



Dear Reader,

We've just closed 2017 and for Fael it was, without any doubts, an unforgettable year!

We are indeed proudly 53 years old. 53 years have passed since 1965, when Fael (Factory for Electrical Apparatus) began its adventure in the world of lighting and the company name immediately became a quality synonym. And since 53 years Fael LUCE defends, with pride, its origins: the totally Italian production plant and the brand Fael LUCE represent a tangible sign of MADE IN ITALY and the contribution that Fael offers to "Italian Excellence" in general.

53 intense years, characterized by technological development, cultural changes, alternate economic situations, intertwined with stories of men who have made this milestone reachable.

50 years of consistent company choices, with a strong vocation, targeted objectives, rewarding and beyond. We have developed a range of solutions that today represent our corporate assets. We see this anniversary as a stage of the undertaken journey, which will continue for a long time. We have the usual tenacity, the passion and the spirit, but, first of all, we still have many projects in the pipeline to which we intend to give light, together with our partners who every day put their trust in our company.

That's why WE DO IT BETTER - WE DO IT TOGETHER!

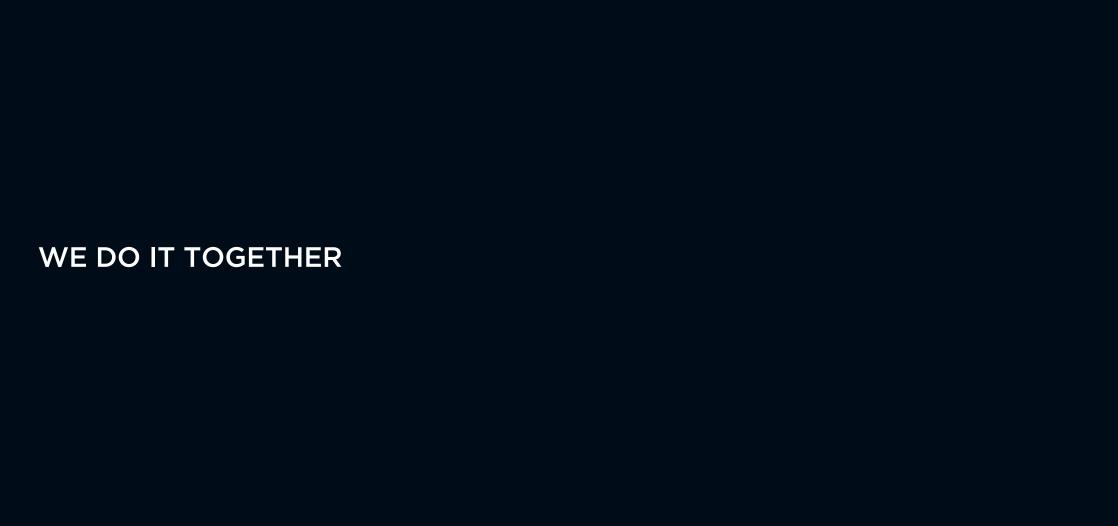
We look forward to further strengthening these bonds in the decades to come, creating extra-ordinary projects together like those featured in this fourth edition of the Project Book, focused on benchmark projects realized with our partners across the world.

Enjoy the reading!

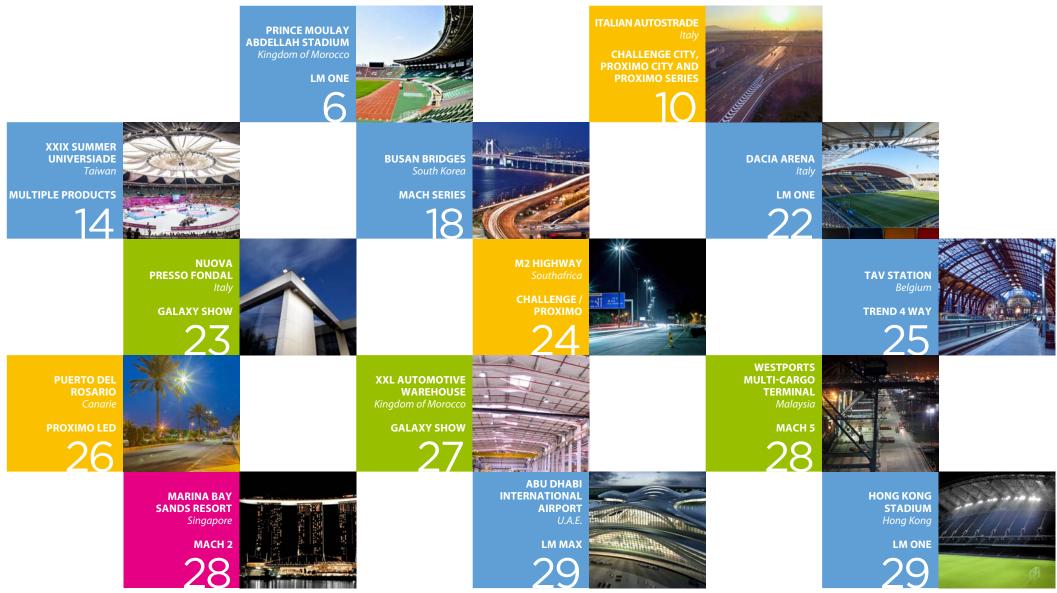
Luciano Parravicini

Chairman President Fael Spa

WE DO IT BETTER











LIGHTMASTER ONE 2000W

PRINCE MOULAY ABDELLAH STADIUM

Rabat, Kingdom of Morocco













Passion for Sports and in particular Football has been spreading greatly throughout North Africa in recent years and of course the Kingdom of Morocco and it's Capital RABAT did not miss out.

It's wonderful "Complexe Sportif Prince Moulay Abdellah" National stadium, a charming and multi-functional modern Sport facility capable of hosting up to 68.000 fans and Sport enthusiasts, is the country's largest stadium and one of the most impressive in all North Africa.

It's lightly sloped arhitecture allows a broad view of an array of sports events ranging from all Atheltics specialities to typical turf Sports such as Football but poses a significant challenge to the Lighting industry due to it's very ample stand radius and sheer size.

The stadium has recently undergone a complete reworking of the Lighting system and FAEL Luce was proud to be awarded both the Lighting Project and the furbishing of 407 professional LightMaster One 2000W floodlights along with the aiming of many of them, precisely the 239 ones on the main stands and the large west passarelle while the remaining 168 on the masts were aimed by local technicians under FAEL supervision.

One of the key features that allowed this Project to be awarded to FAEL is the broad range of available optics for it's Floodlights which allowed a very keen and precise distribution of the light fluxes thus overcoming the challenges posed by the very large surface to be lit.

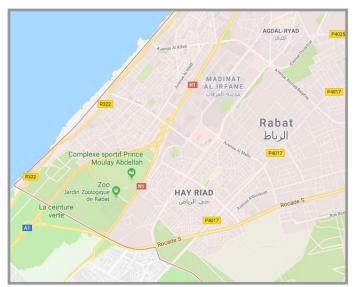


The Prince Moulay Abdellah stadium have a full Running Track around the pitch, but it has very laid back stand's angles.

The resulting distance of the Lighting structures from the center-field was a challenge that FAEL tackled brillantly.









The Prince Moulay Abdellah stadium is very peculiar in it's size class. Not only does it have a full Running Track around the pitch but it has very laid back stand's angles for a stadium accomodating 64.000 fans. The resulting distance of the Lighting structures from the center-field was a challenge that FAEL tackled brillantly.

The outcome of this work is astonishing and allowed the "Prince Moulay Abdellah" stadium to comply to harmonised EN 12193 and International Standards for Sport Broadcasting and to obtain the FIFA Football Stadium Technical Reccomandations compliance with a Level V.5 which is the highest possible.

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THE TECHNICAL SOLUTION

FAEL Luce installed a total of 407 LightMaster series projectors in their most powerful 2000W version in the Prince Moulay Abdellah Stadium in the Kingdom of Marocco.

168 projectors have been installed on four Lighting towers at a height of 50m above the pitch ground level, 120 projectros are postioned on the catwalk under the west terrace cover structure at 33m of height above the pitch and 119 on the towered catwalk structure built on the upper side of the east stands with heights ranging from 31m to 33m above the ground. The installation features six different lighting ignition schemes that allow Sport activities that vary from simple non-professional activities to fully blown professional Sport Events with International TV network broadcasting.

The very carefull illumination design, fine tuned in the lab and finally aimed by FAEL's experts, allowed to overcome problems originating from shades cast by the main terraces and their cover structure and to comply to the highest standards for International Sport Events and broadcasting (FIFA Level V.5 and IAAF).

The use of higly efficient, worldwide tested and proven, LightMaster 2000W projectors guarantees an excellent visual comfort without any glare both for the players and spectators.

Floodlights type: LIGHTMASTER ONE 2000W





CHALLENGE CITY LED, PROXIMO CITY LED AND PROXIMO LED SERIES















ITALIAN AUTOSTRADE

Milan-Turin, Italy

The Milano-Torino, part of the A4 complex of highways that run across the highly industrialized Italian northern regions of Piemonte, Lombardia and Veneto, is one of Italy's oldest 'Autostrade' and one of it's most important. It was conceived to link all the major Italian cities along a West-East axis starting from Torino all the way to Trieste on the most Eastern border of the country, thus allowing to reach Milano, Brescia, Padova, Venezia along it's way.

It's design began in April 1927 and the actual construction works started in April 1930 with the highway being completed and opened to the public on the 25th of October 1932. In time the major 'Autostrada' has undergone a number of improvements and enlargements allowing it to be what it is today; Italy' most trafficked highway and among Europe's busiest with an impressive 140.000 cars and 40.000 heavy vehicles travelling along it every day.

FAEL has had the pleasure to study, design and furbish an exceptionally large array of over 4700 of it's world-renowed CHALLENGE CITY, PROXIMO CITY and PROXIMO Series LED Streetlights that were installed both along the 121 Km of actual highway and the 26 Exits and Junctions, in both directions, along the journey.

FAEL Luce's Projects, as usual, were tailor-made and specifically designed for each and every Junction, bridge overpass and critical stretch of the Milano-Torino highway. Several special versions of it's famous Streetlights were tweaked and set, both optically and in terms of LEDs, to reach optimal lighting comfort and safety.









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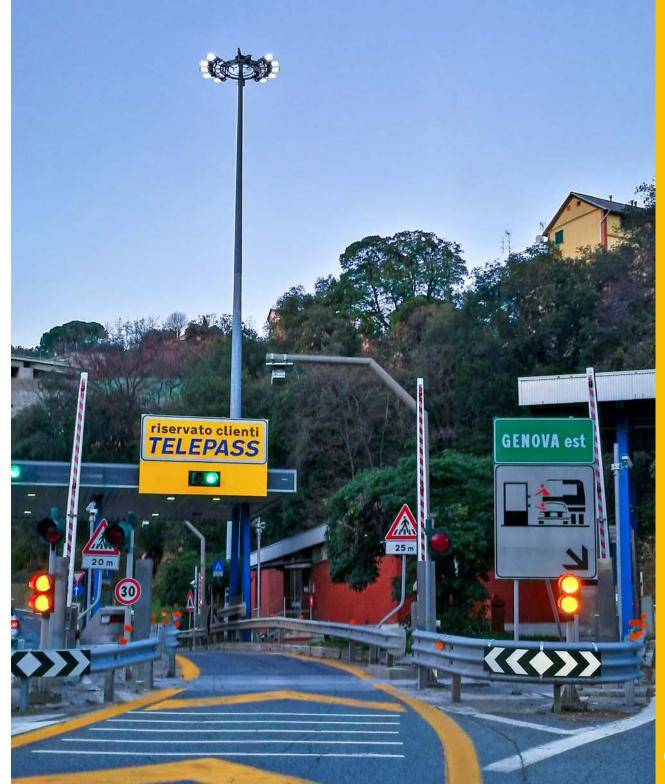


FAEL of course lit several more 'autostrade' parts in 2017 including major Junctions on the A-14 known in Italy as 'the Adriatic' with its 744 km in length and Tolls along the A12 Genova-Livorno that runs along the country's western coastline.

Many more 'Autostrade' projects are in the making for 2018 and will be featured in next year's Project Book.











MULTIPLE LIGHTING PRODUCTS

TAO YUAN DOME

Taipei - Taiwan















FAEL has had the chance to entirely produce and fine-tune the LEDs floodlight systems in all EIGHT multidisciplinary facilities and has also provided light solutions for temporary sport halls like the former swimming pool facility which allowed significant savings by avoiding the need for a new structure to be built. On this specific swimming pool project FAEL has engineered new special optics that manage light distribution in a way to avoid annoying water reflections and allow precise control of lighting thresholds.

Once again FAEL's capabilities in experimenting and developing leading edge technical lighting solutions were recognized and appreciated by many lighting consultants and experts of the field; to ensure the best possible lighting solution for the opening ceremony at the Taipei Stadium FAEL fielded night trials on a daily basis in the days prior to the event in order to ensure state-of-the-art floodlighting and security conditions in the facility.



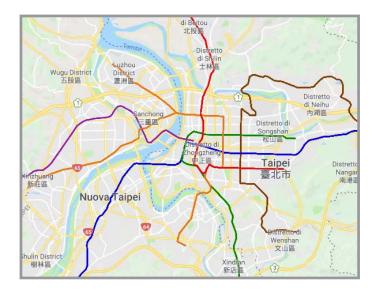




Each different Sport poses different challenges in terms of lighting and deserves it's perfect, State-of-the-Art ambience.

FAEL Luce knows this and tackled all of the challenges furbishing specific Lighting Solutions, be it Precision, Low-glare or High power.







Several Sport facilities were lit by FAEL Luce during the 2017 Universiade ranging from the Main Taipei Stadium to the Athletics Stadium to specifically designed Sport venues such as the Baseball Stadium, the indoor Diving Center or the impressive Badminton Hall all of which posed very different and challenging feats both to FAEL, to the FISU federation and to the Municipality of Taipei.

Against the flitting notes of the orchestra and saxophone, Taipei slowly extinguished the Universiade torch, bringing the flame to the end of a long journey. The flag of International University Sports Federation (FISU) was taken down in a closing ceremony in Taipei on Wednesday 30th of August 2017 and passed to Naples, the host of the 2019 Summer Universiade.

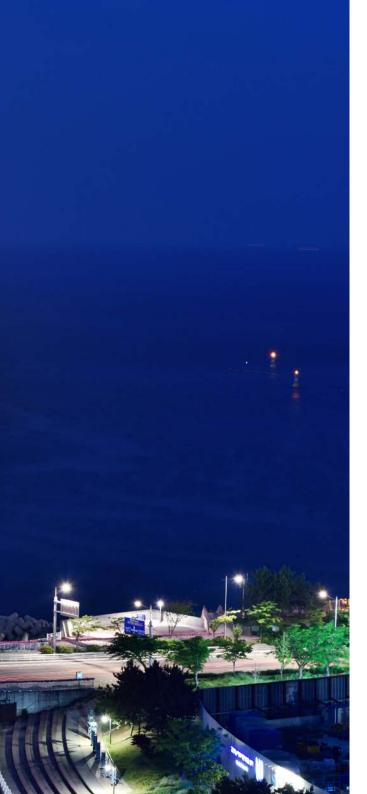
"Well, fellow citizens, we did it," said Taiwan Vice President Chen Chien-jen, who delivered remarks at the closing ceremony on behalf of the president. Mr. Chen thanked FISU, Taipei Mayor Ko Wen-je and the Universiade staff. The closing ceremony of the 2017 Taipei Summer Universiade is presented in a modern perspective of contemporary Taiwan music and world music trends. The integration of local music instruments and modern dance of the young generations as well as pop singers has given the deserved ending to what has been an Event to remember.

FAEL would also like to thank our Local Partners in Taiwan that spent remarkable actions to support Universiade and appreciated our solutions thoroughly. Their enthusiasm has showen that, indeed, FAEL is a greater lighting supplier.

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Floodlights type: LEDs and MH OUTDOOR FIXTURES





MACH LED SERIES

GWANGAN BRIDGE Busan, South Korea















Bridges and road infrastructures are one of the most valuable and critically important investments and assets in any country. With the right maintenance plan and remote assistance, FAEL has been awarded the Project as the LEDs lantern supplier for different reasons among which the fact that it provides an extended products' lifetime and perfomance' optimization, along with fewer interruptions and no unexpected extra charges during Project fielding and activation.

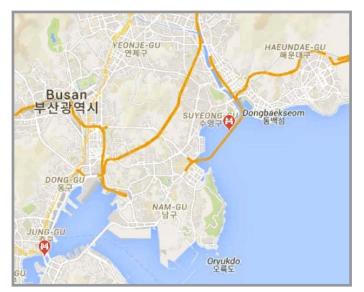
The MACH' range of projectors is gracing the breathtaking skyline of Busan City by delivering ideally a variety of effects and perfect light distribution. Busan is the second largest city in Korea and its bridges cross between Yeongdu Island and the Mainland allowing the extremely busy traffic between the Marine City business district and the Mamhang-dong residential areas on the island to flow safely and quickly during the night. FAEL's MACH' range gained a "green light" after rigorous selecting third party inspection laboratory tests in conformity with the Korean Mark of Quality which led to extensive endurance tests and finally a Certification in Marine Grade heavy environments.







In Busan, South Korea's second largest city, the already charming and high-tech Skyline is now graced during nightime by the Lighting of one of the world's most impressive harbour roadway complexes.





An advanced powder coating process was extended and provided within FAEL' manufacturing facilities in order to achieve these requested uniformities of paint thickness that were never before produced. FAEL, through it's proven high-tech know how was able to proudly affirm the reliability of its technology and the superiority of Italian manufacturing products that are furbished with a full Ten year Warranty.

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MARINE GRADE ENVIRONMENTS

Oceanside or Harbour lighting installations need to tackle a specific problem: the very harsh and aggressive environmental conditions posed by the presence of large masses of salt water that can easily corrode and harm the durability of any man made artifact. Salinity and iodium corrode and destroy the properties of bitumen, concrete and brick structures and of course metals. For this reason a Marine Grade specification has been developed throughout the years and FAEL had to comply to it for this special Project in South Korea.

A Special Series of Marine Grade luminaires was developed, tested and produced featuring a body in die-cast alluminium, with the primary alloy having a low copper content (<0,1%) and a Special double coating process in RAL 9006 Silver for Marine Grade >1000Hours.

Heavy and robust stainless steel and zinc coated stirrups were specifically developed for the Project along with a brass nickel plated Cable gland (IP68).

Floodlights type: **VARIOUS LED MODELS**

















LIGHTMASTER ONE

DACIA ARENA Udine, Italy



With a capacity of 25,000 spectators, the new DACIA ARENA represents an iconic project with a strong component of innovation, evident from the outside observing the original structure covered with a diamond cladding, a real jewel among the sport venues that will represent a model in Europe from many points of view, including the particular attention to the environment in which the structure was conceived and designed and safety standards revolutionaries. It will, in fact, the first venue in Italy without barriers, which will enrich, for the audience, the pleasure of the spectacle of the game field. A perfect mix between a large theater and arena exciting and engaging.

For the lighting aspect, the Udinese Calcio Company has chosen Fael LUCE to illuminate its own team. The proposed solution is perfectly in line with the objectives of the entire project and able to allow a reduction of the installed power, ensuring an energy requirement for night events lower than at present, maintaining the same levels of illumination.

Floodlights type: Lightmaster One 2000W HF

The NPF NUOVA PRESSO FONDAL Group is a typical 'Italian pocket-size multinational' located in different European production plants, and it is specialized in the complete supply chain of aluminium casting; with 30 high pressure die casting machines is able to produce more than 10 million parts from 200 grams up to 25 Kg.

Founded in 1952 the Company became one of the European leaders in the production of die-cast components especially for electrical motors, Lighting Industries and die-cast parts for several industrial sectors.

It's main production plant, based in Bosisio Parini close to Lecco in northern Italy, has seen it's Lighting professionally redesigned by FAEL Luce during 2017.

The very particular and harsh environment conditions of the plant, ranging from extremely high temperatures in the 2 melting oven buildings (with core temperatures of over 670° C) to periodic vertical high temperature gas exhausts blooming from the die-casting presses, posed a very tough challenge for FAEL's award winning LabLight R&D Team. After a long phase of testing FAEL Luce fine-tuned a special line of it's world famous Galaxy Show high-bay luminaires featuring a high number of COB LEDs (5) driven by a low Ampère current value enabling them to be certified for an impressive 50° Celsius operating temperature. A total of 131 special line Galaxy Show 560 high-bay luminaires were produced and installed inside the Italian NPF Plant along with Cosmo series projectros for the outside parking, office buildings and truck docks.

Luminaire type: Galaxy Show 560 5 LED COB















GALAXY SHOW 560 LED

NUOVA PRESSO FONDAL

Bosisio Parini, Milan, Italy



NUOVA PRESSO FONDAL S.p.A.



















CHALLENGE LED / PROXIMO LED

M2 HIGHWAY Johannesburg, South Africa

FAEL has been supplying road lighting to the South African National Roads Agency and Local Municipalities for decades supplying thousands of its street luminaries that are successfully illuminating both highways and primary roads with the maximum safety conditions for motorists and freight drivers.

Upgrading M2 Highway from Gemiston to Tambo International Airport, South Africa's busiest highway, has introduced advanced public safety features with a technology based on extensive communication and data services that today assist the Roads Authority in managing a safe and quick flow of vehicles.

After former projects developed with conventional street lanterns FAEL is now supplying LED-based solutions in South Africa. At the hart of any project lays a double effort in providing maximum performance coupled with the smallest impacts in terms of environment and engineering costs for the Customers. This allows FAEL to establish long and effective partnerships with an array of Road Authorities that appreciate performance and cost-effectiveness. FAEL in 2017 has started installing in the Country it's new high performance products which ideally cut energy power consumption in a technically accurate and stylish road lighting concept.

FAEL and its CHALLENGE and PROXIMO are more than 60% energy efficient and feature a complete built-in thermal management system and advanced SAFEWAY® optics to ensure updated and market leading output values and constant efficiency and reliability.

Floodlights type: CHALLENGE LED and PROXIMO LED







The most beautiful train stations requests the most beautiful architectural light fitting, this is one of the reasons for which TREND 4 WAY designed by FAEL has been considered by the Belgian SNCB National Railway authority. Finally FAEL was chosen as the Contractor for the illumination of all train-platforms alongside the busiest route from Paris to Amsterdam, with significant stops and installations in the Brussels, Mechelen and Antwerp train stations.

FAEL did not offer a standard luminary but one featuring a patented optical system that can control "rifle shots" and dramatically reduce energy consumption and maintenance costs by 60% compared to conventional discharge bulbs.

Since 1965, FAEL is offering high experienced products that intelligently impact the choices of world-wide operators, spectators and Authorities that are establishing FAEL as the benchmark in the Lighting field.

Floodlights type: TREND 4 WAY LED













TREND 4 WAY LED

BRUXELLES-ANTWERP HST LINE Belgium















PROXIMO LED

PUERTO DEL ROSARIO Canary Islands, Spain

Puerto del Rosario is the Municipality with the highest density of citizens on the Island of Fuerteventura in the Canary islands. The local community has witnessed a consistent surge both in residents and turistic presences recently which led to the development of major improvements in infrastructures, communication roads and urban open spaces. The town, which is central in reagrds to the main routes of the island and also hosts it's main Harbour for the logistic movement of people and goods, is home to the local International airport. The Puerto del Rosario Townhall, which is traditionally in favor of the island's environmental conditions, decided to take on important initiatives in the field of Public Lighting and to give the citizenship an entirely new public lighting system.

Fael LUCE was awarded the large and important Project thanks to it's world-known PROXIMO CITY Series, a highly efficient, fully alluminum die-cast LED technology Streetlight that, installed into all the roads of the island, ensures great visibility and visual comfort while it guarantees the highest levels of security thanks to it's patented SAFEWAY® Optical system. The new installations have given Puerto del Rosario important savings in terms of Energy consumption and maintenance costs.

Floodlights type: PROXIMO LED





In most recent years massive investments have been made in the Southern Mediterranean area. One of the most impressive examples of such investments is the completely new Tanger Med and Tanger Med 2 commercial ports and industrial areas. Located 40 km east of Tangeri on the Moroccan coast the complex covers a total area of 300 hectares and when fully operational in 2018 will be able to manage a staggering 8.2 million containers, 700,000 trucks and 10 million MT of products making the infrastructure Africa's largest by far. Of course, with such an important and strategic infrastructure being built, many global multinational brands have flocked to build new industrial facilities.

Among these one of FAEL's Customer corporations, a world leader in third party design and construction of Automotive parts furbishing transmissions, braking systems and on-board vehicle lights, has invested in the creation of a new Plant in TangerMed. FAEL was involved as the main Partner for the high-bay lighting of the impressively large plant having to tackle significant design issues regarding the high temperatures typical of the region and the sheer size of the installation. FAEL's project development found satisfactory compliance by the Customer's corporate tecnical branch. During the first part of 2017 FAEL furbished 476 luminaires of it's world famous Galaxy Show 560 high-bay series. The photograph shows a small portion of the entire Plant lit by FAEL in it's final contruction phases and before the installation of the proper production lines.

Floodlights type: Galaxy Show 560 LED







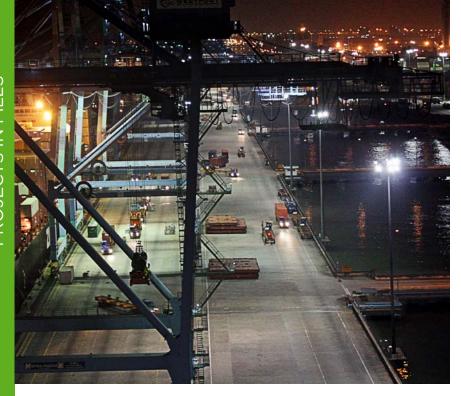








XXL AUTOMOTIVE PLANT Kingdom of Morocco



MACH 5

WESTPORTS MULTI-CARGO TERMINAL

Port Klang, Malaysia















Westport is a multi-cargo terminal which handles all types of cargoes in containers, and other conventional cargoes. Located along the straits of Malacca, Westports (collectively with Northport as Port Klang) has become the 18th busiest seaport in the world.

As part of the privatization exercise by the government of Malaysia in the early 1990s, Port Klang was subdivided into 3 terminals which are now known as Northport, Southpoint and Westports.

Located on the island of Pulau Indah (formerly Pulau Lumut), Westports have transformed the island's natural swamplands and sands into a multi-cargo seaport terminal. With the current quay length of 3.2 kilometers, which includes 5 container terminals, Westports have grown into a seaport terminal and helped Port Klang to be among the ports in the world.

Floodlights type: MACH 5 COSMO WHITE 315W



MACH 2

MARINA BAY SANDS RESORT

Singapore

















Fael LUCE contributed to light up the most famous building of Singapore, the Marina Bay Sands Complex, designed to accommodate the largest luxury resort of the entire Asian continent.

The complex, characterized by its architecture, consists of three towers covered by a structure shaped like a boat that houses one of the top ten hotel rooftop pools. During the night, the building gives a spectacular view through the play of light and reflections created on the water below.

Floodlights type: MACH 2



LIGHTMASTER MAX

ABU DHABI INTERNATIONAL AIRPORT

Abu Dhabi, UAE















The construction of the "Midfield Terminal Complex" (MTC and the overall expansion of the Abu Dhabi International Airport are of vital importance in assuring economic diversification and growth of alternative business segments in the United Arab Emirates through improved International connectivity.

The MTC is the largest building in the Abu Dhabi Emirate and is visible from over 1.5 Km away. The sheer amount of Luminaires that FAEL provided to the Complex is one of the largest ever provided to Customers in the past decades by any Italian or European Lighting company.

To give the reader an idea of this extraordinary Project here are some figures:

- 30 millions passengers a year with the capacity to manage up to 8500 passengers per hour.
- 65 gates, 156 check-in desks and 48 self-service booths
- 28.000 square meters dedicated to Shopping and Food services.
- 27 Km of luggage transport belts.
- 700.000 square meters of indoor room; the main terminal could host 21 football fileds.

Floodlights type: LIGHTMASTER MAX 1000W



LIGHTMASTER ONE - MACH 5

HONG KONG STADIUM

Hong Kong















The Hong Kong Stadium construction, formerly known as the Governmental Stadium, began in 1953 and since then has seen a constant upgrade progress that made it become today one of the most beautyful Stadiums in all Asia. With an overall capacity of 40.000 spectators and featured by gigantic arched structures holding the cover for the main terraces it was ideal for FAEL Luce's high performance and tailor-made Lighting systems.

The results are spectacular.

Floodlights type: LIGHTMASTER ONE 2000W and MACH 5



CHERNOMOREC STADIUM Ukraine



HANDBALL IZBOR Oman



PRUSZKOW NATIONAL VELODROME Polond



KONIAMBO NICKEL PLANT New Caledonia Australia



KOLUMNA CASTLE Polond



MAYBANK TOWER Singapore



KUANTAN COURT Malaysia



SVETICKHOVELI MONASTERY *Republic of Georgia*





SHA LU OVERPASS Taiwan



RED BULL X-FIGHTERS Egypt



DEPORTIVO SAN AGUSTIN Mexico





COMMUNICATION ROUTES Italy



RECIFE ROUTE *Brasil*



AUTOSTRADE PER L'ITALIA Italy



CENTRO
DIREZIONALE
COLLEONI
Italy





STADE LOUIS II
DE MONACO
SALLE OMNISPORTS
France



HERNÁN VILLEGAS STADIUM Colombia



GIULIO ONESTI OLYMPIC SWIMMING POOL Rome - Italy



PAICHADZE NATIONAL STADIUM TBILISI Republic of Georgia



WESTPORTS MULTI-CARGO TERMINAL Malaysia



PALACE OF FENCING MAGINI Italy



SENEGAL INTERNATIONAL AIRPORT Sénégal



COMPLEXE SPORTIF PRINCE MOULAY ABDELLAH Morocco



METRO
COLOMBO URBAN
DEVELOPMENT
PROJECT
Sri Lanka



TAIPEI TIEN MU BASEBALL FIELD Taiwan



AL AIN EQUESTRIAN SHOOTING AND GOLF CLUB U.A.E.

CHANDNI CHOWK FLYOVER Islamic Republic of Pakistan



TRINITAPOLI INDUSTRIAL AREA Italy



AL FORSAN INTERNATIONAL SPORTS RESORT U.A.E.



RADISSON BLUE HOTEL Ukraine





COLLEONI BUSINESS DISTRICT Italy



CAVALLERIZZA DI PINEROLO Italy



GONG BADAK STADIUM Malaysia



GLOBAL CHAMPIONS TOUR Austria





FELDA STADIUM Malaysia



SALUT STADIUM Russia



S3 HIGHWAY Poland





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