



# Case Study Philips Lumileds Malaysia

Location  
Philips Lighting

Penang, Malaysia  
Cleanroom LED, DayZone, LuxSpace, DayWave, Strip II+ LED,  
ClearLine



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# LED lights take sustainable, cost-efficient lighting to the next level at Philips Lumileds

“With Philips LED solutions, we were able to attain 30% energy savings as compared to our old facility”

Chooi Chin Leong  
Managing Director for Manufacturing Operations  
Philips Lumileds Malaysia



## Fast facts

**Client**  
Philips Lumileds Lighting Company

**Project**  
Philips Lumileds Malaysia

**Location**  
Penang, Malaysia

**Philips lighting team**  
Steven Yap  
Ben Chi  
Owen Teoh  
Ranjith Nithin

**Philips solution**  
Cleanroom LED, DayZone, LuxSpace, DayWave, Strip II+ LED, ClearLine



## Background

Philips Lumileds Lighting Company is the world's leading manufacturer of high-power LEDs and a pioneer in the use of solid-state lighting solutions for everyday purposes, including automotive lighting, computer displays, LCD televisions, signage and signaling and general lighting. The company's patented LUXEON® Power Light Sources are the first to combine the brightness of conventional lighting with the small footprint, long life and other advantages of LED lighting.

Philips Lumileds Lighting Company is headquartered in San Jose, California, with sales offices around the world.

## The Challenge

Philips Lumileds Malaysia is relocating its existing manufacturing plant from Bayan Lepas to a bigger location in Penang Island in Malaysia. With the move, it wants to further utilize the use of its LUXEON® LED products while showcasing its factory to customers and visitors.

Philips Lumileds Malaysia wanted only energy-efficient lighting solutions to be used, and that the lighting conditions would provide a comfortable ambiance in the offices and production areas. The lighting fixtures should also be consistent with its Environmental, Health, and Safety (EHS) policy to reduce environmental impact and provide safe working conditions for employees.

## The Solution

“It made perfect sense for us to partner with Philips Lighting as it has the expertise in product design, the flexibility to tailor products that meet our needs, and the capability to offer a wide range of lighting products and total lighting solutions to meet specific lighting requirements,” says Chooi Chin Leong, Managing Director for Manufacturing Operations at Philips Lumileds Malaysia.

Extensive customization was conducted by Philips Lighting to

achieve the factory's lighting needs in every area of the manufacturing plant. Ben Chi, Product Manager for Philips Lighting explains, “The specific requirements brought us to do more work to select and redesign based on the existing Philips products. Some products were also specially made for this project.”

Integral to the project was the lighting of the production area. The Philips Lighting team used a minimum of 500 customized LUXEON® LED lights Cleanroom fixtures that provided excellent functional clean room performance to achieve hygienic, clean room facility standards, while offering low maintenance and energy efficiency.

In order to achieve a futuristic and comfortable work environment, the office area was fitted with Philips state-of-the-art LED products such as DayZone, LuxSpace and DayWave. These products offered glare control and high quality of light that provided visual comfort and a conducive work environment for employees.

At the lobby area, a 3 by 5 meter pixel wall was installed using Strip II+ LED that provides dynamic ambiance and interactive light effects. Finally for the outdoor parking compound, ClearLine luminaire was installed ensuring compliance with safety and road lighting standards.

## Benefits

“With Philips LED solutions, we were able to attain 30% energy savings as compared to our old facility. With our current facility size, we utilize over 5,000 lighting fixtures powered by 205,000 LEDs, allowing us to save a total of over US\$22,000 per year in maintenance and replacement costs due to the benefits and long lifetime of LED light,” explains Leong.

Besides the cost benefits, Philips Lumileds Malaysia was able to showcase their factory and the possibilities of LEDs and its lighting features to its customers and visitors. It also reduced its environmental impact while providing a safe and comfortable environment for its employees.