

Project		Catalog #		Type	
Prepared by		Notes		Date	



HALO

HLB4

4" LED Lens Downlight with Remote Driver / Junction Box

Typical Applications

Residential

Interactive Menu

- Order Information page 2
- Product Specifications page 3
- Energy Data page 3
- Photometric Data page 4
- 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 JA8.

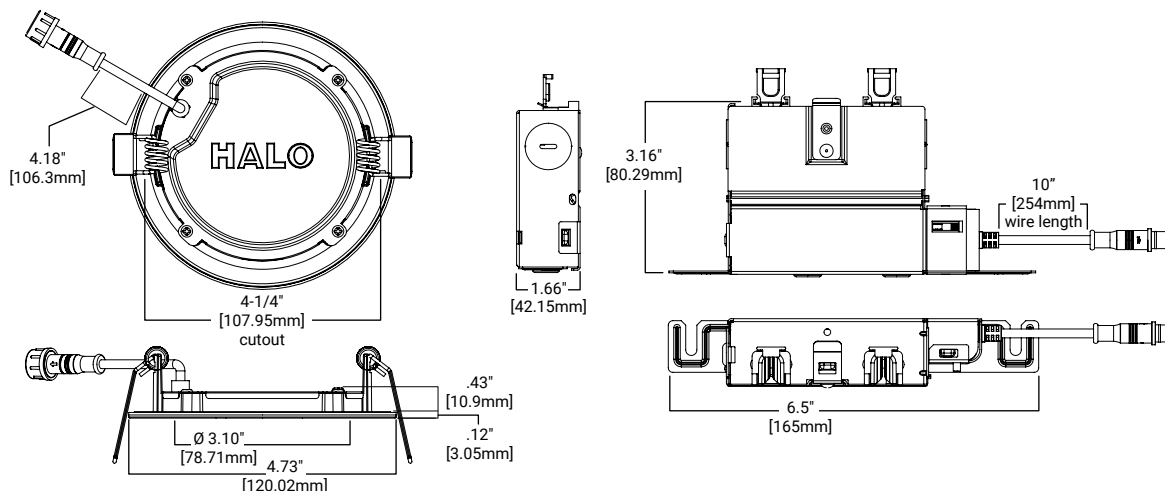
Product Features



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
HLB4 = 4-Inch LED lens downlight with remote driver / junction box	06 = 600 lumens (nominal)	930 = 90 CRI minimum, 3000K CCT 940 = 90 CRI minimum, 4000K CCT 9FS = 90 CRI minimum, field selectable 2700K, 3000K, 3500K, 4000K or 5000K CCT	1E = 120V 60Hz, LE & TE phase cut 5% dimming E010 = 120-277V, 0-10V 5% dimming ⁽¹⁾	MW = matte white flange	R = recyclable 4-color unit carton suitable for point of purchase merchandising display
Notes	Notes	Notes	Notes (1) E010 driver is only available in FS color temperature.	Notes	Notes

Accessories

Accessories	
HL4RSMF = 4" round and square mounting frame HLB4ROTMW = 4" round oversized trim, matte white Designer Trims HLB4RTRMMW = 4" round decorative overlay, matte white HLB4RTRMMB = 4" round decorative overlay, matte black HLB4RTRMSN = 4" round decorative overlay, satin nickel HLB4RTRMTBZ = 4" 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



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

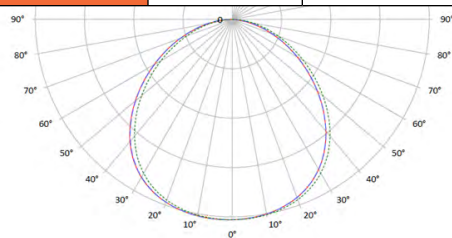
- Five year limited warranty, consult website for details. www.cooperlighting.com/warranty

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)	
warm white	soft white
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