



## Challenge

The small parts warehouse for tool sets was newly furnished and was no longer adequately illuminated due to the new arrangement of shelves and storage areas. The conventional illumination did not consider the illumination of the vertical surfaces.

## LED Lighting Concept

The personal advisory took place on site. BuR Lighting supplied 60x 40W DALI LED Linear Trunk System luminaires in combination with DALI lighting control technology. The individual luminaires were installed in 4 continuous rows. The optical cover of the LED modules is perfect with the narrow light distribution. The energy-efficient new illumination led to a very uniform illumination of the shelving surfaces and storage equipment. The luminaire modules are prepared for 3-phase operation. In this object, the luminaires can be individually controlled via DALI for each continuous row.

## 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 illumination of the narrow aisles and shelving areas
- Average illuminance:  $E_m=240$  Lux
- High uniformity of vertical illuminance on the shelving surfaces
- Pleasant light colour: 4.000 Kelvin
- Very good colour rendering:  $R_a>80$
- High visual comfort

## BuR Lighting Luminaires

- Article: LED Linear Trunk System
- Art.-No.: 4811040P06040DN
- Housing: Aluminum - superslim
- LED Driver Input Voltage: 220V-240V
- LEDs: Nichia Chips
- Wattage: 40W
- Beam Angle: 60°
- Installation: Suspension-/Ceiling-Mounting
- Intelligent Lighting Control: DALI

## 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
- High Energy Savings p.a.: 63%
- High CO<sub>2</sub>-Reduction p.a.: 58%
- Reduction of Maintenance Costs p.a.: 71%
- Long-Lasting Operation of the Luminaires