

FEATURES & SPECIFICATIONS

INTENDED USE — LED downlight for retrofit of installed commercial mounting frames with incandescent, compact fluorescent (CFL), or high intensity discharge (HID) sources.

CONSTRUCTION — Innovative housing design that simultaneously retains and centers the fixture in the existing mounting frame.

See table for compatible ceiling opening and thickness ranges.

All installation can be performed from the room side without removing the existing mounting frame.

OPTICS — LEDs are binned to a 3-step SDCM; 80 CRI minimum. 90 CRI optional.

LED light source concealed with diffusing optical lens.

General illumination lighting with 1.0 S/MH and 55° cutoff to source and source image.

Multiple lumen packages to replace the installed base of CFL or HID sources with energy savings of 50%–80%. See Lumen Equivalency Chart.

Self-flanged anodized reflectors in specular, semi-specular, or matte diffuse finishes. Also available in white and black painted reflectors.

ELECTRICAL — Multi-volt (120–277V, 50/60Hz) eldoLED 0–10V dimming drivers available in 10% or 1% minimum dimming levels.

70% lumen maintenance at 60,000 hours.

LISTINGS — Certified to US and Canadian safety standards. Wet location standard (covered ceiling). IP55 rated.

WARRANTY — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Catalog Number
Notes
Type

LDNRV



Open and Wallwash LED RETROFIT



A+ Capable options indicated by this color background.

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: LDN6RV 35/30 LR6AR LSS MVOLT EZ10

Series	Color temperature	Lumens ¹	Aperture/Trim Color	
LDN4RV 4-5" retrofit	27/ 2700K	05 500 lumens	40 4000 lumens	LR Downlight
LDN6RV 6" retrofit	30/ 3000K	10 1000 lumens	50 5000 lumens	LRW Wallwash
LDN7RV 7" retrofit	35/ 3500K	15 1500 lumens	60 6000 lumens	4 4-5" aperture
LDN8RV 8" retrofit	40/ 4000K	20 2000 lumens	80 8000 lumens	6 6" aperture
LDN9RV 9" retrofit	50/ 5000K	25 2500 lumens	100 10000 lumens	7 7" aperture
LDN10RV 10" retrofit		30 3000 lumens	120 12000 lumens	8 8" aperture
				9 9" aperture
				10 10" aperture
				AR Clear
				WR ² White
				BR ² Black

Finish	Voltage	Driver	Options	
LSS Semi-specular	MVOLT Multi-volt	GZ10 0-10V driver dims to 10%	SF ³ Single Fuse	LH ⁵ Lower overall height
LD Matte diffuse	120 120V	GZ1 0-10V driver dims to 1%	TRW ⁴ White painted flange	NLTAIR2 ^{6,7,8,9} nLight® Air enabled
LS Specular	277 277V	EZ1 eldoLED 1% 0-10V	TRBL ⁴ Black painted flange	NLTAIRER2 ^{6,7,8} nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit
				NLTAIREM2 ^{6,7,8} nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit with battery pack options.
				90CRI High CRI (90+) available with 5000lm and below

Accessories: Order as separate catalog number.	
RK2 SDT 347/120 75VA U	347V step-down transformer mounted in box installed by others up to 5000lm
LDN_RVRGINIFB	Install from below rough-in frame. Fill in the blank with appropriate aperture size (Example: LDN6RVRGIN IFB). Refer to pg. 7
LDN_RVRGIN	New Construction rough-in frame. Fill in blank with appropriate aperture size (Example: LDN6RVRGIN). Refer to pg. 8
nPP16 D EFP ³	nLight network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1).
nPP16 D ER EFP ³	nLight network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1). ER controls fixtures on emergency circuit.
NPS80EZ	nLight® dimming pack controls 0-10V eldoLED drivers (EZ10, EZ10).
NPS80EZER	nLight® dimming pack controls 0-10V eldoLED drivers (EZ10, EZ1). ER controls fixtures on emergency

Notes

- Refer to Available Lumen Package Table for lumen range available per aperture size. 8"-10" trims utilize different trims based on lumen package selected. 5000lm and below supplied with low lumen ("LL") trim; 6000lm and above with high lumen ("HL") trim.
- Not available with finishes.
- Must specify voltage 120V or 277V.
- Available with clear (AR) trim color only.
- Select LH option for lower overall height. Consult table on Page 2 and dimensional drawings.
- Not available with ELV, CP, NPS80EZ, NPS80EZER, NPP16D, NPP16DER or N80 options.
- NLTAIR2, NLTAIRER2 and NLTAIREM2 not recommended for metal ceiling installations.
- NLTAIR2, NLTAIRER2 and NLTAIREM2 refer to nLight AIR Max Lumens Table.
- When combined with EZ1 or EZ10 drivers, can be used as a normal power sensing device for nLight AIR devices and luminaires with EM options

Available Lumen Package Table													
Series	500	1000	1500	2000	2500	3000	4000	5000	6000	8000	10000	12000	
LDN4RV													
LDN6RV													
LDN7RV													
LDN8RV													
LDN9RV													
LDN10RV													
Approx. LED Wattage	8.5W	13W	20W	23W	30W	35W	44W	55W	68W	98W	117W	146W	
Comparable Fluorescent	18W	26W	32W	1/42W 2/26W	2/32W 1/57W	>2/32W	2/42W	2/57W					
Comparable HID					50W	70W			100W	150W	>175W	250W	
Comparable Incandescent	65W BR30	120W BR40	150W A21	200W A21		300W BR40							
Comparable Halogen PAR	50W	75W	90W	100W									

Dimensions*										
Series	Standard Height Max Lumens	Standard Height	LH Height Max Lumens	LH Height	Min Ceiling Opening	Ceiling Thickness at Min Opening	Max Ceiling Opening	Ceiling Thickness at Max Opening	Reflector Aperture	Reflector Flange Diameter
LDN4RV	2000LM	7-1/4"	N/A	N/A	4-7/8"	1/2"-1-1/2"	5-1/8"	1/2"-1-1/2"	4-5/8"	5-3/8"
LDN6RV	3000LM	8-1/4"	1500LM	6-1/2"	6"	1/2" - 2"	6-7/8"	1"-2"	5-1/4"	7-3/16"
LDN7RV	5000LM	8-7/8"	N/A	N/A	6-7/8"	1/2" - 2"	7-3/4"	1"-2"	6-1/4"	8-1/16"
LDN8RV	12,000LM	13 11/16"	5000LM	8-5/8" +	7-7/8"	1/2" - 2"	8-3/4"	3/4"-2"	7"	9-3/16"
LDN9RV	12,000LM	13 11/16"	4000LM	9-1/2"	8-7/8"	1/2" - 2"	9-7/8"	3/4"-2"	8-1/4"	11-7/16"
LDN10RV	12,000LM	13 11/16"	4000LM	9-1/2"	9-3/4"	3/4"-2"	10-3/4"	1"-2"	8-1/4"	11-7/16"

* All dimensions are inches + LH height 9-7/8" for 5000LM +Max ceiling thickness with NLTAIR2 option is 1.5"

NLIGHT AIR MAX LUMENS TABLE		
	Without LH Option	With LH Option
LDN4RV	2000lm	N/A
LDN6RV	3000lm	1500lm
LDN7RV	5000lm	N/A
LDN8RV	5000lm	5000lm
LDN9RV	5000lm	4000lm
LDN10RV	5000lm	4000lm

PHOTOMETRY

Distribution Curve	Distribution Data	Output Data	Coefficient of Utilization	Illuminance Data at 30" Above Floor for a Single Luminaire
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LDN4RV 35/10 LR4AR LS, input watts: 10.58, delivered lumens: 1085.2, LM/W=102.57, Spacing criterion at 0=1.04. ISF 30712P544

Ave Lumens	Zone Lumens % Lamp	pf pc pw	80%			20%			50%			50% beam - 55.6°	10% beam - 78.0°	
			50%	30%	10%	50%	30%	10%	50%	30%	10%			
			0°	30°	60°	0°	30°	60°	0°	30°	60°			
0	1353	0° - 30°	1064.0	73.7	0	119	119	119	116	116	116	111	111	111
5	1382	0° - 40°	1372.4	95.1	1	111	108	106	109	107	105	105	103	101
15	1442	0° - 60°	1443.1	100.0	2	103	99	96	102	98	95	98	95	93
25	1191	0° - 90°	1443.8	100.0	3	96	92	88	95	91	87	92	89	86
35	491	90° - 120°	0.0	0.0	4	90	85	81	89	84	80	87	83	79
45	69	90° - 130°	0.0	0.0	5	85	79	75	84	78	74	82	77	74
55	1	90° - 150°	0.0	0.0	6	79	73	69	79	73	69	77	72	68
65	1	90° - 180°	0.0	0.0	7	75	69	64	74	68	64	73	68	64
75	0	0° - 180°	1443.8	*100.0	8	70	64	60	70	64	60	69	63	60
85	0				9	66	60	56	66	60	56	65	60	56
90	0				10	63	57	53	62	57	53	61	56	53

Mounting Height	Center Beam	Diameter	FC	Diameter	FC
8.0	44.7	5.8	22.4	8.9	4.5
10.0	24.1	7.9	12.0	12.2	2.4
12.0	15.0	10.0	7.5	15.4	1.5
14.0	10.2	12.1	5.1	18.6	1.0
16.0	7.4	14.2	3.7	21.9	0.7

LDN7RV 35/15 LR7AR LS, input watts: 17.52, delivered lumens: 1521.9, LM/W=86.86, Spacing criterion at 0=0.96. ISF 33918P308

Ave Lumens	Zone Lumens % Lamp	pf pc pw	80%			20%			50%			50% beam - 54.5°	10% beam - 82.2°	
			50%	30%	10%	50%	30%	10%	50%	30%	10%			
			0°	30°	60°	0°	30°	60°	0°	30°	60°			
0	2693	0° - 30°	2092.2	69.0	0	119	119	119	116	116	116	111	111	111
5	2782	0° - 40°	2751.0	90.7	1	111	108	106	109	106	104	104	103	101
15	2984	0° - 60°	3030.8	99.9	2	103	99	95	101	97	94	98	95	92
25	2212	0° - 90°	3033.9	100.0	3	96	91	87	94	90	86	92	88	85
35	1014	90° - 120°	0.0	0.0	4	89	84	79	88	83	79	86	81	78
45	339	90° - 130°	0.0	0.0	5	83	77	73	82	77	73	81	76	72
55	4	90° - 150°	0.0	0.0	6	78	72	68	77	72	67	76	71	67
65	2	90° - 180°	0.0	0.0	7	73	67	63	73	67	63	71	66	62
75	1	0° - 180°	3033.9	*100.0	8	69	63	59	68	62	58	67	62	58
85	0				9	65	59	55	64	59	55	63	58	54
90	0				10	61	55	51	61	55	51	60	55	51

Mounting Height	Center Beam	Diameter	FC	Diameter	FC
8.0	89.0	5.7	44.5	9.6	8.9
10.0	47.9	7.7	23.9	13.1	4.8
12.0	29.8	9.8	14.9	16.6	3.0
14.0	20.4	11.8	10.2	20.1	2.0
16.0	14.8	13.9	7.4	23.6	1.5

LDN8RV 35/30 LR8AR LS, input watts: 34.75, delivered lumens: 2641, LM/W=67.36, Spacing criterion at 0=1.18. ISF 192189P104

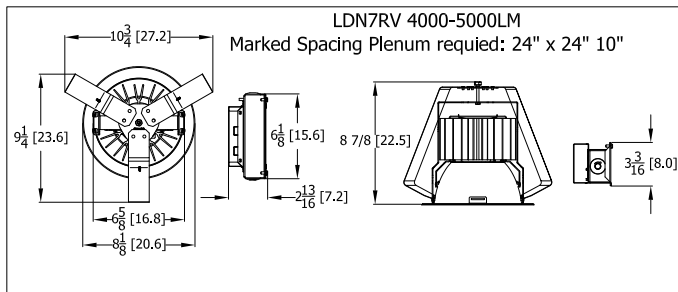
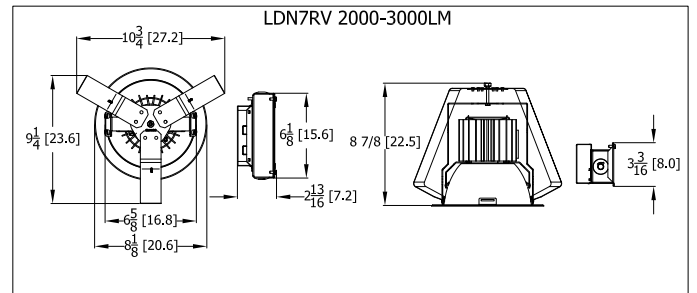
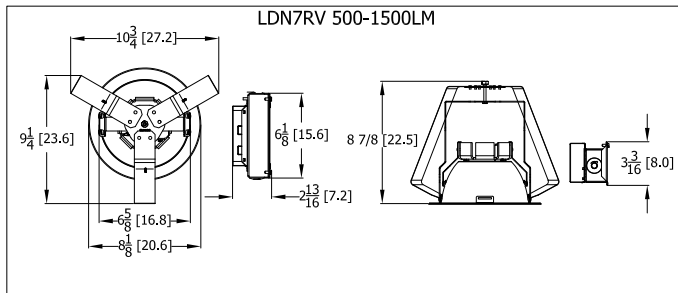
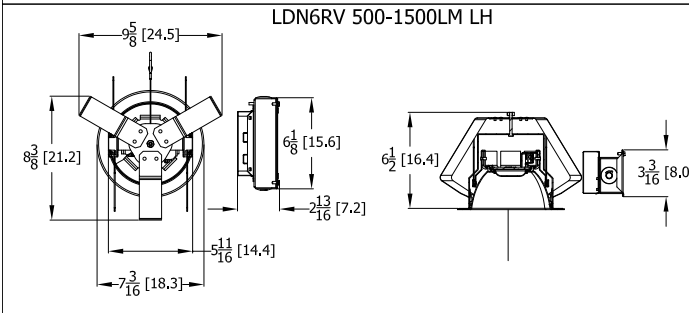
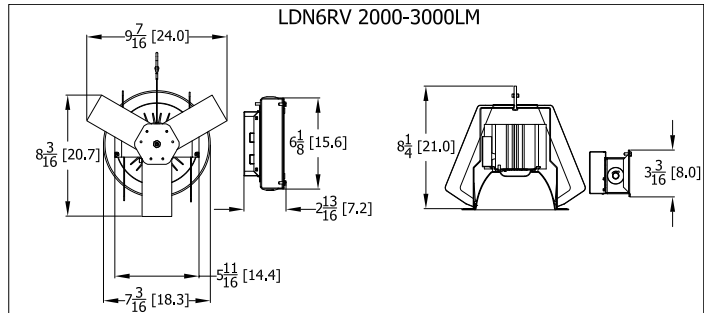
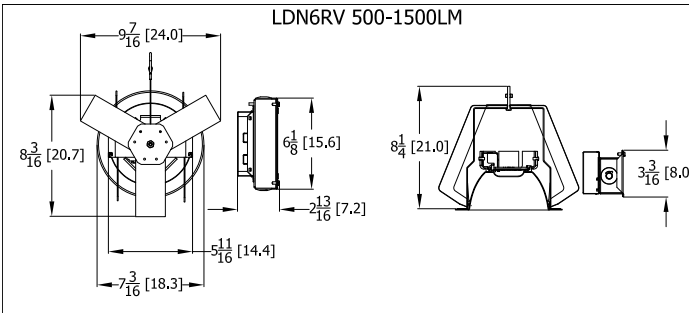
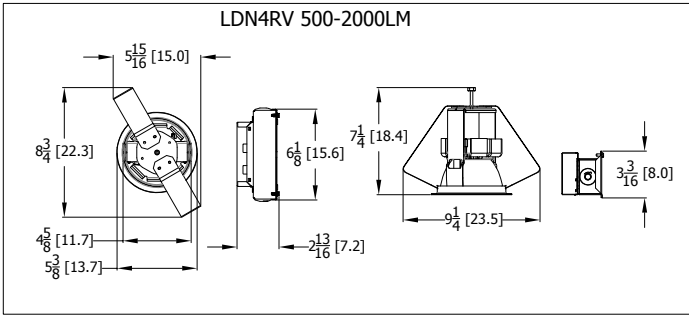
Ave Lumens	Zone Lumens % Lamp	pf pc pw	80%			20%			50%			50% beam - 61.8°	10% beam - 76.6°	
			50%	30%	10%	50%	30%	10%	50%	30%	10%			
			0°	30°	60°	0°	30°	60°	0°	30°	60°			
0	2111	0° - 30°	1965.5	74.4	0	119	119	119	116	116	116	111	111	111
5	2223	0° - 40°	2555.6	96.8	1	111	108	106	109	107	105	105	103	101
15	2701	0° - 60°	2637.1	99.9	2	103	99	96	102	98	95	98	95	93
25	2208	0° - 90°	2640.7	100.0	3	96	92	88	95	91	87	92	89	86
35	927	90° - 120°	0.0	0.0	4	90	85	81	89	84	80	87	83	79
45	58	90° - 130°	0.0	0.0	5	84	79	74	84	78	74	82	77	73
55	17	90° - 150°	0.0	0.0	6	79	73	69	78	73	69	77	72	68
65	2	90° - 180°	0.3	0.0	7	74	69	64	74	68	64	73	68	64
75	1	0° - 180°	2641.0	*100.0	8	70	64	60	70	64	60	68	63	60
85	0				9	66	60	56	66	60	56	65	60	56
90	0				10	62	57	53	62	56	53	61	56	53

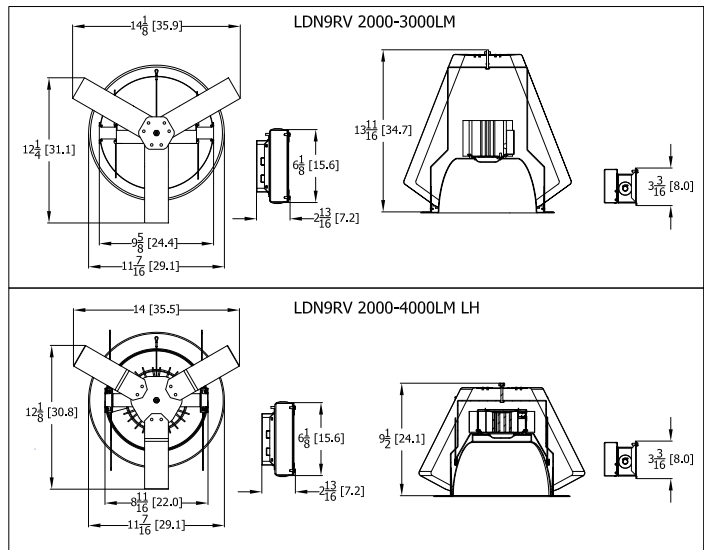
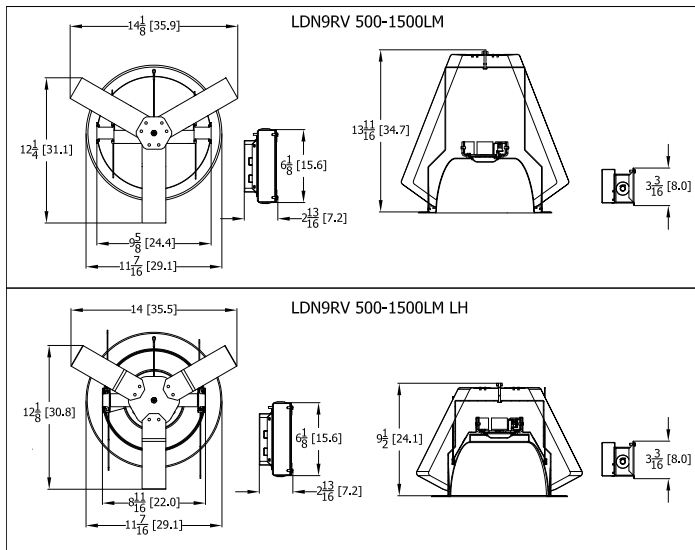
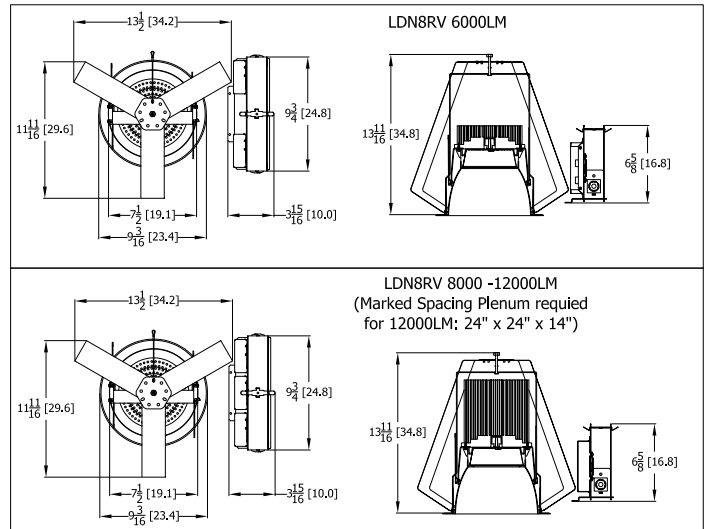
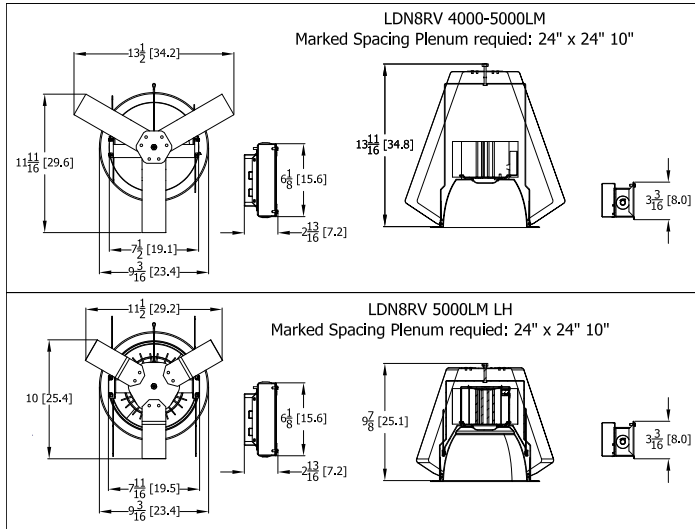
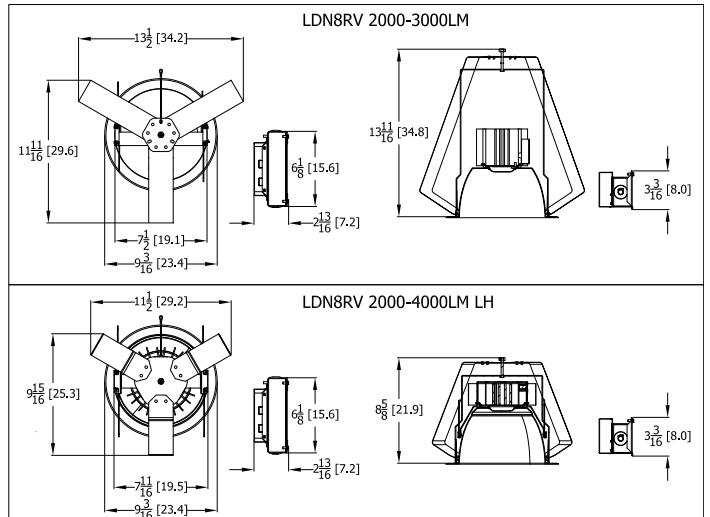
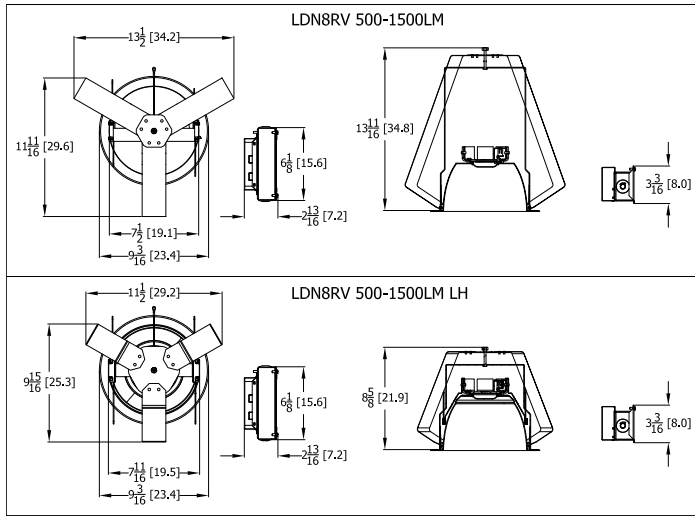
Mounting Height	Center Beam	Diameter	FC	Diameter	FC
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10.0	37.5	9.0	18.8	11.8	3.8
12.0	23.4	11.4	11.7	15.0	2.3
14.0	16.0	13.8	8.0	18.2	1.6
16.0	11.6	16.2	5.8	21.3	1.2

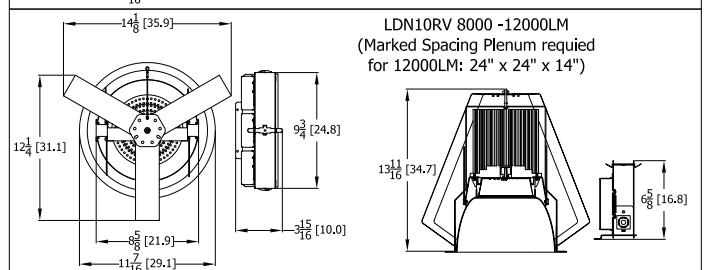
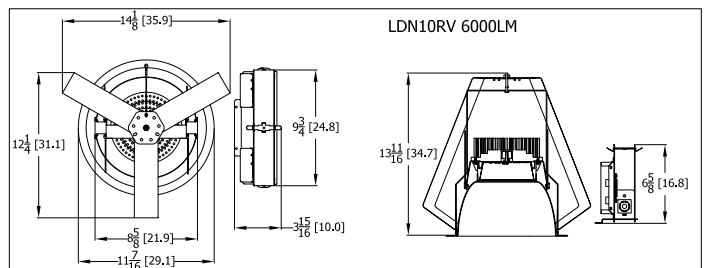
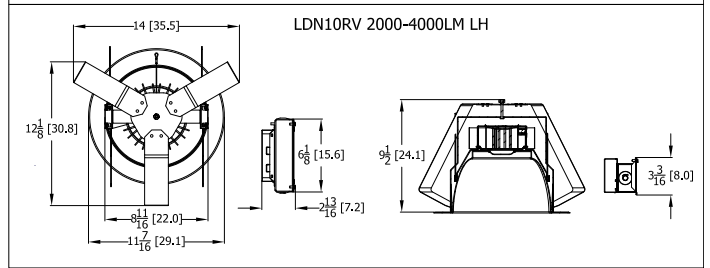
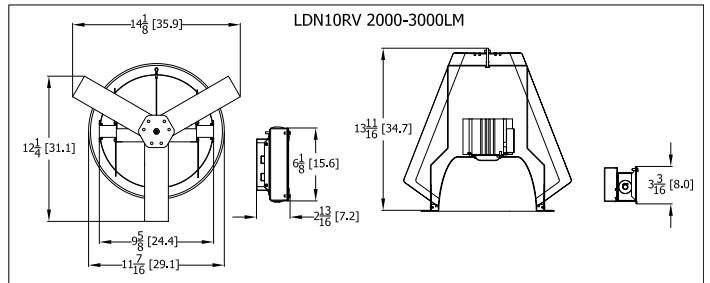
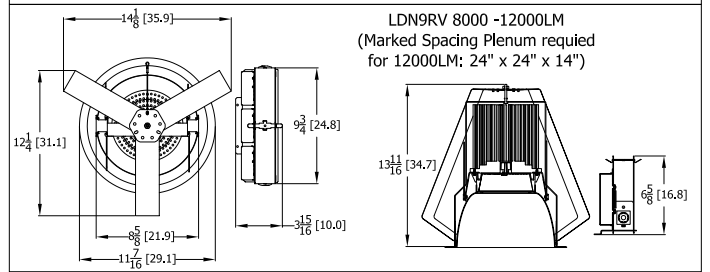
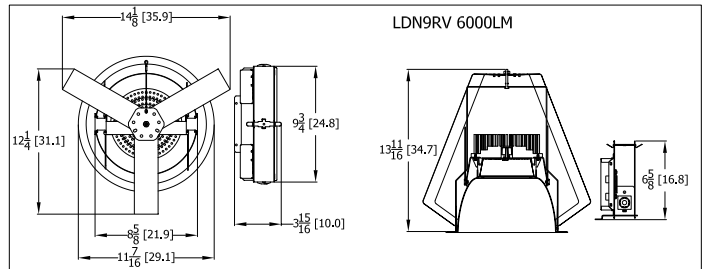
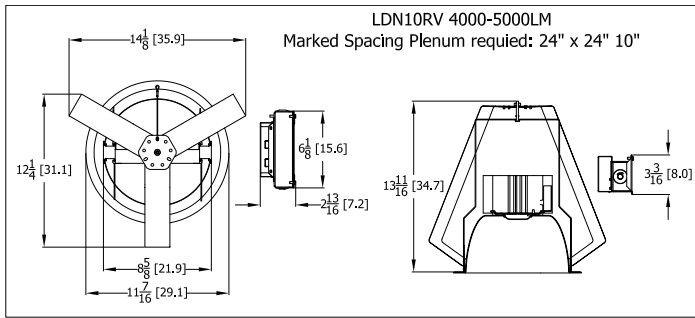
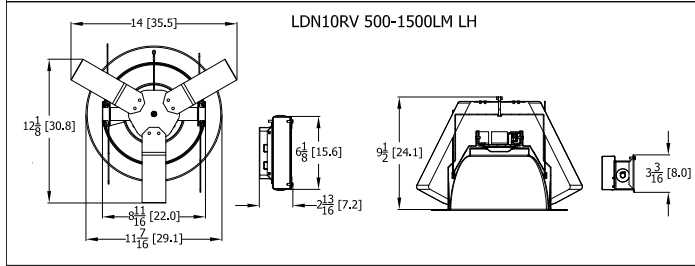
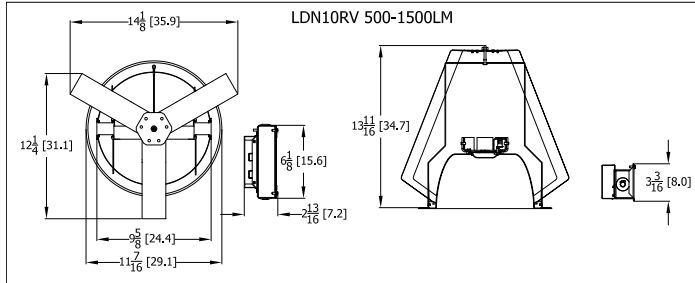
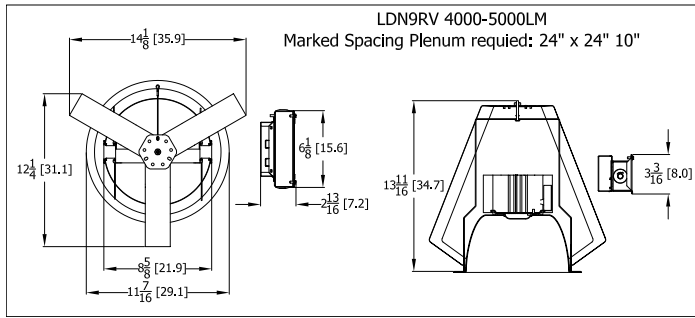
LUMEN OUTPUT MULTIPLIERS - FINISH			
	Clear (AR)	White (WR)	Black (BR)
Specular (LS)	1.0	N/A	N/A
Semi-specular (LSS)	0.950	N/A	N/A
Matte diffuse (LD)	0.85	N/A	N/A
Painted	N/A	0.87	0.73

LUMEN OUTPUT MULTIPLIERS - CCT				
	2700K	3000K	3500K	4000K
80CRI	0.950	0.966	1.000	1.025

LDN4RV







SPECIFICATIONS FOR LDN RVRGIN IFB

		4" FRAME	6, 7" FRAME *	8" FRAME	9, 10" FRAME
		LDN4RVRGIN IFB	LDN6RVRGIN IFB	LDN8RVRGIN IFB	LDN9/10RVRGIN IFB
LENGTH	A	11 1/16 (28.2)	14 (35.6)	14 (35.6)	15 3/8 (39.0)
WIDTH	B	7 9/16 (19.3)	11 9/32 (28.7)	11 9/16 (29.4)	15 1/2 (39.2)
CEILING CUTOUT (MIN)	C	5 1/8 (13.1)	7 1/8 (18.1)	8 7/8 (22.5)	10 1/2 (26.7)
CEILING CUTOUT (MAX)	D	5 1/4 (13.3)	7 1/4 (18.4)	9 (22.9)	10 5/8 (27.0)

ALL DIMENSIONS ARE INCHES (CENTIMETER) UNLESS OTHERWISE INDICATED.

LDN6/7/8/9/10RVRGIN IFB

LDN4RVRGIN IFB
W/D J-BOX

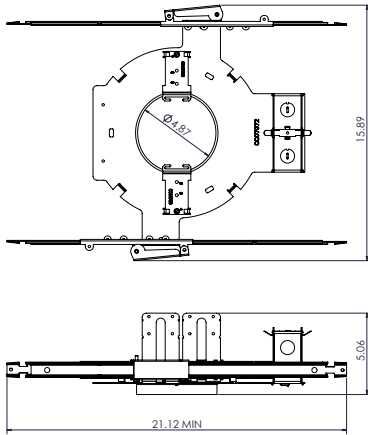
SPECIFICATIONS					
		4" FRAME	6", 7" FRAME*	8" FRAME	9", 10" FRAME
LENGTH	A	11 1/16 (28.2)	14 (35.6)	14 (35.6)	15 3/8 (39.0)
WIDTH	B	7 9/16 (19.3)	11 9/32 (28.7)	11 9/16 (29.4)	15 1/2 (39.2)
CEILING CUTOUT (MIN)	C	5 1/8 (13.1)	7 1/8 (18.1)	8 7/8 (22.5)	10 1/2 (26.7)
CEILING CUTOUT (MAX)	C	5 1/4 (13.3)	7 1/4 (18.4)	9 (22.9)	10 5/8 (27.0)

ALL DIMENSION ARE INCHES (CENTIMETER) UNLESS OTHERWISE INDICATED.

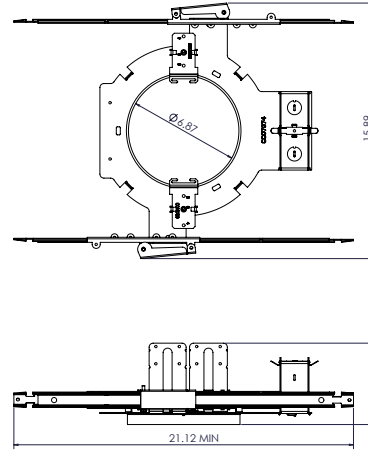
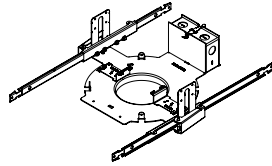
* 6" Frame only works XF option trims

SPECIFICATIONS FOR LDN RVRGIN					
		4" FRAME	6, 7" FRAME *	8" FRAME	9, 10" FRAME
		LDN4RVRGIN	LDN6RVRGIN	LDN8RVRGIN	LDN9/10RVRGIN
LENGTH	A	21 1/8 (53.6)	21 1/8 (53.6)	21 1/8 (53.6)	21 1/8 (53.6)
WIDTH	B	15 7/8 (40.4)	15 7/8 (40.4)	15 7/8 (40.4)	17 1/4 (43.8)
CEILING CUTOUT (MIN)	C	5 1/8 (13.1)	7 1/8 (18.1)	8 7/8 (22.5)	10 1/2 (26.7)
CEILING CUTOUT (MAX)	D	5 1/4 (13.3)	7 1/4 (18.4)	9 (22.9)	10 5/8 (27.0)

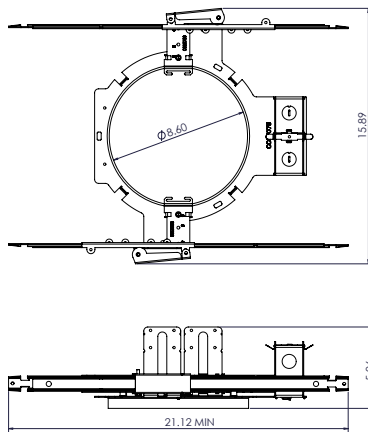
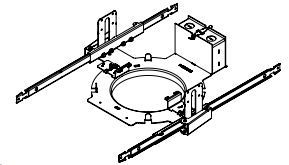
ALL DIMENSIONS ARE INCHES (CENTIMETER) UNLESS OTHERWISE INDICATED.



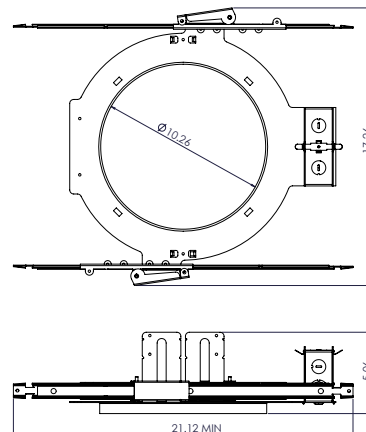
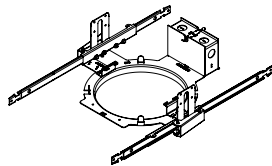
LDN4RVRGIN



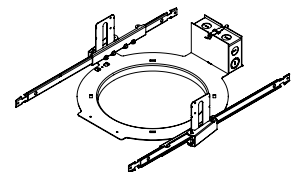
LDN6/7RVRGIN



LDN8RVRGIN



LDN9/10RVRGIN



Choose Wall Controls.

nLIGHT offers multiple styles of wall controls – each with varying features and user experience.



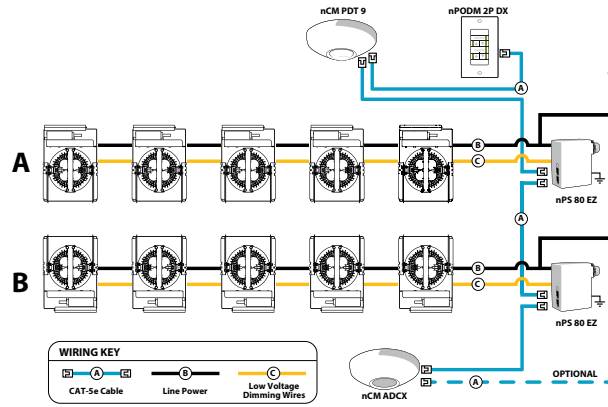
Push-Button WallPod
Traditional tactile buttons and LED user feedback



Touch WallPod
Contemporary capacitive touch style buttons with audible clicker for user feedback



Graphic WallPod
Full color touch screen provides a sophisticated look and feel



EXAMPLE

Group Fixture Control*

*Application diagram applies for fixtures with eldoLED drivers only.

- nPS 80 EZ** Dimming/Control Pack (qty 2 required)
- nPODM 2P DX** Dual On/Off/Dim Push-Button WallPod
- nCM ADCX** Daylight Sensor with Automatic Dimming Control
- nCM PDT 9** Dual Technology Occupancy Sensor

Description: This design provides a dual on/off/dim wall station that enables manual control of the fixtures in Row A and Row B separately. Additionally, a daylight harvesting sensor is provided so the lights in row B can be configured to dim automatically when daylight is available. An occupancy sensor turns off all lights when the space is vacant.

nLight® AIR Control Accessories:

Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlightair.

Wall switches	Model number
On/Off single pole	rPODB [color]
On/Off two pole	rPODB 2P [color]
On/Off & raise/lower single pole	rPODB DX [color]
On/Off & raise/lower two pole	rPODB 2P DX [color]
On/Off & raise/lower single pole	rPODBZ DX WH ¹

Notes

- 1 Can only be ordered with the RES7Z zone control sensor version.

UL924 Sequence of Operation

The below information applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the CLAIRITY+ mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only non-emergency rPP20, rLSXR, rSBOR, rSDGR, and nLight AIR luminaires with version 3.4 or later firmware can provide normal power sensing for EM devices. See specification sheets for control devices and luminaires for more information on options that support normal power sensing.

nLight AIR

nLight AIR is the ideal solution for retrofit or new construction spaces where adding communication is cost prohibitive. The Lithonia LDNRV is available with the nLight AIR rPP20 Power Pack. These individually addressable controls offer the ultimate in flexibility during initial setup and for space repurposing.



Simple as 1,2,3

1. Install the nLight® AIR fixtures with nLight AIR rPP20
2. Install the wireless battery-powered wall switch
3. With CLAIRITY+ app, pair the fixtures with the wall switch and if desired, add a separate occupancy sensor in the space for additional control capabilities and energy savings



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details