

## 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 SMD6 may also retrofit in 5" and 6" aperture IC and Non-IC recessed housings. Compliant with NFPA® 70, NEC® Section 410.16 (A)(3) and 410.16 (C)(5).

|             |  |      |
|-------------|--|------|
| 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 and 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](http://www.eaton.com/lighting/legal)

### COMPLIANCE

- cULus Certified for use with Halo housings and 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 closets, compliant with NFPA® 70, NEC® Section 410.16 (A)(3) and 410.16 (C)(5)
- 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 high efficiency luminaire compliance
- ENERGY STAR® listed, reference database for current listings



## 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**

**Non-conductive  
Dead Front**



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.

## ENERGY DATA

### SMD6R6 SMD6S6

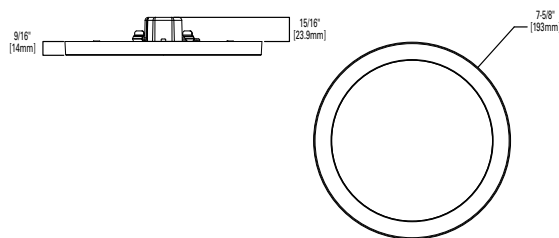
|                       | Round       | Square  |
|-----------------------|-------------|---------|
| Lumens (5000K models) | 788         | 815     |
| Input Power           | 9.6 W       | 9.9 W   |
| Input Current         | 0.0811 A    | 0.085 A |
| Efficiency            | 82 lm/W     | 82 lm/W |
| 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     |         |

### SMD6R12 SMD6S12

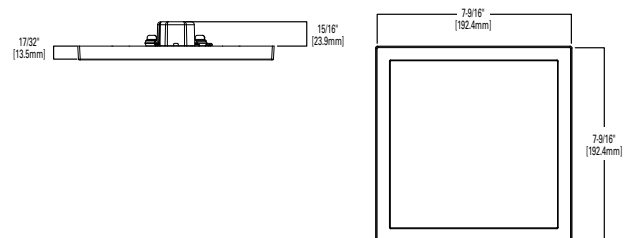
|                       | Round       | Square  |
|-----------------------|-------------|---------|
| Lumens (5000K models) | 1252        | 1235    |
| Input Power           | 15.3        | 15.7    |
| Input Current         | 0.133 A     | 0.132 A |
| Efficiency            | 82 lm/W     | 79 lm/W |
| THD                   | 15.3        | 15.7    |
| Input Voltage         | 120V        |         |
| Frequency             | 50/60 Hz    |         |
| CRI                   | 92 CRI      |         |
| Power Factor          | 0.98        |         |
| T Ambient             | -30 - +40°C |         |
| Sound Rating          | Class A     |         |

## DIMENSIONS

SMD6RXXXWH



SMD6SXXXWH



## 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.

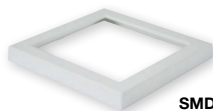
**Recessed Installation:** Order Halo recessed housing separately to complete installation.

| Models  | Lumens   | CRI / CCT  | Finish                  | Accessories  |
|---|--|--|-------------------------|--|
| <b>SMD6R</b> = 6" Round Surface Mount Downlight, 120V<br><b>SMD6S</b> = 6" Square Surface Mount Downlight, 120V | <b>6</b> =600 lumen series<br><b>12</b> =1200 lumen series | <b>927</b> =90CRI, 2700K<br><b>930</b> =90CRI, 3000K<br><b>935</b> =90CRI, 3500K<br><b>940</b> =90CRI, 4000K<br><b>950</b> =90CRI, 5000K | <b>WH</b> = Matte White | <u>Designer Trims</u><br><b>SMD6RTRMSN</b> =6" Round SMD Satin Nickel<br><b>SMD6RTRMTBZ</b> =6" Round SMD Tuscan Bronze<br><b>SMD6RTRMWH</b> =6" Round SMD White (paintable)<br><br><b>SMD6STRMSN</b> =6" Square SMD Satin Nickel<br><b>SMD6STRMTBZ</b> =6" Square SMD Tuscan Bronze<br><b>SMD6STRMWH</b> =6" Square SMD White (paintable)<br><br><b>T24HWKIT</b> = Title 24 Cable harness kit used to convert incandescent and low voltage housings to LED<br><b>HE26LED</b> = E26 Screw base adapter for retrofit (included) |

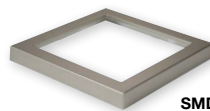


## ACCESSORIES

### Designer Trims



**SMD6STRMWH**  
square, white (paintable)



**SMD6STRMSN**  
square, satin nickel



**SMD6STRMTBZ**  
square, tuscan bronze



**SMD6RTRMWH**  
round, white (paintable)



**SMD6RTRMSN**  
round, satin nickel



**SMD6RTRMTBZ**  
round, tuscan bronze

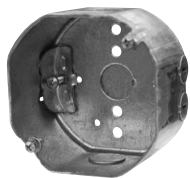
## HOUSING COMPATIBILITY

The SMD6 is UL Certified in Halo recessed housings and for use with **any** 5 or 6 inch diameter recessed housing constructed of steel or aluminum with an internal volume that exceeds 107.9 in<sup>3</sup> 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, E550ICAT, E550RICAT  |
|   | 6"                | H750ICAT, H750RICAT, H750T, H750RINTD010, H750TCP, H2750ICAT, H2750RICAT, E750ICAT, E750RICAT |
| Halo LED Retrofit Enclosures  |                   |   |
| HALO  | 6"                | ML7BXRFK, ML7E26RFK   |

| Compatible Halo Incandescent E26 Screwbase Housings |    |   |
|---|----|---|
| HALO  | 5" | H5ICAT, H5RICAT, H5ICATNB, H5T, H5RT, H25ICAT, H25ICATNB, E5TAT, E5RTAT, H5TNB, E5TATNB, E5ICAT, E5RICAT, E5ICATNB  |
|   | 6" | H7ICAT, H7RICAT, H7ICT, H7RICT, H7ICATNB, H7ICTNB, H7T, H7RT, H7TNB, H7TCP, H7UICAT, H7UICATNB, H27ICAT, H27RICAT, H27T, H27RT, E7ICAT, E7RICAT, E27ICAT, E27RICAT, E7ICATNB, E7TAT, E7RTAT, E7TATNB, E27TAT, E27RTAT |

## 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)

- 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](http://www.crouse-hinds.com)

## 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)

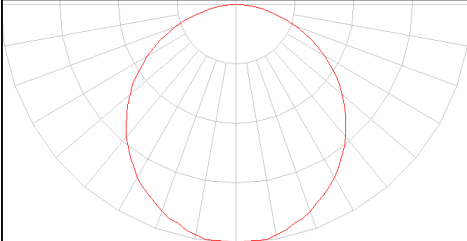
Surface mounting in a fire-rated ceiling using an appropriate electrical box offers a cost-effective alternative to fire-rated recessed housings.

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

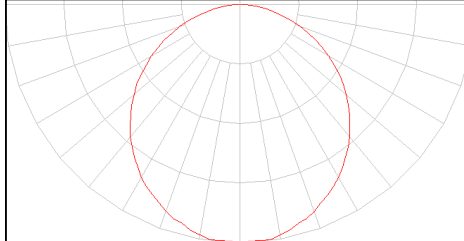
\*This is a representative list of compatible junction boxes only. Information contained in this literature about other manufacturers' products is from published information made available by the manufacturer and is deemed to be reliable, but has not been verified. Eaton makes no specific recommendation 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 - SMD6

| 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%  |

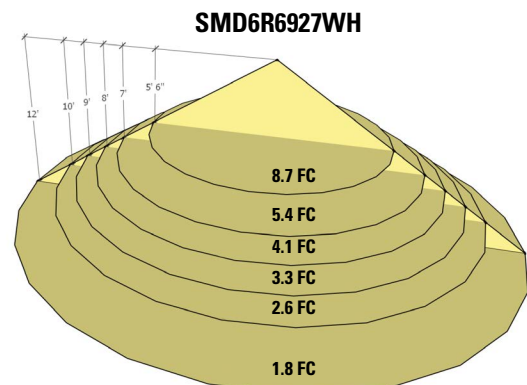


| SMD6S6927WH           |          |          |
|-----------------------|----------|----------|
| Luminaire lumens      |          | 750      |
| Input watts           |          | 10.0     |
| LER (LPW)             |          | 75       |
| Spacing Criteria      | 0-180    | 1.24     |
|                       | 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<br>0 degree Aiming Angle |                     |                     |             |
|--|---------------------|---------------------|-------------|
| DD<br>(FT)   | SMD6R6927WH<br>(FC) | SMD6S6927WH<br>(FC) | DIA<br>(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        |

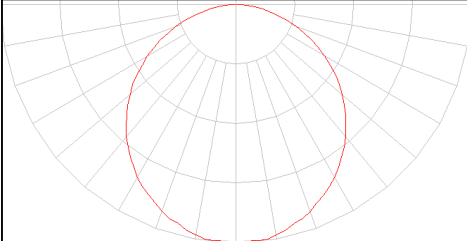


DD = distance down to illuminated work plane  
 FC = initial foot-candles at nadir  
 DIA = diameter

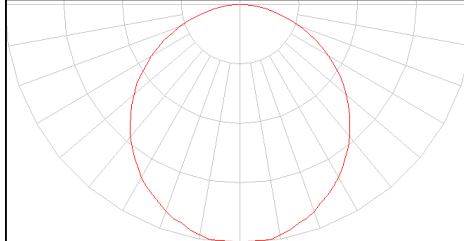
| Multiplier Table |       |       |       |       |       |
|------------------|-------|-------|-------|-------|-------|
| CCT Option       | 2700K | 3000K | 3500K | 4000K | 5000K |
| CCT Multiplier   | 1.00  | 1.014 | 1.042 | 1.083 | 1.083 |

PHOTOMETRIC DATA - SMD6-1200

| SMD6S12927WH          |          |          |
|-----------------------|----------|----------|
| Luminaire lumens      |          | 1187     |
| Input watts           |          | 15.9     |
| LER (LPW)             |          | 75       |
| Spacing Criteria      | 0-180    | 1.26     |
|                       | 90-270   | 1.26     |
|                       | Diagonal | 1.38     |
| Beam angle (degrees)  |          | 113      |
| Field angle (degrees) |          | 165      |
| Max. Candela          |          | 408      |
| Zonal lumen           | Lumens   | % Lumens |
| 0-30                  | 316      | 26.6%    |
| 0-40                  | 518      | 43.7%    |
| 0-60                  | 920      | 77.5%    |
| 0-90                  | 1187     | 100.00%  |

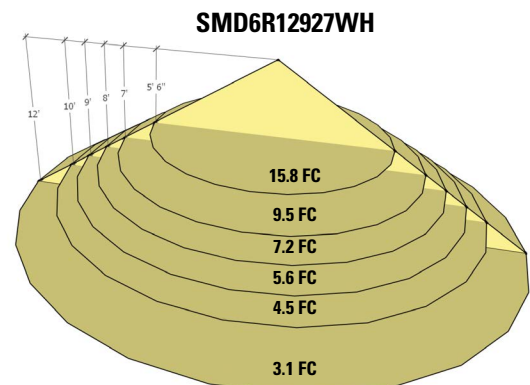


| SMD6R12927WH          |          |          |
|-----------------------|----------|----------|
| Luminaire lumens      |          | 1235     |
| Input watts           |          | 15.9     |
| LER (LPW)             |          | 78       |
| Spacing Criteria      | 0-180    | 1.26     |
|                       | 90-270   | 1.26     |
|                       | Diagonal | 1.38     |
| Beam angle (degrees)  |          | 113      |
| Field angle (degrees) |          | 164      |
| Max. Candela          |          | 426      |
| Zonal lumen           | Lumens   | % Lumens |
| 0-30                  | 336      | 27.2%    |
| 0-40                  | 550      | 44.5%    |
| 0-60                  | 971      | 78.6%    |
| 0-90                  | 1235     | 100.00%  |



| Cat. No.     | CRI | CCT  | Lumens | Power (W) | LPW  |
|--------------|-----|------|--------|-----------|------|
| SMD6R12927WH | 92  | 2700 | 1244   | 15.7      | 79.0 |
| SMD6R12930WH | 92  | 3000 | 1242.0 | 15.1      | 82.1 |
| SMD6R12935WH | 92  | 3500 | 1264.1 | 15.3      | 82.8 |
| SMD6R12940WH | 92  | 4000 | 1223.0 | 15.3      | 79.9 |
| SMD6R12950WH | 92  | 5000 | 1252.0 | 15.3      | 81.9 |
| SMD6S12927WH | 92  | 2700 | 1190   | 15.7      | 76.0 |
| SMD6S12930WH | 92  | 3000 | 1180.3 | 15.6      | 75.6 |
| SMD6S12935WH | 92  | 3500 | 1237.3 | 15.6      | 79.5 |
| SMD6S12940WH | 92  | 4000 | 1215.9 | 15.8      | 76.9 |
| SMD6S12950WH | 92  | 5000 | 1235.6 | 15.7      | 78.9 |

| Foot-candle Values at Nadir<br>0 degree Aiming Angle |                      |                      |             |
|--|----------------------|----------------------|-------------|
| DD<br>(FT)   | SMD6R12927WH<br>(FC) | SMD6S12927WH<br>(FC) | DIA<br>(FT) |
| 5.5  | 15.8                 | 15.1                 | 16.6        |
| 7  | 9.5                  | 9.1                  | 21.1        |
| 8  | 7.2                  | 6.9                  | 24.2        |
| 9  | 5.6                  | 5.4                  | 27.2        |
| 10   | 4.5                  | 4.3                  | 30.2        |
| 12   | 3.1                  | 3.0                  | 36.2        |



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   | 1.000 | 0.997 | 1.039 | 1.021 | 1.037 |