

# Case study

Associated British Ports  
Royal Dock, Grimsby



Location | Grimsby  
Philips Lighting | Luma 3



**PHILIPS**



“After reviewing a number of options we opted for the LED solution offered by Philips as it offered high-quality illumination along with real environmental benefits. The scheme is supporting our operations on this award-winning terminal and is helping our team deliver a first-class service to customers”.

John Fitzgerald, ABP Director, Humber

Superior colour rendering and the luminaire’s white light, perceived as being brighter and more natural when compared to yellow light, has increased visibility thereby creating a safer working environment.




#### Fast Facts

- Customer**  
Associated British Ports
- Location**  
Royal Dock Grimsby
- Philips Products**  
Luma 3
- Carbon Savings**  
4.7 tonnes per annum
- Energy Savings**  
31%

#### Background

ABP is Britain’s largest port operator, managing 21 sites across England, Scotland and Wales. With a strong focus on sustainability, ABP aims to balance their commercial needs with caring for the environment. Consequently ABP was keen to investigate LED lighting solutions and partnered with Philips on a trial of the technology in the Royal Dock in Grimsby. The result was significant carbon and energy savings, reduced maintenance costs and a considerable improvement in the quality of light. The trial has demonstrated that LED can provide superior light quality; creating a better lit environment for night-time working and impacting security requirements as objects can be distinguished more easily and details seen more clearly.

#### The Solution

The Royal Dock is the main UK arrival point for imported cars and currently handles more than 500,000 vehicles a year from major global manufacturers including Volkswagen, Audi and General Motors. An extension of the terminal was recently completed in order to increase the number of cars that could be handled by the port and it was during the development of the area that the lighting was reviewed. Initially, as no existing lighting was in place, the standard lighting scheme for this type of area, 400w SON on a high mast, was to be installed. However discussions with Philips revealed the potential benefits of opting for an LED solution and the lighting scheme was updated.

The lighting was to illuminate a large area of the terminal, approximately 200metres by 100metres, with 20 lux on average the requirement. Two 25metre high masts were installed at 100metres apart and Philips Luma 3 luminaires were used to achieve the desired light levels and uniformity. Throughout the process Philips worked collaboratively with the high mast specialist Outdoor Highlight LTD to ensure a smooth installation and all appropriate standards were met.

A key benefit of the new lighting scheme is the quality of light generated. Superior colour rendering and the luminaire’s white light, perceived as being brighter and more natural when compared to yellow light, has increased visibility thereby creating a safer working environment.

Across its entire portfolio, ABP is committed to reducing its carbon footprint and seeking out more sustainable practices. The success of this trial means that ABP is now willing to consider LED lighting across its entire estate and Philips is now in discussions with other ABP ports about adopting similar solutions.

#### Life Cycle Savings

In using this LED solution the number of luminaires were reduced by 2 per mast and the overall wattage decreased by more than 2000, equivalent to 8672kwh per annum. The original scheme would have involved 16 440W luminaires and in the final LED installation this was reduced to 12 406W luminaires. This represents an energy saving of 31% and an impressive carbon reduction of 4.7 tonnes a year. Luma 3’s compatibility with lighting control solutions means that there is scope for additional energy savings to be achieved through dimming.

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