

DESCRIPTION

The Halo Surface Mount LED Downlight (SMD) is an low profile surface mounting luminaire with a modern look and high performance. SMD6 (6") is designed for installation in many 3-1/2" and 4" square, octagon, or round junction boxes. Supply wire adapter with LED quick wiring connector included. The SLD6 may also retrofit in 5" and 6" aperture IC and Non-IC recessed housings.

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES

HOUSING

- Non-electrically conductive polycarbonate frame.
- High impact diffuse polystyrene lens provides shielding to the light guide with no pixilation
- Stamped aluminum housing provides thermal cooling achieving L70 at 50,000 hours in IC and non-IC applications

GASKETS

- Closed cell gasket achieves restrictive airflow and wet location requirements without additional caulking

OPTICS

- Precision acrylic light guide organizes source flux into wide distribution with 1.2 – 1.4 spacing criteria useful for general area illumination

LED

- Mid power led array provide a uniform source with high efficiency and long life.
- Available in 90 CRI minimum, R9 greater than 50 and color accuracy within 3 SDCM provide color accuracy and uniformity

DRIVER

- Integral 120V 50/60Hz 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.
- 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.)
- Inline electrical quick connect and E26 adapter (provided) provides mains connections.

MOUNTING/RETENTION

- Adjustable spider plate allows for quick installation into both junction boxes and recessed housings.
- Torsion springs or friction blades included

ELECTRICAL JUNCTION BOX MOUNTING

- The SMD may be used in compatible electrical junction boxes in direct contact with insulation including spray foam insulation.
- Suitable for installation in many 3-1/2" and 4" square, octagon, and round electrical junction boxes.
- Surface mounting in a fire-rated ceiling using an appropriate fire rated electrical box .
Note: Fire-rating is per the rating of the ceiling and applicable junction box, not the SMD.
- 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

RECESSED HOUSING MOUNTING

- May be installed in IC recessed housings in direct contact with insulation
Note: Not for use in recessed housing in direct contact with spray foam insulation. Refer to NEMA LSD 57-2013.
- **Torsion Spring 5" & 6"**
- Precision formed torsion spring bracket kit included
- The torsion springs adjust on the mounting plate to fit 5" or 6" compatible housings

Friction Blade 5" & 6"

- Precision formed friction blades included
- For retrofit in 5" and 6" housings without torsion springs mounting tabs.
- Friction blade design allows the SMD to be installed in any position within the housing aperture (360 degrees)

DESIGNER SKINS (SOLD SEPARATELY)

- SMD skins are accessory rings in both round and square. These skins attach to the SMD for a permanent finish. Refer to the SMD accessories specification sheet for details.
- Matte White (Paintable)
- Satin Nickel
- Tuscan Bronze

WARRANTY

- Five year limited warranty, consult website for details.
www.eaton.com/lighting/legal

COMPLIANCE

- cULus listed / certified for use with Halo housings, classified for use with other's housings, see instruction sheet for conditions of acceptability.
- Wet and Damp Location listed, airtight per ASTM-E283
- 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, reference the California Energy Commission Title 20 Appliance Efficiency Database for current listings.
- Can be used for International Energy Conservation Code (IECC) and Washington State Energy Code high efficiency luminaire compliance



SMD6 Series

6 inch Round and Square

**SMD6R
SMD6S**

**6" Surface Mount
Downlight**

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

**Suitable for 5" and 6"
recessed housing retrofit**

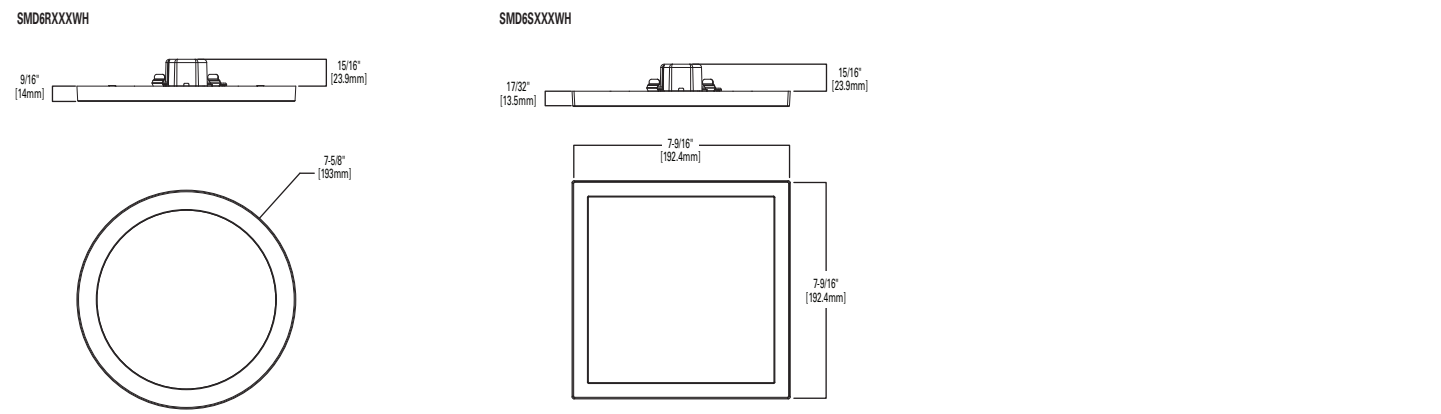
ENERGY DATA

	Round	Square
Lumens (5000K models)	788	815
Input Power	9.6 W	9.9 W
Input Current	0.0811 A	0.085 A
Efficiency	82 lm/W	82 lm/W
THD	13.9	14.7
Input Voltage	120V	
Frequency	50/60 Hz	
CRI	90 CRI	
Power Factor	0.99	
T Ambient	-30 - +40°C	
Sound Rating	Class A	



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

DIMENSIONS



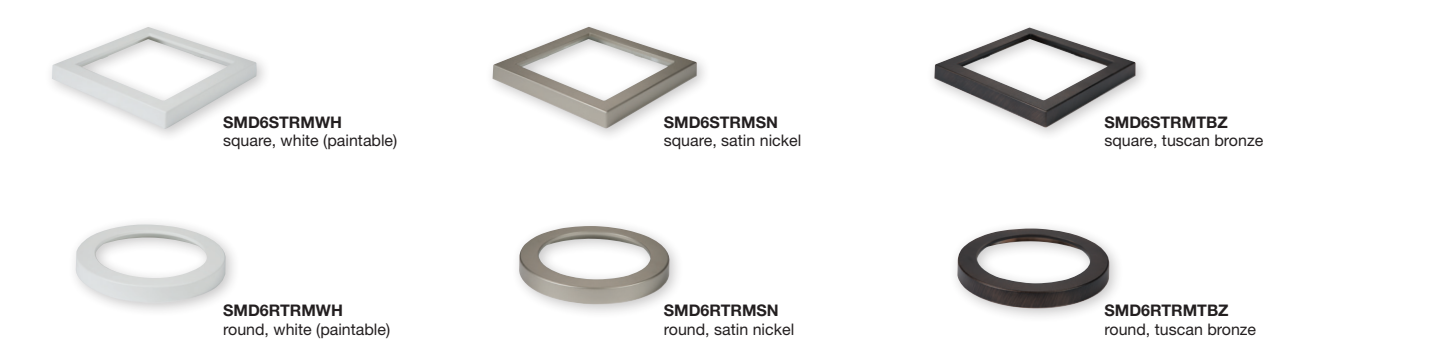
ORDERING INFORMATION

SAMPLE NUMBER: SMD6R6930WH=6" Round Surface Mount Downlight, 90CRI, 3000K
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	Lumens	CRI / CCT	Finish	Accessories
SMD6R = 6" Round Surface Mount Downlight, 120V SMD6S = 6" Square Surface Mount Downlight, 120V	6 =600 lumen series	927 =90CRI, 2700K 930 =90CRI, 3000K 935 =90CRI, 3500K 940 =90CRI, 4000K 950 =90CRI, 5000K	WH = Matte White	<u>Designer Trims</u> SMD6RTRMSN =6" Round SMD Satin Nickel SMD6RTRMTBZ =6" Round SMD Tuscan Bronze SMD6RTRMWH =6" Round SMD White (paintable) SMD6STRMSN =6" Square SMD Satin Nickel SMD6STRMTBZ =6" Square SMD Tuscan Bronze SMD6STRMWH =6" Square SMD White (paintable)

ACCESSORIES

Designer Trims

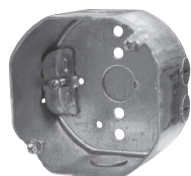


HOUSING COMPATIBILITY

The SMD6 is UL Listed in Halo recessed housings, and is UL Classified for use with **any** 5 or 6 inch diameter recessed housing constructed of steel or aluminum with an internal volume that exceeds 107.9 in3 in addition to those noted below. **Note:** Some other's housings require installation with included friction clips.

Compatible Halo LED Housings with LED luminaire connector (high-efficacy compliant)		
HALO LED	Recessed Can Size	Catalog Number
	5"	H550ICAT, H550RICAT
	6"	H750ICAT, H750RICAT, H750T, H750RINTD010, H750TCP, H2750ICAT, H2750RICAT
Halo LED Retrofit Enclosures		
HALO	6"	ML7BXRFK, ML7E26RFK

COMPATIBLE WITH EATON'S CROUSE-HINDS 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)

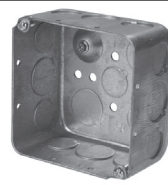
COMPATIBLE WITH MANY OTHER JUNCTION BOXES*



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" square deep steel box
4" x 4" x 2-1/8"
(102mm x 102mm x 54mm)



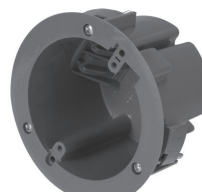
4" square standard steel box
4" x 4" x 1-1/2"
(102mm x 102mm x 38mm)



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



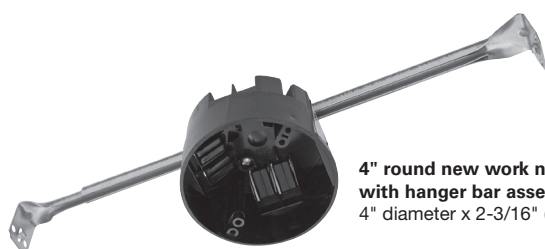
3-1/2" round new work non-metallic ceiling box
3-1/2" diameter x 2-3/4"
(89mm x 70mm)



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)
Requires SLD6RAD adapter



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

Compatible Halo Incandescent E26 Screwbase Housings		
HALO	5"	H51CAT, H5RICAT, H51CATNB, H5T, H5RT, H251CAT, H251CATNB, E5TAT, E5RTAT, H5TNB, E5TATNB, E51CAT, E5RICAT, E51CATNB
	6"	H71CAT, H7RICAT, H71CT, H7RICT, H71CATNB, H71CTNB, H7T, H7RT, H7TNB, H7TCP, H7U1CT, H7U1CAT, H271CAT, H27RICAT, H27T, H27RT, E71CAT, E7RICAT, E271CAT, E27RICAT, E71CATNB, E7TAT, E7RTAT, E7TATNB, E27TAT, E27RTAT
Compatible All-Pro Incandescent E26 Screwbase Housings		
ALL-PRO	5"	E1500AT, E1500RAT, ET500, ET500R
	6"	E1700AT, E1700RAT, E1700, E1700R, E1700ATNB, E1700NB, E1700U, E1700UAT, ET700, ET700R, E12700AT, E12700, E12700R, ET2700, ET2700R

- **TP316** - for non-metallic cable
- **TP317** - for metal clad cable
- UL Listed
- Suitable for two-hour fire-rated ANSI/UL 263 when properly installed in a fire-rated ceiling or wall
- Refer to www.crouse-hinds.com

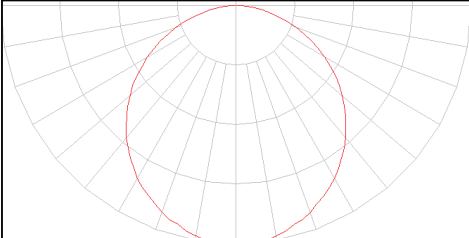
Surface mounting in a fire-rated ceiling using an appropriate electrical box offers a cost-effective alternative to fire-rated recessed housings.

Note: Fire-rating is per the rating of the ceiling and applicable junction box, not the SMD.

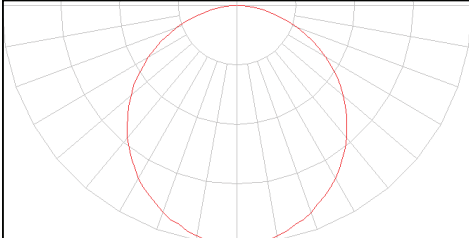
*This is a representative list of compatible junction boxes only. Information contained in this literature about other manufacturers' products is from published information made available by the manufacturer and is deemed to be reliable, but has not been verified. Eaton makes no specific recommendation 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 mounting bracket in the box.

PHOTOMETRIC DATA

SMD6R6927WH		
Luminaire lumens		750
Input watts		9.4
LER (LPW)		80
Spacing Criteria	0-180	1.26
	90-270	1.26
	Diagonal	1.38
Beam angle (degrees)		112
Field angle (degrees)		162
Max. Candela		264
Zonal lumen	Lumens	% Lumens
0-30	204	27.2%
0-40	334	44.5%
0-60	590	78.6%
0-90	750	100.00%

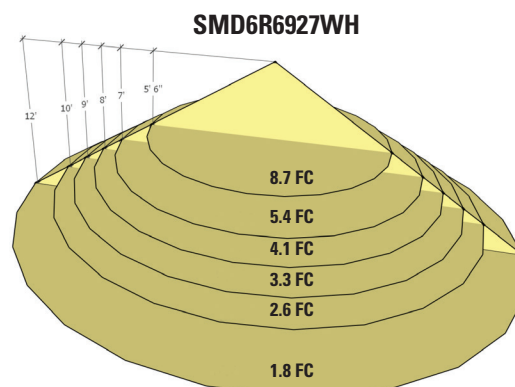


SMD6S6927WH		
Luminaire lumens		750
Input watts		10.0
LER (LPW)		75
Spacing Criteria	0-180	1.24
	90-270	1.24
	Diagonal	1.36
Beam angle (degrees)		112
Field angle (degrees)		162
Max. Candela		271
Zonal lumen	Lumens	% Lumens
0-30	207	27.6%
0-40	337	44.9%
0-60	590	78.6%
0-90	750	100.00%



Cat. No.	CRI	CCT	Lumens	Power (W)	LPW
SMD6R6927WH	93	2700	754	9.6	78.5
SMD6R6930WH	92	3000	758	9.6	78.7
SMD6R6935WH	95	3500	740	9.6	77.0
SMD6R6940WH	94	4000	792	9.8	80.5
SMD6R6950WH	92	5000	788	9.6	81.9
SMD6S6927WH	92	2700	750	10.0	75.0
SMD6S6930WH	92	3000	790	9.9	79.8
SMD6S6935WH	93	3500	740	10.0	74.0
SMD6S6940WH	92	4000	760	10.3	73.8
SMD6S6950WH	90	5000	815	9.9	82.3

Foot-candle Values at Nadir 0 degree Aiming Angle			
DD (FT)	SMD6R6927WH (FC)	SMD6S6927WH (FC)	DIA (FT)
5.5	8.7	9.0	16.3
7	5.4	5.5	20.9
8	4.1	4.2	23.8
9	3.3	3.3	26.8
10	2.6	2.7	29.7
12	1.8	1.9	35.7



DD = distance down to illuminated work plane
FC = initial foot-candles at nadir
DIA = diameter

Multiplier Table					
CCT Option	2700K	3000K	3500K	4000K	5000K
CCT Multiplier	1.00	1.014	1.042	1.083	1.083

DESCRIPTION

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Catalog #	Type
Project	
Comments	
Prepared by	

SPECIFICATION FEATURES

HOUSING

- Non-electrically conductive polycarbonate frame.
- High impact diffuse polystyrene lens provides shielding to the light guide with no pixilation
- Stamped aluminum housing provides thermal cooling achieving L70 at 50,000 hours in IC and non-IC applications

GASKETS

- Closed cell gasket achieves restrictive airflow and wet location requirements without additional caulking

OPTICS

- Precision acrylic light guide organizes source flux into wide distribution with 1.2 – 1.4 spacing criteria useful for general area illumination

LED

- Mid power led array provide a uniform source with high efficiency and long life.
- Available in 90 CRI minimum, R9 greater than 50 and color accuracy within 3 SDCM provide color accuracy and uniformity

DRIVER

- Integral 120V 50/60Hz 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.
- 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.)
- Inline electrical quick connect and E26 adapter (provided) provides mains connections.

MOUNTING/RETENTION

- Adjustable spider plate allows for quick installation into both junction boxes and recessed housings.
- Torsion springs or friction blades included

ELECTRICAL JUNCTION BOX MOUNTING

- The SMD may be used in compatible electrical junction boxes in direct contact with insulation including spray foam insulation.
- Suitable for installation in many 3-1/2" and 4" square, octagon, and round electrical junction boxes.
- Surface mounting in a fire-rated ceiling using an appropriate fire rated electrical box .
Note: Fire-rating is per the rating of the ceiling and applicable junction box, not the SMD.
- 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

RECESSED HOUSING MOUNTING

- May be installed in IC recessed housings in direct contact with insulation
Note: Not for use in recessed housing in direct contact with spray foam insulation. Refer to NEMA LSD 57-2013.
- **Torsion Spring 5" & 6"**
- Precision formed torsion spring bracket kit included
- The torsion springs adjust on the mounting plate to fit 5" or 6" compatible housings

Friction Blade 5" & 6"

- Precision formed friction blades included
- For retrofit in 5" and 6" housings without torsion springs mounting tabs.
- Friction blade design allows the SMD to be installed in any position within the housing aperture (360 degrees)

DESIGNER SKINS (SOLD SEPARATELY)

- SMD skins are accessory rings in both round and square. These skins attach to the SMD for a permanent finish. Refer to the SMD accessories specification sheet for details.
- Matte White (Paintable)
- Satin Nickel
- Tuscan Bronze

WARRANTY

- Five year limited warranty, consult website for details.
www.eaton.com/lighting/legal

COMPLIANCE

- cULus listed / certified for use with Halo housings, classified for use with other's housings, see instruction sheet for conditions of acceptability.
- Wet and Damp Location listed, airtight per ASTM-E283
- 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, reference the California Energy Commission Title 20 Appliance Efficiency Database for current listings.
- Can be used for International Energy Conservation Code (IECC) and Washington State Energy Code high efficiency luminaire compliance



SMD6 Series

6 inch Round and Square

**SMD6R
SMD6S**

**6" Surface Mount
Downlight**

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

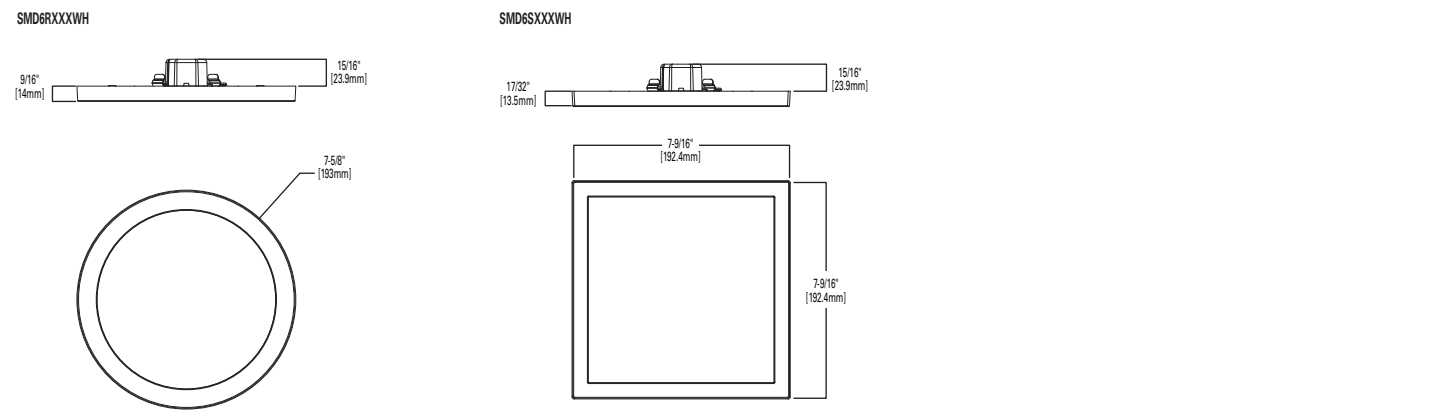
**Suitable for 5" and 6"
recessed housing retrofit**

ENERGY DATA

	Round	Square
Lumens (5000K models)	788	815
Input Power	9.6 W	9.9 W
Input Current	0.0811 A	0.085 A
Efficiency	82 lm/W	82 lm/W
THD	13.9	14.7
Input Voltage	120V	
Frequency	50/60 Hz	
CRI	90 CRI	
Power Factor	0.99	
T Ambient	-30 - +40°C	
Sound Rating	Class A	



DIMENSIONS



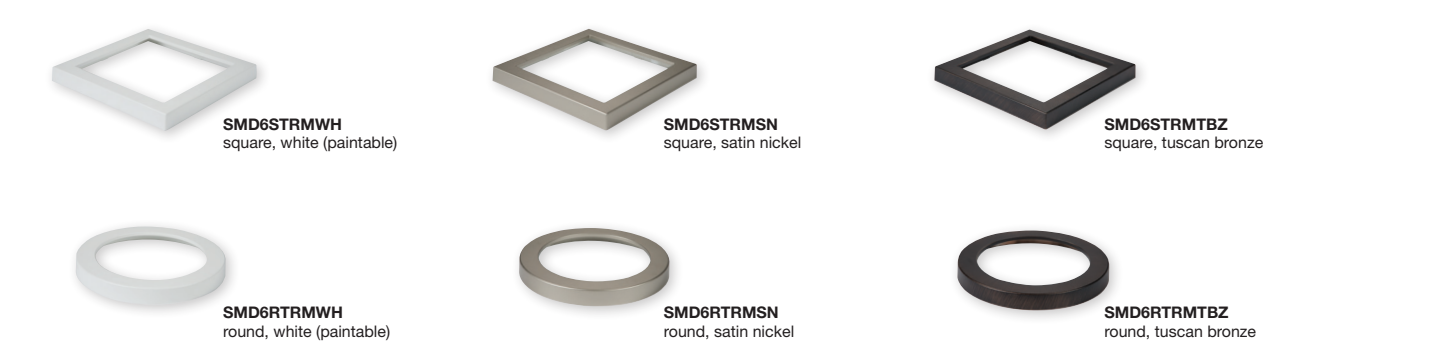
ORDERING INFORMATION

SAMPLE NUMBER: SMD6R6930WH=6" Round Surface Mount Downlight, 90CRI, 3000K
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	Lumens	CRI / CCT	Finish	Accessories
SMD6R = 6" Round Surface Mount Downlight, 120V SMD6S = 6" Square Surface Mount Downlight, 120V	6 =600 lumen series	927 =90CRI, 2700K 930 =90CRI, 3000K 935 =90CRI, 3500K 940 =90CRI, 4000K 950 =90CRI, 5000K	WH = Matte White	<u>Designer Trims</u> SMD6RTRMSN =6" Round SMD Satin Nickel SMD6RTRMTBZ =6" Round SMD Tuscan Bronze SMD6RTRMWH =6" Round SMD White (paintable) SMD6STRMSN =6" Square SMD Satin Nickel SMD6STRMTBZ =6" Square SMD Tuscan Bronze SMD6STRMWH =6" Square SMD White (paintable)

ACCESSORIES

Designer Trims

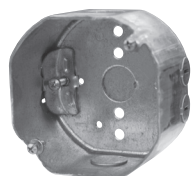


HOUSING COMPATIBILITY

The SMD6 is UL Listed in Halo recessed housings, and is UL Classified for use with **any** 5 or 6 inch diameter recessed housing constructed of steel or aluminum with an internal volume that exceeds 107.9 in3 in addition to those noted below. **Note:** Some other's housings require installation with included friction clips.

Compatible Halo LED Housings with LED luminaire connector (high-efficacy compliant)		
HALO LED	Recessed Can Size	Catalog Number
	5"	H550ICAT, H550RICAT
	6"	H750ICAT, H750RICAT, H750T, H750RINTD010, H750TCP, H2750ICAT, H2750RICAT
Halo LED Retrofit Enclosures		
HALO	6"	ML7BXRFK, ML7E26RFK

COMPATIBLE WITH EATON'S CROUSE-HINDS JUNCTION BOXES



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

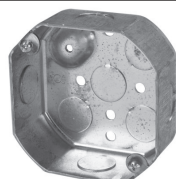


TP317
for metal clad cable
4" x 4" x 2-1/8"
(102mm x 102mm x 54mm)

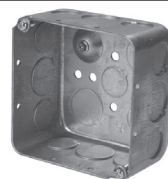
COMPATIBLE WITH MANY OTHER JUNCTION BOXES*



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" square deep steel box
4" x 4" x 2-1/8"
(102mm x 102mm x 54mm)



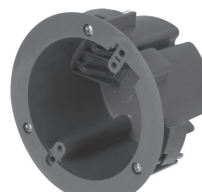
4" square standard steel box
4" x 4" x 1-1/2"
(102mm x 102mm x 38mm)



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



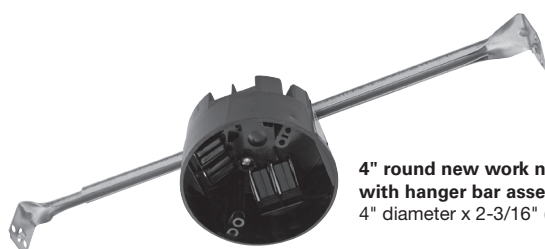
3-1/2" round new work non-metallic ceiling box
3-1/2" diameter x 2-3/4"
(89mm x 70mm)



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)
Requires SLD6RAD adapter



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

Compatible Halo Incandescent E26 Screwbase Housings		
HALO	5"	H51CAT, H51CATNB, H51CATNB, H5T, H5RT, H251CAT, H251CATNB, E5TAT, E5RTAT, H5TNB, E5TATNB, E51CAT, E51RICAT, E51CATNB
	6"	H71CAT, H71CATNB, H71CATNB, H7T, H7RT, H7TNB, H7TCP, H7UICAT, H7UICATNB, H271CAT, H271CATNB, H27T, H27RT, E71CAT, E71CATNB, E271CAT, E271CATNB, E71CATNB, E7TAT, E7RTAT, E7TATNB, E27TAT, E27RTAT
Compatible All-Pro Incandescent E26 Screwbase Housings		
ALL-PRO	5"	EI500AT, EI500RAT, ET500, ET500R
	6"	EI700AT, EI700RAT, EI700, EI700R, EI700ATNB, EI700NB, EI700U, EI700UAT, ET700, ET700R, EI2700AT, EI2700, EI2700R, ET2700, ET2700R

- **TP316** - for non-metallic cable
- **TP317** - for metal clad cable
- UL Listed
- Suitable for two-hour fire-rated ANSI/UL 263 when properly installed in a fire-rated ceiling or wall
- Refer to www.crouse-hinds.com

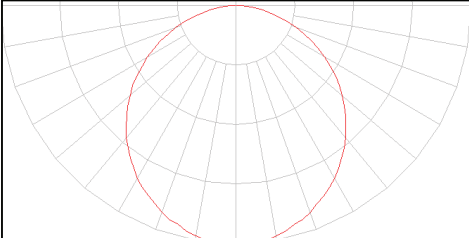
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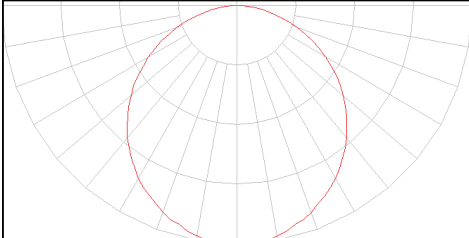
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PHOTOMETRIC DATA

SMD6R6927WH		
Luminaire lumens		750
Input watts		9.4
LER (LPW)		80
Spacing Criteria	0-180	1.26
	90-270	1.26
	Diagonal	1.38
Beam angle (degrees)		112
Field angle (degrees)		162
Max. Candela		264
Zonal lumen	Lumens	% Lumens
0-30	204	27.2%
0-40	334	44.5%
0-60	590	78.6%
0-90	750	100.00%

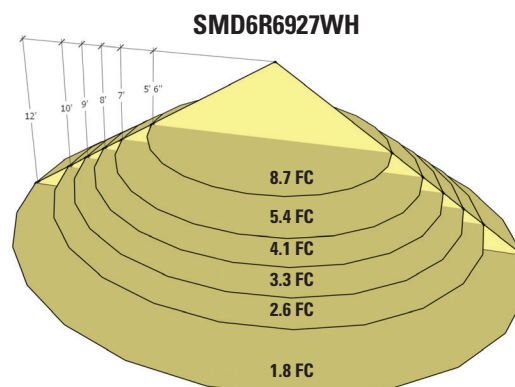


SMD6S6927WH		
Luminaire lumens		750
Input watts		10.0
LER (LPW)		75
Spacing Criteria	0-180	1.24
	90-270	1.24
	Diagonal	1.36
Beam angle (degrees)		112
Field angle (degrees)		162
Max. Candela		271
Zonal lumen	Lumens	% Lumens
0-30	207	27.6%
0-40	337	44.9%
0-60	590	78.6%
0-90	750	100.00%



Cat. No.	CRI	CCT	Lumens	Power (W)	LPW
SMD6R6927WH	93	2700	754	9.6	78.5
SMD6R6930WH	92	3000	758	9.6	78.7
SMD6R6935WH	95	3500	740	9.6	77.0
SMD6R6940WH	94	4000	792	9.8	80.5
SMD6R6950WH	92	5000	788	9.6	81.9
SMD6S6927WH	92	2700	750	10.0	75.0
SMD6S6930WH	92	3000	790	9.9	79.8
SMD6S6935WH	93	3500	740	10.0	74.0
SMD6S6940WH	92	4000	760	10.3	73.8
SMD6S6950WH	90	5000	815	9.9	82.3

Foot-candle Values at Nadir 0 degree Aiming Angle			
DD (FT)	SMD6R6927WH (FC)	SMD6S6927WH (FC)	DIA (FT)
5.5	8.7	9.0	16.3
7	5.4	5.5	20.9
8	4.1	4.2	23.8
9	3.3	3.3	26.8
10	2.6	2.7	29.7
12	1.8	1.9	35.7



DD = distance down to illuminated work plane
FC = initial foot-candles at nadir
DIA = diameter

Multiplier Table					
CCT Option	2700K	3000K	3500K	4000K	5000K
CCT Multiplier	1.00	1.014	1.042	1.083	1.083