

DESCRIPTION

The HLB4 is a 4-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 3-1/2" 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 1.28 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 and color accuracy within 4 SDCM providing color uniformity
- Field selectable color temperature, select 2700, 3000, 3500, 4000 or 5000 K CCT
- Meets ENERGY STAR® color angular uniformity requirements, deviation is less than 0.006 u' v'

REMOTE DRIVER / JUNCTION BOX

- Aluminum 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 keyhole mounting slots facilitate direct mounting to building structure or new construction 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

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 tool-less 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
- 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



HLB4

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

Up to 750 Lumens Field Selectable CCT



2700K • 3000K • 3500K
4000K • 5000K

ENERGY DATA

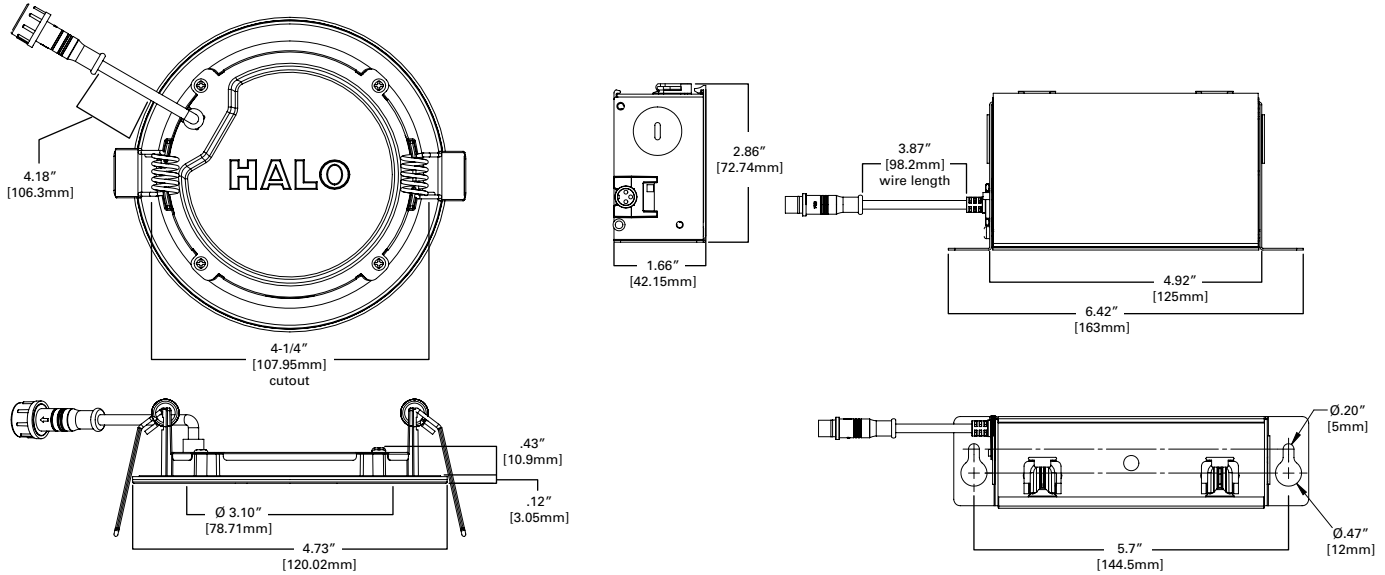
Lumens	600 Series
Input Voltage	120V
Input Current	99 (mA)
Input Power	12.0 (W)
Efficiency	60 (LPW)
Inrush (A)	2.0 A @ 15mS
THD	≤ 20%
PF	≥ 0.90
T Ambient	-30° - +40°C
Sound Rating	≤ 20dba



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



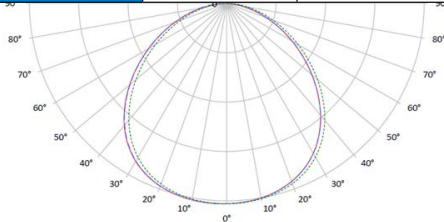
ORDERING INFORMATION

SAMPLE NUMBER: HLB4069FS1EMWR

Models	Lumens	CRI / CCT	Driver	Finish	Packaging	Accessories
HLB4 = 4-Inch ultra-thin LED lens downlight with remote driver / junction box	06 =600 lumen (nominal)	9FS =90 CRI minimum, field selectable 2700, 3000, 3500, 4000 or 5000 K CCT	1E = 120V 60Hz, LE & TE phase cut 5% dimming	MW = matte white flange	R = recyclable 4-color unit carton suitable for point of purchase merchandizing display	HL4NCMF = 4" new construction mounting frame

PHOTOMETRIC DATA

HLB4069FS1EMWR-3000K		
Luminaire lumens	723	
Input watts	12	
LER (LPW)	60.3	
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	R _f = 90.9
	R _g = 100.7
CRI/CIE	R _a = 94.1
	R ₉ = 68.5



CCT - Range of 2700K- 5000K

Product Specifications

PRODUCT SPECIFICATIONS	
Lumens	723
Watts	12
Lumens Per Watt (Efficacy)	60.3
Color Accuracy (CRI)	92
Light Color (CCT) Correlated Color Temperature (CCT)	3000K
warm white	soft white
2700K	3000K
4500K	bright white
6500K	

	CCT	Lumens	Power (W)	LPW
4in HLB	2700K	706.9	12	58.9
	3000K	723.0	12	60.3
	3500K	735.2	12	61.3
	4000K	746.1	12	62.2
	5000K	751.9	12	62.7