

Energy-Saving Downlight Engine

Features & Benefits



- 650 lumens for 60W A lamp output for 80% less energy consumed
- 4 inch size for common downlights
- Constant current design for efficiency
- Full range AC dimming
- Integral aluminum heatsink/reflector combination also acts as driver housing
- Patented intelligent thermal design uses metal core board (MCPCB)
- Includes mounting holes for mechanical attachment and pre-wired leads
- Easily configured into existing and new luminaires
- Available in a variety of color temperatures
- Can be used to meet the requirements of CA Title 24, ENERGY STAR® and other green initiatives

Ratings and Performance Specifications

Nominal AC Power Consumption @ 120VAC	12W
Nominal Input Voltage	120VAC
Maximum Operating Range Ambient Temperature (Ta)	-40 to +50 °C
Maximum Solder Pad Temperature (Ts)	+105 °C
Maximum Driver Case Temperature (@ designated temperature measurement point, TMP).....	+75 °C
Estimated Lumen Depreciation (LM80 standard)	70% of initial lumens (L70) at 40,000 hours
Maximum Weight	700 grams

Safety/Compliance:

BB09 BD Series LED module:
CSA 249468

Permlight Constant Current Driver:

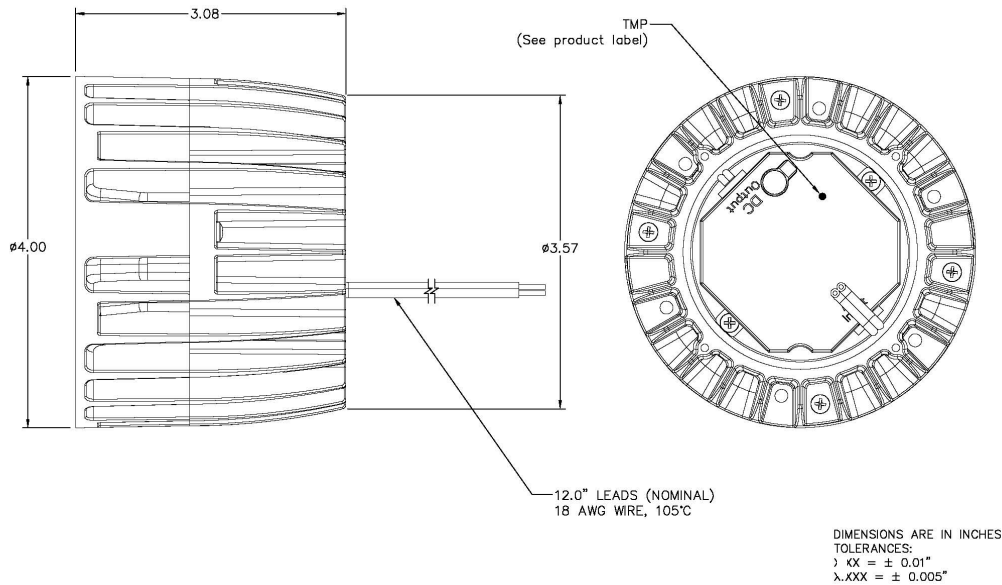
UL Class 2 Recognized Component E256806
RoHs Compliant
Output operating frequency ≥ 120Hz
Meets FCC requirements for consumer use
Class A sound rating
Complies with IEEE C.62.41-1991, Class A operation
340mA Output

Application Notes

1. Although this engine is designed with an integral heat sink, care should be taken in the luminaire designs that will use this engine to allow heat to escape the system.
2. The proper LED Solder Pad Temperature (Ts) is critical to ensure long life. Careful design consideration required for factors such as ambient conditions (for example weather and surrounding atmosphere inside exterior luminaires) and proximity to other heat sources such as other LED modules and heat generating LED drivers.
3. Abnormal operating conditions such as elevated operating temperatures can be expected to negatively impact lumen output, product lifetime, or product performance.
4. AC dimming works with most electronic dimmers such as Lutron® Diva and Maestro, see www.BrilliaLED.com for application notes, wiring diagrams and other compatible dimmers. For technical support or application assistance, please contact Permlight.



Physical Dimensions



Part Number	LED Package Bin	Correlated Color Temperature (Kelvin) ^[2]	Light Output (Lumens) ^[1]	Efficacy (LPW) ^[1]	Sample Values CRI ^[1]	Beam Angle (Degrees)	Input Voltage Dimmable ^[2] (VAC)
BEH09BD120FHE27-001	SW27	2700	625	43	80	84	Yes
BEH09BD120FHE30-001	SW30	3000	675	46	80	84	Yes
BEH09BD120FHE35-001	SW35	3500	725	50	80	84	Yes
BEH09BD120FHE40-001	SW40	4000	770	52	80	84	Yes

¹Nominal Values

²Utilizing selected 3-wire electronic dimmers, see www.BrilliaLED.com for a listing of compatible dimmers

Options

Other LED colors or LED manufacturers availableplease email sales@brillialed.com

Packaging

Brillia LED Light Engines are packed in individual containers with ESD bags as applicable and are marked with relevant SKU information and lot traceability.

Warranty

3-Year limited warranty in accordance with Brillia published warranty at www.brilliaLED.com. No maximum ratings (such as Ts) shall be exceeded during any expected operating conditions of the system.

CAUTION: LEDs generate intense optical radiation which may cause discomfort.

Permlight Products Inc. holds the following United States patents of which one or more may be applicable to the design and/or manufacture of this product. Additional granted patents, patents pending and other intellectual property protection rights may apply to this product.

United States Patents: 6712486, 6578986, 6846093, 7114831, 7306353, 7102172, 7108396, 7329024, 7387406, 7582911, 7582911, 7649327

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