Stanley-LED Lighting
Features of Stanley’s LED Lighting

Enriched light and future that LED creates

- Light the way for social development
- Color life with light
- Light for a brighter and safer world

Automobile lamps must be highly reliable, requiring superior light distribution technology. Stanley Electric integrates this with its technology for advanced LED devices to create light that is both new and powerful. We will deliver light to where it could not reach until now.

“Reliance” and credible “Technology”

Stanley Electric was founded in 1920 to manufacture and distribute automobile light bulbs. Today, it maintains a stable market share for automobile lamps.

LED has now made its way to our everyday life. In 1971, long before LED was known to the general public, Stanley Electric was a pioneer which successfully commercialized high luminance LED. It has been leading since then, with its half-century of research and nurtured technologies.

Stanley’s LED lighting in popular demand

Lights that protect safety of our towns and lifestyles; Illumination that pleases the eye or adds color to our traditions; Lights that operate in harsh conditions such as heat or heavy rain; Technologies fine-tuned by experience, and challenges to enhance quality. We will expand our exceptionally high quality products throughout the world, to deliver light to every corner of society.
4 Categories to Deliver Lights

**Special Outdoor Lighting**
The light coordinates wide open spaces as a whole. It provides light that enables safe operations in the long term, even in harsh conditions with seawater nearby.

### Outdoor LED floodlight
LLF0011A  P.29

**Landscape Lighting**
It can illuminate from a long distance, bringing out the sharp lines of landmarks and buildings.

### LED floodlight with ultra narrow light angle
LLM0545A  P.3
LLM0545A(Gold)  P.9

**Road Lighting**
Provides the right kind of light where and when needed. It creates light that helps safe driving, even under harsh conditions such as heat or heavy rain.

### LED lighting for road
LLF0016A  P.21

### LED linear lighting
LLM1389A  P.17

**Indoor Maintenance-Free Lighting**
Slim, lightweight, and with even higher efficiency, it makes an easy-to-use, maintenance-free LED lighting a reality.

### LED high bay lighting
LLF0058A  P.33

### LED lighting under the eaves
LLF0040A  P.37
Landscape Lighting

LED Floodlight with Ultra Narrow Light Angle

LLM0545A_UZ
LLM0545A_UE
LLM0545A_UG
New style of LED floodlight
LED Floodlight with Ultra Narrow Light Angle

**LLM0545A**

### Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultra narrow light angle</td>
<td>Materialized 3 types of narrow-angle light distribution, whose 1/2 beam angle is 2.5°, 3°, or 5°.</td>
</tr>
<tr>
<td>Low power consumption</td>
<td>Operates with power as low as 25W (when using the optional power source designed for one light source).</td>
</tr>
<tr>
<td>Thin and lightweight</td>
<td>With 47mm thickness (light source part) and 2.3kg (bracket excluded), it can be installed at any place.</td>
</tr>
<tr>
<td>Water and dust resistance</td>
<td>Available for outdoor usage with IP65.</td>
</tr>
<tr>
<td>Variety in color</td>
<td>In addition to white with a variety of color temperature, there is red, green, blue, and amber available.</td>
</tr>
</tbody>
</table>

### Design Concept

The light of LED is narrowed effectively to implement ultra narrow light distribution, which materializes the spotlight that can be utilized for a variety of illumination, show, or landscape. It can irradiate where light could not reach before. We prepared a variety of colors to satisfy requests for different kinds of effect. Installation location is not limited because it possesses high level of resistance to water and dust.

### Colors

- **6500k** series
- **5700k** series
- **4000k** series
- **3000k** series
- **2200k** series
- **Red** series
- **Green** series
- **Blue** series
- **Amber** series

Examples

- **Mitsushima, Toba City, Mie**
- **Niagara Falls, North America**
- **Kabukiza Theatre, Ginza, Tokyo**
### Product Image

**Front**

**Side**

**Back**

Bracket with angle adjustment structure (sold separately)

### Specifications

<table>
<thead>
<tr>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LLM0545A_UZ</td>
</tr>
<tr>
<td>LLM0545A_UE</td>
</tr>
<tr>
<td>LLM0545A_UG</td>
</tr>
</tbody>
</table>

**Beam Angle 2.5°**

- **Color Temp./Color Line-Up:** 6500K, 4000K, 3000K
- **Center Luminance (cd):** 910,000, 762,000, 714,000
- **Luminous Flux (lm):** 1,720, 1,440, 1,380
- **Rated Power Consumption (exc, power source):** 17.9W
- **Maximum Power Consumption (exc, power source):** 19.2W

**Beam Angle 3.0°**

- **Color Temp./Color Line-Up:** 6500K, 4000K, 3000K
- **Center Luminance (cd):** 436,000, 396,000, 347,000
- **Luminous Flux (lm):** 1,330, 1,200, 1,080
- **Rated Power Consumption (exc, power source):** 19.2W
- **Maximum Power Consumption (exc, power source):** 21.0W

**Beam Angle 5.0°**

- **Color Temp./Color Line-Up:** 300,000, 290,000, 300,000
- **Luminous Flux (lm):** 1,400, 1,260, 1,260
- **Rated Power Consumption (exc, power source):** 18.3W
- **Maximum Power Consumption (exc, power source):** 21.0W

**Material:**
- Body: aluminum die-cast, Outer lens: polycarbonate, Bracket (sold separately): stainless

**Ambient Temperature:** -10°C to 50°C

**Water and Dust Resistance:** IP65

**Life of LED’s Light Source:**
- UE/UG: 40,000h
- UZ: 42,000h (lumen maintenance factor 70%)

**Power Source:**
- Placed separately (sold separately)

**Weight:** 2.3kg

**Optional Parts:**
- Power source, bracket, 10m cable

### External Dimension

**Unit:** mm

- **Wiring of the Power Source**
  - 1m cable (attachment)
  - Input AC100-240V
  - Exclusive power source: LP0028A
  - Power source is sold and placed separately

### Projection Area

**Projection Distance**

- **Center Illuminance**
  - 2.5° (UZ)
  - 6500K
  - 1lux or higher
  - 0.5lux or higher

- **Center Illuminance**
  - 3.0° (UE)
  - 5700K
  - 1lux or higher
  - 0.5lux or higher

- **Center Illuminance**
  - 5.0° (UG)
  - 5700K
  - 1lux or higher
  - 0.5lux or higher
Landscape Lighting

LED Floodlight with Ultra Narrow Light Angle (Gold)

LLM0545A-UB
Perfectly unique gold

*Gold light that has been created by phosphor of Stanley's original composition technology*

Eiffel Tower Special Light-up, Paris, France
Organization: The Japan Foundation
Executive Committee for Special Light-up of Eiffel Tower, Japonisms 2018
Cooperation in Development: Motoko Ishii Lighting Design Inc.
Planners and Producers: Motoko Ishii and Akari-Lisa Ishii
Lighting Design & Production: Motoko Ishii & Motoko Ishii Lighting Design Inc. (Tokyo) and Akari-Lisa Ishii & I.C.O.N. (Paris)
LED Floodlight with Ultra Narrow Light Angle(Gold)

LLM0545A-UB

Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color of light</td>
<td>Materialized the color of light which emphasizes gold color.</td>
</tr>
<tr>
<td>Ultra narrow light angle</td>
<td>Materialized the narrow-angle and oval light distribution whose 1/2 beam angle is 4° x 3°.</td>
</tr>
<tr>
<td>Thin and lightweight</td>
<td>With 47mm thickness (light source part) and 2.3kg (bracket excluded), it can be installed at any place.</td>
</tr>
<tr>
<td>Low power consumption</td>
<td>Power consumption is as low as 39.4W.</td>
</tr>
<tr>
<td>Water and dust resistance</td>
<td>Available for outdoor usage with IP65.</td>
</tr>
</tbody>
</table>

Design Concept

The first gold LED floodlight has been created, being applied our technologies for white LED in development. When irradiating gold-colored objects such as temples or Buddha statues, it can emphasize the object’s gold color a lot more strongly than a floodlight with white light does. It can also color non-gold objects gold with its light.

Accurate irradiation of gold light toward the object

Examples

Eiffel Tower Special Light-up, Paris, France

Organizers: The Japan Foundation
Executive Committee for Special Light-up at Eiffel Tower, Japan

Cooperative Development: Mest Kanto Lighting Design Inc.
Planners and Producers: Mest Kanto and Mest Kanto
Lighting Design: Production: Mest Kanto Architects and Mest Lighting Design

© Byodo-in

The phoenix and the Amitabha statue in Byodo-in, Kyoto

© Byodo-in

Patuxai, Vientiane, Laos

© Byodo-in
## Specifications

<table>
<thead>
<tr>
<th>Part No.</th>
<th>LLM0545A-UB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Luminosity (cd):</td>
<td>667,000</td>
</tr>
<tr>
<td>Luminous Flux (lm):</td>
<td>3,300</td>
</tr>
<tr>
<td>1/2 Beam Angle:</td>
<td>$4^\circ \times 3^\circ$</td>
</tr>
<tr>
<td>Material: Body:</td>
<td>aluminum die-cast, Outer lens: polycarbonate</td>
</tr>
<tr>
<td></td>
<td>Bracket (sold separately): stainless</td>
</tr>
<tr>
<td>Rated Power Consumption:</td>
<td>excl. power source) 39.4W</td>
</tr>
<tr>
<td>Maximum Power Consumption:</td>
<td>excl. power source) 45.7W</td>
</tr>
<tr>
<td>Ambient Temperature:</td>
<td>$-30 \sim +50^\circ$C</td>
</tr>
<tr>
<td>Water and Dust Resistance:</td>
<td>IP65</td>
</tr>
<tr>
<td>Life of LED’s Light Source:</td>
<td>40,000h (lumen maintenance factor 70%)</td>
</tr>
<tr>
<td>Power Source:</td>
<td>Placed separately (sold separately)</td>
</tr>
<tr>
<td>Weight:</td>
<td>2.3kg</td>
</tr>
<tr>
<td>Optional Parts:</td>
<td>Power Source, bracket, 10m cable</td>
</tr>
</tbody>
</table>

### Projection Area

**Projection Distance**

- 0m
- 30m
- 50m
- 100m
- 500m
- 1000m

**Center Illuminance**

- 749lux
- 271lux
- 31lux
- 1.2lux
- 0.3lux

**5lux or higher**

- $\varnothing5.3m$
- $\varnothing7.1m$
- $\varnothing11.2m$
Landscape Lighting

LED Spotlight with Ultra Narrow Light Angle

LLM0854A
Light distribution with ultra narrow angle: 2.5°
LED Spotlight with Ultra Narrow Light Angle

LLM0854A

Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultra narrow light angle</td>
<td>Materialized a uniform light distribution with 2.5° of 1/2 beam angle.</td>
</tr>
<tr>
<td>Low power consumption</td>
<td>Operates with power as low as 2.9W.</td>
</tr>
<tr>
<td>Compact and lightweight</td>
<td>A very compact and light body with ( \phi )98mm and 260g.</td>
</tr>
<tr>
<td>Variety in color</td>
<td>In addition to white of 3000K, 4000K, and 5000K, there is red, green and blue available.</td>
</tr>
<tr>
<td>Water and dust resistance</td>
<td>Available for outdoor usage with IP65.</td>
</tr>
</tbody>
</table>

Design Concept

The light of LED is narrowed effectively to implement slim light, which materializes this small and low-power spotlight that can be utilized for a variety of effect with a small number of LED. We prepared a variety of colors to satisfy requests for different kinds of effect. Installation location is not limited because it possesses high level of resistance to water and dust.
## Specifications

<table>
<thead>
<tr>
<th>Part No.</th>
<th>LLM0854A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Color Temp. / Color Lineup</strong></td>
<td>5000K</td>
</tr>
<tr>
<td><strong>Center Luminosity (cd)</strong></td>
<td>86,000</td>
</tr>
<tr>
<td><strong>Luminous Flux (lm)</strong></td>
<td>143</td>
</tr>
<tr>
<td><strong>Beam Angle</strong></td>
<td>2.5°</td>
</tr>
<tr>
<td><strong>Color Rendering Index (Ra)</strong></td>
<td>70</td>
</tr>
</tbody>
</table>

- **Material:** Body: aluminum die-cast / polycarbonate, Inner lens: acryl (transparent)
- **Input Voltage:** DC9 ~ 18V
- **Power Consumption:** 2.9W (max 3.6W) <(max.4.1W) for red/green/blue>
- **Ambient Temperature:** -30 ~ +50°C
- **Water and Dust Resistance:** IP65
- **Life of LED’s Light Source:** 40,000h (lumen maintenance factor 70%)
- **Weight:** 260g
- **Optional Parts:** Bracket
  *Power source is sold separately.*

## Projection Area

### Projection Distance

- 0m
- 1m
- 2m
- 5m
- 10m

### Center Illuminance

- **5000K**
  - 86000 lux
  - 21500 lux
  - 3440 lux
  - 860 lux

### 50lux or Higher

- Φ 0.24 m
- Φ 0.33 m
- Φ 0.54 m
- Φ 0.63 m
Landscape Lighting

LED Linear Lighting

LLM1389A
Express with a cingulate light
LED Linear Lighting
LLM1389A

Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cingulate light distribution</td>
<td>Materialized clear and cingulate light distribution.</td>
</tr>
<tr>
<td>Variety in color</td>
<td>In addition to white of 3000K, 4000K, and 5000K, there is red, green and blue available.</td>
</tr>
<tr>
<td>Compact and lightweight</td>
<td>A very compact and light body with 98mm and 220g.</td>
</tr>
<tr>
<td>Low power consumption</td>
<td>Operates with power as low as 4.9W.</td>
</tr>
<tr>
<td>Water and dust resistance</td>
<td>Available for outdoor usage with IP65.</td>
</tr>
</tbody>
</table>

Design Concept

Instead of using the light-shielding method, we designed the lens with technology for ultra narrow light distribution. The light of LED is narrowed effectively to implement slim light, which materializes this small and low-power linear lighting that can be utilized for a variety of effect with a small number of LED. We prepared a variety of colors to satisfy requests for different kinds of effect. Installation location is not limited because it possesses high level of resistance to water and dust.

Colors

These photos are for illustrative purposes.
### Specifications

<table>
<thead>
<tr>
<th>Part No.</th>
<th>LLM1389A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2 Beam Angle (°) short end</td>
<td>2.5</td>
</tr>
<tr>
<td>1/2 Beam Angle (°) longitudinal</td>
<td>70</td>
</tr>
<tr>
<td>Color Temp. / Color Lineup</td>
<td>5000K</td>
</tr>
<tr>
<td>Center Luminosity (cd)</td>
<td>4,418</td>
</tr>
<tr>
<td>Color Rendering Index (Ra)</td>
<td>70</td>
</tr>
<tr>
<td>Input Voltage</td>
<td>8.5V</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>6.0W</td>
</tr>
</tbody>
</table>

**Material:** Body: aluminum die-cast, Lens: polycarbonate

**Input Rated Current:** 0.7A

**Ambient Temperature:** -30 ~ +50°C

**Water and Dust Resistance:** IP65

**Life of LED's Light Source:** 40,000h (lumen maintenance factor 70%)

**Weight:** 220g

**Optional Parts:** Bracket

*Power source is sold separately.*
Road Lighting

LED Road Lighting

LLF0016A
Providing light and safety to roads
LED Road Lighting
LLF0016A

Features

- Design that suits urban areas
  Implemented optimal control of light distribution with the slim body that matches a variety of scenes.

- High tolerance to UV
  Tempered glass is used for the outer lens of the light-emitting part, and the optical lenses are made of acryl.

- High tolerance to heat
  Ambient temperature is 50°C at the highest.

- Wide range of input voltage
  Voltage for lighting can be in the range of AC90-305V, usable in regions with unstable voltage.

- Wide variety of lenses
  The most suitable lens can provide the road with a uniform light distribution.

- Maintenance & upgrade
  In addition to the power source part, we utilizes the LED part so it can be exchanged or upgraded by unit.

Design Concept

The tolerance to lightning surge is as high as 20kV, which provides security in a long-term use under harsh conditions. The risk of bugs getting inside the product is very low, because it is designed with high airtightness (IP66) even on the parts other than the light source. The product can meet a variety of demands because it can provide many combinations of its output range, which is 100-200W, and its four patterns of light distribution. Construction for this lighting fixture is simple because opening/closing of the cover does not require a tool.
### Specifications

**Part No.**
- LLF0016A

<table>
<thead>
<tr>
<th>Power Consumption (at 220V)</th>
<th>117W</th>
<th>134W</th>
<th>150W</th>
<th>165W</th>
<th>180W</th>
<th>202W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixture Luminous Flux</td>
<td>15,000lm</td>
<td>17,200lm</td>
<td>18,600lm</td>
<td>20,000lm</td>
<td>21,500lm</td>
<td>25,000lm</td>
</tr>
<tr>
<td>Luminous Efficiency</td>
<td>112lm/W</td>
<td>129lm/W</td>
<td>129lm/W</td>
<td>150lm/W</td>
<td>150lm/W</td>
<td>180lm/W</td>
</tr>
<tr>
<td>Class of the Lighting</td>
<td>ME3–ME5</td>
<td>ME2–ME5</td>
<td>ME1–ME5</td>
<td>ME1–ME5</td>
<td>ME1–ME5</td>
<td>ME1–ME5</td>
</tr>
<tr>
<td>Type of Road</td>
<td>general</td>
<td>general</td>
<td>expressway</td>
<td>expressway</td>
<td>expressway</td>
<td>expressway</td>
</tr>
</tbody>
</table>

**Material:**
- Body: aluminum die-cast, Outer lens: tempered glass

**Color Temperature:**
- 4000K

**Water and Dust Resistance:**
- IP66

**Life of LED’s Light Source:**
- 60,000h (lumen maintenance factor 70%)

**Shock Resistance:**
- IK08

**Vibration Resistance:**
- 2G

**Wind Resistance:**
- 60m/s

**Input Voltage:**
- rated voltage AC 100–240 V (AC 90–305V)

**Lightning Surge Protection Pressure Resistance:**
- 20 kV (Common mode)

### Simulation of Light Distribution

**Computational Condition**
- number of traffic lanes: 3
- fixture: LLF0016A/LEN2/72/E/P/N/A
- installation height: 11.2m
- overhang: 20°: 0.417m
- inclination angle of the boom: 30°: 5°
- boom length: 0m
- space between poles: 18m
- maintenance factor: 0.7

**average illuminance:**
- 221lux

**uniformity ratio of illuminance 1 (overall) (min/ave):**
- 0.42

**uniformity ratio of illuminance 2 (overall) (min/ave):**
- 0.23
Road Lighting

LED Road Lighting

LLF0017A
Providing light and safety to roads
LED Road Lighting
LLF0017A

Features

- **Design that suits urban areas**
  - The radiation fin is placed around the light source part and is designed with slits to avoid accumulation of dust.

- **High tolerance to UV**
  - Tempered glass is used for the outer lens of the light-emitting part, and the optical lenses are made of acryl.

- **High tolerance to heat**
  - Ambient temperature is 55°C at the highest.

- **Wide range of input voltage**
  - Voltage for lighting can be in the range of AC90-305V; usable in regions with unstable voltage.

- **Maintenance & upgrade**
  - In addition to the power source part, we unitized the LED part so it can be exchanged or upgraded by unit.

- **High brightness & efficiency**
  - Materialized 0.94cd/ m² with power consumption 90W, while the standard brightness value of EU roads is ≥0.75.

Design Concept

We materialized this compact and lightweight body while having the power source built in the fixture. The risk of bugs getting inside the product is very low, because it is designed with high airtightness (IP66) even on the parts other than the light source. Its wide light-distribution and high coefficient of utilization allow a minimized number of installation of fixture. Construction for this lighting fixture is simple because opening/closing of the cover does not require a tool.

Examples

- **Bangkok Expressway and Metro Public Company Limited, Thailand**
- **Karawang International Industrial City (KIIC), Indonesia**
- **Asia Industrial Estate, a suburb of Bangkok, Thailand**
Product Image

Specifications

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Power Consumption (at 220V)</th>
<th>42W</th>
<th>70W</th>
<th>90W</th>
</tr>
</thead>
<tbody>
<tr>
<td>LLF0017A</td>
<td>Fixture Luminous Flux</td>
<td>5300lm</td>
<td>8400lm</td>
<td>11000lm</td>
</tr>
<tr>
<td></td>
<td>Luminous Efficiency</td>
<td>126lm/W</td>
<td>120lm/W</td>
<td>122lm/W</td>
</tr>
</tbody>
</table>

Material:
Body: aluminum die-cast, Outer lens: tempered glass

Color Temperature:
4000K

Water and Dust Resistance:
IP66

Life of LED’s Light Source:
60,000h (lumen maintenance factor 70%)

Shock Resistance:
IK08

Vibration Resistance:
2G

Ambient Temperature:
-40 ~ +55°C

Wind Resistance:
60m/s

Input Voltage:
Rated voltage: AC100 ~ 240V (AC90 ~ 305V)
42W type has rated voltage: AC206~240V (AC190~285V)

Lightning Surge Protection Pressure Resistance:
10 kV (Common mode)

Weight:
5.0 kg

Height of Installation:
6 ~ 12m

Compatible Pole:
Φ 60.5mm × 100mm

External Dimension

unit: mm

Simulation of Light Distribution

Computational Condition
Number of traffic lanes: 2
Fixture: LLF0017A/LEN/1/04/E/EN/A
Installation Height: 10.95 m
Overhang: 2.9 m
Inclination angle of the boom: 5°
Space between poles: 40 m
Maintenance factor: 0.7

Uniformity ratio of illuminance (longitudinal): 0.75
Uniformity ratio of illuminance (overall)(max/ave): 0.51
Lighting classification: ME4a
Average brightness: 0.95
Relative threshold increase: 13
Special Outdoor Lighting

Outdoor LED Floodlight

LLF0011A
Built to withstand harsh environments
Outdoor LED Floodlight
LLF0011A

Features

- **Built to withstand harsh environments**: We provide LED floodlights with high quality and reliability, which passed endurance tests for harsh environments.
- **Technology of automobile headlamps**: We implemented the high technology of light distribution that shows more uniformity, utilizing our technology of light distribution design which we developed through designing automobile headlamps.
- **Conservation of energy & environment**: The higher efficiency enables energy saving and thus contributes to reduction of greenhouse gases.

Design Concept

With dust and water resistance as high as IP66, this lighting can be used in coast areas, which require tolerance to heavy salt. We received NK Qualification from ClassNK for conducting a test on this product for harbor environment. It has a sufficient quantity of light to irradiate a vast area, and we provide wide and narrow light distributions so that they can be selected according to the geographical feature.

Example

Terminal of ICO and Nippon Yusen Kabushiki Kaisha, Zeebrugge, Belgium

Built to Withstand Harsh Environments

![UV](image1) ![bad weather](image2) ![dust](image3) ![vibration](image4) ![salt damage](image5) ![temperature](image6)

It shows outstanding durability performance under different kinds of bad conditions and environments.
Product Image

Specifications

**Part No.**
LLF0011A

**Material:**
Body: aluminum sheet-metal

**Color Temperature:**
5000K

**Power Consumption:**
346.4W (at 242V)

**Input Voltage:**
AC 200 ~ 240V

**Lightning Surge Protection Pressure Resistance:**
15kV (Common mode)

**Light Distribution Angle:**
Narrow θ 18° / Wide θ 70°

**Luminous Flux of the Light Source:**
37000lm / 39000lm

**Luminous Efficiency:**
111lm/W

**Color Rendering Property:**
Ra70

**Ambient Temperature:**
-20 ~ +40°C

**Weight:**
13.5kg

**Water and Dust Resistance:**
IP66

**Life of LED’s Light Source:**
60,000h (lumen maintenance factor 70%)

**Wind Resistance:**
60m/s

External Dimension

**Unit:** mm

Comparison of Energy Efficiency

- **General Sodium Lamp**
- **LLF0011A**

<table>
<thead>
<tr>
<th>Power Consumption</th>
<th>Energy Savings</th>
<th>Total Energy Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>940W ’1</td>
<td>-63%</td>
<td>346W</td>
</tr>
<tr>
<td>12,000h ’2</td>
<td>4x</td>
<td>50,000h~</td>
</tr>
</tbody>
</table>

*1 Power consumption per lighting fixture
*2 Lifetime of the light source

Comparison of CO2 Emissions

- **General Sodium Lamp**
- **LLF0011A**

<table>
<thead>
<tr>
<th>Power Consumption per lighting fixture</th>
<th>CO2 Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>47kW ’1</td>
<td>17kW</td>
</tr>
<tr>
<td>7.5t ’2</td>
<td>2.5t</td>
</tr>
</tbody>
</table>

*1 Power consumption per 50 lighting fixtures
*2 Amount of greenhouse gas (CO2) emission (in 300 days)

Simulation of Light Distribution

- **average illuminance: 25lux**
- **average illuminance: 30lux**

**Computational Condition**
- wide angle : 4 units angle : 50° height of installation : 30m
- narrow angle : 8 units angle : 65° height of installation : 30m
- maintenance factor : 0.8

**Computational Condition**
- wide angle : 8 units angle : 50° height of installation : 30m
- narrow angle : 15 units angle : 65° height of installation : 30m
- maintenance factor : 0.8
Indoor Maintenance-Free Lighting

LED High Bay Lighting

LLF0058A
Remarkably thin and light
LED High Bay Lighting
LLF0058A

Features

- **Daring design**
  The body is thinner because we made the light-emitting part thin by not using the conventional radiation fin.

- **Lightweight**
  Helps reducing the man-hour for installation.

- **Angle adjustment**
  The angle of light can easily be adjusted after installation, because the range of motion of this fixture is 35° each to right and left.

- **Wide range of input voltage**
  Voltage for lighting can be in the range of AC90-305V; usable in regions with unstable voltage.

Design Concept

We materialized heat diffusion without a heat radiation fin. We adopted a design that makes the light-emitting part look thin when installed. The structure of housing is designed to keep adequate strength even being made of aluminum, so the product is lightweight and the color tone can be unified.
**Specifications**

**LLF0058A**

<table>
<thead>
<tr>
<th>Color Temp.</th>
<th>5000K</th>
<th>5000K</th>
<th>5000K</th>
<th>5000K</th>
<th>3000K</th>
<th>3000K</th>
<th>3000K</th>
<th>3000K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Consumption</td>
<td>56W</td>
<td>111W</td>
<td>163W</td>
<td>215W</td>
<td>56W</td>
<td>111W</td>
<td>163W</td>
<td>215W</td>
</tr>
<tr>
<td>Fixture Luminous Flux</td>
<td>842lm</td>
<td>1685lm</td>
<td>2310lm</td>
<td>3370lm</td>
<td>8000lm</td>
<td>16000lm</td>
<td>24000lm</td>
<td>32000lm</td>
</tr>
<tr>
<td>Luminous Efficiency</td>
<td>150lm/W</td>
<td>152lm/W</td>
<td>155lm/W</td>
<td>157lm/W</td>
<td>148lm/W</td>
<td>147lm/W</td>
<td>148lm/W</td>
<td>147lm/W</td>
</tr>
<tr>
<td>Weight</td>
<td>2.2kg</td>
<td>2.9kg</td>
<td>4.2kg</td>
<td>5.7kg</td>
<td>2.2g</td>
<td>2.9kg</td>
<td>4.2kg</td>
<td>5.7kg</td>
</tr>
</tbody>
</table>

**Material:** Body: aluminum sheet-metal

**Color Rendering Property:** Ra70

**Input Voltage:** rated voltage AC100 ~ 240V (AC90 ~ AC305V)

**Ambient Temperature:** -20 ~ 45°C

**Water and Dust Resistance:** IP20

**Life of LED’s Light Source:** 60,000h (lumen maintenance factor 70%)

**1/2 Beam Angle:** 120°
Indoor Maintenance-Free Lighting

LED Lighting under the Eaves

LLF0040A
Compact but powerful
LED Lighting under the Eaves
LLF0040A

Features

- **Compact**
  Designed to be as compact as the external dimension 650 x 100 x 153mm (incl. arm).

- **Angle adjustment**
  The swing arm allows adjustment of irradiation angle.

- **Wide variety of lenses**
  The optical lenses provide a wide range of lighting designs.

- **Moisture-proof and rainproof**
  It has IP23.

Design Concept

The LED module used in this lighting is waterproof. With the light distribution control by lens, we materialized a light distribution that stretches along the long side of the product. The presence of fixture can be hidden because the width of the product is small and thus it can be placed in the wiring duct.

Example

Lights inside the factory of Indonesia Stanley, Indonesia
Specifications

**Part No.**
LLF0040A

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color Temperature</td>
<td>5000K</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>52W (at AC 220V)</td>
</tr>
<tr>
<td>Luminous Flux of the Light Source</td>
<td>5,760 lm (5000K)</td>
</tr>
<tr>
<td>Luminous Efficiency</td>
<td>111 lm/W</td>
</tr>
<tr>
<td>Material</td>
<td>SECC</td>
</tr>
<tr>
<td>Color Rendering Property</td>
<td>Ra70</td>
</tr>
<tr>
<td>Input Voltage</td>
<td>AC90 ~ 305V/rated voltage AC100 ~ 277V</td>
</tr>
<tr>
<td>Ambient Temperature</td>
<td>-20 ~ 50°C</td>
</tr>
<tr>
<td>Water and Dust Resistance</td>
<td>IP23</td>
</tr>
<tr>
<td>Variation of Lens</td>
<td>narrow angle/medium angle/wide angle</td>
</tr>
<tr>
<td>Weight</td>
<td>3.7kg</td>
</tr>
<tr>
<td>Power Source</td>
<td>Built-in</td>
</tr>
<tr>
<td>Lightning Surge Protection Pressure</td>
<td>10kV (Common mode)</td>
</tr>
<tr>
<td>Life of LED’s Light Source</td>
<td>40,000h (lumen maintenance factor 70%)</td>
</tr>
</tbody>
</table>
### Landscape Lighting

<table>
<thead>
<tr>
<th>Part No.</th>
<th>1/3 Beam Angle</th>
<th>Color Temp.</th>
<th>UL</th>
<th>C</th>
<th>E</th>
<th>PSE</th>
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</thead>
<tbody>
<tr>
<td>LLM0545A_U2/4000K</td>
<td>2.5°</td>
<td>1000K</td>
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<td>✗</td>
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<td>✗</td>
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<tr>
<td>LLM0545A_U2/6500K</td>
<td>2.5°</td>
<td>6500K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLM0545A_U2/6000K</td>
<td>2.5°</td>
<td>6000K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLM0545A_U7/4000K</td>
<td>2.5°</td>
<td>4000K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLM0545A_U7/6000K</td>
<td>2.5°</td>
<td>6000K</td>
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<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLM0545A_U4/4000K</td>
<td>3°</td>
<td>4000K</td>
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<td>✗</td>
<td>✗</td>
<td>✗</td>
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<tr>
<td>LLM0545A_U4/6500K</td>
<td>3°</td>
<td>6500K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
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<tr>
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<td>6000K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
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<tr>
<td>LLM0545A_L4/4000K</td>
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<td>4000K</td>
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<td>✗</td>
<td>✗</td>
<td>✗</td>
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<tr>
<td>LLM0545A_L4/6500K</td>
<td>3°</td>
<td>6500K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLM0545A_L4/6000K</td>
<td>3°</td>
<td>6000K</td>
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<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLM0545A_U6</td>
<td>5°</td>
<td>4000K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLM0545A_U6/6500K</td>
<td>5°</td>
<td>6500K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLM0545A_U6/6000K</td>
<td>5°</td>
<td>6000K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLM0545A_U6/4000K</td>
<td>4°</td>
<td>4000K</td>
<td>✗</td>
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<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLM0545A_U6/6500K</td>
<td>4°</td>
<td>6500K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLM0545A_U6/6000K</td>
<td>4°</td>
<td>6000K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>

### Road Lighting

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Power Consumption (W) (at 220V)</th>
<th>Luminous Flux (lm)</th>
<th>Color Temp.</th>
<th>UL</th>
<th>C</th>
<th>E</th>
<th>PSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LLF0017A</td>
<td>42</td>
<td>5,100</td>
<td>4000K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLF0017A</td>
<td>70</td>
<td>3,600</td>
<td>4000K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLF0017A</td>
<td>90</td>
<td>1,900</td>
<td>4000K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>

### Special Outdoor Lighting

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Angle of Light Distribution</th>
<th>Color Temp.</th>
<th>UL</th>
<th>C</th>
<th>E</th>
<th>PSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LLF0011A</td>
<td>Outdoor LED Floodlight</td>
<td>5000K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLF0011A</td>
<td>Floodlight Unit 1</td>
<td>5000K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLF0011A</td>
<td>Floodlight Unit 3</td>
<td>5000K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>

### Indoor Maintenance-Free Lighting

<table>
<thead>
<tr>
<th>Part No.</th>
<th>No. of Modules</th>
<th>Power Consumption (W) (at 220V)</th>
<th>Color Temp.</th>
<th>UL</th>
<th>C</th>
<th>E</th>
<th>PSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LLF0056A</td>
<td>1</td>
<td>56</td>
<td>3000K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLF0056A</td>
<td>2</td>
<td>111</td>
<td>3000K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLF0056A</td>
<td>3</td>
<td>163</td>
<td>3000K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>LLF0056A</td>
<td>4</td>
<td>215</td>
<td>3000K</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>

Some of the C’s in CE or PSE are still a plus.
Precautions for Use

**WARNING**

Failure to observe the instructions can result in death or serious injury to personnel.

- When conducting maintenance of the product, follow the instruction manual. Failure to do so can cause falling, electric shock or fire.
- When conducting maintenance of the product, be sure to turn off the power. Failure to do so can cause electric shock.
- Do not repair, decompose or modify the product on your own. It can cause falling, electric shock or fire.
- The light source uses LED of high brightness. Do not look directly at the light source part.

**CAUTIONS FOR ELECTRIC SHOCK**

Exchange of the lighting fixture’s light source or power source can be conducted only by the manufacturer, agent(s) on behalf of the manufacturer, or personnel with equivalent qualification.

**Maintenance**

- Be sure to turn off the power switch before maintenance of the fixture.
- The fixture remains hot shortly after it is turned off, so please wait some time (20-30 minutes) before maintenance.
- When cleaning the soil on the outer surface of the fixture or the cover, wipe with a soft cloth that has been soaked in water or neutral soap water and wrung well. Do not wipe with volatile products such as thinner or benzene or with acidic or alkaline detergent. It can be a cause of discoloration or deformation.
- Do not pour water over the fixture directly, for example, with a hose. Do not use a mop or deck brush for cleaning. It may cause inundation into the fixture or damage to the fixture.

**Warranty**

Please conduct an incoming inspection at your company promptly after delivery and make a quality judgement. In case there is no issue brought up, it will be considered that a quality check has been conducted and the product has passed the incoming inspection.

- Please refer to the warranty card for the product’s warranty period. The warranty covers solely the product delivery. Please do not claim other costs such as work wages for exchange operation or damage compensation.
- The warranty does not apply if the cause of damage is any of the following:
  1. Lack of care in use or mishandling
  2. Repair done by the user or modification(s)
  3. Use under unreasonable operating environment or conditions
  4. Natural disaster (fire, earthquake, typhoon) etc.
  5. Condensation that occurred due to deviation from service temperature or storage temperature conditions described in specifications
  6. Electrical stress such as excessive voltage surge including thunder
- In case the cause of damage cannot be limited, a consultation between both companies comes into place.
- The intended use of the product is a light source for lighting. We do not bear any responsibility for any damage incurred from usage other than our intended use.

**CAUTION**

Failure to observe the instructions can result in risk of injury to personnel.

- When conducting maintenance of the product, be sure to turn off the power and to wait until it cools down enough. Failure to do so can cause burns.
- High ambient temperature shortens the product’s life.
- In case of any sign of abnormality, turn off the power immediately and contact the selling agency even if it is within the lifetime. If used under abnormal conditions, it may cause fire or electric shock.
- Do not turn the light on during the daytime, unless it is a temporary lighting check for its construction. (outdoor use)
- The lighting equipment is being warm from the direct sunlight, and turning it on would increase its inner temperature.
- In case of use in snowy areas, remove snow so that the lighting equipment does not get buried in snow. (outdoor use)
- A self-checking per year is recommended because the light becomes darker when soil is attached on the lenses. Brightness will be regained when the soil is wiped off.
- For safety reasons, conduct a self check at least once a year.
- Conduct an inspection by a specialist such as a construction store at least every three years. (When more than three years has passed, inspection needs to be done elaborately. If used under abnormal conditions, it may cause smoke, ignition, electric shock, or falling.)
- Please note that, LED element has dispersion and thus light color or brightness may vary even within lighting equipment of the same model number.

**Request for Exchange**

- During the warranty period, please notify the shop (construction store) of your purchase with an attachment that specifies the delivery date.
- After the warranty period, please consult with the shop (construction store) of your purchase.
- A paid exchange is available upon request.
- For inquiries regarding after-sales service or for consultation about exchange, please contact the shop (construction store) of your purchase or our contact window below.
- Please be sure to specify the article name and the time of purchase.

**Contact Window**

- For inquiries, please confirm the type of fixture indicated on the fixture’s nameplate and contact us.
- Our contact information such as phone number is subject to change. Please confirm them on our website.

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*Please note that appearance and specifications may be changed for an improvement.
* Please note that, by nature of printed matter, the color of products may slightly differ from the actual products.