

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.

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.

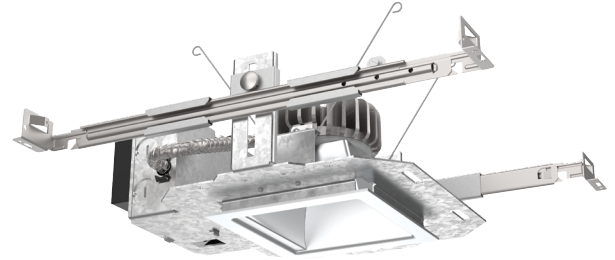
All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

Catalog Number
Notes
Type

LDN6SQ SWITCHABLE

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



LDN6SQ 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
ALO1 (500LM)	6	509	84	518	85	524	86	531	86
ALO1 (750LM)	9	765	85	778	86	788	87	798	87
ALO1 (1000LM)	13	1068	83	1086	83	1099	84	1113	84
ALO2 (1000LM)	12	1145	94	1164	95	1178	95	1193	96
ALO2 (1500LM)	19	1687	91	1715	92	1736	92	1758	93
ALO2 (2000LM)	25	2143	86	2180	87	2207	88	2234	88
ALO3 (2000LM)	25	2235	89	2272	90	2300	91	2329	91
ALO3 (2500LM)	32	2705	85	2751	86	2785	86	2820	87
ALO3 (3000LM)	38	3089	81	3141	82	3180	82	3220	83
ALO4 (4000LM)	39	3530	91	3602	93	3674	95	3710	96
ALO4 (4500LM)	44	3896	89	3976	90	4055	92	4095	93
ALO4 (5000LM)	49	4237	86	4323	88	4410	90	4453	90

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

LDN6SQ SWW

ORDERING INFORMATION

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

Example: LDN6SQ ALO2 SWW1 LS6AR LSS MVOLT UGZ

LDN6SQ						
Series	Lumens ‡	Color temperature ‡	Aperture/Trim Color	Reflector Flange	Finish	Distribution
LDN6SQ 6" Square	AL01 500/750/1000lm AL02 1000/1500/2000lm AL03 2000/2500/3000lm AL04 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	LS6 Downlight LSW6 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) Medium Wide (1.0s/mh) WD Wide (1.2s/mh)

Voltage	Driver	Options	nLight Options
MVOLT 120V - 277V 347 347V step-down transformer supplied	UGZ Universal dimming to 10% 0-10V; line voltage dimming (120V) UGZ1 Universal dimming to 1% 0-10V; line voltage dimming (120V) DALI ‡ DALI dimming to 1% D10 Minimum dimming 10% driver for use with JOT D1 Minimum dimming 1% driver for use with JOT D1 Minimum dimming 1% driver for use with JOT	90CRI High CRI (90+) AT ‡ Airtight (IP55) CP ‡ Chicago Plenum EL ‡ Batterypack (10W constant power) Non-T20 Compliant, integral test switch ELR ‡ Batterypack (10W constant power) Non-T20 Compliant remote test switch 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	NPS80EZ ‡ nLight® network power/relay pack with 0-10V dimming NPS80EZER ‡ nLight® network power/relay pack with 0-10V dimming; ER controls fixtures on emergency circuit. NLTAIR2 ‡ nLight® Air enabled NLTAIRER2 ‡ nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit NLTAIREM2 ‡ nLight® AIR Dimming Pack Wireless Controls. UL924 Emergency Operation, via power interrupt detection.

‡ Option Restrictions

Options	Restriction
	Lumens and Color Temp restriction note: 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.	
LS6AR ** TRIM	6" clear, specular reflector (** specify finish LS, LSS, or LS)
LS6WR TRIM	6" white reflector
LS6BR TRIM	6" black reflector
LSW6AR ** TRIM	6" wallwash clear, specular reflector (** specify finish LS, LSS, or LS)
LSW6WR TRIM	6" wallwash white reflector
LSW6BR TRIM	6" wallwash black reflector

UL924 Sequence of Operation
The below information applies to all nLight AIR devices with an EM option.
<ul style="list-style-type: none"> 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.

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 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.

PHOTOMETRY

LDN6SQ 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	442	73	454	75	466	76	478	78
AL01 (750LM)	9	665	74	683	76	701	77	719	79
AL01 (1000LM)	13	927	72	953	73	978	75	1003	76
AL02 (1000LM)	12	994	82	1021	83	1048	85	1075	86
AL02 (1500LM)	19	1465	79	1505	81	1545	82	1584	84
AL02 (2000LM)	25	1862	75	1912	77	1963	78	2013	80
AL03 (2000LM)	25	1941	77	1994	79	2046	81	2099	82
AL03 (2500LM)	32	2350	74	2414	75	2477	77	2541	78
AL03 (3000LM)	38	2683	70	2756	72	2828	73	2901	74
AL04 (4000LM)	39	2930	76	2990	77	3049	79	3079	80
AL04 (4500LM)	44	3234	74	3300	75	3366	77	3399	77
AL04 (5000LM)	49	3517	71	3588	73	3660	74	3696	75

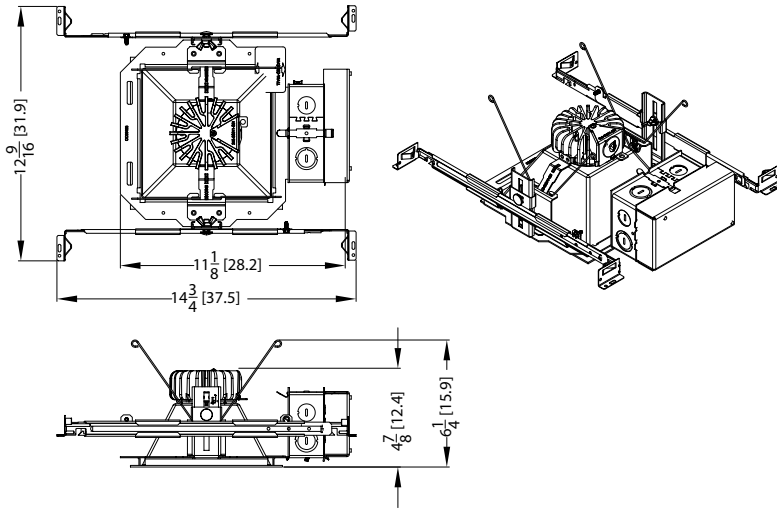
LDN6SQWW AR LS		80CRI							
Lumen Output	Wattage	30K/80CRI		35K/80CRI		40K/80CRI		50K/80CRI	
		Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW
AL01 (500LM)	6	508	84	516	85	523	85	529	86
AL01 (750LM)	9	763	85	776	86	786	87	796	87
AL01 (1000LM)	13	1065	82	1083	83	1096	84	1110	84
AL02 (1000LM)	12	1141	94	1161	95	1175	95	1190	96
AL02 (1500LM)	19	1682	91	1710	92	1731	92	1753	93
AL02 (2000LM)	25	2137	86	2174	87	2200	88	2228	88
AL03 (2000LM)	25	2228	89	2266	90	2294	90	2323	91
AL03 (2500LM)	32	2698	85	2743	86	2777	86	2812	87
AL03 (3000LM)	38	3080	81	3132	81	3170	82	3210	82
AL04 (4000LM)	39	3531	91	3603	93	3675	95	3711	96
AL04 (4500LM)	44	3897	89	3977	91	4056	92	4096	93
AL04 (5000LM)	49	4238	86	4324	88	4411	90	4454	90

LDN6SQWW 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	441	73	453	74	465	76	477	77
AL01 (750LM)	9	663	74	681	75	699	77	717	78
AL01 (1000LM)	13	925	72	950	73	975	75	1000	76
AL02 (1000LM)	12	991	81	1018	83	1045	85	1072	86
AL02 (1500LM)	19	1461	79	1500	80	1540	82	1580	83
AL02 (2000LM)	25	1857	75	1907	76	1957	78	2008	79
AL03 (2000LM)	25	1935	77	1988	79	2040	80	2093	82
AL03 (2500LM)	32	2343	74	2407	75	2470	77	2534	78
AL03 (3000LM)	38	2675	70	2748	71	2820	73	2893	74
AL04 (4000LM)	39	2931	76	2990	77	3050	79	3080	80
AL04 (4500LM)	44	3235	74	3301	75	3367	77	3400	77
AL04 (5000LM)	49	3517	71	3589	73	3661	74	3697	75

LDN6SQ SWW

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

LDN6SQ SWW1 500-3000LM



LDN6SQ 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 nSP5PCD 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
Crestron	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