

> CASE STUDY

AHMARRA DOOR SOLUTIONS LTD



ahmarra

- Quick Facts**
- Full project solution with low-cost of lifetime ownership
 - Luminaires matched to cladding of building for seamless appearance
 - Project installed and supported by Burrows Electrical

BACKGROUND

Ahmarra Door Solutions Ltd is one of the UK's leading fire door manufacturers and have had a production facility in Portsmouth for over 30 years.

The company manufactures timber doorsets which meet the comprehensive fire certification requirements of the Building Regulations. Ahmarra manufactures doorsets across all sectors including hospitals, airports, luxury homes and schools.

CHALLENGE

Growing demand meant that the company needed new premises to expand their operations and so the decision was taken to construct a completely new manufacturing facility.

THE SOLUTION

Holophane supported the project from initial consultation to providing lighting designs and it was decided that almost all the internal and exterior lighting should be provided by Holophane. The project was also supported by Burrows Electrical who were contracted on the build to install all luminaires and electrical requirements.

Holophane highbays, amenity, and wall mounted perimeter luminaires were used in a variety of internal and external areas.

Main factory

The main factory measures approximately 70m x 40m with the luminaires suspended at 7.5m above FFL (Finished Floor Level). Here, Ahmarra have used 26 No of the award winning Haloprism highbay. This 475W unit delivers over 63,000 lumens and achieves a maintained illuminance level of over 500 lux.

The torus shaped refractor with PrismaLED technology gives improved "volumetric illumination". The result is that the vertical surfaces of the facility receive much more illumination than using a conventional highbay.

The prismatic glass refractor optics also ensures that there is minimal glare. The whole factory and assembly area appear much lighter and airier.



This equally will aid production workers, once the facility is in use, conduct complex task due to the increased visual acuity.

Furthermore, the 4000K LEDs have a colour rendering index, CRI of >80 which means that the precise colour of the various types of wood used on the doors can easily be seen.

The rated life of the LED module used in the Haloprism is 100,000 hours (L70B50@30C) meaning that it lasts six times longer than a typical discharge lamp used in the old factory. Therefore, there are additional savings in lamp replacement and maintenance costs.

Main exterior

For the general lighting of the exterior, the new WALLPACK™ has been used. These are mounted at 6m. Some have optics which have been specifically designed to achieve wide sideways spacing. Other WALLPACK™ luminaires use a forward throw optic where you want to illuminate areas far from the building. The peak of the beam is emitted at 70 – 75 degrees and due to the hood style construction, no light is emitted upwards.

Depending on the area, either 33W 3,800lm or 81W 9,300 lm WALLPACK™ were used.

Additionally, the luminaires were painted to match the exterior cladding of the facility to give a seamless appearance and blend in with the building.

Loading bays

These areas are illuminated using D-Series 1 lanterns wall mounted at 7.5m. This is a modern style amenity lantern and this particular version is 208W and delivers over 24,000 lm. The finned thermal management system of the D-Series means that the rated life of the LED engine is over 100,000 hours, so it is designed to last. The unique asymmetric optics placed below each LED ensure uniform lighting with minimal light spill.

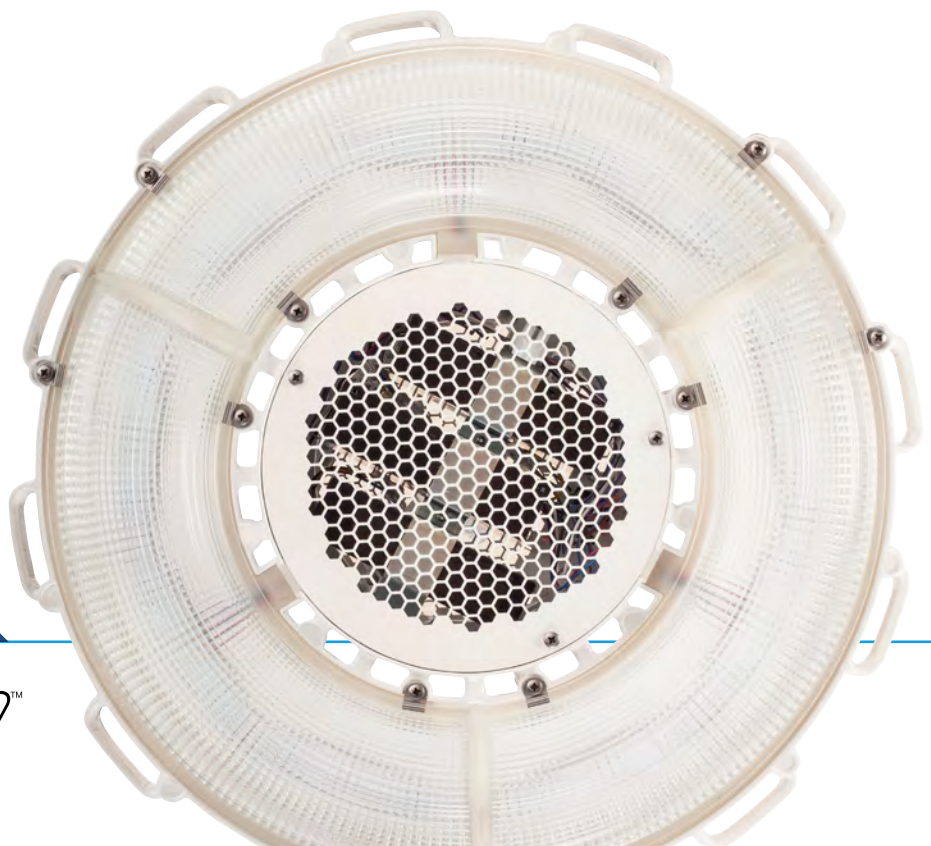
Exterior Doors

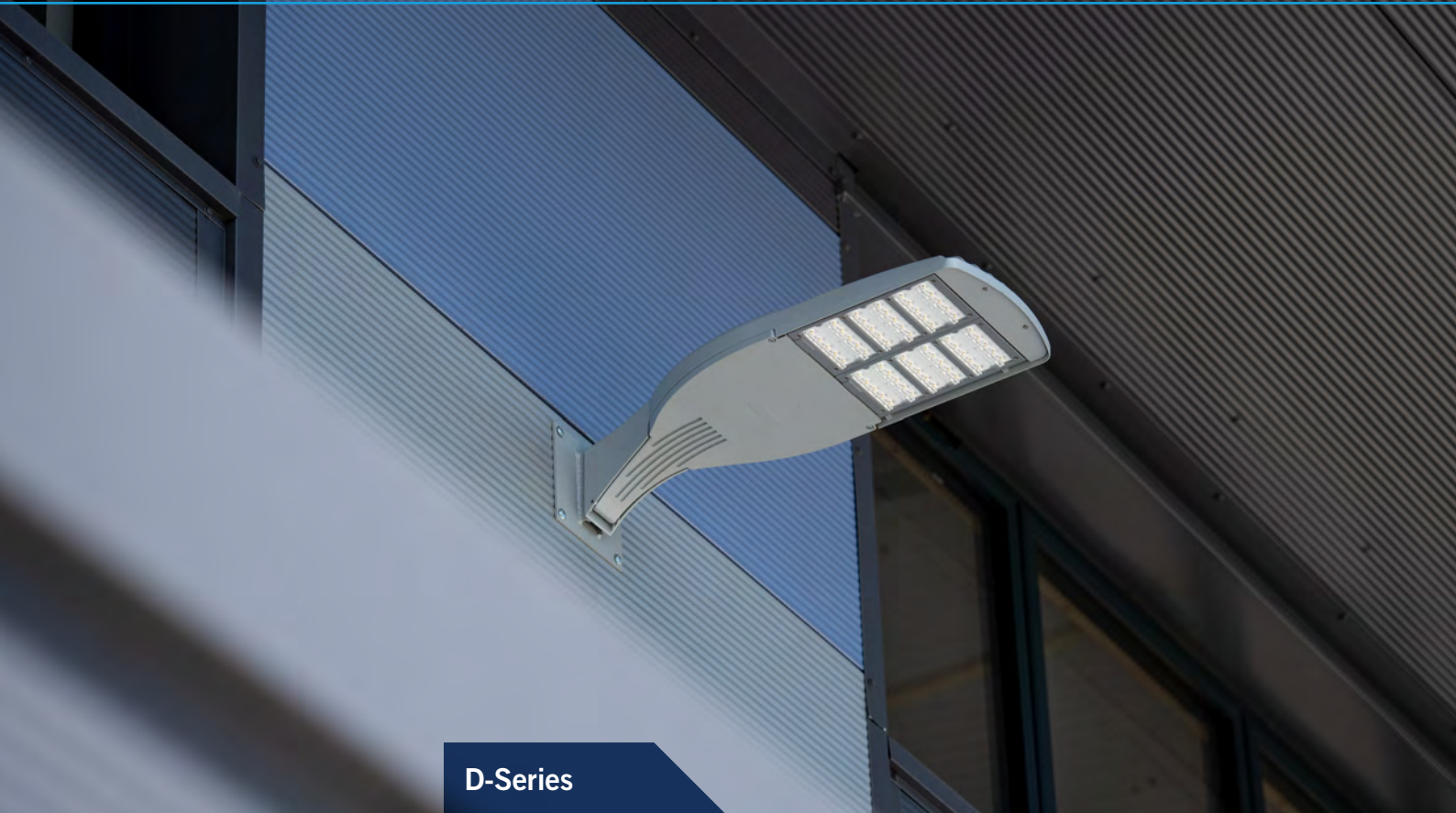
The tri-lobular Denver Elite Wall luminaires are used above the doors and provide a safe level of illumination for staff leaving the building. The 12W Denver Elite mounted at 3m and there are also 24W Denver Elite mounted at 4m.

The 70-degree beam of the Denver enables wide spacings whilst having a complete cut-off above the horizontal, so no light is emitted skywards.

For extra security, and unscheduled exits from the building, the wall mounted Denver Elite are fitted with a 3hr maintained emergency battery.

Haloprism™





D-Series



Wallpack™



HOLOPHANE[®]

An **Acuity** Brands Company



Denver Elite™ Wall

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