



Lighting and Illumination Technology Experience  
Limited

Architectural



# Case Study

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# Saltburn Pier



2 Core  
Data over Power



DMX RGBW  
Controllable

# Saltburn Pier, North Yorkshire, UK

Following the arrival of the railway in 1861 and the influx of visitors, Saltburn Pier, in Saltburn by the Sea, North Yorkshire, was commissioned in 1867 and completed two years later.

It is now the last remaining pier in Yorkshire, and one of only around 50 pleasure piers left in existence across the UK coastline.

Having stood for over a century, the pier needs regular maintenance work which recently included upgrading its lighting technology to replace defunct lighting on the underside of the pier. The lighting had been dormant since it was damaged by a tidal surge in 2013 and hadn't been replaced.

It was determined that an LED system would be preferable over more traditional light sources for several reasons. Firstly, this would offer a solution that was lower maintenance with better longevity, and secondly would allow for a controllable RGBW system.

To deliver the new dynamic, decorative lighting scheme for the pier, Redcar and Cleveland Council appointed LITE to deliver the project in association with PFI contractor Bouygues. As well as offering market-leading LED solutions, LITE provide programming and technical expertise for projects, including installation and commissioning.

The lighting installation needed to enhance the structure of the pier in a subtle and classic way, while utilising programming capabilities to create visual lighting effects at certain times and on notable days of the years. The installation comprises of 500 luminaires, all offering the flexibility to change colour and intensity.



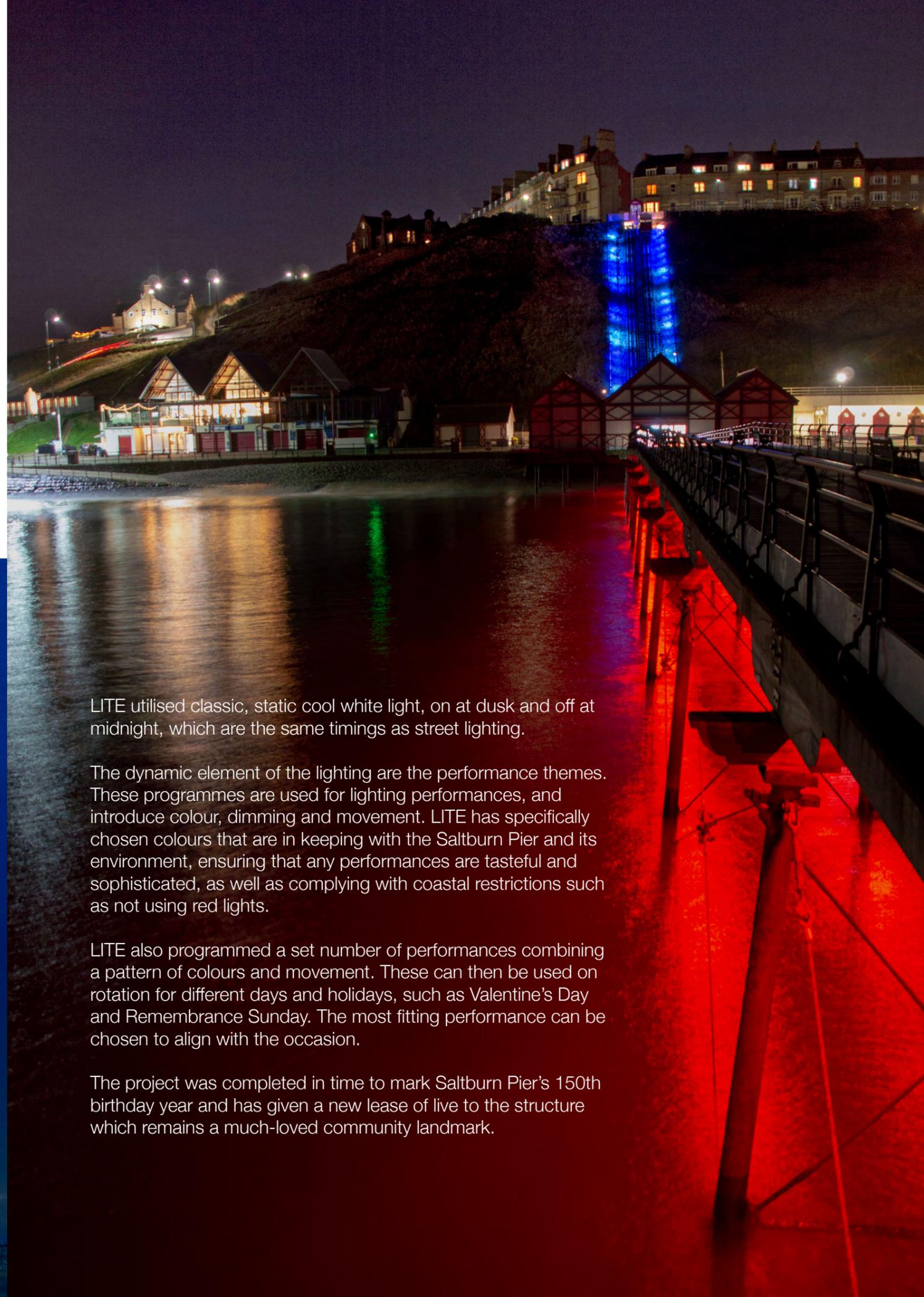
Specifying from LITE's carefully curated portfolio, MaxiLED DMX RGBW globes were chosen, with a Pharos LPC4 DMX controller. The MaxiLED globes are installed in two runs of 250, at 0.5 metres spacings. Positioned approximately 6m above the pier, the globes beautifully illuminate the structure, the sand and sea.

The power and data supplies are located in feeder pillars, ensuring a safe and clean solution to the required cabling.



Addressing the first need of the upgrade – the energy efficiency requirements – the new system delivers 1.2Kw power consumption against the old equipment which ran at approximately 5Kw. This is a significant saving, ensuring the council can be confident in the pier's reduced energy consumption and lower running costs.

The second key part of the brief was to provide a programmable lighting design for the iconic pier. There were two elements to this; the default mode and the performance themes. The default lighting mode is the setting which will be predominantly used. This mirrors the previous lighting effect in some ways, as the intention remains the same – to illuminate the structure, sea and sand beneath the pier. There is no need for movement or dimming of lighting.



LITE utilised classic, static cool white light, on at dusk and off at midnight, which are the same timings as street lighting.

The dynamic element of the lighting are the performance themes. These programmes are used for lighting performances, and introduce colour, dimming and movement. LITE has specifically chosen colours that are in keeping with the Saltburn Pier and its environment, ensuring that any performances are tasteful and sophisticated, as well as complying with coastal restrictions such as not using red lights.

LITE also programmed a set number of performances combining a pattern of colours and movement. These can then be used on rotation for different days and holidays, such as Valentine's Day and Remembrance Sunday. The most fitting performance can be chosen to align with the occasion.

The project was completed in time to mark Saltburn Pier's 150th birthday year and has given a new lease of life to the structure which remains a much-loved community landmark.



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