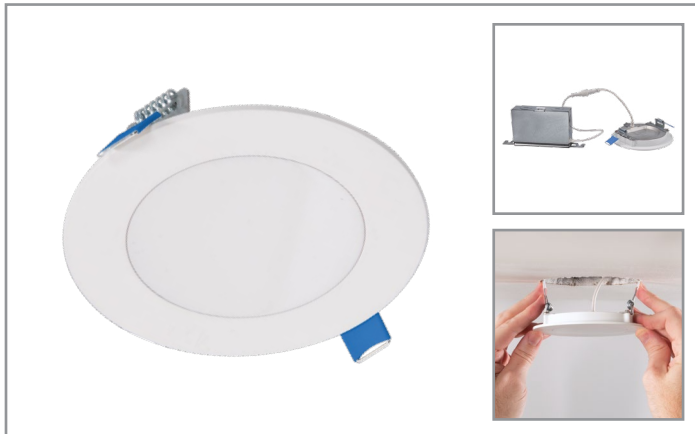


Project		Catalog #		Type	
Prepared by		Notes		Date	



# HALO

## HLBSL4

4-Inch LED Lens Downlight with Remote Driver / Junction Box

### Typical Applications

Residential

### Interactive Menu

- Order Information page 2
- Product Specifications page 2
- Photometric Data page 3
- Energy & Performance Data page 3
- Product Warranty
- Dimming Guide

### Product Certification



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 JAB.

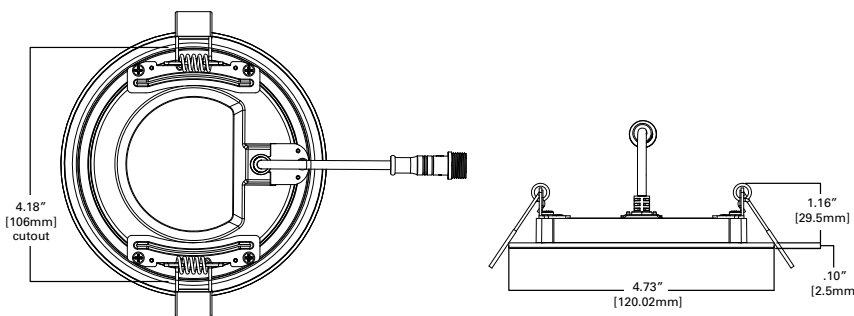
### Product Features



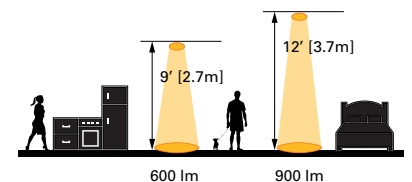
### Top Product Features

- Direct mount - does not require recessed housing or junction box
- Delivers up to 800 lumens
- Achieves L70 at 35,000 hours in IC and non-IC applications
- Field Selectable color temperature (3 colors), select
  - 2700K, 3000K, 3500K
  - 3000K, 4000K, 5000K
  - 4000K, 5000K, 6000K

### Dimensional and Mounting Details



### Scale



additional product diagrams

## Order Information

SAMPLE ORDER NUMBER: **HLBSL4069FS351EMWR**

Models	Lumens	CRI / CCT	Driver	Finish	Packaging
<b>HLBSL4</b> = 4-Inch LED smooth lens downlight with plastic housing and remote driver / junction box	<b>06</b> = 650 lumens (nominal)	<b>9FS23</b> = 90 CRI minimum, field selectable 2700K, 3000K, 3500K CCT <b>9FS35</b> = 90 CRI minimum, field selectable 3000K, 4000K, 5000K CCT <b>9FS46</b> = 90 CRI minimum, field selectable 4000K, 5000K, 6000K CCT	<b>1E</b> = 120V 60Hz, LE & TE phase cut 10% dimming	<b>MW</b> = matte white flange	<b>R</b> = recyclable 4-color unit carton suitable for point of purchase merchandising display
<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>

### Accessories

Accessories	
<b>HL4RSMF</b> = 4" new construction mounting frame <b>HLB4ROTMMW</b> = 4" round oversized trim ring, 6.875" OD, matte white  <b>Designer Trims</b> <b>HLB4RTRMMW</b> = 4" round decorative overlay, matte white <b>HLB4RTRMSN</b> = 4" round decorative overlay, satin nickel <b>HLB4RTRMTBZ</b> = 4" round decorative overlay, tuscan bronze	<b>Extension Cable   seleCCTable Driver/Jbox</b> <b>HLB06FSEC</b> = 6 ft. extension cable <b>HLB12FSEC</b> = 12 ft. extension cable <b>HLB20FSEC</b> = 20 ft. extension cable
<b>Notes</b>	

## Product Specifications

### Housing

- Plastic mounting frame with integral flange provides passive thermal cooling achieving L70 at 35,000 hours in IC and non-IC applications

### Optics

- Precision acrylic light guide organizes source flux into wide distribution with 1.26 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
- Field Selectable color temperature (3 colors):
  - 2700K, 3000K, 3500K
  - 3000K, 4000K, 5000K
  - 4000K, 5000K, 6000K
  - Color accuracy of 4 step at the ends, 7 step in the middle
- 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 (4) ½" conduit pry-outs
- Accepts 14-2, 14-3, 12-2, 12-3 U.S. and 14-2, 14-3, 12-2 Canadian NM cable
- (3) wire nuts for quick and reliable mains voltage connections
- Integral mounting facilitates 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 10% with select leading or trailing edge 120V phase cut dimmers

### Installation

- Can be installed in 3/8" to 5/8" thick ceilings
- Round ceiling cutout
- Heat treated springs hold fixture fitting securely in the ceiling eliminating light leaks
- Housing is less than ½" thick and can span a 2" nominal framing member
- Can be removed from below the ceiling for service or replacement

### Compliance

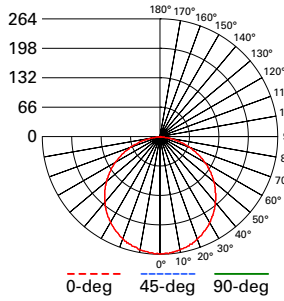
- cULus certified type IC suitable for direct contact with air permeable insulation
- Not recommended for use in direct contact with spray foam insulation, reference NEMA LSD57-2013
- Wet location listed and IP44 ingress protection
- Airtight per ASTM-E283-04
- Suitable for use in clothes closets when 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 2019 JA8 High Efficacy Lighting
- ENERGY STAR® certified, reference "Certified Light Fixtures" database

### Warranty

- Five year warranty standard.

## Photometric Data

[View IES files](#)



**HLBSL4069FS351EMWR**  
 Spacing criterion: (0-180) 1.26  
 (90-270) 1.26  
 (Diagonal) 1.38  
 Beam Angle: 112.7°  
 Field Angle: 161.5°  
 Lumens: 716  
 Input Watts: 10.1 W  
 Efficacy: 70.89 LPW  
 Test Report:  
 HLBSL4069FS351EMWR.ies

Zonal Lumen	Lumens	% Lumens
0-30	194.0	27.1
0-40	318.6	44.5
0-60	564.9	78.9
0-90	716.0	100



### COLOR METRIC SUMMARY

#### HLBSL4069FS231EMW

2700K		3000K		3500K	
TM-30-15	Rf = 93.0 Rg = 98.0	TM-30-15	Rf = 90.0 Rg = 96.0	TM-30-15	Rf = 89.0 Rg = 95.0
CRI/CIE	Ra = 93.0 R9 = 54.1	CRI/CIE	Ra = 92.8 R9 = 61.6	CRI/CIE	Ra = 92.5 R9 = 61.5

#### HLBSL4069FS351EMW

3000K		4000K		5000K	
TM-30-15	Rf = 92.0 Rg = 97.0	TM-30-15	Rf = 93.0 Rg = 99.0	TM-30-15	Rf = 93.0 Rg = 100.0
CRI/CIE	Ra = 93.3 R9 = 57.5	CRI/CIE	Ra = 96.3 R9 = 75.8	CRI/CIE	Ra = 95.3 R9 = 77.4

#### HLBSL4069FS461EMW

4000K		5000K		6000K	
TM-30-15	Rf = 88.0 Rg = 96.0	TM-30-15	Rf = 89.0 Rg = 97.0	TM-30-15	Rf = 89.0 Rg = 96.0
CRI/CIE	Ra = 93.9 R9 = 75.6	CRI/CIE	Ra = 93.7 R9 = 82.9	CRI/CIE	Ra = 93.4 R9 = 76.3

## Energy and Performance Data

		Lumens	Power (W)	LPW
HLBSL4069FS231EMW	2700K	703	10	70.3
	3000K	753	10	75.3
	3500K	726	10	72.6
HLBSL4069FS351EMW	3000K	716	10.1	70.9
	4000K	778	10	77.8
	5000K	768	10.2	75.3
HLBSL4069FS461EMW	4000K	761	9.9	76.9
	5000K	793	9.9	80.1
	6000K	771	9.9	77.9

Note: Refer to IES files for more product data.

### HLBSL4069FS231EMW

PRODUCT SPECIFICATIONS	
Lumens	753
Watts	10.0
Lumens Per Watt (Efficacy)	75.3
Color Accuracy (CRI)	92
Light Color (CCT) Correlated Color Temperature (CCT)	3000K
warm white	soft white
2700K	3000K
4500K	6500K

### HLBSL4069FS351EMW

PRODUCT SPECIFICATIONS	
Lumens	716
Watts	10.1
Lumens Per Watt (Efficacy)	70.9
Color Accuracy (CRI)	92
Light Color (CCT) Correlated Color Temperature (CCT)	3000K
warm white	soft white
2700K	3000K
4500K	6500K

### HLBSL4069FS461EMW

PRODUCT SPECIFICATIONS	
Lumens	761
Watts	9.9
Lumens Per Watt (Efficacy)	76.9
Color Accuracy (CRI)	93
Light Color (CCT) Correlated Color Temperature (CCT)	4000K
warm white	soft white
2700K	3000K
4500K	6500K

## Dimensional Details

