LED Lighting for the Industry - Foundry



Challenge
The foundry works in 2-shift operation. Classic HME 250W high-bay luminaires no longer provided lighting conditions suitable for the workplace. The illuminance in the working plane was far too low. Maintenance costs were negatively affected by frequent lamp changes. The existing high-pressure mercury vapour lamps were no longer up to date.

LED Lighting Concept
The personal consultation took place on site. The lighting level was raised. The lighting requirements led to the use of 30x low beam 120W LED High Bay luminaires with ZigBee control technology. The luminaires are dimmable and daylight-dependent. ZigBee Control supports the permanent alignment of daylight and artificial light with radio-controlled data and signal transmission. ZigBee® is a registered trademark of the ZigBee® Alliance.

BuR Lighting Lighting Design
BuR Lighting designs with DIALux evo are based on:

EN 12464-1 Norm
Illumination of Indoor Workplaces

ASR A3.4 Workplaces Guideline
Technical rules for the illumination of workplaces

Lighting Quality
- High quality controllable LED illumination
- Wide-beam illumination of the working plane and the foundry equipment
- Average illuminance: E_m=367 Lux
- High uniformity of illuminance: E_{min}/E_m= 0,48
- Pleasant light colour: 4.000 Kelvin
- Very good colour rendering: Ra>80
- High visual comfort

BuR Lighting Luminaires
- Article: LED High Bay ZigBee
- Art.-No.: 4111120G12040VZ
- Housing: Aluminum Die-Cast
- LED Driver Input Voltage: 100V-240V
- LEDs: Nichia Chip
- Wattage: 120W
- Beam Angle: 120°
- Protection Rating: IP65
- Intelligent Lighting Control: ZigBee

Savings and Benefits
- ZigBee LED Luminaires
- Sealed Wide Voltage LED Drivers
- Lighting Control according to Daylight
- LED Life Span: 50.000 h
- Luminous Efficacy: 130 lm/W
- Energy Savings p.a.: 20.591 kWh
- CO_2-Reduction p.a.: 11.016 kg
- Lowest Maintenance Costs
- Return on Investment: 2,2 Years

BuR Lighting
Vertrieb, Projektierung, Lager
Heedfelder Str. 61-63
D-58509 Lüdenscheid

Fon: +49 2351 96 36 65
Mobil: +49 152 23897612
E-Mail: m.hoffmeister@bur.lighting
Web: www.bur.lighting

Lichtbereich der I.N.D.I.A. GmbH
Geschäftsführer: Dr. Markus Hoffmeister
HR B 4901 Amtsgericht Iserlohn
Ust.-IdNr.: DE 233933544

Technische und formale Änderungen vorbehalten
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