

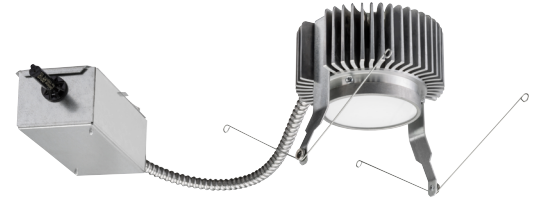
OVERVIEW

General Illumination Retrofit 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 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

Downlight

Nominal Lumens	250	500	750	1000	1500	2000	2500	3000	3500	4000	4500
Delivered Lumens	297	519	776	994	1471	2006	2537	3077	3542	4027	4533
Wattage	3.4	6.2	8.2	9.6	14.7	19.7	24.7	29.5	33.8	39.0	47.3
Lumens per Watt	87.4	83.7	94.6	103.5	100.1	101.8	102.7	104.3	104.8	103.3	95.8

Coordinated Apertures | Multiple Layers of Light



General Illumination Layer | EVO



High Center Beam Layer | Incito



EVO + Incito — Multiple Layers of Light

COMPLEMENTARY PRODUCTS

								Core	
Downlight	Open Wallwash	Lensed Wallwash	Cylinder	Downlight	Adjustable	Lensed Wallwash	Cylinder		
									Healthcare
MRI	Surgical Suite	Patient Room						Special Applications	
Dynamic	Food Service	Vandal	Clean Room	Shower					

A+ Capable options indicated by this color background.

Luminaire Type:

Catalog Number:

EXAMPLE: EVO6R 35/10 AR MWD LSS MVOLT EZ1

Series ¹	Color Temperature	Nominal Lumen Values	Reflector & Flange Color	Trim Style	Distribution
EVO6R	27/ 2700 K	02 250 lumens 25 2500 lumens	AR Clear	(blank) Self-flanged	VND Very Narrow (0.5 s/mh)
	30/ 3000 K	05 500 lumens 30 3000 lumens	PR Pewter	FL Flangeless	MD Medium (0.9 s/mh)
	35/ 3500 K	07 750 lumens 35 3500 lumens	WTR Wheat		ND Narrow (0.7 s/mh)
	40/ 4000 K	10 1000 lumens 40 4000 lumens	GR Gold		MWD Medium Wide (1.0 s/mh)
	50/ 5000 K	15 1500 lumens 45 4500 lumens	WR ² White		WD Wide (1.2 s/mh)
		20 2000 lumens	BR ² Black		
			WRAMF ² White Anti-microbial		

Finish	Voltage	Driver ⁵	Control Interface
LSS Semi-specular	MVOLT	GZ10 0-10V driver dims to 10%	NLT ⁷ Self-flanged
LD Matte-diffuse	120	GZ1 0-10V driver dims to 1%	NLTER ^{3,7,10} Flangeless
LS Specular	277	EZ10 eldoLED 0-10V ECOdrive. Linear dimming to 10% min.	NLTAIR ^{2,12} nLight® AIR enabled
	347 ^{3,4}	EZ1 eldoLED 0-10V ECOdrive. Linear dimming to 1% min.	NLTAIRER ^{2,10,12} nLight® AIR enabled emergency
		EZB eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%.	EXA1 XPoint Wireless, eldoLED driver. Linear dimming to 1%
		EDAB eldoLED SOLOdrive DALI. Logarithmic dimming to <1%.	EXAB XPoint Wireless, eldoLED driver. Logarithmic dimming to dark
		EDXB ⁶ eldoLED POWERdrive DMX with RDM (remote device management). Square Law dimming to <1%. Includes termination resistor. Refer to DMXR Manual	
		ECOD ⁶ Lutron Ecosystem digital Hi-Lume 1% soft-on, fade to black. Max: 4000LM.	

Options

SF Single fuse. Specify 120V or 277V.	N80 ¹¹ nLight® Lumen Compensation
TRW ⁸ White painted flange	BGTD Bodine generator transfer device. Specify 120V or 277V.
TRBL ⁹ Black painted flange	90CRI High CRI (90+)
EL Emergency battery pack, 10W, with integral test switch	RRL_ RELOC®-ready luminaire connectors enable a simple and consistent factory installed option across all ABL luminaire brands. Refer to RRL for complete nomenclature
ELR Emergency battery pack 10W, with remote test switch	
ELSD Emergency battery pack 10W, with integral test switch	
ELRSD Emergency battery pack 10W, with self-diagnostics, remote test switch	
E10WCP Emergency battery pack, 10W Constant Power, CA Title 20 compliant with integral test switch	
E10WCPR Emergency battery pack, 10W Constant Power, CA Title 20 compliant with remote test switch	

ACCESSORIES — order as separate catalog numbers (shipped separately)

CTA4-8 YK Ceiling thickness adapter for 8,000lm and below (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 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.
- Specify voltage 120V or 277V.
- For use with different reflector finish only (i.e. AR, PR, WTR, GR options). Not applicable with White Reflector or FL option.
- For use with different reflector finish only (i.e. AR, PR, WTR, GR options). Not applicable with Black Reflector or FL 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 NL or NLER. Only available with EZ10 and EZ1 drivers.
- Not available DALI or DMX drivers. Not available with CP or N80 options. Not recommended for metal ceiling installations.

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, or AFV 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 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 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 with 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.

A+ Capable Luminaire

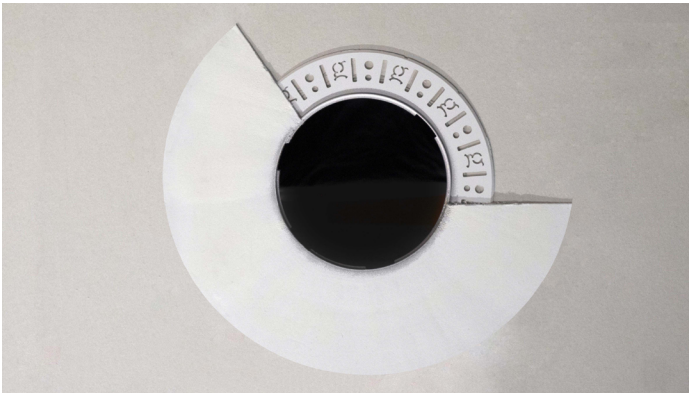
- This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.
- All configurations of this luminaire meet the Acuity Brands’ specification for chromatic consistency
 - This luminaire 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



Partially finished mud ring, showing cross-section detail.



An 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 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.

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

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

Control Provided (note: 347V/UVOLT versions provided with 347 option selected)					
Driver	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

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

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.

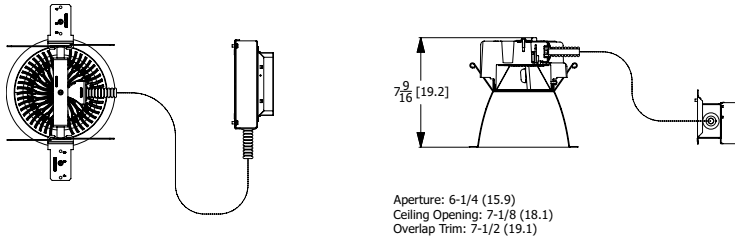
Distributions		
Nomenclature	Beam Angle	Field Angle
VND	30	64
ND	44	69
MD	54	82
MWD	67	89
WD	71	92

DIMENSIONAL DATA

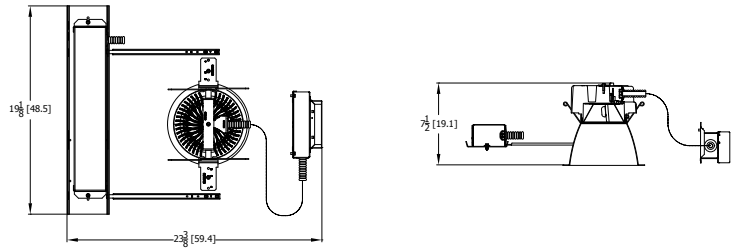
*Dimensions in inches [centimeters]

Aperture: 6 1/4" [15.9]	Ceiling Opening: 7 1/8" [18.1] self-flanged
Overlap Trim: 7 1/2" [19.1]	7 1/4" [18.4] flangeless

Standard Retrofit



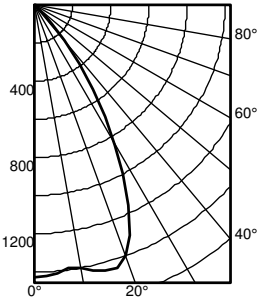
Standard Retrofit with Battery Pack



Photometry

EV06R 35/15 AR MWD LS

INPUT WATTS: 14.7, DELIVERED LUMENS: 1471LM, LPW= 100, 1.03 S/MH, TEST NO. LTL27783P1505

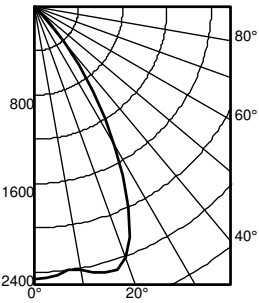


Ave Lumens	Zone	Lumens	% Lamp	pf pc pw	80%			20% 70%			50%		
					50%	30%	10%	50%	30%	10%	50%	30%	10%
0	0° - 30°	1431	72.2	0	119	119	119	116	116	116	111	111	111
5	0° - 40°	1410	94.7	1	111	108	106	109	106	104	105	103	101
15	0° - 60°	1442	99.9	2	103	99	96	101	98	95	98	95	93
25	0° - 90°	1161	100.0	3	96	91	87	95	90	87	92	88	85
35	90° - 180°	540	0.0	4	90	84	80	89	84	80	87	82	79
45	0° - 180°	78	100.0	5	84	78	74	83	78	74	81	77	73
55	*Efficiency			6	79	73	69	78	73	69	77	72	68
65		3		7	74	68	64	74	68	64	72	67	63
75		1		8	70	64	60	69	64	60	68	63	59
85		0		9	66	60	56	65	60	56	64	59	56
90		0		10	62	56	52	62	56	52	61	56	52

Mounting Height	Initial Center Beam	50% beam - 54.4°		10% beam - 77.9°	
		Diameter	FC	Diameter	FC
8.0	47.3	5.7	23.7	8.9	4.7
10.0	25.4	7.7	12.7	12.1	2.5
12.0	15.9	9.8	7.9	15.3	1.6
14.0	10.8	11.8	5.4	18.6	1.1
16.0	7.9	13.9	3.9	21.8	0.8

EV06R 35/25 AR MWD LS

INPUT WATTS: 24.7, DELIVERED LUMENS: 2536.7LM, LPW= 102.7, 1.03 S/MH, TEST NO. LTL27783P1553

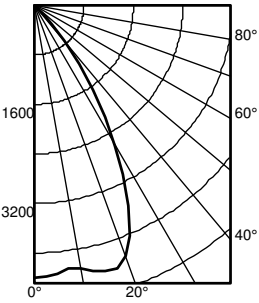


Ave Lumens	Zone	Lumens	% Lamp	pf pc pw	80%			20% 70%			50%		
					50%	30%	10%	50%	30%	10%	50%	30%	10%
0	0° - 30°	2469	72.2	0	119	119	119	116	116	116	111	111	111
5	0° - 40°	2432	94.7	1	111	108	106	109	106	104	105	103	101
15	0° - 60°	2487	99.9	2	103	99	96	101	98	95	98	95	93
25	0° - 90°	2002	100.0	3	96	91	87	95	90	87	92	88	85
35	90° - 180°	932	0.0	4	90	84	80	89	84	80	87	82	79
45	0° - 180°	135	100.0	5	84	78	74	83	78	74	81	77	73
55	*Efficiency			6	79	73	69	78	73	69	77	72	68
65		4		7	74	68	64	74	68	64	72	67	63
75		1		8	70	64	60	69	64	60	68	63	59
85		0		9	66	60	56	65	60	56	64	59	56
90		0		10	62	56	52	62	56	52	61	56	52

Mounting Height	Initial Center Beam	50% beam - 54.4°		10% beam - 77.9°	
		Diameter	FC	Diameter	FC
8.0	81.6	5.7	40.8	8.9	8.2
10.0	43.9	7.7	21.9	12.1	4.4
12.0	27.4	9.8	13.7	15.3	2.7
14.0	18.7	11.8	9.3	18.6	1.9
16.0	13.5	13.9	6.8	21.8	1.4

EV06R 35/45 AR MWD LS

INPUT WATTS: 47.3, DELIVERED LUMENS: 4532.7LM, LPW= 95.8, 1.03 S/MH, TEST NO. LTL27783P1649



Ave Lumens	Zone	Lumens	% Lamp	pf pc pw	80%			20% 70%			50%		
					50%	30%	10%	50%	30%	10%	50%	30%	10%
0	0° - 30°	4411	72.2	0	119	119	119	116	116	116	111	111	111
5	0° - 40°	4346	94.7	1	111	108	106	109	106	104	105	103	101
15	0° - 60°	4443	99.9	2	103	99	96	101	98	95	98	95	93
25	0° - 90°	3578	100.0	3	96	91	87	95	90	87	92	88	85
35	90° - 180°	1665	0.0	4	90	84	80	89	84	80	87	82	79
45	0° - 180°	242	100.0	5	84	78	74	83	78	74	81	77	73
55	*Efficiency			6	79	73	69	78	73	69	77	72	68
65		8		7	74	68	64	74	68	64	72	67	63
75		2		8	70	64	60	69	64	60	68	63	59
85		1		9	66	60	56	65	60	56	64	59	56
90		0		10	62	56	52	62	56	52	61	56	52

Mounting Height	Initial Center Beam	50% beam - 54.4°		10% beam - 77.9°	
		Diameter	FC	Diameter	FC
8.0	145.8	5.7	72.9	8.9	14.6
10.0	78.4	7.7	39.2	12.1	7.8
12.0	48.9	9.8	24.4	15.3	4.9
14.0	33.4	11.8	16.7	18.6	3.3
16.0	24.2	13.9	12.1	21.8	2.4

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

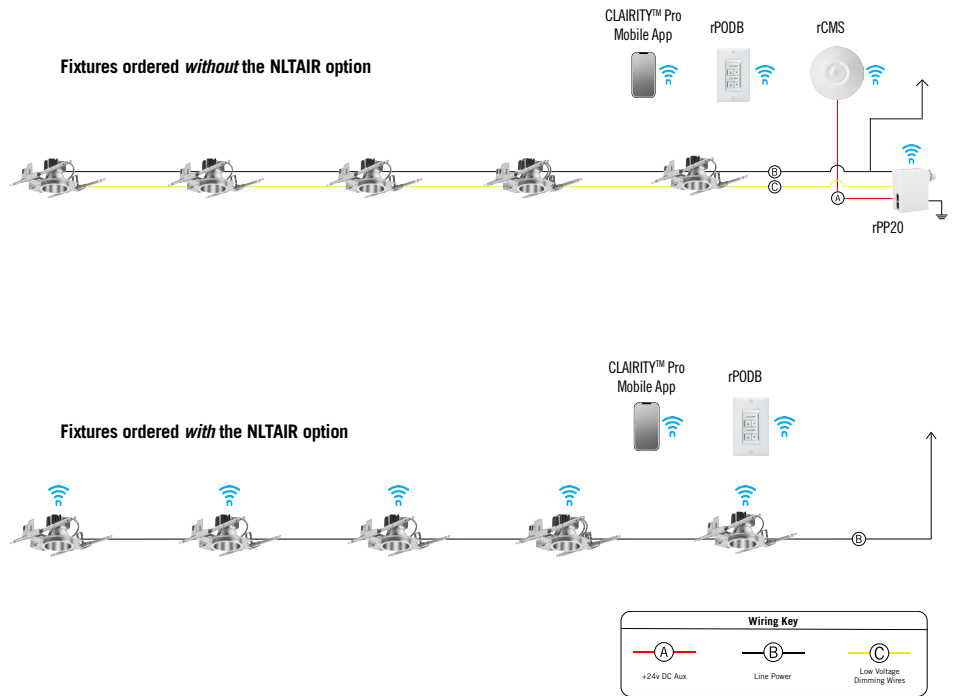
Order as separate catalog number. Visit [nLight AIR](#).

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

Possibilities for nLight® AIR



nLight® Wired 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 (XX)
On/Off two pole	nPODM 2P (XX)
On/Off & raise/lower single pole	nPOD DX (XX)
On/Off & raise/lower two pole	nPODM 2P DX (XX)
Graphic touchscreen	nPOD GFX (XX)

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)	Model Number
10', CAT5	CAT5 10FT J1
15', CAT5	CAT5 15FT J1

Possibilities for nLight® wired

