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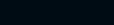
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Dear Readers,

Dazzled by our cover yet? Details in Thai architecture commonly have hidden meaning reflecting the stories from the past. Even though we can see the details clearly by daylight during daytime, artificial light plays an important role in highlighting them in night-time. Through strategic lighting design, light can be a holistic medium for storytelling. Hop over to our cover story to read over!

A project close to my heart is the always-stellar Quartier des Spectacles. After its first full year, the Quartier des Spectacles Partnership's program for the export of its public art installations is a clear success: to date, six works produced and premiered in Montreal have been presented in 20 cities at 25 cultural events and festivals and have been seen by millions of people in North America, Europe and the Middle East. Read the full story in our special feature.

Have something lighting related to share? Send it in! We welcome submissions and would be happy to feature pieces from loyal readers. Till then, happy reading!

Nicole Lee

Nicole Lee Editor

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THE CHANGING WORLD OF Lighting and the IoT, a new dawn for lighting designers

By the time you read this issue of the magazine many of you, me included, would have returned from Frankfurt attending Light & Build, the worlds' foremost lighting fair showing the latest in lighting innovations and technologies. As I write this column I am looking excitedly forward to going and exploring what the lighting manufacturers will show of what is cooking in their kitchen. It is a known fact that many manufacturers hold back product launches till after the fair, using the fair as the platform to introduce their latest innovations. Some will show prototypes to gauge the reactions of the public, some will use it as a full-blown launch event with parties and media coverage. It makes sense as they have literally the whole world visiting the Fair, a unique opportunity to reach out directly to potential buyers, users and specifiers.

My specific interest will be towards the IoT and what kind of technologies will be integrated into the lighting systems. It is obvious that lighting is a prime choice to be the host and carrier for IoT devices. As we are progressing in this world where lighting is becoming the host for IoT it is becoming clear that the lighting performance and quality functions are getting more and more competition from non-related lighting functions. The new generation lighting systems will be able to see, sense and communicate!

Seeing in terms of being able to actually record persons, activities and movements through low pixel camera technology build into the lighting systems IoT device. We all know how small your mobile phone or laptop camera is, so it is no surprise that this could be easily build into the trim of a light fitting. Privacy laws however restrict this to be of a low pixel grade, showing only shape, density and velocity. But it is easy to "see" that in some cases like public areas, where security is of importance, this could become a high definition camera sensor with facial recognition ability.

Sensing in terms of measuring changes in space; these are lighting and non-lighting related. Change in lighting levels, light output, changes in colour temperature, energy consumption and others related to the performance quality of the artificial lighting. Sensing of course can also relate to the varying impact of natural daylighting. But all this is technically "old news", we have been dealing with this for years. What is not "old news" is the fact that the IoT sensor device can register temperature changes, humidity changes, air-conditioning levels, approaching "objects" and the presence of other IoT or mobile devices. It subsequently can analyse and activate a pre-programmed action to adapt to the situation.

Communicate in terms of lighting points "talking" to each other, to a central communications center or to mobile devices. Some use Bluetooth mesh as the communications platform, some use Zigbee and there are probably others. This communication is two ways and either initiated manually (yes a human being can still be involved...) or through AI, Artificial Intelligence, either through pre-programmed actions and reactions or through its own determined intelligence. All these functions can then be combined and channeled into an "operations center" allowing the "operator" to analyse, manage the space and take care of, with in this case, pre-emptive maintenance for instance.

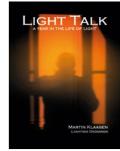
What does that mean for the lighting designer? The important thing to note here is that the IoT data infra-structure including the data analytics requirements will come from an outside third party, in other words, not only will you have to deal with your client, your regular project design team with architects, interior designers, QS and so on, now there will also be an IoT data specific brief. While that may seem irrelevant to lighting design at first sight, the moment the data infra-structure is being embedded in your lighting points it becomes a whole new challenge!

Last but not least one of the interesting things to explore in Frankfurt will be the level of LiFi developments. The light frequency-based internet connectivity has been promoted by several manufacturers and even though it is still in a relative infancy, there are already several working pilot projects and it is only a matter of time before LiFi will become the norm rather than the exception.

I mentioned it before and I repeat it again, if we want to keep up with the changing world of IoT, lighting designers will need to up their game and become knowledgeable about what it means to apply IoT infrastructures in our lighting systems.

Follow Martin's daily blog about lighting, Light Talk, at: http://lighttalk.via-verlag.com





Martin's Book, 'Light Talk, A Year in the Life of Light ' (ISBN: 978-981-07-0120-8), To order a hard copy \rightarrow email: lighttalk@kldesign.co or log into the website at www.kldesign.co/media/lighttalk To purchase the book \rightarrow Kinokuniya bookstore \rightarrow Ngee Ann City, Singapore

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

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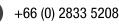
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AN ALL-ROUND SUCCESS: TAILOR-MADE LED LIGHTING SYSTEM FOR THE HEADQUARTERS OF DSPACE IN PADERBORN



The central elliptical atrium of the headquarters of dSPACE in Paderborn can be seen for miles around thanks to the new LED lighting. Luminaire manufacturer Erventec worked closely with Tridonic to develop a new LED lighting system for the atrium, adapted specifically for the ceiling geometry. The system not only meets high demands in terms of design but also consumes only half as much energy as the previous solution.

dSPACE in Paderborn is often cited as a classic success story. Founded in 1988 as a spin-off from the University of Paderborn by Dr. Herbert Hanselmann and a number of partners, dSPACE now employs 1,400 people from 34 nations worldwide on creating successful hardware and software for developing and testing control devices for the automotive and aviation industries. By the summer of 2006 the site of the original headquarters in the Paderborn Technology Park threatened to burst at the seams – a new building was needed and the company moved into the new building in 2010.

The headquarters in central Paderborn has is flooded with light, giving it an open feel. The heart of the building is the generous atrium with its staircase and two glass elevators. Leading off from the central hall are the four wings of the X-shaped building containing the office spaces. The basic elliptical shape of the impressive void extending over all the floors is repeated in the clerestory roof.

Homogeneous Illumination Fulfils Different Requirements

It was this elliptical shape that presented a special challenge to the specialists at Erventec and Tridonic. It was not just a question of meeting the photometric, functional and aesthetic criteria but a high degree of design intelligence was required. "We had to install the new lighting system in the existing elliptical ceiling channels with relatively large tolerances", said Erventec boss Andreas Ervens. Technical manager Eberhard Stölzner added: "Despite the inhomogeneity in the ceiling channel we had to create the appearance of uniform, homogeneous strips of light."

They have multiple functions, serving as background lighting for the atrium and the foyer and at the same time providing standard-compliant light for the traffic routes, namely the encircling galleries and the zones leading to the office wings. In the event of a power failure, they also function as emergency lighting, powered by a central battery. Last but not least, the lighting strips are a major design element for the internal and external effect of the atrium.

Asymmetrical Led Arrangement For Standard-Compliant Light

The photometric solution to cover these diverse requirements was implemented in close collaboration with Tridonic. At the heart of the lighting system are two different LLE ADVANCED linear LED modules and dimmable LCAI 65W LED drivers. The 280 mm long rectangular LED modules are combined to create a polygon in a luminaire unit, resulting in a homogeneous elliptical strip of light thanks to appropriately curved covers.

The key here is the arrangement of the LED modules in two parallel rows. While one row directs light downwards from 55 mm wide boards with three LEDs arranged next to one another, the second row is tilted through 45 degrees. The light from the linear 23.6 mm wide LED modules is therefore emitted at the side. The asymmetrical LED arrangement is necessary because the lines of light run around the inner ceiling edge of the elliptical gallery floors. The 5th Edition of Myanmar Build & Decor



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"The combination of downward light and side emitting LEDs achieves the required illuminance levels with a high degree of uniformity", explained Gisbert Schubert from Tridonic. "With a luminous efficacy of up to 187 lm/W, the LED modules are extremely efficient, and with a life of 50,000 hours they are a reliable maintenance-free solution", added Schubert. Tridonic also offers support in the design-in process and a five-year guarantee.

Lighting Expertise Coupled With Design Know-How

Development of this special solution took some time. Since no two ellipses were exactly the same, 3D laser measurements were taken for each floor from the centre of the atrium. This was the only way to determine the curvature of the covers for each individual luminaire unit in the elliptical line of light. The U-profile PMMA luminaire cover protrudes from the ceiling channel by 25 mm. This means that the light lines can be also be seen from the side, emphasizing the contours of the galleries.

Models and full-scale mock-ups were used to test the interplay between the LED modules and the luminaire covers. Different transmission levels for the cover were tested, for example. The prototype was also used to develop an additional glare shield at the ends of the luminaire units, otherwise it would have been possible to look at the light sources directly from a certain angle.

Simple Handling, Efficient Operation And Excellent Quality

In all, around 400 metres of linear LED modules and 200 metres of light lines were installed at dSPACE corresponding to 158 tailor-made luminaire units. They can be mounted on and dismantled from the carrier system integrated in the ceiling channel without the need for a tool. The carrier system also accommodated the LED drivers. With the aid of DALI, each individual luminaire unit, and therefore the entire line of light on each floor can be dimmed. The old system from 2009 consisted of curved free-burning fluorescent tubes and resulted in very high maintenance and replacement costs for the special light sources. The new system reduced energy costs by half and considerably improved the quality of light. The homogeneous light lines provide standard-compliant illumination, make the building a more pleasant place to work and give the atrium a splendid prestigious appearance.

For more information, visit www.tridonic.com.

CHRISTIE INNOVATIONS DELIVER A HAT-TRICK OF WINS AT BEST OF ISE AWARDS



Christie has received a trio of awards in rAVe Publications' 2018 Best of ISE Awards. Christie® Velvet® CorePlus LED received Best Module LED Wall Product, Christie Guardian was awarded Best New Technology, and Christie's integration of SDVoE Technology with the Christie Boxer 3DLP® projector scooped the Best ISE Gutsy/Kudos Award.

"It's a pleasure to receive these three prestigious awards at such an important show for the industry," says Kathryn Cress, vice president, global & corporate marketing, Christie. "This success is a testament of our engineering capability as well as our ongoing commitment to delivering customer-focused solutions, and our presence at ISE highlighted what Christie offers in the marketplace. Whether it's a large scale or small-scale installation, Christie has the right technology for the application."

On show for the first time at ISE 2018 was the new Christie Velvet CorePlus LED video wall, which delivers unparalleled design flexibility for a value-priced LED video wall solution. Ranging in pixel pitches from 1.2 to 4.0 millimeters,

the single architecture scales more easily to popular resolutions including 4K, is fully customizable with remote and on-board options, and can be both installed and serviced from either the front or back. Perfect for public spaces, casinos, theme parks, houses of worship, broadcast, control rooms, and conference rooms among many other applications, its direct mount system allows for a narrow-installed depth of less than 100 millimeters, making it ADA-compliant.

Christie Guardian software made its technology preview with an award win. Working in conjunction with Christie Mystique, Guardian provides a solution to the pervasive problem of misalignment in blended images in both rental and fixed install environments. Guardian automatically scans blended images to check whether they are perfectly aligned. If it detects a misaligned image, it will automatically work out a new solution and apply this within seconds to correct the image, with no disruptions, and test patterns required. Mystique works with either Christie's Crimson or Boxer projectors to ensure that customers receive the best, most consistent image possible.

In another innovation that caught the eyes of rAVe Publication editors, the Christie Boxer 3DLP became the first projector to integrate directly to an Ethernet network to accept realtime, 4K/60 AV content and control using SDVoE technology. The Christie Terra SDVoE input board for Boxer

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About Christie

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EASTMAN INTRODUCES ILLUSION WHITE TO ITS VANCEVA® WHITE COLLECTION: A SIMPLY BEAUTIFUL OPTION FOR PROVIDING TRANSLUCENT TRANSITIONING IN GLAZING

astman (NYSE: EMN), manufacturer of the Vanceva® Color System for laminated glass, is expanding the Vanceva White Collection to include Vanceva Illusion White. This translucent gradient PVB interlayer for laminated glass offers the ability to transition from medium translucence to full transparency.

Vanceva Illusion White provides architects and designers an alternative method to achieve a translucent transitioning effect in glazing. It is an excellent substitute to ceramic frits, painting, or printing with acid etching or silkscreening. Vanceva Illusion White starts with the medium level translucence of Vanceva Arctic Snow white interlayer, which offers a visible light transmission of 65 percent, and fades to clear within a 30 cm gradient.

Eastman developed Vanceva Illusion White strategically for use in balcony applications to help hide certain aspects of construction, such as the concrete slab, while fading to clear for an uncompromised view. It maintains excellent color consistency with glass thickness variation and uses heat / light-stable colorants to resist fading.

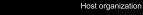
"Vanceva Illusion White was created to provide architects and designers another tool to accentuate compelling vistas while creating an elegant glazing effect," says Axel Demberger, Market Development Manager. "It works well in urban and rural settings, transforming ordinary glass into stylish safety glass wherever it is used."

Illusion White can be combined with Saflex® Structural (DG) for its inherent laminated safety aspects such as post breakage behavior. Saflex Structural (DG) is capable of keeping glass intact at high and low temperatures after impact and under load, plus it's formulated to provide robust resistance to delamination and excellent edge stability.



Although Vanceva Illusion White was created with balcony applications in mind, Vanceva Illusion White delivers all the value-added benefits essential in laminated glass, including safety, security, soundproofing, solar protection, and storm protection. It is also compatible with all Saflex® PVB interlayers to achieve specific performance qualities, such as Saflex Structural PVB (DG) for high-performance strength.

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CLAYPAKY SCENIUS UNICO IS A 'STAR' PERFORMER FOR MONSTERS OF ROCK



The Claypaky Scenius Unico made its official debut in Argentina at the renowned Monsters of Rock (MOR) Argentina festival at Tecnópolis, Buenos Aires. The highimpact light show for the outdoor festival, part of the global Monsters of Rock movement, was designed by lighting designer Bryan Hartley and featured the Scenuis Unico as the show's high impact workhorse fixture.

Headlining MOR Argentina was world-famous heavy metal band Megadeth who were joined by acts including Rata Blanca, Anthrax and others at the day-long festival. Hartley was tasked with designing a versatile rig that could produce a wide range of looks for the international visiting bands. He selected the Scenius Unico for its ability to perform in three powerful modes, Spot, Beam and Wash, allowing him to craft a range of lighting looks for each band in the festival's line-up.

Hartley rigged 36 Unicos on three lines of overhead truss to provide a dramatic downlight that characterised his classic rock 'n' roll design. "The Unico perfectly adapts to indoor, theatrical and, in this case, outdoor environments," says Hugo Mossi, Business Manager of Buenos Aires Live Show (BALS), the Argentinian production specialist who coordinated and facilitated the lighting and sound elements for MOR Argentina's eighth edition.

"The Unico has a very powerful selection of modes and a great CTO," he continues. "The colours it produces are strong and varied. I can say that I have not seen such a strong combination of features in any other fixture in its class on the market."





Gonzalo Diaz Blasco, owner of Macaio, Claypaky's Argentinian distributor who supplied the Scenius Unico units to BALS agrees, "The Scenius Unico was perfect for this show as it is a highly versatile and powerful fixture," he says. "Its features allowed Bryan the creative freedom to design in Spot, Beam and Wash modes and the possibility of making precise, framed movements thanks to its framing system. The two rotating gobo wheels each include six interchangeable gobos, which with the rotating prism and interchangeable effects wheel, meant Bryan had endless possibilities for his design."

"We believe that the Scenius Unico will become the standard fixture for entertainment lighting in the world market," says Mossi. "Riders for Phil Collins, Katy Perry and Ed Sheeran have all come through with Unicos specified, so they were a fantastic addition to this show."

Blasco concurs, "The Scenius Unicos were the stars of Monsters of Rock. They were up to the challenge of lighting this renowned festival."

MOR Argentina is due to return in 2018 and is part of the global Monsters of Rock movement that includes the US radio station and cruise enterprise. Originating in Castle Donington in England, MOR festivals are held in multiple countries including the Netherlands, Spain, France and Brazil. The Argentinian chapter has been running since 1994 and has featured bands such as KISS, Black Sabbath and Alice Cooper.

For more information, visit www.claypaky.it.

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CHAUVET PROFESSIONAL SETS MOOD FOR 3 DOORS DOWN AT BOB'S BIKER BASH



E ven before the opening notes were sounded for Bob's Biker Bash on November 4, John Garberson knew it was going to be a great night. Behind the stage, the setting Arizona sun was blazing a glorious red that looked as if it came out of a classic western movie. "It was the perfect setting for an outdoor concert, and everything that followed lived up to this beginning," said Garberson, who served as the lighting and video production manager for the Phoenix Children's Hospital fundraising concert, which was headlined by 3 Doors Down.

Contributing to the smooth flow and good mood of the evening was the versatile and powerpacked lighting rig that Garberson and his team at Creative BackStage put together for the show. Anchoring that rig was a collection of 15 Maverick MK2 Spot, 25 Rogue R2 Wash and four STRIKE 4 fixtures from CHAUVET Professional.

"We've been a part of Bob's for six years," said Garberson. "Pro Productions has us do the lighting and video with the mandate to create a rig that can create the most excitement for the crowd that turns out to support Phoenix Children's Hospital. The thing we like about the Mavericks and Rogues is that they deliver a lot of pop, which allows us to create arena style looks at a one-off outdoor show."

To maximize the versatility of the moving fixtures in his rig, Garberson flew them on three rows





of truss, which was based on the 3 Doors Down lighting plot. The multi-platinum selling band's LD Jay Branson, a partner and the principal designer at Two Pair Creative of Las Vegas, ran their show. Matthew Berg ran the show for the opening act Big Swing.

The three-truss run consisted of a 40-foot downstage, a 35-foot midstage and a 40-foot upstage. "Having the three rows creates a lot of opportunities to come up with different looks," said Garberson. "Aside from being ideal for crossing the stage with beams from every direction, this configuration also works great for back lighting, specials and audience lighting."

Garberson flew four Maverick MK2 Spot and 10 Rogue R2 Wash units on downstage truss. He also hung four STRIKE 4 units flown in this position for audience lighting. On the midstage truss, he flew six Maverick and an equal number of Rogue fixtures. The upstage truss had five Maverick MK2 Spots and four Rogue R2 Washes.

"There were a lot of cool moments in the evening that the lighting played a big role in creating," said Garberson. "Hitting the stage with light from the different positions really crated an architecture that the artists moved through. One of the coolest moments was when we had some dancers move on stage with only background lighting. It was kind of subtle, but it showed the kind of depth the lighting rig was capable of creating."

For more information, visit **www.chauvetprofessional.com**.



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ELATION Q7 PARS WEATHER THE COLD ON MILLER HOLIDAY LITES



Clearwing Productions of Milwaukee used Elation Professional's Level Q7 IP[™] RGBW Par lights on Miller Holiday Lites in Milwaukee for the entire month of December in cold weather with no issues then rolled them right into 'big game' festivities in Minneapolis in January, where they continued to perform in even colder weather.

Clearwing, who stock hundreds of the Level Q7 IP Par lights, provided all of the lighting, decor, video and audio equipment for Miller Holiday Lites in partnership with GMR Marketing, their second year decking the halls on State Street with GMR Marketing and Miller Brewery.

Miller Holiday Lites is a yearly family-friendly tradition in Milwaukee, where guests are invited to take a minitour down State Street, decorated with festive holiday lighting courtesy of Miller Brewing Company. Guests had the chance to view a 4-5 minute programmed light show before enjoying other Miller Brewery tour activities, such as experiencing the iconic caves and sampling a wide variety of Miller products.

Used for uplighting and wash lighting in several areas of the production, the Level Q7 IP fixtures, which house seven 15W RGBW LEDs for nearly unlimited color options, were the "workhorse" of the Holiday Lites display according to Mercer Pinkston, account executive at Clearwing. "Honestly, the most impressive feature of the Level Q7's is the durability," she said. "All of these fixtures sat outside in freezing temps, snow and heavy wind for well over a month. An interesting thing to note is that these exact fixtures went straight from our hot, humid, and rainy festival season to Miller Holiday Lites and then on to another show directly after that. They traversed several different climates and were exposed to a variety of elements throughout their first official year in our inventory and they are still performing as well as the day we unboxed them."



Some 200 Level Q7 IP fixtures were used to light various areas down two city blocks of State Street. One of the biggest compliments that Clearwing and Lighting Designer Mitch Van Dyke received on this year's design was for a special color wash effect in trees during the light show. Pinkston explains, "Some of the trees are very large and in hard-to-access locations so getting traditional string lights on them wasn't a possibility. Instead, we used Q7's to uplight and front wash these trees. They really packed a punch by offering us the opportunity to have many color options and people loved it!" Level Q7 IP™ fixtures were also used to uplight a special Keg Tree, a crowd favorite according to Pinkston.

Miller Holiday Lites ran November 29th to December 30th and was again an important event in creating the holiday spirit in Milwaukee. "The event was excellent and so were the Q7 fixtures," Pinkston concludes. "We never had issue with any of them, which is amazing considering we had 200 site wide."

For more information, visit www.elationlighting.com.

SINGAPORE 25. - 27. OCTOBER, 2018

28 paper presentations

4 Keynote speakers

Exhibition of manufacturers

Pre-convention meetings

Cities' Forum

Moderated discussions

Experience Rooms

Excursions

Gala dinner + After Show Party







Speakers:

Akari-Lisa Ishii, Brice Schneider, Cecilia Eklind Svedberg, Chris Lowe, Chris Mok, Dr. Don Slater, Emrah Baki Ulas, Francesco Iannone, Greta Smetoniute, Iben Winther Orten, Johanna Enger, Juan Ferrari, Linus Lopez, Marinella Patetta, Martin Valentine, Matt Waugh, Michael Beckert, Michael Grubb, Nour Moussawi, Philip Rafael, Rick Morrison, Sara Leino, Serena Tellini, Silvia Tripsa, Stephan Horn, Ta-Wei Lin, Tapio Rosenius, Thorsten Bauer, Ya-Hui Cheng

The motto: a smart move

The world is in constant motion. Following industrialisation we are now in the process of digitalisation, which is due to bring about radical change to our civilisation. But change is also a chance. And to take advantage of this chance – or change – we need to make the right decisions. Because if we don't do so, others will.

In case you don't know: light plays a key role in this realignment of our society. Purely architectural lighting design is a thing of the past. Today we are concerned with networks, communication design, responsive living spaces, health environments, and horticulture. And everything revolves around light. Which needs to be applied sensitively and purposefully.

PLDC is a platform that demonstrates the change our society is undergoing where light is a key factor. Every PLDC marks a starting point. That this year's starting point is due to take place in Singapore, is a deliberate move. Singapore is more than prepared to be a driving force behind this starting point, this move. As the location for PLDC 2018, Singapore will become the hotspot where light re-orients itself for the future.



ACE – Association des Concepteurs lumière et Eclairagistes/FR ARI - Asociatia Romana pentru Iluminat/RO

AsBAI - Brazilian Association of Lighting Architects/BR

Assodel – Associazione Nazionale Fornitori Elettronica/IT

CICAT – Clúster de Iluminación de Catalunya/ES DiiA – Digital Illumination Interface Alliance/US The Institution of Lighting Professionals/UK Israel Lighting Society/IL

SLG – Swiss Lighting Association/CH

PARTNER UNIVERSITIES TO DATE

Aalborg University/DK Brunel University London/UK Eastern Mediterranean University/TK King Mongkut's University of Technology Thonburi/TH Parsons the New School for Design/US The University of Applied Sciences Wismar/DE Temasek Polytechnic Singapore/SG TU Berlin/DE TU Darmstadt/DE Universidad Nacional Autónoma de México/MX University of Applied Sciences Kaiserslautern/DE University of Idaho/US University of South Wales/UK

PARTNER INSTITUTES TO DATE

DIAL GmbH/DE LiDS – Lighting Design School/RU Lighting Design Academy/NL The Lighting Education Institute/US Lighting Research Centre/US VNISI– Russian Lighting Research Institute/RU

PARTNER EVENTS TO DATE LED Forum 2018 Hardly any other city has defined its vision of the future as consistently geared towards the idea of "smart" as Singapore has. Lighting and IoT, public safety and urban mobility: every aspect is being examined closely and included on the renewal agenda. You might go as far as to say that as an island country in Southeast Asia Singapore is representative of an entire continent that is about to embark on a period of highly



dynamic development. Which is why it makes sense to stage the next PLDC 2018 in such a forward-looking environment. Being "smart" does not only mean having state-of-the-art technology at your disposal. It also means being able to apply that technology in a smart – that is to say intelligent and purposeful – way. Where can the incorrect, or inappropriate, use of smart technology do more harm than good than in the lighting design world, where so many different areas of design and engineering expertise are interconnected? Planners and designers on an international scale urgently need to re-think and learn from one another. This applies as much to the design of the concepts required today as it does to new design practice structures and interacting with professionals from other areas of expertise. In the process leading up to the decision to go ahead with Singapore as the next PLDC location we were convinced, if not seriously inspired by the opportunities and examples that Singapore offers.

The main topics we will be hearing about and discussing at PLDC 2018 in Singapore are Experiential Spaces, the design of Hospitality environments and IoDT – the Internet of Design Things (a term which we took the creative liberty to adjust slightly). Besides the two-day conference programme, we will be offering practical workshops, the contents of each of them being a world first. And of course we will be introducing inspiring Keynote Speakers, organising excursions and staging other novel gatherings on/around the profession – all of which will render PLDC 2018 in Singapore unique and unforgettable.

Not everything makes sense in the lighting world we live in – but attending PLDC 2018 in Singapore definitely does.

PLDC PROFESSIONAL LIGHTING DESIGN CONVENTION 2018

www.pld-c.com

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ONLINE MEDIA PARTNERS TO DATE A1 Lighting/UK EdisonReport.eu/US

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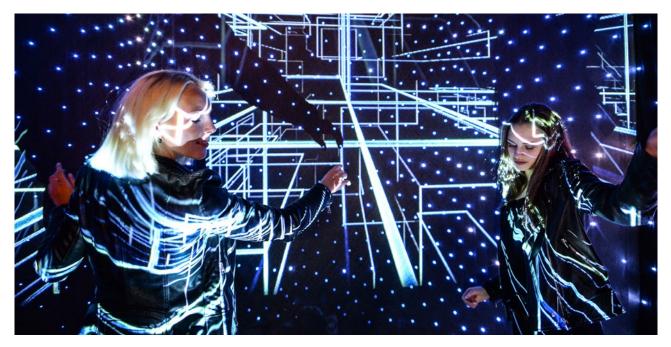


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WIBRE



PROLIGHT + SOUND 2018 WITH IMMERSIVE TECHNOLOGY FORUM AND SPECIAL AREAS FOCUSING ON IMMERSIVE SOUND



Prolight + Sound 2018 presents new technologies that blur the boundaries between reality and virtual perception. To be held for the first time during Prolight + Sound, the Immersive Technology Forum on Thursday, 12 April, is made up of lectures revolving around subjects such as 3D audio, virtual reality, 360° film and holography. Additionally, there will be several special areas at Prolight + Sound where exhibitors demonstrate immersive hearing experiences.

Immersive Technology Forum

This new lecture programme at Prolight + Sound gives visitors the opportunity to discover how to upgrade events through the inclusion of immersive experiences, how to earn money now and in the future with virtual-reality content, and where appropriate solutions can be used in productions.

The programme of the Immersive Technology Forum has been compiled in cooperation with hands-on experts and is oriented towards content producers, specialists from the technical and broadcasting segments, as well as at event managers and organisers. The programme begins with a 3D audio workshop by Lasse Nipkow, founder of Silent Work GmbH.

Then, Jörn Nettingsmeier of the Association of German Sound Engineers (VDT) will look at potential applications for 3D audio in theatres. Michael Ochs, PRG Lab, will offer insights into the creative use of virtual and augmented reality and other technologies trending in the event sector – from interactive exhibits to immersive spatial experiences. Andreas Gause, Gerriets GmbH, will present areas of application for special tulle for 3D and hologram projection. Additionally, there will be two lectures by Mattias Hundt of Hessian Broadcasting (HR) on the business side of VR content production and the overall workflow of a 360° music-video production.

Special Areas Revolving Around 3D And Immersive Sound

In addition to the lecture programme, several Prolight + Sound exhibitors will be represented with their own presentation areas for immersive sound. For example, d&b audiotechnik GmbH will demonstrate the innovative

development of d&b Soundscape, a toolbox for the production of incomparable hearing experiences. With the combination of d&b loudspeaker systems, highly developed processing, object-based mixers and sophisticated room emulation, the professional audio-technology supplier offers a completely new world of sound creativity. There will be presentations on the development, concept and areas of application for d&b Soundscape, as well as practical workshops, on the Tuesday, Wednesday and Thursday of the fair.

In Hall 3.1, Alcons Audio and Astro Spatial Audio will have a joint demonstration area for showing immersive sound systems in operation. The products to be seen include the first Alcons Pro-Audio loudspeaker with patent-appliedfor waveguide technology and the Astro SARA II Premium Rendering Engine for object-based audio processing.

Furthermore, visitors can experience a unique sound installation in the Klangdome (sound dome) at the outdoor exhibition area. Equipped with a DIY 3D sound system with 31 loudspeakers and a vibrating floor, this geodetic dome is a sound-intensive event location. 6 x 6-channel, 100 Watt class D amplifiers are used in the dome's Ambisonics 3D sound system to power the water-proof 8 Ohm loudspeakers. In line with the overall ambience, the speakers are installed in 'home-made' cabinets.

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 2,500 employees at some 30 locations, the company generates annual sales of around \in 661* 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.

For more information, visit **www.messefrankfurt.com**.

WYSIWYG DELIVERS WINNING LIGHTING MOVES AT POLAND'S BIGGEST DANCE FESTIVAL



Every year for the past 18 years, the Kuyavian-Pomeranian Voivodeship (province) in Poland has hosted the country's largest dance festival – and for those 18 years, Białe Błota has come alive as 2,500 contestants and spectators from all over the country descend on a village whose usual population numbers just over 100.

For the last few years, the event has benefited from the technical skills and hard work of Mateusz Mielcarek and his team at Mielcarek Event, transforming a large, anonymous space into a compelling, sophisticated arena in which the contestants' talents gain an outstanding showcase.

Key to this are the innovative, spectacular lighting effects designed and delivered by Mielcarek - using CAST Software's wysiwyg lighting design and previsualization software.

"Every year, we have done something different, starting from scratch to ensure each event is unique – and every year, we try to raise the bar," said Mielcarek. "That means that we need incredibly smart tools that allow us express our energy and passion for what we do – andwysiwyg is perfect. It's an essential element in our preparation." Some idea of the ambition of the event can be gleaned from the equipment list, with around 150 individual fixtures from the likes of Clay Paky, DTS and Robe driven by a Jands Vista console.

Mielcarek and his team spent five days in preparation, seven days assembling the equipment and three days installing it at the venue.

"The ability that wysiwyg give us to create an entire project from scratch gives us many options for ensuring a professional implementation," continued Mielcarek. "For example, the program includes a 3D viewer. That's very important to us because it allows us to prepare the entire project to scale, replicating all the key elements. We use the wysiwyg Perform version as it is an all-in-one software, which combines 3D CAD, documentation, rendering, and pre-visualization functions into one tool that's very useful for large-scale production. Another interesting feature is the ability to simulate effects when connected to a DMX console or a compatible offline editor."

According to Mielcarek, another key benefit of CAST Software's wysiwyg is the ability it gives him to share with organizers what he has in mind in order to get feedback, and for the organizers to demonstrate to potential sponsors what the show will look like.

"Not only does wysiwyg enable us to achieve a much more efficient production process," said Mielcarek, "but it also helps the organizers to get financial support in a country where that can be very difficult."

"We're already thinking about next year's show," he concluded. "You can be sure that we'll be using wysiwyg again – as well as all the other events we will support."

For more information, visit www.cast-soft.com.

THE RIGHT LIGHT AT EVERY TIME OF DAY – ZUMTOBEL PRESENTS LIGHT FOR LIFE AT LIGHT + BUILDING 2018

he lighting industry is going through The lighting industry to solution a period of profound change, as networked lighting and lighting services take on an increasingly important role. This is also the driving force behind this year's Light + Building motto: "Connected - Safe -Comfortable". The Zumtobel Group will use its 1280-square-metre stand (Hall 2.0, Booth A30, B30/31) to put the focus on the comprehensive service portfolio from the Zumtobel Group Services (ZGS) brand. This is summed up by the Zumtobel Group motto "Lights. Connectivity. Action" and supported by the innovative lighting solutions from the other famous sister brands. As a true innovation leader, Zumtobel develops sustainable lighting solutions that are tailored to meet the specific requirements of people in various application areas.

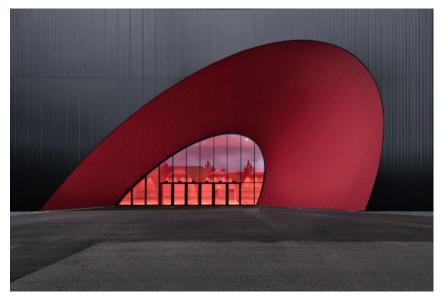


In line with the motto "Lights. Connectivity. Inspiration", Zumtobel will demonstrate the Active Light approach - in offices, industrial buildings, retail settings and art and culture projects. Active Light builds a bridge to human nature Light - whether artificial or natural - has a marked visual, emotional and biological effect on humans. Active Light uses natural light as its model and dynamically supports the core relationship between people and light in time and space. This innovative form of artificial light makes a valuable contribution to the stabilisation of human biorhythms - especially in environments where daylight is at a premium.

"Supported by Human Centric Lighting, Active Light solutions put the focus on people and their needs," explained Daniel Lechner, Marketing Brand Director Zumtobel. "Zumtobel reaches the dynamics of natural light by utilising technologies such as tunableWhite, which allows stepless adjustments in intensity, direction and light colour, from warm reddish to cold bluish, throughout the course of the day." Using light to evoke inspiration, precision, emotion and imagination four key application areas Active Light in offices provides improved wellbeing, as the light can be adapted to suit different tasks and reflect individual visual capacities and personal tastes in terms of light colour.

Whether Seite 2 / 5 working at a screen, engaging in a creative exchange with colleagues or doing some concentrated reading - versatile control options mean that the office solution can be adjusted depending on the current activity and individual user preference. Active Light adds a dynamic lighting element to the everyday office life, positively influencing cognitive performance and fuelling creativity and inspiration. This concept also supports human biorhythms with the targeted use of dynamic lighting moods throughout the day. The best possible light is essential in industry to make sure that production processes can run without interruption. These kinds of applications therefore demand light that is as versatile as the tasks associated with industrial manufacturing, which is why Active Light helps workers and supports activity-based lighting. Intelligent lighting systems and sensors are combined to deliver the right light for each situation, actively boosting safety, precision and quality.

For example, a delicate assembly process would benefit from additional lateral light, with the option to increase the illumination level for visual inspections. When it comes to shift workers, Active Light can also





contribute to a customised sleep-wake cycle by adjusting light intensity and colour – much to the relief of shift workers. This strengthens the feeling of wellbeing and enables employees to enjoy restful and regenerative sleep. In the world of retail, light can be harnessed to shape unique shopping experiences. On the one hand, Active Light appeals to customers on an emotional level by using their preferred lighting moods to put people at ease and thereby increase the amount of time spent in the store.

On the other hand, products and brands are presented in the best possible way, directing lines of sight and enabling better customer orientation. The improved perception of consumer offers has an influence on the quality assessment and, as a logical next step, the willingness to buy. Enjoyment and visual comfort are major factors in the field of art and culture, along with the protection of precious artworks. These exhibits are often light-sensitive and therefore require delicate lighting to preserve them for future generations. Active Light takes these visual and conservational aspects into account and optimises the light colour and spectral distribution to suit the individual objects and the message of the artist.

The way art is experienced is clearly shaped by the interaction between the exhibits and their respective surroundings. Architectural and applicationoriented lighting can reveal the true meaning of artworks and spaces. Active Light offers the desired range of variation using tunableWhite luminaires and the latest controls technology. In this way, luminaires no longer merely emit light, but also transmit information in situations such as when people pass through a room. The system supports user-oriented visitor experiences by conveying information to personal devices carried by the visitors.

For more information, visit www.zumtobel.com.

LG DISPLAY TO SHOWCASE LUFLEX OLED LIGHTING PRODUCTS AT LIGHT+BUILDING 2018 IN FRANKFURT, GERMANY



G Display, the world's leading innovator of display technologies, announced today that it will showcase its latest OLED lighting advancements at Light+Building 2018 in Frankfurt, Germany, from March 18 to 23. With the cutting-edge OLED lighting products of Luflex, the newly launched brand for OLED light panels, the company will continue to lead the OLED lighting revolution by offering eye comfort and eye-catching design.

Under the theme of "Infinite Light," LG Display will unveil various innovative OLED lighting products, emphasizing the limitless flexibility and infinite inspiration that they offer.

LG Display's Luflex OLED light panels, while enabling slim and unique designs with a thin and flexible form factor, provide soft and natural light with less blue light, thus reducing eye fatigue. Luflex is a portmanteau of the Latin word lux, which means light, and the English word flex, which not only refers to flexibility in physical form but also in application.

Most notably, Luflex panels can be twisted and rolled up to a 30mm radius of curvature without compromising any functionality. The panels' thickness of 0.41mm puts them in a league of their own when compared with traditional light sources, and they also offer design potential that is sure to set fire to creative imaginations.

LG Display will introduce its Crystal Sound OLED (CSO) Lights by extending the use of its CSO technology used for its TV panels to OLED light panels for the first time in the world. The paper-thin OLED light panel itself serves as a speaker diaphragm with the sound emanating directly from the panel which is vibrated by exciters attached to the back. A flexible, natural lighting installation that also serves as a speaker not only delivers futuristic design and natural illumination, but also premium sound -- hence the name. This new technology is expected to be widely used in Al-integrated mood lamps and ceiling lamps that will be able to talk with you as well as light up your life.

In addition, as previously shown at Light+Building 2016, Luflex panels can also be powered through metal mesh transparent conductive film laminated on glass. This "Transparent Connection Solution" has now been upgraded to be used with flexible OLED light panels. Now OLED light panel shelves can come in curved forms, which opens up new paradigms in retail and hospitality design.

LG Display is also showcasing in its booth the winners of a design competition held last year. This international design competition inspired designers and architects around the world to create unique and creative lighting designs with the new technology. More than 650 people around the world submitted designs, and 7 renowned designers and art directors selected the winners.

Luflex is further supported by LG Display's increased production capacity. The company completed its 5th generation (1,100mm x 1,250mm) OLED light panel production line in Gumi, South Korea, in Dec. 2017 with a monthly capacity of 15,000 sheets, which is about a 30-fold increase compared to the existing 2nd generation production line (370mm x 470mm) in Gumi with a monthly capacity of 4,000 sheets. The production capacity of the new production line will be gradually ramped up.

"We launched Luflex to create OLED lights that catch your eyes and comfort them with their natural light," said Sung Soo Park, Vice President and Head of the OLED Light Business Division at LG Display. "We also expanded our production line with the belief in the unlimited potential of OLED lighting. We are glad to be able to produce 30 times the capacity of lighting as before and are confident that Luflex will soon be lighting up spaces all around the world."

For more information, visit www.lgdisplay.com.

WHITE LIGHTS IS THE BEST MAN FOR WEST END PREMIERE





First performed in 1960, Gore Vidal's The Best Man recently made its debut in London's West End. Opening at the Playhouse Theatre, the show tells the story of two presidential candidates who are both vying for an endorsement from the current President; with the play exploring the lengths they'll go to achieve this. This latest production is produced by Bill Kenwright Ltd and the lighting equipment was supplied by White Light.

The Best Man enters the West End directly from a UK tour, on which WL also supplied the lighting. It stars a range of well-known names, including Martin Shaw, Maureen Lipman and Honeysuckle Weeks and features a lighting design by Chris Davey. Chris comments: "The entire play is set in a hotel suite in Philadelphia, which houses both of the candidates. In terms of the set, there is a huge gauze wall with a bedroom upstage that disappears at certain points throughout the show. That said, the most important part of set, in terms of lighting, was the huge window positioned stage right. One of my biggest tasks was to make the window believable that it was lighting the room at various points throughout the day".

To achieve this, Chris drew on a range of 5kw Fresnels. He explains: "The Fresnels made the windows bright enough yet ensured that all of the cast received the correct amount of lighting coverage. The evening scenes contain a heavy top light to suggest a chandelier and par cans skim across the net curtain to imply the street lights outside; with the suite being based on the third floor".

For the rest of his design, Chris had to work with Michael Taylor's intricate



set design. He comments: "Overhead, the rig consists largely of Lustr Mk2 Fresnels. I used them as space is tight due to newspaper headlines being flown from above. As there wasn't enough space to rig a warm and cold wash, the Lustrs allowed much more possibilities and often change colour during a scene. I also drew on three data flashes for the camera effects off the paparazzi who are stood outside the suite's main door throughout".

As the play had already visited several venues across the UK, Chris had to make some subtle changes to his design for the West End run. He states: "There a lot more cues at the Playhouse Theatre, meaning there is more structure to the look and it allows us to follow the action around the room more; highlighting the various moods. Similarly, we amended the scene changes to make these as interactive as possible and allow them to also become scenes within themselves".

The show has now opened to extremely positive reviews. It will run until 12th May.

Chris comments: "The Best Man has been a fantastic production to work on and it's great to have followed its journey from a UK tour all the way into the West End. I am also grateful to WL for their support at every stage".

Bryan Raven, WL's Managing Director, comments: "We are delighted to be working with Chris and supplying yet another show in the West End. With our lighting currently being used on Harry Potter and the Cursed Child, Aladdin, Young Frankenstein, The Birthday Party, along with the upcoming Tina: The Musical, we are still the leading lighting supplied to the West End, providing lighting designers with the equipment and service they expect from WL".

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





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Security Solutions ma









show review

Light + Building 2018

18th – 23rd March 2018 Frankfurt am Main Frankfurt, Germany



Light + Building opens its doors in Frankfurt am Main from Sunday, 18 March, to Friday, 23 March 2018. Over 2,700 exhibitors from 55 countries are showing their latest products and innovations for the lighting, electrical engineering, home and building automation and safety and security sectors on more than 260,000 square metres spread in 25 exhibition halls. "The echo to date has been excellent and we are delighted to announce three percent more exhibitors and six percent more exhibition space than at the last edition of the fair. Moreover, we have opened an additional exhibition hall, which provides the basis for further growth at Light + Building – these positive developments reflect the highly dynamic nature of the sector", says Wolfgang Marzin, Chairman of the Board of Management of Messe Frankfurt.

'Connected – secure – convenient' is the motto of this year's Light + Building whereby the focus is on the trend subjects of the 'Smartification of Everyday Life' and 'Aesthetics and Well-being in Harmony'. At the world's biggest trade fair for lighting and building-services technology, the industry presents intelligent and interconnected solutions, future-oriented design trends that not only increase a building's economic efficiency and level of convenience but also satisfy the need for safety and security. And, as a fair of innovations, Light + Building brings together all power-controlled building-



services systems and promotes integrated building planning with a spectrum of products – from the smart home to the smart building – that is unrivalled both horizontally and vertically.

One of the main themes in 2018 is security technology. And, with the new 'Secure – Connected Security in Buildings' special show, the Intersec Forum and around 150 suppliers from the building-automation and security-technology segments, Hall 9.1 is the centre for integrated building-services technology. There, the focus is on the interconnection and interfaces between the various disciplines. Additionally, the Secure! special show presents innovative solutions from the field of electrical security in a realistic setting. Also in Hall 9.1, the Intersec Forum takes an in-depth look at the subject of interconnected security technology on five days, from Monday to Friday. Moreover, leading manufacturers of security equipment and home and building-automation technology are presenting their innovations in other exhibition halls of Frankfurt Fair and Exhibition Centre.

In addition to the broad spectrum of products being shown by the exhibitors, Light + Building is also distinguished by a multi-faceted complementary programme that, for the first time, is split into four categories – Emotion, Skills, Career and Selection – offering a theme-specific range of events for all trade visitors – from special shows, via expert lectures, to trend presentations.

This year's Luminale - Biennale for Light Art and Urban Design - is distinguished by a new concept. Held concurrently with Light + Building, the popular event in Frankfurt und Offenbach takes advantage of the presence of lighting experts and artists from home and abroad for an interdisciplinary discourse on the city and the future. There are no less than 149 projects in five categories: ART, SOLUTIONS, COMMUNITY, STUDY and BETTER CITY on the programme. With the Römer town hall, the Alte Oper concert hall, the European Central Bank, St. Catherine's Church (Katharinenkirche) and the 'Eiserner Steg' bridge, five of

the most important sights in Frankfurt are venues for widely differing artistic interpretations of lighting and the urban environment. Luminale was founded in 2002 by Messe Frankfurt. Since then, the fair and exhibition company has comprehensively promoted and supported the festival.

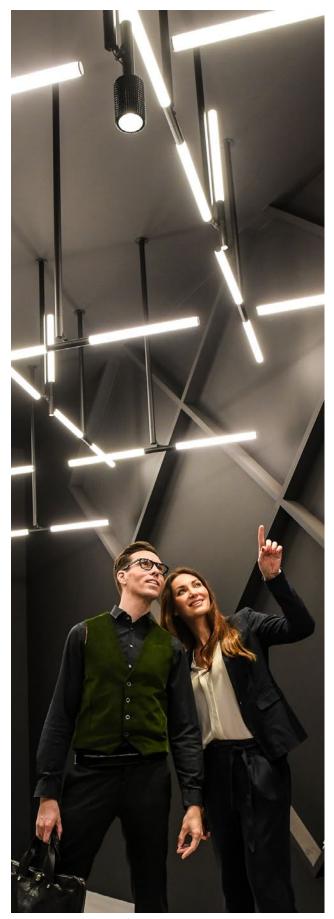
Statements from the sector at the opening of the fair: Michael Ziesemer, ZVEI President: "Digitalisation is playing an increasingly important role in buildings. Intelligently interconnected devices and systems offer great chances for both residential and commercial premises. They can, for example, make the time spent at work more pleasant, efficient and secure. Light + Building presents multi-faceted solutions with the potential for new business models in the building automation, lighting and energy management segments. With this year's focus on safety and security, it is also tackling one of the most important aspects of digitalisation. Thus, Light + Building not only generates new impulses for the market but is also the venue for an interdisciplinary dialogue."

Lothar Hellmann, President of the ZVEH: "Many fields of business of the electrical-engineering trade are closely bound up with digitalisation and smart solutions for buildings. Systems integration, innovative building connectivity and energy management are important markets for our member companies. Light + Building is the perfect venue to exchange information about the latest trends in these segments. Given that the challenges thrown up by digitalisation are increasing continuously, it is essential that particular attention be paid to employee training."

The World's Largest Showcase For The Lighting Market

A central focus in the Lighting Product Group at Light + Building 2018 is the presentation of the latest design trends in the lighting market and the exhibitors' high levels of expertise in the field of design. Altogether, some 1,650 companies will be exhibiting their entire spectrum of products and services in the lighting segment. Manufacturers will present their latest products for technical lighting and lamps in a wide variety of versions and for all applications. At the same time, a wide range of both technical and designer luminaires, as well as decorative lamps of all styles, will be exhibited, covering all price ranges and for both residential and non-residential environments. And the spectrum will be completed by a large selection of technical lighting components and accessories, as well as outdoor and street lighting. These will all be found in Halls One (Trendspot Design) to Six and in Hall Ten, as well as in the Forum.

Well-known companies, such as Artemide, Bega, Brand van Egmont, Erco, Fagerhult Group, Faustig, Flos, iGuzzini, Ingo Maurer, LG, Louis Poulsen, Luceplan, Lumileds, Martinelli Luc, Nimbus, Nordeon Group, Occhio, Osram, Philips, Samsung, Schréder, Tobias Grau, Trilux, Vibia Lighting, Zero and Zumtobel, will all be represented and indicate the comprehensive range of lighting that will be on display at Light + Building.





International Meeting Place For Smart Building Services Engineering

Electrical and electronic trades, together with the home and building automation sector, play a key role in the installation and operation of intelligent networks in buildings.

Electrical engineering, with its key cross-trade technologies aimed at creating holistic solutions, has a central function within building services technology. As a result, you will find electrical and electronic solutions at Light + Building, in the context of other trades such as lighting and home and building automation. And through this unique combination, the industry will be presenting a range of integrative products and services that make a crucial contribution to exploiting the potential for energy savings in buildings.

Building automation also has a role to play because of the way it brings together all the technical trades: the increasing use of networks and the digitalisation of electrical installations enhance the quality of life both in the workplace and in the home. At Light + Building the industry will be showcasing solutions and technologies that aim as much at reducing energy consumption and meeting modern security requirements as they do at permitting individual design opportunities and a high degree of comfort and convenience.

Many world-famous brands are represented in the fields of electrotechnology and home and building automation. Exhibitors such as ABB, Beckhoff, Busch-Jaeger, Dehn, Eaton, Gira, Hager, Jung, Legrand, Mennekes, OBO Bettermann, Phoenix Contact, Rittal, Schneider Electric, Siedle, Siemens, Somfy, Stiebel Eltron, Wago and Warema will all be showcasing their new products at Light + Building 2018.

One particular area of focus in 2018 is security technology. Thus, the product groups relating to home

and building automation and electrically controlled security technology will be combined for the first time at Light + Building 2018 in Hall 9.1. With leading suppliers from the security technology and building automation segments, the Intersec Forum and the current special exhibition 'Secure! - Connected Security in Buildings', Hall 9.1 will form the centre for integrated building services technology. Here the focus will be on networked solutions and interfaces between the various different installations within the building. Exhibiting here, therefore, will be organisations relating to building standards, including, for example, LON, BACnet, EnOcean, Z-Wave and KNX, together with other companies producing technologies for security systems as well as for smart homes and smart buildings. Over and above this, market-leaders in security technology and home and building automation systems will be showcasing their innovations in the other halls of the Exhibition Centre. Altogether a total of 150 suppliers of security technology will be represented at Light + Building, including, amongst others, Abus, Assa Abloy, Axis, Hekatron, Honeywell, Mobotix, Robert Bosch, Siemens and Telenot

About Messe Frankfurt

Messe Frankfurt is the world's largest trade fair, congress and event organiser with its own exhibition grounds. With over 2,500 employees at some 30 locations, the company generates annual sales of around $\in 661^*$ 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.

For more information, visit www.messefrankfurt.com.

show review

Prolight + Sound 2018

10th – 13th April 2018 Frankfurt am Main Frankfurt, Germany



Prolight + Sound 2018 presents new technologies that blur the boundaries between reality and virtual perception. To be held for the first time during Prolight + Sound, the Immersive Technology Forum on Thursday, 12 April, is made up of lectures revolving around subjects such as 3D audio, virtual reality, 360° film and holography. Additionally, there will be several special areas at Prolight + Sound where exhibitors demonstrate immersive hearing experiences.

Immersive Technology Forum

This new lecture programme at Prolight + Sound gives visitors the opportunity to discover how to upgrade

events through the inclusion of immersive experiences, how to earn money now and in the future with virtualreality content, and where appropriate solutions can be used in productions.

The programme of the Immersive Technology Forum has been compiled in cooperation with hands-on experts and is oriented towards content producers, specialists from the technical and broadcasting segments, as well as at event managers and organisers. The programme begins with a 3D audio workshop by Lasse Nipkow, founder of Silent Work GmbH. Then, Jörn Nettingsmeier of the Association of German Sound Engineers (VDT)



will look at potential applications for 3D audio in theatres. Michael Ochs, PRG Lab, will offer insights into the creative use of virtual and augmented reality and other technologies trending in the event sector – from interactive exhibits to immersive spatial experiences. Andreas Gause, Gerriets GmbH, will present areas of application for special tulle for 3D and hologram projection. Additionally, there will be two lectures by Mattias Hundt of Hessian Broadcasting (HR) on the business side of VR content production and the overall workflow of a 360° music-video production.

Special Areas Revolving Around 3D And Immersive Sound

In addition to the lecture programme, several Prolight + Sound exhibitors will be represented with their own presentation areas for immersive sound. For example, d&b audiotechnik GmbH will demonstrate the innovative development of d&b Soundscape, a toolbox for the production of incomparable hearing experiences. With the combination of d&b loudspeaker systems, highly developed processing, object-based mixers and sophisticated room emulation, the professional audio-technology supplier offers a completely new world of sound creativity. There will be presentations on the development, concept and areas of application for d&b Soundscape, as well as practical workshops, on the Tuesday, Wednesday and Thursday of the fair.

In Hall 3.1, Alcons Audio and Astro Spatial Audio will have a joint demonstration area for showing immersive sound systems in operation. The products to be seen include the first Alcons Pro-Audio loudspeaker with patent-applied-for waveguide technology and the Astro SARA II Premium Rendering Engine for objectbased audio processing.

Another highlight for the international audio community is to be integrated into Musikmesse and Prolight + Sound. For the first time, A3E (Advanced Audio + Application Exchange) is organising an exciting professional-development programme within the framework of the trade-fair duo. The 'Future of Audio + Music Technology' conference will be held



in Room 'Entende' on Level 4c of Hall 4 on Friday, 13 April 2018 and illuminate subjects that are impacting decisively on the global music industry. A3E is a leading industry resource dedicated to the future of advanced audio applications and new music technologies. The conference will be held in English and admission is free of charge for all Musikmesse and Prolight + Sound visitors.

The key topics to be covered by the conference include:

- The global musician next generation cloud DAWs for worldwide collaboration
- Wearable technology for musicians
- Designing products for the wireless musician
- Virtual & augmented reality for studio production and live performance
- Touchscreen apps and controllers for the studio and stage
- App integration for traditional instruments
- Artificial Intelligence & machine learning

"As a future-oriented platform, we are committed to promoting the transfer of information in the industry. We are delighted to team up with A3E, an organisation that enjoys a first-class reputation among professionals in the audio segment, to implement a high-grade educational conference. 'The Future of Audio + Music' programme is aimed at developers of audio solutions and at musicians, producers and sound engineers. Thus, it represents a perfect addition to our trade-fair duo", says Michael Biwer, Group Show Director in the 'Entertainment, Media & Creative Industries' Business Unit of Messe Frankfurt Exhibition GmbH.

"A3E is both proud and honored to now be part of the world-class trade fair duo that is Musikmessse and Prolight + Sound, and to be working with a worldclass organizer such as Messe Frankfurt. Europe has always been a major force in the advent of new music

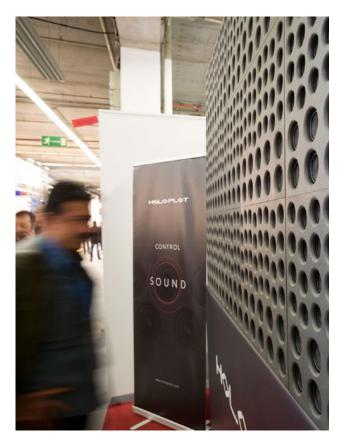


technologies, and provides all the key resources and communities that are essential in driving next generation audio development. Musikmesse and Prolight + Sound will provide an amazing base for A3E to help bring thought leadership together to further advance the Future of Audio + Music Technology", says Paul Sitar, A3E LLC President and A3E Show Director.

Yamaha will be represented at the two international trade fairs more extensively than ever before. Visitors will be able to experience Yamaha's broad portfolio of instruments in the 'Portalhaus' building and to gain insights into the 'World of Yamaha', which, in addition to musical instruments, will touch the topics of Hi-Fi Audio – presenting the innovative MusicCast system – as well as Yamaha Motors. Moreover, products by Yamaha brands Bösendorfer, Line 6 and Steinberg, will also be presented. On top of this, Yamaha are set to extend their display in Hall 3.1 at Prolight + Sound and will be exhibiting new products for live sound presentations, installed sound and digital audio networking. All in all, Yamaha will showcase products on an area of around 1,500 square meters.

Visitors can look forward to an attractive programme of live music with Yamaha artists on several stages in the Portalhaus, as well as workshops and lectures by specialists in Yamaha products.

"Yamaha's displays in the Portalhaus have been a major highlight over the last couple of years and a magnet for all musical communities. Moreover, the brand has, for decades, stood for innovation in the field of professional audio engineering. We are delighted to be able to continue the long-standing cooperation between Messe Frankfurt and Yamaha in 2018," says Michael Biwer, Group Show Director in the 'Entertainment, Media & Creative Industries' Business Unit at Messe Frankfurt Exhibition GmbH.



"Musikmesse and Prolight + Sound give us an opportunity to connect to our customers and potential customers – from musical beginners to professional sound engineers and qualified specialist retailers. The Portalhaus has proved its worth as a showcase for our products and offers ideal conditions for staging our high-quality instruments. And we have also reached the audience important to us in Hall 3.1, so that we are extending our presence there in 2018," says Thomas Schöpe, President of Yamaha Music Europe GmbH.

Musikmesse will take place from 11 to 14 April 2018 in Frankfurt am Main: Prolight + Sound will be held from 10 to 13 April 2018. On days when both trade fairs are open, the ticket for either show will be valid for both events.

Furthermore, visitors can experience a unique sound installation in the Klangdome (sound dome) at the outdoor exhibition area. Equipped with a DIY 3D sound system with 31 loudspeakers and a vibrating floor, this geodetic dome is a sound-intensive event location. 6 x 6-channel, 100 Watt class D amplifiers are used in the dome's Ambisonics 3D sound system to power the water-proof 8 Ohm loudspeakers. In line with the overall ambience, the speakers are installed in 'home-made' cabinets.

For more information, visit **www.prolight-sound.com**.

Prolight + Sound 2018 ·····

Me1g By MDG www.mdgfog.com

MDG will be exhibiting in *Hall 3.0 Stand E19* with its exclusive – and longest serving - German distributor, cast C. Adolph & RST Distribution.

MDG will be bringing an exciting development to its Me Series of fog generators with the launch of Me1g, a glycol-based version of its highly successful Me1 fog generator. Sharing its size and form factor with its oil-based sibling, Me1g has a single nozzle and 0-100% DMX/RDM control for perfect, powerful output, but with the benefit of using any of MDG's glycol-based fluids.

Known for the quality, performance and durability of its haze, fog and low fog generators, MDG is the manufacturer of the AtmosphereAPS and ATMe haze generators, the Me Series and MAX Series of fog generators, and the ICE FOG range of low fog generators, in addition to the award-winning theONE[™] atmospheric generator which can output haze and fog from a single source. A selection of these will be on the stand at Prolight+Sound 2018.

For more information on all MDG's fog, haze and atmosphere generators, visit www.mdgfog.com.



Prolight + Sound 2018 ·····

Sixty82 Trussing and Staging Systems Debuts at Prolight + Sound 2018

By Sixty82 www.sixty82.nl

Founded by leading figures in the entertainment technology marketplace, brand new company, Sixty82, makes it debut appearance at Prolight+Sound 2018, Frankfurt (10 – 13 April).

Sixty82 pools over 100 years of experience and expertise from three countries to engineer and manufacture next generation trussing and staging systems. With headquarters in Drachten, Netherlands, Sixty82 is a British, Dutch and French alliance designed specifically to bring a fresh view onto the market.

The company founders are Fokko Smeding and Marc Hendriks from The Netherlands, Adrian Brooks and Lee Brooks from the UK, and Xavier Drouet, Jérôme Bréhard and Alain-René Lantelme from France, none of whom need an introduction in their sector.

Sixty82 has a clear vision to change the way that lightweight structural systems are used, and introduces unique technology that guarantees every individual component is traceable, safe and properly engineered. Sixty82 has a commitment to innovation and a high attention to detail, addressing many small details that will make big differences to the user.

The company's products are unique in incorporating individual Product Personality with the SixtyTag RFID-tagging system. Product Personality means that every part can be traced back to exact manufacturing data, and that supplementary technical and user information can be accessed instantly on site using the SixtyApp. This will prove an invaluable resource for riggers and rental companies alike by allowing component level track and trace out of the box.

Sixty82 products have improved load performance and high production accuracy, and industry standard compatibility. This means large, technically challenging constructions can be achieved with the same simplicity and peace of mind as the use of individual products. And with key personnel having been involved in the development of European safety standards since the turn of the century, and all products independently assessed and approved, Sixty82 products deliver the highest quality and safety.

"With some of the trussing world's most experienced and trusted individuals behind our product line, we are extremely excited to be launching Sixty82 at this year's Prolight+Sound," says Sixty82 CEO, Fokko Smeding. "Our passion has always been to supply the industry with safe, well-manufactured products, and back that up with our trademark - superlative, knowledgeable customer service. We have focused on the introduction of new technology that will become an industry standard within a short amount of time, and in providing our customers with confidence and security."



For more information on Sixty82, visit www.sixty82.nl.

Prolight + Sound 2018 ·····

World Premieres for Ayrton's Mistral™TC and MiniBurst™ at Prolight + Sound 2018 By Ayrton

www.ayrton.eu

Ayrton will launch two brand-new products at Prolight+Sound 2018 as Mistral[™]TC and MiniBurst[™] receive their world premieres at the show: the 300W white LED Mistral[™]TC spot fixture is the latest, much-anticipated new development in Ayrton's Automated Luminaires range, while the MiniBurst[™] graphic strobe is the next luminaire to undergo the miniaturisation treatment of Ayrton's highly successful Creative Solutions range. MiniPanel[™]-FX will also be exhibited for the first time in mainland Europe.

$\label{eq:main_star} \begin{array}{l} \mbox{Mistral}^{\rm \tiny T}\mbox{TC The superbly small but incredibly bright LED} \\ \mbox{spotlight} \end{array}$

Ayrton is excited to present the world premiere of its newest LED-based spotlight, Mistral[™]TC. Mistral-TC is the latest in Ayrton's new range of fixtures, named both in honour of North African desert winds and some of the hottest performance cars on the planet, which signify a new era in the company's development as it focuses on a sensational new range of LED spot and wash light fixtures.

Sharing a form factor with its compact sibling, Merak[™], Mistral-TC is an extremely versatile, feature-rich 300W white LED source spot in an incredibly small package. Designed for applications requiring perfect colour reproduction, Mistral-TC once again pushes the boundaries of technology with an entirely new white LED module, calibrated at 7000K, with CRI greater than 90 and extremely high TM30 readings, making it ideal for applications such as fashion shows or car shows. Mistral-TC delivers an output of over 14,000 lumens, and has an incredible 7° - 53° beam spread with perfect image resolution at all angles.

Mistral-TC's prolific list of features includes CMY colour mixing, variable CTO and a six-position complementary colour wheel. The effects section includes seven indexable rotating gobos and nine fixed gobos, a continuous graphic animation effects wheel, 15-blade iris, a five-facet indexable rotating prism, and a soft-edge frost filter. Heat is dissipated by Ayrton's unique liquid cooling system with silent ventilation mode for studio and theatre applications.

Powerful, fast, precise, versatile and intuitive, Mistral-TC offers unrivalled performance in its category with nothing of its size, weight, brightness and number of functions on the market.

For more information, visit www.ayrton.eu.



Prolight + Sound 2018 ·····

Alice and Oz – 600W LED Models

By Robert Juliat www.robertjuliat.com

Robert Juliat will make its latest Compact range followspots available from Prolight+Sound with the new, exclusive 600W LED models, Alice and Oz, first in line to ship. These short and long throw followspots exhibit restyled bodywork and all the wealth of RJ features one would expect from Robert Juliat. The combination of a highly efficient LED source and Robert Juliat's classic optical train ensures Alice and Oz pack a punch equal to that of conventional 1200W discharge models, at a fraction of the power consumption.

Most excitingly, Robert Juliat have promised to reveal a new, very powerful, front-of-house LED profile for the first time at the show. You will have to visit the stand to find out more about the new 600W source and optical efficiency.

Robert Juliat's SpotMe, its bespoke, 3D tracking system for followspots, will be demonstrating how it leads from the front in coordinating fixtures to follow performers on stage. With fast and easy set-up, this innovative tool for followspots uses advanced algorithms and calibration to interpret information sent from its sensors to communicate with the console based on PosiStageNet language; and then to coordinate identical movements of other fixtures in the rig. SpotMe can also be used to set limits to avoid light spill into scenic or public areas, while iris movements can be converted into any other function, such as automatic zoom.

The expanding Dalis range will also be on show with some new additions to the family. Visitors will be given a preview of two new models both featuring a 4-colour mixing system. The Dalis Access 863 is a cyclight designed to give those with smaller budgets the first access to Dalis technology. The Dalis 864 Footlight is a new colour variation of the original Dalis 862 tuneable white footlight, which includes 48 asymmetrical reflectors, for the creation of colourful upstage or downstage lighting.

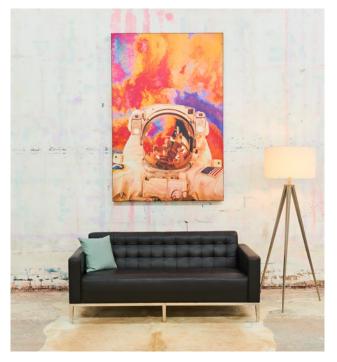
Finally, RJ's ZEP series will be represented with a demonstration of RJ ZEP Fresnel 360LF in warm white which will be shown alongside a traditional tungsten Fresnel luminaire. Robert Juliat will demonstrate how this uniquely silent Fresnel, designed specifically with theatre and studio applications in mind, is a powerful, high quality alternative to traditional tungsten Fresnel fixtures and perfect for environments where noise and heat are a no-no!

For more information, visit www.robertjuliat.com.





BIG NAKED WALL Toronto, Canada





Big Naked Wall, an online art gallery that exclusively focuses on backlit art is announcing its official launch this week with the unveiling of their "Life is a Feeling" campaign.

Big Naked Wall is a provider of large, backlit, and interchangeable artwork. The backlit aspect of the artwork is new to the art industry and is currently unique to the marketplace.

"We feel our product will resonate with designers and art enthusiasts alike. It invokes an emotion and feeling and at the essence that is what designers are selling; feeling. Our contemporary art concept allows for flexibility in design at a modest investment" says Raymond Wali, Creative Director at Big Naked Wall.

In addition to the art being backlit, it is also interchangeable. This means a new piece of artwork can be purchased without the frame and the existing image can be replaced. Big Naked Wall works with popular artists around the world to provide limited edition pieces.

The frame and artwork are self-assembled on site so they are easily shipped and can accommodate larger sizes without special handling or shipping charges.

"Our backlit art provides a new depth and impact that traditional canvas art does not. Our frame system is unique, in that you can easily purchase additional art and swap it out as desired. These pieces look great in commercial or residential applications, we are excited to bring this to market" adds Raymond.

There are plans to launch a subscription service in the near term as well to allow customers to create new experiences by receiving new art every month. The company will have shows in Toronto and New York this fall. All updates can be found on Big Naked Wall's website at BigNakedWall.com

Product Information

- All LED frames & artwork come self-assembled
- Artwork itself is printed on a special polyester fabric that allows for even light penetration and diffusion.
- Each order includes a reflective backing that eliminates light leakage and distributes the light
- All pieces are limited edition
- Prices range from \$1,800 \$3,500

About Big Naked Wall

Big Naked Wall is an online art gallery that that focuses on large, backlit art that is easily interchanged. The limited-edition pieces are curated from artists from across the globe.

For more information, visit www.bignakedwall.com.

Quartier des spectacles Partnership

Montréal, Canada

After its first full year, the Quartier des Spectacles Partnership's program for the export of its public art installations is a clear success: to date, six works produced and premiered in Montreal have been presented in 20 cities at 25 cultural events and festivals and have been seen by millions of people in North America, Europe and the Middle East.

For the last year, installations produced by the Partnership, whether based on light, sound, participation or interaction, have been entertaining audiences in the world's great capitals and cultural events. Their export helps extend the life of the works, raises their creators' profile and serves as an exceptional platform for showcasing Montreal, UNESCO City of Design, contributing to the city's emergence as a global capital of digital art and creativity.

Impulse is a fine example of international appreciation, having been immensely successful in London, Chicago, Brussels and Lugano, followed by stops in ten more large European, American and Canadian cities. After its world tour, the installation comprising a series of illuminated, sound-producing seesaws, created by Lateral Office and CS Design, will return to the Place des Festivals in the Quartier des Spectacles this November 30 until January 28, 2018.

"For this first year exporting the Partnership's works, we set a goal of visiting five cities – and we've already toured six different works to 20 cities," said Pierre Fortin, executive director of the Quartier des Spectacles Partnership. "We are pleased to note that the model developed by the Ville de Montréal and the Partnership for the design and animation of public spaces has become a major source of inspiration for cultural districts around the world."





A Success Story Pointing Toward New Models

A year after the Partnership launched the new program, every work currently offered for export is now on display in another city: Loop in Lugano, Iceberg and Îlot de chaleur in Detroit, Prismatica in Scottsdale and Niagara Falls, Entre les rangs for a second time in Durham, England, and Impulse, in the cities listed below.

The Partnership now plans to step up the production of works created and premiered in Montreal before being offered for export, helping meet growing demand. The organization is therefore working to develop new business models and is seeking new financial partners to spur investment in the creation of participatory public art installations. The launch of new projects would help Montrealbased creators benefit from spinoffs and recognition through the presentation of their works around the world.

Increased production of new works will also attract creators who have not yet explored the design of installations or public artworks. The goal is to stimulate the creation and exhibition of original works that give a range of audiences compelling experiences that transform their relationship with the city.

"In urban planning and public administration circles in many cultural capitals, there is now a strong desire to rethink the city and create livelier, more playful spaces that offer more opportunities for people to interact, meet and share experiences. The Partnership's export program has already demonstrated its soundness and relevance as a catalyst for that type of encounter between residents, art and urban space," said Rami Bebawi, architect with KANVA architecture.

Unique And Recognized Expertise

The Partnership's expertise in animating public spaces has grown considerably over the years. The process began with Luminothérapie in 2010, and continued with subsequent events such as Espace commun, Mégaphone and this year's public art walk, KM3.

The idea of exporting the Quartier des Spectacles' works emerged when the city of Brussels approached the Partnership to present an immersive installation from Luminothérapie during the 12th annual Plaisir d'Hiver winter festival in 2013. As a result, the first work to be exported was Iceberg by ATOMIC3. The work, which invites the public to explore the life cycle of an iceberg, was a great success in Brussels. Then, members of the Global Cultural Districts Network, having observed the Quartier des Spectacles' animation work with great interest, requested the opportunity to host various works.



To implement and oversee the export of its works, the Partnership retained the services of the CREOS firm, following a call for tenders. Because the Partnership is a non-profit organization, all profits from the export of the works are reinvested in programming, contributing to the creation of new works.

The Quartier des Spectacles Partnership's productions are recognized for their quality and ability to spark the interest of a diverse audience, thanks especially to their participatory nature and their universal and inclusive themes. The Partnership's works are highly appreciated by citizens because they create opportunities to meet and share; they also help build the kind of relationship cities want to build with their residents.

About the Quartier des Spectacles Partnership

The Quartier des Spectacles Partnership, founded in 2003, is a nonprofit organization that manages, animates and illuminates public spaces in the Quartier des Spectacles, and promotes the district as a must-visit cultural destination. It hosts, produces and exhibits innovative installations involving cutting-edge lighting design, immersive environments and interactive digital spaces.

As a showcase for new multimedia technologies, the Quartier des Spectacles positions Montreal as a global leader in the exhibition of digital content in urban settings. The Partnership is a member of several international networks, including the Connecting Cities Network, Lighting Urban Community International (LUCI) and the Global Cultural Districts Network. It is supported by the Ville de Montréal and the Secrétariat à la région métropolitaine of the Ministère des Affaires municipales et de l'Occupation du territoire.

For more information, visit www.quartierdesspectacles.com/en/.

THE NEW ZHAGA

Smart Standards, Smarter Lighting

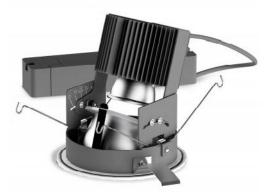
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The Zhaga task force "Strategy", led by Giovanni Scilla, Chair of the Steering Committee, has investigated opportunities for Zhaga offered by recent trends in the lighting industry. Particularly relevant are here the combination of LED lighting and lighting digitalization, the need of light designers and architects for components that can be assembled easily, also at a late stage, by means of standardized interfaces, as well as requirements put on lighting systems from a circular economy perspective.

Besides creating specifications for electrical, mechanical, optical, thermal interfaces for components to be used in LED luminaires, the NEW Zhaga will include interfaces for smart components such as sensors and connectivity modules in its scope. It will focus on interoperability and will open new business opportunities in digital lighting and service models.

The latest Zhaga specification, Book 18, is already an indication of the new direction. It defines a standardized interface between outdoor LED luminaires and modules for sensing and communication, bringing the Internet of Things to the outdoor lighting market via smart, upgradeable, future-proof fixtures. The NEW Zhaga will start the development of a connectivity interface specification for indoor luminaires in Q2/2018.

The NEW Zhaga scope enables manufacturers to make LED luminaires with Zhaga-compliant components, which are upgradeable and serviceable, depending on the design choices taken by the luminaire manufacturer and the serviceability level of the luminaire. This will be a key contributing factor to accelerate the adoption for smart luminaires in the market place. Legislation also develops policies in that direction, with the EU driving circular economy and requesting removability, reparability and serviceability in luminaires. By providing interface specifications for interoperable components, Zhaga paves the way for luminaire manufacturers to comply with the upcoming legislation.

The NEW Zhaga will also introduce a new member category, called "community" with a free membership and a dedicated set of benefits. It is aimed at installers, specifiers, architects and end-users, and other interested parties, enabling closer interactions. The preregistration at Light + Building at our booth or online will be possible.

About Zhaga

Zhaga is a global association of lighting companies that is standardizing interfaces of components of LED luminaires, including LED light engines, LED modules, LED arrays, holders, electronic control gear (LED drivers) and connectivity fit systems. This helps to streamline the LED lighting supply chain, and to simplify LED luminaire design and manufacturing. Zhaga continues to develop specifications based on the inter-related themes of interoperable components, smart and connected lighting, and serviceable luminaires.

For more information, visit www.zhagastandard.org.

Wat Pathann Val Pathann

Bangkok, Thailand

Organized By: Faculty of Architecture, Chulalongkorn University by Prof. Phanchalath Suriyothin, South Korea's Light Asia by Bosun Lee Lighting Designers: Miki Matsushita, Puay Silpanon, Pietro Palladino, Anthony Linard, Dan Foreman, Pornpimon Piumpongsuk, Maez Bhucharoen Lighting Solution: Lighting & Equipment Public Company Limited (L&E), KKDC Thailand Photo Credit: Faculty of Architecture, Chulalongkorn University





the stories from the past. Even though we can see the details clearly by daylight during daytime, artificial light plays an important role in highlighting them in nighttime. Especially by the ingenious lighting design, light can be better medium for storytelling.

On 23-25 September 2017, L&E had participated as sponsorship in Light Asia Bangkok 2017, the lighting workshop organized by South Korea's Light Asia and Faculty of Architecture, Chulalongkorn University. It was a chance for architecture students to learn through experience working with many professional lighting designers from all over the world to create temporary lighting installations in Wat Pathum Wanaram, a notable royal temple in Bangkok. The participants were arranged into several teams and responsible to different sites. Each site has its story that inspiring the design.

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Bodhighara

This is the special building purposely built surround Bodhi tree, the tree where Buddha enlightened himself. Lighting installation showed how the Bodhi tree is important in Buddhism. The base of the tree was lit up by linear led through the lotus pattern. At Bodhighara building, one team designed to light up the interior by candle lights to represent the old day atmosphere. Another team considered the ambulatory to have light and shadow which represent the peace of mind.



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Bell Hall

The two main columns and a center window at main building axis where the bell located were emphasized by warm white light to contrast with the ambience of cool white light and blue wallwash uplight. Also, water pattern was projected on the ground by gobo spotlight to symbolize the history of place that used to be lotus pond.



Drum Tower

For this site, lighting was applied as part of architectural composition in two levels. Physically, warm and blue lights were used to reveal mass, forms and elements of the buildings. In the divine sense, Gobo projector projecting the patterns of lotus and dharmachakra were used as metaphor in Buddhist philosophy.





Phra Chedi

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Light was used as the symbol of concentration, respect and merit to the place. As the highest level of uric vibrations in the human aura displayed the concentration of dhamma in Buddhism, purple light was used to highlight the chedi to create the feeling of spiritual meditation and enlightness. The low level candle lights with dynamic flame were used for the worship area inside chedi representing respectful, peaceful and meditation. Gold is always used for holyplace in Buddhism so they use yellow light to represent gold.

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North East and South East Gates

The gates illustrate the detail of ideal lotus with the layers of gate corners representing lotus petals. The light emphasized the gate's form. To highlight the layers of gates, several wattage floodlights and gradient of colour temperature were considered. Moreover, there were various ideas of lighting decoration in the niches along the fence such as using candle lights, shadow from Thai lotus pattern and the unique light and shadow from glass cask.

From this real practice workshop, students had been involved through all processes of lighting design's work, from creating concept design to inspecting installation. The installations had been temporary exhibited for one week with impression and satisfaction from lighting designers, students and Bangkokians. It was a pleasure for L&E to support this great event. Lastly, we hope that Light Asia Bangkok 2017 would be the invaluable experience for our future lighting designers and urging people to realize the importance of architectural lighting design, architectural education and our beautiful Thai architecture.

About L&E

L&E is a lighting equipment manufacturer and lighting solution provider based in Bangkok, Thailand. We have been specialists in lighting for 25 years and engaged in many prominent projects in Thailand and other Asian countries.

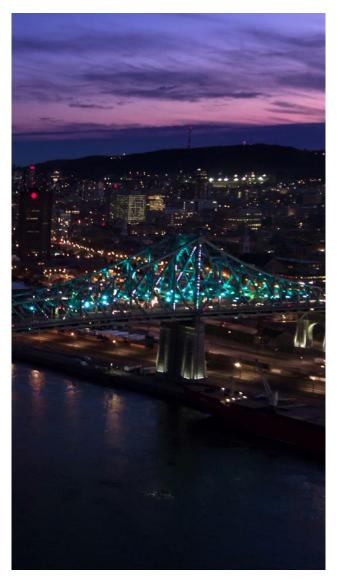
For more information, please visit **www.lighting.co.th**.

facades & landscapes

Jacques-Cartier Bridge

THE REAL PROPERTY.

Montréal, Canada



A n iconic architectural feature of the Montreal skyline by day, the Jacques Cartier Bridge now shines with an innovative lighting signature that celebrates the unique engineering of its historic structure. Thanks to intelligent programming connected in real-time to big data and social media networks, this bridge is by most measures the most connected bridge in the world. It comes alive every night and changes constantly, in synch with Montreal's seasons, weather, traffic and social media activity.

A flagship project for the city's 375th and Canada's 150th anniversaries, the illumination of this steel colossus was a major challenge. This project unites the bridge with the city and its citizens, by combining expertise in civil engineering and large-scale project management with the creative talent of Moment Factory and six world-class local design firms.

From Sunset To Sunrise

An iconic landmark by day, the bridge takes on a new life at night. As the sun sets, the bridge awakens, bringing light, movement and data to the structure. Over the course of the night, the bridge uses these features to tell the evolving story of Montreal and its ongoing rhythms. The following morning, as the day breaks, the bridge's pulse fades into the sunlight, waiting for its next turn to shine.

A Real-Time Reflection Of Montreal's Social Media Energy

The energy of Montreal is represented through a subtle play of light on the bridge's exterior 'skin'. For 52 minutes each hour, the bridge pulses with the city's social conversations as tracked on Twitter in real-time. The intensity, speed and density of these light fragments changes depending on how often Montreal-related



hashtags are liked and shared. Viewers create a unique coloured spark by sending a Tweet directly to the bridge's own dedicated hashtag *#illuminationMTL*.

Hourly Show

On every hour, at night, short 8-minute animations create a Big Data-driven show that visually translates Montreal's activity and mood based on different types of daily data: the weather, traffic, news, major events, and more. This changing content makes the bridge a true barometer of Montreal life.

As The Seasons Change, So Does The Light

The bridge changes hue with the seasons thanks to a 365-colour calendar. Day after day, the bridge's 'heart' gradually changes from an energizing spring green to a radiant summer orange, a voluptuous fall red, and finally an icy winter blue. Like the forested mountain after which the city is named, the colours change gently with the seasons, the light subtly evokes the passage of time as an enduring artistic expression that reflects its surrounding ecosystem.

The bridge translates urban big data collected from sensors over the course of the day and updated every hour, into a series of eye-catching data visualisations. Pulling from a wide variety of data sources, including weather, traffic, news and social media, each hourly show is generated in real-time and is totally unique. The ever-changing content makes the Jacques Cartier Bridge a true barometer of Montreal life.

About Moment Factory

Moment Factory is a multimedia studio with a full range of production expertise under one roof. Our team combines specializations in video, lighting, architecture, sound and special effects to create remarkable experiences. With its headquarters based in Montreal, the studio also has offices in Los Angeles, Tokyo, London, New York City and Paris. Since its inception in 2001, Moment Factory has created more than 400 unique shows and destinations. Productions span the globe and include such clients as Los Angeles Airport, Microsoft, NFL, Sony, Toyota, the Sagrada Familia in Barcelona, Madonna and Royal Caribbean.

For more information, visit www.momentfactory.com.

Towers of Love

Toronto, Canada

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Architect: Alva Roy Architects Project Manager: Alva Roy Engineers: MCA Engineers Budget: Not disclosed Project End Date: April 2022 In his Towers of Love, Toronto-based architect Alva Roy takes the notion of love and shoots it from deep beneath the earth's soil, towards the sky. His design allows onlookers to pause to apprehend the mystery; allowing visitors to walk its hallways and through its corridors; and, of course, those who live there, they will have the chance to be fully immersed in the recesses of its heart.

The two towers stand alone—yet together—a testament to the depths of romantic love and the union it bears. Both towers carefully contoured to draw the naked eye and to defer to its loyal companion. "Love is when two entities join to become one," says Roy. "So I went to meticulous care to make sure that this design would be emblematic of this inextricable bond that is the very essence of love."

This multi-use facility, contains hotel, residential and commercial space: hotel, bar and restaurant and office at the shorter building, and commercial at the main floor and residential at the higher floors of the higher building. Total floors for shorter building is 22 stories and 24 floors at the higher building.

"Architecture is not just a wall, a floor and a ceiling to house ourselves," says Roy. "It is a place where we connect to the deepest emotions of the human heart. Where we invoke peace and calm—and where we summon the richest parts of our being and existence."

About Alva Roy Architects

Recognized as an outstanding designer and architectural firm, Alva Roy Architects consistently pushes the boundaries of architecture and interior design with over 15 years of experience. Our works experiment with new spatial concepts, encompass all filed of design, ranging from exterior to interior.

In a world becoming increasingly more sterile and secular, Roy assumes the burden of bringing spiritual vibrancy to every landscape he touches. After 15 years in business, he has become an illuminating force, masterfully blurring the line between interior design and building mass. The Towers of Love are another brushstroke in the award-winning portfolio of aRA Architects.

For more information, visit www.alvaroy.ca.

spatial envelopes

Light Arrival Crystal Lake, United States

Aving grown tired of Chicago's humid summers and cold winters limiting their use of an existing screened porch, the clients requested an enclosed sunroom, uplifting and full of light, to be enjoyed year round. The architect, Matt Flynn, wanted a fluid presence to soften the rectangular space. The result: a curvilinear, translucent, backlit, full-room suspended ceiling that bathes the sunroom in relaxing, diffuse light.

Design

The initial intention was to build the ceiling in flexible drywall. But when lighting for the room was discussed – with the typical solutions being recessed ceiling fixtures or cove lighting – the design concept took a sharp bend. By constructing the project in translucent acrylic and hiding the light fixtures above it, the entire ceiling became the sole lighting element in the space. A velvety, matte-finished acrylic was chosen to eliminate mirrored reflections. With its large material presence, the surface began to flow over and down walls to further engage the architecture.

Environment Over Object

The sculptural form, surprisingly, avoids becoming a brutal focal point by its sheer size and undulating geometry. By extending to and beyond the sunroom's boundaries, the ceiling passes beyond the field of vision from any single vantage point, turning into an environment rather than an object. The curved surfaces cross and blend each other to create a non-hierarchical



and asymmetrical yet balanced composition. The lack of a singular focus allows the clients to relax below without distraction from the fluid presence overhead. Nighttime dissolves the physical character of the sculpture as the ceiling's form dematerializes into light.

Creating Uniform Illumination

With the sculptural ceiling only eight inches away from the underside of the roof in certain locations, perimeter lighting or scattered point fixtures would have caused hotspots and dim areas. Accordingly, a large, uniform lighting array was needed to avoid falloff. Low-voltage LED tape strips were chosen for their long life span, diode spacing and capacity to cover vast areas inexpensively. Colour temperatures alternate between 3100K and 4000K in order to blend a fuller light spectrum and create cleaner, whiter light. Electrical wiring halves the room and then divides the LEDs again by colour before tying into four dimmers. Although the project was exempt from energy codes, minimal power achieves comfortable illumination while providing the clients with controls for bright, cool summer evenings or cozy, warm winter nights.

Avoiding Shadows By Scattering Light

Shadows on the backside of the translucent acrylic would have been visible from below. Instead of using thick, opaque formwork to support the acrylic, a tab-and-slot L-panel system was devised. Each piece hangs by two thin suspension wires and interlocks with the piece below it. Even still, if the LEDs had been mounted to the roof and directed downwards, the suspension wires would have cast thousands of shadows onto the translucent acrylic.





ceiling on clear acrylic sheets. This effectively converts the roof's underside into a massive lightbox that disperses direct rays off its flat white paint. Cast shadows are eliminated and diffuse, indirect illumination is radiated to the room below.

Instead, the LEDs aim upwards, floating between the roof and the sculptural

Fabrication Efforts

Once the sunroom's shell was constructed, the architect relocated across country to the project site. Working together, Flynn and the client fabricated and installed the entire ceiling sculpture. Pre-drilled plywood panels were painted and filled with over 1,200 eye bolts. The plywood was then fastened to the underside of the roof rafters and 5,000 feet of suspension wire was attached. 128 clear acrylic panels hang below and support over 29,000 LEDs connected by 7,000 feet of electrical wire. Using custom bending tables, 397 uniquely shaped, CNC-cut, translucent pieces were thermoformed on individual angles. These were hung within a 1/32" tolerance to complete the ceiling.

About Flynn Architecture & Design

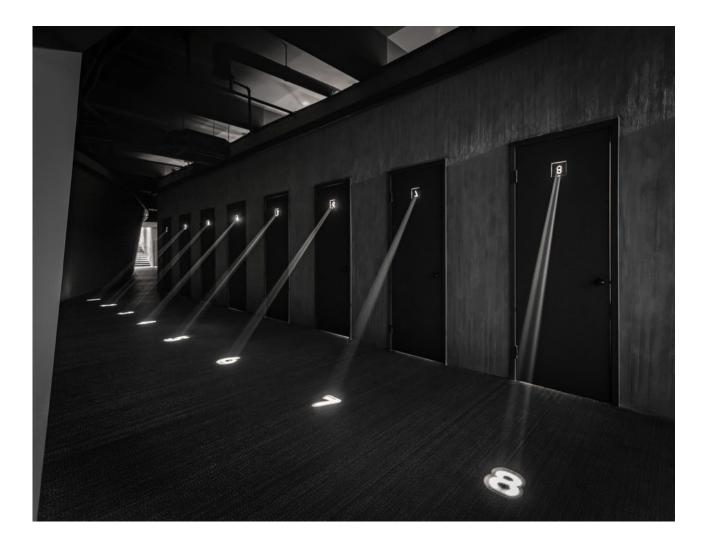
Matt Flynn, NCARB, founded Flynn Architecture & Design in 2006. Over the last decade, the firm has specialized in assisting world-renowned artists and galleries with public and private art commissions spanning five continents. The firm's recent endeavours have focused on its own high-end residential designs. Previously located in Los Angeles, California, the firm relocated outside of Chicago in 2015.

For more information, visit www.flynn-design.com.

Jian Li Ju Theatre

Shanghai, China

Project Name: Jian Li Ju Theatre Architecture Firm: More Design Office (MDO) Status: Completed in 2017 Size: 930 sqm Address: B1 No. 301 East Hongsong Road, Minhang District, Shanghai, China Client: Jianliju Theatre Company Photographer: Dirk Weiblen *www.dirkweiblen.com* Signage: Evelyn Chiu Website: www.moredesignoffice.com





The Jianliju theatre company, in an interesting examination of typology, offers a unique spectator experience where the audience plays an integral part of the performances and productions. As such the brief for their new premises in Shanghai demands a careful architectural approach to the relationships between space, event and movement. MDO, the architects selected to take on this mantle, have addressed these conditions with a deliberate and exaggerated exploration of form, lighting and circulation.

The practice has taken the cinematic expression of film noir and applied its heightened sense of drama to the atmosphere within to create a sequence of contrasting spaces that read as a montage of screenshots from a film reel.

With work of this nature, the architectural theory of Tschumi, especially the 1976 Screenplays project, is never far away and many of the formal strategies employed by MDO directly reference the parallels with screen editing and the time-space nature of architecture. Tools such as distortion, repetition and superimposition often used by the great directors of the film noir scene have all been applied as a method to soak the interior with all the atmosphere of a 50s Hollywood melodrama.

The theatre is accessed off a nondescript side-street in central Shanghai, the entrance door hidden at the back of an antique furniture emporium. Visitors only arrive with







a time, location and number. From the door, a stair leads down into the darkness and from there the circulation seeks to create a sense of departure from the world outside, a deliberate act of disorientation initiated by a dark curved corridor that emphasizes low-key lighting andleads to the spaces inside.

The functions are organized into a linear arrangement of spaces, where the visitor is prevented from going backwards, as if following an unknown figure through the street at night.

The palette is simple, throughout monotone, minimal with a hint at texture through the treatment of the plaster to give a lustre and depth to the spaces.

In contrast to the threshold sequence, the lobby, is bright and lined with acoustic paneling on the walls and benches creating a closed and soft environment—a moment of respite before the performance begins and the drama is further heightened.

When it is time, each participant in the production enters a small changing space, highlighted by an eerie number projected from a pinhole aperture on to the dark corridor floor. In this space, reminiscent of a Lynch production set complete with heavy velvet curtains, they are provided with a script and transform into character.

They emerge from a costume change into a small anti-chamber where the four enclosing walls are asymmetrical, an unsettling space where the main focus is on a number displayed through a magnifying glass giving stage directions to the participating actors waiting in anticipation.

After the show concludes the sequence finishes with a hall of mirrors, one final nod to the film reel and the cinematic traditions that their design engages with. Given this final space is predominantly used for photographs and selfies, their last note is intentionally witty, a critical reflection on the ambiguous relationship between actor and audience that their architecture has curated throughout.

Company Profile

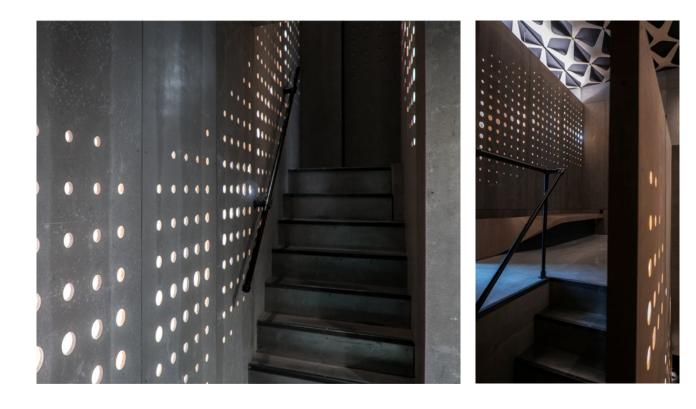
MDO is an architectural and interior design practice based in Shanghai dedicated to creating innovative and beautiful solutions bespoke to their clients' needs. MDO give equal weight to concept design and craftsmanship. Each project is tailored to suit its context and is delivered to maximize the challenges of time and budget.

For more information, visit www.moredesignoffice.com/jian-li-ju-theatre/.

Shock Therapy New York, United States

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Architect: Eray/Carbajo Design: Inanc Eray, Gonzalo Carbajo Design Team: Ugur Imamoglu Anil Sakaryali Egemen Onur Kaya Paul Thirouin Arda Ertan Yildiz Sarahdjane Mortimer Ece Pasalioglu





Shock Therapy opened doors to its Upper East Side flagship, bringing NYC its first group EMS workout destination. Designed by Eray/Carbajo, the interiors bring an exciting twist to the building's beautiful landmark exteriors. With the idea to create the space for future of fitness, the concept introduces a room within a room, nesting a futuristic shell into a historic background.

The time starts bending inside the welcoming area, through its curved furniture and finishes, custom designed by Eray/Carbajo for the space. When climbing up the stairs for the studio, the visitors walk into a fully encapsulated space that leaks different shades of light through the gradient patterns on the shell. While the permeating light feels like a glimpse into the future, the preserved historic features and other decorative pieces remind the core.

Curved X marks by URAStudio, float below the ceiling, unifying the force of the unknown and the inner power in "X-ercising". The wood fiber and cement mix panels that wrap the interiors attest to the architectural vision in sustainability and social responsibility. The wood content is sourced from forests that are sustainably managed.

About Eray Carbajo

Eray Carbajo is an international architecture and design studio based in New York City and Istanbul. With over twenty international awards in architecture, interior design, masterplanning and product design; the studio is known to create designs that solve urban, social and environmental problems, catering to the future of the global landscape.

For more information, visit www.eraycarbajo.com/gallery/shock-therapy-nyc/.

Introducing the Cu-Beam Duo Suspended Light

By Dyson www.dyson.com.sg

Combined up and down light with full flexible control. Alters to suit changing needs throughout the day.

Fluorescent lights can create problems, including reduced light output over time, wasted light in all directions, costly replacement, noise pollution and hazardous material. An increasing number of businesses are opting for LED lights. But without effective cooling, their efficacy may drop over time, which can result in inefficient lighting. Cu-Beam™ suspended light technology works differently.

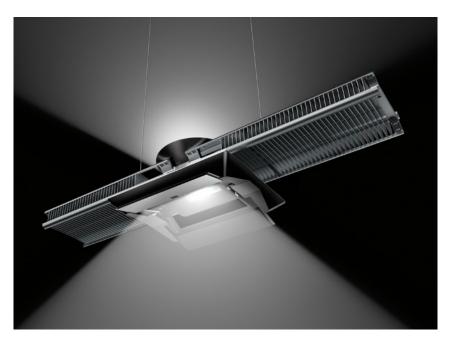
"My team and I have spent 10 years immersed in the science of powerful, longlasting illumination. Now, we've developed a lighting technology that can adapt to different tasks throughout the day."

- Jake Dyson

People have different needs, across different spaces, at different times throughout the day. And, for optimal visual conditions, each one requires different light levels. That's why, with the new Cu-Beam Duo suspended light, Dyson has designed a powerful, combined up and down light that has full, flexible illumination control.

A Custom-Built Driver Splits The Ratio Of Light To Suit Different Needs

During presentations, more light can be directed upward and less light downward, so the presenter's screen can become the focal point. During meetings, more light directed downward illuminates the table, to aid note-taking and discussions across the table. Outside of working hours, full up light provides a blanket of ambient illumination across the space – ideal for maintenance staff.



Directing light where it's needed provides optimal visual conditions, preventing wasted light and helping to reduce eye strain.

Ricochet[™] Technology Maximizes The Output Of Every Lumen

With adjustable one-touch shutters and a reflective surface, Ricochet[™] technology converts unwanted down light into up light, preventing light being wasted. For up light, closing the adjustable shutters allows recovery of unwanted down light. It reflects it upwards, to maximize lumen output and provide very high efficacy. For down light, opening the shutters allows more lumens to go downwards, to maximize downward light distribution onto the task plane.

Heat Pipe Technology

Cu-Beam[™] suspended lights come equipped with an effective cooling system. Heat is transferred away from the light source and dissipated along the wings.

Six vacuum-sealed tubes span the wings of the Cu-Beam[™] suspended lights. Each tube contains a drop of water. When the light is switched on, the heat generated by the LEDs turns the water inside the tubes into vapor. The vapor begins moving along the tubes due to the difference in pressure. As soon as the vapor reaches a cool area of the tube, it condenses back into water. Heat energy is dissipated evenly through a series of aluminium fins, which form the light's wings. A copper wick draws the water back towards the LEDs via capillary action, and the cycle begins again.

This cooling system enables Cu-Beam[™] suspended lights to use high-power LEDs, instead of combining the light output of multiple less powerful LEDs.

Custom-Engineered Lens

A single light source allows accurate optical control. Precisely calculated optical geometry directs light without compromising output.



IN THE RANGE

In addition to the Cu-Beam Duo suspended light, there are two additional products (not currently available in Singapore) in the range:



Cu-Beam™ up-light

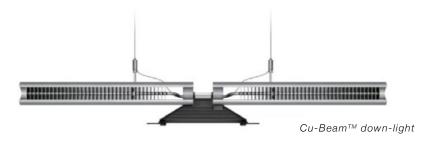
The Cu-Beam[™] up-light is a suspended up-light with an ultra-wide distribution of powerful illumination. Using a custom-engineered bubble optic lens, it casts a wide pool of light across the ceiling. This eliminates hot spots and allows a short drop height, creating soft, ambient light throughout the room. It is ideal for lighting open spaces, such as atriums, foyers and offices.



About Dyson

Dyson is a global technology company. Using a desire to make things work better as a catalyst for invention, our team of over 3,500 engineers and scientists are passionate about developing technology that solves the problems others often ignore. From the world's first bagless vacuum cleaner, to hand dryers that use 430mph sheets of air to remove moisture from hands, to a completely re-thought hair dryer with its motor in the handle, we are relentless about engineering better solutions. Dyson spends £7million a week on research and development and works with more than 40 universities worldwide to develop earlystage technologies.

For more information, visit www.dyson.com.sg



The Cu-Beam[™] down-light is a suspended down-light with a controlled pool of powerful illumination. Using a custom-engineered lens and employing precisely calculated optical geometry, it takes a single light source and creates a targeted pyramid of light over a task area. It is ideal for lighting task surfaces, such as meeting tables and office desks.

Dyson Lighting

The Cu-Beam Duo suspended light is joined in the range by the Cu-Beam ™down light, a suspended light with a controlled pool of powerful illumination, that's ideal for lighting task surfaces such as meeting tables and office desks. Plus, the Cu-Beam ™ up light that is a suspended light with a wide distribution of powerful illumination, that's ideal for open spaces such as atriums, foyers and general office lighting. There is also the range of CSYS[™] task lights, which provide powerful light, precisely where it's needed.

Over the past ten years, Jake Dyson has developed ground-breaking lighting technologies. Now he's advancing them further as part of Dyson, with the philosophy of solving the problems that others often ignore.

Jake Dyson studied product design at Central Saint Martins College of Arts and Design in London and subsequently worked as a retail designer. In 2004 he set up a small workshop in South West London equipped with a mill and a lathe, to produce his first commercial product – the Motorlight wall light. But it was improving and developing LED technology which captured his interest and became an area of focus for him and his team. Jake's business became part of Dyson in 2015, and he is now a R&D Director of Dyson and sits on the board. He works with Dyson's wider team of engineers and scientists in Malmesbury, UK, on future technology portfolios – in lighting and beyond. Jake Dyson is the eldest son of James Dyson, and is committed to the family business.

Lasvit: The Story of Glassware

By Lasvit www.lasvit.com

Lasvit is ready to inspire visitors of 2018 Maison et Objet in Paris with complex presentation of glassware introducing amazing pieces to be seen for the first time as well as with new pieces within the most successful lighting collections. To bring these collections alive Lasvit cooperated with well recognized designers such as Yabu Pushelberg, Kengo Kuma or Jan Plechac and Henry Wielgus and among many authors of glassware collections Maxim Velcovsky, Art Director of Lasvit, presents two brand new collections of glasses.

The visitors of the French fair will be able to admire the typical Lasvit's signature showing exceptional craftsmanship born in the region of northern Bohemia, historically recognized for its famous glassworks and the skills of local craftsmen have resonated all over the world for hundreds of years. The Czech based manufacturer of bespoke lighting installations and glass collections has based its work on the heritage of the art of handblown glass and shifted it into next level thanks to the cooperation with both star designers as well as young and rising talents of the design world. "The broad presentation of artwork Lasvit is bringing to Paris this January shows our seriousness while aiming to become the most inspirational glassmaking company in the world," explains Aleš Stýblo, Vice-President Lasvit.

LASVIT NOVELTIES AT MAISON ET OBJET 2018

Neverending Glory "S" by Jan Plechac and Henri Wielgus

One of Lasvit's most admired lighting collections Neverending Glory has a new variety called Neverending Glory small which is exactly half size compared to the original one. The designers Jan Plecháč and Henry Wielgus sketched the shape of the chandeliers by rotating the silhouette around its own axis. In the individual silhouettes, it is possible to recognize iconic chandeliers from five of the world's most eminent concert halls and theatres; La Scala in Milan, Palais Garnier in Paris, the Metropolitan Opera in New York, the Czech Republic's Estates Theater in Prague, and indeed the Bolshoi Theater in Moscow. Thanks to the Neverending Glory collection, everyone can enjoy this piece of history in their own home. "The idea of Neverending Glory collection came to us when we realized how many amazing old crystal chandeliers there are, and that it would be beautiful to bring them to a contemporary form and into modern homes," says designer Henry Wielgus.

About Jan Plecháč & Henry Wielgus

Jan Plecháč (born 1984) and Henry Wielgus (born 1982) met during their studies at AAAD (The Academy of Art, Architecture and Design in Prague) where they first collaborated. After Jan Plechac exhibited his thesis work at Salone Satellite 2011, he gained much attention from gallery owners and well-known manufacturers. In 2012 Jan Plechac and Henry Wielgus founded studio Jan Plechac & Henry Wielgus.





Yakisugi by Kengo Kuma

The Yakisugi glassware collection follows its older sister, the lighting collection introduced at Salone del Mobile 2017, and is inspired by the ancient Japanese technique for preserving construction timber by charring its surface. Kengo Kuma explains "The idea behind Yakisugi collection is about questioning the materiality of glass and natural wooden texture. My intention was to plumb the depth of wooden soul, captured inside the glass."

Using dry wood in place of traditional presoaked molds, the wood is charred by molten glass. That leaves a permanent imprint of its scorched texture on the glass surface, making each piece an authentic original. This slight modification to a centuries-old technique produced a modern and minimalistic collection that combines simple geometric forms with unusual organic textures.

About Kengo Kuma

Kengo Kuma is a renowned Japanese architect and professor at the University of Tokyo Graduate School of Architecture. He established Kengo Kuma & Associates in 1990 after earning his degree at the University of Tokyo in 1979 and studying further at Columbia University as a Visiting Scholar. His architectural office completed a series of highly acclaimed and award-winning projects both in Japan and abroad.

Currently, Kengo Kuma's projects are underway in Asia, Europe and the USA, including the new National Stadium in Japan. Renowned as a prolific writer, his widely-read books are published in English, Chinese and Korean. His collaboration with Lasvit extends a design philosophy that encompasses architecture, furniture design and now glassworks.



Otto by Yabu Pushelberg

A crystal-ware family consisting of glasses, decanters, a carafe and an ice bucket, Otto projects an easy charm, developed through the exploration of how the individual pieces relate and interact. The stemmed drinkware features solid, weighty bases, precisely etched texture and clear Czech crystal.

Simple, refined details inform an overall language that feels familiar and comfortable yet distinctive. Alternating radial and tangential cut lines provide the same strict texture on both low and high silhouettes while the proportion of cut vs. clear glass varies from piece to piece.

The design for the Otto glassware collection was approached with a sense of balance as it applies to both the rustic qualities and the precisions craftsmanship of each piece. Otto exudes an elevated yet relaxed approachability within elegant, uncomplicated forms.

About Yabu Pushelberg

Founded in 1980 by George Yabu and Glenn Pushelberg, the Yabu Pushelberg design firm is now one of the most recognized design firms worldwide. The firm's multidisciplinary approach is informed by its endless curiosity and driven by thoughtful, creative and like-minded partnerships.

Recognized as design industry innovators, the firm earned countless accolades for their work and contribution to international design excellence, including appointment as Officers for the Order of Canada. With studios in Toronto and New York and current projects in sixteen countries, attention to detail and a spirit of exploration remains a hallmark of the firm. The Lasvit collection was developed following their successful collaboration on oversized diamond-like chandeliers for the Four Seasons Kuwait.

Muster Cup and Neogothic Cup by Maxim Velčovský

Allow yourself some fun and peer into a glass as it was a kaleidoscope. By replicating its optical structures, Maxim Velčovský generates in Muster Cup the effect of a transparent ornament. Each item is original and has a unique scheme, giving it a singular character of its own. During family lunches or parties will be no more bickering about who took whose drinking cup.

The Neo-Gothic Cup showcases the specific features of a historical genus of glass – the so-called Forest glass. The protrusions on its surface were added in order not to slip from greasy hands of nobles during feasts. The middle ages are not as remote from us as may at first sight seem and practical inventions of the past can be easily entangled with twenty-first century aesthetics.

About Maxim Velčovský

Maxim Velčovský completed his studies at the Academy of Arts, Architecture and Design in Prague. In 2002 he became cofounder of the Qubus design studio. He participated in over ninety joint exhibitions and his works are included in the collections of the Victoria & Albert Museum in London, The New Pinakothek in Munich, the Museum of Art and Design in Prague and the Design Museum in Lausanne. In 2007 he won the Czech Designer of the Year award. In 2011 Velcovsky became Art Director of Lasvit, while also heading the Ceramics and Porcelain Atelier of the Academy of Arts, Architecture and Design in Prague.

About LASVIT

The brand LASVIT, founded in 2007 by Leon Jakimic, shed a new light on Bohemian glass and takes it into the next millennium. LASVIT combine the authenticity of glass with creative craftsmanship and innovative ideas. In a few short years, LASVIT have established themselves as the authority delivering bespoke lighting sculptures and art installations made from hand-blown glass. Collaborations with renowned designers and artists gave life to unique glass collections. Nendo, Campana Brothers, Ross Lovegrove, Daniel Libeskind, Maarten Baas, Czech legends Rene Roubicek and Borek Sipek are among those who choose Lasvit to embody their unconventional artistic vision, endowing it with the precision and mastery of our glassmakers, and produce impressive creative oeuvre. This is a manifesto of LASVIT's uncompromising mission: To create breathtaking works of glass, bringing beauty, happiness, story and a little piece of Bohemia to the customers all over the world.

For more information, visit www.lasvit.com.



The Smart Choice For Road And Urban LED Lighting, Versatile And Efficient

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

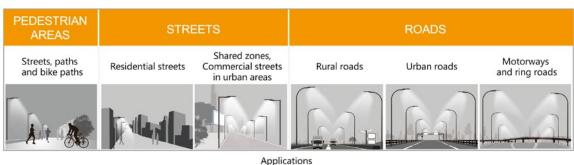
Edge Series street light, designed by YAHAM Lighting, is a versatile ultra-thin street light for road and urban LED lighting. The high quality, thoughtful details, and professional design make Edge a better choice for road lighting.

Benefits

- High efficiency and stable performance;
- Modular design, good for maintenance and more watts options.
- Tool-free maintenance design, easy replacement of the photometric engine and gear compartment;
- Streamline body and smooth surface, no dust accumulated ;
- 0~10°inclination adjustment by simple operation
- Short ROI
- Daylight sensor available (1~10V)
- Camera compatible

Technical Features

- High power: 60W/100W/150W/200W/240W
- High efficiency: up to 140lm/W;
- Lumens: up to 33600lm
- Installation Height: 6~15m
- Beam Angle: 60°×140°, 65°×145°, 70°×150°
- High Protection Rating: IP66, IK08
- Weatherproof: 10KV (15KV) SPD optional
- Long LED service time: >100,000 hours (TM-21 L70);
- 5 years warranty





For more information, visit www.yahamlighting.com.

TRi Series: Unique Angle Design Makes A Better Street Light For Area And Urban Lighting

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

Effectively reduce light pollution and light wasting with unique elevation angle. It presents a better choice for parking lot and driveway lighting while looking effortlessly chic and stylish.

- Multi Watts: 120W/150W/200W/300W for parking lot
- 60W/100W/150W/200W for roadway
- High Efficiency: 140lm/W
- High Protection Rating: IP65
- Surge Protection: 10KV (15KV optional)
- Long LED Lifespan: >100,100 hours (TM-21,0)
- CRI: > Ra75
- CCT: 4500~5500K (2500~5500K optional)
- Beam Angle: 65°×140° (50°×130° optional)
- Mounting Height: 6~15m
- Dimmable: DALI (1~10V)
- Daylight sensor optional
- Camera compatible
- 5 Years Warranty

For more information, visit www.yahamlighting.com.

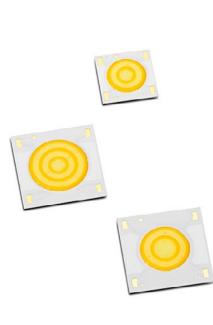






Tuneable White LED Modules

By Vossloh-Schwabe www.vossloh-schwabe.com



LUGA SHOP TW 1700 LM TO 4000 LM Photo Credit: Vossloh-Schwabe

TW1914 / TW2817 / TW2820

The Tuneable White LED modules LUGA Shop TW with colour temperature dynamic from Vossloh-Schwabe enables seamlessly dynamic light control from 2700 K to 6500 K.

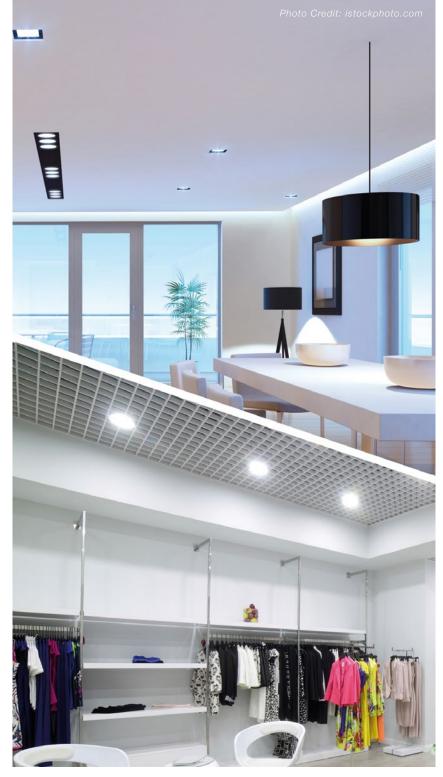
LUGA Shop TW

- Long Service Lifetime
- Narrow Colour Tolerances: 4 step MacAdam
- Tuneable White:
- From 2700 K to 6500 K • Special Colours On Request:
- Opecial Colours on nequest.
 Food, Pearl White and Clear White
 Constant Lumen Packages:
- Constant Lumen Packages: 1700 LM, 3000 LM, 4000 LM

Typical Applications

Built-in luminaires/general illumination

- Residential lighting
- Furniture lighting
- Retail lighting
- Downlights



Luminis Releases High Performance Scopo LED Projector Family

By Luminis www.luminis.com





Designed to perform in harsh weather conditions, Scopo luminaires are IP66 rated, and can be ground, surface or pole mounted. With multiple mounting options and luminaire sizes, designers can mix and match Scopo products to create complete lighting systems in any outdoor environment.

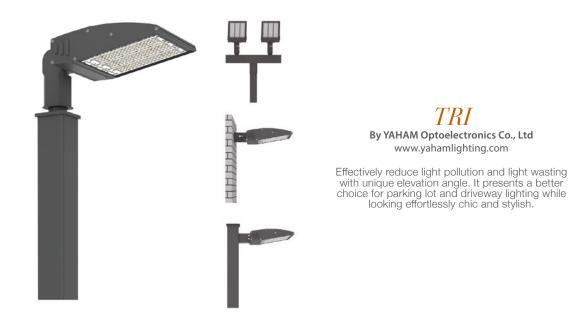
Scopo projectors rotate 350° without disturbing the luminaire mounting, and the pivoting arm enables forward and back adjustability for precise directional light aiming. As well as standard beam angles of 20°-29° (depending upon the model), flood and wide flood optics, and linear spread lenses are offered for full beam flexibility.

Based on Luminis' highly successful Syrios luminaires, the main housing of the Scopo is made of seamless extruded aluminum. Scopo products have an integrally sealed LED light module for optimal heat dissipation and lighting performance.

Feature Summary:

- Up to 5,600 delivered lumens depending upon chosen model and options
- Available in 3 sizes (3", 6" or 8" diameter cylinders)
- Up to 172° forward and back pivot arm adjustability depending upon chosen model
 - 350° rotation without disturbing the luminaire mounting
- Ground, surface or pole mount
- 4000K standard color temperatures with 2700K, 3000K, 3500K and 5000K options
- 95,000hrs L70B50 for 3" diameter models (SC350, SC355), 130,000hrs L70B50 for 6" diameter models (SC650, SC655), 135,000hrs L70B50 for 8" diameter models (SC850, SC855),
- 80 CRI with all models
- Standard reflector optics (26° for 3" models, 20° for 6" models and 29° for 8" models), with flood, wide flood and linear spread lens options depending upon model
- 0-10V dimming-ready (dims to down
- IP66 rated
- Hexcel louver, snoot and visor accessories available on 6" and 8" models
 Available in a range of finish colors

For more information, visit www.luminis.com.







Part of a family of LED outdoor wall washers, casting light in two directions. A sturdy die cast aluminium construction finished in a dark grey matte powder coat; a tough durable finish. Fitting is IP44 rated, with water resistance suitable for outdoor use. See also: Byers, Exeter and Vulcan.

FINSBURY OUTDOOR By Lagoon

www.vivalagoon.com

Cage outdoor wall in grey finish. Illuminate your outdoor space with the Garden Trading Finsbury Wall Light.Inspired by industrial Victorian lights, this outdoor lighting addition can be used indoors or out.Made to endure, this wall lamp comes in a beautiful textured matt finish and will look great in the outdoor living area of a contemporary as well as a classis house.







Part of the Burlington range, available from the Pure Bathroom Collection.Ideal for period-style bathrooms, or to add a retro twist to a modern bathroom, these ornate wall lights will add a touch of elegance to the home. Shade available in chiffon grey or white fabric.



ANN By Boca do Lobo www.bocadolobo.com

Ann is a contemporary floor lamp composed by a minimal modern structure with a perfectly matching square lampshade. The lampshade is sized to balance the architectural form and is available either in fabric or silk. This floor lamp is a magnificent modern light and it is suited for any quiet place of your home.

BIN CEMENTO By In-es.artdesign www.in-es.com

The collection of lamps includes three lines, all entirely modeled by hand: Lavagna, Cemento and Nebula, made with profoundly diverse materials, yet similar in the capacity of sending out feelings of touch and atmosphere. Cemento (cement) is a finish of great material impact, a bridge of dialogue between the external part, made of cement varnish, and the internal one, made of coloured Nebulite®.



Events & Expositions 2018

April 2018

HONG KONG INTERNATIONAL LIGHTING FAIR (SPRING EDITION) 2018 April 6 – 9

Hong Kong Convention and Exhibition Center Website: event.hktdc.com/fair/hklightingfairse-en/ HKTDC-Hong-Kong-International-Lighting-Fair-Spring-Edition/

TAIWAN INTERNATIONAL LIGHTING SHOW 2018 April 25 – 28 Taipei World Trade Center (TWTC) Exhibition Hall 1 Taipei, Taiwan Website: www.tils.com.tw

May 2018

ARCHITECT EXPO THAILAND 2018 May 1 – 6 IMPACT Exhibition Center Bangkok, Thailand Email: info@TTFintl.com Website: www.architectexpo.com

BUILD4ASIA 2018

May 9 – 11 Hong Kong Convention and Exhibition Center Hong Kong Email: exhibit@build4asia.com Website: www.build4asia.com

THAILAND LED EXPO 2018

May 10 – 12 IMPACT Exhibition and Convention Centre Bangkok, Thailand Website: www.ledexpothailand.com

June 2018

ASEAN SUSTAINABLE ENERGY WEEK 2018

June 6 – 9 Bangkok International Trade and Exhibition Centre Bangkok, Thailand Email: asew-th@ubm.com Website: www.renewableenergy-asia.com

GUANGZHOU INTERNATIONAL LIGHTING EXHIBITION 2018

June 9 – 12 China Import and Export Fair Complex Guangzhou, China Email: light@china.messefrankfurt.com Website: www.light.messefrankfurt.com.cn

July 2018

ARCHIDEX 2018 July 4 – 7 Kuala Lumpur Convention Center Kuala Lumpur, Malaysia Email: info@archidex.com.my Website: www.archidex.com.my



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Events & Expositions 2018

September 2018

BMAM EXPO ASIA 2018 September 12 – 14 IMPACT Exhibition Center Bangkok, Thailand Email: wingyanw@impact.co.th Website: www.bmam-gbr.com

October 2018

MYANMAR BUILD AND DECOR 2018 October 4 – 6 Myanmar Event Park (MEP) Yangon, Myanmar Email: info@icvex.com Website: www.myanmarbuilddecor.com

PLDC 2018

October 25 – 27 Marina Bay Sands Convention Center Singapore Website: www.pld-c.com

November 2018

THAILAND LIGHTING FAIR 2018 November 8 – 10 Bangkok International Trade & Exhibition Centre Bangkok, Thailand

Email: scarlet.mak@hongkong.messefrankfurt.com Website: www.thailandlightingfair. hk.messefrankfurt.com

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thailand lighting fair

The future of light: Smart, sustainable, human-centric

8 – 10 November 2018 Bangkok International Trade & Exhibition Centre (BITEC), Bangkok, Thailand

www.thailandlightingfair.com



Contact: Messe Frankfurt New Era Business Media Ltd Tel: +852 2238 9969 / 2802 7728 light@china.messefrankfurt.com



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LED CONVERTERS FOR LED MODULES - 24 V

Easy extendibility and system safety on account of SELV (Safety Extra Low Voltage) or low voltage, our wide range of electronic converters guarantee a broad output range at a voltage of 24 V. Our devices with high IP67 degree of protection and pre-assembled connection leads are designed for use in outdoor or damp applications.

Typical areas of application include architectural LED strip lighting, replacement of halogen lamps as well as furniture lighting.



ComfortLine LED Constant Voltage Drivers 24 V

- 20 W, 50 W, 70 W and 130 W
- 70 W and 130 W **IP67**
 - Very robust design
 - Intelligent functions
 - Product guarantee: 5 years
 - Up to 100,000 hrs expected service life time

EasyLine LED Constant Voltage Drivers 24 V

- 30 W, 60 W, 75 W, 120 W and 180 W
- 30 W, 75 W, 100 W, 200 W and 150 W **IP67**
 - Fit for purpose
 - Focus on core functions
 - Product guarantee: 3 years
 - Up to 50,000 hrs expected service life time

www.vossloh-schwabe.com