LED Lighting for the Industry - Foundry



Challenge
The foundry works in 3-shift operation. The classic HME 700W High Bay luminaires no longer provided the appropriate illumination for the workplace. The illuminance in the working plane level was too low. The 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 advisory took place on site. The illumination requirements led to the use of 36x deep-wide-beam illuminating 200W LED High Bay luminaires with ZigBee control technology. The luminaires are dimmable and can be daylight-dependent controlled. 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
- Deep-wide-beam illumination of the working plane and the foundry equipment
- Average illuminance: E_m=300 Lux
- High uniformity of illuminance: E_{min}/E_m= 0,45
- 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.: 4111200P09040VZ
- Housing: Aluminum Die-Cast
- LED Driver Input Voltage: 100V-240V
- LEDs: Nichia Chip
- Wattage: 200W
- Beam Angle: 90°
- Protection Rating: IP65
- Intelligent Lighting Control: ZigBee

Savings and Benefits
- Radio controlled 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.: 141.347 kWh
- CO_2-Reduction p.a.: 75.621 kg
- Reduction of Maintenance Costs p.a.: 83%
- Return on Investment: 1,0 Years

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Technische und formale Änderungen vorbehalten
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