# Small Round Format **High Output Module** For Point Source Applications

#### Features and Benefits

- 0.61 x 0.45" module for applications such as landscape, pathway, step, and pendants where a directed beam is required
- Accepts off-the-shelf Ledil "LISA" optic
- 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 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

#### **Compatible LED Drivers**

Recommended Maximum DC Input Current to Module	. See Table <sup>2</sup>	1
Typical DC input Voltage to Module	See Table 1	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°C
Maximum Solder Pad Temperature (Ts)	+105°C
Estimated Lumen Depreciation (TM-21)70% initial lumens (L	.70) @ 100,000 hours
Nominal Weight	5 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.

The Force of Light



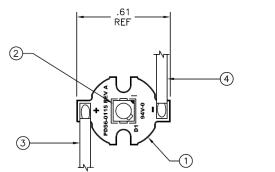


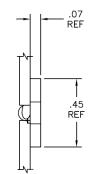
Shown with

LISA optic



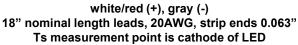
## **Physical Dimensions**





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.



## Table 1, Performance Characteristics at 25°C

Data from laboratory test measurements, actual results may vary.

	Typical CCT/DWL	Min	Max Current	Typical VF	Typical Power	Typical	Efficacy
Part Number	(Kelvin/nm)	CRI	(ADC)	(VDC)	(WDC)	Lumens	
BB01CH-18-70-01	1800	<b>70</b>	0.35	2.9	1.0	118	117
BB01CH-20-70-01	2000	70	0.35	2.9	1.0	130	128
BB01CH-22-80-01	2200	80	0.35	2.9	1.0	130	129
BB01CH-25-80-01	2500	80	0.35	2.9	1.0	135	133
BB01CH-27-80-01	2700	80	0.35	2.9	1.0	147	145
BB01CH-30-80-01	3000	80	0.35	2.9	1.0	150	148
BB01CH-35-80-01	3500	80	0.35	2.9	1.0	153	151
BB01CH-40-80-01	4000	80	0.35	2.9	1.0	159	156
BB01CH-50-80-01	5000	80	0.35	2.9	1.0	160	158
BB01CH-65-80-01	6500	80	0.35	2.9	1.0	160	157
BB01CH-TFA-01	595	n/a	0.35	2.2	0.8	78	102
BB01CH-RED-01	622	n/a	0.35	2.2	0.8	73	94
BB01CH-GREEN-01	527	n/a	0.35	3.4	1.2	120	101
BB01CH-BLUE-01	470	n/a	0.35	2.9	1.0	37	36

## **Options and Packaging**

90CRI minimum versions on special order, 83% of 80CRI lumens. Product is marked with SKU and lot information on non-LED side of module. Sold in groups of (378) 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.

