

PHILIPS

Industry Lighting

DB Schenker



Case study

Doubling the efficiency of warehouse lighting with GreenWarehouse

“

This is how I see the future. **Everything around me reacts to me, including the light.**”

Robert Donev
Facility Manager,
Safety and Environmental Management



When the German integrated logistics service provider DB Schenker went looking for a flexible lighting solution that saves energy but still delivers optimum illumination with maximum safety, it was already in the process of improving the energy consumption of four logistics warehouses. They also wanted a lighting system so intelligent that it responds automatically to someone's presence and is easy to operate. They found a solution in Philips GreenWarehouse LED lighting with its interactive light management system.

Making a difference in reducing CO₂ emissions
DB Schenker is an integrated logistics service provider from Linz in Germany, and they had set a goal in their climate protection program to reduce CO₂ emissions by 20% between 2006 and 2020. To achieve this, the company began implementing a large number of initiatives while expanding its green product portfolio. A number of the projects were aimed at reducing energy consumption and CO₂ emissions, and in the warehouses, the main focus of attention was the lighting, which accounted for up to 60% of the company's energy costs. Robert Donev, Facility Manager, Safety and Environmental Management at DB Schenker said, “We needed a spark, a solution that could take into account all our requirements and each stage of the operation in a flexible way.”

How it was done
Project partner Siemens presented the Philips GreenWarehouse solution to DB Schenker. What makes this lighting concept so special is the combination of energy-efficient Maxos LED lighting and an interactive light management system. All the lights in the GreenWarehouse system are equipped with a control unit that has a movement sensor and wireless controller. All communications are wireless, which simplified the world's first installation of a 2,200 meter bus bar system. No cables had to be laid, so there was no disruption to the daily work routine in the warehouses. Connecting the lighting to the existing Siemens daylight control system also went smoothly.

Installing the system involved identifying all the space requirements and operating steps in the warehouses.

The routes and movement patterns in the 10 meter high high-bay warehouse, which has 18 aisles, are clear and fixed. However, in the block store and the large warehouses there is a large amount of free space. Robert Donev explained, “We move quite differently in this area. Accommodating this was an easy task for GreenWarehouse because it maximizes lighting flexibility by dividing the lights into different networks and zones, and each zone and network can be configured in different modes for specific behavior reactions.”

What it means
The movement sensors in the high-bay warehouse only react if someone walks or drives along a shelf aisle. The light in the corresponding zone is powered up immediately and then gradually dimmed with a time delay once the zone is empty. In some shelf aisles, the adjacent zones also react as a safety measure. The areas of the bays with large free spaces have been programmed more individually and are flexible so they can be adapted to different periods of use. If the use of the area changes, all the lights and each zone can be re-programmed via a standard remote control system, allowing full flexibility with speed and ease.

The last word...
Robert Donev added “We now have the best lighting exactly where it is needed. This has a positive effect, both for our employees and our energy costs. Through the LEDs, we save EUR 41,700 a year and are reducing our CO₂ emissions by 201 metric tons. It is another important step towards implementing DB Schenker's 2020 climate protection program.”

Lighting solutions realised in this project

GreenWarehouse
The Philips Maxos LED GreenWarehouse is a dedicated system that makes it easy for warehouse developers and facility managers to maximize energy savings. It seamlessly integrates energy efficient LED lighting with an easy-to-use and reliable networked control solution. When the situation on the work floor changes, settings such as dimming levels and timing can quickly and easily be changed by end-users via wireless communication. Luminaires can be configured in groups or zones across the layout, and re-zoning them does not require a hardware change, which saves both time and money.





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