

HORSEFAIR UNDERPASS

X-Range Boost

The Horsefair Underpass, situated beneath the iconic John Lewis Store in Kingston Upon Thames, serves as an 80m long, vital transportation artery with two lanes of traffic in each direction. Its significance as a pedestrian thoroughfare, combined with the absence of cycling restrictions, underscores its importance in facilitating safe and efficient urban mobility. However, an outdated lighting system posed significant challenges, prompting the need for a comprehensive overhaul.

BACKGROUND

The outdated lighting system within the Horsefair Underpass required urgent attention. TRT, a leading provider of innovative lighting solutions, undertook the responsibility to conduct thorough site surveys and design a modernised lighting scheme that not only addressed the existing deficiencies but also aligned with the stringent requirements outlined in Annex D of BS5489-2:2016.



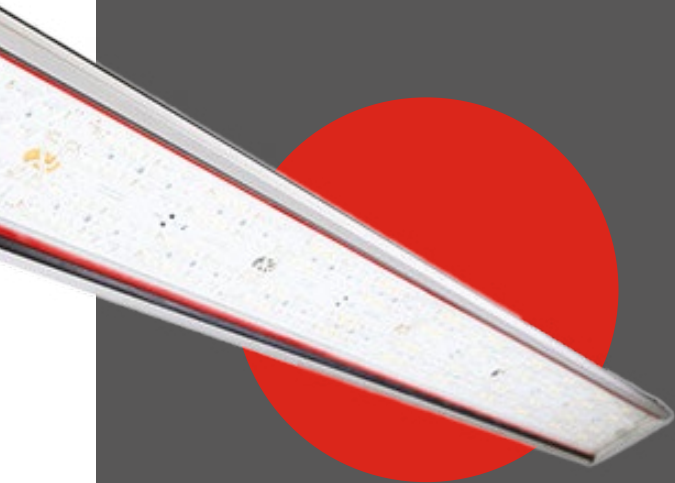
SOLUTION

TRT's approach to the project resulted in the proposal of their **X-Range Boost** tunnel luminaires to VolkerHighways, working on behalf of The Royal Borough of Kingston Upon Thames.

Manufactured from high quality 6063 T6 aluminium extrusion and with an anodised finish, the **X-Range Boost** luminaires provide excellent long life and durability. With a corrosion resistant body, resilience is ensured against even the harshest environmental conditions. High luminous efficacy is maintained through its easy-to-clean toughened flat glass cover. Connections were provided for cabling between the luminaire along with local driver enclosures.

All **X-Range Boosts** were equipped with LED Protect, an innovative circuit design that can be specified on all TRT luminaires that use high power LEDs. These LEDs are arranged in a series configuration, and the failure of a single LED or its solder joint, can lead to a disruption in the circuit, causing all LEDs in the string to extinguish. To overcome this issue, TRT integrate PLED protectors, providing an electronic alternative path for the current to flow in the event of LED or solder joint failure. Such a feature is invaluable, ensuring uninterrupted illumination even in the face of occasional LED malfunctions, ultimately reducing the maintenance expenses associated with a project.

The versatility of the **X-Range Boost** is exemplified by an array of optics, including narrow, medium, and wide symmetric distributions, as well as asymmetric and counter-beam configurations. Such flexibility empowers designers to tailor the lighting design to suit the individual characteristics of the Horsefair Underpass and to minimise capital costs and energy consumption/costs.





IMPLEMENTATION

With the lighting design finalised, TRT continued their involvement by supporting CBS Ltd with the project management of the installation.

The transition from outdated SON and fluorescent luminaires to the state-of-the-art X-Range models not only enhanced visibility and safety within the underpass but also ensured compliance with Annex D of BS5489-2:2016. This adherence to regulatory standards underscores TRT's commitment to delivering solutions that prioritise both functionality and regulatory compliance.

CONCLUSION

The transformation of the Horsefair Underpass serves as a compelling testament to the power of innovative lighting solutions in revitalising urban infrastructure. Through meticulous planning, strategic design, and seamless implementation; commuters, pedestrians, and cyclists can now traverse the underpass with heightened confidence, buoyed by the superior illumination provided by TRT's X-Range Boost tunnel luminaires.

