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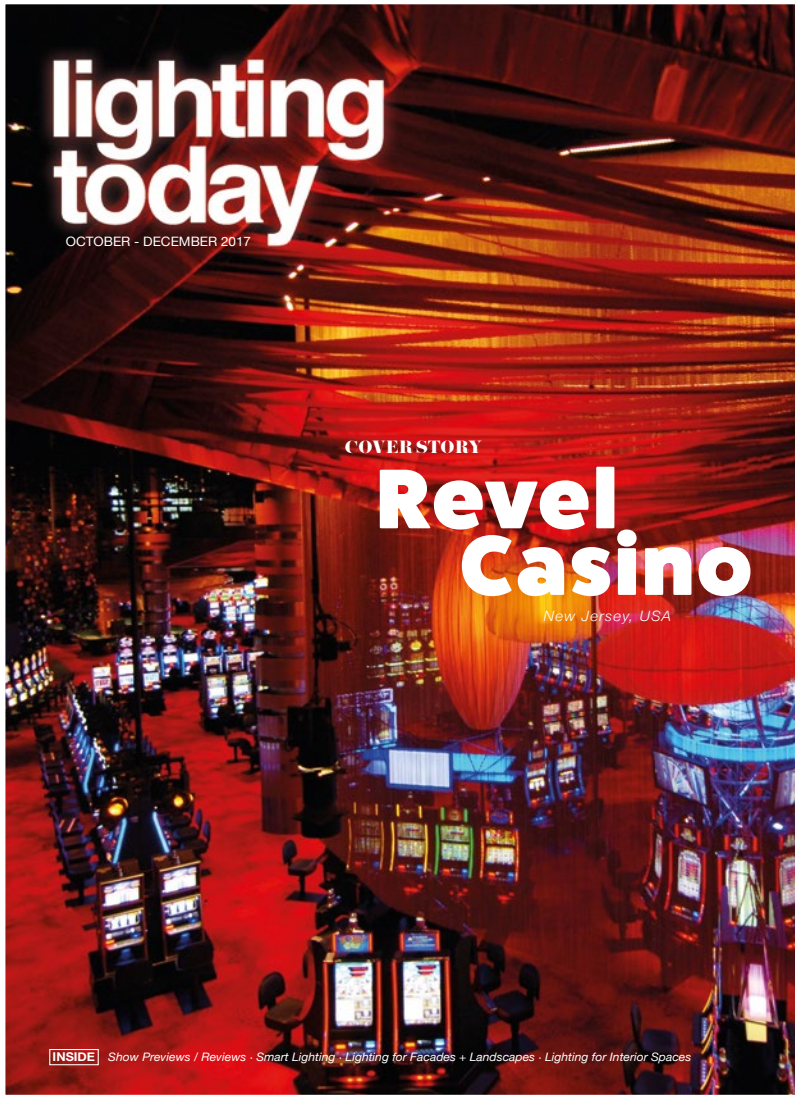
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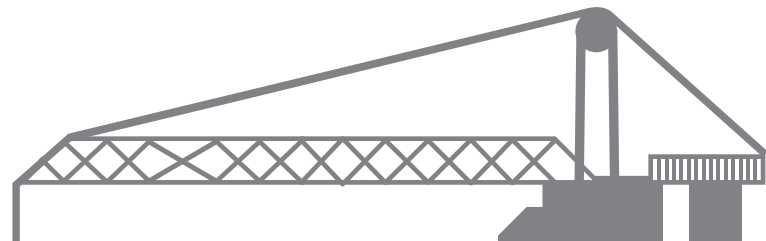
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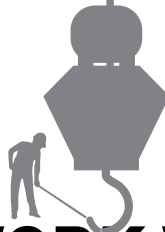
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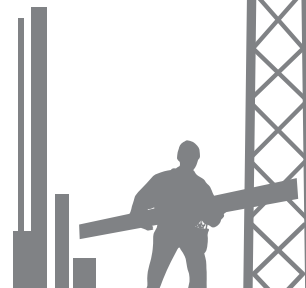
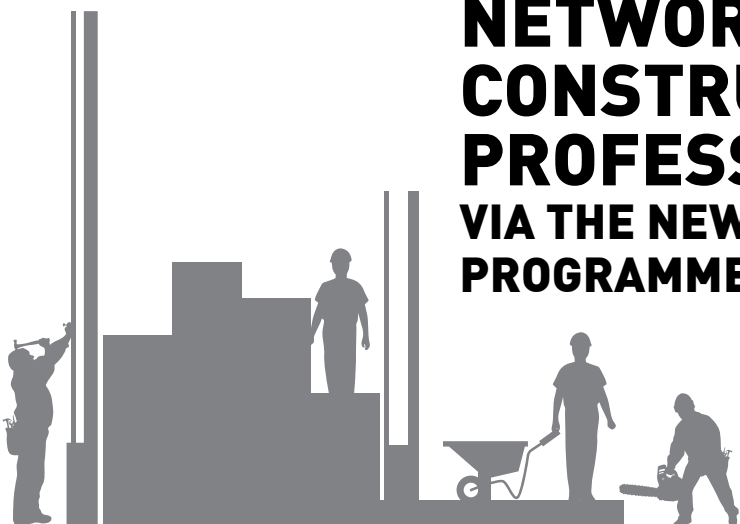
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Dear Readers,

2017 has gone by in a flurry! This is the last issue of *Lighting Today* for this spectacular year. We have explored a myriad of lighting features the past year and I hope they provided inspiration for your own design projects! Whether it was a new product from 'illumina Product Showcase' that you are now considering for an upcoming project, or a lighting design from 'Special Feature' that inspired your office, we at *Lighting Today* will continue to strive for better, stronger stories for you.

Our cover story features the incredible lighting masterpiece that is Revel Casino. Described as chic, sophisticated and as setting a new benchmark for casino resorts, Revel is garnering much praise ahead of its grand opening on May 25th. The US\$2.4 billion project is Atlantic City's most expensive casino ever. It is currently the largest construction project on the east coast of the United States and is destined to revive the gaming and tourism industry in this historic ocean-front city. Hop over to our cover story to see more.

For our smart lighting story, we delve into an interesting by Philips Lighting. The key findings from the report were shared with the United Nations (UN) earlier this week during the "Local 2030: Hub for Sustainability Solutions" Special Event held at UN Headquarters. During the presentation, Philips Lighting highlighted the need for high-caliber data to understand the value of LED systems and how its new partnership with WCCD is addressing this need in collaboration with cities around the world. Check out the story for the full report.

Have something lighting related you think we would love? Send it in! We welcome submissions and would be happy to feature pieces from loyal readers as long as it fits snugly into our theme. To end off, we wish you a brilliant end to this productive year and an equally fantastic 2018 ahead.

See you next year!

Nicole Lee

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ALWAYS EXPECT THE UNEXPECTED

Things never go as planned, regardless how well you plan it

As a lighting designer we are not only responsible for the conceptualising of our designs, the specification of the light fittings but also for the planning of its implementation. The more experience you have the better you are able to anticipate what may happen further along the line. It is very rare that everything goes smoothly without any surprises or unexpected happenings. I have had a few of these over the years...

Sometimes these are product related issues like the owners wife meddling with the design specifications thinking she knows better, with the husband obliging, ignoring the design experts recommendations... or finding that the lights already installed on the worksite had been "stolen" or had mysteriously disappeared. Then there is the case where we discovered that the specified lights had been replaced by look-a-like copies by the supplier, eventhough the client had been paid for the original as specified fixtures...yes a clear case of fraud, but it happens!

Then there are the travel related "surprises", being stuck in an airport due to delays, faulty planes or simply bad weather. I remember one day in Bali where the airport was shut down for half a day because the president was flying in! This happens all over Asia, the common man allways has to make ways for the "VIP's". Or the (in)famous ashcloud in Europe created by the Iceland volcano eruption that wiped out all air travel for days! A couple of years ago I was stuck in Northern China for a few days because a snow storm had paralised all land and air transportation. The airport chaos ensuing of people trying to get on the next flights out was certainly memorabel! Likewise being stuck on site following a passing typhoon has happened to me more then once!

One of my fellow consultants was ever caught between two rival gangs claiming ownership of the piece of remote land in the middle east on which a developer was buiding a property. The gang entered the site on horses shooting around, with one bullet shattering the front glass of one of the floodlights he was aiming! A harrowing moment. The gang disappeared quickly afterwards...after the police came and interrogated him he was released and got the hell out of there!

A recurring situation is that of your client getting into trouble at one point of time affecting the progress of the project. Most of the time it comes down to lack of money, insufficient budgets resulting in having to refinance or seriously re-engineer the project to meet whatever funds are still available. Feuding partners and shareholders can also have a damaging effect on the project outcome. You can imagine how court cases will affect the project!

By far my most "unexpected" client experience has to be the day I received a phone call that our client was arrested and put in jail! Just weeks after being awarded "entrepreneur of the year" he was picked up by the police as a key man in a multi billion dollar funding scam. The projects were obviously halted (at the time I was doing three projects with his company!), most of his assets seized...he was sentenced to one year in jail afterwhich he was allowed out on bail in the weekends. When he came out, somehow one of the projects was re-started and completed...it was rather akward to meet him in the weekends on site being on bail...what do you say...how was your time in jail?

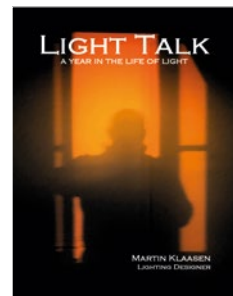
Forces of nature are the ones that are hard to predict and their results can be devastating. We all know the trail of destruction that tsunamis and various earhquakes around the world leave behind. The road to clean up and rebuild is heart breaking and takes years.

Just a few weeks ago I was personally caught up in a monster flooding that was totally unexpected and took everyone by surprise. We had all made the journey to the Guilin Mountains to do the final testing and commisioning of our hotel project in Yangshuo and celebrate its grand opening. Years of hard work had come to a very satisfying conclusion with a client and all consultants very happy with a magnificent end result. While it was a rainy season, rain was not considered a big issue, on the contrary water as a symbol of wealth and good luck was actually seen as a good sign! But this turned out to be a case of be careful what you wish for...

The opening ceremony was a very happy happening with fireworks and a late night after party and while the rain had come back in force and the river levels were rising dangerously, nothing seemed to indicate anything out of the ordinary. As scheduled we left the next morning to make our way to the airport, only to find our way blocked by flooded highways! We decided that it was best to return to the hotel and wait for the waters to recede...during the dayhowever the water kept rising and shortly after we had reached back the hotel the hotel was surrounded by flooded roads and land threatening all low llying areas of the hotel. Frantic efforts to sandbag the property turned out to be a delay in execution and by midinght the complete basement and ground floor levels was (ankle to knee high) under water. The happy opening mood from the night before had turned into a feel of disbelief and sadness. How was this possible? The property had beend designed to withstand flooding levels of 5m above the known historic highest levels recorded! Yet it happened! Totally unexpected!

As I write this column the damage to property and equipment is being assessed and a clean up is under way. It is antiapted this will take at least 3 months. As perhaps a sign of good fortune the flooding happened the day after the official opening, the day the hotels' insurance had kicked in...

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**'
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NEW FLARE Q+ ON GRAMMY WINNERS CLEAN BANDIT, AN EDM TOUR DE FORCE



Photo by Caitlin Molton, www.caitlinmolton.com

Grammy winners Clean Bandit are an EDM tour de force. Following their critically acclaimed appearance at the Isle of Wight Festival earlier this month, the band is billed at Glastonbury and other summer festivals around Europe through August. The American leg of their tour is scheduled for October. In large venues and small, 18 Solaris Flare Q+ fixtures are integral to the band's show.

Befitting a band whose music is inspired by the classics, the new Flare Q+ is the next generation of the world-famous, classic Flare. "We're using two sets of six for side washes, and seven units upstage, all with Kasper diffusers for a really clean look," says tour Lighting Designer and Programmer, Liam Griffiths. "I wanted the diffusers to hide the LED sources, which can be harsh on camera. I use the fixtures in two-pixel mode and as strobes. I've used Flares on almost every tour I've done and the new Flare Q+ is far brighter. Most of the time I actually find myself restricting them to 75%!"

Show Design is by Rob Sinclair, with the entire lighting package for the European tour provided by Entec Sound and Light of London. "We had been speaking with Paul Hartley at TMB about the new Flare Q+ and were aware of its power and potential," says Adam Stevenson, Entec's Assistant Head of Lighting. "When Sinclair and Griffiths specified Flare Q+ and Kaspers for the tour, it was a perfect opportunity to make the investment. The fixtures are everything we thought they would be and way more. Their increased output and versatility as a combination wash, strobe, and blinder, with the new quiet mode for theatre or studio use, make Flare Q+ ideal for a variety of applications and an excellent investment." Co-founded by Harold Pendleton who also owned the iconic Marquee Club in the sixties, Entec will celebrate its 50th anniversary next year.



Solaris Flares have become a standard worldwide. The new Flare Q+ has all the features of its renowned predecessor, plus the added benefits of Solaris' revolutionary Q+ Technology™. This new proprietary LED driver technology almost eliminates fan noise, while increasing brightness by over 40%: Up to an amazing 52,000 lumens in the classic 96-LED format, and 58,000 lumens in the new Flare Q+ LR 108-LED linear unit. In "Theatre Mode," the Flare Q+ is effectively silent, yet still 8% brighter than the original Flare. Of particular value in the rental market, all Flares now have a calibration function that allows matching of intensity and color between Flares of any vintage.

For more information, visit www.tmb.com.

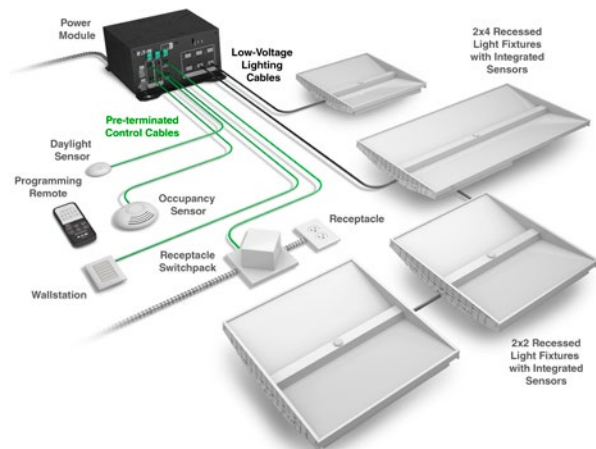
EATON OFFERS A SIMPLE LOW-VOLTAGE SOLUTION FOR POWER, LED LIGHTING AND CONTROLS THAT SAVES UP TO 40 PERCENT ON INSTALLATION LABOR HOURS

Power management company Eaton offers the Distributed Low Voltage Power (DLVP) system, a flexible and electrically efficient low-voltage system combining power, LED lighting and controls into one simple, energy code compliant, project solution by blending the benefits of both alternating current (AC) and direct current (DC) power distribution. The easily configured “plug-and-play” system reduces installation labor by up to 40 percent with a total installed system cost savings of up to 20 percent.

The energy-efficient, commissioning DLVP solution utilizes AC power for transmission and DC power for connectivity, offering a complete low-voltage, simple solution for applications with repeated spaces and matching configurations including schools, private and open commercial offices, conference rooms and healthcare facilities such as doctor’s offices, urgent care and rehabilitation centers. The light-emitting diode system was recently installed in the Cincinnati, Ohio-based offices of USGreentech, a company focused on the development and distribution of progressive synthetic turf infill for the sports field industry.

“Whether managing a single room or entire facility, customers and installers want a safe, cost-conscious, easy-to-configure system that simplifies code compliance,” said Quentin Mecklenborg, owner, Brooks and Sons Remodeling, who installed USGreentech’s DLVP system. “It took one person less than a day to install a 2,000 square foot space with lighting, from running the wire to the power module and connecting all the fixtures to working order versus traditional wiring, which would have taken two electricians over a day to wire the same amount of fixtures.”

“The out-of-the-box functionality of the DLVP system provides design-build contractors, installers and owners an LED lighting and controls solution that offers fast, simple installation with reduced wiring materials and minimal complexity,” said Chris Andrews, product manager, Eaton’s Lighting Division. “The sustainable solution allows customers the ability to control and program different lighting products based on occupancy and daylighting.



Our system provides energy code compliant lighting, receptacle and emergency controls capabilities without commissioning.”

The DLVP system components include a power module, available in 300 and 600 watts; traditional lighting control options including occupancy and daylight sensors; zone and scene wall stations that offer out-of-the-box control; and receptacle control switch packs to control receptacle plug loads.

The DLVP system includes hand-held programming and personal remotes. The programming remote sets sensor hold times and sensitivity, daylight gains by zone, sensor range and assigns fixtures with integrated sensors to control zones. The personal remote provides the user the ability to individually control zones and create scenes to customized their lighting environments.

The system is compatible with models representing Eaton’s most popular lighting product lines including Metalux, Corelite, Neo-Ray, Portfolio and Halo Commercial.

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DIFFERENTIATED LIGHTING DESIGN FACILITATES IN-STORE ORIENTATION AND ATTRACTS THE CUSTOMER'S ATTENTION WITH EYE-CATCHING PRODUCT DISPLAYS

As Germany's largest speciality market and supplier of gourmet foods, FrischeParadies GmbH & Co. KG operates stores in cities such as Berlin, Hamburg, Cologne and Munich offering restaurateurs and private customers a selection of over 12,000 delicacies. The differentiated lighting concept designed by ROBERTNEUN™ ARCHITEKTEN for the stunning architecture and interior design of the recently opened Stuttgart store of FrischeParadies GmbH & Co. KG gives structure to the spacious interior, emphasising distinct zones and making it easier for customers to find their bearings in the store. ERCO LED lighting tools direct attention onto the appealing fine foods presented brilliantly in light designed to unlock the customers' desire to buy.

ROBERTNEUN™ ARCHITEKTEN designed the new FrischeParadies store in Stuttgart as a striking complex of four separate clear-span halls, including the actual store with some 1,000 square metres of floor space and a ceiling rising up to ten metres under airy lantern roofs. Plenty of daylight, large glass sections on the front walls, an impressive timber framed roof structure made of untreated wooden trusses on exposed concrete walls as well as sealed concrete flooring lend the store's interior a modern, industrial character. The black track system with ERCO Optec spotlights installed at a height of 3.50 metres blends beautifully with the overall aesthetics. Using just one range of spotlights all throughout the new FrischeParadies store, the designers created a perception-orientated lighting concept based on directed accents for appropriate contrast and a calm ceiling appearance.

The black track system with Optec spotlights blend into the background, directing the attention entirely onto the appealing delicatessen and fine foods of FrischeParadies GmbH & Co. KG. Flexibly aligned along the track, the ERCO Optec spotlights effectively emphasise individual spatial zones and product displays, using warm white light (3000K) with narrow spot (6W), spot, flood or wide flood (19W) light distribution throughout the store, with the exception of the fish counter. Optec spotlights with wide flood distribution illuminate the cashiers' desk at 500lx, thereby complying in every respect with the prevailing standards required for workplace lighting.

In versions with different light distributions, the versatile ERCO LED spotlight meets all the requirements of lighting in high-end retail shops and restaurants – high-contrast accent lighting, floodlighting of individual areas or sharp-edged beams for striking effects. With innovative photometrics, Optec combines efficiency with visual comfort, attaining sufficient illuminances in the large store with only 19W per luminaire. Designed for maximum visual comfort, the lens system with precise projection guides the light exactly where it is needed.

Optec spotlights in the FrischeParadies store are equipped with 3000K LEDs, as warm white light optimally displays the quality of food – excellent colour rendering is essential particularly for fresh produce. The ERCO LED lighting tools used in the store offer superior colour rendering properties ($R_a \geq 90$) as a unique feature, guaranteeing that the products are shown in their true colours.

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Power management company Eaton introduces the Metalux Cruze™ LED Retrofit Kit, an energy-efficient solution featuring simple and quick installation for customers wanting to easily upgrade from fluorescent luminaires to LED technology without the need to install a new fixture. Saving on installation labor costs, the high-performing and aesthetically-styled LED system features the latest solid state lighting and driver technology for optimal performance, while providing energy savings of more than 50 percent compared to select fluorescent fixtures.

Inspired by the founder of Hudson Valley Lighting's grandmother, a painter and antique-finder, Mitzi mixes classic with contemporary, sacrificing no quality along the way. Designed with thoughtful simplicity, each fixture embodies form and function in perfect harmony. Think less clutter and more creativity.

Mitzi is a new tier of product. Designed in the Hudson Valley at the headquarters of Hudson Valley Lighting, these fixtures present captivating minimalist pieces. Hudson Valley Lighting's roots are simple fixtures with classic lines that serve specific functions. Mitzi is a world away from those fixtures, yet the core of the collection's focus on details and materials come from a similar place.

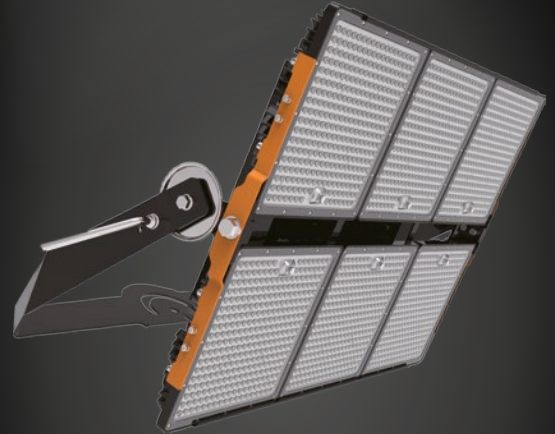
As light and contemporary as Mitzi seems, the brand was conceived with the utmost care given to the processes involved and as a result, Mitzi is a rich collection of chandeliers, pendants, sconces, flush mounts and portables. Mitzi was born to enhance everyone's home or apartment; providing attainable high design.

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41ST ANNUAL SHAREHOLDERS' MEETING OF ZUMTOBEL GROUP AG RATIFIES ACTIONS OF MANAGEMENT BOARD AND SUPERVISORY BOARD

The Annual Shareholders' Meeting of Zumtobel Group AG, held this morning at company headquarters in Dornbirn, ratified the prior actions of the Management Board and Supervisory Board of Zumtobel Group AG. The meeting was again well attended with 358 voting shareholders, or 64.04% of the company's share capital, present or represented. The actions of the members of the Management Board in the 2016/17 financial year were ratified. The prior actions of the members of the Supervisory Board were also ratified.

In his Management Report, CEO Ulrich Schumacher looked back on a successful 2016/17 financial year in which key milestones were reached in relation to the strategic redirection and restructuring of the Zumtobel Group. In the 2016/17 financial year the Zumtobel Group was able to more than double its net profit year-on-year to EUR 25.2 million. The Management Board aims to pursue the chosen course of strategic reorientation with full commitment during the current financial year. One focus of activities is on further improving the Zumtobel Group's cost position, for example through the construction of a new production plant in Serbia. Other core activities concern the expansion of the newly created service division, Zumtobel Group Services.

"The past financial year was a very successful one for the Zumtobel Group. The comprehensive restructuring undertaken in recent years has helped us achieve a significant increase in profitability. One key milestone for the company in the 2016/17 financial year was the market launch of Zumtobel Group Services (ZGS). This enables us to position the Group as a full-line supplier of lighting solutions and software-oriented services. We are convinced that we have laid stable foundations for profitable growth and that we will reach our growth targets", said Zumtobel Group CEO Ulrich Schumacher, summing up the past financial year.

In line with the recommendation of the Management Board and Supervisory Board, the Shareholders' Meeting approved the payment of a EUR 0.23 dividend per share



for the 2016/17 financial year (prior year: EUR 0.20). The dividend will be paid on 2 August 2017.

Other items on the agenda concerned the remuneration of the members of the Supervisory Board in 2017/18 and the election of KPMG Austria GmbH Wirtschaftsprüfungs- und Steuerberatungs-gesellschaft, Vienna, as auditors of the annual financial statements and consolidated financial statements for 2017/18.

The final item on the agenda was an election to the Supervisory Board. As Rüdiger Kapitza had stepped down from his seat on the Supervisory Board effective 5 June 2017 for personal reasons, a new Supervisory Board member had to be elected. Volkhard Hofmann was elected to his first term of office on the Supervisory Board. Hofmann, who holds degrees in Business Administration and Economics, as well as a doctorate (Dr. rer. pol.), served as a consultant with the Boston Consulting Group (BCG) for over 30 years, including more than 20 years as a partner and managing director in numerous international management positions. Over the past 20 years he has regularly advised the Zumtobel Group on a wide range of projects.

For more information, visit www.zumtobelgroup.com.

CHRISTIE VISUAL SOLUTIONS HIGHLIGHT URBAN DEVELOPMENT INITIATIVES AT THE CHANGCHUN CITY PLANNING MUSEUM



Christie®, a leader in creating and delivering the world's best visual and audio experiences, together with its Chinese partner Wincomn Technology, offer a fascinating look at the past, present and future of urban planning using state-of-the-art projection technologies at the Changchun City Planning Museum.

This newly-opened facility in the capital of Jilin Province features the country's largest exhibition zones, as well as the most advanced scientific and audio-visual technologies to be deployed in a museum in China. Comprising three floors, the turtle-shaped building is built by a renowned Chinese architect and showcases hundreds of plans, photographs, animated urban models and diagrams. They illustrate the history of Changchun's city building and development, and visions for the immediate and far away future. Among the highlights is a multimedia exhibit comprising projections on a massive sand table, curved screen and ceiling, which has a total area of about 1,100 square meters.

Installed and commissioned by Wincomn Technology, more than 10 Christie WU14K-M 3DLP® projectors are used to deliver an eye-catching projection depicting the intricate urban planning process in Changchun on the gigantic round-shaped sand table measuring 28 meters in diameter, while bright and detailed images on the circular ceiling are accomplished using Christie HD14K-M 3DLP® projectors mounted within the ceiling's structure. The 36-meter wide, 11-meter high curved screen in front of the sand table is lit using Christie Roadie HD+35K 3DLP® projectors, providing visitors with dazzling visuals and a highly immersive experience.

"The large-scale multimedia exhibit is a hemispherical three-dimensional space – the main attraction being the gigantic sand table projection that showcases Changchun's intelligent urban planning process in great detail, and this is complemented by projected visuals on the massive curved screen and ceiling," said Tony Chen, General Manager, Wincomn Technology. "This is a highly complex and unique sand table setup which is unprecedented in China, and we are proud to be able to deliver stunning visuals using Christie's high performance and dependable M Series and Roadie Series projectors."

Jason Pei, Deputy General Manager, Christie China, commented, "Changchun City Planning Museum is among China's most modern and high-tech museums that brilliantly illustrates the municipal government's efforts in

creating a sustainable, resilient, and smart city. We're very pleased that the museum has selected our cutting edge projection solutions to be installed and commissioned by our valued partner Wincomn Technology to showcase the city's impressive urban planning through bright and awe-inspiring projections on the large-scale exhibits."

Designed with the needs of users in mind, the Christie M Series is a powerful, compact and efficient line-up of 3DLP® dual-mercury projectors ideal for entertainment, government, higher education and live events. Available in a range of brightness levels and resolutions and backed by Christie's industry-leading warranties and support, the Christie M Series continues its legacy as the industry workhorse.

Producing 35,000 center lumens, the Christie Roadie HD+35K is a large-venue projector featuring native 2048 x 1080 HD resolution and 10-bit image processing, resulting in images that are simply stunning in size, brilliance and quality. The user-replaceable lamps can be automatically aligned at the push of a button and user-friendly controls make the Christie HD+35K easy to maintain and service. With built-in body handles for handling and rigging or an optional stacking/rigging frame, this tough, manageable projector is built for true roadworthiness, frequent transport, and quick setup.

For more information, visit www.christiedigital.com.

PHILIPS LIGHTING COMMITS MORE THAN 2,000 LED LIGHTBULBS TO NEA'S HOUSEHOLD ENERGY-SAVING CHALLENGE

Philips Lighting (Euronext Amsterdam ticker: LIGHT), a global leader in lighting, today announced its support to the National Environment Agency (NEA)'s "Energy-Saving Challenge", taking place from 1 July 2017 to 30 September 2017. It aims to distribute more than 2,000 energy-efficient LED light bulbs to participating households who sign up at the challenge roadshows.

This support is part of Philips Lighting's commitment to bring light beyond illumination to Singaporean households, and is part of an overall initiative to inspire the population to actively care for and protect the environment as well as adopt eco-friendly and socially gracious lifestyles. Under NEA's "Energy-Saving Challenge", households that manage to reduce their electricity use by 1 per cent or more could stand to win prizes worth more than S\$70,000 in total. Philips Lighting Singapore is the only lighting company amongst all Gold sponsors of the "Energy-Saving Challenge".

The Philips LED light bulbs committed as part of the competition are rated at 4 watts, and impart savings of up to 87 per cent over conventional lightbulbs. In addition to electricity savings, the non-visible flickering technology delivers light quality that is gentler and more comfortable to the



eyes – an important consideration given that many households have school-going children and myopia is detected at a younger age.

"As an organization that sees sustainability as both a promise and a commitment to the community, our support to NEA gives us the opportunity to inspire homeowners to be more attuned to their daily energy expenditure and eye health. We are proud to be playing a major role in this campaign, committing energy-efficient light bulbs to households that are taking charge in their life-long journey towards environmental sustainability and eye health," said Alok Ghose, Managing Director and Cluster Leader for Philips Lighting in Singapore, Malaysia & Exports.

Registration for the Challenge has opened and will close on 30 September 2017. Interested households can sign up for the Challenge online through www.cgs.sg or at any Daikin Proshops, Gain City Showrooms, NEA's Customer Service Centre at the Environment Building, Our Tampines Hub, and the Challenge roadshows. The Challenge is open to all Singapore Citizens and Permanent Residents who are current SP Group account holders and have opened their account for their residential addresses before 1 April 2017.

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

CHRIS LISLE DESIGN FOR JASON ALDEAN "THEY DON'T KNOW" TOUR INCLUDES ELATION LIGHTING



Chris Lisle has designed the production and lighting for Jason Aldean's current "They Don't Know" tour and is using Elation Professional gear as part of a large lighting package. The country music singer has been on the road since late April and is playing a variety of venues across North America through the summer and into the fall.

Jason Aldean has 19 country-chart number-one songs to his credit and was named Entertainer of the year by the Academy of Country Music in 2016. The "They Don't Know" tour and new album of the same name have been highly anticipated by his wide fan base, who admires the entertainer for the range of emotions in his shows and blend of musical styles, anything from traditional country to more upbeat rock, R&B and even rap.

"This is my first tour with the Jason Aldean camp," Production Designer Chris Lisle stated. "The entire Jason Aldean team has been great to work with - from Jason himself to management to the lighting crew. They are all top notch pros that put a lot of heart into what they do."

Lisle has over 350 fixtures at his disposal as part of an industrial design that centers on the hexagon as a symbol of blue-collar grit and toughness. The six-sided hexagonal theme, which plays into everything from trussing to staging

to video screens, gives a beautifully layered depth to the stage while providing a useful variety of angles from which to light the set.

The lighting package is being supplied by Bandit Lites and includes Elation ACL 360 Bar™ effect lights, Colour Chorus™ series LED battens and Cuepix Blinder WW4s, along with a host of other automated fixtures. "Due to the location and nature of the Elation fixtures, they are used often and in pretty much every song," Lisle says. "The ACL 360's are used to line the edge of the hexagonal wing pieces that extend off the stage left and right. They are a key part of the intros and solos of a couple of songs, and are especially useful due to their effects and rotation abilities."

When Aldean moves wide stage right or left to connect with his audience, he is fronted by a line of ACL 360 Bars that Lisle can use for color, eye candy or even beam effects. When playing the center of the stage, light from the ACL fixtures broaden the stage look by defining the stage's outer edges.

Lisle is using Elation's LED-based Cuepix Blinder WW4, which gives the classic incandescent look of the 4-lite banger but at a fraction of the power requirement. "The WW4's are in a few places," he says. "On the downstage truss behind custom hexagon-shaped fascia, on the fascias of the drum and steel risers, and also hidden behind the grills of a few of the guitar amps upstage center. We really love the WW4's as well as they give us that 'old school' 4-lite look, but with the power saving abilities of LED."

For color washing set pieces and a large curtain backdrop Lisle turned to two fixtures in Elation's LED (RGBA) batten series of Colour Chorus fixtures, the 4-foot long Colour Chorus 48™ and the six-foot long Colour Chorus 72™. "We use the Colour Chorus 48's to uplight under the thrust and the 72' to uplight the backdrop," he says. "The Colour Chorus line is super bright and mixes colors super well. We are very happy with the work they are doing and what we are getting out of them."

The "They Don't Know" tour design has met with acclaim along the way and Lisle praises lighting director Keith Hoagland as well as lighting crew chief Jonathan "Neppy" Houle for their role. The "They Don't Know Tour" continues through October 2017.

For more information, visit www.elationlighting.com.

KETRA INTRODUCES LINEAR LUMINAIRES, EXPANDING ITS OFFICE LIGHTING PORTFOLIO; ITS NEW LIGHT FIXTURES OFFER ATTRACTIVE SOLUTIONS FOR COMMERCIAL AND HOSPITALITY SPACES

Ketra, the leading LED manufacturer with the highest quality, most accurate natural light and integrated system of lighting and controls, announces a new line of linear luminaires, available this month.

Ketra's office lighting portfolio now includes the L3I Indirect Linear Pendant, L4R Recessed Linear, and the P4 Direct Linear Pendant. Every Ketra lighting product includes RGBW tunable-spectrum light, 0.1% dimming capability, lifetime color-point maintenance and wireless control. Ketra's products work cohesively to deliver a dynamic solution for natural light in the built environment.

"We created the linear products to meet the growing demand for stylish fixtures that produce high-quality lighting," said Nav Sooch, CEO of Ketra. "These products build on our portfolio of track lighting and downlights to offer greater design opportunities, while also supporting our overall mission to deliver natural light that makes people and places look and feel their best."

L3I Indirect Linear Pendant

L3I Indirect Linear Pendant: This indirect pendant offers clean up-lighting for commercial and hospitality applications, and it comes in several housing colors and customizable fixture lengths, guaranteeing versatility. Changeable optics ensure fine control over light output and spread width.

L4R Recessed Linear

L4R Recessed Linear: This four-inch recessed linear provides continuous lines of light for an architect or designer to highlight, contrast, or complement a space's features. Designed for ease of integration, the recessed linear installs neatly into ceilings or walls, with customizable trim styles and a variety of mounting options. It is compatible with multiple ceiling types, including t-bar and hard ceilings.

P4 Direct Linear Pendant

P4 Direct Linear Pendant: This direct pendant is an elegant, stand-alone pendant with a variety of finish styles. It's a perfect accent for task surfaces and common areas. The direct pendant offers soft direct view lensing or glare control louvres to ensure optimal visual comfort.

With a complete system comprised of lighting fixtures, controls, and software, Ketra delivers a natural light solution that heightens the aesthetic of any space while simplifying the construction and installation processes.

For more information, visit www.ketra.com/contact-us.



EATON INTRODUCES A HIGH-PERFORMING LED RETROFIT KIT ENGINEERED FOR QUICK INSTALLATION, SAVING ON LABOR COSTS AND SIMPLIFYING UPGRADES

Power management company Eaton introduces the Metalux Cruze™ LED Retrofit Kit, an energy-efficient solution featuring simple and quick installation for customers wanting to easily upgrade from fluorescent luminaires to LED technology without the need to install a new fixture. Saving on installation labor costs, the high-performing and aesthetically-styled LED system features the latest solid state lighting and driver technology for optimal performance, while providing energy savings of more than 50 percent compared to select fluorescent fixtures.

"The Cruze Retrofit Kit is engineered to make it easy for customers to upgrade their current lighting to energy-efficient LED technology," said Joe Semaan, director,

Marketing and Product Management, Ambient Products. "With no tools or new wiring required, our retrofit kit can be installed in less than five minutes, resulting in significantly lower labor costs than installing a new fixture."

Ideal for offices, healthcare, educational and retail applications, Eaton's LED retrofit kit utilizes the existing fluorescent luminaire's housing to save on the cost of purchasing a complete fixture, while also reducing material disposal cost in a retrofit project.

The highly efficient light-emitting diode system with an advanced optional design provides optimal light uniformity while delivering high performance efficacy of up to 138 lumens per watt. Available in 2-feet by 2-feet and 2-feet

by 4-foot sizes, four stocked lumen levels and two color temperatures at 85+ color rendering index, the product is designed to last 60,000 hours at 75 percent lumen maintenance.

The Metalux Cruze Retrofit Kit is available with a variety of control options including an optional integrated sensor system, optimized to meet energy codes for occupancy sensing and daylight harvesting. Factory wired for out-of-the-box operation using thoughtful default setting, the system reduces time and complexity with no additional wiring and adds lighting control without commissioning. If the application demands more, an optional handheld remote is available for field adjustments to make changes to one or more fixtures. The system achieves the lowest installed cost as compared to traditional control products.

In addition, the retrofit kit is available with Eaton's connected lighting systems, including the WaveLinx Wireless Connected Lighting System and the LumaWatt Pro Connected Lighting System powered by Enlighted. The WaveLinx wireless system is a simple to install "no new wires" system that eliminates the cost and complexity of meeting code and programming advanced control systems while providing a flexible and reconfigurable wireless topology for on the fly space adjustments through a mobile app. The LumaWatt Pro system powered by Enlighted allows enterprise customers to take advantage of the system's advanced LED lighting technologies and wireless



sensing capabilities to acquire actionable, granular data on lighting energy performance, space utilization, real time location services and building system integration.

The product is DesignLight Consortium® qualified, making it eligible for energy rebates.

For more information, visit www.eaton.com/lighting.

WORLD INTERIOR OF THE YEAR 2017: A FLOATING BAR, A JADE GREEN SPA, AND A FUTURISTIC MATHEMATICS GALLERY AMONG SHORTLIST

Projects from across the globe were entered across nine diverse categories, ranging from grand civic spaces and hospitals to transportation hubs, bars and shops. Hosted alongside the World Architecture Festival (WAF), the INSIDE festival attracts in excess of 2,000 attendees each year for its three days of talks, awards, exhibitions and fringe events.

Paul Finch, Programme Director of INSIDE World Festival of Interiors commented on this year's shortlist: 'Entry numbers exceeded 200 for the first time, and the increase in numbers was accompanied by an increase in overall quality. Many of the shortlisted designs concern the way that interiors help us to live, work and play more efficiently and more enjoyably. This is appropriate in a year when our conference theme is 'Performance', which will examine how elements like colour, acoustics and volume contribute to the success of new and refurbished interior projects. All the shortlisted designs will be presented live, so Festival delegates will enjoy





a series of mini-performances by designers, as well as conference speakers.'

Shortlisted designers reflect the global reach of the awards and include Eight (USA), Tomoro Aida and Aida Atelier (Japan), Francis-Jones Morehen Thorp (Australia) Carlo Berarducci Architecture (Italy), 3deluxe architecture (Germany), Arquitectura en Movimiento Workshop (Mexico) and KSM Architecture (India). Australian practice SJB celebrates being the practice with the most shortlisted projects, four in total, while fellow Australian practice BVN and Chinese practice Neri&Hu Design and Research Office achieve three shortlisted projects apiece.

All nominees will present their projects to distinguished international juries during the Festival to compete for one of the nine, coveted INSIDE category awards. Open to all festival attendees, the presentations are followed by a live exchange between the designers and jurors. The overall winner of the World Interior of the Year will be announced at an exclusive gala dinner on 17 November.

Additional highlights on this year's shortlist include:

Chinese practice Maos Design have been shortlisted in the Hotel category for their Nimman Spa in the basement of a shopping mall in Shanghai. The project was inspired by the lush tropical greens of contemporary Thai urbanscape. The designers adopted a white tone for the neutral and transition spaces, and various shades of green for the different spa spaces.

In the hotel category, WOW Architects Vommuli Island Maldives project is evident of a fresh approach to island resort design that complements and protects its

surrounding environment. The architecture and interior design of the resort are treated as extensions of nature itself and thus, each experiential zone of the resort speaks of the habitat it is in. The resort's striking Sunset Bar which is reminiscent of a Whale Shark has also been shortlisted in the Bars and Restaurant category for INSIDE 2017.

In the Civic, Culture & Transport category Zaha Hadid Architects have been shortlisted for their Mathematics: The Winton Gallery at London's Science Museum. Using computational fluid dynamics, the design responds to the curatorial ambition to present mathematics not as an academic concept, but as a practice that influences technology and enables the environment around us to be transformed.

German practice 3deluxe architecture have been shortlisted in the display category for their Butterfly Pavilion in Sharjah, U.A.E. The project, which is home to over 500 exotic butterflies, illustrates 3deluxe's design principle of 'Multilayered Atmospheres'. The crystalline glass structure houses, an undulating landscape made of thermoformed mineral material Krion, which adds intrigue for the visitor experience.

Amsterdam-based UXUS is commended in the Retail category for its store in the Tate Modern gallery extension in London, by architects Herzog & DeMeuron. A 'permanently temporary' retail experience that is designed to combine culture and commerce, the interior includes brightly-coloured cubbyholes for children and generous picture windows that ensure high visibility to both the gallery and the street.

For more information, visit www.insidefestival.com.

AURORA AND BMW PARTNER FOR FIRST SMART LIGHTING PILOT - BETA TESTING WITH NEW AXIO PLATFORM, POWERED BY GOOEE

Aurora lighting, the international LED lighting and technology organisation, has partnered with leading automobile manufacturer, BMW, to carry out its first smart lighting pilot scheme following the recent announcement of its new enterprise connected lighting platform, AXiO.

BMW is focusing on challenging and testing new experiences in which customers select, enjoy and purchase 'the ultimate driving machine'. With a customer's lighting design experience needs at its core, Aurora's projects and IoT division will be working in partnership with BMW to develop and test a customer centric retail lighting hardware platform and IoT experience, all powered by Gooee, to help BMW achieve its goals.

With the AXiO lighting platform, BMW will receive much more than just a bespoke lighting design. The car manufacturer will have the ability to manage and deliver an engaging end-to-end customer experience that immerses the user at the level they want to engage.

Aurora recently exclusively previewed its new smart lighting platform, AXiO, at EuroShop in Düsseldorf, revealing to the retail sector how the new system will deliver exceptional Value Beyond Illumination™.

Gary Bennett, Managing Director of Aurora Projects, says "With the AXiO platform, the lighting enables a new dimension of sensing and control. From enhancing a car's assets when



a customer approaches it to the delivery of immediate tailored information as they're walking through the door, the BMW customer experience will be very different to that elsewhere. Smart lighting has the potential to create significant competitive advantages."

AXiO is a smart lighting platform powered by Gooee – the IoT enabling technology that significantly enhances business intelligence and revenues by providing data on energy efficiency, human engagement and space optimisation, while giving users a range of dynamic toolsets and intuitive Man Machine Interface (MMI) features to manage the system from one location.

The smart lighting installation was completed with BMW in Munich the 1st week of May 2017.

Neil Salt, Managing Director of IoT at Aurora said "This is an exciting opportunity for Aurora's IoT division and hardware engineering teams to work in partnership with BMW and be selected for this innovative retail lighting project. They have some amazing concepts and it ratifies the development of Aurora's smart platform AXiO and the fantastic connected experiences that can be delivered by the Gooee ecosystem. With two highly technical and engineering businesses working in harmony, we really can demonstrate Value Beyond Illumination."

For more information, visit www.gb.auroralighting.com.

WORLD ARCHITECTURE FESTIVAL ANNOUNCES 2017 AWARDS SHORTLIST FOR ITS 10TH EDITION

The World Architecture Festival celebrates its tenth edition in Berlin in November this year, with the 2017 awards programme receiving more entries than ever before – 924, increasing by 18% from the 2016 awards. The awards shortlist revealed today is a truly international collection, extending to include architectural practices from 51 different nations and projects based across 68 countries.

All types and sizes of architectural projects are represented on the 434-strong shortlist, ranging from small family homes, to schools, stations, museums, large infrastructure and landscape projects.

Architects from the UK are most widely represented on the shortlist, closely followed by colleagues in the USA, Australia and Turkey, with entries from Asia up by a third year-on-year. With a significant rise in residential

submissions this year, organisers have introduced a new Villa category which includes entries from Brazil, New Zealand and India.

The architectural practices behind each project will battle it out in live judging sessions to be held at the World Architecture Festival in Berlin, 15-17 November. Each will be hoping to win their category and go on to compete for the ultimate accolades of World Building of the Year, Future Project of the Year and Landscape of the Year.

Major world architects shortlisted include Zaha Hadid Architects, BIG, Neri & Hu, Allford Hall Monaghan Morris, AL_A, Nikken Sekkei, Rafael Vinoly Architects, Grimshaw, and Heatherwick Studio. Many smaller practices will also take part to pitch against the big names.

Paul Finch, WAF Programme Director, said: 'This year's

shortlist has a hugely diverse geographic range. The use of water has been striking and there is evidence of real interest in climate modifications using novel techniques. Colourful architecture makes a strong showing and many of the smaller projects we have shortlisted will punch above their weight. We look forward to welcoming shortlisted architects to our tenth edition in Berlin this November.'

Presentations of shortlisted designs will be made to more than 100 international judges. The 2017 completed buildings 'Super Jury' which will decide the best of 18 category winners, will be headed by Robert Ivy, chief executive officer of the American Institute of Architects and former editor of *Architectural Record*; Nathalie de Vries, Director & Co-founder of Dutch practice MVRDV; Ian Ritchie, founder of London-based Ian Ritchie Architects; Christoph Ingenhoven, founder of German practice Ingenhoven Architects; and Wong Mun Summ, founder director of Singapore practice WOHA.

In addition to the awards, WAF includes a conference programme based around the theme of 'Performance'. And to mark its tenth edition, special awards will be given to projects which address the WAFX Manifesto by identifying solutions to key architectural challenges over the next decade, including climate change, an ageing population and new technologies.

WAF and its co-located event, INSIDE World Festival of Interiors, will welcome more than 2,000 of the world's leading architects and designers to Berlin for three days of conference programmes, awards, exhibitions and fringe events from 15-17 November. This year's edition will again be housed in Franz Ahrens' 1920s former bus depot, Arena Berlin.

World Architecture Festival is the largest, annual, international, live architectural event. It includes the biggest architectural awards programme in the world, dedicated to celebrating excellence via live presentations to an audience of high-profile delegates and international juries.

INSIDE World Festival of Interiors runs alongside WAF, with its own awards and conference programme. Delegates have access to both events.

WAF and INSIDE are organized by EMAP, publishers of *The Architectural Review* and *The Architects' Journal*.

Shortlisted entrants will compete for category prizes on the first two days of the three-day Festival, which will take place in Berlin on the 15, 16 and 17 November 2017. On the final day, category winners will present again to 'super-juries' of experienced and respected judges, who will decide on the World Landscape, Future Project and Completed Building of the Year Awards.

To celebrate reaching its tenth edition, World Architecture Festival organisers have this year launched the WAFX Manifesto. The Manifesto identifies key challenges which architects will need to address over the next ten years, including climate, energy and carbon; water; ageing and health; re-use; smart city technology; building technology; cultural identity; ethics and values; power and justice; and virtual worlds.

This year, WAF will identify buildings and future projects, entered for its awards programme, which also address the Manifesto issues. Special awards will be made to exemplary projects, which will be exhibited as part of a tenth anniversary exhibition featuring key winners from the past decade.

For more information, visit www.worldarchitecturefestival.com.



show preview

Hong Kong International Lighting Fair (Autumn Edition) and Hong Kong International Outdoor & Tech Light Expo

27th – 30th October 2017
Hong Kong Convention and Exhibition Centre (HKCEC)



The 19th HKTDC Hong Kong International Lighting Fair (Autumn Edition) will be staged from 27 to 30 October 2017 at the Hong Kong Convention and Exhibition Centre (HKCEC). The HKTDC Hong Kong International Outdoor and Tech Light Expo will also see its second edition from 26 to 29 October 2017 at the AsiaWorld-Expo. Last year, the two lighting events featured more than 3,000 exhibitors from 37 countries and regions, and over 50,000 global buyers, forming the world's largest lighting marketplace with enormous business opportunities, and an ideal platform to tap into the international market.

Worldwide Lighting Brands Shine

At the Lighting Fair (Autumn Edition), the Hall of Aurora comes to the limelight with top-notch brands around the globe presenting sophisticated collections of lighting accessories and applications. Buyers can browse a wide array of worldwide lighting brands, including BJB, BLAUPUNKT, PHILIPS, LEDUS, MEGAMAN and VIRIBRIGHT etc.

High Demand for Green Lighting

Consumers share growing concerns on environmental-friendliness and prefer energy-efficient, environmentally



friendly and longer lasting products. Australia, the United States, the Chinese mainland and the European Union have phased out the sale of incandescent light bulbs that cannot meet the minimum energy efficiency requirements. The demand for energy-efficient LED lighting products therefore remains keen.

The LED & Green Lighting zone at the Lighting Fair (Autumn Edition) displays a wide array of energy-efficient lighting for commercial and residential uses. Last year, this zone attracted over 1,000 exhibitors and was the biggest in scale at the fair. In response to the market's blazing demand for LED lighting, the LED Essentials zone is newly set up to display different LED lighting accessories.

Smart Lighting for a Brighter Future

In response to the rising concepts of smart city and smart home, the industry has been proactive in developing cutting-edge smart lighting systems for residential, industrial and commercial uses to keep up with the technological trend. At the Lighting Fair (Autumn Edition), the Smart Lighting & Solutions zone showcases latest lighting designs, software, management systems and control panels.

Other highlighted zones include Commercial Lighting, Household Lighting and many more. Related product zones are grouped together in the fairground to facilitate buyers to find their preferred products and exhibitors efficiently.

Outdoor & Tech Light Expo Breeds Splendid Opportunities

The HKTDC Hong Kong International Outdoor & Tech Light Expo, launched in 2016, returns this year to showcase lighting for outdoor, professional, industrial and advertising uses, as well as lighting solutions and systems that are newly added to the fair. In line with

the smart lighting trend, the Expo also features the inaugural Lighting Solutions and Systems zone that incorporates multiple technologies of energy-efficient and cost-cutting lighting systems and solutions.

Multiple Events to Promote Industry Exchange

A series of seminars and forums will be held during the fairs for industry players to keep abreast of the latest technological trends, market developments, and testing and certification information, as well as to exchange professional insights for strategic business planning. Networking receptions will also take place to facilitate bond-building among the industry.

The Hong Kong International Outdoor & Tech Light Expo will be held alongside the Eco Expo Asia at the AsiaWorld-Expo from 26 to 29 October 2017. The three concurrent fairs offer a one-stop trading platform for exhibitors and buyers, facilitating cross-sector collaboration and maximising sourcing opportunities. A complimentary shuttle bus service will run between the HKCEC and the AsiaWorld-Expo during the fair period.

About the HKTDC

Established in 1966, the Hong Kong Trade Development Council (HKTDC) is a statutory body dedicated to creating opportunities for Hong Kong's businesses. With more than 40 offices globally, including 13 on the Chinese mainland, the HKTDC promotes Hong Kong as a platform for doing business with China, Asia and the world. With 50 years of experience, the HKTDC organises international exhibitions, conferences and business missions to provide companies, particularly SMEs, with business opportunities on the mainland and in international markets, while providing business insights and information via trade publications, research reports and digital channels including the media room.

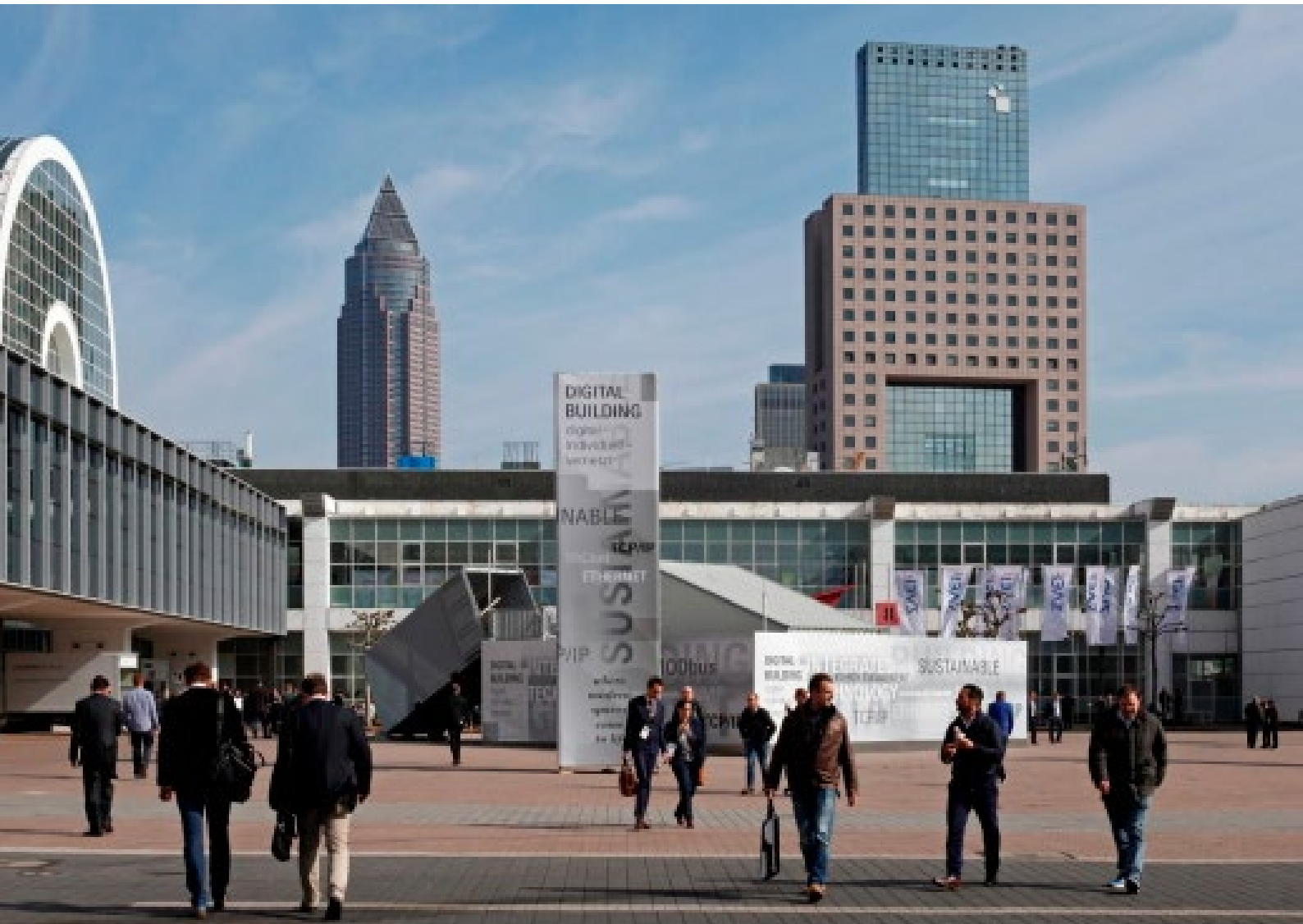
For more information, visit www.hktdc.com/aboutus.

show preview

Light + Building 2018

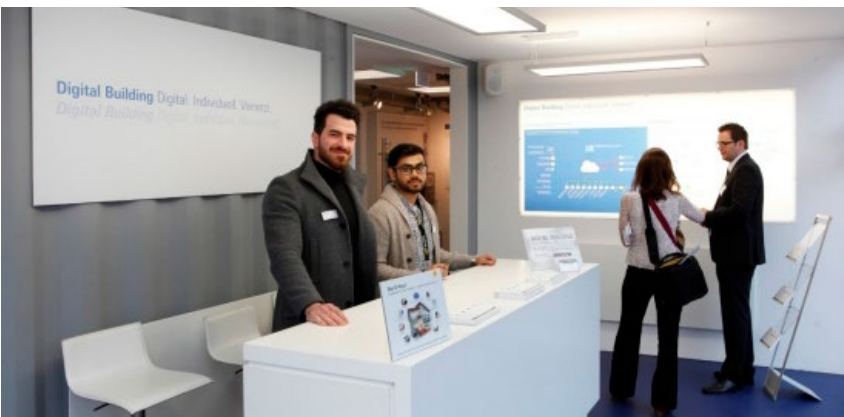
18th – 23rd March 2018

Frankfurt am Main
Frankfurt, Germany



The great expertise of the house and building automation product segments is to be brought together with power-led safety and security technology in Hall 9.1 for the first time at Light + Building 2018. This will create a focal point, a centre for integrated building-services technology, which offers visitors a complete overview of the entire spectrum of house and building automation, as well as electric safety and security technology. Enriching the new location will be a special show entitled 'SECURE! Connected Security in Buildings' and the Intersec Forum, which will be held concurrently with the fair on two days.

Thanks to its interdisciplinary system technology, house and building automation is setting future-oriented standards and plays a leading role – in the market and at Light + Building. Building automation systems control, regulate and measure all important components and plant, and interlink all technical systems of a building. As an integrating element of building-services technology, these systems also have a key function of great significance with respect to energy-efficient building operation and modernisation. In turn, building safety and security is an important aspect of smart building-services technology in both



the commercial and residential sectors. Increasingly, safety and security systems are being integrated with other aspects of building-services technology. Light + Building reflects this development by spotlighting integrated building-services technology, especially electric safety and security technology and building automation, as part of the concept embracing both energy and water.

To supplement the products and services being shown by the exhibitors, a special show entitled 'SECURE! Connected Security in Buildings' will be held at the coming Light + Building. It will give visitors insights into how innovative technical solutions can make a building more economically efficient and take account of the individual users' needs. In distinction to the exhibitors' presentations, the special show will take three specific applications (hotel – office – industry) and blend all aspects from the point of view of security and user interfaces.

Illustrated by a variety of future-oriented technologies, SECURE! will show the opportunities and potential applications offered by increasing digitalisation in the field of building-automation technology. To this end, various sub-systems will be linked together to demonstrate the inter-operability of the technologies in live operation.

The special exhibition will take the form of a spacious entrance area and welcome visitors to Hall 9.1. Via an information area, visitors move to the activity area where they can see live technological demonstrations. Further into the hall, the exhibitors' stands will give visitors the chance to find out about the individual products and solutions in detail. The combination of

exhibitors, products and special exhibition will give visitors a comprehensive overview of the fields of house and building automation, as well as power-led safety and security technology.

Held concurrently with Light + Building, the next Intersec Forum will take place on 20 and 21 March 2018. Intersec Forum is the conference for topical issues relating to networked safety and security technology in buildings which, against the background of increasing digitalisation, makes it an unrivalled forum for the future. In this constellation, the complete spectrum of safety and security technology will be brought together and offered in compact form for both conference participants and visitors to Light + Building 2018.

Background information on Messe Frankfurt

Messe Frankfurt is the world's largest trade fair, congress and event organiser with its own exhibition grounds. With over 2,300 employees at some 30 locations, the company generates annual sales of around €647 million. Thanks to its far-reaching ties with the relevant sectors and to its international sales network, the Group looks after the business interests of its customers effectively. A comprehensive range of services – both onsite and online – ensures that customers worldwide enjoy consistently high quality and flexibility when planning, organising and running their events. The wide range of services includes renting exhibition grounds, trade fair construction and marketing, personnel and food services. With its headquarters in Frankfurt am Main, the company is owned by the City of Frankfurt (60 percent) and the State of Hesse (40 percent).

For more information, visit www.messefrankfurt.com.

show review

Guangzhou International
Lighting Exhibition 2017

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



Kicking off on 9 June, the 22nd edition of the Guangzhou International Lighting Exhibition (GILE) welcomed visitors for the four-day fair during which key industry players had the chance to explore the convergent future of the lighting industry. The fair maintained its position as an influential and comprehensive lighting and LED event by receiving strong industry support – support that was demonstrated by its largest visitor figures in recent years. The fair welcomed 156,898 visitors (2016: 145,080) – an increase of over 8% from last year's exhibition – from 134 countries and regions. The top 10 overseas visitors were from Hong Kong, India, Korea, Taiwan, Singapore, US, Thailand, Russia, Malaysia and Australia.

The trade fair spanned 17 halls of the China Import and Export Fair Complex including a total of 2,428 exhibitors (2016: 2,399). The exhibition was segmented into three sections; production, technology and applications. These sections covered the entire industry spectrum from components and materials to packaging and implementation. The show's 180,000 gross sqm of floors were abuzz with visitors, cutting-edge products and talks by experts in the lighting community.

Regarding this year's show, Ms Lucia Wong, Deputy General Manager of Messe Frankfurt (Shanghai) Co Ltd, commented: "The convergence of lighting with different technologies is a defining factor for the achievement

of GILE 2017. I am sincerely grateful for the global lighting community's support in demonstrating the diverse application of core lighting technology beyond illumination. Unrelenting innovation and the exchange of market intelligence are vital for progression. We will continue with our efforts to link up technological innovation, lighting design and sales channels into a platform for the lighting industry to network and achieve its business objectives."

The convergence of lighting with state-of-the-art designs and technologies was prevalent in every aspect of the 2017 fair. Fixtures such as panel lights, linear lights and hidden lighting have moved into the mainstream. Concepts like smart control, programmable lights, anti-glare, super slim and frameless designs are the in-demand products for this year. Split into three defining sections, the below are some of the highlights from each:

Production sector: Equipment and assembly solutions

Exhibitors presented light and display metrology products which can quantify lighting quality as well as new colour metrics and flicker. Also on display were assembly solutions such as silicone adhesives, conformal coatings, encapsulants, silicone adhesives, conformal coatings, encapsulants, gap fillers and thermal interface materials. In response to the emerging trend of Chip Scale Package (CSP) use, the LED package industry is moving in the direction of downsizing its components. Silicon encapsulation techniques meanwhile have seen upgrades in terms of photo-thermal resistance and mechanical stability.

Technology sector: LED packaging and lighting control

One of the highlights within the technology sector was to see high CRI (Colour Rendering Index) LED packages on display. These products project light in a way which significantly reduces the problem of glare and faithfully reveals the true colour of objects as seen under natural light sources. LED applications in automation, medical and horticulture lighting were also prominently featured. Visitors were able to see first-hand how a wide variety of packaged LEDs, including filament LEDs, IR LEDs, LED backlights and displays, each contain their own unique features to be applied for different functions.

Packaging exhibitor Shenzhen Refond Optoelectronics Co Ltd demonstrated its significant expertise by exhibiting its "Sulfur resistance solution", which prevents the formation of sulphur dioxide and stabilises the luminous flux of LED packages. Mr Guowei Wan, General Manager of Shenzhen Refond Optoelectronics Co Ltd commented on the fair: "I am proud to report that the 2017 fair exceeded all our expectations. Most of the buyers we liaised with are from medium to large size enterprises and we found the fair to be an effective platform for networking with overseas buyers."

Application sector: Smart lighting and speciality lighting

With the advent of IoT (Internet of Things), more and more electrical devices are becoming 'smart' due to greater analytical capabilities and improvements in sensor technology. Exhibitors presented lighting which



highlighted the theme of "Intelligent and Human Centric", focussing not only on the functionality of lighting but on a person's physical and emotional needs and responses.

Smart home lighting systems, smart bulbs as well as Internet Protocol (IP) camera were also widely seen during the fair. Many smart streetlight manufacturers showcased products that offer traffic monitoring and rerouting, security, parking availability, temperature control, humidity and flood monitoring through sensor integration and city-wide networking. VLC (Visible Light Communication) technology gave fairgoers an insight into a not-so-distant future where light sources will be used for transmitting data.

Return exhibitor, Foxconn Technology Group / Champ Tech Optical (Foshan Corporation) showcased its smart lighting systems, which included thermometers, cameras and air sensors installed on light poles to detect environmental changes. Mr Eric Cho, Global Marketing Director LED B.U. commented: "We see lighting products as devices which can help society. GILE is an influential platform as we can showcase our products to the global lighting community".

The fair remains true to its mission of promoting global dialogue while exploring the convergent future

Embracing the theme "THINKLIGHT: The Convergent Future", the 2017 edition of the fair curated a matching event programme with over 100 seminars featuring expert speakers from the lighting community.



The convergent future: Light and IoT, lighting and digital art

Guest speaker, Mr Tjaco Middel, Head of R & D, Tridonic (Shenzhen) Co Ltd stated: "I think the future belongs to IoT and connectivity. To make your devices connected is the key to success. What I like most about the fair is the level of interaction with the audience. Sessions were packed to the rafters and the audience was extremely engaged and ready to participate in the discussions. GILE is truly a great event."

Another guest speaker, Mr Jack Chen, Business Director, Taiwan, Telensa, shared a similar view: "In the future, the development of smart control systems will be more and more integrated, not only in the lighting sector but in other applications such as the monitoring and control of traffic and temperature. The organisation of the event has been superb with many valuable audience discussions."

The forum also touched on the convergence of lighting and digital arts to reach new aesthetic levels. Guest speaker, Dr M Hank Haeusler, Director of Computation Design, UNSW Built Environment, UNSW Australia, shared: "Outdoor media advertisements exist in many cities around the world and making sure these advertisements are effective is crucial. Convergence is what the industry must do, bringing building, lighting, software and other kinds of technology together to facilitate developments".

New concept of lighting: Embedded technology, plant factory

Guest speaker Mr Brad Koerner, Product Marketing Manager, Philips Lighting, shared his new concept for embedded lighting: "IoT and digital controls add tremendous value to lighting, they allow full customisation, rhythm, temperature control and dimming of animated lighting. I believe embedded lighting will be the future of architectural lighting as we move away from simple LED fixtures. I think the conference and exhibition were great. It is a high-level event worth returning to in the future".



Facing continued issues caused by pollution, Professor Toyoki Kozai, Chief Director, Japan Plant Factory Association, shared his company's new method of plantation. "LED is the key technology for Plant Factory as it can increase the plant yield and quality by 20% to 30%. Since LEDs are small we can grow plants in a much more compact space."

Lighting application: City and museum lighting

Mr Qu Guojun, National A – Level Lighting and Stage Designer, Production Department, Technical Production Centre, China Central Television, shared his professional view on city lighting: "Among China's tourism sectors, night tours are the most popular. The so-called "Moon Economy" implies extending the stay of tourists and thus increasing their expenditure. Telling unique stories with lighting to attract tourists is now the main way to achieve this purpose."

Museum Lighting is another issue undergoing greater levels of discussion. Ms Ai Jing, National Level 1 of Lighting Designer, National Museum of China, said: "Museums are all unique and require extremely high quality lighting. The ultimate concern should be the preservation of the museum's cultural relics, but with more and more people visiting our museums we must ensure that they are also aesthetically pleasing."

LEDs offer endless possibilities to designers, such as the use of intelligent control and colour control, but museum lighting and its installation must be thought about very carefully."

Visitors celebrate the fair as an effective sourcing and networking platform

Once again, GILE cemented its position as a gathering point for the global lighting community. Worldwide buyers are increasingly attracted to source from the fair and they spoke positively about achieving those goals.



Mr Rohit Patel, Senior Manager, Business Development & Product Planning, Anchor Electricals Pvt Ltd (a member of Panasonic), visited GILE for the fifth time, bringing 20 delegates to the fair: "We were looking for SKD (semi knock down) material. This exhibition is a good platform for business networking and you get to meet many different suppliers."

Mr Randy D. Gananathan, President, TDA Secure Access Inc in Canada, also made the journey to attend GILE once again. "The quality of the displays and products improves every year, hopefully this will translate into more innovative products in the industry. I will definitely return next year."

Another loyal visitor, Mr Isaac Ritz Herskovic, General Manager, Laiting, affirmed: "I have come to GILE more than six times. Our company imports more than 7,000 different kinds of lighting products and we come to see updated technologies, especially energy saving products like LEDs and solar panels. I think the business matching programme was particularly useful and I was able to interact more with the suppliers."



Mr Tommy Lo, Vice President, Hong Kong WEE Recycling Association, Hong Kong, explained: "For our company, the primary business model has been sourcing products from Chinese manufacturers and bringing them to the Hong Kong market. Recently, however, we are moving towards building our own brand with the target of tapping into overseas markets; this is where GILE can assist us. Not only can we seek the latest products and network with manufacturers, but we can also keep up with various market trends in this fast changing industry. There are always new opportunities to explore at GILE every year."

Ms Lucia Wong added: "The lighting industry is evolving with opportunities abound. The creation of lighting solutions is a joint effort in the industry, which requires the support of a number players, including planners, designers and manufacturers. Otherwise, these concepts will never be made into reality. GILE will always continue to support these innovations in the industry."

The Guangzhou International Lighting Exhibition runs parallel to Guangzhou Electrical Building Technology. Both are a part of Messe Frankfurt's Light and Building Technology fairs worldwide, headed by the biennial Light + Building event which will take place from 18 – 23 March, 2018, in Frankfurt, Germany.

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

For more information, visit www.brand.light-building.com.

show review

Prolight + Sound 2017

10th – 13th April 2017

Festhalle Frankfurt
Frankfurt, Germany



The concert by Oleta Adams and the hr-Bigband on Saturday evening marked the end of this year's Musikmesse and Prolight + Sound. With products ranging from lighting drones to a 3D violin, the product segments represented at the two fairs were characterised by a wide range of innovations for the music and entertainment sectors. "Against the background of significant concentration in the musical instrument sector and a continuous process of development in the event-technology field, we give the course of business at the international trade-fair duo a positive rating. As the partner of the sectors, it is our responsibility to provide a future-oriented marketing platform with target-group specific formats and events.

We take this very seriously and, accordingly, we will once again enter into an intensive dialogue with exhibitors and associations with a view to 2018", said Detlef Braun, Member of the Executive Board of Messe Frankfurt.

Over the last few days, around 100,000 visitors made their way to Frankfurt Fair and Exhibition Centre. With 144 visitor nations – compared to 130 last year – the trade-fair duo was even more international. At the two fairs, a total of 1,922 exhibitors from 55 countries[2] presented a product spectrum of media, lighting, sound and stage technology, via event equipment, to musical instruments, electronic equipment and hardware and



software. As at last year's première, over 20,000 music fans attended the events of the Musikmesse Festival, an integral part of the Musikmesse concept, with concerts by over 50 national and international artists, including the European Groove Orchestra, Till Brönner, Steve Stevens & Band and the Branford Marsalis Quartet featuring Kurt Elling, at venues throughout Frankfurt. Particular interest was shown in the presentation of the Frankfurt Music Prize to David Garrett, which was integrated into the Musikmesse Festival for the first time.

Sector Welcomes Further Development Of The Event Concept

To increase value added for all groups of visitors, Musikmesse was supplemented by new attractions and the complementary programme of events extended. Together with the Musikmesse Festival, the fair offered over 1,000 events, from concerts and live performances to workshops and masterclasses. The echo from the sector was positive: "The Society of Music Merchants (SOMM) welcomes the comprehensive and on-going restructuring initiated in 2016. Thanks to the new concept, I am confident that we will be able to achieve a great deal. Change is clearly in the air. For German, European and international companies, Musikmesse and Prolight + Sound rank among the most important instruments for business-to-business communication", said SOMM business manager Daniel Sebastian Knöll.

Other associations are also taking a positive view: "We are very pleased with business at Musikmesse. I met many retail colleagues at the fair. Footfall in the halls was high and the exhibition stands were busy. The Business Academy, which we took part in for the first time this year, is on the right track. In a nutshell: the sector agrees with the changes made to Musikmesse", said Arthur Knopp, President of the Federation of German Music Dealers (GDM). The significance of the fair was also underscored by Gerhard A. Meinel,

Chairman of the Federal Association of German Musical Instrument Manufacturers (BDMH): "Musikmesse in Frankfurt is a must for the German and European music industry, especially those from East Europe. We appreciate the high degree of internationality at the fair. We need this marketplace and hope that numerous market participants will use it in the future because this is the key to a thriving fair – on both the exhibitor and retailer sides."

Prolight + Sound Shows The Power Of The Event Technology Sector

In the wake of high demand for live entertainment and business events, as well as increasing expectations on modern productions, the event-technology sector has continued to develop positively. And this optimism was clearly to be felt at Prolight + Sound. Randell Greenlee, Head of the Political and International Division of the German Entertainment Technology Association (VPLT) summarised by saying, "Following the comprehensive restructuring in 2016 and several subsequent improvements, the fair continues on its successful course. Some of our members have reported an increase in the number of international visitors to their stands this year. The fair is an established networking venue for many associations from all over the world and rightly known as the leading event for our sector."

Positive Echo From Both Exhibitors And Visitors

Arne Deters, Managing Director of db Technologies, was particularly pleased with the high standard of visitors at Prolight + Sound: "Here in Frankfurt, we meet all rental customers, from hobby users to leading production companies. However, the head buyers of the big music dealers also come here. Prolight + Sound is undoubtedly the most important fair for event technology and was a big success for us this year." In addition to new products revolving around lighting, sound and effects, network and AV media technology has developed into an increasingly important product segment. "The fair is exactly right for our market. The customers are extremely well prepared. They come to order and, in some cases, make their decisions for the whole year", said Sarah Cox, Sales Manager EMEA, d3 Technologies.

Numerous exhibitors underscored the relevance of Musikmesse for the sector: "Here, we make the most direct connection between us and the people who buy our products and I have even exceeded my personal goals for the fair. We are planning to take part again next year", said Chris Martin, CEO, C.F. Martin & Co. Extremely pleased with the course of business at the fair was Alessio Gerundini, CEO of Italy's long established Zero Sette Accordion Factory. He said, "This year's event was the most exciting Musikmesse for many years. We had a large number of visitors from the first day. Both the quantity and quality were spot on. We made many new contacts and welcomed visitors not only from all over Europe but also from Asia and South America. This year, everything was perfect."

The level of satisfaction at Musikmesse was up on previous years not only on the exhibitor side but also among visitors. Thus, 83 percent of visitors said they had achieved their personal targets for the fair. Retailers





from the sector confirmed the positive processes that have been set in motion by the restructuring of the fair. The significance of Musikmesse was emphasised by Martin Wiesenbauer, the proprietor of Music World in Augsburg: "The show continues to exercise an extremely high power of attraction in our business. This year, I got the impression that efforts are being made to create a magnetic effect with heroes, which still exist in our sector."

An important aspect of the restructuring of the fair were experiential and educational formats, such as the Drum Camp, which featured performances and workshops by world-famous drummers. The concept resulted in the return of several renowned brands. "The Drum Camp was one of the reasons that we decided to exhibit at the fair again after a break of five years", said Frank Boestfleisch, Product Manager of Germany's premium Sonor brand. "We were pleasantly surprised by the course of business at the fair and are delighted with the number of visitors." The Drum Camp format was transferred to the guitar segment for the first time this year – with success. "We were very taken with the concept of exhibiting in the immediate vicinity of the Guitar Camp. With highlights such as this, the fair generates huge value added for visitors", said Bastian Krämer, Marketing Manager of Meinl Distribution, about the Ibanez presentation at the show.

Numerous Innovations And A Broad Thematic Spectrum

In addition to hybrid instruments that create interfaces between the analogue and digital worlds of sound, the Musikmesse Trends included the use of new kinds of materials and production methods. Thus, the world's first violin made using 3D printing technology was to be seen at the fair. "Here, we encounter highly professional musicians, many of them from the classical segment. Moreover, we are delighted with the great interest shown by the media in our products, and we have made lots of interesting contacts to retailers", says Laurent Bernadec, developer of the '3DVarius'.

Furthermore, the fair expanded its thematic spectrum to include subjects from the world of music therapy and teaching. For example, the German Music Therapy Society took part in Musikmesse for the first time and presented its 'InstruMental Room' where visitors could participate in interactive events, such as sound journeys and 'DrumCircles'. At the new 'Discover Music' area, which was organised in cooperation with the Frankfurt Music Academy, visitors could explore the world of music making to their heart's content under expert supervision.

More than 2,600 people took advantage of the Prolight + Sound lecture programme to keep abreast of the latest developments in the market – an increase of 40 percent over the previous year. A positive reception was also given to the new Silent Stage area, which presented an innovative stage concept for clean sound and effective monitoring.

The next Musikmesse and Prolight + Sound will be held from 11 to 14 April and from 10 to 13 April 2018 respectively.

For more information, visit www.messefrankfurt.com.

Cartier Avenue

Montréal, Canada

Currently on Cartier Avenue in Quebec City, 34 giant backlit lampshades, decorated with selected works by Alfred Pelland and Fernand Leduc from the Musée national des beaux-arts du Québec, are hanging over the street. The installation is an original concept by Lightemotion, the lighting design firm that illuminates building façades and interiors in Europe, North America, Asia and Oceania.

“Our major challenge was to respect the soul of Cartier Avenue, while being bold enough to create a world-class project that would help make Quebec City a true international winter capital,” said François Roupinian, founder and president of Lightemotion.

Art and The Cozy Neighbourhood

Aiming to capture the identity of Cartier Avenue,

Lightemotion sought a lighting concept that could express the warmth of a neighbourhood life characterized by a strong community spirit. At the same time, the installation needed to be spectacular enough to be an event in itself.

The idea of hanging lampshades was a perfect fit for those objectives. On the one hand, the shape of the lighting fixtures gives the avenue the cozy warmth of a residential interior. On the other hand, the large artworks, backlit by LED strips and mounted on circular structures 8 feet across by 5 feet high, are an original urban medium for displaying art.

Conceived from the idea of neighbourhood life, Lightemotion developed a concept of an art gallery floating in space, which could inspire many more such projects around the world.









A Flexible Concept

Lightemotion designed the positioning, shape and size of its lampshades so as to compose an environment capable of creating movement in the city, while working within Cartier Avenue's technical and architectural constraints.

The city's major museum of fine arts, the Musée national des beaux-arts du Québec, helped turn the 34 lampshades into a temporary outdoor art gallery. The museum selected works by Alfred Pellan and Fernand Leduc from its permanent collection and handled artistic direction for their reproduction on the giant lighting fixtures. The choice of the two Québécois painters brings Lightemotion's concept to its full expression, thanks to the graphic-design elements found in the first artist's work and Leduc's signature explorations of light.

While the winter exhibition is designed to be temporary (it is scheduled to continue until the end of March), Lightemotion's creation has the advantage of being flexible. The works mounted on the shades can be easily replaced to feature a different artist or theme every year. That capability suggests a vast range of possibilities for the system of displaying suspended backlit materials, whether it be art, urban-art competition entries, concert posters or images of different aspects of neighbourhood life. Moreover, the existing project includes provisions for the re-use of the lighting fixtures to create new annual shows for the next five years.

A Vehicle For Urban Identity

The project is part of a master plan proposed by Lightemotion in 2013 to the Office du Tourisme de Québec, which calls for the illumination of several more major arteries.

The Société de développement commercial du quartier Montcalm (the neighbourhood's business improvement association), in collaboration with the municipality, the Office du Tourisme and the Musée des beaux-arts, commissioned Lightemotion to design the master plan's first lighting component for Cartier Steet. More than a simple street installation, the project is a true vehicle for expressing urban identity. Emphasizing the importance of light for northern cities, the Office du Tourisme de Québec plans to use this type of installation to highlight its tourism

programs and promote the city internationally as a winter capital.

Lightemotion, Illuminating The World

Lightemotion's founder, Montreal native François Roupinian, IALD, has built a multidisciplinary and multicultural team capable of working in any of five languages. The better to execute projects around the world. After initially specializing in performing arts and multimedia, Lightemotion has extended its expertise into architectural and museum lighting.

Thanks to that expertise, in equal measures technical and creative, Lightemotion has become a global leader in the field of architectural lighting design. The originality and effectiveness of its lighting designs have been realized in Canada, Europe, the United States, Asia, the Middle East, New Zealand and Australia and have earned the firm an outstanding global reputation.

The company's services include everything from architectural illumination for cultural institutions (the Strasbourg museum, the National Museum of Singapore, the Museum of Natural History in Leyde, Netherlands, the Automotive Museum in Turin, the Auckland War Memorial Museum, the Canada Pavilion at the Shanghai World Expo in 2010...), and hospitality and retail (the Hard Rock Hotel in Las Vegas, the Revel Casino in Atlantic City, 45 Birks jewellery stores across North America, the shopping concourse at Complexe Desjardins in Montreal, the Star City Theatre and Resort in Sydney, the Ritz Carlton hotel and private residences in Montreal,

Recently, Lightemotion created the lighting design for the Indian Heritage Centre in Singapore and for the Train World railroad museum in Brussels. In Toronto, the firm produced the lighting design for the Great Gulf Idea Centre and for the new headquarters of the Globe and Mail newspaper. In Dubai, the company completed the second phase of interior lighting for the Burj Khalifa tower. The firm also produces architectural and urban design lighting master plans and is currently working on the lighting master plan for the Parliamentary Precinct in Ottawa and Education City in Qatar.

For more information, visit www.lightemotion.ca/projects.



HGTV Smart Home

West Hartford, Connecticut



Lighting industry leader, Legrand, has partnered with HGTV to be the exclusive supplier of the lighting controls charging and power outlets used throughout the HGTV@ Smart Home 2017. Located in Scottsdale, Arizona, the HGTV Smart Home highlights products from the Collections by Legrand in a modern southwestern style. The interior's design by Tiffany Brooks pairs with technology products selected by digital expert Carley Knobloch to create an environment that is as beautiful as it is functional.

"We're thrilled to have the Collections by Legrand be part of the HGTV Smart Home 2017," says Amy Hahne, VP of marketing for Legrand. "The incorporation of our lighting controls and charging solution are dedicated to delivering sophisticated design and high-end functionality, providing a perfect match for this innovative, tech-focused home."

The adorne collection includes luxurious, modern light switches, dimmers, outlets, and wall plates that wow with awe-inspiring finishes for a dramatic design statement and top-notch functionality. The radiant collection of switches, outlets, dimmers, and home automation adds a simple, classic touch, delivering a cohesive look by seamlessly blending in to existing décor.

These collections work with the Legrand Wi-Fi Lighting System which functions throughout the home, allowing homeowners to control their lights from any location with a smart device, expertly combining design and function to consistently perform brilliantly. This capability is a hallmark of Legrand's Eliot (Electricity + IoT) program, which recently launched in North America. Eliot is a global Legrand IoT program that brings together Legrand's worldwide expertise to advance connectivity and intelligence in the built environment, mobilize Legrand's capabilities around the world, speed development of Legrand connected devices and amplify communications wherever the Internet of Things can enhance value for all users.

About Legrand

Legrand is a global specialist in electrical and digital building infrastructures. Its comprehensive offering of solutions for use in commercial, industrial and residential markets makes it a benchmark for customers worldwide. Innovation for a steady flow of new products with high added value is a prime vector for growth, including, in particular, connected devices stemming from Legrand's global Eliot (Electricity and IoT) program. Legrand reported sales of \$5.3 billion in 2016. Legrand has a strong presence in North and Central America, with a portfolio of well-known product lines that include C2G, Cablofil, Electr rack, Luxul, Middle Atlantic, Nuvo, OCL, On-Q, Ortronics, Pass & Seymour, Pinnacle, QMotion, Quiktron, Raritan, Solarfective, Vantage, Wattstopper, and Wiremold.

For more information, visit www.legrand.us.



Museo Nazionale dell'Automobile di Torino

Montréal, Canada

Photo Credits: Ornella Orlandini



Montreal company Lightemotion, an international lighting design specialist, has created the innovative lighting design for the revamped Museo Nazionale dell'Automobile in Torino, Italy.

After a four-year restoration and expansion, the Museo Nazionale dell'Automobile di Torino is reopening with a new name. The Museum has received a face-lift, and its character and mandate have been changed: beyond a simple architectural renovation, this is an intervention aimed at placing this revamped museum in a dynamic and sensational way into the Italian cultural landscape, as a cutting-edge cultural centre. Its contemporary, futuristic

look was designed by architect Cino Zucchi, and the innovative exhibition space bears the signature of Francois Confino, set designer, whose credits include the National Cinema Museum in Torino. The overall investment amounts to €33 million, of which €22 million has been allocated to the building's restoration and the remaining €11 million to internal exhibition design.

Lightemotion has played a fundamental role in creating the innovative lighting design solutions that give life to stunning visual environments for this new museum. The Lightemotion team was closely involved from the beginning and worked in tandem with with François Confino's design team to create an overall exclusive experience in which lighting and set design are one.





The overall lighting schemes were designed to give the flexibility of creating different lighting moods in a permanent architectural installation. More than 40% of all lighting was carefully integrated into set pieces, creating the illusion of lighting effects coming directly from the physical environments. The use of fibre optics and state-of-the-art LED components contributes to the dramatic experience. The mixture of halogen and metal halide lamp sources was chosen to tell the story, from a more romantic and historical perspective to a more contemporary approach for the latest automobiles.

Torino is recognized as the Italian capital of automobiles, and the Museum offers visitors one of the most interesting collections of this type ever exhibited – close to 200 original automobiles produced by 80 different makers, dating from 1769 to 1996. In over 19,000 m², the exhibition tells the entire story of the car, from its manufacturing, to its use as a means of transportation, to its becoming the symbol of an important national tradition. Not only does it explore the history of cars but it also mirrors the great cultural and social events of the period, taking museum-goers on an unprecedented journey formed of culture, language, and heritage.

Lightemotion, An Illuminating Journey Around The World

Montrealer François Roupinian, founder of Lightemotion, has surrounded himself with a multidisciplinary, multicultural team, managing projects in no less than five languages. Lightemotion's origins are in the field of the performing arts and multimedia, and the company has expanded into other fields of expertise, such as architectural and museum lighting. Lightemotion's signature work has given it an international reputation through its work on major projects in Canada, Europe, the United States, Asia, the Middle East, and Australia.

The scope of the company's work is broad, including the lighting plans for exhibitions (Museum of Strasbourg, National Museum of Singapore, Naturalis Museum in Leiden), as well as casinos and cabarets (Hard Rock Hotel, Revel Casino Atlantic City in 2012).

In 2011, Lightemotion put its architectural lighting signature on the Indiana Jones travelling exhibit inaugurated at the Montreal Science Centre; the Auckland War Memorial Museum, celebrating its 80th anniversary; and the Wine Museum of Barolo in Italy. The Montreal company also created the dramatic lighting design for the Canada Pavilion in Shanghai, as well as The Residences at the Ritz-Carlton, Montreal, which will be opening in 2012.

For more information, visit www.lightemotion.ca/projects.

Smart LED Lighting and City Data

Could help cities reduce CO₂ emissions by over 60% to achieve UN Sustainable Development Goals

By Philips Lighting



Philips Lighting today announced a new report¹ jointly produced by Philips Lighting and the World Council on City Data (WCCD) which reveals that cities could make energy savings and CO2 emission reductions of almost two-thirds through the introduction of smart LED street lighting.

The key findings from the report were shared with the United Nations (UN) earlier this week during the “Local 2030: Hub for Sustainability Solutions” Special Event held at UN Headquarters. During the presentation, Philips Lighting highlighted the need for high-caliber data to understand the value of LED systems and how its new partnership with WCCD is addressing this need in collaboration with cities around the world.

The report also showed that the city of Los Angeles made energy savings of 63% in 2016 by implementing such a system, generating cost savings of USD 9m and reducing its annual greenhouse gas emissions associated with public lighting by 47,000 metric ton. This is equivalent to the greenhouse gas emissions from almost 10,000 passenger vehicles driven for one year².

Philips Lighting says that if cities around the world adopted such systems, they could make vast reductions in their annual emissions and expenditure on electricity.

The report says that better quality lighting could also bring benefits such as reduced crime rates and improved citizen perceptions of safety, with Los Angeles observing a 10.5% drop in crime rates for offences such as vehicle theft, burglary and vandalism in the first two years of its LED conversion program.





Other benefits of connected LED street lighting cited by the report include improvements in traffic safety for all road users, city attractiveness and economic strength. By producing these benefits over and above emission reductions, smart LED lighting will also make a major contribution to meeting the UN Sustainable Development Goals, a globally-agreed set of targets for moving to a sustainable future by 2030.

In Southeast Asia, Philips Lighting has already successfully achieved energy savings through connected street lighting. As part of a city-wide upgrade by DKI Jakarta Government office, nearly 90,000 of the Indonesian Capital's street luminaires have been replaced with energy-efficient LED lights to-date. These lights are connected to a cloud-based smart lighting management system.

The project, which holds a world record for the fastest turnaround in street lighting implementation, leverages on performance data sent through existing cellular networks to help city officials remotely monitor and manage lighting infrastructure. For instance, in the evening when traffic is low, the lighting office can dim illumination levels by 50 percent to achieve additional energy savings.

The same system was also implemented in Melaka as part of its Green City Action Plan to make the city a Green Technology State by 2020. The new lighting system potentially offers Malaysia's state government savings of up to 80% and will also improve operational efficiencies as there is less reliance on manpower being mobilized to determine faulty or non-functioning lights.

"City authorities face complex and challenging choices concerning infrastructure, balancing the need to maintain existing services while investing in improvements, managing population growth and enhancing sustainability – all within tight budget constraints," said Harry Verhaar, Head of Global Public and Government Affairs, Philips Lighting.

"The operation and maintenance of street lighting is a major cost that contributes to these challenges for local authorities. But new technologies are transforming the way cities can deliver, operate and maintain public lighting in a way that can generate a wide range of benefits to the local authorities and the communities they serve. The challenge is building the investment case to enable them to implement this technology in the first place.

"We are calling for all cities to adopt 100% LED street lights by 2025. COP21 sent a clear signal of political support



to tackle the effects of climate change, and a switch to energy-efficient LED street lights in cities would make a vast difference. Of approximately 300 million streetlights across the world, only about one in ten are energy-efficient LEDs, and just 2% are connected. Combining energy-efficient lighting with connected system management can deliver energy savings of up to 80% – which would make a significant dent in our climate change targets,” he added. Lighting currently accounts for 15% of global electricity consumption, but with a universal switch to LEDs, lighting’s share of power consumption would fall to just 8%.

Stumbling blocks to the adoption of public sector smart technology projects include financing projects upfront, particularly with squeezed local authority budgets. The report presents a measurement framework that can monitor and evaluate city-level impacts of smart and connected lighting investments, arguing that the adoption of standardized city data such as used in Los Angeles will help to inform infrastructure investment and decision-making and build the investment case for smart technology projects.

The WCCD has been mapping its ISO 37120 standard to the 17 themes of the United Nations Sustainable Development Goals, in order to support cities in taking a leadership position to address these goals.

“The ISO 37120 standard that the WCCD is implementing with cities globally defines a comprehensive set of 100 standardized indicators that enables any city, of any size, to assess their performance and measure progress over time in a way that can be accurately benchmarked and compared with other cities,” explained Dr Patricia McCarney, President & CEO, WCCD.

“This data can clearly quantify how investments can improve infrastructure service levels across a city and deliver benefits to its inhabitants. The benefits of smart infrastructure solutions cover financial, economic, social and environmental spheres so this data-driven approach is particularly useful for evaluating these.

“Mayors and city leaders throughout the world are taking on key global issues from climate change to poverty, migration, trade and investment, embodied in the SDGs. High calibre city data that is globally standardised is critical for city leaders to monitor progress on these global goals, benchmark performance and learn lessons from all international regions,” she concluded.

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

Revel Casino

New Jersey, USA

Client: Revel Entertainment Group
Lighting Design: Lightemotion
Interior Designer: Scéno Plus
Architectural Design: Arquitectonica
Architect of Record: BLT Architects

As one of Canada's leading lighting design firms, Lightemotion, combines theatrical lighting with architectural lighting design to create a truly immersive environment for Atlantic City's newest mega-casino resort, Revel. Described as chic, sophisticated and as setting a new benchmark for casino resorts, Revel is garnering much praise ahead of its grand opening on May 25th. The US\$2.4 billion project is Atlantic City's most expensive casino ever. It is currently the largest construction project on the east coast of the United States and is destined to revive the gaming and tourism industry in this historic ocean-front city.

Montreal-based Lightemotion has been involved in the project since its







conception over five years ago. Brought into the design team by the design firm, Scéno Plus, the company has been an instrumental contributor in creating the exciting and breathtaking environment in which guests will be immersed during their stay at Revel.

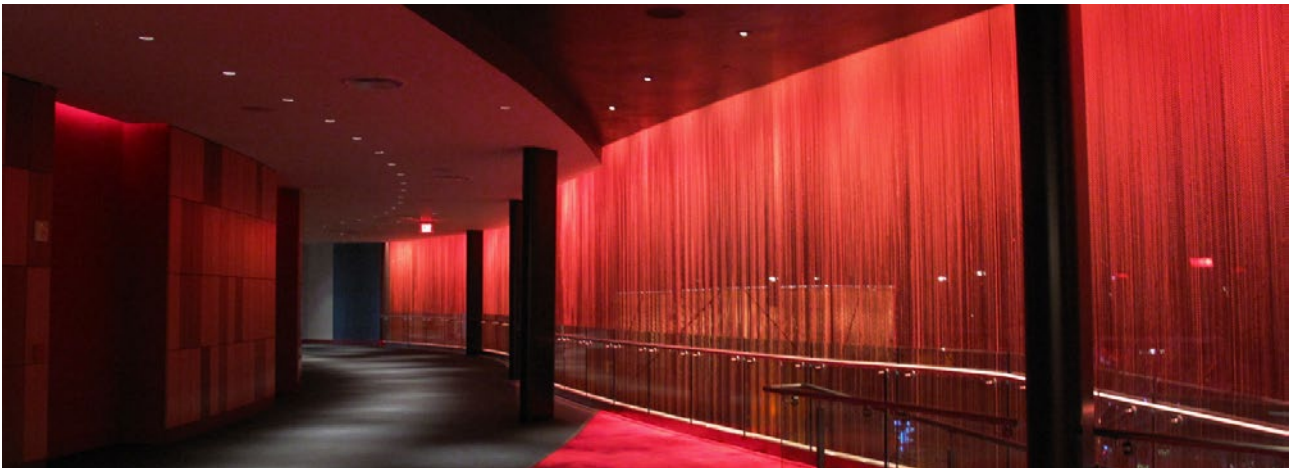
Initially, Lightemotion's mandate was to design the lighting for the Cabaret and the Ovation Hall, a 5050 seat transformable theatre within the resort. However, after unveiling its value added concepts to Scéno Plus, the interior design team proposed that Lightemotion be mandated to illuminate the 130,000 square foot Casino as well as the Ultra Lounge. Finally, Lightemotion was presented with the mandate to



create what founder, Francois Roupinian, describes as “evolving environments created by light” throughout many diverse public spaces in the resort such as the Casino space itself, the Ocean Way, the Porte Cochere, the Pool Play Zone, City Way, the main entrance, the Ellipse with its grand staircase and the Dining Enclave.

Roupinian says: “Our mandate was clear; create an atmosphere that is immersive and dynamic: something exciting, with a wow-factor.”

In this economic climate it was necessary for the designers to maximise efficiencies and reduce costs. Lightemotion



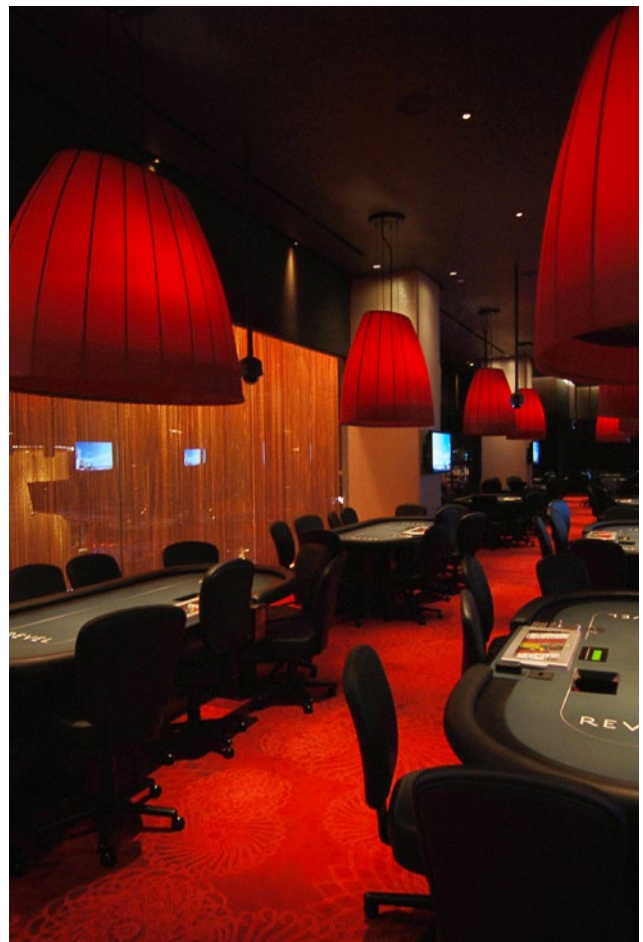
to integrate a multitude of exciting lighting features, all of which have long operational lives and low maintenance, into an interior design that has no precedent in the casino world.

Over 3600 LED fixtures, 3100 downlights, 1000 projectors and 1300 decorative or custom fittings have been “designed into” the interior. “All of the lighting elements are incorporated into the architecture in such a way that items are lit from within,” explains Roupinian. “The plush red carpet of the main casino floor glows with a soft projected amber pattern; the gaming tables are draped in a soft yet precise light, allowing the creation of the perfect comfortable environment for the players; walls and partitions are accentuated with light or meld into the background depending on the mood but all the while the source of the lighting is a mystery.

The immersive environment has a constantly changing atmosphere that evolves from morning to night, all via the magic of light. Throughout the casino and its connected spaces the illumination levels are warmer during the day, assisted by daylight from the expansive views of the ocean - a unique aspect in casino design. As the day progresses, the lighting softens and changes, moving through numerous programmable settings such as ‘afternoon’, ‘cocktail hour’, and ‘lounge’ – from fresh ambers, roses and sky blues to oranges, reds and the darker shades of night-time.

“We are honoured to collaborate with Scéno Plus, its president Patrick Bergé and artistic director, Valérie Pageau. Having the ability to work with them from the get-go on their inspirational interior design has given us the chance to create the truly luminous and immersive environment that Revel CEO Kevin DeSanctis requested,” says Roupinian.

Within this unique environment are numerous gems, extravagant elements that set Revel apart from the rest: countless illuminated lighting spheres shrouded within a







maze of sheer fabric create a giant full scale chandelier in the Dining Enclave; cushioned walls, studded with hundreds of LEDs; a shimmering golden mobile lit from above to create a sparkling faux chandelier in the main entrance and staircase made by Pascale Girardin. Lightemotion has enlivened every space it was given to design with its creative and innovative use of light.

“We bring an extra dynamism to the architecture and interior design,” says Roupinian. “Working with talented designers has allowed us to really show our skills.

We have been able to create magic; atmospheres and moods throughout a multitude of spaces, each of which was a different design adventure.”

Revel Resort had a soft opening on April 2nd, followed by a grand opening on May 25th. This is one of the largest projects that Lightemotion has worked on. Roupinian and his creative team have delivered a new innovative lighting design benchmark, creating immersive environments that bring drama and excitement to casino resort design. They have done it on schedule and within budget using energy efficient equipment that will stand the test of time.

“We have brought our flair for theatre into the architectural dimension and helped create a project with a true wow-factor,” says Roupinian.

About Lightemotion

François Roupinian, founder of Lightemotion, has surrounded himself with a multidisciplinary, multicultural



team that manages projects in no less than five languages. The company, which is celebrating ten years in operation in 2012, has origins in the fields of the performing arts and multimedia. Lightemotion soon expanded into other fields of expertise, such as architectural and museum lighting; its signature style giving the studio an international reputation through work on major projects in Canada, Europe, the United States, Asia, the Middle East, New Zealand and Australia.

The scope of the company's work is broad, including the lighting designs for exhibitions (Wine Museum of Barolo in Italy, Museum of Strasbourg, National Museum of Singapore, Naturalis Museum in Leiden), as well as casinos and cabarets (Hard Rock Hotel, Revel Casino Atlantic City opening in May 2012).

Recently, Lightemotion put its architectural lighting signature on the Indiana Jones travelling exhibit inaugurated at the Montreal Science Centre, the Ajax Experience in Amsterdam, the Museo Nazionale dell'Automobile of Torino, and the Auckland War Memorial Museum which celebrated its 80th anniversary.

The Montreal-based company also created the dramatic lighting design for the Canada Pavilion in Shanghai, as well as The Residences at the Ritz-Carlton, Montreal, which will be opening in 2012.

For more information, visit www.revelresorts.com.

180 Wellington

Ottawa, Canada

Client: Public Works and Government Services Canada

Architects: NORR

Contractor: Pomerleau Lighting

Manufacturer: Lumenpulse





Lighthemotion is excited to announce the completion of the lighting design for 180 Wellington, one of the first illumination projects to be executed within the Master Plan for the Parliamentary Precinct. 180 Wellington represents a unique expression of Beaux-Arts design, enhanced with a lighting design plan which not only brings the subtlety of its grand architecture to light, but also sets a tone for the luminous environment in the capital region at night.

Francois Roupinian, Founder of Lighthemotion, states that “180 Wellington is an important lighting design project as it reflects the prescription that we have created in the master plan and demonstrates the possibility of what the capital aspires to portray, while respecting the historical character of this classic building.”

“We employed a theatrical approach to lighting with very detailed control systems to avoid flooding the building with light. Delicate beautiful accents on key architectural features preserve the historic integrity of its architecture while maintaining a cohesive luminous environment with the neighbouring buildings.”

At the heart of the design, is an elaborate Dali lighting control system which allows each fixture to be individually controlled. Lighting levels can be specifically tailored to each area of the building depending on the nature of the architectural features and reflectivity of the surfaces. “This allows us to create stunning illumination that can be programmed to include different nuances and contrasts across the various façades of the building.”

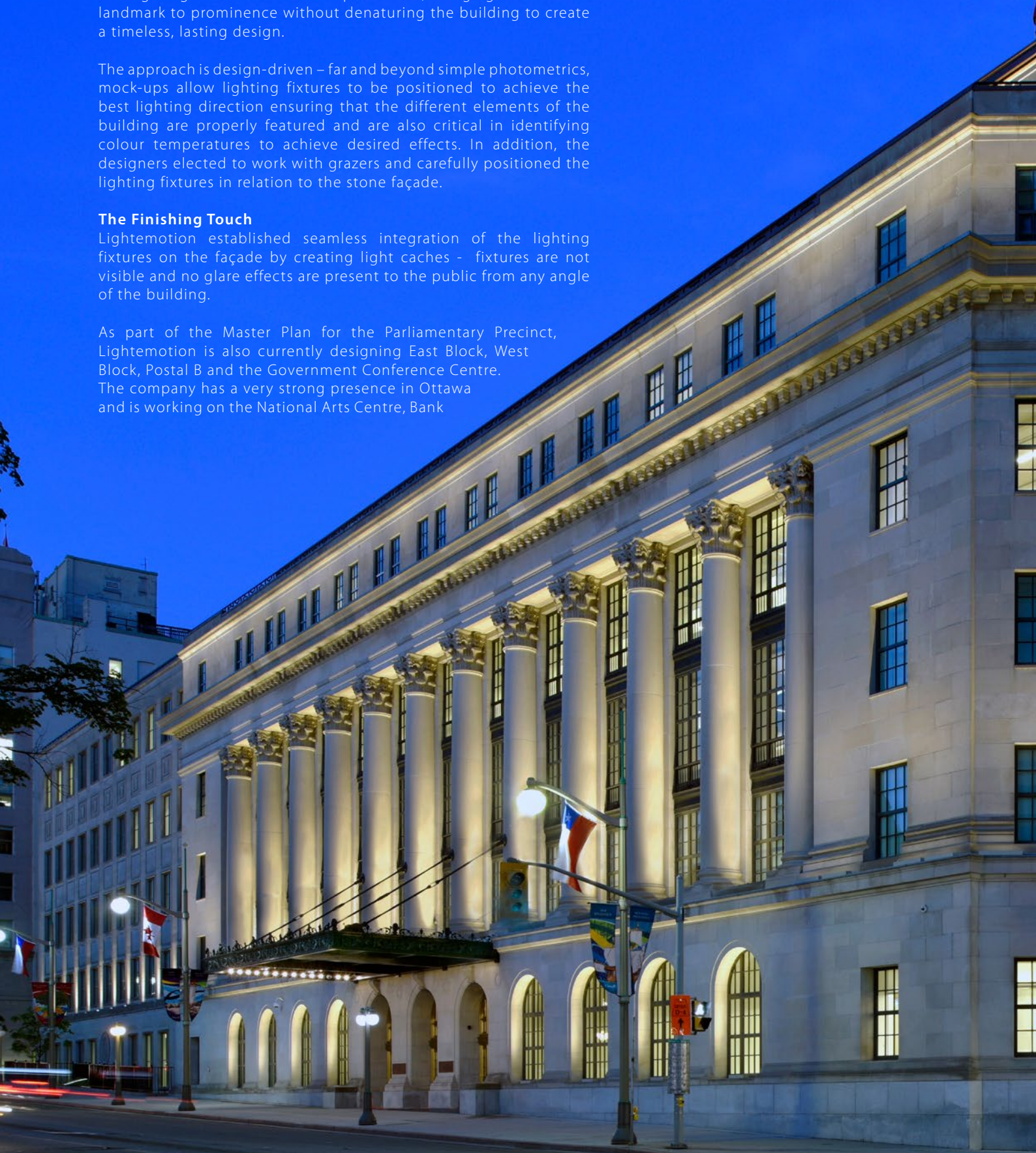
Lightemotion employed state of the Art LED technology and 3000k color temperature for all fixtures giving a beautiful natural glow on the façade without altering the tonality of the natural stone. The lighting features become a paintbrush, bringing this historic landmark to prominence without denaturing the building to create a timeless, lasting design.

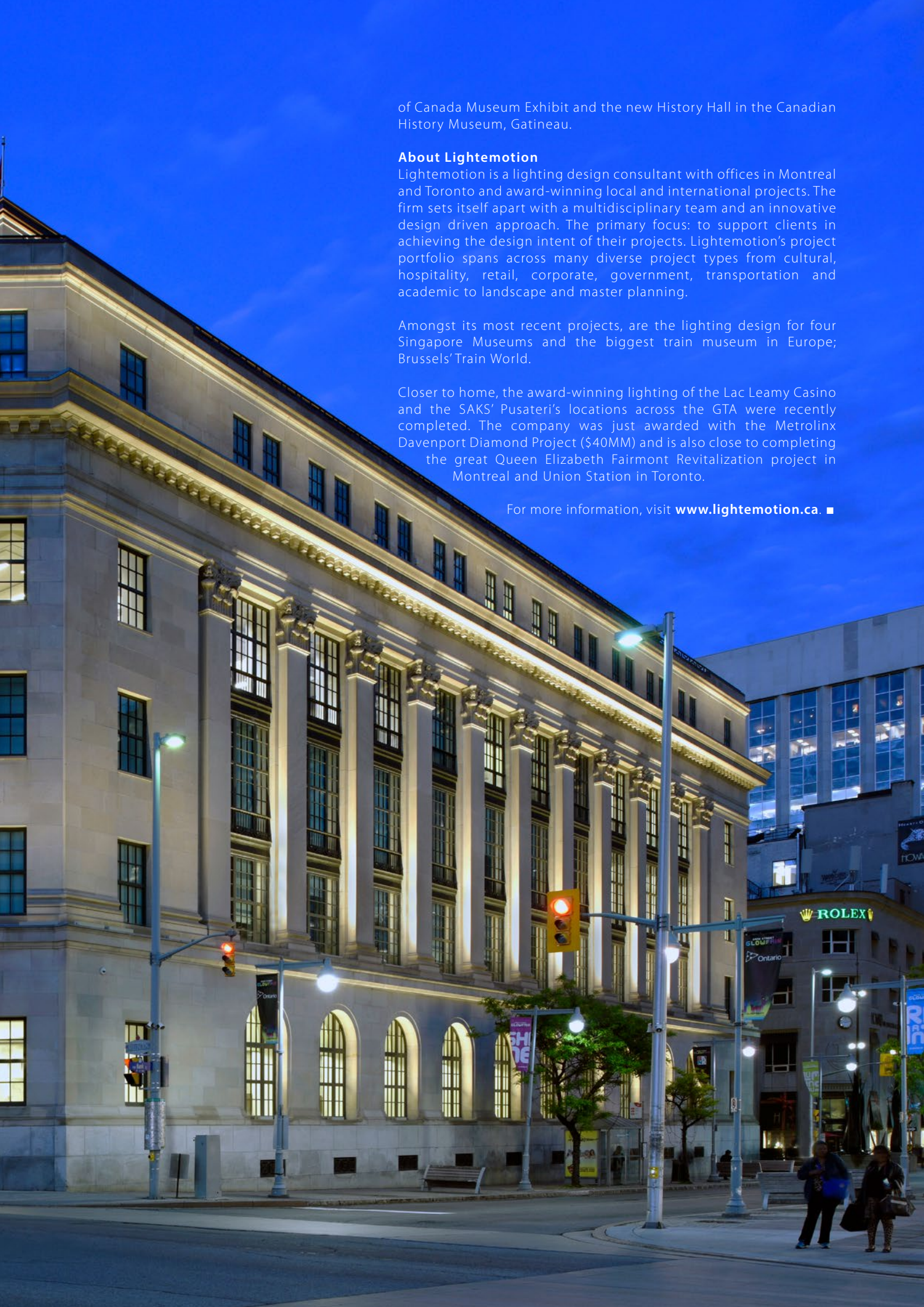
The approach is design-driven – far and beyond simple photometrics, mock-ups allow lighting fixtures to be positioned to achieve the best lighting direction ensuring that the different elements of the building are properly featured and are also critical in identifying colour temperatures to achieve desired effects. In addition, the designers elected to work with grazers and carefully positioned the lighting fixtures in relation to the stone façade.

The Finishing Touch

Lightemotion established seamless integration of the lighting fixtures on the façade by creating light caches - fixtures are not visible and no glare effects are present to the public from any angle of the building.

As part of the Master Plan for the Parliamentary Precinct, Lightemotion is also currently designing East Block, West Block, Postal B and the Government Conference Centre. The company has a very strong presence in Ottawa and is working on the National Arts Centre, Bank





of Canada Museum Exhibit and the new History Hall in the Canadian History Museum, Gatineau.

About Lightemotion

Lightemotion is a lighting design consultant with offices in Montreal and Toronto and award-winning local and international projects. The firm sets itself apart with a multidisciplinary team and an innovative design driven approach. The primary focus: to support clients in achieving the design intent of their projects. Lightemotion's project portfolio spans across many diverse project types from cultural, hospitality, retail, corporate, government, transportation and academic to landscape and master planning.

Amongst its most recent projects, are the lighting design for four Singapore Museums and the biggest train museum in Europe; Brussels' Train World.

Closer to home, the award-winning lighting of the Lac Leamy Casino and the SAKS' Pusateri's locations across the GTA were recently completed. The company was just awarded with the Metrolinx Davenport Diamond Project (\$40MM) and is also close to completing the great Queen Elizabeth Fairmont Revitalization project in Montreal and Union Station in Toronto.

For more information, visit www.lightemotion.ca. ■

Eye Beacon

Amsterdam, Netherlands





The inspiration for the design of the Amsterdam Light Festival info booth pavilion originated from the theme of this year's festival, biomimicry: the imitation of natural phenomena for the purpose of solving complex human problems.

The design is specifically inspired by the deep sea world, where living organisms counteract the darkness of their environment by employing bioluminescence - often hypnotic pulsating light - as an attraction and communication mechanism. This magical vivid world formed the starting point for the sculptural, yet functional pavilion.

The Eye_Beacon serves as both an attraction point and a ticketing/information booth for people visiting the festival. Located on the western side of the 'Blauwbrug', next to the river Amstel, the pavilion acts as a connection between the 'Watercolour' canal route and the 'Illuminade' land route.

Ben van Berkel: "Similar to deep sea creatures that use bioluminescence to signal, attract and inform, the Eye_Beacon uses choreographed light sequences to alert visitors to its dual function as both a sculpture and an information point for the festival. Along with the effect of the pavilion partially overhanging the Amstel River, the twist that connects the two halves of the structure emphasises the crossing point between the land and water routes of the festival."





For the structure, two cube forms are connected to one another by twisting surfaces. This results in 316 panels with uneven dimensions and therefore required the parametric optimisation of these surfaces to ensure efficient fabrication and installation.

Materialised in partnership with MDT-tex, all surfaces of the pavilion are constructed from tensile textile modules that together create a pattern of openings and reveal glimpses of the interior. MDT-tex designed 2D and 3D textile units which enable the twisting connection of the two cubes, resulting in a sculptural form strengthened by its components.

Markus Müller-Feist, Managing Director / Owner MDT-tex, "The collaboration between UNstudio and MDT-tex triggered the development of new forms that required innovative and advanced textile engineering, combined with the expertise that MDT-tex has built-up over the years. The evolution of the form-finding and technical translation to contemporary future orientated sustainable materials marks the 'twist' within this outstanding partnership".

Inspired by Ben van Berkel's dual function concept, MDT-tex' facade system is already designed for the future use of lighting and water harvesting systems.

Focused LED projections present gradient color changes on the inside of the tensile structure, resulting in a constantly changing composition of light and colour.

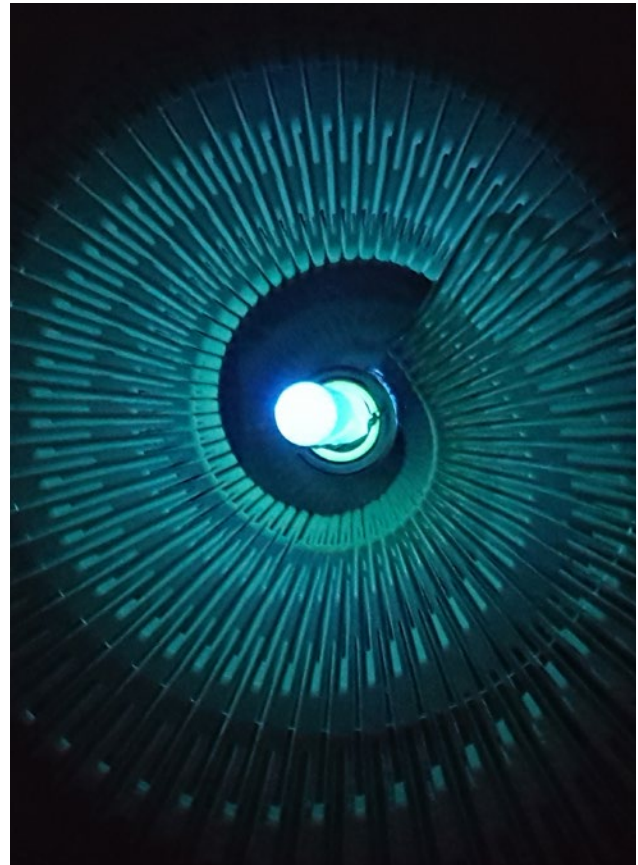
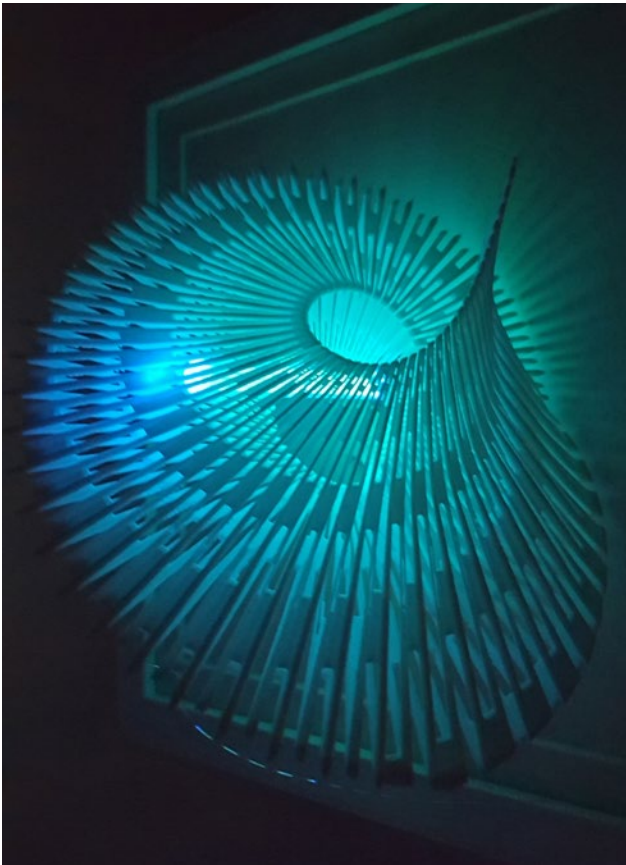
MDT designs, manufactures, and supplies innovative, high-quality sun protection systems, membrane constructions, and custom-made products for textile outdoor architecture to customers all over the world. The company carries out the entire production process in its own modernized factories at international locations. This guarantees the highest quality for innovative products and ensures absolute supply security.

For more information, visit www.mdt-tex.com. ■

Spiral Envelope

London, United Kingdom





The LED light consists of a 3d printed net whose recycled polymer geometry is elastic yet strong enough to stretch and reform when subjected to tremors and shifting changes in its immediate environment.

This net is designed to give the illusion of intensifying the emitted light due to the dome shape which channels the light around the surface of the semi-transparent geometry.

When charged the LED is a bright 60 Candela white light visible for 3 metres in a dark room. A main structural thread pipe is at the core of the LED, this can be inserted into the ground for stability, the threaded pipe holds a series of magnets and a copper coil used to induce an electrical current. The 3d printed net resonates and amplifies kinetic energy transforming it into electrical current lighting the series of LED'S embedded within the geometry, all reverberations within the vicinity of the light induce a current by moving the magnets through the copper coil placed within the main structural thread pipe, the principle behind this is electromagnetic induction.

The net's spiral envelope is constructed from a flexible recycled polymer whose geometry intensifies its displacement moving the magnets inside the supporting thread pipe to create a current which can either be stored or dissipated immediately by lighting the LED.

To summarise, the main body of the light acts as a moveable piston intensified by the harmonic oscillating motion of the weighted 3d printed net as it stretches and expands.

The project was commissioned for the Gao family hotels in Ordos, Inner Mongolia and Beijing.

Currently the light is being adapted so that the inner surface of the 3d printed net is coated with copper. This will strengthen the magnetic field causing to induce a higher and more constant electric current that lights the LED. The LED will light brighter whilst charging the battery as it is used.

Also in consideration is the application of a piezoelectric zinc element to produce a current strong enough to light a 9V LED. Investigations in the field of semi-conductors contribute to affordable, sustainable lighting for the future, a quest for free energy.

About Margot Krasojevic

Margot Krasojević has been developing a dialogue between architectural form, geometry, sustainability and smart materials as an inherent part of the design process, dictating the terms of the architectural design criteria rather than referring to sustainable technology as a polite afterthought.

Renewable energy and how to optimize the collaboration between program, typology, and architecture has always been at the forefront of the studio's research and design approach.

Following her Masters and Ph.D. in 1997 and 2003 respectively she worked at the Office of Zaha Hadid, opening her studio Margot Krasojević architecture IN 2004 and running design studios at The Bartlett, U.C.L. and the A.A.

For more information, www.margotkrasojevic.org. ■

Complexe Desjardins

Montreal, Canada





A new custom lighting design developed by Montreal based Lightemotion has made its mark in downtown Montreal. Working closely with the facilities team at Complexe Desjardins, Lightemotion has breathed new life into Montreal's largest mixed use development, totaling 4 million square feet. Located in the Quartier Des Spectacles and facing the recently renovated Place Des Arts, featuring an innovative lighting scheme designed by Lightemotion, Complexe Desjardins is the latest addition to the Quartier to include a dynamic and innovative lighting design strategy.

The client was interested in resolving numerous issues through a lighting design strategy for the interior retail concourse and two main entrances to the retail concourse. Lightemotion was selected to develop a distinctive new lighting scheme to create a warmer overall ambience, be dynamic and programmable, reduce heating and cooling costs and produce a call to action from the street so pedestrians will enter the complex. One of the main features of the design is the ability for the client to create programmable and dynamic lighting effects that adapt to the time of day, season and activity within the space. Environmental



sustainability was also paramount in the lighting program to reduce hydro consumption, cooling and maintenance costs.

We undertook an exhaustive research and mock-up program that recommended replacing the existing flood lights with a custom designed fixture. We conceived a bi-directional 140 watt LED lighting fixture that showcased the unique diamond coffered ceiling combined with a powerful down light to illuminate the entire shopping centre, adding much needed texture and nuance to the space. This also created unique floor pattern which enlivened the space enhanced intuitive wayfinding and also diminished the vastness of the space. "This lighting system not only provides a warmer ambience, with pre-programmed lighting that changes over the course of the day, but it is 67% more economical than the previous system and provides triple the lighting intensity at floor level!" explains François Roupinian, the founder and president of Lightemotion.

Custom Lighting Solution: To create a lighting ambience that is both friendly and dynamic, Lightemotion conceived a bidirectional LED (light-emitting diode) lighting fixture that



the Montreal company Lumenpulse developed for this project. Composed of two elements (a frame equipped with RGB LEDs and a downward-directed directional flood), this brand-new fixture both directs coloured light upward as well as directing lighting downwards towards the floor.

By installing one of these fixtures in each ceiling coffer, Lightemotion made it possible to create very subtle chromatic nuances that produce the effect of a path of colours covering the vault of the retail concourse. Outside, the marquees covering each of the building's two entrances have also been provided with a lighting system that can project onto the ground a chromatic ambience creating a call to action to enter the retail concourse. The down lights provide 4 times more lux level than the previous fixtures while also creating a visually stimulating pattern on the floor eliminating the typical flat floodlight wash effect.

The Urban Clock: Since the Complex is both an event space and shopping centre, there was a mandate to ensure the new fixtures provided a wide range of visual options. After a careful study of the traffic patterns based on time of day and activity, we developed an "Urban Clock" concept which uses programmable DMX system to adapt the colours, tones, intensity and colour temperature. Mornings were a bright and energetic dynamic white scheme to help people start their day.

For the lunch time rush we added warm colour tones to provide a luminothérapie effect, especially in the darker fall and winter months, and at night we selected darker tones in blues and greens to create a relaxing ambience for shopping. The custom fixtures were also used outside at each of the building's entrances. By utilizing the same design principles and technologies as inside, the entrance lighting system projects onto the sidewalk creating a chromatic coloured ambience which compliments the lighting display inside.

Environmental Stewardship: The lighting design does more than offer





a daily show to visitors and a visual signature to Complexe Desjardins. It is also much more energy-efficient than the traditional 400-watt lighting fixtures that replaced. Using only 132 watts each, the new fixtures reduce energy consumption by 67%. Because they are also equipped with photoelectric cells, they are capable of automatically adjusting the lighting intensity and power consumption to compensate for the amount of natural light entering the concourse through two large curtain wall windows at each of the two main entrances.

Company Background

Founded in 2002 by Francois Roupinian, IALD, Lightemotion is an independent global lighting design consultancy that combines outstanding lighting design with technical excellence.

With a passion for theatre, an eye for great design and expertise in the latest technologies, François and his team have created the exterior and interior lighting solutions for an impressive roster of global projects. As creative director, François has directed over sixty projects in five continents, collaborating with award-winning architecture, interior design and exhibit design firms within the cultural, retail, institutional, civic, master planning and hospitality sectors.

With his team of in-house lighting designers, theatre design experts, lighting engineers and interior architects, Lightemotion believes in a "design first" process. This approach has a proven track record of achieving clients' design and business objectives, which are translated into a creative visual language that delivers cost-effective and environmentally sustainable lighting solutions.

Lightemotion has enjoyed many accolades and has been published widely in leading international journals; selected publications include, Huffington Post, Dwell, Canadian Architect, Architectural Record, Mondo Arc, Lighting Magazine, LD+A and Objekt.

For more information, visit www.complexedesjardins.com. ■

Espace culturel Georges-Émile-Lapalme

Montreal, Canada





Lightemotion has been a key player in the revamping of the Espace culturel Georges-Émile-Lapalme in Place des Arts in Montreal for its 50th anniversary, working very closely with consortium architects Menkès Shooner Dagenais LeTourneux and Provencher Roy + Associés, under the artistic direction of Luc Plamondon, project manager for Place des Arts.

The revamping project, begun in May 2009, includes the renovation of all entrances and marquees for the five theatres in the Place des Arts complex. In addition, a box-office area, a multifunctional exhibit space, and a central theatre space under a series of immense skylights were created. These changes made it possible to highlight the artwork by Pierre Granche, create a modern wine bar – Place Deschamps – equipped with a small stage, and set up a multimedia zone located in the renovated central corridor. The project also includes changes to the outdoor facade of the main entrance and the esplanade. This has changed

the look and feel of Place des Arts for all users. A large marquee embraces the main entrance, and the esplanade has been equipped with signature custom-made lampposts designed by Lightemotion specifically for Place des Arts.

The key deliverables were focused on the creation of a flexible lighting system that would change at different times of day as the cultural space caters to different clienteles and activities. The main objective was to create a fusion between light and architecture, with lighting emanating from different elements to create a fuller and more integrated experience. While delicate shades of light from various sources permeate the space, dynamic signature wall showcases modulate the visual environment throughout the day.

People passing through the Espace culturel in the morning hours experience a soothing, warm pulsing light. Later in the day, people passing through the space have a different



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sensory experience as the lighting creates more dynamic movements in vibrant hues. During the evening hours, the entire space is transformed into a contemporary performance centre reflecting the cultural activities in the five performance halls through various interactions of lighting dynamics that create subtle changes in the space.

Custom fixtures were designed for all areas of the Espace culturel. A signature downlight that incorporates a luminous LED disk serves as general lighting and also creates visual sightlines that define the space's different areas. The luminous disks are individually controlled via DMX and create different movements and patterns, adding to the space's visual signature.

Special crackled-glass hanging fixtures were created for the wine bar; the fixtures are equipped with long bulbs with a "dancing" filament, once again generating subtle lighting movements that establish an intimate environment for all occasions. These fixtures are scattered around the area, and a cluster of them is placed over the lightest parts of the bar.

Place des Arts, a leading centre for all art disciplines and the featured cultural space in the heart of the Quartier des Spectacles, is also a daily hub for thousands of spectators, tourists, and users of the Montreal subway system. The Espace culturel Georges-Émile-Lapalme, with its vibrant décor and art program, is a welcoming place for all members of the public.

Lightemotion, An Illuminating Journey Around The World

Montrealer François Roupinian has surrounded himself with a multidisciplinary and multicultural team, managing projects in five languages. Lightemotion's origins are in the field of the performing arts and multimedia, and the company has expanded into other fields of expertise, such as architectural and museum lighting. Lightemotion's signature work has given it an international reputation through its work on major projects in Canada, Europe, the United States, Asia, and the Middle East.

The scope of the company's work is broad, including the lighting plans for exhibitions (Museum of Strasbourg, National Museum of Singapore, Naturalis Museum in Leiden), as well as casinos and cabarets (Hard Rock Hotel, Revel Casino Atlantic City in 2012).

Recently Lightemotion put its architectural lighting signature on the Indiana Jones travelling exhibit inaugurated at the Montreal Science Centre in May 2011; the Museo Nazionale dell'Automobile of Torino in Italy; the Auckland War Memorial Museum, marking its 80th anniversary; and the Wine Museum of Barolo in Italy. The Montreal company also created the dramatic lighting design for the Canada Pavilion in Shanghai 2010, as well as The Residences at the Ritz-Carlton, Montreal, which will be opening in 2012.

For more information, visit www.placedesarts.com. ■



NSBM Green University

Homagama, Sri Lanka

Lighting Solution Provider: Diesel & Motor Engineering PLC

Builder / Contractor: Maga Engineering Pvt Ltd

Project Consultant: Engineering Consultants (Pvt) Limited

Lighting Manufacturer: Vossloh-Schwabe Pte. Ltd.

Photos: Diesel & Motor Engineering PLC





Diesel & Motor Engineering PLC has been the lighting solution provider together with Vossloh-Schwabe and MAGA Engineering Pvt Ltd, for the NSBM Green University project completed in year 2016. It is the first ever green university in South Asia, supporting the project objective of paving the way for environmental sustainability in the educational sector. The university is spread over an area of 26 acres and providing opportunity to accommodate 30,000 students for the forecast year of 2024 for both national and international students to have a fully-fledged education in Sri Lanka.

According to the statement of Director Operations and Senior Lecturer, NSBM Green University, the project concept of Green has two phases of designing the infrastructure and embedding the green practices in to operations. The Design of civil construction was made to ensure the maximum sunlight penetration in to operational areas and lighting designs were carefully carried out to compensate the sunlight only when needed. The concept of LED lighting was effectively being utilised to enhance the energy consumption optimization.

The project proudly featured in this educational institute included lecture hall facilities, laboratories, libraries, study areas, dormitories and a gymnasium covering thirteen different sub building units. The interior lighting was designed by monitoring the critical parameter of lumens per Watt at all the application areas. Specific exterior lighting solutions were installed to enhance the aesthetics of the picturesque landscape areas ensuring the minimum light pollution.

The number of units supplied for the project counted

for 5,155 pieces LED recessed mounted Downlights in 12 W and 18 W cool white 6000 K colour temperature. The slim design with integrated drivers allowed for easy installation in false ceilings and direct connection to mains without additional connections. The downlights were fully compatible with existing conventional downlight infrastructure. The integration of solid state lighting technology into conventional down lights provided optimal light distribution and extended life time.

Vossloh-Schwabe's ELXc – ECO EffectLine warm start for T5 and T8 lamps in 14 W, 18 W, 28 W and 36 W optimised to operate conventional fluorescent fittings. A total of 3410 pieces of electronic built-in ballasts were used through out the university campus.

The facilitated LED based lighting solutions met the performance in energy conservation to support the project concept of making the institute green and meeting the customers requirements in real time. The savings calculated for an improvement level with better effects between 40% - 50% in specific lighting applications.

MAGA Engineering Pvt Ltd is a construction company well known in South Asia, has been the main contractor for this mega project. MAGA appointed DIMO as a sub-contractor to supply lighting solutions for the project. Engineering Consultants (Pvt) Limited (ECL) which is a multi-disciplinary consulting company facilitated architectural & project management services for the successive of undertaken NSBM project.

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

The Ajax Experience

Amsterdam, The Netherlands



Lightemotion, the Montreal-based lighting design studio, has illuminated the Ajax Experience, a new interactive museum that tells the story of Ajax FC, one of Europe's oldest and most prestigious football clubs from the Netherlands.

Located in an existing building in central Amsterdam, the Ajax Experience has been architecturally designed by Sid Lee Architecture in collaboration with interactive and exhibit designer gsmprjct° who designed the museum scenography, Sid Lee and Jimmy Lee. Lightemotion was commissioned alongside these respected architecture and design studios, with whom it has collaborated before, to bring even more dynamism and excitement to the Ajax Experience.

Francois Roupinian, founder of Lightemotion, says: "Ajax is one of the most respected football clubs in the world, and it is renowned for its innovative training methods. We have tried to capture the romance of the game and the inspiration behind the cutting edge techniques of the club in our work. We want to create an atmosphere that is dynamic and celebratory, inspirational and exciting, just like Ajax FC."

Split into three main areas, the Ajax Experience begins in the History Hall. This bright space, lit partially by daylight, presented a few challenges

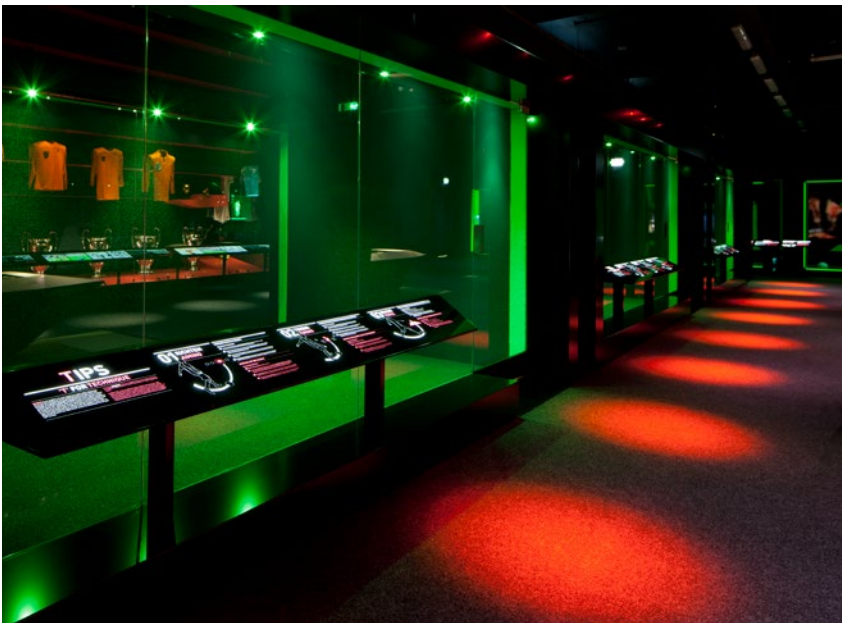






to Lightemotion because of the diversely angled wall and a ceiling with a steep diagonal pitch. Metal halide light sources are installed on structural columns, cross lighting the dynamic wall, while LED fixtures bathe the red inclined ceiling plane.

“When you’re in the space, you don’t notice the lighting,” says Roupinian. “The wall just seems to glow.”



Visitors step from the History Hall into the Ajax Academy and instantly the atmosphere changes. Here, in the confines of a windowless space, black angular walls are a backdrop for both traditional and interactive exhibits. The space is dark. Illumination is concentrated on the exhibits, and here again it is unnoticeable.

Using LEDs and halogen lamps Lightemotion illuminates the showcase displays from within, via backlit panels and spotlights; while ceiling mounted fixtures, quite literally put the spotlight on the visitor as they travel through the exhibition.



“We’re giving the visitor a taste of what it’s like to be a famous player. Putting them in the spotlight creates a connection, a relationship between them and their heroes,” says Roupinian.

Visitors also get the chance to visit the locker room and take a walk down the tunnel to the pitch. Red spotlights again make the visitor the star of the show, while red beams create the illusion of the stadium.

The final space is the Retail store. As in the History Hall, daylight is supplemented by discreet artificial lighting. However, Lightemotion has opted to uplift the merchandise displays to retain the ‘exhibit’ feel and thus enhance the buying experience.

“Our challenge was to create a dynamic solution for the Ajax Experience amidst many different installations and spaces,” says Roupinian. “The key to the success of our design was using only a narrow range of product types - Luminergie, iGuzzini and Philips Selecon – but concentrating on high quality light sources and accessories along with extremely good control of the lighting.”

The result is an exciting museum experience filled with a dynamism that has been created by light, and Lightemotion.

Lightemotion: Lighting Up The World

François Roupinian, founder of Lightemotion, has surrounded himself with a multidisciplinary, multicultural team, managing projects in no less than five languages. Lightemotion, presently celebrating its tenth anniversary in 2012, has origins in the fields of the performing arts and multimedia. The company has since expanded into other fields of expertise, such as architectural and museum lighting; its signature style giving the studio an international reputation through work on major projects in Canada, Europe, the United States, Asia, the Middle East, New Zealand and Australia.



The scope of the company's work is broad, including lighting designs for exhibitions (Museum of Strasbourg, Naturalis Museum in Leiden, National Museum of Singapore and the country's National Library), as well as cabarets (at the Hard Rock Hotel in Las Vegas) and casinos, such as the Revel Casino in Atlantic City which is due to be completed in 2012.

Recently, Lightemotion put its architectural lighting signature on the the Indiana Jones and the Adventure of Archeology travelling exhibit inaugurated at the Montreal Science Centre; the Museo Nazionale dell'Automobile of Torino and the Wine Museum of Barolo in Italy; plus the Auckland War Memorial Museum, marking its 80th anniversary.

The Montreal-based company also created the dramatic lighting design for the Canada Pavilion in Shanghai at Expo 2010, as well as The Residences at the Ritz-Carlton in Montreal, opening in 2012.

For more information, visit www.amsterdamtips.com/tips/ajax-experience.php. ■



Tirpitz Museum

Blåvand, Denmark

Size: 2,800 m²

Collaborators: Kloosterboer Decor, Akt, Big Ideas, Fuldendt, Lüchinger+Meyer, Cowi, Svend Ole Hansen, Gade & Mortensen Akustik, Bach Landskab, Ingeniørgruppen Syd, Kjær & Trillingsgaard, Pelcon





Varde Museums, BIG-Bjarke Ingels Group, and Tinker Imagineers celebrate the opening of TIRPITZ – a sanctuary in the sand that acts as a gentle counterbalance to the dramatic war history of the site in Blåvand on the west coast of Denmark.

The new TIRPITZ transforms and expands a historic German WWII bunker into a groundbreaking cultural complex comprising four exhibitions within a single structure, seamlessly embedded into the protected shorelands of Blåvand in western Denmark. The construction of the 2,800 m² ‘invisible museum’ expected to attract around 100,000 visitors annually.

“The new TIRPITZ is planned, built and furnished as a portal to the Danish West Coast’s treasure trove of hidden stories. It has been our goal to create a humble, world-class attraction surprising its visitors with new perspectives on the majestic landscape. Our guests deserve the best; with BIG’s limitless and inviting architecture and with Tinker Imagineers’ wondrous and playful exhibitions, I feel we have achieved this. TIRPITZ is an incredible, one-of-a-kind experience – violent, astonishing, dramatic, hidden – almost invisible,” says, Claus Kjeld Jensen, Director of Varde Museum.

As an antithesis to the heavy volume of the WWII bunker, the museum appears subtly as the intersection between



a series of precise cuts into the landscape. Contrary to the hefty and intrusive regelbau construction of the original artillery fortress – simply designed as an immense concrete block – the new TIRPITZ finely cuts into the dune and camouflages with the landscape.

“The architecture of the TIRPITZ is the antithesis to the WWII bunker. The heavy hermetic object is countered by the inviting lightness and openness of the new museum. The galleries are integrated into the dunes like an open oasis in the sand – a sharp contrast to the Nazi fortress’ concrete monolith. The surrounding heath-lined pathways cut into the dunes from all sides descending to meet in a central clearing, bringing daylight and air into the heart of the complex. The bunker remains the only landmark of a not so distant dark heritage that upon close inspection marks the entrance to a new cultural meeting place.” - Bjarke Ingels, Founding Partner, BIG.

Upon arrival, the visitors will first see the bunker and as they approach, see the fine cuts and paths leading towards the center of the museum complex. The central courtyard allows access into the four underground gallery spaces that have an abundance of daylight even though they are literally carved into the sand. The exhibitions, designed by Dutch agency Tinker Imagineers showcase permanent and temporary themed experiences. Every

gallery has its own rhythm, beating in sync with its storyline: high and low, night and day, good and bad, hot and cold, the passing of time.

Army of Concrete tells the human stories in the shadow of Hitler’s enormous defense project, the Atlantic Wall, such as Anna’s, the girl who had a child with a German soldier; Gold of the West Coast is Western Europe’s most comprehensive exhibition of amber, presented in an enchanting steel forest. Along with its changing colours and sounds, the atmosphere of the rooms alternates between warm and cold: references to the history of amber; and West Coast Stories tells 100,000 years of west coast history and is turned into a nighttime 4D theatre twice an hour. The audio-visual theatre has visitors sit down in a lifeboat before taking them on a tempestuous journey through time.

From the sunken galleries, visitors are able to walk into the historic bunker, which grounds the tale of an impressive war machine. In the dark visitors can play with light and activate shadow plays that reveal how the bunker should have functioned.

“TIRPITZ is a unique opportunity to combine nature and culture in a spectacular fashion. A visit to the museum is not a visit to an exhibition gallery, but a scenic journey



through time and space of West Jutland. The idea is that the whole place itself comes to life following the rhythms of nature.” - Erik Bär, Founding Partner, Tinker imagineers.

The building consists of four main materials and elements which are also found in the existing structures and natural landscape of the area – concrete, steel, glass and wood. The walls of the exhibition rooms are made of concrete cast onsite, supporting the landscape and carrying the fascinating roof decks that cantilever out 36 m. The largest roof deck weighs about 1.090 ton and the complex roof structure is engineered by Swiss Lüchinger+Meyer. The main interior materials utilized throughout the gallery spaces are wood and hot rolled steel which is applied to all the interior walls. 6m tall glass panels face the outdoor courtyard, allowing natural daylight into the four exhibition spaces.

About BIG - Bjarke Ingels Group

BIG is a Copenhagen, New York and London based group of architects, designers, builders, and thinkers operating within the fields of architecture, urbanism, interior design, landscape design, product design, research

and development. TIRPITZ contributes further to BIG's experience in museum design, particularly in integrating landscape with cultural programs, while preserving the historic value and natural environment. In 2013, BIG completed the Danish National Maritime Museum, in which crucial historic elements are integrated in an innovative concept of submersed galleries.

About Tinker imagineers

Tinker imagineers is an experience design and production agency from Utrecht, The Netherlands. It celebrated its 25th anniversary in 2016. Rooted in cognitive psychology, Tinker mixes the latest insights in human sensemaking with the storytelling and creative use of media technology. With a team of around forty consultants, designers, content and multimedia developers and producers Tinker realises museums, visitor centres, and experiences for business and community organisations and has a broad national and international portfolio. Recently they renewed Pete Mondrian's house of birth with an immersive, multimedia experience.

For more information, visit

www.vardemuseerne.dk/museum/tirpitz. ■



LED LINE FLEX MODULES - NEW AND BENDY LED MODULES

By Vossloh-Schwabe
www.vossloh-schwabe.com



LEDLine Flex SMD Indoor



LEDLine Flex SMD Advanced

Photo Credit: Vossloh-Schwabe

Featuring a low installation height and backed with a self-adhesive strip, Vossloh-Schwabe's LEDLine Flex modules are designed for applications in protected indoor areas.

Delivering up to 139 lm/W, the LEDLine Flex SMD Indoor module provides a highly efficient and bendable LED module with a total length of 5 m per roll. These modules are available in two output classes (6.5 W/m and 10.5 W/m) and in light temperatures of 3000 K, 4000 K and 5700 K with an initial colour tolerance of 3 SDCM. The total length of 5 metres can be separated into 30 or 50 individual segments, each with 7 SMD LEDs. On-board power adjustment goes to ensure constant luminous flux over the entire 5-metre length.

With a service life of 50,000 hours, a minimal decrease in luminous flux (L90/B10) and an integrated ESD protection diode (2 kV), the made-in-Germany LEDLine Flex SMD Advanced model constitutes a high quality alternative. The total length of 4 metres can be divided into 40 individual segments, each with 6 SMDs. This module is available in 6 shades of white and the package is rounded off by accessories such as PCB connectors.

Both versions are fitted with connection leads, which are soldered onto the input side, and feature an angle of radiation of 120° as well as a CRI of $R_a > 80$.



Photo Credit: istockphoto.com

Typical applications include illumination of complex structures, marking paths, stairs, etc. Ideal for furniture lighting, light advertising, entertainment and shop design. It also makes for good architectural illumination.

LEDLine Flex SMD Indoor

- Flexible SMD line module with low mounting height and self-adhesive rear panel
- On-board current regulation for guaranteed constant luminous flux on long feed-in length
- Highly efficient: up to 139 lm/W
- Available in different colour temperature
- Low colour tolerance: 3-Step MacAdam
- Service lifetime: 36,000 H (L70/B50)
- Inverse-polarity protection

LEDLine Flex SMD Advanced

- Extremely flexible SMD Line module
- Available in different white tones
- Low heat development
- Self-adhesive rear panel
- Integrated ESD protection diode: up to 2000 V
- Expected lifetime: 50,000 H (L90/B10)
- Made in Germany

Wi-Fi Streetlight

By Schröder
www.schreder.com



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

Innovation in Milton Keynes

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

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



The Shuffle Solution

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

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

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

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

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

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.



YAHAM LED High Bay Light Series for Professional Industrial Lighting Solution

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

Photo Credits: YAHAM Lighting

As a professional LED industrial lights manufacturer, YAHAM lighting always upholds the spirit of innovation in order to provide complete ranges of lighting solutions for customers worldwide. YAHAM LED high bay lights all are high efficiency, light weight and compact dimension, which win high praises from the users all over the world.



Compact Mg Series

Magnesium aluminum alloy heat sink brings Compact Mg ultra lightweight and ultra high strength. The annular lens design to adjust beam angle meets different application needs.

- 90W/120W/150W available
- 150lm/W (130lm/W optional)
- High efficacy up to 22,500lm
- Beam Angle: 120°, 60° and 90° optional
- IP65 and 5 years warranty



Compact V Series

Special hook design for much easier mounting. Annular lens, arc lampshade, PC lens, AL1100 aluminum lampshade and PC lampshade are optional for different beam angle needs.

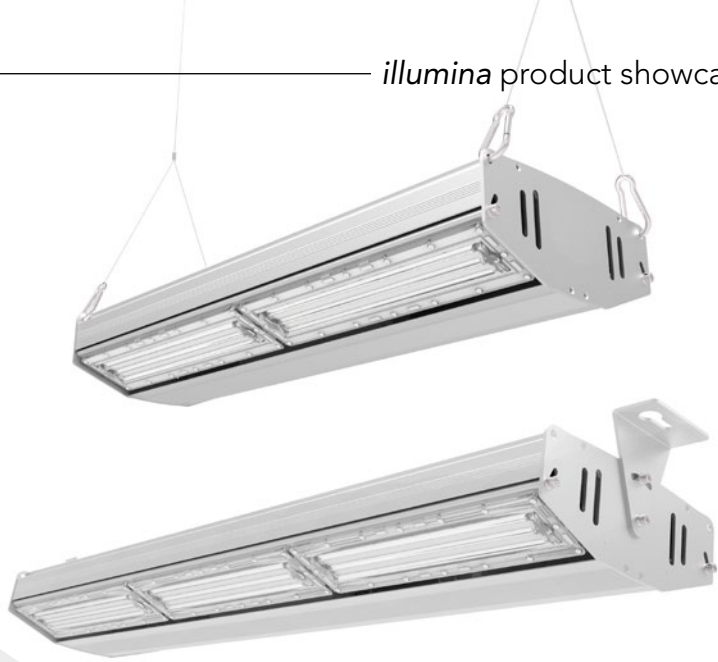
- 130lm/W (150lm/W optional)
- 100W/150W/200W available
- High efficacy up to 26,000lm
- Beam Angle: 120°, 60°, 70° and 90° optional
- IP65 and 5 years warranty



Linear PRO Series

Extrusion aluminum based housing ensures structural toughness and lightweight. Shaft Pin Structure makes the angle of Linear PRO adjustable to apply for different width aisles.

- 120W/150W/200W/300W available
- 130lm/W
- High efficacy up to 39,000lm
- Beam Angle:65°~80°x110°
- IP65 and 7 years warranty



120° AL1100 Aluminum

90° PMMA

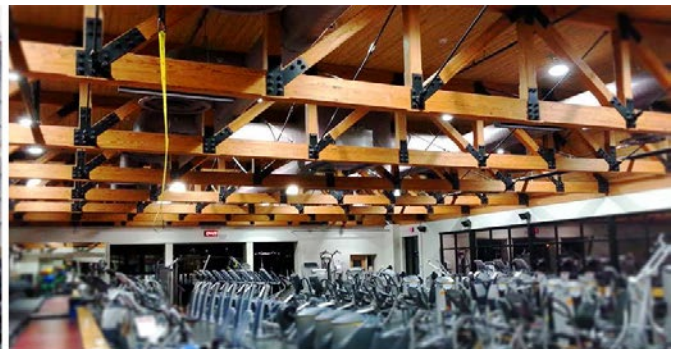
70° PC

Neo-Lux Series

The perfect combination of extrusion aluminum heat sink and arc lampshade makes Neo-Lux extremely aesthetic, compact and with higher light transmittance.

- 60W/100W/150W/200W available
- 130lm/W
- High efficacy up to 26,000lm
- Beam Angle:120°, 70°and 90°optional
- IP65 and 5 years warranty

Suitable for workshop, warehouse, exhibition halls, gymnasiums, toll stations, supermarkets, garages, construction sites, parking lots, courtyards, etc.



RST® MINI – Click & Safe

The smallest connector from Wieland Electric now with even easier handling

By Wieland Electric GmbH

www.wieland-electric.com



The RST® MINI, the smallest installation plug connector with maximum IP rating, now scores with even easier handling. The patented twist lock technology makes it possible: The plug connection engages automatically when plugged in – an audible “click” signals the error-free and tight connection to the user.

The RST® MINI was developed especially for the lighting technology, but is also used where compact design and a space-saving construction is needed. The 3- and 5- pole plug connector is well suited to diverse requirements with ratings of 250/400 V and 16A with a IP66, IP69 and IP68 protection rating (3m;2h).

According to the IEC 61535, the RST® MINI meets the highest safety requirements with regard to:

- Protection against electric shock
- Resistance to overheating
- Hazard-inducing interchangeability

The RST® MINI is not only a plug connector but also an installation system: Device connections, ready-made lines and distributor elements complete the portfolio. The 2-part plug connectors are quickly mounted; mechanical and color coding prevents incorrect mating. The plug connectors are also available in a 2- and 4-pole version.



LUMIWAY3 SERIES LED FLOOD LIGHT

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

With high efficiency up to 140lm/W, Lumiway3 series LED flood light is minimalist design but high performance. The luminaire is professional outdoor lighting with 30°x30°, 60° x 90° and 85° x 150° beam angle, which can adapt to different applications. The Extrusion aluminum sandblasting anodized heat sink has excellent heat dissipation and corrosion resistance. 50W / 100W / 150W / 200W with adjustable cold-rolled steel sheet mounting bracket are optional.



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By Defiant Lighting
www.homedepot.com

This LED Motion Floodlight provides 1200 Lumens of light output for increased safety, security and peace of mind. Motion-Off technology allows the motion sensor to be turned off which puts the light into dusk to dawn mode allowing the light to turn on at dusk and go off at dawn by internal photocell. Never change a bulb with this LED technology, 3 easy steps to install, and Wall or Eave mount applications.



ELLIS BRONZE OUTDOOR UP AND DOWNLIGHT

By Possini
www.lampsplus.com/possini-euro-design-lighting

Add this warm bronze finish outdoor wall light to your porch or other outside wall. The cylinder shape aluminum body in black will stand out against your wall. This dual up and downlight style fixture sends beautiful illumination up from the top and out from the bottom of the design.



DESMOND

By Hudson Valley Lighting®

www.hudsonvalleylighting.com

The motorcycle is a potent piece of American mythology, its engine and mufflers roaring and snarling from the redwood forests to the Gulf Stream waters. Proud owners travel in packs to enjoy the beauty of the land and admire each other's meticulously maintained machines. It's possible, in Desmond's angle-cut arms and knurled bulb base, to see an homage to this iconic vehicle.

- Desmond pays homage to iconic American motorcycles
- Features angle-cut arms and a knurled bulb base
- Fitted with spiral carbon-filament bulbs, even in the straight, single pendant variation
- Available in a variety of sizes, which makes it suitable for any room in the home
- Offered as a three-light flush mount, a one-, four- or six-light pendant and a two-light sconce
- Includes aged brass and polished nickel finish options



AUDIOPHILE

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www.troy-lighting.com

- Turns up style with modern nostalgia by combining retro and contemporary flair
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- Includes a handworked iron frame, clear blown glass shades, vintage inspired bulbs and aluminum accents
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www.busterandpunch.com

A single light pendant made from solid metal and finished with a matt black rubber cord.

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Website: www.ledlightasia.com

MYANMAR BUILD & DÉCOR 2017

OCTOBER 5 – 7

Myanmar Event Park (MEP)
Yangon, Myanmar

Email: info@icvex.com

Website: www.icvex.com

November 2017

FENESTRATION BAU CHINA 2017

NOVEMBER 7 – 10

Shanghai New International Expo Center
Shanghai, China

Email: kate.mao@mm-sh.com

Website: www.bauchina.com

THE BIG 5 CONSTRUCT INDONESIA

NOVEMBER 8 – 10

Jakarta Convention Centre
Jakarta, Indonesia

Email: info@konstruksiindonesiabig5.com

Website: www.konstruksiindonesiabig5.com

THAILAND LIGHTING FAIR 2017

NOVEMBER 16 – 18

Hall 102-104, BITEC
Bangkok, Thailand

Email: info@thailandlightingfair.com

Website: www.thailandlightingfair.com

March 2018

MEGABUILD INDONESIA 2018

MARCH 15 – 18

Jakarta Convention Centre
Jakarta, Indonesia

Email: eric.antonius@reedpanorama.com

Website: www.megabuild.co.id

June 2018

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