

# General Illumination Round Downlight

# 4"

OVERVIEW

## 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
- 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](#)

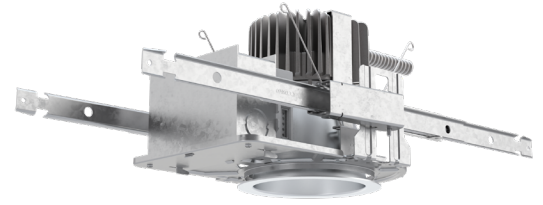
## Distribution



## Superior Performance\*

Nominal Lumens	250	500	750	1000	1500	2000	2500	3000	3500	4000	4500
Delivered Lumens	271	573	808	1001	1527	1994	2580	3110	3612	4120	4584
Wattage	3.1	7.2	7.9	8.8	13.7	19.5	25.7	31.2	38.4	35.4	40.1
Lumens per Watt	87.4	79.6	102.3	113.8	111.5	102.3	100.4	99.7	94.1	116	114

\*Based on 3500K AR LSS MWD 80CRI



Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit [www.acuitybrands.com/designselect](http://www.acuitybrands.com/designselect).

\*See ordering tree for details

COMPLEMENTARY 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



ORDERING INFORMATION

**ds** Design Select options indicated by this color background.

Luminaire Type:   
 Catalog Number:

**EXAMPLE: EV04 35/25 AR MWD LSS 120 EZ1**

Series	Color Temperature	Nominal Lumen Values	Reflector & Flange Color	Trim Style	Finish	Distribution	Voltage
EV04	27/ 2700 K	02 250 lumens	AR Clear	(blank) Self-flanged	LSS Semi-specular	MD Medium (0.9 s/mh)	MVOLT 120 277 347 <sup>3,4</sup>
	30/ 3000 K	05 500 lumens	PR Pewter	FL Flangeless	LD Matte-diffuse	MWD Medium wide (1.0 s/mh)	
	35/ 3500 K	07 750 lumens	WTR Wheat		LS Specular	WD Wide (1.2 s/mh)	
	40/ 4000 K	10 1000 lumens	GR Gold				
	50/ 5000 K	15 1500 lumens	WR <sup>1</sup> White				
		20 2000 lumens	BR <sup>1</sup> Black				
		25 2500 lumens	WRAMF <sup>1</sup> White Anti-microbial				
		30 3000 lumens	TRALTBD <sup>1,2</sup> RAL paint for pricing only				
		35 3500 lumens	TCPC <sup>1</sup> Custom paint color				
		40 4000 lumens					
		45 4500 lumens					

Driver <sup>5</sup>	Control Interface	Emergency Options	Options
<b>GZ10</b> 0-10V driver dims to 10%	<b>NLT<sup>7</sup></b> nLight® dimming pack controls	<b>EL<sup>11</sup></b> Emergency battery pack, 10W, with integral test switch	<b>SF</b> Single Fuse. Specify 120V or 277V
<b>GZ1</b> 0-10V driver dims to 1%	<b>NLTER<sup>3,7,8</sup></b> nLight® dimming pack controls emergency circuit	<b>ELR<sup>11</sup></b> Emergency battery pack, 10W, with remote test switch	<b>TRW<sup>12</sup></b> White painted flange
<b>EZ10</b> eldoLED 0-10V ECOdrive. Linear dimming to 10% min.	<b>NLTAIR<sup>2,9,10</sup></b> nLight® Air enabled	<b>ELSD<sup>11</sup></b> Emergency battery pack, 10W, with self-diagnostics, integral test switch	<b>TRBL<sup>13</sup></b> Black painted flange
<b>EZ1</b> eldoLED 0-10V ECOdrive. Linear dimming to 1% min.	<b>NLTAIRER<sup>2,3,8,9</sup></b> nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit	<b>ELRSD<sup>11</sup></b> Emergency battery pack, 10W, with self-diagnostics, remote test switch	<b>FRALTBD<sup>2</sup></b> Flange ring only RAL color for pricing only
<b>EZB</b> eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%.	<b>NLTAIREM<sup>2,3,9</sup></b> nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit with battery pack options.	<b>E10WCP<sup>11</sup></b> Emergency battery pack, 10W Constant Power, CA Title 20 compliant with integral test switch	<b>FCPC</b> Flange custom paint color
<b>EDAB</b> eldoLED SOLOdrive DALI. Logarithmic dimming to <1%.		<b>E10WCPR<sup>11</sup></b> Emergency battery pack, 10W Constant Power, CA Title 20 compliant with remote test switch	<b>N80<sup>14</sup></b> nLight® Lumen Compensation generator transfer device. Specify 120V or 277V
<b>EDXB</b> eldoLED POWERdrive DMX with RDM (remote device management). Square Law dimming to <1%. Minimum 1000 lumens. Includes termination resistor. Refer to <a href="#">DMXR Manual</a> .		<b>BGTD</b> Bodine generator transfer device. Specify 120V or 277V.	<b>GTD</b> generator transfer device. Specify 120V or 277V
<b>ECOD<sup>6</sup></b> Lutron Ecosystem digital Hi-Lume 1% soft-on, fade to black. Min: 250LLM; Max: 4000LLM.			<b>90CRI</b> High CRI (90+)
			<b>CP<sup>15</sup></b> Chicago Plenum. Specify 120V or 277V for 5000lm and above.
			<b>RRL</b> 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 <a href="#">RRL</a> spec sheet on <a href="#">www.acuitybrands.com</a> for RELOC® product specifications. Above ceiling access required.

ACCESSORIES — order as separate catalog numbers (shipped separately)	
<b>SCA4</b>	Sloped ceiling adapter. Degree of slope must be specified (5D, 10D, 15D, 20D, 25D, 30D). Ex: SCA4 10D. Refer to <a href="#">TECH-190</a> .
<b>CTAEV04</b>	4" Aperture ceiling thickness adapter (extends mounting frame to accommodate ceiling thickness up to 5").
<b>CTA4-8 YK</b>	4"-8" Aperture ceiling thickness adapter (extends mounting frame to accommodate ceiling thickness up to 5"). For use with CWW/DWW trims, EDXB, CP or nTune options.
<b>ISD BC</b>	0-10V wallbox dimmer. Refer to <a href="#">ISD-BC</a> .

ORDERING NOTES	
1. Not available with finishes.	10. 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.
2. Replace with applicable RAL number and finish when ready to order. See <a href="#">RAL BROCHURE</a> for available color options. Not available with emergency battery pack options.	11. 11" of plenum depth or top access required for battery pack maintenance.
3. Not available with emergency battery pack options.	12. For use with different reflector finish only (i.e. AR, PR, WTR, GR options). Not applicable with WR (white reflector) or FL (flangeless) option.
4. Supplied with factory installed step down transformer.	13. For use with different reflector finish only (i.e. AR, PR, WTR, GR options). Not applicable with BR (black reflector) or FL (flangeless) option.
5. Refer to <a href="#">TECH-240</a> for compatible dimmers.	14. Fixture begins at 80% light level. Must be specified with NLT or NLTER. Only available with EZ10 and EZ1 drivers.
6. Not available with nLight®.	15. Not available with ELR, HAO, or EXAB, or any nLight® AIR dimming options.
7. Must specify voltage.	
8. 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.	
9. Not available DALI or DMX drivers. Not available with CP or N80 options. Not recommended for metal ceiling installations.	

**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 20-gauge galvanized steel and have telescopic mounting bars with maximum 26" and minimum 15" extension and 4" vertical adjustment.

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 2").

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).

**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.

**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](http://www.acuitybrands.com/buy-american) for additional information.

**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.

**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 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](http://www.acuitybrands.com/aplus).

Tables of Use

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
EDXB	<1%	Logarithmic	Linear

Control Provided (note: 347V/UVOLT versions provided with 347 option selected)						
Nomenclature	Description	NLT	NLTER	NLTAIR2	NLTAIR2ER	NLTAIREM2
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.

Flangeless

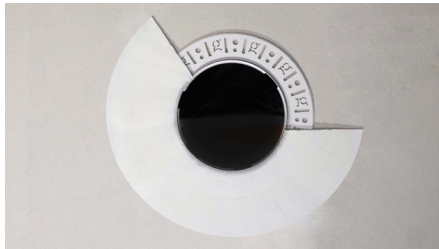
**Flangeless Installation**

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.



Partially finished mud ring, showing cross-section detail.



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

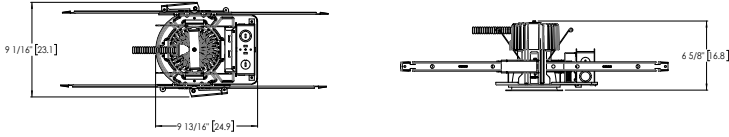


EVO with flangeless trim

DIMENSIONAL DATA

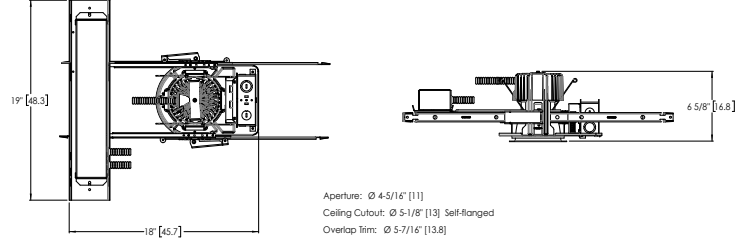
Aperture: 4-5/16" (11)      Ceiling Opening: 5-1/8" (13) self-flanged  
 Overlap trim: 5-7/16" (13.8)      5-1/4" (13.3) flangeless

**Standard**



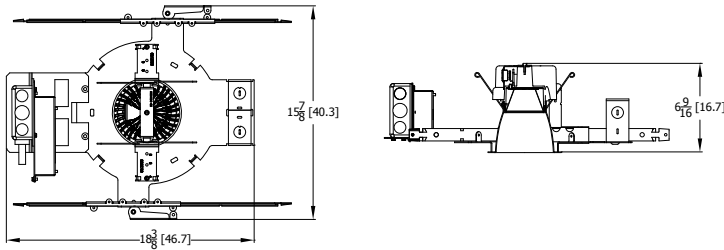
Aperture:  $\varnothing$  4-5/16" [11]  
 Ceiling Cutout:  $\varnothing$  5-1/8" [13] Self-flanged  
 Overlap Trim:  $\varnothing$  5-7/16" [13.8]  
 Ceiling Cutout:  $\varnothing$  5-1/4" [13.3] Flangeless

**Battery Pack**

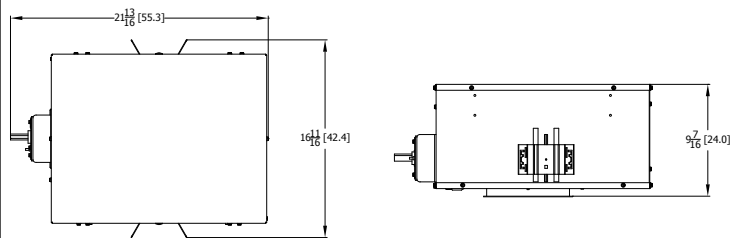


Aperture:  $\varnothing$  4-5/16" [11]  
 Ceiling Cutout:  $\varnothing$  5-1/8" [13] Self-flanged  
 Overlap Trim:  $\varnothing$  5-7/16" [13.8]  
 Ceiling Cutout:  $\varnothing$  5-1/4" [13.3] Flangeless

**CP Standard**

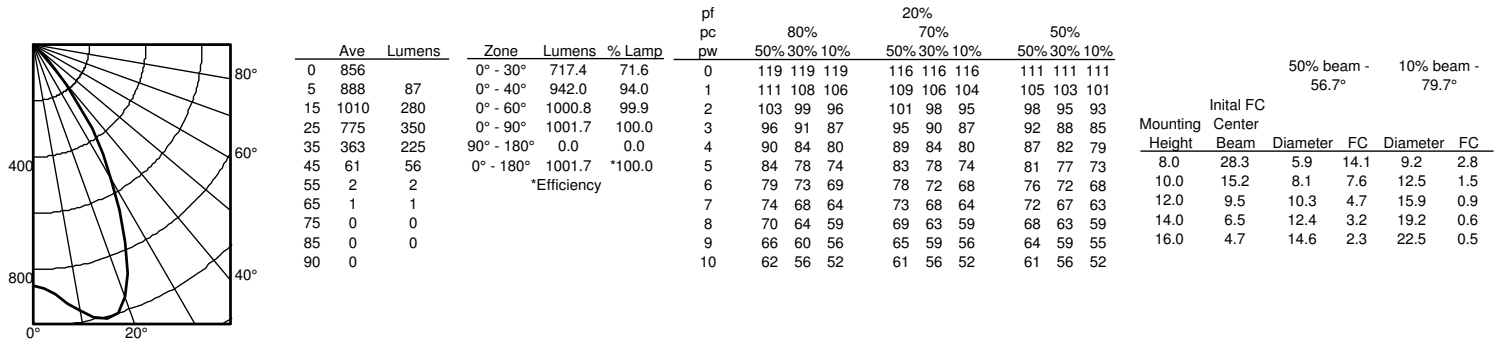


**CP Enclosed For Use With Battery Pack & nLight**

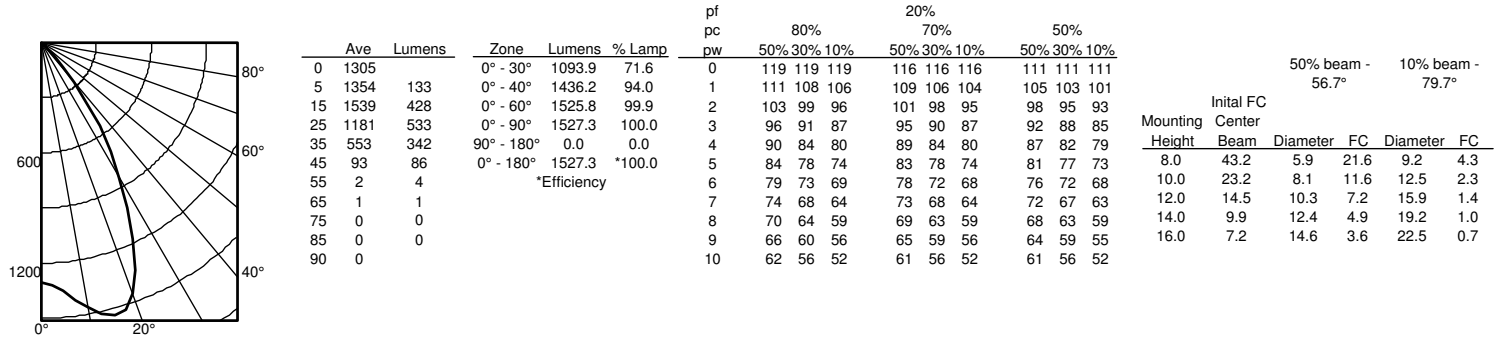


Photometry

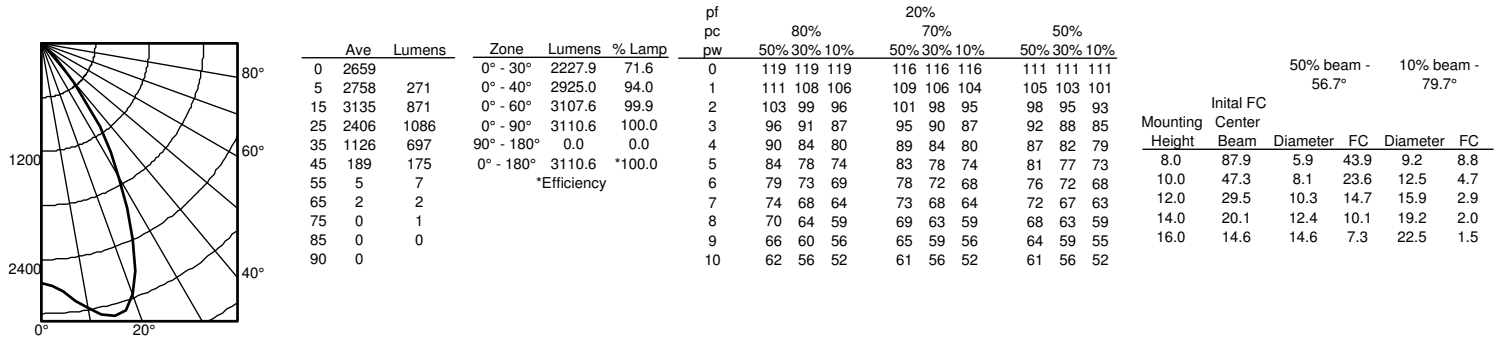
**EV04 35/10 MWD LS INPUT WATTS: 8.8W, DELIVERED LUMENS: 1001.7LM, LPW = 113.8, 1.08 S/MH, TEST NO. LTL27786P131**



**EV04 35/15 MWD LSS INPUT WATTS: 13.7W, DELIVERED LUMENS: 1527.3LM, LPW = 111.4, 1.08 S/MH, TEST NO. LTL27786P137**



**EV04 35/30 MWD LSS INPUT WATTS: 31.2W, DELIVERED LUMENS: 3110.6LM, LPW = 99.6, 1.08 S/MH, TEST NO. LTL27786P155**



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

Distribution	Beam
MD	51
MWD	57
WD	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	Model Number
Dimming	nCM ADCX

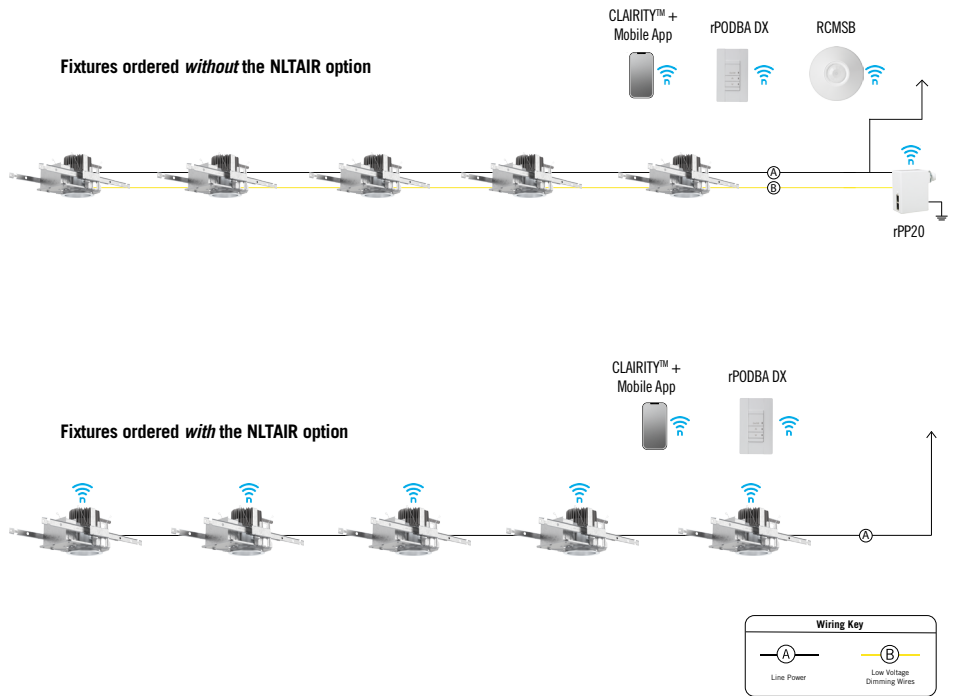
**nLight® Wired Control Accessories (cont.)**

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

**Possibilities for nLight® AIR**



**Possibilities for nLight® wired**

