# **U-TEL**<sup>TM</sup> Low Voltage 12V MR16 LED Lamp (Dimmable / Non-dimmable)

# **DATA SHEET**



## LED MR16 (low voltage)

(direct replacement for halogen MR16 spotlights)

Model Base Voltage Wattage CCT CRI Beam Angle LED chip Dimmable Dimension MX-801 GU5.3 AC/DC 12V 3W/4W(25W equal), 6W/7W(35W equal), 9W/10W(50W equal) 2700K / 3000K / 5000K / 6000K >80 25° ~ 120° Cree / Nichia Non-dimmable / Dimmable 50 mm dia. X 45 mm

### Features

- Up to 80% energy saving compared to traditional halogen MR16 spotlights
- Long lifetime of 30,000 hours with 2 years warranty
- Same size as standard halogen MR16 bulb, fit into all MR16 fixture with GU5.3 lamp holder
- Wide beam angle for different application
- Compatible with most AC electronic transformer
- Dimmable with recommended dimmers
- Aluminum die-casting body with excellent heat conduction ability and shock resistant
- Radiation free, no UV nor IR
- RoHS compliant, environmental friendly

# Applications

• All indoor lighting purpose, but not used in high temperature, moisture area and closed fixtures

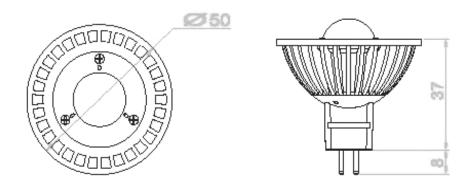
# Equivalent

3~4W LED MR16 = 25W halogen MR16 5~7W LED MR16 = 35W halogen MR16 8~10W LED MR16 = 50W halogen MR16

#### **U-TEL TECHNOLOGY CO., LTD.**

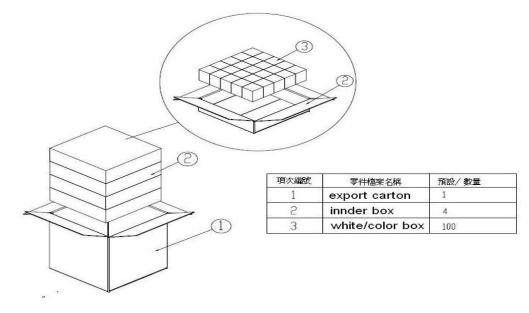
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#### **OUTLINE DIMENSION**



#### PACKAGING

- \* 1 piece of LED lamp is packed into a small paper box in the measurements of 5.5 x 5.5 x 6.7 cm.
- \* 25 pieces of small paper boxes are packed into a paper inner carton in the measurements of 29 x 29 x 8 cm
- \* 4 inner boxes are packed into a export carton in the measurements of 31 x 30 x 36 cm (1.1' Cuft.)
- % The weight of a small paper box with 1 piece of LED lamp is 70 g.
- % The gross weight of a export carton with 100 piece of LED lamp is 8 Kgs.



# Technical Specifications and Ordering Part Number

	Specification of LED chip				Specification of LED lamp					
Part Number	Brand/Model	Color Temp.	Lumens	CRI	Volts	Watts	Base	Angle	Efficacy	Dimmable
		(CCT)	<b>(@Tj 25</b> °C)						<b>(Im/w</b> )	
9MX-8014-WNB	Cree XB-D	2700K	220	80	AC/DC 12V	4	GU5.3	<b>20</b> °	41	No
9MX-8014-WMB	Cree XB-D	2700K	220	80	AC/DC 12V	4	GU5.3	<b>45</b> °	41	No
9MX-8014-WLB	Cree XB-D	2700K	220	80	AC/DC 12V	4	GU5.3	<b>60</b> °	41	No
9MX-8014-WWB	Cree XB-D	2700K	220	80	AC/DC 12V	4	GU5.3	110°	41	No
9MX-8014-CNB	Cree XB-D	5000K	280	75	AC/DC 12V	4	GU5.3	<b>20</b> °	43	No
9MX-8014-CMB	Cree XB-D	5000K	280	75	AC/DC 12V	4	GU5.3	<b>45</b> °	43	No
9MX-8014-CLB	Cree XB-D	5000K	280	75	AC/DC 12V	4	GU5.3	<b>60</b> °	43	No
9MX-8014-CWB	Cree XB-D	5000K	280	75	AC/DC 12V	4	GU5.3	110°	43	No
9MX-8016-WLN	Nichia 757	2700K	520	80	AC/DC 12V	6	GU5.3	<b>60</b> °	63	No
9MX-8016-WWN	Nichia 757	2700K	520	80	AC/DC 12V	6	GU5.3	110°	63	No
9MX-8016-CLN	Nichia 757	5000K	580	80	AC/DC 12V	6	GU5.3	<b>60</b> °	70	No
9MX-8016-CWN	Nichia 757	5000K	580	80	AC/DC 12V	6	GU5.3	110°	70	No
9MX-8017-WLN	Nichia 757	2700K	520	80	AC/DC 12V	7	GU5.3	<b>60</b> °	63	YES
9MX-8017-WWN	Nichia 757	2700K	520	80	AC/DC 12V	7	GU5.3	<b>110°</b>	63	YES
9MX-8017-CLN	Nichia 757	5000K	580	80	AC/DC 12V	7	GU5.3	<b>60</b> °	70	YES
9MX-8017-CWN	Nichia 757	5000K	580	80	AC/DC 12V	7	GU5.3	<b>110°</b>	70	YES
9MX-8018-WN4	Cree CXA1304	2700K	580	80	AC 12V	8	GU5.3	<b>25</b> °	54	YES
9MX-8018-WM4	Cree CXA1304	2700K	580	80	AC 12V	8	GU5.3	<b>35</b> °	54	YES
9MX-8018-WL4	Cree CXA1304	2700K	580	80	AC 12V	8	GU5.3	<b>60</b> °	54	YES
9MX-8018-WW4	Cree CXA1304	2700K	580	80	AC 12V	8	GU5.3	<b>110°</b>	54	YES
9MX-8018-CN4	Cree CXA1304	5000K	720	75	AC 12V	8	GU5.3	<b>25</b> °	ТВА	YES
9MX-8018-CM4	Cree CXA1304	5000K	720	75	AC 12V	8	GU5.3	35°	ТВА	YES
9MX-8018-CL4	Cree CXA1304	5000K	720	75	AC 12V	8	GU5.3	<b>60</b> °	ТВА	YES
9MX-8018-CW4	Cree CXA1304	5000K	720	75	AC 12V	8	GU5.3	110°	ТВА	YES

Part Number	Specification of LED chip				Specification of LED lamp					
	Brand/Model	Color Temp.	Lumens	CRI	Volts	Watts	Base	Angle	Efficacy	Dimmable
		(CCT)	<b>(@Tj 25</b> °C)						<b>(Im/w</b> )	
9MX-801T-WMB	Cree XB-D	2700K	680	80	AC/DC 12V	10	GU5.3	35°	51	No
9MX-801T-WLB	Cree XB-D	2700K	680	80	AC/DC 12V	10	GU5.3	<b>60</b> °	51	No
9MX-801T-WWB	Cree XB-D	2700K	680	80	AC/DC 12V	10	GU5.3	110°	51	No
9MX-801T-CMB	Cree XB-D	5000K	890	75	AC/DC 12V	10	GU5.3	35°	62	No
9MX-801T-CLB	Cree XB-D	5000K	890	75	AC/DC 12V	10	GU5.3	<b>60</b> °	62	No
9MX-801T-CWB	Cree XB-D	5000K	890	75	AC/DC 12V	10	GU5.3	110°	62	No
9MX-8019-WNM	Cree MT-G2	3000K	900	80	AC 12V	9	GU5.3	<b>38</b> °	65	YES
9MX-8019-WLM	Cree MT-G2	3000K	900	80	AC 12V	9	GU5.3	<b>65</b> °	65	YES
9MX-8019-WWM	Cree MT-G2	3000K	900	80	AC 12V	9	GU5.3	115°	65	YES
9MX-8019-CNM	Cree MT-G2	5000K	1100	75	AC 12V	9	GU5.3	<b>38</b> °	87	YES
9MX-8019-CLM	Cree MT-G2	5000K	1100	75	AC 12V	9	GU5.3	<b>65</b> °	87	YES
9MX-8019-CWM	Cree MT-G2	5000K	1100	75	AC 12V	9	GU5.3	115°	87	YES
9MX-801T-WNM	Cree MT-G2	3000K	900	80	AC/DC 12V	10	GU5.3	38°	65	No
9MX-801T-WLM	Cree MT-G2	3000K	900	80	AC/DC 12V	10	GU5.3	65°	65	No
9MX-801T-WWM	Cree MT-G2	3000K	900	80	AC/DC 12V	10	GU5.3	115°	65	No
9MX-801T-CNM	Cree MT-G2	5000K	1100	75	AC/DC 12V	10	GU5.3	<b>38</b> °	87	No
9MX-801T-CLM	Cree MT-G2	5000K	1100	75	AC/DC 12V	10	GU5.3	65°	87	No
9MX-801T-CWM	Cree MT-G2	5000K	1100	75	AC/DC 12V	10	GU5.3	115°	87	No

• Specifications of LED chips listed above are provided by the LED manufacturer.

- Lumens of LED chips are calculated for reference only.
- Lamp efficacy is measured according to LM79 standards.
- Higher CRI or other CCT LED are available for some items. Please consult with your sales representative.
- Dimmable lamp is mainly designed to work with Trailing Edge dimmers and AC electronic transformer.

Dimming performance will vary with different dimmer type and transformer. Please refer to our recommended dimmer list.

• Product specifications are subject to change without notice.

#### **Application Notes**

- User should be cautioned not to stare at the light. The bright light can damage eyes.
- This lamp works only on AC/DC 12V transformer, do not use on 24V or 110/220V light fixture.
- Make sure the AC transformer/DC power in use has enough or greater power than the power of the LED lamp.
- For indoor use only, not suitable for high temperature and moisture area (such as bathroom).
- Do not use in closed fixture, excessive or continuous heat built-up will drastically reduce the life of the LED lamp.
- If the LED lamp you purchase is not dimmable, not intended for dimming operations with any dimmer switch/controllers.
- If the LED lamp you purchase supports dimming function, please do the compatibility test with your existing electronic transformer and dimmer first to ensure the performance or refer to our recommended dimmer list for the best combination.
- Do not use in water.
- The applied ambient temperature must be lower than 40  $^{\circ}$ C (104  $^{\circ}$ F).

#### MR16 Compatibility issue with existing 12V halogen transformers

MR16 LED lamp require AC or DC constant voltage compatible 12V transformers to run successfully. Please be aware your existing transformers may not work as desired with LED. Please must test the compatibility first or consult with your sales representitive for the recommended transformers ! U-TEL will not accept responsibility for consumers that purchase this MR16 LED lamp that are not compatible with their existing transformers, no refunds will be offered.

#### Long-term lumen and color maintenance

LED lamps typically donot fail to emit light but will decrease in light output and cause color shift over time. The light output decrease amount and time of occuring color shift will vary with different using conditions, ie. higher ambient temp., poor fixture design..etc. To keep the LED lights working at lower temperature environment and well ventilation of fixture are the key issues to maintain better light output and color performance.

#### **Environmental Compliance**

U-TEL LED lamps are compliant to the European Union Directives on the restriction of hazardous substances in electronic equipment, namely the RoHS directive. U-TEL will not intentionally add the following restricted materials to her LED lighting products, including lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE).

#### **PRODUCT WARRANTY POLICY**

#### **Products warranty**

U-TEL warrants her LED lamp products to be free from defects in material and workmanship for a period of 24 months starting from the shipment date. During the warranty period, the product fails to operate under normal use, U-TEL will repair or replace the defective products in accordance with the terms and conditions stipulated below.

#### **Definition of Defectiveness**

 U-TEL's customers should purchase samples before placing quantity orders. The sample(s) will have to be approved by customers in written. The quality of that approved samples will be used as a quality reference in case of defective units. If returned units are considered of like quality and level of performance to the reference sample, they will not be covered by the warranty. If the customer chooses not to test / confirm samples before ordering, then defectiveness refers to those items which obviously cannot serve its purpose.

2. General definition of defectiveness after using is the LED light to become non-function (emit no light) at normal working conditions.

#### **Procedure of RMA**

- 1. Before returning the defectives, customers need to test each unit and the defective reasons must be clearly marked in the RMA form (provided BY U-TEL).
- 2. The returned product should be packed carefully to avoid damage during transport.
- 3. Customers will be responsible to arrange the defectives back to U-TEL and prepay shipping charges.
- 4. U-TEL will ship the repaired or replacement products to customers (freight prepaid by U-TEL).

#### **Exclusion from warranty**

This warranty will not cover the following situations:

- 1. If the products have been disassembled.
- 2. Damage due to the usage not in accordance with product instructions and cautions.
- 3. If the product sticker on the product has been tampered or removed.
- 4. If the products still can fully work with the light fixture/transformer tested by U-TEL.
- 5. This warranty shall not cover incidents due to per chance circumstances outside one's control, misuse, modification, acts of God, improper ventilation and damages resulting from water.