

Project		Catalog #		Type	
Prepared by		Notes		Date	



# HALO

## RA Baffle Recessed Adjustable LED Trims

3", 4" and 5/6" Baffle Recessed Adjustable LED Trims install into standard recessed housings and provide up to 35° of tilt and 360° of rotation

### Typical Applications

Residential

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### 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

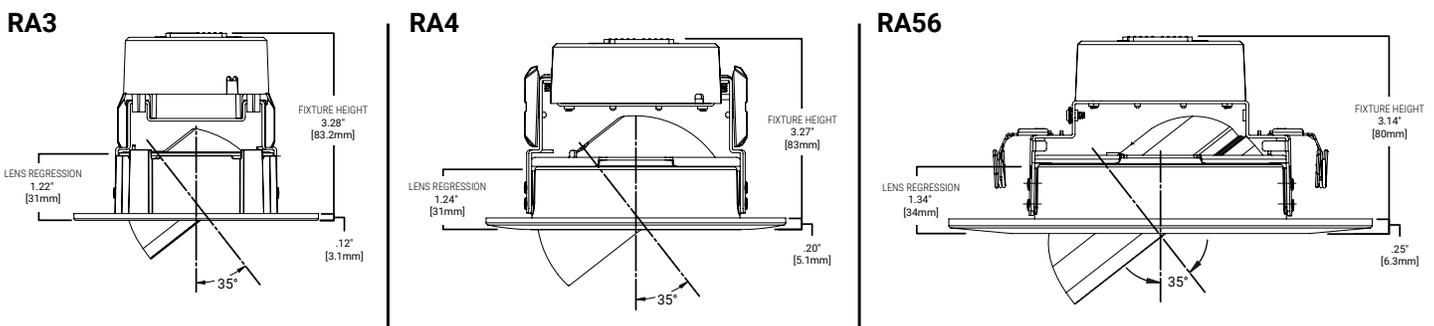


### Top Product Features

- Available in 3", 4" and 5/6" LED trims for installation in new construction or remodel housings
- Adjustable gimbal tilts up to 35° and rotates 360°
- 6-Position Switch: 5 Color Field-Selectable soft white to daylight (2700K, 3000K, 3500K, 4000K, 5000K) + Dim-to-Warm (3000K dims to 1800K)
- Selectable Lumen Switch (4" and 5/6"): Choose between 600/900 lumens
- 5% phase cut LE/TE dimming (120V input) with compatible controls (reference the RA Dimming Guide)

### Dimensional and Mounting Details

additional product diagrams



## Order Information

Catalog Number	Description	Lumens (nominal)	CRI	CCT	Driver	Finish
RA3059FSD2W1EWH	3" Baffle Recessed Adjustable LED Trim	500 Lumens	90+CRI	6-Color Field-SeleCCTable: 2700K, 3000K, 3500K, 4000K, 5000K, Dim-to-Warm	5% Phase Cut LE/TE Dimming, 120V 60Hz	Matte White
RA4LS9FSD2W1EWH	4" Baffle Recessed Adjustable LED Trim	600/900 Selectable Lumens	90+CRI	6-Color Field-SeleCCTable: 2700K, 3000K, 3500K, 4000K, 5000K, Dim-to-Warm	5% Phase Cut LE/TE Dimming, 120V 60Hz	Matte White
RA56LS9FSD2W1EWH	5/6" Baffle Recessed Adjustable LED Trim	600/900 Selectable Lumens	90+CRI	6-Color Field-SeleCCTable: 2700K, 3000K, 3500K, 4000K, 5000K, Dim-to-Warm	5% Phase Cut LE/TE Dimming, 120V 60Hz	Matte White

## Compatible Housings

### HALO - 6" Housings<sup>1</sup>

HALO LED Housings	H750ICAT, H750RICAT, H750T, H750TCP, H2750ICAT, H2750RICAT, H550ICAT, H550RICAT, E550ICAT, E550RICAT, E750ICAT, E750RICAT
HALO LED Retrofit	ML7BXRFK, ML7E26RFK
Standard Housings	H7ICAT, H7ICT, H7T, H7ICATNB, H7ICTNB, H7TNB, H7UICAT, H7TCP, H7RICAT, H7RICT, H7RT, E7ICAT, E7ICATNB, E7RICAT, E7RTAT, E7TAT, E7TATNB, H7UICAT, H7ICATNB, H7ICTNB, H7TNB, H7UICAT
Shallow Housings	H27ICAT, H27RICAT, H27ICT, H27RICT, E27ICAT, E27RICAT, E27TAT, E27RTAT
Fire Rated Housings	H750FR2ICAT

### HALO - 5" Housings<sup>1</sup>

Halo LED Housings	H550ICAT, H550RICAT, E550ICAT, E550RICAT
Standard Housings	H5ICAT, H5ICATNB, H5RICAT, H5T, H5TNB, H5RT, E5ICAT, E5ICATNB, E5RICAT, E5RTAT, E5TAT, E5TATNB
Shallow Housings	H25ICAT, H25RICAT, H25ICATNB
Fire Rated Housings	H550FR2ICAT

### HALO - 4" Housings<sup>2</sup>

Halo LED Housings	H45ICAT*, H45RICAT*
Standard Housings	H99ICAT, H99RTAT, H99TAT, H995ICAT, H995RICAT, H99T, H99RT, H99ICT, E4ICATSB, E4TATSB, E4RTATSB
Shallow Housings	H245ICAT, H245RICAT
Fire Rated Housings	H450FR2ICAT
Junction Box Housing	JB4FR2

### HALO - 3" Housings<sup>3</sup>

Halo LED Housings	H35ICAT, H35RICAT, H350FR2ICAT
Standard Housings	H36ICAT, H38ICAT, H36TAT, H36RTAT

## LUMINAIRES - UL Classified for retrofit compatibility

**Note:** Compatible with any 5" or 6" diameter recessed luminaire with an internal volume that exceeds 115 in<sup>3</sup> in addition to those listed below.

Juno	Standard Housing	IC22, IC22R, IC22W, IC22S, IC23, IC23W, TC2, TC2R, IC2
	Shallow Housing	IC21, IC21R
Capri	Standard Housing	CR1, PR1, QL1
	Shallow Housing	R9ASIC/PS9RM
Elco		HL7ICA (EL7ICA)
Thomas		PS1
Commercial Electric		C7ICA, H3

Lithonia Lighting	Standard Housing	LC6, L7X
	Shallow Housing	L7XP
Progress Lighting	Standard Housing	P87-AT**
	Shallow Housing	P86TG
Lightolier		1104ICS*, 1104ICR**

1. The RA56 SeleCCTable is UL Certified for use with any 5" or 6" diameter recessed luminaire constructed of steel or aluminum with an internal volume that exceeds 107.9" in<sup>3</sup> addition to those noted below and does not exceed the input rating of the luminaire.

2. The RA4 SeleCCTable is UL Certified for use with any 4" diameter recessed luminaire constructed of steel or aluminum with an internal volume that exceeds 62.3" in<sup>3</sup> addition to those noted below and does not exceed the input rating of the luminaire.

3. The RA3 SeleCCTable is UL Certified for use with any 3" diameter recessed luminaire constructed of steel or aluminum with an internal volume that exceeds 62.3" in<sup>3</sup> addition to those noted below and does not exceed the input rating of the luminaire.

## Product Specifications

### Selectable System

- Use the 6-position color selector switch to choose between: Dim-to-Warm (3000K dims to 1800K), 2700K, 3000K, 3500K, 4000K, and 5000K
- Use the lumen select switch to choose the preferred 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, keeping the junction temperatures below specified maximums, even when installed in insulated ceiling environments
- Adjustable gimbal tilts up to 35° and rotates up to 360°

### 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, providing color accuracy and uniformity.
- Factory default color temperature (CCT) is set to soft white (3000K)

### Optical Assembly

- Regressed lens
- Impact-resistant polycarbonate
- Convex form and lamp-like appearance

### Driver

- Integral 120V 60 Hz constant current driver provides noise free operation
- Inline electrical quick connect and E26 adapter (provided) provides mains connections
- Continuous, flicker-free phase cut (leading-edge/trailing-edge - LE/TE) dimming from 100% to 5% output with compatible dimmers
- \*See the RA Dimming Guide for compatible dimmers

### Retention

- 3" & 4" - Precision-formed spring blades secure module with friction fit to compatible housings. The friction blade design allows the RA4 to be installed in any position within the housing aperture (360 degrees)
- 5/6" - Factory-installed torsion springs adjust to fit compatible 5" or 6" recessed housings
- 5/6" Alternate Mounting - Push-N-Twist clips offer alternate mounting where torsion springs are not present in 5" or 6" recessed housings

### Gasket

- Closed cell gaskets achieve restrictive airflow requirements without additional caulking

### Compliance

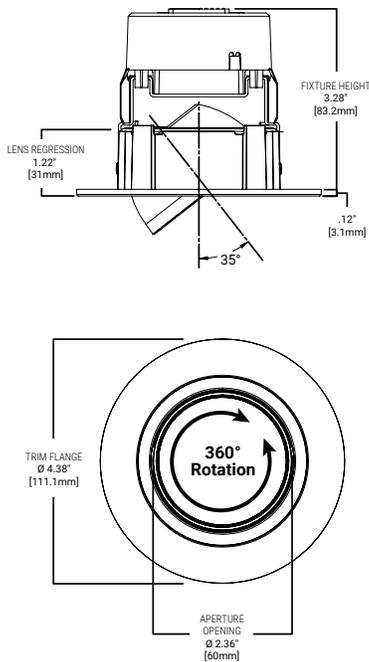
- UL Certified for US and Canada for use with Halo housings, classified for use with other's housings, see instruction sheet for conditions of acceptability
- Damp location listed
- EMI/RFI emissions per FCC 47CFR Part 15 consumer limits
- Contains no mercury or lead and RoHS compliant
- Photometric 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

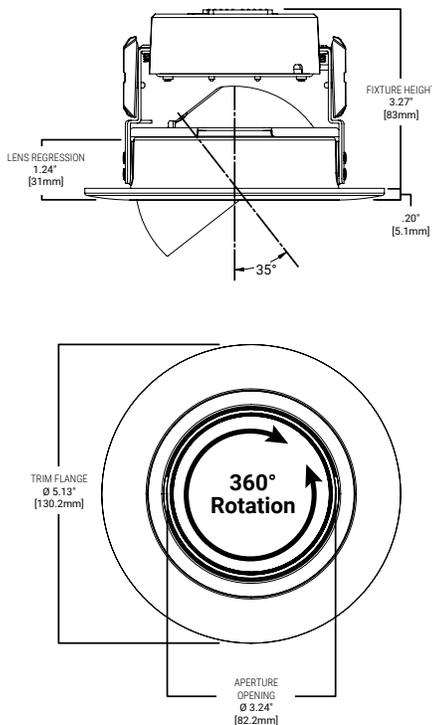
- Five year limited warranty, consult website for details. [www.cooperlighting.com/warranty](http://www.cooperlighting.com/warranty)

## Dimensional and Mounting Details

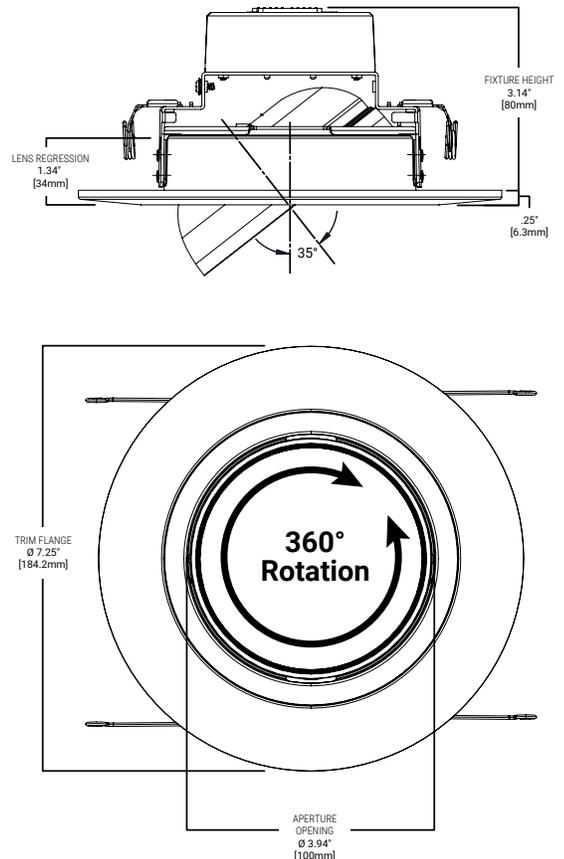
RA3



RA4



RA56



## Energy Data

### RA3059FSD2W1EWH - 3000K

Lumens	500
Input Voltage	120V
Input Current	0.052A
Input Power	6.01W
Efficiency	77.29%
Inrush(A)	1.12
THD	15.3
PF	0.958
Sound Rating	<=22DBA

Catalog Number	CCT	Watts	lumens	LPW	CRI
RA3059FSD2W1EWH 500 Lumens	2700K	6.3	570	90.5	93
	3000K	5.7	570	100.0	93
	3500K	5.6	590	105.4	93
	4000K	6.2	590	95.2	93
	5000K	6.2	585	94.4	93

### RA4LS9FSD2W1EWH - 3000K

Lumens	600/900
Input Voltage	120V
Input Current	0.075A/0.05A
Input Power	5.76W/8.83W
Efficiency	75.92%/77.54%
Inrush(A)	2.4
THD	16.7/11.7
PF	0.948/0.975
Sound Rating	<=22DBA

Catalog Number	CCT	Watts	lumens	LPW	CRI
RA4LS9FSD2W1EWH 600 Lumens	2700K	5.7	585	102.6	93
	3000K	5.6	560	100.0	93
	3500K	5.6	605	108.0	93
	4000K	5.7	590	103.5	93
	5000K	5.7	595	104.4	93

Catalog Number	CCT	Watts	lumens	LPW	CRI
RA4LS9FSD2W1EWH 900 Lumens	2700K	8.7	860	98.9	92
	3000K	8.7	870	100.0	93
	3500K	8.7	885	101.7	93
	4000K	8.8	875	99.4	93
	5000K	8.8	865	98.3	93

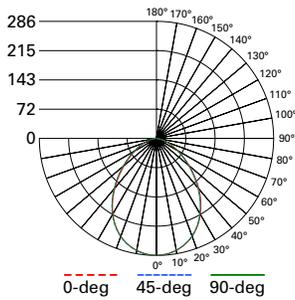
### RA56LS9FSD2W1EWH - 3000K

Lumens	600/1000
Input Voltage	120V
Input current	0.05/0.075A
Input Power	5.76W/8.83W
Efficiency	75.92%/77.54%
Inrush(A)	2.4
THD	16.7/11.7
PF	0.948/0.975
Sound Rating	<=22DBA

Catalog Number	CCT	Watts	lumens	LPW	CRI
RA56LS9FSD2W1EWH 600 Lumens	2700K	5.8	625	107.8	93
	3000K	5.7	570	100.0	93
	3500K	5.8	635	109.5	93
	4000K	5.8	640	110.3	93
	5000K	5.7	635	111.4	93

Catalog Number	CCT	Watts	lumens	LPW	CRI
RA56LS9FSD2W1EWH 900 Lumens	2700K	9.0	910	101.1	93
	3000K	8.7	870	100.0	93
	3500K	8.8	925	105.1	93
	4000K	8.8	930	105.7	93
	5000K	8.8	920	104.5	93

## Photometric Data

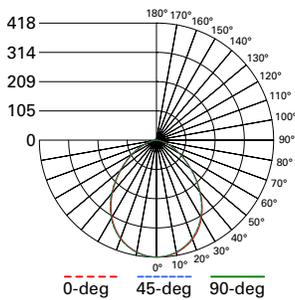


### RA3059FSD2W1EWH-500lm-3000K

Spacing criterion:  
 (0-180) 1.13 | (90-270) 1.13 |  
 (Diagonal) 1.19  
 Beam Angle: 86°  
 Field Angle: 142°  
 Lumens: 570  
 Input Watts: 5.7 W  
 Efficacy: 100 LPW  
 UGR: 17  
 Test Report: P710058

Zonal Lumen	Lumens	% Lumens
0-30	211	37
0-40	328	57.5
0-60	501	87.9
0-90	570	100

TM-30-15	Rf = 92
	Rg = 102
CRI/CIE	Ra = 95.1
	R9 = 74.6

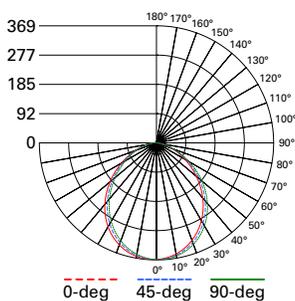


### RA4LS9FSD2W1EWH-900lm-3000K

Spacing criterion:  
 (0-180) 1.15 | (90-270) 1.15 |  
 (Diagonal) 1.22  
 Beam Angle: 89°  
 Field Angle: 144°  
 Lumens: 870  
 Input Watts: 8.7 W  
 Efficacy: 100 LPW  
 UGR: 20  
 Test Report: P710068

Zonal Lumen	Lumens	% Lumens
0-30	311	35.7
0-40	488	56.1
0-60	762	87.6
0-90	870	100

TM-30-15	Rf = 91
	Rg = 103
CRI/CIE	Ra = 95.4
	R9 = 79.4



### RA56LS9FSD2W1EWH-900lm-3000K

Spacing criterion:  
 (0-180) 1.19 | (90-270) 1.19 |  
 (Diagonal) 1.28  
 Beam Angle: 98°  
 Field Angle: 150°  
 Lumens: 870  
 Input Watts: 8.7 W  
 Efficacy: 100 LPW  
 UGR: 20  
 Test Report: P710088

Zonal Lumen	Lumens	% Lumens
0-30	279	32
0-40	446	51.3
0-60	738	84.8
0-90	870	100

TM-30-15	Rf = 93
	Rg = 101
CRI/CIE	Ra = 96.8
	R9 = 80.6

