

CASES
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LED luminaires withstand the elements at Jersey Airport and reduce energy consumption

One-on-one replacement LED luminaires combines quality and durability

Balancing economics with quality is essential for Jersey airport, as the airport services a small community. To become more energy effective, the airport decided to upgrade the illumination of its aprons. With the existing masts still in good condition, new AAA-LUX LED luminaires were fitted.

Servicing a tiny island between France and the UK, Jersey Airport plays a vital link for the approximately 100,000 people that inhabit the island. The island is also a popular get-away destination for those who enjoy hiking or want to visit the various defensive castles that can be found on the island. The fastest way to get in and out of the island is by air.

In order to keep up with the constant changes and demands of the aviation market, Jersey Airport has gone through a massive construction programme since 2014. Both the north and south aprons have been renovated and extended as a new cargo centre was added in 2015. In a bid to become a more energy efficient organisation, Jersey Airport also opted for LED lighting on the apron. The airport's maintenance company, Jersey Airport Engineering Services, appointed Abacus Lighting as their consultant. 'The existing HL250 masts were still in good condition,' says Sales Manager Darren Pearce of Abacus Lighting. 'We deemed it unnecessary to replace those masts as they could still be used safely with new floodlighting installed. In order to do so it was essential that the new light fittings would meet the suitable lighting levels

'AAA-LUX is the only manufacturer of LED luminaires that has succeeded in introducing a LED luminaire that can be used as a one-on-one replacement for conventional 2kW luminaires'

and have the correct spread of light across the area between the mast points.' To ensure that no additional loading was placed on the mast, it was also required that the weight of the new fitting would not exceed

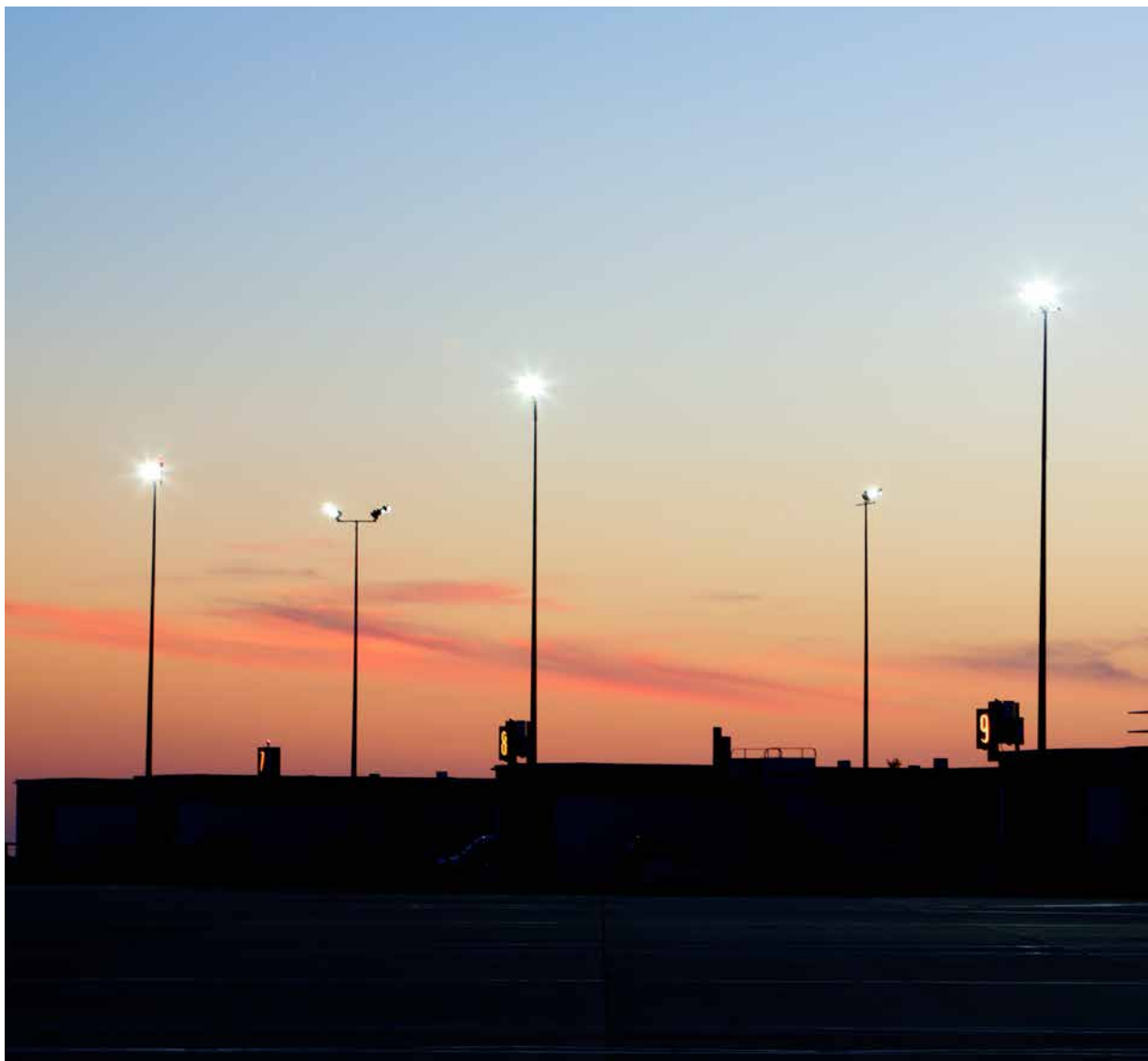
'We leave no stone unturned when solving the puzzle to put the best quality components inside the luminaires'

the weight of the existing luminaires. In addition to that, the new fitting should also have been designed in such way that it would not generate additional wind shear. Abacus Lighting decided to use AAA-LUX LED luminaires. These luminaires fitted the existing infrastructure which would keep the capital cost down and increase the ROI.

One-on-one replacement

The ability to replace existing luminaires with LED luminaires without having a negative impact on any other infrastructure is essential. 'The economic life-span of masts normally outdoes that of the luminaire. On average a mast will last for in excess of 25 years. When masts are installed, they are selected based on the weight they'll have to carry and the forces by the elements they'll have to withstand,' Pearce continues while pointing out the proximity of the airport to the coast and the vast open space of the airport premises where wind can build up severe strength.

The ability to package the high-power illumination and limited energy consumption of LED technology in luminaires that would be similar to luminaires for conventional lights, in terms of their shape and weight, has always been key for AAA-LUX explains AAA-LUX Marketing and Sales manager, Michel van Dooren.



'When AAA-LUX realised in 2005 that there was a future in LED illumination for large areas we also realised that such illumination should be provided in a small but powerful package.' That is, however, easily said than done. 'High-power LED illumination requires a lot of technology. We leave no stone unturned when solving the puzzle to put the best quality components inside the luminaires without increasing the weight or expanding the size of the luminaire too much. Michel van Dooren from AAA-LUX knows how difficult this process can be. 'Contrary to other players in the field AAA-LUX can rely on a learning-curve that dates back to 2005. In the past 10 years we have been involved in over 500 installations, a number that is unrivalled. As

the design and production of our LED luminaires is fully controlled by AAA-LUX, it is easy for us to immediately apply new knowledge and experiences we gain to improve our LED luminaires.'

Not with a pinch of salt

As the airport is located close to the sea, it was vital that the luminaires were also well-protected against salt and moist. 'The body for all our luminaires is made from casted aluminium polyester which is powder coated. To the naked-eye this is a beautiful finishing of the luminaire. More importantly, it is also a tested way to ensure their durability as the salt particles will have no effect on the luminaires,' Van Dooren continues. The likelihood of salt or moist affecting the electronics inside the luminaire is next to nothing, he assures. 'All our luminaires have integrated heat sink seals that comply with IP65 standards.' The quality of all luminaires has been verified independently. 'Before a new LED luminaire is released to the market, we first have the quality assured by testing institute Dekra. Our luminaires are released to the market, only once Dekra has confirmed that our luminaires, as well as the light they produce, meet or exceeds to the high standards we set when we started out to design the luminaire. It is this strict approach to quality that saw AAA-LUX succeed in introducing LED luminaires for large areas and that is why our luminaires have been used in over



Jersey Airport

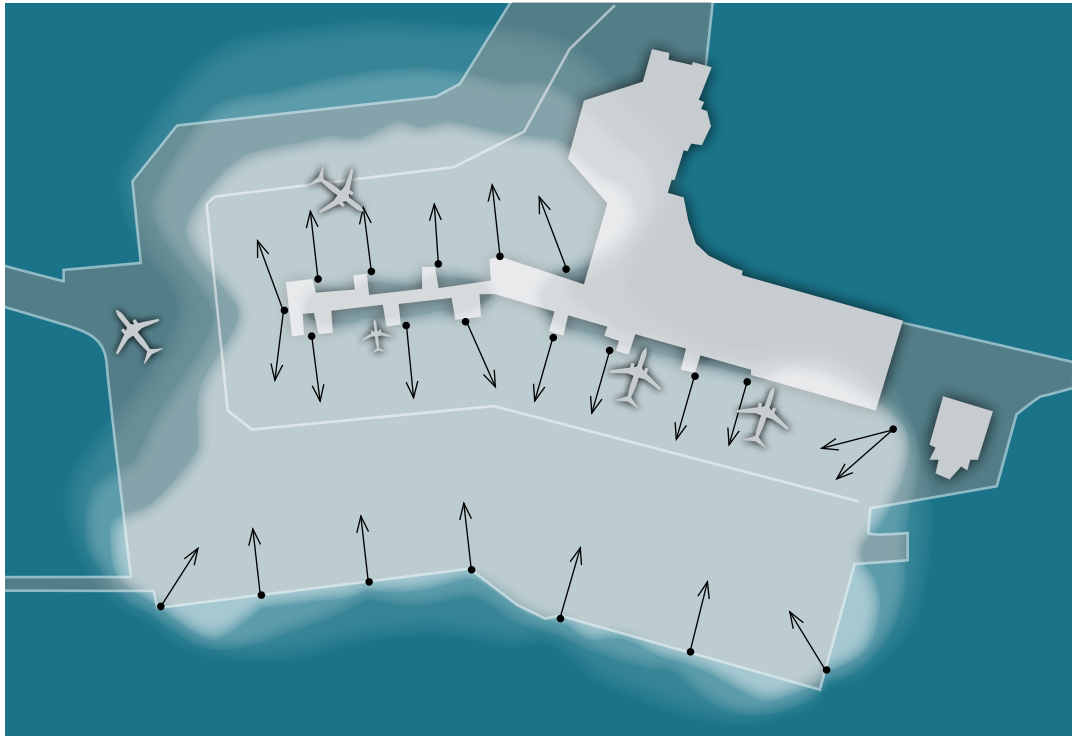
Jersey Airport was officially opened in 1937. Thanks to its close proximity to both France and England, people living on the island speak both languages with high proficiency. With duty-free goods and carefully graded hotels and guesthouses, the island has turned into a tourist paradise. The primary objective of the airport is to enable the airport of Jersey to continue to provide essential public services to the Island, but to do so in a more sustainable manner, without the need for any States' funding.

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500 projects to date; from port terminals that are used intensively, to large parking areas that are secured with sophisticated CCTV systems as well as football stadiums of professional clubs in the top international football league where matches are recorded in HD AAA-LUX provide a high-quality LED illumination solution for any organisation's needs.'

Jersey Airport installation details

Lightplan
example



Led Luminaires
used



20 x **AL 180**, 4 x **AL 90**
mast height: 15 m

AL 180
SERIES

AL 90
SERIES



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