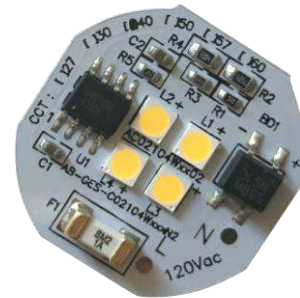


## AB-GES-C02104WxxNN2

### Features & Applications

#### Features:

- 4W circular AC LED light engine
- SimpleDrive® - 120V AC drive technology
- Driver on Board structure
- Long life - No Electrolytic capacitors
- Easily to be integrated
- UL Compliance

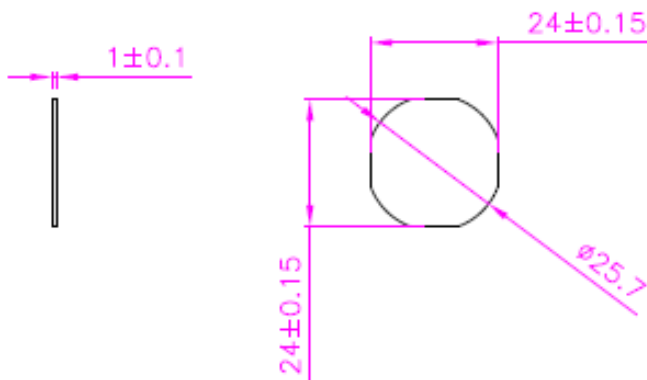
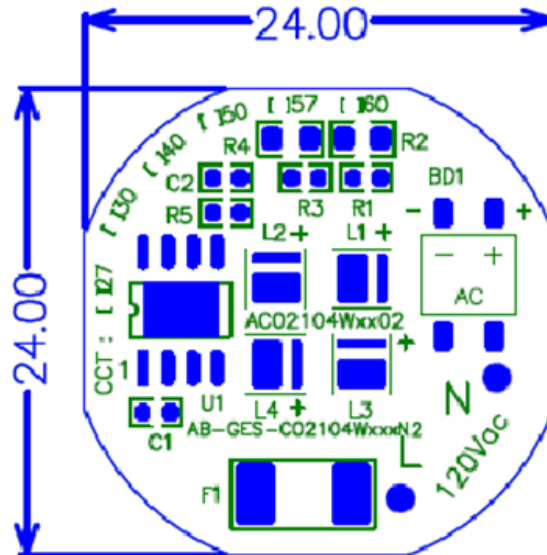


#### Applications:

- Suspension light
- Crystal light
- Underground light
- Wall mounted light



## Outline Dimensions



Units: mm

### Notes:

1. Wire connection is used
2. Thickness of PCB is 1.0mm, there's no Thermal tape in the back side of Module
3. Tolerance of dimension is  $\pm 0.15$ mm
4. TC point is in the center of AC DOB module. The Temperature of TC & LED soldering pad needs to be lower than  $75^{\circ}\text{C}$  and the temperature of top of IC needs to be lower than  $110^{\circ}\text{C}$ . If the temperature doesn't exceed the limitation of temperature, we can provide the warranty.



## Characteristics

### Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Input Voltage	V <sub>in</sub>	130	Vac
LED Junction Temperature	T <sub>J</sub>	115	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ 100 °C	°C
Operation Temperature	T <sub>opr</sub>	-40 ~ 85 °C	°C

- Proper current rating must be observed to maintain junction temperature below maximum at all time. For this product, we suggest to keep the Temperature of TC point under 75°C, and the temperature of Top IC surface under 115°C. After passing the maximum temperature of IC, the rating current will be lower automatically for protecting the whole circuit.

### Electrical Characteristics, Ta=25°C

Parameter	Symbol	Min.	Max.	Unit
Input Voltage	V <sub>in</sub>	110	130	Vac
Input Frequency	Freq.	50/60		Hz
Power Factor	PF	0.9	0.95	-

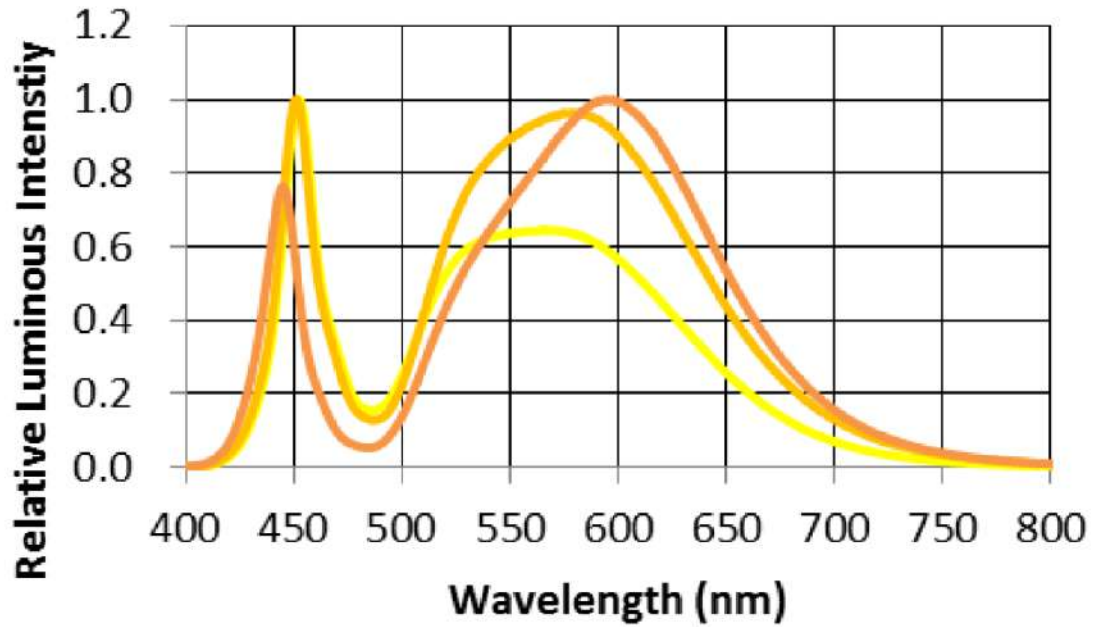
\* This surge protection is without the protection device circuit.

### Optical Characteristics (V<sub>in</sub>=120V), Ta=25°C

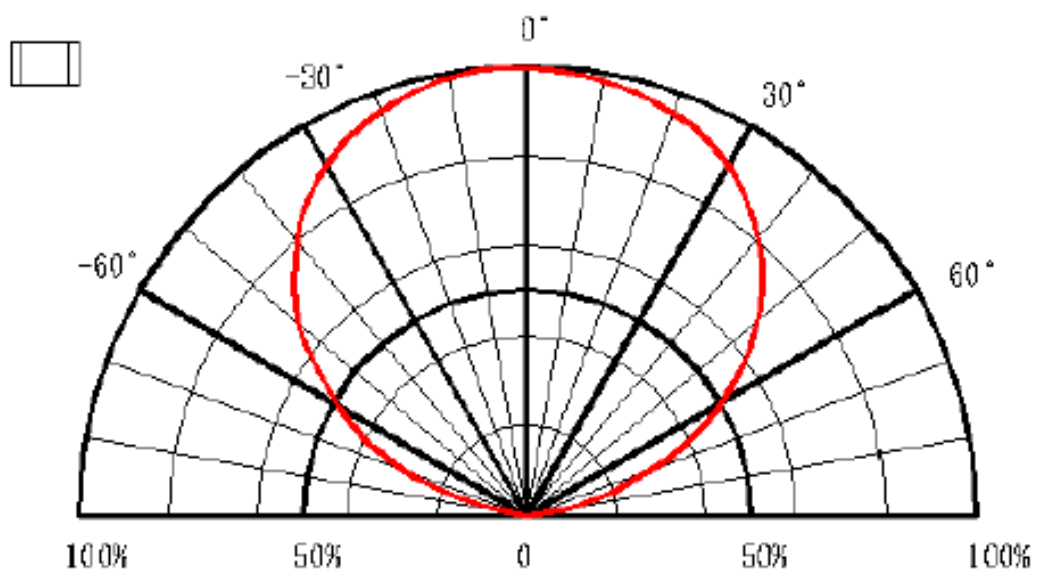
Model name	AC Power			Color Temp	Luminous Flux(lm)		CRI
	Min	Typ.	Max	(K)	Min	Typ	
AB-GES-C02104W30NN2	3.5	4.0	4.5	3000	270	300	>80
AB-GES-C02104W40NN2	3.5	4.0	4.5	4000	300	340	>80
AB-GES-C02104W50NN2	3.5	4.0	4.5	5000	300	340	>80

- Correlated color Temperature is derived from the CIE 1931Chromaticity diagram.
- The luminous flux tolerance is ± 10%.
- This CRI value tolerance is ± 2.
- Calibration accuracy of CIE<sub>x</sub> and CIE<sub>y</sub> : ±0.007 ;
- Calibration error CCT 3000K ±175K ; 4000K ±300K ; 6500K ±400K

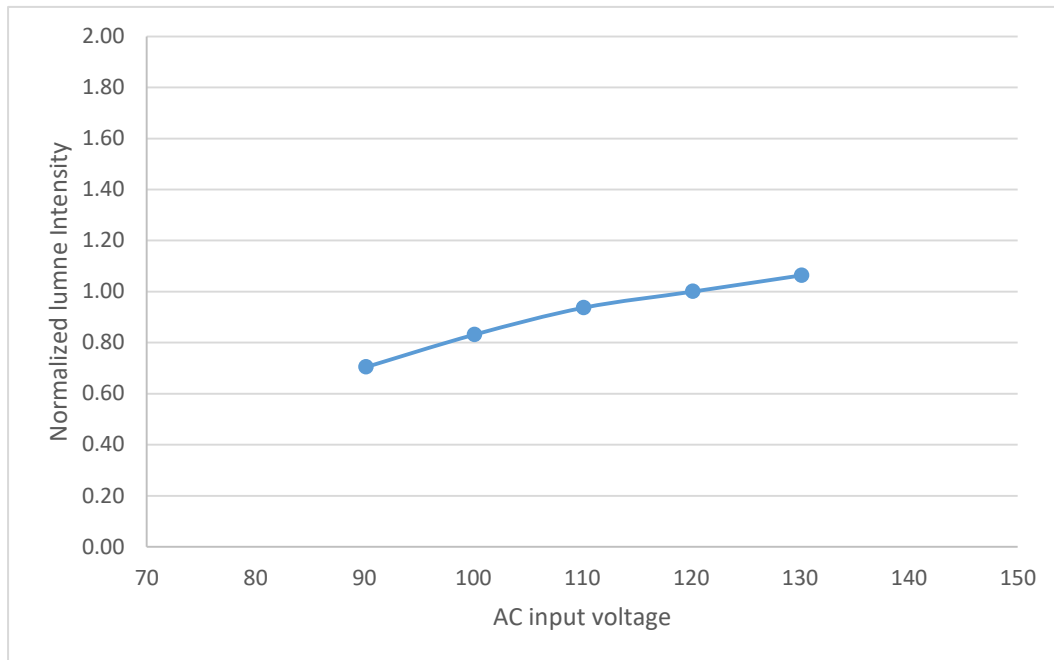
■ **Relative Spectrum of Emission (Ta=25°C)**



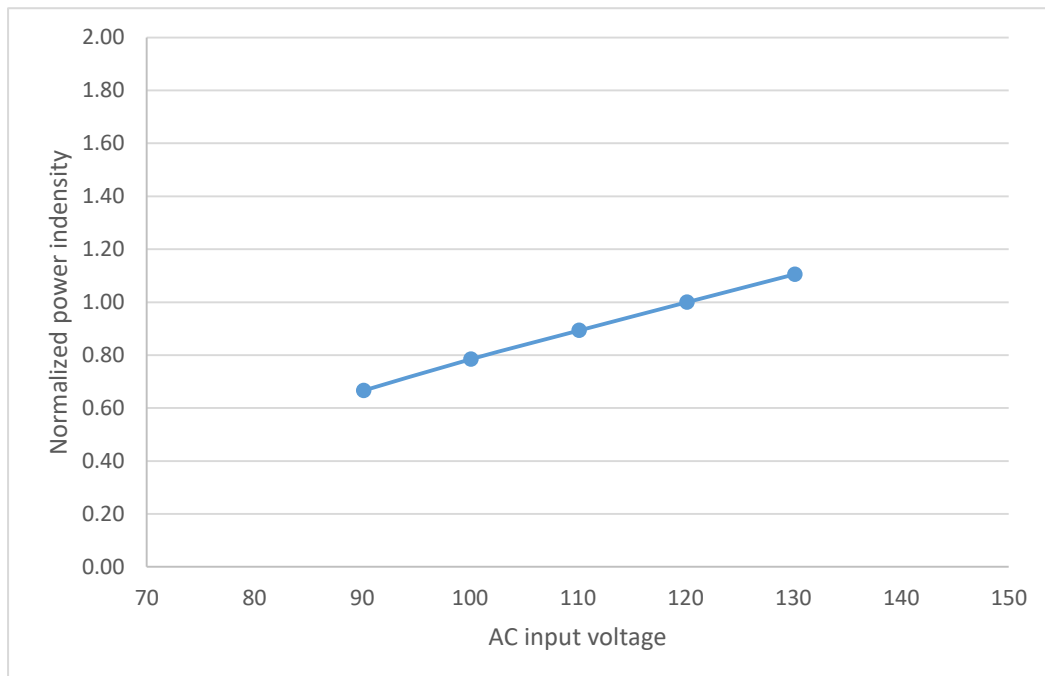
■ **Radiation Pattern**



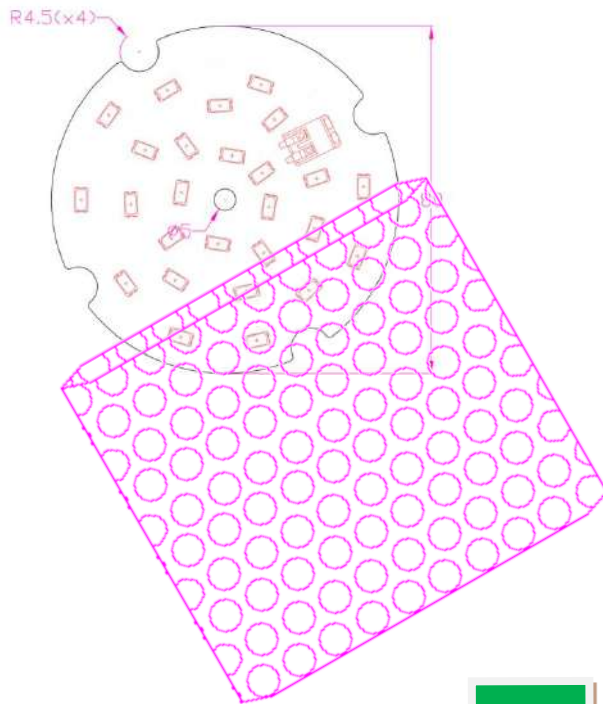
■ **Relative luminous vs. Input voltage (Ta=25°C)**



■ **Relative power distribution vs. Input voltage (Ta=25°C)**



### Packing



1 Box = 4K PCS (about 1.7 Kgs)

Box size (391mm x 226mm x 140mm) =TBD

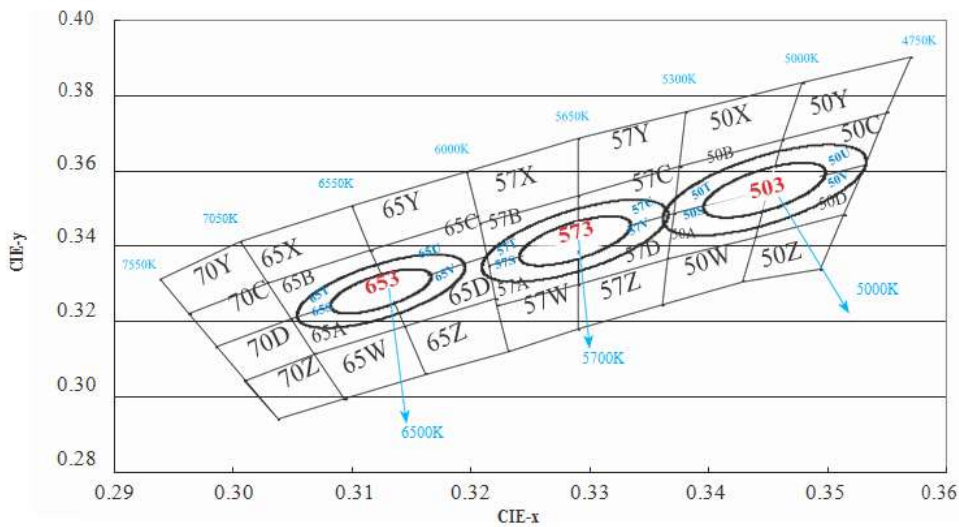
## Color Bin Code

Color region stays within Macadam "3-Step" ellipse from the chromaticity center. The chromaticity center refers to ANSI C78.377:2008.

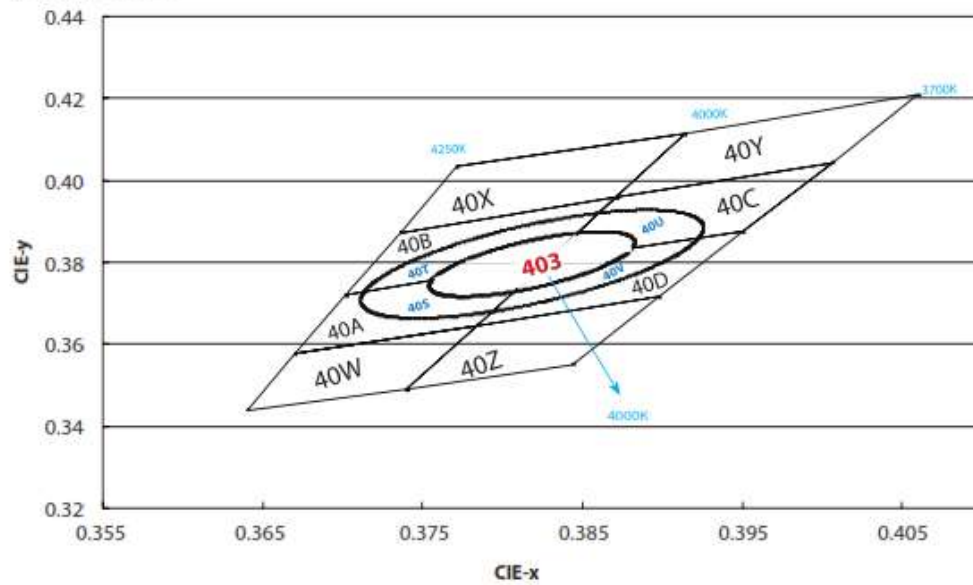
Please refer to ANSI C78.377 for the chromaticity center.

CCT	Steps	Cx	Cy	a	b	theta
2700K	3	0.4578	0.4101	0.00810	0.00420	53.70
3000K	3	0.4338	0.4030	0.00834	0.00408	53.22
3500K	3	0.4073	0.3917	0.00927	0.00414	54.00
4000K	3	0.3818	0.3797	0.00939	0.00402	53.72
5000K	3	0.3447	0.3553	0.00822	0.00354	59.62
5700K	3	0.3287	0.3417	0.00746	0.00320	59.09
6500K	3	0.3123	0.3282	0.00669	0.00285	58.57

Cool White



**Neutral White**



**Warm White**

