

# Specification

## AN4240 module (Preliminary)

| SSC   |          | 고객명      |
|-------|----------|----------|
| Drawn | Approval | Approval |
|       |          |          |

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## Part number of AN4240 module

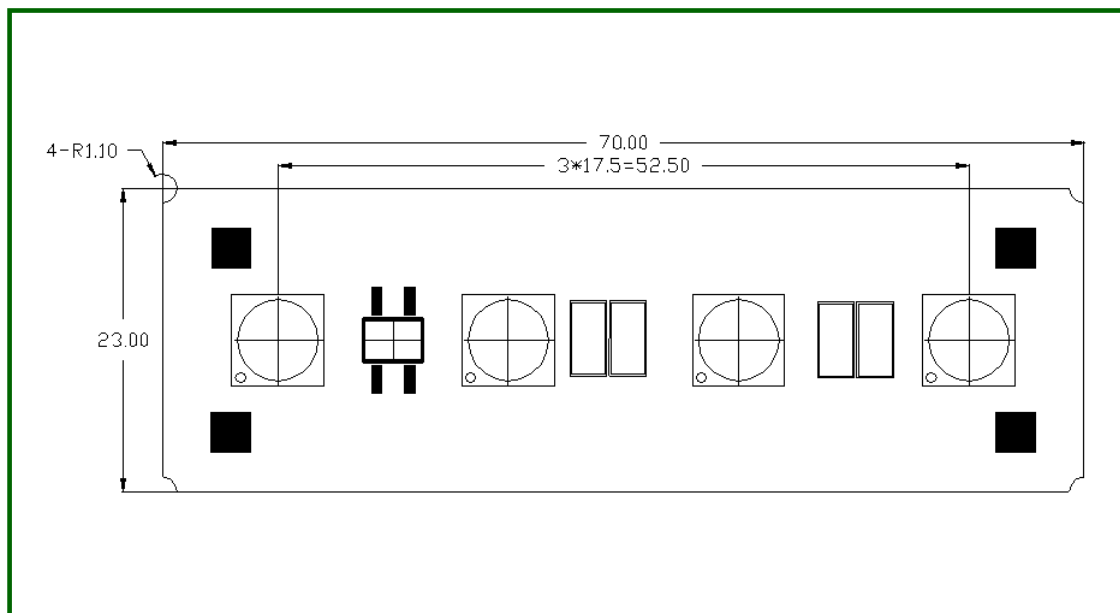
### 1. Part Number form : A X<sub>1</sub> X<sub>2</sub> X<sub>3</sub> X<sub>4</sub> X<sub>5</sub>

|                      |                       |          |            |
|----------------------|-----------------------|----------|------------|
| <b>X<sub>1</sub></b> | <b>Color</b>          | <b>N</b> | Warm white |
| <b>X<sub>2</sub></b> | <b>Acriche series</b> | <b>4</b> | A4 series  |
| <b>X<sub>3</sub></b> | <b>Lens type</b>      | <b>2</b> | Dome type  |
| <b>X<sub>4</sub></b> | <b>Voltage</b>        | <b>0</b> | 100V(AC)   |
|                      |                       | <b>1</b> | 110V(AC)   |
|                      |                       | <b>2</b> | 220V(AC)   |
|                      |                       | <b>3</b> | 230V(AC)   |
| <b>X<sub>5</sub></b> | <b>PCB type</b>       | <b>1</b> | 4W Compact |
|                      |                       | <b>2</b> | 4W Square  |
|                      |                       | <b>3</b> | 4W Line    |
|                      |                       | <b>4</b> | 8W Bulb    |

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

## Outline dimensions

### 1. AN4211

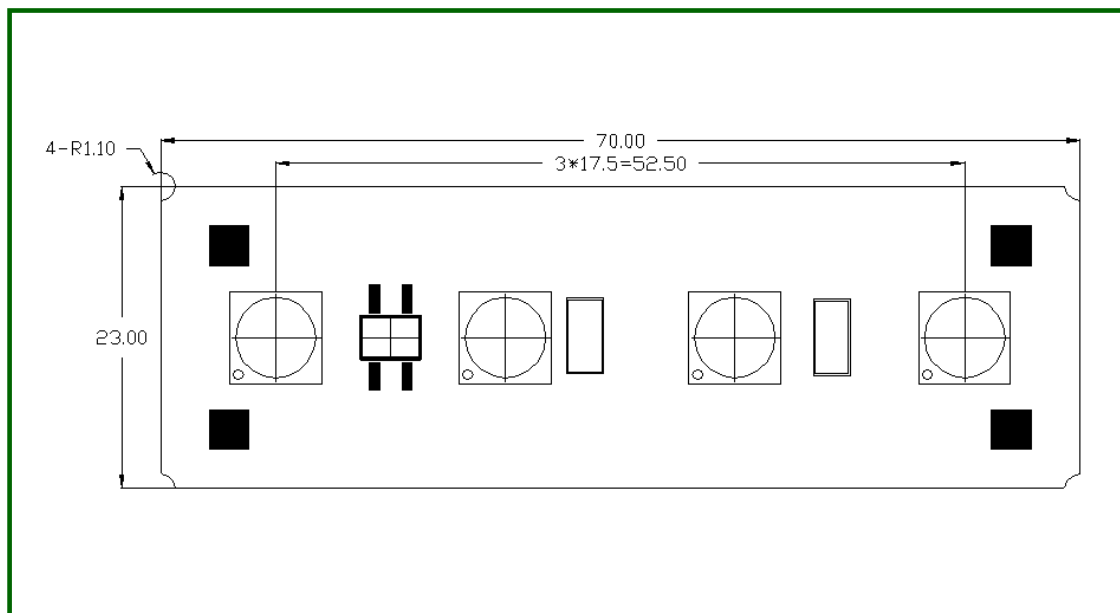


#### Notes :

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

## Outline dimensions

### 2. AN4221

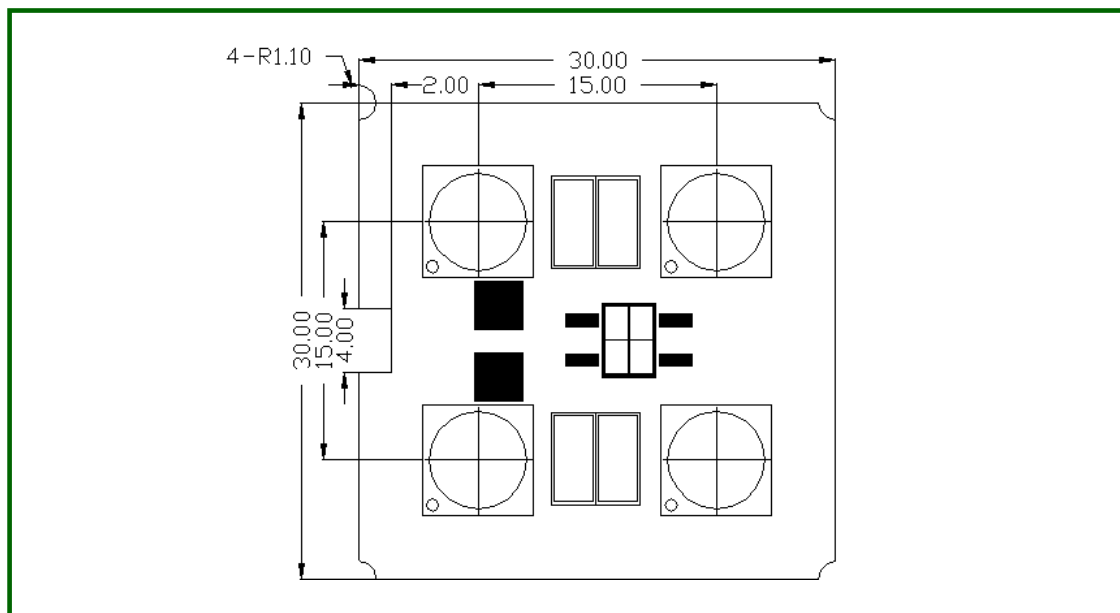


#### Notes :

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

## Outline dimensions

### 3. AN4212

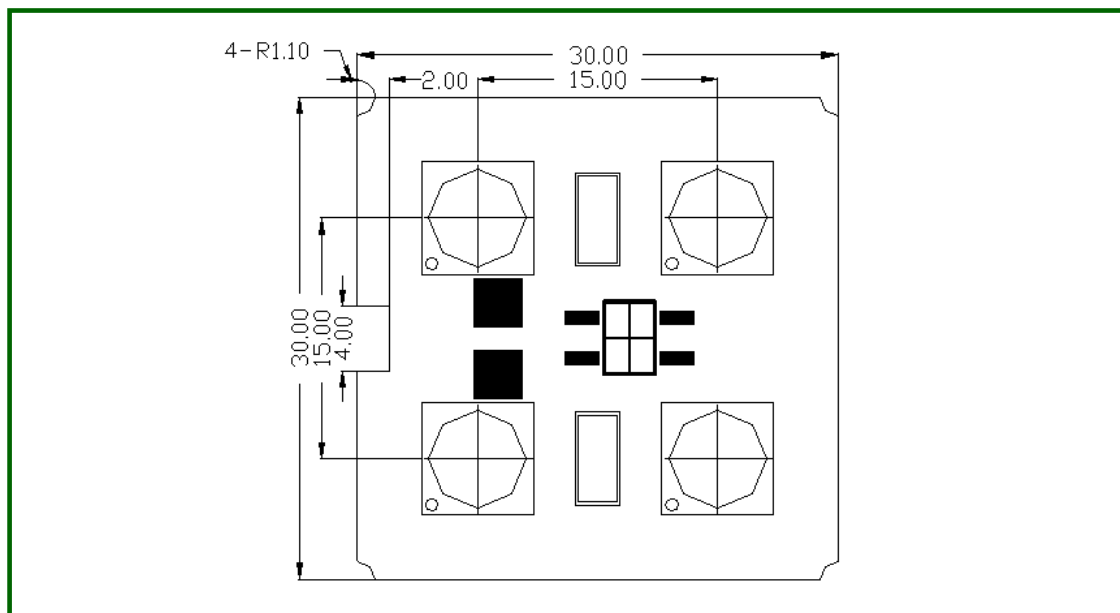


#### Notes :

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

## Outline dimensions

### 4. AN4222

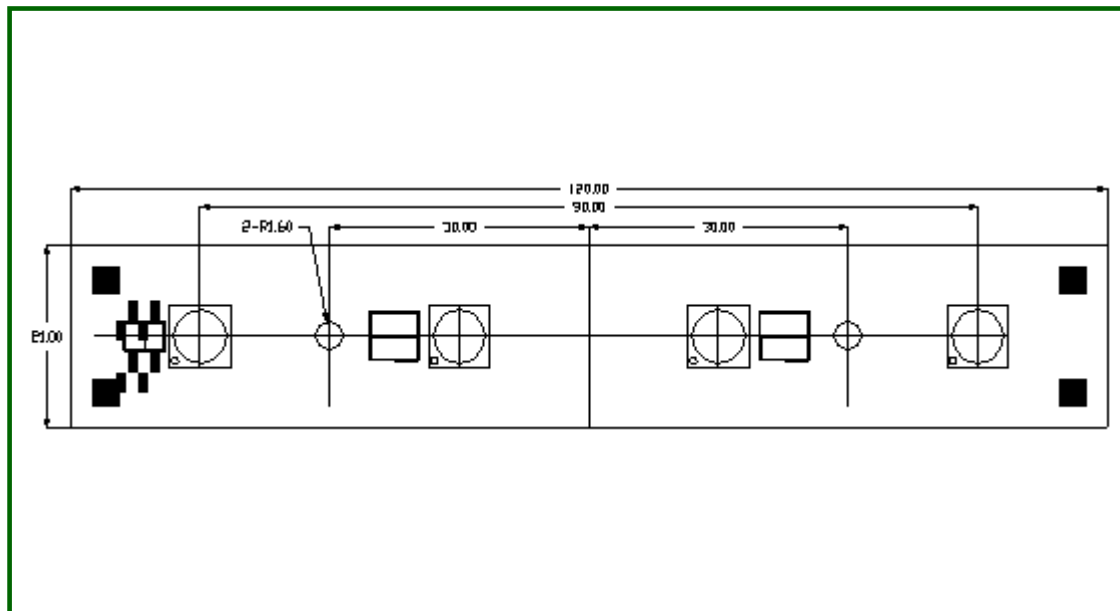


#### Notes :

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

## Outline dimensions

### 5. AN4213



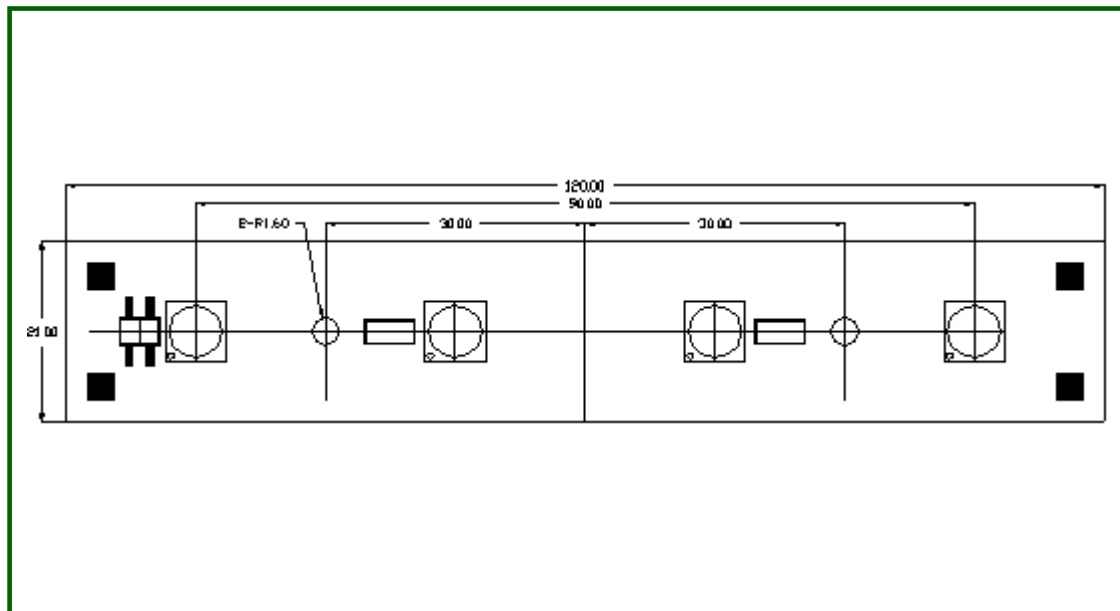
#### Notes :

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



## Outline dimensions

### 6. AN4223

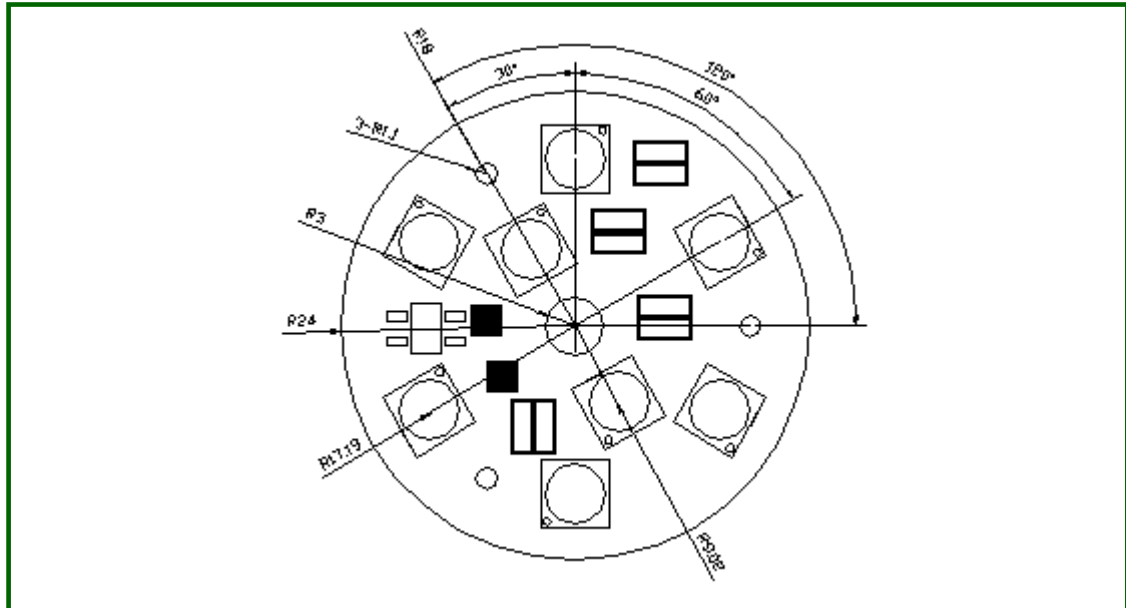


#### Notes :

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

## Outline dimensions

### 7. AN4214

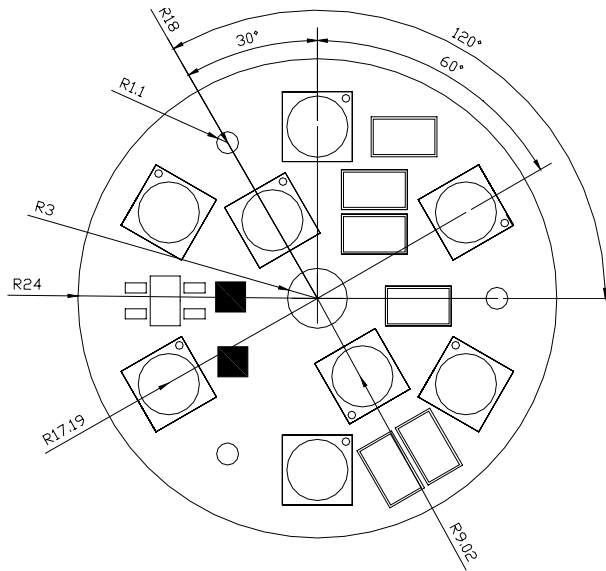


#### Notes :

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

Rev. 00

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## 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]                | $\Phi_V$ [2] | -       | 200  | -   | lm          |
| Illuminance [3]                  | $\Phi_I$     | -       | -    | -   | lx          |
| Correlated Color Temperature [4] | CCT          | -       | 3000 | -   | K           |
| CRI                              | $R_a$        | -       | 85   | -   | -           |
| Operating Current                | $I_{opt}$    | -       | 40   | -   | mA<br>[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]  $\Phi_V$  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]                | $\Phi_V$ [2] | -       | 200  | -   | lm          |
| Illuminance [3]                  | $\Phi_I$     | -       | -    | -   | lx          |
| Correlated Color Temperature [4] | CCT          | -       | 3000 | -   | K           |
| CRI                              | $R_a$        | -       | 85   | -   | -           |
| Operating Current                | $I_{opt}$    | -       | 20   | -   | mA<br>[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 :

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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]                | $\Phi_V$ [2] | -       | 400  | -   | lm          |
| Illuminance [3]                  | $\Phi_I$     | -       | -    | -   | lx          |
| Correlated Color Temperature [4] | CCT          | -       | 3000 | -   | K           |
| CRI                              | $R_a$        | -       | 85   | -   | -           |
| Operating Current                | $I_{opt}$    | -       | 80   | -   | mA<br>[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 :

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- [2]  $\Phi_V$  is the total luminous flux output as measured with an integrated sphere.
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CCT ±5% tester tolerance
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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]                | $\Phi_V$ [2] | -       | 400  | -   | lm          |
| Illuminance [3]                  | $\Phi_I$     | -       | -    | -   | lx          |
| Correlated Color Temperature [4] | CCT          | -       | 3000 | -   | K           |
| CRI                              | $R_a$        | -       | 85   | -   | -           |
| Operating Current                | $I_{opt}$    | -       | 40   | -   | mA<br>[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 | -    |

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