Permlight Technologies™
An FPT Acquisition Company

# Shallow Mount Round Engine
# For Close-to-Ceiling or Sconce Luminaires

BEP40JL and BEP80GL Series

## Features & Benefits

- Patented 7" and 9" round design provides even illumination
- Ideal for ADA, commercial or decorative luminaires, domes, drums, pendants and sconces
- 90 CRI version meets California Title 24, 80 CRI meets DLC
- Scalable design (32-40 or 72-80) LED and (1) or (2) drivers to meet specific project or application power or lumen requirement
- Dimmable version to 5% with triac or ELV dimmers
- UNV input 120-277VAC version runs 10-15°C lower operating temperature than competition with similar size
- Requires no heatsink at 40°C ambient in most luminaires
- Lumens/power can be doubled for exterior applications up to 50°C with remote driver and proper heatsink, consult factory

## Compatible LED Drivers or Modules

| | |
|---|---|
| Recommended Maximum DC Input Current to Module | 350mA and 700mA |
| Typical DC input Voltage to Module | 21 and 30V |

## Ratings and Performance Specifications

| | |
|---|---|
| Nominal Power Consumption | See Table 1 |
| Recommended Screw Installation Torque | 75 inch ounces |
| Maximum Operating Range Ambient Temperature (Ta) | -20 to +40°C |
| Maximum Solder Pad Temperature (Ts) | +105°C |
| Maximum Driver Case Temperature @ designated Tmp | +80°C |
| Estimated Lumen Depreciation (TM-21) | 70% initial lumens (L70) @ 100,000 hours |
| Nominal Weight (driver dependent) | 300 and 400 grams |
| Safety/Compliance UL Class 2 Recognized Component | E321468 |
| Safety/Compliance | Driver UL E256805 |

## 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. Although this module is designed with an integrated heat sink, care should be taken in the luminaire designs to allow heat to escape the system. Contact factory for thermal guidelines.

3. Abnormal operating conditions such as elevated ambient temperatures can be expected to negatively impact lumen output, product lifetime and/or performance.

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c UL us

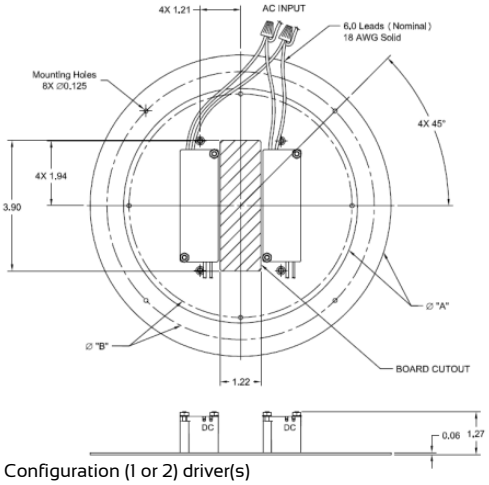
RoHS 2002/95/EC

# BEP40JL and BEP80GL Series

## Physical Dimensions

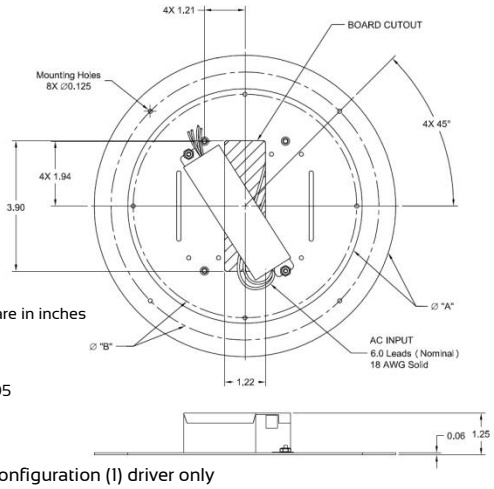
| | Dimensions | | Components | |
|---|---|---|---|---|
| Series | Ø A | Ø B | LED | Driver |
| JL | 9.00 | 8.00 | 32 or 40 | 1 |
| GL | 7.00 | 6.68 | 72 or 80 | 1, 2 |

Ts is measured at the Cathode of D19




Configuration (1 or 2) driver(s)
PS12-350C-DIM, 120VAC Triac/ELV dimming
PS18-350C-UNV-H, 120-277VAC non-dimming

Dimensions are in inches
Tolerances:
X.X = 0.1
X.XX = 0.01
X.XXX = 0.005




Configuration (1) driver only
PS16-350C-DIM-UNV, 120-277VAC, 0-10V dimming

## Table 1, Performance Characteristics at 25C

Data from laboratory test measurements, actual results may vary.
SKU shown are most popular warm white 3000K, 80CRI, see multiplier below Table 1.

| Part Number | Diameter (Inches) | Nominal Input Voltage (VAC) | Dimming | Nominal CCT (Kelvin) | Minimum CRI | Nominal Light Output (Lumens) | Power Consumption (WAC) | Nominal Efficacy (AC LPW) | Driver(s) |
|---|---|---|---|---|---|---|---|---|---|
| BEP32JL-30-80-04 | 7 | 120-277 | No | 3000 | 80 | 1305 | 9.7 | 135 | (1) PS18-350C-UNV-H |
| BEP32JL-30-80-01 | 7 | 120 | Triac/ELV | 3000 | 80 | 1305 | 10.2 | 127 | (1) PS12-350C-DIM |
| BEP32JL-30-80-05 | 7 | 120-277 | 0-10VDC | 3000 | 80 | 1305 | 10.5 | 124 | (1) PS16-350C-DIM-UNV |
| BEP40JL-30-80-04 | 7 | 120-277 | No | 3000 | 80 | 1632 | 12.1 | 135 | (1) PS18-350C-UNV-H |
| BEP40JL-30-80-01 | 7 | 120 | Triac/ELV | 3000 | 80 | 1632 | 12.8 | 127 | (1) PS12-350C-DIM |
| BEP40JL-30-80-05 | 7 | 120-277 | 0-10VDC | 3000 | 80 | 1632 | 13.1 | 124 | (1) PS16-350C-DIM-UNV |
| BEP72GL-30-80-05 | 9 | 120-277 | 0-10VDC | 3000 | 80 | 1468 | 11.8 | 124 | (1) PS16-350C-DIM-UNV |
| BEP80GL-30-80-05 | 9 | 120-277 | 0-10VDC | 3000 | 80 | 1632 | 13.1 | 124 | (1) PS16-350C-DIM-UNV |
| BEP72GL-30-80-04 | 9 | 120-277 | No | 3000 | 80 | 2937 | 21.7 | 135 | (2) PS18-350C-UNV-H |
| BEP72GL-30-80-01 | 9 | 120 | Triac/ELV | 3000 | 80 | 2937 | 23.0 | 127 | (2) PS12-350C-DIM |
| BEP80GL-30-80-04 | 9 | 120-277 | No | 3000 | 80 | 3263 | 24.1 | 135 | (2) PS18-350C-UNV-H |
| BEP80GL-30-80-01 | 9 | 120 | Triac/ELV | 3000 | 80 | 3263 | 25.6 | 127 | (2) PS12-350C-DIM |

Lumen multiplier: 2000K = 0.7, 2700K = 0.96, 3500K = 1.03, 4000K = 1.05, 5000K = 1.14

## Options available

Other power ratings, number of LED, CCT and CRI available on special order
90 CRI minimum available on special order 2700K - 4000K only, subtract 25% lumens

## Packaging

Product is marked with SKU and lot information on non-LED side of module.
Sold in groups of (1) 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 expected operating conditions of the system. If product is used with other manufacturer's product, compatibility must be recognized in writing by Permlight Technologies.

Permlight Technologies owns the following United States patents of which one or more may be applicable to the design and/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.

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