



General Illumination Retrofit Downlight

4"

Feature Set

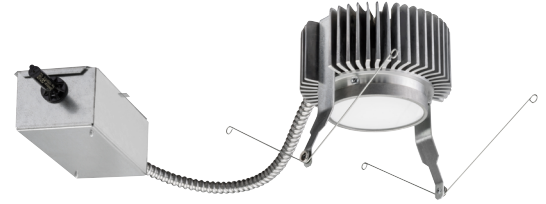
- Bounding Ray™ optical design
- Unitized optics mechanically attach the light engine to the lower reflector for complete optical alignment.
- 45° cutoff to source and source image
- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- 2.5 SDCM; 85 CRI typical, 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

Distribution



Superior Performance

Nominal Lumens	250	500	750	1000	1500	2000	2500	3000	3500
Delivered Lumens	271	573	808	1001	1527	1994	2580	3110	3612
Wattage	3.1	7.2	7.9	8.8	13.7	19.5	25.7	31.2	38.4
Lumens per Watt	87.4	79.6	102.3	113.8	111.5	102.3	100.4	99.7	94.1



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

Luminaire Type:

Catalog Number:

EXAMPLE: EV04R 35/10 AR MWD LSS MVOLT EZ1

Series¹	Color Temperature	Nominal Lumen Values	Reflector & Flange Color	Trim Type	Trim Style	Distribution⁴	Finish
EV04R	27/ 2700 K	02 250 lumens	AR Clear	(blank) Downlight	(blank) Self-flanged FL Flangeless³	MD Medium (0.9 s/mh) MWD Medium wide (1.0 s/mh) WD Wide (1.2 s/mh)	LSS Semi-specular LD Matte-diffuse LS Specular
	30/ 3000 K	05 500 lumens	PR Pewter				
	35/ 3500 K	07 750 lumens	WTR Wheat				
	40/ 4000 K	10 1000 lumens	GR Gold				
	50/ 5000 K	15 1500 lumens	WR² White				
		20 2000 lumens	BR² Black				
		25 2500 lumens	WRAMF² White Anti-microbial				
		30 3000 lumens					
		35 3500 lumens					

Voltage	Driver⁶	Control Interface	Options
MVOLT	GZ10 0-10V driver dims to 10%	NLT⁸ nLight® dimming pack controls	SF Single fuse. Specify 120V or 277V.
120	GZ1 0-10V driver dims to 1%	NLTER⁴,⁸,¹² nLight® dimming pack controls emergency circuit	TRW⁹ White painted flange
277	EZ10 eldoLED 0-10V ECODrive. Linear dimming to 10% min.	NLTAIR2¹⁴,¹⁵ nLight® Air enabled	TRBL¹⁰ Black painted flange
347⁴,⁵	EZ1 eldoLED 0-10V ECODrive. Linear dimming to 1% min.	NLTAIRER2⁴,¹²,¹⁴ nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit	ELSD¹¹ Emergency battery pack, 10W, with self-diagnostics, integral test switch
	EZB eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%.	NLTAIREM2²,¹³,¹⁴ nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit with battery pack options.	ELRSD¹¹ Emergency battery pack, 10W, with self-diagnostics, remote test switch
	EDAB⁷ eldoLED SOLOdrive DALI. Logarithmic dimming to <1%.		E10W¹¹ Emergency battery pack, 10W Constant Power, CA Title 20 compliant with integral test switch
	EDXB⁷ eldoLED POWERdrive DMX with RDM (remote device management). Square Law dimming to <1%. Minimum 1000 lumens. Includes termination resistor. Refer to DMXR Manual .		E10WR¹¹ Emergency battery pack, 10W Constant Power, CA Title 20 compliant with remote test switch
	ECOD⁷ Lutron Ecosystem digital Hi-Lume 1% softon, fade to black. Min: 250LLM; Max: 4000LM.		N80¹³ nLight® Lumen Compensation
			90CRI High CRI (90+)
			RRL RELOC®-ready luminaire. Provides compatibility with Lithonia RELOC system. Access above ceiling required.

ACCESSORIES order as separate catalog numbers (shipped separately)

CTA4-8 YK	Ceiling thickness adapter (extends mounting frame to accommodate ceiling thickness up to 5"). Adds ~4" to fixture height.
ISD BC	0-10V wallbox dimmer. Refer to ISD-BC .

ORDERING NOTES

- Consult factory for mounting frames other than Gotham.
- Not available with finishes.
- Not available with TRW or TRBL 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® and XPoint options.
- Must specify voltage.
- For use with different reflector finish only (i.e. AR, PR, WTR, GR options). Not available with WR (white reflector) or FL option.
- For use with different reflector finish only (i.e. AR, PR, WTR, GR options). Not available with BR (black reflector) or FL option.
- Above ceiling access required.
- ER for use as UL924 Emergency Operation via power sense lead. Will require an emergency hot feed and normal hot feed. EM for use as UL924 Emergency Operation via power interrupt detection.
- Fixture begins at 80% light level. Must be specified with NPS80EZ or NPS80EZER.
- 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

Fully serviceable and upgradeable lensed LED light engine suitable for field maintenance or service from below the ceiling.
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

Compatible only with Gotham open style mounting frames. Originally installed mounting frame must be a Gotham GRS, GRSF, GRSH, AFV, or LGFV series frame. See frame compatibility table.
Junction box capacity: 8 (4 in, 4 out) 12AWG rated for 90°C
Luminaires shall be suitable for installation in ceilings up to 1½" thick. (specify ceiling thickness adapter to extend frame to accommodate ceiling thickness up to 5")
The assembly and manufacturing process for the SSL 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 from non-combustible materials in non-IC applications, sides 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).

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.

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 6,000 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.

Government Procurement

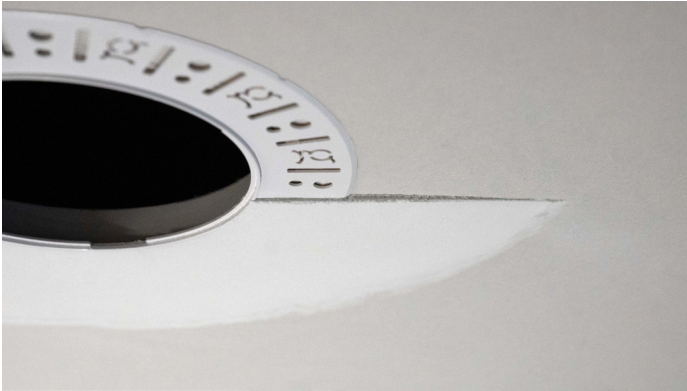
BAA - Buy America(n) Act: Product qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product also qualifies as manufactured in the United States under DOT Buy America regulations
BABA - Build America Buy America: Product qualifies as produced in the United States under the definitions of the Build America, Buy America Act
Please refer to www.acuitybrands.com/buy-american for additional information.

Warranty

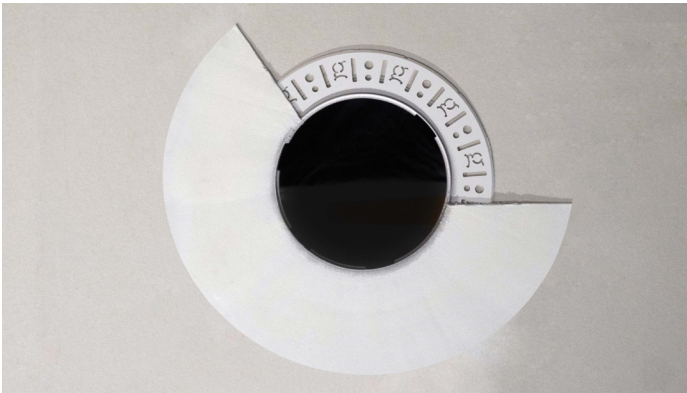
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

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.



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.

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.

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

Distributions	
Distribution	Beam
MD	51
MWD	57
WD	73

Lumen Output Multiplier		
CRI	CCT	Multiplier
80	2700K	0.96
	3000K	1.00
	3500K	1.00
	4000K	1.01
	5000K	1.07
90	2700K	0.80
	3000K	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

Driver		Control Provided (note: 347V/UVOLT versions provided with 347 option selected)				
Nomenclature	Description	NLT	NLTER	NLTAIR2	NLTAIR2ER	NLTAIR2EMR
GZ10	0-10V driver dims to 10%	nPP16 D EFP	nPP16 D ER EFP	RPP20 D 24V G2	RPP20 D 24V ER 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	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	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	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	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.

DIMENSIONAL DATA

*Dimensions in inches [centimeters]

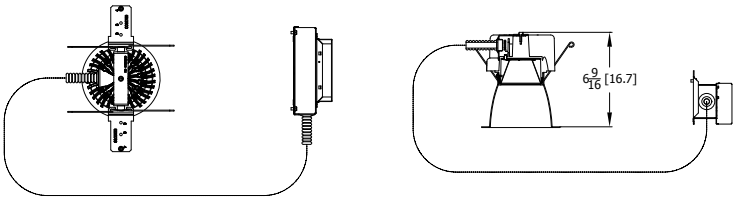
Aperture: 4-5/16" (11)

Ceiling Opening: 5-1/8" (13) self-flanged

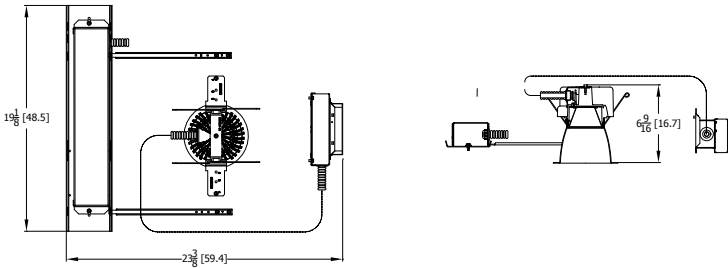
Overlap trim: 5-7/16" (13.8)

5-1/4" (13.3) flangeless

Standard Retrofit

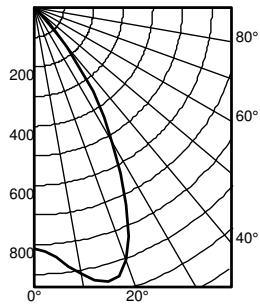


Standard Retrofit with Battery Back



EVO4R 35/10 MWD LSS INPUT WATTS: 8.8W, DELIVERED LUMENS: 951.6LM, LPW = 108.1, 1.08 S/MH, TEST # LTL27786P127

Photometry

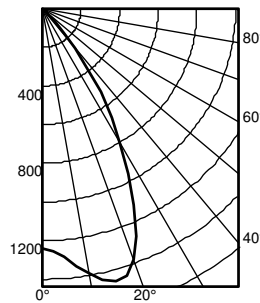


Ave	Lumens	Zone	Lumens	% Lamp
0	813	0° - 30°	681.6	71.6
5	844	0° - 40°	894.9	94.0
15	959	0° - 60°	950.7	99.9
25	736	0° - 90°	951.6	100.0
35	344	90° - 180°	0.0	0.0
45	58	0° - 180°	951.6	*100.0
55	1			
65	1			
75	0			
85	0			
90	0			

*Efficiency

Initial FC					
50% beam - 56.7° 10% beam - 79.7°					
Mounting	Center				
Height	Beam	Diameter	FC	Diameter	FC
8.0	26.9	5.9	13.4	9.2	2.7
10.0	14.5	8.1	7.2	12.5	1.4
12.0	9.0	10.3	4.5	15.9	0.9
14.0	6.2	12.4	3.1	19.2	0.6
16.0	4.5	14.6	2.2	22.5	0.4

EVO4R 35/15 MWD LSS INPUT WATTS: 13.7W, DELIVERED LUMENS: 1450.9LM, LPW = 105.9, T 1.08 S/MH, EST # LTL27786P133

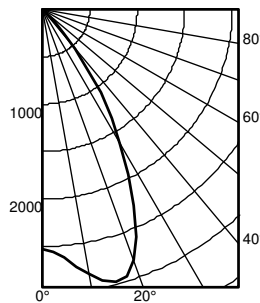


Ave	Lumens	Zone	Lumens	% Lamp
0	1240	0° - 30°	1039.2	71.6
5	1286	0° - 40°	1364.4	94.0
15	1462	0° - 60°	1449.5	99.9
25	1122	0° - 90°	1450.9	100.0
35	525	90° - 180°	0.0	0.0
45	88	0° - 180°	1450.9	*100.0
55	2			
65	1			
75	0			
85	0			
90	0			

*Efficiency

Initial FC					
50% beam - 56.7° 10% beam - 79.7°					
Mounting	Center				
Height	Beam	Diameter	FC	Diameter	FC
8.0	41.0	5.9	20.5	9.2	4.1
10.0	22.0	8.1	11.0	12.5	2.2
12.0	13.7	10.3	6.9	15.9	1.4
14.0	9.4	12.4	4.7	19.2	0.9
16.0	6.8	14.6	3.4	22.5	0.7

EVO4R 35/30 MWD LSS INPUT WATTS: 31.2W, DELIVERED LUMENS: 2955.1LM, LPW = 94.7, 1.08 S/MH, TEST # LTL27786P151



Ave	Lumens	Zone	Lumens	% Lamp
0	2526	0° - 30°	2116.5	71.6
5	2620	0° - 40°	2778.8	94.0
15	2978	0° - 60°	2952.2	99.9
25	2285	0° - 90°	2955.1	100.0
35	1070	90° - 180°	0.0	0.0
45	180	0° - 180°	2955.1	*100.0
55	5			
65	2			
75	0			
85	0			
90	0			

*Efficiency

Initial FC					
50% beam - 56.7° 10% beam - 79.7°					
Mounting	Center				
Height	Beam	Diameter	FC	Diameter	FC
8.0	83.5	5.9	41.7	9.2	8.3
10.0	44.9	8.1	22.4	12.5	4.5
12.0	28.0	10.3	14.0	15.9	2.8
14.0	19.1	12.4	9.5	19.2	1.9
16.0	13.9	14.6	6.9	22.5	1.4

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)

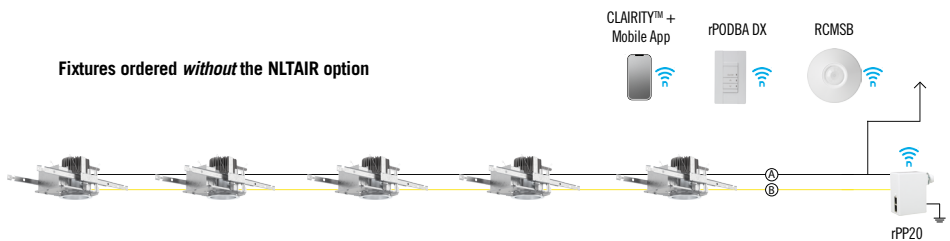
	Model Number
Small motion 360°, ceiling	nCM 9 / nCM PDT 9
Large motion 360°, ceiling	nCM 10 / nCM PDT 10
Wide View	nWV 16 / nWV PDT 16
Wall switch with raise/lower	nWSX LV DX / nWSX PDT LV DX

Cat-5 Cables (plenum rated)

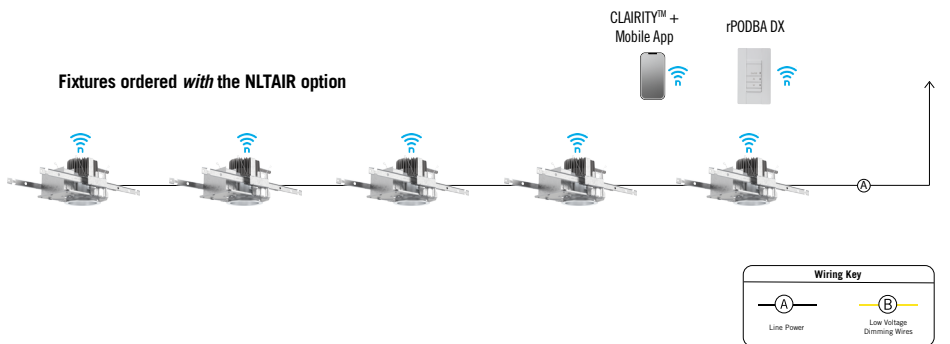
10', CAT5	CAT5 10FT J1
15', CAT5	CAT5 15FT J1

Possibilities for nLight® AIR

Fixtures ordered *without* the NLTAIR option

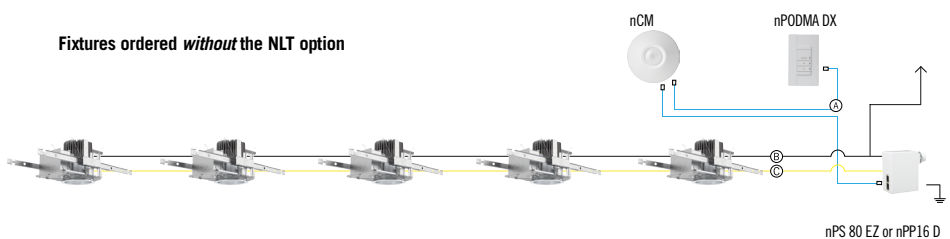


Fixtures ordered *with* the NLTAIR option



Possibilities for nLight® wired

Fixtures ordered *without* the NLT option



Fixtures ordered *with* the NLT option

