

# Reach

LINEUP



## Reach **BASIC** line

### Highest conversion efficiency – 177lm/W

A straight pipe LED that delivers a higher quality of light. For example, the Reach13-A – 13W/2,300lm – boasts an efficiency of 177lm/W! The embedded special reflector enhances the internal diffusion, which, in turn, minimizes the harsh excessive brightness and so-called chip graining found in many conventional LEDs. The result is a light source that is gentle to the eyes. Furthermore, its compliance with the strictest radio interference codes, i.e., CISPR 11 · 15 · 22, makes it ideal for hospitals and precision instrument manufacturing sites.



## Reach **DOWNLIGHT** –Down-light series

### 150/175/200Φ 8W/12W/30W

Reach down-lights are energy-efficient, high light flux and extremely durable, making them ideal for businesses with vast lighting needs such as supermarkets and malls looking to minimize long-term running costs. These slim and compact light fixtures are also an answer to residential needs. The line-up comes in various sizes and brightness.



## Reach **PARKING** –Parking series

### Only 7W – up to 85% savings in power consumption

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## Reach **BASELIGHT** –Baselight series

### 37W/5200lm

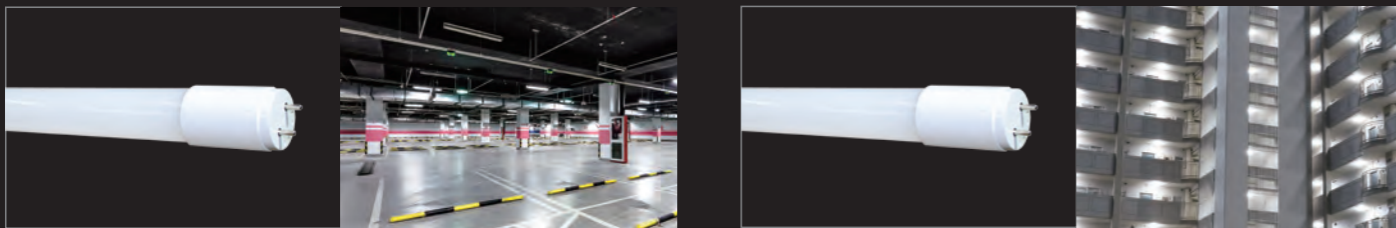
The Baselight series is a stylish, slim, integrated, all-in-one lighting module that can be installed into any ceiling. The secret is, while adhering to all of the technical standards of the Reach series, its 50mm thinness and universal applicability that makes it unconstrained by the size, shape or mouthpiece specifications of existing light fixtures. It is non-flicker treated so therefore easy on the eyes and requires minimal construction work. PSE compliant.



## Reach **COMPACT** –Compact series

### 245mm/410mm/560mm 8W/12W/17W

The Reach Compact is the perfect lineup for replacing compact fluorescent as well as FPL · FHP lamps. Up to 70% economical compared to standard fluorescent products. Power supply is embedded making installation easy. Ideal for office and commerce spaces that require ubiquitous visibility. Compliant with the strictest radio interference codes, i.e., CISPR 11 · 15 · 22, making it suitable for hospitals and precision instrument manufacturing sites.



## Reach **APARTMENTS** –Apartment series

### Based on a 300-lamp/12-hour cycle operation and an electricity cost of ¥26/kwh.

The Apartment series is optimized for use in hallway and entrance areas of apartments. While maintaining the necessary brightness for visibility and safety, power consumption is as low as 3W, truly astonishing and should be an answer to the prayers of all apartment owners. Assuming a conventional 12-hour-a-day lighting cycle, you can save up to circa ¥738,000\* on your annual electricity bill compared to 25W fluorescent, FL or FLR lamps.

**Easy on your eyes!**  
The secret is our blue-light-cut LED technology



# Reach

Series

A new industry standard – the LED that protects your eyes

\*Based on a 1,000-lamp facility and an electricity cost of ¥20/kwh.

\*\*Based on a 300-lamp/12-hour cycle operation and an electricity cost of ¥26/kwh.





## A new industry standard – the LED that protects your eyes

We always try not to forget where there is light there is our everyday lives. In the quest of energy efficiency, many widely used LEDs tend to be overly bright – often more than necessary.

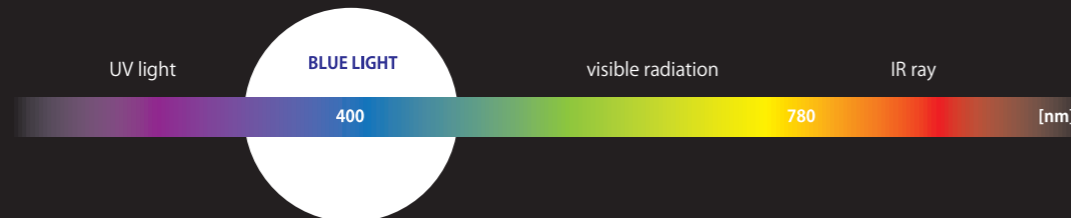
At PRIMESTAR it has been our goal to deliver lamps that are not just bright for the sake of being bright, but practical to our daily needs and thus not harsh or taxing to our eyes.

Our “Reach” series embed a special reflective sheet aimed to minimize the so-called shadow effect of LEDs, thereby delivering purer consistent brightness.

## What makes your eyes tired – Blue light

### What is blue light?

Blue light is comprised of light elements between the wave length of 380 to 500nm. It is due to this short wave length blue light tends to be volatile, contributing to eye-piercing brightness and flicker. This high energy light source, which cannot be absorbed by the cornea or lens and reaches its way to the retina, is also known to cause back and shoulder pains as a result of eye muscles having to constantly adjust the pupil.



### Damage traced to blue light

#### Effect on the eye

- 1.Retina damage
- 2.Eye fatigue
- 3.Eye pain

#### Effect on the body

- 1.Sleep deprivation
- 2.Weight gain
- 3.Cancer
- 4.Psychological stress

### Effects of blue light in the media



#### A pharmacy professor

“Our daily life’ s rhythm affects all of our organs – the liver, stomach, kidney and even the heart. Disturbance in this rhythm is the root cause of many illnesses.”

#### An industry standard committee Chairman

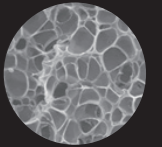
“Light sources historically were only discussed in terms of their brightness or lack thereof. Going forward, they should be scrutinized also in the context of their effect on human health.”

# The only LED that minimizes Blue light

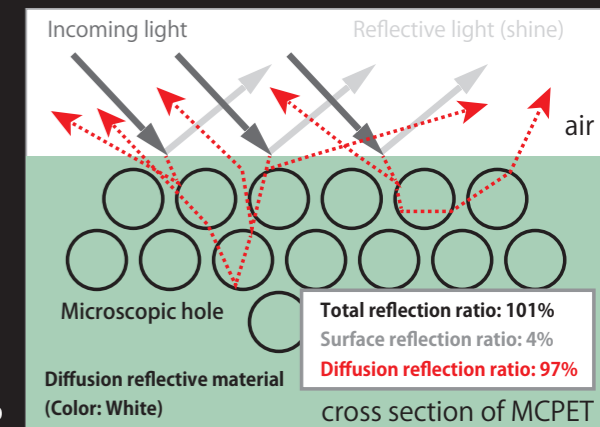
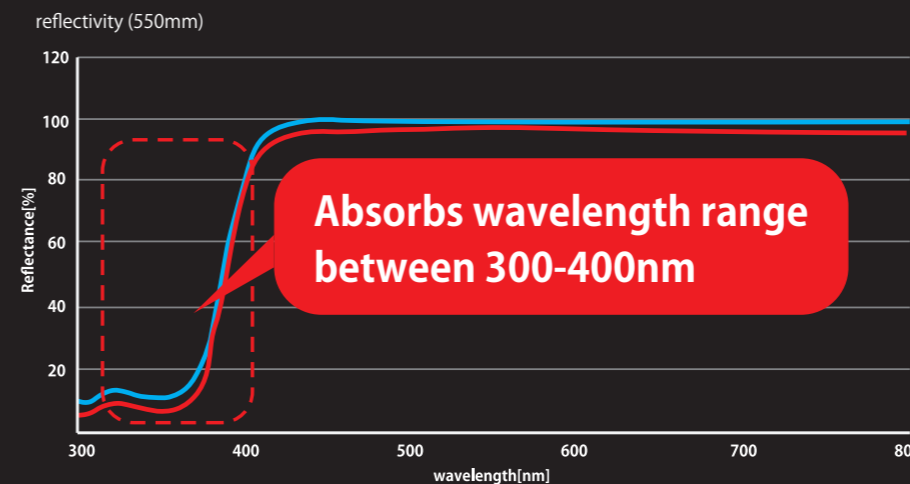
**Our solution: special reflective sheet (MCPET) + circuit board structure + polycarbonate cover**

Our LED product lineup, “Reach” series, utilizes a special diffused reflection technology to deflect blue light, thereby countering the harsh and excessive brightness typical of most LED light fixtures. As a result, blue light elements are cut by roughly 30% without any tradeoff to energy efficiency.

The reflective sheet used in our “Reach” series is Furukawa Electric’ s MCPET instead of conventional aluminum. The MCPET comprises a microscopic independent honeycomb structure which, when exposed to light, captures and traps part of the blue light elements rather than reflecting it all back.



MCPET comprises the closed-cell foam element



## EMC International Standard, CISPR 11·15·22-compliant

CISPR (Comite International Special des Perturbations Radioelectroniques) is a special committee created under the IEC (International Electrotechnical Commission) in 1934 with the object to promote free trade through setting international standards on the testing and tolerance levels of frequency interference and jamming. As effects of noise emitted by LEDs on electronic devices is becoming recognized, PRIMESTAR’ s CISPR 11 · 15 · 22-compliant “Reach” series can be used safely in factories and hospitals where many sensitive instrumentation are in use.



CISPR 11: Testing and tolerance levels of radio interference on industrial, scientific and medical equipment.  
 CISPR 15: Testing and tolerance levels of radio interference on electronic and related lighting equipment.  
 CISPR 22: Testing and tolerance levels of radio interference caused by information technology equipment.



## Impeccable quality control

All our products are barcode-controlled and if and when problems arise all relevant information is traceable, including model spec, production line, lot classification, serial number, date of shipment and staff-in-charge. Core components are 100% made in Japan and 100% inspected. In particular, the power supply, arguably the most critical determinant of final product quality, is on/off tested without exception. We also adhere to a small-lot assembly policy in the interest of minimizing the impact from the very unlikely event of a product recall.

Diverse installation track-record

**Broadcasters, hospitals, factories, schools, offices, malls, restaurants, etc..**