

# SPECIFICATION

MODEL : ALD-CMW40-1400D3

## Aluminum D Serial



LED SMC SEMICONDUCTOR

Part No. : **ALD-CMW40-1400D3**

Acknowledgment number :

Supplier name :  
LED SMC Semiconductor

## Product Acknowledgment

Customer Name :

Customer Model :

Customer Part Number :

Supply-side model :

Acknowledgment Effective Date :

Manufacturers		Client Confirm (Quality)		Client Confirm (R & D)	
Prepared		Qualified <input type="checkbox"/>		Qualified <input type="checkbox"/>	
		Unqualified <input type="checkbox"/>		Unqualified <input type="checkbox"/>	
Audit		Audit		Audit	
Approve		Approve		Approve	

( After both sides confirmed the Acknowledgment qualified, must be signed and sealed )

Supply-side Address :

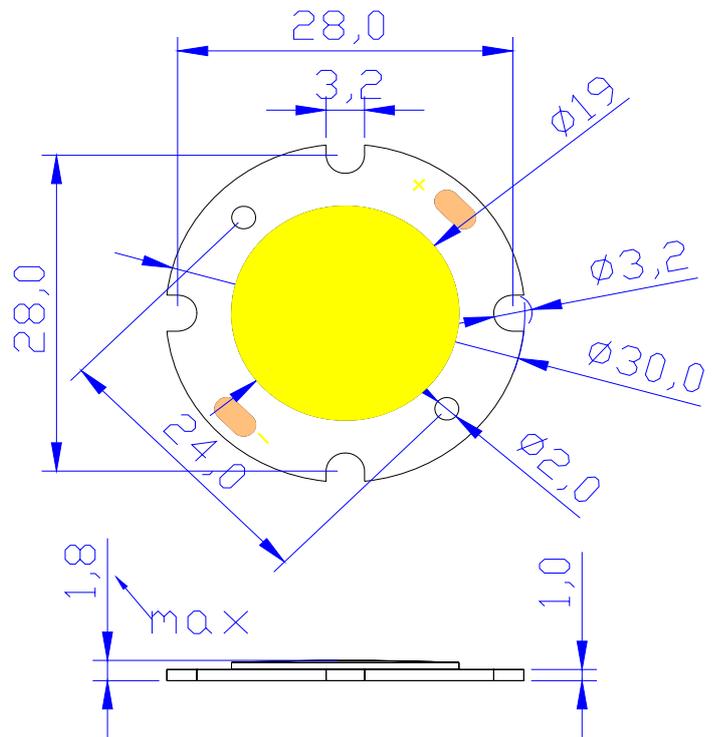
**PartNo. : ALD-CMW40-1400D3**

**Features :**

- ∞ High radiometric power per LED
- ∞ Very long operating life
- ∞ More Energy Efficient than Incandescent and most Halogen lamps
- ∞ Easy installation with Screws

**Typical Applications :**

- ∞ Spot light
- ∞ Bulb
- ∞ Down Light
- ∞ cornering lamp
- ∞ Panel Light
- ∞ Street Light



**Product Picture:**

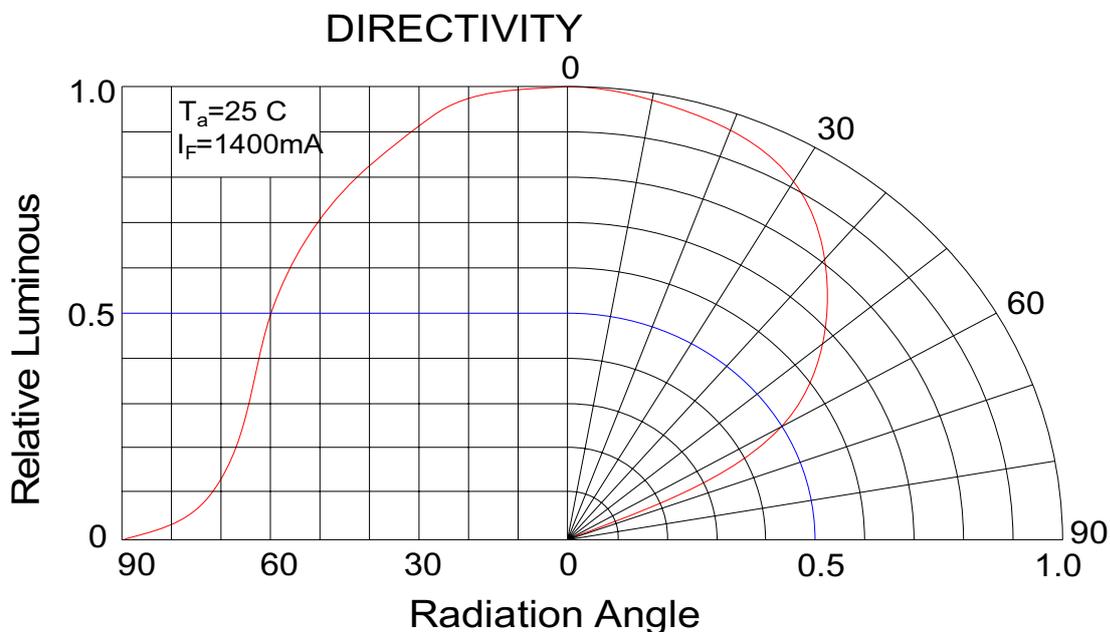


**NOTES:**

- ∞ All dimensions are millimeter.
- ∞ Tolerance is  $\pm 0.1$ mm unless otherwise noted.
- ∞ It is strongly recommend ed that the temperature of lead be not higher than 85°C.
- ∞ The appearance and specific ations of the product may be modified for improvement without notice.

**PartNo. : ALD-CMW40-1400D3**

**Typical Radiation Pattern**



**Absolute maximum ratings (  $T_a = 25^\circ\text{C}$  )**

Parameter	Symbol	Test Condition	Value		Unit
			Min.	Max.	
DC Forward Current	$I_F$	----	----	1680	mA
Peak Pulse Current	$I_{\text{peak}}$	Duty=1/10 1kHz	----	2000	mA
Power Dissipation	$P_d$	----	----	52	W
LED Junction Temperature	$T_J$	----	----	125	$^\circ\text{C}$
Operating Temperature	$T_{\text{opr}}$	----	-25	+85	$^\circ\text{C}$
Storage Temperature	$T_{\text{str}}$	----	-40	+100	$^\circ\text{C}$
ESD Sensitivity	----	HBM	8000	----	V
Soldering Temperature	----	----	220 $^\circ\text{C}$ for 5 Seconds max		

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**Electrical and optical characteristics (T<sub>a</sub> = 25°C )**

Parameter	Symbol	Test Condition	Value			Unit
			Min.	Typ.	Max.	
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 1400mA		30		V
Luminous Flux	Φ <sub>v</sub>			5000	----	lm
Viewing Angle	2θ 1/2		----	120	----	Deg.
Color Temperature	CCT		5000	-----	6500	K
Color Rendening	R <sub>a</sub>		70		--	
Thermal Resistance	R <sub>J</sub>	-----		0.6		°C/W

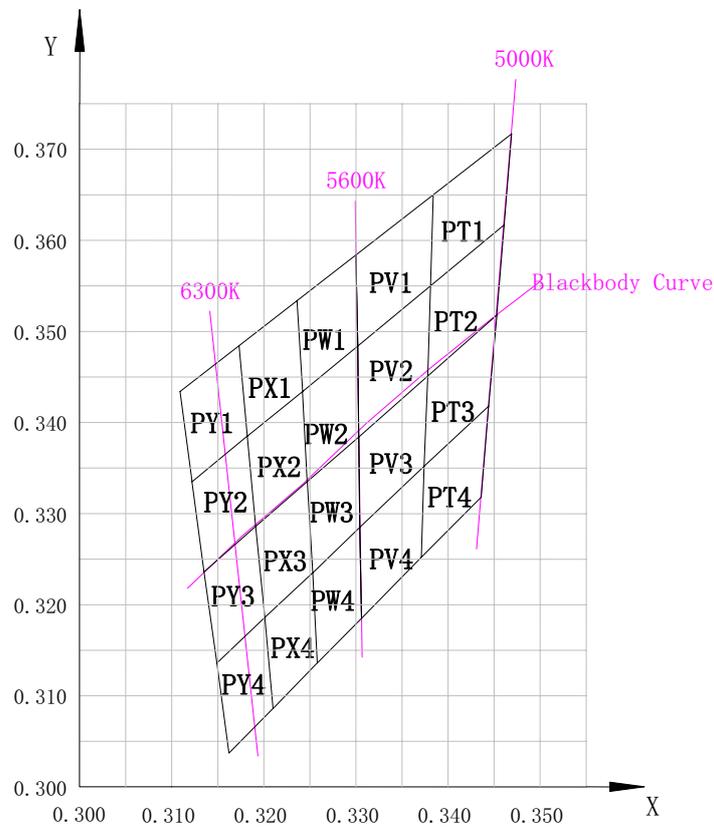
**Luminous Flux Bins (T<sub>a</sub> = 25°C ) Unit:lm**

Bin	V2	W2	X2
Min	5000	5500	6000
Max	5500	6000	6500

**PartNo. : ALD-CMW40-1400D3**
**Chromaticity Coordinates Ranks( $I_F=1400\text{mA}$   $T_a=25^\circ\text{C}$ )**

Bin	x1	y1	x2	y2	x3	y3	x4	y4
PT1	0.3384	0.3650	0.3381	0.3550	0.3461	0.3617	0.3469	0.3717
PT2	0.3381	0.3550	0.3378	0.3451	0.3453	0.3518	0.3461	0.3617
PT3	0.3378	0.3451	0.3374	0.3352	0.3444	0.3418	0.3453	0.3518
PT4	0.3374	0.3352	0.3371	0.3252	0.3436	0.3318	0.3444	0.3418
PV1	0.3300	0.3584	0.3302	0.3484	0.3381	0.3550	0.3384	0.3650
PV2	0.3302	0.3484	0.3303	0.3384	0.3378	0.3451	0.3381	0.3550
PV3	0.3303	0.3384	0.3304	0.3285	0.3374	0.3352	0.3378	0.3451
PV4	0.3304	0.3285	0.3306	0.3185	0.3371	0.3252	0.3374	0.3352
PW1	0.3236	0.3534	0.3242	0.3434	0.3302	0.3484	0.3300	0.3584
PW2	0.3242	0.3434	0.3247	0.3335	0.3303	0.3384	0.3302	0.3484
PW3	0.3247	0.3335	0.3253	0.3235	0.3304	0.3285	0.3303	0.3384
PW4	0.3253	0.3235	0.3258	0.3136	0.3306	0.3185	0.3304	0.3285
PX1	0.3173	0.3484	0.3182	0.3385	0.3242	0.3434	0.3236	0.3534
PX2	0.3182	0.3385	0.3191	0.3286	0.3247	0.3335	0.3242	0.3434
PX3	0.3191	0.3286	0.3201	0.3186	0.3253	0.3235	0.3247	0.3335
PX4	0.3201	0.3186	0.3210	0.3086	0.3258	0.3136	0.3253	0.3235
PY1	0.3109	0.3434	0.3122	0.3335	0.3182	0.3385	0.3173	0.3484
PY2	0.3122	0.3335	0.3135	0.3236	0.3191	0.3286	0.3182	0.3385
PY3	0.3135	0.3236	0.3149	0.3136	0.3201	0.3186	0.3191	0.3286
PY4	0.3149	0.3136	0.3162	0.3037	0.3210	0.3086	0.3201	0.3186

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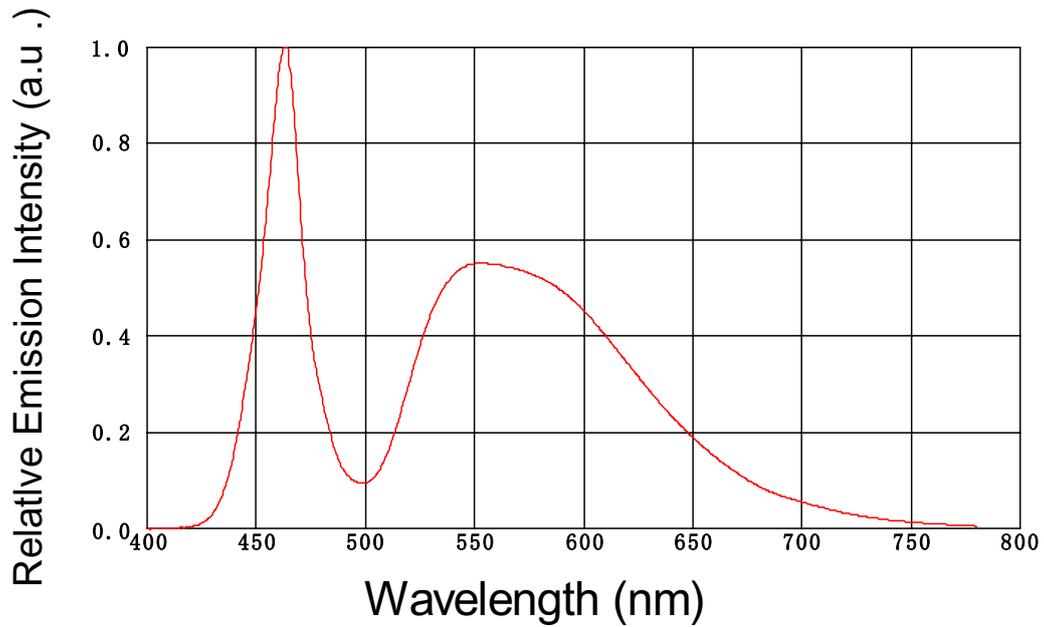
**Notes :**

1. \* Ranking at  $T_C=25^{\circ}\text{C}$
2. \* It is strongly recommended that the temperature of lead be not higher than  $85^{\circ}\text{C}$
3. \* Tolerance of measurements of the Forward Voltage is  $\pm 2\%V$
4. \* Tolerance of measurements of the Luminous Flux is  $\pm 10\%$
5. \* Tolerance of measurements of the Color Rendering  $R_a$  is  $\pm 3$
6. \* Chromaticity Coordinates (x,y) is measured with an accuracy of  $\pm 0.01$

PartNo. : ALD-CMW40-1400D3

Characteristic spectrum :  $T_j=25^{\circ}\text{C}$

White



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Typical electrical/optical characteristic curves :

Fig.1 Forward Current(mA) Vs. Forward Voltage(V)

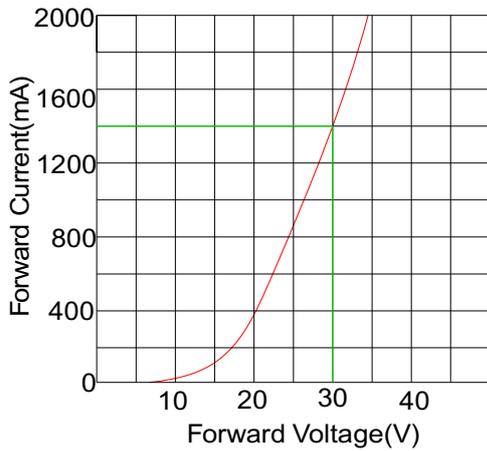


Fig.2 Relative Intensity Vs Forward Current (mA)

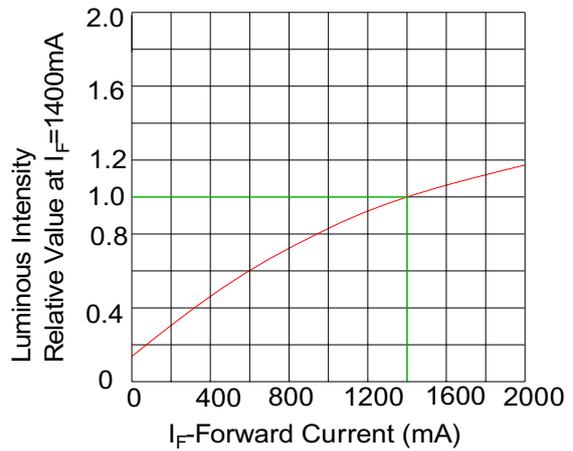


Fig.3 Forward Current Vs Ambient Temperature

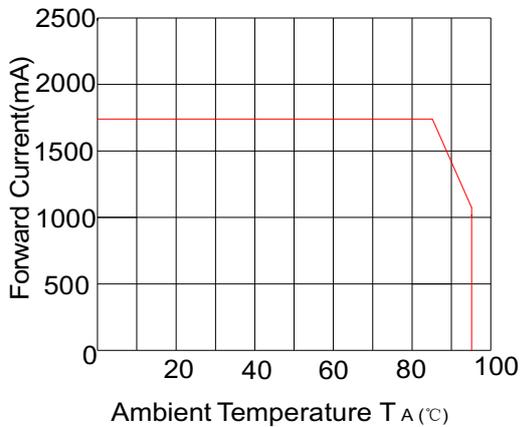
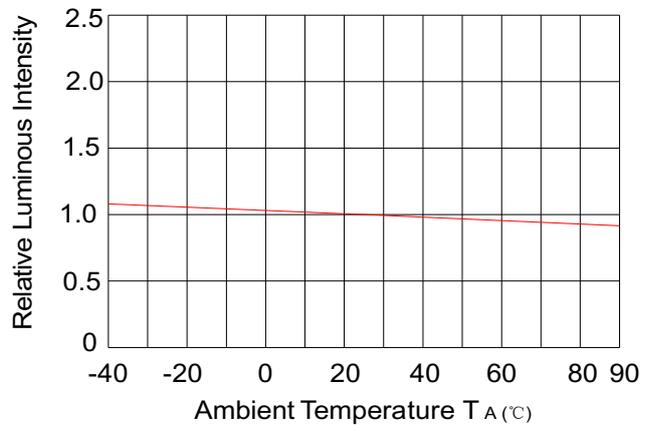
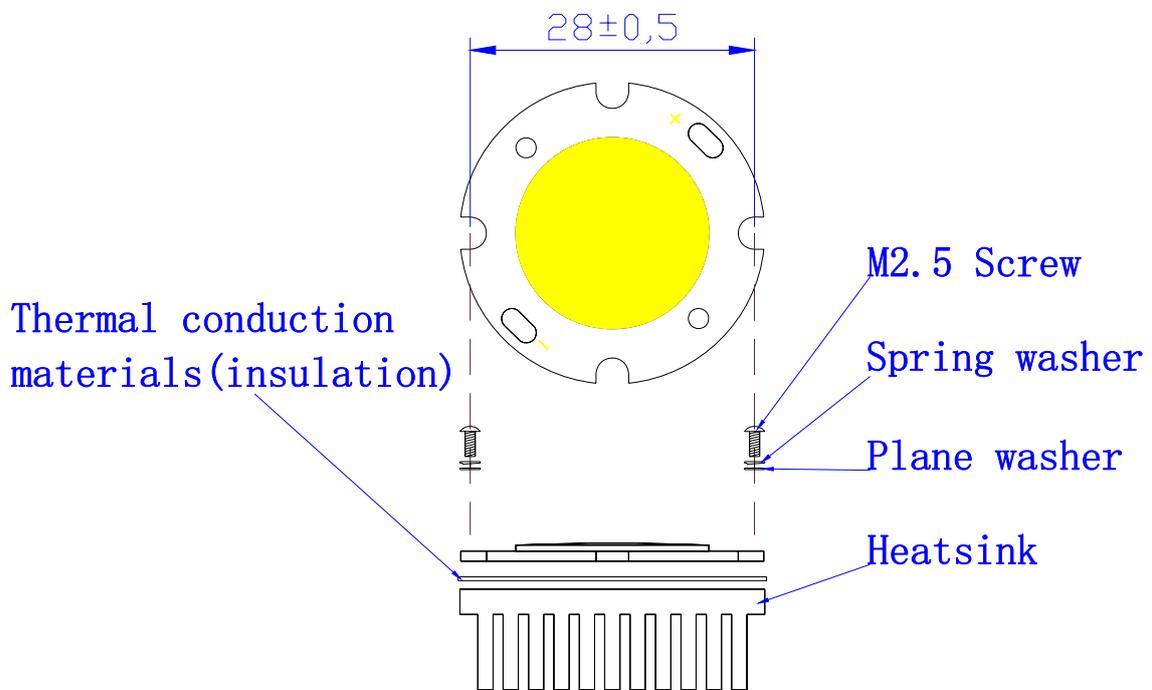


Fig.4 Relative Intensity Vs. Ambient Temperature



PartNo. : ALD-CMW40-1400D3

Recommended installation screw pitch



If you can not solve the heat problem, the product will destroy easily. Suggest that the surface of the heat sink is  $35\text{cm}^2/\text{W}$