LED Lighting for the Industry - High Rise Rack



Challenge
The high rise rack was illuminated with a total of 90x 1xT8 58W continuous row luminaires. The illumination in the working plane level and along the vertical shelf surfaces was inadequate. The maintenance costs were negatively affected by frequent lamp changes. The energy costs were too high.

LED Lighting Concept
The personal advisory took place on site. The luminaire rows were replaced by only 72x narrow beam 40W LED Linear Trunk System luminaires. The optical cover of the BuR Lighting LED modules is glare limiting. The individual luminaires were prepared and installed as light rows for 3-phase operation. The light color was set at 4,000 Kelvin. The energy-efficient new illumination resulted in an optimum illumination of the shelving surfaces.

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
- Smooth LED illumination
- Narrow beam intensive illumination of the work surface and shelf fronts
- Average illuminance: E_m=200 Lux
- High uniformity of vertical illuminance on the shelving surfaces
- Pleasant light colour: 4.000 Kelvin
- Very good colour rendering: Ra>80
- High visual comfort

BuR Lighting Luminaires
- Article: LED Linear Trunk System
- Art.-No.: 4811040P06040NN
- Housing: Aluminum - superslim
- Optical Cover: Polycarbonat
- LED Driver Input Voltage: 220V-240V
- LEDs: Nichia Chips
- Wattage: 40W
- Beam Angle: 60°
- Installation: Individual luminaires in a row

Savings and Benefits
- LED System Luminaires - superslim
- Electronic LED Drivers
- High-Frequency Control of LEDs
- LED Life Span: 50.000 h
- Luminous Efficacy: 130 lm/W
- Energy Savings p.a.: 9.295 kWh
- CO_2-Reduction p.a.: 4.973 kg
- Reduction of Maintenance Costs p.a.: 82%
- Uninterrupted, long-lasting operation

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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