Solid-State Lighting Series

3W MR16 Datasheet

Edison 3W MR16 uses high brightness LED engine which gives a super illuminance.
It is ideal for the use in tracks, rails, and pendants in exhibit, architectural and residential applications. Furthermore, the multi-selection on various colors offers a great experience in decorative and mood lighting applications.
The lamp features standard MR16 bi-pin, which offers an instant replacement in MR16 type fixtures. It can be used in hard-to-reach locations to prevent a regular maintenance needs.

Features :

- Solid State Lighting Technology
- Superior Quality Light
- Reduce CO_2 Emission
- Energy Saving (3W)
- Ecologically Friendly

Lighting Design Manufacturing Service

Table of Contents

Nomenclature

Table 1 . 3W MR16 Nomenclature.

E	L16	-	3	3	W	0	-	A	5	0	5
X1	X2		X3	X4	X5	X6		X7	X8	X9	X10

X1 LED Item		X2 SSL Series		X3 Wattage		X4 Angle		X5 Color		X6~X10 Serial NO.
Code	Type	Code	Type	Code	Type	Code	Type	Code	Type	
E	EDISON	L16	MR16	3	3W	3	38 Deg	W	Cool White	
								H	Neutral White	
								X	Warm White	

Dimensions

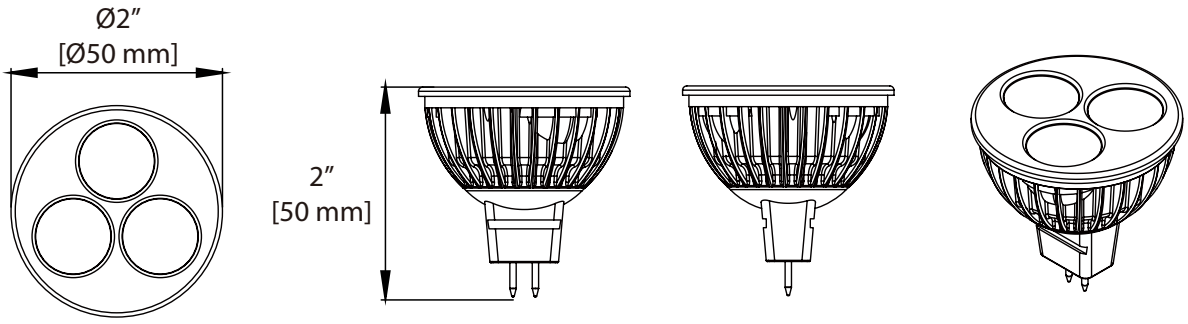


Figure 1 . 3W MR16 dimensions.

Tolerance: ± 1/8" [2.5 mm]

Absolute Maximum Ratings

The following table shows electrical characteristics and operating temperature of 3W MR16.

Table 2 . 3W MR16 absolute maximum rating.

Parameter	Symbol	Rating	Units
Plastic Housing Temperature	T_c	80	°C
Operating Temperature	T_{opr}	-20 ~ 40	°C
Storage Temperature	T_{stg}	-40 ~ 60	°C
AC/DC Input Voltage	V	12	V
Equilibrium Temperature	T_{eq}	60	°C

Specifications

The following describes the choices of color temperature, angles, and CRI of 3W MR16 for different demand.

Table 3 . 3W MR16 specifications.

Parameter	Rating	Units
Power Consumption	3	W
Field Angle	38 / 60	Degree
Color Temperature	3000/4000/6000	K
CRI	80/75/70	/
Weight	40±5	g

Note : Power consumption has 5% tolerance.

Illuminance

The table presents the illuminance level with respect to different color temperature.

Table 4. 3W MR16 Illuminance for different colors.

Power Consumption(W)	Field Angle	Color	Part Number	Lux @1m (Typ.)	Typ. Flux (lm)
3W	38°±5°	Cool White	EL16-33Wx-A5xx	940	230
		Netural White	EL16-33Hx-A5xx	710	190
		Warm White	EL16-33Xx-A5xx	660	165
	60°±5°	Cool White	EL16-36Wx-A5xx	620	230
		Netural White	EL16-36Hx-A5xx	515	190
		Warm White	EL16-36Xx-A5xx	445	165

Light Pattern

The diagram presents the light patterns with respect to different color temperature and field angle.

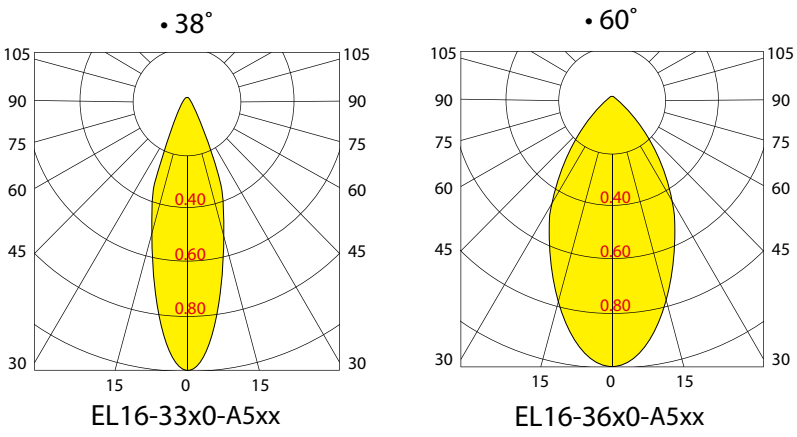


Figure 2 . 3W MR16 light patterns.

Application Notes

Edison 3W MR16 is compatible for traditional MR16 and more effective. Meanwhile it can be easily installed in lighting fixture.

Figure 3 . 3W MR16 application picture.

Environmentally Friendly

With the increasing demand for energy and the effect on global warming, Edison Opto plays a role in preserving the forest by reducing energy consumption, and CO_2 emission one step at a time.

Replacing traditional halogen lamp with Ediosn Opto 3W MR16 Spotlight, one can help in reducing global warming by 107 kg of CO_2 annually.

3W MR16 VS 35W Halogen

Power Reduction by 91%	=	Reduction of CO_2 emission by 107 kg	=	Saves 8 trees a year

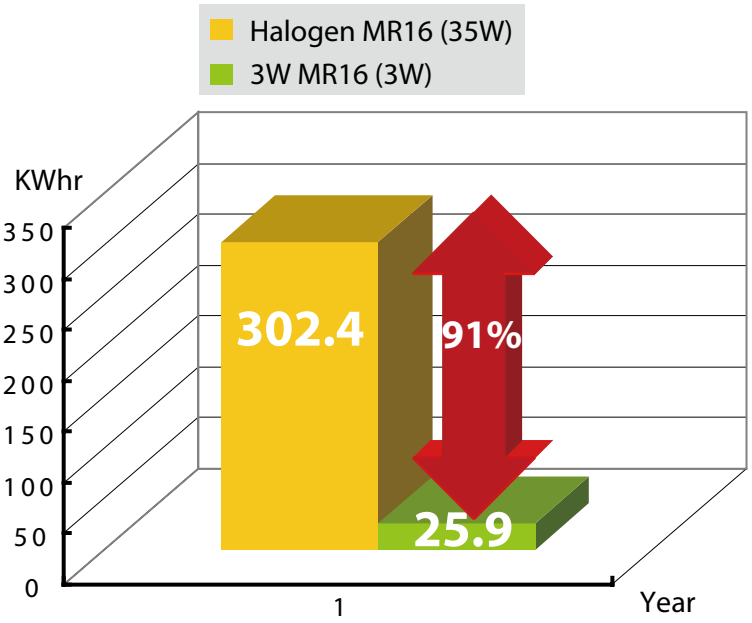
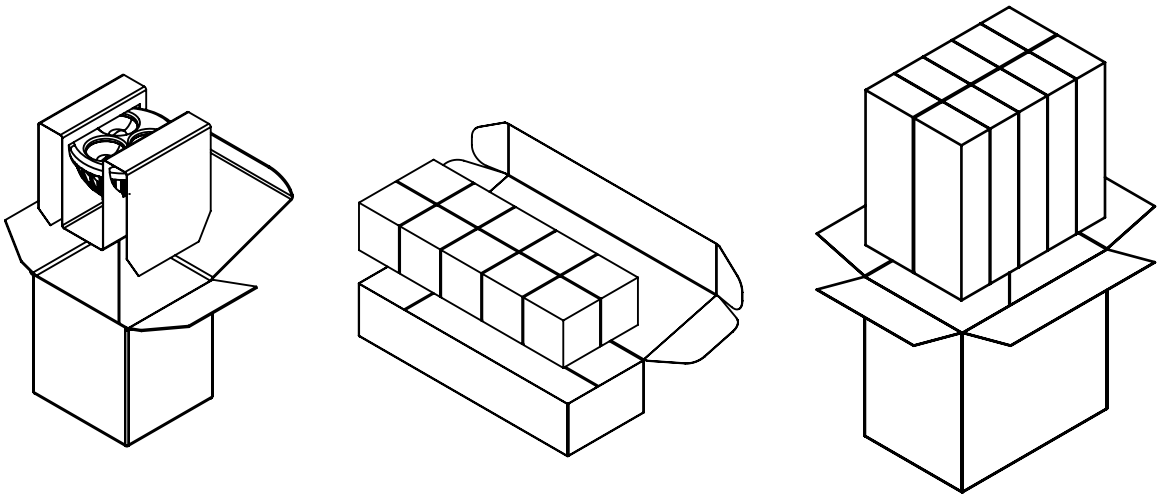


Figure 4 . 3W MR16 Environmentally Friendly.

Note : Calculation based on 24 hours of daily operation.

Package Information



1pc / Pack　　10 Packs / Box　　10 Boxes / Carton

Figure 5 . 3W MR16 Package.

Notes:
1. Pack Dimensions : 60mm(length)*55mm(width)*65mm(height)
2. Box Dimensions : 330mm(length)*120mm(width)*70mm(height)
3. Carton Dimensions : 368mm(length)*248mm(width)*350mm(height)
4. Figures not shown to scale.

List of the modifications

Table 5 . List of the modifications for 3W MR16.

Versions	Modification	Date
1	1. Establish a Datasheet.	2009.03.10
2	1. Update the Table of the Illuminance and Field Angles. 2. Update the Applications Notes.	2009.04.10
3	1. Update the Lux. 2. Add a Figure for Nomenclature. 3. Add a table for Transformers. 4. Add Economical and Environmentally Friendly.	2009.11.01
4	1. Update the product nomenclature. 2. Update the Table of the Illuminance and Field Angles.	2011.01.15