

Project		Catalog #		Type	
Prepared by		Notes		Date	



# HALO

## HLB4

4" LED Lens Downlight with Remote Driver / Junction Box

### Typical Applications

Residential

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### 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.

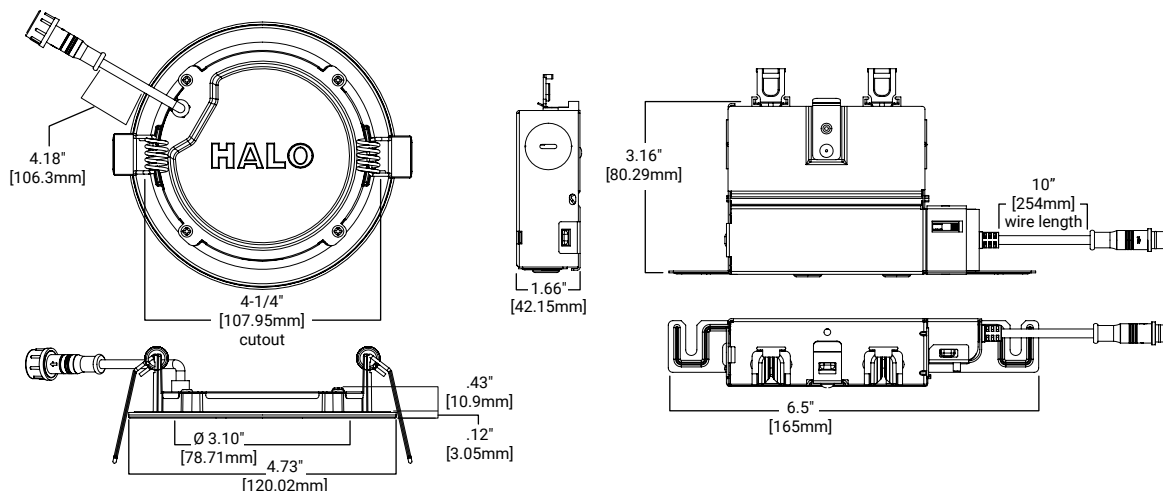
### Product Features



### Top Product Features

- Direct mount (does not require recessed housing or junction box)
- Delivers up to 750 lumens; Achieves L70 at 50,000 hours in IC and non-IC applications
- 2700K, 3000K, 3500K, 4000K and 5000K field selectable CCT; 3000K and 4000K fixed CCT
- 90 CRI (min), R9 50 and color accuracy within 4 SDCM
- Wet location listed for showers and protected ceilings; Available in 120V or 120-277V

### Dimensional and Mounting Details



## Order Information

SAMPLE ORDER NUMBER: **HLB4069FS1EMWR**

Models	Lumens	CRI / CCT	Driver	Finish	Packaging
<b>HLB4</b> = 4-Inch LED lens downlight with remote driver / junction box	<b>06</b> = 600 lumens (nominal)	<b>930</b> = 90 CRI minimum, 3000K CCT <b>940</b> = 90 CRI minimum, 4000K CCT <b>9FS</b> = 90 CRI minimum, field selectable 2700K, 3000K, 3500K, 4000K or 5000K CCT	<b>1E</b> = 120V 60Hz, LE & TE phase cut 5% dimming <b>E010</b> = 120-277V, 0-10V 5% dimming <sup>(1)</sup>	<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> <small>(1) E010 driver is only available in FS color temperature.</small>	<b>Notes</b>	<b>Notes</b>

### Accessories

Accessories	
<p><b>HL4RSMF</b> = 4" round and square mounting frame <b>HLB4ROTMW</b> = 4" round oversized trim, matte white</p> <p><b>Designer Trims</b> <b>HLB4RTRMMW</b> = 4" round decorative overlay, matte white <b>HLB4RTRMMB</b> = 4" round decorative overlay, matte black <b>HLB4RTRMSN</b> = 4" round decorative overlay, satin nickel <b>HLB4RTRMTBZ</b> = 4" round decorative overlay, tuscan bronze</p>	<p><b>Extension Cable   Dedicated Driver/Jbox</b> <b>HLB06EC</b> = 6 ft. extension cable <b>HLB12EC</b> = 12 ft. extension cable <b>HLB20EC</b> = 20 ft. extension cable</p> <p><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</p>



**HLB4RTRMMW**  
White (Paintable), Splay



**HLB4RTRMMB**  
Matte Black, Splay



**HLB4RTRMSN**  
Satin Nickel, Splay



**HLB4RTRMTBZ**  
Tuscan Bronze, Splay

## Product Specifications

### Housing

- Die-cast aluminum mounting frame with integral flange provides passive thermal cooling
- Achieves 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
- 90 color rendering index (CRI) minimum; R9 greater than 50 provides high color rendering
- Fixed 3000K and 4000K correlated color temperatures (CCT); color accuracy within 3 SDCM
- Optional field selectable color temperature, select 2700K, 3000K, 3500K, 4000K or 5000K 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

- Pre-galvanized steel driver/junction box with captive hinged junction box cover
- Listed for six #12 AWG 90° C splice conductors: two in, two out plus two ground
- Two 1/2" conduit pry-outs
- Two Slide-N-Side™ non-metallic (NM) wire traps allows wiring outside the box
- Accepts NM cable types: 14-2, 14-3, 12-2, 12-3 (U.S.) and 14-2, 14-3, 12-2 (Canadian)
- Three 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

- Available in 120V or 120-277V, providing noise free operation
- Continuous flicker-free dimming down to 5% with select 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 leak
- 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

### Optical 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
- 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

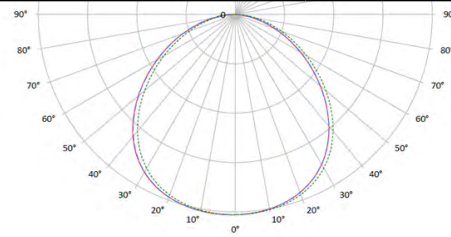
- Five year limited warranty, consult website for details. [www.cooperlighting.com/warranty](http://www.cooperlighting.com/warranty)

## Energy Data

Lumens	600 Series
Input Voltage	120V
Input Current	100 (mA)
Input Power	10.3 (W)
Efficiency	76.9 (LPW)
Inrush (A)	2.2 A @ 42mS
THD	≤ 20%
PF	≥ 0.90
T Ambient	-30° - +40°C
Sound Rating	≤ 22 dba

## Photometric Data

HLB4069FS1EMW-3000K		
Luminaire lumens	792	
Input watts	10.3	
LER (LPW)	76.9	
Spacing Criteria	0-180	1.28
	90-270	1.28
	Diagonal	1.39
Beam angle (degrees)	110.2	
Field angle (degrees)	160	
Zonal lumen	Lumens	% Lumens
0-30	203	28.1
0-40	335	46.3
0-60	581	80.4
0-90	723	100



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

## Color Metric Summary - 3000K

TM-30-15	Rf = 90.9
	Rg = 100.7
CRI/CIE	Ra = 94.1
	R9 = 68.5



CCT - Range of 2700K- 5000K



## Product Specifications

PRODUCT SPECIFICATIONS	
Lumens	792
Watts	10.3
Lumens Per Watt (Efficacy)	76.9
Color Accuracy (CRI)	94
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
2700K	3000K
4500K	6500K

HLB4 4-inch	CCT	Lumens	Power (W)	LPW
Fixed CCT	3000K	734.6	10.2	72.7
	4000K	773.2	10.2	76.2
Field Selectable CCT	2700K	774	10.3	75.1
	3000K	792	10.3	76.9
	3500K	809	10.4	77.8
	4000K	822	10.4	79.0
	5000K	838	10.4	80.6