



Features & Benefits

- Patented intelligent thermal design uses metal core board
- Constant current design
- Patent pending AC dimming works with 3-wire electronic dimmers
- Patented “sandwich” design uses heatsink and integral mechanical and electrical interfaces to eliminate wiring harness
- Available in different LED colors
- LED Driver is pre-wired leads on LED driver for connection to AC voltage
- Easily configured into existing and new luminaires
- Can be used for requirements of CA Title 24, ENERGY STAR and other green initiatives

Ratings and Specifications

| | |
|----------------------------------------------------------------|----------------------------------------------------------------------------|
| Power Consumption..... | 4.5W nominal |
| Input Voltage | 120VAC |
| Operating Frequency..... | 50/60Hz |
| Estimated Life for White LED @ Tj ≤ +90 °C..... | 40,000 hours, 70% lumen maintenance |
| Maximum Operating Ambient Temperature (Ta) | -40 °C to +50 °C |
| *Recommended Maximum Operating Junction Temperature (Tj) | +90 °C |
| Weight (driver and module only) | 32 grams |
| Screw Installation Torque | 50 inch-ounces |
| AI1220 Series Driver UL File and Listing..... | E256806, cURus, UL recognized component, dry location |
| BB03 AE Series Module UL File and Listing | UL recognition of this component is in process, consult factory for status |

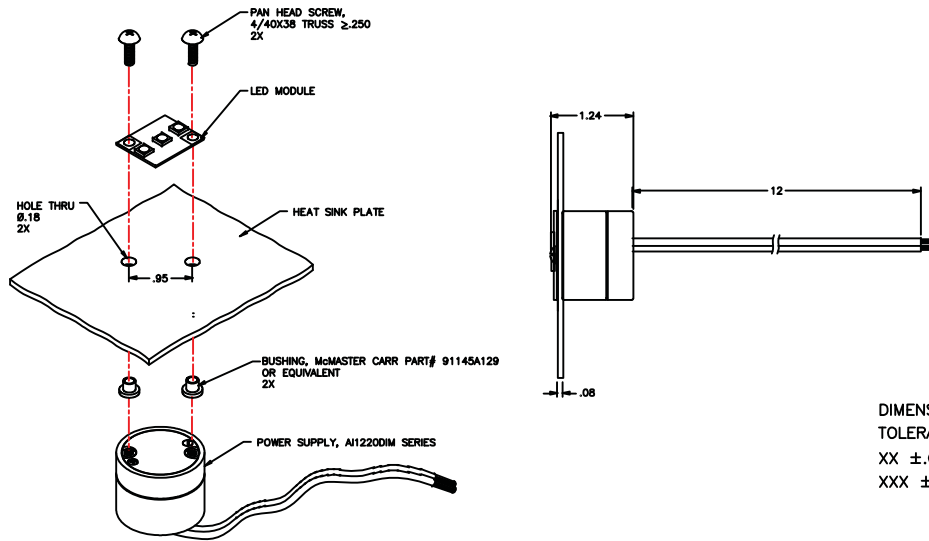
Engineering Notes

The LED module makes electrical and mechanical connection with the LED driver by 4-40 x 3/8” truss head screws and isolation bushings shipped with each light engine. Brillia recommends the use of an aluminum or equivalent heatsink “sandwiched” between the LED module and driver with a nominal thickness of 0.080”. For thicker heatsinks, longer screws can be used, however caution must be used not to bottom-out and damage the internal PC board of the driver. Luminaires manufactured with this LED light engine have passed UL thermal testing. Please consult the factory for design recommendations.

*The proper LED Junction Temperature (Tj) is critical to ensure long life, therefore careful design consideration is required for factors such as ambient conditions (weather and surrounding atmosphere in fixture) and proximity to other heat sources such as other LED drivers, modules or light engines.



Physical Dimensions



DIMENSIONS ARE IN INCHES
 TOLERANCES:
 XX ±.01 ANGLE ± 30'
 XXX ±.005

| Part Number | LED Package Series | Nominal Values CCT Color Temp. (Kelvin) | Sample Values Light Output (Lumens) | Sample Values Efficacy (Lumens per Watt) | Sample Values CRI* | Nominal Beam Angle (Degrees) |
|---------------------|---------------------|-----------------------------------------|-------------------------------------|------------------------------------------|--------------------|------------------------------|
| BEP03AE120FDA27-001 | Nichia 083B (SW27) | 2725 | 157 | 35 | 68 | 120 |
| BEP03AE120FDA35-001 | Nichia 083B (SW35) | 3500 | 179** | 40** | 72** | 120 |
| BEP03AE120FDA51-001 | Nichia 083B (Cbins) | 5100 | 200 | 44 | 78 | 120 |

* Higher CRI available by special order

**Actual sample values of Light Engine tested to LM79 with AI1220 Series (120V) driver and sample heatsink

Options: sales@brillialed.com

Other LED colors, high CRI or LED manufacturersplease email sales@brillialed.com

Warranty

3 Year Limited warranty from date of manufacture for a maximum operating case temperature of the LED driver and maximum operating Tj of the LED module at 90 °Csee www.brillialed.com for additional conditions

Additional Information