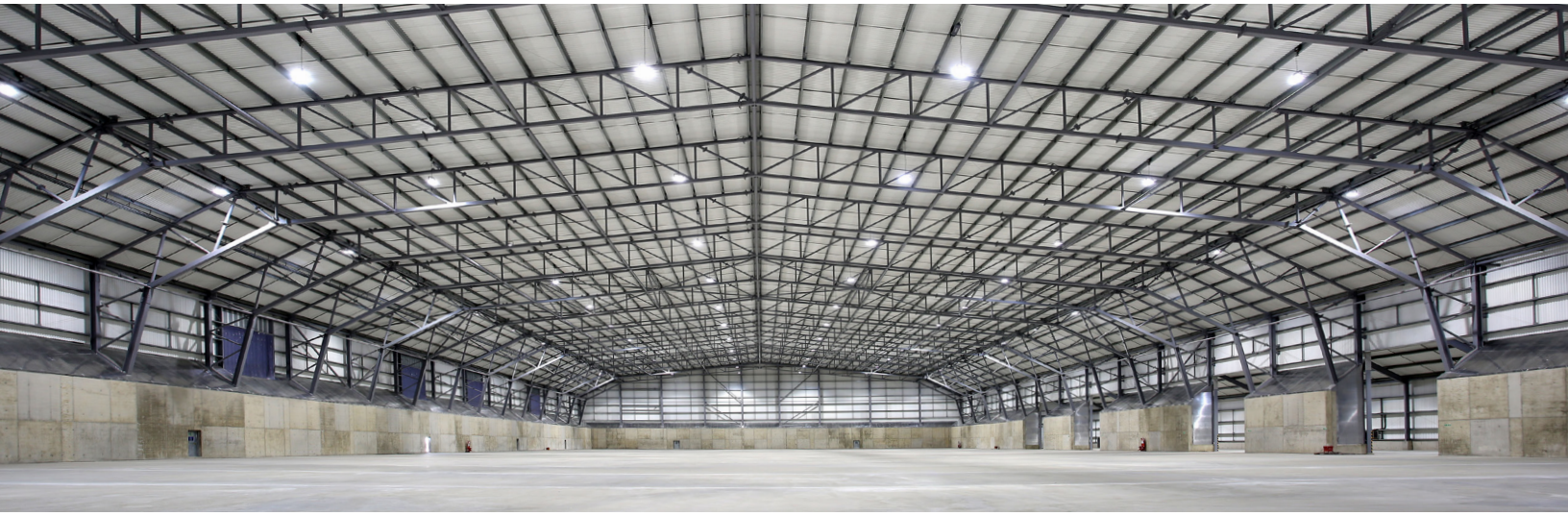


Engineered for the Elements: Dialight Illuminates Port of Tilbury's New Grain Facility

Early collaboration and application-specific engineering deliver a comprehensive lighting solution for complex port operations.

The Port of Tilbury in Essex, UK, has completed a new bulk grain storage facility at Berth 43, supporting its growing grain handling operations. Delivered by Harmonix Construction, the purpose-built facility required a lighting solution capable of meeting hazardous-area safety requirements, demanding marine conditions, and complex operational needs.

As an established Dialight customer, the Port of Tilbury had previously used the company's ATEX-certified lighting for maintenance upgrades, making Berth 43 an opportunity to integrate Dialight's technology into the design of a new-build facility from the beginning.

Lighting Challenges at the Port of Tilbury

Bulk grain storage presents unique lighting challenges. Airborne combustible dust can create a potentially explosive atmosphere, requiring appropriately certified luminaires for the grain store's Zone 2 classified environment.



The exposed waterfront location demanded lighting suited to wet, marine conditions, while high mounting positions and large traversing cranes introduced potential shadowing. The scheme also needed to accommodate the distinct lighting requirements of the quayside, external operating areas, and vehicle refuelling point.

Collaborative Design from the Outset

Dialight began working with principal contractor Harmonix Construction in November 2024, developing a coordinated lighting scheme around the Port's specifications and evolving construction plans.

The design covered the grain store, surrounding external areas, and vehicle refuelling point. As the project progressed, Dialight refined fixture selection and positioning to accommodate the facility's varying mounting heights, crane movements, and specified illumination levels.

A key design refinement involved the grain store, where an initial scheme proposing 110 SafeSite® High Bay luminaires was revised to specify 78 ProSite Floodlights. By utilising ProSite's range of optical distributions, Dialight's designers achieved approximately 29% fewer proposed fixtures while maintaining the specified light levels.

Case Study: Port of Tilbury
Essex, United Kingdom

Lighting Built for Complex Port Operations

The completed installation comprises more than 200 Dialight LED luminaires, including a large-scale deployment of Zone 2 ProSite Floodlights, alongside SafeSite® luminaires, Emergency GRP Linears and Vigilant® Bulkheads.

The lighting solution brings together hazardous-area certified products for the grain store and marine-grade luminaires for exposed external areas, with each selected to meet the demands of its application. Beyond the technical design, close coordination with Harmonix Construction and advance product ordering ensured luminaires were available well ahead of installation, supporting efficient project delivery.





Results: Performance Through Design

The completed scheme delivers the specified light levels across the grain store, quayside, and surrounding operational areas, demonstrating how tailored lighting design can meet complex safety and performance requirements while making efficient use of equipment.

With long-life LED technology suited to demanding industrial environments, the installation also helps minimise future maintenance interventions in areas where access can be challenging. Together, these benefits provide the Port of Tilbury with a robust, reliable lighting solution built to support its grain handling operations for years to come.

Installation Snapshot

- Application: New-build bulk grain storage facility, Berth 43
- Principal Contractor: Harmonix Construction
- Installation: More than 200 Dialight LED luminaires
- Design Optimisation: 78 ProSite Floodlights specified in place of 110 initially proposed SafeSite® High Bays
- Result: Approximately 29% fewer proposed grain-store fixtures, with specified light levels maintained



ProSite LED Floodlight



Vigilant® LED Bulkhead



To learn more about Dialight's world-leading industrial LED lighting solutions for port applications, visit www.dialight.com.