

Specification

AN4240 module (Preliminary)

SSC		고객명
Drawn	Approval	Approval

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Part number of AN4240 module

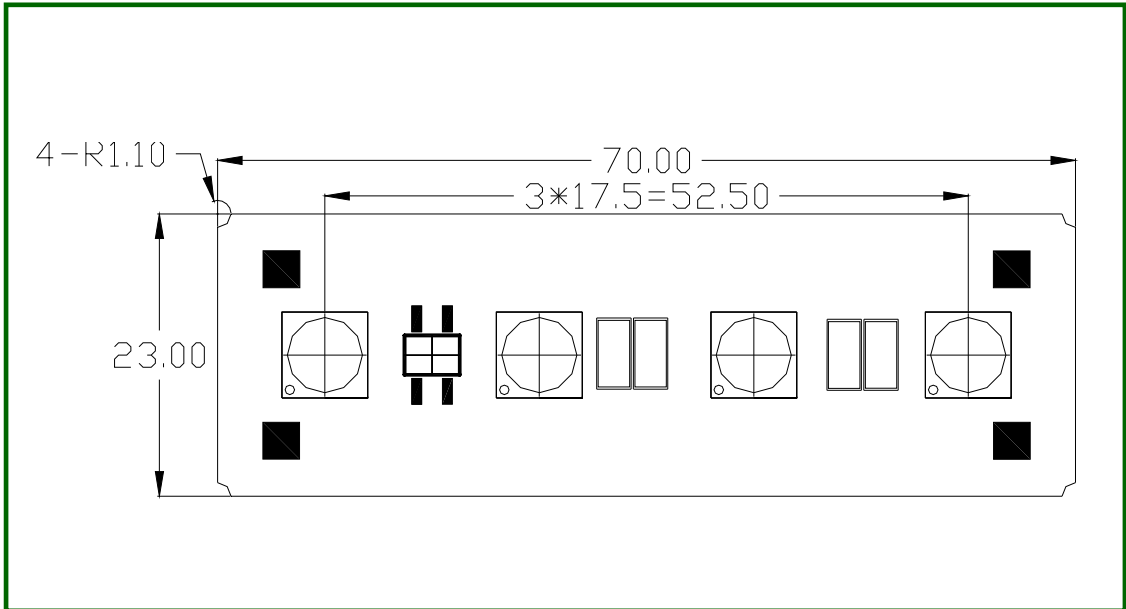
1. Part Number form : A X₁ X₂ X₃ X₄ X₅

X₁	Color	N	Warm white
X₂	Acriche series	4	A4 series
X₃	Lens type	2	Dome type
X₄	Voltage	0	100V(AC)
		1	110V(AC)
		2	220V(AC)
		3	230V(AC)
		4	50,55V, RMS (Emitter)
X₅	PCB type	1	4W Compact
		2	4W Square
		3	4W Line
		4	8W Bulb

For more information about binning and labeling, refer to the Application Note -1

Outline dimensions

1. AN4211

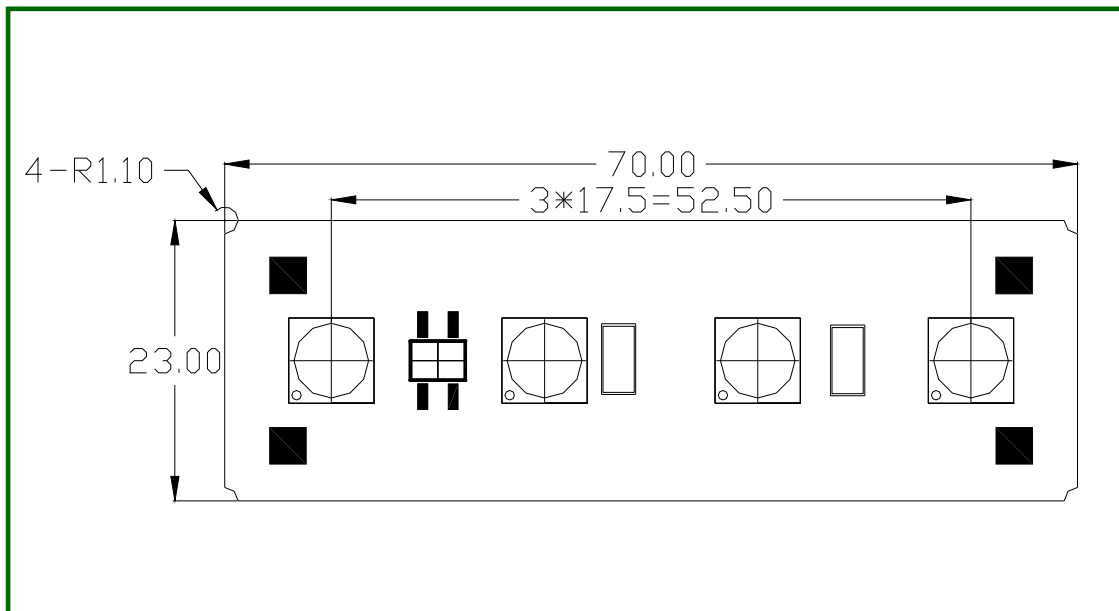


Notes :

- [1] All dimensions are in millimeters. (Tolerance : ±0.2)
- [2] Scale : none
- [3] The appearance and specifications of the product may be changed for improvement without notice

Outline dimensions

2. AN4221

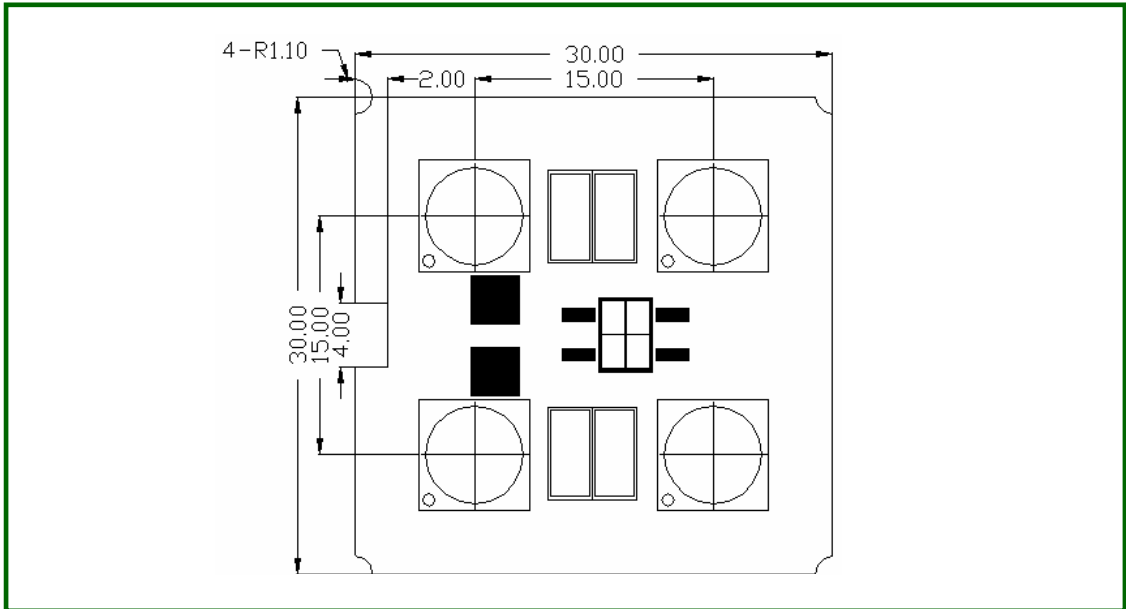


Notes :

- [1] All dimensions are in millimeters. (Tolerance : ± 0.2)
- [2] Scale : none
- [3] The appearance and specifications of the product may be changed for improvement without notice

Outline dimensions

3. AN4212

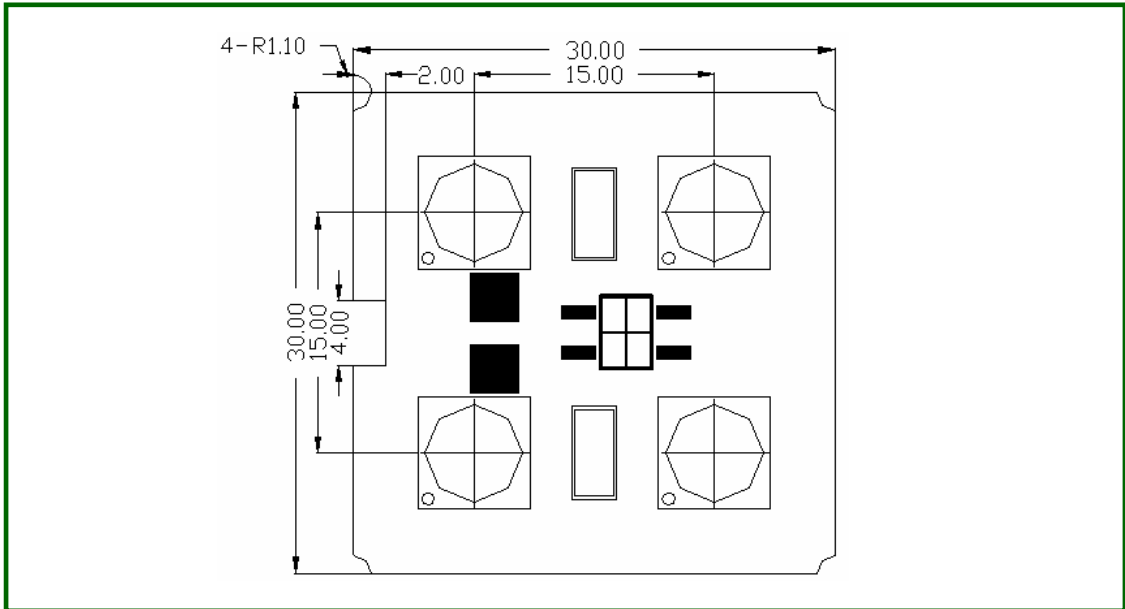


Notes :

- [1] All dimensions are in millimeters. (Tolerance : ± 0.2)
- [2] Scale : none
- [3] The appearance and specifications of the product may be changed for improvement without notice

Outline dimensions

4. AN4222

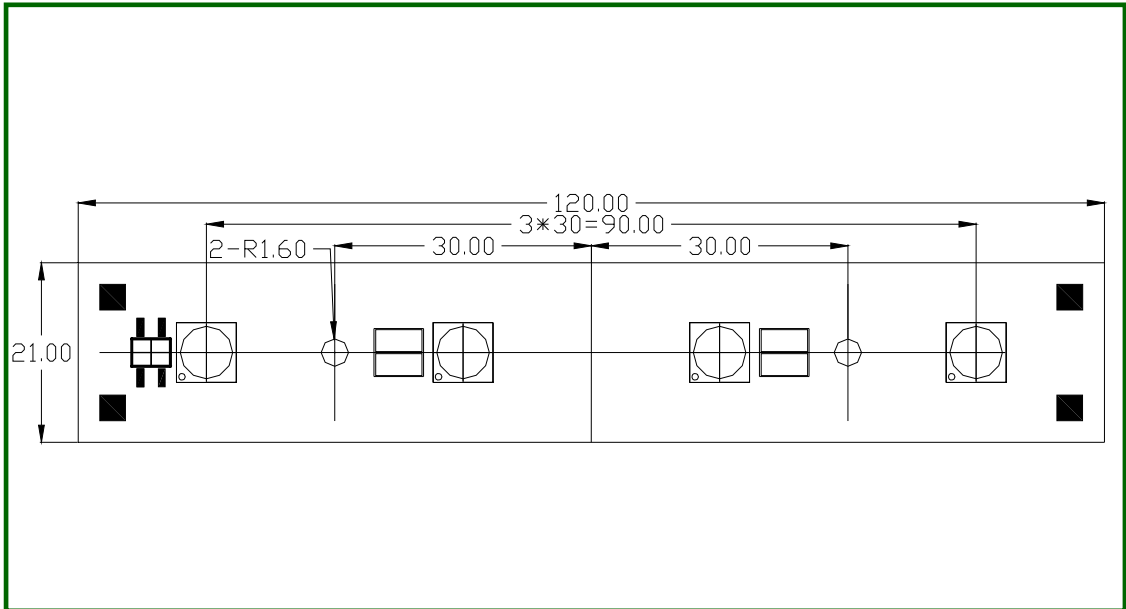


Notes :

- [1] All dimensions are in millimeters. (Tolerance : ± 0.2)
- [2] Scale : none
- [3] The appearance and specifications of the product may be changed for improvement without notice

Outline dimensions

5. AN4213

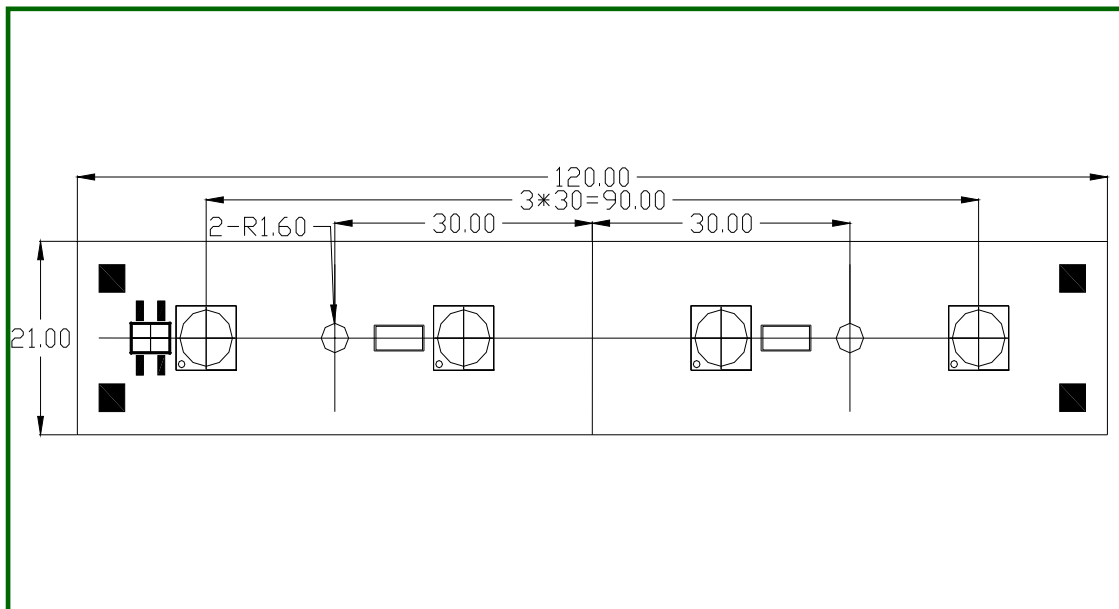


Notes :

- [1] All dimensions are in millimeters. (Tolerance : ± 0.2)
- [2] Scale : none
- [3] The appearance and specifications of the product may be changed for improvement without notice

Outline dimensions

6. AN4223

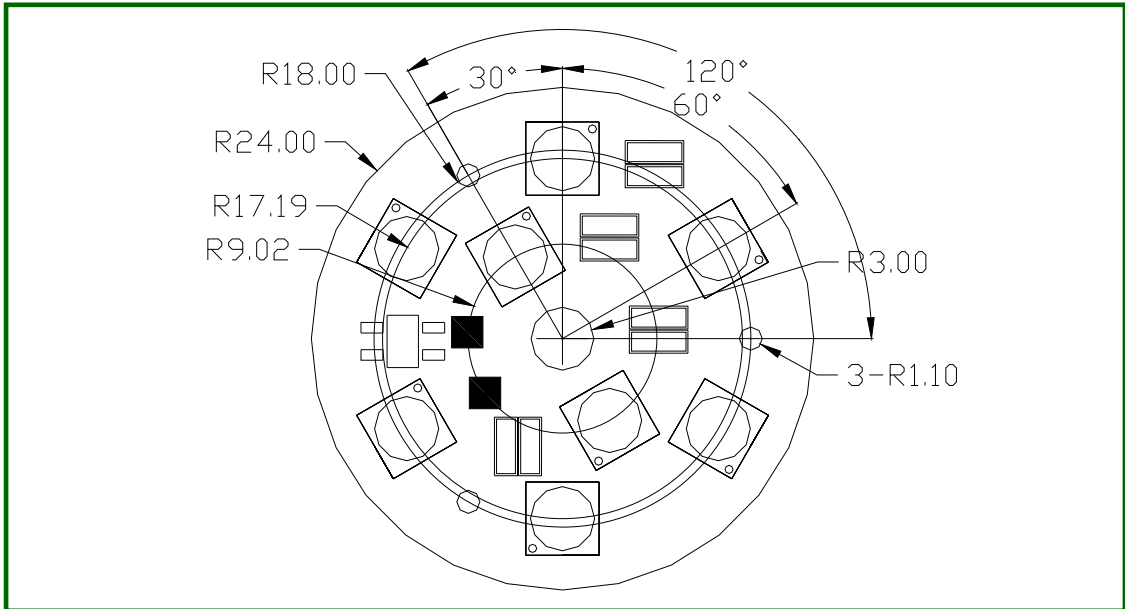


Notes :

- [1] All dimensions are in millimeters. (Tolerance : ±0.2)
- [2] Scale : none
- [3] The appearance and specifications of the product may be changed for improvement without notice

Outline dimensions

7. AN4214

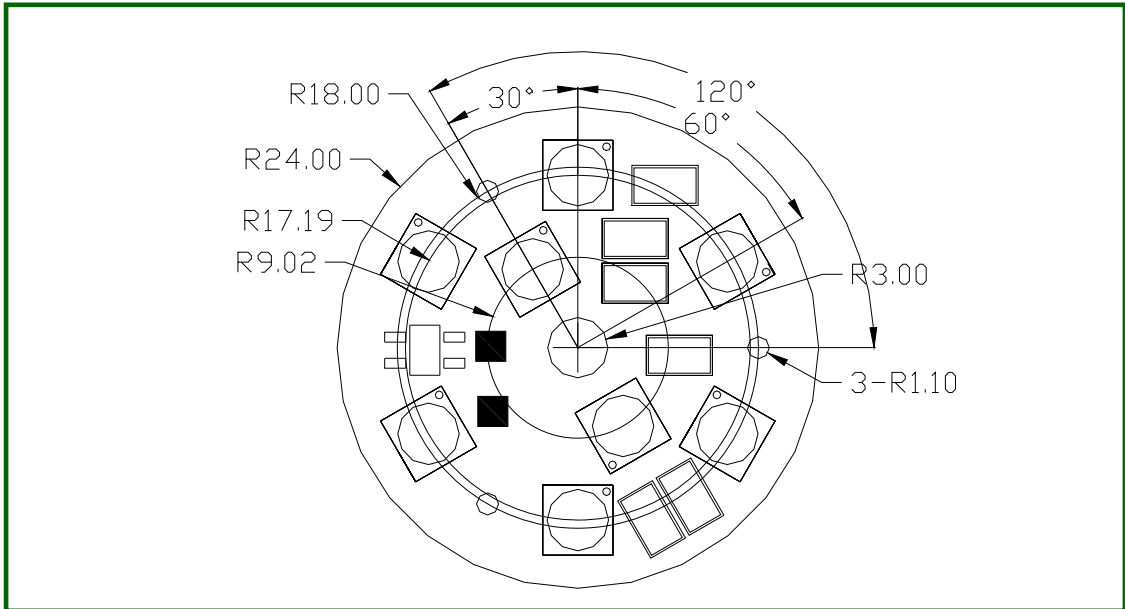


Notes :

- [1] All dimensions are in millimeters. (Tolerance : ± 0.2)
- [2] Scale : none
- [3] The appearance and specifications of the product may be changed for improvement without notice

Outline dimensions

8. AN4224



Notes :

- [1] All dimensions are in millimeters. (Tolerance : ± 0.2)
- [2] Scale : none
- [3] The appearance and specifications of the product may be changed for improvement without notice

Characteristics of AN4240 module

1. AN4211/AN4212/AN4213

1-1 Electro-Optical characteristics at 110V[RMS] Ta=25°C

Parameter	Symbol	Value			Unit
		Min	Typ	Max	
Luminous Flux ^[1]	Φ_V ^[2]	-	200	-	lm
Illuminance ^[3]	Φ_I	-	-	-	lx
Correlated Color Temperature ^[4]	CCT	-	3000	-	K
CRI	R _a	-	85	-	-
Operating Current	I _{opt}	-	40	-	mA [RMS]
Power Dissipation	P _D	4			W
Operating Frequency	Freq	50 / 60			Hz

1-2 Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	-	W
Junction Temperature	T _j	125	°C
Operating Temperature	T _{opr}	-30 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +120	°C
ESD Sensitivity	-	±6,000V HBM	-

*Notes :

- [1] Acriche series maintains a tolerance of ±10% on flux and power measurements.
- [2] Φ_V is the total luminous flux output as measured with an integrated sphere.
- [3] Illuminance is measured at 50cm distance
- [4] Correlated Color Temperature is derived from the CIE 1931 Chromaticity diagram.
CCT ±5% tester tolerance
- [5] 'Operating Voltage' doesn't indicate the maximum voltage which customers use, but it means tolerable voltage according to the voltage variation rate by one's country.
It is recommended that the temperature of solder pad should be below 70 °C.

Characteristics of AN4240 module

2. AN4221/AN4222/AN4223

2-1 Electro-Optical characteristics at 220V[RMS] Ta=25°C

Parameter	Symbol	Value			Unit
		Min	Typ	Max	
Luminous Flux ^[1]	Φ_V ^[2]	-	200	-	lm
Illuminance ^[3]	Φ_I	-	-	-	lx
Correlated Color Temperature ^[4]	CCT	-	3000	-	K
CRI	R _a	-	85	-	-
Operating Current	I _{opt}	-	20	-	mA [RMS]
Power Dissipation	P _D	4			W
Operating Frequency	Freq	50 / 60			Hz

2-2 Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	-	W
Junction Temperature	T _j	125	°C
Operating Temperature	T _{opr}	-30 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +120	°C
ESD Sensitivity	-	±6,000V HBM	-

*Notes :

- [1] Acriche series maintains a tolerance of ±10% on flux and power measurements.
- [2] Φ_V is the total luminous flux output as measured with an integrated sphere.
- [3] Illuminance is measured at 50cm distance
- [4] Correlated Color Temperature is derived from the CIE 1931 Chromaticity diagram.
CCT ±5% tester tolerance
- [5] 'Operating Voltage' doesn't indicate the maximum voltage which customers use, but it means tolerable voltage according to the voltage variation rate by one's country.
It is recommended that the temperature of solder pad should be below 70 °C.

Characteristics of AN4240 module

3. AN4214

3-1 Electro-Optical characteristics at 110V[RMS] Ta=25°C

Parameter	Symbol	Value			Unit
		Min	Typ	Max	
Luminous Flux ^[1]	Φ_V ^[2]	-	400	-	lm
Illuminance ^[3]	Φ_I	-	-	-	lx
Correlated Color Temperature ^[4]	CCT	-	3000	-	K
CRI	R_a	-	85	-	-
Operating Current	I_{opt}	-	80	-	mA [RMS]
Power Dissipation	P_D	8			W
Operating Frequency	Freq	50 / 60			Hz

3-2 Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	-	W
Junction Temperature	T_j	125	°C
Operating Temperature	T_{opr}	-30 ~ +85	°C
Storage Temperature	T_{stg}	-40 ~ +120	°C
ESD Sensitivity	-	±6,000V HBM	-

*Notes :

- [1] Acriche series maintains a tolerance of ±10% on flux and power measurements.
- [2] Φ_V is the total luminous flux output as measured with an integrated sphere.
- [3] Illuminance is measured at 50cm distance
- [4] Correlated Color Temperature is derived from the CIE 1931 Chromaticity diagram.
CCT ±5% tester tolerance
- [5] 'Operating Voltage' doesn't indicate the maximum voltage which customers use, but it means tolerable voltage according to the voltage variation rate by one's country.
It is recommended that the temperature of solder pad should be below 70 °C.

Characteristics of AN4240 module

4. AN4224

4-1 Electro-Optical characteristics at 220V[RMS] Ta=25°C

Parameter	Symbol	Value			Unit
		Min	Typ	Max	
Luminous Flux ^[1]	Φ_V ^[2]	-	400	-	lm
Illuminance ^[3]	Φ_I	-	-	-	lx
Correlated Color Temperature ^[4]	CCT	-	3000	-	K
CRI	R _a	-	85	-	-
Operating Current	I _{opt}	-	40	-	mA [RMS]
Power Dissipation	P _D	8			W
Operating Frequency	Freq	50 / 60			Hz

4-2 Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	-	W
Junction Temperature	T _j	125	°C
Operating Temperature	T _{opr}	-30 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +120	°C
ESD Sensitivity	-	±6,000V HBM	-

*Notes :

- [1] Acriche series maintains a tolerance of ±10% on flux and power measurements.
- [2] Φ_V is the total luminous flux output as measured with an integrated sphere.
- [3] Illuminance is measured at 50cm distance
- [4] Correlated Color Temperature is derived from the CIE 1931 Chromaticity diagram.
CCT ±5% tester tolerance
- [5] 'Operating Voltage' doesn't indicate the maximum voltage which customers use, but it means tolerable voltage according to the voltage variation rate by one's country.
It is recommended that the temperature of solder pad should be below 70 °C.

VF Bin & Resistor Value

	VF Bin	R1, R3	R2, R4	
AN4211 AN4212 AN4213	A	3000	3000	
	B	2700	3000	
	C	2000	3300	
	D	2000	2700	
	VF Bin	R1	R2	
AN4221 AN4222 AN4223	A	1500	1500	
	B	1000	1800	
	C	1000	1500	
	D	1000	1300	
	VF Bin	R1, R3, R5, R7	R2, R4, R6, R8	
AN4214	A	3000	3000	
	B	2700	3000	
	C	2000	3300	
	D	2000	2700	
	VF Bin	R3, R5	R1, R4	R2, R6
AN4224	A	820	4420	4420
	B	430	3900	4300
	C	820	3600	3600
	D	820	3000	3000

Precaution for use

- [1] Acriche series run on high voltage such as 110 V or 220 V.
- [2] Please don't touch the PCB surface, which has built-in terminals and chips, with your hands or metals, while Acriche series is running.
- [3] Please don't add or change wires, while Acriche series is running.
- [4] LED ASS'Y should be attached to customer product properly and be careful twist or bend when it is assembled.
- [5] LED ASS'Y should be kept from mechanical or electrical shock cause physical damage to the module.
- [6] Do not disassemble the module.
- [7] During processing, mechanical stress on the surface should be minimized as much as possible. Sharp object of all types should not be used to pierce the LED resin.

ESD protection

- (1) Ionizer, earthing and keeping appropriate humidity are necessary for work environment.
- (2) Anti-static glove and grounded band must be used.

Storage

- (1) Do not leave the module in high temperature and humidity conditions. Normal condition is recommended to store the module.
($0^{\circ}\text{C} \leq T_a \leq 70^{\circ}\text{C}$, relative humidity $\leq 70\%$)
- (2) Keep the module out of the direct rays of the sun.

Operation

The module should be operated under the given forward voltage.
When the module is operated in the excessive voltage or current conditions, the LEDs mounted on the PCB could be burned out.