Project		Catalog #		Type	
Prepared by		**Notes**		**Date**	

HALO

HLBSL6

6-Inch LED Lens Downlight with Remote Driver / Junction Box

Typical Applications

Residential

Interactive Menu

Product Certification

Refer to ENERGY STAR® Certified Products List.
Can be used to comply with California Title 24 High Efficacy requirements.
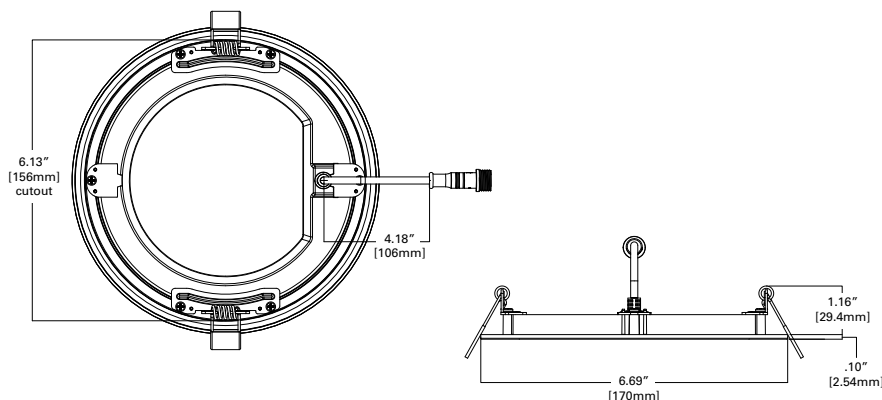Certified to California Appliance Efficiency Database under JA8.
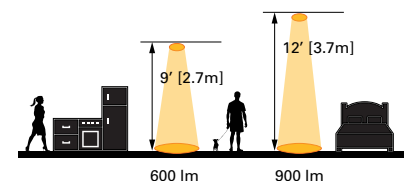
Product Features

Top Product Features

- Direct mount - does not require recessed housing or junction box
- Delivers up to 1,049 lumens
- Achieves L70 at 35,000 hours in IC and non-IC applications
- 2700, 3000, 3500, 4000 and 5000, 6000K field selectable CCT

Dimensional and Mounting Details

6.13"
[156mm]
cutout

4.18"
[106mm]

1.16"
[29.4mm]

.10"
[2.54mm]

6.69"
[170mm]

Scale

12' [3.7m]

9' [2.7m]

600 lm

900 lm

additional
product diagrams

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Order Information

Icon Key: Δ Configurable Product

SAMPLE ORDER NUMBER: **HLBSL6099FS351EMWR**

Models	Lumens	CRI / CCT	Driver	Finish	Packaging
HLBSL6 = 6-Inch LED smooth lens downlight with plastic housing and remote driver / junction box	**09** = 900 lumens (nominal)	**9FS23** = 90 CRI minimum, field selectable 2700K, 3000K, 3500K CCT **9FS35** = 90 CRI minimum, field selectable 3000K, 4000K, 5000K CCT **9FS46** = 90 CRI minimum, field selectable 4000K, 5000K, 6000K CCT	**1E** = 120V 60Hz, LE & TE phase cut 10% dimming	**MW** = matte white flange	**R** = recyclable 4-color unit carton suitable for point of purchase merchandising display
Notes	Notes	Notes	Notes	Notes	Notes

Accessories
HL6RSMF = 6" new construction mounting frame **HLB6ROTMW** = 6" round oversized trim ring, 8.875" OD, matte white **Extension Cable | seleCCTable Driver/Jbox** **HLB06FSEC** = 6 ft. extension cable **HLB12FSEC** = 12 ft. extension cable **HLB20FSEC** = 20 ft. extension cable
Notes

Product Specifications

Housing
- Plastic mounting frame with integral flange provides passive thermal cooling achieving L70 at 35,000 hours in IC and non-IC applications

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 provides high color rendering
- Field Selectable color temperature (3 colors)
  - 2700K, 3000K, 3500K
  - 3000K, 4000K, 5000K
  - 4000K, 5000K, 6000K
  - Color accuracy of 4 step at the ends, 7 step in the middle
- 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
- (4) ½" conduit pry-outs
- Accepts 14-2, 14-3, 12-2, 12-3 U.S. and 14-2, 14-3, 12-2 Canadian NM cable
- (3) wire nuts for quick and reliable mains voltage connections
- Integral mounting facilitates 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 10% with select leading or trailing edge 120V phase cut dimmers

Installation
- Can be installed in 3/8" to 5/8" thick ceilings
- Round ceiling cutout
- 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
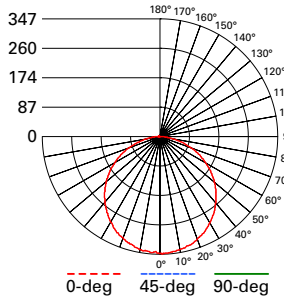
Compliance
- cULus certified type IC suitable for direct contact with air permeable insulation
- Not recommended for use in direct contact with spray foam insulation, reference NEMA LSD57-2013
- Wet location listed and IP44 ingress protection
- Airtight per ASTM-E283-04
- Suitable for use in clothes 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 2019 JA8 High Efficacy Lighting
- ENERGY STAR® certified, reference "Certified Light Fixtures" database

Warranty
- Five year warranty standard.

Photometric Data

HLBSL6099FS351EMWR

Spacing criterion: (0-180) 1.28
(90-270) 1.24
(Diagonal) 1.38

Beam Angle: 112.9°
Field Angle: 161.5°
Lumens: 866
Input Watts: 12.9 W
Efficacy: 67.13 LPW
Test Report:
HLBSL6099FS351EMWR.ies

0-deg 45-deg 90-deg

Zonal Lumen	Lumens	% Lumens
0-30	233.8	27
0-40	383.6	44.3
0-60	682.4	78.8
0-90	866.0	100

113°

COLOR METRIC SUMMARY

HLBSL6099FS231EMW

2700K

TM-30-15	Rf = 91.0
	Rg = 98.0
CRI/CIE	Ra = 93.1
	R9 = 60.1

3000K

TM-30-15	Rf = 91.0
	Rg = 99.0
CRI/CIE	Ra = 94.2
	R9 = 68.7

3500K

TM-30-15	Rf = 91.0
	Rg = 99.0
CRI/CIE	Ra = 93.6
	R9 = 69.3

HLBSL6099FS351EMW

3000K

TM-30-15	Rf = 92.0
	Rg = 99.0
CRI/CIE	Ra = 94.4
	R9 = 72.4

4000K

TM-30-15	Rf = 90.0
	Rg = 98.0
CRI/CIE	Ra = 95.6
	R9 = 86.1

5000K

TM-30-15	Rf = 90.0
	Rg = 97.0
CRI/CIE	Ra = 94.4
	R9 = 80.6

HLBSL6099FS461EMW

4000K

TM-30-15	Rf = 91.0
	Rg = 98.0
CRI/CIE	Ra = 94.0
	R9 = 78.1

5000K

TM-30-15	Rf = 91.0
	Rg = 99.0
CRI/CIE	Ra = 94.9
	R9 = 84.9

6000K

TM-30-15	Rf = 91.0
	Rg = 99.0
CRI/CIE	Ra = 95.1
	R9 = 84.4

Energy and Performance Data

		Lumens	Power (W)	LPW
HLBSL6099FS231EMW	2700K	940	12.6	74.6
	3000K	1018	12.5	81.4
	3500K	1005	12.5	80.4
HLBSL6099FS351EMW	3000K	866	12.9	67.1
	4000K	954	12.7	75.1
	5000K	957	12.9	74.2
HLBSL6099FS461EMW	4000K	991	12.5	79.3
	5000K	1049	12.3	85.3
	6000K	1015	12.5	81.2

Note: Refer to IES files for more product data.

HLBSL6099FS231EMW

PRODUCT SPECIFICATIONS

Lumens	**954**
Watts	**12.7**
Lumens Per Watt (Efficacy)	**75.1**
Color Accuracy (CRI)	**93**
Light Color (CCT) Correlated Color Temperature (CCT)	**3000K**

warm white | soft white | bright white

2700K | 3000K | 4500K | 6500K

HLBSL6099FS351EMW

PRODUCT SPECIFICATIONS

Lumens	**940**
Watts	**12.6**
Lumens Per Watt (Efficacy)	**74.6**
Color Accuracy (CRI)	**93**
Light Color (CCT) Correlated Color Temperature (CCT)	**3000K**

warm white | soft white | bright white

2700K | 3000K | 4500K | 6500K

HLBSL6099FS461EMW

PRODUCT SPECIFICATIONS

Lumens	**991**
Watts	**12.5**
Lumens Per Watt (Efficacy)	**79.3**
Color Accuracy (CRI)	**93**
Light Color (CCT) Correlated Color Temperature (CCT)	**4000K**

warm white | soft white | bright white

2700K | 3000K | 4500K | 6500K

Dimensional Details

6.13″ [156mm] cutout

4.18″ [106mm]

1.25″ [31.74mm]

3.03″ [76.92mm]

10″ [254mm] Wire Length

1.16″ [29.4mm]

.10″ [2.54mm]

6.69″ [170mm]

6.5″ [165mm]

COOPER Lighting Solutions