

Chameleon

ParaLED AC G1L560040LED Module Datasheet



Introduction :

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

Description :

- 120/230/277/VAC
- 100-130 LM/W
- 2700/3000/3500/4000/4500/5000K CCT
- CRI 95
- PF>0.90
- Customized available

Feature and Benefits:

- Driver on Board
- Industry grade solid state components
- Up to 8.0KV Surge protection built-in
- Lifespan L70>72,000Hrs TC@105°C
- Lowest thermal resistance



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General Information

Ordering Code Format

$\frac{G1}{1} \frac{L}{2} \frac{560040}{3} - \frac{xxxV}{4} \frac{yyWD}{5}$
120V
230V
277V

- 1 . Non-Dimmable
- 2 . Product Series type
- 3 . Outline Dimension(mm)
- 4 . Voltage(VAC)
- 5 . Power Dissipation (W)



Characteristics

Parameter	Symbol	Value	Unit
Forward Voltage	V _F	120/230/277	VAC
Forward Voltage	V _F	±10%	VAC
Operation Frequency	F _{op}	50/60	Hz
Power Dissipation	P _D	10/15/20/25/30 (All in one module)	W
Operating Temperature	T _{op}	-40 ~ +105	°C
Storage Temperature	T _{st}	-40 ~ +105	°C
Surges Protection(L/N)	V _s	8	KV
Insulation voltage	Viso[RMS]	120V:1240 / 230V:1460 277V:1554	VAC
Power Factor	PF	>0.90	
Color coordination	ANSI C78.377:2008	IEC 60081:1997	

ANSI CCT	step*	C _x	C _y
2700K	5	0.458	0.410
3000K	5	0.434	0.403
3500K	5	0.407	0.392
4000K	5	0.382	0.380
4500k	5	0.361	0.366
5000K	5	0.345	0.355

*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
G1L560040-120VxxWD	120V	10	107	1070	95	2700
			114	1140	98	3000
			121	1210	98	3500
			124	1240	97	4000
			124	1240	97	4500
			123	1230	94	5000
		15	105	1575	94	2700
			112	1680	97	3000
			121	1815	98	3500
			123	1845	97	4000
			123	1845	96	4500
			122	1830	94	5000
		20	110	2200	94	2700
			117	2340	97	3000
			120	2400	98	3500
			123	2460	97	4000
			122	2440	96	4500
			124	2480	94	5000
		25	101	2525	94	2700
			108	2700	97	3000
			117	2925	98	3500
			117	2925	97	4000
			118	2950	96	4500
			114	2850	94	5000
		30	115	3450	94	2700
122	3660		97	3000		
131	3930		97	3500		
132	3960		97	4000		
130	3900		96	4500		
125	3750		94	5000		



Luminous Flux Characteristic

Product No	Forward Voltage	Watt	lm/W	Lumen	Color rendering	Color Temperature
G1L560040-230VxxWD	230V	10	108	1080	95	2700
			115	1150	98	3000
			122	1220	98	3500
			125	1250	97	4000
			125	1250	97	4500
			124	1240	94	5000
		15	106	1590	94	2700
			113	1695	97	3000
			122	1830	98	3500
			124	1860	97	4000
			124	1860	96	4500
			123	1845	94	5000
		20	111	2220	94	2700
			118	2360	97	3000
			121	2420	98	3500
			124	2480	97	4000
			123	2460	96	4500
			125	2500	94	5000
		25	102	2550	94	2700
			109	2725	97	3000
			118	2950	98	3500
			118	2950	97	4000
			119	2975	96	4500
			115	2875	94	5000
		30	116	3480	94	2700
			123	3690	97	3000
			132	3960	97	3500
			133	3990	97	4000
131	3930		96	4500		
126	3780		94	5000		



Luminous Flux Characteristic

Product No	Forward Voltage	Watt	lm/W	Lumen	Color rendering	Color Temperature
G1L560040-277VxxWD	277V	10	109	1090	95	2700
			116	1160	98	3000
			123	1230	98	3500
			126	1260	97	4000
			126	1260	97	4500
			125	1250	94	5000
		15	107	1605	94	2700
			114	1710	97	3000
			123	1845	98	3500
			125	1875	97	4000
			125	1875	96	4500
			124	1860	94	5000
		20	112	2240	94	2700
			119	2380	97	3000
			122	2440	98	3500
			125	2500	97	4000
			124	2480	96	4500
			126	2520	94	5000
		25	103	2575	94	2700
			110	2750	97	3000
			119	2975	98	3500
			119	2975	97	4000
			120	3000	96	4500
			116	2900	94	5000
		30	117	3510	94	2700
			124	3720	97	3000
			133	3990	97	3500
			134	4020	97	4000
			132	3960	96	4500
			127	3810	94	5000

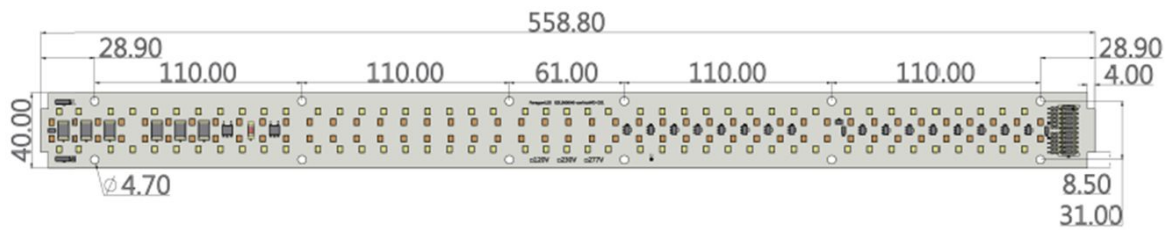


Channel Code

	2700K	3000K	3500K	4000K	4500K	5000K
10W	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □
15W	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □
20W	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □
25W	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □
30W	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □	1 2 3 4 5 6 7 8 9 10 □ □ □ □ □ □ □ □ □ □



Mechanical Dimensions

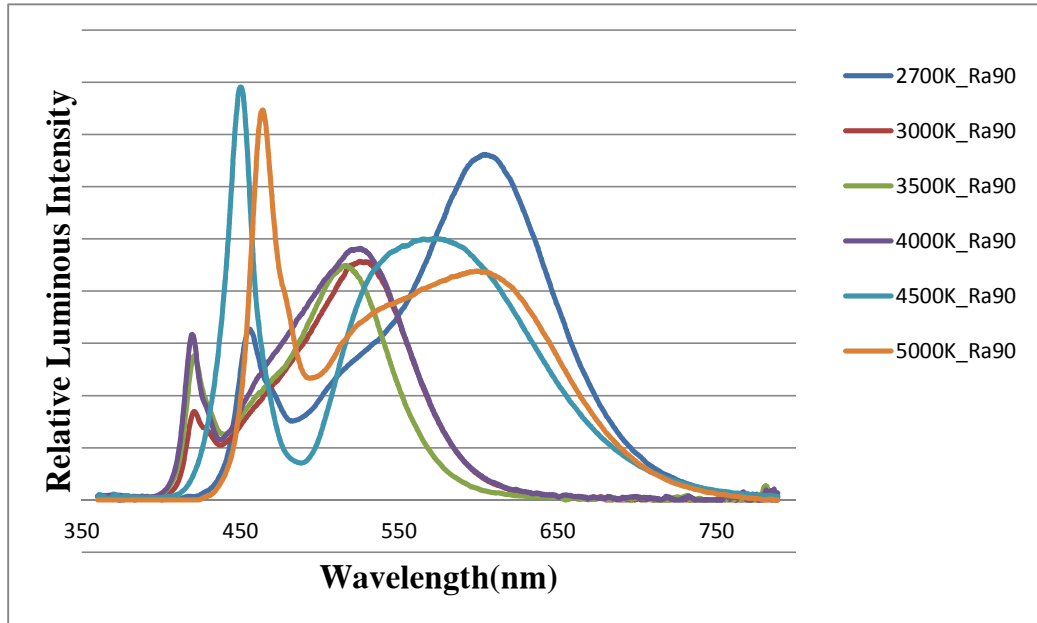


1. All dimensions are measured in mm.
2. Tolerance : $\pm 0.2\text{mm}$
3. Thickness: $1.6\pm 0.1\text{mm}$

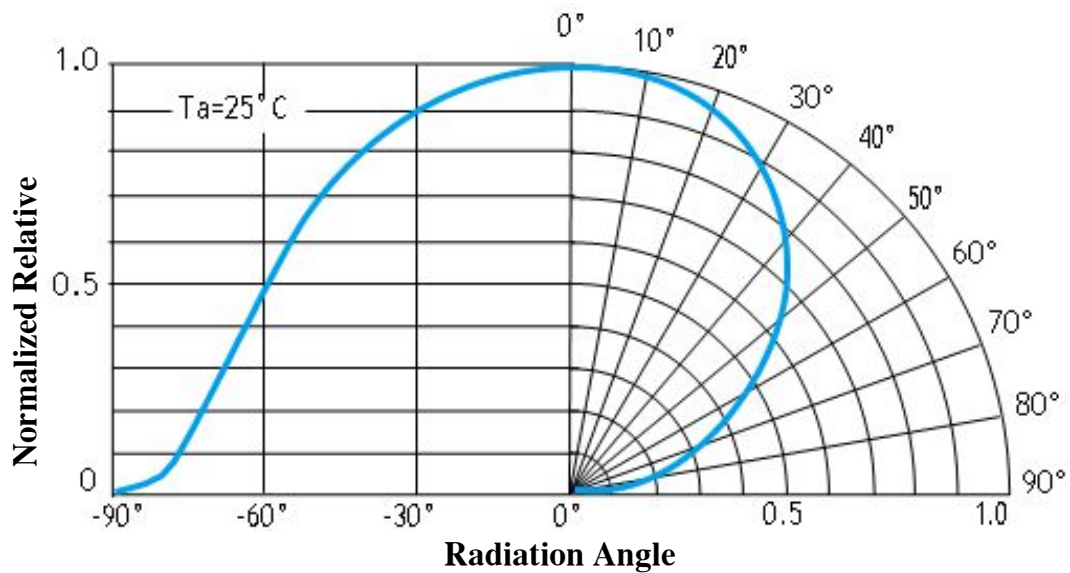


Characteristic curve

Color Spectrum

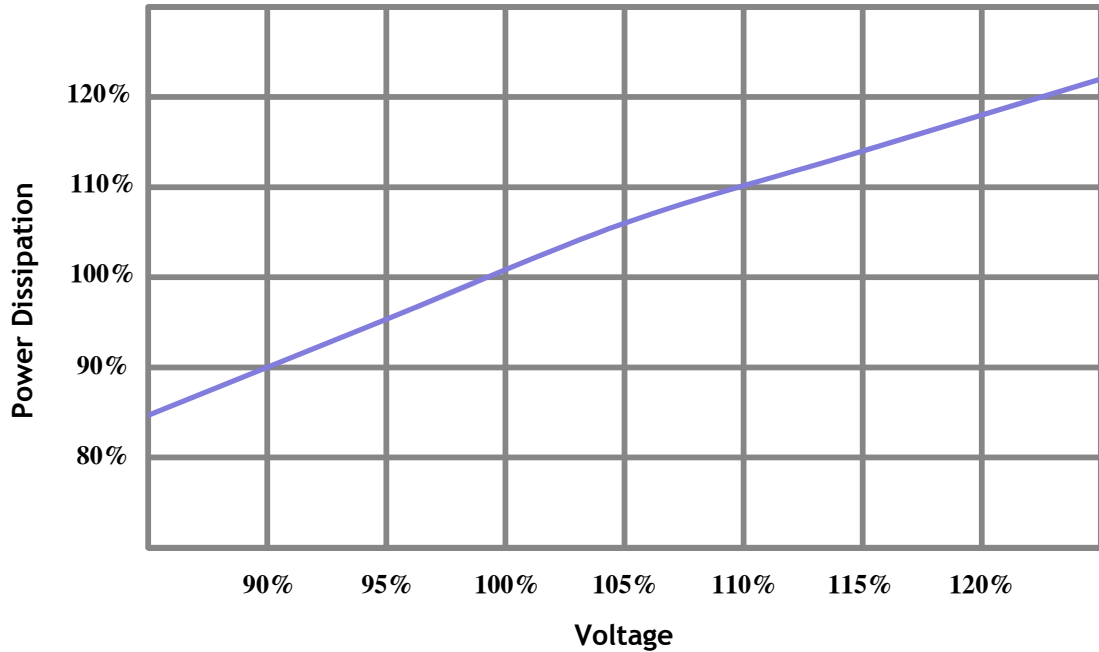


Beam Pattern

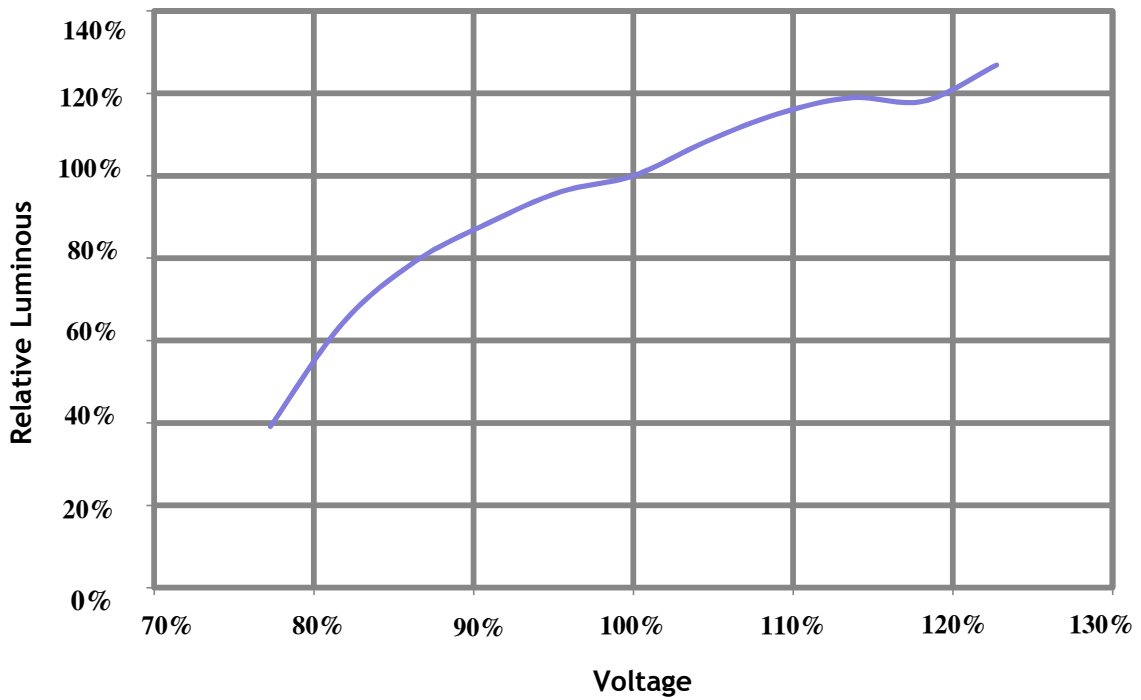


Characteristic curve

Power Dissipation vs. Voltage



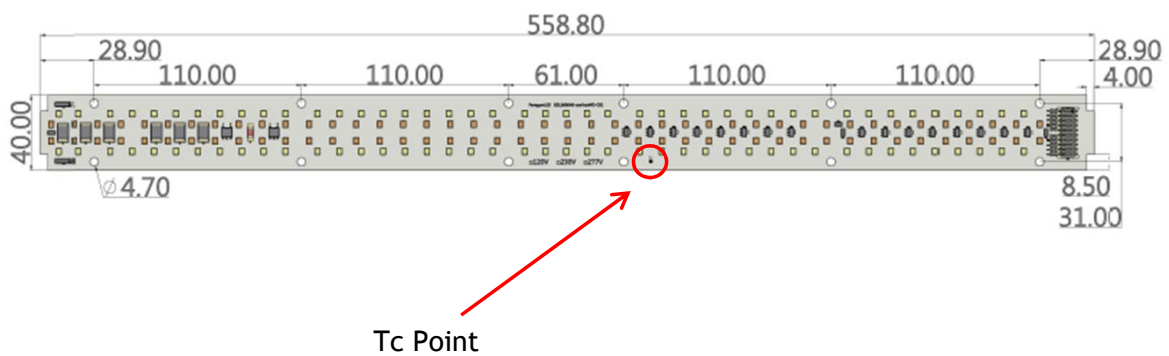
Relative Luminous Flux vs. Voltage



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	ON/OFF Test	3 sec ON, 3 sec OFF	2Million times

Ta : Temperature Ambient
RH : Relative Humidity



Assembly Notes

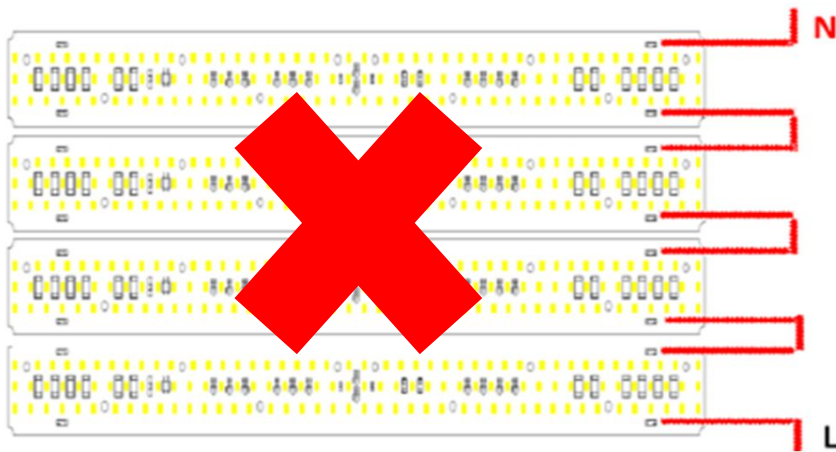
Connection Direction

1. Please make sure the corrected input voltage.
2. Connection direction refer to below image.
The LED module should connect by **PARALLEL ONLY**.

Correct Connection



Wrong Connection



Assembly Notes

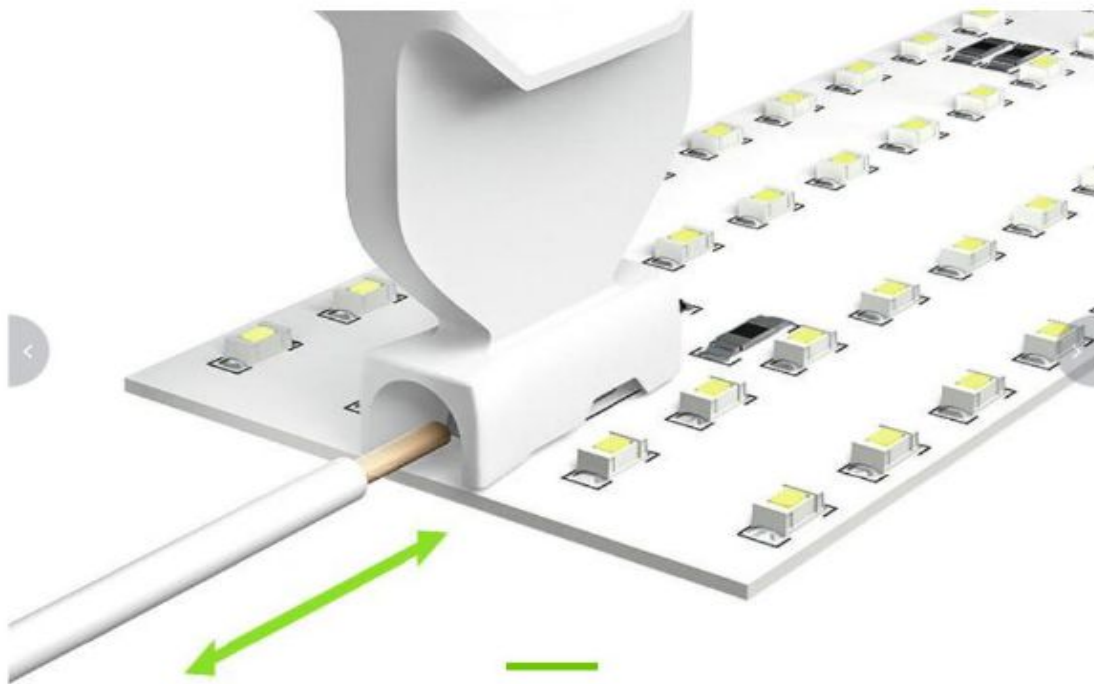
Wire Recommendation

Connection technology	Push-in CAGE CLAMP®
Actuation type	Push-button
Solid conductor	0.2 ... 0.75 mm ² / 24 ... 18 AWG
Fine-stranded conductor	0.2 ... 0.75 mm ² / 24 ... 18 AWG
Strip length	7.5 ... 9.5 mm / 0.3 ... 0.37 inch



Vender: Wago, Item no. 2065-100/998-403

Connector Operating Tool



Push-in CAGE CLAMP® version: Insert fine-stranded conductors – and remove all conductors – via operating tool. Solid conductors can be terminated by simply pushing them in.

Vender: Wago, Item no. 2065-189



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.

