



## Challenge

Parking garages are often inadequately and dimly lit. Mostly classic fluorescent lamps with high energy consumption and constantly occurring lamp replacements are in use. Illuminance in the working plane was below the recommended guide values. Maintenance costs were negatively affected by frequent lamp changes. The lighting was inefficient.

## LED Lighting Concept

The personal consultation took place on site. BuR Lighting LED Low Bay Linear Luminaires 40W in the high protection class IP65 (dustproof and water jet resistant) were used for the first time. The illuminance in the working plane was raised to  $E_m=200$  Lux. The resulting energy savings and CO<sub>2</sub> reduction are considerable.

## 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 LED illumination
- Wide beam illumination of the parking spaces
- Average illuminance:  $E_m=203$  Lux
- High uniformity of illuminance:  $E_{min}/E_m = 0,40$
- Pleasant light colour: 4.000 Kelvin
- Very good colour rendering:  $R_a > 80$
- High visual comfort

## BuR Lighting Luminaires

- Article: LED Low Bay Linear
- Art.-No.: 4325040P12040DN
- Housing: Aluminum
- LEDs: Epistar SMD2835
- Wattage: 40W
- Beam Angle: 120°
- Protection Rating: IP65
- Impact Protection Class: IK10
- Light Control: DALI

## Savings and Benefits

- LED luminaires made of aluminium
- Electronic LED Drivers
- LEDs mercury and pollutant-free
- LED Nutzlebensdauer: 50.000 h
- LED Life Span: 50.000 h
- Energy Savings p.a.: 57%
- CO<sub>2</sub>-Reduction p.a.: 55%
- Reduction of Maintenance Costs p.a.: 40%
- Return on Investment: 2,2 Jahre