



傳奇科技企業有限公司 MAGIC-TEK TECHNOLOGY CO., LTD.

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10F, NO. 110, Shianfu ROAD., TAOYUAN CITY 330, TAIWAN, R.O.C.

TEL :+886-3-3369250 FAX :+886-3-3369252 WEB : www.magictek.com.tw

規 格 書 Specification



型 號 Model : **MR16-AC012-5W**

REV : 1.1

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Features

- Light source: 3 pcs of 1W 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
- 12V AC with reverse polarity protection lighting systems
- Compatible with traditional halogen MR16
- Plug & Play

Typical Applications

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

Materials

Items	Description
Optical parts	Acrylic materials
Heatsink	Aluminum, DLC coating MCPCB
LED	3 pcs of 1W High Power LED
Circuit parts	FR4 and circuit components
Solder Wire	SAC305 Pb-Free solder wire
Wire	Heat-resistant wire



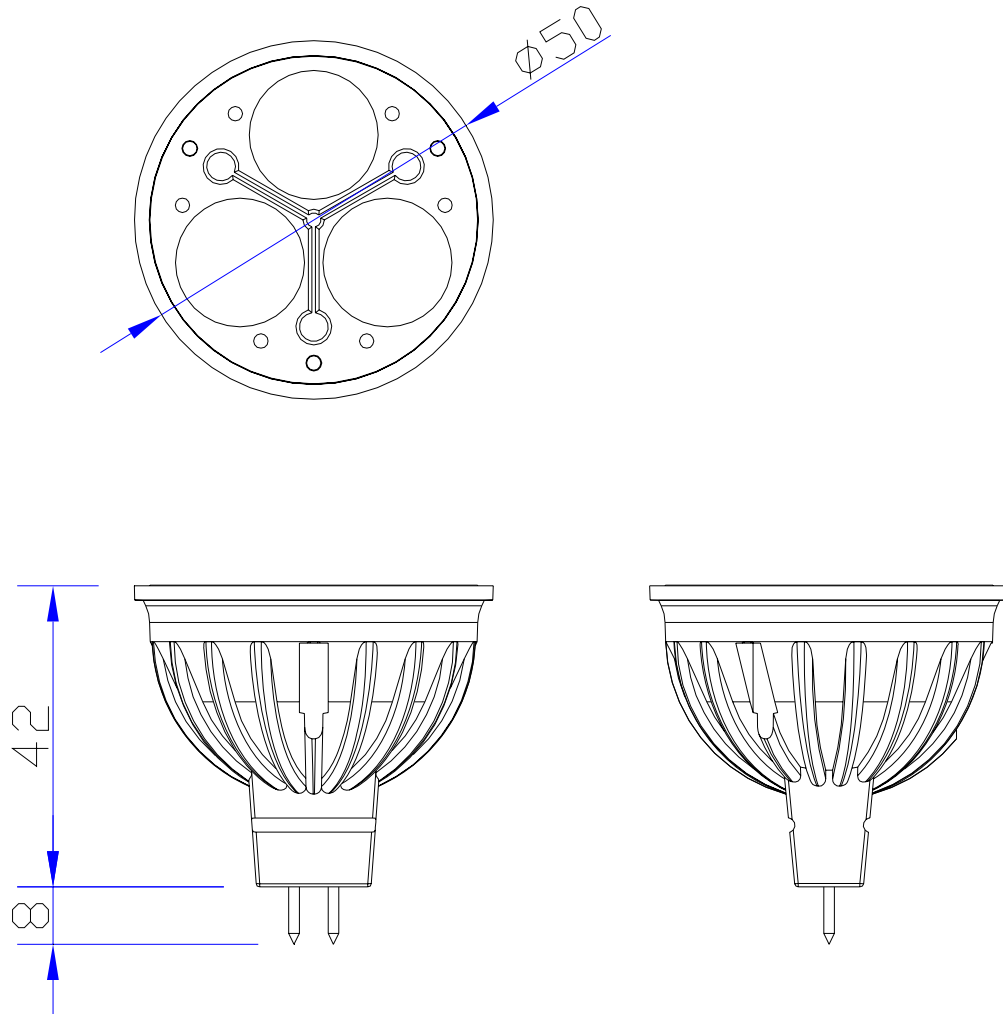
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PRODUCT Dimensions (Unit : mm)



Notes:1.Dimensions are in millimeters

2. Tolerances unless dimensions ± 1.0 mm

3. The pin type of the light module is fitting for GU5.3 type



Product Specification

Parameter	Description
Light Source (warm white)	3 pcs of 1W Hipower LED (70 – 80 lm)
Light Source (White)	3 pcs of 1W Hipower LED(80 – 90 lm)
Optic	Optical Lens and Reflector
Beam Angle	15°, 25°(Spot Tech)
Beam Color	warm white (2800~3200K),
Beam Color	White (5650~6300K)
Total Length	50 mm(NO including Lens)*
Housing	Aluminum face plate & Ceramic Housing
Pin Type	2pins,GU5.3 standard.

Electro-Optical-Thermal Characteristics($T_{Ambient}= 25^{\circ}\text{C}$)**

Parameter	Symbol	Min	Typ	Max	Unit
Input Voltage(AC)	VAC	7	12	15	V
LED Forward Current	IF	333	350	368	mA
Optimized Body Temperature(1W LEDx3)	T_b	54	58	62	$^{\circ}\text{C}$
Power Consumption	W	4.2	4.4	4.7	Watt
*Operating Temperature	T_{opr}	-40	25	+30	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40	25	+100	$^{\circ}\text{C}$

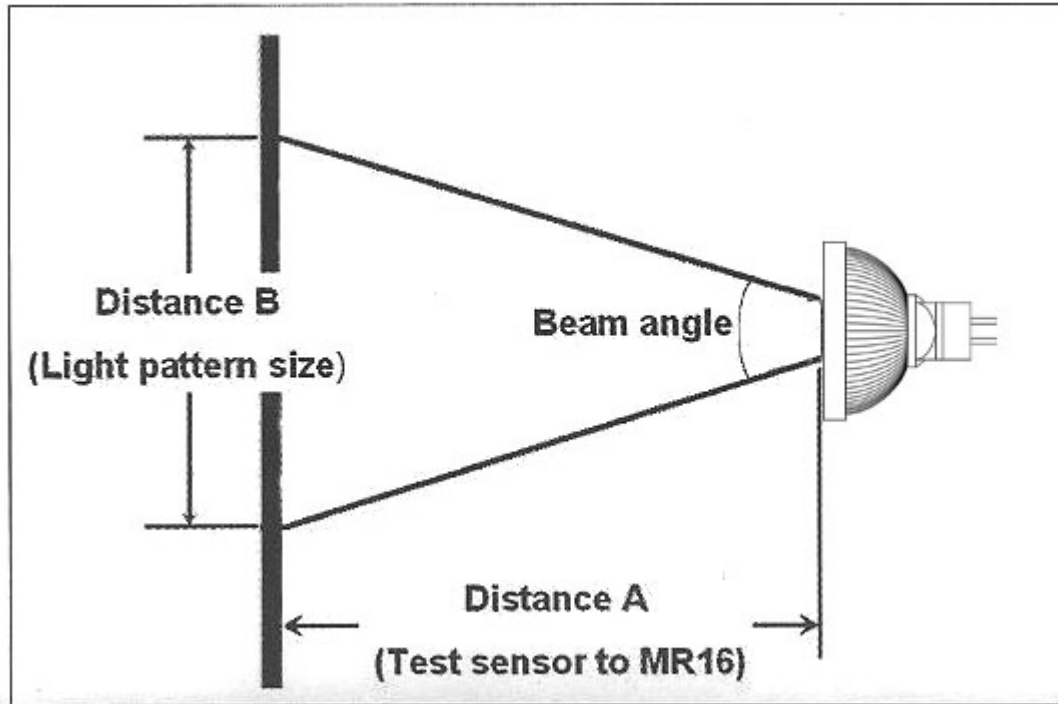
*Tolerances unless dimensions $\pm 1.0\text{mm}$

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



MR16 Series Illumination Characteristics

Measurement definition



MR16 Series Illumination Spec

MR16 Color Option	Wavelength or CCT (nm/k)	*Typical Illuminance (beam angle 15°) @1m (Lux)	*Typical Illuminance (beam angle 25°) @1m (Lux)
White	5650~6300K	1625	745
Warm White	2800~3200K	820	410

*The values are measured after keeping lighting for 8 hours in the $T_a=25^{\circ}\text{C}$, and they are measured by the TES 1336A lux meter. The values will be affected by the ambient temperature.



MR16 Series Reliability Tests Item

RELIABILITY TESTS

No	Test Item	Test Conditions	Duration
1.	Ambient Life Test	Ta=25°C, VAC=12V	168 hrs
2.	High Temp/High Humidity Life Test	Ta=30°C, VAC=12V, 95%RH	168 hrs
3.	High Temp. Life test	Ta=55°C, VAC=12V	168 hrs
4.	Low Temp. Life test	Ta=-40°C, VAC=12V	168 hrs
5.	Wet High Temperature Storage Life	100°C/85%RH, non-operating	168 hrs

Quality and Reliability

1. Drop test : The package of 12 bulbs in a box will withstand the following drop height.

All Surfaces	76cm
Surface 3 edge/angle	76cm
Excepting Surface 3 edge/angle	76cm

2. Power On/Off life test : 8,000 times continuous power on/off operation

3. Warranty : 20,000 hours (ambient temperature 25°C)

Shipping Package

1. Inner Color Box Dimension : 52 (W) x 52 (D) x 52 (H) mm
2. Box Dimension : (12 pcs of Inner Color Box) : 164 (W) x 110 (D) x 112 (H) mm
3. Carton Dimension (20 box with a carton) : 564 (W) x 336 (D) x 234 (H) mm :

The subject changes without any notice

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