

*Save Energy - Save the Earth!*

**ECO-LA  
LED Light Catalog  
March 2010**

**Preliminary**



**ENERGY™  
MATRIX**  
SAVE ENERGY • SAVE THE EARTH

## About EnergyMatrix

EnergyMatrix, a division of Innovation Matrix, Inc., is an innovative distributor focused on LED and other energy saving products. We strongly believe that Green Technology is the ultimate solution to fight the world's energy crisis. EnergyMatrix was established out of our concern for the environment. Our ultimate goal is to protect our vulnerable planet for the future generations to come.

We saw a need for immediate action to overcome this world energy crisis. Using energy saving Green Technology product is a key solution. Shifting to LED and Green Technology offers tremendous benefits to your business, increasing productivity and efficiency, lowering costs, and ultimately be environmentally friendly.

EnergyMatrix has partnered with Chuo Electric Works (CEW), a company in Japan working toward the same vision of conserving the deteriorating environment. EnergyMatrix is the exclusive distributor of CEW's LED products, and together, we can better contribute to stop energy crisis, and reach out to more customers than working alone.

Why save energy? Because it saves natural resources, deteriorating environment, and most of all, your future. We bring unique and novel products from Japan and other Asian countries to better serve you and the environment.

Eimei Onaga  
CEO and President  
Innovation Matrix, Inc.

## About CEW

### *Social contribution of our enterprise and ecology concept*

Today, conservation of the global environment is a widely debated controversial issue. At Chuo Electric Works (CEW), we have taken part in preserving the world's environment for the past six years. We consider this issue to be our company's mission.

In support of our mission in preserving nature, one of the devices we developed ensures the consumption of lighting will be significantly reduced. A LED lighting system we started selling in 2009, and a solar power generation device had complimented our mission.

As I traveled around the northern hemisphere, I was enlightened by the beauties of nature. But environmental damages were obvious at the same time; the retreat of the glacier in Swiss Alps, melting of the Columbia ice field (which is thinning each year), and Siberian tundra etc. I asked the question, what can I and my company do specifically to save the Earth's fragile environment? We could address this crisis by creating a low electric lighting device that would promote a low carbon emitting society. This is how CEW had researched to develop a range of LED products to save the world's existing beauty.

After a year and a half of research and development, we were finally able to come up with product lines of LED lights we knew we could sell to consumers with confidence. My hope is that customers will make the environmentally friendly choice of using our LED lights to improve the environmental crisis, and become environmentally friendly consumers.

I hope you will play a part in bringing back and creating a safe environment where our children, grandchildren and future generations can play outside freely. Our goal is to team with people who have the same vision towards preserving the environment as we do. Together, let's save the global environment!

Yoshio Hatano  
CEO and President  
Chuo Electric Works Ltd.

## What is LED Light?

Light emitting diode (LED) is an electronic device that emits light when electric current flows through it. LED lighting includes LED bulbs and fixtures, flashlights, strips, clusters and other LED light sources. LED lighting had been used by the public since 1962. You might remember them as the little red and green bulbs used in radios, TVs and other electronics over the years.

In 1993, white LED bulbs were invented and were used in flashlights. Today, LEDs are the newest lighting technology requiring low power consumption frequently used in the home, workplace, school, library, hospitals, outdoor lighting, and many more. They generate very little heat as they illuminate and transfer most of the energy directly into light, causing an efficient use of energy. They drive their light in one direction, so that you have light exactly where you want without wasting light



## Benefits of LED Lights

LED bulbs consumes 1/3rd to 1/30th of energy compared to CFLs (Compact Fluorescent Lighting). Leading developments of the bulbs to become key to saving electricity and electrical costs. With much less energy required than traditional bulbs, LED is considered a Green Technology that is environmentally friendly and government supported. Also, LED bulbs contain no mercury, which means no hazardous chemical disposal is needed.

Some other benefits are...

- Reduce CO2 emission
- Save money on electricity
- Light the color of daylight
- Use only 2-10 watts of electricity (1/3rd to 1/30th of Incandescent or CFL)
- Long lasting - up to 30,000 hour bulb life
- Cool running (warm to the touch) - little heat compared to standard bulbs
- Instant on/off
- Works in cold weather
- Durable bulbs with no fragile filaments to break from shaking and rattling
- Directional lighting generates less wasted light



## LED Ceiling Light—Straight

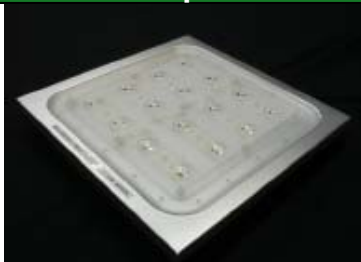


The LED ceiling light consumes only 1/3 of the energy consumed by the conventional fluorescent light bulb. The eco-friendly lighting has no mercury like CFLs and has an increased longevity. Interchangeable and an efficient alternative from your usual fluorescent light.

Light your next office with a tranquil environment. Long-life and eco-friendly light will reduce your carbon footprint by a significant amount.

| Model Number | Description                            | Power Consumption (W) | Approx. Equivalent | Lumens (lm) | Lamp Life (Hrs.) | Operating Voltage | Dimensions (L) mm | Gross Weight | Color Temp. |
|--------------|--|-----------------------|--------------------|-------------|------------------|-------------------|-------------------|--------------|-------------|
| CL-A1A1B6    | Straight Ceiling Light (White)         | 16                    | 40W Fluorescent    | 1600        | 40,000           | AC 120V           | 1200 (L), T10     | 0.35kg       | 6500 K      |
| CL-A1C1B6    | Straight Ceiling Light (Yellow)        | 16                    | 40W Fluorescent    | 1600        | 40,000           | AC 120V           | 1200 (L), T10     | 0.35kg       | 4200 K      |
| CL-B1A1E5-M  | Straight Ceiling Light (White)         | 18                    | 40W Fluorescent    | 1600        | 40,000           | AC 120V           | 1200 (L), T8      | 0.42kg       | 6000 K      |
| CL-B1C1E5-M  | Straight Ceiling Light (Yellow)        | 18                    | 40W Fluorescent    | 1600        | 40,000           | AC 120V           | 1200 (L), T8      | 0.42kg       | 4000 K      |
| CL-B2A1E5-M  | Straight Ceiling Light (White - 0.6M)  | 10                    | 20W Fluorescent    | 800         | 40,000           | AC 120V           | 600 (L), T8       | 0.21kg       | 6000 K      |
| CL-B2C1E5-M  | Straight Ceiling Light (Yellow - 0.6M) | 10                    | 20W Fluorescent    | 800         | 40,000           | AC 120V           | 600 (L), T8       | 0.21kg       | 4000 K      |

## Flat Panel Square LED Light



High quality and reliable Square Flat Panel LED Light has 4 x 4 LED chip Layout to provide even light distribution. Compare to the straight tube light, it provides more flexible ceiling light layout design, therefore, reducing energy consumption.

Fills the office with velvety atmosphere. This Eco-friendly and even-toned LED light is great to in high ceiling rooms.

| Model Number | Description                 | Power Consumption (W) | Approx. Equivalent | Lumens (lm) | Lamp Life (Hrs.) | Operating Voltage | Dimensions (L) x (W) x (H) mm | Gross Weight | Color Temp. |
|--------------|-----------------------------|-----------------------|--------------------|-------------|------------------|-------------------|-------------------------------|--------------|-------------|
| CLP-D2A1E1   | Flat Panel Square LED Light | 22                    |                    | 1,120       | Over 30,000      | AC 120V           | 250 x 250 x 18                | 0.39Kg       | 6200 K      |
| CLP-D2B1E1   | Flat Panel Square LED Light | 22                    |                    | 1,040       | Over 30,000      | AC 120V           | 250 x 250 x 18                | 0.39Kg       | 3300 K      |

## LED Wall Light



An optimal solution to light an eco-friendly and stylish facility. Equipped with a longer-life LED lighting, this wall light eliminates troublesome light bulb exchanges. Best illumination for reducing replacements for heights difficult to exchange.

Create a contemporary style room with a calming atmosphere. Elegant wall light in the office.

| Model Number | Description | Power Consumption (W) | Approx. Equivalent | Lumens (lm) | Lamp Life (Hrs.) | Operating Voltage | Dimensions (L) x (W) x (H) mm | Gross Weight | Color Temp. |
|--------------|-------------|-----------------------|--------------------|-------------|------------------|-------------------|-------------------------------|--------------|-------------|
| WL-A1A3D1    | Wall Light  | 22                    | Interior Lighting  | 450         | >20,000          | AC 120V           | 250 x 125 x 62                | 0.74kg       | 5600 K      |
| WL-D1A5D2    | Wall Light  | 8                     | Interior Lighting  | 140         | >20,000          | DC 24V            | φ128 x 38                     | 0.35kg       | 5600 K      |
| WL-D1B5D2    | Wall Light  | 8                     | Interior Lighting  | 110         | >20,000          | DC 24V            | φ128 x 38                     | 0.35kg       | 3200 K      |

\*M indicates pending UL approval

## LED Downlights



Interchangeable to the conventional flood light bulb. It provides lower power and longer life, and better spot lighting. LED spot light contains no Hazardous substance equating to an environmentally friendly product.

| Model Number | Description                 | Power Consumption (W) | Approx. Equivalent | Lumens (lm) | Lamp Life (Hrs.) | Operating Voltage | Dimensions (D x MOL) | Gross Weight | Color Temp. |
|--------------|-----------------------------|-----------------------|--------------------|-------------|------------------|-------------------|----------------------|--------------|-------------|
| DWS-D2B1A1   | Downlight (7W Type, Yellow) | 7                     | 80W Incandescent   | 400         | 30,000           | AC 100 ~240V      | Φ94 x 80             | 270g         | 3300 K      |
| DWS-D2A1A1   | Downlight (7W Type, White)  | 7                     | 80W Incandescent   | 500         | 30,000           | AC 100 ~240V      | Φ94 x 80             | 270g         | 6500 K      |
| DWS-D2A3D4   | Downlight (8W Type, White)  | 8                     | 80W Incandescent   | 100         | 20,000           | AC 120V           | Φ99 x 120            | 200g         | 5600 K      |
| DWS-D2B3D4   | Downlight (8W Type Yellow)  | 8                     | 80W Incandescent   | 90          | 20,000           | AC 120V           | Φ99 x 120            | 200g         | 3200 K      |



2



3



4



5



6

| Model Number | Description                      | Power Consumption (W) | Approx. Equivalent | Lumens (lm) | Lamp Life (Hrs.) | Operating Voltage | Dimensions (W x MOL) | Gross Weight | Color Temp. |
|--------------|----------------------------------|-----------------------|--------------------|-------------|------------------|-------------------|----------------------|--------------|-------------|
| DWS-D1A3B1   | Downlight Bulb (8W, White)       | 8                     |                    | 550         | 30000            | AC 100 ~240V      | Φ65 X 116            | 110g         | 6000K       |
| DWS-D1B3B1   | Downlight Bulb (8W, Yellow)      | 8                     |                    | 450         | 30000            | AC 100 ~240V      | Φ65 X 116            | 110g         | 3000K       |
| DWS-F1B1F6-M | Downlight Bulb (9W, Dimmable)    | 9                     |                    | 560         | 40,000           | AC 100 ~240V      | Φ72 X 118            | 210g         | 3800K       |
| DWS-C1B1A1   | Downlight Bulb (6W Type, Yellow) | 6                     | 80W Incandescent   | 400         | 30,000           | AC 100 ~240V      | Φ60 x 107            | 131g         | 4050 K      |
| DWS-C1A1A1   | Downlight Bulb (6W Type, White)  | 6                     | 80W Incandescent   | 350         | 30,000           | AC 100 ~240V      | Φ60 x 107            | 131g         | 6000 K      |
| DWP-B2B1E2-M | Downlight (MR-16 Type, Yellow)   | 3.3                   | 20W Halogen        | 85          | 25,000           | DC 12V            | Φ49 x 4              | 25g          | 3300 K      |
| DWP-B2A1E3-M | Downlight (MR-16 Type, White)    | 3.4                   | 20W Halogen        | 85          | 25,000           | DC 12V            | Φ49 x 4              | 25g          | 6200 K      |
| DWP-B2B1E4-M | Downlight (MR-16 Type, Yellow)   | 3.3                   | 20W Halogen        | 85          | 25,000           | DC 12V            | Φ49 x 4              | 25g          | 3300 K      |
| DWP-B2A1E5-M | Downlight (MR-16 Type, White)    | 3.4                   | 20W Halogen        | 85          | 25,000           | DC 12V            | Φ49 x 4              | 25g          | 6200 K      |
| DWS-B1B5A5   | Downlight (Oil Cooling, Yellow)  | 4                     | 20W Incandescent   | 200~250     | >30,000          | AC120V            | Φ40 x 107            | 95g          | 3275 K      |
| DWS-B1A5A5   | Downlight (Oil Cooling, White)   | 4                     | 20W Incandescent   | 200~250     | >30,000          | AC 120V           | Φ40 x 107            | 95g          | 6350 K      |
| DWS-B2B5A2   | Downlight (Oil Cooling, Yellow)  | 4                     | 20W Incandescent   | 200~250     | >30,000          | AC 120V           | Φ46 x 110            | 105g         | 3275 K      |
| DWS-B2A5A2   | Downlight (Oil Cooling, White)   | 4                     | 20W Incandescent   | 200~250     | >30,000          | AC 120V           | Φ46 x 110            | 105g         | 6350 K      |

Selected bulbs are cooled with an oil heat sink 5 6 \*M indicates pending UL approval

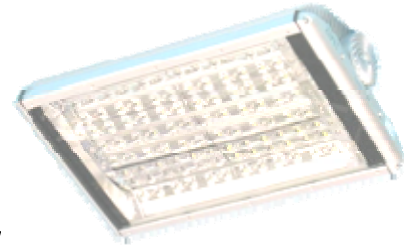
EnergyMatrix a division of Innovation Matrix, Inc.



## LED Street Light



1



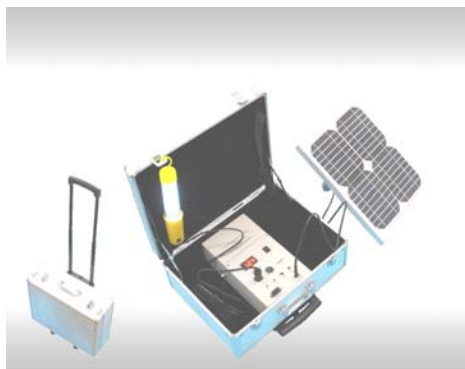
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Eco-friendly street light was added value for the next generation by actualizing higher brightness with less power consumption. 6600 lm of 100W vs. 4500 lm of 400W mercury lamp. Lights wide ranges with high luminance LED light! Intricate design to optimize qualitative heat radiation.

| Model Number  | Description                      | Power Consumption (W) | Approx. Equivalent | Lumens (lm) | Lamp Life (Hrs.) | Operating Voltage | Dimensions (L) x (W) x (H) mm | Gross Weight | Color Temp. |
|---------------|----------------------------------|-----------------------|--------------------|-------------|------------------|-------------------|-------------------------------|--------------|-------------|
| SL-F1C3C1-M   | Street Light (45W type)          | 45                    | 450W Mercury Lamp  | 1,850       | Over 50,000      | AC 110~ 250V      | 310 x 268 x 115               | 6.2Kg        | 5600K       |
| SL-F1B3C1-M   | Street Light (45W type)          | 45                    | 450W Mercury Lamp  | 1,850       | Over 50,000      | AC 110~ 250V      | 310 x 268 x 115               | 6.2Kg        | 3200K       |
| SL-F1B4C1-M   | Street Light (45W type) DC Input | 45                    | 450W Mercury Lamp  | 1,850       | Over 40,000      | DC 12V            | 310 x 268 x 115               | 6.2Kg        | 3200K       |
| 1 SL-B1B3C1-M | Street Light (55W Type White)    | 55                    | 600W Mercury Lamp  | 2500        | Over 50,000      | AC 110 ~ 250V     | 310 x 268 x 210               | 6.4kg        | 5300 K      |
| 1 SL-B1C3C1-M | Street Light (55W Type Yellow)   | 55                    | 600W Mercury Lamp  | 2500        | Over 50,000      | AC 110 ~ 250V     | 310 x 268 x 210               | 6.4kg        | 3050 K      |
| 2 SL-A1C3C1-M | Street Light (125W type)         | 125                   | 1.5KW Mercury Lamp | 5900        | Over 40,000      | AC 85~ 264V       | 427 x 268 x 115               | 10kg         | 5600 K      |
| SL-D1C3C1-M   | Street Light (150W type)         | 150                   | 1.5KW Mercury Lamp | 7,200       | Over 40,000      | AC 85~ 264V       | 427 x 268 x 115               | 10kg         | 5600 K      |
| SL-H1C3C1-M   | Street Light (180W type)         | 180                   | 1.8KW Mercury Lamp | 12,670      | Over 40,000      | AC 85~ 264V       | 607 x 268 x 115               | 13kg         | 5600 K      |
| SL-C1C3C1-M   | Street Light (200W type)         | 200                   | 2KW Mercury Lamp   | 14,250      | Over 40,000      | AC 85~ 264V       | 607 x 268 x 115               | 13kg         | 5600 K      |

\*M indicates pending UL approval

## Solar Power Kit



Prepare yourself against a disaster with the long lasting Solar Power Kit.

Equipped with two LED work lights, a radio, DC output terminals and USB port to charge up a mobile phone. A chargeable battery using an AC adapter attached.

Increased mobility with the cart attachment.  
Output terminal: 3V, 6V, 12V x 2, USB, cigarette lighter socket (12V).  
Attachment: Two LED work lights, radio, and AC adapter.

| Model Number | Description     | Power Consumption (W) | Battery Capacity | Lamp Life (Hrs.) | Operating Voltage  | Dimensions (L) x (W) x (H) mm | Gross Weight | Color Temp. |
|--------------|-----------------|-----------------------|------------------|------------------|--------------------|-------------------------------|--------------|-------------|
| KIT-A4D4Z1   | Solar Power Kit | 10                    | 12V / 7 Ah       | 40,000           | 3V, 6V, 12Vx2, 12V | 480 x 230 x 390               | 9.2 kg       | 8000 K      |

## Solar Security Light



The Solar Security Light includes adjustable sensitivity and lighting schedule. A better respondent to incremental movements and to your desired time interval. Energy-saving security system includes a powerful tag with solar power and LED lighting!

Adjustable photo response, sensor range, and lighting time. The strong team of solar power generation and LED lighting system secures your desired area.

| Model Number | Description                    | Power Consumption (W) | Approx. Equivalent | Lumens (lm) | Lamp Life (Hrs.) | Operating Voltage | Dimensions (L) x (W) x (H) mm  | Gross Weight (Package) | Color Temp. |
|--------------|--------------------------------|-----------------------|--------------------|-------------|------------------|-------------------|--------------------------------|------------------------|-------------|
| SE-A1D4C1    | Solar Security Light (1 Lamp)  | 1.1 Solar Panel       | Security Light     |             | 40,000           | DC 12V internal   | 225 x 150 x 285 (Package size) | 1kg                    | 8000K       |
| SE-A2D4C1    | Solar Security Light (2 Lamps) | 1.1 Solar Panel       | Security Light     |             | 40,000           | DC 12V internal   | 295 x 155 x 290 (Package size) | 1.5kg                  | 8000 K      |

## Factory Light



Eco-friendly Factory Light was added value for the manufacturing sites concerned with maintenance efficiency and cost saving. Lower power consumption by one-third of traditional mercury lighting with equivalent lumen output is provided by EnergyMatrix.

Quality lighting is provided by the excellent features of the Factory Light. Consistent luminance by steady DC power emission eliminated light flickering and better detection of errors.



| Model Number | Description   | Power Consumption (W) | Approx. Equivalent | Lumens (lm) | Lamp Life (Hrs.) | Operating Voltage | Dimensions (L) x (W) x (H) mm | Gross Weight (Package) | Color Temp.   |
|--------------|---------------|-----------------------|--------------------|-------------|------------------|-------------------|-------------------------------|------------------------|---------------|
| FL-B1A3B2    | Factory Light | 100                   |                    | 7,400       | Over 40,000      | AC 90V~260V       | Φ500 X 510                    | 5.5 Kg                 | 3900 ~ 6000 K |
| FL-B1A3B3    | Factory Light | 100                   |                    | 7,400       | Over 40,000      | AC 90V~260V       | Φ420 X 510                    | 5.5 Kg                 | 3900 ~ 6000 K |

## LED Bar Light

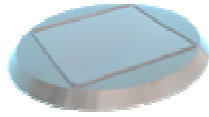
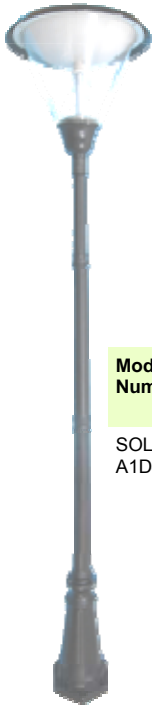


Unique, compact design to illuminate desirable areas.

Superior lighting in smaller areas can be achieved with the LED Bar light. Unique LED lights set up an efficient lighting which lowers power consumption and maintenance costs.

| Model Number | Description                              | Power Consumption (W) | Incandes. Equivalent | Lumens (lm) | Lamp Life (Hrs.) | Operating Voltage | Dimensions (D x MOL) mm | Gross Weight | Color Temp. |
|--------------|--|-----------------------|----------------------|-------------|------------------|-------------------|-------------------------|--------------|-------------|
| SH-A1A3D1    | Indirect Lighting Bar (8W, Type White)   | 8                     |                      | 320         | 20,000           | AC 120V           | 300 x 28 x 19           | 0.35kg       | 5600 K      |
| SH-A1B3D1    | Indirect Lighting Bar (8W, Type Yellow)  | 8                     |                      | 270         | 20,000           | AC 120V           | 300 x 28 x 19           | 0.35kg       | 3200 K      |
| SH-B1A3D1    | Indirect Lighting Bar (15W, Type White)  | 15                    |                      | 470         | 20,000           | AC 120V           | 609 x 28 x 19           | 0.58kg       | 5600 K      |
| SH-B1B3D1    | Indirect Lighting Bar (15W, Type Yellow) | 15                    |                      | 380         | 20,000           | AC 120V           | 609 x 28 x 19           | 0.58kg       | 3200 K      |

## Solar Garden LED Light



Eliminate cumbersome power lines by switching to solar LED lighting. The Solar Garden LED Light operates at a maximum of 6 hours when fully charged. Automated lighting at dusk. The lightweight body made of resin, and aluminum enables easy establishment.

The Solar garden light will be the perfect eco-friendly finish to your garden work! To respond to your landscaping needs of flexibility, the solar power generating system requires no wiring.

| Model Number | Description        | Power Consumption (W) | Approx. Equivalent | Lumens (lm) | Lamp Life (Hrs.)       | Operating Voltage | Dimensions (meters) | Gross Weight | Color Temp. |
|--------------|--------------------|-----------------------|--------------------|-------------|------------------------|-------------------|---------------------|--------------|-------------|
| SOL-A1D4C1   | Solar Garden Light | 15                    |                    |             | Up to 6 on full-charge | DC 12V internal   | 2.2                 | 10kg         | 8000 K      |



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