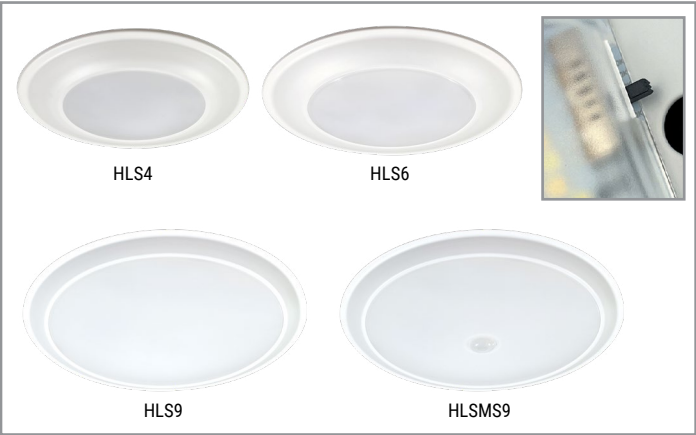


Project		Catalog #		Type	
Prepared by		Notes		Date	



HALO

HLS Selectable Tapered Surface Mount LED Disk Lights

Low-profile tapered 4", 6", and 9" Disk Lights that are 5-color selectable, wet-rated, dim to 10%, and mount directly to junction boxes or recessed housings. Decorative overlays, 9" motion sensor option, and California versions available.

Typical Applications
Residential

Interactive Menu

- Order Information [page 2](#)
- Product Specifications [page 3](#)
- Energy Data [page 3](#)
- Photometric Data [page 4](#)
- 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 JAB8.

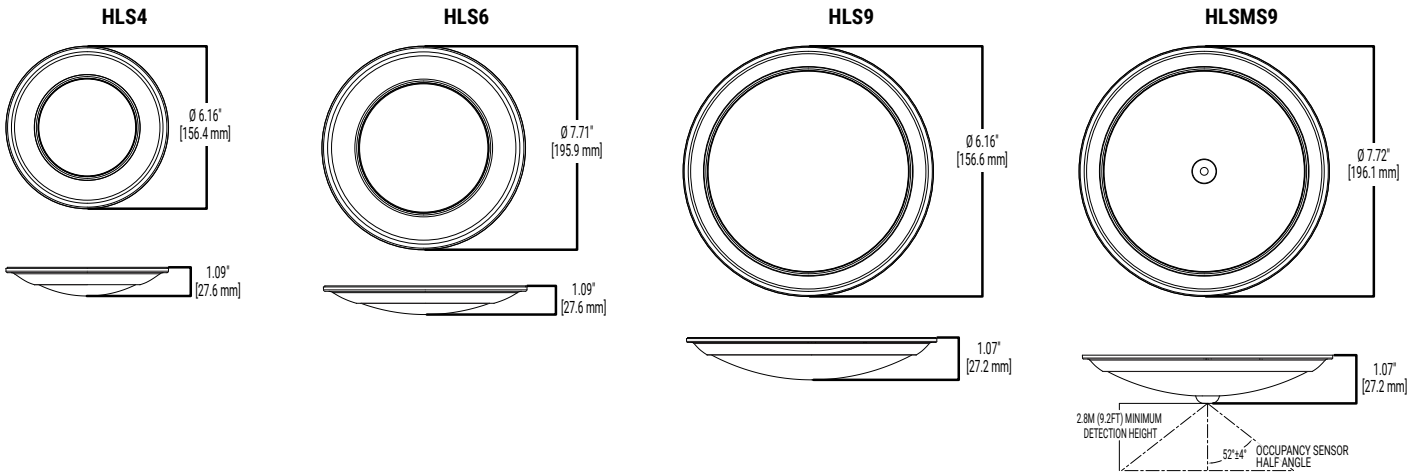
Product Features



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
- Field selectable 5CCT (2700K, 3000K, 3500K, 4000K, 5000K), 90 CRI minimum
- Dimmable down to 10%
- Wet location listed
- 9" Motion Sensor option available

Dimensional and Mounting Details



*T24 and RoHS are self-tested by Cooper Lighting Solutions. Not a third party certification.

Order Information

4" Disk Light

Catalog Number	Description	CRI	CCT	Dimming	Finish	Packaging	Packaging Dimensions	UPC
HLS4079FS1E-6BP	4-inch LED Disk Light, 900 lumens	90+ CRI	5CCT (2700K, 3000K, 3500K, 4000K, 5000K)	Phase Cut dimming 10%	Matte White	6 Pack	7.283x7.48x7.874	080083286980
HLS4079FS1E-12BP	4-inch LED Disk Light, 900 lumens	90+ CRI	5CCT (2700K, 3000K, 3500K, 4000K, 5000K)	Phase Cut dimming 10%	Matte White	12 Pack	7.283x7.48x15.748	080083287000

6" Disk Light

HLS6099FS1E-6BP	6-inch LED Disk Light, 1200 lumens	90+ CRI	5CCT (2700K, 3000K, 3500K, 4000K, 5000K)	Phase Cut dimming 10%	Matte White	6 Pack	8.858x7.677x8.858	080083287024
HLS6099FS1E-12BP	6-inch LED Disk Light, 1200 lumens	90+ CRI	5CCT (2700K, 3000K, 3500K, 4000K, 5000K)	Phase Cut dimming 10%	Matte White	12 Pack	8.858x8.858x15.354	080083287048

9" Disk Light

HLS9129FS1E	9-inch LED Disk Light, 1300 lumens	90+ CRI	5CCT (2700K, 3000K, 3500K, 4000K, 5000K)	Phase Cut dimming 10%	Matte White	Single Pack		080083287062
HLS9129FS1E-CA	9-inch LED Disk Light, 1300 lumens	90+ CRI	5CCT (2700K, 3000K, 3500K, 4000K, 5000K)	Phase Cut dimming 10%	Matte White	Single Pack - California		080083287086
HLSMS9129FS1E	9-inch LED Disk Light w/Motion Sensor, 1300 lumens	90+ CRI	5CCT (2700K, 3000K, 3500K, 4000K, 5000K)	Phase Cut dimming 10%	Matte White	Single Pack		080083287109
HLSMS9129FS1E-CA	9-inch LED Disk Light w/Motion Sensor, 1300 lumens	90+ CRI	5CCT (2700K, 3000K, 3500K, 4000K, 5000K)	Phase Cut dimming 10%	Matte White	Single Pack - California		080083287123

Note: Non-California versions include an E26 medium screw-base Edison adapter for installation into compatible housings.

Accessories (sold separately)

Accessories
Designer Trim Accessories HLS4TRMWH = 4", Designer Trim, Paintable Matte White HLS4TRMMB = 4", Designer Trim, Matte Black HLS4TRMSN = 4", Designer Trim, Satin Nickel HLS4TRMTBZ = 4", Designer Trim, Tuscan Bronze HLS6TRMWH = 6", Designer Trim, Paintable Matte White HLS6TRMMB = 6", Designer Trim, Matte Black HLS6TRMSN = 6", Designer Trim, Satin Nickel HLS6TRMTBZ = 6", Designer Trim, Tuscan Bronze HLS9TRMWH = 9", Designer Trim, Paintable Matte White HLS9TRMMB = 9", Designer Trim, Matte Black HLS9TRMSN = 9", Designer Trim, Satin Nickel HLS9TRMTBZ = 9", Designer Trim, Tuscan Bronze

Decorative Overlay Finishes



Paintable
Matte White



Matte
Black



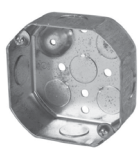
Satin
Nickel



Tuscan
Bronze

Compatible Junction Boxes²

**4" octagon light fixture/
fan steel box**
4" x 4" x 2-1/8"
(102mm x 102mm x 54mm)



4" octagon steel box
4" x 4" x 1-1/2"
(102mm x 102mm x 38mm)



**4" round new work non-metallic
light fixture/fan box**
4" diameter x 2-3/16"
(102mm x 56mm)



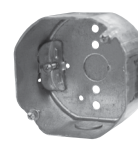
**3-1/2" round new work
non-metallic ceiling box**
3-1/2" diameter x 2-3/4"
(89mm x 70mm)



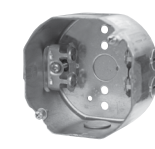
**3-1/2" round old work
non-metallic box**
4-1/4" O.D. flange, 3-1/2" I.D. x 2-5/8"
(108mm O.D., 89mm I.D. x 67mm)



4" round surface mount box
4" diameter x 1-1/2"
(102mm x 38mm)



TP316
for non-metallic cable
4" x 4" x 2-1/8"
(102mm x 102mm x 54mm)



TP317
for metal clad cable
4" x 4" x 2-1/8"
(102mm x 102mm x 54mm)



Round ceiling pan
4" diameter x 13/16"
(102mm x 21mm)



**4" round new work non-metallic box with
hanger bar assembly**
4" diameter x 2-3/16" (102mm x 56mm)



Cat #: JB4FR2
4" NC JBox for Fire Rated Ceilings
4" diameter x 5-1/2"
(102mm x 140mm)

1. Review the product's Dimming Guide for approved compatible dimmers.

2. This is a representative list of compatible junction boxes only. Information contained in this literature about other manufacturers' products is from published information made available by the manufacturer and is deemed to be reliable, but has not been verified. Cooper Lighting Solutions makes no specific recommendation on product selection and there are no warranties of performance or compatibility implied. Installer must determine that site conditions are suitable to allow proper installation of the mounting bracket in the box.

Product Specifications

Construction

- Stamped steel

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
- 5CCT Field Selectable color temperature (2700K, 3000K, 3500K, 4000K, 5000K)
- 90 CRI is standard
- Color accuracy within 6SDCM at the CCT endpoints, provide color accuracy and uniformity.
- Expected Life: L70 at 50,000 hours projected in accordance with TM-21

Recessed Housing Mounting

- Extension Springs for 5" & 6" housings included in the box
- Not for use in recessed housing in the direct contact with spray foam insulation refer to NEMA LSD 57-2013
- Compatible with HALO 5" and 6" housings

Electrical Power Connections

- Wire nuts provided for mains connections
- The included E26 medium screw-based Edison adapter provides easy retrofit of incandescent housings (non-California products only)

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
TIPS: For optimal dimming performance, consider dimmers with low-end trim adjustment and note that some dimmers require a neutral wire in the wallbox. (See the [HLS Dimming Guide](#) and then consult dimmer manufacturer for compatibility and conditions of use.)

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.
- Airtight per ASTM-E283 (no gasket necessary)
- 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

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	97 mA	Input current	120 mA	Input current	145mA	Input current	150mA
Input Power	11 W	Input Power	14 W	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	≤ 27%	THD	≤ 27%	THD	29%	THD	29%
PF	≥ 0.90	PF	≥ 0.90	PF	>0.9	PF	>0.9
Sound Rating	<22dB	Sound Rating	<22dB	Sound Rating	≤22DB	Sound Rating	≤22DB

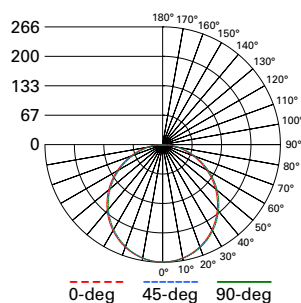
	CCT	Watts	lumens	LPW	CRI
HLS4079FS1E	2700K	9.1	745	82.1	93
	3000K	8.9	785	88.2	93
	3500K	9.1	785	86.0	93
	4000K	9.1	795	87.3	93
	5000K	9.1	790	87.1	93

	CCT	Watts	lumens	LPW	CRI
HLS9129FS1E	2700K	16.3	1245	76.5	93
	3000K	16.5	1265	76.7	93
	3500K	16.3	1320	81.0	93
	4000K	16.5	1325	80.3	93
	5000K	16.4	1285	78.5	93

	CCT	Watts	lumens	LPW	CRI
HLS6099FS1E	2700K	10.7	900	83.9	93
	3000K	10.6	935	88.2	93
	3500K	10.8	950	88.0	93
	4000K	10.8	960	88.8	93
	5000K	10.7	945	88.2	93

	CCT	Watts	lumens	LPW	CRI
HLSMS9129FS1E	2700K	16.1	1255	78.0	93
	3000K	16.1	1275	79.3	93
	3500K	16.0	1305	81.6	93
	4000K	16.0	1305	81.6	93
	5000K	15.9	1280	80.8	93

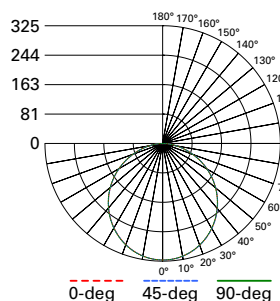
Photometric Data

**HLS4079FS1EWH-3000K**

Spacing criterion:
(0-180) 1.25 | (90-270) 1.25 | (Diagonal) 1.37
Beam Angle: 113°
Field Angle: 169°
Lumens: 785
Input Watts: 9.2 W
Efficacy: 85.3 LPW
UGR: 21
Test Report: P855584

Zonal Lumen	Lumens	% Lumens
0-30	206	26.3
0-40	338	43
0-60	599	76.3
0-90	785	100

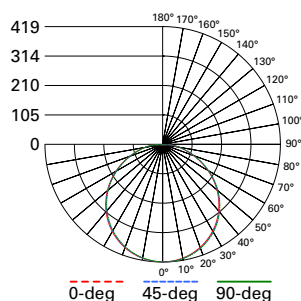
TM-30-15	Rf = 92
	Rg = 102
CRI/CIE	Ra = 96.1
	R9 = 76.1

**HLS6099FS1EWH-3000K**

Spacing criterion:
(0-180) 1.25 | (90-270) 1.25 | (Diagonal) 1.37
Beam Angle: 112°
Field Angle: 165°
Lumens: 935
Input Watts: 10.6 W
Efficacy: 88.2 LPW
UGR: 21
Test Report: P855589

Zonal Lumen	Lumens	% Lumens
0-30	251	26.9
0-40	411	44
0-60	727	77.7
0-90	935	100

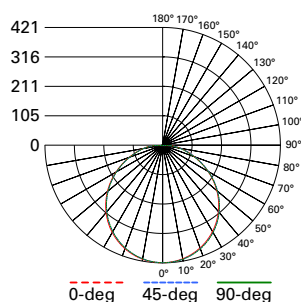
TM-30-15	Rf = 92
	Rg = 102
CRI/CIE	Ra = 96.6
	R9 = 76.3

**HLS9129FS1EWH-3000K**

Spacing criterion:
(0-180) 1.27 | (90-270) 1.27 | (Diagonal) 1.39
Beam Angle: 114°
Field Angle: 171°
Lumens: 1265
Input Watts: 16.5 W
Efficacy: 76.7 LPW
UGR: 20
Test Report: P855594

Zonal Lumen	Lumens	% Lumens
0-30	327	25.8
0-40	537	42.5
0-60	958	75.7
0-90	1265	100

TM-30-15	Rf = 92
	Rg = 100
CRI/CIE	Ra = 96.9
	R9 = 81.5

**HLSMS9129FS1EWH-3000K**

Spacing criterion:
(0-180) 1.27 | (90-270) 1.27 | (Diagonal) 1.39
Beam Angle: 114°
Field Angle: 171°
Lumens: 1275
Input Watts: 16.1 W
Efficacy: 79.2 LPW
UGR: 20
Test Report: P855599

Zonal Lumen	Lumens	% Lumens
0-30	328	25.7
0-40	539	42.3
0-60	960	75.3
0-90	1275	100

TM-30-15	Rf = 92
	Rg = 100
CRI/CIE	Ra = 96.6
	R9 = 81.6

