## Small Rectangle Format High Output Module For Linear Source Applications

## Features and Benefits

- 1.0 " $\times 0.4$ " linear module for applications such as landscape, pathway, step, and pendants
- TFA (Turtle Friendly Amber) version is AllnGaP LED with narrow wavelength, Florida Wildlife Commission (FWC) compliant
- Pre-wired pigtails are mechanically robust and reduce labor
- 3M 468MP peel \& stick tape on back, reduces labor and hardware
- Protective conformal (transparent) coating for exterior applications
- Compatible with Forzlux drivers:
- PS11 Series low voltage 12VAC landscape
- PS3-350C Series 120VAC ELV/triac dimmable
- PS6-350C Series 120-277VAC, ELV/triac, 0-10V dimmable



## 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 ........................................... Do NOT use screw!
Maximum Operating Range Ambient Temperature (Ta) ................................ 40 to $+50^{\circ} \mathrm{C}$
Maximum Solder Pad Temperature (Ts) ........................................................ $+105^{\circ} \mathrm{C}$
Estimated Lumen Depreciation (TM-21) ................70\% initial lumens (L70) @ 100,000 hours
Nominal Weight ......................................................................................... 7 grams
Safety/Compliance UL Class 2 Recognized Component ............................................ E321468

## Application Notes

1. The use of any screw, 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.


Ts measurement point is cathode of center LED. 3" nominal length leads, 22 AWG stranded, strip ends 0.063 ", red (+), black (-). CCT/CRI or color silkscreened on top of PCB, examples: "27K/80", "TFA", "RED".

Table 1, Performance Characteristics at $25^{\circ} \mathrm{C}$
Data from laboratory test measurements, actual results may vary.

| Part Number | Typical CCT/DWL (Kelvin/nm) | Min CRI | Max Current (ADC) | Typical VF <br> (VDC) | Typical Power (WDC) | Typical <br> Lumens | Efficacy (DC LPW) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BB03AB-18-70-01 | 1800 | 70 | 0.45 | 8.7 | 3.9 | 456 | 117 |
| BB03AB-20-70-01 | 2000 | 70 | 0.45 | 8.7 | 3.9 | 501 | 128 |
| BB03AB-22-80-01 | 2200 | 80 | 0.45 | 8.7 | 3.9 | 503 | 129 |
| BB03AB-25-80-01 | 2500 | 80 | 0.45 | 8.7 | 3.9 | 520 | 133 |
| BB03AB-27-80-01 | 2700 | 80 | 0.45 | 8.7 | 3.9 | 569 | 145 |
| BB03AB-30-80-01 | 3000 | 80 | 0.45 | 8.7 | 3.9 | 580 | 148 |
| BB03AB-35-80-01 | 3500 | 80 | 0.45 | 8.7 | 3.9 | 591 | 151 |
| BB03AB-40-80-01 | 4000 | 80 | 0.45 | 8.7 | 3.9 | 612 | 156 |
| BB03AB-50-80-01 | 5000 | 80 | 0.45 | 8.7 | 3.9 | 617 | 158 |
| BB03AB-65-80-01 | 6500 | 80 | 0.45 | 8.7 | 3.9 | 615 | 157 |
| BB03AB-TFA-01 | 595 | n/a | 0.35 | 6.6 | 2.3 | 235 | 102 |
| BB03AB-RED-01 | 622 | n/a | 0.35 | 6.6 | 2.3 | 218 | 94 |
| BB03AB-GREEN-01 | 527 | n/a | 0.35 | 10.2 | 3.6 | 360 | 101 |
| BB03AB-BLUE-01 | 470 | n/a | 0.35 | 8.8 | 3.1 | 111 | 36 |

## Options and Packing

90CRI minimum versions on special order, $83 \%$ of 80 CRI lumens.
Manufactured in groups of (242) 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.

