

MEGMILK Snow Brand Co. Ltd Noda Factory Lighting Replacement

Location : Noda City, Chiba prefecture
Install Date : May, 2016
Product Type : High-Ceiling LED MB-400 58 units



MEGMILK SNOW BRAND Co.,Ltd. has one of its biggest automated factories located in Noda City, a facility of approx. 60,000 square metres producing 70 product varieties such as milk, juice and yoghurt. It is the companies primary manufacturing base and is designated as a first class rated factory for energy saving requirements by the Japan Energy Conservation Law. Initiatives are ongoing to achieve their corporate target of reducing energy consumption per unit by 1%. The Noda factory plays a model role within the company for implementation and verification of energy saving facilities and measures. The organisation selected and installed Lumiqs MB-400 because of the superior energy saving opportunities offered, alongside an attractive payback period of only few years on the initial capital investment.



(Left) Manager Mr. Moriyama
(Right) Mr. Ooishi
Production Facility Department of Noda Factory,
MEGMILK SNOW BRAND Co.,Ltd.

After replacement

High-Ceiling LED
Sensor Light
MB-400-E39

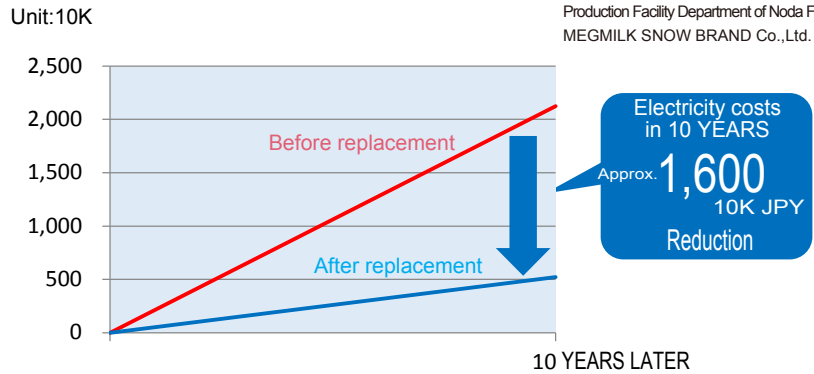
130 W x 58 units

Illumination
Time Rate
66%

Before replacement

Sodium-vapour lamp 220W
238W x 53 units
Metal-halide lamp 180W
205W x 37 units

Energy Consumption
75% Reduction



When movement is detected, the LED light automatically illuminates.



MEGMILK SNOW BRAND Co. Ltd's Noda facility runs 24 hours a day. The LED lights are dimmed in unoccupied areas to maximise energy savings whilst also ensuring employee comfort and safety.

■ Replacement light fixture



MB-400-E39
Luminous flux 13,500 lm
Lamp efficacy 130W

■ Electricity cost reduction simulation

	Before			After	Estimated cost reduction	
	Sodium vapour 220W	Metal halide 180W	Total	MB-400-E39 Light OFF when unoccupied		
Number of Unit	Unit	53	37	90	58	
Rated electricity consumption	W/Unit	238	205		130	
Average electricity consumption	W/Unit	238	205	224	86	
Annual electricity consumption	kWh/Year	90,821	54,612	145,433	35,830	109,603
Annual illumination hours	Hour	7,200	7,200	7,200	4,752	
Annual demand charge	JPY/Year	0	0	0	0	
Annual energy charge	JPY/Year	0	0	0	0	
Annual electricity costs	JPY/Year	1,325,984	797,335	2,123,319	523,119	1,600,200
10-year electricity costs	JPY	13,259,837	7,973,352	21,233,189	5,231,192	16,001,997
Cost reduction rate	%					75%

■ Simulation Conditions

Operating hours per day	24.0 Hours
Annual operating days	300 Days
Annual operating hours	7,200 Hours
Annual illumination hours	7,200 Hours
Basic demand charge	JPY/kW
Basic energy charge	JPY/kWh
Estimated electricity charge	14.6 JPY/kWh
Total monitoring hours	Hours
Sensor activated hours	Hours
Illumination time rate	66 %