

BH Global Corporation Ltd

LED Replacement of Fluorescent Tubes in Warehouse



Project Summary

BH Global Corporation Ltd in Singapore has replaced the conventional fluorescent tubes in key areas of its 20,000m² warehouse and logistics facility with highly energy efficient and reliable SOP linear LED modules in order to reap significant savings from energy bills and maintenance cost.

The large facility originally needed 196 4-foot fluorescent fixtures. Each fixture was fitted with two 36W T8 fluorescent tubes working with a ballast that causes some power loss. As SOP linear LED module is brighter than fluorescent tube, only a single 24W linear LED module is needed now in every fixture to provide adequate lighting for the warehouse operations. The company can now do away with the inefficient fluorescent ballasts to save even more energy.

With a long L70 service life of 50,000 hours at high ambient temperature, the SOP linear LED modules are designed to operate maintenance-free for 16 years. The L70 service life only implies the LED's brightness degrades to 70% of its original lumens after 50,000 hours, but does not fail immediately after that. But fluorescent tubes generally fail right after their 20,000 hours service life and require immediate replacement. The choice to convert to LED is obvious.

Results & Benefits

- 392pcs of 36w fluorescent tubes (55,037 kWh/year) vs 196pcs of 24w SOP linear LED modules (14,676 kWh/year) – 12 hrs operation per workday
- Savings of 40,361 kWh per year which is up to 73% energy savings
- Return on LED Investment in 1.5 years
- Half the qty of light tubes needed and practically zero maintenance cost