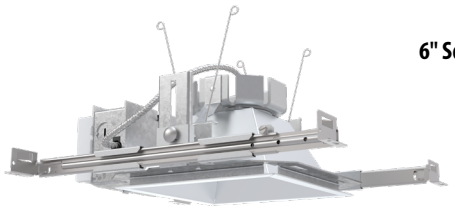
LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

LDN6SQ STATIC WHITE



6" Square Open and Wallwash LED
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 MacAdam Ellipse; 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.

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.

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 (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.

LUMEN MAINTENANCE — 70% lumen maintenance at 60,000 hours. (L70/60,000 hours)

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

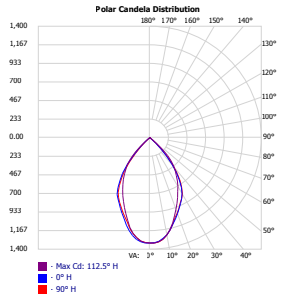
PERFORMANCE DATA

LDN6SQ 3500K AR LSS 80CRI			
Nominal Lumens	**Lumens**	**Wattage**	**Lm/W**
500	498	5.8	85.4
750	715	8.9	80.2
1000	896	10.4	85.8
1500	1428	17.5	81.5
2000	1892	22.5	84.0
2500	2362	28.3	83.6
3000	2850	34.8	82.0
4000	3781	44.3	85.4
5000	4694	57.7	81.4

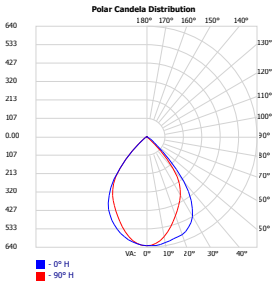
Notes

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

battery pack



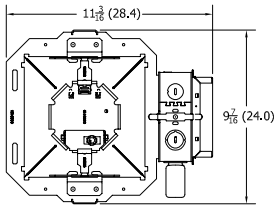
Open



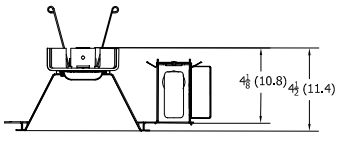
Wallwash

DIMENSIONS

LDN6SQ 500 - 1500 LUMENS



Aperture: 6-1/4 (15.9)
Ceiling Opening: 7-1/8 (18.1)
Overlap Trim: 7-1/2 (19.1)



See page 4 for other fixture dimensions

LDN6SQ

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

Example: LDN6SQ 35/15 LS6 AR LSS MVOLT EZ1

LDN6SQ							
Series	**Color temperature**	**Lumens ‡**	**Trim Style**	**Trim Color**	**Trim Finish**	**Flange Color ‡**	**Voltage**
LDN6SQ 6" square	27/ 2700K 30/ 3000K 35/ 3500K 40/ 4000K 50/ 5000K	05 500 lumens 07 750 lumens 10 1000 lumens 15 1500 lumens 20 2000 lumens 25 2500 lumens 30 3000 lumens 40 4000 lumens 50 5000 lumens	LS6 Downlight LSW6 Wallwash	AR Clear WR ‡ White BR ‡ Black TCPC ‡ Custom painted trim TRALTBD ‡ RAL painted trim	LSS Semi-specular LD Matte diffuse LS Specular	TRW White painted flange TRBL Black painted flange FCPC Custom painted flange only FRALTBD RAL painted flange only	MVOLT Multi-volt 120 120V 277 277V 347 ‡ 347V

Driver	**Emergency ‡**	**Control Input ‡**	**Options**
GZ10 0-10V driver dims to 10% GZ1 0-10V driver dims to 1% D10 Minimum dimming 10% driver for use with SSAIR D1 Minimum dimming 1% driver for use with SSAIR EZ1 0-10V eldoLED driver with smooth and flicker-free deep dimming performance down to 1% EDAB eldoLED DALI SOLDRIVE dim to dark	(blank) No Emergency Needed EL Battery pack (10W constant power), non-T20 compliant, integral test switch ELR Battery pack (10W constant power), non-T20 compliant, remote test switch ELSD Self-diagnostic battery pack (10W constant power), non-T20 compliant, integral test switch ELRSD Self-diagnostic battery pack (10W constant power), non-T20 compliant, remote test switch E10WCP Battery pack (10W constant power), T20 compliant, integral test switch E10WCPR Battery pack (10W constant power), T20 compliant, remote test switch E10WRSTAR Emergency battery pack, 10W with remote test switch and lota STAR technology	(blank) No Control Input Needed SSAIR Wireless standalone embedded control by SensorSwitch NPP16D nLight® network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1). NPP16DER 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 (EZ1). NPS80EZER nLight® dimming pack controls 0-10V eldoLED drivers (EZ1). ER controls fixtures on emergency circuit. N80 nLight™ Lumen Compensation 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.	HAO ‡ High ambient option (40°C) CP ‡ Chicago Plenum 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. BAA Buy America(n) Act and/or Build America Buy America Qualified 90CRI High CRI (90+) SF ‡ Single fuse

‡ Option Value Ordering Restrictions	
Option value	**Restriction**
Lumens	Overall height varies based on lumen package; refer to dimensional chart.
WR, BR	Not available with finishes.
347	Not available with emergency options.
SF	Must specify voltage 120V or 277V.
TRW, TRBL	Available with clear (AR) reflector only.
EL, ELR, ELSD, ELRSD, E10WCP, E10WCPR	12.5" of plenum depth or top access required for battery pack maintenance.
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.
NLTAIR, NLTAIR2, NLTAIRER2, NLTAIREM2	Not available with CP, NPS80EZ, NPS80EZER, NPP16D, NPP16DER or N80 options. Not recommended for metal ceiling installations.
HAO	Fixture height is 6.5" for all lumen packages with HAO.
CP	Must specify voltage for 3000lm and above. 5000lm with marked spacing 24 L x 24 W x 14 H. Not available with emergency battery pack option.
SSAIR	Must specify D10 or D1 driver. Not available with nLight options. Not available with CP. Not recommended for metal ceiling installation. Not for use with emergency backup power systems other than battery packs.
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.
E10WRSTAR	Not available with wet location, EC1, EC6, QDS, CP, 347V, NPS80EZ ER, NLTAIRER2, NLTAIREM2, ALO3 & ALO4 w/DALI, OR 2000-4500 lumens w/SSAIR. Top access installation or 17.5" plenum clearance required for roomside installation. Not available with integral test switch
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

© 2015-2025 Acuity Brands Lighting, Inc. All rights reserved.

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.

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 OA2000FAMU	
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 provided consistent color appearance and out-of-the-box control capability with simple commissioning when used with Acuity Brands controls products.

All configurations of this luminaire are calibrated and tested meet the Acuity Brands' specification for chromatic consistency - including color rendering, color fidelity and color temperature tolerance around standard CIE chromaticity coordinates.

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

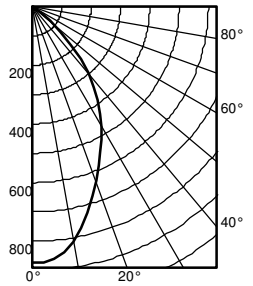
© 2015-2025 Acuity Brands Lighting, Inc. All rights reserved.

LDN6SQ

PHOTOMETRY

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

LDN6SQ 35/10 LS6AR, input watts: 10.44, delivered lumens: 942.9, LM/W = 90.31, spacing criterion at 0= 0.96, test no. ISF 31035P168.



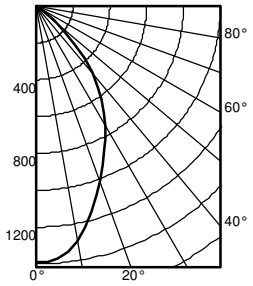
	Ave	Lumens
0	874	
5	864	81
15	726	203
25	547	252
35	389	242
45	186	142
55	17	22
65	2	2
75	1	1
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	535.1	56.7
0° - 40°	776.6	82.3
0° - 60°	940.4	99.7
0° - 90°	942.9	99.9
90° - 120°	0.0	0.0
90° - 130°	0.0	0.0
90° - 150°	0.2	0.0
90° - 180°	0.5	0.1
0° - 180°	943.4	*100.0

*Efficiency

Mounting Height	Inital FC Center Beam	50% beam - 47.3° Diameter	50% beam - 47.3° FC	10% beam - 86.5° Diameter	10% beam - 86.5° FC
8.0	28.9	4.8	14.4	10.3	2.9
10.0	15.5	6.6	7.8	14.1	1.6
12.0	9.7	8.3	4.8	17.9	1.0
14.0	6.6	10.1	3.3	21.6	0.7
16.0	4.8	11.8	2.4	25.4	0.5

LDN6SQ 35/15 LS6AR, input watts: 17.52, delivered lumens: 1502.6, LM/W = 85.76, spacing criterion at 0= 0.96, test no. ISF 31035P171.



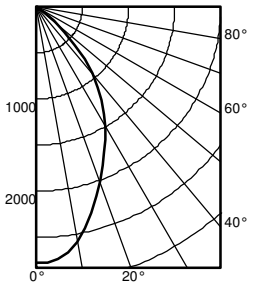
	Ave	Lumens
0	1392	
5	1377	129
15	1157	323
25	871	401
35	620	385
45	296	226
55	26	35
65	2	3
75	1	1
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	852.6	56.7
0° - 40°	1237.5	82.3
0° - 60°	1498.5	99.7
0° - 90°	1502.6	99.9
90° - 120°	0.0	0.0
90° - 130°	0.0	0.0
90° - 150°	0.3	0.0
90° - 180°	0.8	0.1
0° - 180°	1503.3	*100.0

*Efficiency

Mounting Height	Inital FC Center Beam	50% beam - 47.3° Diameter	50% beam - 47.3° FC	10% beam - 86.5° Diameter	10% beam - 86.5° FC
8.0	46.0	4.8	23.0	10.3	4.6
10.0	24.7	6.6	12.4	14.1	2.5
12.0	15.4	8.3	7.7	17.9	1.5
14.0	10.5	10.1	5.3	21.6	1.1
16.0	7.6	11.8	3.8	25.4	0.8

LDN6SQ 35/30 LS6AR, input watts: 34.75, delivered lumens: 2998.2, LM/W = 86.27, spacing criterion at 0= 0.96, test no. ISF 31035P180.



	Ave	Lumens
0	2778	
5	2747	257
15	2309	644
25	1738	801
35	1237	768
45	591	451
55	53	70
65	5	5
75	2	2
85	1	1
90	0	

Zone	Lumens	% Lamp
0° - 30°	1701.3	56.7
0° - 40°	2469.3	82.3
0° - 60°	2990.2	99.7
0° - 90°	2998.2	99.9
90° - 120°	0.0	0.0
90° - 130°	0.0	0.0
90° - 150°	0.7	0.0
90° - 180°	1.5	0.1
0° - 180°	2999.7	*100.0

*Efficiency

Mounting Height	Inital FC Center Beam	50% beam - 47.3° Diameter	50% beam - 47.3° FC	10% beam - 86.5° Diameter	10% beam - 86.5° FC
8.0	91.8	4.8	45.9	10.3	9.2
10.0	49.4	6.6	24.7	14.1	4.9
12.0	30.8	8.3	15.4	17.9	3.1
14.0	21.0	10.1	10.5	21.6	2.1
16.0	15.2	11.8	7.6	25.4	1.5

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

LUMEN OUTPUT MULTIPLIERS - CRI	
80	1.0
90	0.874

Notes

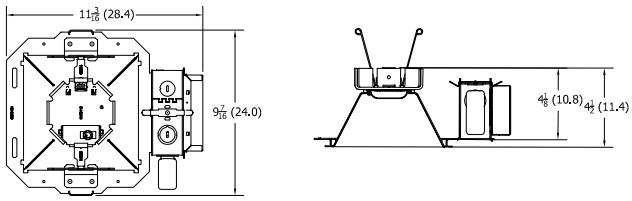
- Tested in accordance with IESNA LM-79-08.
- Tested to current IES and NEMA standards under stabilized laboratory conditions.
- CRI: 80 typical.

© 2015-2025 Acuity Brands Lighting, Inc. All rights reserved.

LDN6SQ

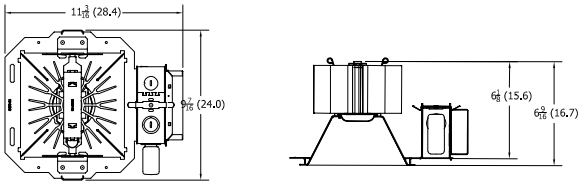
* All dimensions are inches (centimeters) unless otherwise noted.

LDN6SQ 500 - 1500 LUMENS



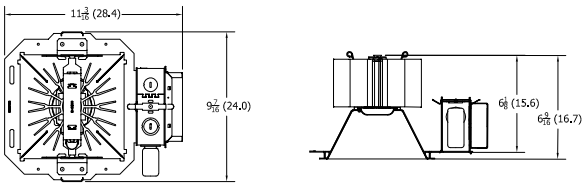
Aperture: 6-1/4 (15.9)
Ceiling Opening: 7-1/8 (18.1)
Overlap Trim: 7-1/2 (19.1)

LDN6SQ 2000 - 3000 LUMENS



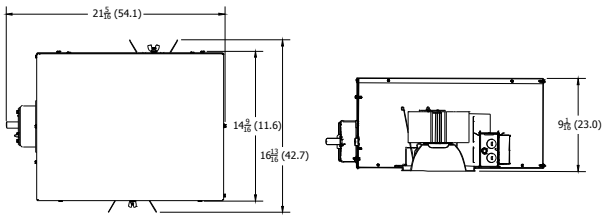
Aperture: 6-1/4 (15.9)
Ceiling Opening: 7-1/8 (18.1)
Overlap Trim: 7-1/2 (19.1)

LDN6SQ 4000 - 5000 LUMENS

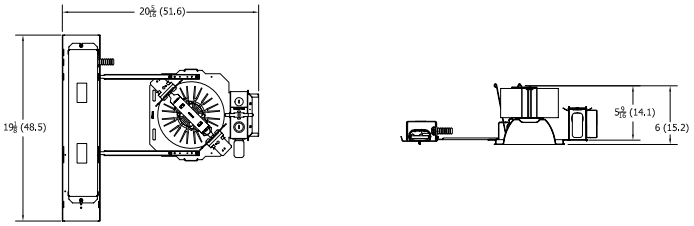


Marked Spacing: 24 x 24 x 10
Aperture: 6-1/4 (15.9)
Ceiling Opening: 7-1/8 (18.1)
Overlap Trim: 7-1/2 (19.1)

LDN6 CP



LDN6 EL



Marked Spacing over 3000 Lumens: 24 x 24 x 10
Aperture: 6-1/4 (15.9)
Ceiling Opening: 7-1/8 (18.1)
Overlap Trim: 7-1/2 (19.1)

© 2015-2025 Acuity Brands Lighting, Inc. All rights reserved.

Performance You Can Count On

SensorSwitch™ offers standalone wired and wireless lighting controls solutions designed for room-based applications. Our products offer reliable performance and ease of installation.

Sensorswitch.com

Wireless Embedded Controls



1. Install the luminaires with embedded controls
2. Insert the pairing tool into the pinhole on the wall switch; press and hold any button for 6 seconds.
3. Once paired, each fixture will individually dim down to 10% brightness. All products will be fully functional.



SensorSwitch
WSXA SSA

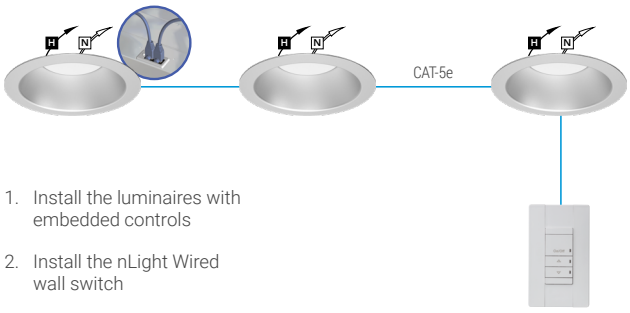
© 2015-2025 Acuity Brands Lighting, Inc. All rights reserved.

Single Lighting Controls Platform for Indoor & Outdoor Spaces

nLight® is your networked lighting controls platform, for indoor and outdoor applications, providing wired or wireless options. Scaling from room to campus-wide applications, it is the one platform that grows with your business today and tomorrow; to seamlessly address energy cost optimization, building code compliance, improved occupant comfort, and much more. nLight also interfaces with DALI®, BACnet®, DMX and additional third-party devices.

nLightcontrols.com

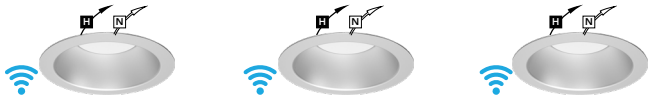
Wired Embedded Controls



1. Install the luminaires with embedded controls
2. Install the nLight Wired wall switch
3. Connect the luminaires using standard CAT-5e cables and the controls devices will automatically discover each other and work (plug and play)

nLight nPODMA DX

Wireless Embedded Controls



1. Install the luminaires with embedded controls
2. Install the nLight AIR battery-powered wall switch
3. Use CL**AIR**ITY+ mobile app to pair the fixtures with the wall switch and if desired, customize the sensor settings



nLight rPODBA 2P DX

Mobile Device

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.

© 2015-2025 Acuity Brands Lighting, Inc. All rights reserved.