

# Edixeon C Series Datasheet



## Features :

- Various colors for choice
- Low voltage operation
- Instant light
- Long operating life
- Reflow process compatible



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## General Information

### Introduction

Edixeon C Series emitters are one of the highest flux LEDs in the world by Edison Opto. Edixeon C Series emitters are designed to satisfy more and more Solid-State lighting High Power LED applications for brilliant world such as flash light, indoor and outdoor decoration light. Edixeon C Series emitters are designed by particular package for reflow process application.

Unlike most fluorescent sources, Edixeon C Series contains no mercury and has more energy efficient than other incandescent light source.

### Ordering Code Format

$\frac{2}{X1}$   $\frac{E}{X2}$   $\frac{R1}{X3}$   $\frac{01}{X4}$   $\frac{XX}{X5}$   $\frac{XX}{X6}$   $\frac{000}{X7}$   $\frac{XXX}{X8}$

X1	X2	X3	X4	X5
Type	Component	Series	Wattage	Color
2	Emitter	E	Edixeon	R1
		R1 Series	01	1W
				CW
				WW
				Cool White
				Warm White

X6	X7	X8
Internal code	PCB Board	Serial Number
01	-	000 - - -
02	-	

## Absolute Maximum Ratings

Parameter	Symbol	Value	Units
DC Forward Current	$I_F$	350 / 700	mA
Peak Pulsed Current; ( $t_p \leq 100\mu s$ , Duty cycle=0.25)	$I_{pulse}$	1000	mA
Reverse Voltage	$V_R$	5	V
Drive Voltage	$V_D$	5	V
LED Junction Temperature	$T_J$	125	°C
Operating Temperature	-	-30 ~ +110	°C
Storage Temperature	-	-40 ~ +120	°C
ESD Sensitivity	-	2,000	V
Soldering Temperature	-	260	°C
Manual Soldering Time at 360°C(Max.)	-	5	Sec.

Notes:

1. Proper current derating must be observed to maintain junction temperature below the maximum at all time.
2. LEDs are not designed to be driven in reverse bias.
3. Allowable reflow cycles are 3 times for each LED.
4.  $T_p$ : Pulse width time

## Characteristics

Parameter	Symbol	Value	Units
Viewing Angle	$2\theta_{1/2}$	130	Degree
Forward voltage (Typ.)	$V_F$	3.4	V
Thermal resistance	-	10	°C/W
$\Delta V_F / \Delta T$	$\Delta V_F / \Delta T$	-2	mV/°C
CCT	$\lambda_d$	Cool White: 5,000-10,000 Warm White: 2,670-3,800	K
CRI	-	Cool White: 68 Warm White: 80	-
JEDEC Moisture Sensitivity	-	Level 2a <b>Floor Life</b> Conditions: $\leq 30^\circ\text{C}$ / 60% RH <b>Soak Requirements(Standard)</b> Time (hours): 120+1/-0 Conditions: $60^\circ\text{C}$ / 60% RH	-

Notes:

1. Wavelengths are stated as peak wavelength.
2. Edison maintains a tolerance of  $\pm 0.5\text{nm}$  for dominant wavelength,  $\pm 2\text{nm}$  for peak wavelength and  $\pm 5\%$  on CCT measurement.
3. Edison maintains a tolerance of 0.06V on forward voltage measurement.
4. CRI is measured with an accuracy of  $\pm 5$ .
5. Emission angle is measured with an accuracy of  $\pm 10$  degree.

## Luminous Flux Characteristic

Luminous Flux Characteristics at  $I_f=350\text{mA}$ ,  $T_j=25^\circ\text{C}$

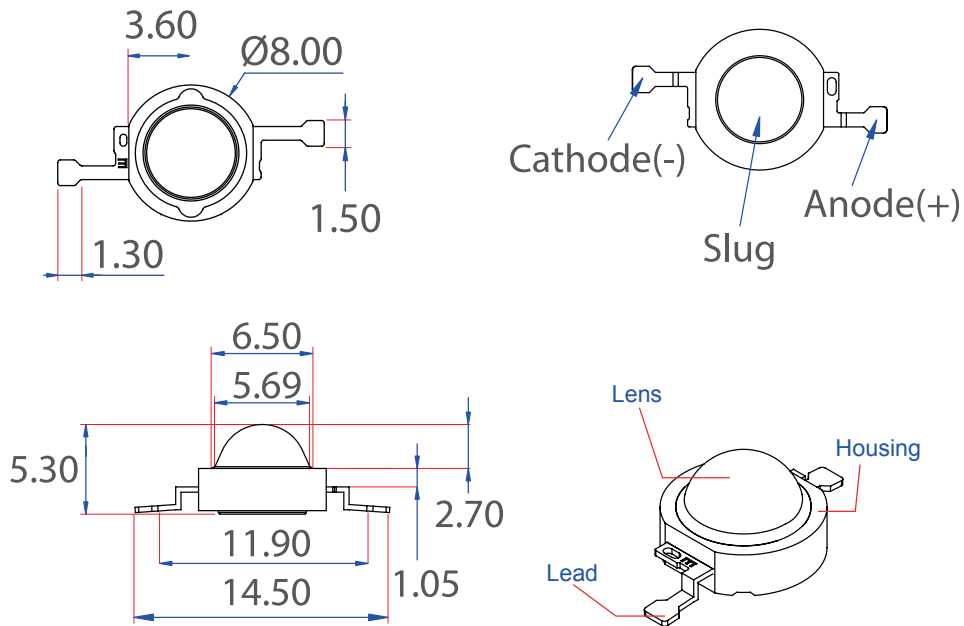
Color	Group	Min. Luminous Flux(lm) @350mA	Max. Luminous Flux(lm) @350mA	Calculated Min. Luminous Flux(lm) @700mA	Order Code
Cool White	V2	120	130	210	2ER101CW02000002
	V3	130	140	225	
	V4	140	150	245	
Warm White	U3	100	110	175	2ER101WW11000001
	V1	110	120	190	

Note:

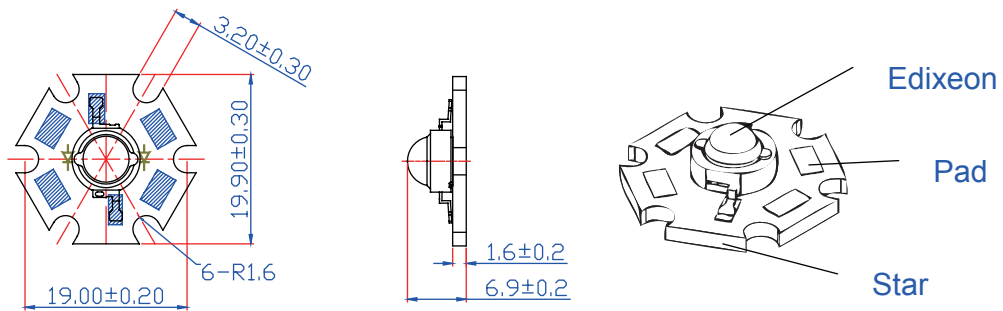
Flux is measured with an accuracy of  $\pm 10\%$ .

## Mechanical Dimensions

### Emitter Type Dimension



### Star Type Dimensions



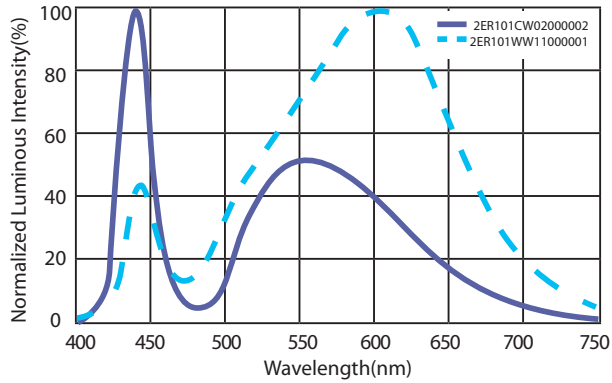
### Edixeon C Series dimensions and circuit

#### Notes:

1. All dimensions are in mm.
2. Lambertian and side emitting series slug has polarity as anode.
3. It is strongly recommended to apply on electrically isolated heat conducting film between the slug and contact surfaces.

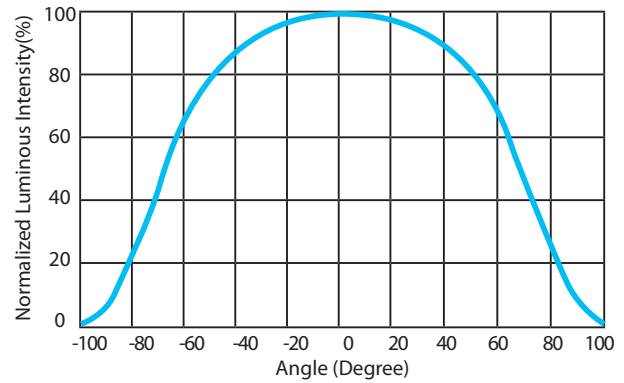
## Characteristic Curve

### Spectrum



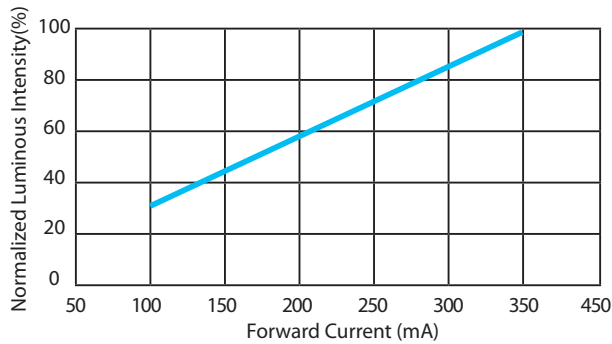
Cool White and Warm White color spectrum at  $T_j = 25^\circ\text{C}$ .

### Radiation Diagram



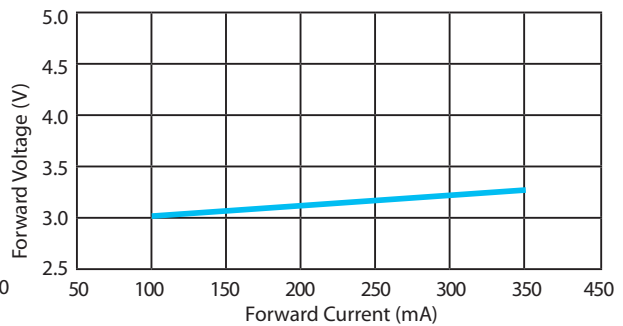
Emission angle.

### Luminous Intensity & Forward Current



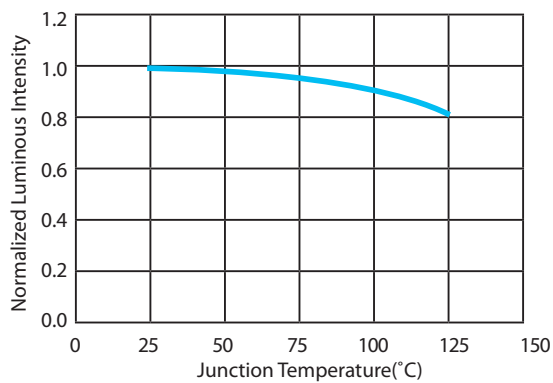
Forward current & luminous intensity at  $T_j = 25^\circ\text{C}$

### Forward Voltage & Forward Current



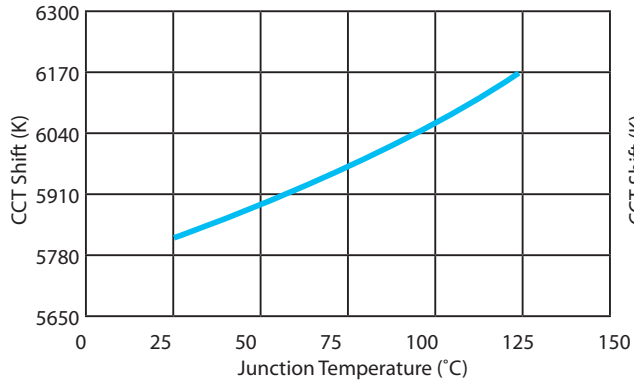
Forward current & forward voltage at  $T_j = 25^\circ\text{C}$

### Luminous Flux & Junction Temperature

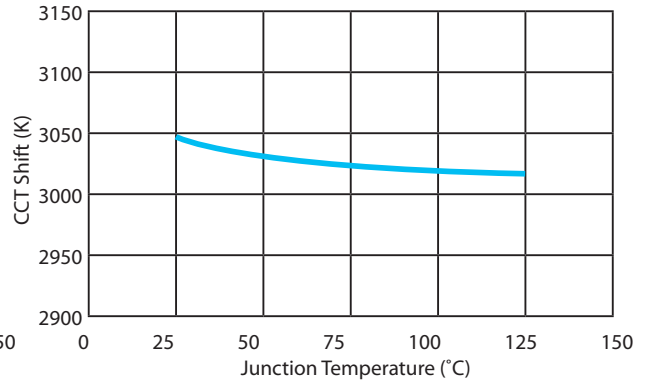


Junction temperature & luminous intensity for Cool White and Warm White

### CCT & Junction Temperature



Junction temperature & CCT shift for Cool White

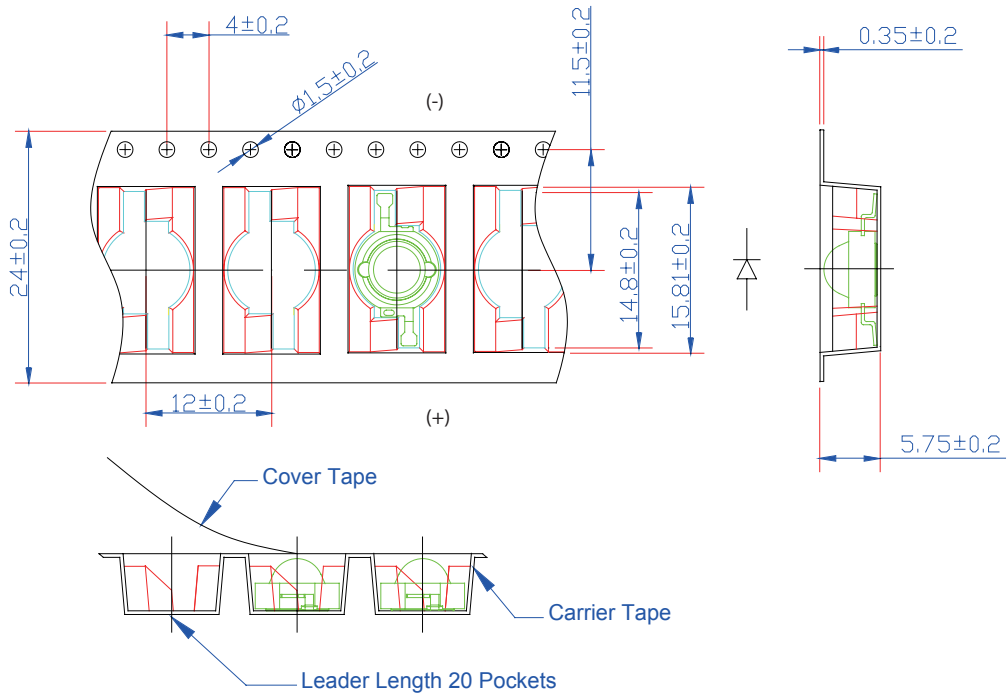


Junction temperature & CCT shift for Warm White

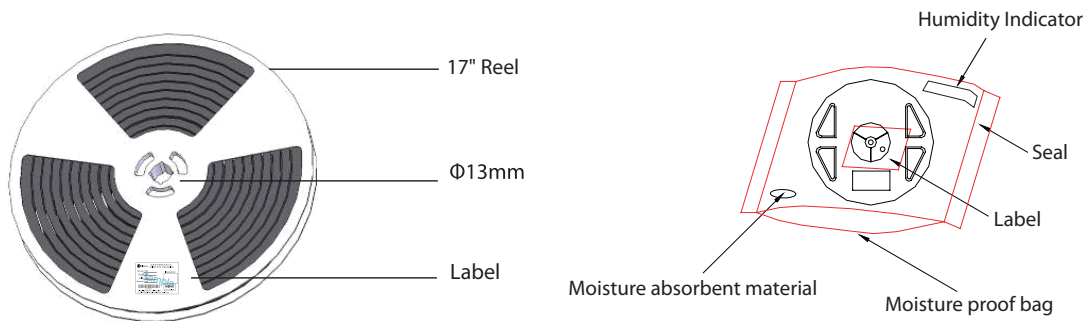


## Product Packaging Information

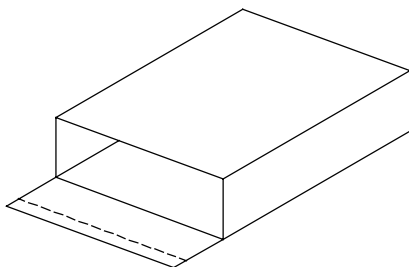
### Tape and Reel Dimension



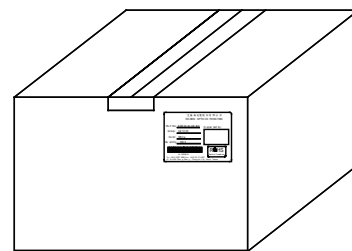
### Edixeon Emitter



1000pcs LEDs inside



2 bags in 1 box



5 boxes in 1 carton

Note : 445\*410\*415 (Tolerance :  $\pm 5\text{mm}$ )

## Revision History

Versions	Description	Release Date
1	Establish order code information	2013/2/20

## About Edison Opto

Edison Opto is a leading manufacturer of high power LED and a solution provider experienced in LDMS. LDMS is an integrated program derived from the four essential technologies in LED lighting applications- Thermal Management, Electrical Scheme, Mechanical Refinement, Optical Optimization, to provide customer with various LED components and modules. More Information about the company and our products can be found at [www.edison-opto.com](http://www.edison-opto.com)

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