

OVERVIEW

# High Center Beam Square Downlight

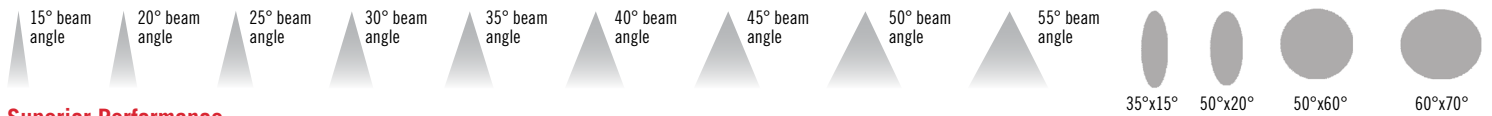
# 2"

## Feature Set

- Thirteen optimized distribution patterns allow designers to achieve tailored objectives
- Bounding Ray™ optical design
- 50° Cutoff to source and source image
- Field interchangeable optic
- Driver and LED light engine fully serviceable from below ceiling
- 70% lumen maintenance at 60,000 hours
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional
- Fixtures are wet location, covered ceiling
- ENERGY STAR® Certified product



## Distribution



## Superior Performance

Nominal lumens	250	500	750	1000	1500	2000
Delivered	266	565	867	1187	1780	2248
Wattage	3.1	5.6	8.7	12.0	19.8	28.6
Efficacy	86	101	100	99	90	79

\*Based on 3500K 80CRI 15D AR LSS

COMPLIMENTARY PRODUCTS

## Coordinated Apertures | Multiple Layers of Light



General Illumination Layer | EVO



High Center Beam Layer | Incito



EVO + Incito — Multiple Layers of Light

### Core



### Healthcare



### Special Applications



A+ Capable options indicated by this color background.

Luminaire Type:

Catalog Number:

EXAMPLE: IC02SQ 35/10 AR LSS 20D MVOLT UGZ

Series	Color Temperature	Lumens	Reflector Color	Flange Type	Reflector Finish	Beam
IC02SQ Incito 2in square Open Downlight	27/ 2700 K	02 250 lumens	AR Clear	(blank) Self-flanged	LSS Semi-specular	15D 15° beam angle
	30/ 3000 K	05 500 lumens	PR Pewter	FL Flangeless	LD Matte diffuse	20D 20° beam angle
	35/ 3500 K	07 750 lumens	WTR Wheat			25D 25° beam angle
	40/ 4000 K	10 1000 lumens	GR Gold			30D 30° beam angle
	50/1 5000 K	15 1500 lumens	WR <sup>2</sup> White painted			35D 35° beam angle
		20 2000 lumens	BR <sup>2</sup> Black			40D 40° beam angle
			BZR <sup>2</sup> Dark Bronze painted			45D 45° beam angle
						50D 50° beam angle
						55D 55° beam angle
						3515D Elliptical 35° x 15° beam angle
						5020D Elliptical 50° x 20° beam angle
						5060D Elliptical 50° x 60° beam angle
						6070D Elliptical 60° x 70° beam angle

Voltage	Driver	Control Interface <sup>5</sup>	Options
MVOLT 120V - 277V 120 120V 277 277V	UGZ <sup>3</sup> Universal dimming to 1% (0-10V, 120V TRIAC or ELV) ECOD <sup>4</sup> Lutron® EcoSystem® digital Hi-Lume <1% soft-on, fade to black. Min: 500LM; Max: 1500LM	(blank) NLT nLight® dimming pack. NLTER <sup>6</sup> nLight® dimming pack for fixtures on emergency circuit NLTAIR2 nLight® AIR dimming pack. NLTAIRER2 <sup>9</sup> nLight® AIR dimming pack for fixtures on emergency circuit NLTAIREM2 nLight® AIR dimming pack for fixtures on emergency circuit	9OCRI <sup>1</sup> High CRI (90+) NCH <sup>7</sup> Structural reinforcement pan ICAT <sup>8</sup> IC/Airtight housing construction CP <sup>8</sup> Chicago Plenum HAO <sup>9</sup> High ambient (40°C) N80 <sup>12</sup> nLight Lumen Compensation TRW <sup>10</sup> White painted flange TRBL <sup>11</sup> Black painted flange

**ACCESSORIES — order as separate catalog numbers (shipped separately)**

IC02OPTC XXD	Additional optics for field installation. Replace "XX" with beam angle.
IC02OPTC KIT	Kit including a field interchangeable optic for each of the 13 preset beam distribution patterns
SDT 347/120 75VA	347V/120V, 75VA step down transformer. Must be remote mounted.

**ORDERING NOTES**

- 5000K CCT not available with 9OCRI.
- Not available with Reflector Finish.
- Refer to [Tech 240](#) for compatible dimmers.
- Not available with Control Interfaces (nLight). Not compatible with spray foam with 1000LM, 1500LM, or 2000LM options.
- Field installed. Access required to location of remote mounted device.
- ER for use with generator supply power. Will require an emergency hot feed and normal hot feed.
- NCH is required for T-grid ceilings or where code requires.
- Not available with 1500lm or 2000lm.
- Not available with 2000lm.
- For use with different reflector finish only (i.e. AR, PR, WTR, GR options). Not available with WR (White Reflector). Not available with FL.
- For use with different reflector finish only (i.e. AR, PR, WTR, GR options). Not available with BR (Black Reflector). Not available with FL.
- Requires NLT or NLTER.

**Optical and Trim Assembly**

Fully serviceable and upgradeable lensed LED light engine suitable for field maintenance or service from above or below the ceiling. Optical design is a Bounding Ray™ design with 50° cutoff to source and source image. Top down flash characteristic for superior glare control. Flangeless trim option includes proprietary Gotham mud ring enabling seamless integration into drywall applications. Mud ring ships separately. Superior 100% Virgin-silicone refractive optic, enables maximum dimensional stability and optical transmission with no discoloration over life. Field inter-changeable optics.

**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. Support 347V via remote-mounted stepdown transformer. 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.

**Controls**

Luminaire shall be equipped with interface for nLight wired or nLight AIR networks 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 – 1.0% of rated lumen output with a smooth shut off function to step to 0%. Driver is inaudible in 24dB environment, and stable when input voltage conditions fluctuate over what is typically experienced in a commercial environment.

**Construction**

Light engine and driver are accessible from below ceiling. Several additional mounting options available including a structural reinforcement pan, Chicago plenum, and Type IC. Anodized extruded aluminum wiring compartment with hinged access. With two 1/2" trade-sized knockouts rated for 90°C. Accommodates between 3/8" to 2-3/4"-thick ceilings.

**Listings**

Fixtures are UL 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. ENERGY STAR® Certified product. IC rated with ICAT option. Fixtures with ICAT option are compatible with spray foam insulation with an R-value of 4.3 per inch or less. 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](http://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 6,000 hours and operate within a tolerance of <2.5 MacAdam ellipse as defined by the center of the quadrangles defined in ANSI C78.377-2015.

**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](http://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](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.

**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

Lumen Output Multiplier		
CRI	CCT	Multiplier
80	2700K	0.910
	3000K	0.946
	3500K	1.000
	4000K	1.027
	5000K	1.054
90	2700K	0.784
	3000K	0.847
	3500K	0.874
	4000K	0.946

Reflector Finish Multiplier	
Reflector Finish	Multiplier
LSS - Semi Specular	1.00
LD - Matte Diffuse	1.06
Reflector Color	Multiplier
WR - White	1.05
BR - Black	0.65
BZR - Bronze	0.61
AR - Clear	1.00
GR - Gold	0.93
PR - Pewter	0.98
WTR - Wheat	0.99

Driver		Control Provided				
Nomenclature	Description	NLT	NLTER	NLTAIR2	NLTAIREM2	NLTAIRER2
UGZ	0-10V driver dims to 1%	nPP16 D EFP	nPP16 D ER EFP	RPP20 D 24V G2	RPP20 D 24V EM G2	RPP20 D 24V ER G2

Marked Spacing in Inches 25°C Ambient			
Lumen Package	Fixed Center to Center MIN	Fixture Center to Building Member MIN	Space Above Fixture
2000	18	9	3
1500 (HAO)	18	9	3

\*Dimensions in inches [centimeters]

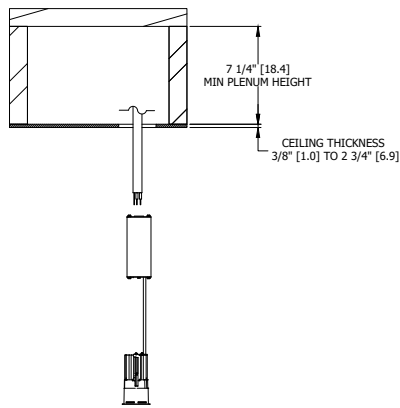
Aperture: 2-1/4" [5.7]

Ceiling Opening: 2-5/8" [6.7] self-flanged

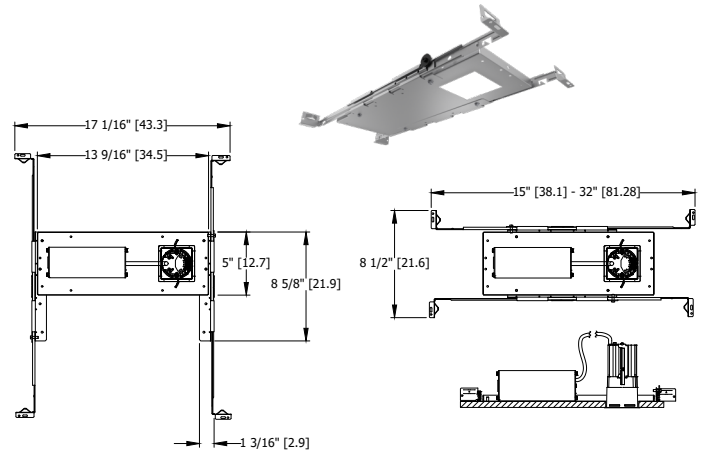
Overlap Trim: 3" [7.6]

2-3/4" [7] flangeless

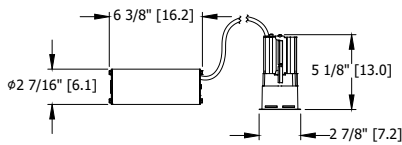
**Recessed Application - Minimum Clearance Requirements**



**Structural Reinforcement Pan**



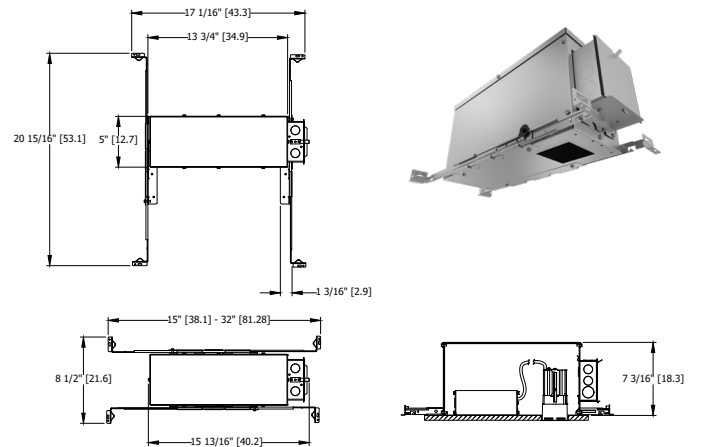
**1000 Lumen and Below Install-from-Below Construction**



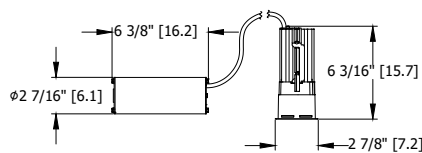
Ceiling cutout: 2 5/8" x 2 5/8" [6.7 x 6.7]  
 Flex conduit length: 16" [40.6]  
 Ceiling thickness range: 3/8" [1.3] to 2 3/4" [6.9]



**IC / Airtight Housing / Chicago Plenum Construction**



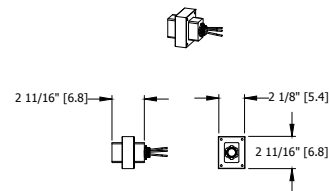
**1500 and 2000 Lumen or High Ambient Option Install-from-Below Construction**



Ceiling cutout: 2 5/8" x 2 5/8" [6.7 x 6.7]  
 Flex conduit length: 16" [40.6]  
 Ceiling thickness range: 3/8" [1.3] to 2 3/4" [6.9]

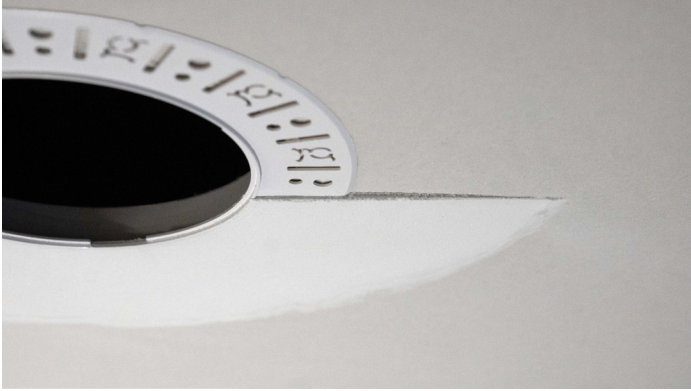


**347V Transformer**

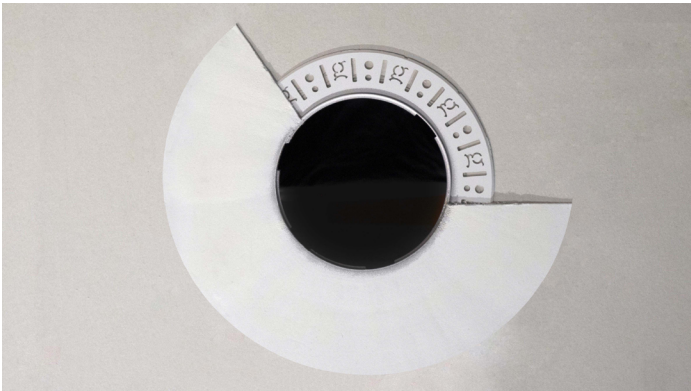


347 Transformer:  
 Install to accessible  
 junction box by others

Flangeless



Partially finished mud ring, showing cross-section detail.



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



ICO with flangeless trim

**Flangeless Installation**

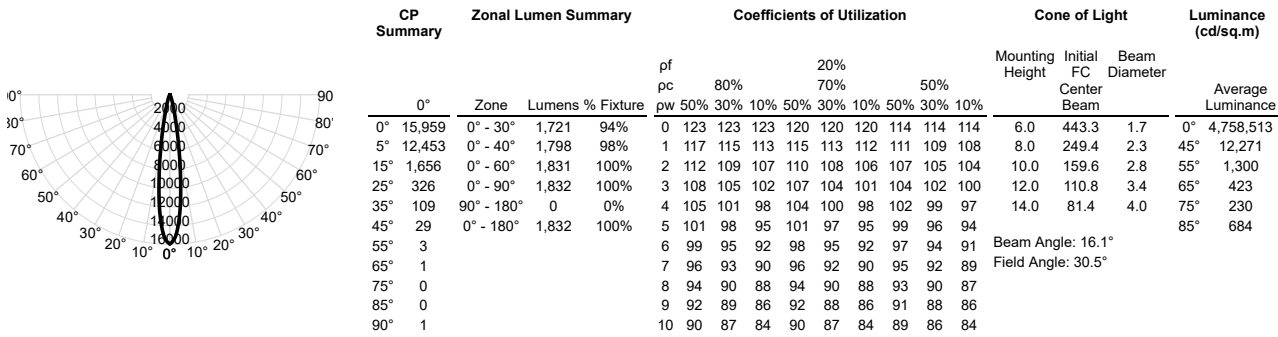
Gotham's flangeless option utilizes a micro-thin polymer mud ring that minimizes the amount of drywall compound required to finish the ceiling. The end result is a virtually undetectable flangeless downlight installation.

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.

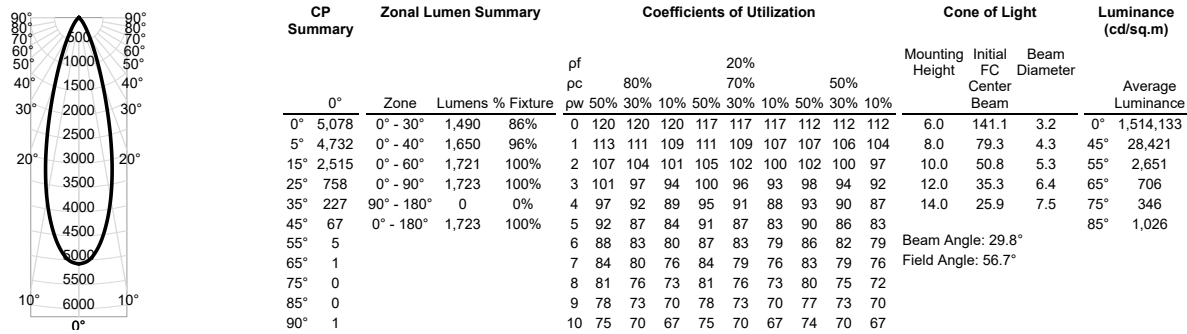
Photometry

**CONSULT WWW.GOTHAMLIGHTING.COM FOR ADDITIONAL PHOTOMETRY**

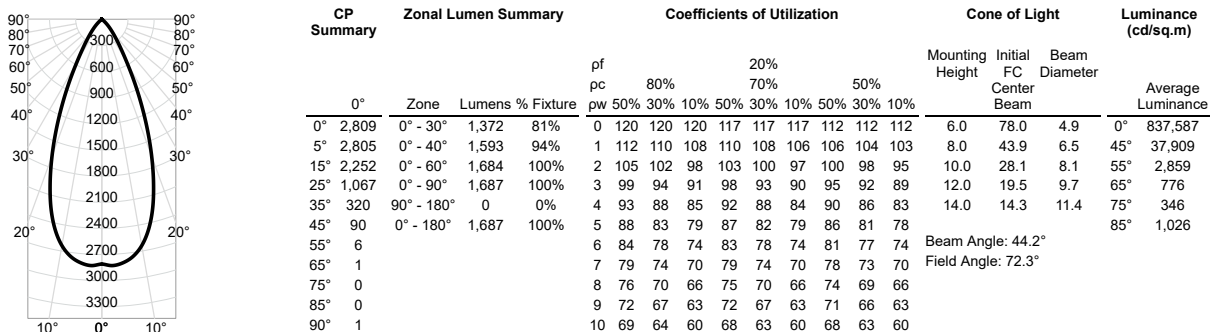
**ICO2SQ 35/15 AR LSS 15D** Input Watts: 19.8, Delivered Lumens: 1832, LPW: 92.5, S/MH: 0.27, Test No: 19-411-01P65



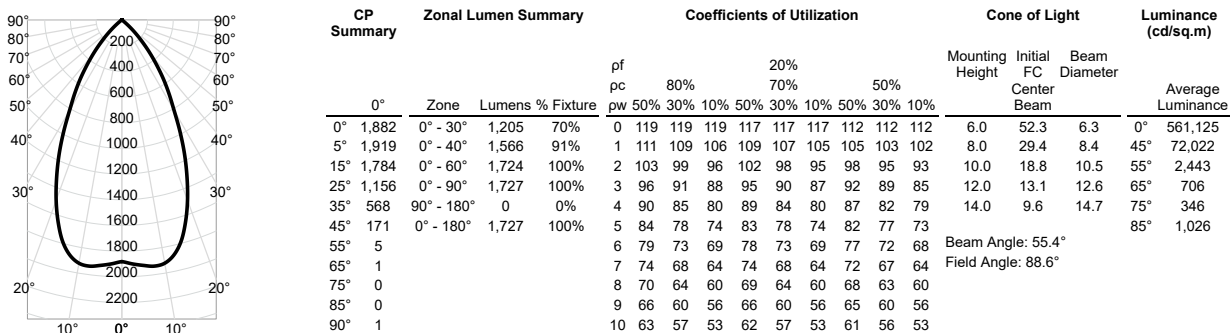
**ICO2SQ 35/15 AR LSS 30D** Input Watts: 19.8, Delivered Lumens: 1723, LPW: 87.0, S/MH: 0.49, Test No: 19-411-04P65



**ICO2SQ 35/15 AR LSS 45D** Input Watts: 19.8, Delivered Lumens: 1687, LPW: 85.2, S/MH: 0.72, Test No: 19-411-07P65



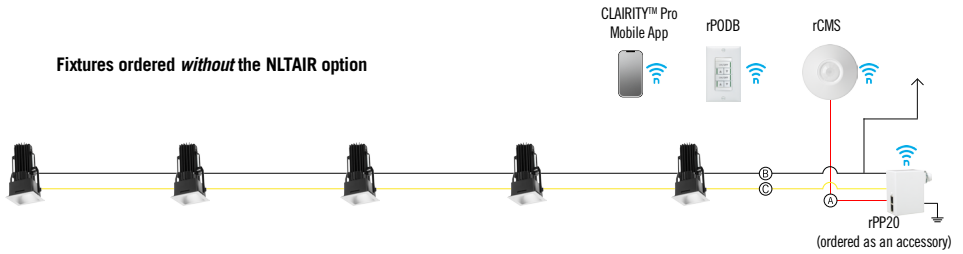
**ICO2SQ 35/15 AR LSS 55D** Input Watts: 19.8, Delivered Lumens: 1727, LPW: 87.2, S/MH: 0.88, Test No: 19-411-09P65



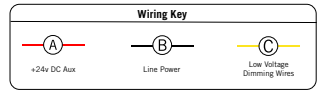
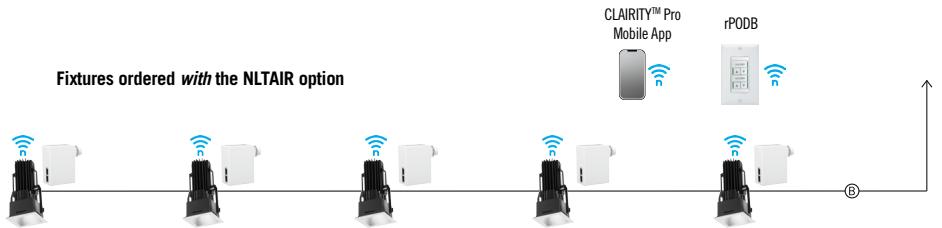
**nLight® AIR** is the ideal solution for retrofit or new construction spaces where adding communication wiring is cost prohibitive. The integrated nLight AIR rPP20 Power Pack is part of each EVO Luminaire ordered with the NLTAIR option. These individually addressable controls offer the ultimate in flexibility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

**Possibilities for nLight® AIR**

Fixtures ordered *without* the NLTAIR option



Fixtures ordered *with* the NLTAIR option



**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

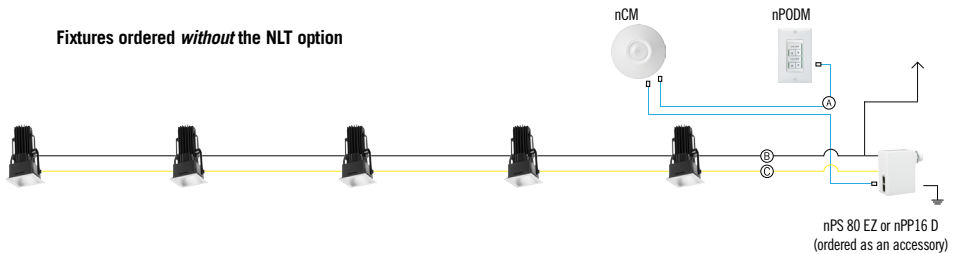
**nLight® AIR Control Accessories (cont.)**

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

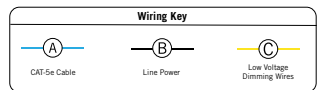
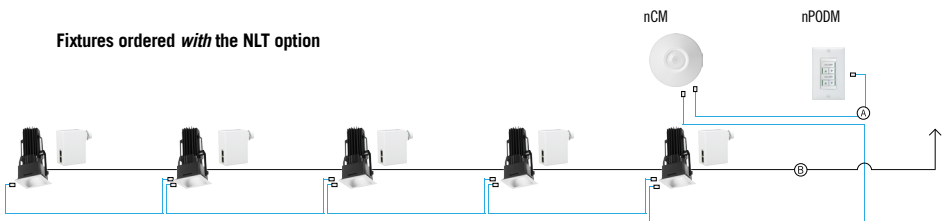
**nLight® Wired** The nLight® solution is a digital networked lighting control system that provides both energy savings and increased user configurability by cost effectively integrating time-based, daylight-based, sensor-based and manual lighting control schemes.

**Possibilities for nLight® wired**

Fixtures ordered *without* the NLT option



Fixtures ordered *with* the NLT option



**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	Model Number
Dimming	nCM ADCX

**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