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C.U. Phosco



AIRPORT LIGHTING

CU Phosco, established in 1923, is the market leader in the design, manufacture, installation and maintenance of high mast lighting, specialising in airport apron lighting.

We have completed projects at airports worldwide, including London Heathrow, Manchester, Dubai, Bristol, Abu Dhabi, Dublin and Beijing.

Our high masts and floodlights 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 airport lighting is recognition of our approach. We build honest, transparent relationships with our clients, covering key projects such as:

- Apron Lighting
- Road Lighting
- Car Park Lighting

OUR SERVICES

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

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





DESIGN



AIRPORT LIGHTING DESIGNED TO LAST

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 longterm partnerships
- Collaboration with an innovative family-run organisation. We are continually improving and evolving as we strive for continuous improvement and best practice



FL820 - AREA

Floodlights have been designed for use in larger areas such as ports and airports 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 - AIRPORT

Ideal for airport aprons, 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 airport aprons efficiently and even reducing the number of floodlights needed to meet required levels.





OUR HIGH MASTS

- Raise & Lower and Fixed Head 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 AND LOWER HIGH MAST SYSTEM

Uniquely designed for the simple installtaion and maintenance of all High Mast applications, the In-Tension Raise & Lower High Mast System ensures that there is no work completed at elevated heights. Easy to maintain, without interruption to the apron or closing large operation areas, the In-Tension Raise & Lower System enables:

- hassle-free maintenance.
- No latches and therefore no components can get stuck
- 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 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.

• No work is completed at elevated heights for simple and easy floodlight installation and

Designed to be used in confined spaces with no base-hinge clearance area requirements



HELPING THE WORLD TO **KEEP MOVING**

SOME OF OUR PROJECTS INCLUDE:

- London Heathrow, LHR, UK
- London Stansted, STN, UK
- Manchester Airport, MAN, UK
- Wattisham Flying Station, UK
- Beijing Capital International Airport , PEK, China •
- Dublin Airport, DUB, Ireland
- Constanta International Airport, CND, Romania
- Victoria International Airport, YYJ, Canada
- Schiphol Airport, AMS, The Netherlands
- Al Maktoum International Airport, DWC, United Arab Emirates
- Zayed International Airport, AUH, United Arab Emirates
- Dubai International. Airport, DXB, Dubai
- Baghdad International Airport, BGW, Iraq
- Gan International Airport t, GAN, The Maldives
- Queen Beatrix International. Airport, AUA, Aruba
- Sofia Airport, SOF, Bulgaria
- Evreux-Fauville Airbase, EVX, France
- Strasbourg Airport, SXB, France
- Carcassonne Airport, CCF, France
- Bucharest Henri Coandă International Airport, OTP Romania



LONDON HEATHROW

HOW HEATHROW MADE 55% ENERGY SAVINGS WITHOUT COMPROMISING LIGHTING PERFORMANCE

With an average of 200,000 passengers arriving and departing per day, Heathrow Airport is one of the busiest airports in Europe. The focus of the project was to provide a high quality energy efficient LED scheme specific to the requirements of Heathrow Airport, with minimal disruption to the airport's meticulous schedule.

All the FL800R fittings were manufactured in Ware, Hertfordshire on a strict schedule. The advantage to producing the lanterns 'in house' meant CU Phosco could react quickly to operative feedback on site and alter production to improve the installation process. For example, the use of a plug and socket system was included in the lantern design. As a result the majority of the wiring was completed in the control environment of the factory, minimising time on site.

The difference in light quality from Sodium to LED is evident across Terminal 5. The FL800R provides exceptional control minimising obtrusive light, glare and upward light without compromising the lighting performance. This means the conversion has not only created an improved environment on the stands, it has provided a substantial energy saving.

> It became apparent from the start of the project that CU Phosco had to deliver a flexible and streamlined system to operate efficiently in the strict working window given each night when flights stopped. Therefore CU Phosco adapted the FL800R product to reduce the installation time. Each procedure was rigorously scrutinised so that all activities were completed on time.

> The outcome of the project and a subsequent tender process has resulted in CU Phosco being appointed by Mitie Facilities Management on behalf of Heathrow Airport Ltd to carry out LED replacements on the remaining stands at Terminals 1, 2, 3 and 4.





EVREUX-FAUVILLE

Évreux-Fauville Air Base 105 is a military airfield base located about two miles east of the town of Évreux, northwest of Paris. The origins of Évreux Air Base go back to the 1920s, when a civil aerodrome was built to accommodate sports flying.

BUILDING A NEW INFRASTRUCTURE TO SUPPORT OPERATIONS

In 2020 a major overhaul began at the base in order to accommodate the first multinational (French & German) military air transport squadron. The development includes three new maintenance hangers, training centres, expansion of the aircraft aprons, new road, and car park infrastructure.

USING INNOVATION FOR INSTALLATION

CU Phosco and Ledenco (CU Phosco's agent in France) worked closely with the design consultants, Sogeti Ingenierie, from the outset and provided lighting designs in full accordance with ICAO Annex 14 and customer requirements. CU Phosco supplied twelve painted high masts ranging in height from 8m to 22m and 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.

by Eurovia and Citeos from whom we received great support throughout

WATTISHAM FLYING STATION

LED UPGRADE DELIVERS SAVINGS OF $\pm 46,000$ PER YEAR

Have you seen the British Army's new battle-winning Apache attack helicopters? The AH-64E Apache aircraft are based at Wattisham Flying Station - an operational Army Airfield located next to the village of Wattisham in Suffolk, England.

VIVO Defence Services, a company that manages the Armed Forces' built estate, was tasked with replacing the airfield's eight High Mast Floodlight Systems, each carrying 5no 1000W SONT floodlights. Working with the Ministry of Defence's Defence Infrastructure Organisation (DIO), VIVO has developed a deep understanding of MOD culture, ethos, structure, and practice and employs a technology-enabled commitment to improving customer satisfaction levels, asset efficiency and user productivity.

Stuart Murray, CU Phosco, details that "technology has come a long way since we installed our FL444 SONT floodlights in 2001, so the project presented excellent potential for substantial energy savings."

SOLUTIONS

Using the existing 40m high masts CU Phosco worked closely with VIVO to find the optimum LED floodlight for the airfield.

CU Phosco's in-house team completed the lighting design, and its contracting team delivered the LED replacement within a week.

Ideal for replacing existing 1kW floodlighting systems, the chosen Iuminaire, FL810 LED Area Floodlight, provides a highly efficient solution for the airfield.

FL810's cooling fins are optimised with a high surface area to quickly draw heat away from the LEDs. Vents created by the vertical cooling fins accelerate natural convection through the heatsink. The rising hot air draws cold air in from below, immediately cooling the LEDs and maximising their lifespan and light output. This cooling effect ensures FL810's high efficacy is maintained over its life. The low-glare, Dark Sky friendly solution meets all the requirements for CAP168 compliance and limits obtrusive light to the surrounding environment. Furthermore, its excellent CRI ensures excellent visual conditions for the helicopter pilots on the aircraft stands.

The floodlight's superior energy efficiency has delivered 64% energy savings, helping VIVO to deliver an annual reduction of £46,000 in electricity costs for the MOD, with a payback of under 2.5 years.

Furthermore, with sustainability in mind, the luminaire is fully recyclable at the end of its life.



The FL800R & P855 LED solution offers a better quality of light for both the staff and public at the airport. The feedback from the ground crews and maintenance staff has been very positive.

easva

The project produced an energy saving over 50% which will be further increased with the use of the Telensa CMS system which CU Phosco installed as part of the project. The increased control gives the airport the ability to dim or turn off stands/areas that are not in use.

CU Phosco's ability to deliver the full project inhouse ensured that the project was completed on time and within budget.

LONDON STANSTED

HOW STANSTED REDUCED ENERGY BY 50%

CU Phosco was requested to replace the existing 750+ SON-T floodlights across Stansted Airport with the FL800R LED floodlight P855 LED high mast lantern including all airside masts and several landside masts.

The main aims were to provide significant energy savings, improve light quality and provide increased control of the lighting system.

A comprehensive High Mast Survey was carried out by a CU Phosco Supervisor on all 87no High Masts. This identified that 8no. masts on the Northside of the airport required replacing. CU Phosco delivered the project fully in-house including the design, supply and installation of LED lanterns and replacement high masts.

TAR

ABOUT CU PHOSCO

CU Phosco provides an in-house, end-to-end service encompassing design, manufacturing, installation and maintenance of high masts, columns and lighting for the global market. Through design excellence, quality products, project management and a customercentric 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 highmast facility, and made from 100% recyclable or reusable materials.

