

DESCRIPTION

The HLB3S is a 3-inch ultra-thin LED square lens downlight with remote driver / junction box suitable for new construction and remodel applications. 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		
Comments		Date
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 1.4 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 2700, 3000, 3500 and 4000 K CCT color temperatures, color accuracy within 3 SDCM
- Meets Energy Star color angular uniformity requirements, deviation is less than 0.004 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) 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 mounting slots 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

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 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
- Multi-conductor jacketed cable complies with UL CMP/CSA FT-6 and is not required to be installed in conduit or raceway
- 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



HLB3S

**3-Inch LED Square Lens
Downlight with Remote
Driver / Junction Box**

Up to 550 Lumens

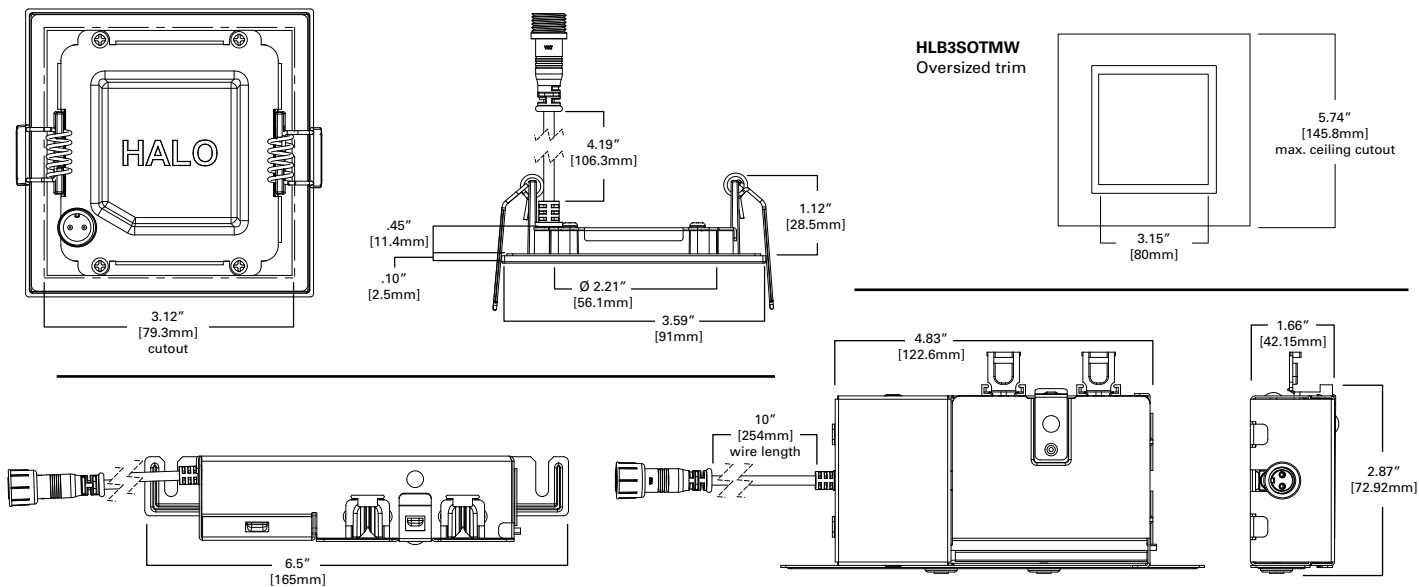
ENERGY DATA

Lumens	500 Series
Input Voltage	120V
Input Current	100 (mA)
Input Power	9.0 (W)
Efficiency	60 (LPW)
Inrush (A)	2.2 A @ 42mS
THD	≤ 20%
PF	≥ 0.90
T Ambient	-30° - +40°C
Sound Rating	≤ 22 dba



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.





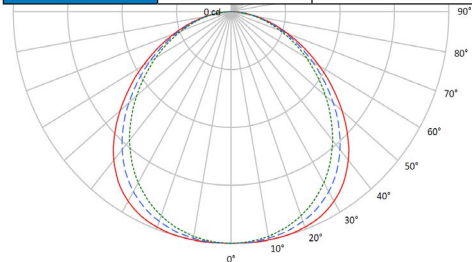
ORDERING INFORMATION

SAMPLE NUMBER: HLB3S059301EMWR

Models	Lumens	CRI / CCT	Driver	Finish	Packaging	Accessories
HLB3S = 3-Inch LED square lens downlight with remote driver / junction box	05 =500 lumens (nominal)	927 =90 CRI minimum, 2700K CCT 930 =90 CRI minimum, 3000K CCT 935 =90 CRI minimum, 3500K CCT 940 =90 CRI minimum, 4000K 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	HLB3SOTMW = 3" square oversized trim, matte white HLB3STRMMW = 3" square decorative overlay, matte white HLB3STRMSN = 3" square decorative overlay, satin nickel HLB3STRMTBZ = 3" square decorative overlay, tuscan bronze HLB06EC = 6 ft. extension cable HLB12EC = 12 ft. extension cable HLB20EC = 20 ft. extension cable

PHOTOMETRIC DATA

HLB3S05930EMW-3000K		
Luminaire lumens		553
Input watts		9
LER (LPW)		61.44
Spacing Criteria	0-180	1.39
	90-270	1.26
	Diagonal	1.4
Beam angle (degrees)		107.3
Field angle (degrees)		161.5
Zonal lumen	Lumens	% Lumens
0-30	151.5	27.4
0-40	251.1	45.4
0-60	441.3	79.8
0-90	553.0	100



Color Metric Summary - 3000K

TM-30-15	R _f = 88
	R _g = 96
CRI/CIE	R _a = 94
	R _g = 70

CCT - Range of 2700K- 4000K

warm ← → cool



Product Specifications

PRODUCT SPECIFICATIONS	
Lumens	551
Watts	9.1
Lumens Per Watt (Efficacy)	60.5
Color Accuracy (CRI)	92
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
2700K	3000K
4500K	6500K

HLB3 3-inch	CCT	Lumens	Power (W)	LPW
Fixed CCT	2700K	574	9	63.8
	3000K	553	9	61.4
	3500K	562	9	62.4
	4000K	573	9	63.7

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