

# lighting today

April - June 2020

Cover Story

## National Museum of Qatar

Erco lights up museum in Doha – designed by French architect and Pritzker Prize winner Jean Nouve – with its range of luminaires. **p18**





**ON THE COVER**  
National Museum of Qatar in Doha, Qatar  
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# Dear Readers,

*We hope that all of you are taking the safety precautions needed during this time of health crisis (COVID-19) across the globe. It is wise to ensure there is sufficient stock but there lies a fine line between wisdom and reacting out of fear and paranoia. In times like these, we need to support each other more than ever to get through this crisis. May the light in our hearts shine out through being considerate to each other.*

*Despite this crisis, life still goes on as usual in other parts of the world! Check out the cover story on the new National Museum of Qatar, designed by French architect and Pritzker Prize winner Jean Nouvel. It brings the cultural heritage of the desert peninsula to life for the world. In Doha's new museum, which plays with form and scale in a highly special way.*

*As usual, if you have anything lighting related or a project you would like to submit, do send it to [lighting@tradelinkmedia.com.sg](mailto:lighting@tradelinkmedia.com.sg).*

*Kimberly Tan*  
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Editor

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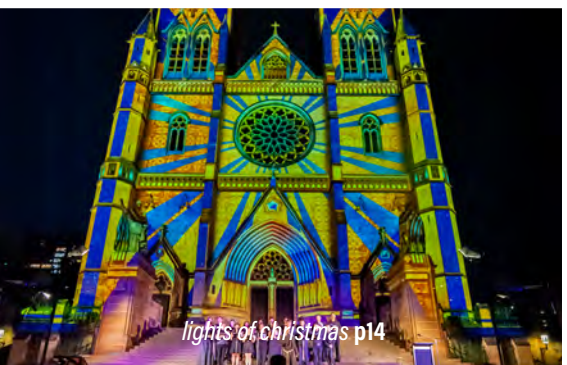
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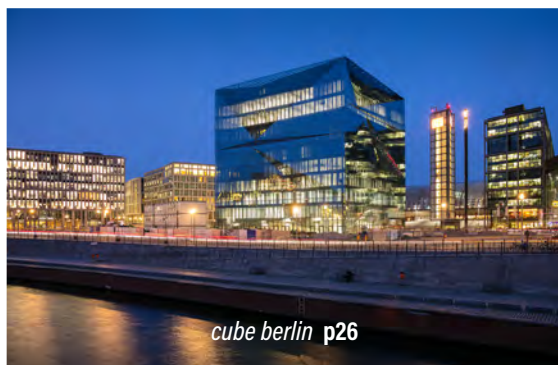
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# Uncertain Times

The impact of the Corona virus on our professional life

As I write this edition of my Light Talk column, there is still a lot of uncertainty about the impact and effect of the Corona Virus (Covid-19) on our daily lives and most of all on our professional life. I am looking at the situation with my “lighting designer eyes” based here in Singapore. With the epicentre of the outbreak in Wuhan seemingly contained and the Singapore cases also being under control, the infections have now spread to Europe and the American continent. What are we learning and experiencing from all this?

I have lived through the SARS, MERS and H1N1 outbreaks and quite frankly I have difficulties in understanding the hysteria that has come with this Covid-19 (as its official name is). The virus is comparable with a normal flu outbreak but has a higher mortality rate mostly affecting the elderly with pre-existing medical conditions and illnesses. Most people get mild symptoms from which they recover fairly quickly. It seems that misinformation is causing most of the panic and hysteria. So personally, I just go on with my daily life as I would under normal circumstances, I still take public transport, still travel, still attend meetings, still go out for dinner and socialise...I don't see any reason to panic.

But the point is that normal life is affected because of the measures taken and imposed by the governments or self-imposed by overly responsible companies. You can't enter most buildings or places without going through a temperature check and listing your name and contact details for eventual contact tracing. Some places make you wear a sticker to show others you have been “checked”! Heaven forbid if you have been in China recently as that means an immediate 14 days quarantine! Some places a more relaxed than others. At Changi Airport you freely walk through a temperature scanner with some random additional checks, but with little hinderance. During my recent visit to India however I had to queue up to stand in front of a temperature/body scanner (yes everyone, one by one) and then got my boarding pass stamped to show I was scanned and cleared to enter the country. But overall moving around is fairly easy and relaxed and overall faster because so much

lesser people are travelling!

Many fairs and events around the world are however being cancelled and some airlines are cancelling flights to high-infection zones such as China, Korea and Northern Italy. There is even talk to completely cancel the Olympic Games in Japan later this year. The F1 Grand Prix in China has also been cancelled with an alternative date yet to be announced.

The lighting industry's most important bi-annual fair, Light & Build in Frankfurt, was just cancelled and postponed till late September. As I write my column the new dates have just been announced to be 27th September to 2nd October, with everyone now left to re-book their flights, accommodation and other fair related activities (we had factory visits scheduled after the fair) around the new dates. While it should be no problem to rebook our flights, it will be a different thing for the accommodation as that was all prepaid with in principle no refund possible. The entry tickets issued to the fair will be revalidated for the new dates by Messe Frankfurt. Nobody wins at this point of time and the economy is poised to take a big hit likely pushing many

smaller companies to the brink of survival with a recession looming ahead. We already see some of our clients holding back on the projects and related payments...

One of the outcomes of the travel restrictions is a rethink of the actual need of travel and the impact on the way we conduct our business and live our daily lives in general. We now resort to conference calls and even local meetings in Singapore are reduced or conducted remotely! The reduced travelling is a great boost for sustainability. One of the great positives in China is the remarkable reduction in air pollution! Reports from the big cities where streets are nearly empty show an enormous improvement in air quality! Personal hygiene (washing hands) has also increased remarkably and likewise the frequency of environmental cleaning by authorities has also multiplied...the question is whether some of that will be maintained in the future or whether we will resort back to our old habits...

For now, let's hope the world economy and our lighting industry will be able to weather the headwinds and come out at the other end stronger, wiser and with renewed resilience!

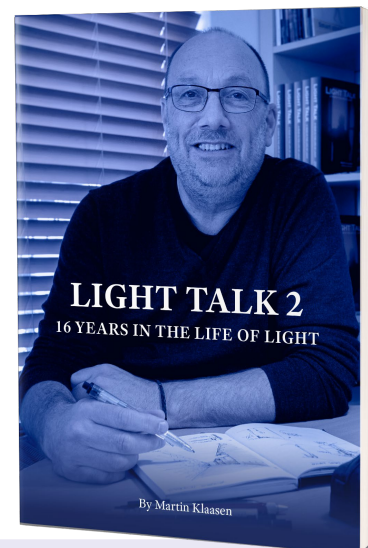
## Light Talk 2: 16 Years in the Life of Light is now available!

*Considered a prequel to Light Talk: A Year In The Life Of Light, this book is a compilation of Martin's more than 16 years of writing in Lighting Today Magazine, a magazine about world actualities in the lighting industry.*

*Light Talk 2: 16 Years In The Life Of Light, offers an incredible insight on how the industry has evolved right from the early days of LED technology making its way into our daily life up to the new smart world we live in today.*

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## TrACME Spots Winners at Bird's Nest Singing Spectacular



**S**ing! China is a Chinese TV singing competition broadcast by Zhejiang Television. The show is contested by aspiring singers drawn from public auditions. The latest season of the show recently came to its climax with a spectacular Finals production staged at the iconic Beijing National Stadium, known globally as the Bird's Nest. Watched by millions on the television, the show attracted a live audience of more than 60,000 in the stadium itself.

Its production values were of the highest order, with its designers sparing no creative efforts in presenting the artists in an incredibly dynamic and high quality presentation. On stage, a 360-degree rotating decoration with a four-sided screen was deployed to present every detail of the show and this year, the team fully upgraded its follow-spot technology to further enhance the audience experience.

In a large capacity stadium like the Bird's Nest, which covers 21 hectares, traditional follow spots can be difficult to use to maximum advantage. The design team at Sing! China elected to use the Spotrack TrACME dynamic tracking system supplied by ACME. Spotrack manufactures the world's leading remotely operated follow spot system, which is fast revolutionising the industry's approach to spotlight control. The system enables an operator to remotely control from any location, moving lights as follow spots.

Compatibility is key to the system - it works with any moving light and any lighting console, in any performance space and can be used in all entertainment sectors for live production from anywhere in the venue. Spotrack systems are now to be found in action all around the globe at similar high profile events, as more and more lighting designers and production managers acquaint themselves with the clear advantages the system delivers.

For the Sing! China Finals, which comprised a wide stage and numerous performers, the designers deployed eight TrACME systems, each of which is able to control up to four moving lights from any vendor in a single universe. With no need for sensors, belt-packs, or the setting up of transmitters or receivers, the systems were calibrated during rehearsals and then controlled from backstage by an operator via camera, monitor-screen and mouse. Performers were tracked precisely, with every movement perfectly presented for the enthusiastic audience in the stadium and at home on television.

"The Bird's Nest stadium in Beijing is a truly iconic venue and we are delighted to see TrACME in use in such a high profile setting for what was a superbly produced event. The pressure to deliver every aspect of a show with absolute precision is ramped up by it being broadcast to millions on television. The Sing! China team did a fantastic job and it was great to see TrACME deliver great results whilst making their job more efficient and less stressful," commented Liam Feeny, CEO of Spotrack.

ACME Lighting Technician and Spotrack operator for Sing! China 2019, Mr Wen said, "Having received numerous recommendations and then seeing the system in action at a trade show, we saw Spotrack as being very suitable for our needs. This was the second time we had used it on a large scale production, so we were confident it would work well for Sing! China 2019. It's simple to use with a mouse to track the performer and a keyboard to control the function of the lights. From a lighting designer's point of view, it's not ideal to set up a light tracking truss on the stage, in addition to which, traditional follow spot lighting can't be used for certain blind areas. Spotrack TrACME resolves these issues perfectly and offers easy and safe operation. The show was a great success and we were pleased by the performance of this new level of follow spot performance."

## Elation's new versatile house and area lighting solution, the Fuze Pendant™

**E**lation is now offering a pendant version in its Fuze series of high performance, high-value LED luminaires. The newly available colour-changing Fuze Pendant™ LED wash light is an energy-efficient intelligent downlighting fixture that provides powerful illumination for a variety of house and area lighting applications. With its flexible design, this pendant light is at home in permanent installs as well as any temporary applications like tradeshow, exhibitions and corporate events.

Housing a full spectrum 230W LED array, the Fuze Pendant produces vibrant colours while providing high CRI variable white tones to flood a space in hues of colour or functionally wash a house of worship or other venue in shades of white light. The RGBWL LED emits a wide palette of colours, and with colour temperature adjustment from 2,000 - 10,000K it also makes for an excellent colour-matching unit.

Crisp whites with a high CRI, plus subtle pastels and powerful pure colours with 16-bit dimming, allow for a wide range of smooth illumination and dynamic effects for any environment. At up to 11,000 lumens, the Fuze Pendant is ideal for large areas and high-ceiling applications yet is compact enough to be adaptable to smaller spaces. A variety of dimming curve modes, virtual colour wheels and strobe enhance its dynamic capabilities.

Featuring a compact and fanless design, the Fuze Pendant operates silently for use in noise-sensitive environments. When used in broadcast situations, the LED refresh rate frequency is remote adjustable to guarantee flicker-free operation.

Pendant (included) and optional yoke or recessed ceiling options provide flexibility when finding the ideal mounting position. The included 45-degree lens plus a variety of available lens options (25-, 35-, 60-degree) allows for precise light distribution. Optional half and full snoot kits are available to position the beam even more precisely.

Industry standard power and DMX connections, plus included terminal block connections for power, emergency battery input and 0-10V control, support multiple permanent or temporary install requirements with a single product design. The Fuze Pendant can also receive wireless DMX via the integrated Elation E-FLY™ transceiver for easier setup with less cable mess.

Weighing at just 7.2 kg and drawing only a maximum power of 230W, the Fuze Pendant makes a big impact with a small footprint and offers all the benefits of LED such as greater reliability, less maintenance and increased energy efficiency for a lower cost of ownership.

For more information, visit [www.elationlighting.com](http://www.elationlighting.com).



(L-R) Fuze Pendant, Fuze Pendant with a recessed ceiling kit, Fuze Pendant with a half snoot kit

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## Proteus Hybrid™ help transform Philadelphia Zoo into magical holiday light attraction



Photos by Christopher Ash

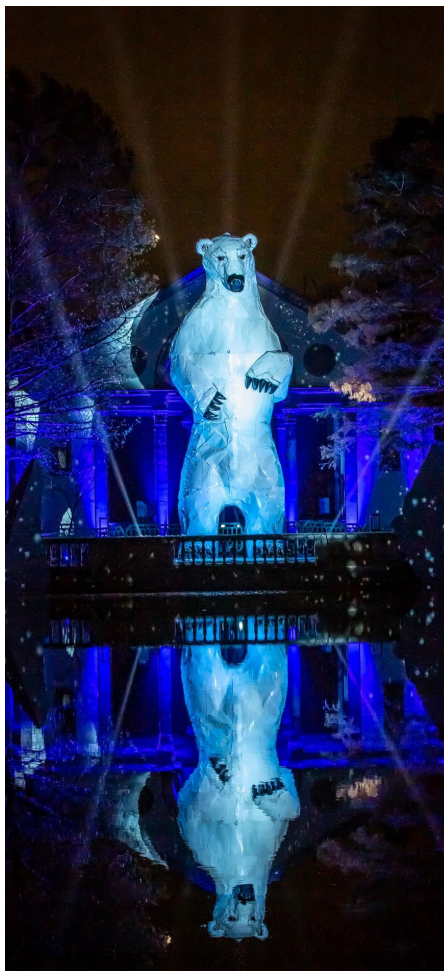
Philadelphia Zoo did their part to spread holiday cheer last season with LumiNature, a massive new experiential holiday sound and light attraction that transformed the nation's first zoo into a magical winter wonderland encompassing 12 captivating experience zones.

At the center of the event was a majestic multimedia spectacular called Northern Lights designed by award-winning lighting designer Ken Billington, using a 4Wall Entertainment-supplied lighting package that included Elation Professional's robust IP65-rated Proteus luminaires.

The show, produced and directed by Jason Kantrowitz of Luminous Ventures Ltd, played 11 times a night, and starred a 35-foot tall polar bear sculpture named Polaris, crafted from recycled car doors and hoods. Polaris, which also served as a giant projection surface for the eco-themed show, stood prominently overlooking a lake containing eight LED-illuminated icebergs made of recycled plastic and reclaimed wood.

Thirty-seven multi-functional Proteus Hybrid™ IP65-rated arc source moving heads were used for mid-air beam looks, as well as washes, with and without gobos, to light Polaris, the grove of trees surrounding the lake, floating icebergs and impressive air effects. "They were brilliantly bright, held up in snow and rain, and were perfectly flawless. Oh, how I wish I had had IP65 fixtures years ago," exclaimed lighting designer Billington, his first time using the Proteus series. "I was looking for an outdoor beam/wash/profile and the Proteus Hybrid seemed to be the perfect light. Lucky for me they were also in rental stock at 4Wall New York."

The goal was to use as much earth-friendly



LED lighting and recycled elements as possible, says show producer Kantrowitz, who conceived the show together with Billington and their creative team. "It was exciting for us to create a show that could touch the hearts of thousands of guests each night, inspiring them to make a change to help protect the diversity of life on Planet Earth."

### Northern Lights

Billington created the Northern Lights show with inspiration from the Aurora Borealis, a natural phenomenon that he has personally witnessed. "The Proteus Hybrid were a perfect fixture to bring the Aurora Borealis look to this show. Their bright columns of rich colour shot up from the lake through the clouds," he said, adding that he also accessed the fixture's gobos, animation wheel and prism in the 30 minutes of show programming, including preshow, 8-minute main show, and post-show cueing.

The Proteus's IP65 engineering made them a very reliable choice for the wintery outdoor environment, Billington said. He commented, "I have been using automated lighting outdoors since the original Fantasmic! at Disneyland. The problem has always been the weather; domes are great, but they are large, unsightly and costly. The IP65 rating made this the perfect mover for us." Also used to create the enchanting atmospheres were a plethora of LED Par lights along with large-scale projections and a rich immersive audio system.

LumiNature, with its delightful blend of colourful displays and environmental theme, proved a hit with both kids and adults. It debuted November 20 2019 and ran until January 5 2020.

For more information, visit [www.elationlighting.com](http://www.elationlighting.com).

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## Staatstheater Nürnberg relies on Robert Juliat's SpotMe for dancers to play with the light



Robert Juliat SpotMe takes control on the Staatstheater Nürnberg production of *Sacre*. Photos ©Staatstheater Nürnberg Theatre / Jesus Vallinas

The Staatstheater Nürnberg is one of the largest multi-discipline theatres in Germany. Under the auspices of General Music Director Jens-Daniel Herzog, 600 employees in the opera, drama, ballet and concert divisions currently facilitate more than 750 performances per season for almost 300,000 visitors. For the ballet, *Sacre*, directed by ballet director, Goyo Montero, the Staatstheater Nürnberg used Robert Juliat's SpotMe for the first time, in conjunction with a Robert Juliat Victor followspot and Robert Juliat Maestro server.

Robert Juliat SpotMe is a 3D tracking tool for followspots and the only tracking device for performers on the market that puts the followspot operator in control by enabling 'slave' lighting fixtures to follow the movements of a followspot. As movement is based on the position determined by the followspot, no cameras or sensors are necessary in the stage area, or on performers or objects.

Team Leader Lighting Opera, Karl Wiedemann said, "The requirement for this special production was to be able to control a ring of 40 moving lights hanging above the stage via a transmitter-receiver solution. We wanted to be able to track a dancer automatically with the moving lights, so that he could be seen to 'play' with the light. The truss ring containing the spotlights was suspended from eight point hoists and could therefore tilt in all axes.

"In order to use tracking at different positions of the traverse circle, we divided the 40 moving lights into four groups and assigned them several 3D positions," Wiedemann continued. "We were able to control these groups via Robert Juliat's SpotMe device. As an interface to our lighting

console, we used the Robert Juliat Maestro Server, which translates the PosiStageNet (PSN) signals".

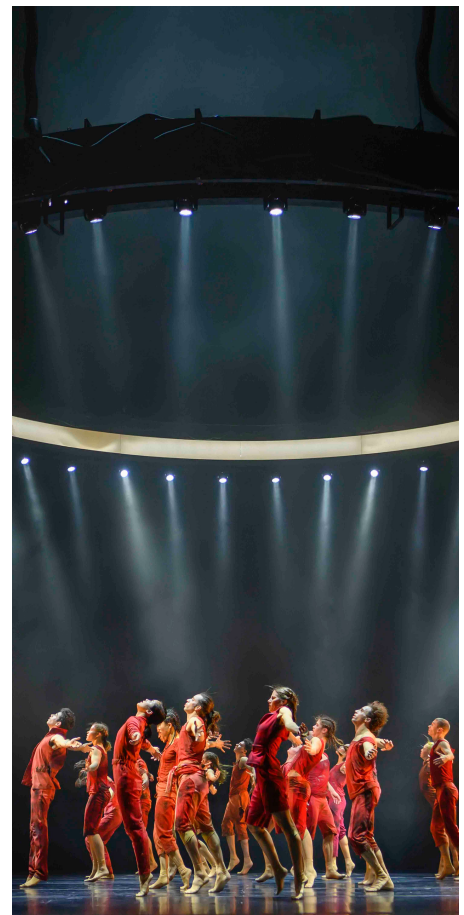
Robert Juliat SpotMe consists of a server and special sensors for turning and tilting movements, which are mounted on the followspot or on the tripod. Setting up SpotMe is quick and easy thanks to the sensors on the followspot and the server, which generates and transmits the high-quality position data via PosiStageNet (PSN) to suitable receivers. PSN is an open positioning data output format used for capturing, tracking and relaying position data of moving objects on stages. It was developed in cooperation between the companies VYV and MA Lighting, which means that grandMA2 consoles can also process this PSN data directly.

The Robert Juliat Maestro server played a key role at the Staatstheater Nürnberg, as the lighting console was not PSN compatible. Maestro extends the capabilities of SpotMe by enabling it to operate with any DMX lighting control console, so the complementary dedicated server allowed real-time calculation of the movements of all the moving heads which were tracking the movements of the followspot.

SpotMe is suitable for all Robert Juliat Compact, Grand and Touring ranges of followspots, and can be easily delivered and retrofitted to all existing followspots.

Robert Juliat SpotMe was supplied to the Staatstheater Nürnberg by Lightpower, Robert Juliat's exclusive distributor for Germany and Austria.

For more information, visit [www.robertjuliat.com](http://www.robertjuliat.com).

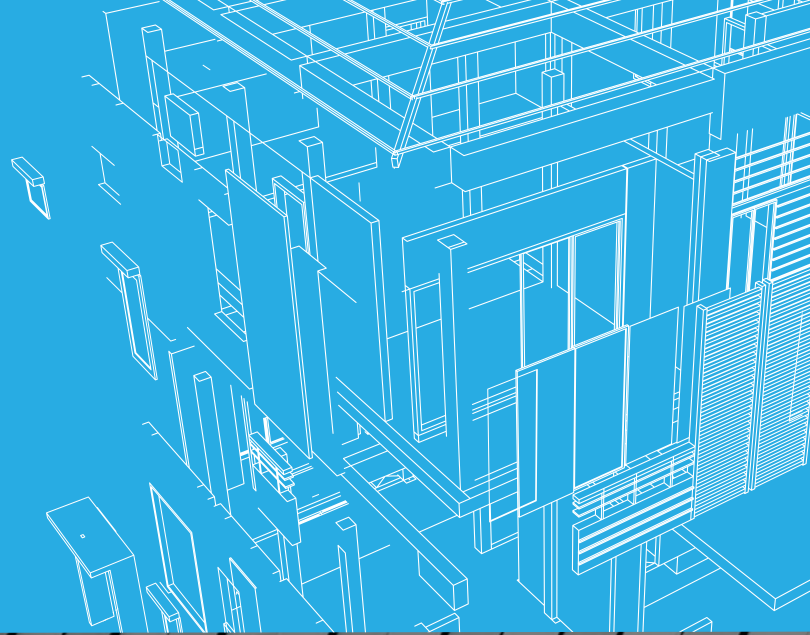


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## Proteus meets Hercules in New York's Central Park

At the end of its regular season of *Shakespeare in the Park*, New York's Public Theater stages an open-air production at Central Park's 1,800-seat open-air Delacorte Theater. This past season, the glorious story of Hercules was presented, a theatrical pageant brought to life by some 200 performers with an enchanting lighting design by Tony-award winning lighting designer Tyler Micoleau. The designer turned to Elation Professional's multi-use Proteus Hybrid™ luminaire to provide visual impact in the outdoor environment.

Micoleau had worked on two Shakespeare shows in Central Park earlier in the summer, but it was a very different plot he knew he needed for Hercules. "The musical Hercules, in a theater as large as the Delacorte Theater in Central Park, required (pun intended) very muscular lighting approaches," he commented. "The Elation Proteus Hybrid provided just that muscle. In 2-degree beam mode, the Proteus fixtures gave me the powerful concentrated beams I needed to create beam architecture above the stage and the five 28-foot Grecian columns of the set. We were bouncing light off of the clouds passing by; it was crazy. We joked that we needed to alert air-traffic control to warn passing helicopters and small planes."

Alex Brandt, lighting supervisor at The Public, worked with Micoleau on what gear to use on the production. He stated, "Because it's The Public Works show and it's such a short run, we don't have a huge budget to add in new fixtures. Set designer Dane Laffrey had produced renderings that included finger-like air effect elements from upstage that director Lear deBessonet liked the look of. We wanted to make that happen but none of the equipment we had in the Park could accomplish that as we didn't have weatherproof gear and really didn't want to put fixtures in bubbles, which is an eye sore. Tyler and I knew that we needed to find a bright instrument that was IP65 rated with enough of a zoom to really get those columns of light coming up from behind the stage."

Consequently, Micoleau and Brandt demoed the Proteus Hybrid one mid-summer night in Central Park after one of the Shakespeare productions. "I spoke with John Dunn [Elation National Sales Manager] about what we could try out to have more IP-rated fixtures for this coming summer, so it was a good opportunity to try the Proteus out," Brandt said. "We looked at it against a bunch of different units from various companies and liked what we saw."

Micoleau chose the Proteus and placed seven of the IP65 arc-source units atop a goalpost for light architecture above and behind the Delacorte stage. Used throughout the show, the multi-functional beam/spot/wash units with 23,000 lumens of power and zoomable in all modes fulfilled several roles – beam and air effects from upstage, character highlights (costume design by Andrea Hood), and backlight wash when actors entered the stage from upstage stairs. The Proteus fixtures were supplied through Christie Lites, who served as The Public's intelligent lighting vendor for the summer.

Conceived over 60 years ago as one of the nation's first nonprofit theaters, The Public show each summer at the Delacorte Theater includes a



Photos by Joan Marcus

handful of equity actors who perform alongside amateurs from different community groups, a deliberate blurring of the line between professional artists and community members. The enthusiastic, feel-good Hercules received rave reviews and the Delacorte Theater was packed during its August 31 to September 8 2019 run. Assistant lighting supervisor Michael Bateman served as production electrician on the show.

For more information, visit [www.elationlighting.com](http://www.elationlighting.com).

## Postponed: Light + Building to be held in September 2020

In view of the increasing spread of the coronavirus in Europe and after intensive consultations, Messe Frankfurt has decided to postpone Light + Building. The world's leading trade fair for lighting and building-services technology will now be held in Frankfurt am Main between the middle and end of September 2020. The cooperation partners of the international trade fair, ZVEI and ZVEH, support this decision.

The unexpected appearance of Covid-19 in Italy since last weekend demanded a new analysis of the situation in close cooperation with the public-health authorities of the City of Frankfurt. A multi-stage health check on guests from China has been called for, the implementation of which would be extremely challenging for Messe Frankfurt. Additionally, more and more travel restrictions are being put into place thus making it difficult for both visitors and exhibitors to attend the fair. Therefore, the organisers have decided to postpone Light + Building. This decision is supported by the cooperation partners of Light + Building, the Electrical Installation Systems and the Light Working Groups of the Central Association of the German Electrical and Electronic Engineering Industry (ZVEI) and the Central Association of German Electricians (ZVEH). The foremost Italian associations also back this decision. After Germany, the largest groups of exhibitors and visitors come from China and Italy.

### New dates: Light + Building in September 2020

Light + Building is the sector's most important meeting place for architects, the industry, the installation and retail / wholesale trades, and planners. As an innovation forum and interdisciplinary market place, it not only facilitates business and making contacts but also helps ensure a sustainable future. The industry has left no doubt that it absolutely needs this platform for doing business. Accordingly, Messe Frankfurt wants to ensure that the opportunities created by Light + Building remain available to all market participants in the current season. Therefore, Light + Building 2020 is being postponed and will be held in Frankfurt am Main between the middle and end of September 2020.



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# Lights of Christmas

| Sydney, Australia

**CONTENT AND PRODUCTION**  
AGB Events

**DIGITAL VIDEO PROJECTION**  
Technical Direction Company (TDC)

**PHOTOGRAPHY**  
© AGB Events

For many of those who observe Christmas, the ritual – doing the same thing every year – is an enormous part of the appeal. It's what we look forward to. Those celebrating Christmas in Sydney, Australia were delighted that, for the tenth year in a row, AGB Events had produced its Lights of Christmas spectacular. It has become a Sydney tradition, and a much-anticipated event for families throughout the city – and beyond. For many, the Christmas season does not start until Lights of Christmas are on.

The first Lights of Christmas was established by AGB Events in 2010 with the support of the NSW State Government. Throughout its existence, it has reflected the reality of an Australian Christmas - an imaginative representation of what Christmas means to Sydneysiders – so, none of the snow or reindeer that characterise the festival in the northern hemisphere. Instead, Lights of Christmas focuses on themes that are central to the celebration: love, sharing, hope, warmth, friendship, the importance of helping others – all illustrated with compelling kaleidoscopes of light and colour.

“We take great pride in creating meaningful and memorable public celebrations that draw communities together so successfully that they become an integral part of the cultural landscape,” said Anthony Bastic, CEO and Creative Director of AGB Events. “That’s what Lights of Christmas has become.”

“While it’s a unique event, Lights of Christmas is representative of the kind of events we’ve created for governments and city/state councils around the world – not just Australia, but the United States, Europe and Asia - on many occasions, and many of them have become annual fixtures,” continued Bastic. “What we do is to create public events that contribute to the cultural fabric of a city and that use light and sound, digital storytelling and cutting-edge

audiovisual equipment from leading suppliers to engage a diverse range of community groups.”

Lights of Christmas presented by Paynter Dixon and created and produced by AGB Events, returned to St Mary’s Cathedral from 5 December 2019 until Christmas night. It saw AGB Events once again using the iconic St. Mary’s Cathedral as its 75-metre high backdrop to deliver ‘Ascension’, drawing on the principles of religious architecture and depicting the Christmas story through a series of dioramas drawn from exquisite early Renaissance artworks. Giles Westley at AGB Events led the design team to create ‘Ascension’. The animated images featured 9 million pixels and 256,000 lumens of brightness on the cathedral’s sandstone façade with all high performance digital video projection technology and expertise provided by TDC – Technical Direction Company.

The visuals are accompanied for an hour each evening by a specially-commissioned soundtrack from the St. Mary’s Cathedral Choir.

Previous themes have included ‘Peace, Good Will and Wisdom’, ‘Unity’, ‘The Joy of Giving’ and, for the United Nations International Year of Light in 2015, ‘Light is Life’.

“All of our projects centre on brilliant illuminations, often using buildings, whole streets – or even, as we did for Halo at Townsville, a mountain range – as backdrops, and are made possible by the incredible creativity and imagination of our design team in combining art, architecture, geometry, design, photography, and digital animation to create compelling, memorable and culturally relevant experiences that make a difference to those who witness them,” concluded Bastic.

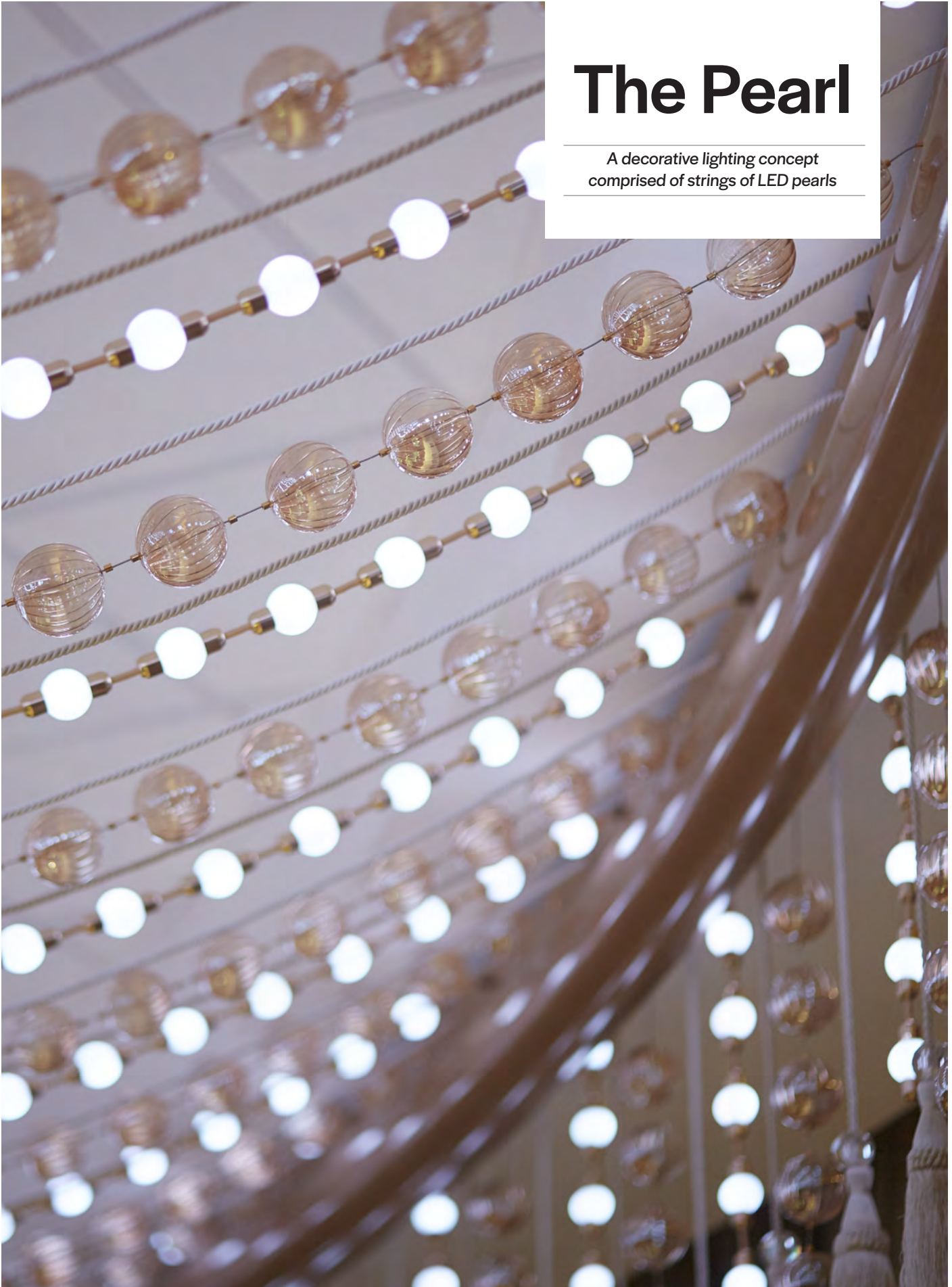
For more information, visit [www.agb.events](http://www.agb.events).

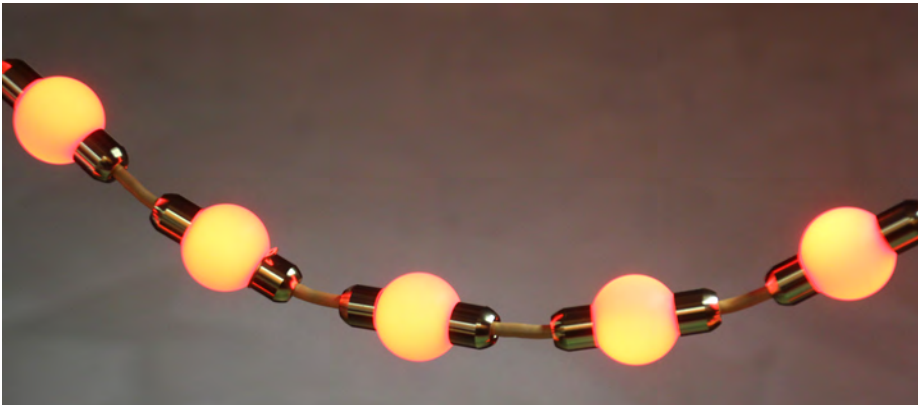
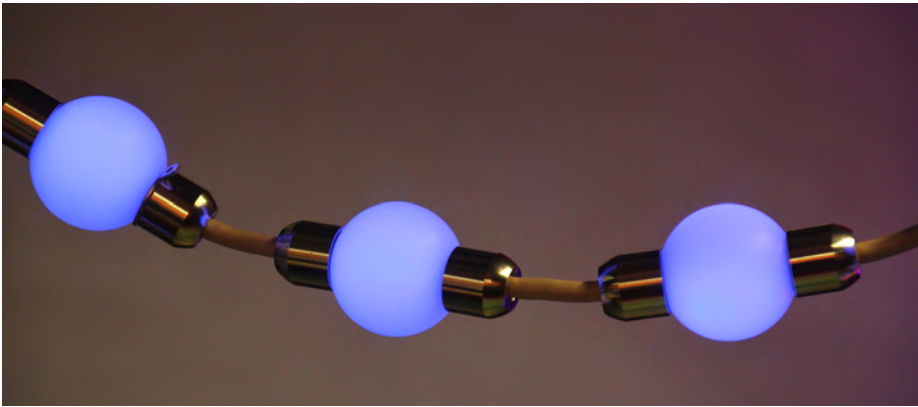




# The Pearl

A decorative lighting concept  
comprised of strings of LED pearls





### illumination Physics customised LED pearls for The Star Casino in Sydney

The 'Pearl' is a decorative lighting concept comprised of strings of LED pearls designed by Illumination Physics — individually programmable and capable of displaying 3D graphic content. Being a project-focused company, this product was initially developed for a project that turned out to be a false lead.

However, USA-based consultant 'Shop 12 Design' contacted the company enquiring about the product after viewing their electronic marketing publication. Working together, Illumination Physics and Shop 12 Design fully customised the product for the project at hand. Once it reached the 'B' prototype stage, the manufacturing plant was able to develop a cost model. This incorporated the specific enhancements that were required for the project. For example, the metal glands that secure the cables were slimmed to the minimum and were finished in gold rather than silver. The cables themselves were also manufactured in gold colour.

With only 30 days to meet the deadline, engineers rose to the challenge. They mapped out a procurement and manufacturing program that would allow only a few days for the final installation and testing. There was little room for any contingency plan or error but fortunately, The Star organisation proved to be decisive and committed to the project.

Pearls made its debut at The Star Casino in Sydney, Australia in December 2014. A vast chandelier structure containing 5,600 pearls had been constructed as the dominant feature in a dramatic upgrade of a VIP gaming suite.

The LED technology inside the pearls are unique and complex. A novel use of two developed RGB LEDs in each Pearl gave an even colour mix within a diffused sphere not much bigger than a golf ball. Strings of up to 10 meters can be supported from a new driver that was created: each of which can drive two strings of up to 50 pearls.

There are two minor limitations regarding the distance from one pearl to the next — there is a maximum distance of 350mm between each pearl and there was difficulty in assembling a string of pearls with less than 100mm between each sphere.

Not only were the 5600 Pearls manufactured in 30 days, but these products were also assembled into 130 strings of differing custom lengths. It was necessary to adjust both string lengths and individual pitch to navigate around columns and the various mounting methods. The end result is an LED chandelier that has been fully customised in every way — from the gold metal glands to the gold cables to the individual pitch.

Although The Star Casino used a variation of Pearl's white colour in its VIP gaming suite — due to the prohibition of using solid colours as they may affect the colour of the gaming chips — the Pearl is a full RGB product. Technically, it can produce up to 16 million colour variations if desired.

A project of this complexity required a powerful media server to control the content and ARKAOS was the logical choice: a capable system for the type and complexity of the content intended for The Star. For the user interface, a Pharos touch screen was utilised so that activating the various content types for selection was simple and intuitive. Eventually, a complete service was provided including the control system design, installation of the 'Pearl' strings in the chandelier as well as testing and commissioning.

The VIP gaming suite in The Star Casino is just another example of the unique custom solutions and specialised 'in-built' design that Illumination Physics offer to the architectural lighting market. IP Pearls are now a mature product ready to be exploited in grand foyers, porte-cocheres, casinos and other attractions.

#### About Illumination Physics

Illumination Physics provides custom designing of many other decorative lighting elements for a range of projects. Having envisioned a dense Pearl structure — which is significant in width, depth, and height — they are able to make use of multi-dimensional programming to create the illusion of 3D images within a matrix of IP Pearls.

For more information, visit [www.illuminationphysics.com](http://www.illuminationphysics.com).

# National Museum of Qatar

Doha, Qatar

Inspired by nature: Like fine sand dunes, the undulating timbered walls and ceilings meander through the rooms of the museum shop. When designing the rooms, the architects were inspired by the light cave of Dahl Al Misfir. Gimbal recessed spotlights create high brightness levels, the cardanic suspension allows them to be aligned in any direction.

**CLIENT** Qatar Museums

**ARCHITECTURE** Ateliers Jean Nouvel (*Paris, France*)

**INTERIOR & LIGHTING DESIGN** Koichi Takada Architects (*Sydney, Australia*)

**PRODUCTS** Gimbal, Parscan, Quintessence, Starpoint

**PHOTO CREDITS** © ERCO GmbH, Gavriil Papadiotis

The new National Museum of Qatar, designed by French architect and Pritzker Prize winner Jean Nouvel, brings the cultural heritage of the desert peninsula to life for the world. In Doha's new museum, which plays with form and scale in a highly special way, ERCO illuminates galleries for temporary exhibitions as well as museum outlets, restaurants and cafés.

The permanent galleries of the museum invite visitors to immerse themselves in the history and culture of Qatar, a country in which tradition is deeply rooted and progress is experienced in the appearance of the city. The symbiosis of old and new also reflects the character of the new museum, which pays homage to the past and celebrates the future. Jean Nouvel has created incomparable architecture over a construction period





In the hot desert climate, the projections form welcome shady areas for the museum's guests. The cavities between the discs act as a thermal buffer zone.

## Light is one of the essential design elements in the new National Museum

of several years: inspired by a desert rose, a natural phenomenon in which leaf-like crystal clusters form under dry, sandy conditions, the new museum complex consists of 76,000 interlocking fibre-reinforced concrete panels of different sizes. The new museum at the southern end of the Doha's corniche road displays the history of Qatar on an area of 1.5 million m<sup>2</sup> in three acts, a journey through time with museum visitors covering more than 2.7km.

### Art brings history to life

Eleven galleries relate the story of Qatar in chronological order. Beginning with galleries on the geological origin of the Arabian Gulf and traditional culture up to the founding of the state and the historically dramatic discovery of oil. Among the most impressive exhibits are a pearl carpet from Baronda embroidered with more than 1.5 million gold pearls, rubies and diamonds, and the Al Zubarah Quran, the oldest Quran to have been produced in Qatar. Also included in the museum are works by local and international artists interpreting the history of Qatar.

### From gallery to shop: perfect light for unusual rooms

Light is one of the essential design elements in the new National Museum – it emphasises materials, reinforces colours, reproduces forms and brings spaces to life. The exhibition organisers of the temporary galleries use ERCO Parscan luminaires for this purpose. With nine different light distributions and four sizes, the luminaire for track is the ideal tool for temporary exhibitions. It was not only the planners of the exhibition areas who pursued such high demands regarding lighting. It was also important to the architects and lighting designers at Koichi Takada Architects, responsible for the architecture of the



In the courtyard of the museum, raised by sculptural hands, Qatar's flag rises to the sky. Created by artist Ahmed Bahrani, illuminated at night by Tesis outdoor in-ground luminaires.

The light follows the contours of the ceiling and reinforces the dynamics of its flowing structure. ERCO Parscan and Gimbal luminaires are part of a play of light and shadow that gives the visitor the feeling of walking in an angled cave.





Parscan spotlights with 6° narrow spot light distribution set precise accents in the museum shop



museum gift shop and children's gift shop, cafés and restaurants, to design rooms with light that satisfy their own exacting requirements for visual comfort. The complexity of the architecture presented them with several challenges during the planning phases. "The rooms are angled, the walls curve and the ceilings bend and flow. As a result, it certainly wasn't simple to capture the architecture in two dimensions based on the drawings. We could hardly rely on traditional lighting design methods. We therefore oriented the light to the interior and worked with a lot of spot light," attested Principal Koichi Takada.

The museum gift shops impress with undulating timbered walls and ceilings that meander through the rooms like fine sand dunes. Forms from nature were transferred to the architecture and light from ERCO reinforces the dynamics of the flowing structure. The designers were inspired by the light cave of Dahl Al Misfir. The 40-metre deep cave is a sanctuary in the heart of Doha and consists of fibrous gypsum crystals that glow with slight phosphorescence. To transfer this sense of magic and its dynamic lighting effect to the spaces, Koichi Takada Architects installed Gimbal recessed spotlights with wide flood (49°) and flood (29°) light distributions as well as Parscan spotlights with narrow spot distribution. The cardanic suspension of the Gimbal recessed ceiling luminaires allows them to be aligned in any direction. In combination with the 6° narrow spot light distribution of the Parscan spotlights, the shop lighting creates a fascinating interplay of flexibility and high brightness levels.



The cafés and restaurants each have a design theme of their own. In Café 875, the light beige walls and design elements, bathed in warm white light by Quintessence recessed spotlights, are reminiscent of the extremely rare 875 gold used in traditional jewellery in Qatar. The Juman Restaurant on the 4th floor references typical local themes such as pearl diving. Over four million pearls hang from the ceiling as if caught in fishing nets, and they start to dance with every breeze. A magical, fascinatingly dynamic spectacle is created, reminiscent of an underwater world, in the light of Quintessence recessed spotlights and small Starpoint downlights. "We aim to reflect Qatar's identity down to the very last detail. To achieve this we

talked to Qatari citizens about their life in the emirate during the 8-year realisation phase. It was these personal insights that formed the basis for our designs," said Takada.

#### Energy efficiency – from the luminaire to the building architecture

Nouvel's desert rose is designed to reduce cooling complexity in the building. The cavity spaces between the panes act as thermal buffer zones and the numerous projections form shady areas on the facade. ERCO LED lighting tools were also used to create extremely resource-saving lighting solutions with low heat generation. Before beginning work with ERCO, it was important for the lighting designers to get to know the luminaire manufacturer. "We had joint

workshops where we were familiarised with the products, and we could share experiences from similar projects. ERCO gave us the freedom to think out of the box during the planning phase. The right product solution was quickly found for each new approach. The dedication to good design and high quality standards is what brings us together," summarised Koichi Takada.

Nouvel expresses Qatar's deep-rooted connection to nature, the desert and the sea in a unique way. Unique in the truest sense of the word. The leaves of a desert rose are like fingerprints, with none resembling another. Each rose is a unique specimen. As with this museum.

For more information, visit [www.erco.com](http://www.erco.com).



The corrugated wooden walls in the Children's Gift Shop create magic and dynamism. Gimbal recessed spotlights underline the flowing shapes and create bright general lighting with high visual comfort.





# cube berlin

Berlin, Germany

## CLIENT

CA Immo Deutschland GmbH

## ARCHITECTS

3XN Kopenhagen

## PROJECT MANAGEMENT

omniCon Construction Management

## LIGHT INSTALLATION

SOLO Lighting

## LIGHT CONTROL SYSTEM

Vossloh-Schwabe Deutschland GmbH

## PROJECT COMPLETION

Early 2020

## PHOTOGRAPHY

© CA Immo



### *The cube berlin provides a glimpse of the future*

At present, the international real estate company, CA Immo, in Germany's capital city is working to construct an office building, right in front of Berlin's main station, that is innovative in every way: the cube berlin. Resembling a gigantic sculpture from the outside, the building provides free space for inspiration on the inside.

In this smart building of the future, intelligent technology will be capable of learning from its users and will adapt to suit their individual requirements. The cube berlin is thus not only set to support new concepts in office work, but will also enable optimised and resource-saving facility management.

What's 'smart' about the cube berlin?

Smart describes both the cube berlin's flexible space concept – 10 storeys with lettable space of 300 m<sup>2</sup> to 1,400 m<sup>2</sup>, an inviting foyer area and a stunning roof terrace – and everything that happens behind the scenes. An app specifically developed for the cube berlin

lets tenants book work-spaces and meeting rooms, individually adjust light levels and room temperature as well as unlock access points and doors, among others. These sensors and digital components are all controlled by a central 'brain' – an artificial intelligence that evaluates vast volumes of building-related data in real time to derive suggestions for optimisation.

Light accompanies us all day

Light plays an equally crucial role in this. Life is unthinkable without light, a fact that also applies to the cube berlin. Dynamic openings in the double facade on every floor provide access to a terrace that runs the breadth of the entire building on each storey. Another real highlight of the building is the roof terrace, which affords a one-of-a-kind view over the whole of Berlin. For the interior space, a decision was made in favour of a smart lighting solution made by the company SOLO Lighting GmbH. The German luminaire manufacturer is specialised in energy-efficient and intelligent lighting systems and completes projects all over the world from consulting, planning and manufacturing right up to installation and commissioning. SOLO Lighting is therefore fitting the cube berlin with





Blu2Light-System © Vossloh-Schwabe

no less than 7,000 luminaires that feature a very special and innovative light control system: Blu2Light made by Vossloh-Schwabe. **Blu2Light uses light to communicate**

The wireless light control system is based on Bluetooth® and facilitates convenient and simple communication via apps on mobile devices such as a smartphone. Components are interconnected via a mesh network in which the individual sensors serve as both transmitters and receivers. Every luminaire with a Blu2Light component also comes with an integrated beacon function that makes it possible to send and receive messages, as a result of which a tracking function can also be provided.

Thanks to the open communication protocol of Blu2Light, this beacon data is also available for other IoT applications. As a result, it is possible to make a highly precise tracking function available. The lifts are also networked, including a corresponding light control function for the individual stores.

Matthias Schmidt, Development Manager of CA Immo Deutschland GmbH, said, “A crucial criterion for deciding in favour of Blu2Light was the solution’s high degree of flexibility. As a result, we can operate the wireless light control system using a classic switch or via an app, we can use it with or without sensors and/or beacon function and we can integrate it into the cube

berlin’s digital concept. Especially with regard to the diverse requirements of tenants, this flexibility is of immense importance.”

VS MultiSensors that also include light control components therefore form the heart of the system, with around 4,000 VS MultiSensors XS being installed in the cube berlin. In addition to that, further Vossloh-Schwabe components – from DALI LED drivers and compact COB modules to line-ar LED modules and diverse optics – are being integrated into the project. **Intuitive app increases flexibility**

Blu2Light components are integrated into the main building control system (the cube ‘brain’) via gateways. The cube ‘brain’ then controls all functions within the building and users can adjust functions assigned to them using the cube berlin’s smartphone app.

The smartphone and app additionally enable access control and determine on which floor a user can exit the lift. The app opens doors to rented spaces as well as controlling lighting, temperature and blinds. Additionally, users can also book workspaces and meeting rooms using the app. Colleagues can even locate one another within the building, provided they have enabled the tracking function.

The Management Cockpit, by contrast, monitors and optimises building technology and makes preventive maintenance possible.

For more information, visit [www.vossloh-schwabe.com](http://www.vossloh-schwabe.com). ◇





# TriHealth

Cincinnati, Ohio, USA

## CLIENT

TriHealth Corporate Administration Offices

## DESIGNER/SPECIFIER

GBBN

## EUREKA AGENT

King Lighting

## PROJECT COMPLETION

June 2018

## PHOTOGRAPHY

Ryan Kurtz

### *Lighting defines community spaces at health care administrative offices*

Moving to a modern office space with floor to ceiling glass on all exterior walls was the perfect prescription for Cincinnati's TriHealth. The health care organization sought to cultivate an environment of community, collaboration, and well-being for its administrative team, and this bright, airy space, where everyone would have access to natural light, was the ideal setting.

GBBN was contracted to design the fitout as TriHealth took over the top seven floors of the office building. An open staircase serves as the focal point and connection between teams and floors, while also promoting a healthy alternative to taking the elevator.

Transparency, both figuratively and literally, is the watchword. Conference rooms and collaborative spaces are divided with glass walls to keep the areas bright. And low-profile desks throughout the office floors ensure all team members have access to the exterior windows' natural light - and each other.

"Interior lighting choices had to be complementary to all that natural light," said Megan Mershman, interior designer at GBBN.

Mershman and project architect Scott Vidourek selected Eureka Lighting's Aperture luminaires for community zones throughout the seven floors. They worked with over 70 Aperture fixtures in a variety of diameters (12-, 24- and 36-inch) as well as colors (white and anthracite).

"Having access to different scales and colors of Aperture enabled us to define the community spaces while maintaining a common lighting

design aesthetic," said Mershman. "It also gave us the flexibility to work with them in different settings, such as kitchenettes, lounges, and seating spaces under the stairs."

The overall design intent for the office was clean, crisp, and uncluttered. The simple, contemporary Aperture fixture complements each space without overwhelming it.

"Aperture's drum is very nice looking, even unlit. It holds its own in the space, day or night," said Vidourek.

Hidden inside Aperture's elegant form is a strip of LED illumination that encircles a surprisingly hollow core. With no direct line of sight to the light source, it creates a glare-free experience.

"We used Aperture luminaires in the café, where ceilings are slightly higher than other spaces. You can see the underside of the luminaire, but you don't get a hot spot. And it has a really nice glow and warmth to it," Vidourek said.

GBBN's design team is delighted with the final result. Creating, and effectively lighting, the community spaces have changed the way this group of people work and contribute to their organization.

"The transformation of our leadership and administrative offices has been remarkable," said Steve Mombach, senior vice president, Ambulatory Services & Network Development of TriHealth Cincinnati. "Beyond the physical improvement of these workplaces, the positive change in our employees' productivity, collaboration and morale has been incredible."

For more information, visit [www.eurekalighting.com](http://www.eurekalighting.com).



# The Twist

Oslo, Norway

## CLIENT

Kistefos Museum

## ARCHITECTURE

BIG Bjarke Ingels Group (Copenhagen, Denmark)

## LIGHTING DESIGN

Light Bureau, part of AFRY (former ÅF Lighting)

## ELECTRICAL PLANNING

Rambøll, Strøm-Hansen

## INTERIOR / EXHIBITION DESIGN

Guy Robertsen

## PRODUCTS

ERCO Parscan

## PHOTOGRAPHY

© ERCO GmbH, Tomasz Majewski



*A sculpture, bridge and exhibition space: ERCO LED lighting tools in Bjarke Ingel's spectacular new museum building "The Twist"*

The architects from BIG have constructed a connection spanning the Randselva river in the Norwegian sculpture park Kistefos in the form of an artistically twisted gallery building. The construction itself, clad in anodised aluminium sheet, adopts the mode of a sculpture. The interior of the "The Twist" consists of exhibition areas for alternating works of art, flexibly illuminated in a contemporary way with Parscan spotlights and lens wallwashers from ERCO.

Around one hour's drive from Oslo, on an idyllic location with wooded hills and a historic pulp mill on the River Randselva, the businessman and art collector Christen Sveaas opened the Kistefos sculpture park in 1999. The site is now considered to be the most important sculpture park in Scandinavia and comprises 46 works by Norwegian and international artists, including Tony Cragg, Olafur Eliasson and Anish Kapoor.

The new building "The Twist", inaugurated in September 2019 and designed by BIG Bjarke Ingels Group architects, supplements the location with an architecturally unusual exhibition space.

The 60-metre wide constructive bar that rotates through its central axis by 90 degrees bridges the gap between the lower south bank and the higher north bank of the river.

It also serves as a gallery building with three exhibition areas on around 1,000 square metres: a room completely glazed on one side with a panoramic view into the landscape, a narrow, nine metre high room completely devoid of daylight, and the actual "Twist" that connects the two areas. In this twisted central section, wall is transformed into floor or ceiling plane and vice versa, and the wide fenestrated strip from the North Gallery is continued here as a narrowly tapering skylight.

Parscan spotlights and lens wallwashers from ERCO: Ideal lighting tools for architecture and art

Within the complex construction the architects intended to create an impression of space that was as homogeneous as possible, allowing no superfluous detail to distract from the concentration on art. Walls, ceilings and floors are thus coated in a uniform white. All technology is concealed for visitors behind a wall and ceiling cladding of white wooden slats, which is also a reference to typical Norwegian construction methods.

A lighting installation consisting of white Parscan lens wallwashers and spotlights was installed on white track in precisely milled



sections within this cladding, appearing as an integral component of the interior. The Parscan spotlights can be equipped with different optics and can thus be flexibly adapted to the specific artworks of the temporary exhibitions.

The Parscan lens wallwashers on the other hand were mounted to extra-short sections of track – “It’s how we make sure they’re never moved into the wrong position,” explained lighting designer Thea Collett from Light Bureau Norway.

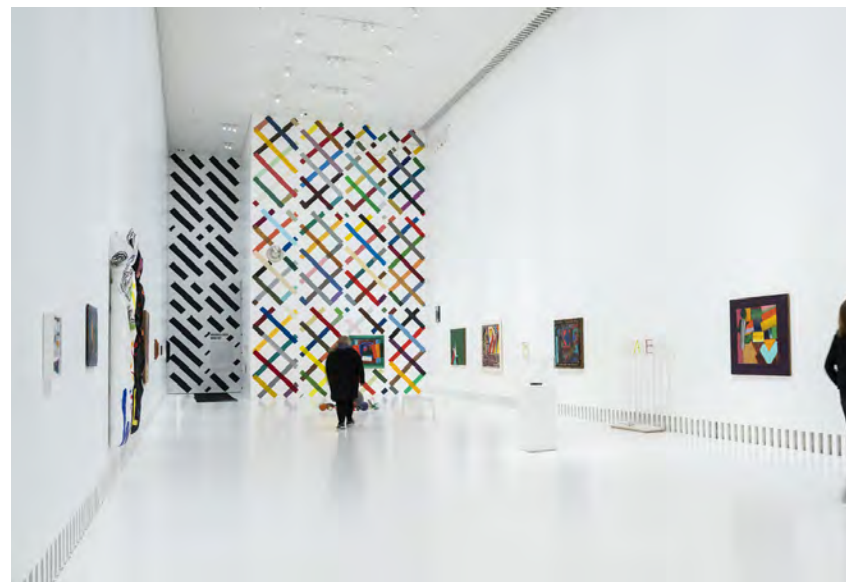
In combination with the ceiling-integrated, functional general lighting of the museum, the ERCO LED lighting tools illuminate the spaces and the objects and paintings they accommodate harmoniously and almost completely evenly – with only little directional light targeted onto the exhibits themselves.

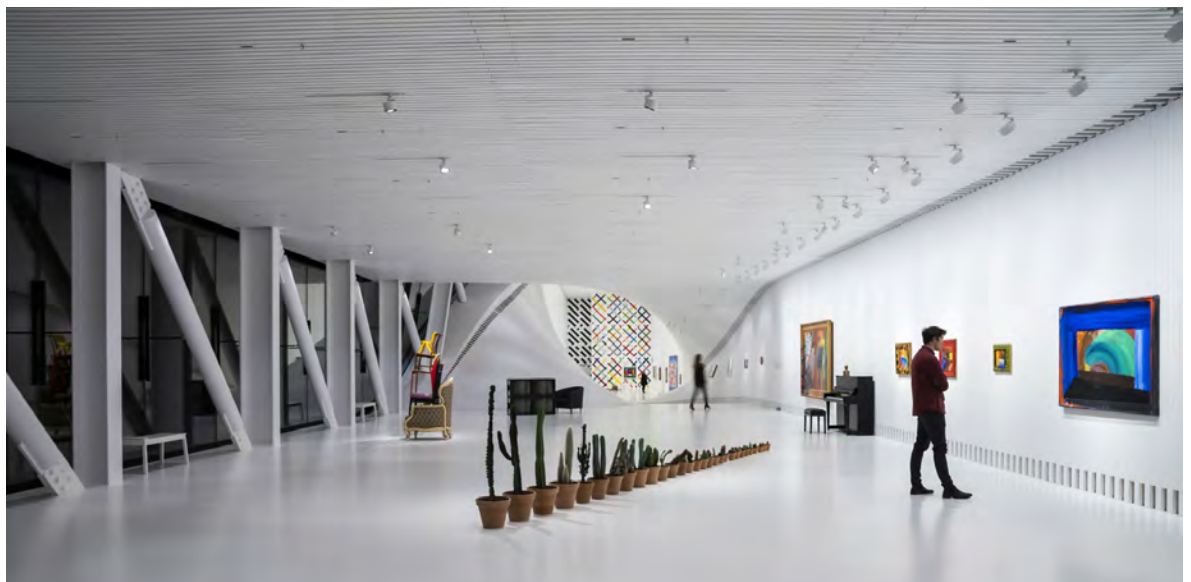
“Our holistic approach to the lighting concept accounts for the spectacular architecture, the art it displays and the people involved to an equal extent”, explained Morten Jensen, Country Manager at Light Bureau Norway. “We create very well-lit exhibition spaces by selecting a 4000K neutral white light colour. By placing the focus on wallwashing we achieve a lighting effect that is as uniform as possible and that optimally emphasises the architecture. Carefully supplemented and aligned spotlights bring the very best out of the textures, shapes and colours of the exhibits.”

The decision to install Parscan spotlights and lens wallwashers for the new museum was taken not only because of their precise and flexible lighting technology which places architecture and art at the centre of attention – their very good glare control also ensures a high level of visual comfort for visitors. In addition, several sizes are available, also with high lumen packages of 2779lm, as needed for example for vertically illuminating the nine metre-high southern gallery.

The ERCO products also managed to win over the lighting designers and architects of The Twist from an aesthetic point of view: the minimalist design with its simple cylindrical form means that the different types of luminaires within the Parscan range adopt a highly uniform, discreet appearance in the spectacular exhibition spaces.

For more information, visit [www.erco.com](http://www.erco.com). ◇







The Eclipse system is highly modular. The interchangeable lens units not only provide an unmistakable appearance, but also make Eclipse an extremely flexible tool for lighting design, including special features such as contour spotlights and RGBW spotlights.

# Eclipse Spotlight

by ERCO  
www.ercos.com

For some lighting projects, only the best technology is good enough: prestigious museums, art galleries and exclusive retail projects for example. Clients expect individual lighting solutions that simultaneously offer perfect quality in terms of design and lighting technology. A requirement that ERCO meets 28,000 times with the Eclipse range – the new spotlights, floodlights and wallwashers not only impress with innovative technical details but also with unprecedented system scope. Never before has ERCO had a range of spotlights with so many sizes, optics, light colours and connectivity options – as well as such a wide range of accessories that further increases possibilities.

But what must a lighting system look like that emphasises precious objects in display cases as brilliantly as it uniformly floods the walls of art galleries or highlights large sculptures in atria? Definitely unlike anything else before, thought the ERCO developers and designers. The original appearance of Eclipse is characterised by its new type of optics. A bayonet connects these interchangeable lens units with the slender, cylindrical luminaire bodies made of cast aluminium. Apart from a few interesting exceptions to be discussed below, the optics create their specific light distribution by means of special Darklight lenses from only one light point. Due to the clear, highly non-reflective lenses, the beam path is virtually invisible and the light emission is free of spill light – for a magical appearance and superior visual comfort.

**Consistent and scalable**

The dimensions of the Eclipse system score points even without the element of magic: five sizes from XS to XL provide an enormous range of lumen packages for applications of any scale. The most compact Eclipse spotlights



Five sizes from XS to XL provide an enormous range of lumen packages for applications of any scale. The most compact Eclipse spotlights with a diameter of only 32mm fully exploit the miniaturisation potential of modern LED technology.

with a diameter of only 32mm fully exploit the miniaturisation potential of modern LED technology. They enable highly nuanced lighting concepts even under tight space conditions, especially with the variant for Minirail 48V track. In any size, the interchangeable lens units ensure that the light distribution is precisely and flexibly matched to the lighting task at hand.

## The complete toolbox

The complete gamut of characteristics from the ERCO luminaire system are available to lighting designers. High-precision Darklight lenses define the rotationally symmetric light distributions ranging from narrow spot (5°) to extra wide flood (80°). There is also a range of ERCO speciality features: two axially symmetric light distributions consisting of oval flood (18° x 65°) and oval wide flood (55° x 85°), the wallwash asymmetric light distribution for uniform vertical illumination, the contour spotlight for crisp-edged projections onto surfaces and the two compact zoom optics of zoom spot (17° - 67°)

and zoom oval (25° x 65° to 62° x 68°). In short, an entire toolbox with which all conceivable situations can be mastered, for example, in museum lighting – with accessories such as sculpture lenses and soft focus lenses enabling further fine-tuning.

## Perfectly matched LED spectra

The same principle – a modular design with accessories – also makes the system extremely versatile and flexible in terms of light colours. Eclipse comes with LEDs in six light spectra with colour temperatures from 2700K to 4000K and colour rendering indices from Ra 82 to Ra 97. Four conversion filters as accessories create 24 additional spectra for colour fine-tuning. Alternatively, tunable white and RGBW are also available, especially for dynamic scenes. In the case of Eclipse, ERCO offers various conventional and wireless connectivity solutions to control such functions and for infinitely variable dimming down to 0.1% – in an even larger selection than usual.

Photos © ERCO GmbH



The art of illuminating: the new Eclipse spotlight range offers unprecedented system scope, 28,000 variants individually solve demanding lighting tasks at the highest quality levels.

**Connectivity – from Bluetooth to Zigbee**

Most options are available for the Eclipse InTrack luminaire model with its ultra-slim, flush-rail adapters for the ERCO track. The options for wireless control via Casambi Bluetooth or Zigbee 3.0 are especially noteworthy here – but also the new Multi Dim control gear which is extremely flexible with DALI, Push Dim or phase dimming. Eclipse (sizes XS to M) is also available with the proven ERCO transadapter specifically as an upgrade for existing track installations. Eclipse 48V for Minirail can be controlled wirelessly via Casambi Bluetooth, Zigbee 3.0 and DALI via Casambi Gateway. The options "switchable" and "on-board Dim" with rotary control on the luminaire are available in all versions.

**A future-oriented high end system**

The technical details outlined above make it clear: with its Eclipse range, ERCO breaks new ground in many areas and thus reinforces its claim to leadership in the lighting industry for museums, exclusive shops and comparable applications that demand high-end lighting tools. To solve demanding lighting tasks, Eclipse is set to become the premier choice for all lighting designers and users in the future.

The compact Eclipse 48V for Minirail 48V track are predestined for illuminating museum dioramas and display cases. They enable lighting solutions at the highest level, even in confined spaces. With optional control via Casambi Bluetooth, the spotlights offer the comfort and convenience of wireless connectivity.  
*Visualisation by Electric Gobo*





## Fil de Fer (Outdoor)

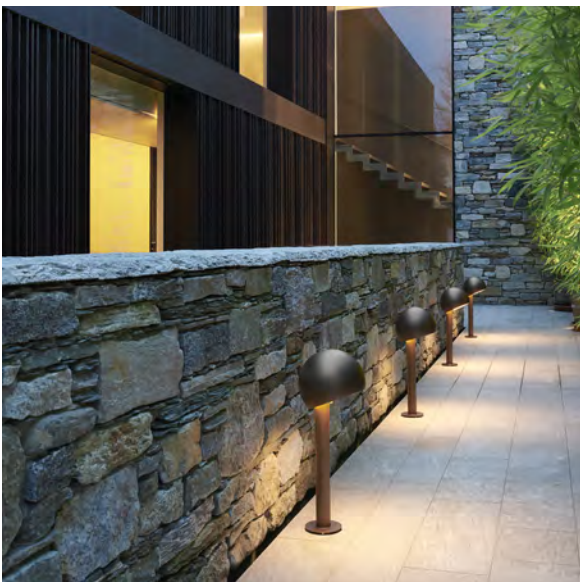
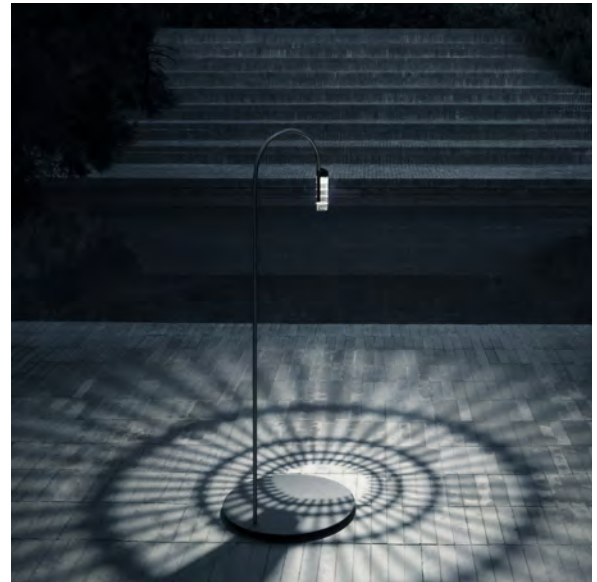
by Catellani & Smith  
[www.catellanismith.com](http://www.catellanismith.com)

Fil de Fer is a lighting fixture made of shaped, woven aluminium wire, which is lit on the inside by tiny bulbs. Designed and made by Enzo Catellani, it is the creation closest to his heart. Developed almost twenty years ago for a special commission, it was never used for that particular project and was hung up in his workshop. Each time it was switched on, it enchanted everyone with its special, magical atmosphere. Enzo Catellani decided then to continue working on it. The lamp was later placed on the market and quickly became the most iconic lighting fixture in the Catellani & Smith range.

## Caule

by Flos  
[www.flos.com](http://www.flos.com)

Caule is an outdoor collection with simple understated lines yet strong style identity. Designed by Patricia Urquiola, copying the botanical structure of a flower, the collection features a real flexible slender stem, almost a natural element, a subtle addition to any outdoor setting. An ideal luminaire for outdoor landscapes, Caule is available in different models, both in the floor and bollard version, and various heights. The collection finds its natural place in any outdoor context, thanks to its delicate and fine design, creating an unusual play of lights and shadows. Caule comes in different finishes, easily facilitating the lighting design of any exterior setting. Each model guarantees enhanced visual comfort thanks to the recessed position of the light source and the use of specific lenses, avoiding direct glare.



## Otto

by Oluce  
[www.oluce.com](http://www.oluce.com)

Otto by Federica Farina, is a pathlight with a soft, beguiling shape. The slim disc of the base supports a cylindrical stem on which an adjustable semi-sphere housing the LED light rests. The head, thanks to a mechanism allowing it to incline, can direct the strip of light in varying sizes, allowing for a variety of uses.

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## Arc Cordless Lamp

by Alexander Joseph  
[www.alexanderjoseph.co.uk](http://www.alexanderjoseph.co.uk)

A classic desk lamp magnificently proportioned to bring grandeur to an office or study. This traditional 100-year-old shape is brought up to date with a contemporary oversized body. Arc's sweeping oval lines give way to an angled summit. All lamps are supplied with a dedicated charger, rated especially for use with purchase. Within the charging port there are red and green lights to let you know when you lamp is charged, charging, running low and fully depleted. Lamps will provide at least 52 hours of continuous use.

## Hector 30

by Original BTC  
[www.originalbtc.com](http://www.originalbtc.com)

Original BTC celebrates its 30th anniversary in 2020 with the launch of the limited edition Hector 30. The first light ever produced in bone china, the now-iconic Hector has been updated with a satin brass stem and black cotton braided cable, replacing the original satin chrome and sand and taupe. Using techniques unchanged for 30 years, Hector 30 shades and bases are slip-cast moulded by hand, then smoothed with sponges before firing, with each component passing through the hands of ten craftspeople, over a period of six days. British, timeless, classic – the Hector is quite literally what Original BTC stands for.



## Coltrane Floor Lamp

by DelightFULL  
[www.delightfull.eu](http://www.delightfull.eu)

Merely mention the name Coltrane and you will feel the deep connection with innovation and the expressive music in jazz. Taking these powerful connections created by John Coltrane, our designers have created a monumental design that will outstand time. It offers the possibility of inclining the angle of the piece by adjusting the height of the magnet cable at any time. Each set is composed with 1 tube and the respective canopy. Custom made canopies can be made upon request.



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June 9 – 12

China Import and Export Fair Complex  
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Website: [www.light.messefrankfurt.com.cn](http://www.light.messefrankfurt.com.cn)

### Megabuild Indonesia 2020 9

June 11 – 14

Jakarta Convention Centre  
Jakarta, Indonesia

Email: [hendra.nolana@reedpanorama.com](mailto:hendra.nolana@reedpanorama.com)

Website: [www.megabuild.co.id](http://www.megabuild.co.id)

### ASEAN Light 2020 OBC

June 23 – 25

Malaysia International Trade & Exhibition Centre (MITEC)  
Kuala Lumpur, Malaysia

Email: [kelly.fong@ubm.com](mailto:kelly.fong@ubm.com)

Website: [www.super8asean.com](http://www.super8asean.com)

## July 2020

### Archidex 2020 1

July 1 – 4

Kuala Lumpur Convention Centre  
Kuala Lumpur, Malaysia

Email: [info@archidex.com.my](mailto:info@archidex.com.my)

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### Architect'20 Expo IBC

July 7 – 12

IMPACT Exhibition Center  
Bangkok, Thailand

Email: [asa.ratirat@gmail.com](mailto:asa.ratirat@gmail.com)

Website: [www.asa.or.th/architectexpo](http://www.asa.or.th/architectexpo)

## October 2020

### Reka Interiors Exhibition 2020 3

October 29 – 31

Kuala Lumpur Convention Centre  
Kuala Lumpur, Malaysia

Email: [info@rixmalaysia.com](mailto:info@rixmalaysia.com)

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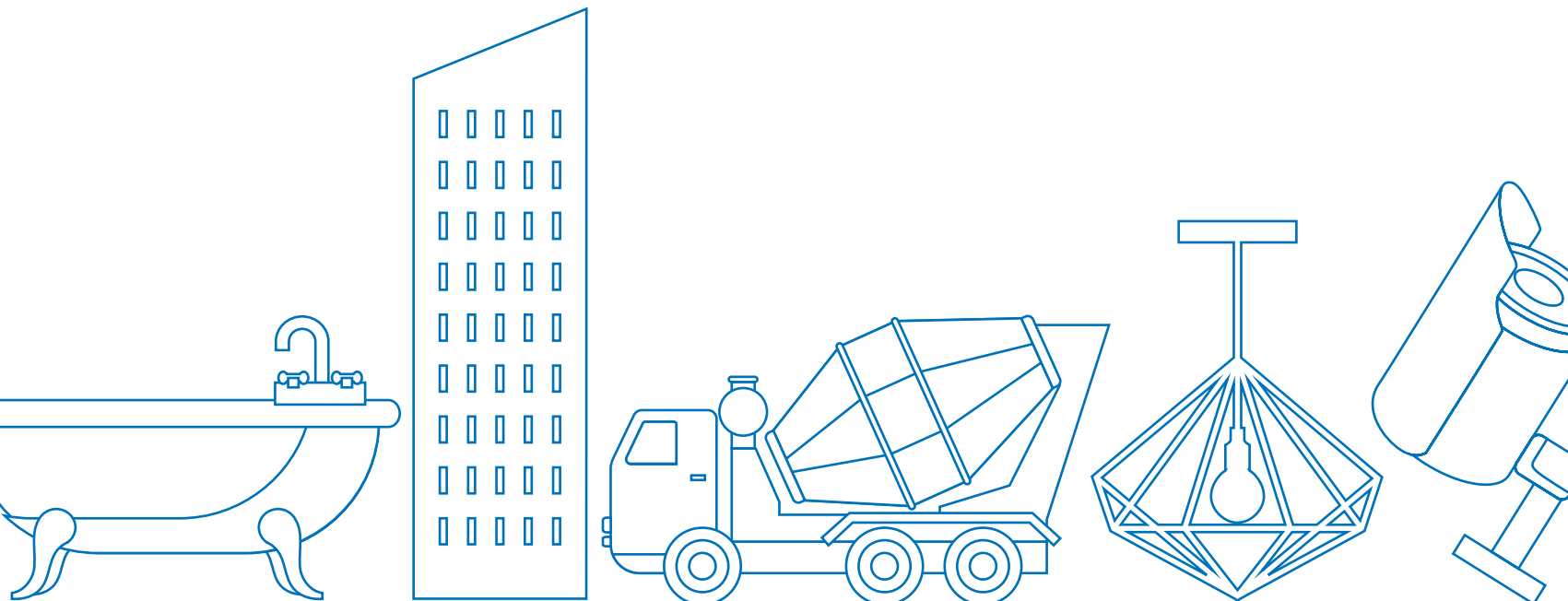
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March 10 – 12

Marina Bay Sands Expo & Convention Centre  
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