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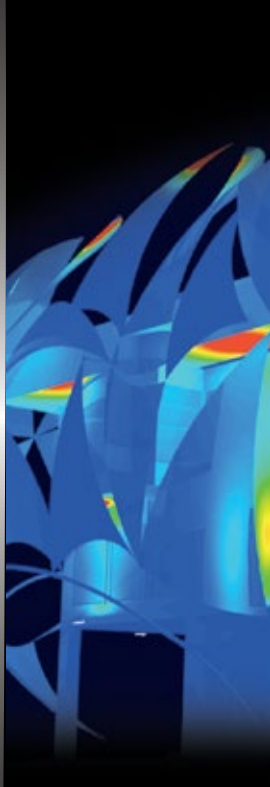
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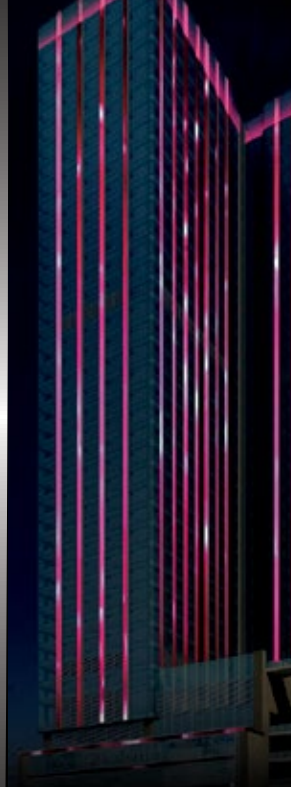
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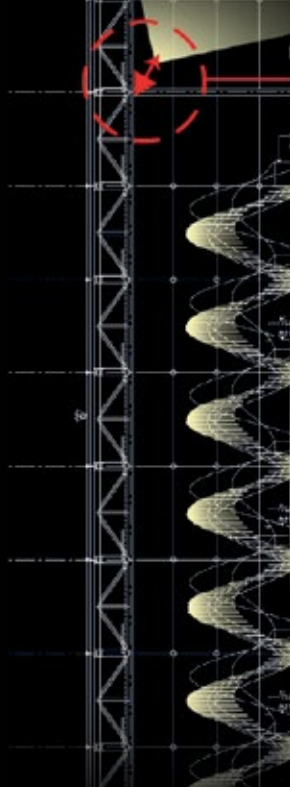
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IWASAKI ELECTRIC CO.,LTD.

6th Floor, Bakurocho-daiichi Bldg., 1-4-16,
Nihonbashi-bakurocho, Chuo-ku,
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Phone: +81-3-5847-8630 Fax: +81-3-5847-8647



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PUBLISHER
Steven Ooi steven.ooi@tradelinkmedia.com.sg

EDITOR
Nicole Lee lighting@tradelinkmedia.com.sg

GROUP MARKETING MANAGER
Eric Ooi eric.ooi@tradelinkmedia.com.sg

MARKETING MANAGER
Felix Ooi felix.ooi@tradelinkmedia.com.sg

GRAPHIC DESIGNER
Siti Nur Aishah siti@tradelinkmedia.com.sg

**HEAD OF GRAPHIC DEPT/ADVERTISEMENT
COORDINATOR**
Fawzeeah Yamin fawzeeah@tradelinkmedia.com.sg

CIRCULATIONS EXECUTIVE
Yvonne Ooi yvonne.ooi@tradelinkmedia.com.sg

INTERNATIONAL MEDIA REPRESENTATIVES

[CHINA/HONG KONG] *Non-Exclusive*

Ms. Judy Zhao
General Manager
Worldwide Focus Media Co., Ltd
Unit 04, 7/F Brightway Tower
No. 33 Mong Kok Road
Kowloon, Hong Kong
Phone: +852-3078 0826
Mobile : +86-13810325171
judy@worldwidefocus.hk

[KOREA]

MCI
Room B615, Hanwha Obelisk 2,
481, World Cup buk-ro,
Mapo-gu, Seoul,
Korea 03902
t. +82 2 730 1234 f. +82 2 732 8899

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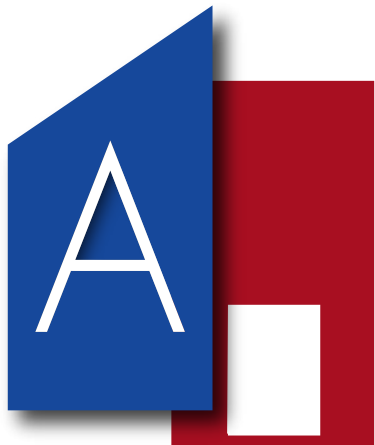
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Fast Facts

- In 2015 approved construction projects was value USD3.33 billion (2.5 billion in 2014), a 33% year-on-year increase (according to Ministry of Land Management, Urban Planning and Construction)
- For the first half of year 2016, 1.2 million metric tons of construction materials were imported with steel increasing by 32%, Cement by 8% and general materials by 38%.
- CBRE claimed that Future Phnom Penh condominium supply is set to be principally driven by international developers, with units delivered by Taiwan and China companies, With 36% of the planned projects falling into the high-end category.



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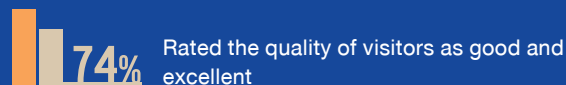
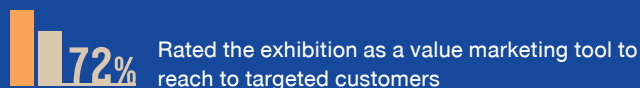
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Dear Readers,

Happy 2017! It seemed like just yesterday we were closing the chapter on 2016. Was 2016 a fulfilling year for you? It sure was for us folks at Trade Link Media! We have plenty in store this year and we hope to unveil them to you soon.

In the meantime, hop over to our newest section: smart lighting! To kick start the series, we take a look at Vollrads Castle, hailing from the beautiful Hesse, Germany. This hulking masterpiece meets modern lighting with its the entire outdoor and façade lighting, including the castle's emblematic and imposing tower, featuring energy-efficient LED modules and drivers made by Vossloh-Schwabe. The result? Breathtaking.

I am not supposed to play favorites, but Serpentine Pavilion of Kensington Gardens deserve a rightful mention in our facades and landscape feature! Serpentine Pavilion takes the form of a wall created from stacked, open-ended rectangular boxes. The wall appears 'unzipped' to form two sinuous strands that bulge apart to form a central cavity. It is a fascinating three-dimensional environment; photos do it no justice.

Fashion meets lighting in our Issey Miyake feature from spatial envelopes! The Issey Miyake store presents itself as a shining jewel from outside. A charming contrast is formed by juxtaposing the historic facade with the straight lines of the glass frontage and the modern passageway that leads through to the courtyard; too chic to miss.

Have a lovely time reading!

Nicole Lee
Nicole Lee
Editor





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WHAT DOES THE FUTURE HOLD FOR LIGHTING DESIGN?

Looking ahead to the New Year in the land of lighting and lighting design

As I write this column we are approaching the end of the year, which saw a very unexpected year full of surprises, with Brexit in the UK and a Trump presidency in the USA, creating a new world order with lots of uncertainties ahead. So what will it bring us in the New Year? Populist movements around the world seem to move away from international cooperation opting to focus on their own countries instead of building a world of cooperation and consensus. It is too early to judge whether this “reset” is good or bad for the world in general. It is likely to sharpen division, create more confrontation and will require very strong political skills on all levels to navigate the potential pitfalls along the way.

Will it affect our lighting or lighting design world? It may well be... protectionist movements in regards to (lighting) manufacturing may create new challenges and hurdles previously protected under free trade agreements. With trade barriers possibly in the making and higher import tariffs being applied to protect the local economy, we may not that easily be able to source the light fittings we want and may have to sharpen our specification skills to use even more locally made products, a trend that was already growing strongly but may in the near future be the only way. It will certainly stimulate the local economies but will it also keep researchers and innovators motivated on a world scale? Multi-national lighting manufacturers invest lots of monies and efforts in developing their products for a world market, will they still get enough return on their investment to keep going? The global speed of technological developments in LED world has been phenomenal with a general aim to develop internationally accepted quality standards for easy integration. But will that still hold true in the longer term? We are seeing more and more that governments issue decrees to stimulate their own economies, but as their quality and performance levels are not necessarily up to par with international standards we may need to do a few steps back before we can move forward again.

Travelling may also become more tedious, certainly in light of terrorism that has taken the world in a stronghold. Under the populist movements current open border policies may be reviewed with international travel become more difficult. My work gets me to travel to another country (mostly Asia Pacific / Middle East) nearly on a weekly basis, so free and easy travel makes it still reasonably bearable. More importantly the question arises whether protectionist movements will also mean that the lighting designer may in the future also need to be from the same country? With operations in Australia, Singapore, China, Indonesia and India I have already acknowledged the need to have people on the ground, speaking the local language, understanding the local culture and working together with local suppliers, but it would be practically impossible to have an local office (employing local staff) in every country we do projects. The internal communication and administration between the offices I have now is already complicated, let alone if we would have more...

With the populist movements gaining strength in countries around the world, will world-wide environmental agreements such as the reduction on carbon emissions be abided by or

renegotiated and if so will that have any impact on sustainability targets in (lighting) design? This will be an interesting one to follow.

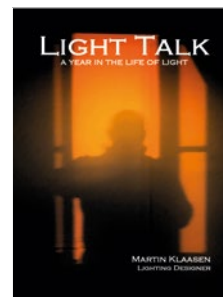
It is of course not all doom and gloom, but it is certainly a reality that we need to acknowledge or at least be aware of when planning our long term project design commitments.

We have seen many of the traditional lighting manufacturers making a successful transition to LED technology, some taking their time, some coming back with a vengeance and I suspect that in the coming year we will see a further profiling of key lighting manufacturers driven specifically by the development of new innovative products. Innovation is the key here. Those who have remained relevant in lighting market are those who have radically embraced product innovation built around the typical opportunities that LED technology offers. Not all manufacturers have managed to make the switch while the LED revolution has also allowed many new start-ups, new kids on the block, to enter the playing field, some of those previously not at all involved in lighting industry.

The ever growing Internet of Things have propelled big technology companies like Google, Apple and many others right into the lighting playing field as well. It is fair to say that this is therefore one of the most exciting and challenging things to look forward to in the coming year. It is likely to revolutionise the way we think about lighting, the way we appreciate and use lighting, and as a result the way we as lighting designers need to redefine our horizon that not so long ago consisted of just a light bulb and a switch!

I wish all my readers a really bright and creative year ahead!

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),
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A soft copy of the book is now available for download from Martin's blog site.

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RON ARAD AND ZINOO PARK TO EXPLORE OLED LIGHT, AND TO SHARE THEIR INSPIRATIONAL EXPERIENCE, AT 100% DESIGN



Renowned for his experimentation with materials, architect and designer Ron Arad explored the possibilities of light, using LG Display OLED light panels. In support of a must-see exhibition at 100% Design, Ron Arad had a talk-show with an emerging Korean artist Zinoo Park, with whom he collaborated for the show, and writer and consultant David Michon.

They discussed the role of light in design, and how this new technology might change basic principles of design and architecture, alongside with Ron's latest projects around the world. The talk took place at the Auditorium at 13:45 at 100% Design on September 22.

Using LG Display's new OLED light panels, which are as thin as paper, Ron has represented letters, phrases, thoughts, expressions and pictures on large plates of steel. In the exhibition at 100% Design (Design & Build Stand E808), through a soft and warm glow unique to OLED, each letter and picture was able to radiate and make an incredible, indelible impression.

The concept revitalized new perspective in light, and allowed the visitors to explore the awe of light in



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a whole new dimension. Zinoo Park, who graduated from Royal College of Art and is one of the leading designers in the fast-growing design scene in Korea, created a lighting sculpture titled "The Mirror of Orbit". Combining OLED with orbit structure which is connected to mirrors, his work expresses visual ambiguity of continuity and break in time and space.

He said, "The new OLED gives designers the freedom to disregard the limitations of traditional lighting. The structural flexibility and the similarity to natural light give a warm feeling to anybody who experiences it." LG Display's OLED panels have the advantage of being light and ultra-thin. It is fluid and convenient and omits no UV rays among many advantages.

The talk was public, but the audience included journalists and high-level lighting designers and architects, and it was geared towards building a dialogue on the future of light technology and where it will fit into industrial design, interior design and architecture in general. Attendants at the talk received a special OLED light package gift from LG Display, and had an experience to directly touch and feel LG Display OLED light panel themselves, the closest light source to natural light.

Joon Park, Vice President of Sales and Marketing mentioned, "As an opportunity to experience how the new material, OLED light panels can make aesthetic impacts on spaces, audience could now have an encounter with art combined with technology. Based upon the accurate understanding of human sensibility ergonomics, the art pieces presented are the combinations that effectively reveal characteristics of OLED light as a conveyance of natural lights."

He also added, "LG Display will continue to collaborate with artists, such as Ron Arad and Zinoo Park. LG Display is always opened to suggestions in building reference cases where we can show the positive features of OLED lighting by collaborating with artists, architects, designers and others."

For more information, visit www.lgdisplay.com.



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Project Team :

Mr Steven Chwee
+62 21 2556 5000
steven.chwee@reedpanorama.com

Mr. Marzuki Herry
+62 21 2556 5004 / +62 815 1322 9998
marzuki.herry@reedpanorama.com

Ms Silviana
+62 21 2556 5026 / +62 878 8522 2880
silviana.mullawan@reedpanorama.com

Sales Team :

Mr Eric Anthony
+62 21 2556 5003 / +62 878 7700 2211
eric.antonius@reedpanorama.com

Mr Ricky Chandra
+62 21 2556 5028 / +62 818 418 483
ricky.chandra@reedpanorama.com

Mr Nicky Marsab
+62 21 2556 5027 / +62 857 1019 7676
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AN INSPECTOR CALLS ON WHITE LIGHT FOR GLP X4 BAR 20S



Stephen Daldry's multi-award winning production of *An Inspector Calls* has returned to the West End at the Playhouse Theatre. This now famous revival was first performed at the National Theatre in 1992 and has since won 19 major awards across the globe. Lighting Designer Rick Fisher has lit the production since its infancy and returns once again for this latest run. He approached White Light to provide the lighting equipment, which included the GLP impression X4 Bar 20s which the company has recently invested in.

An Inspector Calls is written by JB Priestley and tells the story of a family's dinner party being interrupted by the mysterious Inspector Goole who is investigating the death of a young woman. Rick comments: "What's great about *An Inspector Calls* is that it's still a brilliant production which resonates with a lot of audiences. Generation after generation have seen the piece and it seems to be as popular as ever".

Since Rick first lit the show almost 25 years ago, there have obviously been significant advancements in lighting technology; something he has incorporated into this production. Rick comments: "A lot of the lamps we used on the original rig have now become



obsolete – the show has outlived the technology! For previous productions, we have always relied heavily on tungsten. Now LED technology is able to produce similar effects to tungsten lights yet do so using much less energy".

Whereas there were numerous upgrades with this particular production, a notable addition to the rig was the GLP impression X4 Bar 20.

The X4 Bar 20 is a high performance batten that incorporates 15 Watt RGBW LEDs packed tightly to give a full line of light. Using 20 LEDs, the high quality optics ensures a smooth, homogenized output across the batten through a broad pallet of pastel and saturated colours. DMX control also offers full pixel mapping capabilities and can offer effects from a narrow angle light curtain to a wide angle washlight.



The X4 Bar 20 has a very specific purpose on *An Inspector Calls*. Rick states: "The X4 Bar 20s are used to provide a particular rain effect on the show – something that is vital in capturing the mood of the play. The actual staging area at the Playhouse Theatre is fairly limited, taken up significantly by the set. This essentially means there is less room to manoeuvre. Thanks to the flexibility of the X4 Bar 20s, these can achieve the exact effects required within that space. We have rigged the units vertically at the side of the stage. This means that the first view of the rain comes through this sidelight yet this won't cause any spillage on the stage floor".

Rick is also using the bars on *RENT*, which is currently embarking on its 20th anniversary tour before arriving in the capital next year at the St James Theatre. He comments: "The bars really are quite revolutionary, creating certain effects in both productions that simply wouldn't have been feasible before. As a lighting designer, this allows you to be as creative as possible; which, in turn, hopefully provides the audience with an unforgettable experience".

Dave Isherwood, WL's Technical Director, comments: "At WL, we always ensure that we invest in the latest technology so that designers such as Rick receive the greatest amount of options. We immediately recognised the quality and versatility of the X4 Bars hence the reason we added them to our extensive inventory. They have already been used on a series of shows and we expect this to continue".

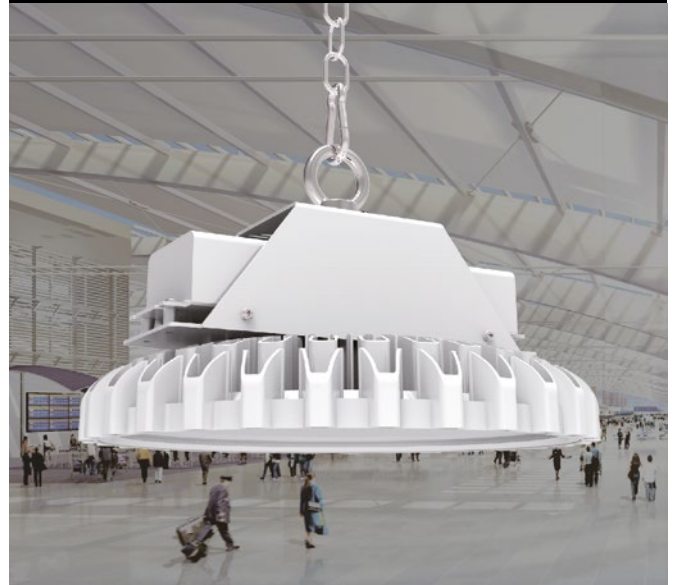
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WHITE LIGHT SUPPORTS SAVE THE CHILDREN FUNDRAISER



The International Arbitration Charity Ball brings together 600 high profile figures, firms and specialists for an evening of fine dining and spectacular fundraising. The event raises money for Save the Children's Emergency Fund and has raised over £1,300,000 since the first event in 2010.

The ball gives the Arbitration community the chance to come together, network, and support Save the Children. Following its work on other charity fundraisers, White Light was called upon to provide the production support for the evening.

Save the Children is a charity that invests in childhood. Around the world it gives children a healthy start in life, along with protection from harm and the opportunity to learn. To continue transforming children's lives, it is reliant on the financial support of others; hence the reason why events such as the Arbitration Charity Ball are held.

The bi-annual International Arbitration Charity Ball took place on Thursday 8th September at Guildhall, London. Having previously worked on the event, WL was asked to offer its services once again. Gemma Howell, Special Events Senior Manager for Save the Children, comments: "We approached WL as we required a reliable company who would be able to take control of the production aspects of the evening".

WL supplied the lighting, audio and video support. Phil Gladman, WL's Project Manager, comments: "The brief of the evening was to create something visually stunning which would highlight the amazing architecture at Guildhall. The client wanted to accentuate a purple and gold theme so we used the very latest lighting equipment to showcase

this in the various rooms along with the building's exterior".

As the purpose of the evening was to raise funds for Save the Children, this meant that there were live and silent auctions for which WL supplied both the screens and AV support. Similarly, the company provided a PA system for the various speeches that were given throughout the evening. Alongside this, there was also a performance by the West End Kids and WL even supplied the AV and lighting support for the after-show party at the Crypt.

Phil adds: "There were a lot of different activities taking place – especially over just one evening! Similarly, with Guildhall being such a busy venue, we had only four hours to set-up, meaning we had to capitalise on every moment spent on site".

Gemma adds: "WL were extremely helpful in the lead up to the event along with being highly attentive and proactive on the actual evening itself. We are very grateful for their support".

The International Arbitration Charity Ball was a huge success, managing to once again raise huge sums of money for an important cause. This year marks the third time that WL has worked on the event.

Phil adds: "We are always delighted to be asked back to work on important events such as this – especially when they are supporting an incredible charity such as Save the Children. As proven once again, we are able to provide the complete production support on virtually any event at any location".

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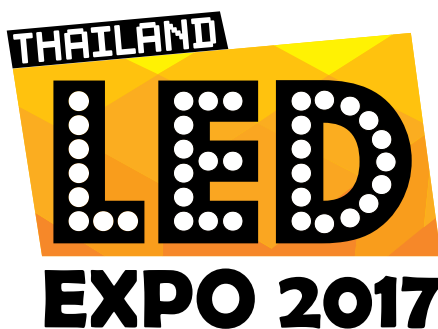


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(Anti-clockwise from Left) Clay Paky's Hepikos, Scenius Profile, Odeon Graze, Odeon Flood, and SharBar.

They launch the SCENIUS PROFILE, the new beam shaper at the top of the Clay Paky moving head range. Its advanced optical unit and the 1400W OSRAM discharge lamp provide very high light output and an excellent CRI. Its framing system consists of four independent overlapping blades which create shapes of all sizes and proportions by working simultaneously on four different focal planes

The HEPIKOS is a 700W washlight that combines low power consumption with color quality, without compromise. Thanks to its PC front lens (Ø 185mm) and narrow 5° beam angle, the fixture can also produce a sharp, thick beam, which can be used for striking, colored aerial effects.

The SHAR-BAR is an advanced moving LED bar with features that transform it into a brand new multi-beam effect light. It fits six 30W powerful new OSRAM Ostar RGBW LEDs. The optical unit coupled to each LED consists of a motorized system with double mirror: this means each light beam can be pointed independently of the others or locked within a 60° (+/-30°) cone. Thanks to this ingenious, original optical unit, the SHAR-BAR can produce an effect similar to six separate lights working synchronously or asynchronously.

ODEON is a series of pure architectural lights (IP66), which are designed for architects on the basis of their requirements and their needs. They come in two main versions – flood and linear – in a range of more than thirty models. They are available with 15°, 25°, 45° optics and RGBW, Tunable White and Total White configurations; also, they may be further customized in terms of size and finish.

Clay Paky is expanding its leading market position in the entertainment sector and has acquired ADB, the French company specializing in theaters and studios. The transaction was completed on 3 August 2016 and the acquired business, which includes a factory in Saint Quentin, has become integral part of OSRAM's subsidiary Clay Paky. Originally founded in Belgium in 1920, ADB Lighting Technologies has held a leading position for

decades as a top supplier of lighting solutions for theater and television studios. The company's product portfolio includes luminaires, dimmers and lighting control desks that are sold worldwide through a network of qualified independent distributors. References include various prestigious theaters such as the National Grand Theatre in Beijing, the Opera Garnier in Paris and the Teatro alla Scala in Milan.

"ADB brings a wealth of experience in stage and studio lighting and a comprehensive range of products that are fully complementary to ours. By joining forces, we will be able to merge this unique application focus with our innovation drive and technology leadership. As a result, we will be able to design the next generation of products to drive the evolution of the demanding theater market", explains Pio Nahum, CEO of Clay Paky.

For more information, visit www.claypaky.it.

EYE LIGHTING CELEBRATES SILVER ANNIVERSARY, CONTINUES TO BE LEADER AND INNOVATOR IN RAPIDLY CHANGING LIGHTING INDUSTRY



EYE Lighting International has been celebrating 25 years of growth and engineering innovation in the lighting industry during 2016. Official recognition came on November 18 with several elected and local officials present at the Mentor, Ohio facility.

EYE President and COO Tom Salpietra said that everyone at EYE is proud of the achievement of 25 years in business. “We actually have a number of employees with more than 20 years of service, and one that was here at the inception,” Salpietra said. “In our earliest days of producing HID lamps to developing technology for solid-state LED luminaries and lighting controls, our success has stemmed from our core values of being customer centric, focusing on innovation and sustainability as well as rewarding our employees through talent development,” he said.

The company has been most successful in providing energy-efficient solutions that reduce the strain on the environment and the costs associated with lighting through products that have superior quality, reliability, excellent color rendering and long-life. Salpietra said that energy-savings has been a significant customer deliverable the last several years. “So our factory is split into high-tech and old-tech across one talented workforce. Every person on the floor changes to another job at least once per day, giving us maximum flexibility to adjust to changing market conditions,” he said.

In an industry that is rapidly changing and, once again, reinventing how we use energy, EYE Lighting celebrates its 25 years of achievements in manufacturing high performance, high-value lighting options for utilities,

municipalities, energy service companies and numerous commercial and industrial applications.

Salpietra said the EYE factory is one of the few remaining facilities in North America to make traditional lighting for utilities, municipalities and specialty applications. “We have maintained our traditional business of HID through a special technology and collaboration with key customer segments, while making the transition to Solid State Lighting,” he said.

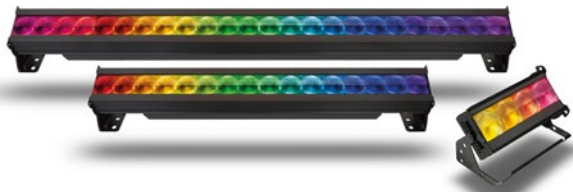
EYE President and COO Tom Salpietra commented, “In our earliest days of producing HID lamps to developing technology for solid-state LED luminaries and lighting controls, our success has stemmed from our core values.”

“Our Vision is to be a Lighting Solutions Provider for customers in the Commercial, Industrial and Infrastructure markets, along with providing specialty lighting for Horticulture, Aquaculture, and Zoology applications. Our technology sets us apart from all other makers of lighting products through our innovation, technology and consistent quality for delivering exceptional products and service to our customers,” he said.

“From our administrators and sales team to the engineers and individuals that develop and manufacture our products, we have a truly wonderful team at EYE Lighting. We look forward to embracing the next 25 years as a world-class organization with the reach and resources to achieve lighting and sustainability goals that will help create a more secure society,” he added.

For more information, visit www.eyelighting.com.

CHROMA-Q COLOR FORCE II BRIGHTENS UP THE LDI AWARDS AND LOOKS FOR INTERNATIONAL DEALERS



Chroma-Q®'s ground breaking Color Force II™ has won two prestigious awards at the Live Design International (LDI) Show in Las Vegas. The fixture was recognised as the Best Debuting Conventional Lighting Fixture by LDI and took the Members Product Choice Equipment Award awarded by ESTA, the Entertainment and Services Technology Association.

The LDI judges said "The Chroma-Q Color Force 2 showed a stunning face and elegant colour mixing, both as a smooth surface wash and as a clean visual look."

John Fuller, the Global Brand Manager for Chroma-Q, in accepting the awards said "We're honoured by the recognition from the industry. This is a great endorsement of all the hard work and innovative effort that our technical team have put into developing the Color Force II and it reinforces all the positive feedback we've had from designers who've seen the product on both sides of the Atlantic."

The Color Force II range of RGBA LED battens had its European launch at September's PLASA Show in London, where it was highly commended in the PLASA Innovation Awards. The incredibly powerful 0.3 meter / 12 inch, 1.2 meter / 48 inch, and 1.8 meter / 72 inch fixtures can easily wash a 12 meter / 39 foot cyc. They build on Chroma-Q's original Color Force™ battens and feature extremely smooth, uniform output; homogenized colour mixing with



no skittles and theatrical grade dimming all using Chroma-Q's award-winning LED technology.

The first volume deliveries of fixtures for Europe will arrive shortly at Chroma-Q's exclusive distributor, A.C. Entertainment Technologies. AC-ET has already received orders following demonstrations of the first products. Phill Capstick, AC-ET's Managing Director, who was at LDI, said "Everyone I've shown Color Force II has been very impressed – we've already seen a lot of interest in the UK and we're keen to find partners and dealers to take Color Force II and other Chroma-Q products to continental European countries and other International territories outside the UK and North America."

For more information, visit www.chroma-q.com.

MEYDA CUSTOM LIGHTING INTRODUCES FUN ELEGANT FUSED GLASS DESIGNS



Contemporary. Fun. Elegant. Fused glass lighting fixtures are offered by Meyda Custom Lighting. Nothing compares to these stunning art pieces, which are high fired fused glass into imaginative shapes, designs and colors.

The attached photo features the 9"W Metro Fusion Marea Wall Sconce (167612), which is created using high fired glass transformed into a cool abstract lighting design blending Turquoise colored waves of art glass on a mottled Caribbean Blue background with Muted White accents. Striking fused glass defines this extraordinary sconce, which features glass droplets on a solid curved panel. Ideal for illuminating a wide range of rooms in homes, resorts, hotels and restaurants.

Handcrafted in Yorkville, New York in the USA, this wall fixture is available in custom designs, colors and sizes as well as dimmable energy efficient lamping options. The sconce is UL and cUL listed for damp and dry locations.

For more information, visit www.meyda.com.

THE LEADING TRADE FAIR FOR PLASTICS AND RUBBER 'K' IN DUSSELDORF, ROFIN SHOWCASES NEW SOLUTIONS FOR INDUSTRIAL LASER MARKING AND WELDING OF PLASTICS



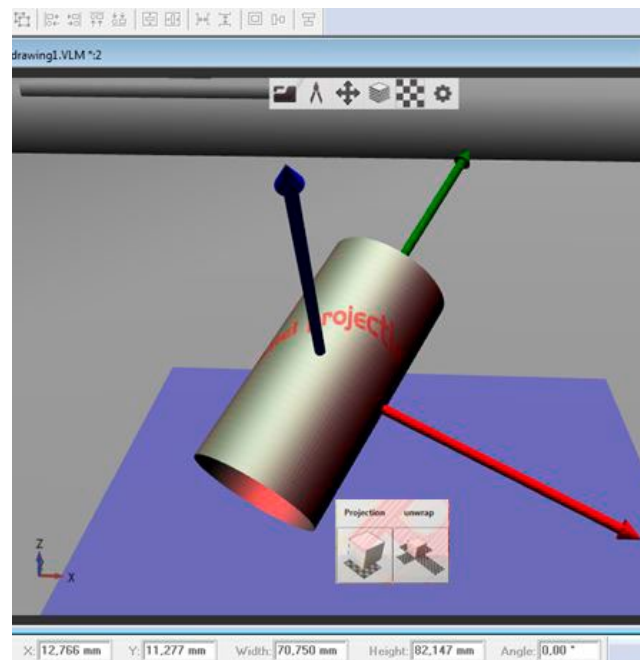
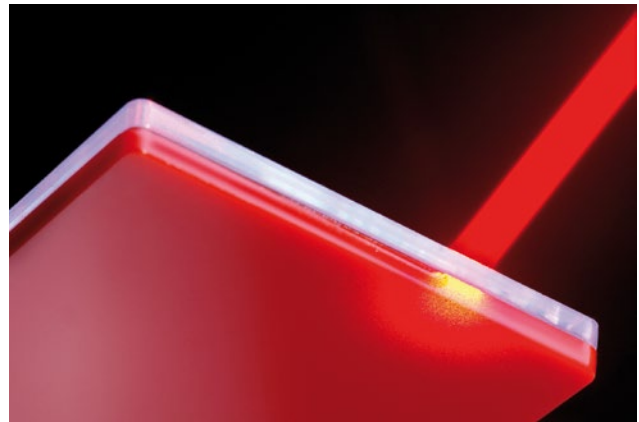
In addition to its stand-alone solutions based on the successful MPS laser workstations, ROFIN focuses on flexible integration packages for polymer welding. As always, ROFIN offers customer-tailored complete solutions from a single source. This includes application evaluation and design, selection of suitable laser sources, design of customer-specific clamping devices, control software configuration with integrated collapsing height measurement and visualization, production line integration and commissioning.

ROFIN's application engineers have extensive know-how with quasi-simultaneous as well as contour welding applications. Collapsing height measurement and logging are proven standards as well as cross-checking with part-specific tolerances. If requested, a coaxially integrated pyrometer will record real-time temperature graphs which can be used for closed-loop process control.

More and more leading customers rely on polymer welding solutions by ROFIN. This is true for mass production, like manufacturing printer cartridges, as well as for welding safety-related parts at well-known automotive suppliers. Electronics and sensor technology also rank among ROFIN'S key markets for its laser polymer welding solutions, which can be extended for marking tasks if required.

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for its laser polymer welding solutions, which can be extended for marking tasks if required.

ROFIN's PowerLine E UV marking laser source features 355 nm wavelength and extremely small spot sizes. This allows for character heights less than 100 µm. With its high repetition rate, the laser source is ideal for high-speed marking of plastics (ABS, PA) in industrial production lines with short cycle times. The compact, air-cooled PowerLine Pico laser sources aim at applications in semiconductor and medical device manufacturing on very thin substrates, which require minimum heat affected zones, least possible structural changes and maximum process control.

EasyMark's modular concept realizes a huge working area within an extremely compact housing. The system can be optionally equipped with a rotation axis, different optics and camera solutions like "SmartView" or Viewing Camera. It accommodates completely air-cooled laser sources with power ranging from 10 to 50 W. The system can be optionally equipped with an integrated, full-fledged CAD suite.

For more information, visit www.rofin.com.

AV STUMPFLE PRESENTS UNCOMPRESSED 8K & SHOW CONTROL SOLUTIONS AT IAAPA



As attractions and theme parks work on new ways to excite audiences through gripping visual information, storytelling and creative use of immersive displays, the demand for truly reliable and uncompressed playout solutions is steadily growing.

Promising to impress IAAPA technology integrators, operators and exhibition designers alike, the Wings Engine Raw 8K is the only media server of its type to offer uncompressed image quality of up to four simultaneous streams of 4K resolution for playback of native content. This exciting server can also handle 120fps, ideal for fast paced themed entertainment, dark rides, large-scale theatres or even immersive dome theatres and projects requiring stereoscopic 3D imaging.

To the delight of exhibit and content designers worldwide, the Wings Engine Raw 8K media servers are capable of displaying visuals using a full 12-bit color space, delivering more color information than the current media server standard.

Additional show control options make the world of AV Stumpfl media server products perfect for creating integrated and hassle free workflows.

Working with uncompressed image sequences can sometimes be time consuming due to the exceptionally large file size. In order to make it easier to transfer such files at short notice, AV Stumpfl's Wings Vioso RX software has integrated a new workflow model. Working with massive file sizes has never been easier.

All Wings Engine Raw media servers now come with Dual 10 GBit network cards. In addition to this, AV Stumpfl also offers certified NAS (network attached storage) systems as well as certified 10 GBit switches for flawless operation.

The Wings Vioso RX software now features a dedicated data management and transfer system that does not require all data to be physically copied onto a "Master" server. Instead, data can be copied to the NAS and assigned as so called "Proxy Objects" in the timelines. All "Slave" servers can now get their content directly from the NAS systems.

For more information, visit www.avstumpfl.com.



WHITE LIGHT SUPPLIES CHICHESTER FESTIVAL THEATRE WITH ETC SOURCE FOUR LED SERIES 2 LUSTRS

Chichester Festival Theatre is one of the UK's flagship theatres. Chichester Festival Theatre is one of the UK's flagship theatres. It has an international reputation for producing work of the highest quality, from large-scale musicals to distinguished dramas. With a bold thrust stage design, the theatre itself is one of the UK's most striking playhouses.

The venue recently decided to update its lighting rig; not only to install the very latest technology but to also remain as environmentally friendly as possible. They approached White Light who supplied them with a range of the ETC Source Four LED Series 2 Lustrs for their Minerva Studio space.

WL has a long-lasting relationship with Chichester Festival Theatre. Not only does the technical solution specialist annually supply the lighting for the Chichester Festival but also supported their Children on the Edge fundraiser last year.

Sam Garner-Gibbons is the venue's Technical Coordinator. He comments: "We have wanted to make alterations to our house rig in the Minerva for a while now. As a venue, we are consciously trying to be as environmentally friendly as possible. Therefore we were keen to drive down our CO2 emissions and get rid of our exiting 1kw tungsten lamps".

After contacting WL and relaying their requirements, WL's Business Development Manager Antony Vine visited Chichester Festival and demonstrated a range of equipment.

Sam states: "It was great for Antony to come down and showcase in our space what we could potentially use in-house. He worked closely with myself and Tim Mitchell, our Associate Lighting Designer, to ensure we tested a range of equipment. That said, it soon became clear for the flexibility and quality we wanted, along with fulfilling our environmental aims, that the ETC Source Four LED Series2 Lustr was the right unit for us".

The Source Four LED Series 2 Lustr introduces a whole new level of LED lighting that can be used anywhere. With the addition of a lime-green LED emitter, this increases the luminaire's lumen output in open white and lighter tints to make them brighter and livelier. The lime also enriches colour-rendering by better marrying the red and blue ends of the colour spectrum, for truer-to-life light that fills the gaps which ordinary LEDs leave behind.



Antony comments: "The Source Four LED Series 2 Lustr was the ideal fixture for Chichester. The deeper, richer colour from the unit worked perfectly within that space, enriching the sets and ensuring that the audience receives the best experience possible".

The lights were also ideal for the theatre's desire to reduce its CO2 emissions. Sam adds: "Since installing the Lustrs and replacing both the PC area cover and the par can scrollers that we previously had, we have managed to save 51,000 watts of energy across our entire rig".

The new lights have already been used on three productions including Travels with My Aunt, which was lit by Tim.

Sam comments: "The lights have been performing brilliantly. Whether it's a production such as Travels with My Aunt which features quite colourful lighting effects to something such as FRACKED! which is a more traditional muted colour palette, the kit has proved its versatility. What we ultimately wanted was state-of-the-art equipment that would save energy but give our lighting designers the creative freedom they required. Thanks to WL, this is exactly what we've been able to achieve".

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

CEE ANNOUNCES LIGHTING FOR TOMORROW AWARDS, INCLUDING THREE FOR WAC LIGHTING

CEE presented nineteen 2016 Lighting for Tomorrow Awards to manufacturers today in Nashville, including an impressive three accolades to New York based WAC Lighting. CEE is a consortium of efficiency program administrators from the US and Canada.

The 14th Annual Lighting for Tomorrow Competition was originally established to identify manufacturers and exceptional, innovative products that inspire customers and meet the needs of energy efficiency programs. Since 2002, the awards have recognized new, highly functional and beautiful residential lighting products that are energy efficient and appeal to savvy, style-conscious buyers.

“We are grateful to be recognized by esteemed members of the lighting and energy community for being a contributing part of the bigger solutions needed to reach our global energy saving goals. Thank you.” commented WAC Lighting President Shelley Wald. “Our products aim to solve specific problems that were not well addressed before, so the applications actually dictate the product solutions.”

WAC Landscape LED Accent Light was declared an installer-friendly LFT Winner as a very usable product that enables adjustable beam spread, color and brightness to allow for changing landscape features. Special



Recognition LFT Awards for Meeting Market Needs were presented for the Aether Shallow 3.5” Recessed Downlight and Landscape In-ground light. Aether is designed for shallow plenum spaces while delivering varying optics, color temperatures and dimming capability. The Landscape well light combines simplicity, adjustability and durability with varying beam angles and light output not found in traditional fixtures.

The competition reviews LEDs and OLEDs as evolving technologies, including the integration of replacement lamps, retrofit kits, fixtures and controls, in ways that meet consumer needs. A diverse panel of expert judges carefully evaluated each product, based on innovation, performance, quality, and value. Some luminaires were judged as clear winners since they exceeded the criteria and scored higher than other products in their respective categories, while others received special recognition because they incorporated fresh, innovative features of particular interest.

For more information, visit www.lightdirectory.com.

EATON'S LED LIGHTING AND CONTROLS SOLUTIONS ILLUMINATE IMG COLLEGE FACILITIES ACROSS NORTH AMERICA

Power management company Eaton today announced that a growing number of IMG College facilities, including the O’Connell Center at the University of Florida and the LJVM Memorial Coliseum at Wake Forest University, have upgraded their sports arenas with Eaton’s Ephesus light-emitting diode (LED) sports lighting and controls system, the official LED sports lighting provider of IMG College.

“We are not surprised by the rapid adoption of college sports facilities to our solid-state lighting solution,” said Mike Lorenz, president, Eaton’s Ephesus Lighting business. “The combination of energy efficiency, limited maintenance, a spectacular game presentation and enhanced fan entertainment features is



consistent with what college sports administrators, marketers and facility managers demand.”

Since Eaton’s Ephesus Lighting business became the first company to illuminate a professional sports venue with LED lighting solutions in 2012, thousands of professional, college and municipal sports and entertainment venues of all sizes across North America have made the switch from metal halide lighting to state-of-the-art solid state lighting. Eaton’s LED lighting solutions and industry-leading control functions cut energy consumption by 75 percent and virtually eliminate maintenance, all while providing the highest quality lighting available while enhancing fan entertainment.

In addition to the hundreds of college stadiums, fields and arenas that have made the switch to an LED solution, many of the most prominent professional sports venues are also employing Eaton’s Ephesus LED solutions including: University of Phoenix Stadium (Arizona Cardinals); Hard Rock Stadium (Miami Dolphins), U.S. Bank Stadium (Minnesota Vikings); Canadian Tire Centre (Ottawa Senators); Bridgestone Arena



(Nashville Predators); KeyBank Center (Buffalo Sabres); Globe Life Park in Arlington (Texas Rangers), among others.

IMG is a global leader in sports, events, media and fashion, operating in more than 30 countries. The company represents and manages some of the world’s greatest sports figures and fashion icons; stages hundreds of live events and branded entertainment experiences annually; and is one of the largest independent producers and distributors of sports media. IMG also specializes in sports training; league development; and marketing, media and licensing for brands, sports organizations and collegiate institutions. In 2014, IMG was acquired by WME, a leading global entertainment agency.

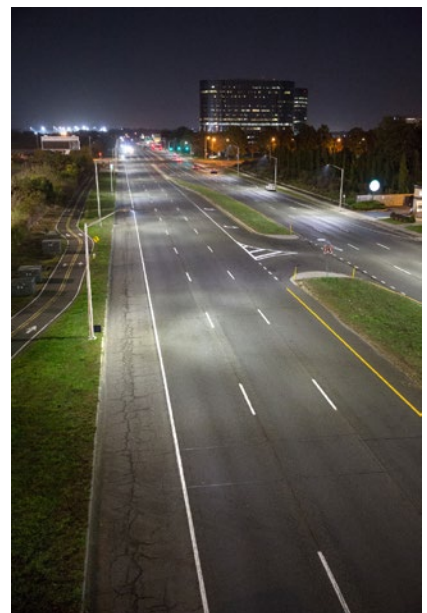
For more information, visit www.eaton.com.

CREE LED STREET LIGHTING DELIVERS \$57 MILLION TOTAL LIFETIME SAVINGS TO THE NATION’S LARGEST TOWNSHIP

The Town of Hempstead, N.Y., the largest township in the country, is making the switch to LED technology with the conversion of more than 50,000 high-pressure sodium fixtures to LED street lights from Cree, Inc. (Nasdaq: CREE). The installation is already underway with future phases planned to bring LED lighting to the town’s municipal buildings, parks and marinas. The street light project delivers an anticipated two and a half-year payback with nearly \$3 million in annual energy savings and \$57 million in total lifetime savings.

“The use of environmentally friendly technology is a win-win for the town,” says Anthony Santino, Town of Hempstead supervisor. “The new LED luminaires generate significant energy savings that provide unprecedented environmental and fiscal benefits to benefit our town and residents.”

Hempstead is located in Nassau County, just east of New York City, and has a population of nearly 800,000, making it larger than some states and U.S. cities. Looking to improve visibility while preserving the historic look of the residential streetscape, the town selected the Cree® DPT Series for Decorative Post-Top luminaires. The DPT™ Decorative Post-Top luminaire delivers a 3000K color temperature for warm and inviting illumination, and delivers up to 74 percent savings over the earlier, outdated technology. The Cree XSP Series was selected for crisp, clean illumination on major roadways, and Cree OSQ™ flood luminaires with NanoOptic® Precision Delivery Grid™ optics were installed in parking lots, where precise optical control is needed for improved safety and comfort.



Cree was selected for the project after a test installation on the Sunrise Highway quickly demonstrated impressive annual energy savings of \$75,000, about 63 percent over the previous technology for that roadway alone. Recognizing the overall savings potential, Hempstead officials worked with Best LED Group and Cree to design, assemble and deploy a full package that would provide a better quality light experience throughout the town. Today, Hempstead has significantly reduced spending for its street and parking lot lighting through reduced utility bills and elimination of virtually all maintenance costs – all while providing better light experiences over the lighting’s lifetime.

“We had our eyes on LED technology for quite a few years because of the impressive energy savings. However, we had yet to find the ideal package that made economic sense,” said Gary Aue, Town of Hempstead, N.Y. street lighting supervisor. “After reviewing Cree’s options, we saw there was a lot of money to be saved while providing the town with new lighting for a greater sense of comfort and safety that met all our needs, so we proceeded as soon as possible.”

The town is looking ahead to additional LED lighting installations in the future, noting their local utility offers impressive indoor rebates and labor costs supplements for LED fixtures.

“We’re not stopping until the entire town is converted to LED Lighting,” said Aue. “Zero maintenance, superior lighting – add in the standard 10-year warranty and it’s a sure thing.”



LG DISPLAY OLED LIGHT PANELS INSTALLED AT LG SIGNATURE PAVILION AT IFA 2016 IN BERLIN



LG Display OLED light panels were installed at the LG SIGNATURE Pavilion, titled “The Art of Essence,” at IFA 2016 located on the grounds of Messe Berlin. 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.

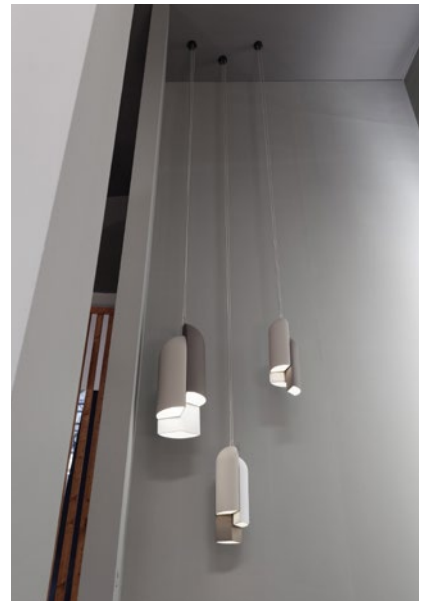
Known for its natural illumination with a uniform and comfortable light, the LG Display OLED light panels are thin and lightweight, providing customers a next-level light experience. LG Display OLED light panels are flexible with a bending radius of 20mm, creating form factor advantages for the lighting 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.



IRELAND, THE NEW HANDCRAFTED CERAMIC LAMP BY STONE DESIGNS FOR B.LUX



B.lux has launched a new collection of decorative suspension lamps, the result of a new collaborative effort with the Madrid studio Stone Designs. The Ireland is a three-colour suspension lamp consisting of three independent lighting bodies whose height can be individually adjusted.

Its deconstruction of the traditional shade is its defining feature. The Ireland lamp's three independent shades slide over each other, making it possible to generate different proportions and volumes with a single lamp. Its shades are made of handmade ceramic, and are available in tones evoking nature: earth, stone and sand, all in textured matte finishes with a satin white interior. Each of these shades has its own light source (E27). The Ireland is available in two diameters: 20 and 30 cm.

Stone Designs defines this new collection of lamps for home and contract projects as a light sculpture whose shapes and colour fit any setting. The Ireland was presented at the 2016 Light+Building Fair in Frankfurt, Germany in March. It belongs to the collection of decorative designer lighting by B.lux, a Basque manufacturer of designer design since 1980.

For more information, visit www.grupoblux.com.



THANKS TO THE LATEST TECHNOLOGIES AND A COMMERCIAL PARTNERSHIP WITH THE MOST IMPORTANT INTERNATIONAL COMPANIES IN THE LIGHTING INDUSTRY

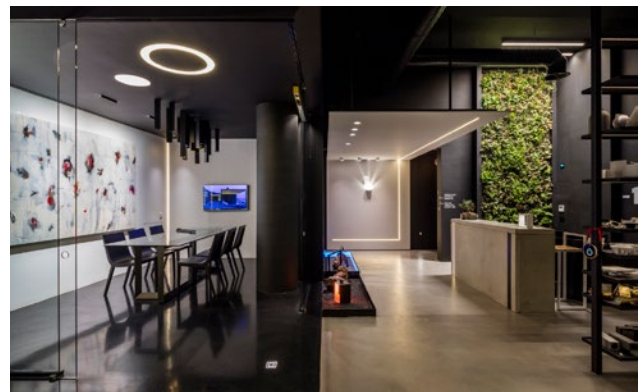
A fruitful partnership emphasizes by an important private project: the studio of lighting design and architecture IFI Group - Architectural Lighting Works has identified in the Linea Light Group products the perfect solutions to illuminate its new headquarter in Chalandri, a greek town in the metropolitan area of Athens. With a long tradition dating back to 1989, created on the personal initiative of Freiderikos Anagnostakis, the IFI Group- Architectural Lighting Works studio plans small, medium and large lighting projects, according to a pool of professional figures, such as architects, lighting designers and engineers.

IFI Group is also committed to provide elegant lighting appliances combined with the best technical performance. The new building, completed in 2016, is a single, compact and hermetic volume; inside, the well-defined rooms are connected to each other, characterized by spaces containing flat surfaces, shelves and geometrical forms. From the Design Area to the Showroom, from the Prototyping Zone to the Meeting Room, light becomes a determining factor to highlight full and empty spaces, volumes and materials. The enlightenment becomes an integral part of the project, from the starting concept to its application as a constitutive element of the structure, not only as a simple functional accessory, highlighting the importance of the lighting studio according to the entire architectural complex.

Thanks to Linea Light Group's solutions, which have found perfect and harmonious internal and external placement, the aim has been achieved, fully satisfying the needs of the client. An immediate scenic suggestion at the entrance of the Showroom is created by Fylo+ and Gypsum from Architectural Lighting collection. The essential graphic style of the first product is connected to the elegance of the second one, a minimalist solution with recessed ceiling chalk frame disappears perfectly in the built space.

The Lobby is enriched by very thin lines of light of Lafina from Professional LED Lighting collection, whose luminous cuts delineate the cement desk, simplifying the material impact. The solution adopted for the shelves is very particular: to illuminate the products on display some Ribbon Basic have been installed, 5W/m LED strips which combine functionality and aesthetics in a fascinating light and shade effect, involving all the structure. The successful mix of architecture and enlightenment works also in the small Meeting Room, where an essential and rigorous sequence of Pool, aligned with the ceiling, spreads a comfortable and soft light.

Characterized by modularity, Paseo profiles create a continuous line in the wall and the ceiling with no visible interruptions. Extremely versatile, Paseo solutions make great-looking effects: a narrow beam for a wall grazing result or an opaque body for a diffused light. For the outdoor flowerbed the choice fell on Clivo products, powerLED source spotlights with reduced size and high flexibility: the light emission is characterized by a minimum of 8° to a maximum of 50°, thanks to the adjustable tilting



bracket structure and the excellent peculiarities of the light beam. An excellent result, a proof of Linea Light Group's ability to provide, in addition to cutting-edge solutions, a quality service in terms of customization and technical support.

For more information, visit www.spazioparola.it.

TOM KENNY USES ELATION ACL 360 MATRIX™ IN MASSIVE MTV EMA SET

The MTV Europe Music Awards delivered another spectacular production November 6th at the Ahoy Rotterdam Arena in The Netherlands, where Europe's favorite artists were honored and a star-studded line up of today's hottest acts performed on a massive stage lit by top lighting designer Tom Kenny.

This year Kenny had an immense and extremely artful set to light designed by Julio Himende. Included in the correspondingly large visual package was Elation Professional ACL 360 Matrix™ LED moving head panels, which Kenny employed throughout the show.

As music awards shows go they don't get much bigger than the MTV Awards. Hosted by Bebe Rexha, this year's list of performers was impressive and included top acts Bruno Mars, Green Day, Afrojack, Shawn Mendes, The Weeknd and others.

The MTV EMA's has set a uniquely high standard of production, performance and excitement, both for the large crowd in attendance and those watching from home. It is a show that Kenny has been a part of for the past four years and one that he clearly relishes. "I enjoy the creative team and acts that perform on the show each year," he says. "The audiences are always electric so that adds a fourth layer to the whole shebang."

"We had 24 ACL 360 Matrix lamps and we spread them around and behind some structures within the set," he said, for example as scenic behind the



elevator for Afrojack's performance. "I used the highest tech lighting fixtures on the show and the ACL 360 Matrix fit this request with flying and spinning colors. I needed a very powerful fixture as a major backlight gag. The spinning / rotation with shapeshifting LED chases gave us a very futuristic look."

The ACL 360 Matrix has seen steady work on music festivals, tours and special events since debuting as part of Elation's ACL Series™ in 2015. Using 25 individual 15W RGBW LEDs and with a tight 4-degree beam from each lens, the fixture's continuous 360-degree movement and individual pixel control make a variety of dynamic effects possible.

"I always try and use the latest products in varied ways on all my shows and Elation has been ahead of the game with these fixtures and the rest of their product line," Kenny says, adding that for this year's MTV EMAs some amazing effects were pixel mapped into the fixtures by programmers Alex Passmore and Jonathan Rouse.

The ACL 360 Matrix panels were supplied for the show by PRG. "The fabulous PRG crew visiting creatives also enjoyed the look and brightness of the fixtures," Kenny concludes.

PROTEUS™ BEST DEBUTING PRODUCT AT SUCCESSFUL LDI FOR ELATION PROFESSIONAL



Elation Professional enjoyed what might possibly be its most successful LDI show to date with an extremely busy booth and just as busy demo room while the company's new series of IP-rated moving lights, Proteus™, won an LDI Best Debuting Product Award.

Recognized for 'advancing IP weather protection in a quality automated fixture,' the Best Debuting Product accolade was presented at an awards ceremony on Saturday, October 24 on the LDI show floor. On hand to receive the award were Elation Professional Sales Director Eric Loader and ADJ Group President Toby Velazquez. "It was a great show for us, our new products were very well received, and we were thrilled for the recognition that Proteus received at the awards ceremony," Eric Loader stated. "To win a product award right out of the gate combined with the positive response and feedback we received from customers over the three days shows to us that we are on the right track with this new IP-rated outdoor moving head technology. We are set to finish the year strong and enter 2017 even stronger."

Featuring a sophisticated yet pragmatic design, Proteus™ are compact, robust and budget-friendly next-level intelligent lighting solutions designed to unleash creative vision and excel under any conditions. They drew a steady stream of interest at the Elation booth and were also featured during live entertainment on the LDI Live Outside stage.

Alongside Proteus, Elation displayed a broad line-up of other cutting-edge innovations highlighted by the world premiere of the Artiste DaVinci™, a full-featured, high output yet extremely compact LED moving head spot luminaire in the company's new Artiste™ series. A newly designed 300W LED engine (over 13,000 lumens) with advanced zoom optics is at the heart of this enhanced performance and energy efficient luminaire.

Other fixtures drawing interest were the new 7-color Platinum Seven™ LED wash luminaire along with the debut of the Platinum 1200 Wash™, a full-color LED moving head wash light with the power of a 1500W discharge fixture. The Fuze Series™ of dynamic LED wash lights and the DTW Series™ of variable white LED lights continued their popularity while Elation's creative high-resolution LED display panels, the EVHD Series™, were both discussion and decorative highlights of the booth. The Rayzor 360Z™, a compact and fast beam/wash moving head luminaire with (3) 60W RGBW LEDs, zoom, and full 360° pan and tilt rotation, was also a hit.



"LDI is always one of the highlights of the year for us and this year was no exception," Loader concluded at the end of the busy three days. "It not only gives us the chance to connect and reconnect with customers and industry friends but it serves as an important platform to communicate our message of innovation, quality and value, and this year we definitely did that."

CHRISTMAS WONDERLAND, SINGAPORE'S BIGGEST YULETIDE FAIR, OFFICIALLY OPEN ITS 2016 EDITION AT GARDENS BY THE BAY



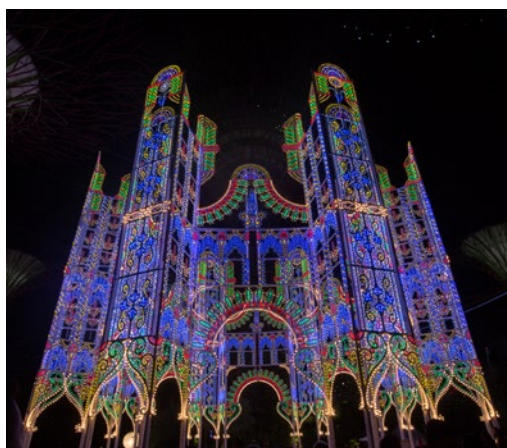
Guest-of-Honour Mr Lawrence Wong, Minister for National Development & Second Minister for Finance officiated the opening with a light up and special "blizzard treat" surprise at the 19.7m Spalliera Castel del Monte, the largest Luminaire ever built in Southeast Asia.

Organised by Blue Sky Events, Christmas Wonderland opens to the public till 1 January 2017, from 3.30pm – 11pm daily. Local and international visitors can look forward to a myriad of yuletide activities, retail and dining options as well as the signature Luminaire light sculptures nestled across an expanded 57,000 sqm festival ground.

Visitors to the fair can embark on a festive journey and marvel at 67 Italian Luminaire – Sculptures of Light, a mainstay of the event. New experiences await visitors of all ages, from wintry fun at the Ice Palace to the local debut of the Hi-5 Funtastic House. Explore the Festive Market for a diverse variety of shopping and dining options from one-of-a-kind Christmas gifts to traditional nibbles and check out the massively popular carnival games and rides throughout the Fairground.

Soak up the magical Christmas atmosphere with choral sessions, performances by local artistes at the stunning Cassa Armonica, and parades around the fairgrounds. For a special treat, they can hop onto the Christmas Trains, or enjoy a "blizzard" of snow in the evenings.

Visitors can also indulge in an immersive dining experience at a new two-storey Glass House by Harry's within the Supertree Grove while soaking in the majestic view of festive light display at Christmas Wonderland.



EDISON OPTO SHINED IN HONG KONG INTERNATIONAL LIGHTING FAIR 2016



The biggest lighting industry event, Hong Kong International Lighting Fair (Autumn Edition), ended successfully on 30th of October. During the event, there were more than 2,661 exhibitors from 37 countries and regions, including 146 Taiwanese exhibitors. Edison Opto also showcased smart-lighting-related AC modules and new COB series which used the latest TM-30 technique to attract customers' attention.

Edison Opto released several component series which could be installed on the fixtures to produce the uniform light pattern without dark area. CRI of those products reached 90. During Hong Kong International Lighting Fair, Edison Opto showcased the latest COB series which emphasized TM-30 technique. With TM-30 technique, Edison's products can be broadly used in luxurious stores, clothing stores, restaurants, or even museums to show more vibrant color of products.

In the past, people only imagine smart lighting as the emergency lighting which can detect people's movement to switch on/off the light. Nowadays, smart lighting means something more. When using smart lighting in daily lives, people can control the light effect with fingertips.



This year in the exhibition, Edison Opto showcased the latest AC Module combining with the sensor which can analyze the surrounding environment immediately, then controls the light effect more efficiently. Installing the fixture with Edison Opto's smart lighting at home can help users save energy easily.

For more information, visit www.edison-opto.com.

OSRAM CREATES A ONE-OF-A-KIND LIGHTING EXPERIENCE DURING MOODIFY NIGHT VIETNAM



Osram revealed its latest innovation once again to over 140 key lighting specifiers at the Moodify Night in Hanoi and Ho Chi Minh, Vietnam on August 15 & 17 respectively. With LEDTouch Downlight, Pursos SHP LED Flood Light and Media Tube HO RGBW being the highlight products in the event, the intelligent lighting solutions illustrated the aesthetics of the products and how the Osram Business Unit Lighting Solutions strives to bring the cutting-edge lighting technology to customers.

"We are pleased to present the armory of lighting products of Osram Lighting Solutions. We hope our guests can immerse our glamorous aesthetic lighting solutions and also can gain inspirations by experiencing our smart and advanced lighting fixtures during this event" said Terry O'Neal, Chief Executive Officer of Osram Lighting Solutions Asia Pacific at Moodify Night in Vietnam.

The highly efficient products, LEDTouch Downlight, Pursos SHP LED Flood Light and Media Tube HO RGBW were on display during the event. LEDTouch Downlight is the epitome of sophistication with superlative lighting performance and high lumen output for indoor applications. Pursos SHP LED Flood Light is an incredibly durable luminaire with special optical design that is ideal for outdoor applications. Media Tube HO RGBW is a sleek and intelligent media façade solution that offers both RGB and true white display in a single system, providing superior performance while remaining energy efficient simultaneously.

For more information, visit www.osram.com.



JANDS INTRODUCES RF VENUE WIRELESS PRODUCTS TO AUSTRALIA

Jands Pty Ltd and RF Venue, Inc. announced a new distribution agreement for all Australian territories. Jands will offer the company's full line of unique RF products for wireless microphones, in-ear monitors, and production communications.

Boston, Massachusetts-based RF Venue, Inc. manufactures products that reduce RF interference and signal dropouts and maximize scarce spectrum resources. Its products include proprietary antenna designs, distribution equipment, RF to optical signal conversion systems, and spectrum analysis software and hardware for audio professionals, broadcasters, and system integrators.

"Over the past few years we have organically built a loyal customer base in Australia and are excited for what Jands brings to local inventory, sales, system design, and support," said RF Venue CEO Chris Regan. "Our team has been extremely impressed with the wireless expertise at Jands and looks forward to building more business in the region."

Unique products from RF Venue include the Diversity Fin™ antenna for wireless microphones, the portable CP Beam™ folding helical antenna for IEMs, and the RF Spotlight™ antenna for minimizing interference in crowded RF environments. RF Venue's portfolio of cost-effective distribution equipment will also become available, including the Optix™ platform of RF to fibre-optic converters for distributing wireless audio signals over single-mode fibre cable.



Further, RF Venue offers spectrum analysis tools – notably Vantage, a Mac OS native software application for the RF Explorer® series spectrum analysers which exports CSV files compatible with Shure's Wireless Workbench®.

"We are very pleased to be working with RF Venue in Australia," remarked Jeff MacKenzie, manager of technical resource group at Jands. "RF Venue offers a wide range of products, many of which are unique to the market and offer practical solutions to real world RF problems. Jands has years of experience with professional grade, mission critical wireless audio systems manufactured by Shure. Now, with the addition of RF Venue, we can offer wireless solutions to an even larger variety of applications in conjunction with Shure systems, and deliver greater value to our customers."



For more information, visit www.jands.com.

ILLUMINATION PHYSICS HAVE DEVELOPED A FLUSH MOUNTED RGBW MEDIA DOT THAT FIT SEAMLESSLY INTO THE FAÇADE SYSTEM



Media walls have become a speciality for illumination Physics. They were an early mover in the development of direct view LED Dots and our 2004 project for the Canon building in Hong Kong remains an early landmark for the use of low resolution video displays. To date, it remains a steadfast example of illumination Physics' lighting product ingenuity and reliability because in over ten years not a single IP Dot has been replaced.

illumination Physics' lighting specialists possess a profound understanding of façade engineering, having worked for some of the world's leading façade construction companies. They were able to design media wall luminaires that are not only effective from a photometrical point of view but from a practical construction perspective. They understand the construction process and the inherent difficulties that this process entails. This enables us to design media wall systems that are buildable, practical and brilliant.

For Studio City, the latest Mega resort on the Cotai Strip in Macau, they developed a flush mounted RGBW Media Dot that fit seamlessly into the façade system. They assisted the façade construction company in designing the cable routes and problem-solved the associated build sequence issues that mainstream lighting companies do not consider.

The rapidly growing media wall genre of lighting requires different approaches on any given project. Their solution is to provide a customized approach to achieve the client's desired outcomes. The illumination Physics Media Dot was created for Studio City; 3008 pieces perform every night as part of a totally integrated façade lighting design.

For more information, visit www.illuminationphysics.com.



show preview

EcoBuild Southeast Asia 2017

12th April 2017 – 14th April 2017

Kuala Lumpur Convention Centre
Kuala Lumpur, Malaysia



The year 2017 marks ICW's 17th edition bringing together construction industry players to showcase, learn, build partnerships and share innovative ideas. The event will be held from 10-14 April 2017 in Kuala Lumpur Convention Centre, Malaysia.

The key annual event for construction industry was first introduced in 1988 under the banner of National Construction Week. In line with construction industry growth and expansion of the industry to include international players and projects, the event was renamed International Construction Week in 2004. From the beginning the event has managed to attract

a huge number of exhibitors, conference participants and trade visitors. The ICW 2016 has attracted 12,073 number of visitors.

Be part of the ICW 2017 and you will find that it is the best platform for construction industry leaders and policy makers to showcase and learn about innovative products and services and build strategic alliances, as well as lucrative business partnerships. The ICW brings together corporations and industry experts to share and learn from the cutting edge technologies developed in the construction of buildings and infrastructure in a sustainable manner.



Also this year, on the third time the ICW features Ecobuild Southeast Asia as it's exhibition and showcase component. Ecobuild SEA 2017 is designed to provide sustainable building solution for over 620 million people across the 11 countries in Southeast Asia. Modeled after Ecobuild London, the World's largest event in sustainability of the build environment, Ecobuild SEA 2017 will run concurrently with Energy Efficiency Malaysia, Ecolight Asean and Solar Asean.

It will also incorporate the Greenbuild Asia, Construction Showcase, AseanREI and Construction Career Fair among others. Register with us today to build your brand and mark your presence in the region's most important construction industry event.



Ecobuild SEA is organised by UBM Malaysia, hosted by Construction Industry Development Board (CIDB) Malaysia and held in conjunction with International Construction Week (ICW) 2017 with co-located events Energy Efficiency Malaysia, Greenbuild Asia, Solar Asean, Ecolight Asean, Construction Showcase, AseanREI and Construction Career Fair making it a true platform in ASEAN for the construction industry.

Sustainability has grown from a concept to encompass every aspect of our lives where we all get to understand the needs of tomorrow and can drive change together. Therefore, Ecobuild SEA has seen thousands of construction and energy professionals getting



together. It has a buzzing exhibition floor, packed out conferences and seminars sessions and lots of inspiring features all under one roof. This platform is engaging with the wider construction, energy and infrastructure world.

Energy Efficiency Malaysia (EEM)

The demand for energy in terms of electricity and fuel has increased steadily because of the growth in the industrial sector and the expansion of the urban society. Consequently, business in renewable or alternative energy is booming. The clean energy that can be continuously reused and is environmental friendly is a very important way now to protect the earth and the people. Solar Asean and Ecolight Asean are the two components of EEM. The area brings the world's green technology of renewable energy, energy conservation, energy efficiency and environmental protection together.

Conferences, Seminars, Technology Symposium & Competition

ICW and Ecobuild are giving the industry professionals tangible results through initiatives such as paid conferences, free seminars programme, industrial talks showcasing the cutting-edge technology. It also allows attendees to meet and network with industry players, international organisations, academia as well as government and municipal authorities. Over the few days event, international and local industry leaders and experts will share insights on industry challenges, discuss market trends and showcase solutions on thought-provoking issues on construction, energy, quality, safety and professionalism. On top of that a special competition is designed for the Malaysian youth to support their interest in the built environment industry.





Construction Career Fair (CCF)

Construction Career Fair is a good opportunity for jobseekers to meet with key employers and professional bodies to get first-hand information in the construction industry. This fair offers the platform for jobseekers to network with employers in the construction industry. Fresh graduates who are looking for full-time jobs are also encouraged to attend. At the fair you can start reviewing your skills, interests and aptitudes to compete, to fulfil and meet the industry needs. CCF brings together the leading construction and engineering companies from the region. CCF has become a “must-attend” event for all jobseekers and prospective postgraduate students who are interested in the construction industry.



Multiple Pavilions

Good is not enough, that's why Ecobuild SEA had multiple pavilions at the show floors to enhance the entire show. Check out the different pavilion such as: • International Pavilion • Industrialised Building System Pavilion • Malaysia Timber Industry Board (MTIB) Pavilion • Contractor And Entrepreneur Development Division (BPKU) Pavilion. ICW and Ecobuild receive the valuable support of a range of government agencies. The support is an indication of the major role that ICW and Ecobuild have played and will continue to play for the development of Malaysia as a key centre for international trade and industry.

For more information, visit www.ecobuildsea.com.



show preview

Worldbex 2017

15th March 2017 – 19th March 2017

World Trade Center Metro Manila
Manila, Philippines



Worldbex Services International (WSI) is the premiere exhibition and events management company in the Philippines. Its comprehensive trade and consumer shows made available great business deals and extensive product exposure. By means of targeting the international arena, WSI foresees the company to be the major advocate of intercontinental trading, while playing a part to depict the potential of products and services to the foreign market.

For more than a decade, WORLD BEX or The Philippine World Building and Construction Exposition has been a haven for the local and international building and

construction industry, supported by acknowledged sectors of society and a visitor profile of more than 150,000 per year, it is dubbed to be Asia's most attended construction exposition. WORLD BEX holds a good number of global ties with countries such as Austria, Australia, Belgium, Brunei, China, Finland, Hongkong and Germany to name a few of the 25 participating countries, it is an ideal venue for business transactions and introduction of innovations.

WORLD BEX is known for putting together over 500 exhibiting companies and more than a thousand booths in a Wi-Fi ready exhibit area of 30,000sqm



ranging from building materials equipment services, construction design and development, for lining up the country's best architects and interior designers, plus the leading manufacturers and furniture exporters, for showcasing the top colleges and universities in interschool interior design competition and for bringing in the biggest names in the local and international building and construction scene for seminars.

Along with these impressive parts of the show, WORLDBEX is the only construction show in the country that offers Business Matching Service during a show covering the needs of both the consumers and producers. No wonder 80% of its visitors are more likely to do business with WORLDBEX exhibitors.

For more information, visit <http://www.worldbex.com/>.



show review

Visual Asia Expo 2016

2nd November 2016 – 3rd November 2016

Suntec Convention Centre
1 Raffles Boulevard, Suntec City, Singapore



Visual Asia Expo is Asia's definitive visual communication trade show – offering comprehensive visual communication solutions from lighting to signage, display technology, visual effects and imaging.

Visual Asia Expo is Asia's definitive visual communication trade show:

- 2-3 November 2016, Wednesday to Thursday
- Held at Halls 401-402, Suntec Singapore Convention & Exhibition Centre – located at the heart of a self-contained, totally integrated events infrastructure that is only 20 minutes from Changi International airport
- Offering comprehensive visual communication design and product solutions, market innovations, lighting, LED and emerging technologies in the highly energised, rapidly converging Asian marketplace
- Program includes keynote speech and conference, workshop sessions, Visual Asia round-table meeting, business exchange and more
- Featuring the latest developments and trends in the field of visual communication
- Providing effective orientation and insights into Asia, a market characterised by diversity in culture, needs and business models



One Visual Asia Expo, three Industry-focused shows:

- Singapore Lighting & Signage Show
- Singapore Display Technology & Visual Effects Show
- Singapore Imaging Show

After a successful inaugural show in 2015, the one-of-its-kind Visual Asia Expo will return to Suntec Singapore, 2-3 November 2016 with a wider international representation, a greater focus on industry segments, and a line-up of top-notch international speakers to thrill and fill you with what's latest and what's possible:

- **5,000 sqm Professional Exhibition:** quality international exhibitors to offer you a full spectrum of visual communication solutions from lighting to signage, display technology, visual effects and imaging.
- **2-Day Conference:** Distinguished speakers sharing their insights into Asia's booming visual communication industry from the creative, business, application and technological viewpoints.
- **2-Day Workshop:** featuring 4 sessions.
- **Visual Asia Round-table Meeting:** Beyond Innovation & Technologies.
- Key Installations & Showcase
- **Open to trade only:** ensuring quality visitors and qualified buyers for best possible business networking and matchmaking opportunities.

Speakers for the Show

Visual Asia Expo 2016's two-day conference will feature distinguished speakers hailing from visual design, display technologies, digital signages, photography, imaging, lighting, printing and architecture sectors – to offer a multifaceted perspective of Asia's booming visual communication industry.

Andrew Pang: Day 1 Speaker

Andrew Pang, founder of design consultancy Lavaworks, also manages Egg Creatives – an integrated design agency with presence in Singapore and China. Backed by a mix of design flair, commercial acumen, strong design integrity as well as innovation in business development, Andrew is well regarded among his peers as an influential thought leader. Impassioned with nurturing young minds, he was an adjunct lecturer in Nanyang Academy of Fine Arts and juror for numerous design competitions.

A strong advocate of the power of design, Andrew has been playing an active role in Singapore's design industry. He was invited to be a member of the Board of Examiners for the Building and Construction Authority (BCA) from 2008-2010. From 2008 to 2014, Andrew also served on board the Executive Committee of the Singapore Furniture Industries Council (SFIC) as Vice Chairman of the Design Advisory Committee. He was the driving force and the co-chairman for SingaPlural – a design festival that went on to become the anchor event of Singapore Design Week. Andrew was elected as Vice President of Design Business Chamber Singapore since 2013 and is the President-elect.

Lawrence Chong: Day 1 Speaker

Lawrence serves as CEO of Consulus, a global innovation and design firm, which specialises in redesigning business and organisational models for higher and sustainable growth.

He is a featured keynote speaker at global events such as the World Marketing Summit, World Brand Congress, Business of Design Week, a Featured Columnist on



ideas of innovation and design for Asian businesses. His insights appear regularly in regional media such as the TheEdge, Prestige Magazine, Radio938, Marketing, Business Times Singapore, VTC(Vietnam), Ceylon Today, Brunei Times. He is a featured thought leader on LinkedIn, and he served as the 8th President of Design Business Chamber Singapore from 2009 – 2013.

Willy Foo: Day 2 Speaker

A former IT consultant, Willy began his journey as a professional photographer in 2003 when he wired his camera to a notebook carried in a backpack. The pictures he took at events were projected live wirelessly with instant printing. This 'live' coverage was a hit and Willy turned his hobby into a business founding LiveStudios Interactive Photography. The company grew from a 2-man company to one of the most sought after photography companies in Singapore covering more than 800 shoots annually.

LiveStudios celebrates it's 11th year and has expanded to LiveTechnologies, Kids Pictures and MovingStills. He shares his experience and knowledge on this facebook page with 1.9m followers at facebook.com/willyfoo.

Yoke Yui Cheong: Day 2 Speaker

Yoke Yui is in charge of Digital Signage and Professional Displays (including LCD and LED Displays) research in the APAC region. She is an analyst in IHS Technology's Digital Signage group with a research focus on the Asia Pacific and Chinese market for all technologies, including LCD public display, LED video, front projector, and rear projection. She contributes to the quarterly market analysis and database publications for the Digital Signage & Professional Displays Intelligence



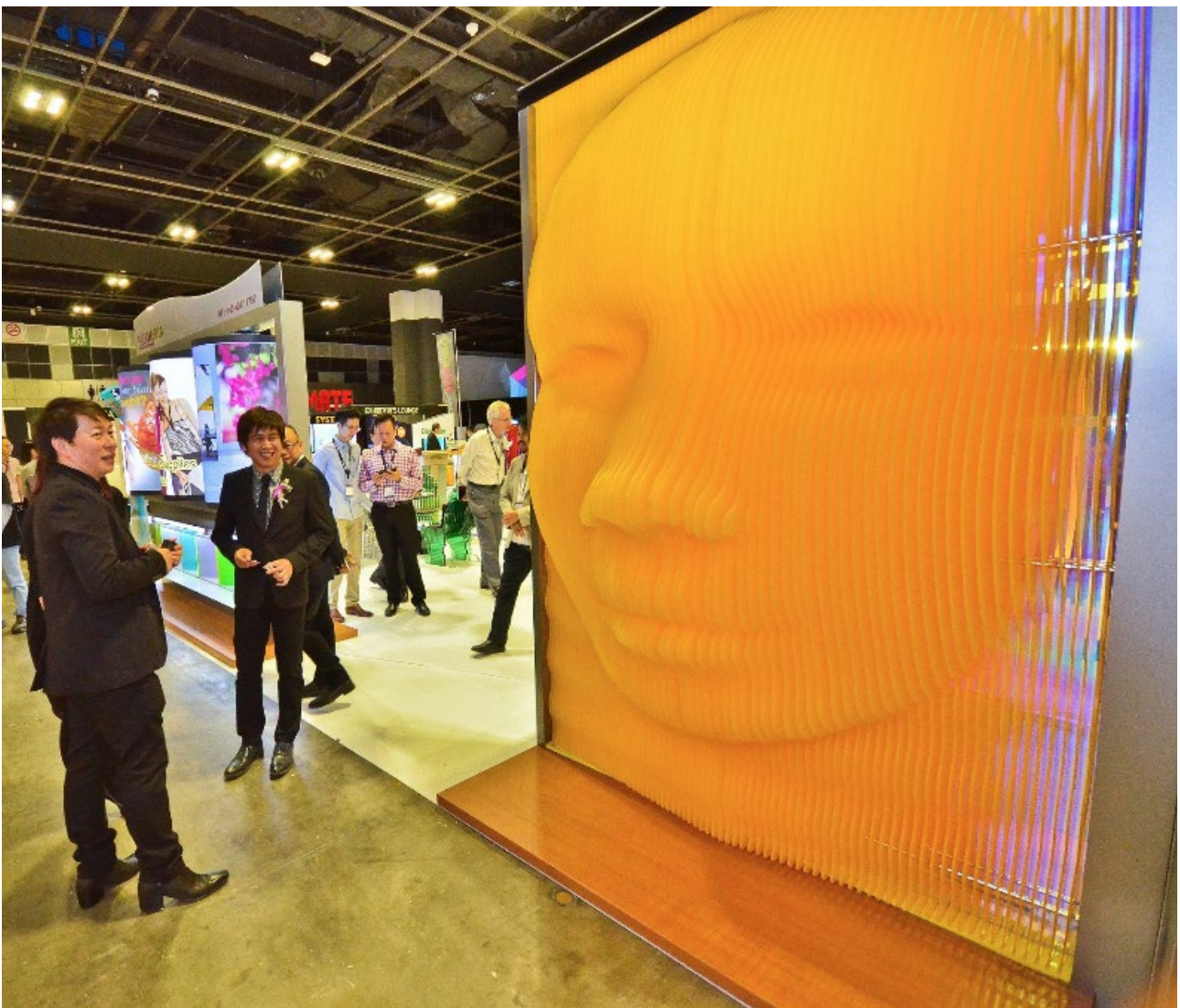
Service and is involved in several ongoing consultancy projects. Yoke Yuin's area of expertise is LED video; she leads the LED video syndicated and custom research in the group.

Prior to joining IHS, Yoke Yuin was in Marketing at IOI Oleochemical Industries, where she developed and conducted analyses of regional market shares, sales performance and raw materials price trends. She holds a Bachelor's Degree in Science (Hons) Biotechnology from Universiti Tunku Abdul Rahman, Malaysia.

About the Organizer

Space Arena is a visual experience company that transforms spaces into visual spectacles with cutting-edge display technologies, projection mapping, design and build, and visual communication solutions. Its Singapore-based business serves its clients' turnkey project needs all across Asia. In collaboration with the most trusted partners in the region. It acts as a market and industry catalyst to keep abreast with visual trends, and rallies the best partners in the region to make brilliant ideas work.

For more information, visit www.visualasiaexpo.com.



show review

Hong Kong International
Lighting Fair

27th October 2016 – 30th October 2016

Hong Kong Convention and Exhibition Centre
1 Expo Drive, Wanchai, Hong Kong



The four leading Autumn trade fairs organised by the Hong Kong Trade Development Council (HKTDC) in October – the Hong Kong International Lighting Fair (Autumn Edition), inaugural Hong Kong International Outdoor and Tech Light Expo, Eco Expo Asia and Hong Kong International Building and Hardware Fair – have come to a successful close. The fairs welcomed a total of more than 77,000 buyers from 148 countries and regions, an increase of 5.6 per cent year-on-year.

The number of buyers from mature markets including the United States, Germany and Australia, as well as emerging markets such as the Chinese mainland, the Philippines and Indonesia also recorded a considerable

increase. Benjamin Chau, Deputy Executive Director, HKTDC, said, "At the four fairs this year, buyer attendance increased 5.6 per cent compared to last year. We saw vibrant business momentum at the fairgrounds, which is an indication of optimism about market prospects.

As users become more conscious of environmental protection, and companies place greater emphasis on energy-efficient and socially responsible strategies, the potential for green business is vast, and eco products emerged as a highlight of the fairs. Exhibitors and buyers from around the world can make full use of the HKTDC's one-stop, large-scale, cross industry sourcing platform to develop new markets." World's largest



lighting marketplace The Autumn Lighting Fair and the inaugural Outdoor and Tech Light Expo welcomed a total of more than 3,000 exhibitors from 37 countries and regions, forming the world's largest lighting marketplace. Together with the concurrent Eco Expo Asia and the Hong Kong International Building and Hardware Fair, the events further added value for exhibitors and enhanced sourcing efficiency for buyers.

To better understand the views of industry players regarding the business outlook, the HKTDC commissioned an independent market research agency to conduct on-site surveys during the Autumn Lighting Fair and Outdoor and Tech Light Expo, interviewing 654 exhibitors and buyers. The survey found that over 60 per cent of the respondents regard North America and Western Europe as the traditional markets with the highest growth potential, while the industry considers the Chinese mainland (64%) and ASEAN countries (42%) as the most promising emerging markets.

Nixon Chen, CEO of Canadian company SmartRay Inc, joined the Autumn Lighting Fair for the third time. He said daylight in some of the North American regions is insufficient to support optimal plant growth, creating a niche market for artificial lighting in North America. "I am happy to have found a good supplier of grow lights at the fair. I am planning to place an initial order worth US\$100,000 with them." Mr Chen said he would come to the Autumn Lighting Fair again next year to look for new products and new technologies. The renowned German brand BJB specialises in the production of connections for LED products. Philipp Henrici, President and General Manager of BJB GmbH & Co KG, said the Autumn Lighting Fair is very international and is one of the most important shows for their company. The fair attracts a lot of global buyers every year and enables their brand to showcase new products.

He added that the emerging markets such as Chinese mainland and South America have rich growth potential for LED products due to their large populations. Russian buyer Anton Korolev said, as one of the biggest shows in Asia, the Autumn Lighting Fair is more international than other similar shows in the region. He said, "Russia is an emerging market for smart lighting because consumers find smart products very convenient. I have already found several potential suppliers from the Chinese mainland and France and we are in talks about supplying home lighting products and smart lighting solutions. I plan to place orders next month." Brazil's NICOM is a retailer of building materials and lighting products. The company's President, Hiroshi Shimuta, commended on the HKTDC's concurrent hosting of the Outdoor and Tech Light Expo and the Building and Hardware Fair, saying buyers could conveniently source building materials, eco products and lighting devices all under one roof.

"In terms of lighting products, we spotted a high-power floodlight from Dongguan, and may place a sample order of about 200 units with the manufacturer." Great potential for LED and green lighting products The on-site survey found that 40 per cent of the respondents



consider LED and green lighting to have the greatest growth potential in 2017, and they expect indoor household lighting and smart lighting systems to have the highest growth among all LED application areas. Japan's Citizen Electronics Co, Ltd has been exhibiting at the Autumn Lighting Fair for many years.

Edmond Wong, General Manager of C-E (Hong Kong) Ltd, a subsidiary of Citizen, said, "The Autumn Lighting Fair is one of the most influential fairs for the industry. It provides an important launch pad for our new products. This year, we are introducing the second generation of our LED Vivid Series. Our new products have attracted many new buyers from the Chinese mainland, Europe, India, Southeast Asia and the US." United Arab Emirates buyer Mohammad Khalil, Business Development Manager of Master Light Electrical Trading, said the Middle East is now actively preparing for the World Expo 2020 and will be implementing construction projects that are worth hundreds of billions of US dollars over the coming four years. In addition, Dubai is setting an example for

sustainable city development and will be inspiring the building of smart cities in other countries.

All these are set to drive the demand for outdoor lighting, he said. Joy Jia, Overseas Sales Manager of Fonda Technology Co, Ltd from the mainland, said outdoor and tech lighting are part of the smart city concept. There are potential business opportunities in solar street lighting as governments around the globe, especially in India, Indonesia, South America and the Middle East are looking for such solutions.

She added, "We are glad to see tech light being included in the inaugural expo. Our company signed many pilot scheme contracts at the World of Outdoor Lighting & Lighting Accessories last year, and some of them have evolved into real projects. This year, many clients from Australia, India and South America came to visit our booth again." New Eco Home Tech zone at Eco Expo Asia At the 11th Eco Expo Asia, the new Eco Home Tech zone was presented as a household setting to allow visitors to experience the green living concepts first-hand.



One of the products showcased was BAFCO Hong Kong Ltd's Haiku® energy-efficient ceiling fans. The company also had a booth at the Green Building Solution and Service zone. Sam Han, the company's Marketing and Communications Manager, East Asia, said, "We have met more than 100 potential clients, including those from Israel, Singapore, the UAE and the United Kingdom; officials from the provincial and municipal governments of the Chinese mainland, and the Hong Kong Housing Department. Representatives from Coca-Cola, a French architectural firm and an Indian property management company also expressed keen interest in our products. The expo is very international. We are confident that we will accomplish the goal of expanding our customer base and capturing new business opportunities through the fair."



Eco vehicles at Green Transportation Experience zone With governments actively promoting green transportation, the Green Transportation Experience zone was upgraded this year to showcase more advanced electric vehicles (EVs), charging facilities and other related transportation solutions.

Dr Allen Wong, Head of Product & Business Development – Consumer Group, HKT Ltd, visited Eco Expo Asia for the first time and met with many green SMEs from Hong Kong. He said his company was running an EV charging joint venture with CLP Holdings and hoped to find suitable EV charging technologies at the expo. He had met six potential exhibitors, including Hong Kong EV Power Ltd, Powerpeg NSI Ltd and Fortune Dragon Motors Ltd. He planned to come again next year to learn more about the development of local green companies and the EV industry.

With generous support from the Environmental Protection Department, over 200 green managers from listed companies and various government departments were invited to visit the expo and take part in briefing sessions and guided tours, with the objective of facilitating business matching with relevant exhibitors as well as promoting green sourcing among businesses and government departments.

The Hong Kong International Lighting Fair (Autumn Edition), Hong Kong International Outdoor and Tech Light Expo and Hong Kong International Building and Hardware Fair are organised by the HKTDC. The events welcomed more than 39,000, close to 12,000 and over 13,000 buyers respectively. Eco Expo Asia is jointly organised by the HKTDC and Messe Frankfurt (HK) Ltd, and welcomed over 13,000 buyers.



The Autumn Lighting Fair was held 27-30 October at the Hong Kong Convention and Exhibition Centre, while the other three fairs ran 26-29 October at the AsiaWorld-Expo. The four fairs generated a synergistic effect and created more crossindustry business opportunities as a one-stop sourcing platform for both exhibitors and buyers.

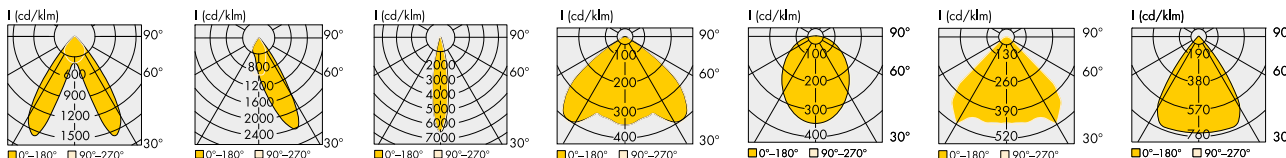
For more information, visit www.hktdc.com.

..... HKILF 2016

PRODUCT SPOTLIGHT

Smart Lighting Solutions for Indoor Applications

By Vossloh-Schwabe
www.vossloh-schwabe.com



LED LINE SMD KIT 3R

The 3-row SMD modules with a length of 280mm and 560mm allow the execution of seamless light strips of any length and the formation of luminous surfaces by parallel arrangement of the modules. It provides an ideal LED solution to light up with T5 / T8 lamps to replace. The high-end PMMA-based optics can be used to illuminate a wide range of applications with angles of 30°, 60°, 90° and 110°, as well as an asymmetrical and a batwing light distribution. The optics are ideal for the lighting of offices, industry, shops or supermarkets.

- Long service lifetime : 50,000 h (L80, B10)
- Highly efficient : Up to 172 lm/W at $t_p = 50^\circ\text{C}$
- Flexible light distribution by different optics
- Zhaga-compliant hole distance



Light Controller XSW-E6 – Wireless Solution for DALI Luminaires

Designed and capable to replace any part of a DALI system connected by wireless Light Controller XSW-E6 is deceptively simple and offers ultimate flexibility. It is the optimal technology for wireless lighting control of offices with conference rooms, industrial spaces and warehouses, sanitary facilities, storage spaces, as well as for similar applications that require high performance wireless networks.

- Wireless configuration / control of DALI luminaires
- ON/OFF function / Scene
- Stairwell function (Timer function)
- Sensor (Movement / Brightness) Control



DimONE Bluetooth® LED Dimmer

You can control and manage a selection of luminaires via mobile devices with the wireless solution of DimONE Bluetooth® LED Dimmer. These powerful devices take traditional lighting control to the next level so you can dim and time lighting according to your current mood.

- Connectivity and designed for applications up from 3 W to 300 W with phasecut dimmable LED modules
- State-of-the-art dimming device supports synchronization with mobile device clock



..... HKILF 2016

PRODUCT SPOTLIGHT

AZSENCE Zigbee LED Downlight and more

By AZ E-Lite Pte Ltd
www.azelite.com

AZ e-lite Pte Ltd ("AZ e-lite"), a wholly-owned subsidiary of Aztech Group Ltd specialising in the design and development of quality LED lighting, is presenting its latest LED lighting solutions to visitors of the Hong Kong International Lighting Fair (Autumn) 2016, a major event in the lighting trade industry.

A key product to be launched by AZ e-lite at the exhibition is the AZSENCE Zigbee LED Downlight. Adopting the global standard is a global standard for interoperable consumer lighting and control products, allowing consumers to gain wireless control over their LED fixtures, light bulbs, remotes and switches. It is the technology of choice to bring the benefits of the Internet of Things into the Smart Home.

Other AZ e-lite LED lights to be showcased at the exhibition include:

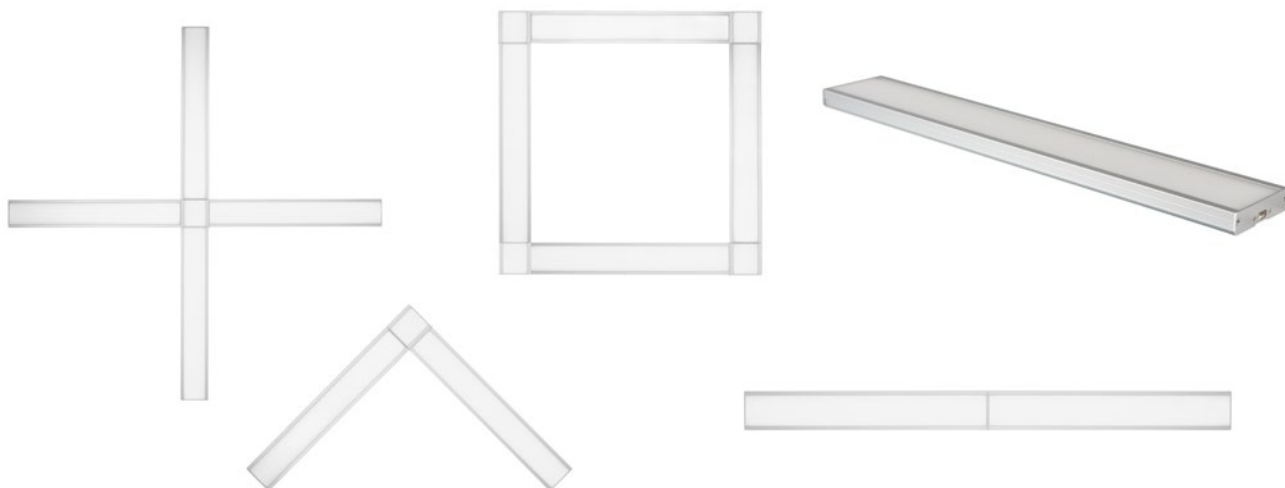
- **AZPLORE LED Linear Bulkhead LBH series** – 1 feet LED Linear Bulkhead with IP65 rated casing, suitable for installation at multi-storey carpark lighting and walkways. Ideal for the outdoor environment with its solid aluminium housing.
- **AZSENCE Low Glare LED Downlight LDR series** – 6, 8-inch LED Downlights with excellent performance with low UGR <19 and ideal for retrofitting existing retail and commercial installations.
- **AZCESS LFE LED Batten Fitting** – a perfect replacement for 2-feet/4-feet T5/T8 fluorescent fixture. The dual motion sensors on both ends of the batten fitting provide bi-level lighting control and consume only 30% of energy in absence of human traffic to provide further operational savings. With its anti-rust, PR12 powder coated extruded aluminium surface, LFE complies with IP54 requirements and is suitable as outdoor lighting (corridor, staircase, walkway, lift lobby, etc) and car park lighting.
- **AZPOSE XL2 LED Floodlight** - with built-in microwave sensor is an eco-friendly lighting which saves up to 80% energy compared to conventional floodlights. With the built-in microwave sensor, AZPOSE XL2 can toggle between 100% and 0% brightness which further reduce the power consumption. The adjustable daylight sensor determines when the floodlight should be activated and can be programmed to operate during low light level.

AZ e-lite will also introduce its new ORION LED Refrigeration Lighting is available on display at AZ e-lite (HK) Limited (Booth: 5B-C02). Introducing Horizontal/ Vertical Orion High performance LED lightings which enhances the vibrant colours to draw more attention to your products by supporting their natural colour and highlighting certain tone. Having fresh, appealing food is essential for building customer confidence and creating an overall pleasant environment.



..... HKILF 2016

PRODUCT SPOTLIGHT



Lego Light components

By Lego Light Lighting Systems
www.legolight.lighting

Late October 2014, Here, at the Hong Kong International Lighting Fair, the employees of Lego Light Lighting Systems were inspired by the advance lighting technology on display, but all these products lacked on thing, a design for cheap and simple installation and the ability of the products to be tailored to various installation environments with ease. Over the coming months, a hint of inspiration turned into great ideas. One major hurdle overcome by the business was the exceptionally high installation costs for lighting products. It wasn't too long before a new approach was discovered, allowing the lighting units to be connected whilst running from the same electricity line. From that point forward, the product was refined more and more, resulting in what the company has called Lego Light. The product was eventually patented in early 2016.

Finally, in October 2016, the product is ready for an effective global premier, here at the Hong Kong Lighting Fair some two years later. The Lego Light product range was developed to encompass models of different power (wattages) and lengths

to accommodate a wider range of purposes. The product has shown to reduce electricity outgoings of businesses by up to 75%, whilst allowing for the complete choice and freedom to personalise their lighting structures. The company seeks to further develop the product line to provide a colour changing (RGB) model and custom faceplate designs. The company's vision statement reflects this " At Lego Light we love to challenge ourselves. What we have created is a gateway product to the next lighting revolution. A more ambient, efficient and customisable design was the result of our dedication to this idea."

Lego Light Lighting Systems strives to provide businesses and everyday consumers with eco friendly and efficient lighting solutions to accommodate their needs. The key goal of the company is to reduce installation costs of lighting products to make them more appealing for customers. The product is manufactured directly by Lego Light and is a premium product which is sold at reasonable prices.

..... HKILF 2016

PRODUCT SPOTLIGHT

New RICO LED Downlight with Hybrid Reflector and U-DIM™ Technology

By Megaman
www.megaman.cc

MEGAMAN®, a leading LED lighting solution provider, launches a new series to its RICOLED downlight at the Hong Kong International Lighting Fair (Autumn Edition) 2016. The ultra slim RICO HR series features the groundbreaking Hybrid Reflector and U-DIM™ Technology for excellent beam control and compatibility with external dimmers.

Designed to be an environmental-friendly replacement for halogen MR16 and GU10 downlights, the RICO HR series with a height of only 30mm is ideal for any ceiling recess with a limited depth. The Hybrid Reflector LEDs combine the best features of MEGAMAN®'s popular faceted reflector range with the total internal reflection of its optical reflector to provide a solution that performs even better than competing LED technologies. This technology enables it to deliver excellent beam control in directional lamps, optical efficacy and less spill light. It is suitable for small cabinets and furniture lighting where space is severely restricted.

The new RICO HR LED downlights also incorporate MEGAMAN®'s U-DIM™ technology, ensuring maximum compatibility with the majority of both leading-edge and trailing-edge conventional dimmers at a dimming range of 100% to 5%.

Available in 6.5W (up to 500lm) and 9W (900lm) options, 2800K and 4000K colour temperatures and with 50,000-hour lamp life, the 36° beam angled RICO HR LED downlight is IP44 rated, making it suitable for humid indoor areas or outdoors where water may drop or flow against the bulb or fixture.

A 9W Rich Colour option is also available and is ideal for those looking to maximise the richness and quality of colours of objects on display with high colour rendering of up to Ra95.

The ultra slim size of RICO HR LED downlight allows for minimum storage and transportation costs, making it an obvious choice for modern-day lighting professionals and consumers.



..... HKILF 2016

PRODUCT SPOTLIGHT

Wing Light

By Alder Optomechanical Corp.
www.alder.com.tw

- Solid die-cast aluminium housing
- UV rated powder paint coating
- System efficacy up to 130 lm/W (Ra > 80)
- Low profile with adjustable lighting system design
- Ideal for aisle illumination, replace up to 400W MH high bay
- Multiple mounting options – surface / Yoke or 3 / 4 inch NPT pendant



Hall Light

By Atek JAPAN Co., Ltd
www.atek-japan.com/index

- Solid die-cast aluminium housing
- Rotatable bracket made of stainless steel
- UV rated powder paint coating
- System efficacy up to 115-120 lm/W (Ra > 80)

White EuroLED 75 LED Down Lights with Spring Clips

By On Board Marine Group Limited
www.obmghk.com

- Stylish, reliable and energy efficient, these lamps will provide excellent illumination for exterior spaces
- EuroLED 75 produces a very wide and even illumination that is specifically designed to reduce individual light source glare, which can lead to discomfort and eye strain
- With the innovative spring clip, it allows extremely easy installation
- Designed to take on the challenges of the ocean, it is made from the highest grade materials which will not corrode or fade
- It dissipates heat and is backed with a 5-year warranty.
- IP67 rating



..... HKILF 2016

PRODUCT SPOTLIGHT

DE14 LED Linear Panel Light

By OKT Lighting Int'l Group Limited
www.oktlighting.com

The 1' x 4' suspended Up/down LED Linear panel is a commercial pendant lighting fixture utilising an advanced LED optical system to achieve superior performance. The unique design achieves nearly transparent luminaire when off and excellent uniformity and efficiency when on, reaching 55% downlight and 45% uplight distribution, making the illusion of the light floating in mid-air, included UL Recognised constant current driver which support 0-10V dimming and step dimming, suitable for indoor lighting.



APOLLO 2 Series LED Street Light

By Kingsun Industries (HK) Co Limited
www.kingsunlights.com

- Material: Die cast aluminum
- Easy to install and maintain with modular design
- Lightning and surge protection system
- Arc-shaped module with surface self-cleaning effect
- Optimum light distribution, high utilization of light

Kingsun is a total lighting solution provider with diversified business models in the fields of LED outdoor, indoor and landscape lighting as well as LED display, transportation, medical and specialty lighting. As one of the earliest pioneers in the LED lighting industry in China, Kingsun has over 17 years of LED lighting experience in R&D and LED applications including 10 years of high-power LED lighting solutions. Kingsun has the largest scale solid-state lighting base in R&D and LED production in Asia with integrated resources of production, research & development, capital market, talent, business models and marketing channels. Kingsun has formed a very strong core competence to promote technological innovative LED lighting product applications.



LED Street Lights

By Fujian Hongbo Opto-Electronics Technology Co., Ltd.
www.hbled.com.cn

Hongbo LED Streetlight is energy-saving and environment-friendly, whose max energy-saving efficiency can reach 70% compared to the traditional lighting. Meantime, LED streetlight's components are free of Pb, Hg and other materials, and its optical spectrum is free of infrared ray and ultraviolet rays.



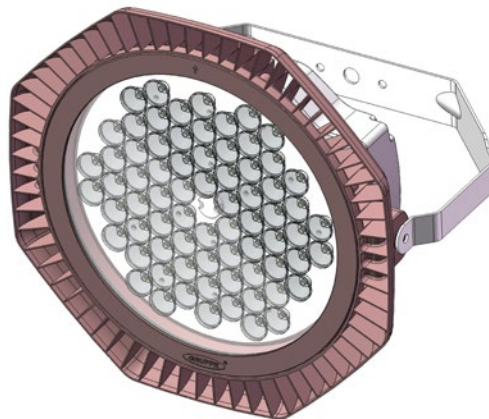
..... HKILF 2016

PRODUCT SPOTLIGHT

GRUPPE LED

By Gruppe Lighting Solution SDN BHD
www.gruppelighting.com

For nearly 30 years since establishment, GRUPPE's new range LED luminaires employs a highly flexible light module that is designed to be aesthetic, stylish and sound. This new range of LED Lights is a re-innovation of high performance, competitive and affordable lights complying with international standards and regulations. The momentous achievement of making sustainable, high-quality and affordable lights will mark a major change for the industry. The product is designed to meet recommended luminance requirements for every application need.



JARI LED Explosion-proof Lighting

By LIANYUNGANG JARI ELECTRONICS CO., LTD
www.jariec.com

JARI LED industrial lighting is equipped with high luminous efficacy, corrosion resistance, and resistance to vibration etc. It has a variety of installations to meet the demands of different situations as well. JARI LED explosion-proof lighting can achieve 30W~ 300W full power coverage. It features easy disassembly of the acrylic transparent mask to further protect the lamp's light.

LED High Mast Lamp

By Ningbo L-star Lighting Science & Technology Co., Ltd.
www.l-starlight.com

- Made of stainless steel parts and components, the whole structure has been treated with protection technology and has undergone a 500-hour salt spray test which boasts outstanding resistance to corrosion and rust, making it adaptable to poor outdoor environments
- Protection grade reaches IP67
- The lampshade has a built-in respirator to clear away mist and avoid dewing



JRA7

By Zhejiang JingRi Lighting Technology Co., Ltd.
www.jingrilight.com

JRA7 street light adopts a modern design with a simple appearance. The product is easy to maintain without tools, and it has many types of light distribution curves fit for a range of road applications. Wireless control, WIFI and a monitoring system could be installed to make our city life more convenient and safe.

THE 22ND PHILIPPINE WORLD BUILDING AND CONSTRUCTION EXPOSITION



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Noble Ploenchit

Bangkok, Thailand

Developer: Noble Development Public Company Limited

Architect: IAW Company Limited

Lighting Designers: APLD Company Limited

Kanokporn Nuchsaeng / Chankanuengnit Thaprik / Aruchita Phasuk / Somkid Kuchita

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

Writer: Sudrak Prichanond

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

Living in 21st century, the information and communication can be reached with just click but place of residence is still a concernment that determines the well-being. Noble Ploenchit is the high-end condominium project by Noble Development Public Company Limited. It is situated in Ploenchit, the Bangkok's hottest luxury lifestyle district where business, fashion and all public transportations are there. The condominium presents the design concept of vertical garden city from Le Corbusier, one of Modern

Architecture pioneers. It is the ideal living in future that man, technology and nature live well together.

The image of Noble Ploenchit from exterior view is preceded by Noble building – the tower on the frontage next to Ploenchit road. Architect, IAW Company Limited, created the impressive waver shape building which inside includes retails, café and Noble space for exclusive members in order to support condominium community and nearby.



Winter Scene



Façade lighting of Noble building is designed by APLD, lighting design company from Thailand. Lighting designers use dynamic façade lighting as a medium of interaction among man, technology and nature. The imitation of delicate form, movement and colors from nature are used in lighting scene design. Water flowing, leaves blowing, or anything related to time, weather or season are created as the scenes that people feel into. The feeling expressions are also narrated through the scenes depending on occasions such as festival, celebration or condolence. When lighting touches peoples' emotion, it becomes the relationship that makes all belong together.

Linear addressable RGB LED fixtures by L&E are used for façade lighting. LEDs are installed continuously between every four vertical louvres. In daytime, they are humble for architecture but then turn into stunning dynamic illuminated graphics in nighttime. With very tiny address, only 10 cm, they can create the lighting scenes with exquisite lighting effects such as sparkling light. In the process of scene creating, each LED is differentiated as one of thousand addresses in a whole pattern. Then scenes are simulated by intuitive LED control software and hardware. The challenged part of façade lighting is about the installation of LEDs on the complex curve of façade design which is hard to be precisely constructed. Thus alignment and addressing of LED fixtures were adjusted to suit the on-site changes. In the end, various beautiful lighting scenes are created according to the design concept from lighting designers.

Noble Ploenchit building becomes the distinguished illuminated master piece on Ploenchit road. Thanks to lighting design and technology, the relationship among man, technology and nature now become possible in this century. Dynamic façade lighting seems to be a living thing that has its own life that can express emotions, communicate and bring life to people and community.

About L&E

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.



Lighting equipment for a variety of uses in a sports convention facility able to accommodate a maximum of 5,000 people

Hakodate Arena

Hakodate City, Hokkaido

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



The main arena has an area of 2,860m², and is lit with 200W LEDiOC HIGH-BAY Λ and EYE Shade lights (660W FEC CERA ARC ACE PRO2) while making the most of its impressive two-directional string beam structured trusses, creating a pleasant lighting environment.

Hakodate Arena is a sports convention facility established in Hakodate's Yunokawa district in August of 2015. It has two elliptical buildings - one large, one small - joined by a hall section, giving it a characteristic shape, and the main-arena building has a main arena the size of three basketball courts, while the sub-arena building has a martial arts stadium on its first floor and a single basketball court on its second. The main arena has fixed audience seating for 2,120 people, but can accommodate a maximum of 5,000. Is a multipurpose facility able to host a variety of sports competitions, concerts, events, and large-scale conventions. High ceiling lighting fixtures

with 660W high-performance/long-life FEC CERA ARC ACE PRO2 light sources and power-saving, high-output 200W LEDiOC HIGH-BAY Λ floodlights were used for the lighting in both the main and sub-arenas. The brightness level has been set to satisfy anything from general use (500lx) to international competition-class brightness standards (1,500lx), making it lighting equipment able to handle a variety of uses. Furthermore, 210W LEDiOC FLOOD SPOLART LED floodlights have been arranged to compensate for sections not covered by light from the high ceiling lighting. 200W LEDiOC HIGH-BAY Λ lights are lit for safety lighting (150lx), making effective use of the



*All lights turned on
in the sub-arena,
which has an area of
1,000m², the size of
one basketball court.*



1 - The 210W LEDioc FLOOD SPOLART LED floodlights turned on



2 - The sub-arena. The 200W LEDioc HIGH-BAY Λ and EYE Shade lights (660W FEC CERA ARC ACE PRO2) turned on



3 - A daytime view of the outside of Hakodate Arena, which has a characteristic shape from its two elliptical buildings - one large, one small - joined by a hall section



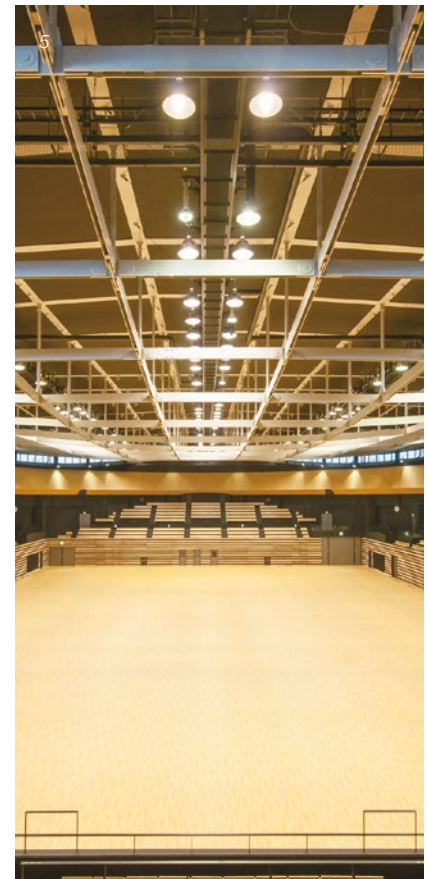
4 - The sub-arena with all lights on

5 - The main arena, which has fixed audience seating for 2,120 people but can accommodate a maximum of 5,000

merits of the LED lighting, including a long-life rated lifespan of 60,000 hours and the ability to be turned on instantaneously. The arena has an elliptical shape with an impressive two-directional string-beam structure, and creative plumbing and rack and cable wiring have been incorporated to cleanly display its trusses, creating a comfortable lighting environment that makes the most of the features of the building.

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.





Black Swan

Beijing, China

Lighting Design: Beijing Zhouhongliang Lighting Design

Photography: Sebastian Mayer

Products: Optec

Photo Credits: © ERCO GmbH

Photo: Sebastian Mayer

It is said that black swans are rare. This is no longer the case in Beijing, even though they are sweetmeats: the recently opened "Black Swan" patisserie offers bakery goods made to the highest standards. These are displayed in an interior inspired by a snowy winter landscape – with contrast-rich lighting created by ERCO Optec spotlights.

It is well-known that the gastronomic traditions of Europe and Asia differ, and this also applies to the high art of pastry

shops. In Asia elaborate decorations are deemed to be particularly important: in contrast to Europe, a guest would prefer to offer a bought and decorated cake for a celebration rather than a home-made and therefore perhaps not quite so perfect cake. The pastry products of the Black Swan patisserie in Beijing are almost breathtaking. In accordance with its name, the sweet delicacies are frequently decorated with swans of sugar icing and their contours have a curved, filigree appearance as if drawn by a calligrapher.







A Beijing patisserie with sensational cakes

Black Swan is the new luxury brand of Holiland, a chain of bakery stores in China. The first branch recently opened in Beijing. The retail outlet mainly offers exclusive bakery goods culminating in multilevel wedding cakes. The creations displayed in showcases attract the covetous glances of food connoisseurs while customers can select lower-cost baked goods themselves from the shelves. The pastries and cookies are either packed in quality boxes for taking away or can be eaten in the café area.

A corporate design similar to Chinese landscape painting

The Black Swan brand surprises with a rather poetic corporate design. The logo consists of two black swans on a white background, and both the motif and black-and-

white look can be found throughout the store design. A photo of two black swans in a snowy landscape with a sweeping branch and dark lake is depicted across the area of two walls, and its reduced composition is reminiscent of traditional Chinese landscape painting that mainly aims to catch moods and inspire a sense of contemplation in the viewer. The walls, floor, ceiling and furniture are also either black or white, and the theme of a swan even decorates furnishings and fitments such as the cake forks.

Interior design in black and white with contrast-rich lighting

The black ceiling is given a sense of structure with track. ERCO Optec spotlights create light points achieving high contrast against the dark background, and without causing any glare for customers. The light spots emphasise and highlight the showcases and shelving displaying the goods. Narrow spot or oval flood light distributions are used according to the size of the display. The baked goods appear especially attractive thanks to the high quality of the ERCO LED light along with its very good colour rendering, brilliance and precision. Dark surfaces – for example bread and chocolate coatings – are illuminated with 3000K because warm white light emphasises the effect of warm red tones, and bright, cool surfaces – such as the vibrant glazes – are displayed with neutral white 4000K. Despite the lighting, no increases in temperature are generated in the showcases due to optimum thermal management of the luminaire housings, thereby avoiding any damage to the cakes. Highlights are also created on tables to achieve an intimate coffee house atmosphere, inviting the guests to relax and stay.

About ERCO

The ERCO Light Factory in the German town of Lüdenscheid is a leading international specialist in architectural lighting using LED technology. The family business, founded in 1934, now operates as a global player with independent sales organisations and partners in 55 countries worldwide. Since 2015 ERCO's portfolio has been 100% LED. Inspired by "light digital" as its leitmotif, ERCO in Lüdenscheid develops, designs and produces digital luminaires with focus on photometrics, electronics and design. Working closely with architects, lighting designers and engineers, ERCO develops lighting tools used primarily for applications in the following fields: Work, Shop, Culture, Community, Hospitality, Living, Public and Contemplation. ERCO understands digital light as the fourth dimension of architecture – providing highly precise and efficient lighting solutions to support creative designers in turning their visions into reality.



Omniblast

Budapest, Hungary

Lighting Solution: Schröder Group
Photo Credit: Schröder Group

The OMNIBlast lights this innovative stadium thanks to its high performance and flexibility. It provides the required lighting levels for UEFA and FIFA matches and meets the strict criteria for high-definition broadcasting. It also provides theatrical lighting effects to boost excitement for the ultimate fan experience. All, with low operating costs.

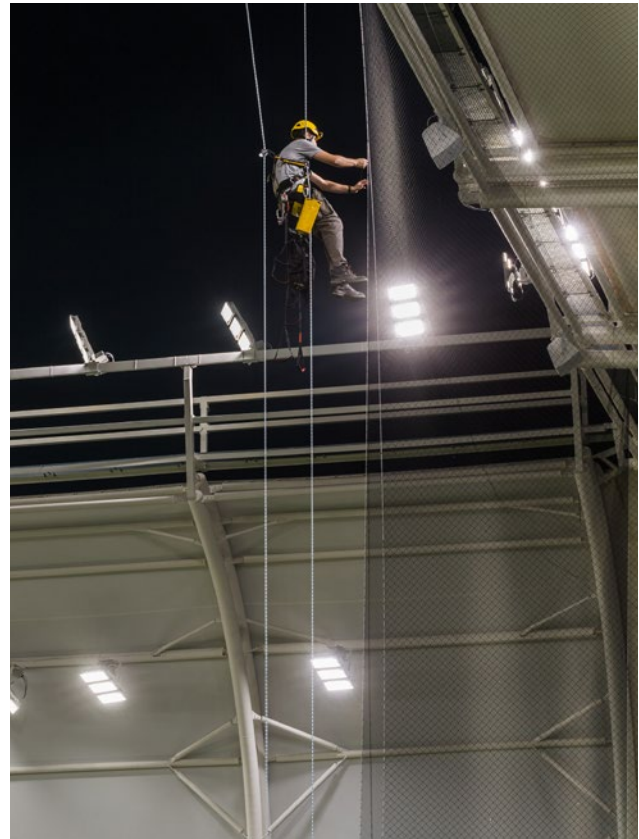
The new Hidegkuti Nándor Stadium in Budapest was inaugurated on 13th October with a gala match between the stadium's home team MTK Budapest and Portugal's Sporting Lisbon. MTK Budapest is one of the country's most dominant football clubs and the original stadium which had been built in 1912, was no longer adapted to the conditions needed for today's game.

The stadium was completely demolished in 2015 to build a new state-of-the-art arena to welcome international competitions and create a first-class experience for the fans. The new facility, named after one of Hungary's legendary players, Nándor Hidegkuti is located in exactly the same spot as the old one in the heart of Budapest's 8th district. It is able to seat up to 6000 spectators and has an UEFA category 3 rating.

Lighting plays a critical role in the success of any sports venue and the managers of the stadium wanted the latest in sports technology. They wanted a solution that would provide the best quality of light on the pitch, ensuring perfect conditions for the players and the supporters. As the stadium will be used for international football games, the lighting on the pitch has to meet the criteria imposed by UEFA and FIFA as well as the levels required for high-quality TV broadcasting (more than 1,500 lux). The managers also wanted a solution that would offer the possibility of dynamic lighting effects to bring the stadium to life during the games and create a new level of excitement.

The OMNIblast was ideal for this stadium. It provides the required lighting levels for national and international matches with minimal light trespass, which is important as the stadium is in the heart of the Hungarian capital's urban landscape. The optics inside the floodlight are made from silicone to prevent any overheating, delivering optimal lighting at all times. It guarantees perfect glare control, a high colour rendering index (CRI) and television lighting consistency index (TLCI 88) as well as flicker-free lighting to provide vivid images on television screens for fans watching at home.

A total of 216 OMNIblast 3 have been installed along the roof. They are controlled by the DMX protocol which enables each fixture to be switched on and off individually or synchronised in light shows, to create dynamic entertainment lighting before, during and after the matches. It is possible to project the MTK team colours, change the lighting when a goal is scored and even synchronise the lighting with music when specific actions occur.









The floodlights may also be dimmed to adapt to other events taking place in the stadium, such as training. This flexibility gives the management the opportunity to use the stadium for non-sporting events (such as concerts) and generate additional revenue.

As the first stadium in Eastern Europe to be lit exclusively by LED floodlights, the New Hidegkuti Nándor Stadium is one of the most innovative and a new iconic landmark in the Budapest landscape.

Schröder is delighted to have worked with the installation contractor, Elios Innovativ Zrt, and provided a complete lighting solution that meets all the criteria of UEFA HD TV broadcasting while offering the lowest total operating costs compared with other traditional sports lighting systems.

About the Schröder Group

Schröder 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.

For more information, visit www.schreder.com.

Product Introduction: Omniblast

Unrivalled Combination of Performance and Flexibility



OMNIBlast has been designed to provide the ideal tool for sports venues that need a lighting solution with the highest efficiency and flexibility to adapt to the different lighting needs. This new LED solution offers an alternative with proven benefits for traditional fixtures fitted with 800W, 1000W, 1500W and 2000W lamps. OMNIBlast ensures the high horizontal and vertical lighting levels to meet the strict requirements of sports federations and TV broadcasting.

A modular concept of optical units means that 1, 2 or 3 modules can be mounted on the same bracket to offer the utmost versatility, providing light distributions and lumen packages perfectly adapted to the specifications of the area to be lit.

To enhance the on-site experience and television images, the OMNIBlast guarantees perfect glare control, a high colour rendering index (CRI) and television lighting consistency index (TLCI) as well as flicker-free lighting.

The OMNIBlast is available with warm (3000K), neutral (4000K) or cool (5700K) white LEDs.

Lumen output flux: 18,600 to 137,600lm
 Floodlight tightness level: IP 66 (*)
 Gearbox tightness level: IP 66 (*)
 Floodlight impact resistance (glass): IK 09 (**)
 Nominal voltage: 120 - 277V - 50 - 60Hz
 Electrical class: I * (*) according to IEC - EN 60598
 Weight: Omniblast 1 - 12.5kg
 Omniblast 2 - 25kg
 Omniblast 3 - 36kg

Materials

Body: High-pressure die-cast aluminium
 Protector: Glass
 Lens: Silicon
 Bracket: Hot Deep Galvanized Steel
 Reflector: Aluminium

Colour: RAL 7038 (can choose other RAL color)

A photograph of a stage performance at Eagle Brook Church. The stage is bathed in a deep red light. Several musicians are visible on stage, including a guitarist and a singer. The ceiling is filled with a complex arrangement of geometric light fixtures, likely the ACL 360 Bars mentioned in the text, which are illuminated from within, creating a starburst effect. The audience is visible in the foreground, mostly in silhouette, looking towards the stage.

Eagle Brook

Spring Lake, Minnesota

In a unique example of an EDM-style lighting fixture in a House of Worship, Nate Nohling, Lead Lighting Designer at Eagle Brook Church, a large ministry with six campuses across Minnesota, chose 156 ACL 360 Bar™ LED battens as the staple of a new lighting design.

“The number one thing I was shooting for when designing this set was impact,” Nohling explains. “I wanted to have a large quantity of fixtures that had the ability to create the impact we were looking for. That meant we needed a fixture that fit a price point that allowed us to have enough across

all of our campuses to make an impact and a powerful beam from each fixture. We looked at a lot of different fixtures and the ACL 360 Bars were a great solution for what we needed.”

Eagle Brook’s six campuses range from large purpose-built facilities to more traditional church buildings to auditoriums. All of Eagle Brook’s campuses are utilizing the ACL 360 Bars as the main element of the design. “Our team strives to create a cohesive design that has a similar brand between all of our campuses, and utilizing the same



fixtures is a key part of that," Nohling states. "The design is scaled to fit each room and therefore the fixture count at each campus varies, but the design was created to have the same experience and feel at each campus."

Monkey Wrench

Supplied by Elation dealer Monkey Wrench Productions of Minneapolis, the ACL 360 Bars are used for everything from mid-week student programming to weekend services. "This project has a lot of interesting aspects to it, not least the fact that it uses an EDM style fixture in a House of

Worship," said Seth Scott, Head Chimp at Monkey Wrench Productions. "With Eagle Brook's multiple locations creating a common design to provide flawless continuity between all campuses is a design feat in and of itself."

Nohling appreciates the experience that Monkey Wrench brought to the table and the cooperative relationship that allowed for the design to become reality. "Seth is one of the most important vendor relationships we have that allows us to do what we do every weekend," Nohling says. "He is someone who understands how budgets and projects work





and is always able to help us figure out a solution that fits our needs.” Monkey Wrench worked with Elation manufacturer rep firm Five Lakes Marketing on the project.

Main layer of the design

Nohling is responsible for developing and establishing the vision and brand for the design, and leads and oversees the church’s stage design team. The new install, with the ACL fixtures used as the main layer of the current stage design, was completed across all campuses over a two week period in August. According to Nohling, in year’s past they would create multiple stage designs a year but have now narrowed their focus to doing two designs per year. “This narrowed focus allows us to dedicate 4-6 months at a time to dream, design and plan, which has greatly increased the quality of our stage designs,” he says.

ACL 360 Bar™

The ACL 360 Bar is a versatile moving batten with (7) 15W RGBW LEDs and continuous rotation for dynamic movement effects. At Eagle Brook they are hung in diamond structures above the stage and are used for every event in each of the campus’s main auditorium. Nohling comments, “The number one feature we wanted was a quality beam and the beam from the ACL 360 Bar’s allows us to create high impact looks to enhance our experience.” The fixture’s Art-Net connectivity was also an important factor in their choice. “With the amount of fixtures that we have, running separate universes of DMX to all of the fixtures would have been a nightmare,” Nohling added. “The network connectivity allows us to connect all of the fixtures together with cat5 without having to worry about getting a bunch of nodes to convert to DMX everywhere.”

The ACL 360 Bar’s individual pixel control has given the Eagle Brook design team a number of design options to explore. Nohling explains, “The ability to have independent pixel control has been huge for us in terms of flexibility. We are able to go from utilizing the full fixture to maximize impact to just a single pixel in our slower songs, which provides a completely different look and feel. These fixtures have held up great. They have been in use now for months and across 156 fixtures I believe we have had only one issue.”

Nohling concludes by acknowledging the team effort involved in creating such spectacular designs across multiple sites. “We have an incredible team that works together to pull off what we do,” he says. “We have some of the best lighting designers in the country in Tom Clark, Travis Leatherman, and Jason Goglio, who also make up our stage design team. Everything that we do is a very collaborative process where each person brings ideas and solutions to the table, and we couldn’t do what we do without each of them. We also have incredible campus production teams across all of our campuses that partner with us to actually do the installations.”

SMART LIGHTING IN THE INTERNET OF THINGS AGE

By Gianni Minetti



World population is growing and increasingly moving to urban areas. If the global average urbanization rate is around 2%, in most Asian countries Cities are developing at an accelerated pace, as latest edition of CIA's World Factbook clearly reports. In China, Thailand and Vietnam, for instance, annual urbanization rate is close to 3%, in Cambodia and Malaysia it is estimated at 2.65%, while Laos has the outstanding rate of about 5%.

In the debate around effective urban governance models, Cities struggle to become smarter in managing infrastructures and resources, and steer sustainable development in a far-sighted perspective. An interesting experience is under way in Cambodia, where public lighting was identified as one of the key services to be optimized since it represents a major cost item in Cities' balance sheets, has a clear impact on liveability and affects environmental performance.

The Japanese group Minebea committed to a high-efficiency LED Street Lighting project together with Paradox Engineering and Iwasaki Electric. By 2017, about 9 thousand street lights will be replaced with LED luminaires and connected to a wireless network to allow remote monitoring and control, with the opportunity to



About the Author

Gianni Minetti is President and CEO of Paradox Engineering SA. Before founding the Company in 2005, he worked as director of information systems in international corporations and as consultant in project management, leadership, and software engineering methodologies. He owns a MSC Computer Science at Università degli Studi in Milan (Italy) and has a master degree in Program and Project Management from University of British Columbia (Canada).

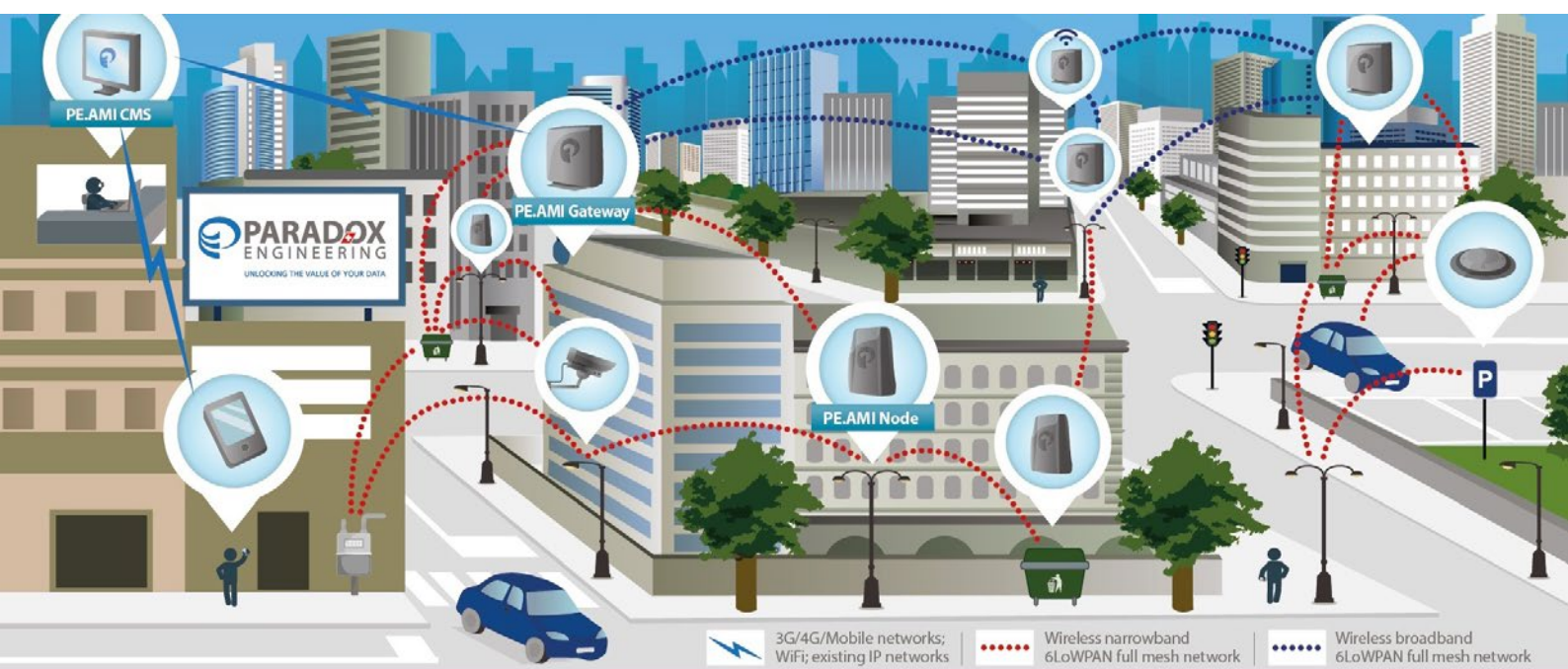
leverage the same infrastructure to host additional services, including Wi-Fi, parking management, smart metering, environmental sensing and operation. The project is covering four different locations in Phnom Penh City, Siem Reap City and Angkor Wat ruins area. According to the feasibility study dated March 2015, CO2 emissions would be reduced of 3,590 tCO2/year and energy consumption would strongly diminish, therefore representing a great contribution to Cambodia's financial and environmental goals.

What's the idea behind such project?

Lots of communities are focusing on Smart Lighting programs, which typically mean switching to LED technologies and turning existing infrastructures into smart networks to cut energy use and increase lighting efficiency. By implementing a modular wireless full mesh narrowband/broadband Internet of Things (IoT) network platform – as PE.AMI by Paradox Engineering –, connected luminaires acquire the capability to receive and transmit data and execute commands, thus enabling remote monitoring and control.

As a result, municipalities or local service providers are able to define customized patterns for single districts, streets and even lamps, managing on/off and dimming actions according to programmed schedules (ie. combinations of time, daily solar times, local events, etc.), environmental inputs (ie. measured light levels, temperature, motion, etc.) or on demand (ie. emergencies or public security issues). Benefits in terms of energy efficiency, reduction of overall footprint and public money savings are proved to be significant, especially if combined to human / vehicle motion sensors and other similar devices.

But there's something more. We can think of lighting as a citywide distributed communication system, that is a





network of objects producing and consuming data – and data are value, a key resource to be transformed into actionable intelligence to feed decision making.

By framing Smart Lighting in the IoT perspective, Cities can go one step further and leverage street lighting as the backbone to build a genuine smart urban network. The IoT unlocks the possibility to transform luminaires and City objects (meters, parking lots, solid waste bins, etc.) into smart nodes of a wider network, supporting narrowband and broadband bidirectional communications to enable a number of applications, from public lighting to parking, from energy distribution to video surveillance, and many more.

This IoT-based approach is exactly the background of Cambodia's LED Street Lighting project – and of many other installations we've successfully developed in several Cities around the world.

About Paradox Engineering SA

Paradox Engineering SA is a Swiss technology company that designs and markets solutions and services to unlock the value of data for smart industrial and urban networks in the Internet of Things age. Unique competences in radio design, network design and management, low power consumption and data collection at the heart of Paradox Engineering's technological leadership. The Company conceives and provides open standard wireless sensor network solutions for smart urban and industrial environments, and OEM versions of its core network technologies.

Established in 2005 and headquartered in Switzerland, the Company is part of the Japanese Group Minebea Co. Ltd., the world's leading comprehensive manufacturer of high-precision components, which acquired full capital and assets of Paradox Engineering SA in July 2015.

For more information, visit www.pdxeng.ch.





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VOLLRADS CASTLE

Luminaires and lighting solutions: *Arne Fiedler*

LED modules and drivers: *Vossloh-Schwabe*

LED lamps: *Panasonic*

Photos: *Matthias Klenke*



Surrounded by forest and vineyards, Vollrads Castle lies in the middle of Germany's beautiful Rheingau region in the federal state of Hesse. Apart from the historical castle itself, the vineyard, restaurant and a broad range of events go to make Vollrads Castle an extremely popular sightseeing destination.

The vineyard at Vollrads Castle is one of the world's oldest and documentary proof exists that wine was traded here as early as 1211. Nowadays, the Vollrads winery concentrates solely on the cultivation of Riesling vines over an area of some 80 hectares.





Almost the entire outdoor and façade lighting, including the castle's emblematic and imposing tower, features energy-efficient LED modules and drivers made by Vossloh-Schwabe.

In Detail:

- Façade and contour lighting
- Restaurant and orangery (windows and arches)
- Alcoves and fascia elements
- Residential tower with surrounding moat
- Wine cellar
- Indoors: approx. 800 LED lamps (E27 and E14)

The following products have been used:

- Panasonic LED Lamps E14 and Panasonic Nostalgica E27 for historical crystal chandeliers
- Several facade-integrated luminaires made by VS: lightex-FTS
- Custom made VS luminaire with 12 CREE LEDs (SMD) and VS LED-Driver





Vossloh-Schwabe is not merely a provider of top-quality system solutions Systems and Components for Lighting Applications with LEDs. Thanks to the characteristics and advantages of LED modules over conventional light sources, there is almost no limit to the ways in which LED modules can be used, and new applications are being found on a continual basis.

Vossloh-Schwabe develops and manufactures LED modules in different performance classes and shapes using COB and SMD technology with a comparably minimal decrease in luminous flux over a module's service life and with extremely high colour stability. Precise optics from Vossloh-Schwabe enable efficient implementation of application-specific light distributions for shops, offices, industrial plants and street lighting. Vossloh-Schwabe's high-quality electronic LED control gear, which is available in various performance classes and designs, is designed to supply power to voltage- and constant-current-operated LED applications.

Even when it comes to special customer wishes such as solar operation, moisture protection, control of chromaticity coordinates and colour temperature as well as the integration of motion sensors, Vossloh-Schwabe is your competent partner with the right know-how at their fingertips. Modules that respond to suit each respective situation thus provide light whenever and wherever it is needed.



Serpentine Pavilion

Kensington Gardens, London

Photos and Text: Zumtobel Group





For many years, Zumtobel has been a sponsor of the Serpentine Pavilion. They are long-term partners of the Serpentine Gallery and also BIG, based in Copenhagen, New York and recently in London, who is a part of their network of international architects. Having joined the Zumtobel Group in 2015, the lighting solution for this year is provided by a Zumtobel's sister brand, U.K. based acdc Lighting.

BIG's Serpentine Pavilion takes the form of a wall created from stacked, open-ended rectangular boxes. The wall appears 'unzipped' to form two sinuous strands that bulge apart to form a central cavity. It is a fascinating three-dimensional environment, featuring many apparent dichotomies that allow the space to be experienced in many ways. Fabricated from pale green toned translucent fiberglass, it appears linear and yet curvaceous, modular and yet sculptural, and substantial yet insubstantial, depending on the vantage point. As the sun tracks across the sky it creates dynamic shadow play, with the movement of people adding to the beguiling optical effects.

Inside, the Pavilion hosts a café and a bar, with bench seating at the perimeter to facilitate daytime activities and the Serpentine Park Nights programme, an annual series of live events by artists, writers and musicians. For the night time image BIG envisioned a glow from the base, the light grazing up the walls to emphasise the curvaceous textural form, and then gradually fading out to dissolve the structure into the dark sky. To preserve the purity of the lines, BIG requested all lighting equipment to be concealed – ideally positioned on the floor behind the perimeter seating.

Lighting approach remains faithful to the BIG's vision

The Zumtobel Group's lighting approach remains faithful to the vision, while meeting the practical and technical requirements for the space. As local advisors to the Serpentine Gallery, multi-disciplinary firm Aecom provided the technical brief for the lighting. A minimum of 100 lux was required on the floor and 200 lux on the bar, with an average of 10 lux on a clearly designated exit route needed for emergencies.

The Zumtobel team in Dornbirn produced several simulations and calculations to clearly define their design challenge. Material samples of the cubes were measured to evaluate how light would interact with fiberglass material. The transmission proved to be less than 5% for the base layers. This meant that there would not be enough light passing through the cubes to create the external 'glow' that BIG envisioned. In addition, the open cellular nature of the structure naturally reduced the amount of reflected light back onto the concourse and bar, while the inward sloping physical form increased the likelihood of glare affecting visitors. Following trials of several different arrangements of floodlight locations and optics it was clear the vision could not be achieved by uplighting alone.

In consultation with BIG it was agreed that some supplementary high level lighting was necessary. The challenge evolved into determining the best possible combination of equipment and design that would limit the visual impact of this on the structure.



acdc PLAZA solution creating the “glowing effect” of the Pavilion

The final solution uses acdc PLAZA fittings in two sizes with 3000K warm white LEDs. PLAZA 20 fittings with elliptical and wide beam angles are distributed at the perimeter behind the bench seating. The elliptical beam helps to create an even wash on the structure while limiting glare. The wide beam uplights are positioned to point back outwards towards the structure to smooth and extend the effect. These also provide light to the inside faces of the cubes, which creates the illusion that the Pavilion is glowing when viewed externally.

The careful design of the uplighting achieves 70 lux on the concourse, and is boosted by a series of acdc PLAZA 10 spotlights mounted at 4.3m. Eight of these provide the required supplementary general lighting and concentrated extra light on the bar. These are maintained in emergency, to which a further 5 pieces are added to achieve the required 10 lux and boosting the levels at the exits. The scheme is completed by 25 low level PLAZA 10 spots beneath the bench seating that boost light at the perimeter.

The acdc PLAZA features an IP66 protection level making it suited to the non-permanent open structure. It is also ultra-compact, low powered and is available with a wide range of optics and accessories. The PLAZA 10 used at high level measures a tiny 100mm x 138mm for a truly

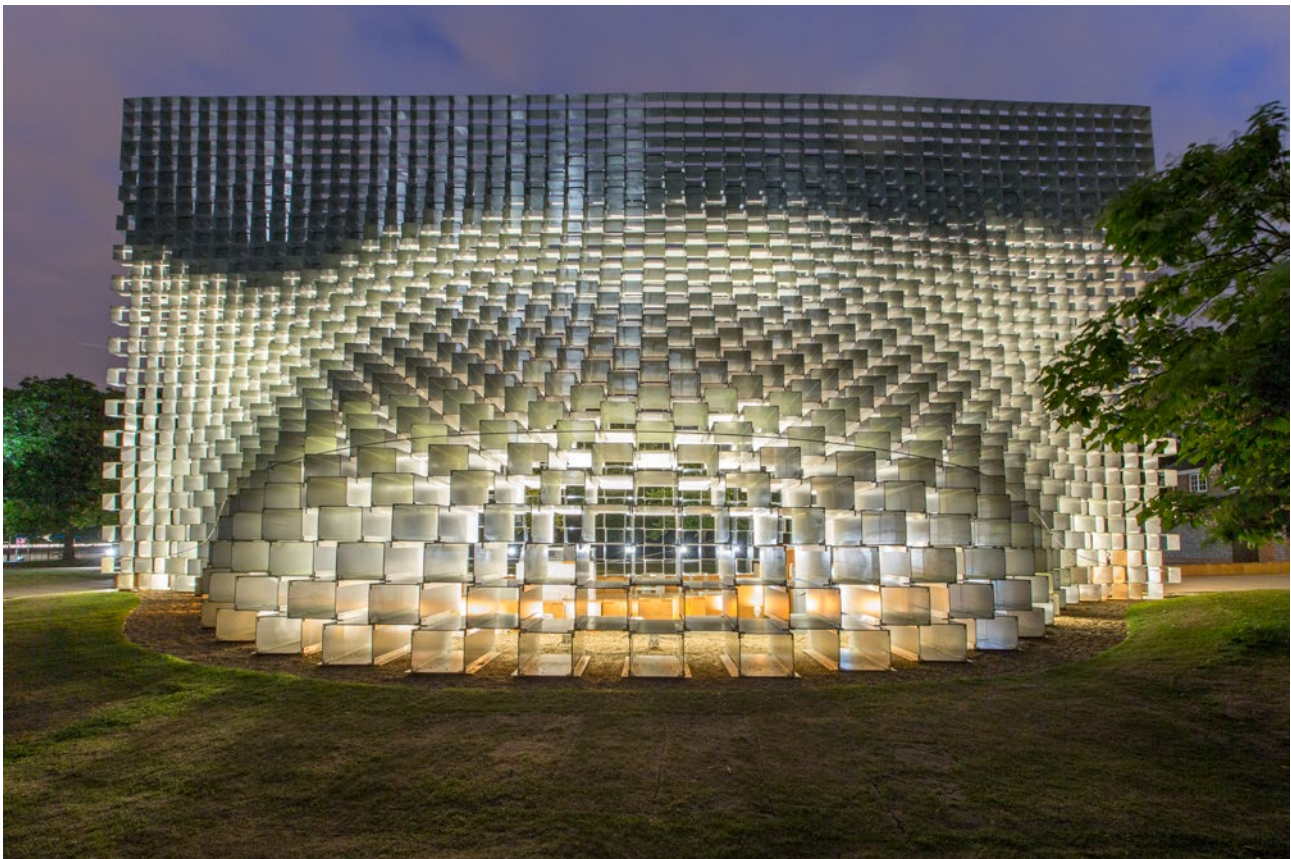
minimal presence, yet delivers a punchy 731 lms while consuming only 10w of power. The wide selection of beam angles and distributions available with the acdc PLAZA 20 was essential to customising the design to suit the complex geometry as well as taking care of the comfort of visitors. The lockable bracket with marked angle increments was also invaluable for onsite focusing and adjustments, ensuring that once commissioned the lighting would remain fixed in place.

The lighting enhances the geometry of the structure

The final result of the lighting approach is striking. In line with BIG’s vision, the lighting enhances the sculptural nature of the Pavilion beautifully, while providing the necessary functional light to create a safe and pleasurable visitor experience.

Maria Sole Bravo, Senior Designer, BIG commented:

“It was important for us that the lighting at night would enhance the geometry of the structure and be coherent with the perception of the pavilion during day time. The fibreglass boxes become thinner higher up in the building, making the structure lighter and more translucent. Following that same expression, the lighting from the ground makes the lower boxes brighter and allows the top of the structure dissolve in the darkness. Zumtobel and acdc’s installation achieved that effect successfully by carefully placing and orienting each one of the luminaires.” ■



Big River Crossing

Somerset, New Jersey

Photos and Text: Philips Lighting



Philips Lighting (Euronext Amsterdam ticker: LIGHT), a global leader in lighting, today announced a state-of-the-art connected LED lighting system to be unveiled on the Big River Crossing as the finale of its grand opening celebration on October 22, 2016.

Spanning nearly one mile in length, Big River Crossing will be the longest public pedestrian/bike bridge across the Mississippi River. The new lighting installation will allow the region to showcase spectacular light shows and stunning dynamic effects, creating a center of activity for the local community and visitors while enhancing the vibrant waterfront and encouraging further development.

“Over the last century, the Harahan Bridge has been a centerpiece for the Memphis metropolitan area, its citizens, visitors and local businesses. Revitalizing the bridge and adjoining Big River Crossing through dynamic lighting experiences will ensure its role as a source of great pride for our city and the region for the next hundred years and more,” commented Mayor Jim Strickland.



The installation will feature more than 100,000 Philips light points including Philips Color Kinetics ColorGraze Powercore MX4 luminaires. These connected luminaires offer an expanded palette of more than a billion intensely saturated colors or finely tuned pastels and hues in a variety of beam angles so that the full volume and depth of the bridge will be showcased. These capabilities allow the LED lights to produce hundreds of possible configurations and light distribution patterns to create static displays or dynamic color shows that can be programmed to commemorate special events, holidays and important civic causes.

The installation is further enhanced by Philips ActiveSite System, a cloud-based connected lighting platform that provides remote monitoring and management



capabilities to ensure operational efficiency and the ability to program the lights without being tethered to the bridge. Historical analysis and reporting tools also offer unprecedented insight into system operations, allowing system managers to evaluate and optimize performance.

"Technology is radically transforming the way public spaces are illuminated while also helping to contribute to the economic, social and cultural prosperity of the local community," said Amy Huntington, CEO of Philips Lighting Americas. "This dynamic lighting system featuring high quality, energy efficient LED lights is designed to enhance tourism and community impact by reimagining how people experience the iconic boardwalk." ■



Dior Miami Façade

Miami, USA

Design: BarbaritoBancel architects

Client: Christian Dior Couture

Type: Commercial – Retail

Location: Miami Design District, Florida

Year: 2014-2016

Building Area: 700 m²

Facade Surface Area: 1000 m²

Lighting Design: Metis Lighting

Local Team: Bromley Cook Eng. & Store Q

General Contractor: Twenty-two group

Material Specification: UHPC – Ultra High Performance Concrete with marble powder and a TX active surface by Styl Comp



The new Dior Flagship designed by the French-Italian firm BarbaritoBancel architects in the Design District of Miami is honoured by the American Architecture Prize 2016, an international award, which every year, rewards the best performances worldwide. Miami Design District is a new area located in the North of Miami, where art, design, fashion and luxury meet.

The art galleries and exhibition spaces are intertwined with the high end and luxury boutiques, in which we find the cultural and artistic dynamism in creatively designed spots. It is in this stimulating context that Dior summoned BarbaritoBancel architects, to design its new corner building with the desire to transpose the atmosphere of the historic Parisian address of the 30 av Montaigne to the heart of Miami.

The principal stake of the project: design a building to Dior's image. The first step of the architects was to define and to gather the values that constitute Dior's identity: Elegance, tradition, creativity, nobility, innovation, know-how, wonder.



From these values, common to haute couture and architecture, emerges a duality on which BarbaritoBancel architects worked. The haute couture is linked to fashion, to the ephemeral and needs to renew itself continuously. Architecture transcends trends, and its image needs to outlive time that goes by and continue to represent Dior's spirit in a sustainable manner.

The facade

Pondering on these values along with the continuous exchange with Dior's president, Sidney Toledano and his team, led to a refined design of sculpted volumes evoking a voluptuous fabric.

The facade imposes itself by its elegant design, large curves in white concrete create clear pleated forms between which the boutique's spaces slide in. The nobility of the smooth and sleek surfaces is given by a contemporary material made of extremely dense concrete with marble powder.

The facade plays with the sun in an alternation of light and shadow along the day. The curves overlap up to drawing, at the top, a tight arc, in a thrust towards the sky.





Dior

Dior

Dior

Dior

DIRECTORY





Dior

Dior



The interior spaces

The interior spaces participate in the movement of the facade. The showcases appear between the pleats and the planes retreat and open more firmly to shelter the passer-by and invite him to enter. Rich interior spaces succeed each other, lit by a grazing natural light created by the more generous movements of the volumes of the facade. At the last floor, the curves space out more to give access to a terrace garden, facing south.

Hence, architecture and haute couture unite in the common desire to seduce, and perpetuate the spirit and history of the Dior house and the image of a sunny, dynamic, young city, heart of contemporary design.

About BarbaritoBancel architects

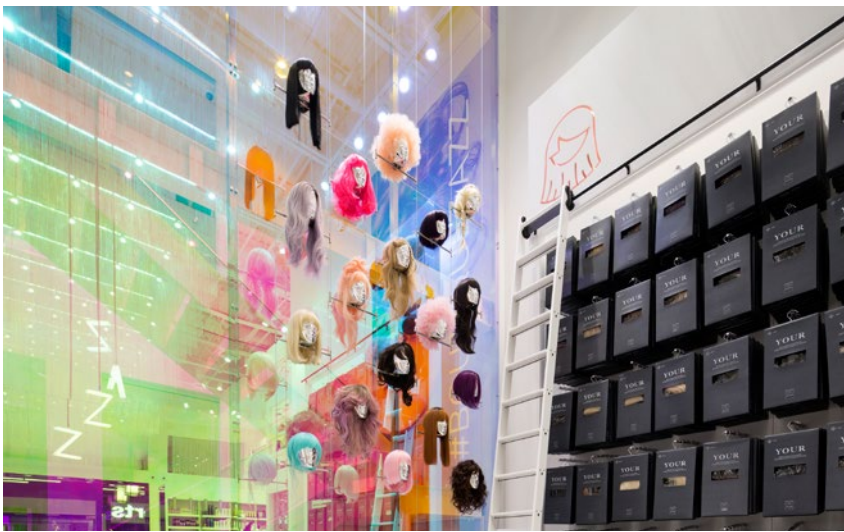
In a shared desire, Ivana Barbarito and Benjamin Bancel create their firm BarbaritoBancel architects in 2011 after more than 10 years' experience, where different life courses and complementary insights are united by the common desire to renew at each new project, the pleasure of architecture, for the thinking of space designed by light, for the design, teamwork, encounters with clients and artisans, experimentation with new techniques and materials. A continued transformation looking for the balance between rigour, fantasy, sensitivity, method, discussions, listening, and many drawings. ■

Zazz Boutique

Quebec City, Canada

Photos and Text: Hatem+D Architecture





The multidisciplinary and creative firm Hatem+D signs the entire concept of the first Boutique Zazz located in Quebec City.

Involved in the strategic positioning of this new banner, the team Hatem+D created a new concept, fully designed the branding and the web content in a complete and all inclusive design for the boutique.

“Zazz was a project in which we could dare to have fun, both in the concept and its substance. It’s uncommon to work on a project with a strong identity like this one. All designs and architectural decisions yield to an inspiring and feminine environment. For Zazz, we wanted an euphoric, girly and sparkling atmosphere” says architect Chloé Barabé.



The firm wanted to create a customer experience in which paths lead them through stations displaying different product arrays. The general concept is built around the linearity of hair. This vectorial concept is reinforced by custom-made chain curtains that divide different sections of products, thereby creating a distinctive feature. Those curtains are also used on the mezzanine to give privacy in an area reserved for hair and wig stylists. Every element is custom built, from furniture to Zazz’s lighting and other unique signage for the boutique.





Every detail is analyzed: the white, the iridescence, the transparency, the linearity. Shapes, colours and textures are used to put emphasis on products and focal design points like the front desk and the stairwell. The ceiling height was used to purify the space. Suspended and backlit fixtures, displays that reach the ceiling, a creative ceiling finish, and many mirrors have been used in order to create a volume effect.

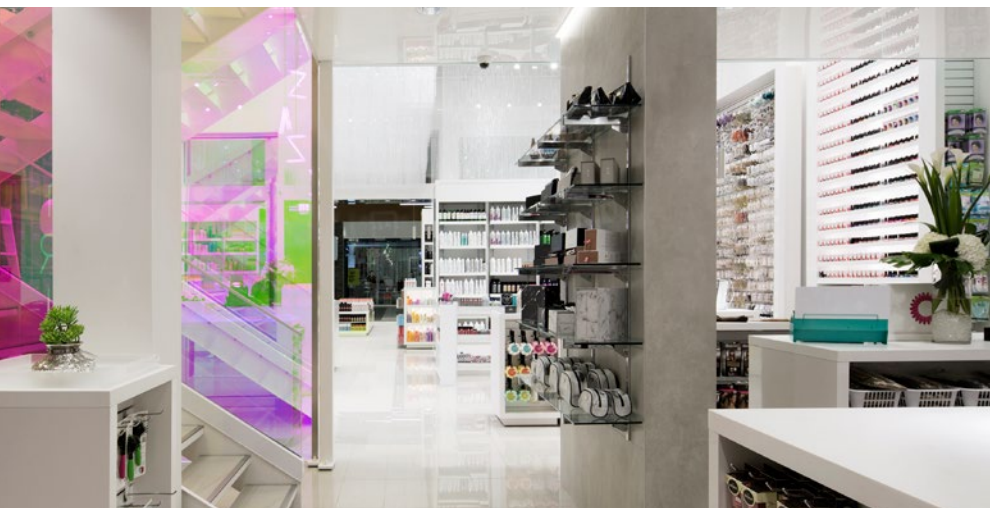
Because of ingenious lighting, an impression of effervescence is perceptible throughout the store. From the outside, the shining and glamorous design of the mirror arch and the full-height window boutique invites the customer in.

Feminine, strong, colourful, glamorous, creative and sparkling, the boutique keeps to its promises and distinguishes itself. Zazz speaks in synergy in every aspect. Inspiring and effervescent, the boutique Zazz incarnates the concept of architectural branding: a unique and recognizable space where the coherence of architectural aspects crystallizes the value of the brand.

About Hatem+D Architecture

Hatem+D owes its renown to its creative force. Strategic thinking and creativity come together in a global communication approach. Hatem+D makes brands come alive. Their approach favours the integration of every media a brand will need to express itself. They offer "turnkey" solutions that include a complete coverage of the brand. Hatem+D call this approach "integrated creativity".

The firm strongly believes that architecture is a part of corporate identity. Their unique creative approach consists of promoting the power of multidisciplinary conception by uniting architects and communication experts to create a brand supporting dynamic. In doing so, architecture - as we know it - gets completely reinvented. ■



For The Future

Frankfurt, Germany

Photos and Text: **Waldmann**



With one of the largest increases in the product range that Waldmann has ever experienced in the company history, it positions itself as future-proof in the dynamic lighting market. The company now offers a comprehensive range for lighting in the office workplaces. Together with Waldmann, planners can now implement holistic workplace-specific and room-specific lighting concepts in the office sector, benefiting thus from the extensive experience of the company in the area of biodynamic lighting.

At the leading trade fair Light + Building, Waldmann presents its strategic reorientation. In this context, the company unveils its substantially expanded product portfolio for the office sector and numerous other new products. The new alignment is the result of an intensive development process that the company has implemented in the past two years. "With the repositioning and the biggest increase in product range in the company history, we present our future-proof orientation in the dynamically changing lighting market," explains Markus Wiedmann, Managing Director. "In this market, high-quality, innovative and holistic lighting solutions from a single source are in demand now and will also be in the future for designing modern working environments. Waldmann addresses this need by offering a comprehensive product portfolio and combining the core competence of biodynamic light with maximum energy efficiency. Furthermore, we also focus on intense cooperation with specialist planners whom we offer comprehensive support in their work."

At Light + Building, Waldmann therefore presents new and established products for office workplaces, which optionally may also be used as biodynamic lighting. Even in the future, Engineer of Light will bring further solutions to the market with the aim of being a full-range provider of lighting for the entire office building.

Product Portfolio with Attractive Price-Performance Ratio

The Waldmann luminaires for equipping large office spaces such as open-plan and multi-staff offices are impressive because of a strong



price-performance ratio. In addition to the free-standing, desk-mounted and task luminaires, the expanded product portfolio now also comprises various suspended, integrated and mounted luminaires. The portfolio also includes the new luminaire family IDOO with the LED suspended luminaire IDOO.pendant, the linear system IDOO.line as well as the integrated luminaire IDOO.fit. A new suspended luminaire has also been added to the product family LAVIGO, which was introduced in 2014. In combination with the proven light management system PULSE VTL from Waldmann, the new luminaires can display their full power. It facilitates the implementation of biodynamic lighting solutions that imitate the course of the daylight and thus enable office workers to experience natural light in the interior spaces.

Partner for Professional Light Planning

Waldmann does not only focus on a significantly expanded product range, but the Engineer of Light also offers extensive personal project assistance and comprehensive product information – both online and in printed form – to optimally support specialist planners in implementing holistic lighting solutions. To this end, the company has further improved the products pages on its homepage as well. Thanks to the clear structure, all important information can be found quickly and easily. Easy access to luminous characteristics, descriptions, CAD and image data facilitates the work of specialist planners. In addition, Waldmann also offers a new lighting calculator, a practical tool for initial orientation: specialist planners can simply enter online the room data and determine the required number of luminaires for the desired illuminance, among other things.

Professional light planning benefits from the extensive experience and comprehensive expert knowledge of the company, which is a pioneer in the field of biodynamic lighting. As a reliable partner, Waldmann supports planners with expert advice, intelligent lighting solutions and suitable lighting components, combining optimum viewing conditions for working people with highest energy efficiency. Maximum utilisation of the natural light by means of corresponding sensors, the use of presence detectors and the connection to modern building management systems increases profitability. Operating devices and lighting modules are impressive because of their ease of installation, which is based on the principle of Plug & Light. This offers maximum flexibility and the option of adapting lighting solutions to changing requirements. ■

Issey Miyake

Antwerp, Belgium

Photos and Text: Zumtobel Group





Unique shopping experience

The Issey Miyake store presents itself as a shining jewel from outside. A charming contrast is formed by juxtaposing the historic facade with the straight lines of the glass frontage and the modern passageway that leads through to the courtyard. Purism and transparency dominate the interior. This effect is further enhanced by the custom-made furniture crafted using white concrete and sand-blasted glass. This is where the miniaturised MICROTOOLS modular LED lighting system accentuates specific items and features. Enthralling lighting effects designed to follow a subtle dramatic scheme draw attention to the store, creating a feel-good atmosphere and helping extend the amount of time that the customer is likely to spend browsing.

Even the shop window presents itself as a showroom. Dynamic light with various brightness levels gives the impression that the distinctive Issey Miyake mannequins are actually moving. Each dummy is highlighted by a pair of accent spotlights from the INTRO lighting system, which is

The hard work has definitely paid off for Gustav Bruynseraede. He has always been fascinated by the unique technoid style of Issey Miyake. The Japanese clothing designer and founder of the fashion brand that bears his name is regarded as a true visionary, drawing inspiration from art, architecture and the people he meets. Like no one else before him, Issey Miyake is able to seamlessly combine tradition and innovation, purity and colour, nature and culture, artistic craftwork and advanced technology. Even though he is no longer involved in the day-to-day operational business, Issey Miyake still insists on approving the new designs and defining the brand identity.



fitted flush into the ceiling. One spotlight with a focused distribution and one with floodlight characteristics offer the optimal combination. This vibrant show attracts the attention of passers-by and draws them into the store, where the same staging concept – albeit somewhat less theatrically – puts the “catwalk” mannequins centre stage.

The white frameless driver modules of the INTRO system fit adroitly into the ceiling, helping simultaneously to ensure sufficient general lighting and to focus attention on the latest collections. Here the dramatic effects differ significantly from conventional lighting solutions. The shop is divided into several zones, which use a network of motion sensors to respond interactively to customer movement in the store with subtle changes in the brightness levels. In this way, customers are escorted by gently dynamic light from the entrance all the way through the clearly defined areas of the world of Issey Miyake. A warm welcome is thereby unconsciously conveyed, raising the likelihood of people spending more time in the store and leading to greater consumer enthusiasm.

The design of the four changing rooms, finished off with four round PANOS infinity downlights, invite customers to try on the designer items. The warm-toned ambient lighting is normally dimmed to 50% luminous flux. When a customer enters this area, a motion sensor detects movement and the lighting solution is adjusted accordingly, creating a feel-good atmosphere. The flattering lighting scenario is further enhanced in the hallway area with the mirrored wall. Square PANOS infinity downlights with tunableWhite technology and an EMOTION touch panel were specifically selected to markedly enhance the retail experience. Sales consultants can use the panel to adjust the brightness and colour temperature of the light to suit different items or to show certain pieces of clothing in a particular light. This ensures the natural presentation of materials and colours. In addition, the panel can be used to select a series of pre-programmed scenes for different situations, such as customer events.

The key to retail success

The consumer experience is playing an increasingly important role when it comes to both achieving success in the retail sector and convincingly expressing a particular brand message. Dutch scientist and artistic engineer Luuk van Laake, founder of the company digiluce, translated store owner Gustav Bruynseraede’s initial vision for the lighting arrangement into a conceptual design, crucially adding the element of interaction. This plan was then further refined and finally implemented by the Zumtobel team in Belgium.

It was vitally important to present the materiality and colour of the various collections in an expressive manner – for which the INTRO lighting system with TGRfashion technology is perfectly designed. The LED spotlights are characterised by an exceptionally good colour rendering of $R_a = 95$, which means that white, bright and also richer hues appear with exceptional quality and brilliance. Contrasting material properties are also clearly differentiated by the TGRfashion spotlights. The added value of this solution is clearly illustrated by comparing original garments displayed in light from



TGRfashion technology with those items classically illuminated with a uniform 3000 K colour temperature solution – which immediately impressed shop owner Gustav Bruynseraede.

The LED lighting solution from Zumtobel also scores highly when it comes to energy efficiency and lower heat transfer. Compared to the previous low-voltage halogen installation that Gustav Bruynseraede had used for the former multi-brand XSO designer store, the new lighting solution has a reduction of energy consumption of around 70 percent. This excellent energy saving potential does not yet even take dimming or factors such as the night-time scene into account, which delivers the same dynamic lighting effects with a lower brightness level, ensuring that the authentic image of the Issey Miyake store is perfectly showcased at all times.

The optimal blend of TGRfashion technology, a dynamic LED lighting solution and outstanding energy efficiency meets the high demands of Issey Miyake and was a key factor in helping Gustav Bruynseraede put his faith in the INTRO, PANOS infinity and MICROTOOLS lighting systems from Zumtobel. ■

L&E Proudly Introduces Its Newest LED Cob Tracklight

By L&E
www.lighting.co.th

Compatible with 1 circuit and 3 circuit tracks, the TRL 135 is available at 25W and 32W. Fully adjustable in all directions, this luminaire comes in beam angles of 14°, 24°, 36°, 45° or 60° in combination with an integrated phase cut dimming system. The presented model convinces through its versatility making it the ideal solution for any possible commercial indoor applications.

TRL 135 is available at a Color Rendering Index of either 80 or 90 and offered in various color temperatures including 3000K, 4000K, 5000K and others primarily designed to enhance the visual appearance of food products. To put the focus on the essential –the item to be lighted, design and housing color range, which comprises black and white, have been kept minimal and discreet.

A variety of distinct filters such as clear glass, frosted glass and spread lenses can be optionally added. The TRL 135 model is best suited for merchandise and display purposes and fully unfolds its color quality and optical enhancement potential within the spaces of retail stores, supermarkets, museums, etc.

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 during that time.



Project Credit: Robinson Department Buriram, Thailand

Lutron Unveils Energi TriPak™ That Cuts Lighting Energy Usage by 60%

By Lutron Electronics
www.lutron.com



Lutron Electronics Co., Inc., the world's leading lighting control systems specialist, has launched Energi TriPak™ for improved comfort, convenience, productivity of space and the ability to reduce a building's lighting electricity usage up to 60%.

Energi TriPak is a simple, cost-effective, energy-saving light control for both new construction and retrofit solutions. It is a family of products which provides the ability to choose the components that meet any project need and create the best light control solution for any space. This family of wireless load controllers, sensors and controls communicate via radio frequency, allowing the system to be easily installed without any complicated programming or additional wiring.

Energi TriPak is ideal for applications like classrooms, conference rooms, private offices, hallways, stairwells, washrooms, and break rooms. In most of the buildings, lighting and HVAC systems are the largest users of energy. Lutron's solution Energi TriPak can reduce lighting energy consumption by up to 60% and HVAC energy consumption by 10% to 30% by offering wireless sensors that monitor occupancy and available daylight levels, and communicate that information to the load controller which can then adjust the lighting in the space to optimise energy efficiency.

The utilisation of Energi TriPak is beneficial to various aspects in our daily life. It allows teachers to tailor the lighting for all kinds of activities, including a perfect



lighting environment during presentations by turning off whiteboard lighting while maintaining enough light on the desk surfaces for students to take notes.

Apart from classrooms, Energi TriPak is also essential in a public space such as a hallway or a washroom. Since lighting is on continuously in hallways or washrooms even when the space is unoccupied, which takes up most of the time within a day, energy consumption can be reduced easily by more than 50% by using Energi TriPak with a Radio Powr Savr™ wall-mount or ceiling-mount occupancy or vacancy sensor.

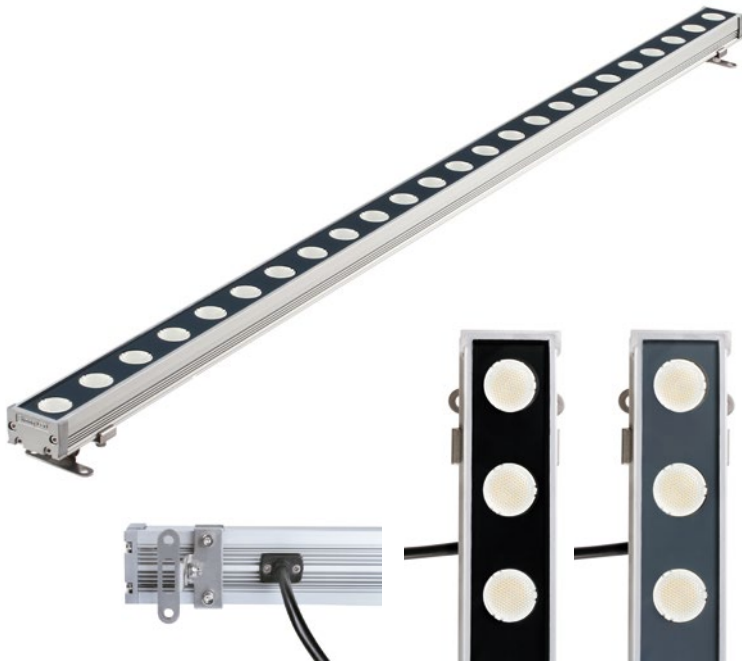
DS3B and LK2D from StrongLED

By StrongLED

www.strongled.com

DS3B

Flexible strands of attractive mid-size, low profile high brightness RGBW LED pixel node lights suitable for applications on building facade mullion intersections for a distinctive lighting decoration or mounted into node array formation to create huge full colour graphic display. Precision injection-molded case with clear or frosted flat or dome shaped UV-resist PC covers; weather-sealed for maximum life span and rated at IP67. Variety of clear or frosted; flat or dome UV-resist PC covers for flexible viewing effects and applications. Standard strand of 10 nodes at pitch 150mm and 300mm leader cables. Available in a number of LED configurations and customizable. Pixel pitch and lead cables. Single node mounts can be positioned individually to support complex structure geometries. Various mounting methods available. DMX control with auto-address setting.



LK2D

Elegant low profile high power LED linear luminaire for floodlighting, wall wash and wall graze applications to buildings, bridges, monuments. Light projection distance over 10 meters with choice of Cree or Lumileds LEDs in a variety of colours and beam angles to choose from. High-strength precision aluminum profile of high efficient thermal dissipation design with clear tempered glass diffuser and anti-glare shield. Customizable fixture color and length. Various stainless steel mounting brackets with up to 80° tilt angle adjustment for easy installation and light projection setup. Optional anti-glare shield. Seamless line of light when connected in cascade without dark spaces at joints. DC 24V input. DMX control. Brightness level of 256 and 10 bits contrast control for stable and smooth color transition and change effects. Preventive vent, waterproof connectors and rated IP66.

For more information, visit www.strongled.com.

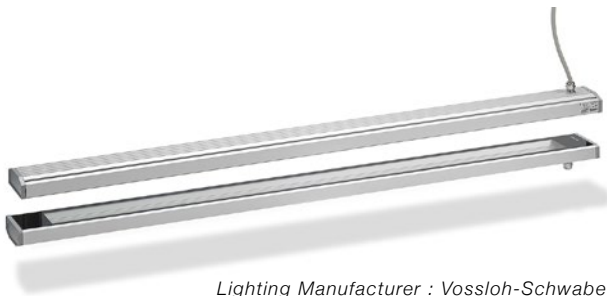
Lighting Solutions for Animal Husbandry

By Vossloh-Schwabe

www.vossloh-schwabe.com

Making Targeted Use of Spectral Lighting

When used in the field of animal husbandry, modern LED technology is not only more energy efficient than conventional lighting, it also gives farmers, the industry in general, universities and research facilities the means with which to exert targeted influence on the growth and wellbeing of livestock. Vossloh-Schwabe also conducts research into and develops new products for this field of application. In the area of animal husbandry, the factors of light quantity and the type of light are also decisive for animal wellbeing and health. Studies have shown that lighting programmes exert a positive effect on such things as milk yield, physical growth and reproduction. LED lighting can be tailored to suit the specific requirements of livestock and also provides uniformly bright light in enclosures. Integrating Vossloh-Schwabe solutions provides added value for your products such as increased growth rate, improved wellbeing, efficient production processes and importantly energy savings.



Lighting Manufacturer : Vossloh-Schwabe

Our many years of experience as well as numerous successful reference projects allow us to develop standard solutions. Our standard products are operation-ready or can be integrated into existing systems as individual components. In the form of the VS-L-0103, Vossloh-Schwabe has developed a versatile and efficient 1- to 4-channel control solution for animal husbandry. By making targeted use of spectral light, this solution makes it possible to optimise animal wellbeing and provides pinpoint control of the growth of livestock. As a result, intelligent light control lets you exert direct influence on yield optimisation and quality improvement.

Vossloh-Schwabe combines and tailors the latest COB technology with optics, drivers, sensors and control options to suit your specific area of application. By listening, understanding and implementing in close cooperation with our customers, we can plan, develop and manufacture solutions that are individually tailored to suit your specific project. From the first enquiry through the entire development process and right up to seeing your product through to



Photo Credit: Bukhanovskyy/Shutterstock

practical use, our engineering team is at your disposal as a personal point of contact. Furthermore, optical and thermal simulations go to optimise the final product in advance.

Every animal species needs a specific light spectrum to optimise the growth process or its wellbeing. The combination of selected wavelengths and special phosphorous formulations opens up the field of targeted spectral lighting for livestock. Our years of experience in the field of COB technology and the implementation of special spectral excerpts in the field of animal husbandry as well as in the field of general lighting enable us to respond to individual customer requirements and satisfy bespoke spectral light requirements.

Spectral LED lighting is used in the following fields:

- Livestock enclosures
- Small-animal husbandry
- Breeding enclosures
- Research facilities
- Climate chambers
- Field lighting (mobile facilities)

Vossloh-Schwabe continues to support and invest into future-pointing projects such as:

- High-tech farming
- City farming

YAHAM SafeGuard Series LED Industrial Lighting Solutions

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

Photo Credits: YAHAM Lighting

As a professional LED industrial lighting designer and manufacturer, YAHAM Lighting is continuously doing innovations in light output, efficacy and reliability for the complete line of high-specification lighting fixtures. The widely welcomed SafeGuard series is a typical example, and various installation methods are developed to meet more customers' requirements and lighting applications.

- 125lm/W high efficacy for outdoor lighting
- Luminaire lumens up to 22500lm
- 60W/90W/120W/150W/180W available
- Beam Angle: 60°×90°, 80°×150°, 85°×150°
- High performance Power Supply, Reliable and High Efficiency
- CCT:5000K (2000K,3000K,4000K,6000K optional)
- Color Rendering Index: Ra75 (Ra85 optional)
- 5 years warranty
- LED lifespan > 100,000 hours (TM-21 L70)
- Electrical: 100-277Vac/277-480Vac, 50/60Hz, PF≥0.95
- Black, grey, white lamp color optional
- Motion sensor optional
- Daylight sensor control optional
- 1-10V/PWM dimming control optional
- Suitable for parking lot, mansion outdoor scene, gas station, stadium and other lighting purposes.





lo

By Arkos

www.arkoslight.com

“lo” is a LED spotlight miniaturised in a fixture that is so small that it fits on the palm of your hand. Designed for accent lighting applications, its small dimensions mean it can be fitted in display cabinets, shop windows and small places without generating an invasive presence on the scene.

Created to be placed on a track, it offers all the features of concentrated LED spotlights with a minimalist and hyper-reduced design.

“lo” also has a version to be used individually on surfaces. With the same directional and rotational versatility as the track variation and all of its features.

“lo Floor” does not depend on fixed installation and can be placed wherever there is a socket. Two sizes to undertake accent lighting functions from the floor or other horizontal planes.



CITYSPIRIT

By Philips

www.philips.com

This street light is the perfect integration in the urban architecture, with luminaire, mast and bracket designed as an integrated concept. It matches excellent urban lighting performance during dark hours with outstanding aesthetics during the day. The wide choice of masts, brackets, lanterns and optical elements offers complete, elegant solutions for every situation.

LUMINATION

By GE Lighting

www.gelighting.com

Higher lumen options, exceptional energy efficiency and sleek modern style are just three reasons to choose GE's new Lumination™ TS Series LED Accent Lights. GE's LED track lights make it easy to achieve specification-grade accent lighting in any sales environment. With flood and spot versions, multiple beam options and three choices of color temperature, creating bright, more energized stores for customers is a cinch.





YAHAM'S INDUSTRIAL LED PANEL LIGHT

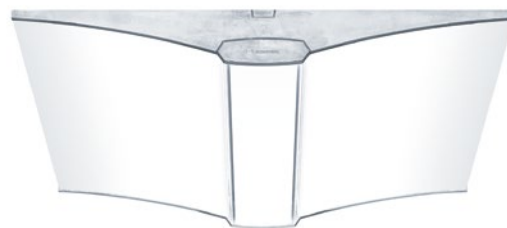
By YAHAM Optoelectronics Co., Ltd
www.yahamlighting.com

- 120W, 180W, 240W available
- Light efficacy up to 140lm/W
- Wide and adjustable beam angle (160°~180°) ×120°
- IP65 protection rating
- Various cover optional: high transparent, frosted, 90° PMMA cover, etc.
- Apply to workshop, warehouse, airport hall, exhibition hall and other lighting purposes.

HUE

By Philips
www2.meethue.com

There is more to lighting than illumination. Therefore Philips created Hue System, the personal wireless lighting system. With a simple exchange of a light bulb, plug-in of a small box and an app, you can create any type of lighting in the room to cater to your mood. Philips hue signals a new era in home lighting both in the way we think about and experience light in our homes.



MELLOW LIGHT

By Zumbotel
www.zumbotel.com

The new MELLOW LIGHT is far more than just an innovative LED luminaire. The sixth generation of this office lighting icon sets new standards when it comes to adapting lighting to suit the specific needs of users, drawing on extensive Zumtobel knowledge about how light affects humans on a visual, biological and emotional level.



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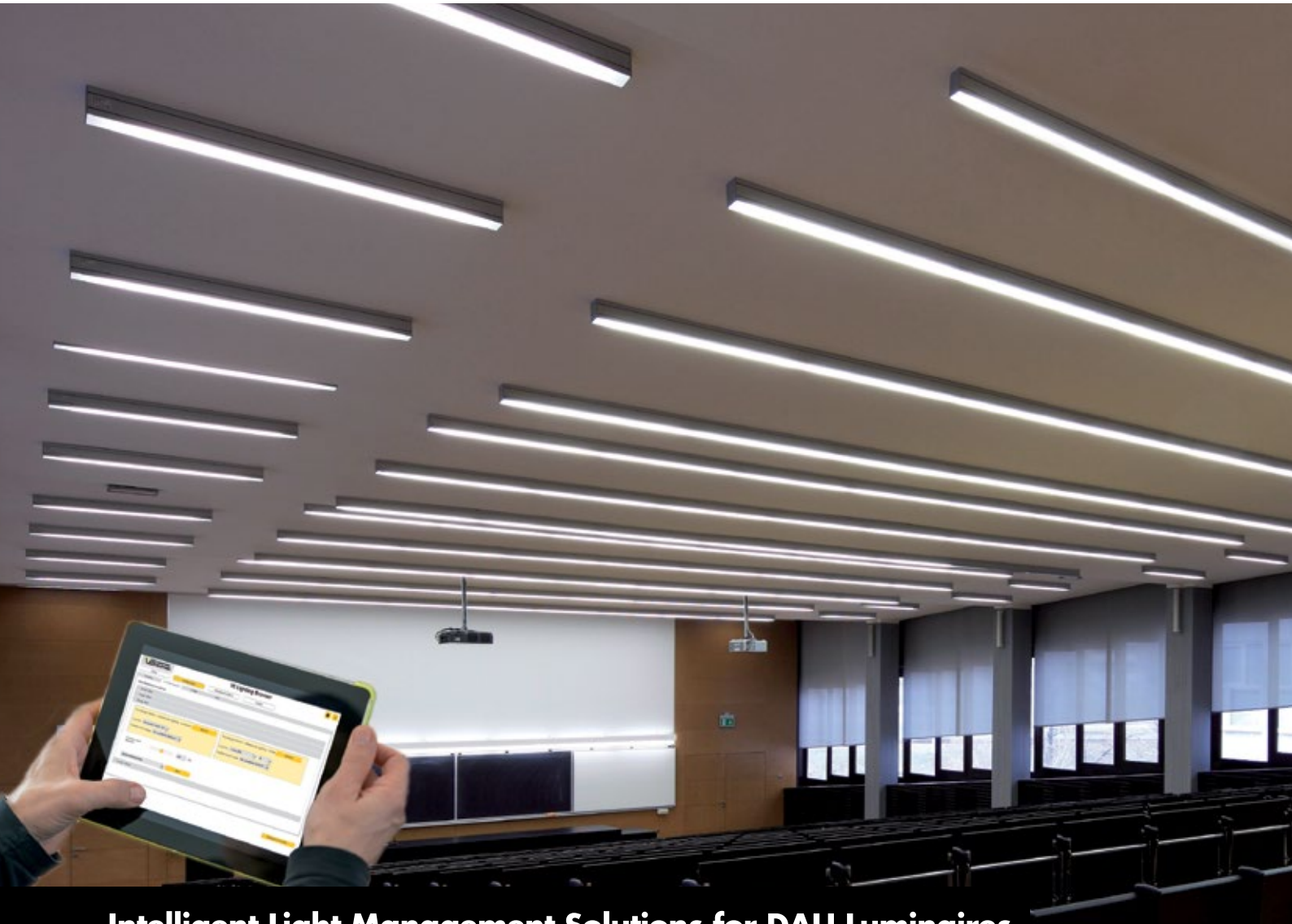
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For more information, please visit
www.vossloh-schwabe.com

■ XSW-E6 Wireless Light Controller

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