LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

LDN4SQ

4" Square Open
Non-IC
New Construction Downlight

FEATURES & SPECIFICATIONS

INTENDED USE — Typical applications include corridors, lobbies, conference rooms and private offices.

CONSTRUCTION — Durable square metal reflectors retained by torsion springs.

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. 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 for 25°C standard; high ambient (40°C) option available. 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 SDCM; 80 CRI minimum.

LED light source concealed with diffusing optical lens.

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

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

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

ELECTRICAL — Multi-volt (120-277V, 50/60Hz) 0-10V dimming drivers mounted to junction box, 10% or 1% minimum dimming level available.

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). ENERGY STAR® certified product.

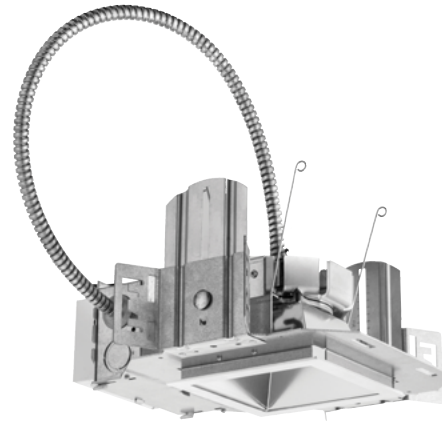**WARRANTY** — 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

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.

nLIGHT | WET LOCATION™ | DIMMABLE LED

CERTIFIED IN TITLE 20 battery pack | ENERGY STAR | A+ CAPABLE

A+ Capable options indicated by this color background.

ORDERING INFORMATION

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

Example: LDN4SQ 35/15 LS4AR LSS MVOLT EZ1

LDN4SQ

Series	Color temperature		Lumens[1]		Aperture/Trim Color				Finish		Voltage	
LDN4SQ 4" square	27/	2700K	05	500 lumens	LS4	Downlight	AR	Clear	LSS	Semi-specular	MVOLT	Multi-volt
	30/	3000K	10	1000 lumens	LSW4	Wallwash	WR[2]	White	LD	Matte diffuse	120	120V
	35/	3500K	15	1500 lumens			BR[2]	Black	LS	Specular	277	277V
	40/	4000K	20	2000 lumens							347[3]	347V
	50/	5000K	25	2500 lumens								
			30	3000 lumens								

Driver		Options				
GZ10	0-10V driver dims to 10%	SF[4]	Single fuse		N80[6]	nLight™ Lumen Compensation
GZ1	0-10V driver dims to 1%	TRW[5]	White painted flange		NPS80EZ[6]	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[5]	Black painted flange		NPS80EZER[6]	nLight® dimming pack controls 0-10V eldoLED drivers (EZ10, EZ1). ER controls fixtures on emergency circuit.
		EL	Emergency battery pack with integral test switch. Not Certified in CA Title 20 MAEDBS		HAO[9]	High ambient option (40°C)
EZ1	0-10V eldoLED driver with smooth and flicker-free deep dimming performance down to 1%	ELR	Emergency battery pack with remote test switch. Not Certified in CA Title 20 MAEDBS		CP[10]	Chicago Plenum
		ELSD	Emergency battery pack with self-diagnostics, integral test switch. Not Certified in CA Title 20 MAEDBS		WL	Wet Location, specify for exterior use applications
		ELRSD	Emergency battery pack with self-diagnostics, remote test switch. Not Certified in CA Title 20 MAEDBS		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.
		E10WCP	Emergency battery pack, 10W Constant Power with integral test switch. Certified in CA Title 20 MAEDB		NLTAIR2[7,8]	nLight® Air enabled
		E10WCPR	Emergency battery pack, 10W Constant Power with integral test switch. Certified in CA Title 20 MAEDB		NLTAIRER2[7,8]	nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit
		NPP16D[6]	nLight® network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1).		USPOM	US point of manufacture
		NPP16DER[6]	nLight® network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1). ER controls fixtures on emergency circuit.			

Notes
1. Overall height varies based on lumen package; refer to dimensional chart on page 3.
2. Not available with finishes.
3. Not available with emergency options.
4. Must specify voltage 120V or 277V.
5. Available with clear (AR) reflector only.
6. Specify voltage. ER for use with generator supply EM power. Will require an emergency hot feed and normal hot feed.
7. Fixture begins at 80% light level. Must be specified with NPS80EZ or NPS80EZ ER. Only available with EZ10 and EZ1 drivers.
8. Not available with CP, NPS80EZ, NPS80EZER, NPP16D, NPP16DER or N80 options.
9. NLTAIR2 and NLTAIRER2 not recommended for metal ceiling installations.
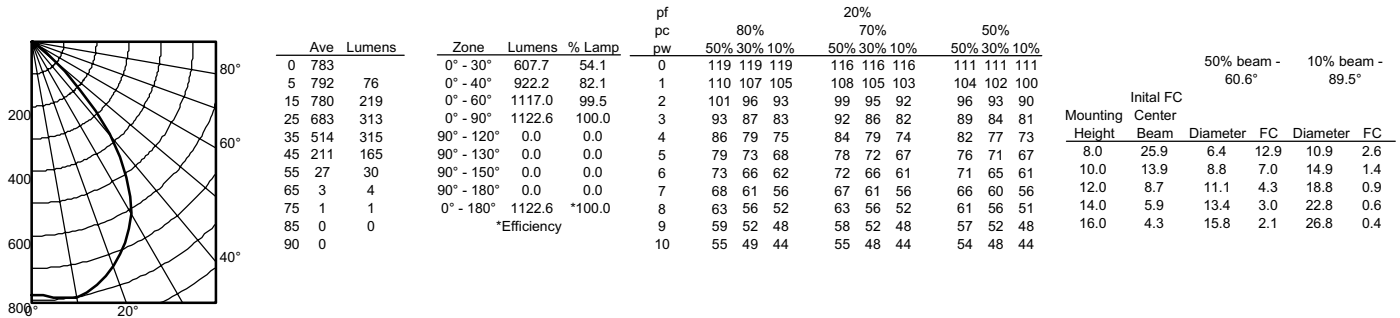10. Fixture height is 5-11/16" for all lumen packages with HAO.
11. Must specify voltage for 3000lm. Not available with emergency battery pack option.
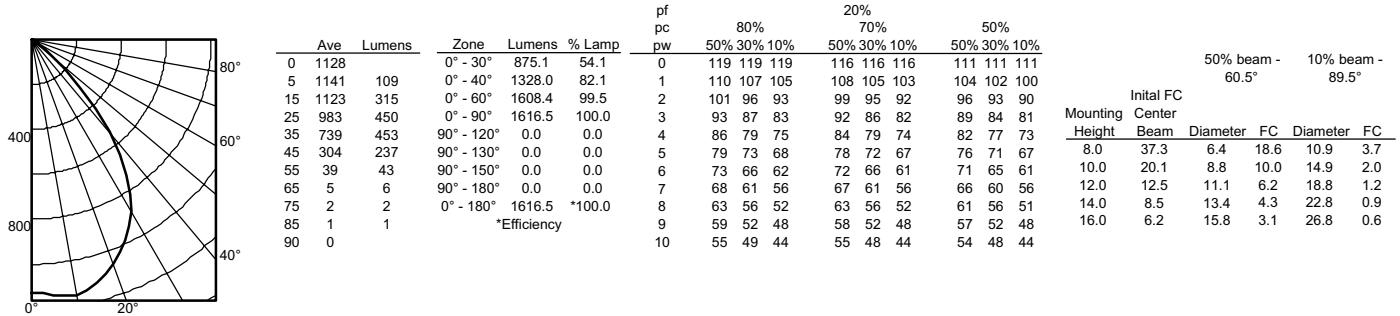
LDN4SQ

PHOTOMETRY

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

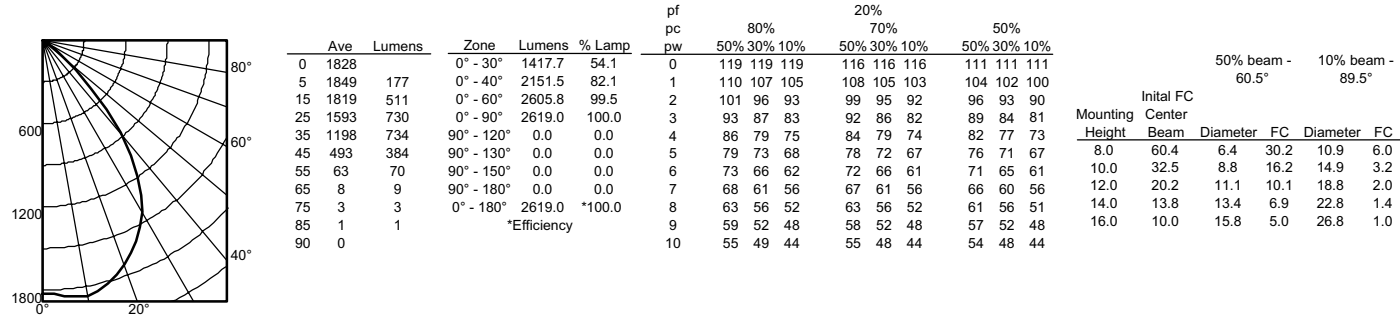### LDN4SQ 35/10 LS4AR, input watts: 12.58, delivered lumens: 1122.6, LM/W = 89.23, spacing criterion at 0= 1.18, test no. ISF 30712P31.

	Ave	Lumens
0	783	
5	792	76
15	780	219
25	683	313
35	514	315
45	211	165
55	27	30
65	3	4
75	1	1
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	607.7	54.1
0° - 40°	922.2	82.1
0° - 60°	1117.0	99.5
0° - 90°	1122.6	100.0
90° - 120°	0.0	0.0
90° - 130°	0.0	0.0
90° - 150°	0.0	0.0
90° - 180°	0.0	0.0
0° - 180°	1122.6	*100.0
	*Efficiency	

pf pc pw	80% 50% 30% 10%	20% 70% 50% 30% 10%	50% 50% 30% 10%
0	119 119 119	116 116 116	111 111 111
1	110 107 105	108 105 103	104 102 100
2	101 96 93	99 95 92	96 93 90
3	93 87 83	92 86 82	89 84 81
4	86 79 75	84 79 74	82 77 73
5	79 73 68	78 72 67	76 71 67
6	73 66 62	72 66 61	71 65 61
7	68 61 56	67 61 56	66 60 56
8	63 56 52	63 56 52	61 56 51
9	59 52 48	58 52 48	57 52 48
10	55 49 44	55 48 44	54 48 44

Mounting Height	Inital FC Center Beam	50% beam - 60.6° Diameter	FC	10% beam - 89.5° Diameter	FC
8.0	25.9	6.4	12.9	10.9	2.6
10.0	13.9	8.8	7.0	14.9	1.4
12.0	8.7	11.1	4.3	18.8	0.9
14.0	5.9	13.4	3.0	22.8	0.6
16.0	4.3	15.8	2.1	26.8	0.4

LDN4SQ 35/15 LS4AR, input watts: 20.2, delivered lumens: 1616.5, LM/W = 80.02, spacing criterion at 0= 1.18, test no. ISF 31036P25.
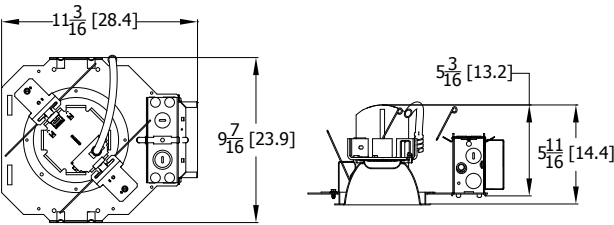

	Ave	Lumens
0	1128	
5	1141	109
15	1123	315
25	983	450
35	739	453
45	304	237
55	39	43
65	5	6
75	2	2
85	1	1
90	0	

Zone	Lumens	% Lamp
0° - 30°	875.1	54.1
0° - 40°	1328.0	82.1
0° - 60°	1608.4	99.5
0° - 90°	1616.5	100.0
90° - 120°	0.0	0.0
90° - 130°	0.0	0.0
90° - 150°	0.0	0.0
90° - 180°	0.0	0.0
0° - 180°	1616.5	*100.0
	*Efficiency	

pf pc pw	80% 50% 30% 10%	20% 70% 50% 30% 10%	50% 50% 30% 10%
0	119 119 119	116 116 116	111 111 111
1	110 107 105	108 105 103	104 102 100
2	101 96 93	99 95 92	96 93 90
3	93 87 83	92 86 82	89 84 81
4	86 79 75	84 79 74	82 77 73
5	79 73 68	78 72 67	76 71 67
6	73 66 62	72 66 61	71 65 61
7	68 61 56	67 61 56	66 60 56
8	63 56 52	63 56 52	61 56 51
9	59 52 48	58 52 48	57 52 48
10	55 49 44	55 48 44	54 48 44

Mounting Height	Inital FC Center Beam	50% beam - 60.5° Diameter	FC	10% beam - 89.5° Diameter	FC
8.0	37.3	6.4	18.6	10.9	3.7
10.0	20.1	8.8	10.0	14.9	2.0
12.0	12.5	11.1	6.2	18.8	1.2
14.0	8.5	13.4	4.3	22.8	0.9
16.0	6.2	15.8	3.1	26.8	0.6

LDN4SQ 35/20 LS4AR, input watts: 30.11, delivered lumens: 2619, LM/W = 86.98, spacing criterion at 0= 1.18, test no. ISF 31036P34.
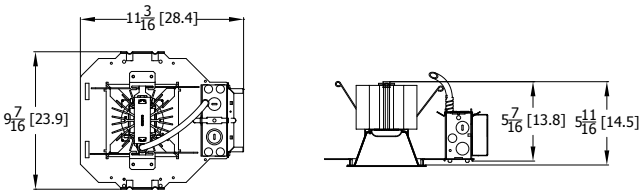

	Ave	Lumens
0	1828	
5	1849	177
15	1819	511
25	1593	730
35	1198	734
45	493	384
55	63	70
65	8	9
75	3	3
85	1	1
90	0	

Zone	Lumens	% Lamp
0° - 30°	1417.7	54.1
0° - 40°	2151.5	82.1
0° - 60°	2605.8	99.5
0° - 90°	2619.0	100.0
90° - 120°	0.0	0.0
90° - 130°	0.0	0.0
90° - 150°	0.0	0.0
90° - 180°	0.0	0.0
0° - 180°	2619.0	*100.0
	*Efficiency	

pf pc pw	80% 50% 30% 10%	20% 70% 50% 30% 10%	50% 50% 30% 10%
0	119 119 119	116 116 116	111 111 111
1	110 107 105	108 105 103	104 102 100
2	101 96 93	99 95 92	96 93 90
3	93 87 83	92 86 82	89 84 81
4	86 79 75	84 79 74	82 77 73
5	79 73 68	78 72 67	76 71 67
6	73 66 62	72 66 61	71 65 61
7	68 61 56	67 61 56	66 60 56
8	63 56 52	63 56 52	61 56 51
9	59 52 48	58 52 48	57 52 48
10	55 49 44	55 48 44	54 48 44

Mounting Height	Inital FC Center Beam	50% beam - 60.5° Diameter	FC	10% beam - 89.5° Diameter	FC
8.0	60.4	6.4	30.2	10.9	6.0
10.0	32.5	8.8	16.2	14.9	3.2
12.0	20.2	11.1	10.1	18.8	2.0
14.0	13.8	13.4	6.9	22.8	1.4
16.0	10.0	15.8	5.0	26.8	1.0

LITHONIA LIGHTING®

LDN4SQ

LDN4 500-1500 LUMEN

11 3/16 [28.4]

9 7/16 [23.9]

5 3/16 [13.2]

5 11/16 [14.4]

Aperture: 4-5/16 (11)
Ceiling Opening: 5-1/8 (13)
Overlap trim: 5-7/16 (13.8)

LDN4 2000-3000 LUMEN

11 3/16 [28.4]

9 7/16 [23.9]

5 7/16 [13.8] 5 11/16 [14.5]

Aperture: 4-5/16 (11) Square
Ceiling Opening: 5-1/8 (13) Square
Overlap trim: 5-7/16 (13.8) Square

LDN4 CP

21 1/2 [54.6]

17 [43.1]

14 1/2 [36.8]

9 [22.8]

Aperture: 4-5/16" (11) Square
Ceiling Opening: 5-1/8" (13) Square
Overlap trim: 5-7/16" (13.8) Square

LDN4 EL-ELR

18 5/8 [47.4]

19 1/8 [48.5]

5 13/16 [14.7]

5 3/16 [13.2]

Aperture: 4-5/16 (11)
Ceiling Opening: 5-1/8 (13)
Overlap trim: 5-7/16 (13.8)

LDN4SQ			
Target Lumen	**Lumens @ 3500K**	**Wattage**	**LPW**
500	782.0	8.6	90.9
1000	1122.6	12.6	89.1
1500	1616.5	20.2	80
2000	2025.1	22.5	90
2500	2619.0	30.1	87
3000	2812.8	34.9	80.6

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			
	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**	**5000K**
80CRI	0.950	0.966	1.000	1.025	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.

ADDITIONAL DATA

COMPATIBLE 0-10V WALL-MOUNT DIMMERS		
MANUFACTURER	PART NO.	POWER BOOSTER AVAILABLE
Lutron®	Diva® DVTV	
	Diva® DVSCTV	
	Nova T® NTFTV	
	Nova® NFTV	
Leviton®	AWSMT-7DW	CN100
	AWSMG-7DW	PE300
	AMRMG-7DW	
	Leviton Centura Fluorescent Control System	
	IllumaTech® IP7 Series	
Synergy®	ISD BC	RDMFC
	SLD LPCS	
	Digital Equinox (DEQ BC)	
Douglas Lighting Controls	WPC-5721	
Entertainment Technology	Tap Glide TG600FAM120 (120V)	
	Tap Glide Heatsink TGH1500FAM120 (120V)	
	Oasis 0A2000FAMU	
Honeywell	EL7315A1019	EL7305A1010 (optional)
	EL7315A1009	
HUNT Dimming	Preset slide: PS-010-IV and PS-010-WH	
	Preset slide: PS-010-3W-IV and PS-010-3W-WH	
	Preset slide, controls FD-010: PS-IFC-010-IV and PS-IFC-010-WH-120/277V	
	Preset slide, controls FD-010: PS-IFC-010-3W-IV and PS-IFC-010-3W-WH-120/277V	
	Remote mounted unit: FD-010	
Lehigh Electronic Products	Solitaire	PBX
PDM Electrical Products	WPC-5721	
Starfield Controls	TR61 with DALI interface port	RT03 DALInet Router
WattStopper®	LS-4 used with LCD-101 and LCD-103	

⌁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

LITHONIA LIGHTING®

LDN4SQ

EXAMPLE
Group Fixture Control*
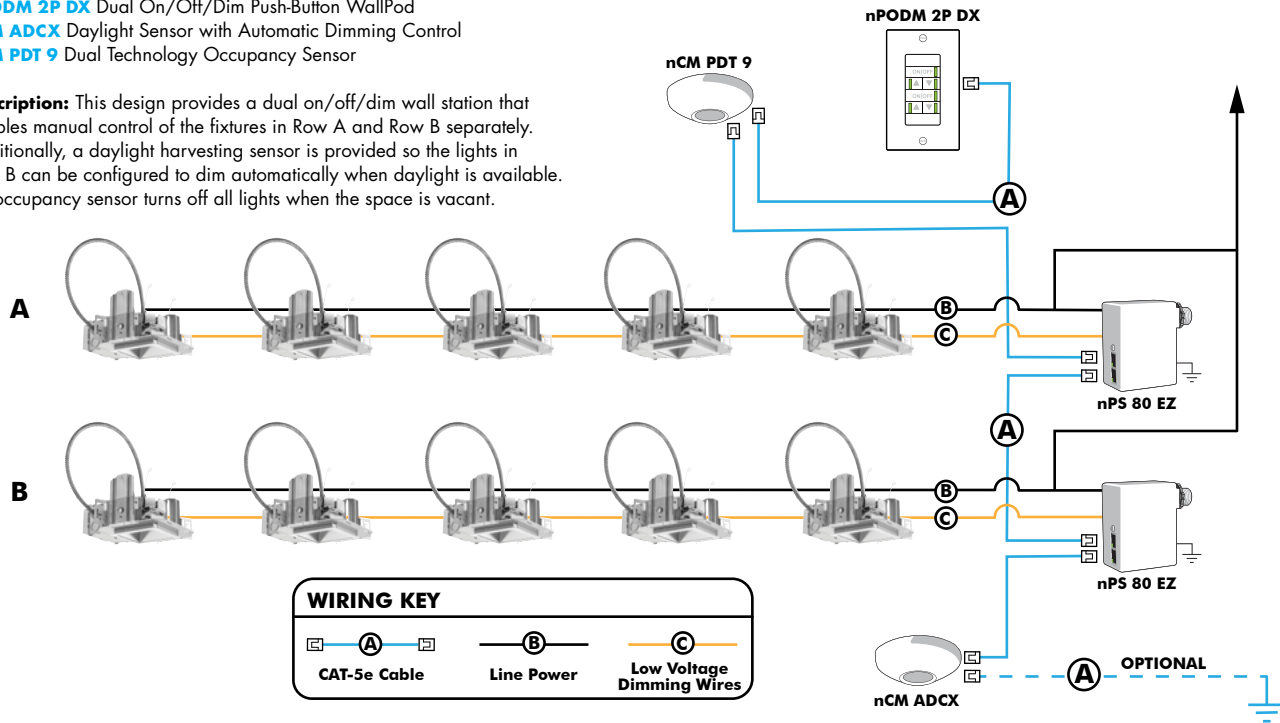*Application diagram applies for fixtures with eldoLED drivers only.

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.

WIRING KEY

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

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.

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 rPODB 2P DX   Mobile Device

LDN4SQ