LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

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 ½"-3/4" and four ½" 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 — LEDs are binned to a 3-step MacAdam Ellipse; 80 CRI minimum.

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.

UGR — UGR is zero for fixtures aimed at nadir with a cut-off equal to or less than 60deg, per CIE 117-1996 Discomfort Glare in Interior Lighting.

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

LUMEN MAINTENANCE — 70% lumen maintenance at 50,000 hours

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

GOVERNMENT PROCUREMENT — BAA – Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations.

BABA – Build America Buy America: Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act.

Please refer to www.acuitybrands.com/buy-american for additional information.

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.

LDN8 STATIC WHITE

8" Open and Wallwash LED
Non-IC
New Construction
Downlight

PERFORMANCE DATA

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

Polar Candela Distribution
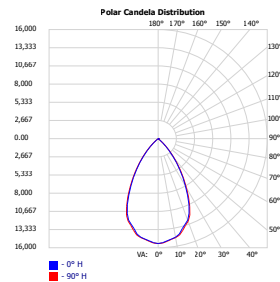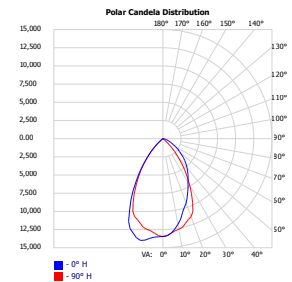
Open

Wallwash

DIMENSIONS

5000lm-6000lm below

15 7/8 [40.4]

8 1/4 [20.9] 8 13/16 [22.3]

16 11/16 [42.4]
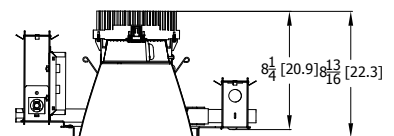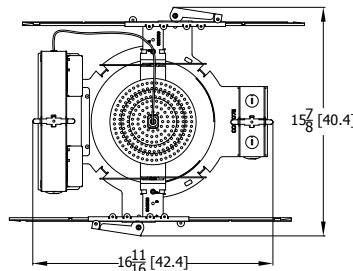
Aperture: 8 8/8 (21.9)
Ceiling Opening: 8 3/4 (22.2)

See page 4 for other fixture dimensions

CERTIFIED IN TITLE 20 battery pack

2016 PROGRESS Report SELECTION

nLIGHT

DIMMABLE LED

LOW UGR

BAA

BABA

WET LOCATION™

LDN8

ORDERING INFORMATION   Lead times will vary depending on options selected. Consult with your sales representative.   **Example:** LDN8 35/50 LO8 AR LSS MVOLT EZ1

LDN8

Series	Color temperature		Lumens		Trim Style		Trim Color		Trim Finish		Flange Color ‡		Voltage	
LDN8 8" round	27/	2700K	50	5000 lumens	LO8	Downlight	AR	Clear	LSS	Semi-specular	TRW	White painted flange	MVOLT	Multi-volt
	30/	3000K	60	6000 lumens	LW8	Wallwash	WR ‡	White	LD	Matte diffuse	TRBL	Black painted flange	120	120V
	35/	3500K	80	8000 lumens			BR ‡	Black	LS	Specular	FCPC	Custom painted flange only	277	277V
	40/	4000K	100	10000 lumens			TCPC ‡	Custom painted trim			FRALTBD	RAL painted flange only	347 ‡	347V
			120	12000 lumens			TRALTBD ‡	RAL painted trim						
			150	15000 lumens										
			200	20000 lumens										

Driver		Emergency ‡		Control Input ‡		Options	
GZ10	0-10V driver dims to 10%	(blank)	No Emergency Needed	(blank)	No Control Input Needed	HAO ‡	High ambient option (40°C)
GZ1	0-10V driver dims to 1%	EL	Battery pack (10W constant power), non-T20 compliant, integral test switch	JOT	Wireless room control with "Just One Touch" pairing	CP ‡	Chicago Plenum
EZ1	0-10V eldoLED driver with smooth and flicker-free deep dimming performance down to 1%	ELR	Battery pack (10W constant power), non-T20 compliant, remote test switch	NPP16D	nLight® network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1).	RRL__	RELOC®-ready luminaire connectors enable a simple and consistent factory installed option across all ABL luminaire brands. Refer to RRL for complete nomenclature. Available only in RRLA, RRLB, RRLAE, and RRLC12S.
		ELSD	Self-diagnostic battery pack (10W constant power), non-T20 compliant, integral test switch	NPP16DER	nLight® network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1). ER controls fixtures on emergency circuit.		
		ELRSD	Self-diagnostic battery pack (10W constant power), non-T20 compliant, remote test switch	NPS80EZ	nLight® dimming pack controls 0-10V eldoLED drivers (EZ1).	BAA	Buy America(n) Act and/or Build America Buy America Qualified
		E10WCP	Battery pack (10W constant power), T20 compliant, integral test switch	NPS80EZER	nLight® dimming pack controls 0-10V eldoLED drivers (EZ1). ER controls fixtures on emergency circuit.	90CRI	High CRI (90+)
		E10WCPR	Battery pack (10W constant power), T20 compliant, remote test switch	N80	nLight™ Lumen Compensation	SF ‡	Single fuse
		E10WRSTAR	Emergency battery pack, 10W with remote test switch and Iota STAR technology	NLTAIR2	nLight® Air enabled		
				NLTAIRER2	nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit, not available with battery pack options		
				NLTAIREM2	nLight® AIR Dimming Pack Wireless Controls. UL924 Emergency Operation, via power interrupt detection. Available with battery pack options.		

‡ Option Value Ordering Restrictions	
Option value	**Restriction**
LDN8	Marked Spacing for 8000 lumens and above.
WR, BR	Not available with finishes.
347V	347V is 3' x 3' x 6" overhead marked spacing. 347V only available with EZ1 driver options. Supplied with step-down transformer. Not available with emergency options.
SF	Voltage-specific 120, 277V.
TRW, TRBL	Only available with AR finish.
NPP16D, NPP16DER, NPS80EZ, NPS80EZER	specify voltage. ER for use with generator supply EM power. Will require an emergency hot feed and normal hot feed. See UL 924 Sequence of Operation table.
N80	Fixture begins at 80% light level. Must be specified with NPS80EZ or NPS80EZ ER. Only available with EZ1 drivers.
NLTAIR2, NLTAIRER2	Not available with CP, NPS80EZ, NPS80EZER, NPP16D, NPP16DER or N80 options. Not recommended for metal ceiling installations.
Reloc® Options	Refer to RRL specification sheet on acuitybrands.com for further details.
RRLAE	Commercial fixtures should disconnect the TSPL before unplugging the RRL so it does not go into discharge mode.
RRLC12S	RRLC12S option is to be used with the OnePass OCU, OCS, OD, OFC and OD for 0-24V integrated single-circuit or 0-10V low voltage controls applications. Not available with integral dimming sensors.
TRALTBD, FRALTBD	RALTBD for pricing only. Replace with applicable RAL number and finish when ready to order. See the RAL BROCHURE for available color options.
TCPC, FCPC	CPC options for pricing only. Custom color chip needs to be sent in to your Customer Resolution specialist before order can be processed. Click HERE for more details

Accessories: *Order as separate catalog number.*	
EAC ISSM 375	Compact interruptible emergency AC power system
EAC ISSM 125	Compact interruptible emergency AC power system
GRA810 JZ	Oversized trim ring with 10" outside diameter
SCA8	Sloped Ceiling Adapter. Degree of slope must be specified (5D, 10D, 15D, 20D, 25D, 30D). Ex: SCA8 10D.

LITHONIA LIGHTING®

Emergency Battery Pack Options - Field Installable

Battery Model Number	Wattage	Runtime (Minutes)	Lumen Output* @ 120 Lumens/Watt	Other
ILB CP07 2H A	7W	120	840	Storm Shelter / 2 Hour Runtime
ILB CP10 A	10W	90	1200	
ILBLP CP10 HE SD A+	10W	90	1200	Title 20, Self Diagnostic
ILBLP CP15 HE SD A+	15W	90	1800	Title 20, Self Diagnostic
ILB CP20 HE A	20W	90	2400	Title 20
ILB CP20 HE SD A	20W	90	2400	Title 20, Self Diagnostic
ILBHI CP10 HE SD A+	10W	90	1200	347-480V AC Input, Title 20, Self Diagnostic
ILBHI CP15 HE SD A+	15W	90	1800	347-480V AC Input, Title 20, Self Diagnostic

All the above are UL Listed products that are certified for field install external/remote to the fixture.

*Minimum delivered lumen output to assist in product selection for increased fixture mounting height.

The CP10 delivered emergency illumination outperforms legacy 1400 lumen fluorescent emergency ballast.

Please contact us at techsupport@iotaengineering.com for any Emergency Battery related questions.
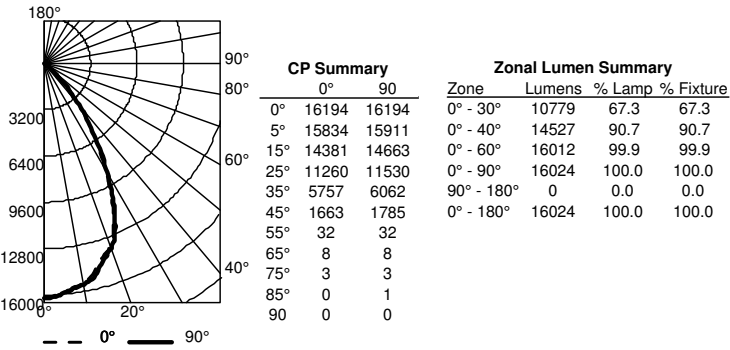
LITHONIA LIGHTING®

DOWNLIGHTING: One Lithonia Way Conyers, GA 30012   Phone: 800.705.SERV(7378)   www.lithonia.com

PHOTOMETRY

Distribution Curve	Distribution Data	Output Data	Illuminance Data at 30" Above Floor for a Single Luminaire

LDN8 35/120 LO8AR LS, INPUT WATTS: 148.6, DELIVERED LUMENS: 12506.4, LM/W = 84.16, TEST NO. ISF 30850P28

CP Summary

	0°	90
0°	12639	12639
5°	12358	12418
15°	11223	11444
25°	8788	8999
35°	4493	4731
45°	1298	1393
55°	25	25
65°	6	6
75°	2	2
85°	0	1
90	0	0

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	8413	67.3	67.3
0° - 40°	11338	90.7	90.7
0° - 60°	12496	99.9	99.9
0° - 90°	12506	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	12506	100.0	100.0
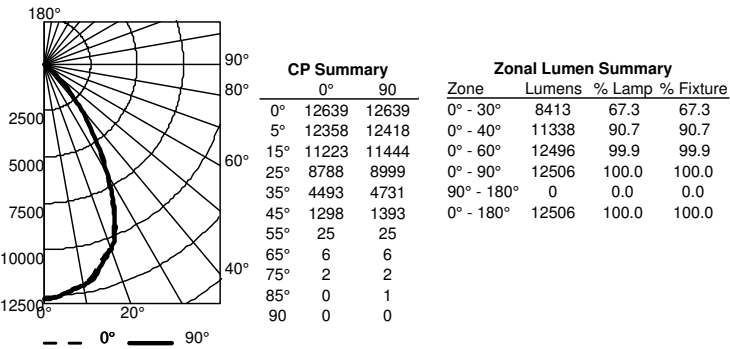
LDN8 35/150 LO8AR LS, INPUT WATTS: 184.5, DELIVERED LUMENS: 16024.4, LM/W = 86.85, TEST NO. ISF 30850P25

CP Summary

	0°	90
0°	16194	16194
5°	15834	15911
15°	14381	14663
25°	11260	11530
35°	5757	6062
45°	1663	1785
55°	32	32
65°	8	8
75°	3	3
85°	0	1
90	0	0

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	10779	67.3	67.3
0° - 40°	14527	90.7	90.7
0° - 60°	16012	99.9	99.9
0° - 90°	16024	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	16024	100.0	100.0

LDN8 35/200 LO8AR LS, INPUT WATTS: 265.4, DELIVERED LUMENS: 20707.9, LM/W = 78.02, TEST NO. ISF 30850P22.

CP Summary

	0°	90
0°	20927	20927
5°	20462	20561
15°	18584	18949
25°	14551	14900
35°	7440	7834
45°	2149	2307
55°	42	42
65°	10	10
75°	3	3
85°	0	2
90	0	0

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	13930	67.3	67.3
0° - 40°	18773	90.7	90.7
0° - 60°	20691	99.9	99.9
0° - 90°	20708	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	20708	100.0	100.0
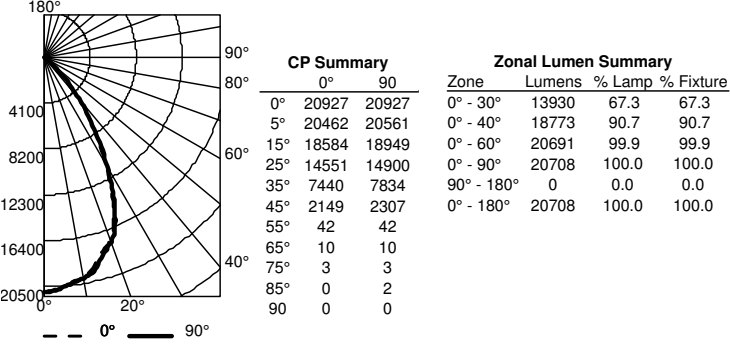
HOW TO ESTIMATE DELIVERED LUMENS IN EMERGENCY MODE
Use the formula below to estimate the delivered lumens in emergency mode
Delivered Lumens = 1.25 x P x LPW
P = Ouput power of emergency driver. P = 10W for PS1055CP
LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet.
The LPW rating is also available at Designlight Consortium.

LUMEN OUTPUT MULTIPLIERS - FINISH	
Specular (LS)	1.0
Semi-specular (LSS)	0.95
Matte diffuse (LD)	0.85
White	0.87
Black	0.73

LUMEN OUTPUT MULTIPLIERS - CRI	
80	1.0
90	0.874

LUMEN OUTPUT MULTIPLIERS - CCT				
	2700K	3000K	3500K	4000K
80CRI	0.950	0.966	1.000	1.101

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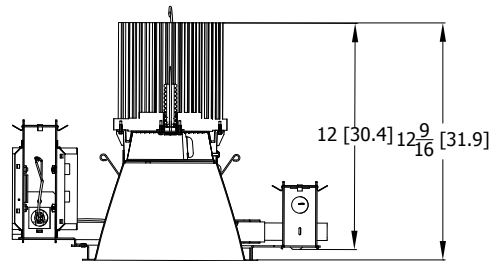- CRI: 80 typical.

LDN8

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

5000lm-6000lm below

15$\frac{7}{8}$ [40.4]
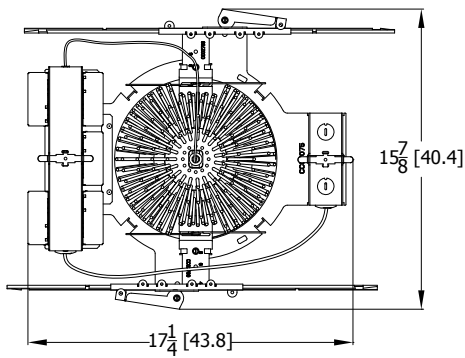
16$\frac{11}{16}$ [42.4]

8$\frac{1}{4}$ [20.9] 8$\frac{13}{16}$ [22.3]
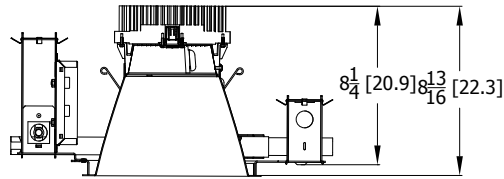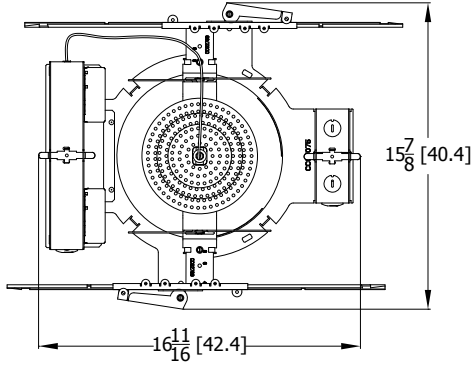
Aperture: 8$\frac{5}{8}$ (21.9)
Ceiling Opening: 8$\frac{3}{4}$ (22.2)

8000lm-12,000lm below

15$\frac{7}{8}$ [40.4]

17$\frac{1}{4}$ [43.8]

12 [30.4] 12$\frac{9}{16}$ [31.9]
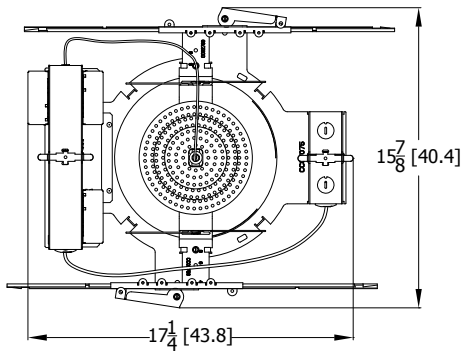
Aperture: 8$\frac{5}{8}$ (21.9)
Ceiling Opening: 8$\frac{3}{4}$ (22.2)

15,000lm-20,000lm below

15$\frac{7}{8}$ [40.4]

17$\frac{1}{4}$ [43.8]

12 [30.5] 12$\frac{9}{16}$ [31.9]
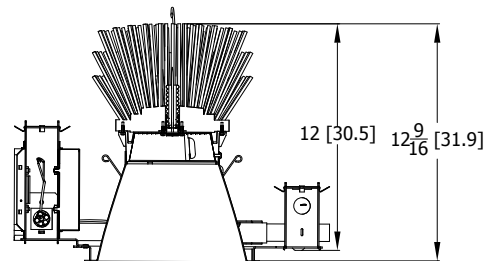
Aperture: 8$\frac{5}{8}$ (21.9)
Ceiling Opening: 8$\frac{3}{4}$ (22.2)
L 36"x W 36"x H18" marked spacing

ADDITIONAL DATA

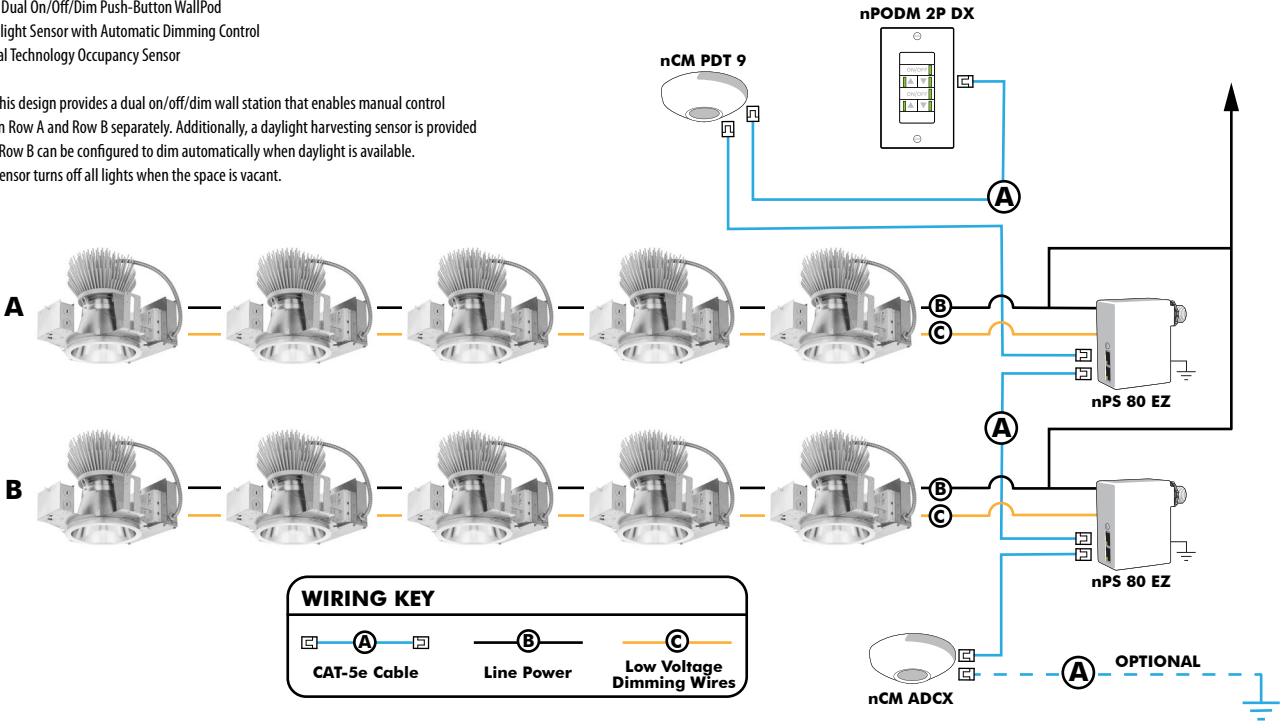| COMPATIBLE 0-10V AND LINE VOLTAGE DIMMERS		
MANUFACTURER	PART NO.	CONTOL DEVICE DIM CURVE
Synergy®	ISD 400 ELV 120	Logarithmic
	ISD 600 I 120	Logarithmic
	ISD 1000 I 120	Logarithmic
Leviton®	IllumaTech-IPE04	Logarithmic
	IllumaTech-IPI06	Logarithmic
	IllumaTech-IPI10	Logarithmic
	IllumaTech- IPL06-10	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

LDN8

EXAMPLE
Group Fixture Control*

*Appiication 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.

nCM PDT 9

nPODM 2P DX

A

B

nPS 80 EZ

A

nPS 80 EZ

nCM ADCX   **A**   **OPTIONAL**

WIRING KEY

⊡—A—⊡	—B—	—C—
CAT-5e Cable	Line Power	Low Voltage Dimming Wires

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

LITHONIA LIGHTING®

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 CL**AIR**ITY+ 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 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 CL**AIR**ITY app, pair the fixtures with the wall switch and if desired, customize the sensor settings for the desired outcome

nLight AIR rPODB 2P DX   Mobile Device