

## DESCRIPTION

The Halo Surface LED Downlight (SLD) incorporates WaveStream™ technology to create an ultra-low profile surface mounting luminaire with the performance and look of a traditional downlight. SLD4 is designed for installation in many standard and fire-rated 3-1/2" and 4" round or octagon junction boxes. May also retrofit in 4" aperture IC and Non-IC recessed housings\*. Dedicated LED wiring connector meets high-efficacy code requirement in recessed downlighting. Suitable for residential or commercial installations. Ideal for closets, storage areas, attics and basements. Compliant with NFPA® 70, NEC® Section 410.16 (A)(3) and 410.16 (C)(5).

Catalog #		Type
Project		
Comments		Date
Prepared by		

## SPECIFICATION FEATURES

### CONSTRUCTION

- Die cast aluminum trim ring and die formed aluminum frame

### OPTICS

- WaveStream™ technology provides uniform luminance from a low profile flat lens
- AccuAim™ optics provide directional control for the "cone-of-light" beam distribution of a traditional downlight
- Precision molded lens features high transmission polymer with UV stabilized protecting film

### DESIGNER TRIMS

#### Accessories (sold separately)

SLD designer trims are accessory rings that attach to the SLD for a permanent finish. Refer to SLD accessories specification sheet for details.

- White (Paintable)
- Satin Nickel
- Tuscan Bronze

### ELECTRICAL JUNCTION BOX MOUNTING

- SLD may be used in compatible electrical junction boxes in direct contact with insulation including spray foam insulation
- Suitable for installation in many standard and fire-rated 3-1/2" and 4" octagon and round electrical junction boxes.
- Note:** Driver consumes 3 cubic inches of junction box.
- Surface mounting in a fire-rated electrical box offers a cost-effective alternative to fire-rated recessed housings

**Note:** Fire-rating is per listing of the junction box, not the SLD.

- 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 codes.
- Proprietary Slot-N-Lock quick installation system for junction box installation
- T-bracket with Slot-N-Lock mounting tabs included.

### RECESSED HOUSING MOUNTING

#### Friction Blade

- Pre-installed precision formed friction blades included
- Friction blade design allows the SLD to be installed in any position within the housing aperture (360 degrees)

\* **Note:** Not for use in recessed housings in direct contact with spray foam insulation refer to NEMA LSD 57-2013

### LED

- Trilateral linear LED assembly is integrated in trim perimeter.
- Color Temperature: 2700K, 3000K, 3500K, 4000K
- CRI options: 80 and 90
  - 90 CRI can be used for California Title 24 compliance/certified to Title 20
  - 80 CRI can be used to comply with California Title 24 Non-Residential Lighting Controls as a LED luminaire.
- L70 at 50,000 hours projected in accordance with TM-21

### WARRANTY

Cooper Lighting provides a five year limited warranty on the SLD LED

### LED CHROMATICITY

- A tight chromaticity specification ensures LED color uniformity, sustainable Color Rendering Index (CRI) and Correlated Color Temperature (CCT) over the useful life of the LED
- LED chromaticity of 3 SDCM exceeds ENERGY STAR® color standards per ANSI C78.377-2008
- 90 CRI model features high color performance with R9 greater than 50
- Every Halo LED is quality tested, measured, and serialized in a permanent record to register lumens, wattage, CRI and CCT.
- Halo LED serialized testing and measurement ensures color and lumen consistency on a per-unit basis, and validates long-term product consistency over time

### ELECTRICAL CONNECTIONS

- Junction Box**
  - Compatible with many 3-1/2" x 2" and 4" x 1-1/2" round and octagon boxes (2-1/8" deep boxes recommended)
  - Supply Wire Adapter with LED quick connector included
- Recessed Housings**
  - LED connector is compatible with Halo 4" H995 Series LED Housings.
  - LED Connector meets California Title-24 high-efficacy luminaire standard as a non-screw base
  - The included E26 Edison screw-base adapter provides capability for retrofit.
  - LED connector is a non-screwbase luminaire disconnect for tool-less installation



**SLD4058xxWH**  
80CRI  
2700K, 3000K, 3500K,  
and 4000K

**SLD4059xxWH**  
90CRI  
2700K, 3000K, 3500K,  
and 4000K

**4" Surface LED Downlight**

**Suitable for ceiling or wall electrical junction boxes**

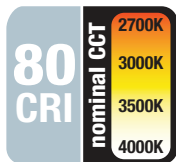
**Suitable for 4" recessed housing retrofit (IC, Non-IC & AIR-TITE™)**

## ENERGY DATA

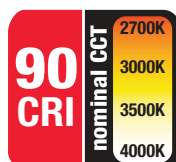
	80 CRI	90 CRI
Lumens (4000K models)	800	710
Input Voltage	120V	120V
Frequency	50/60 Hz	50/60 Hz
Input Current	0.10 A	0.10 A
Input Power	12.2 W	12 W
Efficiency (4000K models)	66 lm/W	59 lm/W
THD	≤ 20%	
Power Factor	≥ 0.90	
T Ambient	-30 - +40°C	
Sound Rating	Class A	

## NOMENCLATURE

**SLD 405 8 30 WH**  
405 = 4" SLD  
8 = >80 CRI  
30 = 3000K  
WH = Matte White



Refer to ENERGY STAR® Certified Products List. Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire.



Refer to ENERGY STAR® Certified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Title 20 Appliance Efficiency Database.

**LED DRIVER**

- Driver is a 120V input high efficiency, dimmable electronic power supply providing DC power to the LED array
- Driver features high power factor, low THD, and has integral thermal protection in the event of over temperature or internal failure.
- Driver is replaceable if it should be required

**DIMMING**

- Designed for continuous dimming capability to nominally 5% with many 120V Leading Edge (LE) and Trailing Edge (TE) phase control dimmers. Dimming to 5% 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.)

**COMPLIANCE**

- cULus Listed ceiling and wall
- cULus Damp Location listed ceiling and wall
- cULus Wet Location Listed, ceiling only (shower rated)
- Suitable for use in closets, compliant with NFPA® 70, NEC® Section 410.16 (A)(3) and 410.16 (C)(5)
- SLD may be used in compatible electrical junction boxes in direct contact with insulation including spray foam insulation
- May be installed in IC recessed housings in direct contact with insulation (Not for use in recessed housings in direct contact with spray foam insulation. Refer to NEMA LSD 57-2013)
- UL Classified when used in retrofit with listed housings (See Housing Compatibility)
- EMI/RFI: meets FCC 47CFR Part 15 Class B limits, and is suitable for use in residential and commercial installations
- Airtight certified per ASTM E283 (not exceeding 2.0 CFM under 57 Pascals pressure difference)
- 90 CRI: Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Title 20 Appliance Efficiency Database.
- 80 CRI: Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED luminaire.
- 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
- Contains no mercury or lead and RoHS compliant.
- Photometric testing in accordance with IES LM-79
- Lumen maintenance projections in accordance with IES LM-80 and TM-21



**SLD4058xxWH**

80CRI  
2700K, 3000K, 3500K,  
and 4000K

**SLD4059xxWH**

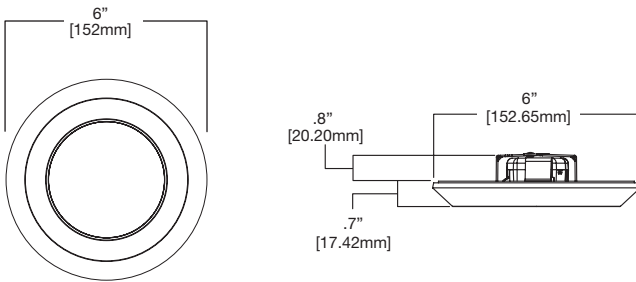
90CRI  
2700K, 3000K, 3500K,  
and 4000K

**4" Surface LED  
Downlight**

**Suitable for  
ceiling or wall  
electrical junction boxes**

**Suitable for  
4" recessed  
housing retrofit  
(IC, Non-IC & AIR-TITE™)**

**DIMENSIONS**



**ORDERING INFORMATION**

**SAMPLE NUMBER:** SLD405927WH SLD4TRMSN

**Junction Box Installation:** Order junction box separately, as supplied by others, to complete installation.

**Recessed Installation:** Order Halo recessed housing separately to complete installation.

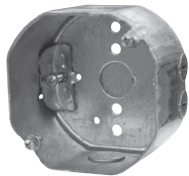
Models	Color Rendering Index	Color Temperature (CCT)	Finish	Accessories
SLD405= 4" Surface LED Downlight, 120V	8=80 CRI 9=90 CRI	27=2700K 30=3000K 35=3500K 40=4000K	WH=White	<p><b>Designer Trims</b> Fit over the SLD4 for a designer finish  <b>SLD4TRMSN=4"</b> SLD Satin Nickel  <b>SLD4TRMTBZ=4"</b> SLD Tuscan Bronze  <b>SLD4TRMWH=4"</b> SLD White (paintable)</p> <p><b>J-Box Spacer Extension Ring</b> Add 15/16" depth when SLD driver cannot fit into installed junction box  <b>SLD4EXT=4"</b> Surface LED J-Box Extender, 7.75" O.D.</p> <p><b>RAD Adapters</b> When junction box is mounted flat on a ceiling or beam surface (not recessed in ceiling)  <b>SLD4RAD=4"</b> SLD Round Surface J-Box Adapter, 6.15" O.D. (For 4-inch round or octagon junction boxes)</p> <p><b>Spare Parts</b>  <b>SLD4ACCKIT=4"</b> Accessory Parts Replacement Kit (Screwbase adapter, torsion springs, friction blades)  <b>SLD4BRKT=4"</b> Junction Box Bracket &amp; Screws</p> <p>Refer to SLD Accessories specification sheet for further information.</p>

**HOUSING COMPATIBILITY**

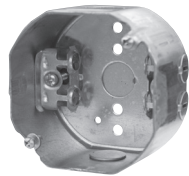
The SLD4 is UL Listed in Halo and All-Pro recessed housings, and is UL Classified for use with any 4 inch diameter recessed housing constructed of steel or aluminum with an internal volume that exceeds 62.3 in<sup>3</sup> in addition to those noted below:

<b>Compatible Halo LED Housings with LED luminaire connector (high-efficacy compliant)</b>		
<b>HALO LED</b>	<b>Recessed Can Size</b>	<b>Catalog Number</b>
	<b>4"</b>	H995ICAT, H995RICAT
<b>Compatible Halo Incandescent E26 Screwbase Housings</b>		
<b>HALO</b>	<b>Recessed Can Size</b>	<b>Catalog Number</b>
	<b>4"</b>	H99ICAT, H99TAT, H99RTAT
<b>Compatible All-Pro Incandescent E26 Screwbase Housings</b>		
<b>ALL-PRO</b>	<b>Recessed Can Size</b>	<b>Catalog Number</b>
	<b>4"</b>	EI400ATSB, ET400ATSB, ET400RATSB

**COMPATIBLE WITH EATON'S CROUSE-HINDS STANDARD / FIRE-RATED JUNCTION BOXES**



**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)

- TP316 - for non-metallic cable
- TP317 - for metal clad cable
- UL Listed
- Two-hour fire-rated ANSI/UL 263
- Refer to [www.crouse-hinds.com](http://www.crouse-hinds.com)

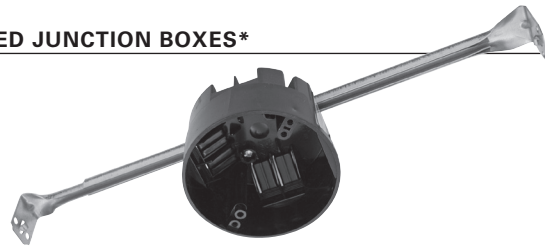
**COMPATIBLE WITH MANY OTHER STANDARD AND FIRE-RATED JUNCTION BOXES\***



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



**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)  
Requires SLD4RAD adapter

\*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. Eaton 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 SLD mounting bracket in the box.

**PRODUCT DATA**

Cat No.	CRI	CCT	Lumens	Power (W)	LPW
SLD405827WH	81	2700	720	12.2	59
SLD405830WH	81	3000	750	12.2	61
SLD405835WH	81	3500	780	12.2	64
SLD405840WH	81	4000	800	12.2	66
SLD405927WH	92	2700	650	12	54
SLD405930WH	92	3000	670	12	56
SLD405935WH	92	3500	690	12	58
SLD405940WH	92	4000	710	12	59

Performance values are presented as typical for the model(s) indicated. Field results may vary.

**LIGHTING FACTS®**

**SLD405827WH - 80 CRI**

**Lighting facts®**  
A Program of the U.S. DOE

Light Output (Lumens) 720  
Watts 12.2  
Lumens per Watt (Efficacy) 59.02

Color Accuracy  
Color Rendering Index (CRI) 81

Light Color  
Correlated Color Temperature (CCT) 2700 (Warm White)

2700K 3000K Bright White 4500K Daylight 6500K

All results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: F4QJ-78R3JK (4/17/2015)  
Model Number: SLD405827WH  
Type: Luminaire - Downlight

**SLD405830WH - 80 CRI**

**Lighting facts®**  
A Program of the U.S. DOE

Light Output (Lumens) 750  
Watts 12.2  
Lumens per Watt (Efficacy) 61.48

Color Accuracy  
Color Rendering Index (CRI) 81

Light Color  
Correlated Color Temperature (CCT) 3000 (Bright White)

2700K 3000K Bright White 4500K Daylight 6500K

All results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: F4QJ-07DLC3 (5/7/2015)  
Model Number: SLD405830WH (Upgrade 04/2015)  
Type: Luminaire - Downlight

**SLD405835WH - 80 CRI**

**Lighting facts®**  
A Program of the U.S. DOE

Light Output (Lumens) 780  
Watts 12.2  
Lumens per Watt (Efficacy) 63.93

Color Accuracy  
Color Rendering Index (CRI) 81

Light Color  
Correlated Color Temperature (CCT) 3500 (Bright White)

2700K 3000K Bright White 4500K Daylight 6500K

All results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: F4QJ-B618FN (4/17/2015)  
Model Number: SLD405835WH  
Type: Luminaire - Downlight

**SLD405840WH - 80 CRI**

**Lighting facts®**  
A Program of the U.S. DOE

Light Output (Lumens) 800  
Watts 12.2  
Lumens per Watt (Efficacy) 65.57

Color Accuracy  
Color Rendering Index (CRI) 81

Light Color  
Correlated Color Temperature (CCT) 4000 (Bright White)

2700K 3000K Bright White 4500K Daylight 6500K

All results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: F4QJ-M8ZDPK (4/17/2015)  
Model Number: SLD405840WH  
Type: Luminaire - Downlight

**SLD405927WH - 90 CRI**

**Lighting facts®**  
A Program of the U.S. DOE

Light Output (Lumens) 650  
Watts 12  
Lumens per Watt (Efficacy) 54.17

Color Accuracy  
Color Rendering Index (CRI) 92

Light Color  
Correlated Color Temperature (CCT) 2700 (Warm White)

2700K 3000K Bright White 4500K Daylight 6500K

All results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: F4QJ-QSMBBG (4/17/2015)  
Model Number: SLD405927WH  
Type: Luminaire - Downlight

**SLD405930WH - 90 CRI**

**Lighting facts®**  
A Program of the U.S. DOE

Light Output (Lumens) 670  
Watts 12  
Lumens per Watt (Efficacy) 55.83

Color Accuracy  
Color Rendering Index (CRI) 92

Light Color  
Correlated Color Temperature (CCT) 3000 (Bright White)

2700K 3000K Bright White 4500K Daylight 6500K

All results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: F4QJ-14JH51 (5/7/2015)  
Model Number: SLD405930WH (Upgrade 04/2015)  
Type: Luminaire - Downlight

**SLD405935WH - 90 CRI**

**Lighting facts®**  
A Program of the U.S. DOE

Light Output (Lumens) 690  
Watts 12  
Lumens per Watt (Efficacy) 57.5

Color Accuracy  
Color Rendering Index (CRI) 92

Light Color  
Correlated Color Temperature (CCT) 3500 (Bright White)

2700K 3000K Bright White 4500K Daylight 6500K

All results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: F4QJ-2DFUIT (4/17/2015)  
Model Number: SLD405935WH  
Type: Luminaire - Downlight

**SLD405940WH - 90 CRI**

**Lighting facts®**  
A Program of the U.S. DOE

Light Output (Lumens) 710  
Watts 12  
Lumens per Watt (Efficacy) 59.17

Color Accuracy  
Color Rendering Index (CRI) 92

Light Color  
Correlated Color Temperature (CCT) 4000 (Bright White)

2700K 3000K Bright White 4500K Daylight 6500K

All results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: F4QJ-1K230B (4/17/2015)  
Model Number: SLD405940WH  
Type: Luminaire - Downlight