

Narrow Linear Format High Output Module For Linear Applications

Features and Benefits

- Family of 2.75" to 11" long modules with narrow 0.5" width
- **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
- 3M 468MP peel & stick tape eliminates need for mounting screws
- 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
 - PS18-1050C Series 120-277VAC, ELV/triac, 0-10V dimmable (BB12LL only)

Section
Detail



BB03LL SERIES

Compatible LED Drivers

Recommended DC Input Current to Module	See Table 1
Typical DC Input Voltage to Module	See Table 1

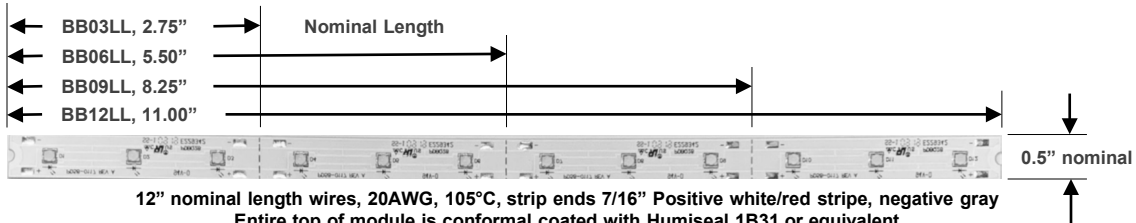
Ratings and Performance Specifications

Nominal DC Power Consumption	See Table 1
Recommended Installation Technique	3M 468MP peel & stick tape supplied
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 (BB03LL, 2.75" length)	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 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



12" nominal length wires, 20AWG, 105°C, strip ends 7/16" Positive white/red stripe, negative gray
 Entire top of module is conformal coated with Humiseal 1B31 or equivalent
 3M 468MP peel & stick tape on back of module, clean heatsink surface with isopropyl alcohol
 Ts measurement point is cathode of center LED

Table 1, Performance Characteristics at 25°C

Data from laboratory test measurements, actual results may vary.

Part Number	Typical CCT/DWL (Kelvin/nm)	Typical Min CRI	Max Current (ADC)	Typical VF (VDC)	Typical Power (WDC)	Typical Lumens	Typical Efficacy (DC LPW)
BB03LL-18-70-01	1800	70	0.45	8.7	3.9	456	117
BB03LL-20-70-01	2000	70	0.45	8.7	3.9	501	128
BB03LL-22-80-01	2200	80	0.45	8.7	3.9	503	129
BB03LL-25-80-01	2500	80	0.45	8.7	3.9	520	133
BB03LL-27-80-01	2700	80	0.45	8.7	3.9	569	145
BB03LL-30-80-01	3000	80	0.45	8.7	3.9	580	148
BB03LL-35-80-01	3500	80	0.45	8.7	3.9	591	151
BB03LL-40-80-01	4000	80	0.45	8.7	3.9	612	156
BB03LL-50-80-01	5000	80	0.45	8.7	3.9	617	158
BB03LL-65-80-01	6500	80	0.45	8.7	3.9	615	157
BB03LL-TFA-01	595	n/a	0.35	6.6	2.3	235	102
BB03LL-RED-01	622	n/a	0.35	6.6	2.3	218	94
BB03LL-GREEN-01	527	n/a	0.35	10.2	3.6	360	101
BB03LL-BLUE-01	470	n/a	0.35	8.8	3.1	111	36

BB06LL: Multiply BB03LL weight, current, power and lumens by 2.

BB09LL: Multiply BB03LL weight, current, power and lumens by 3.

BB12LL: Multiply BB03LL weight, current, power and lumens by 4.

Options and Packaging

Custom lead lengths, IP67 male/female connectors

90CRI minimum versions on special order, 83% of 80CRI lumens.

Sold in groups of (68) BB03LL, (34) BB06LL, (17) BB09LL and BB12LL

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.