COMPANY PROFILE

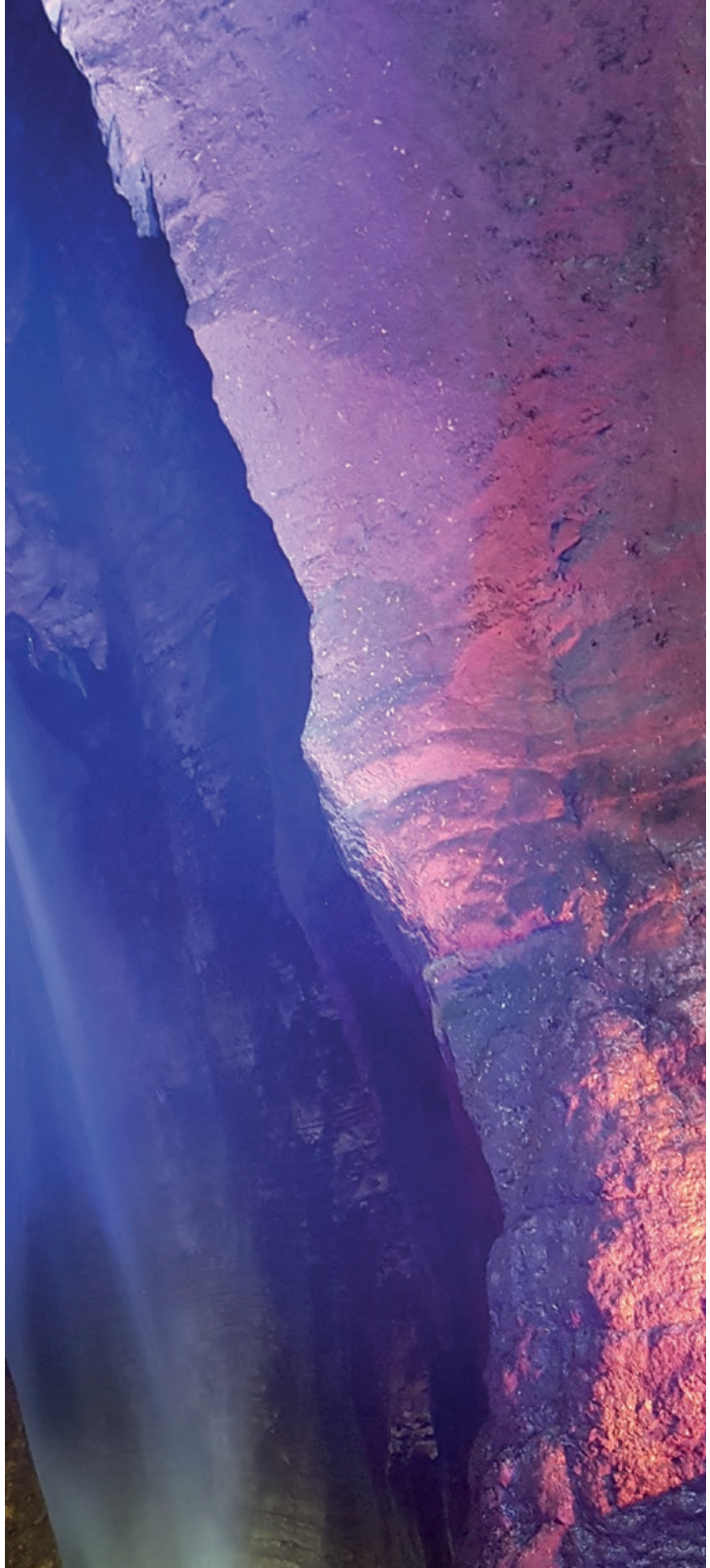
2022

DIAMANTE LIGHTING

About us

We manufacture in Italy high quality LED lighting devices, designed and tested to last and perform in the harshest environments. We are focused on outdoor architectural lighting and architainment, but our flexibility and expertise allow us to supply LED lighting devices for any other application as well as to design from scratch new, customized products.

We are strongly committed to be a true partner for lighting designers, architects and landscape designers helping them to achieve their personal vision and their customers' satisfaction. "Planning, integrating, installing and operating LED lighting installations is now smoother than ever" said one of our customers.



Research and development

At Diamante Lighting, research is the core of our technical activity: in the last decade, the lighting industry has been turned upside down with the introduction of LEDs, and it is continuously evolving at a fast pace since then. Our team of experts constantly scrutinizes emerging technologies and analyzes trends and customer needs. We adopt technological improvements after in-depth investigations and tests in order to be sure that we offer our customers only state-of-the-art and reliable products.

Design and engineering

Our technical team includes:

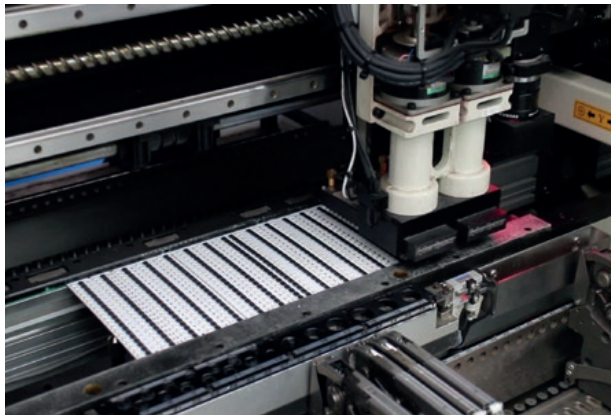
- Graphic designers and lighting engineers
- Mechanical engineers
- Optics engineers
- Electronics engineers
- Laboratory technicians.

Varone waterfall
Trento - Italy

Certification

Diamante Lighting is ISO 9001 certified: all our processes - from design to marketing - are implemented with a focus on quality and supported by an integrated management system developed internally to fit our needs.
We also contribute to LEED credits, supplying the necessary documents to enable constructors and designers to certify the sustainability of energy consumption of buildings that employ our devices.

Production



Our manufacturing department allows us to be cost-effective and precise on large deliveries of standard products, but also gives us the flexibility to provide our customers with samples and small, customized production batches. Our factory is equipped with a mechanical workshop, electronics assembly facilities, resins or adhesives dispensing machines as well as full production testing devices, to achieve the best results in terms of reliability and speed at a competitive cost.

Committed to quality

At Diamante Lighting we want to honor the trust of our customers by caring about the manufacture of every product, even in the smallest details. All components are chosen among the best ones and all machining, assembly and testing is performed in our Italian factory. We are focused on customization and fast delivery. We have established strong relationships with key suppliers in order to be fast, reliable and flawless.

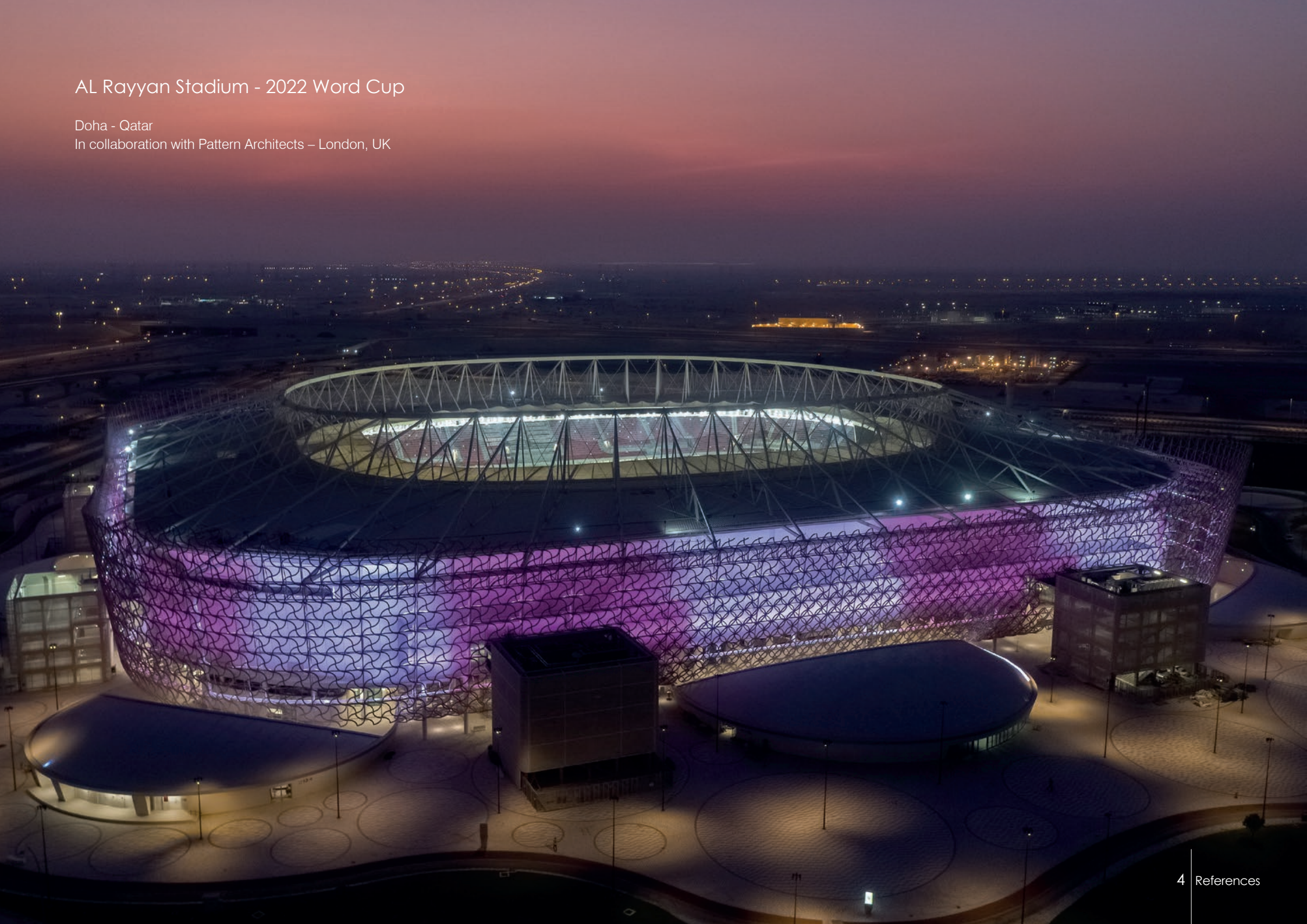
Testing equipment

Quality is ensured by a strong 100% control on components in different phases along the production process according to strict procedures and standards.We design and manufacture our own testing equipment.

Varone waterfall
Trento - Italy

AL Rayyan Stadium - 2022 Word Cup

Doha - Qatar
In collaboration with Pattern Architects – London, UK



Savoy Automobile Museum

Georgia - Atlanta - USA

Sharjah Mosque

Sharjah - UAE
In collaboration with Ligth Concept LLC

Four Season Hotel

Amman - Jordan
In collaboration with RD Lighting

Hudayriyat

Adu Dhabi - UAE
In collaboration with Light Concept LLC

Waldorf Astoria Hotel

Ras Al Khaimah, UAE
In collaboration with FEMC FZCO

Ajib

Amman - Jordan
In collaboration with DHA Designs London

Apple Store

Milan- Italy
In collaboration with Watercube

Vittorio Emanuele II bridge

Rome - Italy
In collaboration with Acea

St. Peter's Basilica

Rome - Italy
In collaboration with ACEA

Trevi Fountain

Rome - Italy
In collaboration with Acea

Caracalla Thermal baths

Rome - Italy
In collaboration with Acea

Foro Romano

Rome - Italy
In collaboration with Acea

Palatino

Rome - Italy
In collaboration with Acea

Campidoglio

Rome - Italy
In collaboration with Acea

Pantheon

Rome - Italy
In collaboration with Acea

Santa Maria in Trastevere

Rome - Italy
In collaboration with Acea

Università Lumsa

Rome - Italy
In collaboration with MAMA Design

Sant' Angelo bridge

Rome - Italy
In collaboration with Acea

Sisto bridge

Rome - Italy
In collaboration with Acea

Trinità dei Monti

Roma - Italia
In collaboration with ACEA

Mercury City Tower

Moscow - Russia
In collaboration with Illuminator group

Garden Ring

Moscow - Russia
In collaboration with Illuminator Group

Praga Restaurant, Boulevard

Boulevard Ring Moscow - Russia
In collaboration with Illuminator Group

History Museum - Red Square

Moscow - Russia
In collaboration with Illuminator Group

Passerelle Saucy bridge

Liège - Belgium
In collaboration with Barbara Hediger

El Barreno

Ciudad De Mexico - Mexico
In collaboration with Light Control

Axa building

Waterloo - Belgium
In collaboration with Barbara Hediger

Centre Mannaie

Brussels - Belgium
In collaboration with Barbara Hediger

Vulcano Buono fountain

Nola - Italy
In collaboration with Watercube

De Ferrari square fontain

Genova - Italy
In collaboration with Aster

Alexander the Great fontain

Skopje - Macedonia
In collaboration with Watercube

Castle of Brescia

Brescia - Italy
In collaboration with A2A

Mudec

Milan - Italy
In collaboration with Toshiba

Rione Terra

Naples - Italy
In collaboration with InArPRO

Railway station Gioia Tauro

Reggio Calabria - Italy
In collaboration with RFI

Varone waterfall

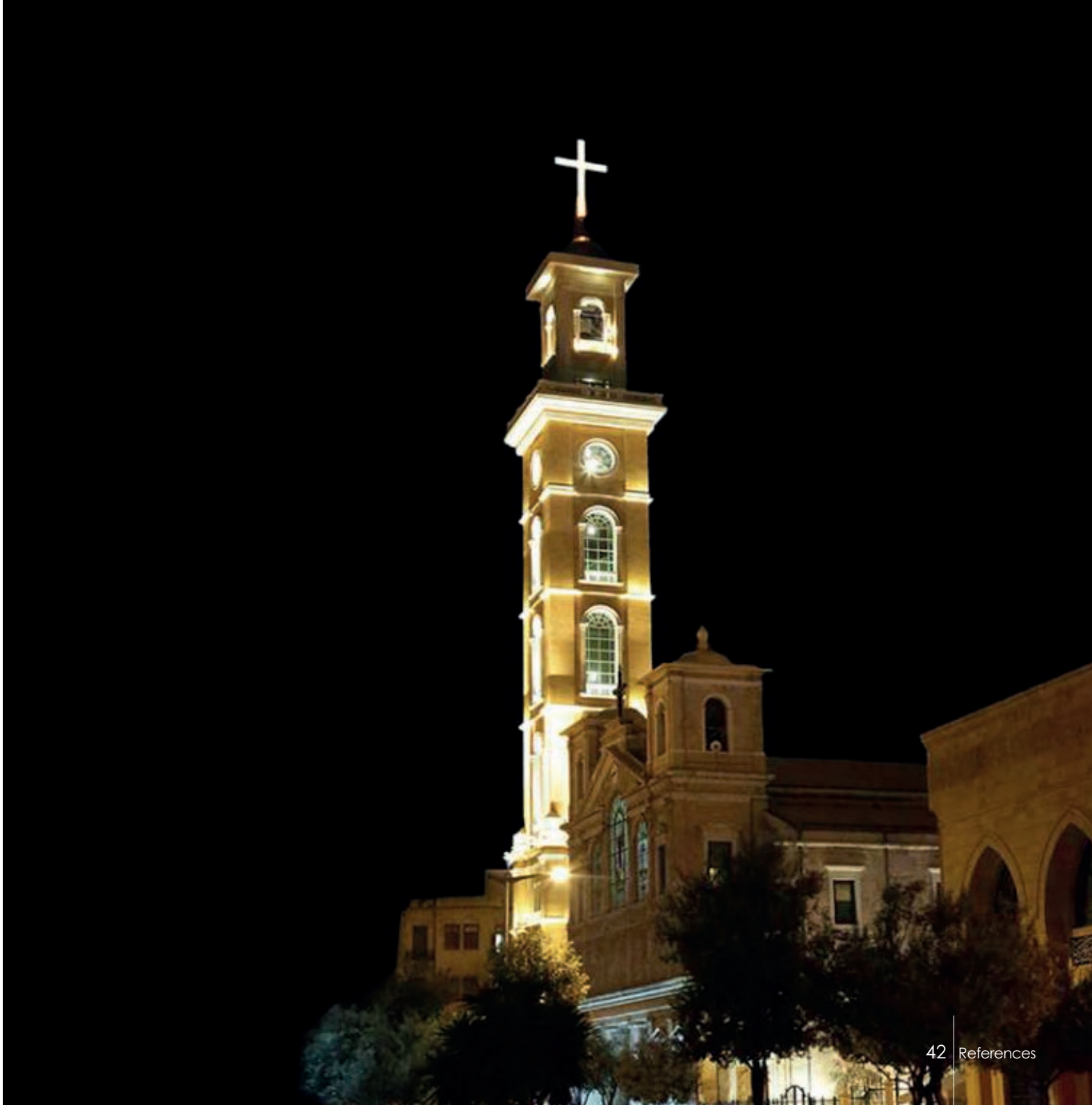
Trento - Italy
In collaboration with Daniele Canuti

Guastalla cathedral

Reggio Emilia - Italy
In collaboration with Daniele Canuti

St. George Cathedral

Beirut, Lebanon
In collaboration with Debbas

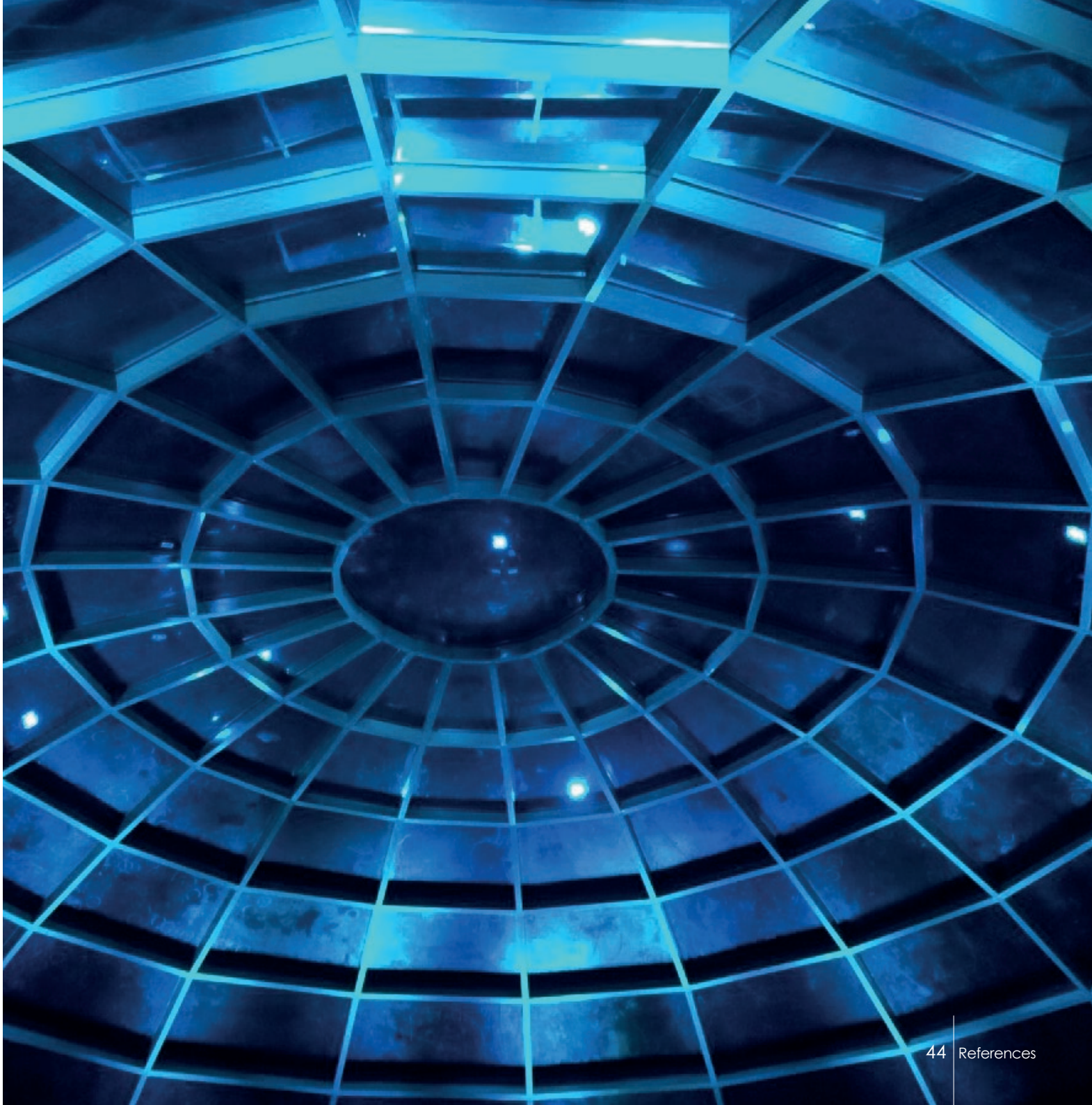


89 Mall

Kuwait City, Kuwait
In collaboration with TGS

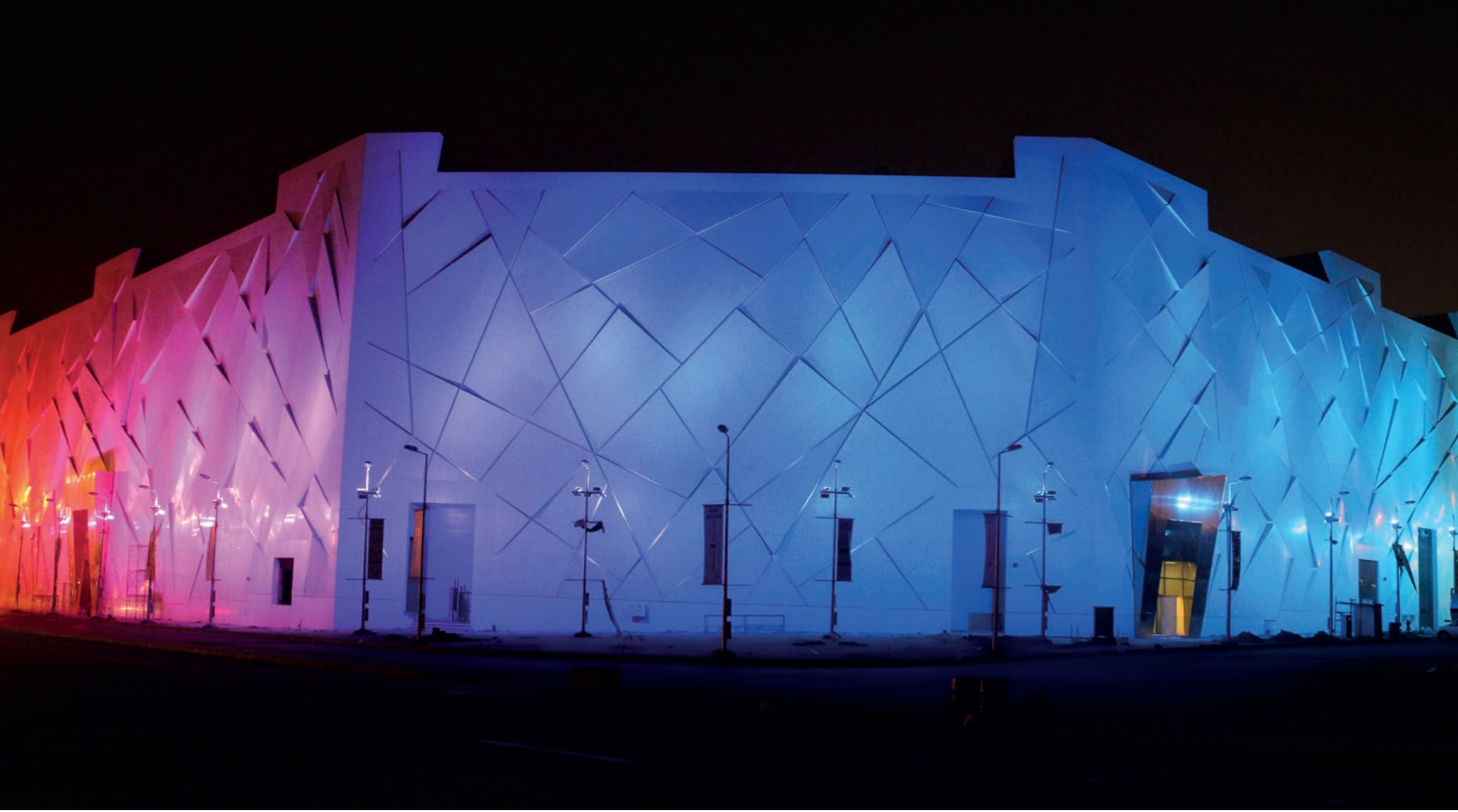
Arabia Mall

Kuwait City - Kuwait
In collaboration with TGS Technical Establishment for
Building General Contracting



Le Royal Hotel

Amman - Jordan
In collaboration with Diamante Lighting ME



Sama Mall

Kuwait City - Kuwait
In collaboration with TGS Technical Establishment for Building General Contracting

Rectangular Stadium

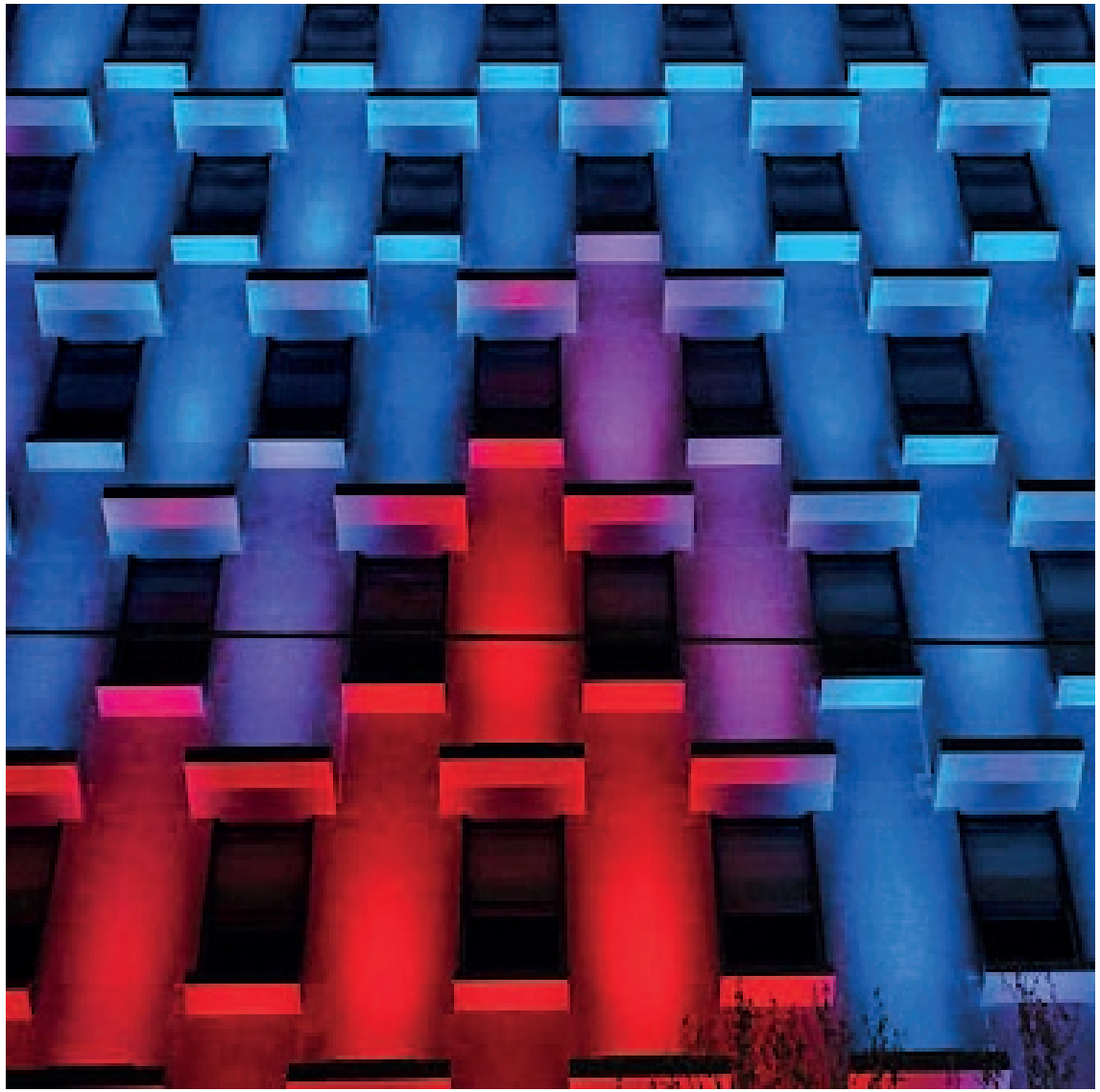
Melburne - Australia
In collaboration with Spacecannon Australia

Kurilpa bridge

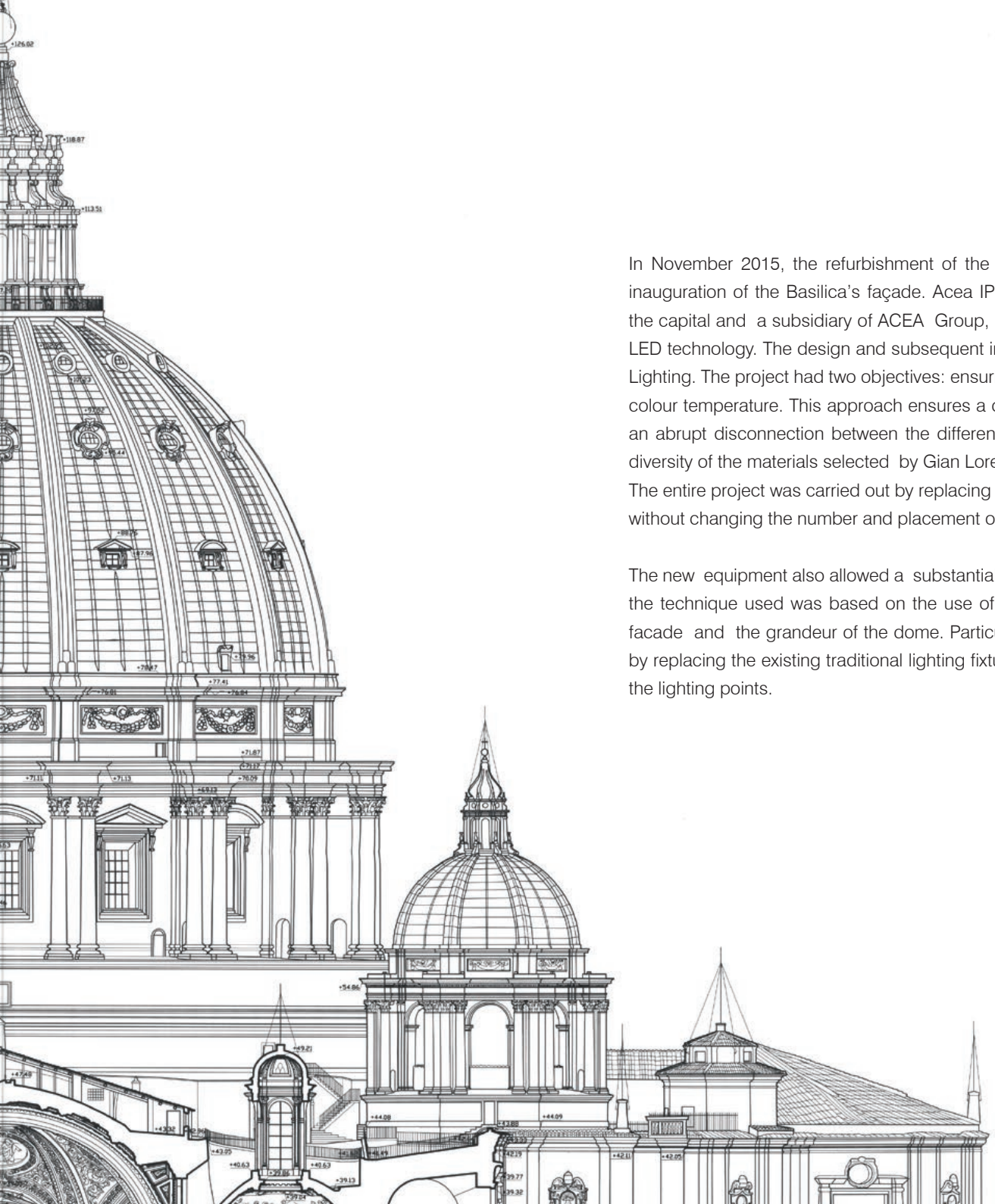
Brisbane - Australia
In collaboration with Spacecannon Australia

Royal Mail House

Melburne - Australia
In collaboration with Spacecannon Australia



Custom
solutions

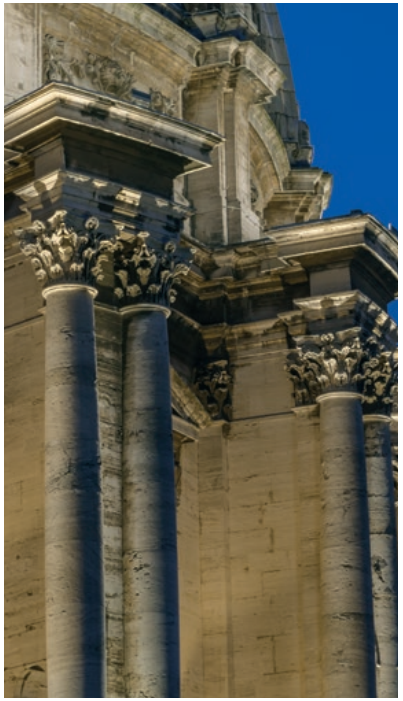


LED lighting for St. Peter's Basilica

In November 2015, the refurbishment of the lighting system of the Basilica of St. Peter in Rome ended with the inauguration of the Basilica's façade. Acea IP (Public Lighting), an Italian multi-utility company operating mainly in the capital and a subsidiary of ACEA Group, promoted this initiative with the aim to take advantage of all benefits of LED technology. The design and subsequent implementation was organized by Acea IP in partnership with Diamante Lighting. The project had two objectives: ensuring a more efficient illumination and attaining the homogenization of the colour temperature. This approach ensures a correct perception of the volumes and spaces of the Basilica, avoiding an abrupt disconnection between the different architectural elements, including those necessary to emphasize the diversity of the materials selected by Gian Lorenzo Bernini in the 17th century.
The entire project was carried out by replacing the existing traditional lighting appliances with Diamante's LED fixtures, without changing the number and placement of the lighting devices.

The new equipment also allowed a substantial energy saving of 70% compared to the previous solution. Furthermore the technique used was based on the use of only two colour temperatures which enhances the three-dimensional facade and the grandeur of the dome. Particular attention was paid to the perspectival techniques used by Bernini. by replacing the existing traditional lighting fixtures with LED fixtures, without changing any number and placement of the lighting points.


IN·HONOREM PRINCIPIS·APOST PAVLVS·V·BVRGHESIVS·ROMANVS·PONT·MAX·AN·MDCXII·PONT



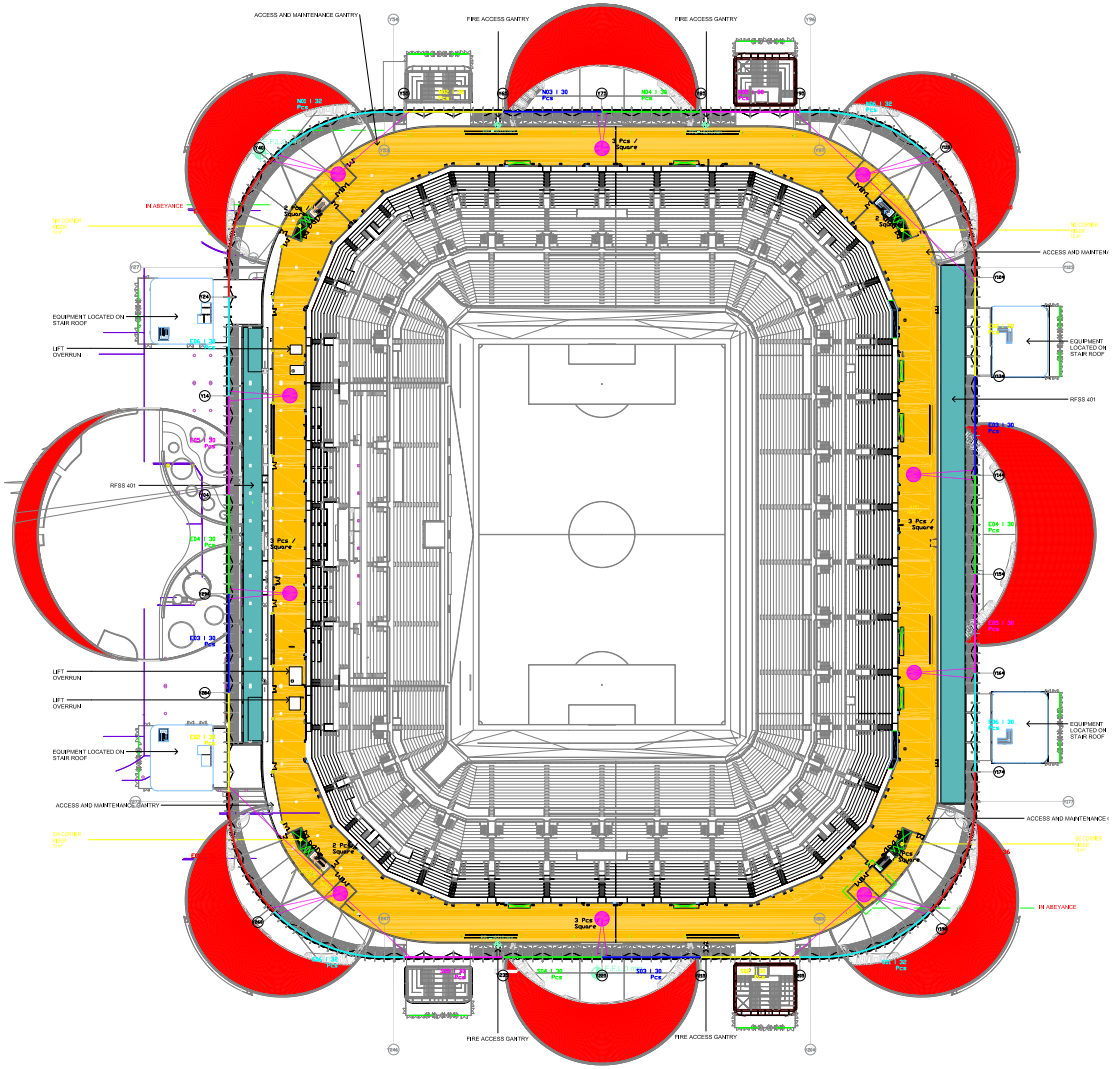
All this was made possible through Diamante Lighting's know how, which designed and provided custom lenses and reflectors on Acea IP's request. 340 LED appliances were used for the illumination of the facade, the dome, the cupolas and the statues of the Main Altar and Bernini's Baldachin. The project lasted approximately two months including the production and the complete installation of the equipment; a record time considering the complexity of the project. To ensure effective work and meet deadlines, "rope operators" were involved whose technique enabled us to carry out the installation in otherwise inaccessible places.

Stunning light effects at the Al-Rayyan FC Stadium - Qatar

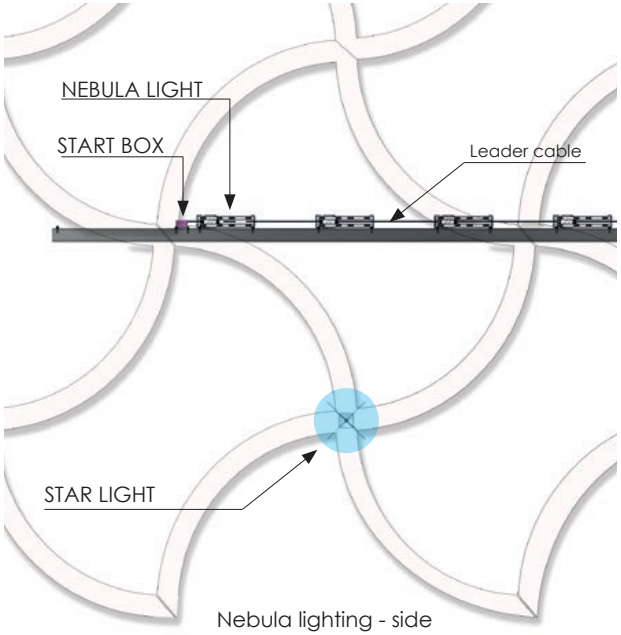
The Al-Rayyan FC Stadium is one of several sports facilities designed and built to host the 2022 world football cup in Doha – Qatar. Diamante Lighting has secured the order for 5.871 special fixtures (Intensa and Plain) to illuminate the external walls of the stadium with stunning effects on the amazing architecture.The fixtures are controlled through our proprietary DHSLC software engineered to manage large installations.

FIFA DEPARTMENT / USER GROUP

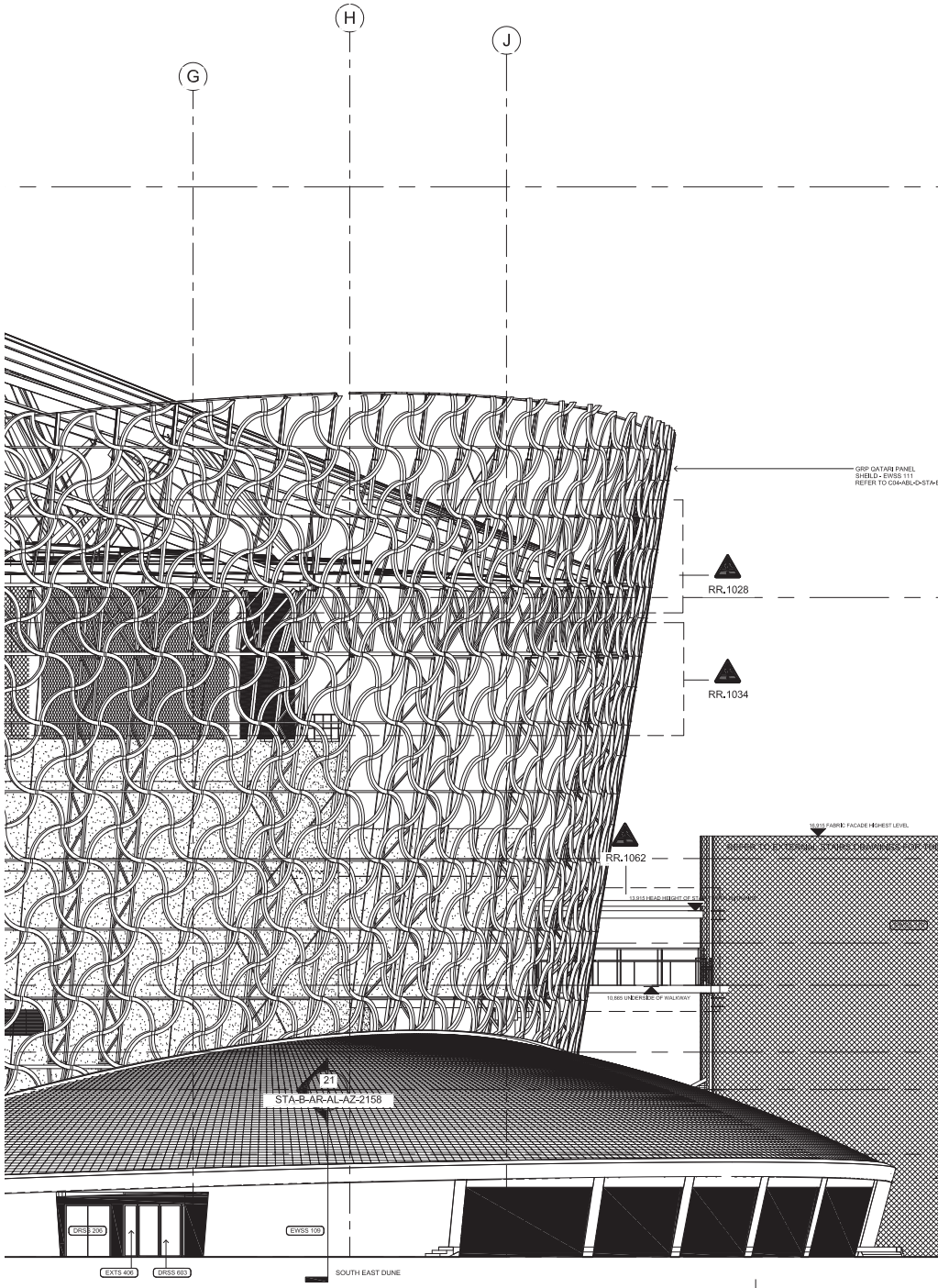
- COMPETITION / TEAMS
- BROADCAST
- MEDIA
- VIP
- VVIP
- ORGANISATION (FIFA / LOC)
- HOSPITALITY
- MARKETING
- SAFETY AND SECURITY
- SPECTATORS AND PUBLIC
- SPECTATORS AND PUBLIC - EXTERNAL AREAS
- SERVICES
- PRAYER ROOM
- HELP/INFORMATION POINT
- WC
- STAIR CORE
- AREAS NOT ASSIGNED (ALL OTHER AREAS)

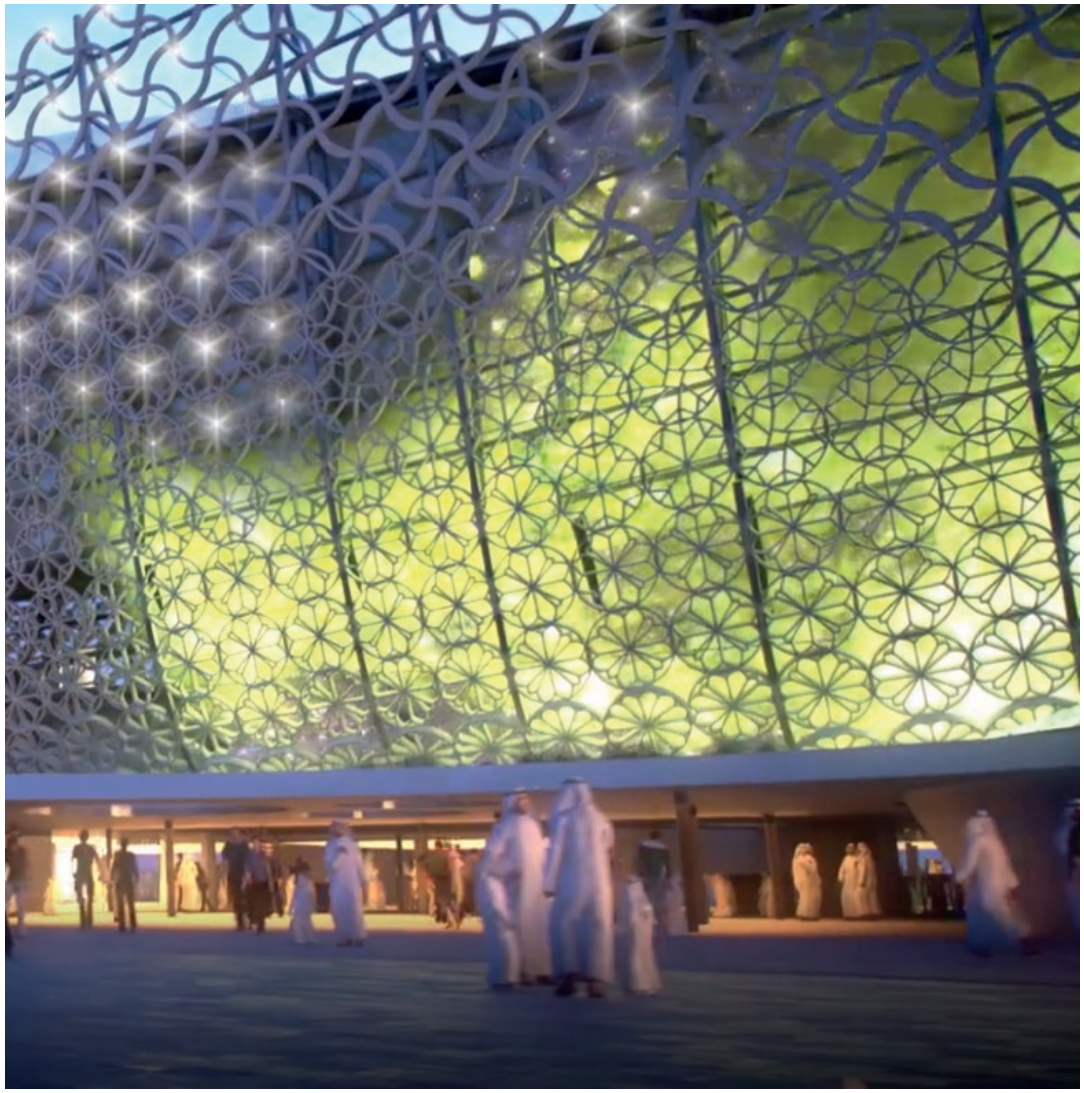


The outer walls of the Al Rayyan stadium are encompassed by an arabesque veil that lends the huge building lightness and elegance. The walls are illuminated by special Intensa fixtures mounted internally on the veil. They provide a wall washing effect that reveals the arabesque by contrast. Special Plain devices are mounted externally in the intersections of the the arabesque motif to create a « flashing » effect of white light dots against a colour background. Both Intensa and Plain create dynamic, amazing light scenes controlled by Diamante's proprietary DHSLC software.



Nebula lighting - side





Plain Led-point

Plain was designed especially for this project to provide a sharp, neutral white light spot. The body, including an efficient heat sink, is in aluminium alloy. Plain and Intensa are managed by a single control unit. Plain is rated IP 67.
1434 Plain were mounted.

Intensa 500 RGB Double

Intensa (IP 66 and 67) is a standard RGB Diamante fixture in a special double configuration. Both modules are orientable; each module is separately controlled through DHSLC, Diamante's self-adressing software. The two modules have different light beams and are driven by remote power supply units.
Altogether 4437 double units were installed.

Facade Lighting Design
National Bank - Kuwait

- The tower design concept originated from a pearl shell, an object highly symbolic in Kuwait's history and heritage, culture and economy.
- The main construction comprises composite concrete and steel.
- The cladding on the fins and glass façades is predominantly glass reinforced concrete.
- The purpose of the façade lighting is the show the beauty of building's detail and landmark in night time.
- The design concept is to illuminate the GRC fins using hidden indirect lights.
- Using the RGB LED technology with DMX control will provide too many options of the façade lighting styles.

Lighting Control System

Lighting Fixture
Intensa 1500 RGB

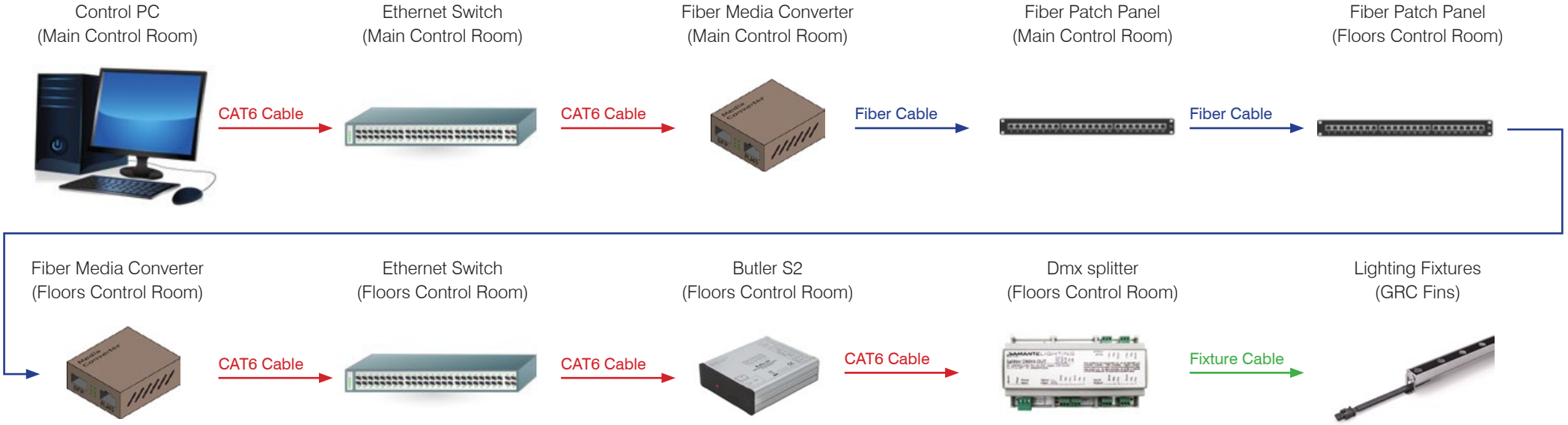
Low output wall washing and general illumination. Specification-grade modular system featuring high power LEDs. Modules lengths of 500, 1000 and 1500 mm. Four high-precision beam angles. Wide choice of outputs, color temperatures, color-mixings. Remote power supply unit. Control through remote gear.
Using The Elliptical Horizontal Narrow Beam will provide excellent control and restriction of light direction.
This will prevent light to go inside the building through the glass curtain wall façade between the fins. Having the best efficiency of lighting.

The e:cue Lighting Application Suite is a collection of software applications used to program the most creative lighting designs.
The Lighting Application Suite includes innovative and intuitive tools to design simple to complex lighting and video shows, position lighting fixtures in a project plan, and configure e:cue and external devices in the control system.
In addition to that, you can also program special lighting effects, video-to-light pixel mapping, visualization of the lighting installation, and special triggering and automation features.

Features:

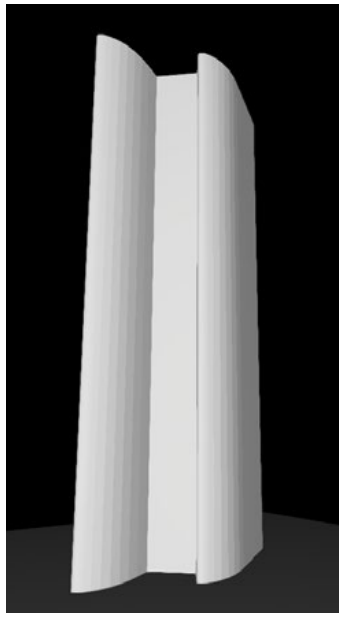
- Program precision timing of lighting scenes.
- Preview lighting projects with Imagine.
- Arrange lighting fixtures in your project plan intuitively.
- Advanced Remote Device Management,
- Create complex shows with multiple videos, graphics and moving text with Emotion FX.
- Organize and group fixtures.
- Create animations using Wizards.
- Program time and date triggers.
- Control large numbers of DMX512/RDM channels and pixels.

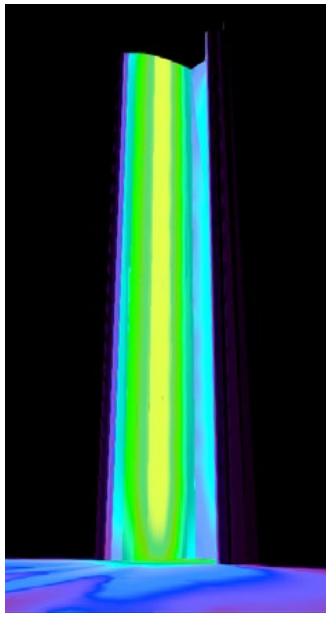
Lighting Control Schematic

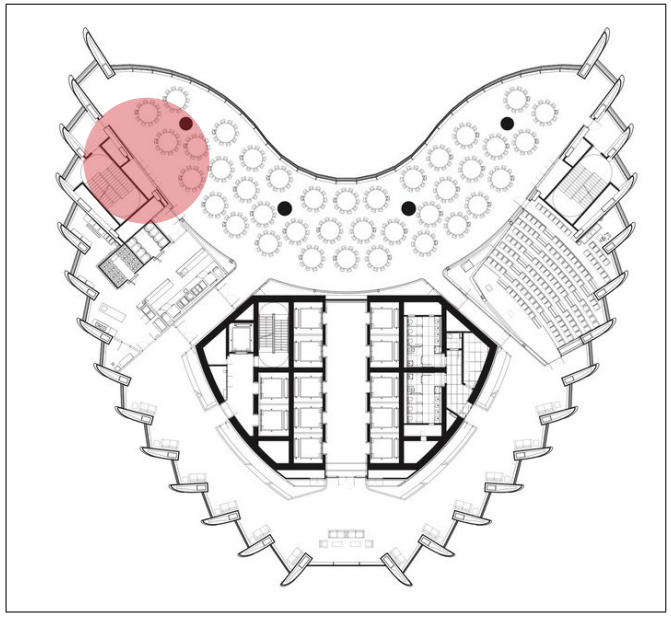


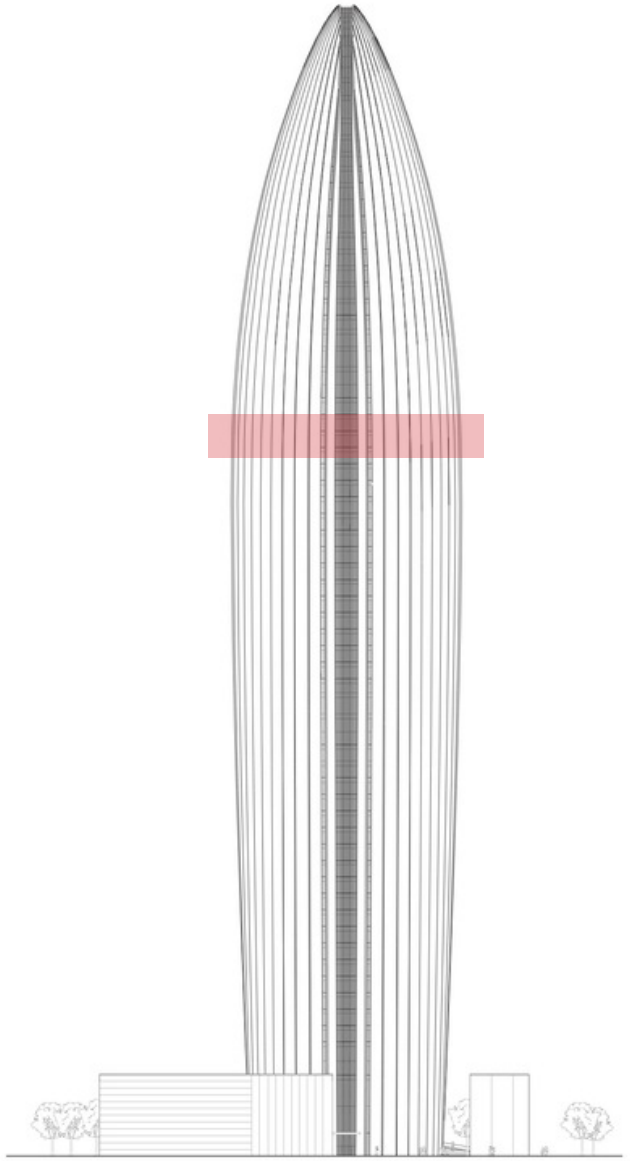
Lighting Simulation

Taking a fin as a sample, and applying DIALux simulation.

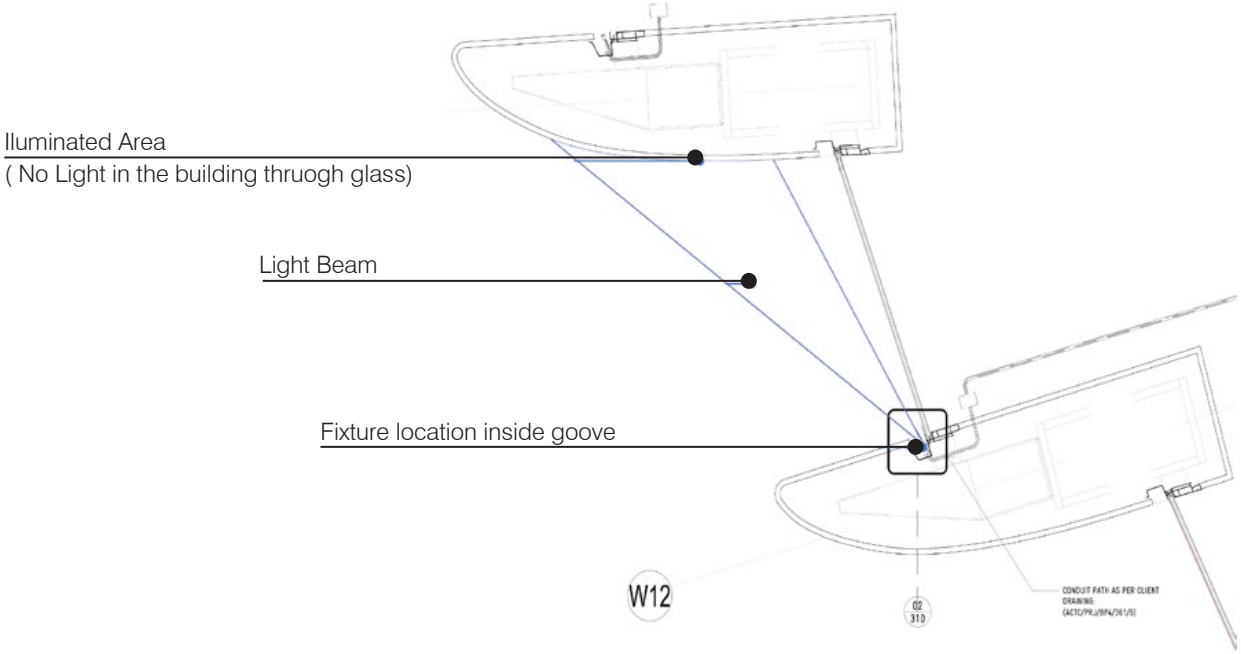






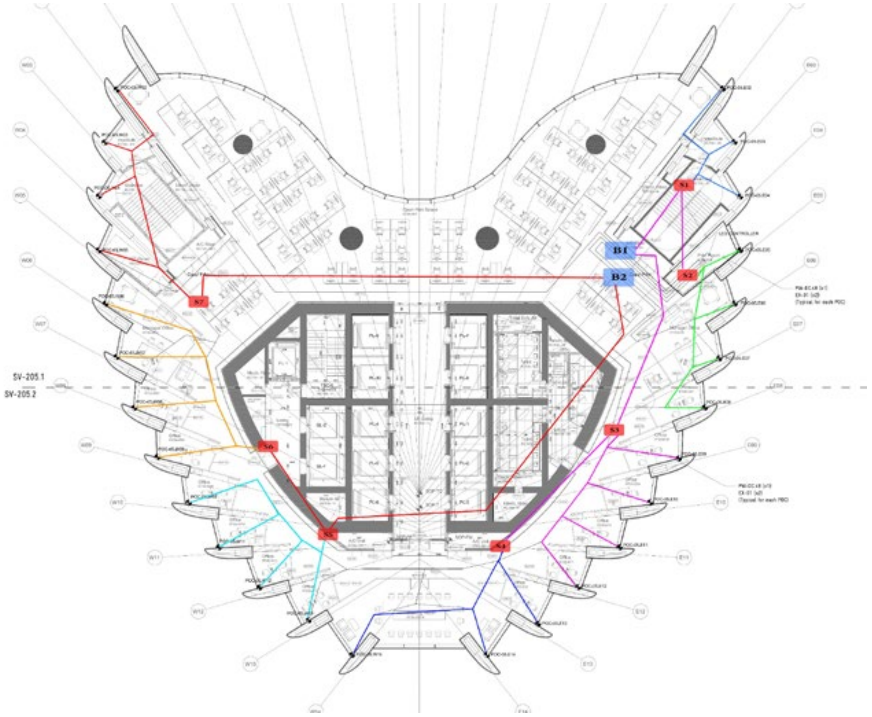


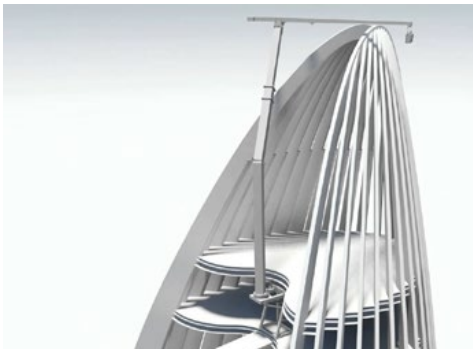
Top Sectional view of one fin



Instalation & Methodology

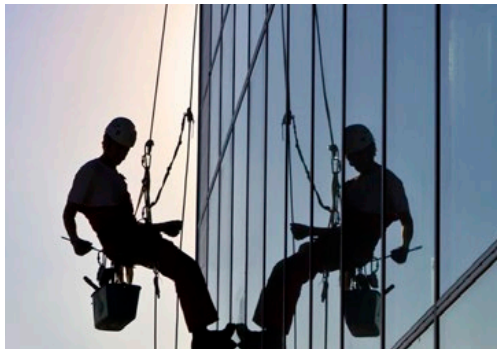
- The System is divided into 6 Levels for both Power and Data.
- Each level is connected with the other by fiber optics cables, and the components of each level is connected by CAT6 cables.





Building BMU:

- The NBK Tower has the heaviest and most complex BMU in the world.
- It can be used for the installation process.



Spider Method:

- For some areas which can't be reached by the BMU, Spider method can be used.

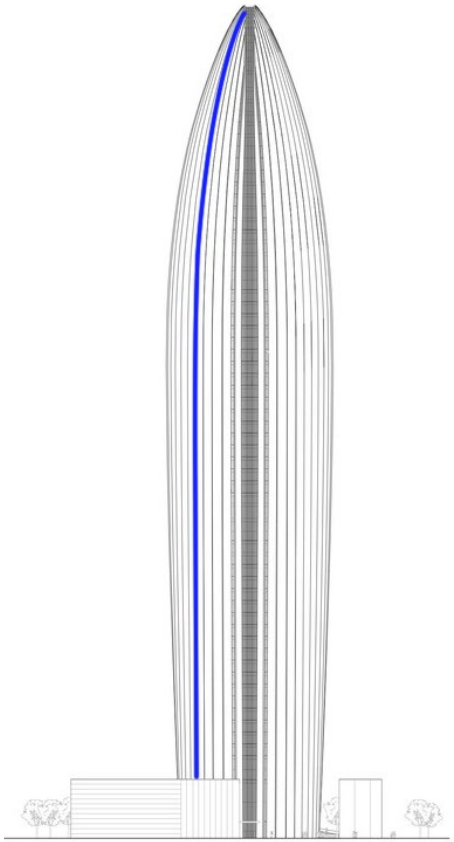
Fixtures Installation

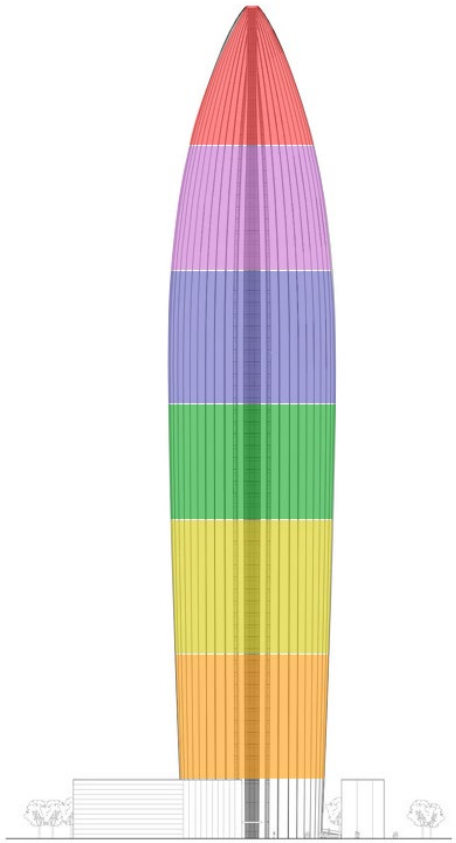
Checking & Mock-up:

- The first step is to check the validity of the old system connections and cables and mutual components.
- After that some samples will be installed to verify the system compatibility. And confirm the effect.

Installation process:

- Installation process will be level by level, Starting from level 1 and operate the sub-system.
- During the installation process of level 1, another process of installation will start of an entire vertical fin and operate the fin.





Design Rendering




COMPANY PROFILE

12/2022

rev_02

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