C.U. Phosco

PORT LIGHTING

DESIGN, MANUFACTURE, INSTALL & MAINTAIN

C.U. Phosco

CONTACT US

T. +44 (0) 1920 860600
E. hello@cuphosco.com
W. cuphosco.com

PORT LIGHTING SPECIALISTS

CU Phosco, established in 1923, is a market leader in the design, manufacture, installation and maintenance of High Mast lighting, specialising in port lighting.

Undertaking contracts at ports worldwide, working closely with numerous large port operators, including DP World, APM Terminals, Hutchinson Ports, Q Terminals and ICTSI and facilities including Dover Docks, UK; Khalifa Port, Abu Dhabi; Hamad Port, Qatar; Manila Port, Philippines; Gladstone Port, and Port Botany, Australia; and Lirquen Port, Chile.

Our High Masts and Luminaires are present in the most demanding climatic conditions from typhoon winds in the South China Sea to the high temperatures of the Middle Eastern summer.

A PROVEN TRACK RECORD, GLOBALLY

Our success in port lighting is recognition of our approach. We build honest, transparent relationships with our clients, covering key projects such as:

- Area lighting
- Pier lighting
- Stacking and storage area
- Access roads, car parks and associated areas

OUR SERVICES

We offer a full turn-key solution for your next port lighting project, from initial consultation through to installation, final commissioning and follow up maintenance.

Our dedicated Contract Services Division can manage your projects worldwide providing you with a level of support that is unparalleled in the lighting industry.

DESIGN

MANUFACTURE

INSTALL & MAINTAIN

PORT LIGHTING DESIGNED TO LAST

At CU Phosco, we design and manufacture our floodlights and high masts from our three UK-based factories, with ranges that are designed to support any project and are built with sustainability in mind.

Our future-proof range includes:

OUR FLOODLIGHTS

SUPERIOR DESIGN & BUILD

- Our products are designed by our experienced and dedicated in-house team of lighting professionals.
- Made in Britain
- Quality assurance to BS EN ISO 9001
- Designed to EN 60598-2-5
- International standards tested
- Warranty assured
- Finance options available

BUILT WITH CIRCULARITY IN MIND

- Responsibly sourced materials
- 100% recyclable or reusable materials
- Designed to meet exact requirements with no unnecessary raw materials required
- Built to last – rigorous testing for vibration, thermally electrically and photometrically tested in our ISO 17025 accredited laboratory.

WORKING WITH CU PHOSCO YOU RECEIVE:

- Unrivalled product quality
- Outstanding customer service
- Agile and adaptable working – we work together to build long-term partnerships
- Collaboration with an innovative family-run organisation. We are continually improving and evolving as we strive for continuous improvement and best practice

RELIABLE, AFFORDABLE LIGHTING FOR ILLUMINATION OF LARGE AREAS

FL820

Floodlights have been designed for use in larger areas which require specific ground space to be lit. Our Floodlights are fully cowled to offer full cut off and with a wide range of optics can provide optimal coverage, sending the light to where it is needed and targeting specific spaces to be illuminated.

FL830

The FL830 is a smaller version of the FL820 yet offers the same illuminance and reduction of glare.

Specifically designed to offer enhanced light distribution whilst maintaining the FL range philosophy of full cut off, low glare and efficient heat dissipation. The custom optics make this Floodlight perfect for lighting piers, stacking and storage areas efficiently and even reducing the number of Floodlights needed to meet required levels.

OUR HIGH MASTS

- In-Tension Raise & Lower High Mast System
- Fixed Head High Masts
- From 8m to 60m height
- Bespoke and standard design
- Vast range of applications, from airports to ports to stadiums, CCTV and telecommunications

SUPERIOR DESIGN & BUILD

- Our masts are designed by our experienced and dedicated in house team of lighting professionals.
- Made in Britain
- Quality assurance to BS EN ISO 9001
- Designed to Professional Lighting Guide 07 and BS EN 1090
- International standards tested
- Warranty assured

BUILT WITH CIRCULARITY IN MIND

- Responsibly sourced materials
- 100% recyclable or reusable materials
- Designed to meet exact requirements with no unnecessary raw materials required
- Built to last – rigorous testing for load, stress and design and subject to regular maintenance, the life span of our High Masts can be extended significantly

IN-TENSION RAISE & LOWER HIGH MAST SYSTEM

This uniquely designed for the simple installation and maintenance of all High Mast applications without the need for work at elevated height. Easy to maintain, without interruption to the apron or closing large operation areas, the In-Tension Raise and Lower System enables:

- No work is completed at elevated heights for simple and easy Floodlight installation and hassle-free maintenance.
- No latches and therefore no components can get stuck
- Designed to be used in confined spaces with no base hinge clearance area requirements
- The wire ropes kept in tension, ensuring that the wires are kept in optimum health
- Do not require dividers or compensators
- All wires, ropes and power cable rigging are pre-set and prepared in our factory
- Light and portable power tool included and can be used with the winches.

FIXED HEAD HIGH MASTS

CU Phosco Fixed Head Masts offer a complete solution of High Mast and Lighting carriage, which has been pre-assembled for ease of installation. The fixed nature means that it is continuously in place and a platform and ladder or climbing step system can be provided to give access to the assembly head for maintenance.

PORTS

Sogester, Angola
Buenos Aires, Argentina
Exolgan Port, Argentina
Terminales de la Plata, DP World, Argentina
Hutchison Ports, Australia
Gibraltar, B.O.T
Rangoon, Burma
Vancouver, Canada
Coronel Port, Chile
Port Arica, Chile
Port Artesanaide, Chile
Port of Lirquén, Chile
SVTI San Vicente Port, Chile
Taccahuano , Chile
APMT Poti Port, Georgia
Takaradi, Ghana
Tema Port , Ghana
Europort Rotterdam, Holland
OPC Puerto Cortés, Honduras
Bandar Abbas, Iran
Dublin, Ireland
Cork, Ireland
Rossliare, Ireland
Kingston, Jamaica
Aqaba Port, Jordan
Mombasa Port, Kenya
Port of Monrovia, APM Terminals, Liberia
Misurata, Libya
MICTSI Toamasina Port, Madagascar
Port Kelang, Malaysia
Port Butterworth, Malaysia
Kota Kinabalu, Malaysia

Jahore, Malaysia
Friendship Port of Nouakchott. APM Terminals, Mauritania
Port Louis, Mauritius
Tangier Med 2 APM Terminals, Morocco
Beira, Mozambique
APMT Apapa Port, Nigeria
Benin, Nigeria
Lagos, Nigeria
Onne Port ICTSI, Nigeria
Halden Harbour, Norway
Port Qaboos, Oman
Port Raysut, Oman
Qasim Port, Pakistan
ICTSI Manila Multipurpose Terminal, Philippines
ICTSI Manila North Harbour Port, Philippines
ICTSI Laguna Gateway Inland Container Terminal, Philippines
Lisbon, Portugal
Oporto, Portugal
Madeira, Portugal
Azores, Portugal
Doha Port, Qatar
Jeddah, Saudi Arabia
Dammam, Saudi Arabia
Mahe, Seychelles
PSA Port of Singapore, Singapore
Port Berbera, DP World, Somaliland
Durban, South Africa
East London, South Africa
Richards Bay, South Africa
Port Sudan, Sudan
APMT Izmir Port, Turkey
Port Rashid, UAE

Port Jebal Ali, UAE Dubai Dry Dock, UAE
Fujairah, UAE
Khor Fakkan, UAE
Ras Al Khaimah, UAE
Sharjah, UAE
Port Zayed, UAE
ABP, UK
APTM, UK
AP World London Gateway Port, UK
Bristol, UK
Dover Harbour Board, UK
DP World, UK
Felixstowe, UK
Glasgow, UK
Harwich Int. Port, UK
Heysham, UK
Hull, UK
Hutchinson, UK
Isle of Man, UK
Killingholme, UK
London, UK
Liverpool, UK
Mailaig, UK
Peel Ports, UK
PD Ports, UK
Port of Southampton, UK
Tilbury , UK
Tyne, UK
Yarmouth, UK
PSA , UK
Puerto Cabella, Venezuela
Hodiedah, Yemen

HALDON HARBOUR, NORWAY

REDUCED LIGHT POLUTION AND ENHANCED SAFETY AT HALDEN HARBOUR WITH INNOVATIVE LIGHTING SOLUTION

CU Phosco, in collaboration with agent Golden A.S., successfully provided a cutting-edge lighting solution for Halden Harbour in Norway. Using the FL800R LED Floodlights with a precision cut-off, the project achieved significant reductions in light pollution, ensuring high light levels and improved energy efficiency for enhanced safety and operational efficiency at the port.

Recently, Halden Harbour, an ISPS (International Ship and Port Facility Security Code) compliant port, undertook an essential lighting project for its dockside area, requiring a lighting solution that met specific criteria.

With these considerations in mind, CU Phosco, in collaboration with Golden A.S., designed a customised lighting solution tailored to the specific needs of Halden Harbour's dockside area.

OBJECTIVES

The main objectives for the lighting project were:

- Achieve an average light level of 50 lux to support safe loading and unloading operations.
- Ensure corrosion resistance due to the harsh marine environment.
- Provide high light levels with uniform distribution on quays, storage areas, and ramps.
- Minimise glare and light spill to public areas.

SOLUTION

CU Phosco, in close collaboration with Golden A.S., designed a lighting solution based on the FL800R LED Floodlights. The project was completed in two phases spanning three years. Thirteen FL800R Floodlights were mounted on 24-metre High Masts to meet the project's demanding requirements.

The FL800R LED floodlighting system provided an innovative approach to floodlighting, allowing various configurations on a mast with full azimuth rotation and tilt function.

The AeroFlow® Cooling System in the FL800R modules ensured exceptional thermal management, allowing for a compact luminaire design fit for the location.

Using Lumileds LUXEON® M LEDs and AeroFlow® technology, the FL800R Floodlights delivered high lumen output with minimal lumen depreciation over their lifespan.

RESULTS AND BENEFITS

The FL800R LED Floodlights provide an average light level of over 50 lux with excellent uniformity, illuminating the dockside area and facilitating safe loading and unloading operations for workers handling timber and subsea cables. Thanks to the strategic positioning and full cut-off of the FL800R, the floodlights minimise light spill to adjacent public areas and roads, ensuring low light pollution while maintaining visibility and safety.

The FL800R Floodlights' design minimises glare, enhancing visual comfort and reducing potential distraction. The floodlights' high Colour Rendering Index (CRI > 70) further improved the visual performance.

The robust construction made it highly resilient to the harsh environment ensuring that Halden Harbour now possesses a durable and reliable lighting solution capable of meeting the demands of its port operations.

One of the most significant advantages of CU Phosco's lighting solution was its outstanding energy efficiency. The FL800R Floodlights' superior Luminaire efficacy, resulted in considerable energy savings for the port, contributing to environmental sustainability and reduced operational costs.

"We were tasked with developing a lighting solution that met the stringent lighting requirements of the harbour while also considering the proximity to public areas and the corrosive marine environment. We aimed to minimise light pollution and glare while ensuring the safety and efficiency of the operations."

RINO KLEVAAS

GOLDEN A.S

PORT OF SOUTHAMPTON, UK

The Port of Southampton is a passenger and cargo port in the central part of the south coast of England. The port is owned and operated by Associated British Ports. It is one of the country's busiest deep-water ports and expands over 725 acres. Most of the large areas in the port are lit using high masts. The main objective of the project was to reduce the cost of illuminating and maintaining these high masts by converting them to more efficient LED products and installing fixed head lantern carriages to reduce maintenance costs further. CU Phosco were appointed as the main contractor following a successful tender submission.

CU Phosco undertook the lighting design utilising their in-house technical team. Once the lighting designs were approved by ABP, CU Phosco manufactured the luminaires at their lantern manufacturing facility in Ware, Hertfordshire. The replacement fixed head lantern carriages were manufactured in CU Phosco's manufacturing facility in Cleckheaton, West Yorkshire. CU Phosco undertook the supply and installation of the new LED lantern utilising their in-house specialist Contracts Division.

Telensa CMS nodes were installed in each lantern to provide additional control and reporting information. The Telensa system was previously installed by the client.48no. FL810 LED floodlights for the aprons and de-icing areas. The roads and car parks at the base were lit with 68no. P863 and P862 luminaires.

RESULTS & BENEFITS

The first phase of the project was completed to programme and the improvement in light quality from HID to LED is evident across the areas. The quality of the new lighting has also had a positive impact on health and safety in these operational areas. The LED replacement also ensured that each of the areas complies with the relevant lighting standards and this was confirmed in the commissioning phase of the project as CU Phosco undertook light tests in each area. The FL800R & P855 provide exceptional optical control minimising obtrusive light, without compromising the lighting performance. This was an important part of the project as some of the areas were adjacent to residential properties.

Following the successful completion of the project, ABP awarded CU Phosco a second phase of high mast LED replacement works.

PORT OF LIRQUEN, CHILE

ENERGY SAVINGS OF OVER 42% FOR THE PORT OF LIRQUÉN

Port of Lirquén is a cargo port, located about 550 kilometres south of Santiago de Chile, on the coast of Bahía de Concepción, VIII Region.

Given the continuous growth of the cargo to be transported, this port has been forced to increase its storage yards to accommodate the greater number of containers that such growth carries with it.

The existing docks and container yards of this port were originally illuminated with masts and 1000 watt high-pressure sodium luminaires, provided by CU Phosco in 1998.

As a result of the expansion of one of its container yards called "La Tosca", has expanded by more than 5.5 hectares. In order to improve the quality and performance of the lighting and to reduce both maintenance and energy costs, CU Phosco proposed the use of FL8004-4 LED lights instead of the high-pressure sodium Luminaires.

CU Phosco undertook the lighting design utilising their in-house technical team, considering the requirement of an average lighting level of 50 lux, demanded by Lirquén, which was achieved with 40-meter high masts and FL800R-4 LED Luminaires. CU Phosco presented a technical-economic cost study comparing the use of LED lights versus high-pressure sodium ones, which concluded that the annual energy savings are 42 % in favour of LED. Although the initial investment for LED lights was 57% higher than sodium lights at that time, the return on investment given the savings was approximately five years

Given these results, the Port of Lirquén approved and commissioned CU Phosco to carry out this project for the lighting of this extension utilising the FL800R LED floodlights.

RESULTS & BENEFITS

The improvement in the quality of light by changing from sodium to LED is evident, and as a result the Port of Lirquén now plans the gradual replacement of its current sodium Luminaires for LEDs in all its patios and docks.

Following the successful completion of the project two other ports located in the same region as Lirquén, Coronel Port and SVTI International Terminal, have contracted CU Phosco to provide both the High Mast and Floodlights.

TANGIER MED PORT EXPANSION, MOROCCO

ADVANCED HIGH MAST SOLUTION FOR TANGER MED PORT

Tanger Med Port, located 45 km northeast of Tangier, Morocco, and opposite Tarifa, Spain, on the Strait of Gibraltar, is one of the largest industrial ports in the world. With a handling capacity of 9 million containers, it is a vital connection between Europe and Africa. Since its inception, Tanger Med Port has rapidly emerged as a global player, attracting multinational companies seeking nearshoring opportunities.

Between Q3 2020 and Q2 2022, the deployed capacity of container ships in Morocco increased by 32.5%, driven by the ongoing development of Tanger Med. The port's expansion covers 18 hectares, adding seven container stacks and 400 metres of berth. This project aims to support high productivity and reduce CO2 emissions, aligning with APM Terminals' Net Zero emissions ambition.

SOLUTION

CU Phosco supplied eight 45-metre, and four 25-metre-high masts constructed from 100% recyclable galvanised steel featuring state-of-the-art structural designs. They were designed to meet Tanger Med Port's demanding operational requirements, with an advanced raising and lowering head frame using a double drum winch, allowing easy maintenance and reducing downtime.

The collaboration between CU Phosco, APM Tangier, and the contractor ABB Panama resulted in a seamless project execution. CU Phosco's expertise in high mast manufacturing and turnkey services ensured precise and efficient handling of all aspects, from initial surveys and structural design to manufacturing and installation.

RESULTS AND BENEFITS

The successful implementation of CU Phosco's High Masts at Tanger Med Port has provided APM Terminals with additional operational efficiency, space optimisation, and safety. The advanced High Masts offer a weatherproof, robust, and reliable foundation for lighting installations, enhancing visibility for crane operators and ground personnel. This contributes to the overall safety and efficiency of port operations.

Moreover, the durable and low-maintenance mast structures have reduced operational disruptions, supporting Tanger Med Port's commitment to smooth and efficient operations. The project also underscores CU Phosco's capability to deliver large-scale, high-performance structural solutions for major industrial and transport hubs worldwide.

> "Our High Masts are simple to install and virtually maintenance-free. Their construction offers many benefits. They can be quickly lowered for luminaire or device maintenance, meaning operatives no longer have to work at height, minimising health and safety hazards. Furthermore, the design has a small footprint for masts, reducing clutter and optimising space at the busy logistics location."
>
> LEE SANDERSON
> CU PHOSCO

ABOUT CU PHOSCO

CU Phosco provides an in-house, end-to-end service encompassing design, manufacturing, installation and maintenance of High Masts, Columns and Luminaires for the global market. Through design excellence, quality products, project management and a customer-centric approach, our bespoke sustainable infrastructure solutions create safer, brighter, and connected environments.

Established in 1923, our century long legacy of technical expertise and operational integrity has earned the trust and business of customers worldwide across sectors including road, telecoms, airports, ports, and sports.

Our lighting products are rigorously tested to be used in all environments and are built with circularity in mind. Our lighting columns and masts range from 3 metres to 60 metres in height and can be seen on roads, motorways, at airports and ports, shopping centres, residential areas, and sports stadiums throughout the world.

Our products are designed and manufactured in the UK at our dedicated high-mast facility, and made from 100% recyclable or reusable materials.

MADE IN BRITAIN