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Vol. 11 No. 2

March-April 2016

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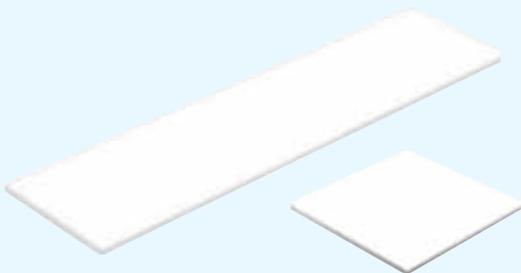


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PUBLISHER'S LETTER



Mahadevan Iyer
Editor-in-Chief

Good lighting is a sum of technology and imagination, and both are equally important to create the desired effect. We often talk about the technology to improve energy efficiency, better spread of illumination, controlling open sky pollution etc. However, how many of us truly focus on the artistic imaginations that inspire lighting designers? Once the concept comes from an artist, technocrats start working on designing the luminaire and several models are built to achieve the most optimum result, which is a combination of multiple considerations like, form factor, use of environmentally-friendly products, reduction of materials used, appropriate inclusion of sensors, deriving benefits of electro-luminescence of materials and so on.

Recently in the 9th Hong Kong Lighting Design Competition, some such good concepts surfaced. To name a few: Aze e-lite (HK) Ltd submitted AZEL Moon. It can be easily transformed from a wall-plugged night light into a portable handheld torchlight. Its embedded sensors automatically detect the brightness of the surrounding, and adjusts it automatically. Yet another example is the product TRI, submitted by One Object Design Studio. It is a simple and practical table lamp design with the minimum usage of material, highly-functional structure and light-weight construction. Also, the design BAMBOO by Art Top Construction Engineering Ltd. presented the shape of a bamboo. The designer used the environmentally friendly bamboos as the main material, each unit of bamboos featured a low voltage LED with soft lighting effects. Thus, behind every innovative lighting design there are basically some artistic imaginations, which are later nourished by technology to a complete adorable product.

Do send in your comments at miyer@charypublications.in

Mahadevan

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Illuminating Ideas: Material Solutions for Lighting

The market for light-emitting diodes (LEDs) in lighting is booming. It's no surprise since it is energy efficient, environment friendly and offers a long service life. With the growing demand for unique designs and creative ideas, designers and manufacturers of LED lighting components can choose from a wide range of innovative solutions offered by Covestro. In addition to high light transmission, our polycarbonate grades display good heat resistance, excellent stability when exposed to LED luminous flux, outstanding flame-retardant properties, and a number of special features that are ideal for a wide range of LED applications.

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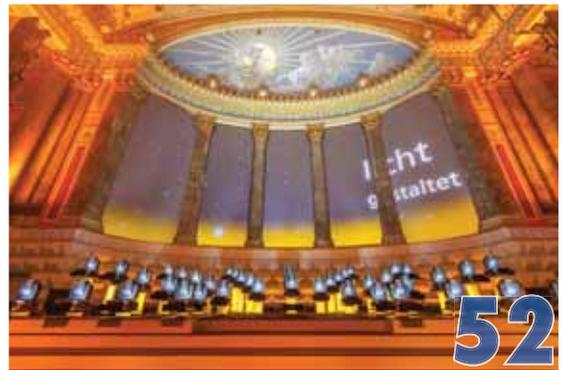
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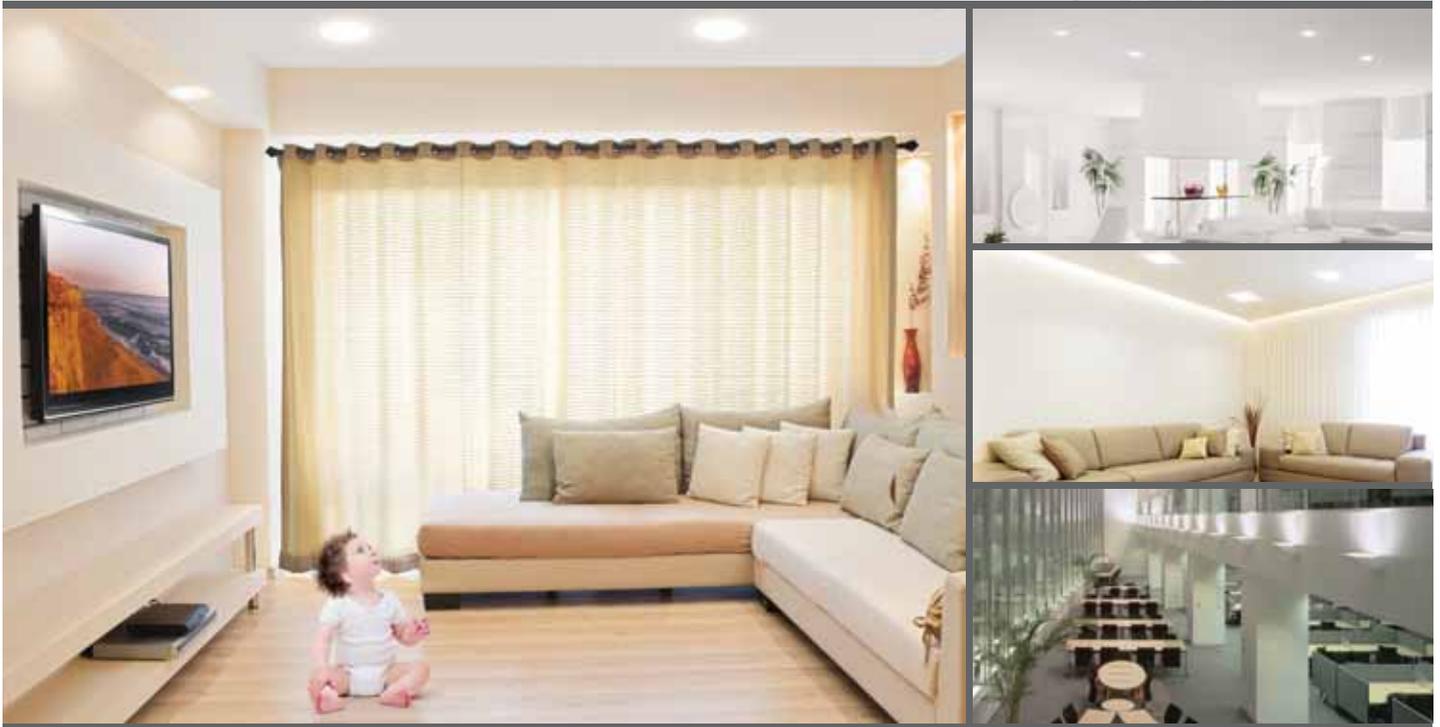
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Vol. 11 • No. 2 • March - April 2016

Director/Publisher

Mahadevan Iyer
Pravita Iyer

Editor-in-Chief

Mahadevan Iyer
miyer@charypublications.in

Editor

P K Chatterjee
pkchatterjee@charypublications.in

Advertisement Manager

Nafisa Kaisar
nafisa@charypublications.in

Design

Nilesh Nimkar
charydesign@charypublications.in

Subscription Department

Nafisa Khan
sub@charypublications.in

Accounts

Dattakumar Barge
accounts@charypublications.in

Response Department

Sonali Pugaonkar
mktg@charypublications.in

Editorial, Subscription & Advt. Office:

201, Premalaya, Next to Cafe Coffee Day,
Opp. Telecom Factory, Deonar, Mumbai - 400 088.
Tel.: (022) 2507 3300 / 01

Printed, published, and owned by Mahadevan Iyer and published from 201 Premalaya, Opp Telecom Factory, Deonar, MUMBAI 400 088 and printed at PRINT TECH C-18, Royal Ind. Est., Naigaum Cross Road, Wadala, Mumbai 400 031

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Editor: P K Chatterjee

EDITORIAL



Market For LED Lighting

As in most of the developing countries, electricity is a scarce resource and lighting consumes a fairly good percentage of total electricity generated there, adoption of the latest lighting technologies is imperative for them. We are all aware that good quality LED lamps have more than 40 times life span than incandescent lamps, and approximately 1/10th of power consumption compared to their corresponding incandescent counterpart. Thus, LED lighting has an incontestable future.

Also, it is not just the space lighting; use of LEDs is also finding good potential in modern electrical and electronic devices. According to Research & Markets, the major growth drivers for the LED lighting market are increasing shipment and penetration of LED TVs, growing automobile industry, increasing LED penetration, phasing out of incandescent bulbs in many countries, supportive government policies and focus on energy efficiency.

Although there are several factors that are boosting the LED lighting market, certain challenges are still decelerating its growth rate. As per Research & Markets, temperature dependence, high initial costs of LED, high Research and Development (R&D) costs etc., are turning out to be the prime deterrents to the fast growth of the market.

Research & Markets also states that the market for global LED lighting is facing a tough competition due to price wars and entry of small firms. According to them, as on date, the key players are Cree, Philips and Osram etc. Owing to the facts that running R&D on LEDs is a very costly affair, I feel that only a few key players will continue to dominate the market at least for the next few years.

Please e-mail me your views at pkchatterjee@charypublications.in

P K Chatterjee (PK)

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Havells opens its own showroom



Havells India Limited has inaugurated its exclusive retail showroom called 'Havells Galaxy' in the city of Lucknow at GB Marg recently. This is the fourth Havells Galaxy in the city – and in the state of Uttar Pradesh. The company already has more than 350 such retail showrooms across India.

'Havells Galaxy' will offer people of Lucknow solutions to all electrical needs under the same roof. It offers a wide range of stylish, high quality and energy efficient electrical equipment including industrial switchgears, cables, fans, CFLs, lighting fixtures, electrical water heaters, Crabtree switches and domestic appliances.

Keeping in mind ever changing requirements of the customers, 'Havells Galaxy' was conceptualised as a pioneering concept. Expressing happiness over the opening of 'Havells Galaxy' in Lucknow, Rakesh Mehrotra, Associate Director, Havells India Limited said, "The Galaxy symbolizes Havells' innovative leadership position in the Electrical and Power Distribution equipment market. It will serve to provide an array of electrical appliances and consumer products, all created to adhere to the demands of modern living. The products we are offering combine the attributes of elegance, technological advancement and convenience in one. The concept of Havells Galaxy, a One Stop Shop is dynamic and differently positioned from the retail format existing in the country and we are glad to serve end-users directly through this initiative of ours." ■

Schröder delivers 10,000 energy efficient luminaires to the city of Paris

Schröder has managed to win a tender from Evesa, the company in charge of public lighting of Paris, to replace 10,000 luminaires in the city, over a 30-month period.

As part of its Climate and Energy Action Plan launched in 2007, the City of Paris had committed to reduce energy consumption for its public lighting by 30% by 2020. The city which boasts of many cultural and historical sites that attract tourists from all over the world, had been aiming to design a public lighting system that is as environmentally friendly as possible, with losing any of the City of Light's sparkle. A switch to LED luminaires that consume a lot less energy was an obvious choice, especially since the city also likes white light provided by LEDs, which improves the sense of safety and well-being on its streets and roads. In addition to the energy efficiency requirements over time (maintaining the light levels at 95% for 50,000 hours), the luminaires had to meet other technical (such as the IP and IK levels) and aesthetic criteria imposed by the city.

"It was obvious to us that the only way to satisfy all criteria was to redesign the Citea luminaire. The aesthetic design of this classic Schröder luminaire had already been approved by the Committee of Street Furniture. So, we developed a completely new concept for inside the body of the luminaire. We integrated a photometric engine with 56 LEDs, 87W and a colour temperature of 3,000K that would meet the lumen output requirements in the long term," Vincent Jacquet, Schröder's Regional Manager for Ile-de-France said. ■



Standard LED covering full visible light developed for the first time

Researchers at Japan's Advanced Industrial Science and Technology (AIST) have developed the first standard LED covering the full visible light in collaboration with Nichia Corporation of Japan. LED and OLED lighting, which is generally called solid-state lighting, is becoming more common as the next generation of lighting. Evaluations of total luminous flux (a performance index for lighting) and colour are important for SSL, and to evaluate those values, it is indispensable to measure the light intensity of each wavelength accurately based on spectral measurement. For accurate spectral measurement, the light source under test is compared to a standard light source as the reference standard. However, there has not been any standard light source covering the full visible light suitable for high accuracy spectral measurement of SSL.

AIST and Nichia Corporation have developed a standard LED having sufficient light intensity over full visible light by introducing multiple LED dies with different central wavelengths in combination with multiple fluorescent substances. By using this standard LED, manufacturers and developers will be able to evaluate SSL characteristics more accurately, which is expected to help accelerate product development and enhance performance.

Typical white LEDs do not have sufficient light intensity outside the wavelength range of 420 to 720 nm and as such they are not suitable as a standard source for spectral measurement over the full visible range. The developed standard LED has improved light intensity over the wavelength range of 380 to 430 nm. ■



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Inground luminaires



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Osram introduces colour consistency for white LEDs

The new 'TEN°' binning introduced by Osram Opto Semiconductors provides the basis for unprecedented colour consistency for white LEDs that are used (for example) as single-LED light sources in spotlights and downlights. To achieve this, the current standard CIE 1931 2° xy colour space has been supplemented with CIE 2015 10° u'v', recently developed by the International Commission on Illumination and implemented by Osram Opto Semiconductors as 10° binning. In the third generation of the Soleriq S 13, TEN° is now available on the market as an additional feature.

In contrast to the established CIE 1931 2° colour space, the developed CIE 2015 10° corresponds much better to the physiological perception of colour – and hence 10° binning. This new binning will be used for the first time in the new generation of the Soleriq S 13 – and will provide optimum colour consistency in applications.

"Obviously these Soleriq LEDs comply with current industry standards and continue to be completely compatible with the existing white groupings. TEN° binning is simply an additional property – and an extremely useful one", said Alexander Wilm, Key Expert for General Lighting at Osram Opto Semiconductors.

If Soleriq LEDs that have been binned on the basis of these latest findings are installed (for example) in spotlights it will be much easier to avoid differences in light colours compared with products grouped according to the old CIE 1931 2° standard. This in turn means fewer process stages for luminaire manufacturers. The starting point for development activities at Osram Opto Semiconductors was that two LEDs with the exactly same colour co-ordinates in the CIE 1931 2° colour space could still exhibit noticeably different white tones. ■

Lumileds LED demonstrates superior resistance to harsh environments

USA-based Lumileds has introduced the LUXEON HR30 LED, a mid-power device that withstands harsh chemical environments and is designed with robust packaging and industry-best materials to operate for over 100,000 hours of continuous operation.

This LED addresses the tremendous need for dependable lighting, which will operate in hazardous environments (such as chemical plants, power generation facilities and natatoriums) as well as be able to withstand extremes of temperature and operating current.

"The LUXEON HR30 is the only LED in its class to provide a service life in the 100,000 hour range while withstanding corrosive elements like sulfur and chlorine," said Matthew Everett, Senior Product Director for LUXEON Mid Power Products.

The LED's chemical resistance is partially attributed to its gold-plated leadframe and its optimised materials package.

"Engineering for chemical resistance is all about selecting the best materials and then testing those materials under harsh conditions. We have leveraged our expertise in materials science and lumen maintenance to produce the industry's most robust mid power LED," said Everett.

The LUXEON HR30 produces 125 lumens at 134 lm/W when driven at 150 mA at 4,000K and 70 CRI.

The LED is available at colour temperatures of 4000K, 5000K and 5700K at 70 CRI and 2700K, 3000K, 4000K and 5700K at 80 CRI. ■



Hella India Lighting bags best supplier awards at Tata Genuine Parts Vendor Meet 2016

HELLA India Lighting Ltd., has been recognised as one of the leading suppliers for the year 2015-16 in the TOC Performance category at the TGP Vendor Meet of Tata Motors Ltd., and have been awarded second position for the same.

"We feel honoured to receive this award and would like to express our sincere gratitude. An award such as this signifies the trust of Tata Motors Limited in us. That trust is not only a mark of our 40 years of association with them, but is also a mark of our constant commitment to deliver excellent quality products. We would like to thank the distinguished panel of jury for selecting us – and we assure them, that we will honour this trust," said Himanshu Kumar Chauhan, Sales & Marketing Department, Hella.

Members of the esteemed panel of jury, who finalised the winners, were Avinash Gupta, Head - TGP & Aggregates, Sanjeev Garg, VP & Global Head - TML TGP, Gaurish Salgar, Head Procurement - Supply & Demand Fulfillment.

Recently, Hella India Lighting Ltd also won the CV Award for the Auto Component of the year; the ISOL trophy for Excellence in Automotive Lighting Technology by ICAT, and a Silver Trophy for Quality & Productivity by ACMA. ■



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Elemental LED partners with Michigan Lighting



Elemental LED, a leading US-based engineering and technology company which manufactures LED lighting solutions has announced a partnership with West Michigan Lighting Inc that extends its Diode LED product brand into western and northern territories of Michigan.

Elemental LED and its wholesale and manufacturing division, Diode LED, provides a wide variety of superior quality linear, task, and accent LED lighting solutions for both residential and commercial applications.



West Michigan Lighting Inc has built an impressive reputation by providing top notch lighting controls solutions and premier customer service.

Founded in 1983, West Michigan Lighting Inc is headquartered at Grand Rapids, with offices in Lansing, Holland and Kalamazoo and employs 25 lighting professionals. Elemental LED is dedicated to working with West Michigan Lighting, Inc to provide superior Diode LED lighting solutions to their customers.

"We are excited to be working with such an experienced team of lighting professionals at West Michigan Lighting," said Barrett Cook, Elemental LED's Director of Business Development. "Their excellent reputation and significant expertise in LED lighting and controls were just the qualities we were looking for to bring our innovative LED lighting solutions to the region."

"Adding the top-rated Diode LED brand to our portfolio of lighting products was a must for our organisation," said Mike Anderson, Principal of West Michigan Lighting, adding that custom solutions offered by Diode with short lead times are very attractive to customers. ■

Plessey signs license agreement with PhytoLux for horticultural LED lighting technology

Plessey has signed a global exclusive license agreement to manufacture and sell the PhytoLux horticultural LED lighting solutions. Plessey has taken on the operational, technical and commercial activities of PhytoLux. This collaboration combines the best of British design engineering to provide world-class LED plant growth lighting solutions for the global market.



Steve Edwards, Founder and MD of PhytoLux, now head of the LED lighting solutions division of Plessey, said, "Plessey, one of the UK's most prestigious engineering brands, is at the forefront of the global LED Lighting revolution. We are very excited to have reached this agreement with them and are looking forward to delivering our unique solution to the global horticultural market over the coming months and years."

Michael LeGoff, Plessey CEO, said, "Steve and the team at PhytoLux have built an impressive record of innovation and proof of concept with the researchers and industrial growers in the UK. The horticultural market is a key growth area for solid-state lighting and is without a significant dominant player. We believe we have an opportunity to be that dominant player with the PhytoLux end product." ■

Samsung Electronics, Silver Spring Networks partner on Smart LED Street Lights Solution

Samsung Electronics Co Ltd and Silver Spring Networks Inc have initiated a partnership to develop a networked LED street lights solution, which will help cut costs and simplify connected lighting componentry for luminaire manufacturers.



This will accelerate the road to smart cities for municipalities, utilities, transportation departments and other outdoor lighting network operators. Networked LED public lighting systems deliver significant energy and operational savings, helping cities, utilities and other entities quickly establish a broad network canopy that can also be utilised for Smart City and Internet of Things (IOT) applications, such as traffic and parking management, environmental sensing and citizen safety.

The joint smart street light solution will be designed to enable luminaire manufacturers to take advantage of a pre-integrated networked photocell with auto-configuration and management capabilities, lowering costs and simplifying the end solution for customers. The collaboration will enable advanced capabilities such as wiring multiple sensors to a single driver, dynamic override commands, and advanced management of configuration files and firmware images across large-scale lighting networks.

The solution will build on Silver Spring's IPv6- based Gen5 wireless networking platform and SLV6 smart city management software, and the Samsung Smart Lighting Module (SLM) that powers the Samsung Smart Lighting Platform (SLP). SLM is an all-in-one lighting application-specific wireless and wired connectivity solution that can be embedded into a sensor bus for smart cities and other IOT environments. ■



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R&D Centres: India (Punjab-Haryana), Japan, Italy

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Creative Lighting Asia appoints Paul Rees as Director of Sales & Marketing



Paul Rees

Paul spent 12 years in the UK working as Sales Director for Architainment Lighting...

Creative Lighting Asia (CLA), headquartered in Hong Kong, has appointed Paul Rees to the role of Director – Sales and Marketing. CLA specialises in providing project based lighting solutions and it has fourteen representative offices in ten Asian countries.

Paul spent the last twelve years in the UK working as Sales Director for Architainment Lighting, where he helped deliver such notable projects as The London Eye, Heathrow T2a, Science Museum & Shangri-La Hotel at The Shard. His role will include heading up the sales

operations of the Hong Kong, Macau, China and Singapore offices, as well as liaising with CLA's portfolio of international manufacturer partners.

Commenting on the appointment, Group Managing Director Eddie Tang said, "It's great once again to have Paul back in Asia working with CLA. Having worked previously with Paul during his time at Friendly Light, I'm sure his knowledge of the global specification market, lighting designer relationships, product & technical knowledge will be a fantastic addition to the ever growing CLA family." ■

Aura Light absorbs Bob Ruddick as its new Business Development Manager



Bob Ruddick

Bob has spent a number of years in the energy saving marketplace and has previously worked as a loans account manager...

Aura Light UK has kick-started the new year by appointing a new Business Development Manager, based at its headquarters in Telford.

The new Business Development Manager, Bob Ruddick will be responsible for new business generation and in particular, the growth of the company's 'Lighting as a Managed Service' scheme launched late last year.

With an extensive background in sales growth and business development, Bob will be applying his knowledge and expertise in funding solutions to introduce the scheme to many more end user companies and organisations in the UK – which can then upgrade their lighting scheme in an affordable, carbon-friendly way.

Bob has spent a number of years in the energy saving marketplace – and has previously

worked as a Loans Account Manager at The Carbon Trust – where he was heavily involved in providing funding solutions, playing a key role in helping the growth of the Carbon Trust loans scheme.

Bob has also worked with other companies where he focused on the development of external sales strategies built round the application of funding solutions.

Simon Taylor, Managing Director at Aura Light UK commented, "We are very pleased to have Bob join our team and with his valuable experience in providing different funding solutions – we are sure he will play a fundamental role in the growth of our 'Lighting as a Managed Service' scheme. We hope that with Bob on board more companies will benefit from the service." ■

Chelsom hires Karen Brennan as its Sales Consultant



Karen Brennan

Karen Brennan's career to date has provided her with a thorough understanding of the decorative contract marketplace...

Chelsom has bolstered its sales team by appointing Karen Brennan as Sales Consultant for the South of England as the company consolidates its position as a leading designer, manufacturer and supplier of decorative lighting to international hospitality and marine markets.

With a professional background in the interior design market spanning more than 20 years in both the UK and UAE, Karen has spent the last 8 years specialising in the contract hospitality marketplace.

Her career to date has provided her with a thorough understanding of the decorative contract market and she brings with her a wealth of experience from her previous roles with companies including Decca Furniture, JAB Furnishings and Skopos Design.

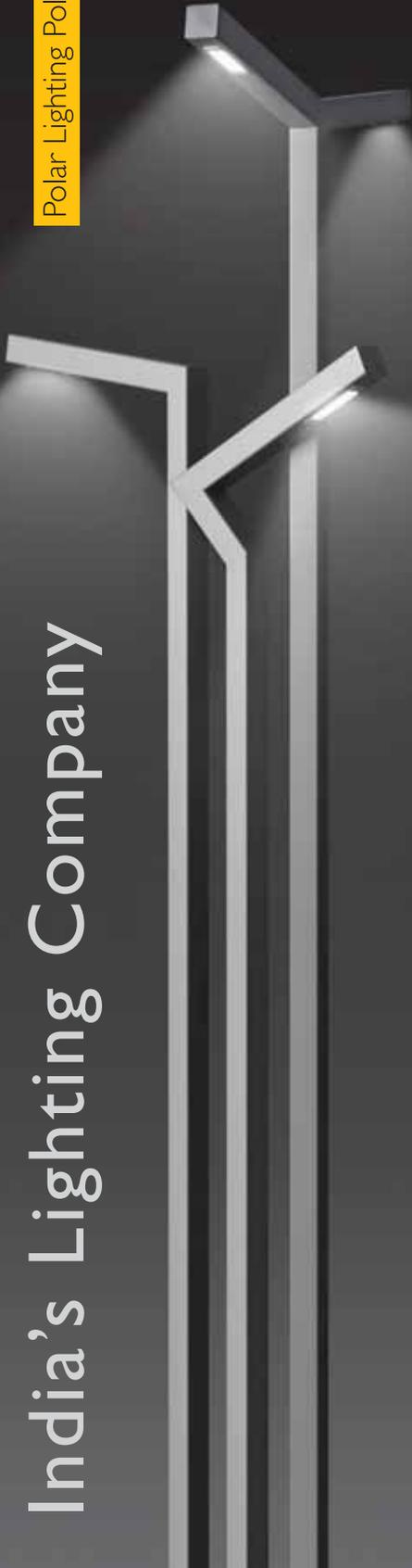
During her time in these positions, Karen has developed a large number of key relationships within the hospitality industry and has completed projects across a wide client base including Langham Hotels, Monaco Yacht Club, IHG Group, Accor, Hilton Worldwide and St. Regis Hotels to name a few.

Karen says, "During my career in the contract market and within the hospitality environment specifically, I have understood that providing first class client service is the corner stone of any business relationship. I want to add that first class service to Chelsom's enviable reputation for superior design and quality. Having had a sneak preview of the 2016 collection, I am even more excited about joining the UK's leading hospitality lighting specialist." ■



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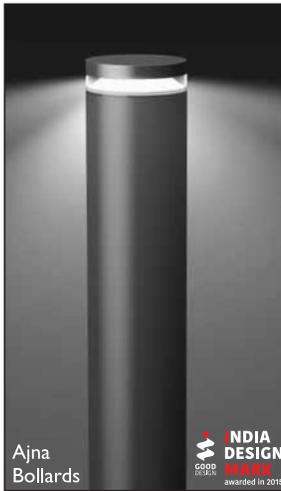


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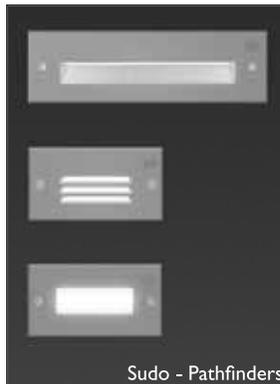
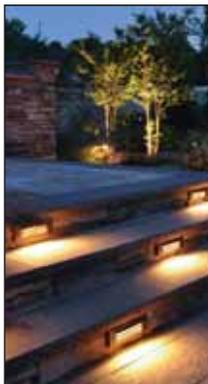
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Colour Sound

Facing a Strong Future with Underworld



UK dance band Underworld delighted fans with a short UK and European tour to kick off the live campaign supporting their much anticipated new album - 'Barbara Barbara We Face A Shining Future'.

Lighting Designer Haydn Cruickshank
Colour Sound Experiment

Photo Credits Louise Stickland



Lighting was designed by Haydn Cruickshank from Colour Sound Experiment, with the company also supplying all lighting equipment and the LED screen.

Haydn has worked with the band – whose music has stayed edgy despite their commercial success – for an impressive 23 years ... he was first hired after an early tour with pioneering club and dance touring phenomenon, Megadog. Right from the start Underworld embraced multi-media visuals, a trend that's continued throughout their live performance career.

Creatively, lighting the show has been an evolution over that timespan explains Haydn, with some underlying elements remaining basically the same while others have morphed and developed along with the sounds and moods of the music, all delivered with that distinctive Underworld raw groove.

"It doesn't so much matter where



the lights are positioned on the rig – it's more about the timing and being in tune with what the band are playing," says Haydn, whose rig was based on four straight trusses over the stage, and an upstage 12 metre wide by 2.9 metre high LED screen made from Colour Sound's proprietary BT6 screen, which was a big part of the look.

The video playback content is created by Simon Taylor from art collective Tomato and the live camera elements are directed by Toby Vogel. As you might expect, the video aesthetic is off-beat, so Haydn took this as a starting point when lighting the tour.

He also has the video intensity control running through his ChamSys MQ300 console, allowing this aspect of both mediums to be more harmonious and when video is running, the style of the lighting changes, all the time following the rhythm of the music.

At the core of the lighting rig are 18 x Clay Paky Alpha Spot 1500 HPEs and 24 Chauvet Rogue R2 Washes positioned overhead and on the floor, complimented with 8 x Beam 200 beam lights and Chauvet Q-Wash 260s.

Added to these were Atomic strobes scattered around on the trusses and



floor; Sunstrips on the floor framing the side of the video screen and Moles on the first and third trusses for accenting and blinding moments.

Haydn does not stick to a standard cue list when lighting an Underworld show, although he has a selection of specific effects and looks that happen at certain times, but stylistically his operation is a lot freer in approach. With the band performing plenty of their new material, around half of this show is lit 'live' each night. "It's a process that certainly keeps me thinking on my feet for the whole set," he comments.

A unique Underworld lighting effect

is a 'follow PAR' in the pit – manually operated by one of the truck drivers - and used for illuminating band member Karl when singing. Haydn has colour mixing and intensity control at the console. Twenty-three years ago, the colour was changed manually via a stack of gels - sometimes a bit hit-and-miss – but RGB colour mixing LED technology makes this a lot more reliable ... it also strobes ... to great effect!

Colour Sound has recently invested in large quantities of Litec QL52 black trussing, some of which was used on this to facilitate the open looking design.

Haydn continues his 'day job' as MD of Colour Sound whilst on tour, and is keen to stay hands-on as this brings special qualities and benefits to the company and its business. He enjoys working with Underworld immensely and sees it as a chance to stay right at the sharp end of the lighting desk ... and sussing out what exactly the various technologies and products can do in situ. ■



Louise Stickland
Freelance Journalist working with Loosplat company, UK.



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Lighting According To Need

Intelligent Lighting Solution For Offices



Highly modern multi-sensors and the Dali Eco control system provide lighting according to needs...



As part of a lighting refurbishment, Osram Lighting Solutions supplied an individual and highly efficient lighting solution for the offices and conference rooms of the Bavarian State Medical Board in Munich, Germany. With help of state-of-the-art multi-sensors and the Dali Eco control system, suspended LED luminaires are now controlled according to daylight, occupancy and movement. This saves up to 65% in energy each year.

The Bavarian State Medical Board with headquarters in Munich is one of 17 German medical Chambers. As the legislative professional association for 75,000 Bavarian doctors, it represents their occupational interests, promotes medical training and creates social facilities for doctors and their dependants. The office and conference rooms were upgraded in 2015 and were equipped with around 700 Arktika suspended LED luminaires. The ultra-flat, computer screen-compliant designer luminaires float by two thin wires, and create highly pleasant room atmospheres thanks to a combination of direct and indirect light components. The luminaires were also combined with state-of-the-art sensor and control technology. Multi-sensors and the Dali Eco control system implement presence and motion detection as well as control of light according to levels of daylight, and users can additionally control the luminaires individually using push-buttons (for on/off and dimming).

Passive infrared PR3 sensors are installed in the ceiling, and although hardly recognisable for observers still feature high performance. The sensors detect the presence of people at workstations and enables motion detection in the room. Control is implemented in semi-automatic mode. If an employee enters the room in the morning he presses the button to activate the lighting. The system adds the required quantity of artificial lighting according to the ingress of daylight until an illuminance level of 500 lux is achieved, as valid for office spaces. If nobody is in the room any more, lighting is dimmed down to 10% after 15 minutes and switches off completely after a further 10 minutes.

The Dali Eco multifunctional light management system is a simple plug & play solution, and commissioning can be simply and conveniently carried out using a remote control. A completely automatic nominal value setting is set with the press of a button, based on the illuminance level specified by the lighting design.

Intelligent and efficient light management is becoming increasingly important – occupational safety, productivity, concentration and well-being are significantly linked to the



The ultra-flat Arktika suspended luminaire floats via two thin wires in the room...

lighting situation. Simultaneously, a cost consciousness and the desire for environmentally protective and intelligent technology is increasing. Christian Remmelberger-König, Application Engineer at Osram Lighting Solutions, explains: "We've developed this modular sensor and control kit to meet this very diverse range of tasks. It's only with a combination

of high resolution sensors, professional control technology and premium luminaires that complete, customer-specific lighting solutions can be achieved." ■

Planning: Burger & Partner, Engineers for Technical Building Equipment, 82008 Unterhaching



The suspended LED luminaires in the offices are controlled according to daylight, motion and occupancy...



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University Of Southern California's Newman Hall Updates House Lighting With Ovation





Acclaimed film director Nick Redman once said of composer Alfred Newman: "He was a true musical force, and one that cannot in any sense be replaced."

It was only fitting then that the University of Southern California named its acoustical gem of a recital hall after this film scoring icon, who won nine Academy Awards and was nominated 45 times, behind only Walt Disney and John Williams.

However, while the Alfred Newman Recital Hall on the USC campus has been earning international recognition for the purity of its acoustics, the 280-seat facility's incandescent lighting system had been aging. That is, until 4Wall Entertainment recently replaced it with an all-LED system that featured house lighting from CHAUVET Professional's Ovation H-105WW LED Fixtures.

"The university wanted to retrofit this hall with an LED solution to save energy and save on the lamp changes," said Rafael Garcia, Senior Account Executive at 4Wall. "Before we installed the new system, the school would have to erect a scaffolding system to change out the house lamps and a man lift to replace the tungsten par lamps onstage. It was time consuming and expensive."

A preferred dealer for USC that enjoys a strong relationship with the university, 4Wall installed 15 of the Ovation H-105WW LED Fixtures. The fixtures were positioned in three straight rows of five units each in the black spaces between the three prominent white mason beams that run across the width of the audience area ceiling.

The COB LEDs of the Ovation fixtures deliver a bright, even warm white light that not only illuminates, but also complements the intimate feel of the hall's architecture. Convection cooled and featuring adjustable PWM, the new house lights are silent and flicker free, making them well suited for the recital hall application.



"We chose the Ovations due to their great even spread, the extreme amount of light output and great color temperature," said Garcia. "They dimmed great and were exactly what we needed to replace the old house lights."

Garcia also used 17 LED wash fixtures to replace the tungsten pars that were positioned above the stage and nine LED ellipsoidals to replace older tungsten counterparts. All of the lighting was controlled via an Interactive Technologies CueServer Express and CueTouch LCD touchscreen. 4Wall's system installation team programmed the touchscreen with presets to allow scenes to be changed easily on the fly.

"Our site foreman David Estrada deserves a lot of credit for the success of this project as do our contacts at USC, Brandon Operchuck and Jeff de Caen. It was a great team effort."

It was a team effort too back in 1999, when the Hancock

Building Auditorium (as the hall was then known) underwent a major remodeling aimed at achieving acoustical perfection. The facility, which opened in 1940, was literally reshaped to improve its acoustics. It also had a motorised variable acoustics system installed to optimize different types of musical performances – and new seats made with sound absorbing material were added.

Now with the installation of the new lighting system from 4Wall, the Alfred Newman Recital Hall represents state-of-the-art achievement visually as well as acoustically. The great composer, who worked primarily in the visual media of film, would undoubtedly be pleased with the changes made to his namesake facility on the USC campus. ■

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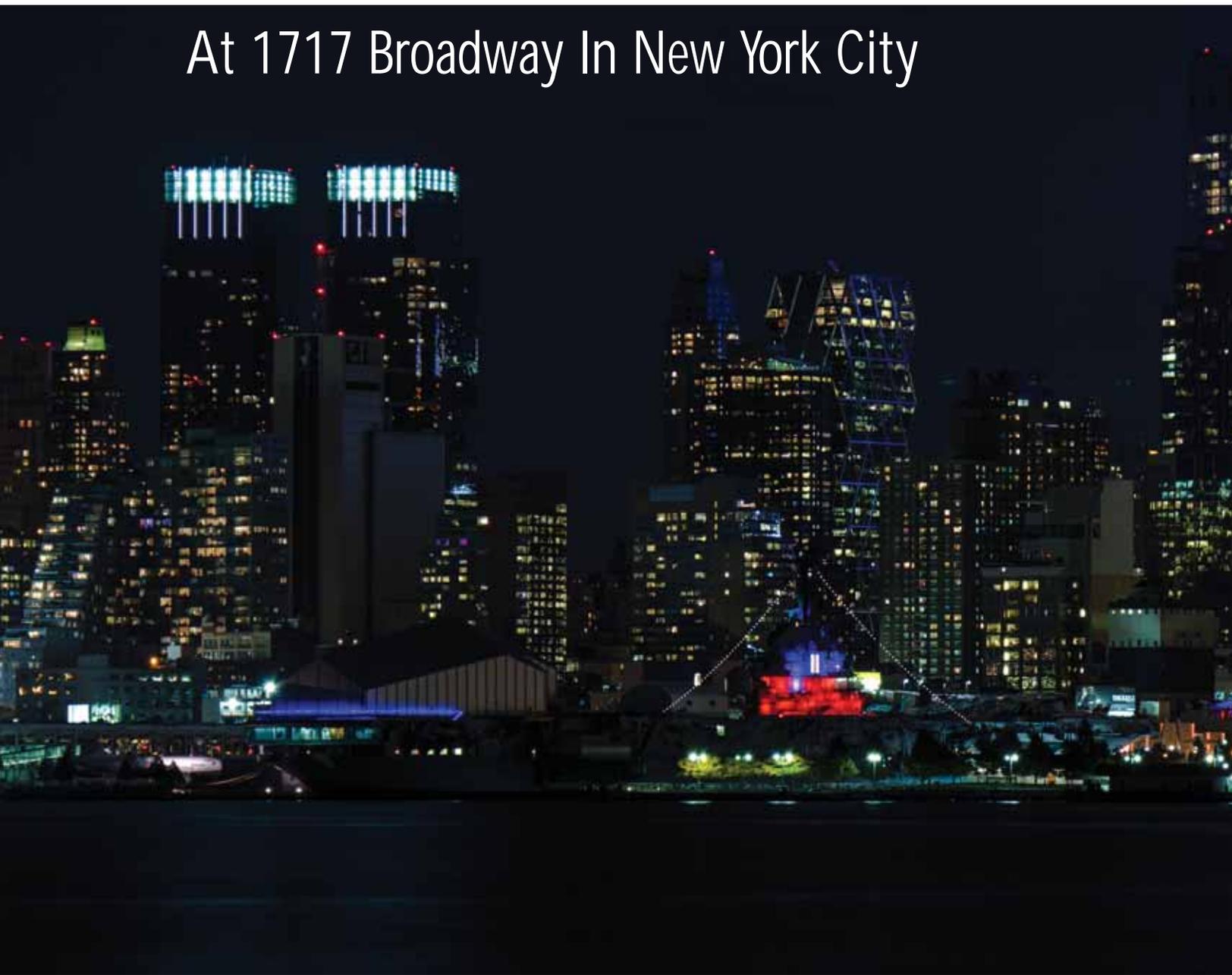
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Focus Lighting Designs For The Skyline

At 1717 Broadway In New York City



Lighting Designers: Brett Andersen, Focus Lighting
Joshua Spitzig, Focus Lighting
Edwin Allen, Focus Lighting
Zackry Wiegand, Focus Lighting

Photo Credits: Ryan Fischer, Focus Lighting
Joshua Spitzig, Focus Lighting



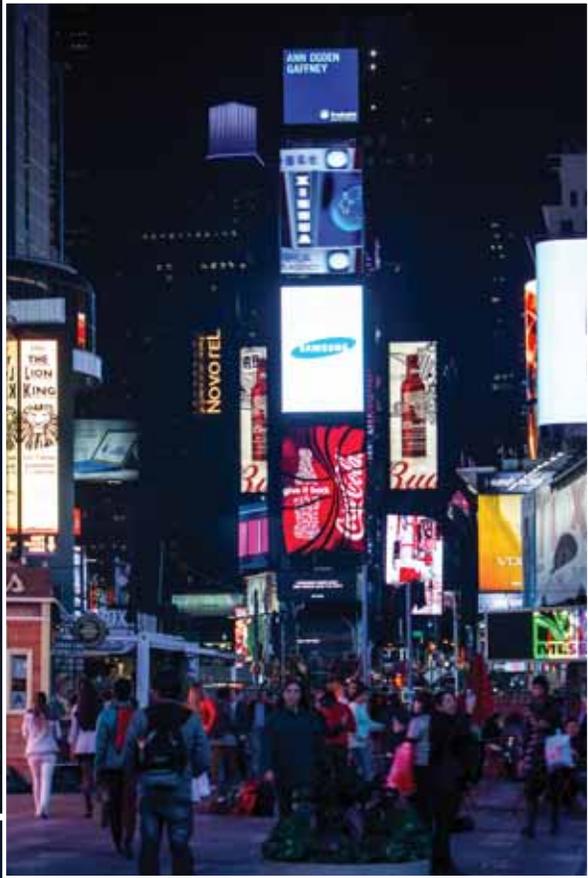
Tasked with the challenge to design the lighting for 1717 Broadway, the tallest hotel building in the Western Hemisphere, Focus Lighting aimed to create a memorable addition to New York's cityscape, and accomplish the owner's goal to "put his thumbprint on the skyline of Manhattan."

For any skyline building, designers must first think about how their building should be similar to and different from other nearby structures – and what tools should be used to achieve those ends. 1717 Broadway sits only six blocks from Times Square – New York City's most brightly lit neighborhood. Virtually every Times Square façade is covered with bright dynamic images – most of which are selling some commercial product. The design team did not want 1717 to become yet another large-scale advertisement because no one would have ever noticed it; it would have just become more Times Square visual noise.

Informed by analysis of iconic buildings worldwide, Focus Lighting instead chose to distinguish 1717 Broadway through a simple yet beautiful combination: dynamic lighting content, presented in a singular electric blue colour. The design for 1717 creates a digital canvas for light art pieces on the skyline of Manhattan – a 'gallery in the sky.' Currently on display: a piece called 'The Skies,' inspired by infrared satellite imagery of the changing weather patterns the earth is experiencing.

After much analysis, Focus Lighting's design team identified three primary views from which the building's lighting would be most memorable. These views ranged from 2 blocks to 2 miles away from the building; the view from across Broadway, Central Park and across the Hudson River. Identifying and understanding the critical elements within each of these points allowed the design team to be certain that the lighting design's visual composition is a beautiful and unforgettable one for a wide array of audiences.

Extensive mock-ups helped determine both the minimum brightness for long-distance visibility and the maximum node spacing so that, close-up, lights appeared not as dots, but as continuous lines. The LED nodes had to be integrated into an already-purchased curtain-wall system. The design team





determined that the crown's window-washing tracks could be repurposed as mounting positions. A custom aluminium extrusion and bracket was designed to match existing mullions, hold the LEDs, and function as a wireway. A standard 7ft fixture length allows any failures to be easily replaced 700ft up. Power and data enter through ventilation louvers and run to custom-designed power supply panels.

The choice of blue as the sole colour is effective in differentiating the building along the New York skyline, while below the crown, horizontal runs of smaller blue LEDs are mounted at the breaks between building sections to help emphasize the 'twisting' in the building's form at a closer view. Blue lighting in the glass elevator shaft connects the lighting above to pedestrians at the street level.

Even when compared to larger buildings with flashier programming or bright advertising, this elegantly simple design achieves its owner's goal to place his personal mark on the skyline. Mock-ups, equipment customization, and in-depth analysis of the primary views of the building led to an energy efficient, exterior lighting solution that successfully creates a simple, sophisticated icon amidst the visual tumult of New York City. ■

Author

Caprice Johnson

Partnering for Progress

After successfully endorsing and promoting an open standard for connected lighting in homes, TCLA has extended its scope to the indoor professional lighting market. The collaboration between TCLA and Thread will focus on a solution for the network-layer...



Wireless control of lighting systems is making inroads into the indoor professional lighting market, with the promise of improved energy efficiency, low-cost installation and reconfiguration, and enhanced quality of light for end users. Interoperability of lighting devices will reduce market uncertainty and drive market adoption in commercial and public buildings.

The Connected Lighting Alliance (TCLA), an advocate of wireless lighting connectivity, is collaborating with the Thread Group on an open protocol solution for the network-layer in indoor professional lighting applications.

After successfully endorsing and promoting an open standard for connected lighting in homes, TCLA has extended its scope to the indoor professional lighting market. With input from its members, the Alliance established a set of lighting-specific market requirements for the network-layer portion. An evaluation of a number of open protocols was then carried out, with the goal of identifying a Standards Development Organization (SDO) that was capable of delivering a suitable solution for the network-layer. TCLA concluded that no single solution on the market today meets all the requirements, but that the Thread Group came closest. As a result, TCLA identified the Thread

Group as its preferred SDO partner, and the two organizations are now collaborating to close the remaining network-layer requirement gaps for indoor professional lighting.

"While Thread currently focuses on the connected home, the low power IPv6 mesh networking infrastructure Thread provides is ubiquitous among both commercial and industrial applications. We're seeing increasing interest and pull from applications looking to adopt Thread outside of the home – such as indoor professional lighting – and look forward to collaborating with The Connected Lighting Alliance in this area," said Sujata Neidig, Vice President of Marketing, Thread Group.

"TCLA is very pleased to collaborate with the Thread Group. After our success in the residential connected lighting market, TCLA's collaboration with the Thread Group on a network-layer solution for indoor professional lighting is an important step in achieving interoperability between different manufacturers," said Frank van Tuijl, Secretary General of The Connected Lighting Alliance.

The collaboration between TCLA and Thread will focus on a solution for the network-layer. Meanwhile, TCLA is separately evaluating requirements and looking for suitable solutions for the application-layer. ■



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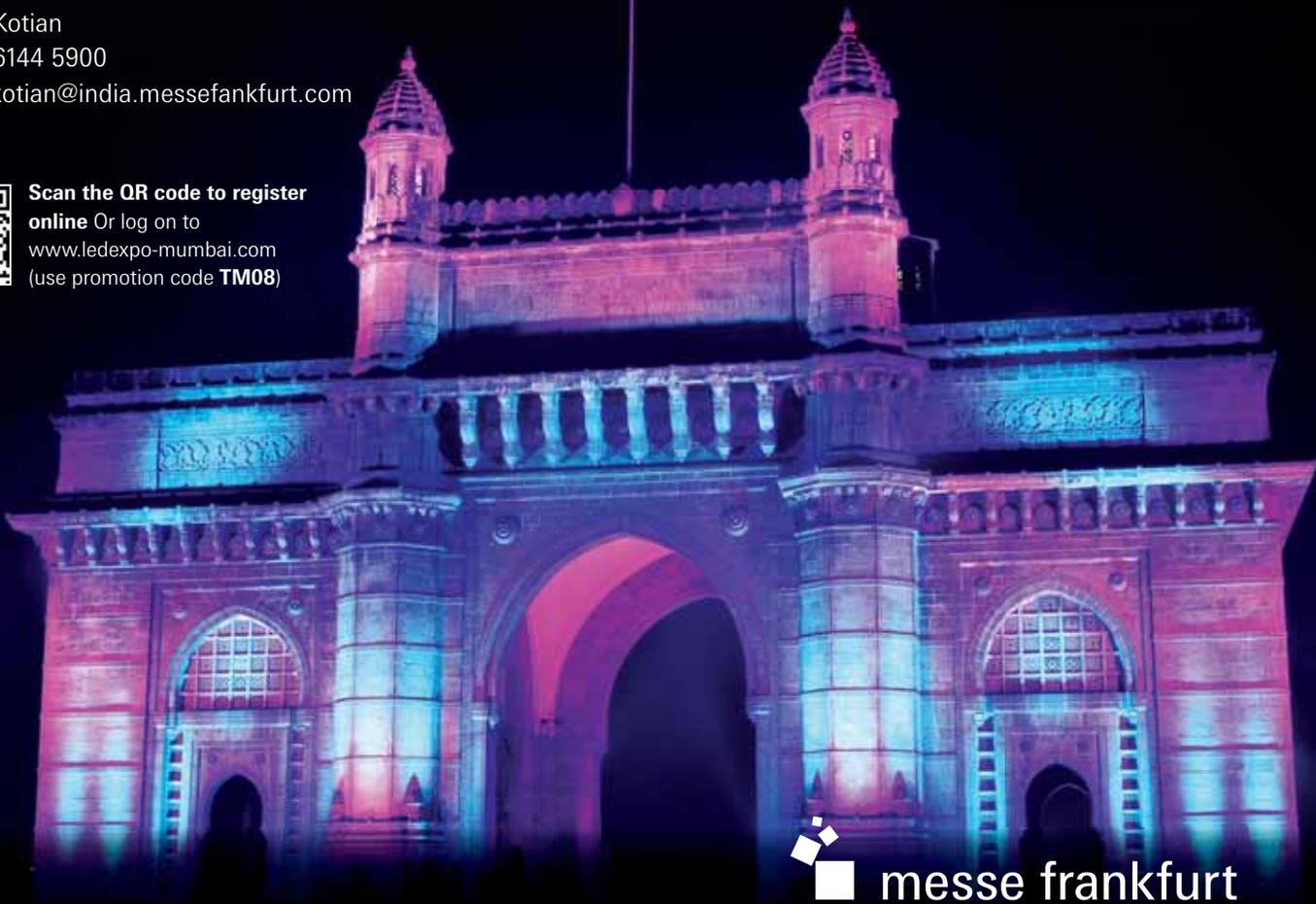
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“Crestron gives complete peace of mind...”



Crestron integrates all systems and devices in buildings and homes onto a single open platform so that they can communicate and work together seamlessly. In an exclusive interview with Lighting India, Nataraju Upputuri, General Manager, Crestron Asia (India), is explaining to Bobby Anthony his company's contribution to the field of lighting control and beyond – keeping in view the aspect of energy saving. Excerpts...

Q What do you have to say about the growth of the global lighting control industry in India and the world? What is Crestron's stake in such growth?

A The most basic requirement of all lighting controls are meant to be energy saving. But what more can be done? Thanks to the emergence of the Internet of Things (IoT), connecting appliances e.g., lighting, HVAC through Wi-Fi network is a growing trend. Wireless lighting control enables users to control lights through mobile app, whether in home, office or out of town. As home and office automation tech develops, smart lighting will continue evolving. We can see a growing demand on the integration of all automation technologies including sensor, central distribution and monitor, lights all on a single platform. Beside that, most standard control system can be operated through phones and tablets, the mixture of usage in touch panels, remotes and mobile devices should not be overlooked.

Q How do Crestron's lighting controls like DALI ballasts and LED drivers contribute to energy savings in terms of levels of performance, flexibility and energy efficiency?

A Single-wire connectivity simplifies both new and retrofit installations, and Power-over-Ethernet (PoE) versatility assists in situations with existing CAT5 infrastructure. DALI

is a great choice for retrofit lighting systems because it does not require changes in line voltage wiring. Likewise, DALI provides ultimate flexibility by allowing reconfiguring of zones after a system is installed.

The innovative design of the DALI eliminates the need for the external power supplies required by other DALI controllers on the market. Power is delivered via PoE or Cresnet, creating a true single-wire installation.

Also, DALI provides a bidirectional interface enabling independent control and monitoring of each individual fixture, enabling operator and energy management software to query ballasts energy usage. DALI is optimal for use in applications that require granular control of each fixture, such as open office floor plans, AV-equipped conference rooms, and daylight harvesting.

In addition to DALI dimmable LED drivers, Crestron offers a full line of lighting control products utilising DALI technology. Crestron Green Light Dimmable LED Drivers (GLD-LED Series) provide manufacturers of dimmable LED lighting fixtures with a high-performance, cost-saving LED driver solution.

Employing a combination of duty-cycle and current-dimming technologies, Crestron Green Light LED drivers provide smooth, deep dimming with excellent colour stability to below 1%. A choice of 50 Watt and 100 Watt models affords high-power capability for use with a wide range of LED fixtures.

Q Crestron's low voltage wiring as well as radio frequency-based controls can be used throughout a wide range of system design scenarios. How energy efficient are these Crestron control systems themselves while they are in the process of being operated and how much energy do they consume as compared to the energy they help customers save?

A Crestron Fusion EM, the energy management component of Crestron Fusion, provides a rich graphical user interface, which allows control and monitoring of all connected rooms. You can utilise the CrestronFusion built in scheduling system: to adapt spaces and energy usage based on occupancy and need; analyse energy consumption; turn lights on or off; set actions for when a room is occupied; create lighting scenes, adjust heating/cooling set points, align shades, edit demand response settings, and design custom actions.

Crestron delivers complete building management for maximum energy and operational efficiency. Crestron lighting control and energy management solutions provide total environmental control to conserve energy and lower costs by combining automated dimming and daylight harvesting with powerswitching and load shedding. Furthermore, Crestron touch screens and interfaces offer global management of all systems and devices building-wide from a centralised command centre, or local control from touch panels in each room.

Q What are the primary factors which drive the demand for lighting controls, besides energy efficiency and aesthetics? How is Crestron placed to take advantage of these factors?

A Without any doubt, energy efficiency and aesthetics are primary factors for deploying lighting controls, but current trend moves toward more sophisticated lighting control systems – in which strategies may be layered. For example, an open office may see deployed scheduling or zoned occupancy sensors for automatic shutoff, task tuning in some areas, daylight harvesting near windows, and personal dimming control for occupants.

Integrated lighting automation isn't only about luxury; it's also about security. Protect home or business through the use of automated lighting at preset times, deterring potential intruders by creating the impression that home or business is occupied. Lights can even be set to turn on when one arrives home, so users never have to enter a dark house again. And if an emergency ever arises, escape paths can be lit automatically to help guide occupants to safety.

More than just lighting control system, Crestron gives complete peace of mind to users by offering a total solution integrating all lightings, shades, HVAC, AV control, security on a single platform, and seamlessly connect to energy management software to monitor, manage and control all technologies throughout the entire facility both centrally and globally. We provide total environmental control solution to conserve energy and lower costs.

Q How cost efficient is Crestron's touch panel based commercial lighting technology, and which are the sectors from which demand is growing?

A Convenience and elegance converge with centralised lighting controls, enabling anyone to adjust lighting settings without unsightly banks of light switches encroaching on the space. Thanks to discrete dimming modules concealed in cabinets, user can control any



DIN Rail 2-Channel DALI Interface (DIN-DALI-2)...

number of lights from a single sleek keypad or elegant touch screen.

Whether adding lighting to new installations or retrofits, eliminate the need for complicated wiring and rewiring using our reliable wireless lighting control solutions. User can also integrate wireless solutions with existing wired dimmers, keypads, and switches to unify their office. Crestron makes adding a lighting control system, or expanding one, simple and easy.

Crestron helps reduce energy consumption and costs by combining lighting and environmental technologies into an intelligent energy management solution. Our easy-to-use software provides a powerful real-time overview of operations, giving a one-touch access to all connected spaces. See exactly what changes affect energy consumption with useful data analysis tools, and maximise energy efficiency by selectively controlling lighting, shading, HVAC, and other equipment remotely.

Hospitality and residential sectors are in growing demand of centralised, wireless lighting control.

Q Please elaborate on any plans which Crestron might have to manufacture in India to take advantage of the government's 'Make In India' initiative.

A Currently, we have our product design, test, and manufacturing in United States to maintain total control. Yet, system design, configuration and commissioning are all locally managed in India to satisfy and exceed customer expectation.

Q What is Crestron's plan to contribute to the government's smart city plan?

A Our innovative technology solutions are crafted to cater different levels stakeholders, such as the government, corporates and individuals. We are sophisticated in using technologies to raise productivity levels and standards of living.

Crestron offers comprehensive intelligent city solutions covering various sectors such as 'Smart Education' focusing on developing digital campus solutions in terms of distant learning and campus energy management; 'Smart Healthcare' aims to optimise clinical collaboration through technology and systems integration in order to

improve the quality of care; 'Smart Building Management Technology' delivers seamlessly integrated building controls in the area of HVAC, lightings, shades, AV distribution and energy management on a centralised monitoring platform.

Indicate real time energy usage to identify possible incorrect use of electricity (e.g., high energy consumption during non-office hour, etc) as part of the way to in line with the government's smart city plan.

Another key point to note is the need to enhance energy efficiency across all sectors of the economy, in order to decouple growth in energy demand from economic growth in India. Otherwise, a very expensive three- or four-fold increase in primary energy production will be required by 2031-32 to sustain economic growth of 8-9% annually. India wants to sustain this rate of growth in order to eradicate poverty and improve living standards. For this, Crestron energy management solution could provide the most energy efficient, cost effective solution by integrating separate environmental systems on a common platform, achieving a synergy that delivers optimal control and savings.

Q What are the company's efforts in research and development? Are there any plans to do this in India?

A Crestron invests 40% of its revenue in research and development every year, and all the products are manufactured in home region to comply with industry and regulatory standard.

Our design, test and manufacturing engineers all work closely together under the same roof in order to maintain total control of the entire product introduction process to ensure the highest quality.

Q What would you like to communicate to purchasers and decision makers?

A We understand that the needs of purchasers and decision makers may vary, depending on project scope, budget, available time frame and so on. We simplify design, installation, and start-up of commercial lighting control with the right products and systems designed to work for the individual needs of each space in a building. Our process dramatically reduces the time required to complete each

phase of a lighting control project, while greatly improving efficiency and scalability.

With Crestron, lighting controls are specified on a space-first basis rather than the conventional building-first approach. This methodology eliminates the over specification and unnecessary programming inherent in most lighting control systems. Each space is configured with the optimal control system and accessories and nothing more. Crestron only selects the best, feasible and affordable total solution at customer's ease. ■



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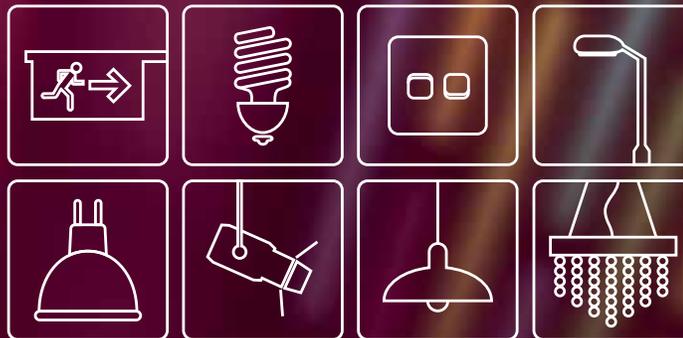
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Osram launches Scriptus for professional office lighting

The Scriptus office luminaire designed by the renowned Berlin design studio Aisslinger is featuring a modern, progressive design as well as outstanding efficiency and quality of light.

The multi-level MLA (Multi-Lens Array) optical system ensures optimum glare elimination and high visual comfort. Scriptus comes as a surface-mounted or suspended version with various lengths and lumen levels to ideally illuminate differing office configurations.

The luminaire is equipped as standard with a DALI control unit and on request with integrated daylight and

motion sensors. A Lightify Pro version is also available for wireless, app-based light control. In addition to 3000K and 4000K light colours, a tunable white version will also be available for biologically effective light in office environments.



Website: www.osram.com

Cree introduces RSW LED streetlights

Cree, Inc. has introduced the full range of its breakthrough RSW LED Street Luminaires with the introduction of three new models that deliver comfortable, uniform and dark-sky friendly LED lighting to roadway applications. The new streetlights complete the portfolio of Cree's ground-breaking RSW Series, the first generation of LED streetlights to deliver LED energy savings and reliability in preferred colour temperatures.

The three new models join the initial launch of the small form factor and replace outdated high-intensity discharge fixtures of 70-100W HPS, 150W HPS, 250W HPS and 400W HPS. The Cree RSW Series now offers a unified solution for towns, cities, states, and utilities that addresses street lighting needs from driveways to interstates.

According to the company, utilizing Cree's revolutionary WaveMax technology to deliver market leading uniformity,

Website: www.cree.com

colour quality and efficacy, Cree's RSW Series ushers in a new era of street lighting that will transform the way cities and municipalities light their residential streets, interchanges and expressways. The new RSW Series luminaires deliver superior efficacy of up to 115 LPW at colour temperatures of 3000K or 4000K and a Colour Rendering Index (CRI) of 80.

The result is enhanced visual comfort, reduced glare and higher quality street lighting for roadways using less energy. The series is also smart-city ready, enabled by a standard NEMA 7-pin socket.



Efore rolls out new product under its LED driver portfolio

Efore has introduced the newest addition to its ROAL Digital Light brand LED Driver portfolio. With its multi-mode dimming feature, this new driver series, called CIELO, answers the need for more flexible LED lighting control options.

The CIELO series is available in two compact package sizes. The compact packages make the CIELO Series ideal for track, downlights and other architectural lighting applications. Higher power models are very suitable for

Website: www.efore.com

high bay, low bay, garage and wide area lighting applications.

All models accept worldwide AC input voltage range and have a 5 year warranty.



dbn Designs Lighting For 2016 Qasr Al Hosn Festival In Abu Dhabi





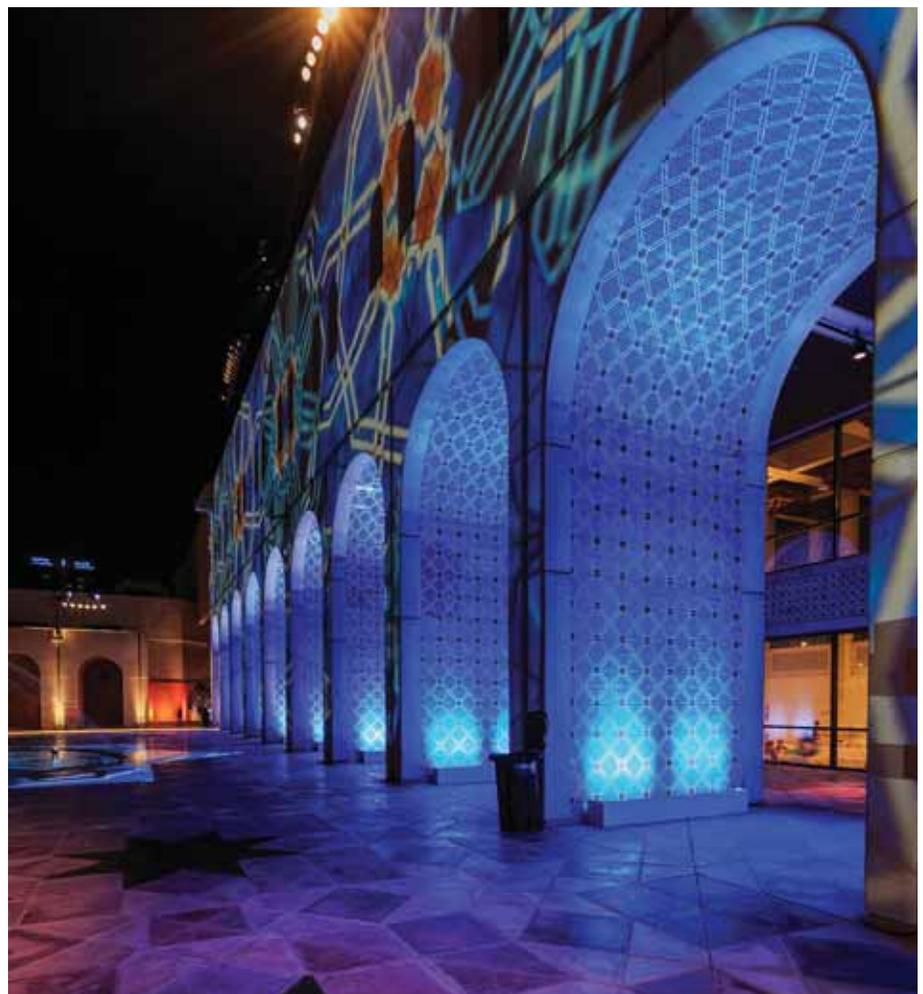
The Abu Dhabi Tourism & Culture Authority (TCA Abu Dhabi), appointed live communication specialist People as its event management agency for the vast 2016 Qasr Al Hosn festival, which took place February 3 to 13, 2016 in Abu Dhabi.

Manchester UK-based dbn Lighting was commissioned by People, to provide lighting design and on-site lighting direction service.

The festival narrates the ongoing conservation of Abu Dhabi's most historic Fort, and through a series of highly interactive elements, hosted a celebratory programme to reinstate the Qasr Al Hosn site as the cultural heart of Abu Dhabi.

Qasr Al Hosn, which has stood as the symbolic birthplace of the Emirate and home to Abu Dhabi's ruling Al Nahyan family, is undergoing a comprehensive process of preservation, restoration and rehabilitation.

Based around the historic Qasr Al Hosn Fort, the Qasr Al Hosn Festival 2016 welcomed over 130,000 visitors who were able to immerse themselves





in an interactive setting exploring and celebrating the culture, art and history of Emirati heritage that has formed the basis for the gleaming modernity and success of the region today.

Lead lighting designer Stephen Page and a team of seven designers and on-site LDs from dbn worked closely with Tom Ralston and Jonathan Godsmark from Eclipse Staging Services Dubai who provided all the lighting, AV, power and rigging equipment for the huge open air interactive experience. dbn's ambitious task was to design an overall scheme to light all the different areas of the site.

Preparations for the 11-day event started the previous year, just a few months after the hugely successful 2015 festival.

The final designs required an astonishing 3,900 separate lighting fixtures, together with around 45 kilometres of cabling and 1,200 plus metres of trussing. There were a total of 22 x Dimmer Cities across the site involving 28 lighting dimmer racks and

52 lighting power distros.

Control for the 24 x DMX universes of lighting required for the main site was from Eclipse's Jands Vista T2 Console, supported by one of dbn's Jands D1 processors and additional PC based Vista consoles and wings, all acting as part of a single Vista network. This allowed operating in a tracking backup configuration, and enabled network based programming and processing, coupled with fail-safe show operation.

Stephen directed the programming and focus for the whole festival, supported by Nick Buckley and Pete Isherwood, with further assistance from Phil Woodbridge, Paul Crompton and Paul Moloney, all working with an extensive crew of lighting and electrical technicians and riggers from Eclipse.

The festival is the largest of its type in the region and includes areas representing the main settings for historic life in Abu Dhabi: Oasis, Desert, Marine, Island life and a zone dedicated to the Qasr Al Hosn Fort itself; and

showcased the historic crafts and skills that Abu Dhabi culture has been built on. The event featured a Festival Stage Arena, and numerous exhibitions, installations and performances in buildings and temporary structures across the site.

Each element required specific treatment to add atmosphere and dramatic context to the vast range of activities taking place – anything from music, dance, story-telling and poetry - to cookery, agriculture, weaving and sailing - and included a petting zoo and an artificial sea complete with waves!

Lighting was absolutely crucial to the success of the whole project.

In addition to the creative goals, Stephen had to utilise equipment that was practical to install and maintain in this temporary setting.

"The design had to be multi-faceted," he explains. "The job of the production is to take visitors on a journey away from the urban bustle of the city around it, through the nation's rich history and heritage to understand

how they act as the background for the success and growth of the nation today.”

Each themed area required a discreet approach to enhance the visitor experience whilst incorporating the requirements of multiple live performances, along with practical lighting to support demonstrations and workshops showcasing extremely detailed craft work.

He added that major challenges were the scale of the project - the site covers a whole block of downtown Abu Dhabi - coupled with the diverse range of activity taking place over a protracted period each day, all in the centre of a busy well-lit urban area.

The design had to reconcile the diverse - and sometimes competing - elements of the event into one coherent integrated overall aesthetic, whilst also allowing thousands of visitors to navigate their way around the Festival and enjoy a unique experience in each setting.

With lengthy opening hours, the lighting design had to work in tandem with changes in natural lighting conditions from bright midday sunlight right through to darkness, as well as the physical movement of people from interior to exterior locations across site.

A wide range of fixtures were selected from Eclipse's stock - from a birdie to a Clay Paky Alpha Spot 1500 HPE and everything in between.

All were rigged discreetly and concealed in surrounding scenic elements where possible, as well as from the roofs of buildings and a series of over 100 vertical truss masts across the site.

Background colour washes for each area were achieved with 120 of SGM's P5 LED floods, with further layers of texture and colour added from a range of moving lights including Clay Paky Alpha, Sharpy and A.Leda range units; and Mac Viper, Aura, 2K and 700 series fixtures.

Finally a full range of generic fixtures was used to highlight specific areas and activities within the overall scheme.

For the Oasis area, for example, the design sought to emphasise the vegetation and sensation of growth and life in the lush environment, along with the feeling of being lit by moonlight through the tree canopy after dark, so each of the 100 plus palm tree trunks was subtly up-lit with an LED PAR, while the leaves were skimmed and textured with a mix of Chauvet LED PARs and ETC Source Four profiles fitted with gobos firing through the leaf canopy to add richness and depth.

Colour and texture was also provided by moving lights programmed to alter focus on cue, creating and defining areas for larger performances of traditional dance within the space. Further fixtures were rigged in the canopy of the trees themselves as 'specials' to gently delineate storytelling and demonstration areas.



Qasr Al Hosn has served as a centre for protection and government within the Emirate since Abu Dhabi Island was first settled in the 18th Century and the fort is at the heart of the festival site both literally and metaphorically. With huge historical significance, the fort is the oldest building in Abu Dhabi and currently undergoing extensive restoration works.

The exterior of the fort was floodlit to highlight the sparkle and colour of the traditional coral stone construction, with Sharpy, Sharpy Wash and Super Sharpy fixtures being used to define the towers and outline the architecture of the buildings and walls, as well as to project the outline up into the sky above the site.

The Festival Arena, where Clay Paky 1500 Wash and HPE fixtures were used as the basis of a versatile house system, played host to a number of shows produced by People, including a special version of the popular Al Ain Bird Show, and the night time Desert Safari exploring the native animal species of the vast Abu Dhabi desert.

Phil Wiffen programmed and operated lighting for all the arena shows using his preferred Hog4 Roadhog Console.

dbn also developed and installed the lighting design for a new permanent exhibition housed in the Qasr Al Hosn Visitor Centre located close by the Fort. People designed and produced an installation telling the story of Abu Dhabi and its people through the city's oldest building (Qasr Al Hosn) featuring displays of historic artefacts, fascinating oral testimonies and historic photographs that bring this important monument to life.

Nigel Walker, dbn's Special Projects Designer, acted as lead designer for the exhibition area and used a range of ETC and Prolights StudioCOB fixtures to complement Lumenpulse track fittings and bespoke installations of various discreet LED sources built into the structure of the exhibits.

Says Stephen, "It was brilliant to work on the Qasr Al Hosn Festival again this year, I was very proud of the whole team from dbn and the part we

played in helping to make the festival such a huge success, and look so beautiful.

"Working with People was great! They are a relatively young agency made up from a hugely experienced and talented group of people, and are already establishing themselves as one of the leading agencies in the region. I've designed a number of jobs for them already and have really enjoyed the ingenuity and creativity of their approach, which is a refreshing working environment.

"As usual, Eclipse were extremely good – technically strong, hard-working and supportive; the quality of their service and equipment was, as always, excellent."



Louise Stickland
Freelance Journalist working with Loosplat company, UK



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“We are relentlessly working to enhance the quality of life...”

Crompton Greaves Consumer Electricals Limited is a major player in India's lighting industry with its significant presence in urban street lighting, floodlights, consumer LED segment, Commercial lighting and industrial lighting. In an exclusive interview with **Lighting India**, **Rajesh Naik, Vice President – Lighting**, of the company is giving some updates on their business. Excerpts...

Q What are your comments on the growth of the global lighting industry as well as the domestic scenario? How does Crompton contribute to this journey?

A Globally lighting market is receiving much attention due to its potential of reducing the carbon footprint. Projections show that the global lighting market is set to grow @ 30% per annum spearheaded by LED segment. Continued global population growth and urbanisation are the two factors increasing the overall demand for lighting products. Climate change is another factor propelling the industry trend towards energy efficient lighting technology. India is close on heels with the momentum and will grow to an estimated Rs.22K Cr by 2020.

In our growth journey, the key drivers are technological and TTM (Time to the Market) expertise that enable us to offer quality and right products at affordable prices. These are helping us keep pace with changing requirements of the consumers.

Q What are Crompton's offerings for the sports and outdoor lighting segments?

A Crompton is in tandem with evolving market needs in sports and outdoor illumination. We provide Street lights, Poles, Flood lights and High masts for illumination of the Infrastructures: Roads, Flyovers, Ports, Stadia etc. Now, with the advent of LED technology, LEDs have become an obvious choice for street lighting. We also provide Centralised Controlling and Monitoring System (CCMS) that enables the service providers to control and monitor the streetlights.

For Landscape lighting, we provide numerous options that have been aesthetically designed to suit the consumers, architect and lighting consultants.

Q Crompton had orders from Energy Efficiency Services Limited, a joint venture of the power ministry, for



implementing energy efficient products in India. Could you elaborate on the same?

A Crompton has bagged orders from the Energy Efficiency Services Ltd. (EESL), a joint venture set up by the Power Ministry comprising four public sector undertakings – NTPC, PFC, REC and Power Grid.

Crompton is supplying 7 and 9W LED Bulbs to the EESL. Consumers buy it from them, and enjoy an option to pay for it in equated monthly instalments. This initiative will help drive the use of LED as an energy efficient option, thereby leading to savings in power bills of the consumers & setting off power deficits in the country. We have so far supplied Rs. 100 Cr worth of Lamps and Rs.25 Cr worth of street lights to EESL.

Q The Indian LED market in India has grown by almost 40%. Given the government's 'Make in India' initiative, what is your strategy to localise production in the highly competitive LED market?

A We have taken strategic measures to control our external sourcing from other countries and increased capacities in India to meet the growing demand in LED space – and thus support the 'Make in India' initiative.

Q Do you think that advancements in OLED technology and increasing use of OLED panels in smart phones, could contribute to a decline in the global LED market, considering the fact that in 2015, there was a decline of 3% in the global LED market?

A I would not be in a position to comment on the decline in LED market owing to advancement in OLED technology and use of OLED panels in smart phones.

In the lighting space OLED technology has been embraced globally. The flexible OLED panels eliminate the need of reflectors or diffusers. However, the cost considerations for OLED light products are high – and hence it will take time to enter the Indian market. Further OLEDs are yet to meet the efficacies delivered by the LEDs.

LED market is growing and still holds huge potential. With the introduction of government schemes and growing awareness, the demand is only set to rise.

Q What are the Crompton's efforts in the field of industrial luminaries?

A We were the first to bring in the COB technology in the industrial lighting segment, with highbays and well glass being offered with COB. We have developed highbays up to 360W, supposed to be the highest wattage in the industry. We have an array of products across the various application segments in Industrial luminaires.

Q What are your plans to contribute to the government's smart city plan with regard to urban street lighting?

A The 'Smart Cities' initiative by the government is to drive economic growth and improve the quality of life in cities – by enabling local development and harnessing



technology as a means to create smart outcomes for them. The dynamics in a city life change due to traffic levels, weather changes, accidents and events in the city. Crompton, in conjunction to this initiative and looking at the dynamics, is working with technology partners to provide smart street lighting solutions.

Q What are the company's efforts in Research and Development (R&D)?

A Following the example already set by Crompton Greaves in R&D, Crompton is eagerly pursuing the challenge of creating new products and technologies to meet the dynamic customer needs.

Our R&D activities are broadly classified into three categories: core technology research, product development and manufacturing R&D. In core technology, we are looking at IOT and other communication platforms. It also focuses on improvement in efficacies through thermal management, use of alternate material etc. Product Development researches are integrated to the core technology researches to develop or improve commercially viable materials, devices, or systems. The Manufacturing R&D project focuses on what is required to deliver high quality, optimum cost products in quantity and on time.

Q What would you like to communicate to decision makers?

A Looking at the transition phase from conventional lighting source to LEDs, all I can say is, this is the right time to invest in LEDs from the ROI perspective – and we, being one of the significant players in lighting, are committed to delivering state-of-the-art products – and are appealing in every aspect: be it design, quality, utility, energy consumption, aesthetics or overall performance.

We, being one of the leading players in energy efficient lighting solutions, are relentlessly working to enhance the quality of life of our valued customers through our innovative products. ■





Björn Hermann

Designer Björn Hermann Receives German Stage Award

Working with Design Office Onliveline GmbH, Björn Hermann developed a complex storyboard that brought together separate elements through complicated and extremely precise conceptual and programming work.

The project took more than one year to prepare...



The Opus - German Stage Award is one of the most prestigious awards in theatre and stage production, and this year it has been presented to Björn Hermann who is active internationally as a lighting designer. He has received the award for the production of the Fraunhofer Annual Meeting in 2015 – which featured the especially creative use of moving light as a focus for the performance on stage. The award ceremony has taken place on 7th April 2016 at Prolight + Sound, the international trade fair of technologies and services

for entertainment, integrated systems and creation. This was the first time when leading figures from the sector had the possibility to submit projects directly to the expert jury.

For its annual conference 2015 in Wiesbaden the Fraunhofer Society initiated a project to stage a show around the motto of 'lighting creates', with the intention of picking up on UNESCO's 'Year of Light'.

The production concept revolved around an unusual basic idea. Instead of the main part being played by actors or



musicians, 61 programmed moving lights took centre stage – partly as conducted orchestra, partly as individual performers.

The concept demanded a completely new approach in terms of communication, lighting design and technology. Each movement of the lamps, each beam of light was accorded its own sound design – this was accompanied by a video design projected onto the original wall of the Wiesbaden Kurhaus.

This video design was developed especially in-house and generated the illusion of interacting with the beams of light. Working with Design Office Onliveline GmbH, Björn Hermann developed a complex storyboard that brought together the separate elements through complicated and extremely precise conceptual and programming work. The project took more than one year to prepare. ■



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A view of the previous event...

Guangzhou International Lighting Exhibition 2016 to begin from June 9

Over 100 seminars on design, market and technology to be conducted
at the lighting industry trade fair...

Asia's most influential and comprehensive lighting and LED event, the 21st edition of the Guangzhou International Lighting Exhibition (GILE), is scheduled to take place from June 9 to 12, 2016 at the China Import and Export Fair Complex.

Regarding the show's aim this year, Ms Lucia Wong, Deputy General Manager of Messe Frankfurt (Shanghai) Co Ltd, commented, "For 2016, the quest for the next industry innovation continues and our THINKLIGHT event programme aims to stimulate participants to explore the vast and different possibilities of lighting."

The event programme boasts over 100 diverse sessions that are categorised into three tracks – design, market and technology.

THINKDESIGN

Covering new design concepts, city lighting planning and lighting applications, the design track will examine how modern lighting exceeds the basic function of illumination. Track sessions will address key topics such as personalisation, optimised efficiency and simplistic designs.



THINKTECHNOLOGY

The technology track will examine advanced technologies that have enhanced the functionality and efficiency of lighting.



Another glimpse from the last year's trade fair...

The use of innovative materials and significance of connected lighting as well as brand new applications and improved uses for existing applications including connectivity, Li-Fi and human-centric lighting will be discussed.

development. They include simple lighting designs with hidden fixtures, connected lighting, human-centric lighting for enhanced wellness, greener energy light sources to help obtain low-carbon lifestyles and much more. ■

THINKMARKET

Speed-to-market is a new key performance indicator in the changing lighting industry. Seminars in the market track will examine the benefits of market transformations as well as discuss new business opportunities in emerging lighting markets. Also to be touched upon are core market dynamics, new distribution channel strategies and end-users' preferences.

A sneak peek at some entries reveals a few of the topics the lighting industry is focusing on for future



LED Expo

To highlight environmental benefits and human-centric lighting



A view of the previous event...

The LED Expo is all set to return from May 12 to 14, 2016 in Mumbai, where more than 150 companies from India and abroad will display cost-effective as well as competitive LED solutions for the Indian market.

Thought leaders will also discuss concepts of intelligent LED lighting systems and sustainable way of lighting at the LED Summit, to be held on May 13 at the Bombay Convention and Exhibition Centre.

Alongside the show, the LED Summit will cover three mega trends affecting the industry under the themes of 'Make-in-India' products promoting domestic manufacturing, implementing LED lighting standards and emerging use of Organic LED lighting (OLEDs).

Organised by Messe Frankfurt Trade Fairs India Pvt Ltd, this will be the ideal ground for lighting designers to learn more about the transformative potential of LEDs on health and environment.

The LED Summit will witness arguments in favour of energy-efficient buildings which have always been a primary focus of environmental sustainability of LEDs. As a result, the main advantage of internal lighting systems that is usually stressed is reduced carbon footprint.

What is often overlooked is the effect of lighting design in human well-being. For starters, LED light bulbs do not contain toxic materials like traditional and fluorescent light bulbs which contain mercury, exposure to which can be linked to health issues. LED bulbs also do not pose the risk of ultraviolet overexposure.

Since the human eye and the human brain are known to be sensitive to light, right lighting conditions through LEDs can make a big difference to health. The absence of flicker, glare and hum, as well as correct colour rendering can minimise headaches, eye strain and discomfort while enhancing attention and productivity levels at work places.

The use of daylight frequencies in lighting is also known to improve melatonin levels related to mood. This concept called Human Centric Lighting can help people suffering from mental health ailments such as anxiety and depression.

By combining the right spectrum, lighting of the future can control our well-being and LEDs have a major role to play in it. The switch to LED lighting is happening fast not only because of energy savings and environmental benefits but also because of its importance in creating an overall healthy environment. ■



Another view of the previous event...

Light + Building 2016

More visitors, exhibitors and exhibition space...



Light + Building, the world's biggest event for lighting, electrical technology as well as home and building automation ended on 18th March 2016, after setting new records. Growth was recorded in all important indices like the number of visitors, the number of exhibitors and the area occupied...



As per compiled figures, 2,589 exhibitors (2014: 2,495) from 55 countries launched their new products onto the world market on around 248,500 square metres of exhibition space (2014: 245,000 square metres).

A total of 216,000 trade visitors (2014: 211,232[1]) from 160 countries made their way to the Exhibition Centre in Frankfurt am Main from 13 to 18 March 2016, to discover innovations, solutions and new products. This represents growth of 2.3 percentage points.

"We are extremely pleased with this year's Light + Building and delighted with the further increase in the indices. This underscores the significance of Light + Building as the world's leading trade fair for lighting and building services technology, as well as the positive mood in the sector and the on-going high level of exhibitor satisfaction", said Wolfgang Marzin, President and Chief Executive Officer (CEO) of Messe Frankfurt.

The level of internationality also rose in comparison with the previous event: 67 percent of exhibitors (2014: 63 percent) and 49 percent of visitors (2014: 47 percent) came from outside Germany. The best-represented visitor nations after Germany were Italy, The Netherlands, France, United Kingdom and China. Considerable growth was also noted in the number of visitors from Spain and East European countries, such as Poland, the Czech Republic, Hungary and Romania, as well as from Turkey, India, Morocco and Iran.

For the industry, a large proportion of visitors from outside Germany is important for giving the fair a positive rating. Thus, Dr Klaus Mittelbach, Chairman of the German Electrical

and Electronic Manufacturers' Association (Zentralverband Elektrotechnik- und Elektronikindustrie e.V. – ZVEI), said, "Light + Building 2016 came up to the high expectations of the ZVEI exhibitors: digitalisation, networking and energy efficiency were the key issues in all halls of both the lighting and the building-services sectors.

As in the past, German artisans made up one of the largest groups of visitors. Ingolf Jakobi, General Manager of the Central Association of the German Electrical and Information Technology Trades (Zentralverband der Deutschen Elektro- und Informationstechnischen Handwerke – ZVEH) underscored the importance of Light + Building as an extremely valuable platform for the electrical trade: "Intelligent building networks and energy efficiency are inextricably linked in this age of digitalisation. Both themes – and, therefore, the expertise of the electrical trade in these fields – were more in focus than ever before at Light + Building."

Latest technology and design trends

The spotlight of this year's Light + Building was on digitalisation. Accordingly, the motto of the fair was, 'Where

modern spaces come to life: digital – individual – networked'. The industry showed intelligent solutions and future-oriented technologies revolving around digitalisation and networking, as well as the latest design trends. In this connection, the focus was not only on trends in the lighting market and the influence of light on people but also on networked safety and security, intelligent home and building automation and efficient energy management. These key issues were also taken up in the multi-faceted complementary programme of events and enlarged on in expert lectures.

A particular highlight on the complementary programme of events was the 'Digital Building' special show. Realised with the cooperation of 16 exhibitors, it illustrates digitalisation in buildings using future-oriented technologies. The focus was on networking individual components and their systematic interaction in live operation. "For the first time in Europe, the special show presented a realistic, fully automated smart building. The Digital Building was created using application scenarios. Subsequently, the components and technologies were selected through systems integration. Light + Building is the ideal platform for a presentation of this kind because it is the world's leading trade fair for electrical building infrastructure and information-technology infrastructure. Light and building-services technology are growing together systematically via the subjects of digitalisation and lighting control, and this year's Light + Building offered an impressive demonstration of this", said ZVEI Director Klaus Jung.

Ways in which digitalisation and networking can be implemented in the smart home and the latest developments for private households were to be seen at the 'E-House' of the ZVEH and its regional associations for the States of Hesse / Rhineland-Palatinate and Saarland. "The E-House shows how a building should be equipped to make it suitable for use with green power. With the E-House, users can become part of the transformation to ecological energy by generating, using, storing and feeding electricity from regenerative sources into the grid. The E-House is an intelligent house because it makes users' life easy. It offers greater comfort and safety at the

same time as reducing energy consumption. In line with the motto, 'digital – individual – networked', the smart home shows how these three components can be combined perfectly with the aid of the planning and installation expertise offered by the electrical-installation trade", says ZVEH General Manager Ingolf Jakobi.

Visitors could also see a demonstration of human centric lighting at the 'Through the day with smart lighting' special show, which offered an overview of the possibilities in the world of smart lighting. "New research results have shown that light also has a biological impact and that people's daily rhythm is determined by light. The lighting industry has taken account of this in its products and solutions with the aim of



providing optimum support for people. Light + Building is the highlight where the sector presents all facets of the future-oriented subject of human centric lighting. In 2016, the lighting solutions for the various aspects of daily life focused on networking, which permits additional energy-efficiency potential to be exploited and, in particular, greater convenience and benefits for users. In the future, I believe we will see even more lighting solutions characterised by supplementary advantages and, therefore, new business models that will enrich the sector", says Dr Jürgen Waldorf, Director of the ZVEI Lighting Association.

Exhibitors pleased with business at the fair

The German exhibitors taking part in the Messe Frankfurt survey on the current economic situation were very pleased with business at the fair – 85 percent of respondents rated the current economic situation as being satisfactory to good. Asked about their overall opinion of the fair, around 90 percent of exhibitors gave the top marks. On the visitor side, the rating remained stable at the extraordinarily high level of 98 percent.

Daniel Hager, Chairman of the Hager Group Board said, "Light + Building 2016 was electrifying in all respects. Thousands of visitors from different countries came to our exhibition stand to find out more about subjects such as energy storage, manufacturing solutions and the smart



home. If proof was ever necessary that our sector is both future-oriented and dynamic, Light + Building provided impressive evidence of it."

Christopher Mennekes, Managing Director of Elektrotechnik GmbH & Co. KG, said, "This year's Light + Building was a great success for us. Our new products were very well received by trade visitors and, thanks to the buoyant economic climate in the first months, all discussions were held in a great atmosphere. In line with the record number of visitors to the fair, our exhibition stand was also very well attended. All in all, it was a great fair that gives good reason to expect more business impulses in 2016."

Andreas Bettermann, CEO of OBO Bettermann GmbH & Co. KG, said, "More visitors and a higher discussion level at the exhibition stands shows that a very good fair can become even better. Light + Building has developed from the leading fair for the sector to an innovation show. This year's edition was characterised by three main trends: buildings are becoming digital – networking and system convergence are gathering pace – new digital business models are emerging. Light + Building 2016 was the best Light + Building ever."

Manfred Diez, CEO of RIDI Leuchten GmbH, said, "Light + Building 2016 gave an impressive demonstration of its position as the world's most important trade fair for the lighting and installation technology sectors. Although already high, the level of visitor internationality and visitor standard increased significantly. We welcomed a considerably larger number of trade visitors to our exhibition stand on all six days of the fair. Particularly striking was the investment propensity of customers. Never before have we spoken about so many specific projects at a fair. We are already looking forward to the next Light + Building in 2018."

Adalbert M. Neumann, Chairman of the Board of Management of Busch-Jaeger Elektro GmbH, said, "This fair was a huge success for ABB and Busch-Jaeger! Our exhibition stand was an absolute magnet for visitors from the first day and we succeeded in inspiring our customers from Germany and abroad with our innovative solutions for the smart home and smart building. The subject of the networked house and building-services technology is here to stay and there is an enormous demand for intelligent products for this expanding segment. It was an outstanding fair!"

Safety and security technology

One of the main themes at this year's Light + Building was safety and security technology with around 140 companies presenting their innovations in this segment. And it was also the subject of the first Intersec Forum held concurrently with the fair. This two-day conference for networked safety and security technology in the context of intelligent buildings offered an extensive programme of lectures, discussion forums and guided tours to suppliers of innovative safety and security technology at Light + Building. Altogether, around 150 participants from the fields of planning, installation and operation of buildings and safety and security equipment, as

well as from the electrical industry, took part in the specialist conference parallel to Light + Building and applauded the topicality and quality of the programme. The future-oriented and important subject of safety and security technology will be further expanded at Frankfurt Fair and Exhibition Centre in the future. The Intersec Forum is part of the Safety + Security portfolio of events and is held under the auspices and in close cooperation with the German Electrical and Electronic Manufacturers' Association (ZVEI).



Award presented to Stefan Schulze-Hausmann

Stefan Schulze-Hausmann was presented with the Building Future Award during the Light + Building press conference in Frankfurt am Main. With the biennial Building Future Award, Messe Frankfurt honours a personality for pioneering research or development work or outstanding achievements in relation to the sustainable development of society. Messe Frankfurt gives the award in cooperation with the ZVEI and the ZVEH under the patronage of the Germany's Federal Ministry of Economics and Energy (Bundesministerium für Wirtschaft und Energie – BMWi).

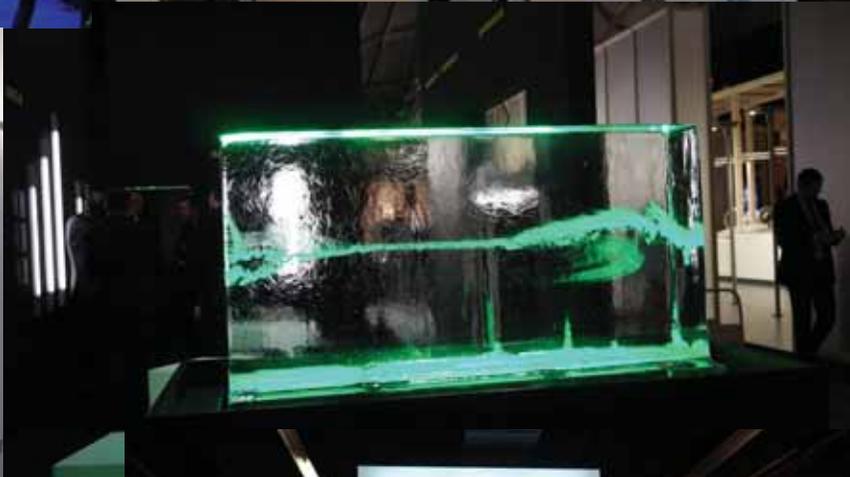
Luminale attracts almost 200,000 visitors

During the evenings, Luminale created a link between the fair and the city. Concurrently with the world's leading trade fair for the sector, the Biennale of Lighting Culture presented over 200 lighting installations in the Rhine-Main region.

This year, the 'urban lighting laboratory' attracted almost 200,000 people. The combination of trade fair and metropolitan experience transformed the Rhine-Main region into a unique meeting place for everyone interested in lighting and, for the eighth time, presented an unrivalled opportunity to see architecture 'in a completely new light' and fascinating lighting concepts in the urban landscape. ■

The next Light + Building will be held from 18th to 23rd March 2018.

Glimpses from Light + Building 2016





Eighth Hong Kong International Lighting Fair (Spring Edition)

Welcomes Nearly 20,000 Buyers



The Eighth Hong Kong International Lighting Fair (Spring Edition) organised by the Hong Kong Trade Development Council (HKTDC), has concluded at the Hong Kong Convention and Exhibition Centre.

It was attended by nearly 20,000 buyers from 108 countries and regions, up from 3.6 per cent over the last year.

The four-day fair from April 6 to 9 featured more than 1,300 exhibitors from 11 countries and regions.

Among overseas buyers, attendance from the Chinese mainland, Malaysia, Korea, Singapore and Indonesia had the most significant growth, recording a double-digit percentage increase. Buyer attendance from the United States and the United Kingdom also saw considerable growth.

"Despite lingering global economic uncertainties and challenges, the Spring Lighting Fair this year showed a considerable increase in buyer attendance. It reveals that buyers remain optimistic in purchasing. Hong Kong companies are encouraged to grab opportunities from the Chinese mainland and Asian markets," said Benjamin Chau, HKTDC Deputy Executive Director.

The HKTDC commissioned an independent on-site survey during the fair, interviewing more than 342 exhibitors and

buyers about their views on industry prospects. The survey found that 64% of respondents expect overall sales this year to increase or remain unchanged.

As for product trends, respondents consider LED & green lighting to be the product sector with the best growth potential in the sales/export market (35%), followed by household lighting (23%), commercial lighting (15%) and smart lighting & solutions (10%). It also showed that customers are increasingly concerned about product quality (90%) and practicality (90%), as well as after-sales service/maintenance (89%) and product price (87%).

High quality LED products remain popular

Applications of LED products in the lighting industry have become increasingly prevalent. Besides consumers growing more environmentally conscious, the price drop of LED products and their easy integration with smart lighting systems helped the LED market to continue thriving and maintain a strong demand.

The Viribright brand under Hong Kong's Matrix Holdings Ltd has been participating in the Spring and Autumn Lighting Fairs with their energy-efficient LED bulbs since 2009.

Eric Leung, Director of Matrix Holdings, stated that their

latest LED product, the Viribrigt A19 bulb, has a colour rendering index (CRI) of 90 and a wide beam angle of 320 degrees, close to that of natural light. Buyers from the US, Australia and Europe had expressed their interest in the product.

A Russian buyer, Andrey Egoshin, Product Manager at Universal, was primarily looking for LED bulbs, floodlights and panel lights. He said that he had business negotiations with more than 30 suppliers from the Chinese mainland and Hong Kong. He pointed out that, since customers in Russia were becoming more price-sensitive, he was looking for products with prices and quality that met their requirements. He expected the company's first order with each new supplier to amount to US\$ 100,000.



Smart home display attracts buyer attention

The 'smart city and smart home' is recognised as a major development in the technology sector. The survey found that 92 per cent of respondents believe that the development of smart technology will facilitate the lighting industry in the next two years.

In particular, lighting systems that are compatible with or controllable by smart phone/tablet applications are seen to have the greatest development potential (49%), followed by smart, energy-saving lighting systems for household/industrial/commercial purposes (46%) and industrial/commercial lighting systems that are compatible with, or controllable by smart phone/tablet applications (26%).

The new Smart Lighting Product Display at this year's fair showcased a simulated home environment with a smart lighting system. Buyers could try out the applications of smart lighting products before making any decisions.

Tronico Technology CoLtd joined the fair for the first time this year and presented its KUJU Smart Home System and Devices, a do-it-yourself (DIY) wireless home automation

solution that can control household appliances through the Internet of Things (IoT).

"The new Smart Lighting Product Display set up by the HKTDC allows buyers to see for themselves the strengths and features of our home environment," Alex Chan, General Manager, Tronico Technology, said.

"Indeed, it is highly effective in promoting our product and attracting more customers to visit our booth. We have connected with buyers from Southeast Asia, Europe and the US. About five to six serious buyers from Southeast Asia are interested in KUJU products. We expect them to confirm their orders after testing our samples."

Mario Alter, President, Aller Iluminación, from Argentina visited the display area. He said he had visited some of the smart lighting solutions suppliers. Smart lighting is something new in Argentina, and he said he would like to bring it to the market as smart lighting is the next big trend.

New October expo to meet outdoor and industrial lighting demand

The fair featured various themed zones. The Hall of Aurora showcased lighting collections from more than 230 renowned brands, and LED & Green Lighting gathered energy-efficient products for indoor and outdoor uses from over 430 companies.

The World of Professional and Industrial Lighting zone also attracted a good deal of attention from buyers with its display of situation-specific professional lighting fixtures and systems including emergency and safety lights, large-venue lighting and industrial environments.

The Australian company Lumn, an exhibitor at the World of Professional and Industrial Lighting zone, manufactures mainly commercial and industrial lighting including a complete range of high bay lights that are suitable for use in warehouses, distribution centres and retail stores.

The high bay lights are currently sold only in Australia. Alistair Bailes, Director, Lumn Pty Ltd., noted that this was the first time it had taken part in the Lighting Fair and it was looking to develop partnerships with distributors.





“Buyers from the Chinese mainland, the Middle East, the UK and the US have expressed interest in our high bay lights, and some of them will become our distributors after further negotiations. We are happy with the results so far. We have decided to exhibit at the Autumn Lighting Fair for the first time this year,” he said.

In view of strong demand for outdoor lighting, the HKTDC will organise the first Hong Kong International Outdoor and Tech Light Expo from 26 to 29 October at Asia World-Expo.

Outdoor lighting, industrial lighting, advertising display lighting and lighting accessories and parts will be showcased at the fair to suit the market’s needs.

Besides, the 18th edition of the HKTDC Hong Kong International Lighting Fair (Autumn Edition) will take place between October 27 and October 30 at the Hong Kong Convention and Exhibition Centre. ■

Hong Kong Lighting Design Competition Winners

Unveiled Design Creativity and Industry Trends in the Frame

The results of the Ninth Hong Kong Lighting Design Competition, organised by the HKTDC, were announced on the opening day of the Hong Kong International Lighting Fair (Spring Edition) at the Hong Kong Convention and Exhibition Centre.

As a highlight of the Lighting Fair, the ninth Hong Kong Lighting Design Competition adopted the theme of "Mindful Minimalism", to demonstrate the creativity and trends of the lighting industry while also rewarding outstanding local design talent.

The competition was divided into Open Group and Student Group categories, attracting a total of 208 entries. Winners were selected by a judging panel, which evaluated originality & creativity, practicability, aesthetics and marketability.

My Favourite Lighting Design Award is voted by visitors at the fair. All winners' and finalists' works were showcased at Hall 1C Concourse of the Hong Kong Convention and Exhibition Centre during the Hong Kong International Lighting Fair.



Winners of the ninth Hong Kong Lighting Design Competition join officiating guest, Hon. IP Kwok-him (fifth from left), Member of Legislative Council, and Benjamin Chau (fifth from right), Deputy Executive Director, HKTDC, at the Award Presentation Ceremony - See more at: http://www.hktdc.com/fair/hklightingfaire-en/s/9487-For_Press/HKTDC-Hong-Kong-International-Lighting-Fair-Spring-Edition/PressRelease.html#sthash.ZDLCpk1h.dpuf

	<p>Open Group – Champion Title of Design: AZEL Moon Designer: AZ e-lite (HK) Ltd</p> <p>AZEL Moon can be easily transformed from a wall-plugged night light into a portable handheld torchlight, making it a perfect lighting companion. No more searching for a torch, because all you need is to take out MOON from its wireless charging plug. With embedded sensors which automatically detect the brightness of the surroundings, you need not worry about turning the light on and off.</p>
	<p>Open Group – 1st Runner-up & ECO Design Award Title of Design: TRI Designer: One Object Design Studio</p> <p>TRI is a simple and practical table lamp design with the minimum usage of material, highly-functional structure and lightweight construction. TRI is made by a tri-direction holder (POM- engineering plastic) with three wooden sticks, which allows the user to adjust the height of the lamp. LED lighting components are used for higher safety and energy-efficiency levels. It is convenient to use either a power adapter, or directly plug TRI's USB connection into laptops or other power-supply devices. The packaging of TRI design is a paper-made fiber container with a compact dimension. It is efficient for transportation and logistics. Minimising parts/components allows users to assemble the product easily and facilitates recycling.</p>

	<p>Open Group – 2nd Runner-up Title of Design: Bamboo Designer: Art Top Construction Engineering Ltd</p> <p>The design “BAMBOO” is an LED light based on the shape of bamboo. The designer also uses environmentally friendly bamboo as the main material. Every unit of bamboo features a low-voltage LED light source, with soft lighting effects and an emphasis on safety and energy efficiency. The form of the bamboo can be adjusted or rotated 360 degrees for customised lighting settings for different occasions.</p>
	<p>Student Group – Champion Title of Design: Planet Lamp Designer: Chan Yin Man Institute: HKICC Lee Shau Kee School of Creativity</p> <p>Planet Lamp is based on the concept of “Simplicity with Functionality”. Developed from a gyroscope, its centre is a ball-shaped lamp surrounded by three semi-transparent plastic rings. These three rings can rotate around each other with no connecting parts. By adjusting the rings, users can modify the shape of the lamp as well as its light intensity so as to create different lighting effects and moods.</p>
	<p>Student Group – 1st Runner-up Title of Design: All By Myself Designer: Leung Mei Yin Institute: Hong Kong Design Institute</p> <p>All by myself – use your own power to shine! The special feature of the lamp is that it doesn't require electricity. The user just needs to burn the fuel-soaked cotton cord. Sufficient heat energy would be generated to activate the ‘peltier’ for the thermoelectric effect and thus the connected LED light will become luminous. Users can create their own combination by purchasing more than one lamp.</p>
	<p>Student Group – 2nd Runner-up Title of Design: Candle Designer: Ho Tsz Ching Institute: Hong Kong Community College</p> <p>The government is actively promoting glass recycling, including turning glass bottles into bricks used for pavements. However, the process of recycling consumes more energy, which is considered as “downgraded” recycling. In fact, glass bottles are a valuable material; upcycling it will be more environmentally friendly and the value of recycled glass will be increased too. “Candle” was designed to around the original characteristics of glass bottles, so avoiding carbon dioxide emissions that would be generated from recycling. “Candle” is a serving tray made of bamboo, which also has an LED light panel. To create different lighting colours, the user only needs to place different recycled glass on top of the panel to change the atmosphere and create a better environment.</p>
	<p>My Favourite Lighting Design Award Title of Design: Harmony Institute: Design Lava Consultancy Co Ltd</p> <p>“Harmony” is inspired by the Chinese painting in which the artists express emotion through the abstract features of the object. “Harmony” is an abstract lighting art piece depicting Huangshan’s landscape, with the simplified feature of Huangshan and the sea of clouds. The “Cloud” and “Mountain” symbolise the sky and the earth using shapes familiar in traditional Chinese culture. In terms of its functionality, “Harmony” can be used as a side table lamp to enhance the ambience for a gathering of friends, with the light source seemingly floating like a cloud and shining light from the sky to illuminate our lives.</p>

LED Bollards

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Statement about ownership & other particulars of the newspaper entitled LIGHTING INDIA required to be published under Rule 8 of the Registration of Newspapers (Central Rules, 1956).

- Place of Publication : 201, Premalaya,
Opp. Telecom Factory,
Deonar, Mumbai - 400 088.
- Periodicity of Publication : Bi-Monthly
- Publisher's Name : Mahadevan Iyer
Nationality : Indian
Address : As above
- Printer's Name : Mahadevan Iyer
Nationality : Indian
Address : As above
- Editor's Name : P.K. Chatterjee
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3	Certified as thermally protected device	YES	YES
4	Conformance with international regulations, regarding safety and operation	YES	YES
5	Surge protection upto 3kV	YES	YES
6	Mains overvoltage protection upto 320 VAC	YES	YES
7	Degree of protection-IP 20	YES	YES
8	Total harmonic distortion (THD)- <20%	YES	YES

Product Variant

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3	36W, 900mA	20W, 700mA
4	40W, 1000mA	35W, 700mA

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Head Office : Survey No. 19, Kondhwa Road, Yewlewadi,
Pune - 411048. Tel. No. +91-20-30450708
Mob.: 91-9921829011 / 9822225338
e-mail : salesindia@BAGelectronics.com
Website : www.BAGelectronics.com www.BAGelectronics.co.in



Your Sales Contacts Pick any One

Pralhad Shejwalkar
Mob.: +91 9921829011 Tel. : +91 20 30450708
Email Id : p.shejwalkar@bagelectronics.com

Siddhant Naik
Mob.: +91 8378994277 Tel. : +91 20 30450708
Email Id : s.naik@bagelectronics.com

Subrata Mukhopadhyay
Mob.: +91 9836691112
Email Id : s.mukhopadhyay@bagelectronics.com

Sarad Gairola
Mob.: +91 9820094621 / 9322608149
Email Id : s.gairola@bagelectronics.com

If you wish to write to our Managing Director then please write at mdindia@bagelectronics.com

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