

# Nakanihon Nousan Co., Ltd. Aichi HQ office & factory Lighting Replacement

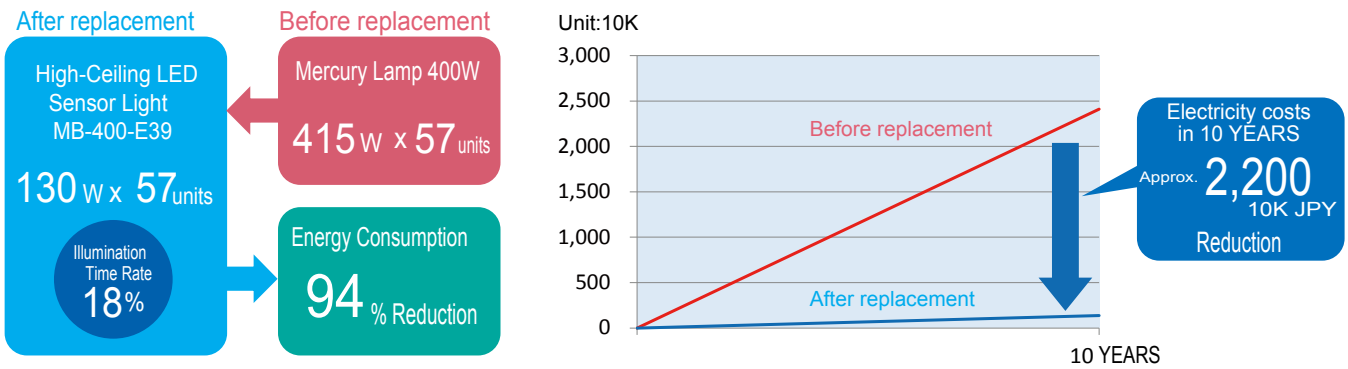
Location : Aisei City, Aich prefecture  
Install Date : July 2016  
Product Type : High-ceiling LED MB-400 57 units



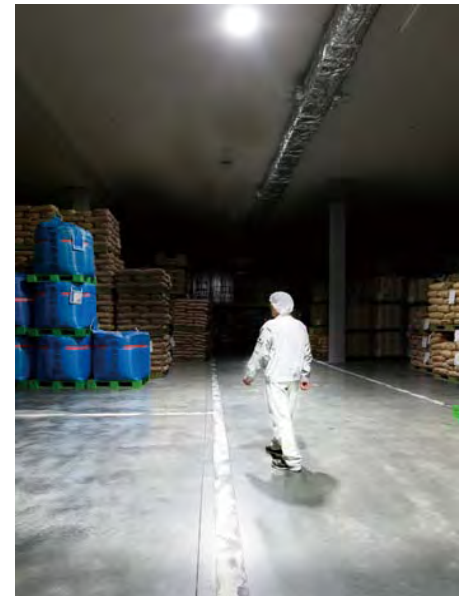
Aichi HQ office and factory of Nakanihon Nousan Co., Ltd. is a food processing company, specialising in the fine processing of rice for wide variety of foods such as Miso and Japanese sake. The Aich factory is the leading manufacturing base for Nakanihon Nousan Co., Ltd. and has adopted a strict quality management system, based upon many international standards such as FEES22000, ISO14001, in order to establish a “safe and secure” brand reputation in the food manufacturing field. Lighting was historically switched on for 17 hours daily from 9 am to 2 am, leading to rapid deterioration and failure of the existing mercury lamps. This presented serious safety issues since the factory operates during the hours of darkness. After changing to Lumiqs LED MB-400 luminaires, they are fully content that they can now operate their forklift truck very safely at night in addition to saving considerable energy costs.



Nakanihon Nousan Co., Ltd.  
Vice President Mr.Kurata



The rice warehouse now enjoys better, brighter and significantly more cost efficient lighting. Light ON duration is set at 30 seconds to maximise energy saving performance.



When the PIR motion sensor detects occupancy, the LED light automatically illuminates.

### ■ Replacement light fixture



MB-400-E39  
Luminous flux 13,500 lm  
Lamp efficacy 132lm/W

### ■ Electricity cost reduction simulation

		Before Mercury lamp 400W	After MB-400-E39 Light OFF when unoccupied	Estimated cost reduction
Number of Unit	Unit	57	57	
Rated electricity consumption	W/Unit	415	130	
Average electricity consumption	W/Unit	415	23	392
Annual electricity consumption	kWh/Year	96,512	5,442	91,070
Annual illumination hours	Hour	4,080	734	3,346
Annual demand charge	JPY/Year	0	0	0
Annual energy charge	JPY/Year	0	0	0
Annual electricity costs	JPY/Year	2,412,810	136,048	2,276,762
10-year electricity costs	JPY	24,128,100	1,360,476	22,767,624
Cost reduction rate	%			94%

### ■ Simulation Conditions

Operating hours a day	17 Hours
Annual operating days	240 Days
Annual operating hours	4,080 Hours
Annual illumination hours	4,080 Hours
Basic demand charge	JPY/kW
Basic energy charge	JPY/kWh
Estimated electricity charge	25 JPY/kWh
Total monitoring hours	Hours
Sensor activated hours	Hours
Illumination time rate	18 %