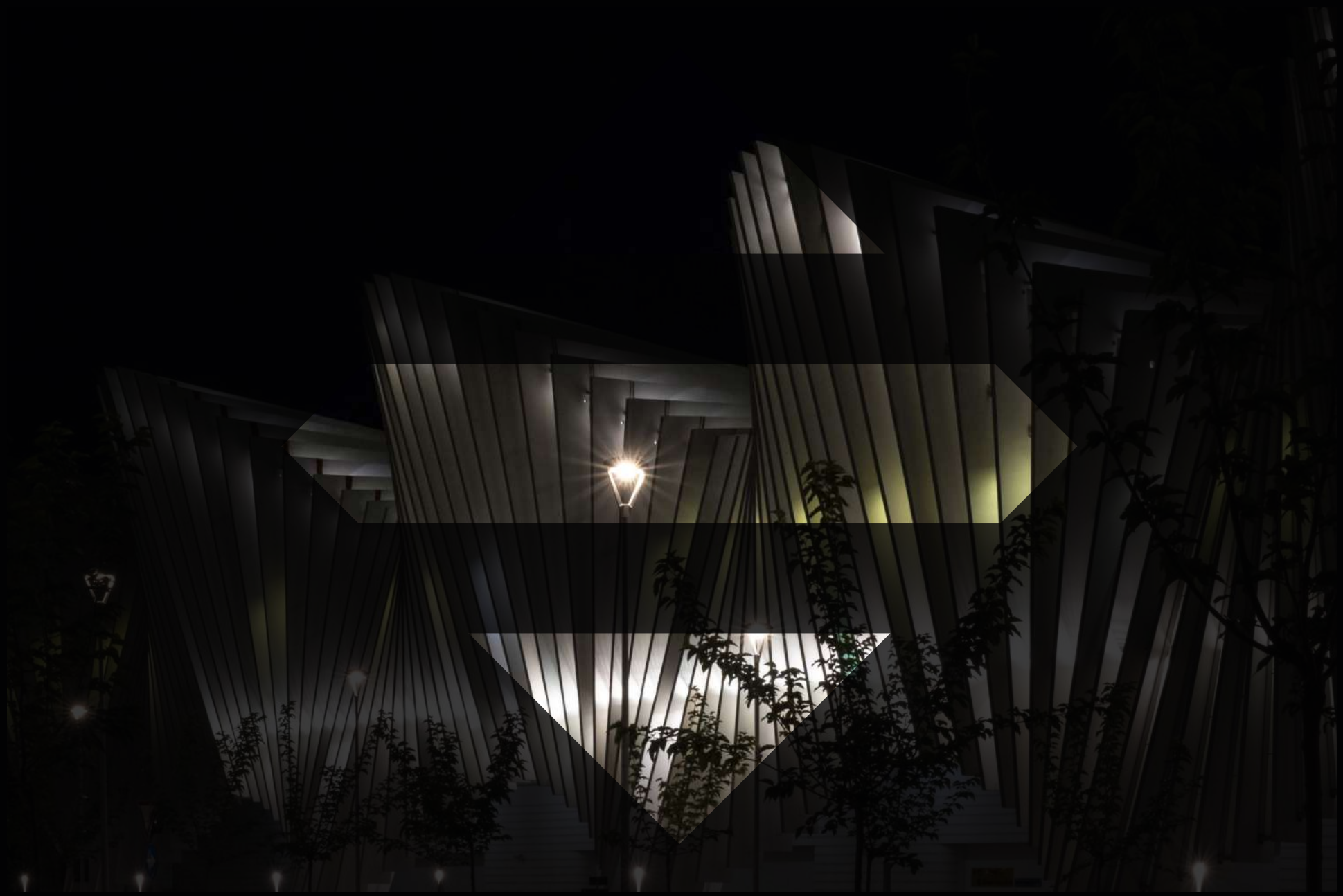

PRINT No 01/30

In the city streets, a gentle light,
Subtle hues that guide our sight,
A quiet glow that softly shines,
Without intruding on our minds.

As we wander through the park at night,
The lamps offer a tranquil sight,
Illuminating pathways with care,
Without disrupting the tranquil air.

The city's soft light is a calming force,
A peaceful guide along our course,
Without the garish neon signs,
That intrude on our daily grinds.

As we share moments with those we love,
The soft glow sets the mood just right,
Without overpowering the scene,
Or casting harsh shadows in between.

The city's gentle light is a soothing balm,
A peaceful presence in the urban calm,
With its unobtrusive, subtle hues,
It gently illuminates our views.

So let us appreciate the city's light,
Its gentle presence in the night,
A soothing guide along our way,
That never harshly interrupts our day.

CREE LIGHTING

I N D E X

PUBLIC TRANSPORT

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PUBLIC TRANSPORT

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REGGIO EMILIA
AV Mediopadana railway station

Reggio Emilia train station, designed by renowned architect Santiago Calatrava, is a magnificent example of modern architecture and an important landmark in the city of Reggio Emilia, Italy.
The station's striking design features a soaring, curved steel roof that resembles the wings of a bird in flight, giving the station a dynamic and graceful appearance.

Project name :
Reggio Emilia AV Mediopadana railway station

Location :
Reggio Emilia, Emilia Romagna, Italy

Year :
2017

Agent :
Magnani Rappresentanze

Partner :
Cavazzoni S.r.l, Municipality of Reggio Emilia

Architect :
Santiago Calatrava

Product :
Urban Series, XSP1

Terminal One open-air parking space of the Reggio Emilia AV Mediopadana railway station | **Product pictured:** XSP1

Light at scale

Cree Lighting was selected to provide the lighting products necessary to illuminate a parking area of significant scale and strategic importance. After thoroughly assessing the parameters and intricacies of the area, the Urban Series luminaires were chosen for the internal area of the parking lot, while the XSP1 luminaires were selected to cover the surrounding area and the entrance/exit pathways.

The Cree Lighting Urban Series fixtures utilize advanced LED technology to offer excellent performance, energy savings, and reduced maintenance, with a simple, modern or classical and elegant style that harmonizes with any urban context

General car park area
Product pictured: Urban Series

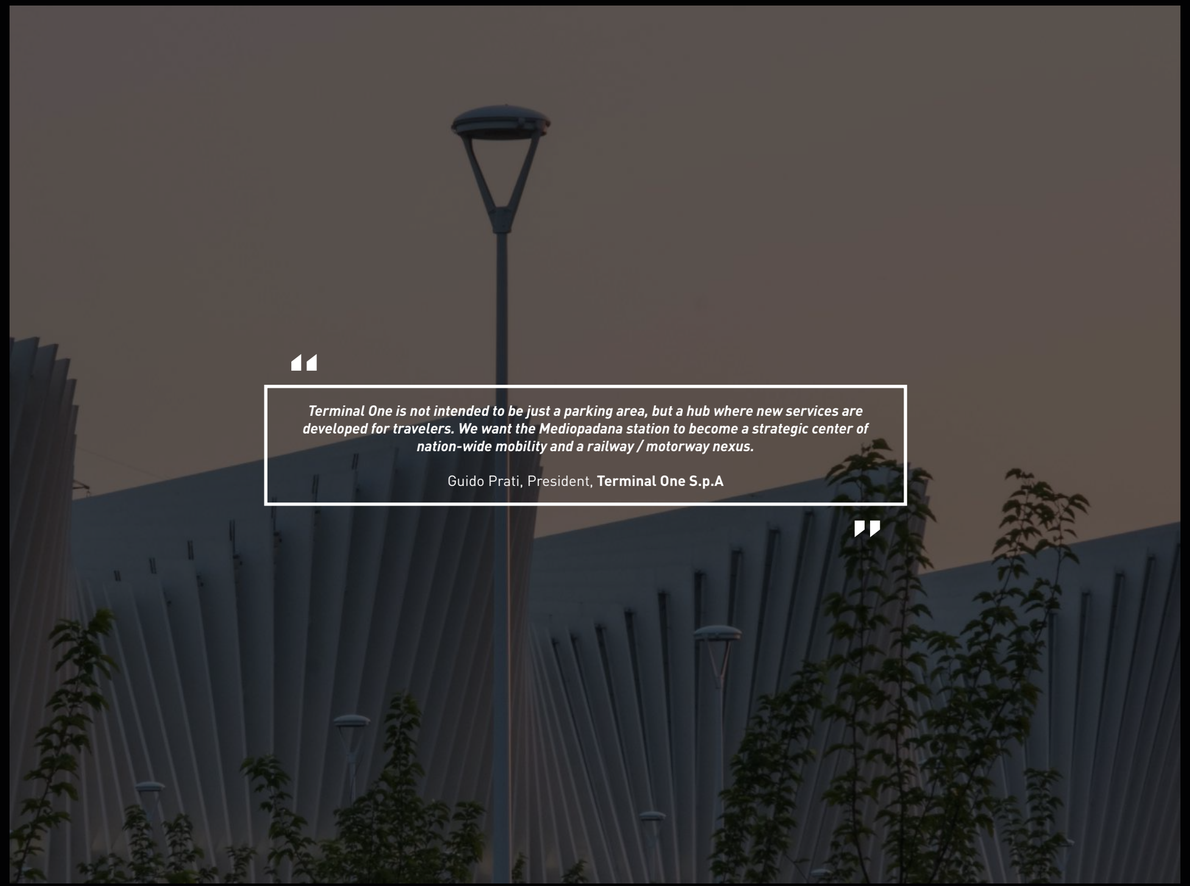
Car park exit and entrance area
Product pictured: XSP1

2.400 PARKING SPACES

2.400 PARKING SPACES

2.400 PARKING SPACES

2.400 PARKING SPACES



> ***Terminal One is not intended to be just a parking area, but a hub where new services are developed for travelers. We want the Mediopadana station to become a strategic center of nation-wide mobility and a railway / motorway nexus.***
>
> Guido Prati, President, **Terminal One S.p.A**

Reggio Emilia's station fair,
A testament to human skill,
It reminds us all to dare,
And let imagination fill.

VILNIUS
Kena railway station

Kena Railway Station is a small but important transportation hub located in Vilnius, Lithuania. The station serves as a stop for several commuter and long-distance trains, connecting Vilnius with other major cities in Lithuania and neighboring countries. Kena Railway Station was originally built in the early 20th century and underwent major renovations in the 21st century to modernize its facilities and improve passenger experience.

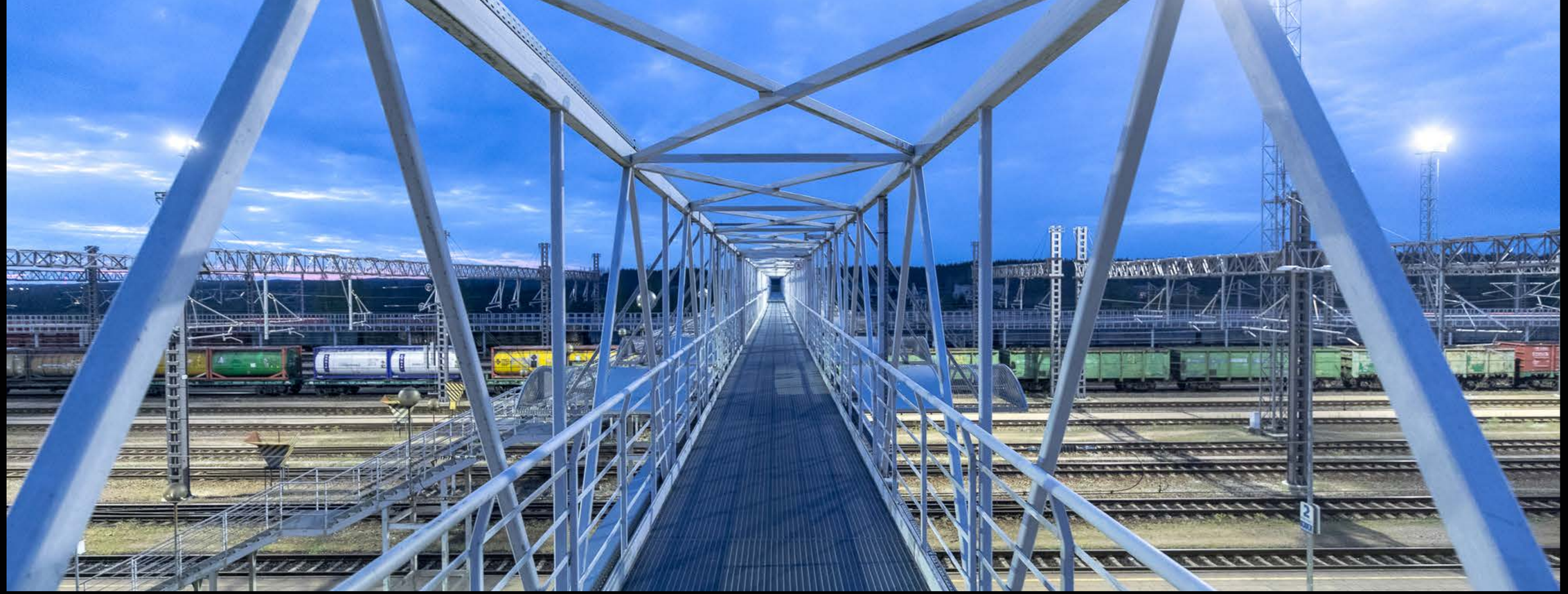
Project name :
Kena railway station

Location :
Vilnius, Lithuania

Year :
2020

Partner :
UAB Korgas

Product :
THE EDGE® High Output Series, XSP Series



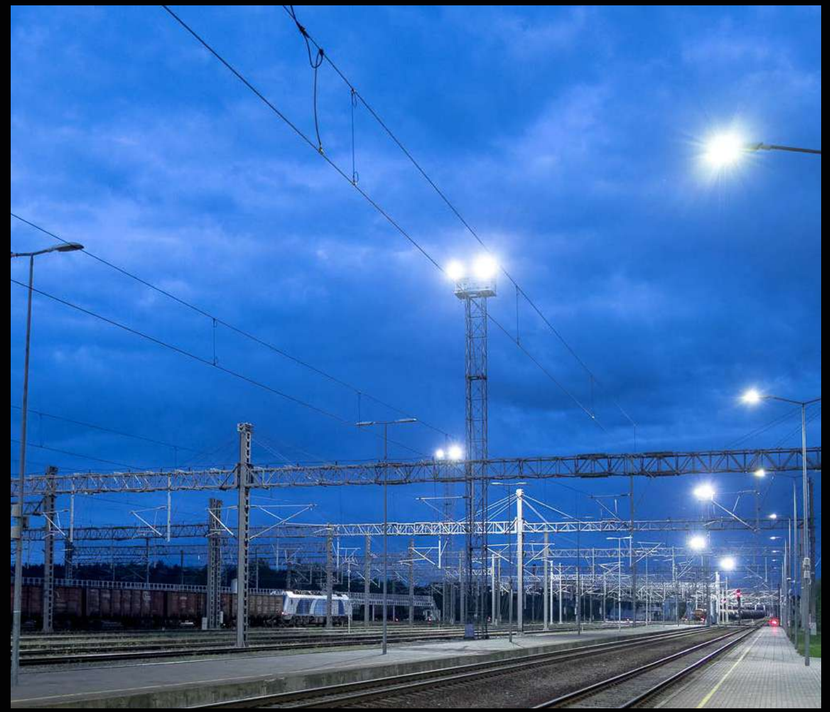
Kena railway station cross-track bridge | **Product pictured:** THE EDGE® High Output Series

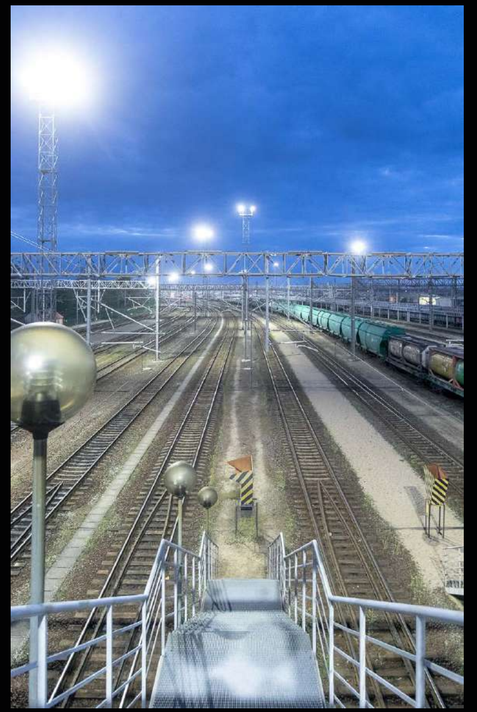
Under better light

In 2020, the Lithuanian rail network in collaboration with UAB Korgas, underwent a major lighting upgrade, and Cree Lighting was chosen as the supplier of choice for this project. Nearly 2000 units of Cree Lighting luminaires were installed throughout the rail network, providing high-quality lighting that ensures visibility and safety.

As part of this upgrade, Kena railway station, one of the important stations in the network, was fitted with 175 new fittings. These state-of-the-art luminaires incorporate advanced LED technology that offers outstanding energy savings, ensuring a maintenance-free future for the station. The new lighting system significantly improves the lighting conditions of the station and the surrounding areas, benefiting not only the passengers but also the transportation workers and staff.

The upgraded lighting at Kena railway station now provides enhanced visibility, facilitating everyday activities such as ticket purchase, waiting for trains, and moving around the station. Additionally, the improved lighting contributes to the overall security of the station area, providing a safer and more secure environment for passengers and staff alike.





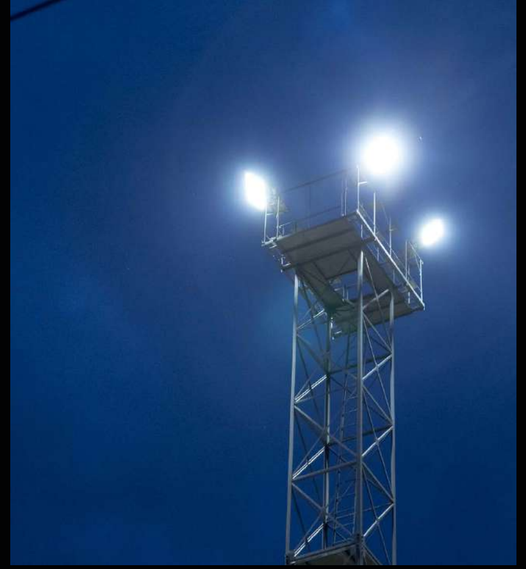
Uniform illumination of train tracks
Product pictured: THE EDGE® High Output Series

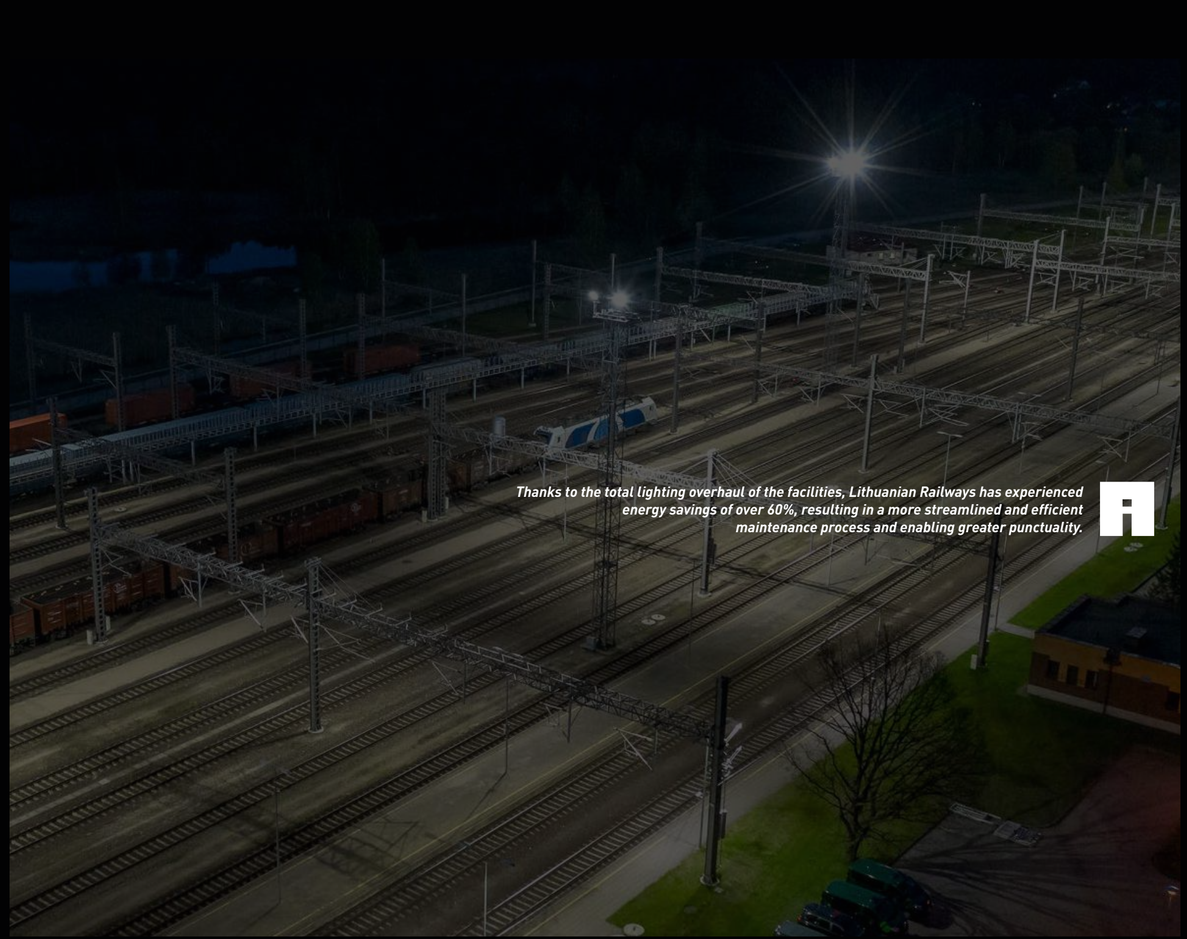
Luminaires installed along the platforms
Product pictured: XSP1

2.000 PRODUCTS INSTALLED*

2.000 PRODUCTS INSTALLED
2.000 PRODUCTS INSTALLED
2.000 PRODUCTS INSTALLED

*In the entire Lithuanian railways network





Thanks to the total lighting overhaul of the facilities, Lithuanian Railways has experienced energy savings of over 60%, resulting in a more streamlined and efficient maintenance process and enabling greater punctuality.

URBAN SPACE
URBAN SPACE
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URBAN SPACE

CAPO PORTIERE - LATINA
PIAZZALE LOFFREDO

Piazzale Loffredo is a charming square located in the Capo Portiere area of Italy. The square is named after Lieutenant Giovanni Loffredo, an Italian soldier who lost his life in World War I. It features beautiful green areas, benches, and a monument dedicated to Loffredo. Piazzale Loffredo is a lovely spot to sit, relax, and take in the local scenery, and it's a must-visit for anyone exploring the Capo Portiere area.

Project name :
Revitalization of Piazzale Loffredo

Location :
Capo Portiere, Latina, Italy

Year :
2017

Agent :
Emilio Pesciaroli

Partner :
Engie Italia S.p.a, Municipality of Latina

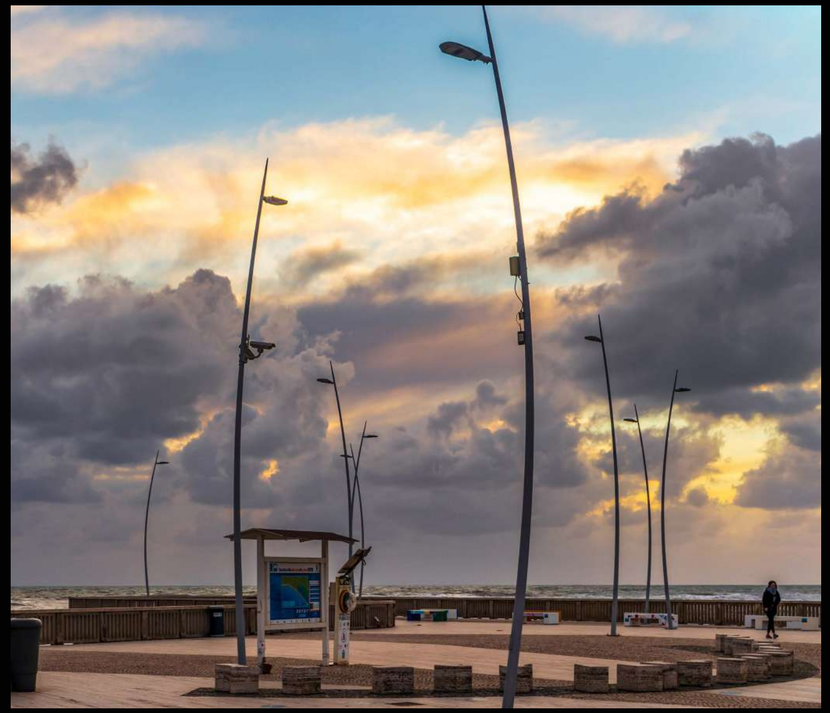
Product :
Syrius

Luminaires fitted with proprietary WaveMax® system for state-of-the-art glare contro. Compliant with Dark-Sky regulations to preserve the natural night sky
Product pictures: Syrius

A light for coastal life

The need to replace an outdated lighting system with advanced technology spurred the project's inception. The Municipality of Latina aimed to keep the interest in the coastline alive throughout the year and provide citizens with a safe and attractive public space.

To revitalize the Capo Portiere area and transform it into a point of attraction and contact for citizens, they chose Cree Lighting Syrius luminaires, featuring a proprietary WaveMax® system for glare control, Dark-Sky approved optics and warm colour temperatures. Lighting experts designed a customized solution to create more pleasant spaces during the day and at night.



The lighting installation is visually appealing and comprises poles with gentle curves that represent the waves in the nearby water.

Uniform light, minimal glare and warm colour temperatures - This Syrius installation creates a space people can enjoy all year round.

CAPO PORTIERE
PIAZZALE LOFFREDO

PUBLIC SQUARE

Glare control, and therefore light sustainability, is the real challenge today for those whose mission is not only the efficiency of light sources, but also and especially the health and well-being of citizens.

With soft curves and a sleek design,
Syrius adds to the beauty of the shoreline,
A beacon of light in the sea's domain,
Guiding the way through the night's refrain.

MUNICIPALITY OF FROSINONE

Frosinone is a historic town located in central Italy, south of Rome. The town is known for its rich history and cultural heritage, which dates back to the Roman times. Frosinone is surrounded by beautiful hills, mountains, and fertile plains, making it an ideal location for agriculture. The town is also known for its lively street markets, where locals and tourists can shop for fresh produce, local crafts, and souvenirs. Frosinone's identity is deeply rooted in its traditions, history, and natural beauty, which continue to attract visitors from all over the world.

Project name :
Municipality of Frosinone urban lighting renewal

Location :
Frosinone, Lazio, Italy

Year :
2019

Agent :
Sun Green SA

Partner :
Engie Italia S.p.a, Municipality of Frosinone

Design :
A3S Progetti

Product :
XSP Series | Urban Series | LEDway | RKT

Heritage street lanterns preserving the town's identity whilst delivering energy savings of over 60%
Product pictured: Urban Series

FROSINONE

MUNICIPALITY

SUCCESSFUL TEAMWORK

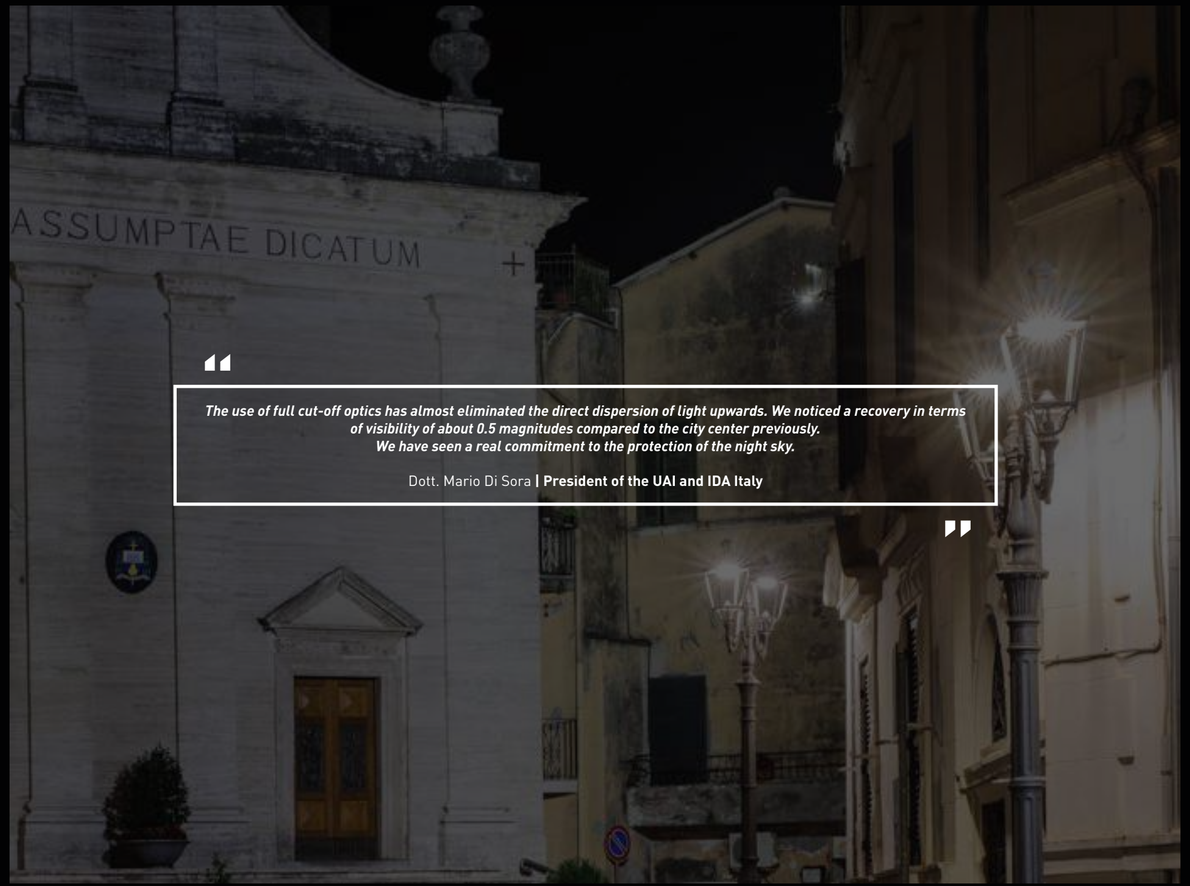
The successful outcome of the project was made possible by the collaboration of various key players, including the ESCo Engie Italia, the Municipality, the A3S design studio, and the Astronomical Observatory that oversaw the control of light pollution. The project was managed in a holistic way, from the survey of existing lighting fixtures to the installation and management of new ones.

12.000 TONS CARBON REDUCTION

12.000 TONS CARBON REDUCTION

12.000 TONS CARBON REDUCTION

12.000 TONS CARBON REDUCTION



> *The use of full cut-off optics has almost eliminated the direct dispersion of light upwards. We noticed a recovery in terms of visibility of about 0.5 magnitudes compared to the city center previously.*
> *We have seen a real commitment to the protection of the night sky.*
>
> Dott. Mario Di Sora **| President of the UAI and IDA Italy**

Preserving a towns identity...

The focus was on respecting the city's identity at night, with customized lighting solutions designed for the different urban areas. The project resulted in safe and efficient lighting, improved air quality, and a reduction in CO_2 emissions and oil consumption. The use of full cut-off optics greatly reduced the upward dispersion of light.

...whilst creating a "smart city"

With the addition of video surveillance, Wi-Fi, sound diffusion, and electric vehicle charging, Frosinone has become a "smart city." The project achieved a significant energy saving of over 60%, leading to simplified and efficient maintenance. Now, citizens can appreciate the city's beauty and the starry sky at night, as the project has reconnected them to their public space.

Frosinone's sky at night, so dark and vast,
Stars glittering, a sight that will last,
No longer ignored, their beauty restored,
Identity preserved, the darkness adored.

CITY OF TRADATE
LOMBARDY

Tradate is a charming town located in the Lombardy region of Italy, just a short distance from Milan. The town boasts a rich history dating back to Roman times, and its historical landmarks and architecture continue to attract visitors from around the world. Visitors to Tradate can explore the historic center, which features numerous medieval buildings, including the Church of San Giovanni Battista and the Porta Torre tower. The town is also known for its beautiful parks and green spaces, such as the Parco Pineta and the Parco Valle del Bosco.

Project name :
City of Tradate. Networked lighting.

Location :
Tradate, Lombardy, Italy

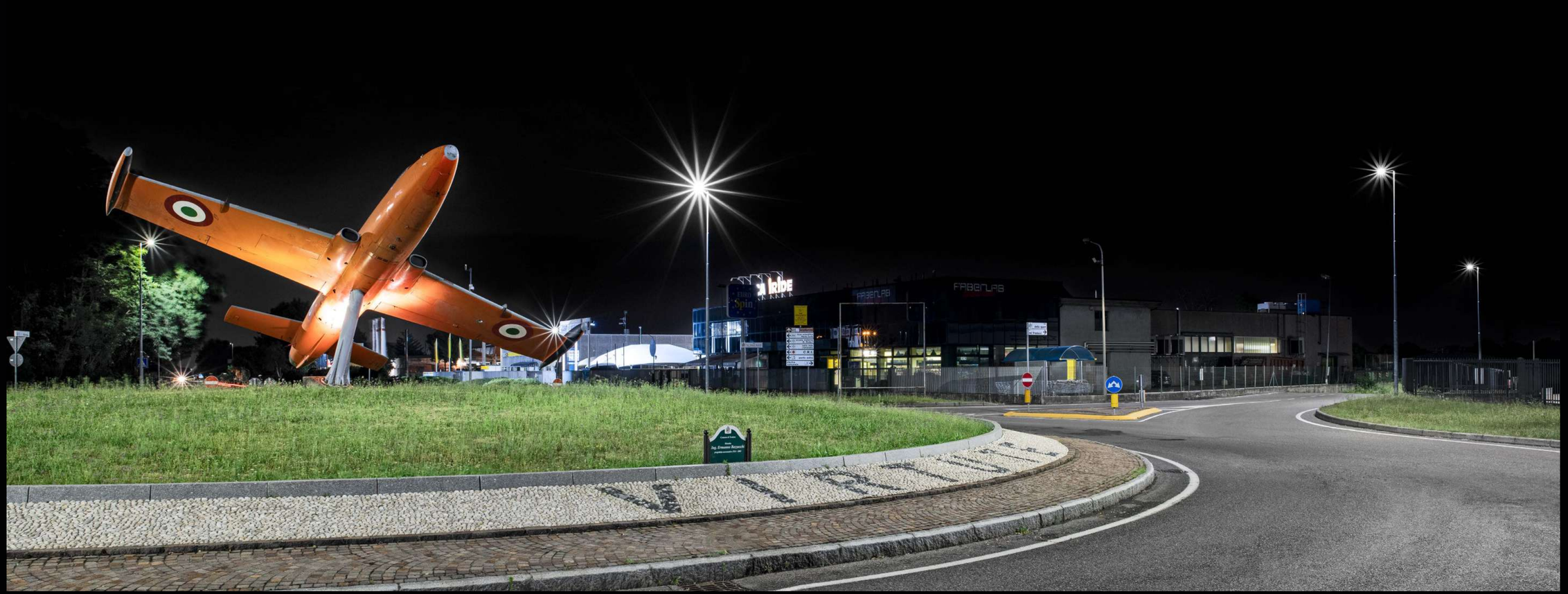
Year :
2019

Agent:
Sun Green SA

Partner:
Ambrogio Moro S.p.a, Municipality of Tradate

Design:
Asia Progetti

Product :
Urban Series | XSP | LEDway road



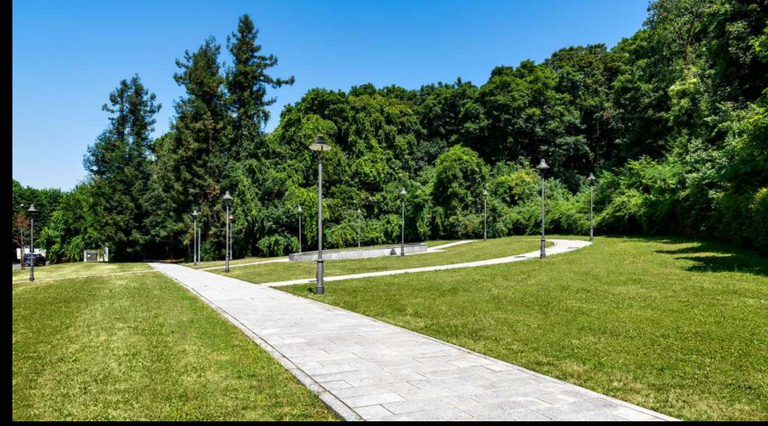
Zoning - 3 different zones were identified to divide the municipal territory: the Urban Centre, the Industrial Zone, and the 'Green' Zone, in order to choose the best devices in terms of efficiency and urban decor.

73% ENERGY SAVINGS
73% ENERGY SAVINGS
73% ENERGY SAVINGS
73% ENERGY SAVINGS

Cree Lighting's lighting systems are highly modular, allowing lighting engineers and architects to collaborate with local authorities and energy service providers to design lighting systems that can be easily installed and customized to meet the diverse needs of different urban areas.

INTELLIGENT AND ENERGY EFFICIENT HERITAGE LIGHTING

Cree Lighting Europe partnered with Ambrogio Moro to install smart LED lighting in Tradate, Lombardy, that reduces energy consumption by 65% compared to traditional solutions. The "Rilluminiamoci" project has transformed 2,902 fixtures, of which 1,667 were owned by a private company and 1,235 by the city. Cree Lighting's XSP series provides better light emission quality with an energy-efficient NanoOptic® Precision Delivery Grid™ optical system that directs light where it's needed without waste. The system has enabled video surveillance, Wi-Fi, and remote control of each individual lamp.



NAPLES
CAMPANIA

Naples is a stunning city located on the west coast of Italy, overlooking the beautiful Bay of Naples. Known for its exceptional architecture, the city is home to a wealth of historic landmarks and monuments, such as the iconic Castel dell'Ovo and the Royal Palace of Naples. The city's architecture blends elements of various styles, including Baroque, Renaissance, and Gothic, creating a unique and breathtaking aesthetic. But perhaps one of the most striking aspects of Naples is its location by the sea, which provides a stunning backdrop for the city's architecture and culture.

Project name :
City of Naples urban lighting overhaul

Location :
Naples, Campania, Italy

Year :
2018

Agent:
Michele Benedetti

Partner:
Edison S.p.a, Municipality of Naples

Product :
Urban Series | XSP Series

Cree Lighting street luminaires on the central streets of Naples | **Product pictured:** Urban Series

Illuminating Naples

As LED lighting technologies continue to advance, replacing old existing luminaires can still present challenges. However, the Municipality of Naples found an innovative solution for their vast territory by utilizing a series plant installation, designed for large cities. This solution provides extensive circuits with minimal voltage drop-related issues, utilizing just a few cabins. To tackle the significant challenge of redeveloping Naples' lighting systems, Citelum partnered with Cree Lighting. Their project involved replacing 60,500 light points with LED fixtures equipped with SmartCity technology, starting from the outskirts and working towards the city center.

In 2019, a report by the Observatory on Italian Public Accounts recognized Naples as the most virtuous city in terms of minimizing waste of public lighting.

Thanks to our LED technology we have been able to develop custom versions of our luminaires, compatible with existing systems without the need to transform them into branch systems.

9.000 PRODUCTS INSTALLED
9.000 PRODUCTS INSTALLED
9.000 PRODUCTS INSTALLED
9.000 PRODUCTS INSTALLED

The project called for the replacement of 60,500 light points with LED fixtures equipped with the SmartCity technology, starting from the peripheral areas, and gradually moving towards the city center.

Naples, oh Naples, by the sea so blue,
A city of culture, beauty, and food,
With architecture that dazzles and delights,
And breathtaking views that fill one with might.

MODENA - CESENA - REGGIO EMILIA
EMILIA ROMAGNA

Until fairly recently, European cities were equipped with mostly obsolete public lighting systems, at times not compliant with European regulations and light pollution standards. In recent years, EU countries are striving to adopt new and sustainable technologies and Italy is moving very quickly in this direction thanks to multiple actors that generate opportunities and ESCo above all. In 2016 the Emilia Romagna region launched a project to modernize its public lighting network, adopting a LED lighting system.

Replacing old obsolete equipment and cutting public spending by supporting a healthy environment are the major challenges that Cree Lighting has accepted for 3 cities: Modena, Cesena and Reggio Emilia. The goal was to install a sustainable lighting system to reduce the energy costs of municipalities, in compliance with European regulations, while preserving the historic city centers and creating a modern, safe and welcoming environment for residents.

Project name :
Urban lighting upgrade and modernization for Modena, Cesena and Reggio Emilia

Location :
Modena - Cesena - Reggio Emilia, Emilia Romagna, Italy

Year :
2018

Agent :
Magnani Rappresentanze

Partner :
Hera Luce S.r.l, Municipalities of Modena, Cesena, Reggio Emilia

Product :
Urban Series | XSP Series

Product pictured: Square LED

Achieving sustainability commitments

Cree Lighting engineers designed custom lighting solutions for different urban areas to create more pleasant spaces at night. The modularity of Cree lighting systems allowed for easy installation and modulation according to the specific needs of each area. 15,000 luminaires equipped with intelligent sensors and Virtual Midnight technology were installed, resulting in energy savings and reduced maintenance costs.

The collaborative relationship between Cree Lighting, the ESCo, and Municipal Councils sped up the project, with more than 7,500 fixtures installed in the first year, generating annual energy savings of 50% and reduced CO^2 emissions by 17,000 tons. Modena, Cesena, and Reggio Emilia have achieved their sustainability goals with Cree's LED lighting systems and 10-year guarantee.

Uniform walkway lighting
Product pictured: XSP

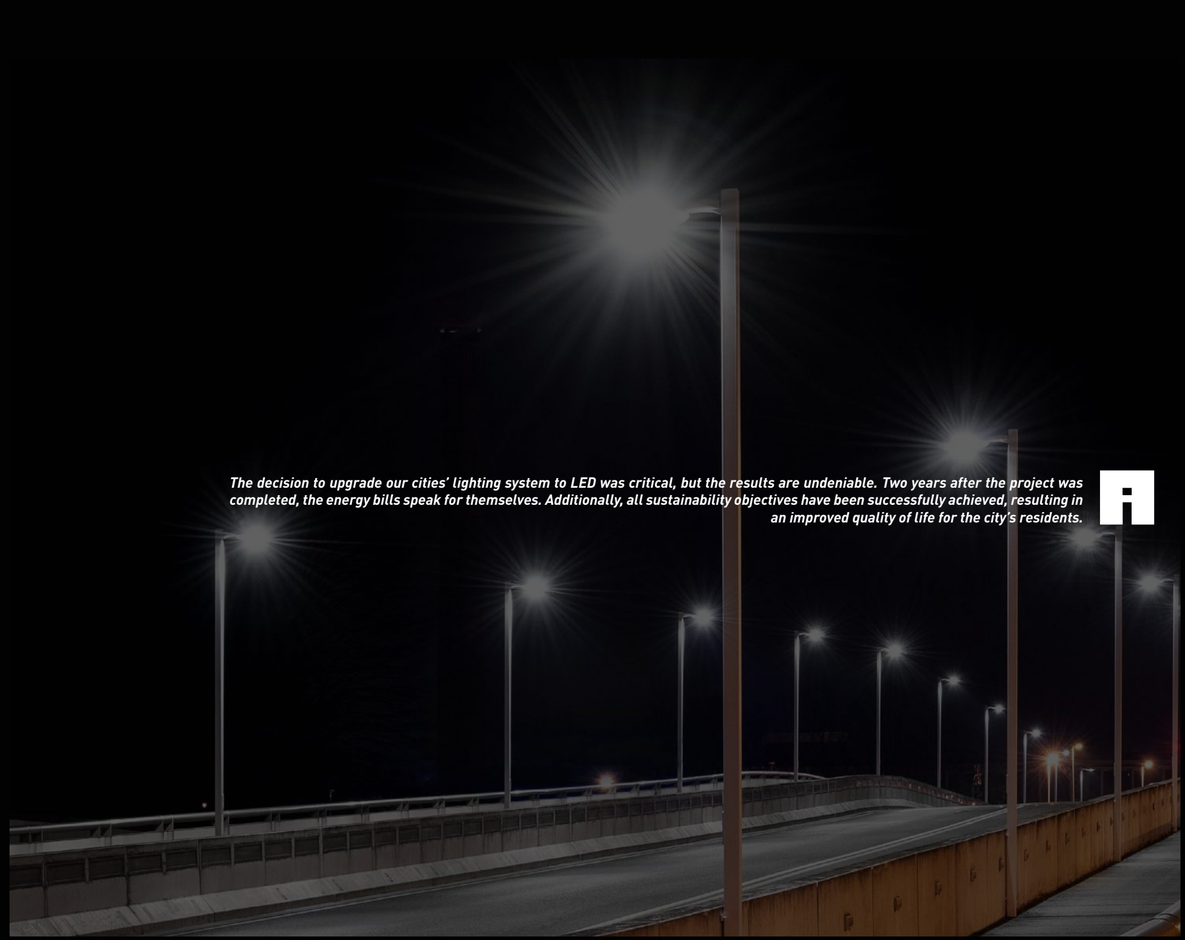
Uniform pathway lighting with no shadows between light beams
Product pictured: XSP

MINUS 17.000 TONS OF CO^2

MINUS 17.000 TONS OF CO^2

MINUS 17.000 TONS OF CO^2

MINUS 17.000 TONS OF CO^2



The decision to upgrade our cities' lighting system to LED was critical, but the results are undeniable. Two years after the project was completed, the energy bills speak for themselves. Additionally, all sustainability objectives have been successfully achieved, resulting in an improved quality of life for the city's residents.

RECREATION
RECREATION
RECREATION
RECREATION
RECREATION
RECREATION
RECREATION
RECREATION

BRACKEN RIDGE
BMX Park

The Bracken Ridge BMX facility is a premier outdoor recreational facility located in the northern suburbs of Brisbane, Australia. It features a professionally designed and constructed BMX track that caters to riders of all levels, from beginners to experienced riders. The facility also includes amenities such as spectator seating, restrooms, and a clubhouse. The track is built to high safety standards and is maintained regularly to ensure a safe and enjoyable riding experience for all. The Bracken Ridge BMX facility is a popular destination for local riders and hosts regular competitions and events throughout the year.

Project name :
Bracken Ridge BMX / Sport Facilities

Location :
Brisbane, QLD, Australia

Year :
2019

Partner :
ADLT AU

Product :
OSQ High Output LED Area & Flood Light

Free to go double

In order to facilitate night-time use of the Bracken Ridge BMX facility in Brisbane, the council required a lighting system that could boost the lux levels from 100 to 200 when needed.

To ensure compliance with neighboring property regulations, no spill light was allowed, and poles could not exceed 10 meters in height.

The design phase took into account the undulating course of the track to provide uniform illumination. Despite the challenges posed by the unique structure and limitations, the lighting project was completed on a very short schedule.

To address these challenges, the OSQ High Output Area & Flood light was chosen, offering unparalleled performance, with one luminaire replacing multiple metal halide fixtures. Moreover, it is smaller and lighter than other LED solutions, making installation easier while minimizing wind load requirements.

The results of the installation speak for themselves, with uniform illumination that can be easily adjusted to double the lux levels for events such as BMX competitions.

High CRI 90 and the option to double the light output from 100lx to 200lx for best visibility on the track
Product pictured : OSQ H0

Energy saving of 80% by replacing metal halide with LED and reducing luminaire count
Product pictured : OSQ H0

80% ENERGY SAVING

80% ENERGY SAVING

80% ENERGY SAVING

80% ENERGY SAVING

> ***For the cities north, it is an outstanding new piece of public asset for everyone to enjoy and for us all to keep fit and active.***
>
> *Citizen of Brisbane*

HAGUE
De Uithof

For years, De Uithof has been known for its ice rink, where countless major competitions have taken place; Since 2000, De Uithof has been transformed into the largest indoor sports center in the Netherlands.

A stone's throw from the beach of Kijkduin, De Uithof has real snow all year round on a 400 meters slope! The De Uithof ski hall has a main slope with a length of 211 meters. and an area for beginners with a length of 90 m; it is a multifunctional venue for sports and events.

Project name :
De Uithof, Sport Facilities

Location :
Hague, Netherlands

Year :
2019

Partner :
AVALITE

Product :
Stellar

Inside, the ski center boasts an ambient temperature of -5°C all year round; Any lighting fixture to be installed must guarantee high efficiency thermal conduction, be reliable and ensure a prolonged, almost maintenance-free life.

Product pictured: Stellar

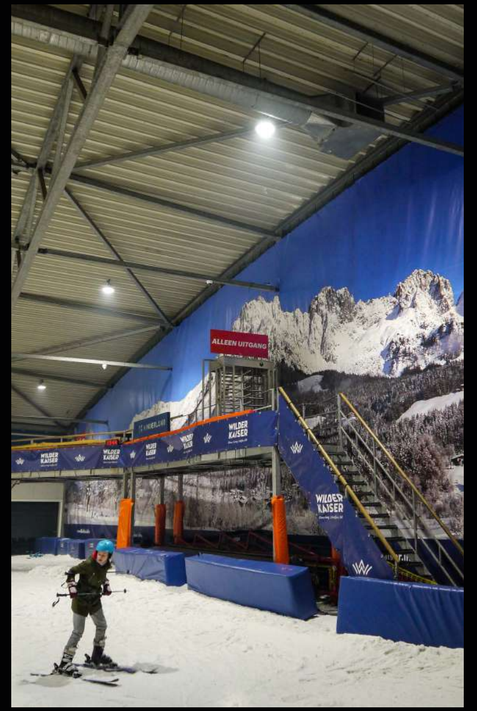
Flexible, durable light

Multi-sports facilities must ensure adequate lighting that meets the needs of the different types of sports to which they are designated. It is important to create a lighting project that provides uniform light, of adequate intensity and with minimal reflection.

A FLEXIBLE AND SCALABLE SYSTEM
The lighting of the building must be easily configurable so as to adapt to the different types of events that take place in the ski center.

LIGHT UNIFORMITY
In this specific case, the proprietors asked for particular attention to the brightness levels of the lighting fixture; Irregular paths had to be illuminated and made safe.

DURABILITY
Inside, the ski center boasts an ambient temperature of -5°C all year round; Any lighting fixture to be installed must guarantee high efficiency thermal conduction, be reliable and ensure a prolonged, almost maintenance-free life.

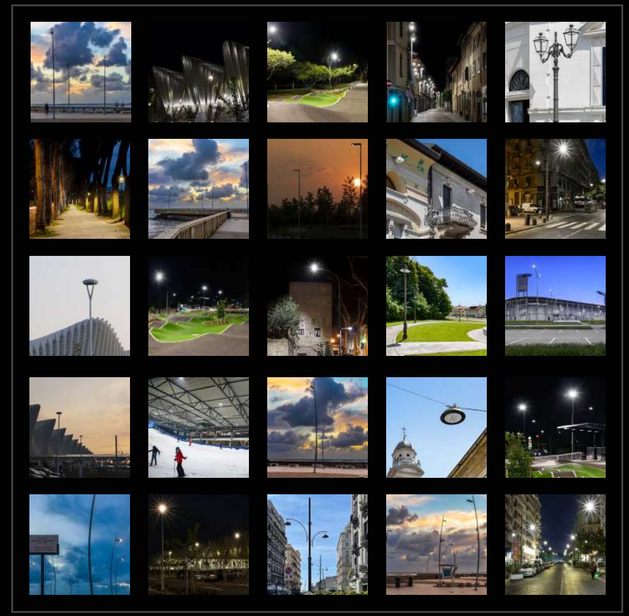


The lighting of the building must be easily configurable so as to adapt to the different types of events that take place in the ski center.

Energy saving of 80% by replacing metal halide with LED and reducing luminaire count

Photography :
Luca Visentini, George Loukidis

Concept :
Cree Lighting Marketing Team



CREE LIGHTING

URBAN APPLICATIONS

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