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Application Portfolio

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Flinders Street Railway Station | Sydney, New South Wales, AUS

As part of the Victorian government's refurbishment plan, Flinders Street Railway Station underwent both exterior and interior works including the upgrade of facade lighting.

The original Flinders Street Station was completed in 1910, designed by James Fawcett and H.P. Ashworth from the Railways Department. Today it is the busiest railway station in Australia. More than 90,000 passengers pass through the entrance each day. Flinders Street's facade depicts Edwardian architecture and is one of the most well-known icons in Melbourne.

In 2018, a state-of-the-art LED lighting system was unveiled, with over 90,000 LEDs and an advanced control network. The nighttime transformation of the building's classical architecture is breathtaking.

From the beautiful classic colors of red, blue and green, to high-impact dynamic lighting effects, the lighting system on Flinders Street Station knows no bounds. The facade lighting can respond to many social and cultural events held in the city such as Australia Day, St. Patrick's Day, Breast Cancer Awareness and more.

The project features more than 12 mi (20 km) of cable and 1,100 automated LED light fixtures that can be operated remotely. The visual nighttime transformation of the train station can be clearly seen, but what is less obvious is the level of intelligence in the control system behind it all. The system enables optimum operation, delivers detailed reports in real time, facilitates maintenance and simplifies customized lighting effects, all via the internet.

Lumascape supplied PowerSyncTM enabled luminaires to highlight the building accents, including the next-generation Vestalux V1 direct view linear outliner to add definition to the facade.

Significant energy savings from the transition to LED technology coupled with maintenance savings through a fully monitored solution were key considerations in partnering with Lumascape.

Lumascape is honored to have had the opportunity to work with Darkon and Apec Electrical to create such a special lighting show on such an iconic building in the heart of Melbourne city.

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Majlis Oman | Muscat, Oman, UAE

Oman's vision for building a modern civilisation that has roots in the arts and culture of its nation is unsurpassed.

The contemporary architecture utilises simple lines and arches found in the traditional forts and castles, together with precise cutting and carving technologies of the modern day, creating some of the most astonishing architectural sculptures found throughout the world.

Majlis Oman, the nation's new parliament building in the capital, is the latest of these landmark buildings.

Situated in the prestigious Al Bustan area of the capital, Muscat, it overlooks the Gulf of Oman and is encompassed by a stunning mountainous backdrop.

The lighting was designed to accentuate the building's unique architectural features.

It presented a challenge in that the solution had to light extremely large surface areas with minimal glare, whilst also being sustainable. This huge outdoor project was successfully achieved thanks to Lumascape's high-performance, modern LED technology, in the form of LS3080 inground luminaires.

Distributor/Agent Zubair | **Lighting Designer** Visual Energy Lighting
Products Used Zubair

The Founder's Memorial | Abu Dhabi, UAE

The Founder's Memorial, located at the intersection of 1st and 2nd Street along Abu Dhabi's Corniche and spanning 3.3 hectares, serves as a permanent tribute to the UAE's Founding Father, Sheikh Zayed.

The centerpiece of the Founder's Memorial is a monumental public artwork called The Constellation, a dynamic three-dimensional portrait of the late Sheikh Zayed. The Constellation can be experienced differently from multiple viewing points around the memorial and from other vantage points, offering a series of infinitely evolving personal encounters with his image.

Housed within a 30m tall pavillion, The Constellation, one of the largest art installations of its kind, contains more than 1,327 stainless steel objects suspended on more than 1,110 vertical steel wire cables. The installation was designed by Ralph Helmick, renowned for his large scale suspended sculptures such as this one.

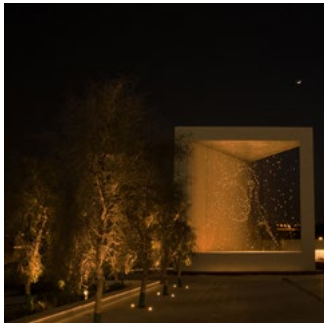
For this project, Lumascape provided a total of 1,985 luminaires to illuminate the monument, mounted to the floor and ceiling. The specific installation locations for luminaires were not evenly positioned, instead they were determined by the artist to achieve the desired vision and to accentuate the monument's features.

On the triangular floor, 1,203 uplight luminaires were mounted to the floor substrate, then buried up to the aperture with Sandstone Gravel. These fittings are supplied pointing vertically but can be aimed to a 15° vertically in any direction.

The other 782 luminaires are downlights and were installed into the soffit from behind, pointing vertically down into the monument space. The length of each luminaire was individually adjusted on site to flush finish with the ceiling.

All fittings were supplied with a colour temperature of 3000K, a 10° beam angle and controlled directly by a PowerSync backbone. The DMX data from the show control hardware is provided to a bank of low voltage PowerSync masters mounted into two racks. This allowed for the Show Control Company and Artist to work together to adjust the intensity levels and aim for the best result.

It has humbled Lumascape to play such an important role in the construction of this permanent national tribute commemorating the United Arab Emirate's Sheikh Zayed.



Carlsbad Caverns | Carlsbad, New Mexico, USA

Located 380 kilometres south-east of Albuquerque, in the Chihuahuan Desert of New Mexico, lies the Carlsbad Caverns a breathtaking natural masterpiece is one of the largest, publicly-accessible cavern systems in the world, spreading over six and a half kilometers long. Having been in existence for over 250 million years, this UNESCO World Heritage Site hosts many natural wonders, including 17 species of bats.

Since the park's former lighting system over 30 years old, a panel of United States National Parks Service staff undertook a rigorous selection process, with several manufacturers' products trialled unsuccessfully. Eventually, Lumascape was selected as the turnkey luminaire and controls solution provider for this historic project, due to its unrivalled producttesting processes.

Carlsbad Caverns presented a unique and enticing challenge – one that required a custom-tailored approach, beyond the simple consideration of quality and durability.

In compliance with a brief for an environmentally-conscious, long-term solution, the project took almost seven years from conception to completion, with Lumascape dedicated to surpassing the clients' every request. Lumascape needed to deliver a lighting solution that mitigated algae growth on the luminaires, utilized LEDs which operated at frequencies inaudible to bats, allowed for remote maintenance inspections, and had an operational lifespan of over 30 years.

The custom lighting solution engineered redefined the caverns' natural architecture, and included more than 600 IP68 fixtures made from 316 grade stainless steel.

Innovative use of colour temperatures provided a signifi cant aid to visitors to experience the grandeur and scale of the underground space, and the custom-control solution allowed for remote commissioning and maintenance reporting via a portable, wireless control terminal and custom software developed specifically for the project.

Whilst the National Parks Service's rangers praise the new system for its effi ciencies in both management and energy savings, all visitors to the cavern are astounded by the aesthetic transformation the upgraded lighting system has caused.

It has humbled Lumascape to play a fundamental role in this significant project for one of the United States' most beloved and visited parks. This project required a custom light system to meet specific requirements.




“Voted the World’s Greatest Place in 2018.”

– TIME Magazine

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Morpheus Hotel | Cotai, Macau

Morpheus is the fifth tower in Macau's City of Dreams complex. Standing 40 stories high, Morpheus includes 780 guest rooms, luxury suites and villas, retail outlets, restaurants, a casino, spa and sky pool as well as meeting and event spaces.

The luxurious Morpheus Hotel is the world's first free-form exoskeleton high-rise. It was designed by Pritzker Prizewinning architect Dame Zaha Hadid. The awe-inspiring structure consists of two towers blended together with internal voids through its center to create a window connecting the hotel's interior communal space with the outside city.

The unique nature of the exoskeleton concept provided an intricate and challenging canvas for Isometrix, the project's lead lighting designer, to incorporate lighting fixtures.

The exoskeleton contains several free-form structures and integrating powerful luminaires to up-light the morphing shapes within each bay was the main challenge.

This involved multiple calculations, studies and mock-ups to develop luminaires that were just right for this application.

Lumascape designed custom solutions to deliver uniformity and consistency of light across the entire facade. One of the main considerations for this profile was that the lighting needed to blend into the exoskeleton.

To meet such challenging requirements, Lumascape developed unique optics to light the inside of the exoskeleton, enhancing the three-dimensional form, while not allowing any direct light into the windows behind.

After numerous sample submittals and mock-ups, CLA, Lumascape's partner in Asia, was awarded the supply and installation contract, using luminaires from Lumascape incorporating proprietary PowerSync™ technology.

One luminaire was a 9W RGBW with a horizontal
narrow beam, designed to up-light the underside of each facade section. The second was a 100W RGBW floodlight to up-light the external spaces within the central core of the building.

The Morpheus Hotel has been acclaimed with several prestigious awards for design and structure including:

- "World's Greatest Places 2018" by TIME Magazine, awarded just two months after opening its doors
- Best Hotel Architecture Macau, 2019
- Best New Hotel Construction & Design Macau, 2019
- Building of the Year 2019 by ArchDaily, the world's most visited architecture website;
  and more.

Royal Opera House Arcade | Convent Garden, London, UK

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MOLTON BROWN
APM MONACO
MULBERRY
BUCHERER
1888
OPERA HOUS
MOTHER'S DAY

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Sydney Opera House | Sydney, New South Wales, Australia

The award-winning Sydney Opera House in Australia is a globally recognized architectural masterpiece. The iconic sails are a beacon for art and design through its innovative lighting displays, while the site itself is an acclaimed performance venue, host to more than 1,800 events each year.

Within the Concert Hall at one of the world's most recognized and celebrated buildings, lighting engineers were faced with the considerable challenge of maintaining an aging system experiencing regular transformer failures and decreasing efficiency as they were coming to the end of their usable life. The traditional 250W halogen lamps were obsolete and increasingly difficult to find.

LED was a logical consideration to utilize new advancements in lighting technology, in addition to the benefits of long-term energy savings. After having completed several successful projects within the Opera House, Lumascape offered their expertise in LED lighting systems to ultimately develop a custom solution that would meet the needs of the Concert Hall. The project was managed in-house by the Sydney Opera House projects group.

Lumascape created a plan that met the specialized artistic, aesthetic and sustainability needs of the Opera House. Lumascape understood that a new lighting solution would only be successful if it adhered to the building's strict architectural and performance heritage requirements. Aesthetically, the housings needed to remain intact, not changing the look or feel of the Concert Hall.

Smooth, flicker-free, fade-to-black dimming was a critical feature of the luminaire and lighting controls design, ensuring the Concert Hall would evoke the same feelings audiences have come to expect from performances. Individual LEDs of red, blue, green, white and amber were mixed to achieve a CRI above 97, dimming from bright white to a warm orange glow to black with the same intensity and color as incandescent. The end result perfectly mimicked the traditional lighting aesthetic, evoking the nostalgic feeling of the original hall.

The addition of RGB capabilities and subsequent improvements have added a new dimension to Concert Hall performances, delighting performers and audiences alike.

Now considered a nextgeneration venue, the different effects and control of individual color channels make the concert hall an attractive site for a wider variety of performances. Performers are also pleased to know they can record performances at 1080HD without the presence of banding lines caused by slower frequency dimming LEDs. The upgrade to LED technology, which took nearly two years to develop and implement, has offered significant benefits beyond aesthetic values to maximize energy savings across the entire facility. Ultimately, three types of luminaires were developed: a lower-level fitting (70W; replaced 250W) over the boxes, high-level house lights within the stalls, and crown lights (200W; replaced 1,000W) directly above the stage.

Benefits of the upgrade include:

- 75% reduction in electricity consumption, with estimated savings of $70,000 AUD per year;
- Greatly reduced need for staff to work in confined ceiling spaces to replace lights (five times a year before upgrade);
- Increased capacity to create ambient and specific lighting effects, without the cost of hanging additional lights; and
- Removal of about four tons of air-conditioning ducting, thanks to less heat being generated.

For the project, Lumascape was bestowed the coveted Product Innovation Award in 2015, for the advancement of the art and science of lighting. The Concert Hall project was also a finalist in the prestigious New South Wales government's 2014 Green Globe Awards, which recognizes organizations who show outstanding environmental and sustainability leadership.

Merah Putih Bridge | Ambon, Maluku, Indonesia

The Merah Putih Bridge is a cable bridge located in Ambon City, Maluku Indonesia and spans across Ambon Bay. It was designed to cut travel time linking the airport to the city of Ambon.

It spans over 1,140 metres long and is the longest bridge in the eastern region of Indonesia. Since its completion in 2016 it has quickly become a landmark of the area, attracting masses of tourists from across the world, watching the night sky as it performs its lightshow.

To highligh the bridge's features at night and allow the creation of light shows, a decision was made to illuminate it with coloured lighting and a solution from Lumascape was chosen.

The Quadralux Q6 (LS9160) and Q8 (LS9180) architectural floodlights were installed across the length of the bridge to provide a lighting solution that included colour changing and light shows to highlight the special features of the bridge.

The Merah Putih Bridge has been transformed by the new lighting and is now a major feature of the evening skyline in Ambon, Indonesia.

Brisbane Busways | Brisbane, Queensland, Australia

Since construction in the mid-1990's, the Brisbane Busways has allowed for fast, frequent and reliable public transport and has eased congestion by separating buses from the general traffic.

To both facilitate for safe passage and refresh the space, the Department of Transport and Main Roads have commissioned for a new LED lighting infrastructure. The client required a long-lasting lighting solution that was maintenance-friendly. The project required for the luminaires to conform to the depth and width of the existing space, was suitable for operation in ceilings voids up to 60oC while producing evenly distributed light levels and minimizing glare to waiting passengers and oncoming drivers.

For this project, Lumascape has engineered and manufactured a high-lumen, high-efficacy downlight suitable for mounting in external soffits exposed to the elements. These intelligent luminaires use the latest in LED technology and are designed specifically to produce an even light distribution. Together with light distribution, these luminaires offer significant improvements to; light intensity, vertical illumination (important for facial recognition), colour temperature, colour rendering, glare control and power consumption.

The luminaires feature a strong and easy-to-use mounting system that is completely hidden with a snap-in outer-trim and an 8mm OptiClearTM toughened glass lens for excellent light transmission and a sturdy IK8 rating, resulting in a vandal resistant fitting.

Lumascape is pleased to have helped reinvigorate the Brisbane Busways. The downlight has since been retrofitted on all bus stations that are part of the busway network in Brisbane.


Bus stop
Hail driver
Greenscopes

Celebration Hall | Al-Wakra, Doha, Qatar

Qatar's Al-Wakra Celebration Hall Complex is the third of its kind implemented by the Private Engineering Office. These impressive structures are a thoughtful union of replicate, traditional Qatari heritage features, and modern architecture.

Free of charge to residents of Al Wakrah and outside areas, these government initiatives play a significant role in reducing marriage expenses for youth, with each able to accommodate at least 500 people. Through collaboration with our partners in the region, Lumascape was contracted to provide an architectural lighting solution for the Al-Wakra Celebration Hall Complex. The client required high-performance, ingrade lighting fixtures that provided a consistent warm wash over specific areas on the façade of the complex. To do this, Lumascape selected the premium ingrade LS343. With 316 marine grade stainless steel, fully-sealed housing, submersion rating for up to 33' (10 metres), HumanTouch™ technology making it ideal for placement in accessible areas, and extensive choice of lamps and accessories, the LS343 was the ideal choice for this uplighting application. The complex has been transformed by Lumascape's premier lighting solution, and now plays its role as a beacon of celebration for the city of Al-Wakrah.

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Semanggi Interchange | Jakarta, Indonesia

Jakarta's Semanggi interchange overpass is yet another progressive infrastructure project from the government of Indonesia. The ground-breaking project was recently inaugurated by President Jokowi Widodo on August 17, 2017, which coincided with the commemoration of the 72nd anniversary of Indonesia's Independence Day.

Jakarta's Governor Djarot Saiful Hidayat described it as a "special gift for Jakartans and for the nation". Designed to accelerate the traffic flow in the Semanggi 'cloverleaf' interchange area by up to 37%, it has been heralded as one of the city's most notable and efficiently executed projects.

One of the major project developments was the successful installation of colour-changing architectural LED lighting system by Lumascape. One of the major challenges for this lighting project was the difficulty of getting any type of contractor into the area.

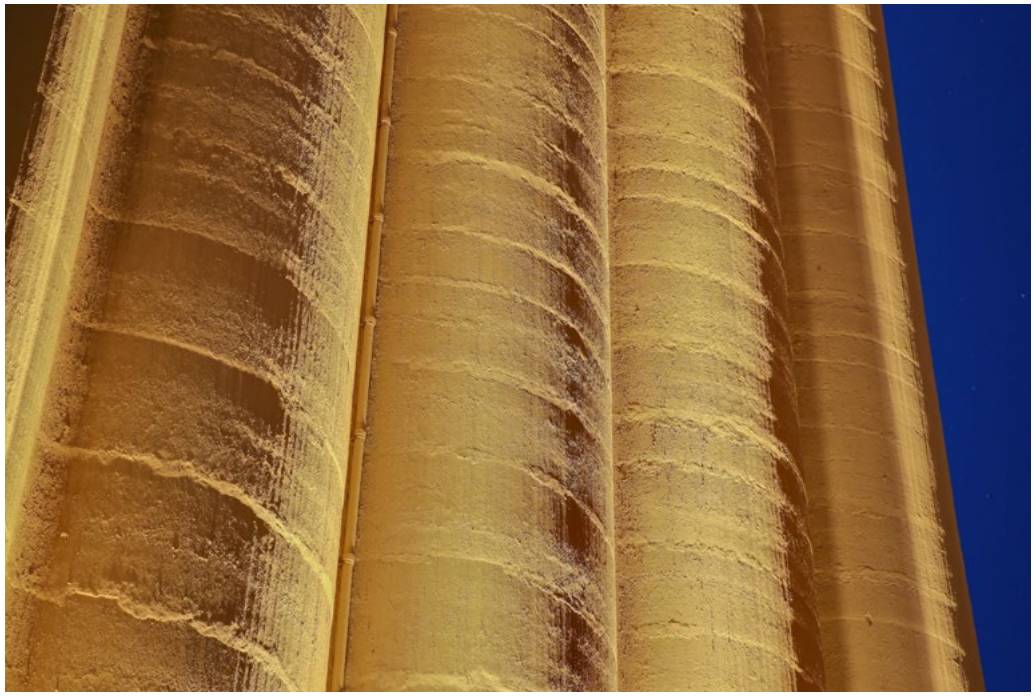
Due to the high traffic congestion, construction workers and other contractors would often be only able to work during the off-peak night hours. It was crucial that the lighting specified had proven durability and guarantee that it would continue to operate at maximum output and maintain exceptional light quality, with little maintenance required.

Lumascape's proven product-testing and manufacturing processes, as well as its record of accomplishment in similar projects was a significant factor in being specified.

A Lumascape technical lighting specialist flew from Lumascape's Australian office to work with important members of the project to ensure successful installation and operation.

Through collaboration with our distributor Creative Lighting Asia, and several other important members of the project, the Semanggi interchange is now lined with over 1,600 of Lumascape's Quadralux Q2, Quadralux Q4, and Linealux L5 architectural LED lighting fixtures. The architectural lighting provided a huge spectacle to onlookers and national press at the inauguration attended by President Jokowi Widodo and Governor Djarot Saiful Hidayat.

Western Milling | Melbourne, Victoria, Australia



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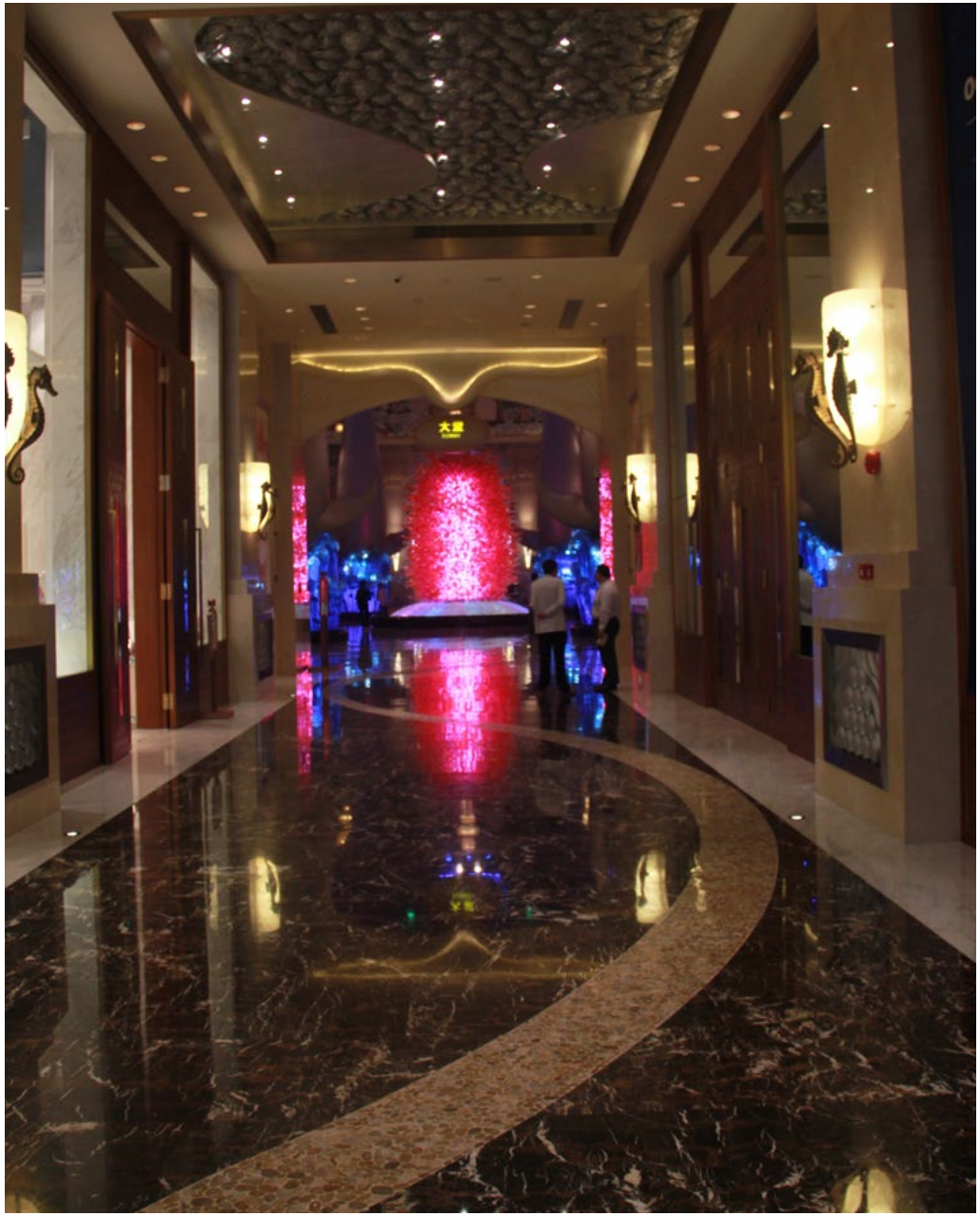
Almiri Diwan | Doha, Qatar

Zhuhai Chang Long Hengqin Bay Hotel | Zhuhai, China



Huntingdale Golf Course | Melbourne, Victoria, Australia

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Broadmeadows Town Center | Melbourne, Victoria, Australia

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Willow Pass | Concord, California, USA

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Yongxin Plaza | Shanghai, China

Yongxin plaza is located in People's square which is a prosperous business circle in the center of Shanghai. Yongxin plaza provides an efficient and comfortable humanized office environment for people and becomes China's first project winning LEED platinum certification issued by USGBC.

As an excellent representative of the green building, Yongxin plaza is the landmark in the center of Shanghai. To achieve the design goals set, LS793LED is used to offer the technical performance meeting the plaza's requirements.

LS793LED is a compact inground luminaire featuring a small aperture. LS793LED provided the ideal solution from design, appearance to its technical capabilities, and production quality.

Eastmark Great Park | Mesa, Arizona, USA

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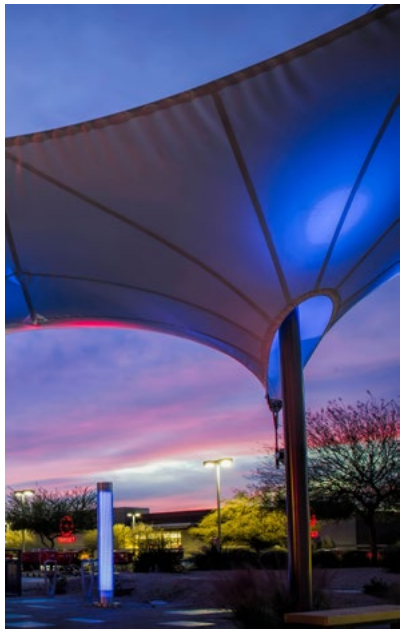
Nirvana Spa | London, UK


nirvan



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Fiesta Paseo Nodes and Shade Structure | Mesa, Arizona, USA

he Fiesta District has quickly reemerged as one of the vital business areas in the city of Mesa, Arizona.

The Southern Avenue improvements project is part of the long-term program consisting of streetscape improvements. The goal was to redefine a unique sense of place and community pride, whilst improving the transportation and pedestrian linkages in the area. Part of the refurbishments included the addition of several pocket parks and paseos – a strategy to portray 'human scale' amongst the landscape.

The Paseo Nodes and accompanying shade structures were designed to encourage interaction between people, and boost the community's identity.

Initial planning stages revealed that the signature pieces would require custom lighting fixtures. With Lumascape's proven record of accomplishment of designing and executing on bespoke solutions, and having been contracted on other projects in the region, we were engaged as the primary lighting provider.

Considerable planning and eff ort went into the modelling and development of the geometrical design of the symbolic structures. As such, the project required an in-depth and carefully thought out approach to light design.

The final project presents LED lighting that is a glowing backlight to the structures, carefully coordinated with the surrounding pedestrian lighting and overall branding of the district. Special thanks to our partners on this project for their invaluable contribution to its success.

Kooyong Road | Brisbane, Queensland, Australia

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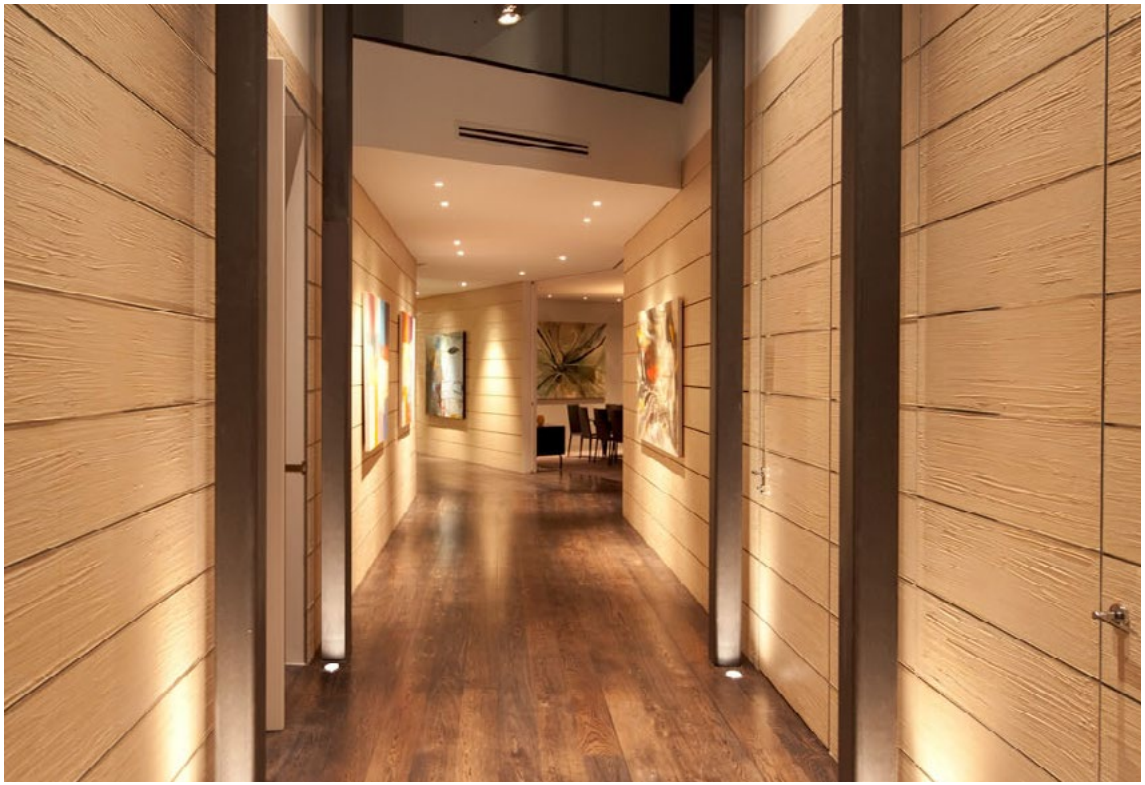

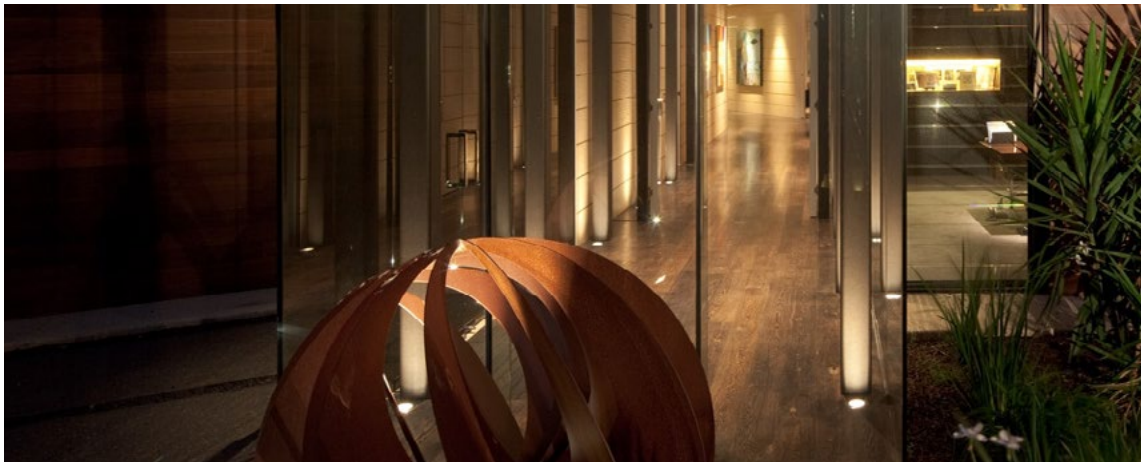

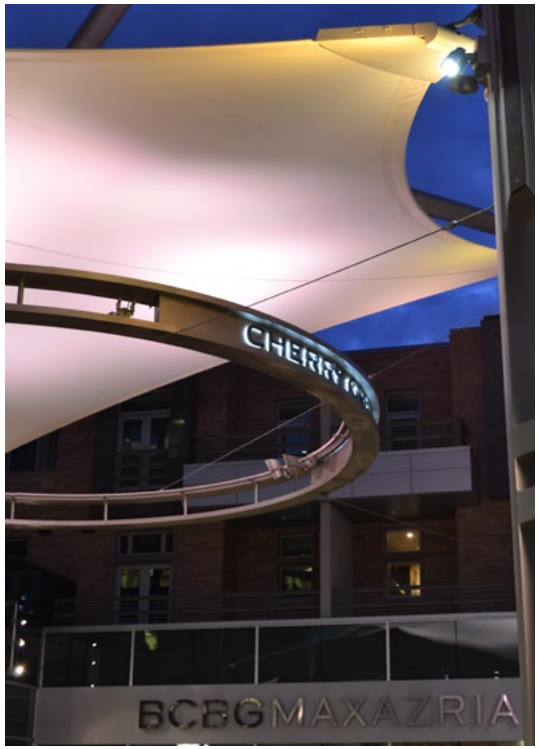

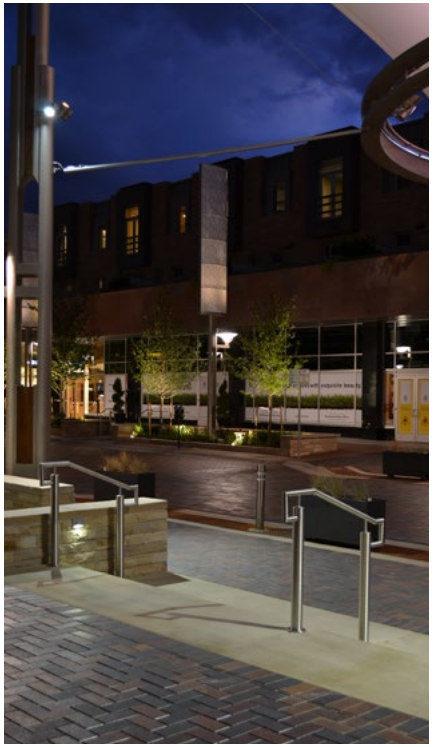

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Cherry Creek | Denver, Colorado, USA

Cherry Creek North is renowned for innovative development. Since it was founded over 140 years ago, it has emerged as a staple in the fabric of Denver and Colorad, becoming a unique, mixed use district. It is now home to around 600 businesses and is a hub for residents and tourists to relax and indulge in the mix of classic and contemporary retail, restaurants and live events.

The area is built on a foundation of high-quality construction and refined design. Consequently, when the client engaged Lumascape, we were keen to determine which products would precisely meet their requirements.

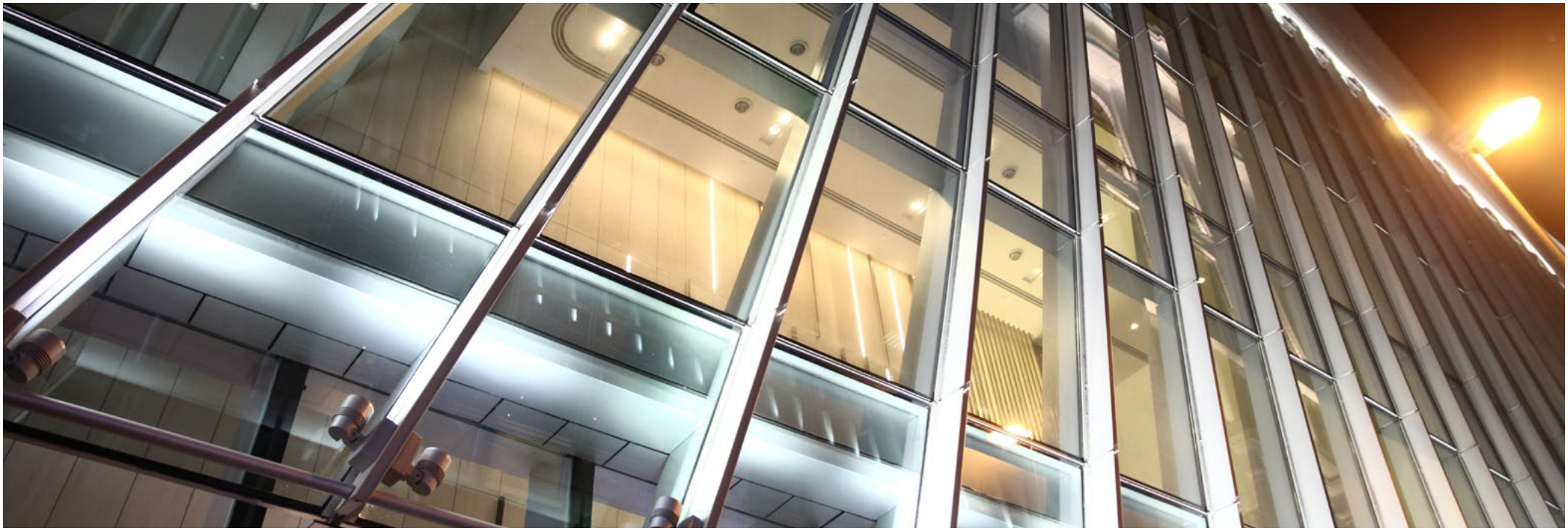
Unique to the project was a series of striking sails cleverly scattered throughout the area. The client wanted to utilise these and manipulate light to control the atmospherics – to positively influence the moods of people in the area.

With the live events, and people gathering at all hours of the day to enjoy what was on offer, we agreed dimming and light show capabilities were essential.

To realise the desired effects, a colour-changing, wallmount LED luminaire was selected to deliver. The low-profile design combined with precise engineering of the LS421LED Centria, which allows for maximum longevity and stunning light output, beautifully complemented the client's vision.

Equipped with its LED lighting system, Cherry Creek North will continue to blossom as the premium standard for living and recreation.

LHT Tower | Hong Kong, China



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MADROS

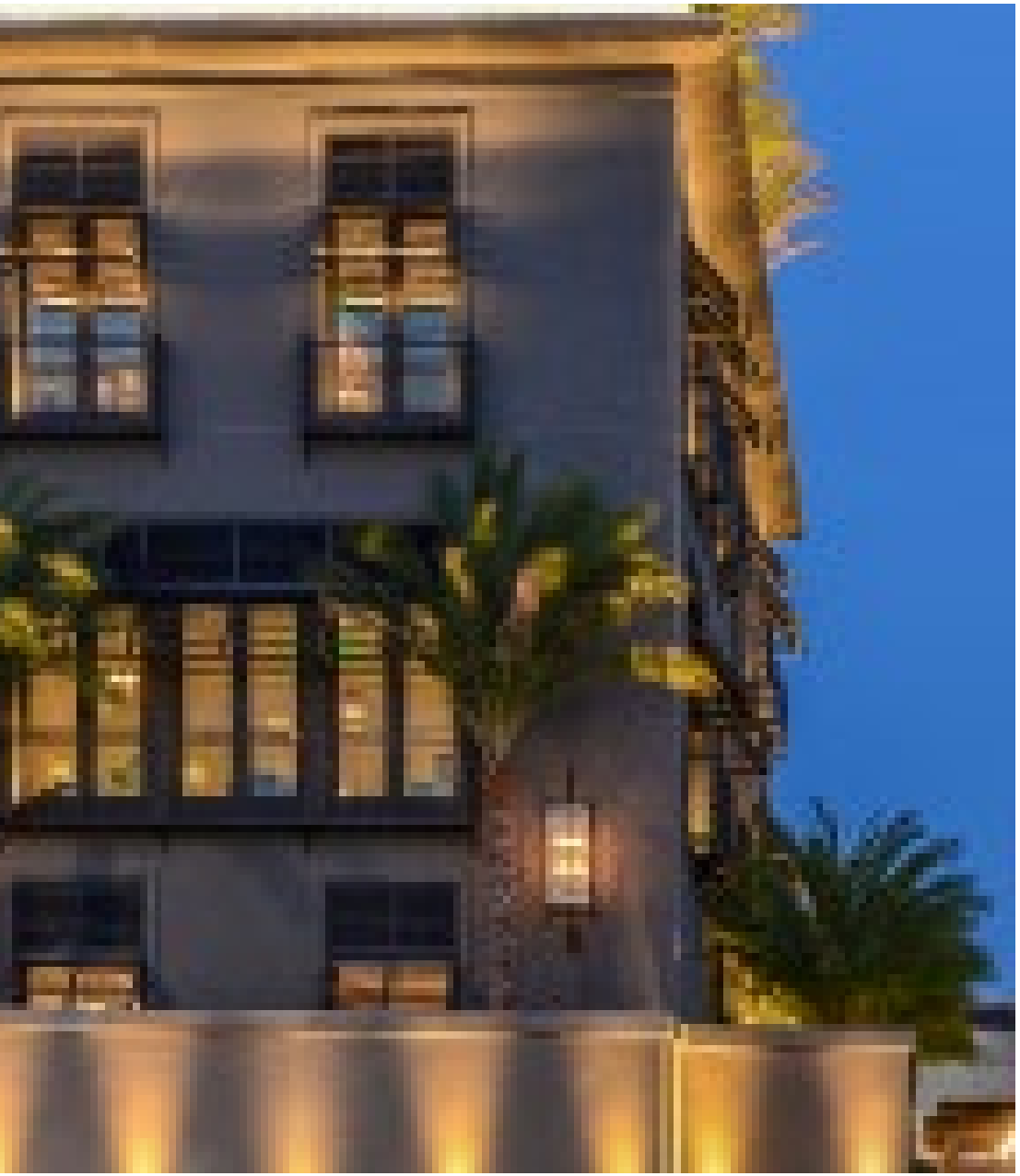
Sunlake Hotel | Ningbo, China

Sun lake hotel is located in Fubang Sun Lake resort, which is the perfect combination of traditional oriental culture and western modern architectural style, quiet and beautiful environment, fresh air, convenient transportation and excellent geographical location. LS393 is used in this project. LS393 is a compact inground option, utilizing 12V Halogen MR16 lamps up to 35W or 6W LED. HumanTouch is an important feature of this series, allowing placement in accessible areas. Adustability of the lamp ensures light can be delivered where it is required. LS393 provided the ideal solution from design, appearance to its technical capabilities, and production quality for the hotel.

LV Tower | Shanghai, China

Situated in the interchange of Xian Xia Road and Zunyi Road in HongQiao Commercial Center, it covers approximately 140 m^2. With their high level of specific requirements of the inground light, we offered a halogen light solution that provided the appropriate amount of light output to illuminate the landscape areas around the big commercial center. The inground halogen light would distribute sufficient light within the landscape area.

Restoration Hardware | Tampa, Florida, USA



Cleveland Library | Cleveland, Brisbane, Australia

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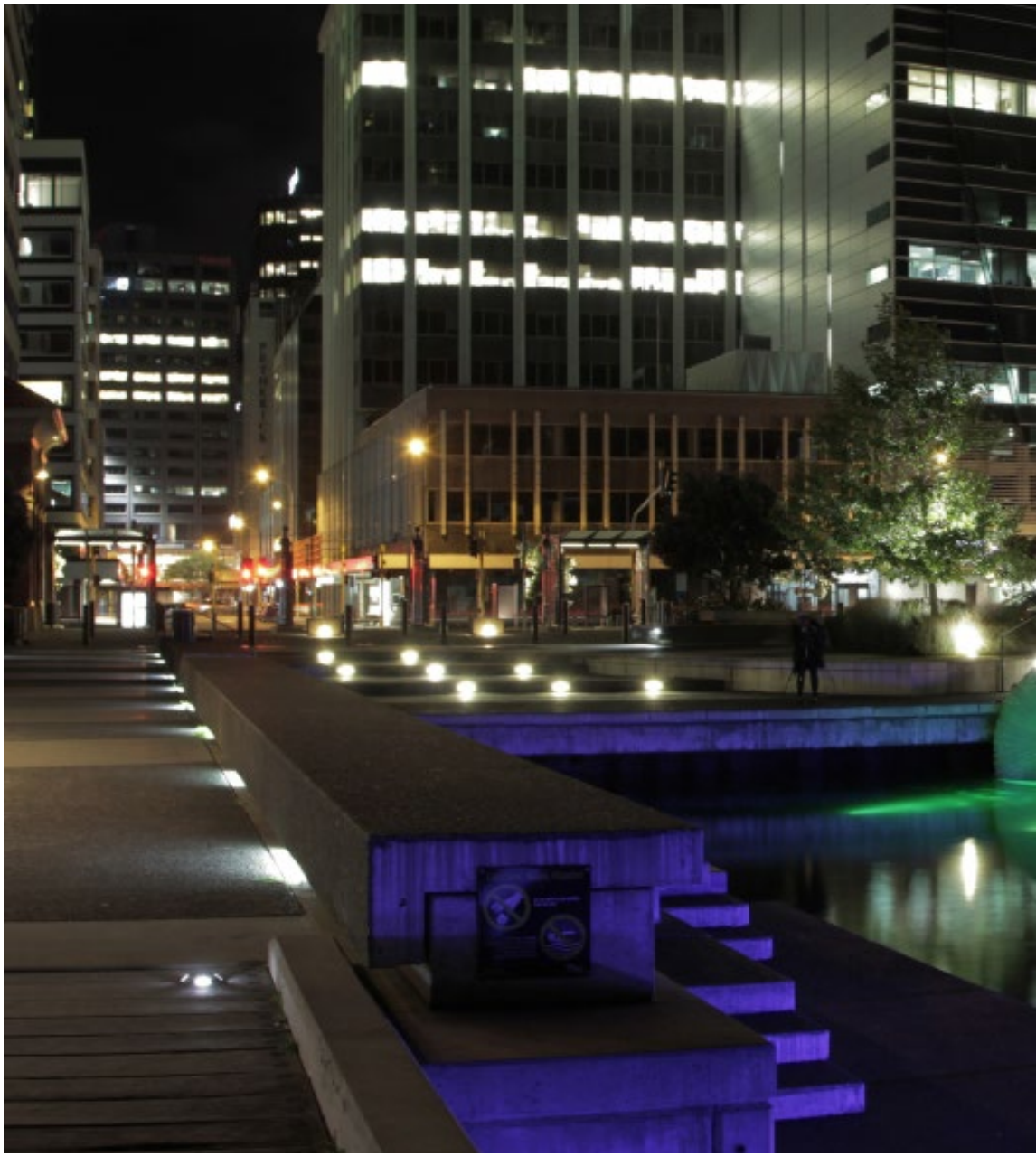
Darling Harbour Playground | Sydney, New South Wales, Australia

Southbank Pagoda | Brisbane, Queensland, Australia

Nga Kina | Wellington, New Zealand

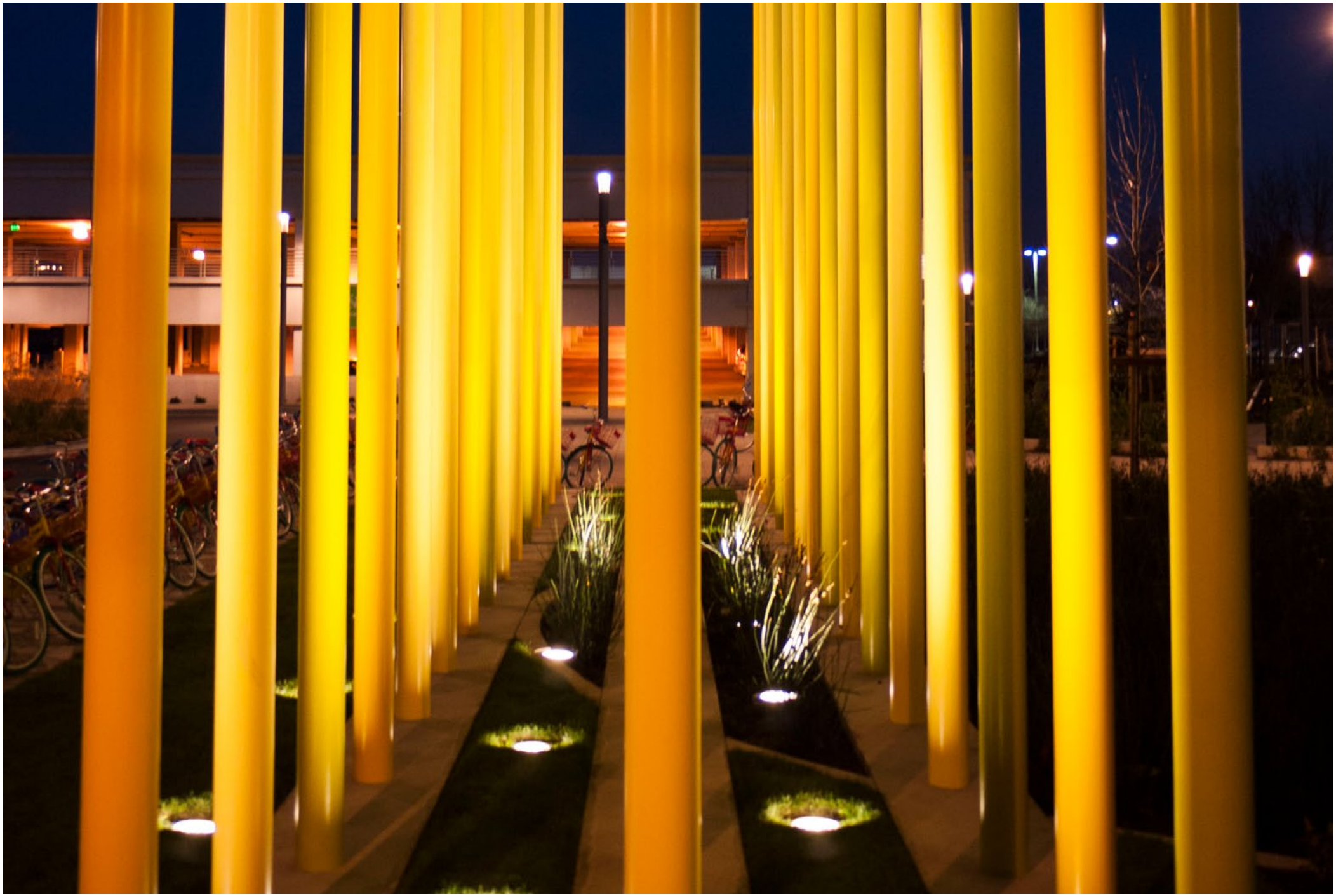


Google Campus | California, USA

Google. A multinational tech giant and a household name. From online advertising and search, to cloud computing, the company is founded upon a belief that in order to be successful, you must be prepared to challenge the status quo – to break through boundaries.

The architecture at their California offices reflect this philosophy, and they required a lighting provider which operated comparably. With a unique canvas, the lighting designer briefed a simple, yet high-performance solution that efficiently illuminated each individual component of the structure, whilst minimising glare.
To match this, Lumascape selected the inground LS853LED, a shallow-depth inground luminaire ideal for applications which require a low-profile design that washes the architecture without appearing to overpower it.

Selected for their superior performance, longevity, controllability, and unique features, Lumascape's inground lighting solution manages to effectively convert the large entry monument into a captivating beacon.



The Cauldron, GBK Stadium | Jakarta, Indonesia

Mercedes Benz Display | Augusta, Georgia, USA

Coles Fountain | Melbourne, Victoria, Australia

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