PERMLIGHT®

Features & Benefits

- High density, low power chip array for use when a smooth continuous appearance is desired
- Constant voltage design for flexible applications of variable combinations
- 6” Nominal length is scalable for a variety of applications
- Protective transparent coating
- Patented intelligent thermal design uses metal core printed circuit board (MCPCB) for better heat transfer
- Includes high performance adhesive heat transfer tape
- Includes mounting locations for mechanical attachment and includes pre-wired leads
- Available in a variety of color temperatures
- Can be used to meet the requirements of CA Title 24 ENERGY STAR® and other green initiatives

Required Brillia LED Drivers

Any Brillia 12VDC constant voltage driver ..... See Brillia LED driver specifications

Ratings and Performance Specifications

Nominal DC Power Consumption @ 12VDC 7.2W
Maximum Input Requirements..... 12.3VDC
Maximum Operating Range Ambient Temperature (Ta) ..... -40 to +50°C
Maximum Solder Pad Temperature (Ts) ..... +105°C
Maximum Screw Installation Torque..... 50 inch-ounces
Estimated Lumen Depreciation (LM80 standard) ..... 70% of initial lumens (L_{70}) at 40,000 hours
Maximum Weight ..... 15 grams
Safety/Compliance
CSA Master Contract 249468

Application Notes

1. The use of any washer (lock, flat, etc.) will void the warranty due to possible damage and/or shorting to the circuit board.
2. The best thermal system performance is achieved by utilizing the supplied adhesive transfer tape between the module and heat sink.
3. 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. For more information see: http://brillialed.com/thermal_management_guide.php
4. Abnormal operating conditions such as elevated operating temperatures can be expected to negatively impact lumen output, product lifetime, or product performance.

brilli® LED Light Engines

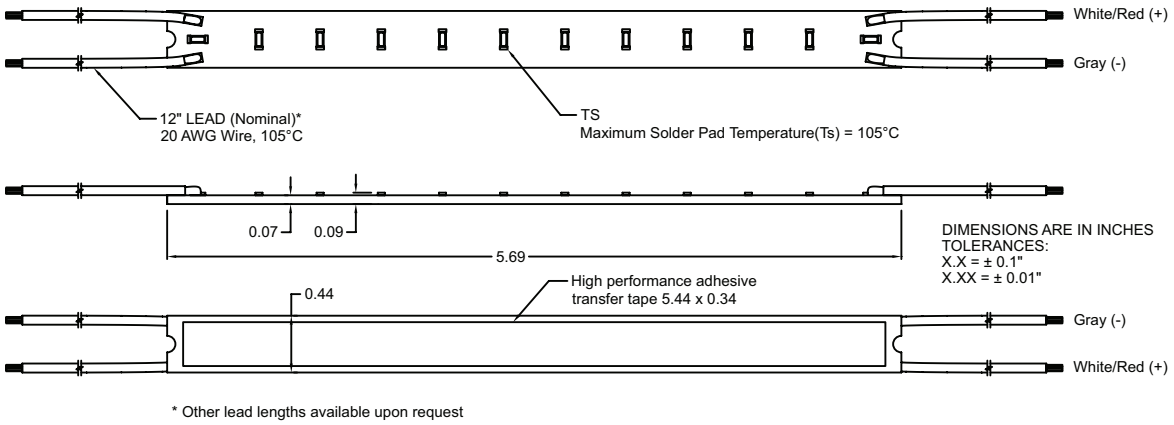
C SA® US

brilli LED Light Engines

PERMLIGHT for signs

BB12 DE Series | LED Module

Physical Dimensions



* Other lead lengths available upon request

Part Number	Correlated Color Temperature (Kelvin)	Light Output * (Lumens)	Efficacy * (Lumens per Watt)	CRI*	Beam Angle (Degrees)
BB12 DE - 30	3000	450	62	85	120
BB12 DE - 35	3500	475	66	85	120
BB12 DE - 40	4000	500	69	85	120
BB12 DE - 51	5100	580	80	75	120

**Nominal value when used with compatible Brillia LED driver and proper heat sink.*

Options

Other LED colors may be available ..... consult factory

Packaging

Modules are marked with abbreviated SKU and lot traceability information on non-LED side of module. Modules are sold in groups of 40 units and packaged in ESD bags with SKU and lot traceability information.

Warranty

3-Year limited warranty in accordance with Brillia published warranty. Product must be used with compatible Brillia components (modules, drivers, engines and/or accessories) and no maximum ratings (such as Ts) shall be exceeded during any expected operating conditions of the system.

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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