

|             |  |           |  |      |  |
|-------------|--|-----------|--|------|--|
| Project     |  | Catalog # |  | Type |  |
| Prepared by |  | Notes     |  | Date |  |



# HALO

## HLS Series

Round LED Low Profile  
Surface Mount Fixture

### Typical Applications

Residential

### Interactive Menu

- Order Information page 2
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- 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 JAB.

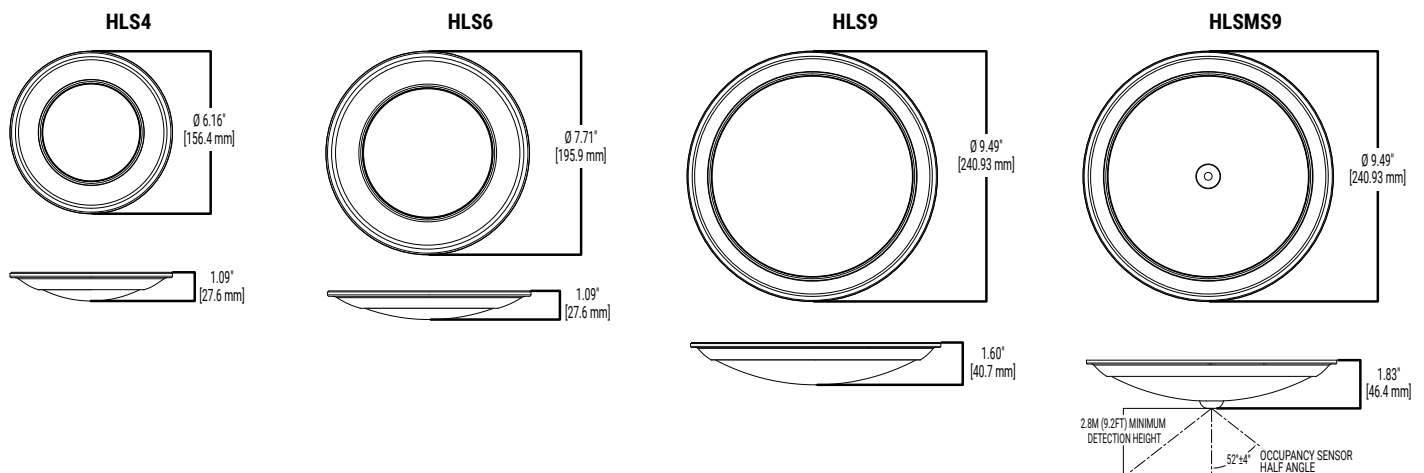
### Product Features



### 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  |
|------------------------------------|----------------------------------|--|--|--------------------------------|---|---|
| 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<br><b>940</b> = 90 CRI minimum, 4000K CCT<br><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)<br><b>-12BP</b> = Qty 12 bulk pack (not for individual sale) <sup>(1)</sup> | <b>[blank]</b> = Compliant in all states besides California<br><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><br>1. Only available in 3000K.   | <b>Notes</b>  |

| 6-inch Models                      | Lumens                           | CRI / CCT  | Driver   | Finish                         | Packaging   | Compliance  |
|------------------------------------|----------------------------------|--|--|--------------------------------|---|---|
| 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<br><b>940</b> = 90 CRI minimum, 4000K CCT<br><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)<br><b>-12BP</b> = Qty 12 bulk pack (not for individual sale) <sup>(1)</sup> | <b>[blank]</b> = Compliant in all states besides California<br><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><br>1. Only available in 3000K.   | <b>Notes</b>  |

| 9-inch Models  | Lumens                            | CRI / CCT  | Driver   | Finish                         | Compliance  |
|--|-----------------------------------|--|--|--------------------------------|---|
| 9-inch Models  | Lumens                            | CRI / CCT  | Driver   | Finish                         | Compliance  |
| <b>HLS9</b> = 9" LED surface light<br><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<br><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<br><b>-CA</b> = state of California compliant |
| <b>Notes</b><br>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  |

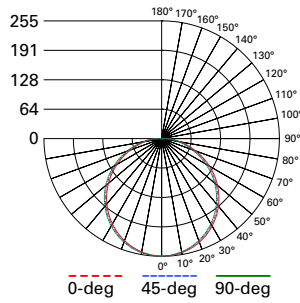
|               | CCT   | Watts | lumens | LPW  | CRI |
|---------------|-------|-------|--------|------|-----|
| HLS4079301EWH | 3000K | 12.2  | 765    | 62.7 | 93  |
| HLS4079401EWH | 4000K | 12.3  | 780    | 63.4 | 92  |
| HLS4079501EWH | 5000K | 12.4  | 790    | 63.7 | 93  |

|               | 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

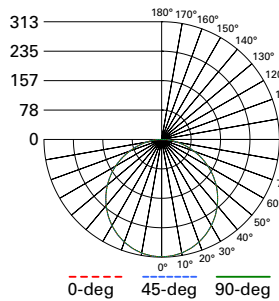
Spacing criterion:  
 (0-180) 1.26 | (90-270) 1.26 | (Diagonal) 1.38  
 Beam Angle: 114°  
 Field Angle: 170°  
 Lumens: 765  
 Input Watts: 12.2 W  
 Efficacy: 62.7 LPW  
 UGR: 20  
 Test Report: P645599

| 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   |



114°



### HLS6099301EWH -3000K

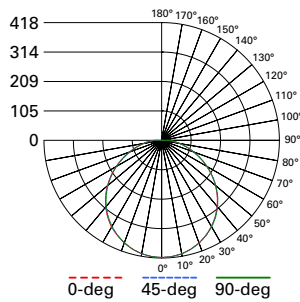
Spacing criterion:  
 (0-180) 1.26 | (90-270) 1.26 | (Diagonal) 1.38  
 Beam Angle: 144°  
 Field Angle: 167°  
 Lumens: 925  
 Input Watts: 15.4 W  
 Efficacy: 60.1 LPW  
 UGR: 21  
 Test Report: P645602

| 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   |



144°



### HLS9129301EWH -3000K

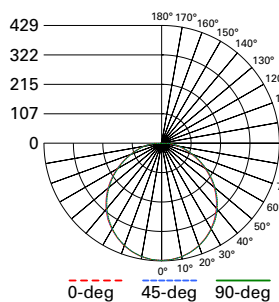
Spacing criterion:  
 (0-180) 1.26 | (90-270) 1.26 | (Diagonal) 1.38  
 Beam Angle: 113°  
 Field Angle: 170°  
 Lumens: 1245  
 Input Watts: 17.8 W  
 Efficacy: 69.9 LPW  
 UGR: 20  
 Test Report: P645605

| 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   |



113°



### 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

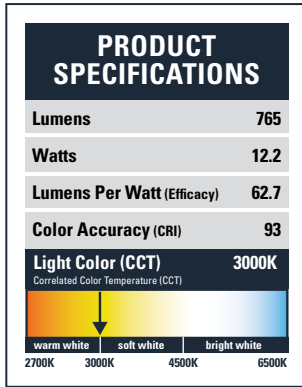
| Zonal Lumen | Lumens | % Lumens |
|-------------|--------|----------|
| 0-30        | 333    | 26.3     |
| 0-40        | 546    | 43.1     |
| 0-60        | 963    | 76.1     |
| 0-90        | 1265   | 100      |

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

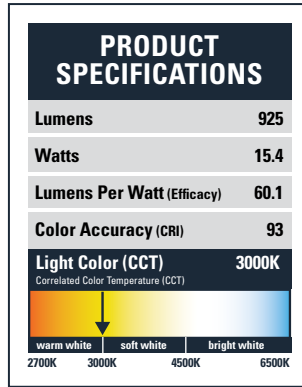


112°

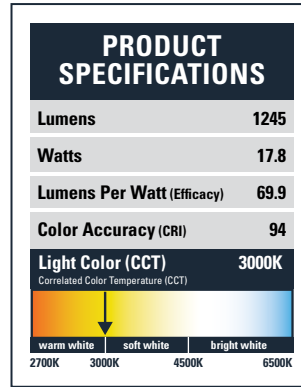
## Product Specifications



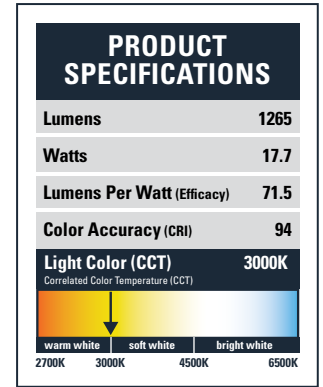
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HLS4079301EWH-12BP



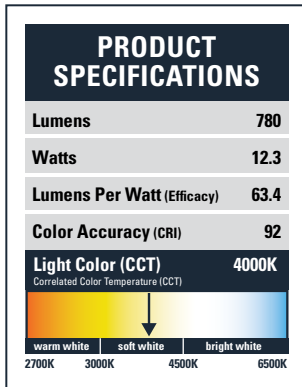
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HLS6099301EWH-12BP



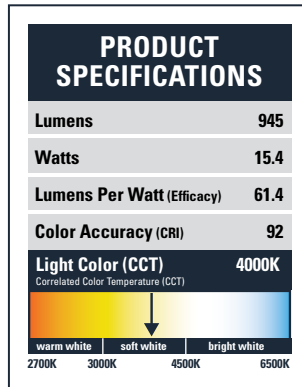
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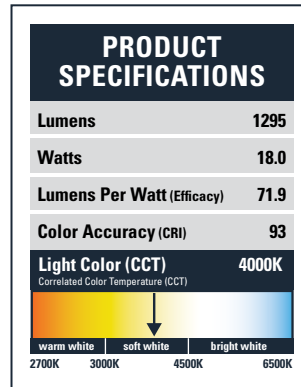
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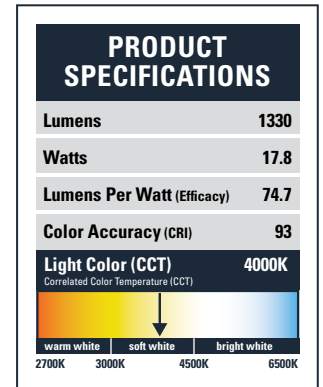
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HLS4079401EWH-12BP



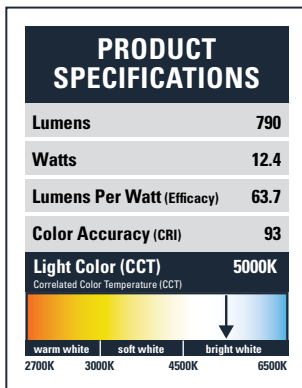
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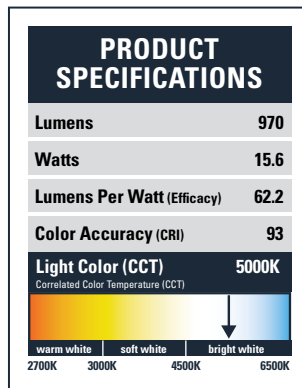
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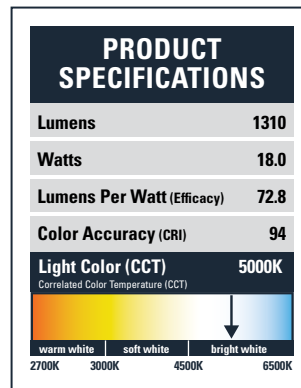
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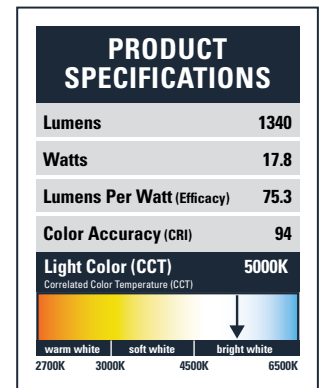
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HLS6099501EWH-6BP  
HLS6099501EWH-12BP



HLS9129501EWH



HLSMS9129501EWH