

# EVERLIGHT ELECTRONICS CO., LTD.

# **Everlight Solar MR16-B Series**

#### Features

- Light source: Everlight Hipower LED
- No heat, NO UV or IR light radiation
- Full range of colors
- Uniformity illumination
- Beam of light is stable
- Optimized Heat fins with the artistic design
- Fitness for GX5.3 socket
- Long Lifetime
- Plug & Play
- Indoor Use Only

#### **Typical Applications**

- Landscape Accent/Spot lighting
- Architectural Lighting
- Display Case Accent
- Flood Lighting
- Day and Night Light
- Mood Lighting
- Amusement Park Accent
- Reading Light
- Biological Lighting

#### **Materials**

Items	Description	
Optical parts	Acrylic materials	
Heatsink	Aluminum, DLC coating MCPCB	
LED	EHP-AX08LS-DA series   FR4 and circuit components   SAC305 Pb-Free solder wire	
Circuit parts		
Solder Wire		
Wire	Silicone wrapping wire	

Everlight Electronics Co., Ltd. Device No. : DSE-SL1-001 http://www.everlight.com Prepared date: May-14-2008

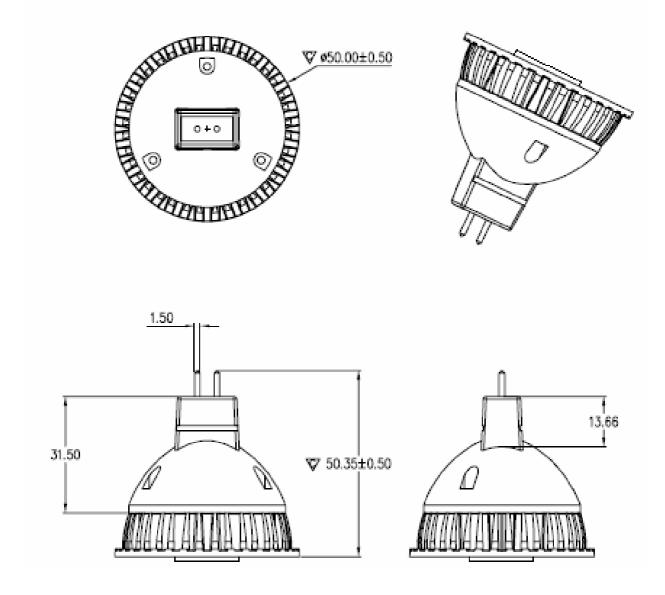
# SL-16B/012AC/A/P05



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#### **Product Dimensions**



Notes: 1. Dimensions are in millimeters

- 2. Tolerances unless dimensions ±0.5mm
- 3. The pin type of the light module is fitting for GX5.3 type

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### **Product Specification**

Parameter	Description		
Light Source	Everlight Hipower LED		
Optic	Optical Lens and Reflector		
Beam Angle	15°, 25°,40°(Spot Tech)		
Beam Color	warm white (2850~3250K), white (5650~7000K), cool white (7000~9000K)		
Total Length	50.35 mm (NO including Lens)*		
Housing	Molded aluminum, 50 mm diameter*		
Pin Type	2 pins, GX5.3 standard.		

## Electro-Optical-Thermal Characteristics (*T<sub>Ambient</sub>=25<sup>o</sup>C*) \*\*

Parameter	Symbol	Min	Тур	Мах	Unit
Input Voltage (AC)	VAC	8	12	14	V
LED Forward Current	IF	700	780	860	mA
Optimized Body Temperature	Т <sub>ь</sub>	62	65	68	°C
Power Consumption	W	3.5	4	4.6	Watt
**Operating Temperature	T <sub>opr</sub>	-20	25	+40	°C
Storage Temperature	<b>T</b> <sub>stg</sub>	-40	25	+70	°C

\* Tolerances unless dimensions ±0.5mm

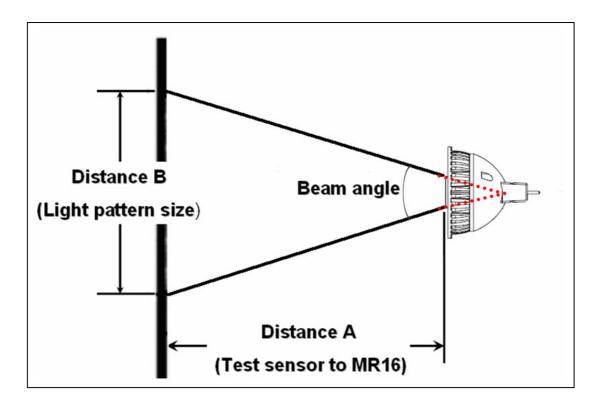
\*\*With an increase in temperature, a reduction in lifetime can be observed. We suggest using solar MR16 should be in the good natural convection.

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#### Everlight Solar Series Illumination Characteristics Measurement definition



Illumination Characteristics (beam angle 15°, 25°, 40°)

Beam angle (degree)	Distance (cm)		Typical MR16 Illumination (Lux)*			
	Α	B**	Cool White	White	Warm White	
15	30	9	7083	8370	5157	
	100	26	787	930	573	
25	30	15	4185	4950	3051	
	100	45	465	550	339	
40	30	26	1530	1800	1116	
	100	77	170	200	124	

\* The values are measured by the TES 1336A lux meter, and they are affected by the ambient temperature. So they are only for reference.

\*\*The value is defined as half of max flux (lux), and it is only for reference.

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#### **Everlight Solar MR16 Series Illumination Spec\***

Solar MR1 6 Color Option	Wavelength or CCT(nm/K)	Typical Illuminance (beam angle 15°) @ 1m (Lux)	Typical Illuminance (beam angle 25°) @ 1m (Lux)	Typical Illuminance (beam angle 40°) @ 1m (Lux)
Cool White	7000~9000K	787	465	170
White	5650~7000K	930	550	200
Warm White	2850~3250K	573	339	124

\*The values are measured by the TES 1336A lux meter, and they are affected by the ambient temperature. So they are only for reference.

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### **Tray Label explanation**

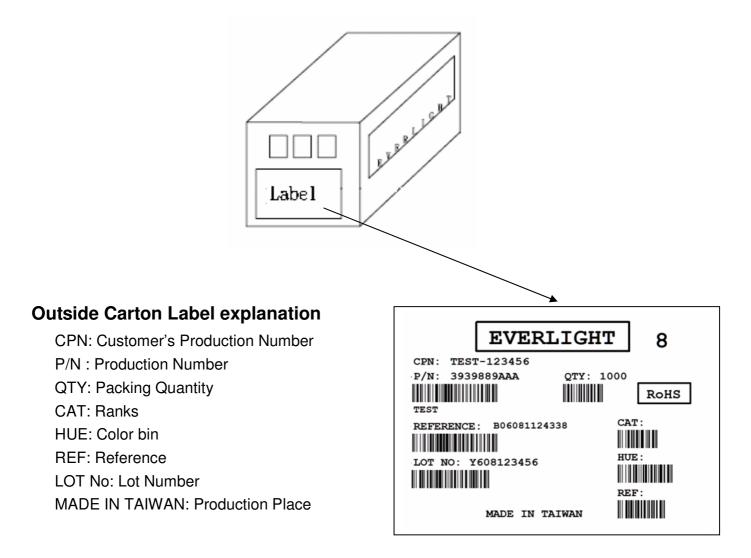
- CPN: Customer's Production Number
- P/N : Production Number
- QTY: Packing Quantity
- CAT: Ranks
- HUE: Color bin
- **REF:** Reference
- LOT No: Lot Number
- MADE IN TAIWAN: Production Place

EVERLIGHT 7	8
CPN: 480056996 P/N: 3002048604 204UWC/S400-A5 QTY: 2000 CAT: Fl HUE: B5-1 REF: 12 LOT NO: EL404711/D5 Reference: B5030402154 MADE IN TAIWAN	



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#### **Outside Carton**



#### **Packing Quantity**

6 PCS / Per Box

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## **Application Notes**

Solar MR16 is not only to replace halogen MR16 but to develop as a humanized product. We utilize optical, electronic and thermal technology to develop for driving high power solid state lighting devices. Users don't need to worry about that problem but just enjoy the plug & play function. In order to use easily, we would suggest some accessories, follow as the list:

1. GX 5.3 connector;



- 2. Power supplier: (AC input :100-240V,50/60Hz ,AC output: 12V ,Load: 50W Min)
  - a. AC-AC Transformer;
  - b. RCC Adaptor;
  - c. RCC Transformer;



#### 3. Good thermal convection:

- a. The more good thermal convection you keep, the more life time & light output you will get.
- b. Be sure to keep the temperature(The point A, see below figure) under the 70°C. If temperature of A point over 70°C, the LED MR16 may be damaged.

