

DORBIK



CASE STUDY
ETIHAD STADIUM, MANCHESTER

ABOUT ORBIK

OVER 40 YEARS OF EXCELLENCE



Established in 1982, OrbiK quickly developed into a highly respected manufacturer of lighting and safety products, all made to the most exacting standards.

OrbiK are a go-to supplier to a large customer base across the UK, Europe and the Middle East and have won many prestigious projects within these markets over the years.

OrbiK's purpose-built four acre facility in Aldridge in the West Midlands features state-of-the-art in-house production, including precision metal engineering and powder coating facilities.

Throughout their distinguished history, OrbiK have consistently maintained their dedication to excellence, which has seen the company being awarded a significant amount of quality certificates from the likes of BSI and TUV Rheinland.

OrbiK manufacture within quality system ISO 9001:2015 and together with a 100% test policy, our products provide our valued customers with the peace-of-mind that the product they are purchasing is not only fit for purpose but also made with the utmost care and attention to detail.

We are rightfully proud of the reputation that we have earned Worldwide as a supplier of high quality products and services and we have enthusiastically supported the improvement of quality standards within the lighting industry during our 41 year history.

at the heart of lighting

theLIA
MEMBER

This is to Certify that
OrbiK Electronics Ltd
is a MEMBER of
LIGHTING INDUSTRY ASSOCIATION
2022

The Lighting Industry Association (the LIA) is a not-for-profit organisation established to represent the interests of its members in the lighting industry. Working on behalf of the Lighting Industry, the LIA has an international role in maintaining and raising standards in both in terms of performance and safety.

Collaboration in this area of creating and creating change in technology is necessary to ensure the quality of the products and services that the lighting industry provides to its customers. As well as defining the standards to support the UK Lighting Industry, the LIA is also involved in the development of international standards.

www.thelia.org.uk

Zertifikat Certificate

Zertifikat Nr. / Certificate No. M 500496/3
Date / Issue 09/11

The Zeichen / Item Reference: 01-78-002000001
Unter Zeichen / Under Reference: 01-07-2022

Produktion / Production: OrbiK Electronics Limited, Northgate Way, Aldridge, Walsall, WS9 8TX, Stafford Kingdom

Produktion / Production: OrbiK Electronics Limited, Northgate Way, Aldridge, Walsall, WS9 8TX, Stafford Kingdom

Zertifiziertes Produkt / Certified Product: Emergency Illumination Device (Fixed Emergency Luminaires)

Type Designation: ARCL/HR/TK ARCL/HR/TK/TS (OPR/TK)
Rated Voltage: 230/240V~, 50/60Hz
Rated Wattage: 3W
Protection Class: II
Degree of Protection: IP55

bsi.
Certificate of Registration
QUALITY MANAGEMENT SYSTEM - ISO 9001:2008

This is to certify that:
OrbiK Electronics Ltd
OrbiK House
Northgate Way
Aldridge
Walsall
WS9 8TX
United Kingdom

Holds Certificate Number: FM 09128
and operates a Quality Management System which complies with the requirements of ISO 9001:2008 for the following scope:
The design, manufacture and sales of emergency lighting control equipment and luminaires. The conversion of luminaires for emergency lighting applications. The sale of ancillary products associated with emergency lighting and fire detection equipment.

For and on behalf of BSI: Frank Lee, EMEA Compliance & Risk Director
Original Registration Date: 01/12/1989
Latest Revision Date: 06/07/2015
Effective Date: 02/09/2015
Expiry Date: 01/09/2018

ICEL

THIS IS TO CERTIFY THAT
OrbiK Electronics Ltd
IS A MEMBER OF
The Industry Committee for Emergency Lighting

SHARES ITS VALUES & ASPIRATIONS AND HAS COMMITTED ITSELF TO:

- Ensure that clients receive the quality of product and scheme design to which they are entitled
- Safeguard the interests of the end user
- Promote environmental care

BY PROMOTING THE AVAILABILITY OF:

- Quality products
- Professional advice and competence in design
- Service before and after Standards of ethical behaviour

Page: 1 of 1
Bernard Pratley, ICEL Director
1st January 2015

TUV Rheinland LGA Products GmbH, Tälistraße 2, 70431 Nürnberg
http://www.rheinland.de/ Frank.Lee@rheinland.com
Tel: +49 91 21 896-3155

ANAB
ANAB is a member of the BSI Group of Companies.

Information and Contact: BSI, BSI Standards Hub, 389 Chiswick Avenue, Uxbridge, Middlesex UB8 3PH, UK. Tel: +44 (0)1895 9090
BSI Assurance UK Limited, registered in England under number 7805322, at 189 Chiswick Avenue, London W4 4AL, UK.
A Member of the BSI Group of Companies.

ICEL is the authority on Emergency Lighting in the UK and is recognised internationally for its expertise. ICEL's primary purpose is to promote and develop high standards of safety and performance in the UK market for Emergency Lighting for the long term benefit of its members and all other stakeholders. ICEL is a Trading Division within the Lighting Industry Association.

theLIA

HISTORY

ETIHAD STADIUM, MANCHESTER

The Etihad Stadium in Manchester, (formerly the Commonwealth Stadium and City of Manchester Stadium) is the home of Premier League football club Manchester City and is the 6th largest football stadium in England with a capacity of 53,400.

Originally built to host the 2002 Commonwealth games, the stadium has since staged England football international matches, rugby league matches, world title boxing events, summer music concerts and the 2008 UEFA cup final.

After the Commonwealth games, the stadium was converted from a 38,000 capacity athletics arena into (initially) a 48,000 all-seater football stadium, which in 2003, Manchester City agreed to lease from Manchester City council, moving from their Maine Road home.



The stadium was designed and engineered by Arup and built by Laing Construction at a cost of £112m. The design includes a cable-stayed roof structure entirely supported by 12 exterior masts and cables. The stadium design has received many accolades, including a 2003 special award from the Institution of Structural Engineers for its unique structural design and a 2004 award from the Royal Institute of British Architects for its innovative building design.

In August 2015, an expansion in keeping with the existing roof design and adding a third tier to the South Stand was completed in time for the 2015-16 football season. A further redevelopment programme of the existing North Stand is expected to commence in 2023, with a view to the redevelopment being completed by August 2025.

In July 2011 the stadium was renamed the Etihad Stadium, sponsored by Etihad Airways who fought off competition from Ferrostaal and Aabar to gain the stadium naming rights.

The 10-year sponsorship deal included not just the naming rights to the stadium but also to the entire £200m complex of football related facilities into which it would soon be incorporated.

In September 2011, plans were duly announced for a new state-of-the-art youth academy and training facility, now known as the City Football Academy, which was to be built on the derelict land adjacent to the stadium and would include a 7,000 capacity mini-stadium, 15 outdoor football pitches, 3 gyms and 6 swimming pools.



TECHNICAL SPECIFICATION

PRODUCTS USED ON THIS PROJECT



PES/LED/230D/IP65-L17

Pescara LED 230D central system slave IP65 single-sided steel exit box in white powder coated finish c/w legend panel (arrow pointing upwards)

Dimensions: Length 445mm x Width 225mm x Depth 95mm

Weight: 2.50Kg

Viewing Distance: 36m

General Specification:

- Sheet steel enclosure.
- White powder coated finish.
- Polycarbonate legend panel.
- IP65 protection degree.
- Class 1 insulation class.
- 230/240V AC 50/60Hz supply Voltage.
- 90°C single core 0.8mm cable to BS6500 Grade 5.
- Manufactured to BS EN60598-2-22.
- Quality approval ISO 9001: 2015.
- Manufactured in the United Kingdom.
- CE marked, REACH and RoHS compliant.

Control Gear Specification:

- Low Voltage LED control gear designed for use with low Voltage central systems.
- Constant current output suitable for LED loads of 3-80V DC.
- V-Out 3V / I-Out 350mA.
- Designed and manufactured in accordance with BS EN61347-2-13, BS EN62384, BS EN55015, BS EN61000-3-2 and BS EN61000-3-3.

LED Specification:

- 2835 SMT mid-power LEDs.
- 0.5W 150 lumens/Watt.
- 6500K colour temperature.
- 3 step MacAdam rated.
- CRI 80 (minimum).
- LED lifetime greater than 54,000 hours.
- LED manufacturers vary between Seoul semiconductor / Plessey / CREE or equivalent.



PED/LED/230D/IP65-L1717

Pescara LED 230D central system slave IP65 double-sided steel exit box in white powder coated finish c/w legend panels (arrows pointing upwards)

Dimensions: Length 445mm x Width 225mm x Depth 95mm

Weight: 2.50Kg

Viewing Distance: 36m

General Specification:

- Sheet steel enclosure.
- White powder coated finish.
- Polycarbonate legend panel.
- IP65 protection degree.
- Class 1 insulation class.
- 230/240V AC 50/60Hz supply Voltage.
- 90°C single core 0.8mm cable to BS6500 Grade 5.
- Manufactured to BS EN60598-2-22.
- Quality approval ISO 9001: 2015.
- Manufactured in the United Kingdom.
- CE marked, REACH and RoHS compliant.

Control Gear Specification:

- Low Voltage LED control gear designed for use with low Voltage central systems.
- Constant current output suitable for LED loads of 3-80V DC.
- V-Out 3V / I-Out 350mA.
- Designed and manufactured in accordance with BS EN61347-2-13, BS EN62384, BS EN55015, BS EN61000-3-2 and BS EN61000-3-3.

LED Specification:

- 2835 SMT mid-power LEDs.
- 0.5W 150 lumens/Watt.
- 6500K colour temperature.
- 3 step MacAdam rated.
- CRI 80 (minimum).
- LED lifetime greater than 54,000 hours.
- LED manufacturers vary between Seoul semiconductor / Plessey / CREE or equivalent.



ROM/LED/M3/M-L17

Romney LED 3 hours maintained emergency single-sided steel exit sign in white powder coated finish c/w legend panel (arrow pointing upwards)

Dimensions: Length 310mm x Width 242mm x Depth 45mm

Weight: 1.60Kg

Viewing Distance: 27m

General Specification:

- Sheet steel enclosure.
- White powder coated finish.
- Flame-retardant edge-lit plasi-glas legend panel.
- IP20 protection degree.
- Class 1 insulation class.
- 230/240V AC 50/60Hz supply Voltage.
- 90°C single core 0.8mm cable to BS6500 Grade 5.
- Manufactured to BS EN60598-2-22.
- Quality approval ISO 9001: 2015.
- Manufactured in the United Kingdom.
- CE marked, REACH and RoHS compliant.

Control Gear / Battery Specification:

- Constant current output emergency LED drivers.
- Input Voltage 230/240V AC 50/60Hz.
- V-Out 3V / I-Out 300mA.
- Designed and manufactured in accordance with BS EN61347-2-7, BS EN61347-2-13, BS EN62384, BS EN55015, BS EN61000-3-2 and BS EN61000-3-3.
- Suitable for use with Ni-Cad battery technology.

LED Specification:

- 2835 SMT mid-power LEDs.
- 0.5W 150 lumens/Watt.
- 6500K colour temperature.
- 3 step MacAdam rated.
- CRI 80 (minimum).
- LED lifetime greater than 54,000 hours.
- LED manufacturers vary between Seoul semiconductor / Plessey / CREE or equivalent.



CAL/LED/M3/EX-L17

Calabor LED 3 hours maintained emergency single-sided steel recessed exit sign in white powder coated finish c/w legend panel (arrow pointing upwards)

Dimensions: Length 410mm x Width 155mm x Depth 90mm

Weight: 2.20Kg

Viewing Distance: 27m

General Specification:

- Sheet steel enclosure and front plate.
- White powder coated finish (front plate only).
- Flame-retardant edge-lit plasi-glas legend panel.
- IP20 protection degree.
- Class 1 insulation class.
- 230/240V AC 50/60Hz supply Voltage.
- 90°C single core 0.8mm cable to BS6500 Grade 5.
- Manufactured to BS EN60598-2-22.
- Quality approval ISO 9001: 2015.
- Manufactured in the United Kingdom.
- CE marked, REACH and RoHS compliant.

Control Gear Specification:

- Constant current output emergency LED drivers.
- Input Voltage 230/240V AC 50/60Hz.
- V-Out 3V / I-Out 300mA.
- Designed and manufactured in accordance with BS EN61347-2-7, BS EN61347-2-13, BS EN62384, BS EN55015, BS EN61000-3-2 and BS EN61000-3-3.
- Suitable for use with Ni-Cad battery technology.

LED Specification:

- 2835 SMT mid-power LEDs.
- 0.5W 150 lumens/Watt.
- 4000K colour temperature.
- 3 step MacAdam rated.
- CRI 80 (minimum).
- LED lifetime greater than 54,000 hours.
- LED manufacturers vary between Seoul semiconductor / Plessey / CREE or equivalent.



SAV/LED/M3-L17

Savona LED 3 hours maintained emergency single-sided steel chain-suspended exit sign in white powder coated finish c/w legend panel (arrow pointing upwards)

Dimensions: Length 445mm x Width 90mm x Depth 820mm (with chain attached)

Weight: 3.20Kg

Viewing Distance: 36m

General Specification:

- Sheet steel enclosure.
- White powder coated finish.
- Flame-retardant edge-lit plasi-glas legend panel.
- IP20 protection degree.
- Class 1 insulation class.
- 230/240V AC 50/60Hz supply Voltage.
- 90°C single core 0.8mm cable to BS6500 Grade 5.
- Manufactured to BS EN60598-2-22.
- Quality approval ISO 9001: 2015.
- Manufactured in the United Kingdom.
- CE marked, REACH and RoHS compliant.

Control Gear Specification:

- Constant current output emergency LED drivers.
- Input Voltage 230/240V AC 50/60Hz.
- V-Out 3V / I-Out 300mA.
- Designed and manufactured in accordance with BS EN61347-2-7, BS EN61347-2-13, BS EN62384, BS EN55015, BS EN61000-3-2 and BS EN61000-3-3.
- Suitable for use with Ni-Cad battery technology.

LED Specification:

- 2835 SMT mid-power LEDs.
- 0.5W 150 lumens/Watt.
- 6500K colour temperature.
- 3 step MacAdam rated.
- CRI 80 (minimum).
- LED lifetime greater than 54,000 hours.
- LED manufacturers vary between Seoul semiconductor / Plessey / CREE or equivalent.



PES/LED/M3-L17

Pescara LED 3 hours maintained emergency single-sided steel exit sign in white powder coated finish c/w legend panel (arrow pointing upwards)

Dimensions: Length 385mm x Width 200mm x Depth 95mm

Weight: 3.00Kg

Viewing Distance: 36m

General Specification:

- Sheet steel enclosure.
- White powder coated finish.
- Polycarbonate legend panel.
- IP20 protection degree.
- Class 1 insulation class.
- 230/240V AC 50/60Hz supply Voltage.
- 90°C single core 0.8mm cable to BS6500 Grade 5.
- Manufactured to BS EN60598-2-22.
- Quality approval ISO 9001: 2015.
- Manufactured in the United Kingdom.
- CE marked, REACH and RoHS compliant.

Control Gear / Battery Specification:

- Constant current output emergency LED drivers.
- Input Voltage 230/240V AC 50/60Hz.
- V-Out 3V / I-Out 300mA.
- Designed and manufactured in accordance with BS EN61347-2-7, BS EN61347-2-13, BS EN62384, BS EN55015, BS EN61000-3-2 and BS EN61000-3-3.
- Suitable for use with Ni-Cad battery technology.

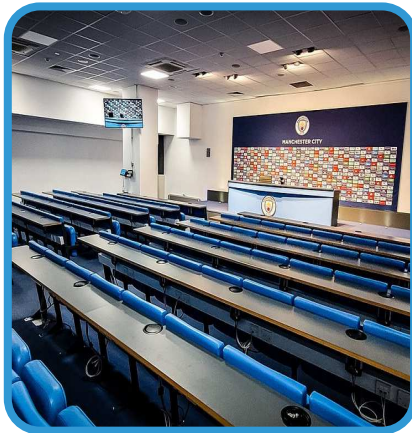
LED Specification:

- 2835 SMT mid-power LEDs.
- 0.5W 150 lumens/Watt.
- 6500K colour temperature.
- 3 step MacAdam rated.
- CRI 80 (minimum).
- LED lifetime greater than 54,000 hours.
- LED manufacturers vary between Seoul semiconductor / Plessey / CREE or equivalent.

IMAGES

ETIHAD STADIUM & CAMPUS, MANCHESTER, UK







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