



**LED Energy Saving Lamp**  
**MADT-09LD**  
(for AR111 replacement)

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**OUTLOOK**



## APPLICATION

 This product is for direct AR111 halogen lamp replacement, which can save 5x energy, reduce CO<sub>2</sub> emission and protect our environment.


## FEATURES

-  Solid-state lighting technology
-  3 steps dimming (33%, 66%, 100%)
-  RoHS Compliant
-  Mercury free
-  Long life

## OPERATION CONDITION

Parameter	Minimum	Maximum
Input Voltage (AC)	11V	13V
Operating Temperature	-20°C	40°C
Storage Temperature	-40°C	85°C

## SPECIFICATION

 Optical

Typical stabilized (after 30 minutes warm-up) luminous flux at 25° C	220/270 Lm (Warm White/Neutral White)
Dimming	3 steps dimming (33%, 66%, 100%) by fast switching ON/OFF
Available beam angle	25/40 degree
Available color	Warm white / Cool white

Note: Warm white: 2500~3100K; Cool white:4750~10000K

**✎ Mechanical and Dimension**

Dimension	111 X 62.3 mm
Weight	182 g

**✎ Electrical**

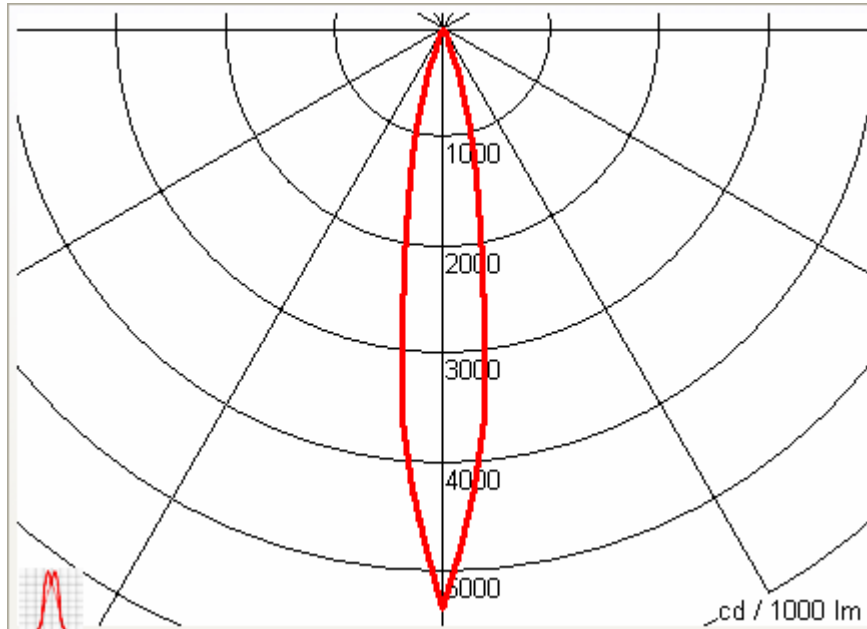
Input Voltage	12V AC, 50/60Hz
Base type	G53
Stabilized Power Consumption (typical)	9 Watt
Power Factor	0.8

Note: Product specifications are subject to change without notice

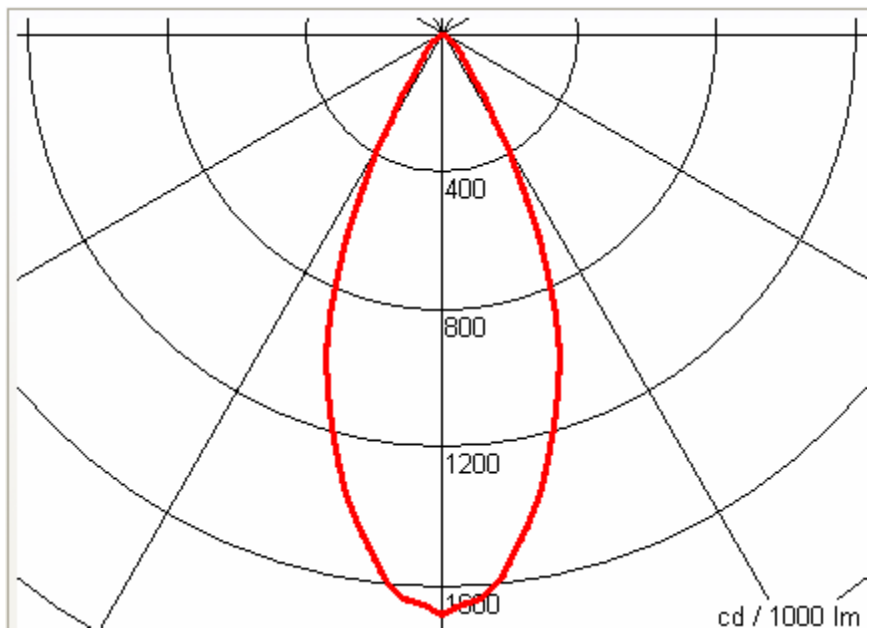


## PHOTOMETRY

➤ Typical Radiation Pattern: 25 degree



➤ Typical Radiation Pattern: 40 degree

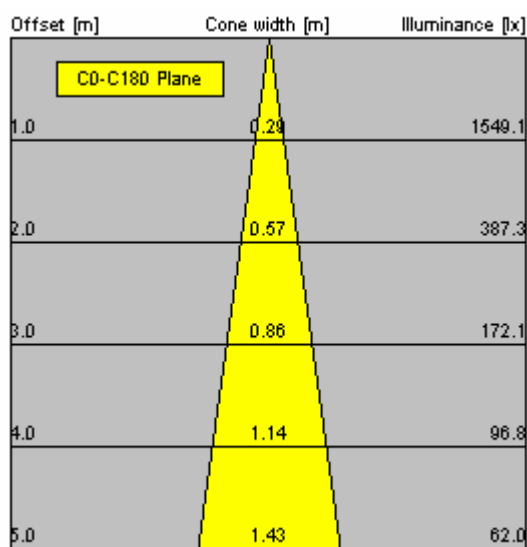




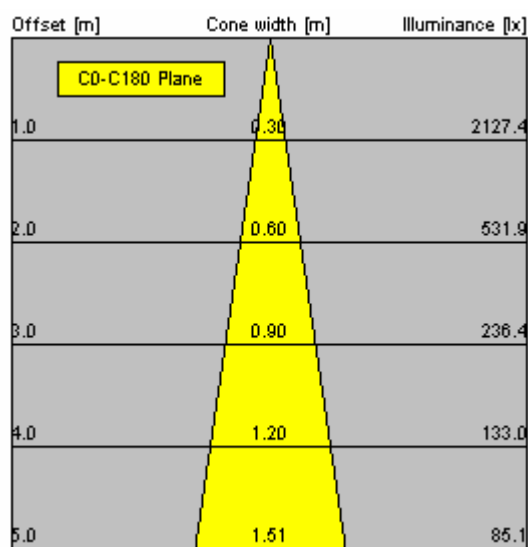
## ILLUMINANCE

Part number	Beam Angle	Color	Lux at 1m
MADT-09LDNWS	25	Warm white	1550
MADT-09LDNDS		Neutral White	2130
MADT-09LDMWS	40	Warm white	360
MADT-09LDMDS		Neutral White	470

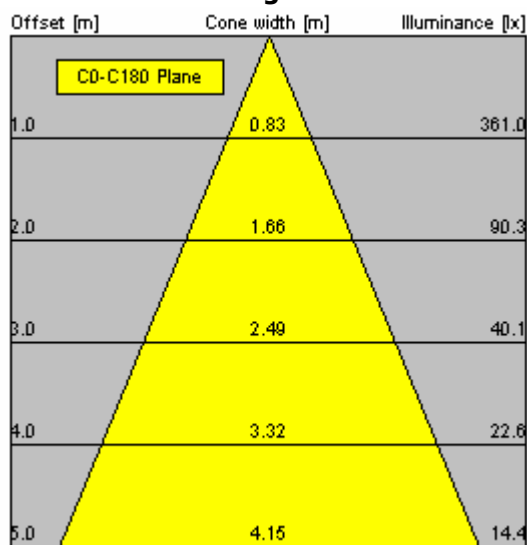
### Warm white 25 degree



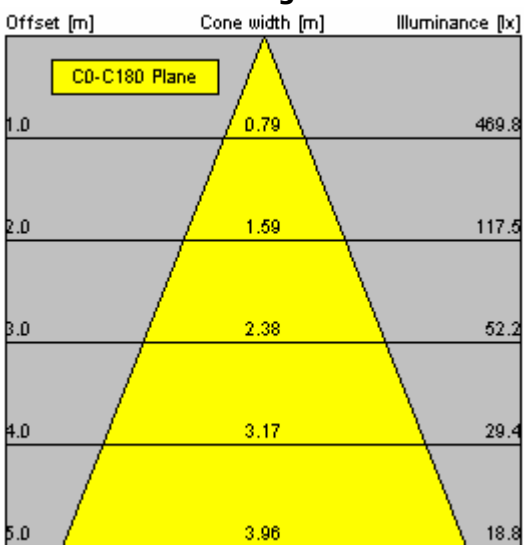
### Neutral white 25 degree



### Warm white 40 degree

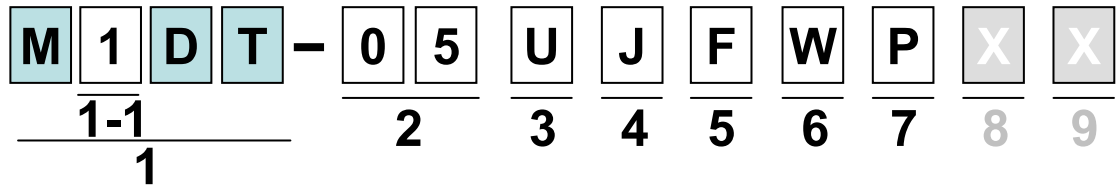


### Neutral white 40 degree





## PRODUCT CODE DEFINITION



### 1.SERIES CODE

M1DT : MP/AR Lighting

### 1-1 TYPE

- 1 : MR11
- 6 : MR16
- A : AR 111

### 2.Input Power

- 05 : 5W
- 10 : 10W
- 15 : 15W

### 3.Input voltage

- U : 100-240V AC
- E : 200-240V AC
- A : 100-120V AC
- L : 12V AC/DC

### 4. Base Type

- J : E26/25
- A : E26/24
- S : E27/27
- B : Gx5.3
- C : GU10
- D : G53

### 5.Light Pattern

- F : Flood
- S : Spot (<20 degree)
- N : Narrow(20-29 degree)
- M : Medium(30-59)
- W : Wide (60-80 degree)

### 6.COLOR

- W : Warm white
- N : Neutral white
- D : Daylight
- R : Red
- G : Green
- B : Blue

### 7.Features

- P : Premium (PFC+TRAIC Dimming)
- C : Commercial (only PFC)
- S : Step dimming
- D : TRAIC Dimming
- B : Basic (not dimmable, no PFC)

### 8.LED supplier

### 9. Binning





## INSTALLATION

- ⚡ This product is designed to replace 50W halogen AR111 lamp
- ⚡ This product is dimmable (33%, 66%, 100%) by fast switching ON/OFF.



## WARNING

- ⚡ This product is designed for indoor use only, not suitable for damp or wet locations
- ⚡ Install this product in a fully enclosed fixtures may shorten lamp life due to heat buildup.



## WARRANTY

- ⚡ Delta warrants the LED lamp to be free of manufacturing defects in material and workmanship for a period of one year from date of purchase. If the Product is determined to be defective, Delta will repair or replace the Product, or give credit, at its option.



## ENVIRONMENTAL BENEFIT

- ⚡ This product provides the same luminous flux as a typical 50W halogen AR111 lamp, which saves ~82% of the electricity cost and reduces 30g/hour CO<sub>2</sub> emission
- ⚡ Delta Group is the world's largest provider of switching power supplies and brushless fans, as well as a major source for power management solutions, components, visual displays, industrial automation, networking products, and renewable energy solutions. Established in 1971, Delta Group has sales offices worldwide and manufacturing plants in Taiwan, Thailand, China, Mexico and Europe. As a global leader in power electronics, Delta's mission is "To provide innovative energy-saving products for a better quality of life." Delta is committed to environmental protection and has implemented green, lead-free production and recycling and waste management programs for many years. DELTA's LED lamp is compliant to the European Union directives on the restriction of hazardous substances in electronic equipment, namely the RoHS directive.



## ECONOMIC BENEFIT

Energy Comparison		50W	9W
		Halogen	MADT-09LD
Power Consumption (W)		50	9
<b>Energy Saving</b>			
Power (kW)		0.05	0.009
%		100%	18%
Power Consumption Per Year	kWh, 12hr/day light on	219	39
Power Saving Per Year (kWh)			180
Money Saving Per Year (USD)	\$0.15/kWh		27
3-Year Saving (USD)			81
3-Year Maintain Fee	Lamp \$25, life 3000 hr, 12 hr ON	112	0
3-Year Total Money Saving (USD)			193
3-Year Total CO2 Emission Saving (Kg)	0.736kg CO2/kWh		397

## End of Specification

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