M-TECH

RM 19C LOCKHART CTR 301-307 LOCKHART RD
WAN CHAI - HONG KONG

TEL: +852-25988776 FAX: +852-25988909

Products that carry this brand are adjusted to the restriction of dangerous substances

All our products are recyclable and do not contaminate the environment

The Certificate of Conformity of Europe (Mark CE) is a mark to indicate that the product to which it is fixed is in conformity with Managing European norms of the Products safety union. These instructions of the UR apply to all the products used inside the European Economic Zone.

The lights have spare life of 50 000h

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Advantages of the LED Intelligent Lights

Less energy consumption: In general, a LED lamp consumes 65% less than the fluorescent, 80% less than the incandescent and halogen and 50% of the low-consumption.

Cleaner: do not contain mercury or other heavy metals and emit less CO2 to achieve the same lighting as a result of their low power consumption. In addition do not radiate ultraviolet or infrared.

Durability and good maintenance of the luminous flux:
The durability of a LED lamp is 50,000 hours.

Quick Start: great advantage over compact fluorescent lamps.

Generate little heat: Do not burn when you touch them although they carry hours lit and save energy in air conditioning in summer to not emit heat.

Great variety of color: They are available in several colors with a price similar to white light standard.
Ease of maintenance: the refitting of the LED lights is very simple and does not require skilled labor.

Great possibilities of design: The variety of sizes, colors, and the total regulation of intensity allows possibilities decorative and functional endless.

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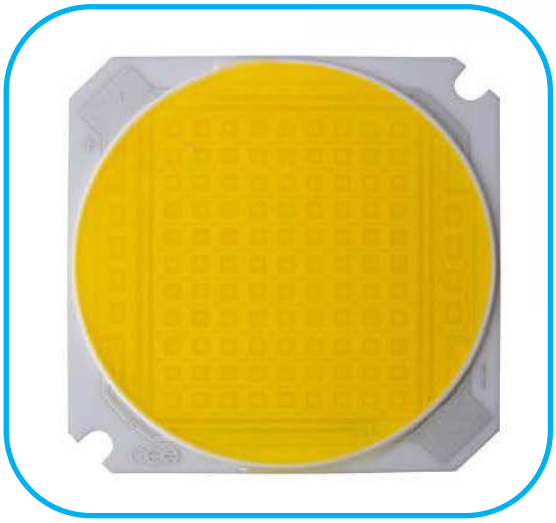
LCOB50 – 15W



LCOB50 – 15W

MT – LCOB50

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SPECIFICATION FOR CERAMIC COB LED

Part No:LCOB50-15W030XXFR60-0320

Description:

37.5*37.5mm COB LED

Dice Material: InGaN

Confirmed by Customer: _____

Approved by	Checked by	Prepared by
_____	_____	_____

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LCOB50-15W030XXFR60

BS-Normal CRI Series COB LED

Introduction

Lightspot BS Normal CRI series LED Light engine is based on our main patent MCOB（Multi-Chips On Board. Lightspot LEDs combine tens or hundreds power LED chips with a rugged package capable of operating in excess of power. Lightspot LEDs maximumly decrease LED uncomfortable glare and also Zebra strips, at the same time increase LED light efficency and reduce thermal resistance.

Features：

- Area light source, which can avoid glare
- More energy efficient than incandescent, halogen and some fluorescent lamps
- Industry's lowest thermal resistence
- Long operating life， lumen maintenance of greater than 70% after 50,000 hours
- Low forward voltage operated
- Instant light (less than 100ns)
- Lead Free product, RoHS compliant
- No UV

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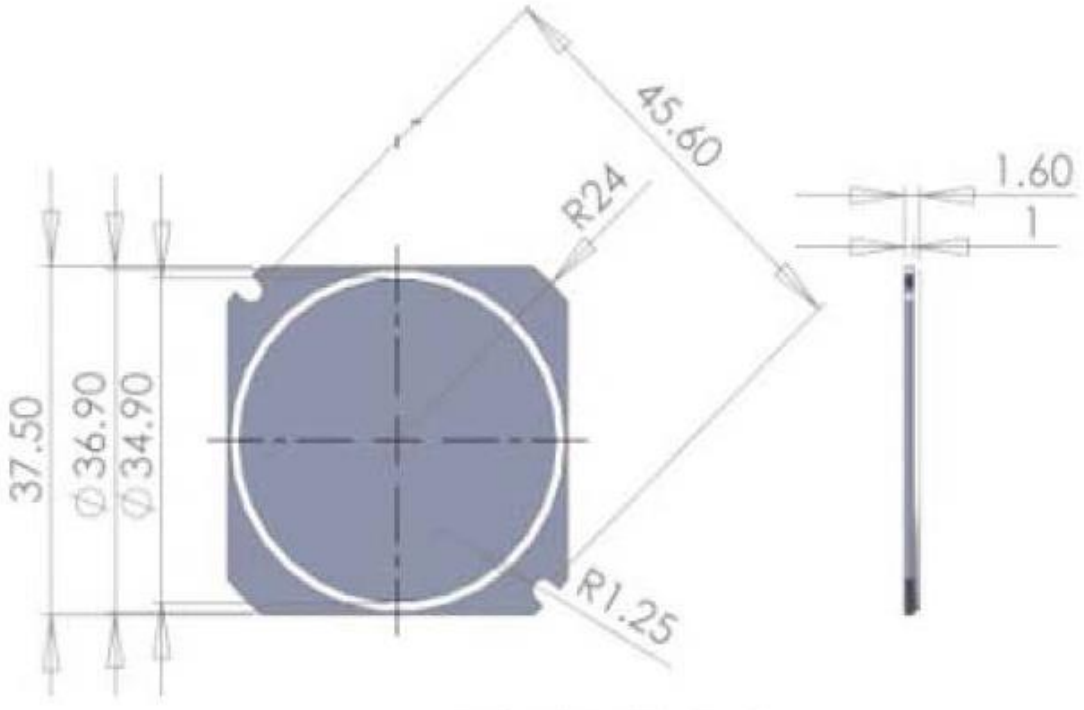
Application

- Automotive interior / exterior lighting
- Automotive signal lighting
- General Torch
- Architectural lighting
- LCD TV / Monitor Backlight
- Projector light source
- Traffic signals
- Task lighting
- Decorative / Pathway lighting
- Remote / Solar powered lighting
- Household appliances

Outline Dimensions：



LCOB50-15W030XXFR60

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Absolute Maximum Ratings at Ta=25℃:

Parameter	Part No.	Symbol	Maximum	Unit
Power Dissipation	LCOB50-15W030XXFR60	Pd	15	W
Peak Forward Current (1/10 Duty Cycle,0.1ms Pulse Width)		IF(peak)	480	mA
Continuous Forward Current		IF	320	mA
LED junction temperature		JT	120	℃
Reverse Voltage		VR	75	V
Thermal Resistance, junction to case	LCOB50-15W030XXFR60	Rθj-c	2.0	°C/W
Soldering Temperature ℃		5 seconds, 260°C or lower		
Operating temperature range		Topr	-30℃ to + 85℃	
Storage Temperature Range		Tstg	-40℃ to + 100℃	

Warm white

Parameter	Part No.	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Luminous flux	LCOB50-15W030XXFR60	φ	I_F=320mA	1450	/	1750	lm
Viewing Angle		2θ1/2			140		deg
Forward Voltage		V_F	I_F=320mA	42	47.5	51	V
Reverse Current		I_R	V_R=75V			160	uA
Correspondingly		CCT		2870	3045	3220	K
Color Rendering Index		CRI		60	/	65	

1- The luminous intensity data did not include ±10% testing tolerance.
2- Tolerance of CRI is ±2.

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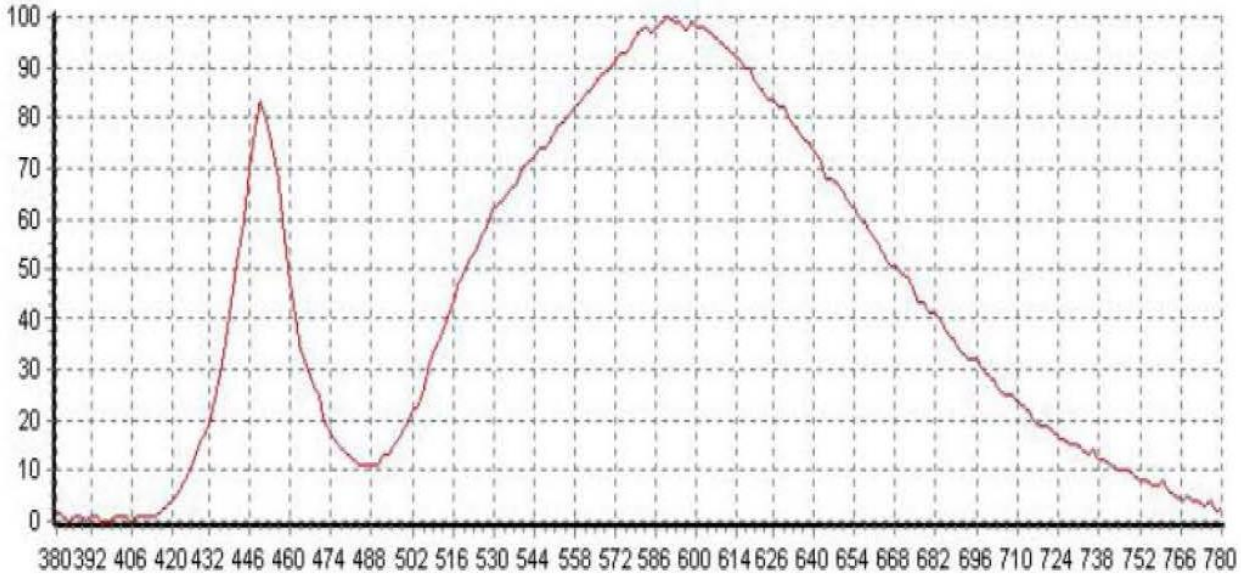
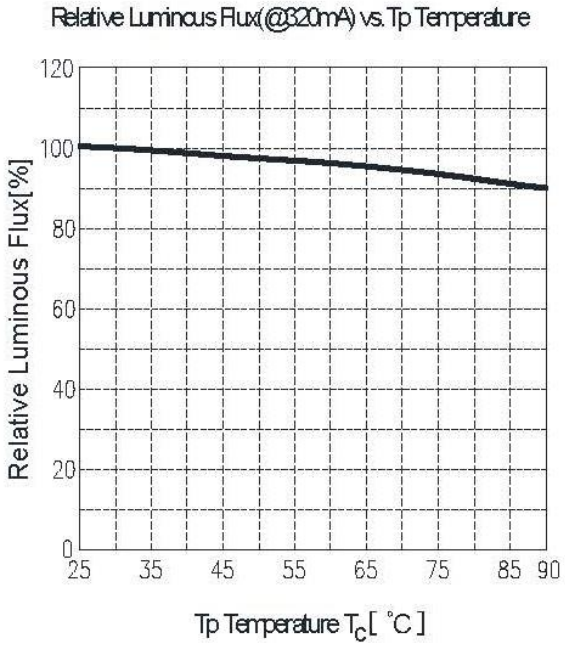
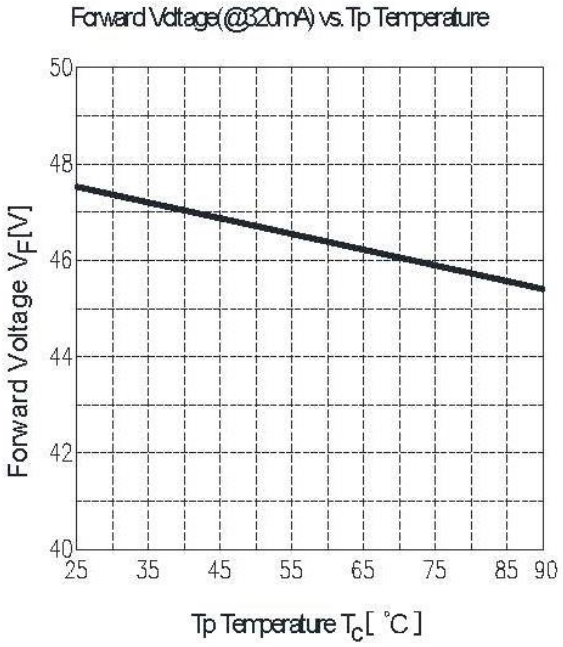
Relative Spectral Power Distribution



Temperature Characteristics

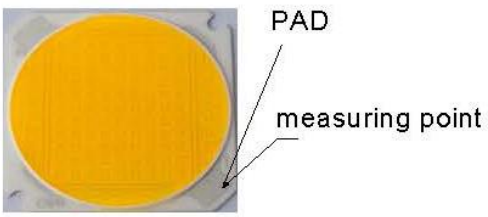




Please ensure the maintenance of heat radiation

not to exceed Tp temperature over the rating in operation.

(measuring point for Tp Temperature)



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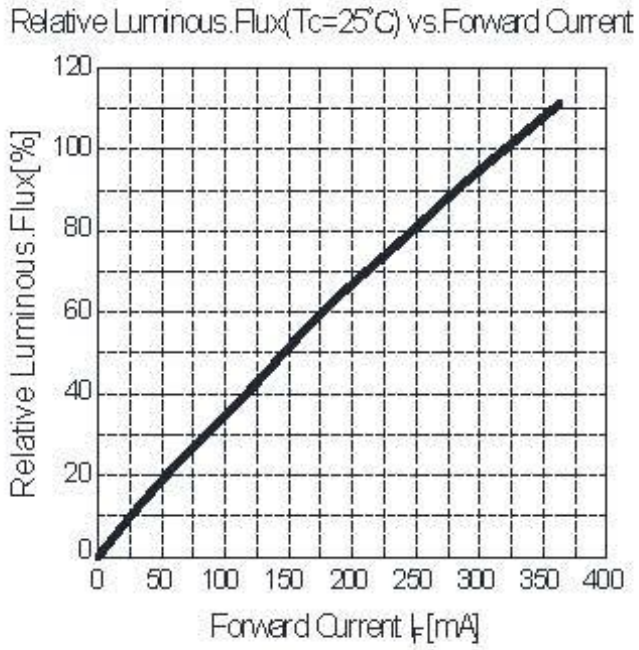
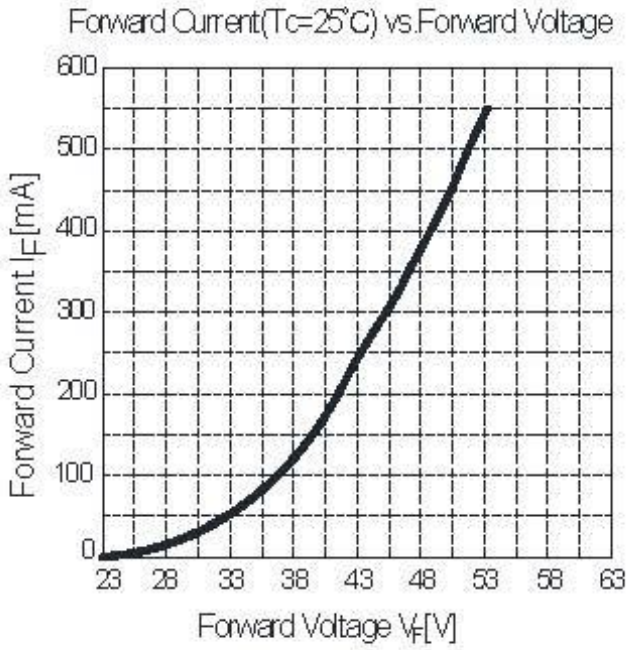
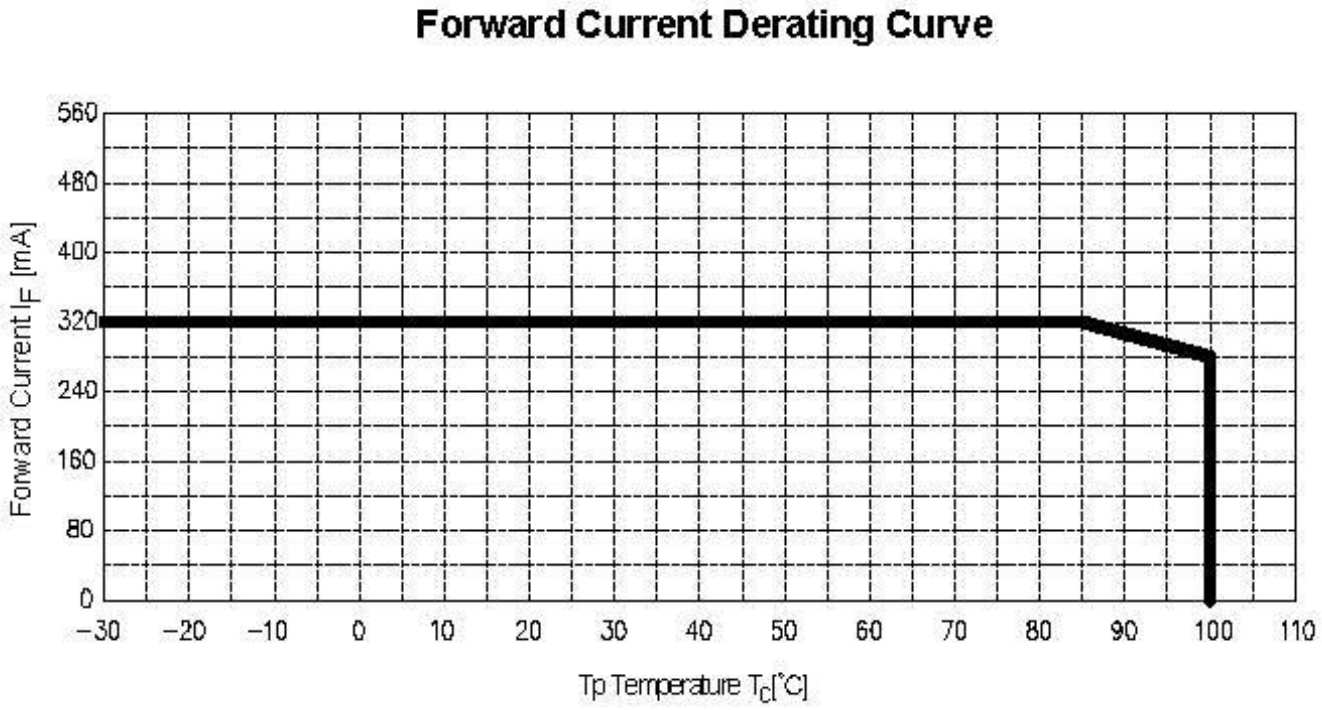
Electrical Characteristics





Derating Curves characteristics



To keep Tp(PAD-temperature)lower than rating enough heat-radiation performance needs to be secured by using an adequate heat sink.

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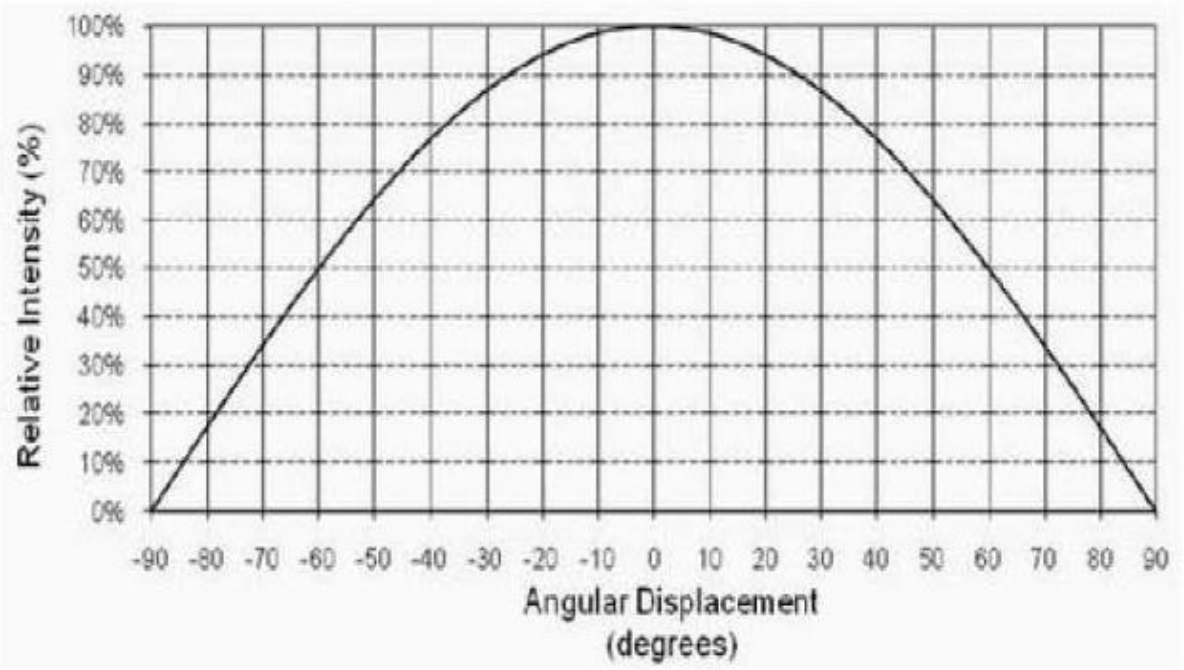
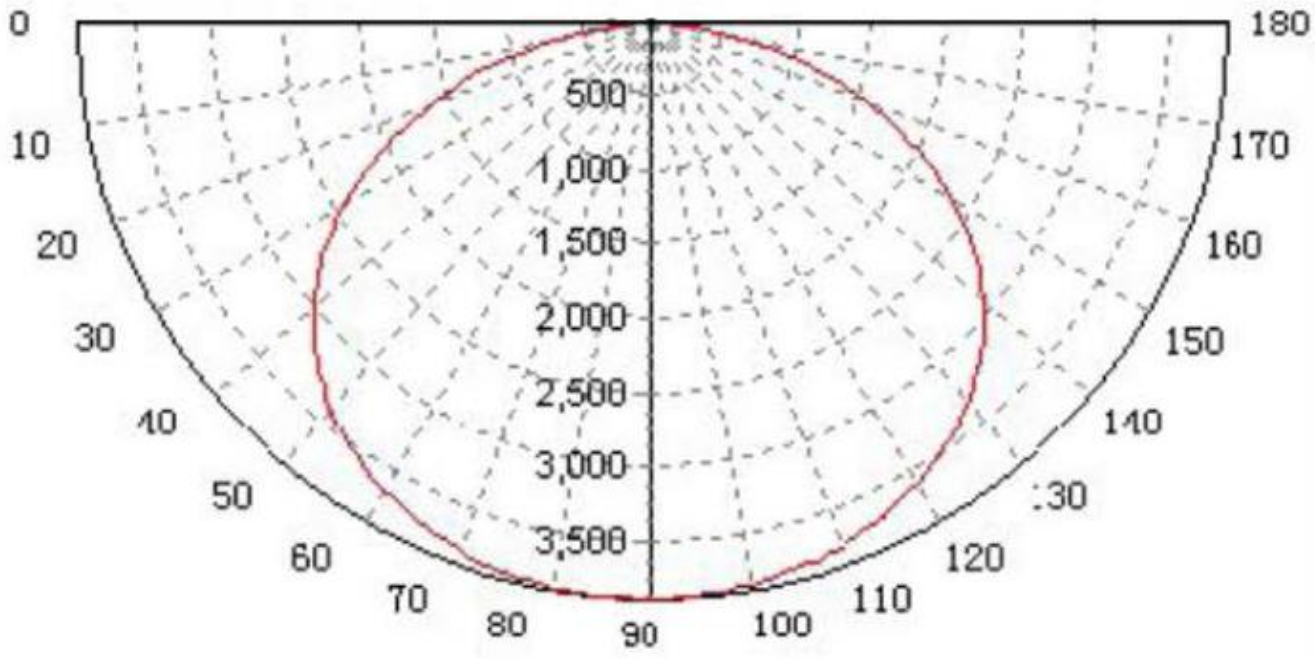
Typical Polar Radiation Pattern



Typical Spatial Radiation Pattern



Typical Polar Radiation Pattern

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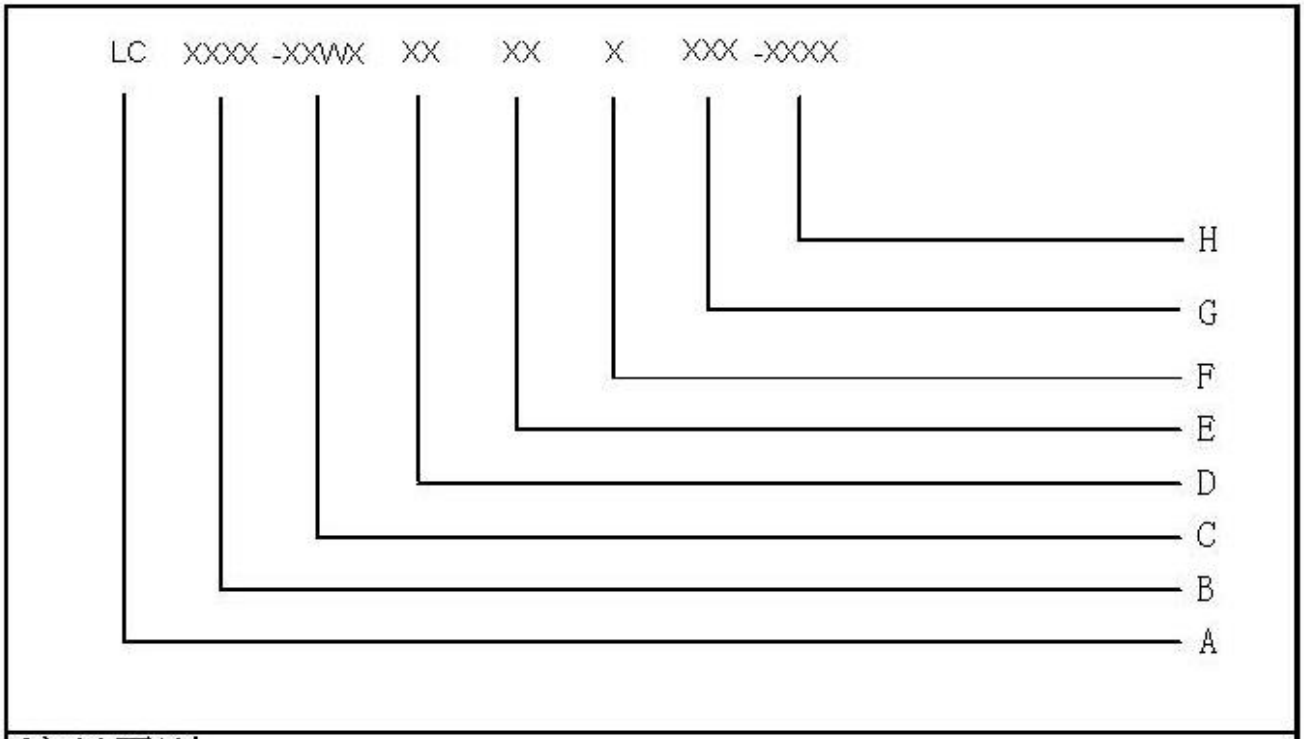
Order Code



编码原则：
A：LC表示日明陶瓷面光源产品
B：XXXX表示产品的尺寸规格，如：4008、4012、6012；OB25、OB35、OB50
C：XXWX表示产品功率大小，如：05W0表示该产品的功率大小为5瓦
D：XX表示产品的标称色温，如：27、30、35、40、45、50、57、65等
E：XX表示晶片规格
F：X表示产品的亮度范围，如：70lm/w≤E<90lm/w；90lm/w≤F＜110lm/w；
110lm/w≤G<130lm/w
G：XX表示产品的显指范围，如：55≤R55<60；60≤R60<65；65≤R65<70；70≤R70<75
75≤R75<80；80≤R80<85；85≤R85<90；90≤R90<95
H：XXXX表示产品正常工作时的正向电流值，如：0200表示电流值大小为200mA等

More detail please see "Lightspot LED Binning and Labeling.pdf "

NOTICE:

- **All dimensions are in millimeter.**
- **Tolerance is ±0.1mm unless otherwise noted.**
- **It is strongly recommended that the temperature of lead be not higher than 60℃.**
- **This information in this document is subject to change in order to improve reliability, design or function without prior notice and does not represent a commitment on the part of this company.**
- **Avoids preserving in the high temperature, the high-moisture, as well as in the acidic environment .**