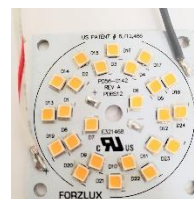


High Density High Output Module For Point Source Applications

Features and Benefits

- Replaces BB12RD series (2010 vintage) with more power/lumens
- Same size 1.62" square and mounting holes retained from BB12RD
- High efficacy family of modules replaces legacy light sources up to 200W incandescent and 32W CFL
- Patented intelligent thermal design uses metal core printed circuit board (MCPCB) for thermal transfer and simple installation
- Latest generation LED for high efficacy and color consistency
- Pre-wired pigtailed are mechanically robust and reduce labor
- Optional wire exits from center hole or from outside of LED circle
- Includes 3M 468MP peel & stick tape and mounting holes on bottom
- Includes conformal (transparent) coating for exterior applications



BB24RF SERIES

Compatible LED Drivers

Recommended Maximum DC Input Current to Module	700mA
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 +60°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.

Physical Dimensions

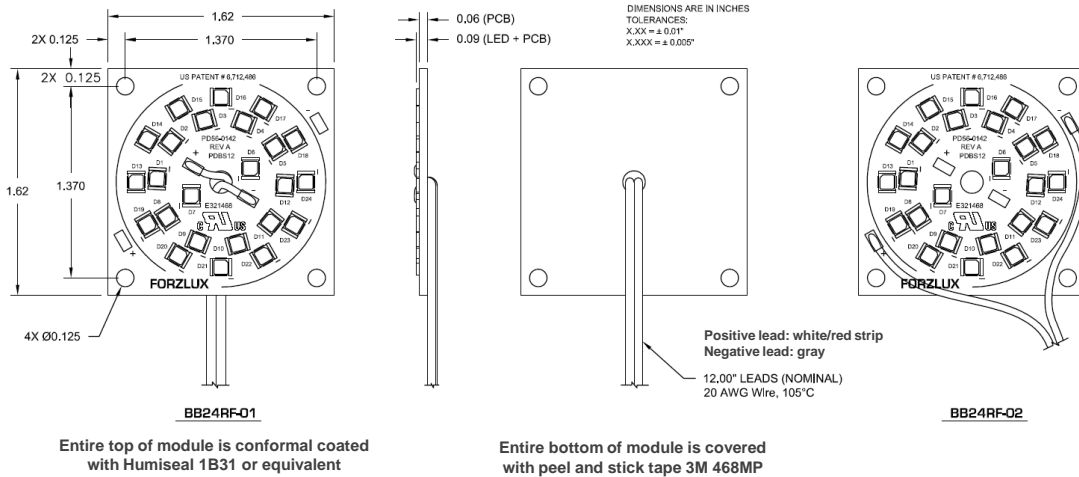


Table 1, Performance Characteristics at 25°C

Data from laboratory test measurements, actual results may vary.

Part Number	Nominal CCT		Nominal Light Output @ 700mA (Lumens)	Nominal Forward Voltage @ 700mA (VDC)	Nominal Power Consumption @ 700mA (WDC)	Nominal Efficacy @ 700mA (DC LPW)
	(Kelvin)	Min. CRI				
BB24RF-20-80-01	2000	80	1,292	18.5	13.0	100
BB24RF-27-90-01	2700	90	1,589	18.5	13.0	123
BB24RF-30-90-01	3000	90	1,618	18.5	13.0	125
BB24RF-35-90-01	3500	90	1,659	18.5	13.0	128
BB24RF-40-90-01	4000	90	1,682	18.5	13.0	130
BB24RF-50-80-01	5000	80	2,054	18.5	13.0	159

Options available

Other CCT, CRI, and monochromatic colors available on special order.

Other 80CRI minimum versions on special order, add approximately 18% 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.