

# the light lab

## project credentials

**the light lab**  
bright ideas

← London Designer Outlet  
The SSE Arena, Wembley  
Wembley Stadium  
Wembley Civic Centre  
Wembley Park  
Wembley Park Theatre

project credentials



# what we do

We are about collectively finding solutions to overcome the challenges and complexities that come with bespoke lighting installations, we often only deliver a feature once, so it has to be right first time!

We focus our lighting solutions on specialist lighting installation, bespoke lighting installation and specialist lighting design. Alongside this we offer a wide range of lighting products, designing and manufacturing our own fittings and providing the highest level of quality and performance in our final installation.

Taking responsibility for and delivery of all aspects of the project process means that our customers have a single point of contact at The Light Lab. Our commitment to and professional delivery of 'whole' projects means that we keep total control over quality .

We can take a project from initial concept idea to completion, but we also and regularly do pick up projects that are further through the project process. it's never too late to get us involved!



# company ethos

The quality of what we deliver at The Light Lab is crucially important to us, equally important is how we deliver it, therefore our company ethos plays a core role in all aspects of our business..

## *'how' is as important as 'what'*

- Dedication to high quality and great design
- Commitment to working collaboratively to deliver the best possible project outcomes..
- Reliable 'safe hands' to take full responsibility for project delivery from concept brief to installation and beyond.
- A team that actively create a working environment that fosters positive and transparent working relationships and strong partnerships.
- An approach to work that delivers projects on time and with a relaxed but highly professional manner.

The company ethos defines how we work and is therefore fundamental to our project delivery. We're not attempting to sell a stand-alone 'product' or an isolated 'service' we develop new business by building close working relationships and developing strong working partnerships to deliver the best possible outcomes for our clients.







# our process

It's all about the process; taking a project in house from start to finish. We work with design concepts that are bold and creative and we take the challenges and problems faced by architects/lighting designers and find solutions that enable their designs to be realised. We supply and manage all elements of a project, ensuring total design integrity.

## Design Brief

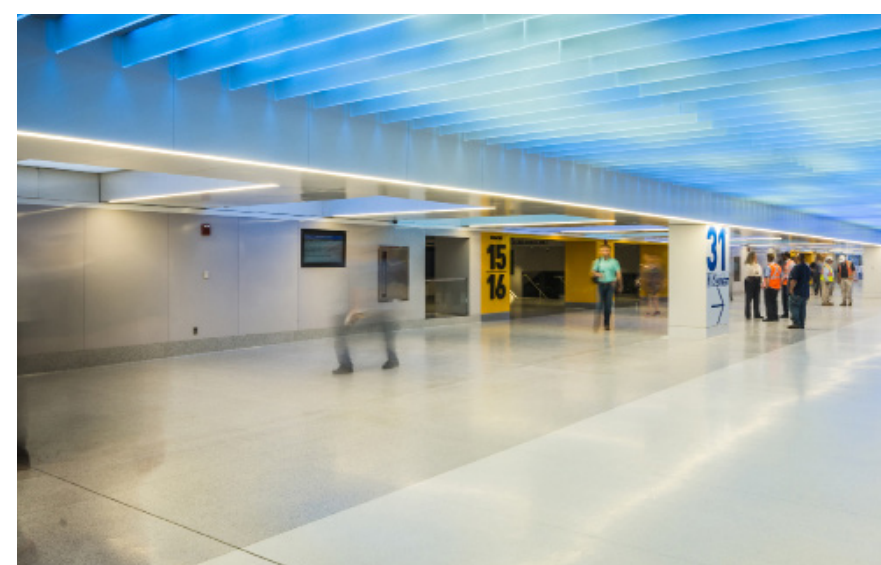
Sit down with us, help us to understand your project requirements in detail and we'll help make sure your project concepts can become reality.

## Collaboration & Design

We will work in close collaboration with all project stakeholders to ensure that the design delivers on all aspects of the clients brief. We take our clients on every step of the process. We can bring initial ideas to life by fabricating design mock-ups so that clients know exactly what they're getting before committing to full installation.

## Structural Design

Working with consultant engineers we ensure that the structural integrity of all our light installations are engineered to the highest level. We produce lighting schematics and product specification for all electrical equipment and provide full Method Statement, Risk Assessment (RAMS) and Operations & Maintenance management throughout.



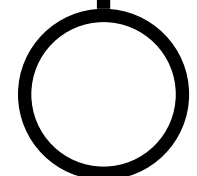
## Fabrication

Fabrication takes place in our workshop where all aspects of the design are followed through, enabling completely bespoke features to be developed and implemented. Retaining control of all aspects of the production process means that we only use the highest quality materials and can confidently ensure the highest levels of durability and reliability alongside our commitment to great design.

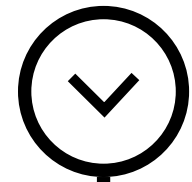


## Installation

The crucial final stage in the project delivery process, this is when the project concept is brought to life. The Light Lab installation team will provide fully trained and experienced installers for glass, metal and electrical elements and work alone or in conjunction with other trades to ensure that absolute quality is maintained through the entire process.







# who will be working on the project?

The three company Directors are also the lead project managers and they will be your point of contact throughout the duration of this project.



## Marcus Cave, Design Director

Marcus has more than 20 years of lighting design and installation experience and creative product engineering. He has been responsible for many high profile global lighting projects, including the award winning Kings Cross light tunnel, Sushi Samba, Lexington Avenue, New York & University of Arts parade ground. Working closely with top lighting designers & architects including Chapman BDSP, Alma Cardzic, Nulty +, Arup & BDP.



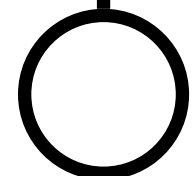
## Graeme Laurie, Director

Graeme has an MSC in Light and Lighting from UCL and has worked for The Light Lab for over 14 years. He has been responsible for managing a diverse range of lighting installations in the UK - also overseeing the majority of international projects in the Middle East & Australia - overcoming logistical complexities and large scale engineering challenges. Recent projects include Paspaley, Australia, Broadgate Quarter (see case study), Centria Mall, Saudi Arabia.



## Phil Riley, Director

Phil started life as a qualified chartered accountant, moved quickly into project management and then spent 10 years as an independent management consultant, specialising in project management in large multinationals at a local level, managing manufacturing, logistics and installation projects for Nestle all over Europe. Phil oversees the growing number of projects in the US - most recently spending time in New York to project manage a large scale lighting installation at Penn Station (*see case study detailed in these credentials*).







Case Studies





# Penn Station, New York

bespoke spectraglass fins



**Architect**

Skidmore, Owings & Merrill LLP (SOM)

**Light Design**

The Light Lab / Light Art: miramandtom

**Products**

**Spectraglass**

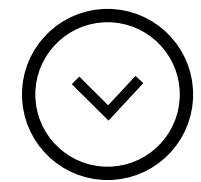
**Services**

specialist lighting manufacture & installation

**Skyscape is a bespoke light art installation, spanning the length of the ceiling at the new west end concourse of the Moynihan Train Hall, Penn Station, New York City. Designed by Skidmore, Owings & Merrill LLP (SOM) for client Moynihan Station Development Corporation, with lighting design & manufacture by The Light Lab, in collaboration with artists miramandtom.**

The project contractor Skanska & and electrical contractor Welsbach, commissioned bespoke lighting manufacturers The Light Lab to work on the design and build of this 'digital sky', using their bespoke edge lit glass product Spectraglass. The Light Lab designed & manufactured an easy-fit support structure and LED glass fins to fill the expanse of the 15'x300' ft ceiling. The brief included making all the services above the fins easily accessible, so the design mounted the fins on easy slide carriages on precision rails. The 2,000 pixels of RGBW LED light, softened through the glass, gives a gentle, calming sense of space in an otherwise confined and overcrowded space and has been very well received by the harassed commuters, as they wait for the full redevelopment of the station. They called on the services of Studio miramandtom to create 'Skyscape', an animated and voluminous sky scene that drifts across the ceiling, whose deft touch gives the piece its true class.





# Penn Station

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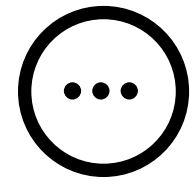
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Tom Sloane, miramandtom

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**“Our initial proposal was to create a fully animated digital sky in a variety of different media with edge lit glass fins, back lit ceilings and digital media screens”. Effectively ‘bringing the sky’ and an “above ground quality” to the dark underground transit tunnel; “Filling an underground world with sky & light, to transform it into a habitable environment.”**

**Peter Fajak, Associate Designer SOM**





# Bobby Moore Bridge, Wembley

bespoke



Architect  
Light Design  
Products  
Services

Dixon Jones  
Speirs & Major / Light Art: miramandtom  
Bespoke  
bespoke design & build main contractor / specialist installation

**Property developers Quintain have launched the refurbished Bobby Moore Bridge pedestrian underpass at Wembley Park; a project which saw The Light Lab take on full management, fabrication and installation responsibilities, as bespoke design and build main contractor.**

**Initial concept for the project came from the team at Dixon Jones Architects, with lighting design by Speirs + Major and light art by studio miriamandtom.**

Edward Jones from Dixon Jones Architect describes how their design concept was to transform Bobby Moore Bridge from a neglected and routine piece of civil engineering into a ‘glittering Proscenium leading to the wonders of Wembley.’  
*“For those arriving at Wembley Park Station a first impression is of the great vista seen in perspective above the BMB leading via the lighting columns of Olympic Way to the Colossus of the Stadium beyond. Then having navigated the steps down to concourse level the bridge acts as a threshold. The dramatic lighting of its enclosing walls and ceiling prepare visitors for the spectacle of the forthcoming sporting event as well as finding a place for the recovered tiled mural, unveiled by Mrs Moore in honour of her husband in 1993, from which the bridge takes its name.”*



# Bobby Moore Bridge

In addition to site managing the whole project, The Light Lab designed and manufactured the bespoke fittings, also fabricating a new ceiling, wall glazing and supporting metalwork; leading a team of specialist installers to complete the 14 week schedule.

SPI individually controlled multi-led pixels provide the wall lighting behind acid etched, toughened laminated glass with a sentryglass interlayer – ensuring a safe and robust cladding and a calming environment, in an area subject to post-match crowding as fans queue to get into the station.

Within the ceiling Glowline, linear LEDs also SPI controlled, link the two walls - completing the “crossover” effect.

In addition, a section of the heritage tiles have been renovated and illuminated in the centre of the East wall, to celebrate the history of Wembley and Bobby Moore – the plaque in dedication to him being the centre piece.

Emergency back-up, bespoke recessed downlights, provide ambient lighting to the area.

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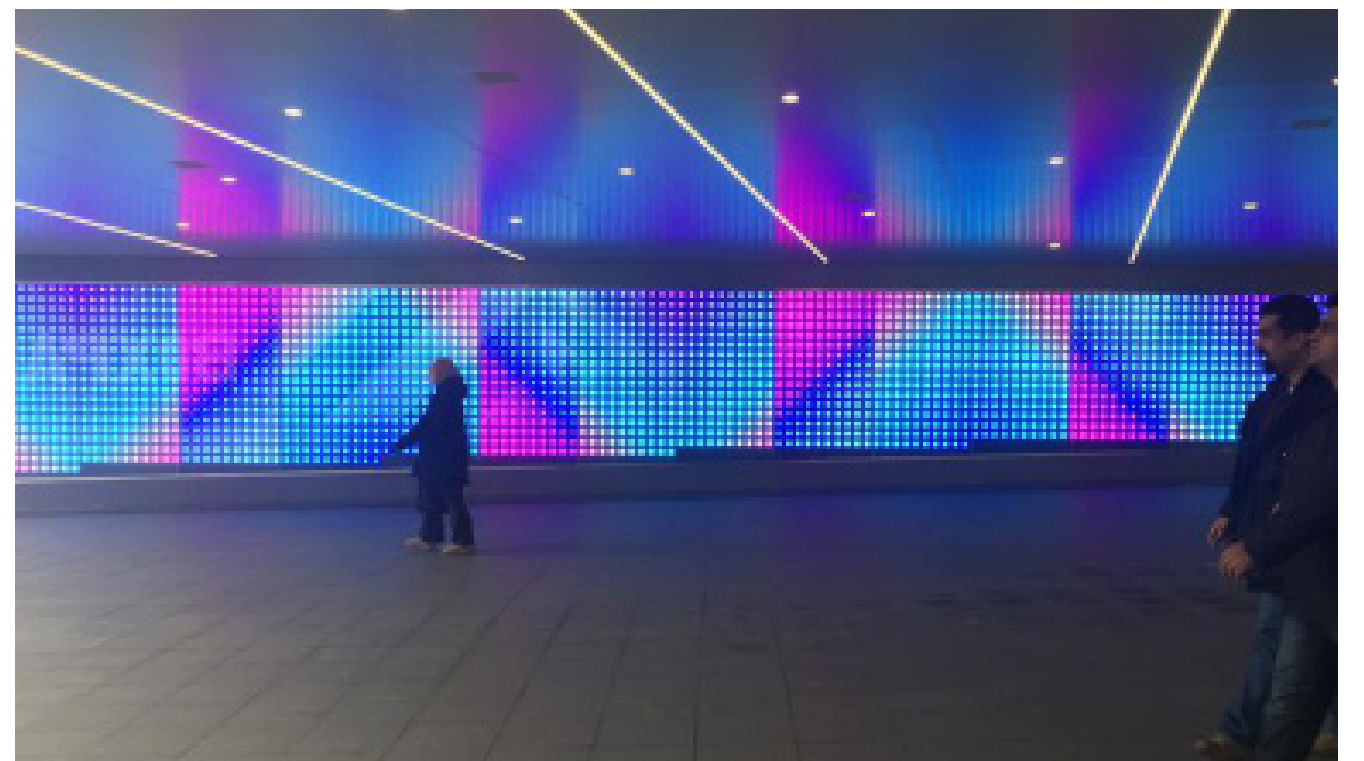
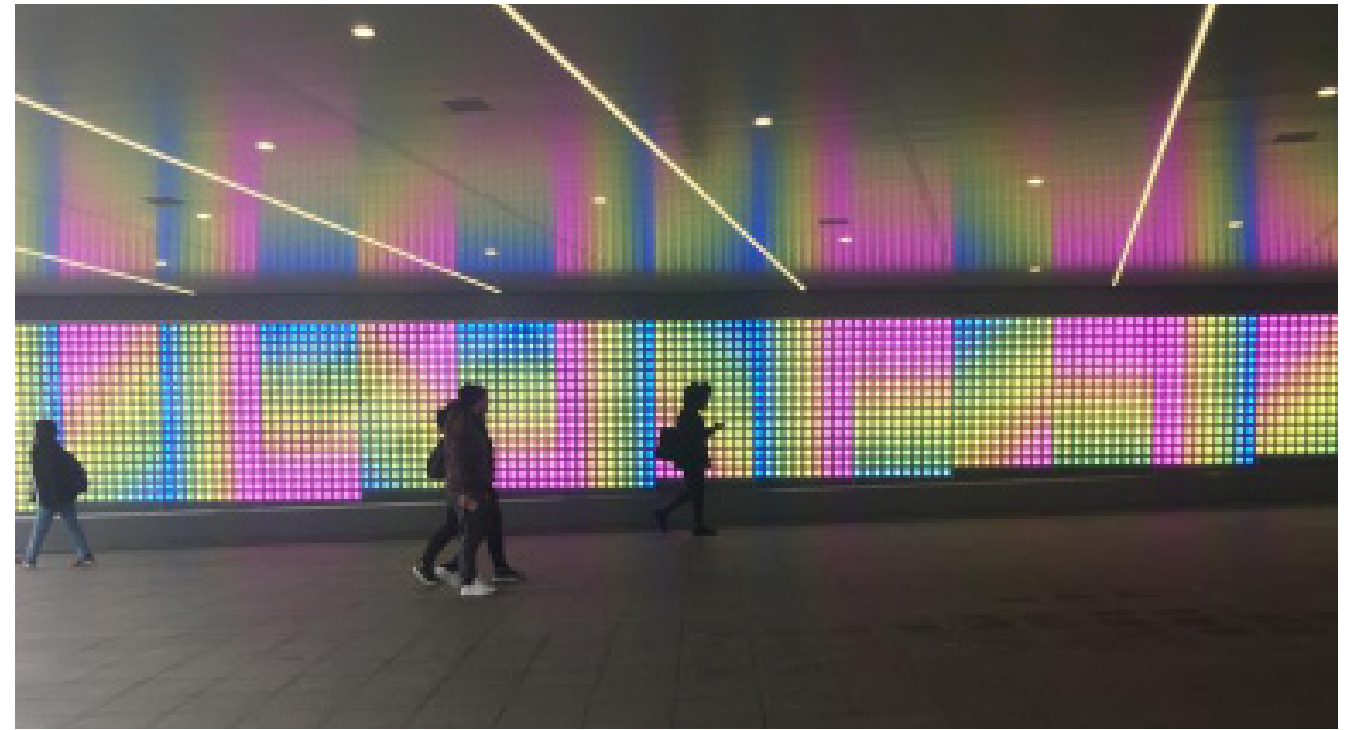
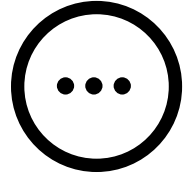
The first of the artistic installations has been commissioned from architectural design collective, miriamandtom.

Entitled Crossover, the work reflects the complex makeup of the community that live and pass through Wembley Park every day. Crossover takes its palette from the surrounding area and the bands of colour have been arranged in deliberately angular contrast to the dynamic appearance of the architecture. As light artist Tom Sloane describes;

***“Having the opportunity to bring an element of celebration that’s deeply rooted in the surrounding community to people’s daily routine while simultaneously having the chance to design an artwork that will be many people’s first impression of Wembley Park was a great commission to take on. We hope people feel that Crossover will enhance not only the Bobby Moore Bridge, but their regular interaction with the space in positive ways.”***

The Bobby Moore Bridge is both a marker of arrival and departure at Wembley Park and Crossover will bring a daily sense of celebration to the residents of Wembley Park, visitors to the area, and the steady crossover of people and events that the bridge is witness to.









# kings cross tunnel

kings cross tunnel led integrated art wall



Architect

Allies & Morrison

Light Design

Speirs & Major / miriamandtom (the artist)

Products

bespoke back lit panels

Services

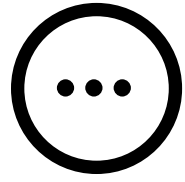
specialist lighting design, manufacture & installation

**The Kings Cross Tunnel has been designed & built by Allies & Morrison architects & BAM Construction, to form a link between Kings Cross & St Pancras stations; a route which 100,000 people take per day. The light wall is the main focus of the tunnel, located on the outside of the curve, measuring nearly 100m long.**

The Light Lab designed, manufactured & installed the seamlessly jointed glass wall, back-lit with LEDs capable of emitting the full RGB spectrum & a white light spectrum from 3.0K to 6.0K. This provides a continuous curved appearance, with no shadow lines throughout.

The art wall concept was originally conceived by Speirs & Major, with the artwork created by miriamandtom. Creating lighting in stunning muted pastels, so that the feeling of walking through the tunnel is not a harsh, neon experience, but rather works very subtly alongside the pedestrian, to create a soothing, relaxing journey.









# Hiscox, York

bespoke LED handrail with leather finish



Architect  
Light Design  
Products  
Services

MAKE  
Chapman BDSP  
**Glowrail**  
specialist lighting manufacture & installation

**The new office build for Hiscox, York features a centerpiece comprised of three cast concrete stairways that flow elegantly through the heart of the triple-height atrium. Designed by Make Architects, these helical style stairways hover effortlessly high above the ground floor as workers are able to drift leisurely beneath.**

A room awash with tonnes of natural light and contemporary architecture, The Light Lab were tasked with providing bespoke LED handrails using Glowrail product. A distinctive building externally, with bold curving corners and rounded glass windows, the handrail is a stunning addition to this already rich architectural design.





# Hiscox, York

Harcourt London added the finishing touches, cladding the handrails in rich, high-quality leather. Close coordination and a shared creativity between the parties involved resulted in the creation of a show-stopping bespoke leather LED handrail for the client, who were delighted with the result.

This polished place of work is set to be a landmark building and we are thrilled to have been part of this project.that drifts across the ceiling, whose deft touch gives the piece its true class.

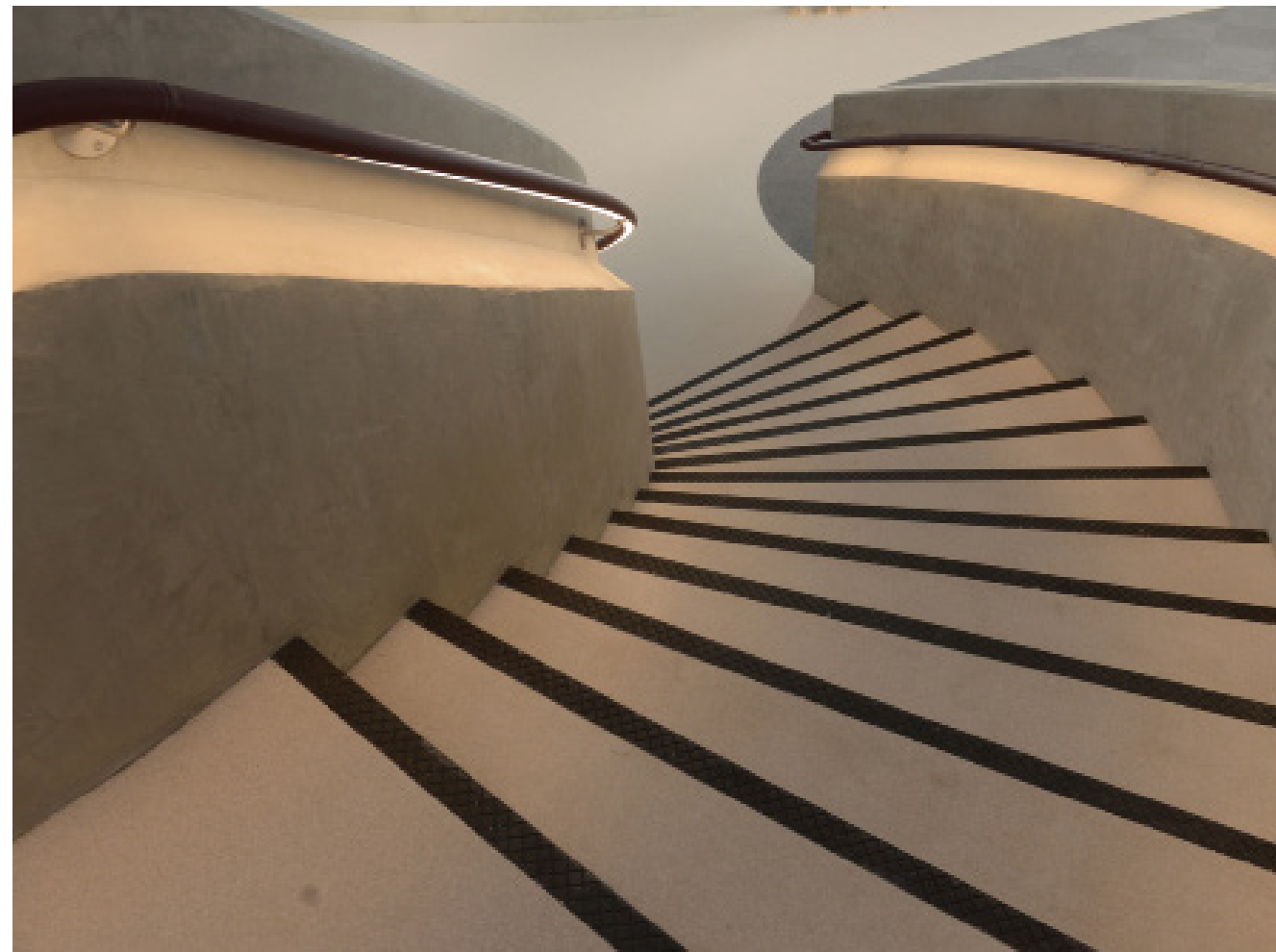
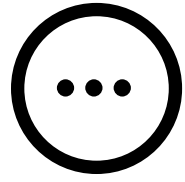


*We wanted to accentuate the already prominent presence of all three stairways, whilst ensuring they were in tune with the unmistakable ambience of the room. With style and substance in mind, our innovative LED Glowrail product was the lighting of choice for the project. The Glowrail produces high output continuous lines of light that are able to stretch along great distances, regardless of shape. The Glowrail was fitted along the entirety of each unique ribbon-like structure by our team, with the result being a series of striking, weaving streams of light. The project also benefited from the installation of emergency back-ups that will cover all three staircases*



**Marcus Cave** Design Director, **The Light Lab**









# Broadgate Quarter

bespoke atrium light feature



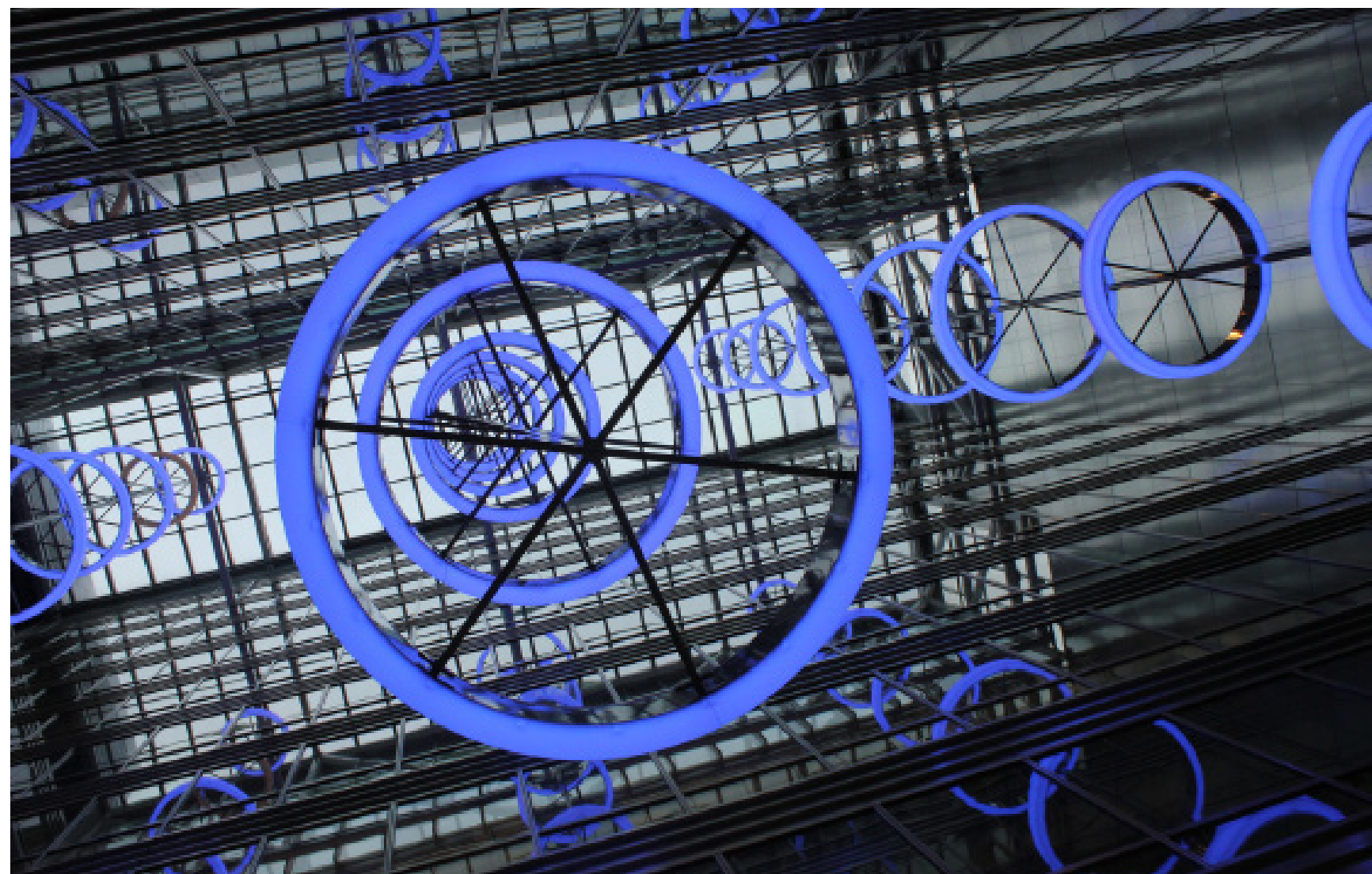
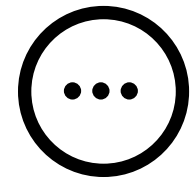
Architect  
Light Design  
Products  
Services

John Robertson Architects  
Cundall  
Bespoke fittings  
specialist lighting design, manufacture & installation

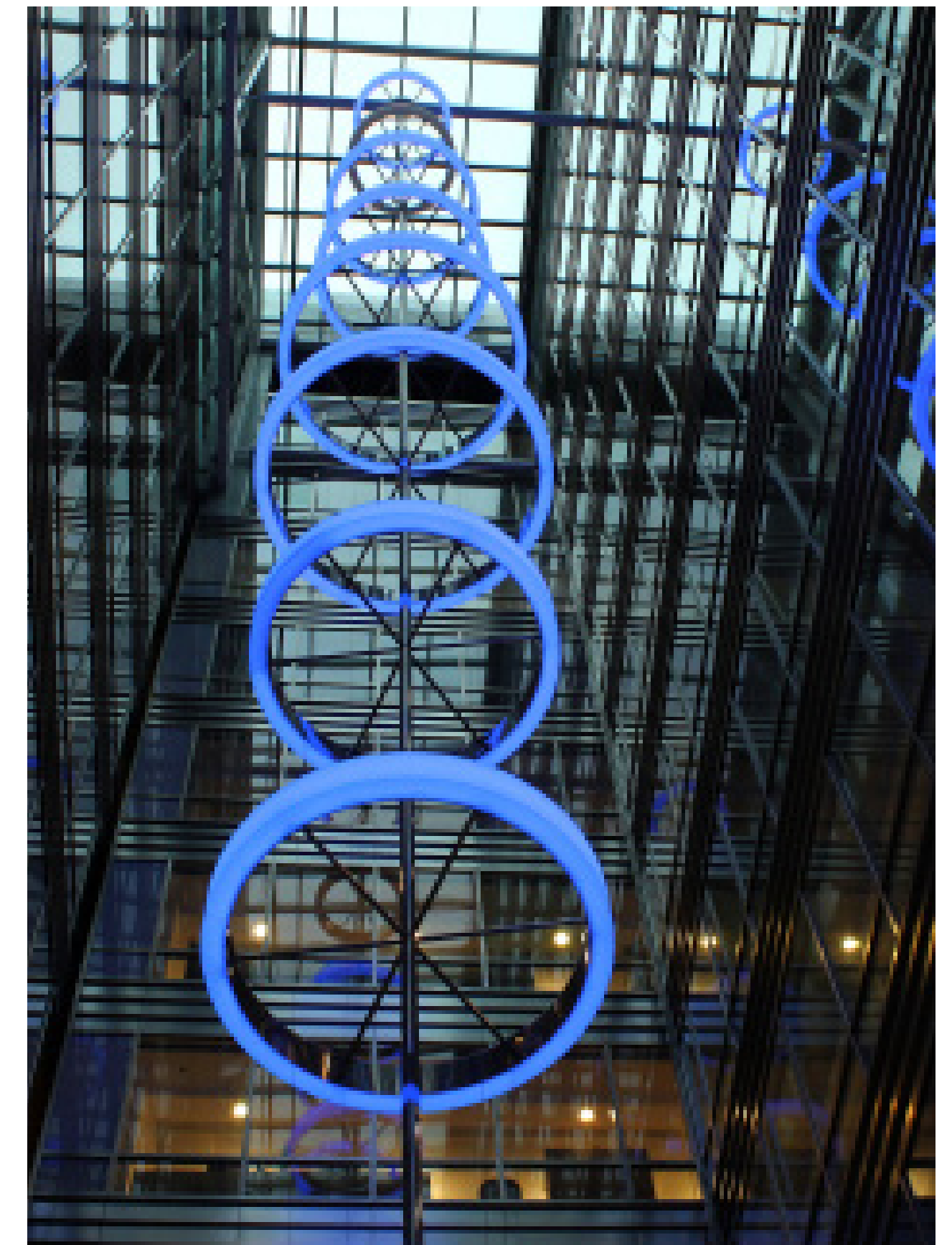
**The Light Lab manufactured and installed this stunning bespoke atrium light feature at the commercial offices of Broadgate Quarter in the City. The installation took place over a 6 week period, using our specialist installers, working alongside a team of abseilers, to ensure that each bespoke halo structure was installed as designed. This is our largest atrium lighting project to date, with the installation reaching almost the full length of the 50 metre atrium.**

Working to the detailed concept design of lighting designers Cundall & John Robertson Architects, we initially produced a full scale mock up (as we often do for large scale projects), comprising of one complete illuminated ring that we winched to the top of the atrium for the design team review. When tackling the full project, the main design challenges involved the structure of the feature; particularly the balance of providing sufficient strength to each illuminated ring, whilst ensuring there was no visible shadowing. At the same time there was the requirement of a very light-weight structure to fix to the existing atrium support beams.





The final design was approximately 750Kg per chandelier (including all cabling) which for a 45m long structure, was a considerable design challenge. The cabling alone was a sizeable task, requiring the running and managing of over 1km of cabling of sufficient size, to ensure all LED rings were consistently and evenly illuminated.







# Waterloo Station Stairwell

bespoke LED ceiling panels



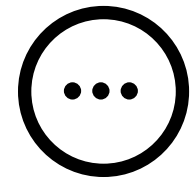
Architect  
Light Design  
Products  
Services

Wessex Capacity Alliance  
The Light Lab  
LED trimless ceiling panel  
specialist lighting manufacture & installation

**The Light Lab have recently completed work on a bespoke LED panel ceiling as part of the congestion relief work at Waterloo Station by the Wessex Capacity Alliance. Working to their initial concept, the team manufactured a bespoke LED panel ceiling for the new commuter stairwells between platforms 1 & 4. Due to the size of area and the need for a 0 fire-rated ceiling, it was necessary to adapt from our LED panel range to suit; resulting in a variation of the existing product; the new LED Trimless Ceiling Panel**

Working in transport/infrastructure often requires us to adhere to specific guidelines. For this project, the design conditions required us to use a polycarbonate diffuser to provide a lightweight and fire-rated solution. The next design challenge was the maintenance requirements, as all fittings needed to be hingeable and maintained from the rear of the fitting. For this The Light Lab designed a primary structural frame, with each panel on a slide and hinge detail – allowing each panel to slide ou and swing down..





Due to the confined space, the panels and hanging frame were designed to a total of only 140mm – with each panel having an integral dimmable power supply to rear and allowance for emergency.

The final solution allows large areas of illuminated ceiling with minimal shadow gap (3mm) detailing between panels – with a solution that works to regular maintenance and public spaces.





# “ testimonials

*Andrew Bissell from Cundall, speaks of the close working relationship between the designers and the light lab, to ensure the installation ran smoothly and was completely true to the design. “Having designed such a large lighting element to fill the atrium space, we needed to be sure the design intent was retained through the construction detail and installation process. The Light Lab understand the importance of even the smallest of details and how to manage and undertake an installation of this nature. As such the client has the lighting effect originally presented along with a high quality and low maintenance product and installation.” Broadgate Quarter, London*



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*“The West End Concourse at Penn Station was a large, very public, project in New York. Time was absolutely critical to meet the tight deadline set by the Governor’s office. The Light Lab executed the project on time and within budget. From a design standpoint, they understood how to translate a concept into reality from the desired lighting effect to addressing durability and maintained issues. The result is a high quality, lighting installation which has been received extremely well by the New York Public.”*

**Peter Fajak – Skidmore, Owings & Merrill (Penn Station)**



# “ testimonials

*“In our design solutions for Friars Walk, we required the exterior stainless steel and glass balustrade and façades to contribute towards elevating the centre’s night-time economy. To achieve this, we adopted The Light Lab’s new technology to provide an exciting and energetic character to the centre’s public realm. Not only does it bring Friars Walk to life at night , extending the dwell time of shoppers, but it also allows for visual connectivity between the upper and lower external areas of the centre. This ensures shoppers can easily navigate through the centre, capitalizing on the diversity of retail and leisure available.”*

**Brian Tracey, Director at Leslie Jones Architecture (Friars Walk)**



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*“Linear LED fixtures run continuously on each side, using existing wireways and control forms, lighting across the barrels. Interspersed are additional fixtures, which illuminate the ribs that span the ceiling at intervals. Because of the obstructing metalwork, The Light Lab made special fittings that run in 300mm sections to sit across the rib. The ceiling was originally lit with cold cathode and we were able to improve the light levels substantially”*

**Graham Large Head of Architectural Lighting Design at Chapman BDSP**

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# the light lab

bright ideas

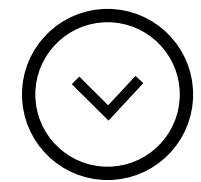
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**Thank you**





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