

Project		Catalog #		Type	
Prepared by		Notes		Date	



# HALO

## HLS Series

Round LED Low Profile Surface Mount Fixture

### Typical Applications

Residential

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### 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.

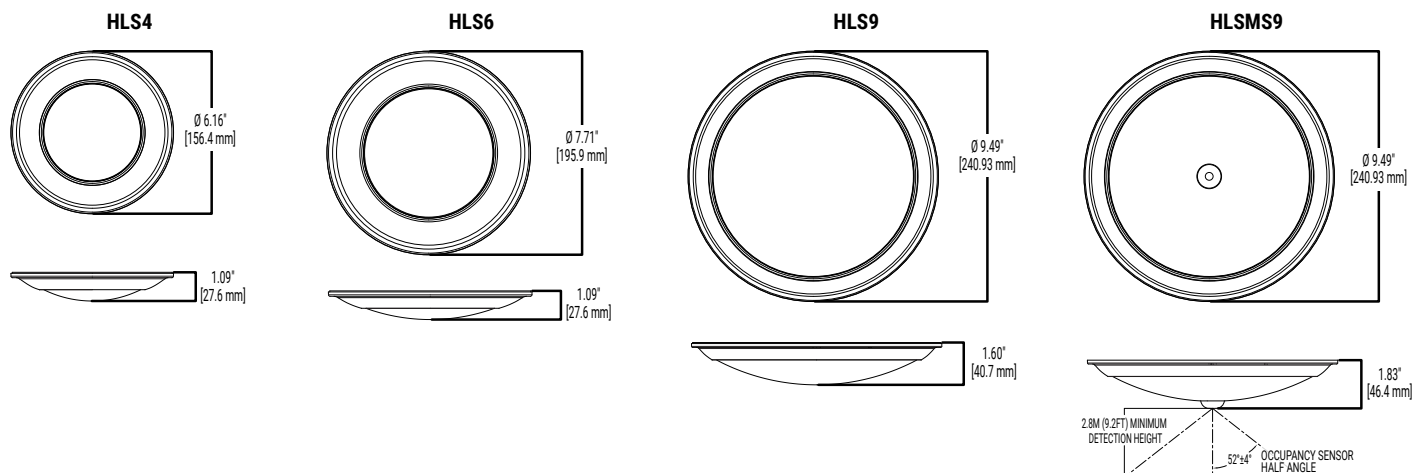
### Product Features



### Top Product Features

- Below the ceiling installation, no clips or plates needed
- Installs in many 3-1/2" and 4" ceiling junction and pancake boxes
- 3000K, 4000K, or 5000K fixed CCT, CRI value 90+
- Dimmable down to 10%
- Wet location listed
- Motion Sensor option available

### Dimensional and Mounting Details



## Order Information

SAMPLE ORDER NUMBER: **HLS6099301EWH-12BP**

4-inch Models	Lumens	CRI / CCT	Driver	Finish	Packaging	Compliance
<b>HLS4</b> = 4" LED surface light	<b>07</b> = 700 lumens (nominal)	<b>930</b> = 90 CRI minimum, 3000K CCT <b>940</b> = 90 CRI minimum, 4000K CCT <b>950</b> = 90 CRI minimum, 5000K CCT	<b>1E</b> = 120V 60Hz, LE & TE phase cut 10% dimming	<b>WH</b> = matte white flange	<b>-6BP</b> = Qty 6 bulk pack (not for individual sale) <b>-12BP</b> = Qty 12 bulk pack (not for individual sale) <sup>(1)</sup>	<b>[blank]</b> = Compliant in all states besides California <b>-CA</b> = state of California compliant
<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b> 1. Only available in 3000K.	<b>Notes</b>

6-inch Models	Lumens	CRI / CCT	Driver	Finish	Packaging	Compliance
<b>HLS6</b> = 6" LED surface light	<b>09</b> = 900 lumens (nominal)	<b>930</b> = 90 CRI minimum, 3000K CCT <b>940</b> = 90 CRI minimum, 4000K CCT <b>950</b> = 90 CRI minimum, 5000K CCT	<b>1E</b> = 120V 60Hz, LE & TE phase cut 10% dimming	<b>WH</b> = matte white flange	<b>-6BP</b> = Qty 6 bulk pack (not for individual sale) <b>-12BP</b> = Qty 12 bulk pack (not for individual sale) <sup>(1)</sup>	<b>[blank]</b> = Compliant in all states besides California <b>-CA</b> = state of California compliant
<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b> 1. Only available in 3000K.	<b>Notes</b>

9-inch Models	Lumens	CRI / CCT	Driver	Finish	Compliance
<b>HLS9</b> = 9" LED surface light <b>HLSMS9</b> = 9" motion sensor, LED surface light <sup>(2)</sup>	<b>12</b> = 1200 lumens (nominal)	<b>930</b> = 90 CRI minimum, 3000K CCT <b>940</b> = 90 CRI minimum, 4000K CCT	<b>1E</b> = 120V 60Hz, LE & TE phase cut 10% dimming	<b>WH</b> = matte white flange	<b>[blank]</b> = Compliant in all states besides California <b>-CA</b> = state of California compliant
<b>Notes</b> 2. Damp location rated only	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>

## Product Specifications

### Construction

- Stamped aluminum

### Optics

- Precision engineered optic provides uniform luminance from a low-profile convex lens
- Removable lens for easy install from below installation

### LED

- Backlit LED technology
- Color Temperature options include: 3000K, 4000K or 5000K (4-inch and 6-inch only)
- 90 CRI is standard
- L70 at 50,000 hours projected in accordance with TM-21

### Driver

- Integral 120V 60Hz constant current driver provides virtually noise free operation.
- Continuous, flicker-free dimming from 100% to 10% with select leading or trailing edge 120V phase cut dimmers. See dimming guide.
- Dimming to 10% is best assured using dimmers with low end trim adjustment. Consult dimmer manufacturer for compatibility and conditions of use. (Note some dimmers require a neutral in the wallbox.)
- Inline electrical quick connect (provided) provides mains connections

### Electrical Junction Box Mounting

- HLS series may be used in compatible electrical junction boxes in direct contact with insulation including spray foam insulation
- Install from below design
- Suitable for installation in many 3-1/2" and 4" octagon and round electrical junction boxes.
- Compatible with compact (pancake) junction boxes
- Installer must ensure compatibility of fit, wiring and proper mounting in the electrical junction box. This includes all applicable national and local electrical and building coded NEMA LSD 57-2013

### Compliance

- UL Certified for US and Canada
- Wet Location listed (except for 9-inch motion sensor version)
- Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements.
- EMI/RFI emissions per FCC 47CFR Part 15B
- 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 luminaire compliance
- Can be used for International Energy Conservation Code (IECC) and Washington State Energy Code high efficiency luminaire Compliance
- ENERGY STAR® Certified luminaire - consult ENERGY STAR® Certified Product List

### Warranty

- Five year limited warranty, consult website for details. [www.cooperlighting.com/warranty](http://www.cooperlighting.com/warranty)

## Energy and Performance Data

HLS4		HLS6		HLS9		HLSMS9	
Lumens	700	Lumens	900	Lumens	1200	Lumens	1200
Input Voltage	120V	Input Voltage	120V	Input Voltage	120V	Input Voltage	120V
Input current	105mA	Input current	132mA	Input current	145mA	Input current	150mA
Input Power	13W	Input Power	16W	Input Power	17.5W	Input Power	17.5W
Efficiency	70.00%	Efficiency	70.00%	Efficiency	70.00%	Efficiency	70.00%
Inrush(A)	1.005	Inrush(A)	1.108	Inrush(A)	1.3	Inrush(A)	1.1
THD	29%	THD	29%	THD	29%	THD	29%
PF	>0.9	PF	>0.9	PF	>0.9	PF	>0.9
Sound Rating	≤22DB	Sound Rating	≤22DB	Sound Rating	≤22DB	Sound Rating	≤22DB

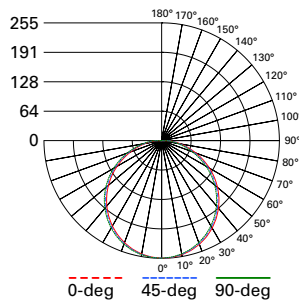
	CCT	Watts	lumens	LPW	CRI
HLS4079301EWH	3000K	12.2	765	62.7	93
HLS4079401EWH	4000K	12.3	780	63.4	92
HLS4079501EWH	5000K	12.4	790	63.7	93

	CCT	Watts	lumens	LPW	CRI
HLS9129301EWH	3000K	17.8	1245	69.9	94
HLS9129401EWH	4000K	18.0	1295	71.9	93
HLS9129501EWH	5000K	18.0	1310	72.8	94

	CCT	Watts	lumens	LPW	CRI
HLS6099301EWH	3000K	15.4	925	60.1	93
HLS6099401EWH	4000K	15.4	945	61.4	92
HLS6099501EWH	5000K	15.6	970	62.2	93

	CCT	Watts	lumens	LPW	CRI
HLSMS9129301EWH	3000K	17.7	1265	71.5	94
HLSMS9129401EWH	4000K	17.8	1330	74.7	93
HLSMS9129501EWH	5000K	17.8	1340	75.3	94

## Photometric Data

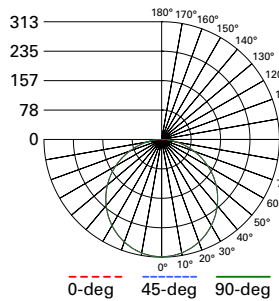


### HLS4079301EWH -3000K

Spacing criterion:  
 (0-180) 1.26 | (90-270) 1.26 | (Diagonal) 1.38  
 Beam Angle: 114°  
 Field Angle: 170°  
 Lumens: 765  
 Input Watts: 12.2 W  
 Efficacy: 62.7 LPW  
 UGR: 20  
 Test Report: P645599

Zonal Lumen	Lumens	% Lumens
0-30	198	25.9
0-40	326	42.6
0-60	580	75.8
0-90	765	100

TM-30-15	Rf = 95
	Rg = 100
CRI/CIE	Ra = 95.3
	R9 = 61

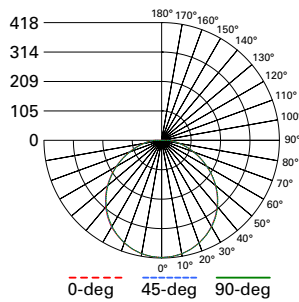


### HLS6099301EWH -3000K

Spacing criterion:  
 (0-180) 1.26 | (90-270) 1.26 | (Diagonal) 1.38  
 Beam Angle: 144°  
 Field Angle: 167°  
 Lumens: 925  
 Input Watts: 15.4 W  
 Efficacy: 60.1 LPW  
 UGR: 21  
 Test Report: P645602

Zonal Lumen	Lumens	% Lumens
0-30	243	26.3
0-40	398	43.1
0-60	710	76.7
0-90	925	100

TM-30-15	Rf = 95
	Rg = 100
CRI/CIE	Ra = 95.3
	R9 = 61

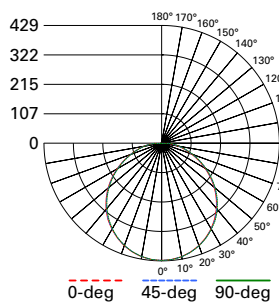


### HLS9129301EWH -3000K

Spacing criterion:  
 (0-180) 1.26 | (90-270) 1.26 | (Diagonal) 1.38  
 Beam Angle: 113°  
 Field Angle: 170°  
 Lumens: 1245  
 Input Watts: 17.8 W  
 Efficacy: 69.9 LPW  
 UGR: 20  
 Test Report: P645605

Zonal Lumen	Lumens	% Lumens
0-30	325	26.1
0-40	534	42.9
0-60	947	76.1
0-90	1245	100

TM-30-15	Rf = 95
	Rg = 100
CRI/CIE	Ra = 95.7
	R9 = 62



### HLSMS9129301EWH -3000K

Spacing criterion:  
 (0-180) 1.26 | (90-270) 1.26 | (Diagonal) 1.37  
 Beam Angle: 112°  
 Field Angle: 172°  
 Lumens: 1265  
 Input Watts: 17.7 W  
 Efficacy: 71.5 LPW  
 UGR: 20  
 Test Report: P645608

Zonal Lumen	Lumens	% Lumens
0-30	333	26.3
0-40	546	43.1
0-60	963	76.1
0-90	1265	100

TM-30-15	Rf = 95
	Rg = 100
CRI/CIE	Ra = 95.6
	R9 = 62



## Product Specifications

PRODUCT SPECIFICATIONS	
Lumens	765
Watts	12.2
Lumens Per Watt (Efficacy)	62.7
Color Accuracy (CRI)	93
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
warm white    soft white    bright white	

HLS4079301EWH-6BP  
HLS4079301EWH-12BP

PRODUCT SPECIFICATIONS	
Lumens	925
Watts	15.4
Lumens Per Watt (Efficacy)	60.1
Color Accuracy (CRI)	93
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
warm white    soft white    bright white	

HLS6099301EWH-6BP  
HLS6099301EWH-12BP

PRODUCT SPECIFICATIONS	
Lumens	1245
Watts	17.8
Lumens Per Watt (Efficacy)	69.9
Color Accuracy (CRI)	94
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
warm white    soft white    bright white	

HLS9129301EWH

PRODUCT SPECIFICATIONS	
Lumens	1265
Watts	17.7
Lumens Per Watt (Efficacy)	71.5
Color Accuracy (CRI)	94
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
warm white    soft white    bright white	

HLSMS9129301EWH

PRODUCT SPECIFICATIONS	
Lumens	780
Watts	12.3
Lumens Per Watt (Efficacy)	63.4
Color Accuracy (CRI)	92
Light Color (CCT)	4000K
Correlated Color Temperature (CCT)	
warm white    soft white    bright white	

HLS4079401EWH-6BP  
HLS4079401EWH-12BP

PRODUCT SPECIFICATIONS	
Lumens	945
Watts	15.4
Lumens Per Watt (Efficacy)	61.4
Color Accuracy (CRI)	92
Light Color (CCT)	4000K
Correlated Color Temperature (CCT)	
warm white    soft white    bright white	

HLS6099401EWH-6BP  
HLS6099401EWH-12BP

PRODUCT SPECIFICATIONS	
Lumens	1295
Watts	18.0
Lumens Per Watt (Efficacy)	71.9
Color Accuracy (CRI)	93
Light Color (CCT)	4000K
Correlated Color Temperature (CCT)	
warm white    soft white    bright white	

HLS9129401EWH

PRODUCT SPECIFICATIONS	
Lumens	1330
Watts	17.8
Lumens Per Watt (Efficacy)	74.7
Color Accuracy (CRI)	93
Light Color (CCT)	4000K
Correlated Color Temperature (CCT)	
warm white    soft white    bright white	

HLSMS9129401EWH

PRODUCT SPECIFICATIONS	
Lumens	790
Watts	12.4
Lumens Per Watt (Efficacy)	63.7
Color Accuracy (CRI)	93
Light Color (CCT)	5000K
Correlated Color Temperature (CCT)	
warm white    soft white    bright white	

HLS4079501EWH-6BP  
HLS4079501EWH-12BP

PRODUCT SPECIFICATIONS	
Lumens	970
Watts	15.6
Lumens Per Watt (Efficacy)	62.2
Color Accuracy (CRI)	93
Light Color (CCT)	5000K
Correlated Color Temperature (CCT)	
warm white    soft white    bright white	

HLS6099501EWH-6BP  
HLS6099501EWH-12BP

PRODUCT SPECIFICATIONS	
Lumens	1310
Watts	18.0
Lumens Per Watt (Efficacy)	72.8
Color Accuracy (CRI)	94
Light Color (CCT)	5000K
Correlated Color Temperature (CCT)	
warm white    soft white    bright white	

HLS9129501EWH

PRODUCT SPECIFICATIONS	
Lumens	1340
Watts	17.8
Lumens Per Watt (Efficacy)	75.3
Color Accuracy (CRI)	94
Light Color (CCT)	5000K
Correlated Color Temperature (CCT)	
warm white    soft white    bright white	

HLSMS9129501EWH