

ENDURANCE LED LUMINAIRE FOR HAZARDOUS AREAS



McGeoch LED Technology has developed a new, innovative range of hazardous area LED lighting products to meet the future of low energy, high efficiency and environmental lighting demands of the oil and gas industries.

McGeoch Endurance is a self contained LED luminaire replacement for traditional fluorescent lighting and part of this brand new specialised range now available from McGeoch. These new units are particularly suitable for offshore and hazardous area applications.

Endurance features high power LED's in a sealed package with constant current 700mA, driver circuit for use on global mains supplies and additional low level emergency supply. It also offers reduced power consumption, maintenance free operation and is completely and environmentally safe with no disposal of mercury.

Other key features include:

- Ingress protection IP68 (2m)
- Vibration - Lloyds Register of Shipping Specification 1 2002, Test 1
- Deluge test DTS -01
- Storage temperature -20° to 60°C
- Operating temperature -20° to 60°C
- Area classification – Zone 1 and Zone 21 to EN60079-10
- ATEX classification – Group 11 Category 2 GD
- Type of protection – Ex em (increased safety and encapsulation)
- Temperature class – T4 (135°C)
- Salt spray tested to Lloyds Register of Shipping Test Specification 1 2002, salt mist test
- Lens: Lexan polycarbonate UV and impact resistant
- Chassis: Marine grade aluminium casting LM8 hard anodised
- Stainless steel (316) bezel

Approvals

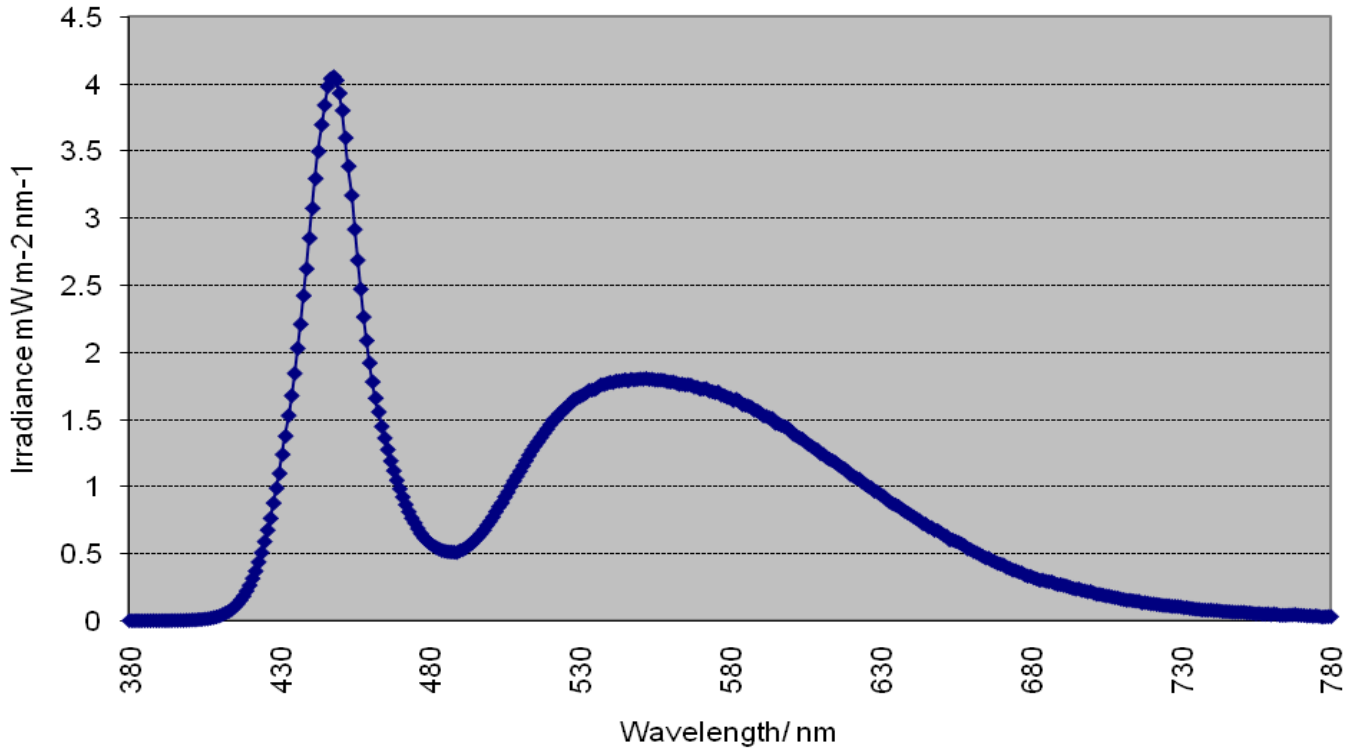
- ATEX approved
- IECEx classified
- Factory sealed to IP68

Optical Properties

- Luminance (lux): 180 lux @ 2m (compliant to IEC 6189-2)
- Colour temperature: 6500K
- CRI: 70
- Luminance (Cd/m²) 11,100



Irradiance of Oil Rig Luminaire

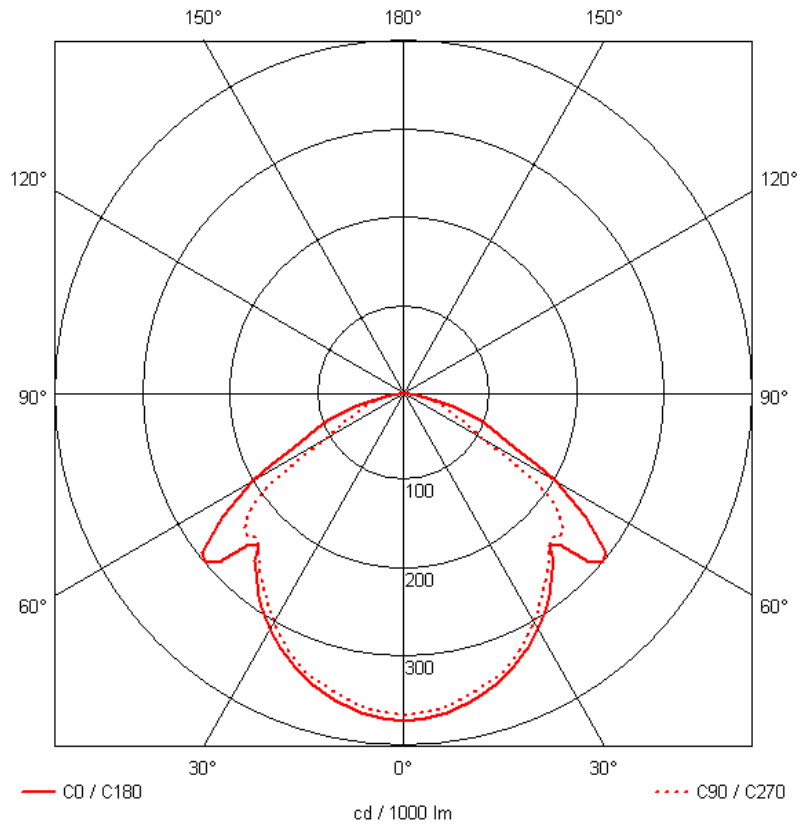


Luminous Intensity Measurements

All measurements were taken at a distance of 4 metres

| | 0 | 90 | 180 | 270 |
|----|-------|-------|-------|-------|
| 0 | 880 | 867.2 | 880 | 867.2 |
| 5 | 873.6 | 856 | 873.6 | 856 |
| 10 | 857.6 | 841.6 | 857.6 | 841.6 |
| 15 | 835.2 | 817.6 | 835.2 | 817.6 |
| 20 | 806.4 | 792 | 806.4 | 792 |
| 25 | 769.6 | 753.6 | 769.6 | 753.6 |
| 30 | 729.6 | 707.2 | 729.6 | 707.2 |
| 35 | 681.6 | 654.4 | 681.6 | 654.4 |
| 40 | 625.6 | 609.6 | 625.6 | 609.6 |
| 45 | 576 | 563.2 | 576 | 563.2 |
| 50 | 704 | 563.2 | 704 | 563.2 |
| 55 | 617.6 | 476.8 | 617.6 | 476.8 |
| 60 | 472 | 251.2 | 472 | 251.2 |
| 65 | 310.4 | 168 | 310.4 | 168 |
| 70 | 220.8 | 113.6 | 220.8 | 113.6 |
| 75 | 121.6 | 49.6 | 121.6 | 49.6 |
| 80 | 38.4 | 4.8 | 38.4 | 4.8 |
| 85 | 8 | 1.6 | 8 | 1.6 |
| 90 | 0 | 0 | 0 | 0 |

Polar Plot of luminous intensity as a function of plane angle



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