senior 150lm/W optional. The luminaire is extremely lighter and smaller, and comes in 100W, 150W, 200W options with very convenient mounting methods. With an IP65 Rating and various beam angle available (70, 90,120), this luminaire can apply to many lighting applications such as workshop, factory, warehouse, toll station, airport hall, exhibition hall, garages, etc.



LUMIQS LED INTELLIGENT LIGHTINGS

By Syspex Technologies www.syspex.com

LUMIQS High Bay and Mid Bay LED features a combination of ultra-efficient LED with intelligent automatic sensor control which dramatically cuts energy costs by up to 90%, whilst delivering a brighter, safer and more comfortable environment for your customers and employees.

This intelligent Lighting system offers integrated, out-of-the-box solutions which are suitable for almost all commercial and industrial lighting needs, from warehousing and cold storage, to manufacturing and retail.

- Up to 90% SAVINGS on energy
- LIGHT exactly when and where needed.
- COMFORT lighting in unoccupied areas
 SAFETY and convenience with automatic lighting
 2-3 YEARS payback in investment

HENO 6-LAMP T5 FLUORESCENT HIGH BAY 120V-277V

By Access Fixtures www.accessfixtures.com

The HENO 6-Lamp T5 Fluorescent High Bay 120v-277v is a tried-and-true fluorescent high bay that comes at an unbeatable price. Its name-brand ballast and easy mounting make this a dependable product built to perform.

Every lamp (3000K, 4100K, or 5000K) has a high CRI of 85 and the lamps are TCLP (toxicity characteristic leaching procedure) compliant, which means they contain less than 0.2 milligrams per liter of mercury. This makes them safer for the environment and a sensible choice for many facilities. Built for use in high-ceiling areas such as warehouses and manufacturing facilities.

Features:

- 360-degree lenses for thorough area coverage.
- Adjustable time delay.
- Passive infrared sensors determine whether or not a person has entered the room; they detect heat emitted by the human body.





BOSCH 18V BLUETOOTH LED FLOODLIGHT

By BOSCH

www.boschtools.com

Bosch has announced a pair of new portable jobsite cordless LED floodlights, the Bosch GLI18V-1900N and GLI18V-1900C. They have some pretty impressive features and performance. One of their model features Bluetooth connectivity for remote controlled operation. With the corresponding app, users can manage several of the lights simultaneous with one click. Other than that, both models have brightness levels of 1900 lumens and 1000 lumens, with a runtime of 4-hours on high and 8-hours on low (when used with a 5Ah battery).

Features:

- Innovative high-power LED
- Adjustable brightness
- Outstanding runtime which compatible with any battery in the Bosch 18 V Lithium-lon system, this floodlight can run ten hours on an 18 V, 6.0 Ah battery
 Swiveling stand with 120° adjustment and five positions for adaptable setup
- Threaded for tripod use
- Designed with a durable frame to hold up to tough jobsite conditions
- Single-LED design delivers a consistent field of light



FULHAM WORKHORSE LED EXTREME IP65 DRIVERS

By Fulham www.fulham.com

Fulham's WorkHorse LED Extreme family of constant current, intelligent, programmable LED drivers are aimed at harsh outdoor environments. The advanced specification of the drivers has compatibility with wireless, DALI and 0-10V dimming which is flicker free down to 1% power. They also offer the widest available output current programming, so eliminating multiple driver stocking requirements. WorkHorse LED Extreme drivers are IP65 rated for outdoor and other high power applications.

- Wide programmable current rangeUNV (120-277V) and 347V input models
- Multiple programming methods
 Advanced programming features: dimming curve, step dimming, dim-to-off, DMX address, grouping, and more
- Auto Programming capability for high volume usage

SOLAR BOLLARD

By Core Plan

www.coreplan.com.sg

Made from high impact and marine grade corrosive resistant materials, SBL Solar Bollards are proudly Australian made, come in 3 models – Standard series, SR series & HR series, they are ideal for outdoor applications in areas such as gardens, walkways, parks, housing estates, marinas, jetties, public areas and many others.

Here are the unique features of SBL Solar Bollard:

- Vandal resistant
- Solar-powered with autonomy run time in access of 3 days. 6106 T6 marine grade anodized aluminum pole designed to last 15+ years
- Replaceable light head and unique dome-shape design preventing birds from perching and soiling
 Quick and easy to install DIY no electrician and wiring
- required
- No maintenance
- No operating cost
- 5-year warranty





Launching Soon.



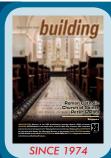
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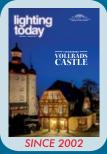
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May 2017

ARCHITECT EXPO 2017

IMPACT Muang Thong Thani Bangkok, Thailand Email: info@TTFintl.com Website: www.architectexpo.com

THAILAND LED EXPO 2017

May 11 - 13
IMPACT Exhibition & Convention Centre
Bangkok, Thailand
Website: www.ledexpothailand.com

June 2017

ASEAN SUSTAINABLE ENERGY WEEK 2017

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Bangkok, Thailand Email: asew-th@ubm.com Website: www.asew-expo.com

GILE 2017 JUNE 9 - 12

China Import & Export Fair Complex Guangzhou, China Email: light@china.messefrankfurt.com Website: www.guangzhou-international-lightingexhibition.hk.messefrankfurt.com

September 2017

BEX ASIA 2017 September 12 – 14

Halls A & B, Marina Bay Sands Singapore Email: info@bex-asia.com Website: www.bex-asia.com

October 2017

LED+LIGHT ASIA 2017

Halls B & C, Marina Bay Sands Singapore Email: LED@cems.com.sg Website: www.ledlightasia.com

MYANMAR BUILD & DÉCOR 2017 October 5 – 7

Myanmar Event Park (MEP) Yangon, Myanmar Email: info@icvex.com Website: www.icvex.com

November 2017

FENESTRATION BAU CHINA 2017 NOVEMBER 7 – 10

Shanghai New International Expo Center Shanghai, China Email: kate.mao@mm-sh.com Website: www.bauchina.com

THAILAND LIGHTING FAIR 2017 November 16 - 18 Hall 102-104, BITEC

Bangkok, Thailand Email: info@thailandlightingfair.com Website: www.thailandlightingfair.com

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Smart Lighting Solutions for Office and Industrial Lighting

Vossloh-Schwabe's LED Line AluFix COB / SMD modules are best suited for integration into indoor luminaires providing direct or indirect light. The high-quality optics provide optimal protection and ensure homogeneously illuminated surfaces without optical interruptions. A smart LED solution to replace T5/T8 lamps, is ideal for offices, schools, retail and industrial lighting.

LED Line AluFix LUGA

- Long service lifetime: 55,000 h (L90, B10)
- Highly efficient: up to 166 lm/W at $t_p = 65 ^{\circ}\text{C}$
- Colour tolerances: 3 step MacAdam
- 5 lengths available: 305 mm / 586 mm / 867 mm / 1148 mm / 1429 mm



LED Line AluFix SMD

- Long service lifetime: 60,000 h (L80, B10)
- Highly efficient: up to 166 lm/W at $t_p = 50$ °C
- Colour accuracy: 3 SDCM
- 5 lengths available: 305 mm / 586 mm / 867 mm / 1148 mm / 1429 mm



For more information, please visit www.vossloh-schwabe.com