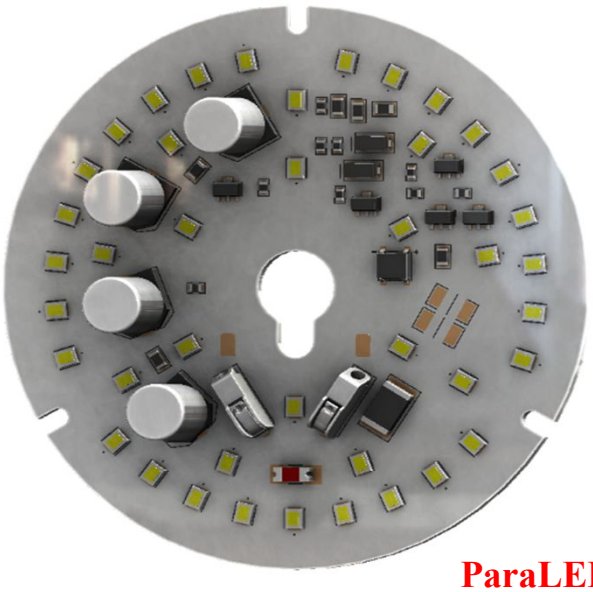
ParagonLED®

ParaLED G2C000100 Series Datasheet



ParaLED®

Introduction :

Compared with DC LED modules, ParagonLED AC (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 :

--120V AC
--18W
--90 LM/W
--3000K CCT
--90 CRI
--PF>0.97
--Customized available
--THDi<25%

Feature and Benefits:

--Driver on Board
--Industry grade solid state components
--Up to 2KV Surge protection built-in
--RingWave 2.5KV
--Lifespan>50K hrs TC<85℃
--Lowest thermal resistance
--Flicker<28%
--Dimmable

Table of Contents

General Information

Ordering Code Format

G2	C	000100	-	120V	18WD	30	-	HE
1	2	3		4	5	6		7

1 . Dimmable

2 . Product Series type

3 . Outline Dimension(mm)

4 . Voltage(VAC)

5 . Power Dissipation (W)

6 . Color Temperature(CCT)

7 . High Efficiency

Characteristics

Parameter	Symbol	Value	Unit
Forward Voltage	V_F	120	VAC
Forward Voltage range	V_F	±10%	VAC
Operation Frequency	Fop	60	Hz
Power Dissipation	P_D	18±10%	W
Operating Temperature	T_{op}	-40 ~ +85	℃
Storage Temperature	T_{st}	-40 ~ +85	℃
Surges Protection(L/N)	V_s	2	KV
RingWave	V_s	2.5	KV
Insulation voltage	Viso[RMS]	120V:1240	VAC
Power Factor	PF	>0.97	
Flicker(200HZ)		<28	%
THDi		<25	%

ANSI CCT	step*	Cx	Cy
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*	Cx	Cy
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.

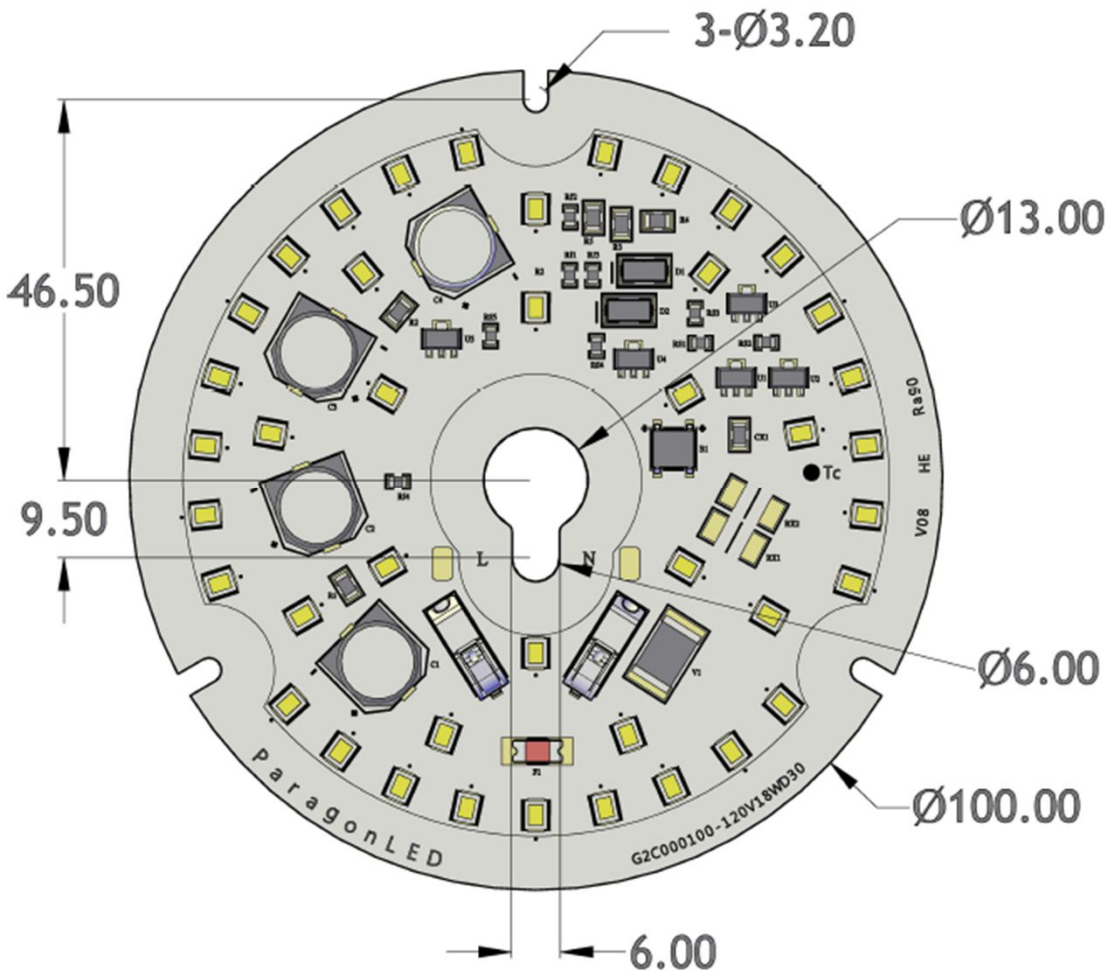
Characteristics

Parts	Lower category Temperature(° C)	Upper category Temperature(° C)	suggestion(° C)
IC	-40	150	105
LED	-40	105	90
capacitors	-40	105	90

Luminous Flux Characteristic

Product No	Forward Voltage	Watt	lm/W	Lumen	Color rendering	Color Temperature
G2C000100-120V18WD30-HE	120V	18	90	1500	90	3000

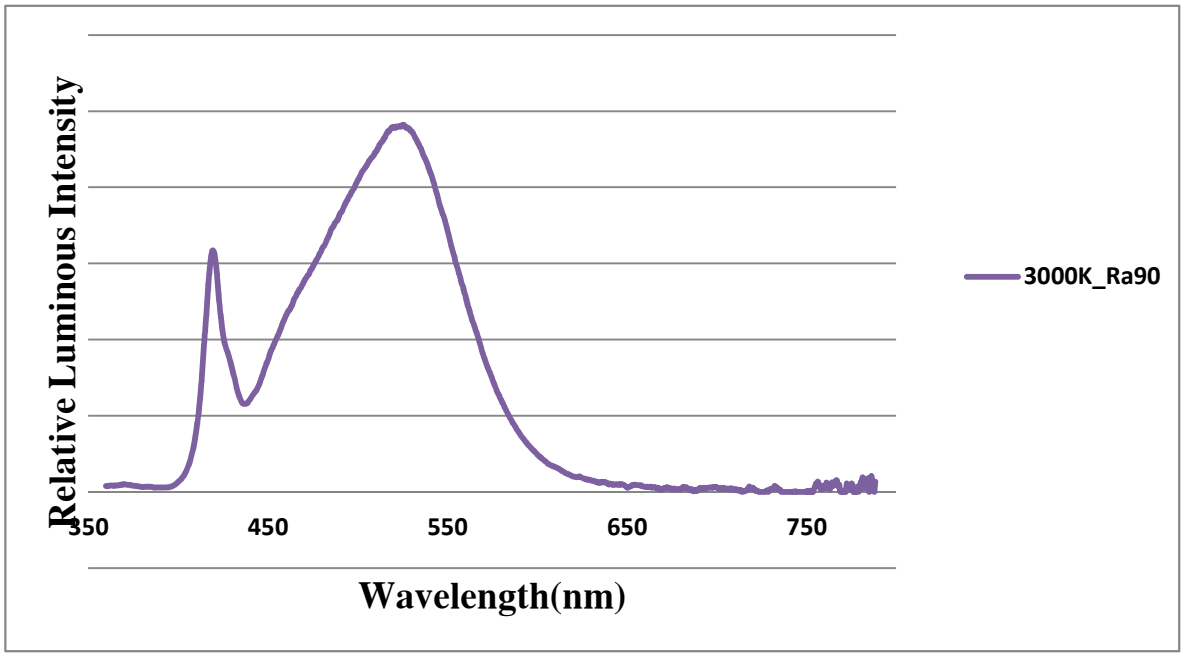
Mechanical Dimensions



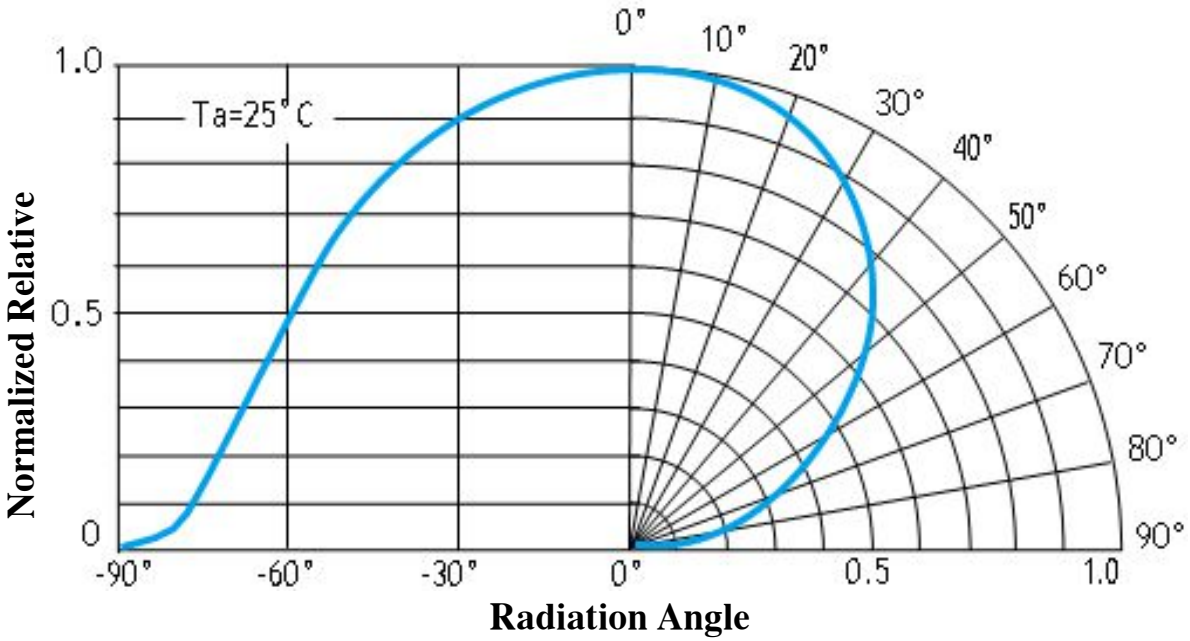
1. All dimensions are measured in mm.
2. Tolerance : ± 0.2mm
3. Thickness:1.6±0.1mm

Characteristic curve

Color Spectrum

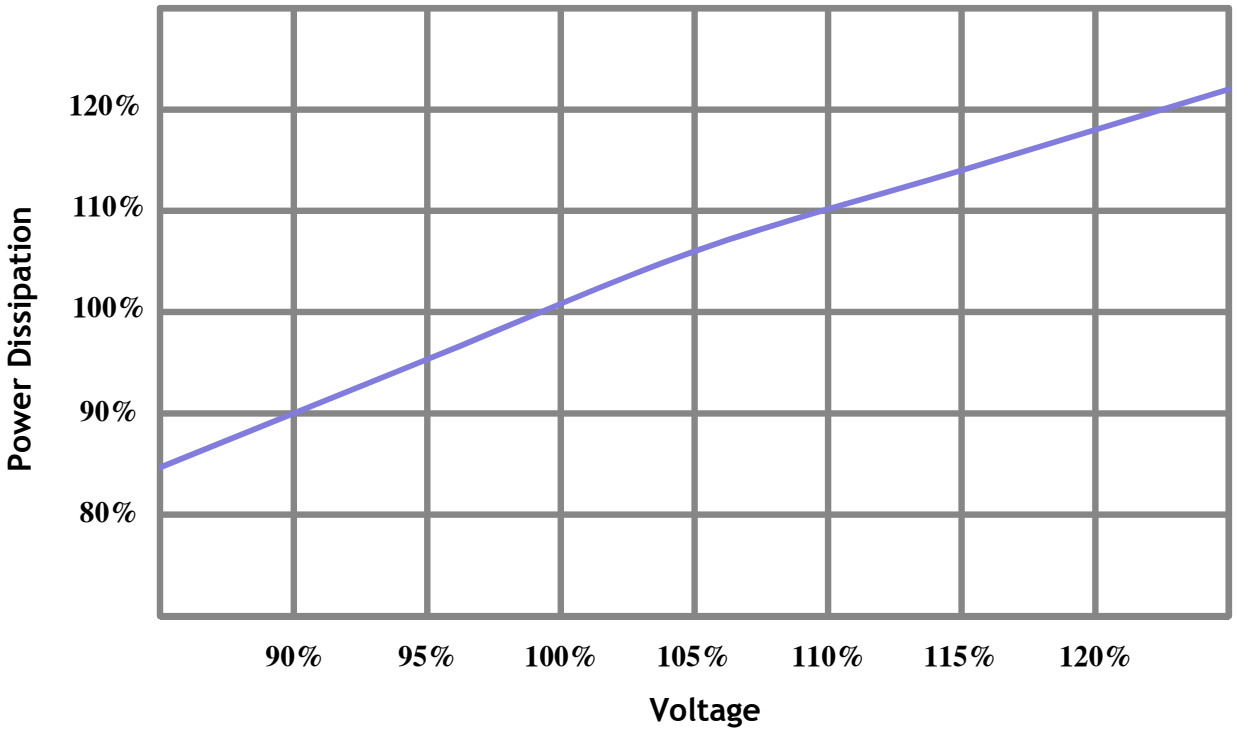


Beam Pattern

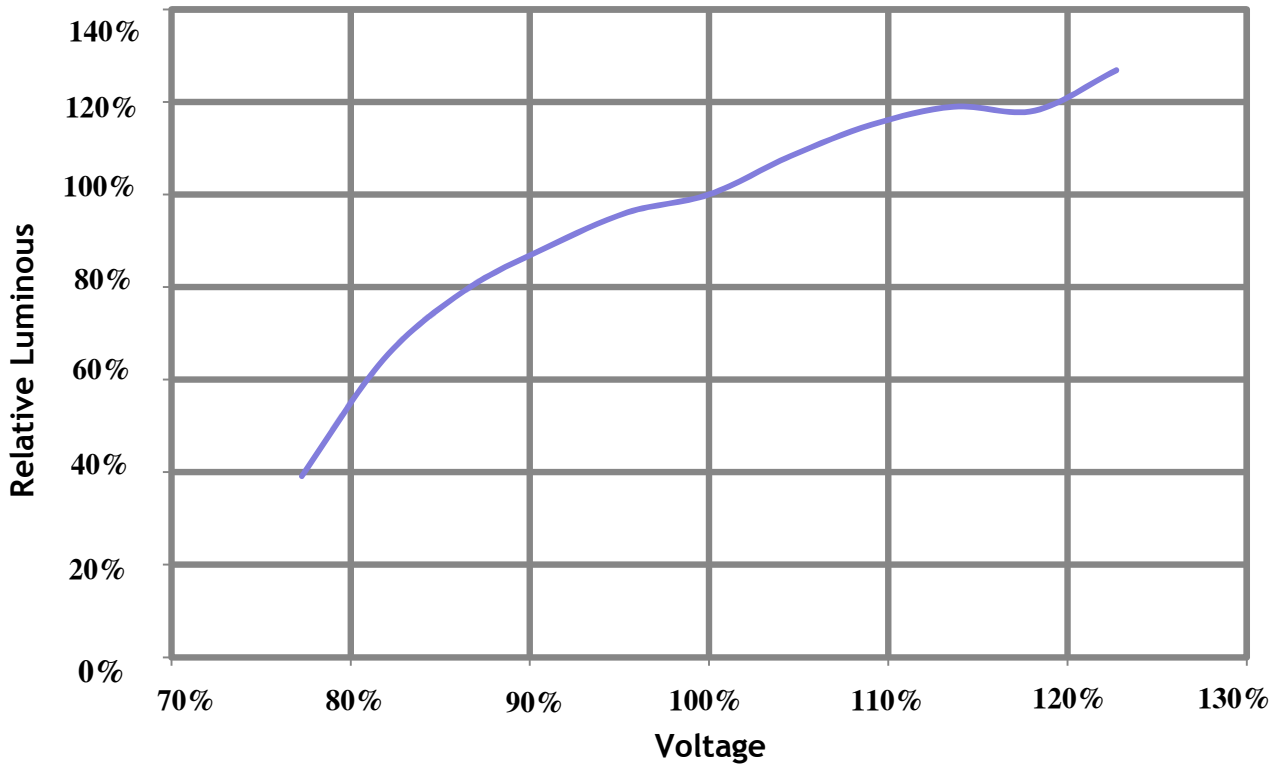


Characteristic curve

Power Dissipation vs. Voltage



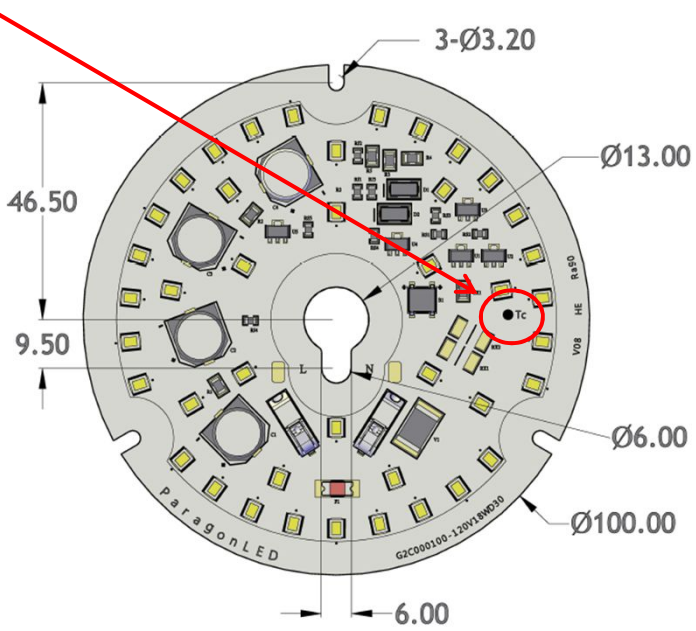
Relative Luminous Flux vs. Voltage



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=85°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 / 70°C / 85°C	6000 hrs
6	ON/OFF Test	3 sec ON, 3 sec OFF	2Million times

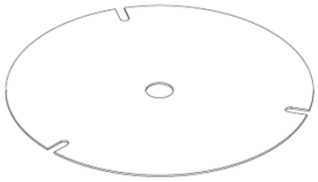
Ta : Temperature Ambient
RH : Relative Humidity
Tc Point

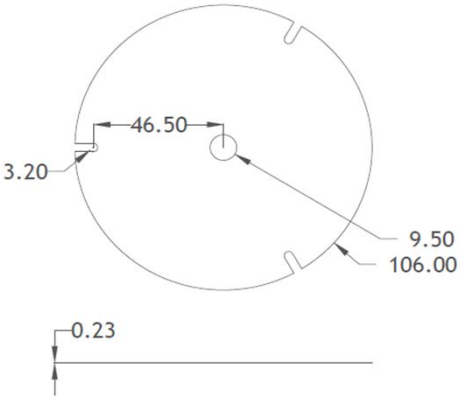


Accessory

Thermal Pad

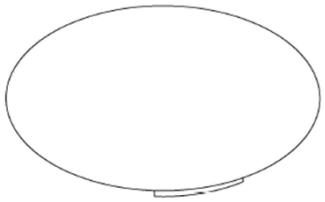
Dimensions (ØxH): 106.00x0.23mm
Thermal pad applied for: 1.2W/mk
NO:M04-E0082

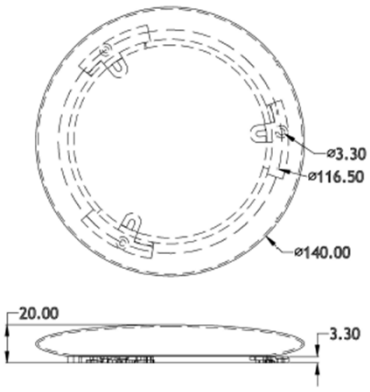




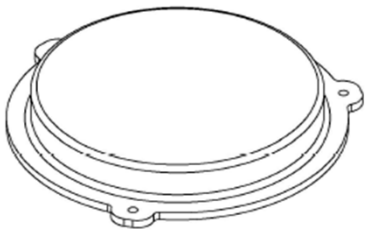
Accessories

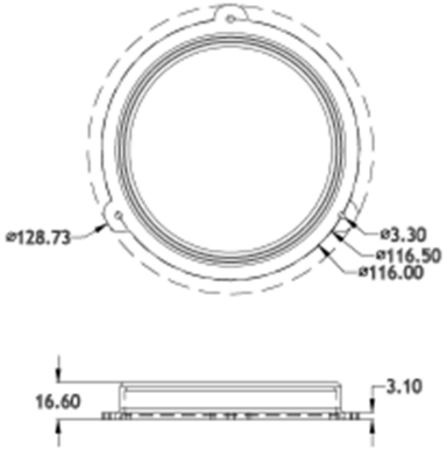
Dimensions (ØxH): 140.00x20.00mm
NO:140100C





Dimensions (ØxH): 128.73x16.60mm
NO :116C

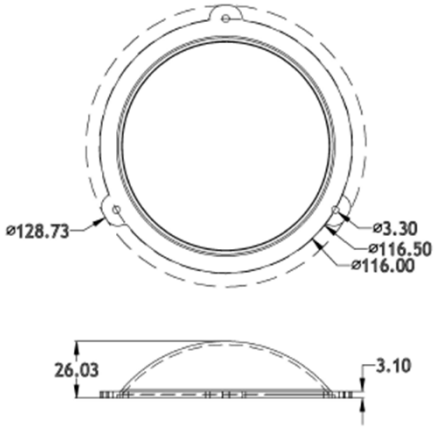




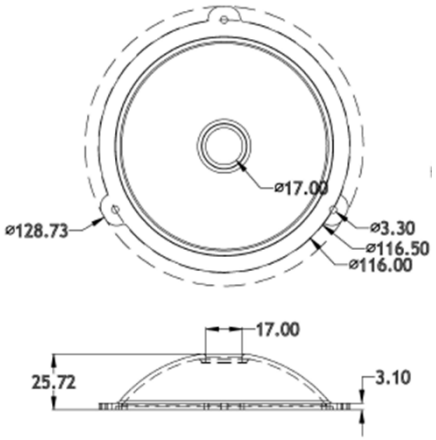
Accessory

Accessories

Dimensions (ØxH): 128.73x26.03mm
NO:116C-ARC-V01

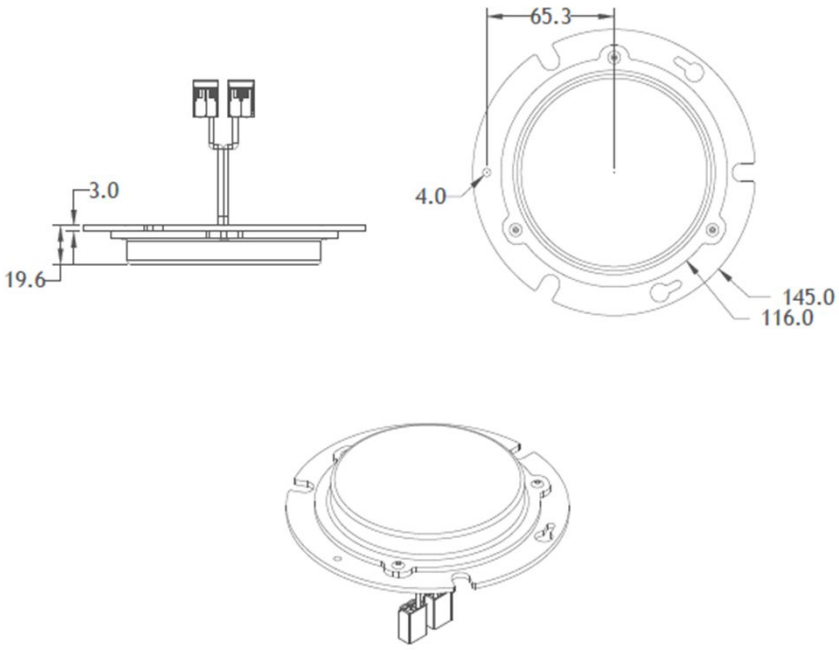


Dimensions (ØxH): 128.73x25.72mm
NO :116C-ARC-H-V02

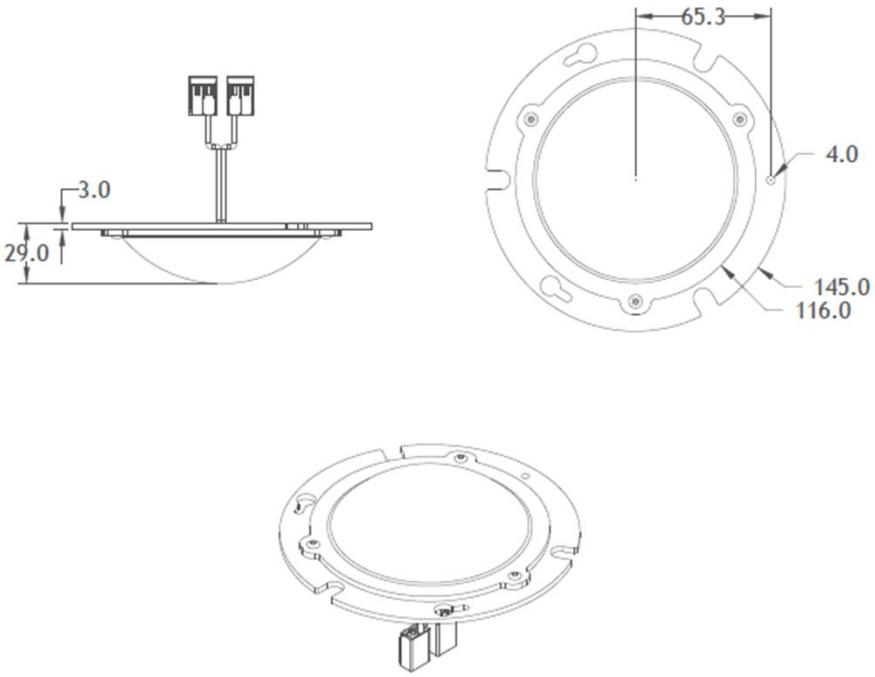


Thermal module options

NO :CPDD-G2C000100-120V18WD-V08-116C

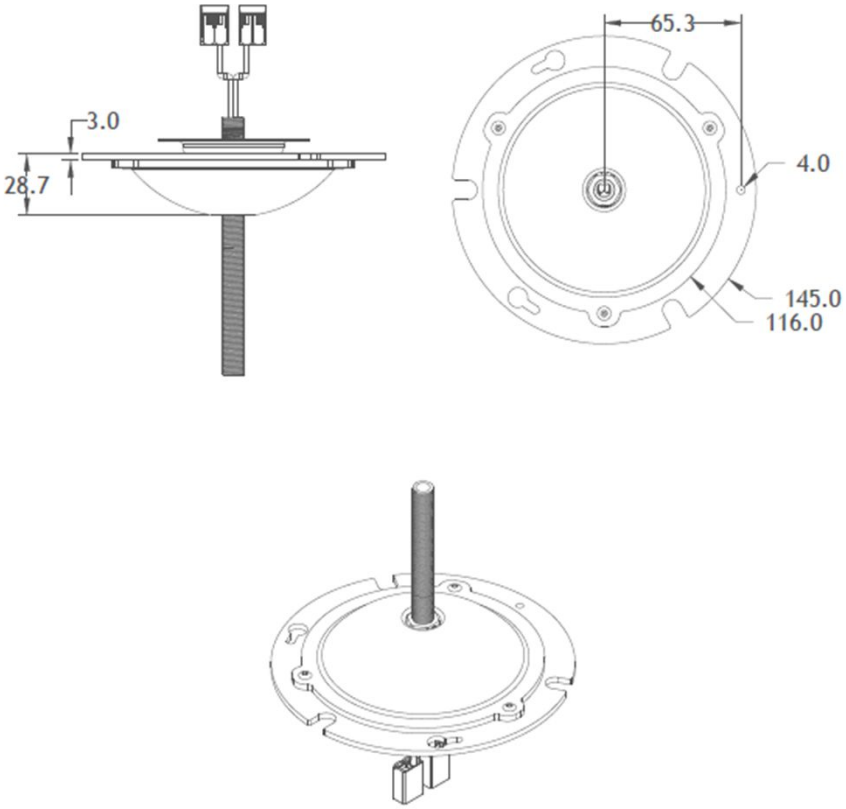


NO:CPDD-G2C000100-120V18WD-V08-116C-ARC-V01

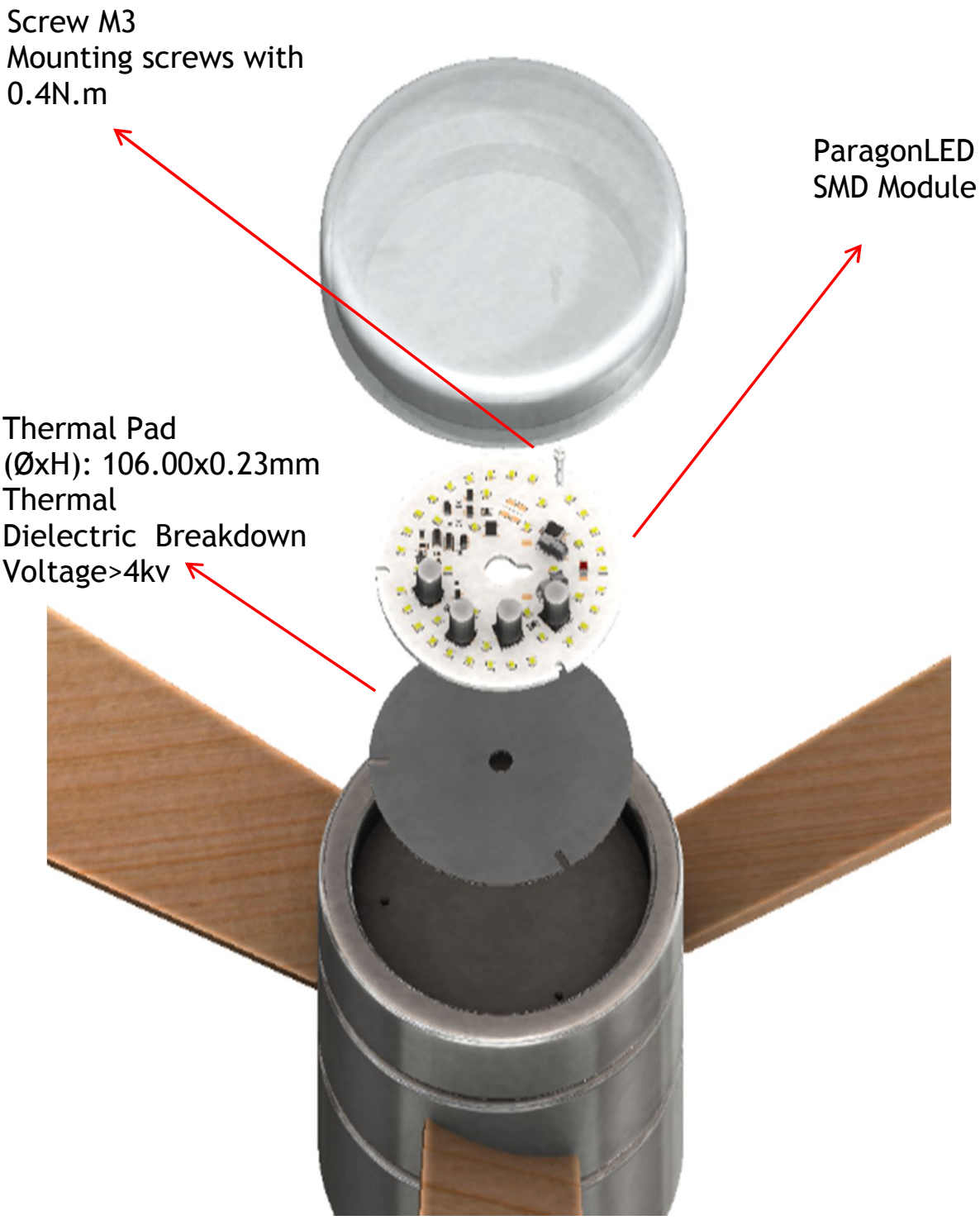


Thermal module options

NO :CPDD-G2C000100-120V18WD-V08-116C-ARC-H-V02



Assembly Notes

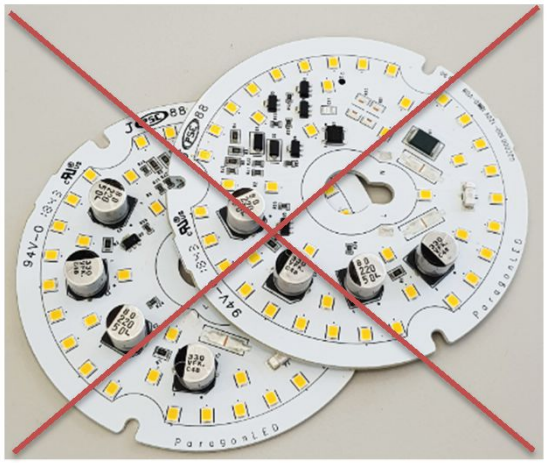


Assembly Notes

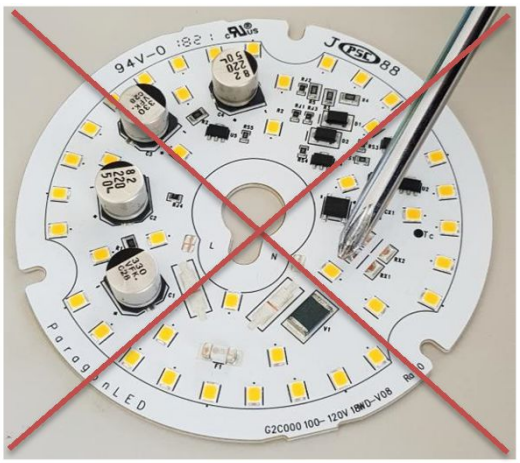
Recommended to antistatic gloves

Correct

Wrong



Do not pile up light engine or lay heavy object over light engine



Do not touch the emitting area with sharp stuff

About ParagonLED

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.