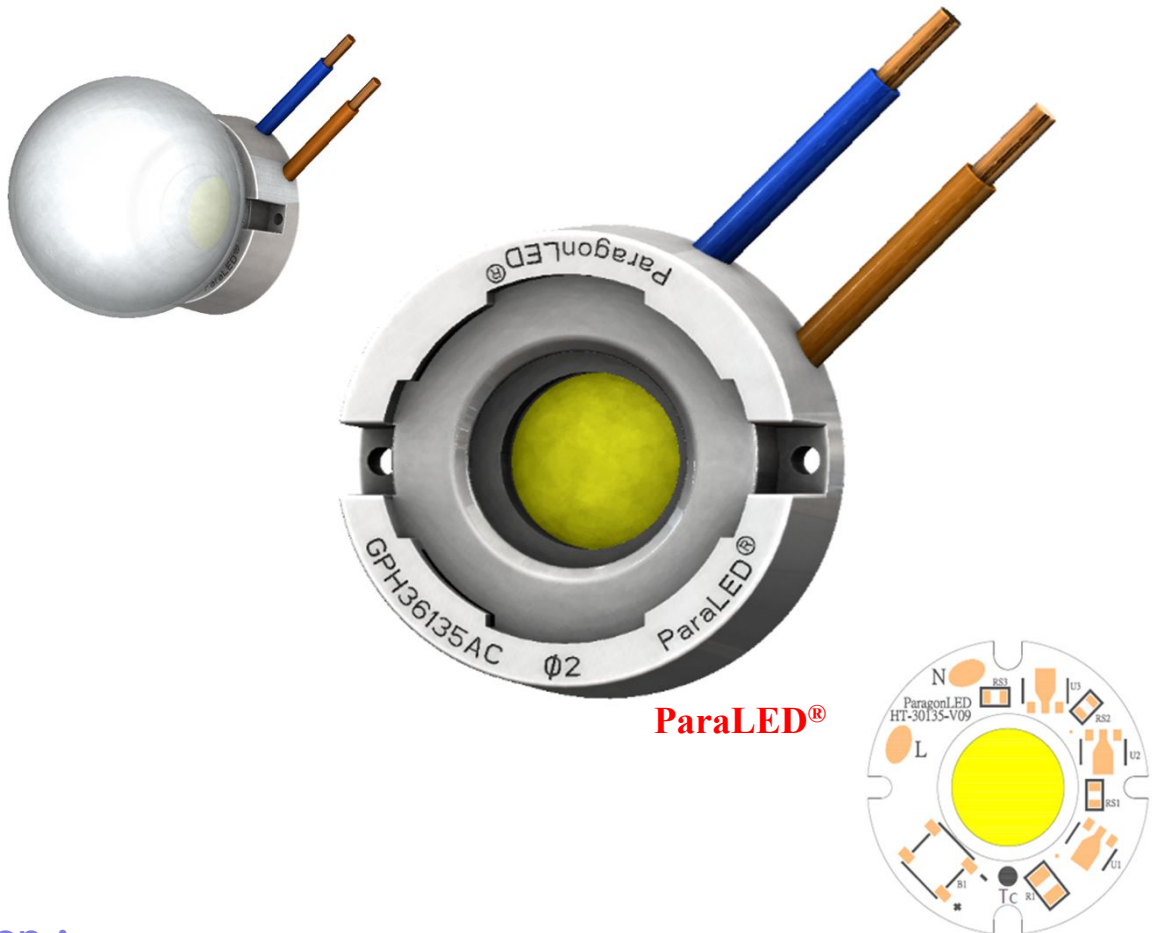


## ParaLED HT 30135 Series Datasheet



### Introduction :

Compared with DC LED modules, ParagonLED AC COB(Driver on Board)ParaLED® Series module does not need an external driver so that it is able to enhance lifespan and shows compact dimension.

### Description :

- 120/240VAC
- 4/6/8/10/12W
- 70-90 LM/W
- 2700/3000/3500/4000K CCT
- 4500/5000/5700/6500K CCT
- 70/80/90 CRI
- PF>0.98
- THDi < 20%
- Customized available

### Feature and Benefits:

- Driver on Board
- Industry grade solid state components
- Up to 0.5KV Surge protection built-in
- Lifespan>50K hrs TC<105°C
- Lowest thermal resistance



## Table of Contents

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## General Information

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### Ordering Code Format

<u>C</u>	<u>X</u>	<u>HT</u>	-	<u>xx</u>	-	<u>30</u>	<u>135</u>	-	<u>yyyV</u>	-	<u>zzzz</u>
1	2	3		4		5	6		7		8
									120V		2700
									240V		3000
											3500
											4000
											4500
											5000
											5700
											6500

- 1 . Model type
- 2 . Chip efficacy
- 3 . Driving condition
- 4 . Numbers of chips
- 5 . Outline dimension
- 6 . Dimension of emission area
- 7 . Forward voltage (AC)
- 8 . Correlated color temperature (K)



## Characteristics

Parameter	Symbol	Value	Unit
Forward Voltage	V <sub>F</sub>	120/240	VAC
Forward Voltage	V <sub>F</sub>	±10%	VAC
Operation Frequency	F <sub>op</sub>	50/60	Hz
Power Dissipation	P <sub>D</sub>	4/6/8/10/12	W
Operating Temperature	T <sub>op</sub>	-40 ~ +105	°C
Storage Temperature	T <sub>st</sub>	-40 ~ +105	°C
Surges Protection(L/N)	V <sub>s</sub>	0.5	KV
Insulation voltage	Viso[RMS]	120V:1240 / 240V:1480	VAC
Power Factor	PF	>0.98	
THDi		<20	%
Color coordination	ANSI C78.377:2008	IEC 60081:1997	

ANSI CCT	step*	C <sub>x</sub>	C <sub>y</sub>
2700K	3	0.458	0.410
3000K	3	0.434	0.403
3500K	3	0.407	0.392
4000K	3	0.382	0.380
4500k	3	0.361	0.366
5000K	3	0.345	0.355
5700k	5	0.329	0.342
6500K	5	0.312	0.328

\*Color region stay within MacAdam ellipse from the chromaticity center.

IEC CCT	step*	C <sub>x</sub>	C <sub>y</sub>
2700K	3	0.463	0.420
3000K	3	0.440	0.403
3500K	3	0.409	0.394
4000K	3	0.380	0.380
5000K	3	0.346	0.359
6500K	5	0.313	0.337

\* Color region stay within MacAdam ellipse from the chromaticity center.



## Luminous Flux Characteristic

Product No	Forward Voltage	Watt	lm/W	Lumen	Color rendering	Color Temperature
CBHT-042-30135-120V-2700	120V	4	80	320	80	2700
CBHT-042-30135-120V-2700	120V	4	70	280	90	2700
CBHT-042-30135-120V-3000	120V	4	80	320	80	3000
CBHT-042-30135-120V-3000	120V	4	70	280	90	3000
CBHT-042-30135-120V-5000	120V	4	90	360	70	5000
CBHT-042-30135-120V-5000	120V	4	80	320	80	5000
CBHT-042-30135-120V-2700	120V	6	80	480	80	2700
CBHT-042-30135-120V-2700	120V	6	70	420	90	2700
CBHT-042-30135-120V-3000	120V	6	80	480	80	3000
CBHT-042-30135-120V-3000	120V	6	70	420	90	3000
CBHT-042-30135-120V-5000	120V	6	90	540	70	5000
CBHT-042-30135-120V-5000	120V	6	80	480	80	5000
CBHT-042-30135-120V-2700	120V	8	80	640	80	2700
CBHT-042-30135-120V-2700	120V	8	70	560	90	2700
CBHT-042-30135-120V-3000	120V	8	80	640	80	3000
CBHT-042-30135-120V-3000	120V	8	70	560	90	3000
CBHT-042-30135-120V-5000	120V	8	90	720	70	5000
CBHT-042-30135-120V-5000	120V	8	80	640	80	5000
CDHT-042-30135-120V-2700	120V	10	80	800	80	2700
CDHT-042-30135-120V-2700	120V	10	70	700	90	2700
CDHT-042-30135-120V-3000	120V	10	80	800	80	3000
CDHT-042-30135-120V-3000	120V	10	70	700	90	3000
CDHT-042-30135-120V-5000	120V	10	90	900	70	5000
CDHT-042-30135-120V-5000	120V	10	80	800	80	5000
CDHT-042-30135-120V-2700	120V	12	80	960	80	2700
CDHT-042-30135-120V-2700	120V	12	70	840	90	2700
CDHT-042-30135-120V-3000	120V	12	80	960	80	3000
CDHT-042-30135-120V-3000	120V	12	70	840	90	3000
CDHT-042-30135-120V-5000	120V	12	90	1080	70	5000
CDHT-042-30135-120V-5000	120V	12	80	960	80	5000



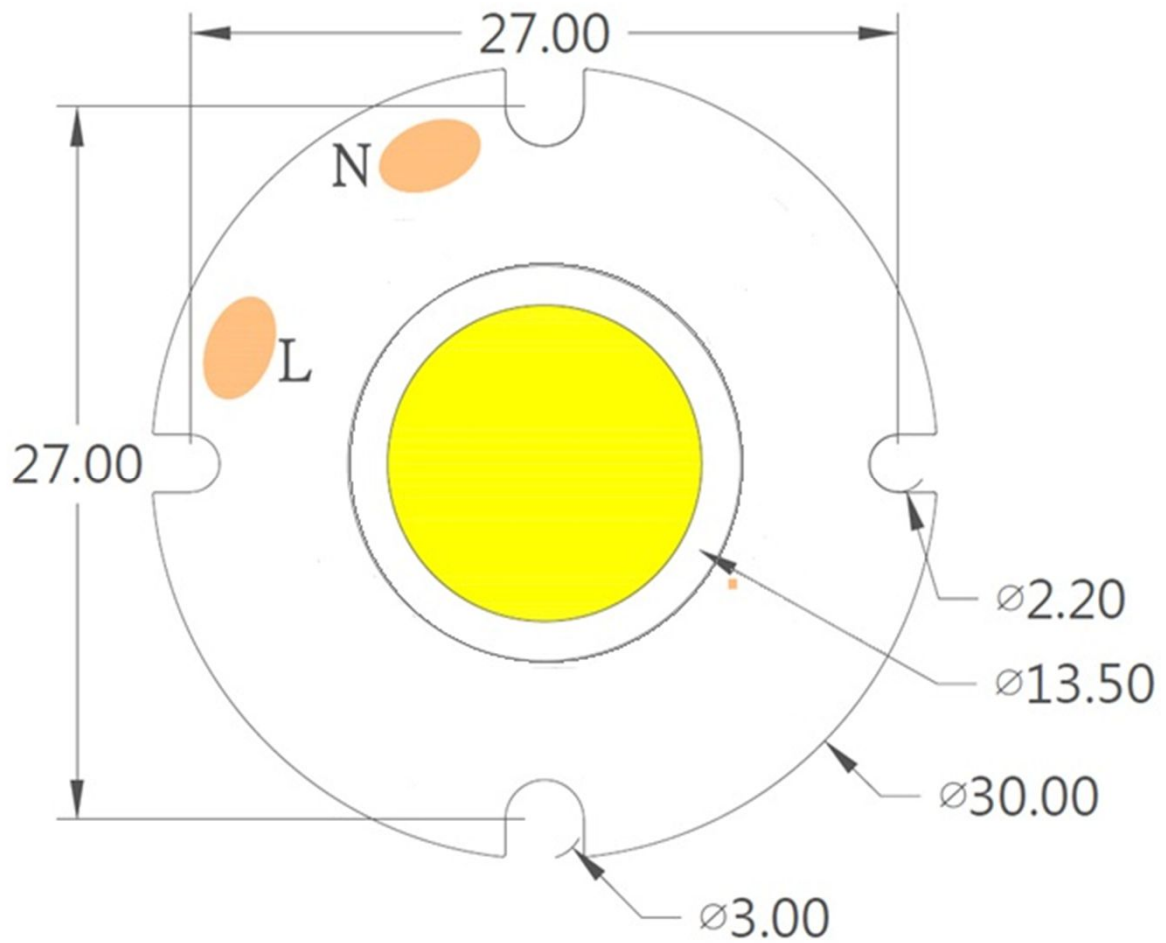
## Luminous Flux Characteristic

Product No	Forward Voltage	Watt	lm/W	Lumen	Color rendering	Color Temperature
CBHT-084-30135-240V-2700	240V	4	80	320	80	2700
CBHT-084-30135-240V-2700	240V	4	70	280	90	2700
CBHT-084-30135-240V-3000	240V	4	80	320	80	3000
CBHT-084-30135-240V-3000	240V	4	70	280	90	3000
CBHT-084-30135-240V-5000	240V	4	90	360	70	5000
CBHT-084-30135-240V-5000	240V	4	80	320	80	5000
CBHT-084-30135-240V-2700	240V	6	80	480	80	2700
CBHT-084-30135-240V-2700	240V	6	70	420	90	2700
CBHT-084-30135-240V-3000	240V	6	80	480	80	3000
CBHT-084-30135-240V-3000	240V	6	70	420	90	3000
CBHT-084-30135-240V-5000	240V	6	90	540	70	5000
CBHT-084-30135-240V-5000	240V	6	80	480	80	5000
CBHT-084-30135-240V-2700	240V	8	80	640	80	2700
CBHT-084-30135-240V-2700	240V	8	70	560	90	2700
CBHT-084-30135-240V-3000	240V	8	80	640	80	3000
CBHT-084-30135-240V-3000	240V	8	70	560	90	3000
CBHT-084-30135-240V-5000	240V	8	90	720	70	5000
CBHT-084-30135-240V-5000	240V	8	80	640	80	5000
CBHT-084-30135-240V-2700	240V	10	80	800	80	2700
CBHT-084-30135-240V-2700	240V	10	70	700	90	2700
CBHT-084-30135-240V-3000	240V	10	80	800	80	3000
CBHT-084-30135-240V-3000	240V	10	70	700	90	3000
CBHT-084-30135-240V-5000	240V	10	90	900	70	5000
CBHT-084-30135-240V-5000	240V	10	80	800	80	5000
CBHT-084-30135-240V-2700	240V	12	80	960	80	2700
CBHT-084-30135-240V-2700	240V	12	70	840	90	2700
CBHT-084-30135-240V-3000	240V	12	80	960	80	3000
CBHT-084-30135-240V-3000	240V	12	70	840	90	3000
CBHT-084-30135-240V-5000	240V	12	90	1080	70	5000
CBHT-084-30135-240V-5000	240V	12	80	960	80	5000



## Mechanical Dimensions

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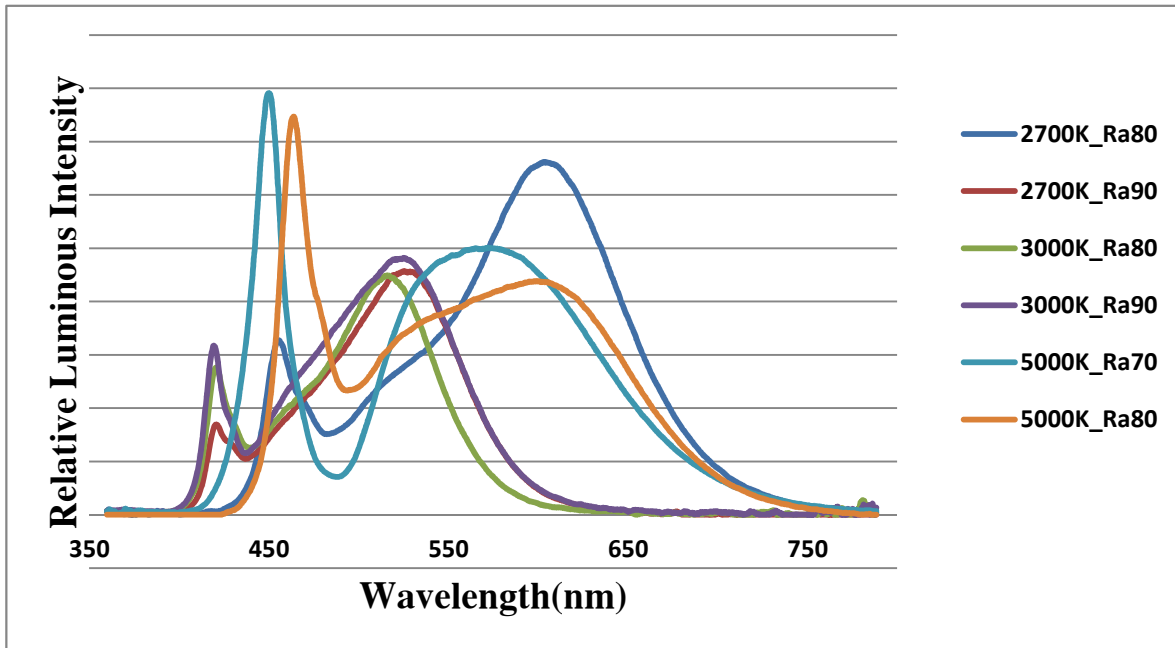


1. All dimensions are measured in mm.
2. Tolerance :  $\pm 0.2\text{mm}$
3. Thickness:  $1.0\pm 0.1\text{mm}$

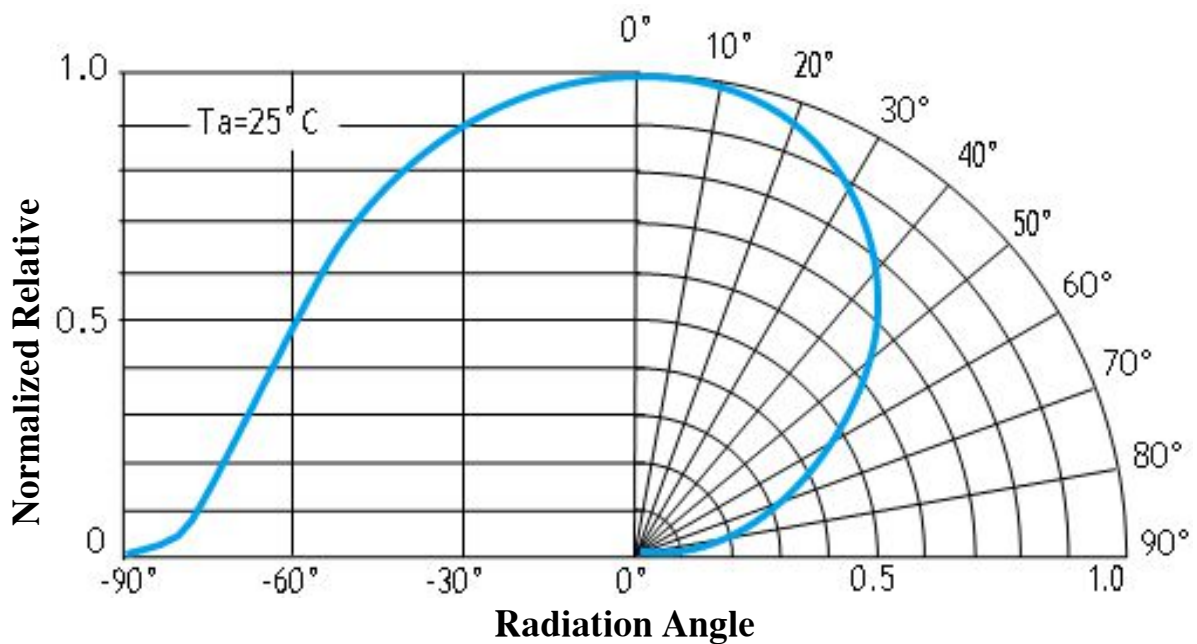


## Characteristic curve

### Color Spectrum



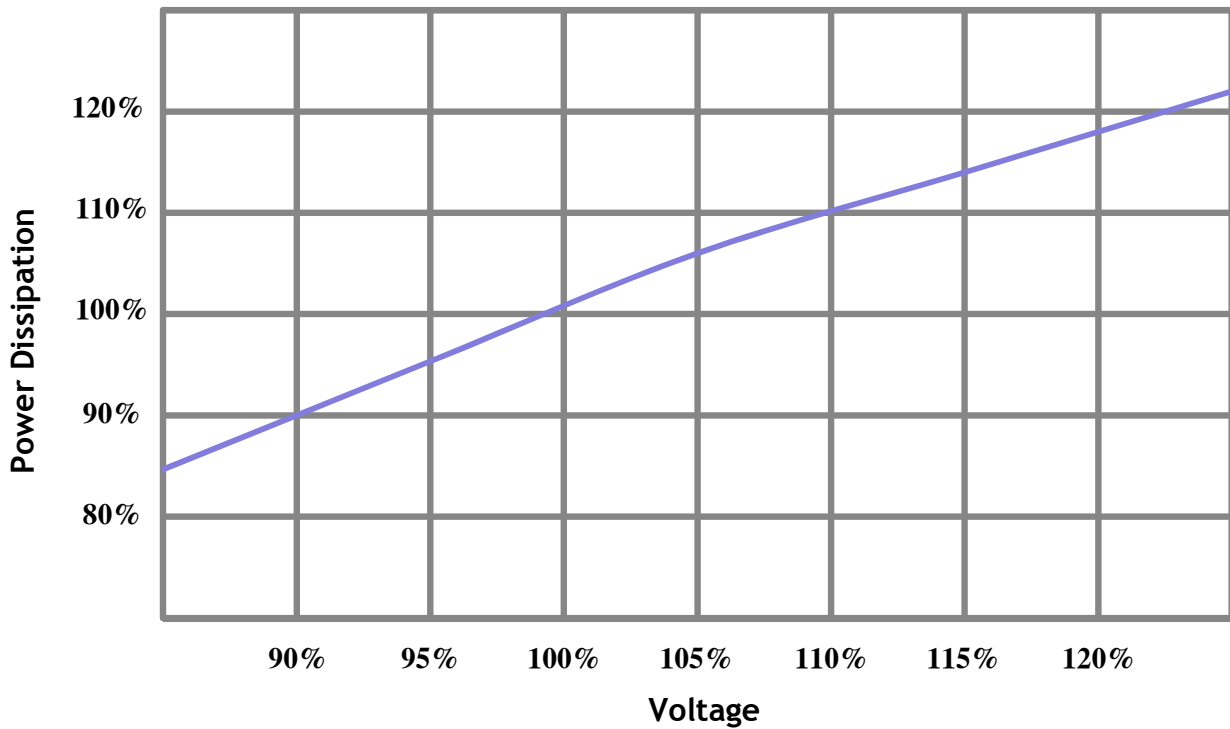
### Beam Pattern



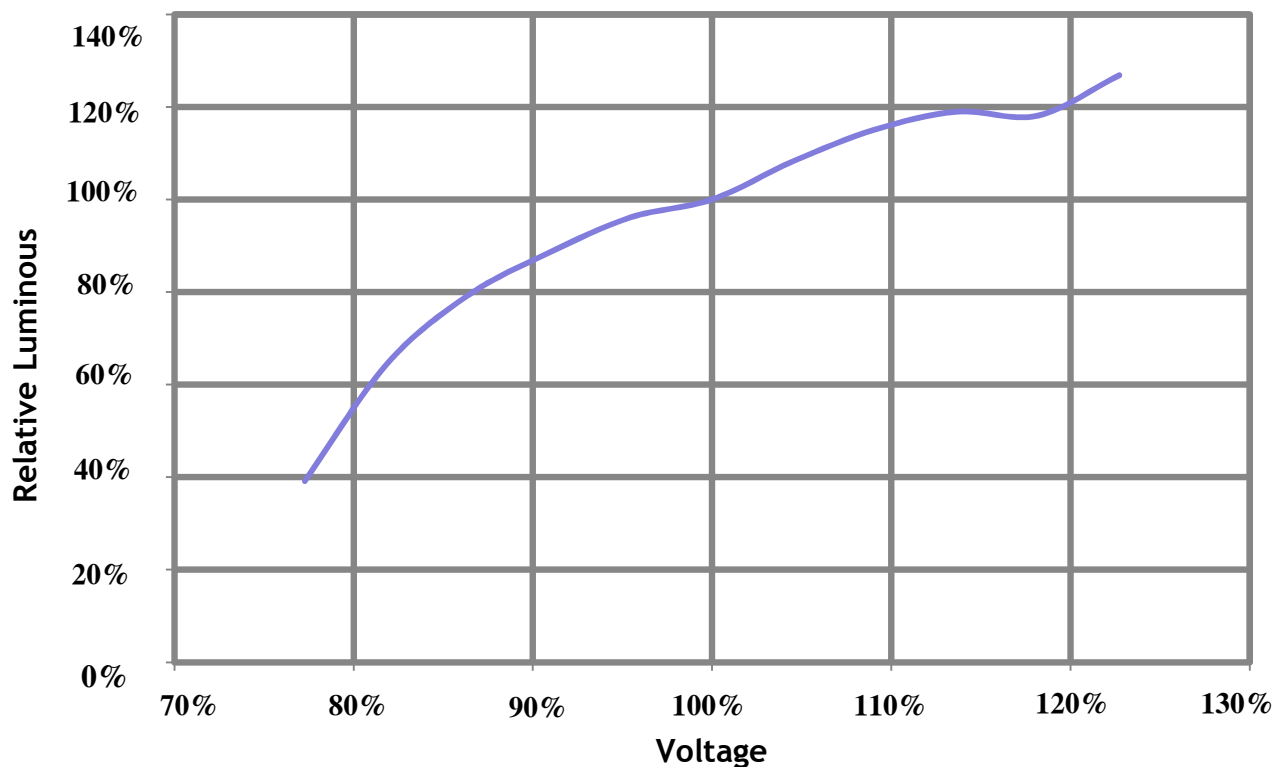


## Characteristic curve

### Power Dissipation vs. Voltage



### Relative Luminous Flux vs. Voltage



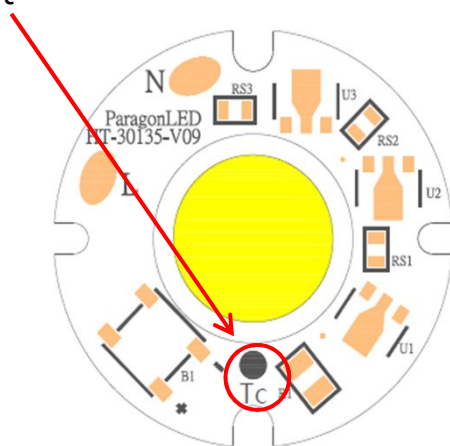
## Reliability

No.	Test Item	Test Condition	Remark
1	Temperature Cycle	-40°C~100°C ( 30 mins / 30 mins )	100 Cycle
2	Low-Temperature Storage	Ta= -40°C	1000 hrs
3	High-Temperature Storage	Ta=105°C	1000 hrs
4	High Temperature High Humidity Life test	Ta=85°C, RH=85%	500 hrs
5	High Temperature Operation Life test	Tc = 55°C / 85°C / 105°C	9000 hrs
6	Super High Temperature Operation Life test	Tc = 125°C	500 hrs
7	ON/OFF Test	3 sec ON, 3 sec OFF	2Million times

TA : Temperature Ambient

RH : Relative Humidity

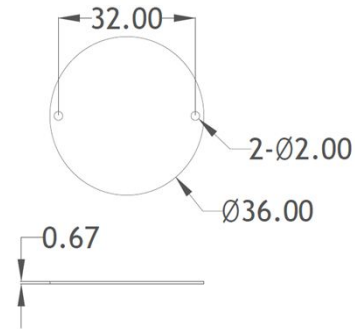
TC Point



## Accessory

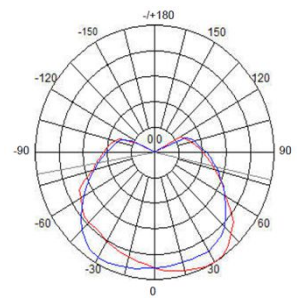
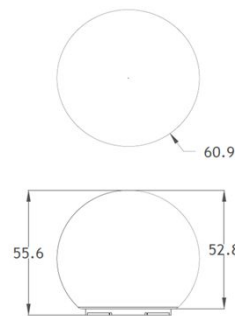
### Thermal Pad

Thermal pad applied for:  
Gray : 1.5W/mk  
Yellow : 3W/mk  
Blue : 5W/mk  
Dimensions (ØxH): 36x0.67mm

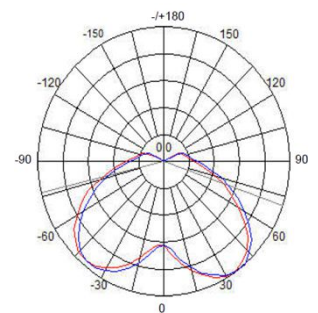
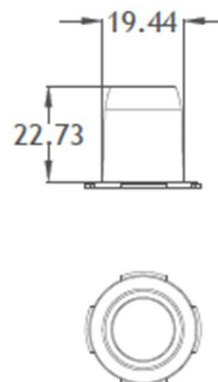
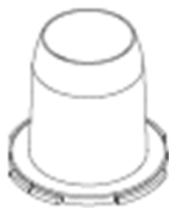


### Accessories

**Buld diffuser -270°**  
Dimensions (ØxH): 60.9x55.6mm



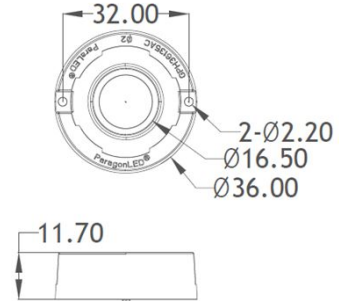
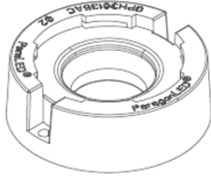
**Light guide column-270°**  
Dimensions (LxH): 19.44x22.73mm



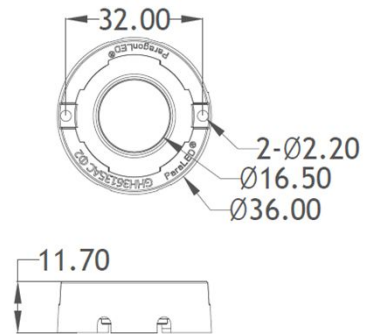
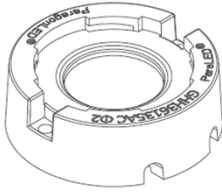
## Accessory

### Protection ring

Dimensions (ØxH): 36x11.70mm  
NO.GPH36135AC Ø2



Dimensions (ØxH): 36x11.70mm  
NO.GHH36135AC Ø2



## Assembly Notes

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Screw M2  
Mounting screws  
with 0.4N.m

ParagonLED  
COB Module

Thermal Pad  
Thickness:0.67mm  
Thermal  
Dielectric Breakdown  
Voltage>4kv  
UL-94-V0

Heat Sink



## Assembly Notes

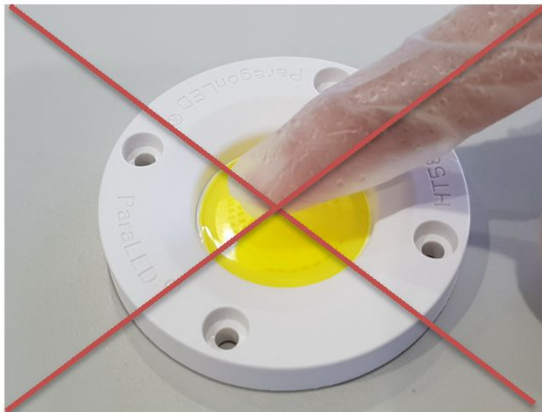
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### Correct

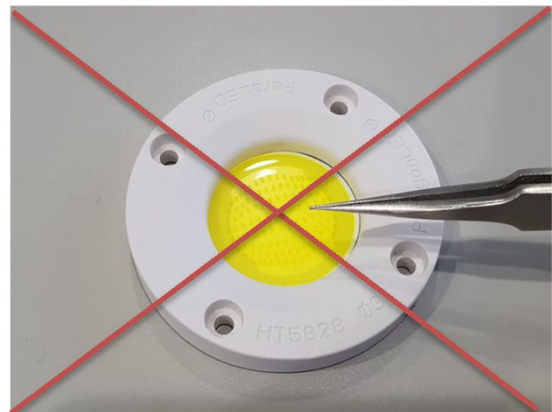
Recommended to use antistatic gloves



### Wrong



Do not touch the emitting area



Do not touch the emitting area



## About ParagonLED

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Established in 2008, Paragon Semiconductor Lighting Technology Co., Ltd. (ParagonLED®) has been devoted to be a comprehensive supplier of COB LED products. Our product lines include 1.AC LED module 2.Thermal management integration 3.Optical integration 4.AI integration 5.Constant power module series. We have been addressed ourselves to provide good quality products to satisfy clients' needs. Meanwhile we are not in a standstill situation, but keep pursuing progression and innovation.

ParagonLED® pride ourselves on our products, so we have overall arrangement in patent; the total applied patents have been reached 135 items until now. Our manufacturing techniques are also patented by many countries, and we still keep moving forward. Meanwhile we supply good quality products with good performance on CRI and efficiency (lm/w), and strictly controlled CCT.

In ParagonLED®, we do not only supply products, but also provide technical recommendations. What's more, we are more than willing to solve problems with clients together. Hence ParagonLED® and our clients can work together to supply reliable and qualified products to end users!

Devote ourselves to bring more added-value to clients

- →Direct Marketing + Localized operation

We have offices in Taiwan, in DongGuan, China, so that we can deal with enquiries directly. Also with agents in many different countries, we and they are able to take care of clients on local basis.

- → Fast delivery

With the manufacturing site located in New Taipei City Linkou, Taiwan, we have different yet convenient transportation ways to reach the world.

- Customized service

Through professional and experienced research and development techniques, we provide customized products that can be tailored to different requirements.

