

Small Format, High Output Module For Retrofit and New Applications

Features & Benefits

- Small format is ideal for small fixtures using multiple modules
- 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
- Includes mounting holes for mechanical attachment and pre-wired pigtails are mechanically robust and reduce labor
- Protective conformal (transparent) coating for exterior applications
- Available in 2 or 3 MacAdam Ellipse
- 90 CRI version meets California Title 24
- Compatible with Permlight drivers:
 - PS3 dimmable (1 module)
 - PS12 dimmable (2 to 3 in series)
 - PS18 universal input (2 to 5 in series)



Compatible LED Drivers or Modules

Maximum DC Input Current to Module 350mA
 Typical DC input Voltage to Module 9.18V

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 9 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 to the circuit board.
2. This module requires a heat sink at full power for maximum performance. Care should be taken in the luminaire designs to allow heat to escape the system. Contact factory for thermal guidelines.
3. Abnormal operating conditions such as elevated ambient temperatures can be expected to negatively impact lumen output, product lifetime and/or performance.

Physical Dimensions

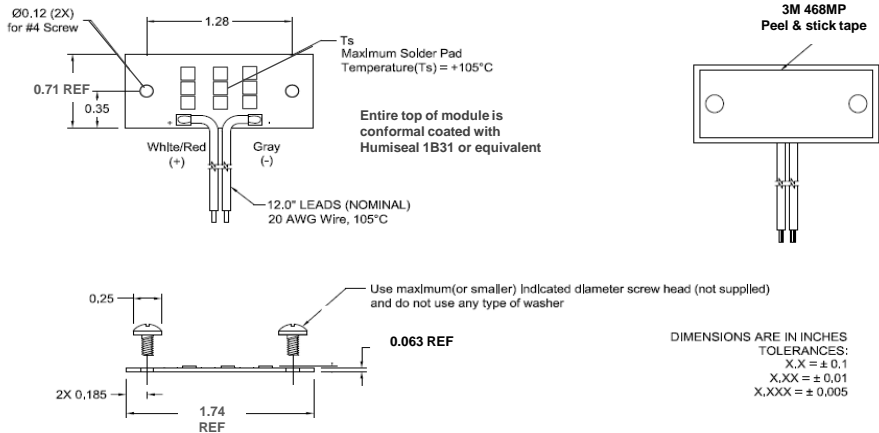


Table 1, Performance Characteristics at 25C

Data from laboratory test measurements, actual results may vary.

Part Number	Nominal CCT		Nominal Light Output	Nominal Power Consumption	Nominal Module Efficacy
	(Kelvin)	Minimum CRI	@ 310mA (Lumens)	@ 310mA (WDC)	@ 310mA (DC LPW)
BB09BU-27-80-01	2700	80	416	2.8	149
BB09BU-30-80-01	3000	80	434	2.8	155
BB09BU-35-80-01	3500	80	446	2.8	159
BB09BU-40-80-01	4000	80	454	2.8	162
BB09BU-50-80-01	5000	80	495	2.8	177

Power consumption at 350mA typically 3.2W, multiply lumens x 1.134.

Options available

Other CCT and CRI may be available on special order

90CRI minimum versions on special order, subtract 24% lumens

Packaging

Product is marked with SKU and lot information on non-LED side of module.

Sold in groups of (80) 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 expected operating conditions of the system. If product is used with other manufacturer's product, compatibility must be recognized in writing by Permlight Technologies.

Permlight Technologies owns the following United States patents of which one or more may be applicable to the design and/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.