

## Exchanging distribution warehouse mercury lamps with energy-saving, long-life LED lights. Bright and even illuminance distribution contributes to work safety and preventing mistakes.



Distribution warehouse (high ceiling lighting / floodlights)



Hallway (base downlight)



Entrance hall (base downlight, etc.)

### Customer

#### NISSIN CORPORATION

- Yokohama, Kanagawa Prefecture, Japan (head office)
- Established in 1938. As a comprehensive logistics company, NISSIN has a large number of bases and networks in Japan and overseas. The company is engaged in a wide range of logistics-related businesses, such as marine, air and land transportation, and warehousing.
- Minami Honmoku Distribution Center (this solution)/Yokohama



### Implemented product

#### LED lights

Lighting for high ceilings DL-EH101N x 12 units  
Floodlights DL-EL34N-W, etc. x 159 units  
Direct straight type DL-NA27NM, etc. x 78 units  
Embedded type DL-MK400N, etc. x 153 units  
Inverted Fuji type DL-MF400W, etc. x 68 units  
Trough type DL-MR300N x 24 units  
Base downlight DL-D1007N, etc. x 30 units  
LED bulbs DL-LAB1N x 4 units

- In December 2018, almost all lighting used at the Minami Honmoku Distribution Center was replaced with a total of 528 LED lights units.

## This is what we realized.

### Challenges before implementation

Until now, mercury lamps were used for the warehouse lighting. There were issues such as the electricity costs and bulb replacement. We often felt shortage of illumination in the work area because of uneven brightness. This circumstance can cause some problems in terms of securing safety, preventing sort mistakes, etc.

Brightness in the work area was increased by implementing LED for most areas. The total electricity costs, including electricity for areas other than lighting, has been reduced by 40%.

The long-life LEDs help reduce costs for replacing lamps in high places. In addition, since the lights turn on immediately, energy has been saved by turning the lights on and off frequently.

The floodlights installed in the warehouse enable the light distribution to be controlled with the lens. This reduces the uneven brightness and contributes to work safety and preventing mistakes.





NISSIN CORPORATION  
INTERNATIONAL SALES DEPT. NO.1

Honmoku Office Work Section      Tokyo Logistics Center  
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## Reasons for selection

### Installation cost recovery, and light distribution control.

We consulted with our long-time contact at Sharp about implementing LED lights for the entire work areas, including the distribution warehouse. He proposed an installation plan that would give us the optimum lighting with the best products. We were convinced with the estimate that showed we could recover the implementation costs in just a few years when considering the energy-saving effect and reduction of lamp replacement costs with the long-life lights. We were especially impressed with the LED floodlights, which would replace the mercury lamps. The service life and cost advantages are outstanding, and optimum lighting on the entire floor can be attained with the light distribution control by the lens.

## Effect after implementation

### The electricity costs dropped 40%. The bright and even light distribution ensures safety and accuracy.

All areas have become brighter by implementing LED for most of the lighting. In terms of energy saving, we were able to reduce the entire electricity costs, including the elevator and air-conditioning, by 40%. As opposed to mercury lamps, the lights immediately turn on fully, so they can be turned on and off frequently, such as at break time. This further enhances the energy-saving effect. One challenge was to improve the uneven brightness in the warehouse. This was resolved with the floodlight light distribution control. An optimum brightness is achieved, and the work safety is enhanced. At the same time, since the visibility of the product names and lot numbers is improved, shipping mistakes are prevented.

## Future prospects

### We will use this implementation example as a model case as we promote LED implementation in the entire company.

The great financial advantages of the LED lights at our office has been introduced through the company's intranet, and received high acclaim. In addition to mercury lamps, the production of fluorescent lights is being discontinued, so we hope to use this successful example as a model case to promote LED implementation throughout the entire company.

## Background of implementation

### We wanted to reduce electricity and lamp replacement costs, and to eliminate uneven brightness and insufficient illuminance, etc.

This office, which has a distribution warehouse, used many mercury lamps. In addition to electricity costs, an elevating work platform was required to replace the lamps, so the running costs increased. Improvements were also needed from the point of work safety and prevention of sorting mistakes because the brightness varied from directly below the mercury lamps and other areas, so there were some dark areas. Production of mercury lamps will be discontinued entirely in 2020, so we were hoping to incorporate LED lights as soon as possible.



The warehouse is brighter, and work using forklifts can be performed safely.



Office lights were changed from florescent lights to embedded LED lights.



The floodlights and direct straight type (for under eaves) improves outside work.