

## FEATURES & SPECIFICATIONS

**INTENDED USE** — Typical applications include corridors, lobbies.

**CONSTRUCTION** — Galvanized steel mounting/plaster frame; galvanized steel junction box with bottom-hinged access covers and spring latches.

Vertically adjustable mounting brackets with commercial bar hangers provide 3-3/4" total adjustment. C-channel T-bar fastener options available.

Two combination 1/2"-3/4" and four 1/2" knockouts for straight-through conduit runs. Capacity: 8 (4 in, 4 out). No. 12 AWG conductors, rated for 90°C.

Accommodates 12"-24" joist spacing

Passive cooling thermal management; light engine and drivers are accessible from above or below ceiling  
Max ceiling thickness 1-1/2"

**OPTICS** — 3 SDCM; 80 CRI typical

Diffusing lens covers optical chamber

General illumination 1.0 S/MH

55° cutoff to source and source image

Self-flanged anodized reflectors in specular, semi-specular, or matte diffuse finishes.

**ELECTRICAL** — Multi-volt 0-10V dimming available.

0-10V dimming drivers mounted to junction box, 10% or 1% minimum dimming level

0-10V dimming fixture requires two (2) additional low-voltage wires to be pulled

70% lumen maintenance at 50,000 hours

**LISTINGS** — Certified to US and Canadian safety standards. Damp location standard (wet location, covered ceiling optional).

**WARRANTY** — 5-year limited warranty. Complete warranty terms located at:

[www.acuitybrands.com/CustomerResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx)

**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

# LDN8

**8" OPEN  
Non-IC  
New Construction  
Downlight**



A+ Capable options indicated by this color background.

### ORDERING INFORMATION

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

**Example:** LDN8 35/50 L08AR LSS MVOLT EZ1

LDN8		Color temperature		Lumens		Aperture/Trim Color			Finish		Voltage				
LDN8	8" round	27/	2700K	50	5000 lumens	120	12000 lumens	L08	Downlight	AR	Clear	LSS	Semi-specular	MVOLT	Multi-volt
		30/	3000K	60	6000 lumens	150	15000 lumens	LW8	Wallwash	WR <sup>2</sup>	White	LD	Matte diffuse	120	120V
		35/	3500K	80	8000 lumens	200	20000 lumens			BR <sup>2</sup>	Black	LS	Specular	277	277V
		40/	4000K	100	10000 lumens									347 <sup>3</sup>	347V

Driver	Options					
GZ10 0-10V driver dims to 10%	SF <sup>4</sup>	Single fuse	ELRSD	Emergency battery pack with self-diagnostics, remote test switch. Not Certified in CA Title 20 MAEDBS	N80 <sup>7</sup>	nLight™ Lumen Compensation
GZ1 0-10V driver dims to 1%	TRW <sup>5</sup>	White painted flange			NPS80EZ <sup>6</sup>	nLight® dimming pack controls 0-10V eldoLED drivers (EZ10, EZ1).
EZ10 0-10V eldoLED driver with smooth and flicker-free deep dimming performance down to 10%	TRBL <sup>6</sup>	Black painted flange	E10WCP	Emergency battery pack, 10W Constant Power with integral test switch. Certified in CA Title 20 MAEDB	NPS80EZER <sup>6</sup>	nLight® dimming pack controls 0-10V eldoLED drivers (EZ10, EZ1). ER controls fixtures on emergency circuit.
EZ1 0-10V eldoLED driver with smooth and flicker-free deep dimming performance down to 1%	EL	Emergency battery pack with integral test switch. Not Certified in CA Title 20 MAEDBS	E10WCPR	Emergency battery pack, 10W Constant Power with integral test switch. Certified in CA Title 20 MAEDB	WL	Wet location, specify for exterior applications
	ELR	Emergency battery pack with remote test switch. Not Certified in CA Title 20 MAEDBS	NPP16D <sup>6</sup>	nLight® network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1).	RRL___	Reloc <sup>®</sup> -ready
	ELSD	Emergency battery pack with self-diagnostics, integral test switch. Not Certified in CA Title 20 MAEDBS	NPP16DER <sup>6</sup>	nLight® network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1). ER controls fixtures on emergency circuit.	NLTAIR2 <sup>9</sup>	nLight® Air enabled
					NLTAIRER2 <sup>9</sup>	nLight® AIR Dimming Pack Wire-less Controls. Controls fixtures on emergency circuit, not available with battery pack options

#### Notes

- 347V is 3' x 3' x 6" over top - Marked Spacing for 8000 lumens and above.
- Not available with finishes.
- 347V only available with EZ10 and EZ1 driver options. Supplied with step-down transformer. Not available with emergency options.
- Voltage-specific 120, 277V.
- Only available with AR finish.

- Specify voltage. ER for use with generator supply EM power. Will require an emergency hot feed and normal hot feed.
- Fixture begins at 80% light level. Must be specified with NPS80EZ or NPS80EZ ER. Only available with EZ10 and EZ1 drivers.
- Not available with CP, NPS80EZ, NPS80EZER, NPP16D, NPP16DER or N80 options.
- NLTAIR2 and NLTAIRER2 not recommended for metal ceiling installations.

# LDN8

## PHOTOMETRY

Distribution Curve

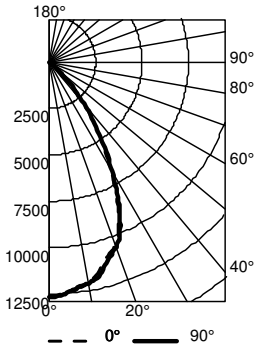
Distribution Data

Output Data

Coefficient of Utilization

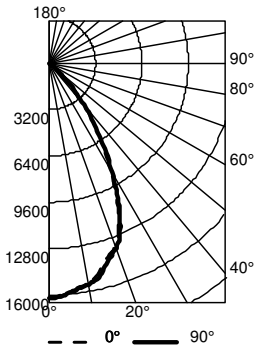
Illuminance Data at 30" Above Floor for a Single Luminaire

**LDN8 35/120 L08AR LS**, INPUT WATTS: 148.6, DELIVERED LUMENS: 12506.4, LM/W = 84.16, TEST NO. ISF 30850P28



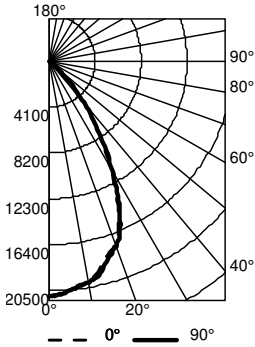
CP Summary		pf	Coefficients of Utilization									Zonal Lumen Summary				
0°	90°		pc	80%			70%			50%			Zone	Lumens	% Lamp	% Fixture
			pw	70%	50%	30%	50%	30%	10%	50%	30%	10%				
0°	12639	12639	0	119	119	119	116	116	116	111	111	111	0° - 30°	8413	67.3	67.3
5°	12358	12418	1	113	111	108	108	106	104	104	103	101	0° - 40°	11338	90.7	90.7
15°	11223	11444	2	108	103	99	101	97	94	98	95	92	0° - 60°	12496	99.9	99.9
25°	8788	8999	3	102	96	90	94	90	86	92	88	84	0° - 90°	12506	100.0	100.0
35°	4493	4731	4	97	89	83	88	83	79	86	81	78	90° - 180°	0	0.0	0.0
45°	1298	1393	5	92	83	77	82	77	72	80	75	72	0° - 180°	12506	100.0	100.0
55°	25	25	6	87	78	72	77	71	67	75	70	67				
65°	6	6	7	82	73	67	72	66	62	71	66	62				
75°	2	2	8	78	68	62	68	62	58	67	61	58				
85°	0	1	9	74	64	58	64	58	54	63	58	54				
90°	0	0	10	71	61	55	60	55	51	59	54	51				

**LDN8 35/150 L08AR LS**, INPUT WATTS: 184.5, DELIVERED LUMENS: 16024.4, LM/W = 86.85, TEST NO. ISF 30850P25



CP Summary		pf	Coefficients of Utilization									Zonal Lumen Summary				
0°	90°		pc	80%			70%			50%			Zone	Lumens	% Lamp	% Fixture
			pw	70%	50%	30%	50%	30%	10%	50%	30%	10%				
0°	16194	16194	0	119	119	119	116	116	116	111	111	111	0° - 30°	10779	67.3	67.3
5°	15834	15911	1	113	111	108	108	106	104	104	103	101	0° - 40°	14527	90.7	90.7
15°	14381	14663	2	108	103	99	101	97	94	98	95	92	0° - 60°	16012	99.9	99.9
25°	11260	11530	3	102	96	90	94	90	86	92	88	84	0° - 90°	16024	100.0	100.0
35°	5757	6062	4	97	89	83	88	83	79	86	81	78	90° - 180°	0	0.0	0.0
45°	1663	1785	5	92	83	77	82	77	72	80	75	72	0° - 180°	16024	100.0	100.0
55°	32	32	6	87	78	72	77	71	67	75	70	67				
65°	8	8	7	82	73	67	72	66	62	71	66	62				
75°	3	3	8	78	68	62	68	62	58	67	61	58				
85°	0	1	9	74	64	58	64	58	54	63	58	54				
90°	0	0	10	71	61	55	60	55	51	59	54	51				

**LDN8 35/200 L08AR LS**, INPUT WATTS: 265.4, DELIVERED LUMENS: 20707.9, LM/W = 78.02, TEST NO. ISF 30850P22.

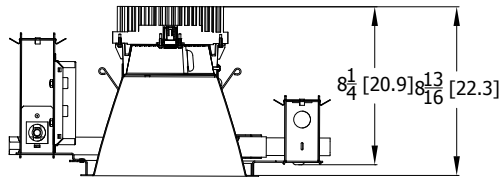
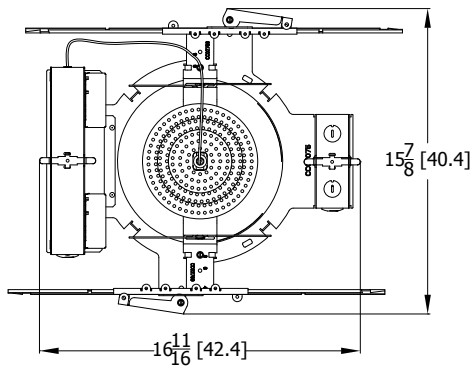


CP Summary		pf	Coefficients of Utilization									Zonal Lumen Summary				
0°	90°		pc	80%			70%			50%			Zone	Lumens	% Lamp	% Fixture
			pw	70%	50%	30%	50%	30%	10%	50%	30%	10%				
0°	20927	20927	0	119	119	119	116	116	116	111	111	111	0° - 30°	13930	67.3	67.3
5°	20462	20561	1	113	111	108	108	106	104	104	103	101	0° - 40°	18773	90.7	90.7
15°	18584	18949	2	108	103	99	101	97	94	98	95	92	0° - 60°	20691	99.9	99.9
25°	14551	14900	3	102	96	90	94	90	86	92	88	84	0° - 90°	20708	100.0	100.0
35°	7440	7834	4	97	89	83	88	83	79	86	81	78	90° - 180°	0	0.0	0.0
45°	2149	2307	5	92	83	77	82	77	72	80	75	72	0° - 180°	20708	100.0	100.0
55°	42	42	6	87	78	72	77	71	67	75	70	67				
65°	10	10	7	82	73	67	72	66	62	71	66	62				
75°	3	3	8	78	68	62	68	62	58	67	61	58				
85°	0	2	9	74	64	58	64	58	54	63	58	54				
90°	0	0	10	71	61	55	60	55	51	59	54	51				

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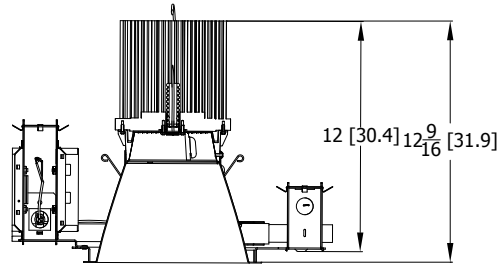
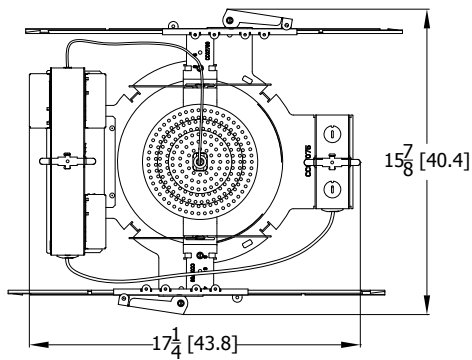
\*All dimensions in inches (centimeters) unless otherwise noted.

## 5000lm-6000lm below



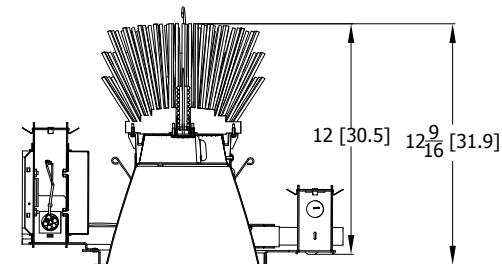
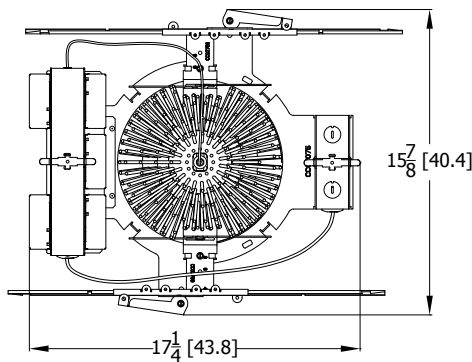
Aperture:  $8 \frac{5}{8}$  (21.9)  
Ceiling Opening:  $8 \frac{3}{4}$  (22.2)

## 8000lm-12,000lm below



Aperture:  $8 \frac{5}{8}$  (21.9)  
Ceiling Opening:  $8 \frac{3}{4}$  (22.2)

## 15,000lm-20,000lm below



Aperture:  $8 \frac{5}{8}$  (21.9)  
Ceiling Opening:  $8 \frac{3}{4}$  (22.2)  
L 36"x W 36"x H18" marked spacing

### Notes

- Tested in accordance with IESNA LM-79-08.
- Tested to current IES and NEMA standards under stabilized laboratory conditions.
- CRI: 80 typical.

## ADDITIONAL DATA

COMPATIBLE 0-10V AND LINE VOLTAGE DIMMERS		
MANUFACTURER	PART NO.	CONTROL DEVICE DIM CURVE
Synergy®	ISD 400 ELV 120	Logarithmic
	ISD 600 I 120	Logarithmic
	ISD 1000 I 120	Logarithmic
Leviton®	IllumaTech-IPE04	Logarithmic
	IllumaTech-IPI06	Logarithmic
	IllumaTech-IPI10	Logarithmic
	IllumaTech-IPL06-10	Logarithmic
	Sureslide 6633-P 600-watt 3-way	Linear
	Sureslide 6674-P 600-watt single pole	Linear
	Sureslide 6674-P 600-watt 3-way	Linear

WATTAGE CONSUMPTION MATRIX			
Nominal Lumens @ 3500K	Delivered Lumens	Wattage	LPW
5000	5353	61.1	87.6
6000	6138	73	84.1
8000	8520	92.1	92.5
10000	10582	118.83	89.1
12000	12506	148.7	84.1
15000	16025	184.5	86.9
20000	20707	265.4	78.0

## HOW TO ESTIMATE DELIVERED LUMENS IN EMERGENCY MODE

Use the formula below to estimate the delivered lumens in emergency mode

$$\text{Delivered Lumens} = 1.25 \times P \times \text{LPW}$$

P = Output power of emergency driver. P = 10W for PS1055CP

LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet.

The LPW rating is also available at [Designlight Consortium](http://Designlight Consortium).



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](http://www.acuitybrands.com/aplus).

\*See ordering tree for details

# LDN8

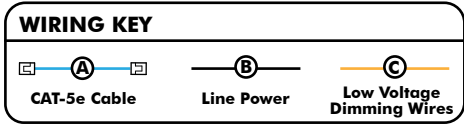
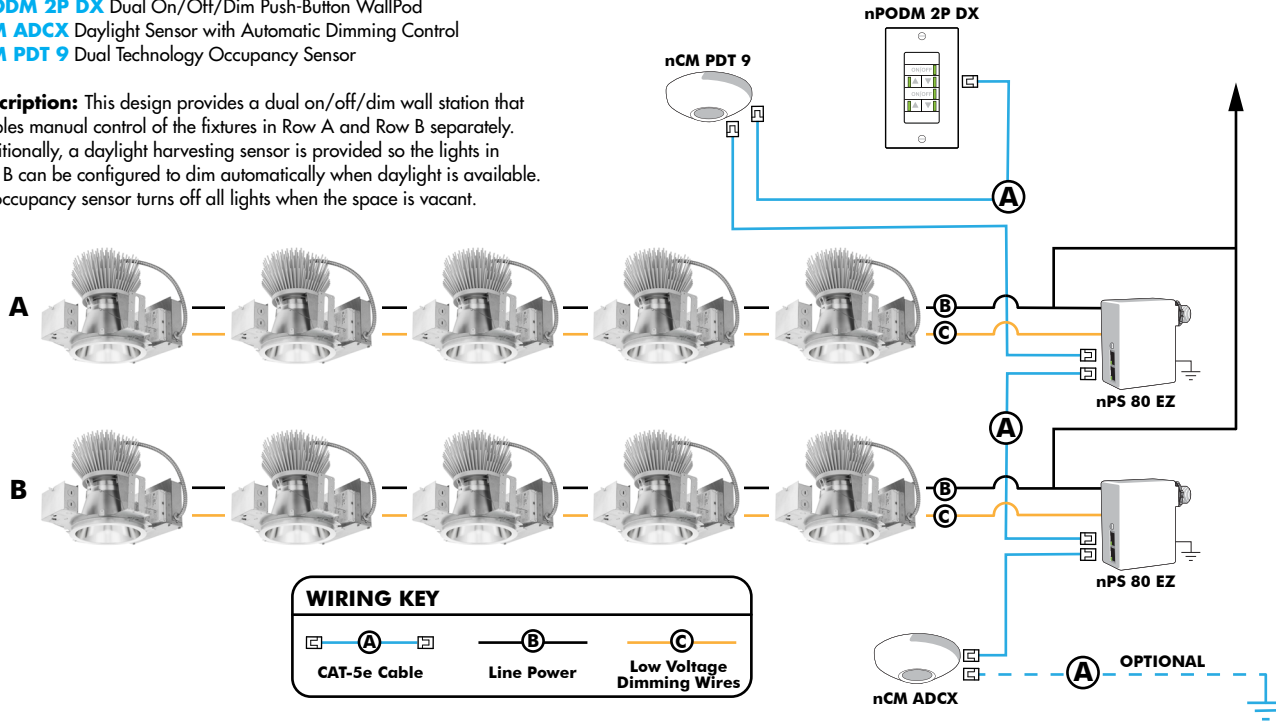
## EXAMPLE

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.



## 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



**Graphic Wallpod**  
Full color touch screen provides a sophisticated look and feel

## nLight® Wired Controls Accessories:

Order as separate catalog number. Visit [www.acuitybrands.com/products/controls/nlight](http://www.acuitybrands.com/products/controls/nlight) for complete listing of nLight controls.

WallPod Stations	Model number	Occupancy sensors	Model Number
On/Off	nPODM (Color)	Small motion 360°, ceiling (PIR/dual Tech)	nCM 9 / nCM PDT 9
On/Off & Raise/Lower	nPOD DX (Color)	Large motion 360°, ceiling (PIR/dual tech)	nCM 10 / nCM PDT 10
Graphic Touchscreen	nPOD GFX (Color)	Wide View (PIR/dual tech)	nWV 16 / nWV PDT 16
<b>Photocell controls</b>	<b>Model Number</b>	Wall Switch w/ Raise/Lower (PIR/dual tech)	nWSX LV DX / nWSX PDT LV DX
Dimming	nCM ADCX	<b>Cat-5 cables (plenum rated)</b>	<b>Model Number</b>
		10', CAT5 10FT	CAT5 10FT J1
		15', CAT5 15FT	CAT5 15FT J1

## nLight AIR

nLight AIR is the ideal solution for retrofit or new construction spaces where adding communication is cost prohibitive. The integrated nLight AIR rPP20 Power Pack is part of each Lithonia LDN Luminaire. 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 embedded smart sensor
2. Install the wireless battery-powered wall switch
3. With CLAIRITY app, pair the fixtures with the wall switch and if desired, customize the sensor settings for the desired outcome



**nLight® AIR Control Accessories:**  
Order as separate catalog number. Visit [www.acuitybrands.com/products/controls/nlightair](http://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 <sup>1</sup>

## Notes

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