

Project		Catalog #		Type	
Prepared by		Notes		Date	



# HALO

## RL Direct Mount Series

Canless recessed LED downlight

### Typical Applications

Residential

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- Dimming Guide

### 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

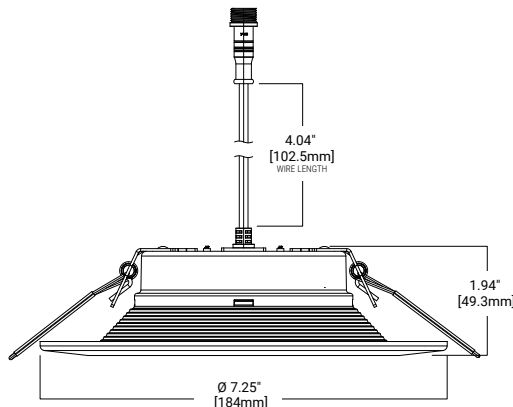
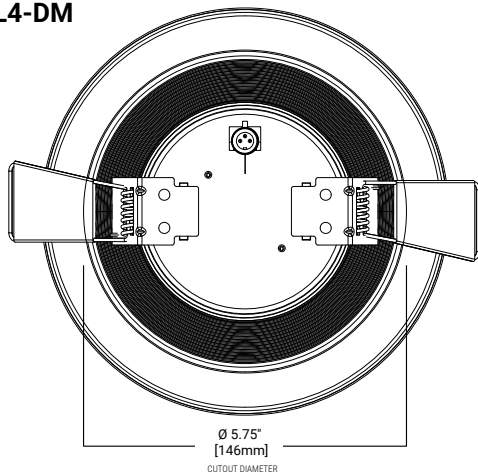


### Top Product Features

- Available in 4" and 6" aperture
- 6 selectable color temperature options
  - 2700K, 3000K, 3500K, 4000K, 5000K
  - Dim-to-warm technology included: use your dimmer to warm color temperature from 3000K to 1800K
- Canless installation, no housing or j-box required
- Dimmable down to 5%

### Dimensional and Mounting Details

RL4-DM



additional product diagrams

## Order Information

SAMPLE ORDER NUMBER: **RL6069FSD2W1EWHDM**

4-inch	Lumens	CRI / CCT	Driver	Finish	Installation
4-inch	Lumens	CRI / CCT	Driver	Finish	Installation
<b>RL4</b> = 4-inch canless recessed LED downlight	<b>LS</b> = 600/900 selectable lumens (nominal)	<b>9FSD2W</b> = 90 CRI, selectable CCT with D2W option	<b>1E</b> = 120V 60Hz, LE & TE phase cut 5% dimming	<b>WH</b> = matte white flange	<b>DM</b> = direct mount canless installation
<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>

### 4-inch Accessories

4-inch Accessories	
<b>RL4TRMWHB</b> = 4-inch overlay, Matte White, Baffle <b>RL4TRMWBB</b> = 4-inch overlay, Matte Black, Baffle <b>RL4TRMSNB</b> = 4-inch overlay, Satin Nickel, Baffle <b>RL4TRMTBZB</b> = 4-inch overlay, Tuscan Bronze, Baffle <b>RL4TRMWH</b> = 4-inch overlay, Matte White, Splay <b>RL4TRMMB</b> = 4-inch overlay, Matte Black, Splay <b>RL4TRMSN</b> = 4-inch overlay, Satin Nickel, Splay <b>RL4TRMTBZ</b> = 4-inch overlay, Tuscan Bronze, Splay	<b>HL4RSMF</b> = 4-inch round and square mounting frame <b>MF4RC</b> = 4-inch round mounting frame with drywall collar  <b>HLB06BLEEC</b> = 6 ft. extension cable <b>HLB12BLEEC</b> = 12 ft. extension cable <b>HLB20BLEEC</b> = 20 ft. extension cable
<b>Notes</b>	

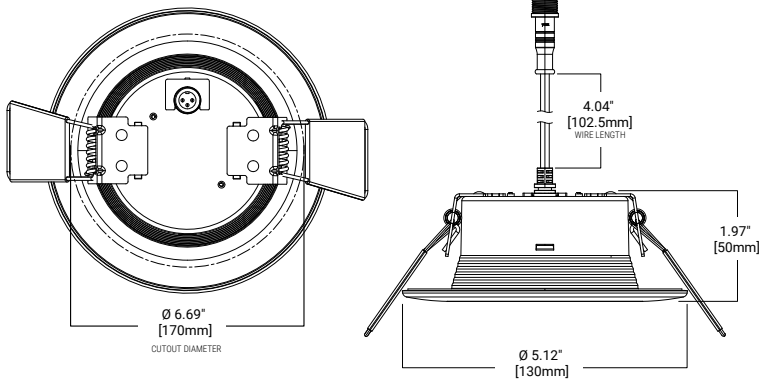
6-inch	Lumens	CRI / CCT	Driver	Finish	Installation
6-inch	Lumens	CRI / CCT	Driver	Finish	Installation
<b>RL6</b> = 6-inch canless recessed LED downlight	<b>O6</b> = 600 selectable lumens (nominal) <b>LS</b> = 900/1200 selectable lumens (nominal)	<b>9FSD2W</b> = 90 CRI, selectable CCT with D2W option	<b>1E</b> = 120V 60Hz, LE & TE phase cut 5% dimming	<b>WH</b> = matte white flange	<b>DM</b> = direct mount canless installation
<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>

### 6-inch Accessories

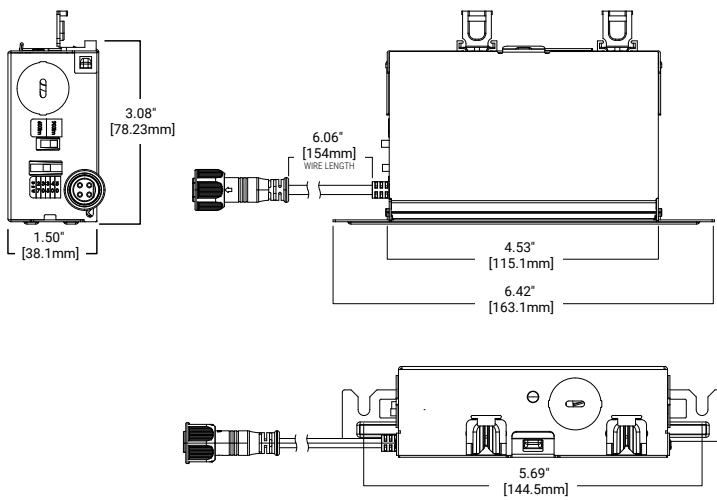
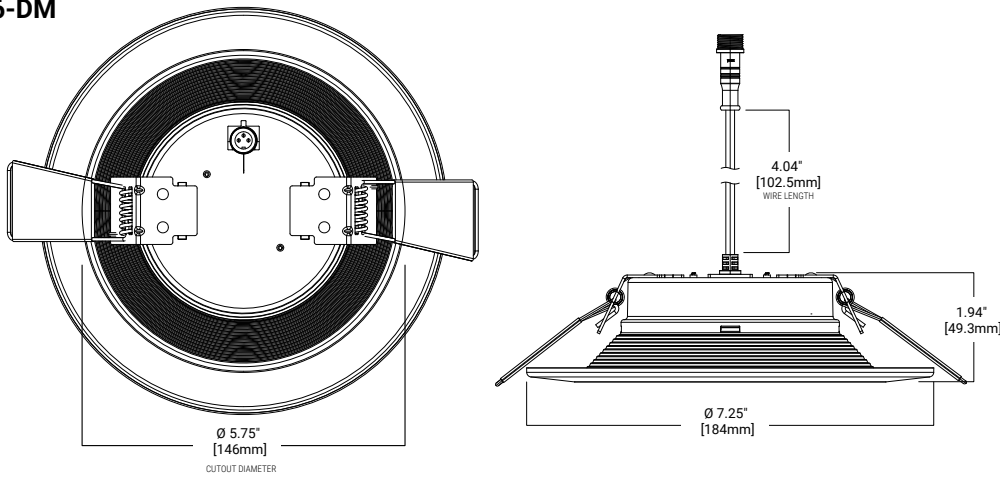
6-inch Accessories
<b>HL6RSMF</b> = 6-inch round and square mounting frame <b>MF6RC</b> = 6-inch round mounting frame with drywall collar  <b>HLB06BLEEC</b> = 6 ft. extension cable <b>HLB12BLEEC</b> = 12 ft. extension cable <b>HLB20BLEEC</b> = 20 ft. extension cable
<b>Notes</b>

## Dimensional and Mounting Details

### RL4-DM



### RL6-DM



## Product Specifications

### Selectable System

- Use the CCT select switch to choose between D2W, 2700K, 3000K, 3500K, 4000K, and 5000K CCT
- D2W option starts at 3000K and warms to 1800K as fixture dims
- Use the lumen select switch on lumen selectable fixtures to choose brightness level

### Module – Trim

- Module construction includes LED array, heat sink, reflector, lens, baffle and trim ring
- Regressed baffle
- Heat sink designed to conduct heat away from the LED Array

### LED Array

- Mid power LED array provides a uniform source with high efficiency and no pixilation
- 90 CRI minimum, R9 greater than 50
- Color accuracy at 4 SDCM in between endpoints, provide color accuracy and uniformity.
- Color Temperature (CCT) is set to a factory default of 3000K

### Optical Assembly

- Regressed lens
- Impact-resistant polycarbonate
- Convex form and lamp-like appearance
- Diffuse for even illumination

### Gaskets

- Closed cell gaskets achieve restrictive airflow requirements without additional caulking

### Driver

- Integral 120V 60 Hz constant current driver provides noise free operation
- Continuous, flicker-free dimming from 100% to 5%
- See Dimming Guide for compatible dimmers

### Remote Driver/ Junction Box

- Aluminum driver / junction box with captive hinged junction box cover
- Listed for (6) #12 AWG 90° C splice conductors, 2-in, 2-out plus (2) ground
- (2) ½" conduit pry-outs
- (2) Slide-N-Side™ non-metallic (NM) wire traps all
- Accepts 14-2, 14-3, 12-2, 12-3 U.S and 14-2, 14-3, 12-2 Canadian NM cable
- (3) 4-port push wire nuts with clear caps for quick and reliable mains voltage connections
- Integral keyhole mounting slots facilitate direct mounting to building structure or new construction mounting frame

### Mounting / Retention

- The RL Direct Mount Series requires no housing or third-party junction box
- The remote enclosure may be used in direct contact with insulation. Installer must cut template out of drywall and install into aperture with the clips compressed.
- When released, the spring clips will rest on to the back side of the drywall
- Not for installation in recessed cans

### Compliance

- UL Certified US and Canada Type IC suitable for direct contact with air permeable insulation
- Wet and Damp location listed. Not recommended for use in direct contact with spray foam insulation, reference NEMA LSD57-2013
- Airtight certified per ASTM-E283
- Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements
- Suitable for use in plenum spaces per NEC 300.22(C)(2) requirements
- EMI/RFI emissions per FCC 47CFR Part 15 consumer limits
- 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. Complies with Title 24 JA8-2022-E.
- Can be used International Energy Conservation Code (IECC) high efficiency luminaire compliance.
- ENERGY STAR® listed, reference database for current listings
- IP44 Ingress Protection rated

### Warranty

- Five year limited warranty, consult website for details. [www.cooperlighting.com/warranty](http://www.cooperlighting.com/warranty)

## Energy Data

### RL4 - 600/900 Lumen

Lumens	600/900
Input Voltage	120V
Input current	90mA
Input Power	10.5W
Efficiency	78.99%
Inrush(A)	1.22
THD	16
PF	0.971
Sound Rating	<=22dba

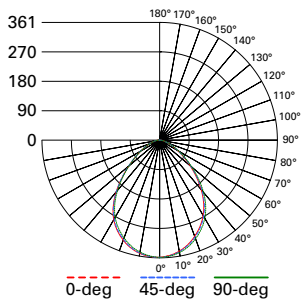
### RL56 - 600 Lumen

Lumens	600
Input Voltage	120V
Input current	63mA
Input Power	7.2W
Efficiency	77.69%
Inrush(A)	1.66
THD	18.7
PF	0.956
Sound Rating	<=22dba

### RL56 - 900/1200 Lumen

Lumens	900/1200
Input Voltage	120V
Input current	110mA
Input Power	13W
Efficiency	80.50%
Inrush(A)	1.31
THD	13.8
PF	0.997
Sound Rating	<=22dba

## Photometric Data



### RL4LS9FSD2W1EWHDM -600LM -3000K

Spacing criterion:  
 (0-180) 1.15 | (90-270) 1.15 | (Diagonal) 1.2  
 Beam Angle: 86°  
 Field Angle: 137°  
 Lumens: 695  
 Input Watts: 7.6 W  
 Efficacy: 91.4 LPW  
 UGR: 19  
 Test Report: P639480

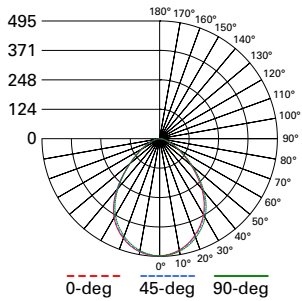
Zonal Lumen	Lumens	% Lumens
0-30	267	38.4
0-40	418	60.1
0-60	625	89.9
0-90	695	100

TM-30-15	Rf = 92
	Rg = 103
CRI/CIE	Ra = 96.3
	R9 = 85

CCT - Range of 2700K- 5000K



86°



### RL4LS9FSD2W1EWHDM -900LM -3000K

Spacing criterion:  
 (0-180) 1.15 | (90-270) 1.15 | (Diagonal) 1.2  
 Beam Angle: 86°  
 Field Angle: 137°  
 Lumens: 955  
 Input Watts: 11.5 W  
 Efficacy: 83 LPW  
 UGR: 20  
 Test Report: P639485

Zonal Lumen	Lumens	% Lumens
0-30	367	38.4
0-40	574	60.1
0-60	858	89.9
0-90	955	100

TM-30-15	Rf = 92
	Rg = 103
CRI/CIE	Ra = 96.3
	R9 = 85

CCT - Range of 2700K- 5000K



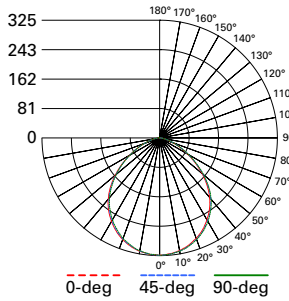
86°

## Product Specifications

### RL4LS9FSD2W1EWHDM

PRODUCT SPECIFICATIONS	
Lumens	955
Watts	11.5
Lumens Per Watt (Efficacy)	83
Color Accuracy (CRI)	93
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
warm white	soft white
2700K	3000K
4500K	6500K

## Photometric Data



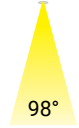
### RL6069FSD2W1EWHDM -600LM -3000K

Spacing criterion:  
 (0-180) 1.21 | (90-270) 1.21 | (Diagonal) 1.3  
 Beam Angle: 98°  
 Field Angle: 145°  
 Lumens: 750  
 Input Watts: 7.5 W  
 Efficacy: 100 LPW  
 UGR: 19  
 Test Report: P639505

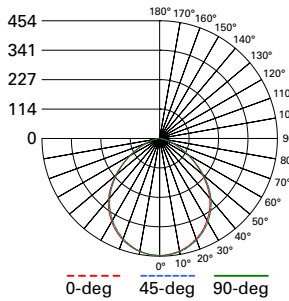
Zonal Lumen	Lumens	% Lumens
0-30	247	33
0-40	399	53.2
0-60	655	87.3
0-90	750	100

TM-30-15	Rf = 93
	Rg = 103
CRI/CIE	Ra = 96.4
	R9 = 87

CCT - Range of 2700K- 5000K



98°



### RL6LS9FSD2W1EWHDM -900LM -3000K

Spacing criterion:  
 (0-180) 1.21 | (90-270) 1.21 | (Diagonal) 1.3  
 Beam Angle: 98°  
 Field Angle: 145°  
 Lumens: 1050  
 Input Watts: 9.9 W  
 Efficacy: 106.1 LPW  
 UGR: 20  
 Test Report: P639515

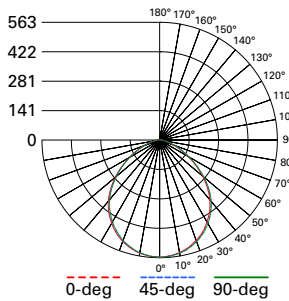
Zonal Lumen	Lumens	% Lumens
0-30	346	33
0-40	558	53.2
0-60	916	87.3
0-90	1050	100

TM-30-15	Rf = 92
	Rg = 103
CRI/CIE	Ra = 95.6
	R9 = 81

CCT - Range of 2700K- 5000K



98°



### RL6LS9FSD2W1EWHDM -1200LM -3000K

Spacing criterion:  
 (0-180) 1.21 | (90-270) 1.21 | (Diagonal) 1.3  
 Beam Angle: 98°  
 Field Angle: 145°  
 Lumens: 1300  
 Input Watts: 13.8 W  
 Efficacy: 94.2 LPW  
 UGR: 20  
 Test Report: P639510

Zonal Lumen	Lumens	% Lumens
0-30	429	33
0-40	691	53.2
0-60	1135	87.3
0-90	1300	100

TM-30-15	Rf = 92
	Rg = 103
CRI/CIE	Ra = 95.6
	R9 = 81

CCT - Range of 2700K- 5000K



98°

## Product Specifications

### RL6069FSD2W1EWHDM

PRODUCT SPECIFICATIONS	
Lumens	750
Watts	7.5
Lumens Per Watt (Efficacy)	100
Color Accuracy (CRI)	93
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
warm white	soft white
2700K	3000K
4500K	6500K

### RL6LS9FSD2W1EWHDM

PRODUCT SPECIFICATIONS	
Lumens	1330
Watts	13.8
Lumens Per Watt (Efficacy)	96.4
Color Accuracy (CRI)	93
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
warm white	soft white
2700K	3000K
4500K	6500K