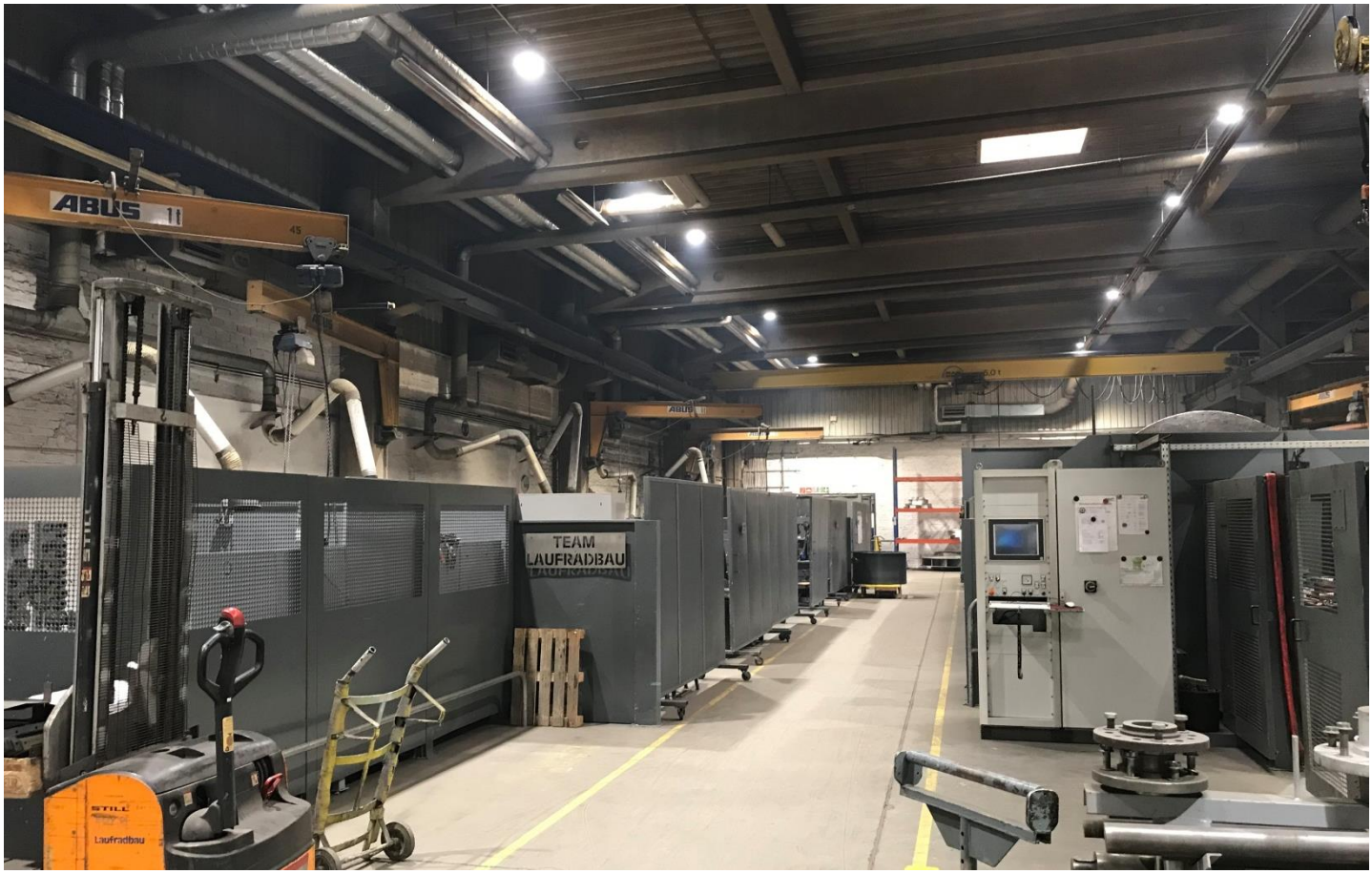
LED Lighting for the Industry - Welding Shop



Challenge
One part of the 3-part welding shop had to be newly illuminated. The classic HME 400W High Bay luminaires mixed with 2xT8 58W linear fluorescent luminaires made the zonal work in the working plane level difficult. The maintenance costs were negatively affected by frequent lamp changes. The existing light sources were no longer economical and obsolete.

LED Lighting Concept
The personal advisory took place on site. The welding shop was newly illuminated by BuR Lighting with daylight dependent controllable 150W LED High Bay luminaires with ZigBee control technology in the high protection class IP65. 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 mechanical engineering workplaces
- Average illuminance: E_m=340 Lux
- High uniformity of illuminance: E_{min}/E_m= 0,49
- 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.: 4111150P09040VZ
- Housing: Aluminum Die-Cast
- LED Driver Input Voltage: 100V-240V
- LEDs: Nichia Chip
- Wattage: 150W
- 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.: 29.494 kWh
- CO_2-Reduction p.a.: 15.779 kg
- Reduction of Maintenance Costs p.a.: 81%
- Return on Investment: 1,8 Years

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Stand: 21.08.2019