

## DESCRIPTION

The HLB6 is a 6-inch ultra-thin LED lens downlight with remote driver / junction box suitable for new construction and remodel applications. Field selectable color temperature and high color rendering provide excellent color performance. Simplified installation in drywall or suspended ceilings eliminates recessed cans saving time and money. Installs from below the ceiling in as little as 1-1/2" plenum height, can be used in direct contact with insulation and is airtight. Use for general area lighting in low to medium height ceilings where energy savings, long life and economy are required.

|             |  |      |  |
|-------------|--|------|--|
| Catalog #   |  | Type |  |
| Project     |  | Date |  |
| Comments    |  |      |  |
| Prepared by |  |      |  |

## SPECIFICATION FEATURES

### HOUSING

- Die cast aluminum mounting frame with integral flange provides passive thermal cooling achieving L70 at 50,000 hours in IC and non-IC applications
- High impact diffuse lens provides shielding to the light guide minimizing pixilation.

### GASKET

- Closed cell gasket achieves restrictive airflow and wet location listing without additional gaskets or caulking

### OPTICS

- Precision acrylic light guide organizes source flux into wide distribution with 1.4 spacing criteria, useful for general area illumination

### LED ARRAY

- Plurality of mid power LED's provides a uniform source with high efficiency and long life
- Available in 90 CRI minimum, R9 greater than 50 provides high color rendering
- Fixed 3000 and 4000 K CCT color temperatures, color accuracy within 3 SDCM
- Optional field selectable color temperature, select 2700, 3000, 3500, 4000 or 5000 K CCT, color accuracy within 4 SDCM
- Meets Energy Star color angular uniformity requirements, deviation is less than 0.006 u' v'

### REMOTE DRIVER / JUNCTION BOX

- Die formed metal driver / junction box with captive hinged junction box cover
- Listed for (6) #12 AWG 90° C splice conductors, 2-in, 2-out plus (2) ground
- (2) 1/2" conduit pry-outs
- (2) Slide-N-Side™ non-metallic (NM) wire traps allows wiring outside the box

- Accepts 14-2, 14-3, 12-2, 12-3 U.S. and 14-2, 14-3, 12-2 Canadian NM cable
- (3) 4-port push wire nuts with clear caps for quick and reliable mains voltage connections
- Integral mounting holes facilitate direct mounting to building structure or mounting frame

### DRIVER

- 120V 60 Hz constant current driver provides noise free operation
- Continuous, flicker-free dimming from 100% to 5% with select leading or trailing edge 120V phase cut dimmers
- Plenum rated inline electrical quick connect provides low voltage connection to fixture fitting, CMP/FT6 rated

### INSTALLATION

- Can be installed in 1/2" to 1-1/4" thick ceilings
- Cutout utilizes standard round hole saw sizes, cutout template provided
- Heat treated springs hold fixture fitting securely in the ceiling eliminating light leaks
- Housing is less than 1/2" thick and can span a 2" nominal framing member
- Can be removed from below the ceiling for service or replacement

### OPTIONAL MOUNTING FRAME

- Pre-galvanized steel mounting frame locates fixture fittings during electrical rough in and provides cutout guidance for drywall contractor
- Provides attachment of remote driver / junction box

### COMPLIANCE

- cULus certified type IC suitable for direct contact with air permeable insulation
- Not recommended for use in direct contact with spray foam insulation, reference NEMA LSD57-2013
- Wet location listed and IP44 ingress protection
- Airtight per ASTM-E283-04
- Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements
- EMI/RFI emissions per FCC 47CFR Part 15 consumer limits
- Contains no mercury or lead and RoHS compliant
- Photometric testing in accordance with IES LM-79-08
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11
- Can be used for State of California Title 24 high efficacy LED compliance under JA8, reference Modernized Appliance Efficiency Database System (MAEDBS) for 2016 JA8 High Efficacy Lighting
- ENERGY STAR® certified, reference "Certified Light Fixtures" database

### WARRANTY

- Five year limited warranty, consult website for details. [www.eaton.com/lighting/legal](http://www.eaton.com/lighting/legal)



## HLB6

**6-Inch LED Lens  
Downlight with Remote  
Driver / Junction Box**

**Up to 1100 Lumens  
Field Selectable CCT**



2700K • 3000K • 3500K  
4000K • 5000K

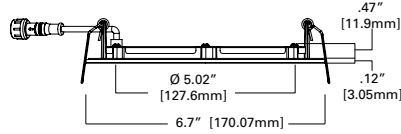
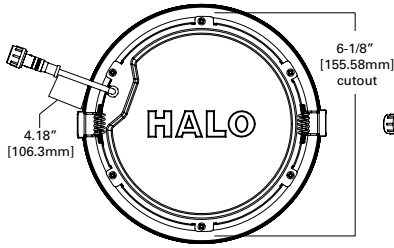
### ENERGY DATA

|               |              |
|---------------|--------------|
| Lumens        | 900 Series   |
| Input Voltage | 120V         |
| Input Current | 132 (mA)     |
| Input Power   | 16.0 (W)     |
| Efficiency    | 66 (LPW)     |
| Inrush (A)    | 2.1 A @ 14mS |
| THD           | ≤ 20%        |
| PF            | ≥ 0.90       |
| T Ambient     | -30° - +40°C |
| Sound Rating  | ≤ 22dba      |

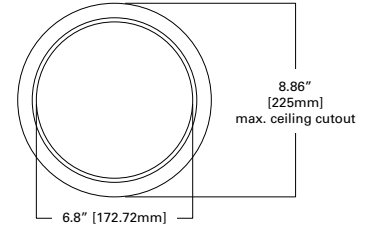


Refer to ENERGY STAR® Certified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Appliance Efficiency Database under JA8.

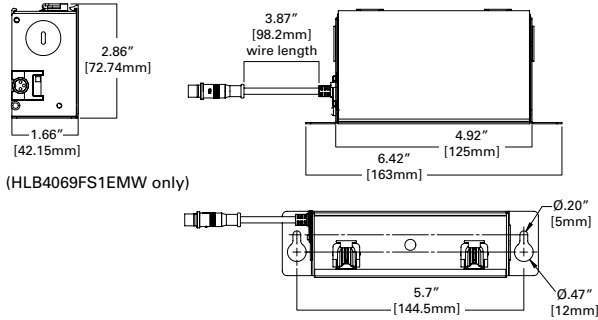
## DIMENSIONS



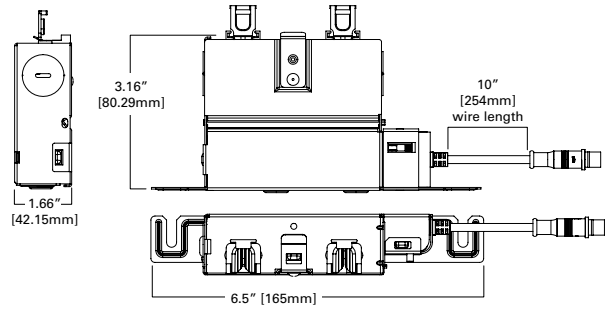
HLB6ROTMW  
Oversized trim



(HLB6099FS1EMW only)



(HLB4069FS1EMW only)



## ORDERING INFORMATION

SAMPLE NUMBER: HLB6099FS1EMWR

| Models  | Lumens                          | CRI / CCT  | Driver  | Finish                         | Packaging  |
|---|---------------------------------|--|---|--------------------------------|--|
| <b>HLB6</b> = 6-Inch LED lens downlight with remote driver / junction box | <b>09</b> = 900 lumen (nominal) | <b>930</b> = 90 CRI minimum, 3000 K CCT<br><b>940</b> = 90 CRI minimum, 4000 K CCT<br><b>9FS</b> = 90 CRI minimum, field selectable 2700, 3000, 3500, 4000 or 5000 K CCT | <b>1E</b> = 120V 60Hz, LE & TE phase cut 5% dimming | <b>MW</b> = matte white flange | <b>R</b> = recyclable 4-color unit carton suitable for point of purchase merchandising display |

### Accessories

**HL6NCMF** = 6" new construction mounting frame  
**HLB6ROTMW** = 6" round oversized trim, matte white

### Designer Trims

**HLB6TRMMW** = 6" round decorative overlay, matte white  
**HLB6TRMSN** = 6" round decorative overlay, satin nickel  
**HLB6TRMTBZ** = 6" round decorative overlay, tuscan bronze

### Extension Cable | Dedicated Driver/Jbox

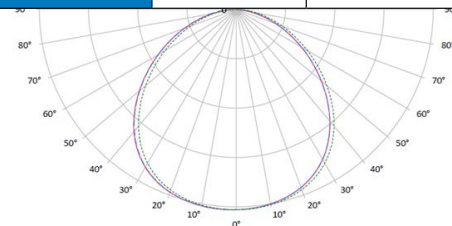
HLB06EC - 6 ft. extension cable  
HLB12EC - 12 ft. extension cable  
HLB20EC - 20 ft. extension cable

### Extension Cable | seleCCTable Driver/Jbox

HLB06FSEC - 6 ft. extension cable  
HLB12FSEC - 12 ft. extension cable  
HLB20FSEC - 20 ft. extension cable

## PHOTOMETRIC DATA

| HLB6099FS1EMWR-3000K  |          |          |
|-----------------------|----------|----------|
| Luminaire lumens      | 1061     |          |
| Input watts           | 16       |          |
| LER (LPW)             | 66.3     |          |
| Spacing Criteria      | 0-180    | 1.31     |
|                       | 90-270   | 1.31     |
|                       | Diagonal | 1.41     |
| Beam angle (degrees)  | 112.2    |          |
| Field angle (degrees) | 161.3    |          |
| Zonal lumen           | Lumens   | % Lumens |
| 0-30                  | 294      | 27.7     |
| 0-40                  | 486      | 45.8     |
| 0-60                  | 851      | 80.2     |
| 0-90                  | 1061     | 100      |



## Color Metric Summary - 3000K

|          |                        |
|----------|------------------------|
| TM-30-15 | R <sub>f</sub> = 90.9  |
|          | R <sub>g</sub> = 100.7 |
| CRI/CIE  | R <sub>a</sub> = 94.1  |
|          | R <sub>9</sub> = 68.4  |



CCT - Range of 2700K- 5000K



## Product Specifications

| PRODUCT SPECIFICATIONS                                  |       |
|---|-------|
| Lumens  | 1061  |
| Watts   | 14.2  |
| Lumens Per Watt (Efficacy)                              | 74.7  |
| Color Accuracy (CRI)                                    | 92    |
| Light Color (CCT)<br>Correlated Color Temperature (CCT) | 3000K |
|   |       |

| HLB6 6-inch          | CCT   | Lumens | Power (W) | LPW  |
|----------------------|-------|--------|-----------|------|
| Fixed CCT            | 3000K | 992.3  | 13.6      | 73.4 |
|                      | 4000K | 1057.7 | 13.6      | 78.0 |
| Field Selectable CCT | 2700K | 1037.3 | 16.0      | 64.8 |
|                      | 3000K | 1061.0 | 16.0      | 66.3 |
|                      | 3500K | 1078.9 | 16.0      | 67.4 |
|                      | 4000K | 1094.9 | 16.0      | 68.4 |
|                      | 5000K | 1103.4 | 16.0      | 69.0 |

\* Tested in accordance with IES LM63. Field results may vary.