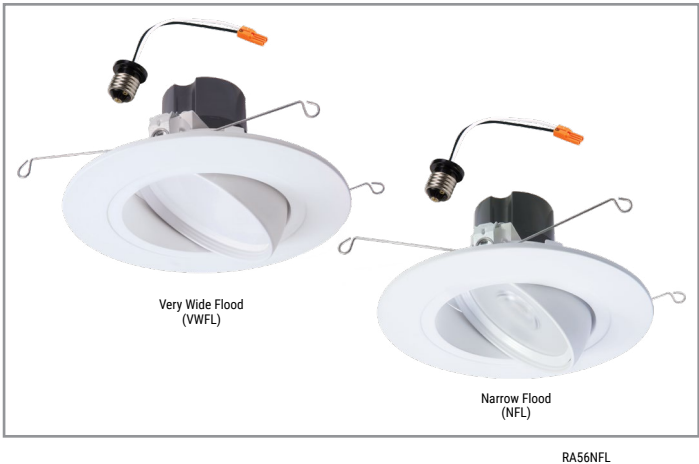


Project		Catalog #		Type	
Prepared by		Notes		Date	



RA56NFL

HALO

RA56 | LED Series

5-inch/6-inch Gimbals –
Narrow & Very Wide Flood

Typical Applications
Residential

Interactive Menu

- Order Information page 2
- Photometric Data page 3
- Control Solutions page 4
- Connected Systems page 4
- Product Warranty

Product Certification



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 JAB.
Indoor LED nominal CCT of 4000K or less.

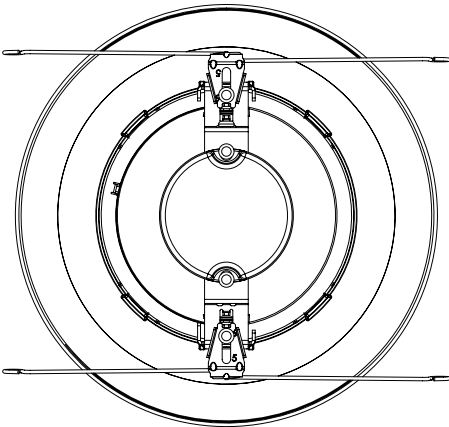
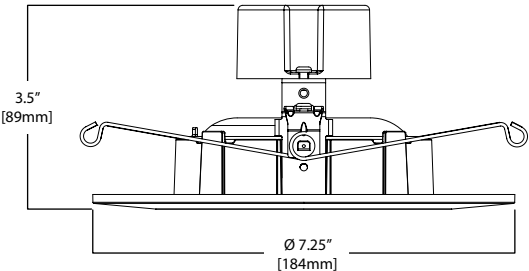
Product Features



Top Product Features

- Adjustable gimbal offers 35-degree tilt and up to 360-degree rotation
- 90 CRI
- For retrofit with screwbase adapter included
- For use with 5" H550 & 6" H750 LED housings-new construction & remodel
- Dimmable and operates at 10W

Dimensional and Mounting Details



Order Information*

SAMPLE ORDER NUMBER: **RA5606930WH**

Complete unit includes RA56 LED and a 5" or 6" compatible housing, ordered separately (see: Housing Compatibility).

RA56 Series	Accessories (order separately)
RA56 Series	Accessories (order separately)
Very Wide Flood - VWFL Models RA5606927WH = 5"/6" LED Adjustable Gimbal, 90CRI, 2700K, White, Very Wide Flood RA5606930WH = 5"/6" LED Adjustable Gimbal, 90CRI, 3000K, White, Very Wide Flood Narrow Flood - NFL Models RA5606927NFLWH = 5"/6" LED Adjustable Gimbal, 90CRI, 2700K, White, Narrow Flood RA5606930NFLWH = 5"/6" LED Adjustable Gimbal, 90CRI, 3000K, White, Narrow Flood *CALIFORNIA - E-26 MODELS RA5606927WH-CA RA5606930WH-CA RA5606927NFLWH-CA RA5606930NFLWH-CA	HE26LED = Replacement screw base adapter (one included with unit) RL56CLIP = Replacement 5"/6" Friction Blade Kit (one included with unit) OT400P = Oversize Flat White Metal trim ring 6" I.D. x 9-1/4" O.D. (ring slips behind RA56 ring, in stepped configuration) OT403P = Oversize White Plastic trim ring 6" I.D. x 8" O.D. (ring slips behind RA56 ring, in stepped configuration) TRM690WH = Oversize Matte White Metal trim ring. Designed for RA56 ring to inset into oversize ring for an even (non-stepped) trim surface

Housing Compatibility

Compatible Halo LED Housings with LED luminaire connector (high-efficacy compliant)	
Halo LED 5-inch H50ICAT = 5" LED, Insulated Ceiling, Air-Tite, New Construction Housing H50RICAT = 5" LED, Insulated Ceiling, Air-Tite, Remodel Housing E550ICAT = 5" LED, Insulated Ceiling, Air-Tite, New Construction Housing E550RICAT = 5" LED, Insulated Ceiling, Air-Tite, Remodel Housing	Halo LED 6-inch H750ICAT = 6" LED, Insulated Ceiling, Air-Tite, New Construction Housing H750RICAT = 6" LED, Insulated Ceiling, Air-Tite, Remodel Housing H750T = 6" LED, Non-IC, Air-Tite, New Construction Housing H750TCP = 6" LED, Non-IC, New Construction/Remodel Chicago Plenum Housing H2750ICAT = 6" LED, Shallow, Insulated Ceiling, Air-Tite, New Construction (use with 691X, 694X, 696X trims only) H2750RICAT = 6" LED, Shallow, Insulated Ceiling, Air-Tite, Remodel (use with 691X, 694X, 696X trims only) E750ICAT = 6" LED, Insulated Ceiling, Air-Tite, New Construction Housing E750RICAT = 6" LED, Insulated Ceiling, Air-Tite, Remodel Housing

Housing Compatibility

Halo LED Retrofit Enclosures	
Halo LED retrofit ML7E26RFK = 6" Retrofit Enclosure, Non-IC, E26 Screw base Interface ML7BXFK = 6" Retrofit Enclosure, Non-IC, BX Whip	

Housing Compatibility

Compatible Halo Incandescent E26 Screwbase Housings	
Halo Standard Housings 5-inch H5ICAT = 5" Insulated Ceiling, Air-Tite New Construction Housing H5RICAT = 5" Insulated Ceiling, Air-Tite Remodel Housing H5ICATNBv5" Insulated Ceiling, Air-Tite New Construction Housing, No Socket Bracket H5T = 5" Non-IC, New Construction Housing H5RT = 5" Non-IC, Remodel Housing H5TNB = 5" Non-IC, New Construction Housing, No Socket Bracket E5ICAT = 5" Insulated Ceiling, Air-Tite New Construction Housing E5RICAT = 5" Insulated Ceiling, Air-Tite Remodel Housing E5ICATNB = 5" Insulated Ceiling, Air-Tite New Construction Housing, No Socket Bracket E5TAT = 5" Non-IC, New Construction Housing E5RTAT = 5" Non-IC, Remodel Housing E5TATNB = 5" Non-IC, New Construction Housing, No Socket Bracket Halo Shallow Housings 5-inch H25ICAT = 5" Shallow, Insulated Ceiling, Air-Tite New Construction H25RICAT = 5" Shallow, Insulated Ceiling, Air-Tite Remodel H25ICATNB = 5" Shallow, Insulated Ceiling, Air-Tite New Construction, No Socket Bracket	Halo Standard Housings 6-inch H7ICAT = 6" Insulated Ceiling, Air-Tite New Construction Housing H7RICAT = 6" Insulated Ceiling, Air-Tite Remodel Housing H7ICT = 6" Insulated Ceiling, New Construction Housing H7RICT = 6" Insulated Ceiling, Remodel Housing H7ICATNB = 6" Insulated Ceiling, Air-Tite New Construction Housing, No Socket Bracket H7ICTNB = 6" Insulated Ceiling, New Construction Housing, No Socket Bracket H7T = 6" Non-IC, New Construction Housing H7RT = 6" Non-IC, Remodel Housing H7TNB = 6" Non-IC, New Construction Housing, No Socket Bracket H7TCP = 6" Non-IC, Chicago Plenum, New Construction/Remodel Housing H7UICAT = 6" Insulated Ceiling, Universal, Air-Tite, New Construction Housing E7ICAT = 6" Insulated Ceiling, Air-Tite New Construction Housing E7RICAT = 6" Insulated Ceiling, Air-Tite Remodel Housing E7ICATNB = 6" Insulated Ceiling, Air-Tite New Construction Housing, No Socket Bracket E7TAT = 6" Non-IC, New Construction Housing E7RTAT = 6" Non-IC, Remodel Housing E7TATNB = 6" Non-IC, New Construction Housing, No Socket Bracket Halo Shallow Housings 6-inch H27ICAT = 6" Shallow, Insulated Ceiling, Air-Tite New Construction H27RICAT = 6" Shallow, Insulated Ceiling, Air-Tite Remodel Housing H27T = 6" Shallow, Non-IC, New Construction Housing H27RT = 6" Shallow, Non-IC, Remodel Housing E27ICAT = 6" Shallow, Insulated Ceiling, Air-Tite New Construction E27RICAT = 6" Shallow, Insulated Ceiling, Air-Tite Remodel Housing E27TAT = 6" Shallow, Non-IC, New Construction Housing E27RTAT = 6" Shallow, Non-IC, Remodel Housing

Product Specifications

Mechanical

- Module includes LED, heat sink, reflector, lens optic, baffle reveal, and trim ring
- Trim ring is sized to conceal 5" and 6" housing openings, and features a visually appealing graduated step design
- Durable die-cast aluminum construction
- Integrated heat sink design conducts heat away from the LED keeping the junction temperatures below specified maximums, even when installed in insulated ceiling environments
- Halo matte white paint finish
- 35-degree tilt
- Up to 360-degree rotation

Optics

NARROW FLOOD - NFL

- Precision acrylic lens
- Optical design creates a clean, uniform 25-degree beam distribution

VERY WIDE FLOOD - VWFL

- Impact-resistant polycarbonate
- Convex form for lamp-like appearance
- Diffusing, wide beam for even illumination

Mounting

Torsion Spring Brackets

- Pre-installed precision formed torsion spring brackets secure torsion springs and adjust to fit 5" or 6" compatible housings

5" & 6" Friction Blade Kit

- Precision formed friction blades kit included (2 - 5" and 2 - 6")
- Provide alternative to torsion springs for retrofit in 5" and 6" housings without torsion spring mounting tabs.
- Friction blade design allows the RL560 to be installed in any position within the housing aperture (360 degrees).
- Replacement Kit: RL56CLIP

Housing Compatibility

See Housing Compatibility

LED

- Color Temperature (CCT) Options: 2700K, 3000K
- Color Rendering Index (CRI) 92
- LED is a chip on board design consisting of a multiple LED package with proximity phosphor coating to create one virtual white light source for a productive "cone of light"

Electrical

Power Connections

- LED connector is a non-screw base luminaire disconnect offering easy installation with the matching Halo 5" H550 Series and 6" H750 and H2750 Series LED housings.
- LED Connector meets high-efficacy luminaire requirements for a non-screw base socket, and where required to qualify as a high-efficacy luminaire. (California Title-24)
- The included E26 medium screw-base Edison adapter provides easy retrofit of incandescent housings (see Housing Compatibility).*

Ground Connection

- Separate grounding cable included on the module for attachment to the housing during installation.

LED Driver

- Dimmable driver is a 120 Volt, high efficiency, electronic power supply providing DC power to the LED.
- Driver meets FCC EMI/RFI Consumer Level limits for use in residential and commercial installations.
- Driver features high power factor, low THD, and has integral thermal protection in the event of over temperature or internal failure.
- Driver mounts externally to the module, allowing future replacement, if needed.

Dimming

- The Halo RA56 LED is designed for dimming capability to 10% in normal operation with standard 120V leading edge (LE) and trailing edge (TE) phase control dimmers.
- The LED module may also dim to 5% nominal using dimmers with low end trim adjustment. (Consult dimmer manufacturer for dimmer details. Note, some dimmers require a neutral in the wallbox.)

Compliance

Labels

- UL/cUL Listed 1598 Luminaire (with listed Halo housings)
- UL Classified (with other housings - see Housing Compatibility)
- UL/cUL Listed for Damp Location
- May be installed in housings in direct contact with air permeable insulation** and combustible material
- IP ingress protection rating
- NFL models: IP35
- VWFL models: IP54

Qualification

- ENERGY STAR® qualified residential and commercial*
- Can be used for State of California Title 24 high efficacy luminaire compliance*
- Can be used for Washington State Energy Code (WSEC) and International Energy Conservation Code (IECC) high efficacy luminaire Compliance

IC (Insulated Ceiling)

Listed UL/cUL 1598 with compatible housings, may be used to meet insulated ceiling** requirements such as:

- Washington State Energy Code (WSEC)
- International Energy Conservation Code (IECC)
- New York State Energy Conservation Construction Code (NY-ECCC)
- State of California Title 24 "Recessed Luminaires in Insulated Ceilings."

Warranty

- Five year limited warranty, consult website for details. www.cooperlighting.com/warranty

*Non-California Product Only

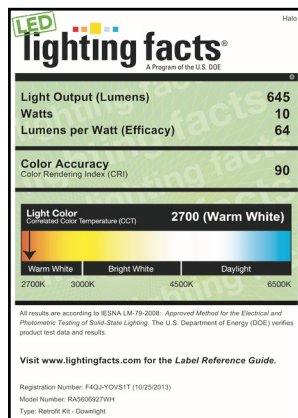
*Qualified and compliant. Refer to ENERGY STAR® Qualified Products List and CEC (T24) Appliance Database for listings.

**Not for use with housings in direct contact with spray foam insulation.

Lighting Facts

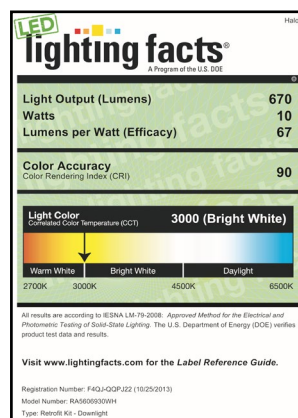
RA5606927WH

2700K Source
VWFL Beam



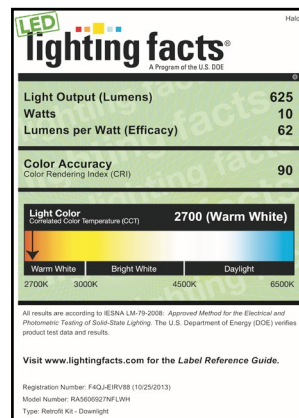
RA5606930WH

3000K Source
VWFL Beam



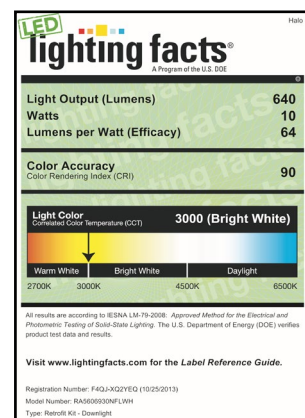
RA5606927NFLWH

2700K Source
NFL Beam



RA5606930NFLWH

3000K Source
NFL Beam



For further information refer to the Lighting Facts website at <http://lightingfacts.com/>.

Photometry

RA5606927WH

Reflector Beam Angle = VWFL Beam
(Very Wide Flood)

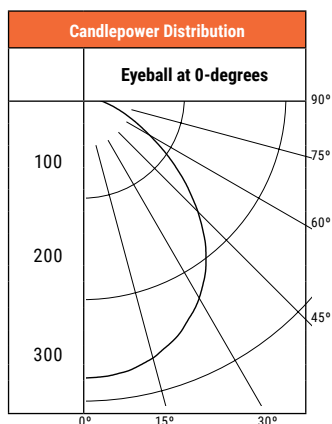
CCT = 2700K

Spacing Criteria = 1.23

Lumens per Watt = 64.5 Lm/W

Test No. P121913

Test Model: RA5606927WH



Cone of Light Footcandles 0 deg Aiming Angle Horizontal Illuminance on Floor			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5'	9.2	6.6	6.6
7'	5.7	8.4	8.4
8'	4.3	9.8	9.8
9'	3.4	11	11
10'	2.8	12.2	12.2

Cone of Light Footcandles 35 deg Aiming Angle Vertical Illuminance on Wall				
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)		CB
		L Length	W Width	
2'	43.7	2.1	2.4	2.9
3'	19.4	3.1	3.8	4.3
4'	10.9	4.1	5	5.7
5'	7	5.2	6.2	7.1
6'	4.9	6.4	7.6	8.6
8'	2.7	8.4	10.2	11.4
10'	1.7	10.7	12.6	14.3

Candela Distribution		Luminance	
Degrees Vertical	Candela	(Average Candela/M ²)	
Degree		Avg. 0° Luminance	
0*	277	45	31342
5	276	55	24818
15	267	65	17873
25	244	75	12507
35	211	85	6032
45	160		
55	103		
65	55		
75	23		
85	4		
90	0		

Zonal Lumen Summary		
Zone	Lumens	% Fixture
0-30	214	33.2
0-40	345	53.5
0-60	560	86.9
0-90	645	100

*CBCP

RA5606930WH

Reflector Beam Angle = VWFL Beam
(Very Wide Flood)

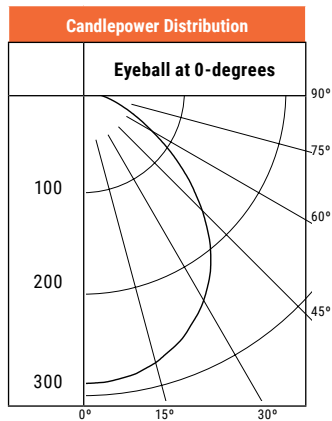
CCT = 3000K

Spacing Criteria = 1.23

Lumens per Watt = 67 Lm/W

Test No. P121915

Test Model: RA5606930WH



Cone of Light Footcandles 0 deg Aiming Angle Horizontal Illuminance on Floor			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5'	9.5	6.6	6.6
7'	5.9	8.4	8.4
8'	4.5	9.8	9.8
9'	3.6	11	11
10'	2.9	12.2	12.2

Cone of Light Footcandles 35 deg Aiming Angle Vertical Illuminance on Wall				
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)		CB
		L Length	W Width	
2'	45.4	2.1	2.4	2.9
3'	20.2	3.1	3.8	4.3
4'	11.3	4.1	5	5.7
5'	7.3	5.2	6.2	7.1
6'	5	6.4	7.6	8.6
8'	2.8	8.4	10.2	11.4
10'	1.8	10.7	12.6	14.3

Candela Distribution		Luminance	
Degrees Vertical	Candela	(Average Candela/M ²)	
Degree		Avg. 0° Luminance	
0*	288	45	32555
5	287	55	25783
15	277	65	18560
25	253	75	12988
35	219	85	6349
45	166		
55	107		
65	57		
75	24		
85	4		
90	0		

Zonal Lumen Summary		
Zone	Lumens	% Fixture
0-30	222	33.2
0-40	358	53.5
0-60	582	86.9
0-90	670	100

*CBCP

Photometry

RA5606927NFLWH

Reflector Beam Angle = NFL Beam
(Narrow Flood)

CCT = 2700K

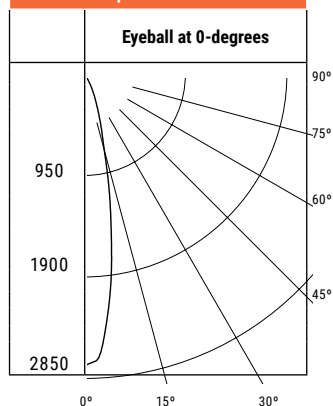
Spacing Criteria = 0.36

Lumens per Watt = 62.5 Lm/W

Test No. P121911

Test Model: RA5606927NFLWH

Candlepower Distribution



Cone of Light Footcandles

0 deg Aiming Angle
Horizontal Illuminance on Floor

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5'	90.3	1.8	1.8
7'	55.8	2.4	2.4
8'	42.7	2.8	2.8
9'	33.7	3.2	3.2
10'	27.3	3.6	3.6

Cone of Light Footcandles

35 deg Aiming Angle
Vertical Illuminance on Wall

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)		CB
		L Length	W Width	
2'	157.4	1.7	1	2.9
3'	70	2.6	1.6	4.3
4'	39.4	3.5	2.2	5.7
5'	25.2	4.4	2.8	7.1
6'	17.5	5.3	3.4	8.6
8'	9.8	7	4.4	11.4
10'	6.3	8.8	5.6	14.3

Candela Distribution

Degrees Vertical	Candela
0*	2732
5	2371
15	740
25	239
35	69
45	27
55	16
65	9
75	3
85	0
90	0

Luminance

(Average Candela/M²)	
Degree	Avg. 0° Luminance
45	4649
55	2981
65	1846
75	828
85	97

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	530	84.7
0-40	576	92.1
0-60	612	97.9
0-90	625	100

*CBCP

RA5606930NFLWH

Reflector Beam Angle = NFL Beam
(Narrow Flood)

CCT = 3000K

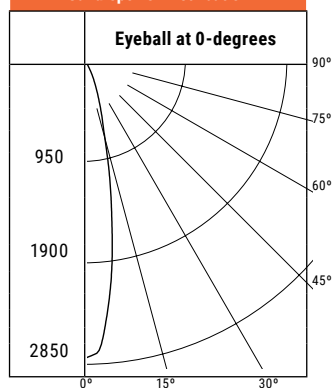
Spacing Criteria = 0.36

Lumens per Watt = 64 Lm/W

Test No. P121912

Test Model: RA5606930NFLWH

Candlepower Distribution



Cone of Light Footcandles

0 deg Aiming Angle
Horizontal Illuminance on Floor

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5'	92.5	1.8	1.8
7'	57.1	2.4	2.4
8'	43.7	2.8	2.8
9'	34.5	3.2	3.2
10'	28	3.6	3.6

Cone of Light Footcandles

35 deg Aiming Angle
Vertical Illuminance on Wall

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)		CB
		L Length	W Width	
2'	161.2	1.7	1	2.9
3'	71.6	2.6	1.6	4.3
4'	40.3	3.5	2.2	5.7
5'	25.8	4.4	2.8	7.1
6'	17.9	5.3	3.4	8.6
8'	10.1	7	4.4	11.4
10'	6.4	8.8	5.6	14.3

Candela Distribution

Degrees Vertical	Candela
0*	2798
5	2428
15	758
25	245
35	70
45	28
55	17
65	9
75	3
85	0
90	0

Luminance

(Average Candela/M²)	
Degree	Avg. 0° Luminance
45	4751
55	3055
65	1909
75	853
85	97

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	542	84.7
0-40	590	92.1
0-60	627	97.9
0-90	640	100

*CBCP

Note: Specifications and Dimensions subject to change without notice.

Visit our web site at www.cooperlighting.comCustomer First Center 1121 Highway 74 South Peachtree City, GA 30269 770.486.4800 FAX 770.486.4801
Cooper Lighting 5925 McLaughlin Rd. Mississauga, Ontario, Canada L5R 1B8 905.507.4000 FAX 905.568.7049

Housings – UL Classified

For retrofit in the following 5" and 6" recessed housings:

Juno®	IC22, IC22R, IC22W, IC22S, IC23, IC23W, IC21, IC21R, IC2, TC2, TC2R, IC20, IC20R, IC25, IC25R, IC25W, IC25S, TC20, TC20R
Capri Lighting	CR1, PR1, QL1, R9ASIC, R5*
Lightolier®	1104ICS*, 1104ICR*, 1104SIC*, 1104SICR*, 1004ICS*, 1004ICR*, 1004SIC*, 1004SICR*
	1104ICX - Requires installation of ML7RAB retrofit adapter band accessory (not included).
Progress® Lighting	P87-AT*, P86TG
Lithonia Lighting®	L7X, L7XP
Thomas® Lighting	PS1, R9ASIC/PS9RM
Prescolite®	IBXS
Commercial Electric™	C7ICA (H3), H18
Elco Lighting®	(HL7ICA) EL7ICA

*Requires replacement of torsion springs with included friction clips (accessory replacement kit: RL56CLIP).

Juno®, Capri Lighting, Lightolier®, Lithonia Lighting®, Thomas® Lighting, Elco Lighting®, Progress® Lighting, Prescolite® and Commercial Electric™ and their product brand names, where identified above, are tradenames or trademarks of each respective company and Cooper Lighting makes no representations on these trademarks.

Energy Data

RA56 Series	Driver-Safety Agency Approvals:
Minimum Starting Temp: -30°C (-22°F)	– UL60950-1 Recognized – LPS output – UL8750 Compliant
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)	
Sound Rating: Class A standards	Maximum IC (Insulated Ceiling) Ambient Continuous Operating Temperature: 25°C (77°F)
Input Voltage: 120V	Maximum Non-IC (NON-Insulated Ceiling) Ambient Continuous Operating Temperature 40°C (104°F)
Power Factor: >0.90	
Input Frequency: 50/60Hz	
THD: <20%	
Input Power: 10W	
Input Current: 85mA	