



Case study

AXRO

Location
Philips Lighting

Hamburg, Germany
Maxos LED, PowerBalance, Pacific LED



PHILIPS



Over 6000 consumable products are stored in our warehouse; Because of this, efficiency is needed – even efficient lighting. We opted for LED lighting for numerous reasons, and with Maxos LED we have an extremely energy-efficient, flexible lighting solution.’

Steffen Genz, Project Manager AXRO GmbH



Ultimate lighting performance, supreme light control



Project info

Customer and location

AXRO GmbH, Hamburg, Germany

Project team

AXRO GmbH: Axel Spielberg (Managing Director),
Steffen Genz (Project Manager)

Bodo Wascher: Danny Lenschow (Installation)

Adalbert Zajadacz GmbH: Niels Niehaus (Sales)

Philips Lighting: Michael Argendorf (Lighting Consultant),
Tobias Grap (Lighting Control)

Lighting solutions

Maxos LED, PowerBalance, Pacific LED, OccuSwitch, Dyalite,
MiniLuma LED, Luma 1 LED

Results

- Efficient LED lighting system with longer service life (50,000 hrs)
- Energy savings of up to 79% with limited investment costs
- Very high light yield and good colour rendering ($R_a > 80$)

Background

AXRO GmbH offers professional solutions for brand named devices, such as ink and toner consumables, and OEM replacement parts.

AXRO's warehouse stocks around 6000 lines, ready for instant despatch and delivery to over 50 countries worldwide.

The challenge

As part of its logistics function, AXRO GmbH operates a traditional warehouse with two small offices. The previous lighting consisted of outdated, 20 year-old trunking with 58W TL-D fluorescent lamps that were installed below the concrete beams and suspended by 1 metre. With a ceiling height of just under 9 metres and racking height of up to 7 metres, there were many instances of damage to the lighting when product pallets were being stored on the highest shelves. Lighting renovation was undertaken to eliminate this problem. The main objective of the new lighting system however, was to improve lighting levels and achieve the greatest possible reduction in energy costs and achieve significant savings in CO₂ emissions. The latter was critical for receiving additional subsidies from the city of Hamburg.

The solution

The decision was made in favour of the innovative Maxos LED. The simple and easy to install trunking system combines high efficiency LEDs with innovative optics that are optimised for a variety of applications. Narrow

beam optics ensure racking is well lit, and goods are easy to see. Wide beam optics ensure a good, even light to ensure safety for the picking area and traffic routes. The modern lighting control sets new standards for sustainability and savings, with Occuswitch DALI and Dyalite. The system, using presence detection and by assessing the natural daylight levels available, switches lighting on only where and when needed. To protect from damage, the Maxos LED trunking was mounted directly on to the ceiling between the concrete beams. In addition to the warehouse lighting, the offices were equipped with PowerBalance. In the entrance area of the loading bays waterproof Pacific LED luminaires were installed, while Luma exterior lighting was installed in the courtyard to provide even, glare-free lighting.

Benefits

Thanks to this innovative lighting solution, AXRO was able to significantly improve its environmental impact. The high energy efficiency of the Maxos LED allows for energy savings of up to 67% compared with the old fluorescent system. The connected load was reduced by 67% from 27,050 W to just 8,899 W. The lighting control system allowed for additional electricity savings of up to 37% thanks to the optimised presence and daylight detection. Employees also benefit from the new lighting due to better quality lighting and excellent colour reproduction. Savings for AXRO amount to an impressive € 12,324 p.a and CO₂ emissions have been reduced by a staggering 79%. Changing the lighting system from traditional fluorescent to LED coupled with lighting controls resulted in impressive savings for AXRO.



Before renovation



New system with Maxos LED
and lighting control



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Date of release: September 2013
Printed in the Netherlands