

General Illumination Square Downlight

6"

Feature Set

- Bounding Ray™ optical design
- Unitized optics mechanically attach the light engine to the lower reflector for complete optical alignment.
- 45° cutoff to source and source image
- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- 2.5 MacAdam Ellipse; 85 CRI typical, 90+ CRI optional
- Fixtures are wet location, covered ceiling
- Available with 10% dimming, 1% dimming, or dim to dark
- Batwing distribution with feathered edges provides even illumination on horizontal and vertical surfaces
- ENERGY STAR® certified product
- UGR of zero for fixtures aimed at nadir with a cut-off equal to or less than 60deg per CIE 117-1995 Discomfort Glare in Interior Lighting. [UGR FAQ](#)

Distribution



Superior Performance

Nominal Lumens	250	500	750	1000	1500	2000	2500	3000	3500	4000	4500	5000	6000	8000	10,000	12,000	15,000	17,500
Delivered Lumens	318	557	832	1067	1500	2153	2723	3302	3801	4322	4865	5588	6852	8696	11237	13093	16051	18806
Wattage	3.4	6.2	8.2	9.6	14.7	19.7	24.7	29.5	33.8	39.0	47.3	48.6	57.6	74.7	96.9	115.1	144.3	175.3
Lumens per Watt	93.5	89.8	101.5	111.1	102.0	109.3	110.2	111.9	112.5	110.8	102.9	115.0	119.0	116.4	116.0	113.8	111.2	107.3

*Lumen Output for 80CRI - 3500K CCT - Clear LSS Reflector

*Based on 3500K AR LSS MWD 80CRI

Coordinated Apertures | Multiple Layers of Light



General Illumination Layer | EVO



High Center Beam Layer | Incito



EVO + Incito — Multiple Layers of Light

Core



Downlight



Adjustable



Open Wallwash



Lensed Wallwash



Cylinder



Pinhole



Bevel



Hyperbolic

Healthcare



MRI



Surgical Suite



Patient Room

Special Applications



Dynamic



Food Service



Vandal/Tamper



Clean Room



Shower



Steam Room



A+ Capable options indicated by this color background.

Luminaire Type:

Catalog Number:

EXAMPLE: EV06SQ 35/150 AR LSS MVOLT EZ1

Series	Color Temperature	Nominal Lumen Values	Reflector & Flange Color	Trim Style
EV06SQ	27/ 2700 K	02 250 lumens	AR Clear	(blank) Self-flanged
	30/ 3000 K	05 500 lumens	PR Pewter	FL Flangeless
	35/ 3500 K	07 750 lumens	WTR Wheat	
	40/ 4000 K	10 1000 lumens	GR Gold	
	50/ 5000 K	15 1500 lumens	WR ¹ White	
		20 2000 lumens	BR ¹ Black	
		25 2500 lumens	WRAMF ¹ White Anti-microbial	
		30 3000 lumens	TRALTBD ^{1,2} RAL paint for pricing only	
		35 3500 lumens	TCPC Custom paint color	

Finish	Voltage	Driver ⁴	Control Interface
LSS Semi-specular	MVOLT	GZ10 0-10V driver dims to 10%	NLT ⁵ nLight® dimming pack controls
LD Matte-diffuse		GZ1 0-10V driver dims to 1%	NLTER ^{2,6,9} nLight® dimming pack controls emergency circuit
		EZ1 eldoLED 0-10V ECODrive. Linear dimming to 1% min.	NLTAIR2 ^{13,14} nLight® AIR enabled
		EZB eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%.	NLTAIRER2 ^{2,9,13} nLight® AIR enabled emergency
		EDAB ⁵ eldoLED SOLOdrive DALI. Logarithmic dimming to <1%.	NLTAIREM2 ^{2,13} nLight® AIR Dimming Pack Wire-less Controls. Controls fixtures on emergency circuit with battery pack options.
	120	EDXB ⁵ eldoLED POWERdrive DMX with RDM (remote device management). Square Law dimming to <1%. Includes termination resistor. Refer to DMXR. Manual Minimum 1000 lumens/Maximum 15000 lumens.	
	277	ECOD ⁵ Lutron Ecosystem digital Hi-Lume 1% soft-on, fade to black. Max: 4000LM.	
	347 ^{2,3}		

Emergency Option	Options
EL Emergency battery pack, 10W, with integral test switch	SF Single fuse. Specify 120V or 277V.
ELR Emergency battery pack, 10W, with remote test switch	TRW ⁷ White painted flange
ELSD Emergency battery pack, 10W, with self-diagnostics, integral test switch	TRBL ⁸ Black painted flange
ELRSD Emergency battery pack, 10W, with self-diagnostics, remote test switch	FRALTBD ² Flange ring only RAL color for pricing only
E10WCP Emergency battery pack, 10W Constant Power, CA Title 20 compliant with integral test switch	FCPC Flange custom paint color
E10WCPR Emergency battery pack, 10W Constant Power, CA Title 20 compliant with remote test switch	N80 ¹⁰ nLight® Lumen Compensation
BGTD Bodine generator transfer device. Specify 120V or 277V.	GTD generator transfer device. Specify 120V or 277V
	90CRI High CRI (90+)
	CP ¹¹ Chicago Plenum. Specify 120V or 277V for 5000lm and above.
	HAO ¹² HAO High ambient option (40°C)
	RRL_ RELOC®-ready luminaire connectors enable a simple and consistent factory installed option across all ABL luminaire brands. Available only with RRLA, RRLB, RRLAE, and RRLC12S. Refer to RRL spec sheet on www.acuitybrands.com for RELOC® product specifications. Above ceiling access required.

ACCESSORIES — order as separate catalog numbers (shipped separately)

ISD BC 0-10V wallbox dimmer. Refer to ISD-BC.

ORDERING NOTES

- Not available with finishes.
- Replace with applicable RAL number and finish when ready to order. See [RAL BROCHURE](#) for available color options. Not available with emergency battery pack options.
- Not available with emergency Battery Pack options.
- Supplied with factory installed step down transformer.
- Refer to [TECH-240](#) for compatible dimmers.
- Not available with nLight®.
- Specify voltage.
- For use with different reflector finish only (i.e. AR, PR, WTR, GR options). Not applicable with WR (white reflector) or FL (flangeless) option.
- For use with different reflector finish only (i.e. AR, PR, WTR, GR options). Not applicable with BR (black reflector) or FL (flangeless) option.
- ER for use with generator supply power. Will require an emergency hot feed and normal hot feed.
- Fixture begins at 80% light level. Must be specified with NLT or NLTER. Only available with EZ10 and EZ1 drivers.
- 12,000LM max with EL or nLight® options. 5,000LM max with Lutron drivers combined with EL. Not available with ELR, HAO, or EXAB, or any nLight® AIR dimming options.
- Only available 5000LM - 15,000LM with eldoLED drivers.
- Not available DALI or DMX drivers. Not available with CP or N80 options. Not recommended for metal ceiling installations.
- When combined with the EZ1, EZ10, or EZB option, normal luminaires (non-emergency) can be used as a normal power sensing device for nearby nLight AIR devices and luminaires with EM emergency options.

Optical Assembly

Optical design is a Bounding Ray™ design with 45° cutoff to source and source image. Top-down flash characteristic for superior glare control. Unitized optics shall have mechanical attachment of the light engine to the lower reflector for complete optical alignment.

Electrical

The luminaire shall operate from a 50 or 60 Hz ± 3 Hz AC line over a voltage ranging from 120 VAC to 277 VAC. The fluctuations of line voltage shall have no visible effect on the luminous output.

The luminaire shall have a power factor of 90% or greater at all standard operating voltages and full luminaire output.

Sound Rated A+. Driver shall be >80% efficient at full load across all input voltages.

Input wires shall be 18AWG, 300V minimum, solid copper.

Controls

Luminaire shall be equipped with interface for nLight wired or wireless network with integral power supply as per specification.

Dimming

The luminaire shall be capable of continuous dimming without perceivable stroboscopic flicker as measured by flicker index (ANSI/IES RP-16-10) over a range of 100 – 10%, 100 – 1.0% or 100 – 0.1% of rated lumen output with a smooth shut off function to step to 0%.

eldoLED LED drivers shall conform to IEEE P1789 standards. Alternatively, manufacturers must demonstrate conformance with product literature and testing which demonstrates this performance. Systems that do not meet IEEE P1789 will not be considered.

Driver is inaudible in 24dB environment, and stable when input voltage conditions fluctuate over what is typically experienced in a commercial environment.

Construction

Fully serviceable and upgradeable lensed LED light engine, both the driver and light engine are suitable for field maintenance and are serviceable from above or below the ceiling.

Luminaire housing shall be constructed of 16-gauge galvanized steel and have preinstalled telescopic mounting bars with maximum 32" and minimum 15" extension and 4" vertical adjustment.

High-impact polymer trim shall be constructed with a durable, vapor deposition finish.

Patented adjustable aperture allows ¼" adjustments in all directions and up to 5° of rotation for post-installation adjustment to ensure trim-to-trim alignment.

Injection molded mud ring included with flangeless trims. Ships separately. Installs independently of the mounting frame to reduce cracks in plaster due to vibration.

Luminaires shall be suitable for installation in ceilings up to 1½" thick.

Tool-less adjustments shall be possible after installation.

The assembly and manufacturing process for the luminaire shall be designed to assure all internal components are adequately supported to withstand mechanical shock and vibration.

25°C ambient temperature standard (1/2" clearance on all sides from non-combustible materials in non-IC applications, unless marked spacing noted otherwise). For use in insulated ceilings, a 3" clearance on all sides from insulation is required (unless marked spacing noted otherwise). 40°C high ambient optional.

Listings

Fixtures are CSA Certified to meet US and Canadian Standards: All fixtures manufactured in strict accordance with the appropriate and current requirements of the "Standards for Safety" to UL, wet location covered ceiling. Luminaire configurations are Energy Star certified through testing in EPA-recognized laboratories, with the results reviewed by an independent, accredited certification organization. Visit www.energystar.gov for specific configurations listed.

Photometrics

LEDs tested to LM-80 standards. Measured by IESNA Standard LM-79-08 in an accredited lab. Lumen output shall not decrease by more than 30% over the minimum operational life of 60,000 hours.

Color appearance from luminaire to luminaire of the same type and in all configurations, shall be consistent both initially and at 60,000 hours and operate within a tolerance of <2.5 MacAdam ellipse as defined by a point at the intersection of the CCT line and the black body locus line in CIE chromaticity space.

BUY AMERICAN ACT

This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. 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.

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*

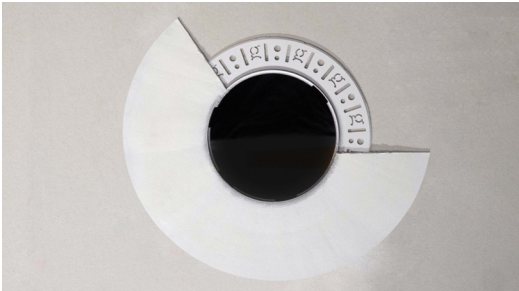
To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

Flangeless



Partially finished mud ring, showing cross-section detail.



An EVO downlight requires only approximately 3" of plaster to finish.



EVO with flangeless trim

Flangeless Installation

Gotham's flangeless option utilizes a micro-thin polymer mud ring that minimizes the amount of drywall compound required to finish the ceiling. The end result is a virtually undetectable flangeless downlight installation.

The polymer mud ring is installed independent of the of the recessed frame, therefore floating with the ceiling. This innovation minimizes any surface cracks during reflector installation, ceiling movement and any future service to the recessed frame, wiring, electronics, etc.

Marked Spacing in Inches 25°C Ambient			
Lumen Package	Fixed Center to Center MIN	Fixture Center to Building Member MIN	Space Above Fixture
500-5000	None	None	None
6000	24	12	5
8000	36	18	11
10000			9
12000			
15000			
17500	72	36	

EVO - eldoLED Driver Default Dimming Curve			
Nomenclature	Min Dimming	Driver Dim Curve	Control Dim Curve
EZ10	10%	Linear	Linear/Logarithmic
EZ1	1%	Linear	Linear/Logarithmic
EXA1	1%	Linear	Linear/Logarithmic
EZB	<1%	Logarithmic	Linear
EDAB	<1%	Logarithmic	Linear
EXAB	<1%	Logarithmic	Linear
EDXB	<1%	Square	Linear

Marked Spacing in Inches 40°C Ambient			
Lumen Package	Fixed Center to Center MIN	Fixture Center to Building Member MIN	Space Above Fixture
5000	24	12	5
6000			
8000			
10000	48	24	9
12000			
15000			
17500	72	36	9

Marked Spacing Chicago Plenum Open Frame in Inches 25°C Ambient			
Lumen Package	Fixed Center to Center MIN	Fixture Center to Building Member MIN	Space Above Fixture
250-5000	None	None	None
6000	24	12	5
8000	36	18	11
10000			9
12000			
15000			
17500	72	36	

Marked Spacing Chicago Plenum Enclosure in Inches 25°C Ambient			
Lumen Package	Fixed Center to Center MIN	Fixture Center to Building Member MIN	Space Above Fixture
250-6000	None	None	None
8000	36	18	6
10000	48	24	3
12000			

Driver		Control Provided (note: 347V/UVOLT versions provided with 347 option selected)			
Nomenclature	Description	NLT	NLTER	NLTAIR2	NLTAIRER2
GZ10	0-10V driver dims to 10%	nPP16 D EFP	nPP16 D ER EFP	RPP20 D 24V G2	RPP20 D 24V ER G2
GZ1	0-10V driver dims to 1%	nPP16 D EFP	nPP16 D ER EFP	RPP20 D 24V G2	RPP20 D 24V ER G2
EZ10	eldoLED 0-10V ECOdrive	nPS 80 EZ	nPS 80 EZ ER	RPP20 D 24V G2	RPP20 D 24V ER G2
EZ1	eldoLED 0-10V ECOdrive	nPS 80 EZ	nPS 80 EZ ER	RPP20 D 24V G2	RPP20 D 24V ER G2
EZB	eldoLED 0-10V SOLOdrive	nPS 80 EZ	nPS 80 EZ ER	RPP20 D 24V G2	RPP20 D 24V ER G2

How to Estimate Delivered Lumens in Emergency Mode

Delivered Lumens = 1.25 x P x 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.

*Dimensions in inches [centimeters]

Aperture: 6" (15.2)

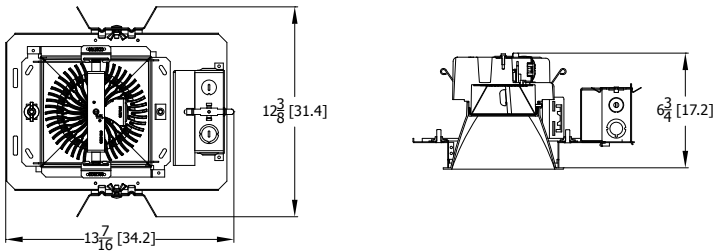
Ceiling Opening: 6-5/8" (16.8) self-flanged

Overlap trim: 7" (17.8) self-flanged

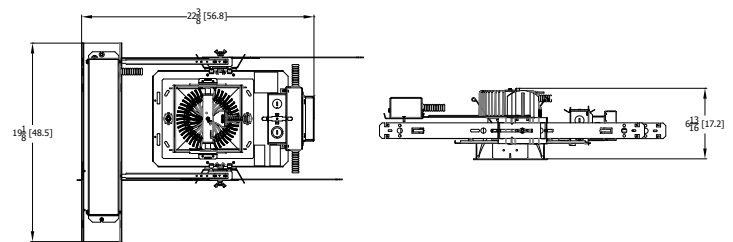
6-3/4" (17.1) flangeless

DIMENSIONAL DATA

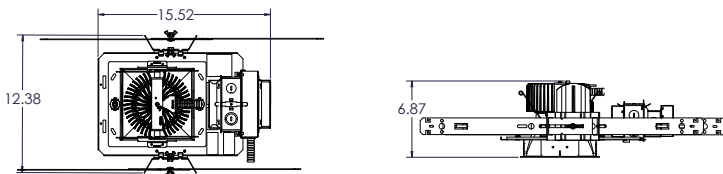
250LM-5000LM Standard



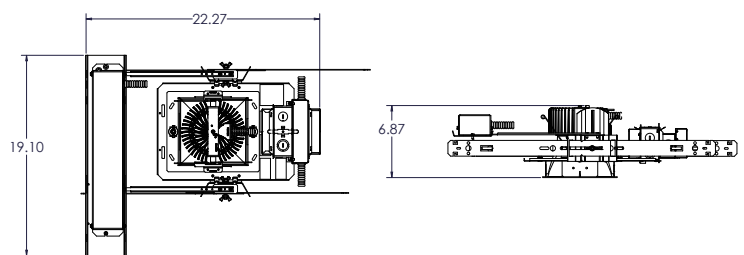
250LM-5000LM Battery Pack



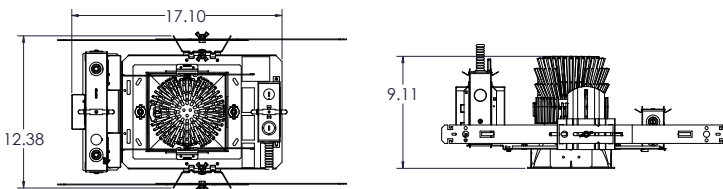
6000LM-8000LM Standard



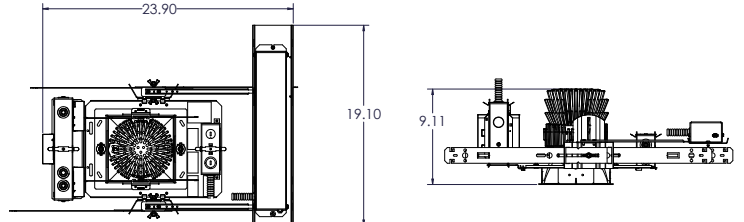
6000LM-8000LM Battery Pack



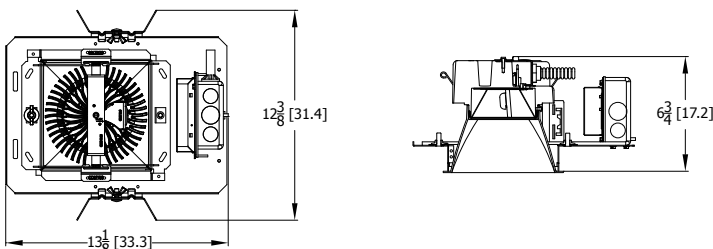
10,000LM-17,500LM Standard



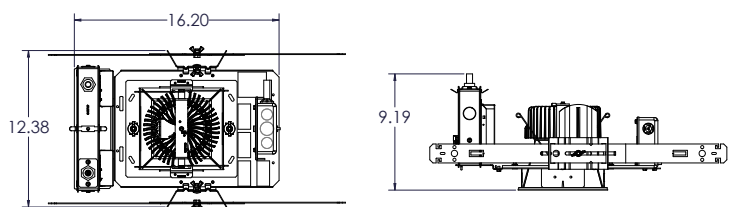
10,000LM-17,500LM Battery Pack



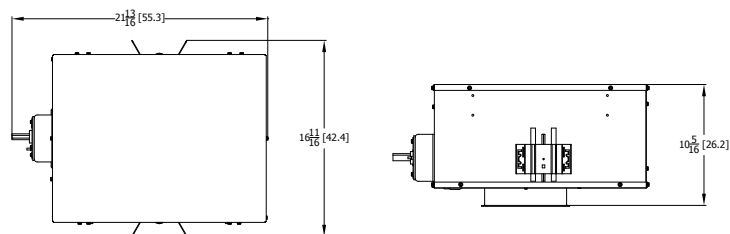
250-5000LM Open Frame CP



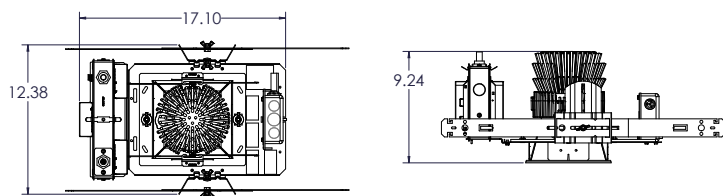
5000 (Lutron & POWER Drive Only) 6000 & 8000 (All) Square Downlight
Open Frame CP



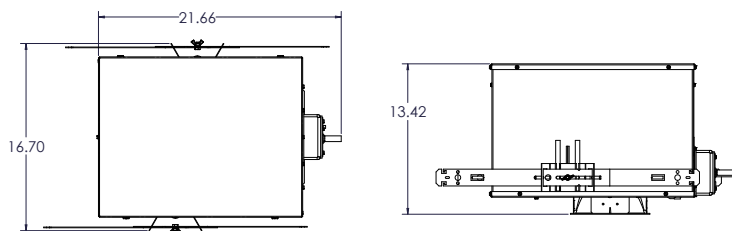
250LM-6000LM CP Enclosed with Battery Pack and/or nLight™ Only



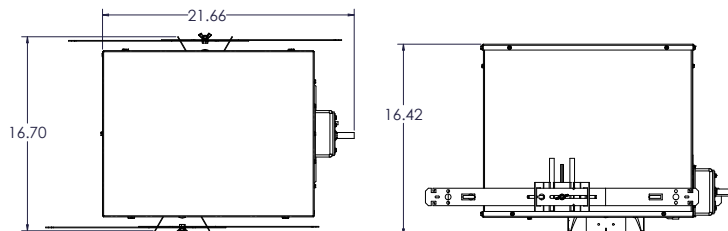
10,000-17,500 Lumen CP



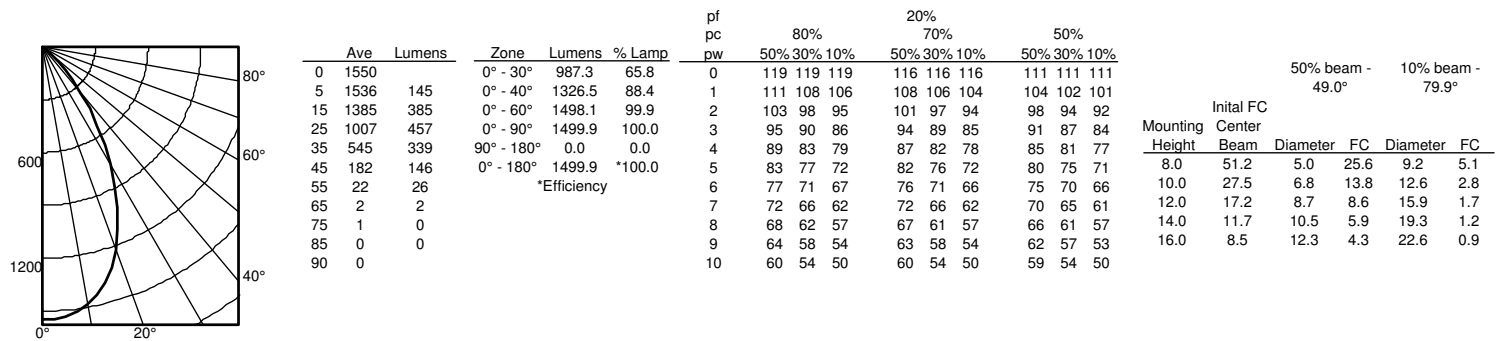
8000 Lumen CP (With Battery Pack & nLight® Only)



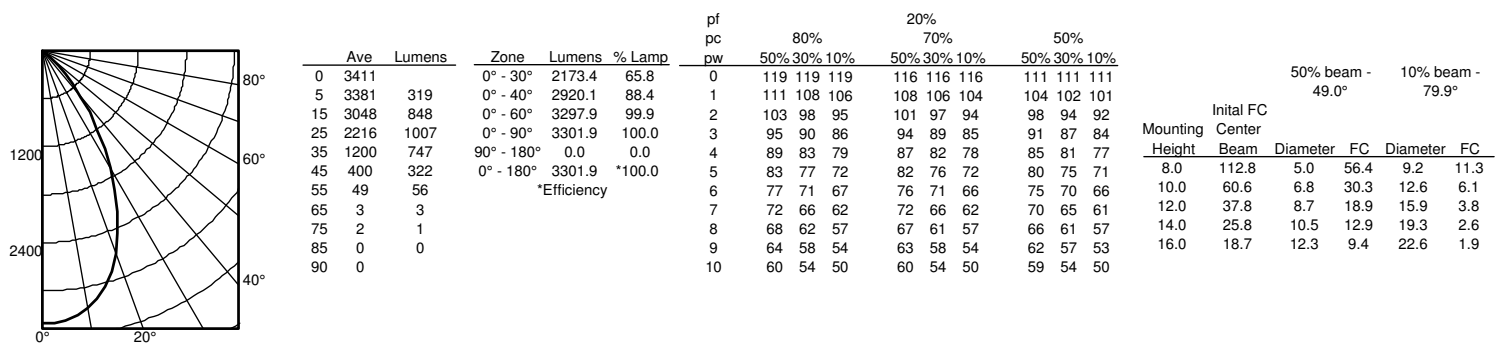
12000 & 10000 Lumen CP (With Battery Pack & nLight® Only)



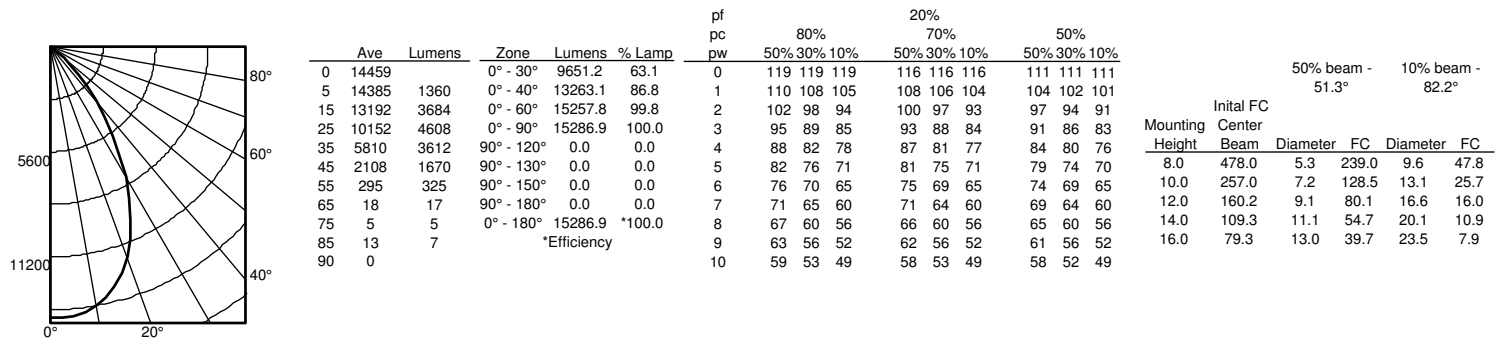
EVO6SQ 35/15 AR LSS, INPUT WATTS: 14.7W, DELIVERED LUMENS: 1500LM, LPW = 102, TEST NO. LTL27900P105



EVO6SQ 35/30 AR LSS, INPUT WATTS: 29.5W, DELIVERED LUMENS: 3302LM, LPW = 111.9, TEST NO. LTL27900P117



EVO6SQ 35/150 AR LSS, INPUT WATTS: 144.3W, DELIVERED LUMENS: 15287LM, LPW = 105.9, TEST NO. ISF 34271P264



Lumen Output Multiplier		
CRI	CCT	Multiplier
80	2700K	0.96
	300K	1.00
	3500K	1.00
	4000K	1.01
	5000K	1.07
90	2700K	0.80
	300K	0.83
	3500K	0.85
	4000K	0.87
	5000K	0.91

Reflector Finish Multiplier	
Reflector Finish	Multiplier
LS - Specular	1
LSS - Semi Specular	0.956
WR - White	0.87
LD - Matte Diffuse	0.85
BR - Black	0.73

nLight® AIR is the ideal solution for retrofit or new construction spaces where adding communication wiring is cost prohibitive. The integrated nLight AIR rPP20 Power Pack is part of each EVO Luminaire ordered with the NLTAIR option. These individually addressable controls offer the ultimate in flexibility during initial setup and for space repurposing.

nLight® AIR Control Accessories

Order as separate catalog number. Visit [nLight AIR](#).

Wall Switches

Model Number	
On/Off single pole	rPODB (color) G2
On/Off two pole	rPODB 2P (color) G2
On/Off & raise/lower single pole	rPODB DX (color) G2
On/Off & raise/lower two pole	rPODB 2P DX (color) G2

nLight® AIR Control Accessories (cont.)

Occupancy Sensors (PIR/dual tech)

Model Number	
Small motion 360°, ceiling	rCMS 9 / rCMS PDT 9
Large motion 360°, ceiling	rCMS 10 / rCMS PDT 10

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.

nLight® The nLight® solution is a digital networked lighting control system that provides both energy savings and increased user configurability by cost effectively integrating time-based, daylight-based, sensor-based and manual lighting control schemes.

nLight® Wired Control Accessories

Order as separate catalog number. Visit [nLight](#).

Wall Switches

Model Number	
On/Off single pole	nPODM (color)
On/Off two pole	nPODM 2P (color)
On/Off & raise/lower single pole	nPOD DX (color)
On/Off & raise/lower two pole	nPODM 2P DX (color)
Graphic touchscreen	nPOD GFX (color)

Photocell Controls

Dimming	nCM ADCX
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nLight® Wired Control Accessories (cont.)

Occupancy Sensors (PIR/dual tech)

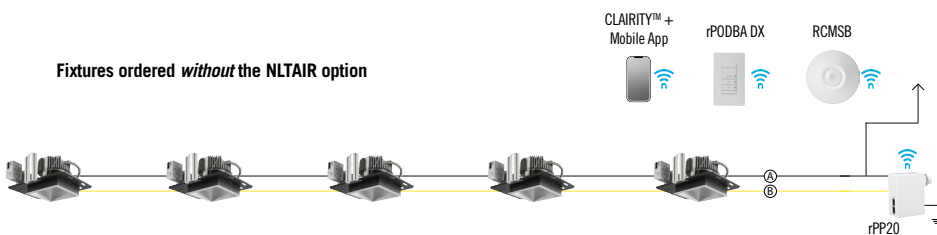
Model Number	
Small motion 360°, ceiling	nCM 9 / nCM PDT 9
Large motion 360°, ceiling	nCM 10 / nCM PDT 10
Wide View	nWV 16 / nWV PDT 16
Wall switch with raise/lower	nWSX LV DX / nWSX PDT LV DX

Cat-5 Cables (plenum rated)

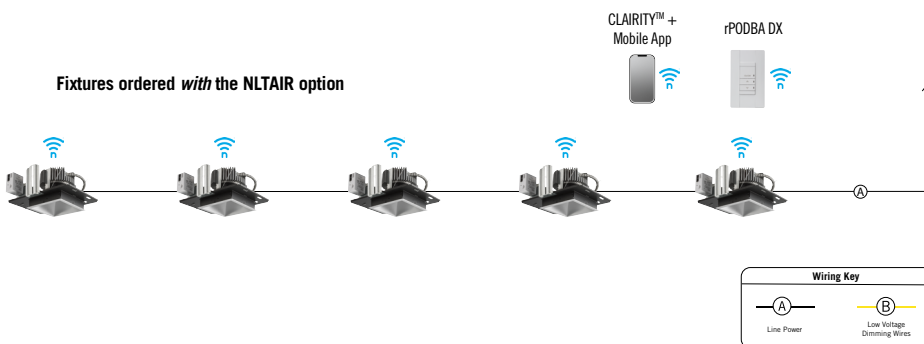
10', CAT5	CAT5 10FT J1
15', CAT5	CAT5 15FT J1

Possibilities for nLight® AIR

Fixtures ordered *without* the NLTAIR option

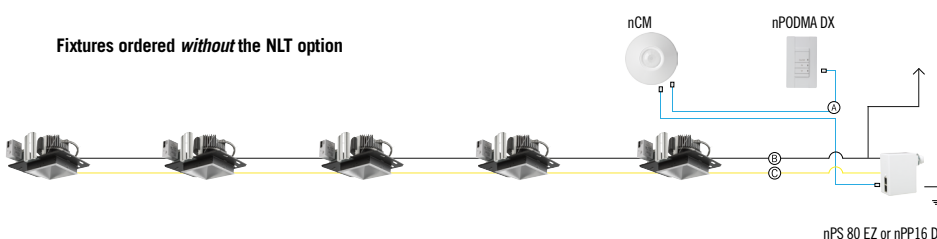


Fixtures ordered *with* the NLTAIR option



Possibilities for nLight® wired

Fixtures ordered *without* the NLT option



Fixtures ordered *with* the NLT option

