

## Medium Format High Output Module For Pendant and Close-to-Ceiling

### Features and Benefits

- 3.46" diameter donut design provides even illumination
- 1.25" center hole for shaft clearance
- Ideal for ADA, commercial or decorative luminaires: close to ceiling, drums, pendants, sconces, etc.
- LED spacing optimized to provide continuous illumination when using frosted or opaque lens
- Latest generation LED for high efficacy and color consistency
- Pre-wired pigtails are mechanically robust and reduce labor
- Requires no heatsink at 40°C ambient in most luminaires
- Lumens/power can be doubled for exterior applications up to 50°C with proper heatsink, consult factory



BB33UP SERIES

### Compatible LED Drivers

Recommended Maximum DC Input Current to Module .....	350mA
Typical DC input Voltage to Module .....	34V

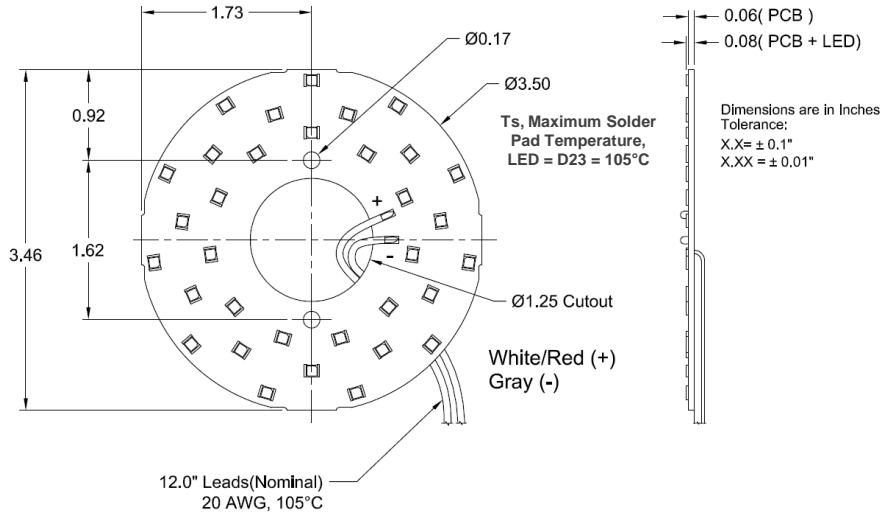
### Ratings and Performance Specifications

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 .....	100 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 does not require heatsink. 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		Nominal	Nominal	Nominal
	CCT (Kelvin)	Minimum CRI	Light Output @ 350mA (Lumens)	Power Consumption @ 350mA (WDC)	Module Efficacy @ 350mA (DC LPW)
BB33UP-27-80-01	2700	80	1830	11.9	154
BB33UP-30-80-01	3000	80	1889	11.9	159
BB33UP-35-80-01	3500	80	1937	11.9	163
BB33UP-40-80-01	4000	80	1937	11.9	163
BB33UP-50-80-01	5000	80	2055	11.9	173

### Options available

Other CCT and CRI may be available on special order  
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 (6) 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.