

## FEATURES & SPECIFICATIONS

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

**CONSTRUCTION** — Galvanized steel mounting/plaster frame; galvanized steel junction box with bottom-hinged access covers and spring latches. Reflectors are retained by torsion springs. 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. Light engine and drivers are accessible from above or below ceiling.

Ceiling thickness range 1/2" to 1-1/2".

**OPTICS** — 55° cutoff

80CRI standard (90CRI optional)

**ELECTRICAL** — Adjustable lumen output with four module options.

MVOLT 120/277V 50/60Hz driver (0-10V & 120V Phase Dimming to 10% or 1% min dimming level). DALI driver dimming to 1% also available

FCC CFR Title 47 Part 15 Class A for lower lumen range. FCC CFR Title 47 Part 15

Class B for higher lumen range.

L80 @ 60,000 hours

3 SDCM

**LISTINGS** — Certified to US and Canadian safety standards. Wet location, requires covered ceiling. Wallwash suitable for damp locations only. Some configurations are Energy Star certified, please visit [www.energystar.gov](http://www.energystar.gov) for specific products.

**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](http://www.acuitybrands.com/support/warranty/terms-and-conditions)

**Note:** Actual performance may differ as a result of end-user environment and application.

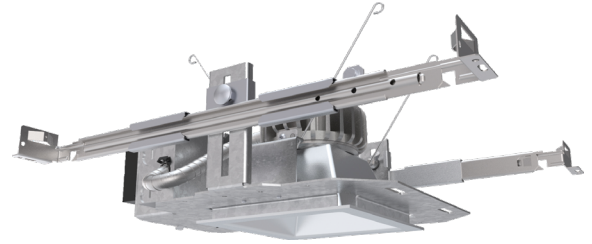
All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

Catalog Number
Notes
Type

# LDN4SQ SWITCHABLE

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



LDN4SQ AR LS	Wattage	80CRI							
		30K/80CRI		35K/80CRI		40K/80CRI		50K/80CRI	
		Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW
AL01 (500LM)	6	492	85	503	87	515	88	531	90
AL01 (750LM)	9	778	88	796	89	815	91	840	93
AL01 (1000LM)	13	1093	85	1118	86	1145	88	1180	90
AL02 (1000LM)	13	1158	93	1185	95	1213	97	1251	99
AL02 (1500LM)	19	1691	90	1730	92	1771	93	1826	96
AL02 (2000LM)	25	2130	86	2179	87	2231	89	2300	91
AL03 (2000LM)	25	2191	89	2242	90	2295	92	2366	94
AL03 (2500LM)	32	2645	84	2707	86	2771	87	2857	89
AL03 (3000LM)	38	3004	80	3074	81	3147	83	3244	85
AL04 (4000LM)	39	3486	90	3557	92	3628	94	3664	95
AL04 (4500LM)	44	3847	88	3926	89	4004	91	4044	92
AL04 (5000LM)	49	4184	85	4269	87	4355	88	4397	89

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

\*See ordering tree for details

## ORDERING INFORMATION

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

Example: LDN4SQ ALO2 SWW1 LS4AR LSS MVOLT UGZ

LDN4SQ							
Series	Lumens ‡	Color temperature ‡	Aperture/Trim Color	Reflector Flange	Finish	Distribution	Voltage
LDN4SQ 4" Square	ALO1 500/750/1000lm ALO2 1000/1500/2000lm ALO3 2000/2500/3000lm ALO4 4000/4500/5000lm Fixed Lumen Output 05LM 500lm 07LM 750lm 10LM 1000lm 15LM 1500lm 20LM 2000lm 25LM 2500lm 30LM 3000lm 40LM 4000lm 45LM 4500lm 50LM 5000lm	SWW1 3000K-3500K-4000K-5000K Fixed CCT 30K 3000K 35K 3500K 40K 4000K 50K 5000K	LS4 Downlight LSW4 Wallwash AR Clear WR ‡ White painted BR ‡ Black painted	(blank) Self-flange TRW ‡ White TRBL ‡ Black	LSS Semi-specular LD Matte diffused LS Specular	(blank) (1.0s/mh) WD Wide (1.2s/mh)	MVOLT 120V - 277V 347 347V step-down transformer supplied

Driver	Options	nLight Options
UGZ Universal dimming to 10% 0-10V; line voltage dimming (120V)	90CRI High CRI (90+)	NPS80EZ ‡ nLight® network power/relay pack with 0-10V dimming
UGZ1 Universal dimming to 1% 0-10V; line voltage dimming (120V)	AT ‡ Airtight (IP55)	NPS80EZER ‡ nLight® network power/relay pack with 0-10V dimming; ER controls fixtures on emergency circuit.
DALI ‡ DALI dimming to 1%	CP ‡ Chicago Plenum	NLTAIR2 ‡ nLight® Air enabled
D10 Minimum dimming 10% driver for use with JOT D1 Minimum dimming 1% driver for use with JOT	EL ‡ Batterypack (10W constant power) Non-T20 Compliant, integral test switch	NLTAIRER2 ‡ nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit
D1 Minimum dimming 1% driver for use with JOT	ELR ‡ Batterypack (10W constant power) Non-T20 Compliant remote test switch	NLTAIREM2 ‡ nLight® AIR Dimming Pack Wireless Controls. UL924 Emergency Operation, via power interrupt detection.
	E10WCP ‡ Batterypack (10W constant power) T20 Compliant, integral test switch	
	E10WCPR ‡ Batterypack (10W constant power) T20 Compliant, remote test switch	
	ETS ‡ Iota Emergency Transfer System	
	JOT ‡ Wireless room control with "Just One Touch" pairing	

## ‡ Option Restrictions

Options	Restriction
	<b>Lumens and Color Temp restriction note:</b> Fixed Lumens and CCT must be specified together (for example: 10LM 30K).
AT	Standard for CP and IP55, not available with WW
E10WCPR	Not available EC1, EC6, QDS, CP, 347V, NPS80EZ ER, NLTAIRER2, NLTAIREM2, or ALO3 (2000-3000L) DALI.
E10WCP	Not available with EC1, EC6, AT, QDS, CP, 347V, NPS80EZ ER, NLTAIRER2, NLTAIREM2, ALO3 (2000-3000L) DALI, OR WL.
ELR	Not available EC1, EC6, QDS, CP, 347V, NPS80EZ ER, NLTAIRER2, NLTAIREM2, or ALO3 (2000-3000L) DALI.
EC6	Not Available with CP,QDS, ELR, E10WCP, or E10WCPR.
WL	Not available with WW, All CP is wet location, except WW (Damp). IP55 rated.
QDS	Not Available with CP, ELR, E10WCP, or E10WCPR.
EC1	Not Available with CP,QDS, ELR, E10WCP, or E10WCPR.
JOT	Not available with CP, NPS80EZ, NPS80EZ ER, NLTAIR2, NLTAIRER2, NLTAIREM2, UGZ, or DALI drivers. Max 4500 lumens. Fixed lumens and CCT only.
NPS80EZ	Not available with CP, QDS, DALI, D1, OR D10 drivers. 120V OR 277V only. Not available with 347V.
NPS80EZER	Not available with CP, QDS, ELR, E10WCP, E10WCPR, DALI, D1, OR D10 drivers. 120V OR 277V only. Not available with 347V.
NLTAIR2	Not available with CP, QDS, DALI, D1, OR D10 drivers. Non-emergency luminaires with this option can be used as a normal power sensing device for nLight AIR devices and luminaires with EM emergency options.
NLTAIRER2	Not available with CP, QDS, ELR, E10WCP, E10WCPR, DALI, D1, OR D10 drivers. Not available with 347V.
NLTAIREM2	Not available with CP, QDS, ELR, E10WCP, E10WCPR, DALI, D1, OR D10 drivers. See UL 924 Sequence of Operation table.
CP	Not available with, QDS, EC1, EC6, ELR, E10WCP, E10WCPR, 347V, JOT, NPS80EZ, NPS80EZ ER, NLTAIR2, NLTAIRER2, NLTAIREM2, D1, OR D10 drivers. Not available with square trim.
ETS	Not available with, QDS, ELR, E10WCP, E10WCPR, 347V, JOT, NPS80EZ, NPS80EZ ER, NLTAIR2, NLTAIRER2, NLTAIREM2, DALI, D1, OR D10 driver
DALI	Not available with fixed lumens or CCT. Max 4500 lumens.
WW	Not available with WL, EL, E10WCP.
TRW, TRBL	Available with clear (AR) reflector only.
WR, BR	Not available with a reflector finish
347V	Not available with CP, QDS, EL, ELR, E10WCP, E10WCPR, NLTAIRER2, ETS, NPS80EZ, NPS80EZER, ALO1 ROUND TRIM, 05 LUMENS ROUND TRIM, AND 07 ROUND TRIM.

Accessories: Order as a separate catalog number.	
LS4AR ** TRIM	4" clear, specular reflector (** specify finish LS, LSS, or LS)
LS4WR TRIM	4" white reflector
LS4BR TRIM	4" black reflector
LSW4AR ** TRIM	4" wallwash clear, specular reflector (** specify finish LS, LSS, or LS)
LSW4WR TRIM	4" wallwash white reflector
LSW4BR TRIM	4" wallwash black reflector

UL924 Sequence of Operation
<p>The below information applies to all nLight AIR devices with an EM option.</p> <ul style="list-style-type: none"> <li>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.</li> <li>Using the CLAIRITY+ mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.</li> <li>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.</li> </ul>

## 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 [productsupportemergency@acuitybrands.com](mailto:productsupportemergency@acuitybrands.com) for any Emergency Battery related questions.

LUMEN OUTPUT MULTIPLIERS - FINISH	
Specular (LS)	1.05
Semi-specular (LSS)	1.00
Matte diffuse (LD)	0.85

LUMEN OUTPUT MULTIPLIERS - CCT			
3000K	3500K	4000K	5000K
0.98	1.0	1.01	1.03

LUMEN OUTPUT MULTIPLIERS - CRI	
80	1.0
90	0.874

### 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](https://www.designlightconsortium.com).

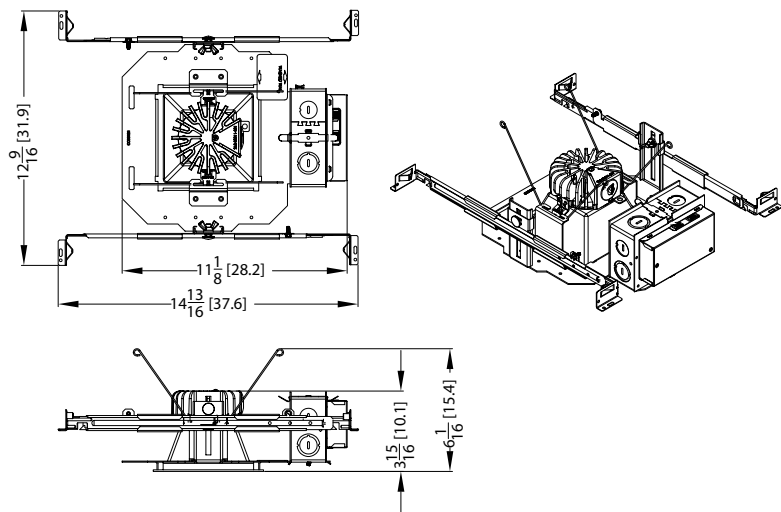
PHOTOMETRY

LDN4SQ AR LS		90CRI							
Lumen Output	Wattage	30K/90CRI		35K/90CRI		40K/90CRI		50K/90CRI	
		Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW
AL01 (500LM)	6	430	75	441	76	453	78	465	79
AL01 (750LM)	9	680	77	699	78	717	80	735	81
AL01 (1000LM)	13	955	74	981	76	1007	77	1033	78
AL02 (1000LM)	13	1012	82	1040	83	1067	85	1095	86
AL02 (1500LM)	19	1478	79	1518	80	1558	82	1598	84
AL02 (2000LM)	25	1861	75	1912	76	1962	78	2013	79
AL03 (2000LM)	25	1915	77	1967	79	2019	81	2071	82
AL03 (2500LM)	32	2312	74	2375	75	2437	77	2500	78
AL03 (3000LM)	38	2626	70	2697	71	2768	73	2839	74
AL04 (4000LM)	39	2893	75	2952	76	3011	78	3041	79
AL04 (4500LM)	44	3193	73	3258	74	3324	76	3356	76
AL04 (5000LM)	49	3473	70	3543	72	3614	73	3650	74
LDN4SQWW AR LS		80CRI							
Lumen Output	Wattage	30K/80CRI		35K/80CRI		40K/80CRI		50K/80CRI	
		Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW
AL01 (500LM)	6	480	83	491	85	503	86	518	88
AL01 (750LM)	9	760	85	777	87	796	88	821	91
AL01 (1000LM)	13	1067	83	1091	84	1117	86	1152	88
AL02 (1000LM)	13	1131	91	1157	93	1185	94	1221	96
AL02 (1500LM)	19	1651	88	1689	90	1729	91	1783	93
AL02 (2000LM)	25	2079	84	2127	85	2178	87	2246	89
AL03 (2000LM)	25	2139	87	2189	88	2241	90	2310	92
AL03 (2500LM)	32	2582	82	2642	84	2705	85	2789	87
AL03 (3000LM)	38	2933	78	3001	79	3072	81	3168	83
LDN4SQWW AR LS		90CRI							
Lumen Output	Wattage	30K/90CRI		35K/90CRI		40K/90CRI		50K/90CRI	
		Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW
AL01 (500LM)	6	420	73	431	74	442	76	454	77
AL01 (750LM)	9	664	75	682	76	700	78	718	79
AL01 (1000LM)	13	932	72	958	74	983	75	1008	77
AL02 (1000LM)	13	988	80	1015	81	1042	83	1069	84
AL02 (1500LM)	19	1443	77	1482	79	1521	80	1560	82
AL02 (2000LM)	25	1817	73	1866	75	1916	76	1965	78
AL03 (2000LM)	25	1870	76	1920	77	1971	79	2022	80
AL03 (2500LM)	32	2257	72	2318	73	2379	75	2441	76
AL03 (3000LM)	38	2563	68	2633	70	2702	71	2772	72

LDN4SQ SWW

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

LDN4SQ SWW1 500-3000LM



LDN4SQ SWW1 IC RATING	
AL01	NON-IC
AL02	NON-IC
AL03	MARKED SPACING 18 X 18 X8

Notes

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

## DIMMER COMPATIBILITY

Not compatible with DALI or DMX dimmers. For specific compatible dimmers see below.

COMPATIBLE LINE VOLTAGE DIMMERS:						
Type	Forward Phase	ALO1 (500-1000lm)	ALO2 (1000-2000lm)	ALO3 (2000-3000lm)	ALO4 (3000-5000lm)	Comment
MLV	Sensorswitch WPD	YES	YES	YES	YES	
MLV	Sensorswitch CMR PDT10 ADC VLP	YES	YES	YES	YES	
MLV	Synergy ISD 600LV	YES, 2x *	YES	YES	YES	* min 2 fixtures
INC	Synergy ISD 600I	YES, 2x *	YES	YES	YES	* min 2 fixtures
MLV	Lutron Glyder GLV-600	YES	YES	YES	YES	
INC	Leviton SureSlide 6633	YES	YES	YES	YES	
MLV	Lutron Diva DVLV-600P	YES	YES	YES	YES	
MLV	Lutron Skylark SLV-600P	YES	YES	YES	YES	
INC	Lutron RadioRA 2 10ND	YES	YES	YES	YES	
MLV	Leviton SureSlide 6613-PLW	YES	YES	YES	YES	
INC	Lutron Diva DVCL-153P	YES	YES	YES	YES	
MLV	Leviton IPM06	YES, 2x *	YES	YES	YES	* min 2 fixtures
Type	Reverse Phase Dimmer Bank	ALO1 (500-1000lm)	ALO2 (1000-2000lm)	ALO3 (2000-3000lm)	ALO4 (3000-5000lm)	
ELV	Lutron Nova T NTELV-600	YES	YES	YES	YES	
ELV	Lutron Diva DVELV 600P	YES	YES	YES	YES	
ELV	Lutron Maestro MAELV 600	YES	YES	YES	YES	
ELV	Leviton Vizia VPE06-1LX	YES	YES	YES	YES	
ELV	Leviton Illumatech IPE04	YES	YES	YES	YES	
ELV	Control4 C4-APD 120 REVERSE PHASE	YES	YES	YES	YES	
Type	Miscellaneous Dimmers	ALO1 (500-1000lm)	ALO2 (1000-2000lm)	ALO3 (2000-3000lm)	ALO4 (3000-5000lm)	
PHA	Lutron RadioRA2 RRD-6NA	YES	YES	YES	YES	
PHA	Lutron Maestro PRO LED+ RRD-PRO	YES	YES	YES	YES	
Type	Control Systems	ALO1 (500-1000lm)	ALO2 (1000-2000lm)	ALO3 (2000-3000lm)	ALO4 (3000-5000lm)	
MLV	Lutron LP-RPM-4U	YES	YES	YES	YES	
PHA	Lutron LP-RPM-4A	YES	YES	YES	YES	
MLV	Lutron GRAPHIC EYE QSGRJ-3P	YES	YES	YES	YES	
PHA	Lutron PA Power Module PHPM-PA-120	YES	YES	YES	YES	
ELV	Lutron nLight nSPSPCD ELV	YES	YES	YES	YES	

COMPATIBLE 0-10V DIMMERS:							
Manufacturer	System Type	Description	P/N	ALO1 (500-1000lm)	ALO2 (1000-2000lm)	ALO3 (2000-3000lm)	ALO4 (3000-5000lm)
ACUITY	Wall Box	sensorswitch, dimming switch with multi-way option	SPODMRA	YES	YES	YES	YES
ACUITY	Wall Box	sensorswitch, wall switch sensor, occupancy controlled dimming	WSX D WH	YES	YES	YES	YES
ACUITY	Control System	nLight	nPP16D	YES	YES	YES	YES
ACUITY	Control System	nLight	nPS 80 EZ	YES	YES	YES	YES
ACUITY	Control System	nLight Air	rPP20 D	YES	YES	YES	YES
Lutron	Other	0-10V (sink or source) PowPak wireless dimming module	RMJ-5T-DV-B	YES	YES	YES	YES
Wattstopper	Control System	Digital single relay room controller (0-10V)	LMRC-211	YES	YES	YES	YES
Creston	Control System	DIN Rail 0-10V fluorescent dimmer, 4 feeds, 4 channels (Green Light System)	DIN-4DIMFLV4	YES	YES	YES	YES
Lutron	Other	Grafik Eye 0-10V adapter	GRX-TVI	YES	YES	YES	YES
Leviton	Wall Box	Illumatech 0-10V	IP710-DLX	YES	YES	YES	YES
Lutron	Control System	Mounted in the Homeworks QS panel - 0-10V dimmer (sink or source)	GRX-TVM2	YES	YES	YES	YES
Lutron	Wall Box	Nova 0-10V wallbox dimmer (use with PP-120-H line voltage relay)	NTFTV	YES	YES	YES	YES
Lutron	Wall Box	Nova 0-10V wallbox dimmer (use with PP-120-H line voltage relay)	NTSTV-DV	YES	YES	YES	YES
Lutron	Wall Box	Nova T	NFTV	YES	YES	YES	YES
Leviton	Wall Box	Renior II 0-10V	AWSMG-7DW	YES	YES	YES	YES