



# The need for sustainable and good quality lighting

Located over 20,000 square meters in Järvenpää, near Helsinki, Finland, Rocla develops and manufactures electronic warehouse trucks, forklifts and automated guided vehicles (AGV's) as part of the Mitsubishi Logisnext group. For a manufacturing site as this — operating 17 hours a day, 5 days a week — good quality, reliable lighting is a must-have, when it comes to sustainability, manufacturing outcome and occupational safety.

Rocla faced the issue of having a 40-year-old sodium lighting installation. Energy consumption was massive and the color rendering index very low. This meant increased operational costs and quality issues when evaluating the color of the products. Rocla houses the global design center, where optimal light distribution with good color rendering is very important. They develop and manufacture their products from a sustainable point of view, and a sustainable lighting solution was required. To solve these issues, Rocla

wanted a lighting system with better controlling options, energy efficiency, color rendering and quality of light.

#### Solution for the future

In February 2017, Rocla faced the challenge of renovating and upgrading their site for manufacturing, testing and product development. They chose Philips as their supplier due to the excellent cooperation experienced with the company, as well as the overall quality and the advanced products offered. This resulted in a tailored Philips GreenWarehouse solution, completed and installed in a few months, long before the agreed installation deadline.

The GreenWarehouse system is a flexible lighting control system, combined with high quality Philips LED luminaires. It saves more energy than stand alone LED since it allows for lower lighting levels in inactivated areas. When no presence is detected the system dims down to a predefined light level to save energy whilst still



# We defined the illuminance level on the floor. The turn-key deal created a good customer experience."

Anssi Haataja, Business Development Manager, Rocla Oy

ensuring safety. Once activity is sensed, it lights the area to 100%.

GentleSpace High-bay luminaires were connected to the GreenWarehouse system; 238W across the manufacturing site, and 97W across the warehouse racking area, to provide the right lighting levels and secure occupational safety provide the right lighting levels to ensure occupational safety. The GentleSpace High-bay LED luminaires are reliable, provide excellent light quality and an extra-long lifetime of 70,000 hours. This is essential to ensure Rocla's 85 hours a week manufacturing operations are not disrupted for lighting maintenance.

520 old sodium luminaires were replaced with Philips LED luminaires, which helped Rocla achieve their sustainability targets, reduce lighting energy operational costs and improve safety and employee well-being.

# Energy savings and increased employee satisfaction

The GreenWarehouse system combined with LED luminaires provides a significant level of energy savings, which contributes to Rocla's key focus area: sustainable product development and manufacturing. The solution provides 70% energy savings, and according to Anssi Haataja, Business Development Manager, Rocla Oy, their monthly energy savings are approximately €6,000. In addition to this, the payback time of the installation is only 4 years, and over time they will experience lower maintenance costs due to the longer lifetime of the luminaires.

Not only have the energy savings improved, Rocla's operational efficiency has increased by 7%, and satisfaction amongst the employees has also increased due to the clearer visibility in the darker hours, which makes it easier to focus.

# Results from installing Philips GreenWarehouse:



## **Energy efficiency**

€6,000 energy savings per month due to reduced energy consumption. LED-luminaires combined with the GreenWarehouse system reduces the overall energy consumption due to lower wattage usage and automatic dimming when no presence is registered.



# Wellbeing

Of all received feedback, 98% reported on improved working conditions. Optimal light levels in the manufacturing site heightens focus and makes it easier to work no matter what the time of day.



## Operational efficiency

Operational efficiency has increased by 7%. Due to higher color rendering, Rocla experiences fewer quality issue incidents in the manufacturing outcome.



## **Environmental effect**

Sustainability targets are achieved by 100% and makes the whole production sustainable from spare parts to finished product.



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