



Technical Data Sheet

## LED Traffic Signal Module

**Yellow**

### Features

- Meets ITE and/or CALTRANS requirements
- Energy Star Compliant
- Reduces energy cost by 90%
- Reduces maintenance cost
  - Long operating life up to 10 years
  - Minimizes emergency bulb-out calls
- Sealed module fits standard signal head
- High efficiency power supply
  - Power factor (PF) >0.9
  - Total harmonic distortion (THD) <20%
- Increased safety
  - Maintains working signal even with partial loss of LEDs
  - Maintains constant light intensity if supply voltage fluctuates

**Y12BEPR**



### Device Selection Guide

| LEDs     |               |             | Cover       |
|----------|---------------|-------------|-------------|
| Chips    |               | Lens Color  | Color       |
| Material | Emitted Color |             |             |
| AlInGaP  | Yellow        | Water clear | Water Clear |

### Optical Characteristics at $T_A=25$ (typical values unless otherwise stated)

| Parameter                                      | Symbol         | 12 inch            | Units                              |
|------------------------------------------------|----------------|--------------------|------------------------------------|
| Beam                                           |                | Compliant with ITE |                                    |
| Minimum Initial Intensity <sup>(1)</sup>       | I <sub>v</sub> | 339                | cd                                 |
| Maximum Initial Intensity <sup>(1)</sup>       | I <sub>v</sub> | 800                | cd                                 |
| Dominant Wavelength                            |                | 588 ± 4            | nm                                 |
| Temperature Coefficient of Dominant Wavelength |                | +0.07              | nm/°C                              |
| Luminance Uniformity <sup>(2)</sup>            |                | < 10               | L <sub>max</sub> /L <sub>min</sub> |

Notes:(1) measured at center of beam

(2) measured at an aperture of 25 mm

### Electrical Characteristics at $T_A=25$ (typical values unless otherwise stated)

| Parameter                 | Symbol           | 12 inch                   | Units           |
|---------------------------|------------------|---------------------------|-----------------|
| Power Consumption         | P                | 22                        | W               |
| Maximum Power Consumption | P <sub>max</sub> | 28.6                      | W               |
| Voltage <sup>(3)</sup>    | V                | 120                       | V               |
| Voltage Range             | V                | 80 (min.) to 135 (max.)   | V <sub>AC</sub> |
| Power Factor minimum      |                  | 0.9                       |                 |
| THD maximum               |                  | 0.2                       |                 |
| Insulation Class          |                  | II IEC 598-1 Section 1.23 |                 |
| EMC                       |                  | Acc to FCC p.15, class A  |                 |
| Transient Protection      |                  | NEMA TS-2, Sec2.1.6, 1992 |                 |

Note:(3)Nominal value at 60Hz.



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## Thermal Characteristics

**Y12BEPR**

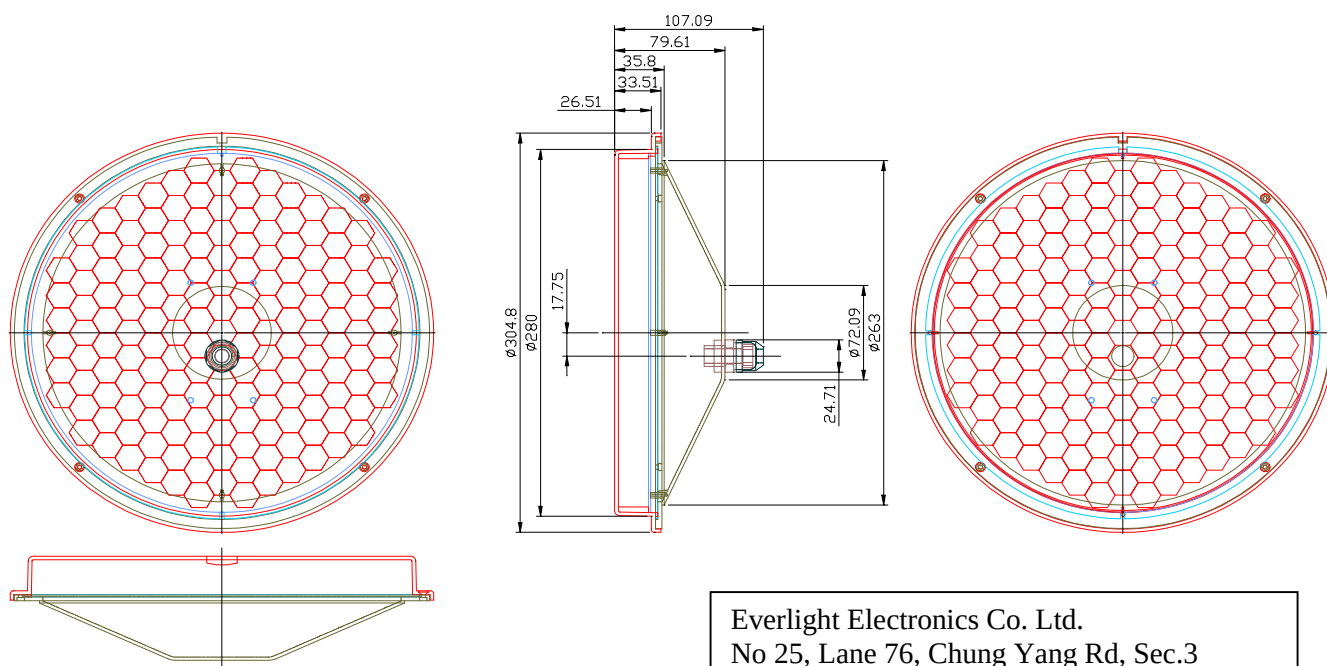
| Parameter                                                 | Symbol          | 12 inch   | Units |
|-----------------------------------------------------------|-----------------|-----------|-------|
| Temperature Rating                                        | T               | -40 to 74 | °C    |
| Thermal Resistance,<br>Junction to Ambient <sup>[4]</sup> | $R\theta_{J-A}$ | 1.15      | °C/W  |

Notes: (4)At 74°C based on total dissipated system power.

## Mechanical Data

| Parameter                                  | 12 inch                                                          | Units |
|--------------------------------------------|------------------------------------------------------------------|-------|
| Dimensions                                 | 305                                                              | mm    |
| Weight                                     | 1.53                                                             | Kg    |
| Vibrations                                 | According to ITE specification,<br>Section 6.4.5 ( MIL-STD-883 ) |       |
| Relative Humidity                          | Up to 95%                                                        |       |
| Minimum Cable Length<br>Outside of Housing | 1                                                                | m     |

## Package Dimensions



- Notes:**
- 1.All dimensions are in millimeters
  - 2.Tolerances Unless Specified =  $\pm 5\text{mm}$
  - 3.Angle tolerances =  $\pm 0.5^\circ$

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