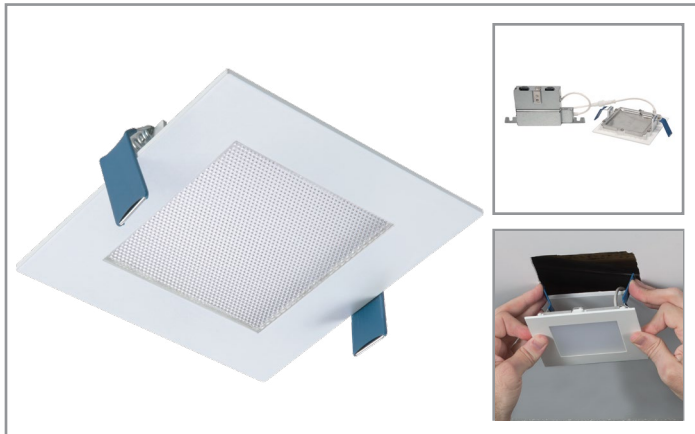


Project		Catalog #		Type	
Prepared by		Notes		Date	



# HALO

## HLB4S

### 4" LED Square Lens Downlight with Remote Driver / Junction Box

#### Typical Applications

Residential

#### Interactive Menu

- Order Information page 2
- Photometric Data page 2
- Control Solutions
- Connected Systems
- Product Warranty

#### 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.

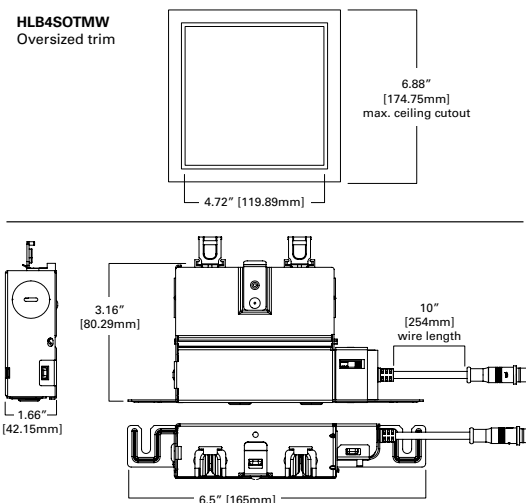
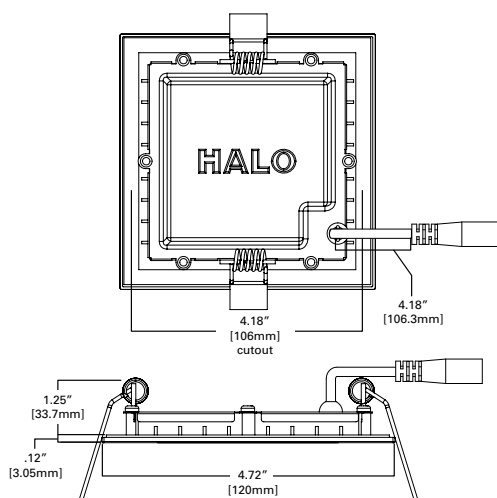
#### Product Features



#### 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: **HLB4S069FS1EMWR**

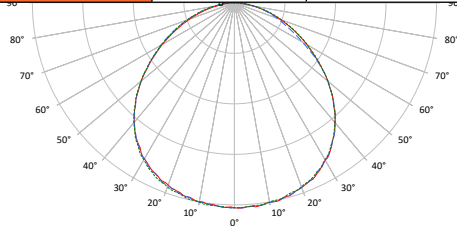
Models	Lumens	CRI / CCT	Driver	Finish	Packaging
<b>HLB4S</b> = 4-Inch LED square lens downlight with remote driver / junction box	<b>06</b> = 600 lumens (nominal)	<b>930</b> = 90 CRI minimum, 3000K CCT <b>940</b> = 90 CRI minimum, 4000K CCT <b>9FS</b> = 90 CRI minimum, field selectable 2700K, 3000K, 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> (1) E010 driver is only available in FS color temperature.	<b>Notes</b>	<b>Notes</b>

### Accessories

Accessories	
<b>HL4RSMF</b> = 4" round and square mounting frame <b>HLB4SOTMW</b> = 4" square oversized trim, matte white  <b>Designer Trims</b> <b>HLB4STRMMW</b> = 4" square decorative overlay, matte white <b>HLB4STRMSN</b> = 4" square decorative overlay, satin nickel <b>HLB4STRMTBZ</b> = 4" square decorative overlay, tuscan bronze	<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  <b>Extension Cable   selectable Driver/Jbox</b> <b>HLB06FSEC</b> = 6 ft. extension cable <b>HLB12FSEC</b> = 12 ft. extension cable <b>HLB20FSEC</b> = 20 ft. extension cable

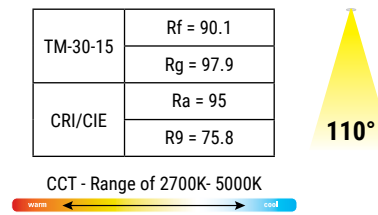
## Photometric Data

HLB4S069FS1EMW-3000K		
Luminaire lumens	696	
Input watts	10.1	
LER (LPW)	68.9	
Spacing Criteria	0-180	1.30
	90-270	1.32
	Diagonal	1.40
Beam angle (degrees)	110.3	
Field angle (degrees)	161.8	
Zonal lumen	Lumens	% Lumens
0-30	196	28.1
0-40	321	46.1
0-60	557	80
0-90	696	100



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

### Color Metric Summary - 3000K



### Product Specifications

PRODUCT SPECIFICATIONS	
Lumens	668
Watts	10.8
Lumens Per Watt (Efficacy)	62.1
Color Accuracy (CRI)	92
Light Color (CCT) Correlated Color Temperature (CCT)	3000K

HLB4 4-inch	CCT	Lumens	Power (W)	LPW
Fixed CCT	3000K	734.6	10.2	72.0
	4000K	773.2	10.2	75.8
Field Selectable CCT	2700K	684.9	10.1	67.8
	3000K	695.9	10.1	68.9
	3500K	689.6	10.1	68.3
	4000K	693.7	10.1	68.7
	5000K	694.6	10.1	68.8

## Energy Data

Lumens	600 Series
Input Voltage	120V
Input Current	90 (mA)
Input Power	10.5 (W)
Efficiency	60 (LPW)
Inrush (A)	2.2 A @ 42mS
THD	≤ 20%
PF	≥ 0.90
T Ambient	-30° - +40°C
Sound Rating	≤ 22 dba

## Product Specifications

### 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) ½" 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 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 template provided
- 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 2016 JA8 High Efficacy Lighting
- ENERGY STAR® certified, reference "Certified Light Fixtures" database

### Warranty

- Five-year limited warranty