Date Sheet

Customer:

Part No: CL-SP0802UHRDLG-02

Sample No: _____

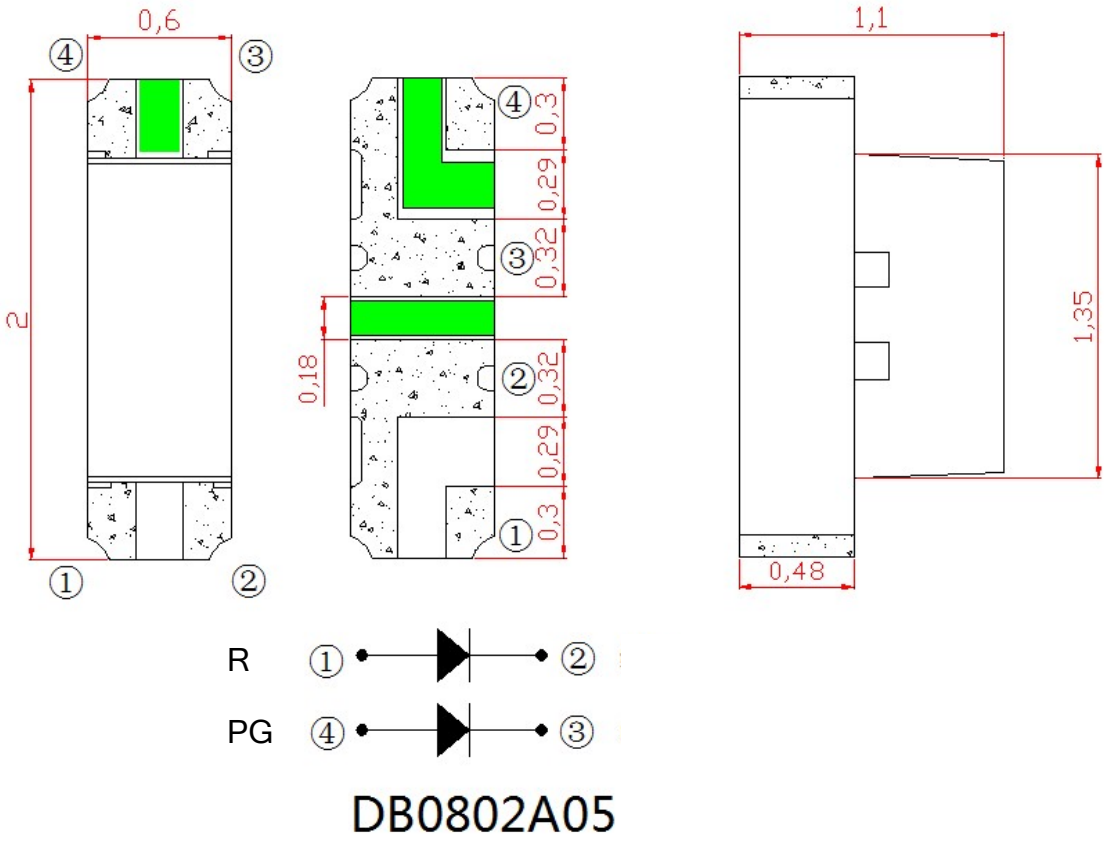
Description: _____

Item No: _____

Customer			
Check	Inspection	Approval	Date

1. Dimensions

(Units): (mm)



All dimensions area in mm tolerance is ±0.1mm unless otherwise noted.tes:

2. Electrical / Optical characteristics

(1) Absolute Maximum Ratings (TA=25°C)

Item	Symbol	Absolute Maximum Rating		Unit
		Red	Green	
Forward Current	IF	25	25	mA
Pulse Forward Current	IFP	60	60	mA
Reverse Voltage	VR	5		V
Power Dissipation	PD	55	75	mW
Operating Temperature	Topr	-40°C To +85°C		° C
Storage Temperature	Tstg	-40°C To +85°C		° C
Soldering Temperature	Tsol	Reflow Soldering: 255°C Hand Soldering : 350°C		for 10sec. for 3sec

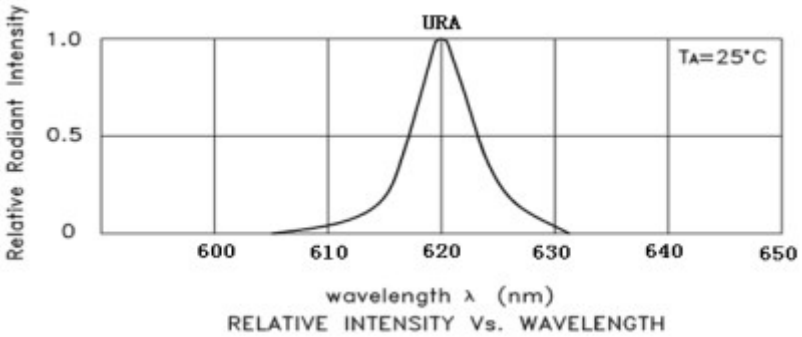
IFP Conditions : 1/10 Duty Cycle, 0.1 msec Pulse Width

(2) Initial Electrical/Optical Characteristics (TA=25°C)

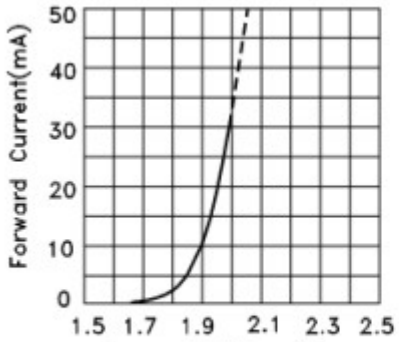
Symbol	Item	Units	Device	Min	Typ.	Max.	Test Conditions
VF	Forward Voltage	V	Red	1.9	-	2.3	IF=20mA
			Green	2.8	-	3.4	
IR	Reverse Current	uA	-	-	-	2	VR=7V
Δ λ1/2	Viewing Angle	°	-	-	120	-	IF=20mA
Iv	Luminous Intensity	Mcd	Red	70	-	200	IF=20mA
			Green	500	-	1000	
λD	Dominate Wavelength	Nm	Red	618	-	625	IF=20mA
			Green	520	-	530	

3. Characteristic curve

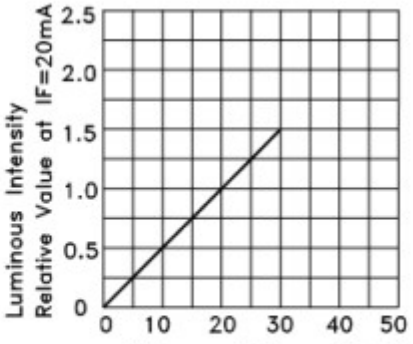
Red



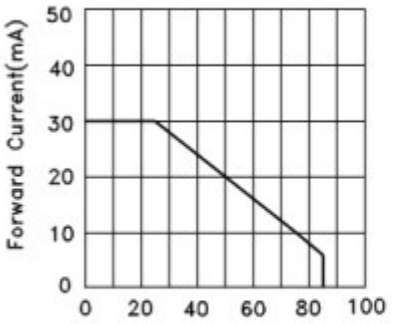
RELATIVE INTENSITY Vs. WAVELENGTH



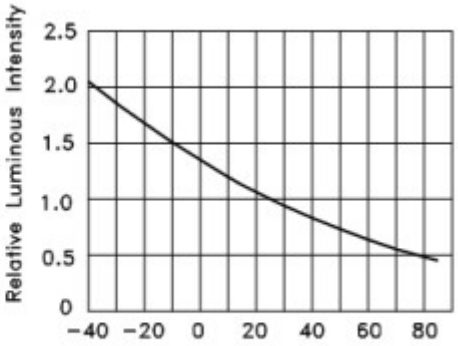
FORWARD CURRENT Vs.
FORWARD VOLTAGE



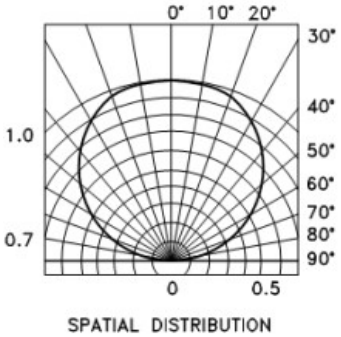
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

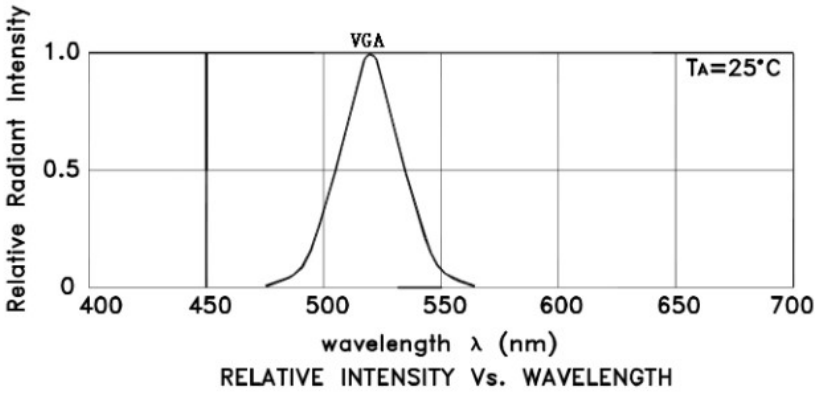


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

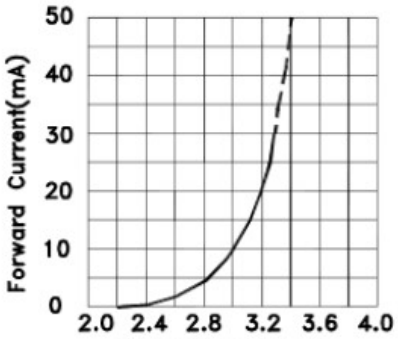


SPATIAL DISTRIBUTION

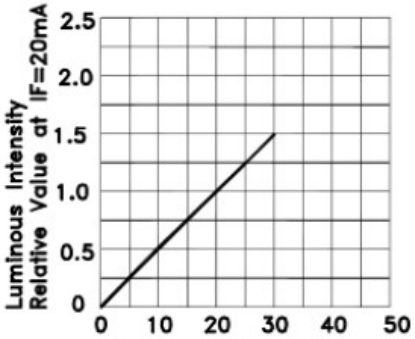
Green



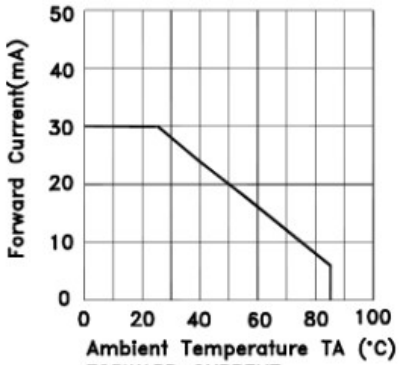
RELATIVE INTENSITY Vs. WAVELENGTH



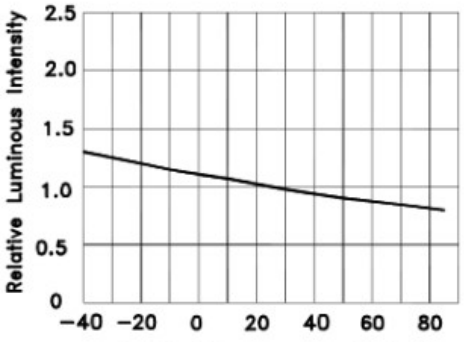
FORWARD CURRENT Vs. FORWARD VOLTAGE



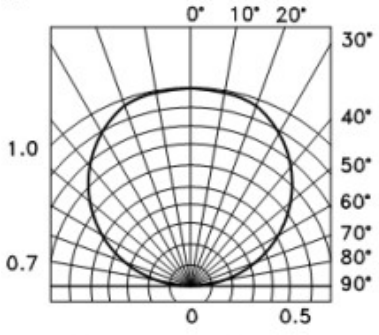
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

4. RELIABILITY

(1) Test Items and Results

NO	Test Items	Reference	Test Conditions	Time	QTY	Criterion
1	Temperature cycle	JEITA ED-4701	-40℃～25℃～100℃～25℃ 30 MIN 5 MIN 30 MIN 5 MIN	100 Cycle	50	0/50
2	Thermal Shock	MIL-STD-202G	-40℃～100℃ 15 MIN 15 MIN	100 Cycle	50	0/50
3	High temperature storage	JEITA ED-4701 200 201	Ta=100℃	1000 Hours	50	0/50
4	Low temperature storage	JEITA ED-4701 200 201	Ta=-40℃	1000 Hours	50	0/50
5	Normal temperatur life test		Ta=25±5℃	1000 Hours	50	0/50
6	High temperature and humidity test		Ta=60℃ RH=85%	1000 Hours	50	0/50
7	Solderability (reflow soldering)	JEITA ED-4701 300 303	Tsol=235℃ ±5℃,5SEC Use flux	Weld once, seconds	10	0/10
8	Solder resistance (reflow soldering)	JEITA ED-4701 300 301	Tsol=250℃,10 SEC Pretreatment: 35℃ 95%RH 96 hours	Weld twice, 10 seconds each time	10	0/10

The above test items such as differences or special customer specific requirements according to the actual situation in accordance with the requirements of customers to try the requirements with the customer, the customer is not required by our test standard test. Different products using different current test.

5. Cautions

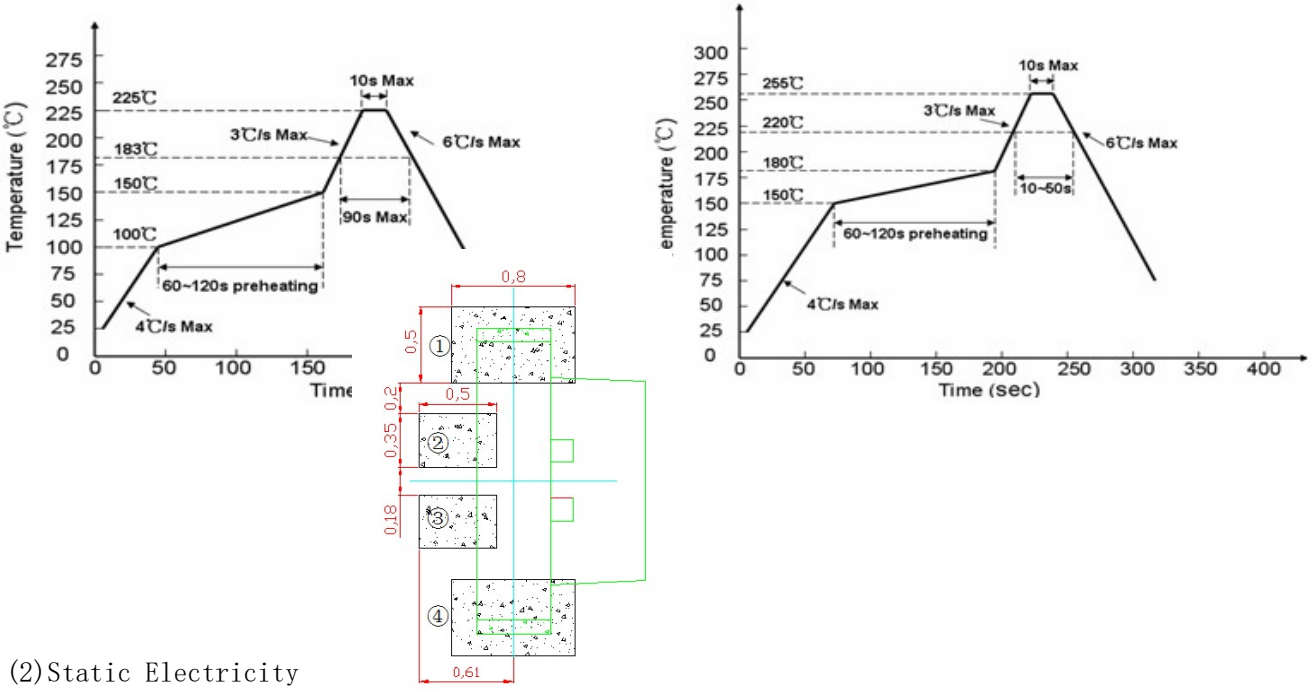
(1) Soldering Conditions

Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and Second soldering process.

(Recommended soldering conditions)

Reflow soldering			Hand welding	
	Lead Solder	Lead-free Solder	Temperature	350° C Max.
Pre-heat	140 ~ 160° C	180 ~ 200° C	Soldering time	3 sec. Max. (onetime only)
Pre-heat time	120 sec. Max.	120 sec. Max.		
Peak temperature	230° C Max.	260° C Max.		
Soldering time	10 sec. Max.	10 sec. Max.		
Condition	Refer to the picture below			

(Lead Solder) (Lead-Free Solder)



(2)Static Electricity

It is recommended that a wrist band or an anti-electrostatic glove be used when handling the LEDs.

All devices, equipment and machinery must be properly grounded.

IF=0.5mA 时, VF > 2.0V Damaged LEDs will show some unusual characteristics such as the forward voltage becomes lower, or the LEDs do not light at the low current. Criteria : (VF > 2.0V at IF=0.5mA)

(3)Moisture Proof Package

It is recommended that moisture proof package be used .

(4) Storage

Before opening the package ,The LEDs should be kept at 30° C or less and 70%RH or less.

The LEDs should be used within a year.

(5)

After opening the package, The LEDs should be soldered within 24 hours (1days) after opening the package. If unused LEDs remain, they should be stored in moisture proof packages, such as sealed containers with packages of moisture absorbent material (silica gel).

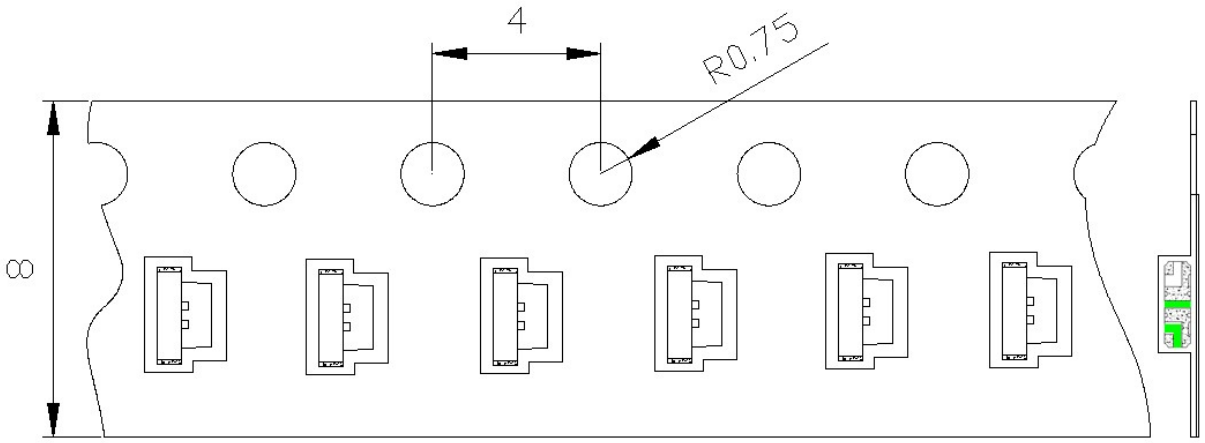
If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions Baking treatment : more than 12 hours at 60 ± 5° C.

6. PACKAGING

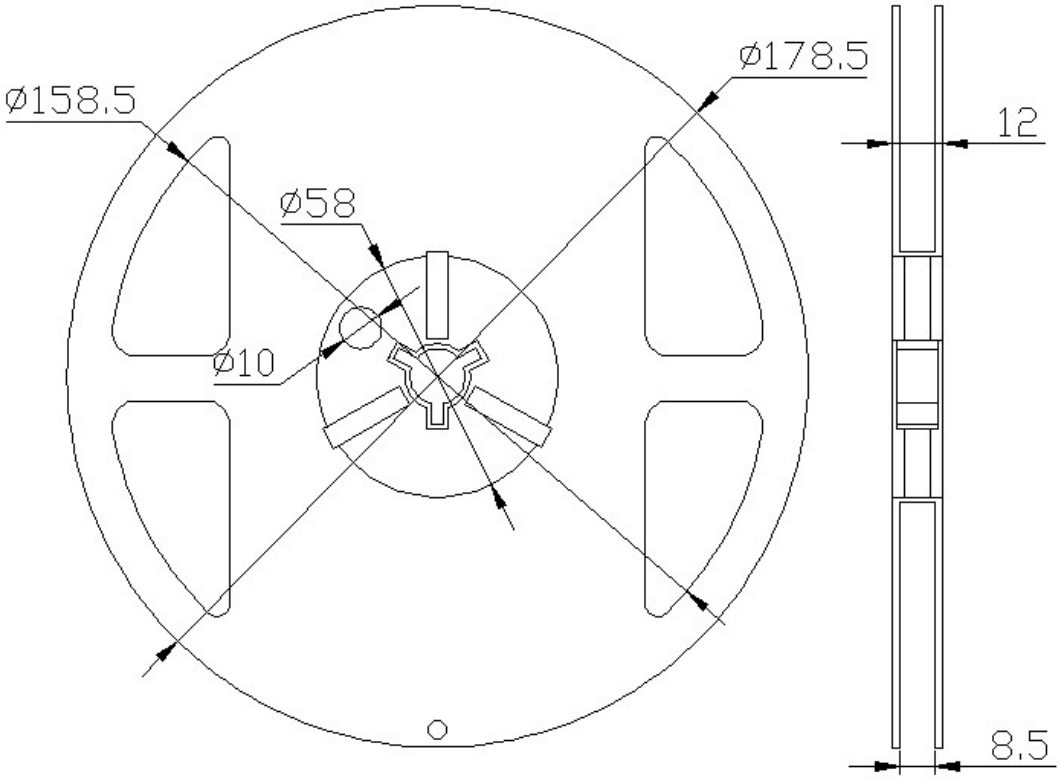
(1) LThe LEDs are packed in cardboard boxes after taping.

(2) Taping Specifications (Units:mm)

(3) Manner of packing



(4)Reel Dimensions



PACKAGE:4000Pcs/Reel

(5)

The label on the minimum packing unit shows ; Part Number, Lot Number, Ranking, Quantity.

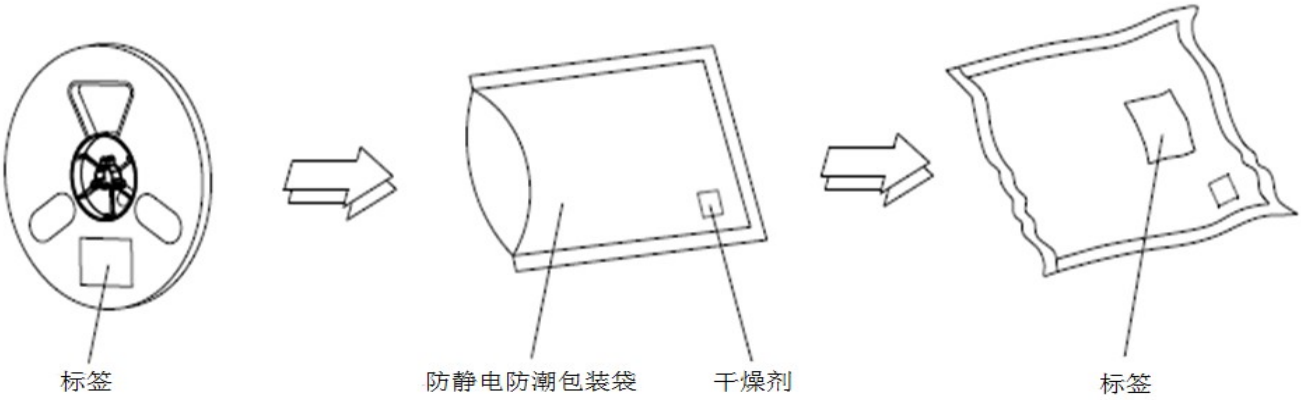
(6)

Keep away from water, moisture in order to protect the LEDs.

(7)

The LEDS may be damaged if the boxes are dropped or receive a strong impact against them. so precautions must be taken to prevent any damage.

7.
Moisture Resistant Packaging



Note:The tolerances unless mentioned is ±0.1mm,Unit:mm

Surface mount LED is packed in reels, LED is packed in plain or antistatic bags and then packed in cartons. Cartons are used to protect the LED from mechanical shocks during shipping. Cartons are not waterproof, so please be waterproof