The Force of Light

FORZLUX

Small Format
High Output Module
For Point Source Applications

BB12RD SERIES

Features and Benefits

- 1.62” square module is scalable up to 12 LEDs and two power levels for “tuning” to exact design specifications
- **TFA (Turtle Friendly Amber)** version is AlInGaP LED with narrow wavelength, Florida Wildlife Commission (FWC) compliant
- Pre-wired pigtails are mechanically robust and reduce labor
- Protective conformal (transparent) coating for exterior applications
- Includes mounting holes and 3M 468MP peel & stick tape
- Compatible with Forzlux drivers:
  - PS14-350C-DUALDIM-UNV-PP, 120-277VAC, ELV/triac/0-10V dim
    - Compatible with all whites
  - PS14-350C-DUALDIM-UNV-PP-**250MA**, 120-277VAC, ELV/triac/0-10V dim
    - **Compatible with all colors**

Compatible LED Drivers

Recommended Maximum DC Input Current to Module ..... See Table 1
Typical DC input Voltage to Module ..... See Table 1

Ratings and Performance Specifications

Nominal DC Power Consumption ..... See Table 1
Recommended Screw Installation Torque ..... 75 inch ounces
Maximum Operating Range Ambient Temperature (Ta) ..... -40 to +50°C
Maximum Solder Pad Temperature (Ts) ..... +105°C
Estimated Lumen Depreciation (TM-21) .....70% initial lumens (L70) @ 100,000 hours
Nominal Weight ..... 15 grams
Safety/Compliance UL Class 2 Recognized Component E321468

Application Notes

1. The use of any washer (lock, flat, etc.), will void the warranty due to possible damage and/or shorting of LED and/or circuit board.

2. This module requires heatsinking at full power. The luminaire design should allow heat to escape the system. Forzlux provides thermal testing of light engines in the luminaire for OEM customers to ensure long life and compliance with warranty.

3. Abnormal operating conditions such as elevated ambient temperatures can negatively impact lumen output, product lifetime and/or performance.

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Physical Dimensions

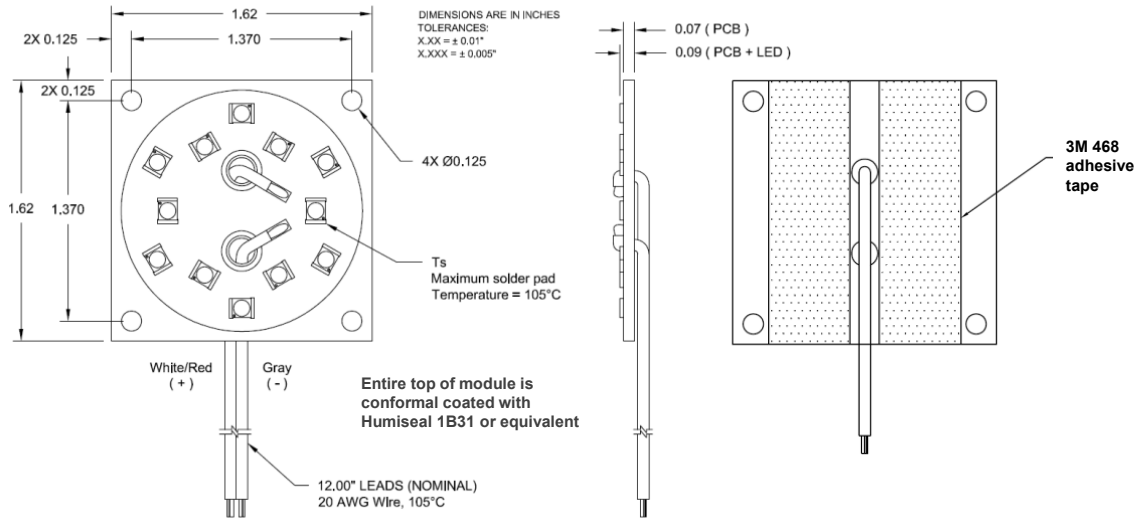

Table 1, Performance Characteristics at 25°C

Data from laboratory test measurements, actual results may vary.

Part Number	Nominal CCT or Dominant Wavelength (Kelvin/nm)	Min CRI	Max Current (mADC)	Nominal Vf @ Max Current (VDC)	Nominal Light Output @ 350mA (Lumens)	Nominal Power Consumption (WDC)	Nominal Efficacy @ 350mA (DC LPW)
BB08RD-30-80-01	3000	80	350	24.8	1,450	8.7	167
BB10RD-30-80-01	3000	80	350	31.0	1,840	10.9	170
BB12RD-30-80-01	3000	80	350	37.2	2,100	13.0	161
BB12RD-TFA	595	n/a	250	13.2	258	3.3	78
BB12RD-RED	622	n/a	250	13.2	235	3.3	71
BB12RD-GREEN	527	n/a	250	21.0	495	5.3	94
BB12RD-BLUE	470	n/a	250	18.0	128	4.5	28

Lumen multiplier on 3000K: 2000K = 0.7, 2700K = 0.97, 3500K = 1.02, 4000K = 1.03, 5000K = 1.06

Options available

90CRI minimum versions on special order, subtract 15% lumens.

Packaging

Product is marked with SKU and lot information on non-LED side of module.
Sold in groups of (35) unit(s) and packaged in ESD bags with SKU and lot information.

Warranty

5-Year limited warranty in accordance with published warranty conditions. Product must be used with compatible components (modules, drivers, engines and/or accessories) and no maximum ratings (such as Ts) shall be exceeded during any operating conditions of the system. If product is used with other manufacturer's product, compatibility must be recognized in writing by Forzlux.

Forzlux owns the following United States patents of which may be applicable to the design or manufacture of this product: 6712486, 6578986, 6846093, 7114831, 7306353, 7102172, 7108396, 7329024, 7387406, 7582911, 7649327, 8926145, 8729810. Additional granted patents, patents pending and other IP protection rights may apply.

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c UL us

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