

## FEATURES & SPECIFICATIONS

**INTENDED USE** — The BLT Best-in-Value Low Profile LED Luminaire features a popular center basket design that offers a clean, versatile style and volumetric distribution. High efficacy LED light engines deliver energy savings and low maintenance compared to traditional sources. An extensive selection of configurations and options make the BLT the perfect choice for many lighting applications including schools, offices and other commercial spaces, retail, hospitals and healthcare facilities. The low profile BLT design (2-3/8") also makes it an excellent choice for renovation projects.

**CONSTRUCTION** — BLT enclosure components are die-formed for dimensional consistency and painted after fabrication with a polyester powder paint for improved performance and protection.

The reflector is finished with a high reflective matte white powder paint for improved aesthetics and increased light diffusion.

End plates contain easy-to-position integral T-bar clips for securely attaching the luminaire to the T-grid. For additional T-grid security, optional screw on T-bar clips are available.

Diffusers are extruded from impact modified acrylic for increased durability.

LED boards and drivers are accessible from the plenum.

**OPTICS** — Volumetric illumination is achieved by creating an optimal mix of light to walls, partitions and vertical and horizontal work surfaces — rendering the interior space, objects and occupants in a more balanced, complimentary luminous environment. High performance extruded acrylic diffusers conceal LEDs and efficiently deliver light in a volumetric distribution. Four diffuser choices available - curved and square designs with linear prisms or a smooth frosted finish.

**ELECTRICAL** — Long-life LEDs, coupled with high-efficiency drivers, provide superior quantity and quality of illumination for extended service life. 80% LED lumen maintenance at 60,000 hours (L80/60,000). Color Variation within 3-step MacAdam ellipse (3SDCM).

**Non-Configurable BLT:** Generic 0-10 volt dimming driver. Dims to 10%

**Configurable BLT:** available in High Efficiency (HE) versions for applications where a lower wattage (over the standard product) is required. The High Efficiency versions deliver >130 LPW and can be specified via the Lumen Package designations in the Ordering Information below.

eldoLED driver options deliver choice of dimming range, and choices for control, while assuring flicker-free, low-current inrush, 89% efficiency and low EMI.

Optional integrated nLight® controls make each luminaire addressable - allowing it to digitally communicate with other nLight enabled controls such as dimmers, switches, occupancy sensors and photocontrols. Connection to nLight is simple. It can be accomplished with integrated nLight AIR wireless RIO, RES7 sensors, or through standard Cat-5 cabling. nLight offers unique plug-and-play convenience as devices and luminaires automatically discover each other and self-commission. nLight AIR is commissioned easily through an intuitive mobile app.

Lumen Management: Unique lumen management system (option N80) provides on board intelligence that actively manages the LED light source so that constant lumen output is maintained over the system life, preventing the energy waste created by the traditional practice of over-lighting.

Step-level dimming option allows system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.

Driver disconnect provided where required to comply with US and Canadian codes.

**SENSOR — Integrated sensor (individual control):** Sensor Switch MSD7ADCX ((Passive infrared (PIR)) or MSDPDT7ADCX ((PIR/Microphonics Dual Tech (PDT)) integrated occupancy sensor/automatic dimming photocell allows the luminaire to power off when the space is unoccupied or enough ambient light is entering the space. See page 4 for more details on the integrated sensor.

**Integrated Sensor (nLight Wired Networking):** This sensor is nLight-enabled, meaning it has the ability to communicate over an nLight network. When wired, using CAT-5 cabling, with other nLight-enabled sensors, power packs, or WallPods, an nLight control zone is created. Once linked to a Gateway, directly or via a Bridge, the zone becomes capable of remote status monitoring and control via SensorView software. See page 4 for the nLight sensor options.

**Integrated Smart Sensor (nLight Air Wireless Platform):** The RES7 sensor is nLight AIR enabled, meaning it has the ability to communicate over the wireless nLight control platform. It is available with an automatic dimming photocell, and either a digital PIR or a microphonics (PDT) dual technology occupancy sensor. It pairs to other luminaires and wall switches through our mobile app, CLAIRITY, which allows for simple sensor adjustment. See page 4 for more details on the Integrated Smart Sensor.

**INSTALLATION** — The BLT's low profile design of only 2-3/8" provides increased installation flexibility especially in restrictive plenum applications. The BLT fits into standard 15/16" and narrow 9/16" T-grid ceiling systems.

Suitable for damp location.

For recessed mounting in hard ceiling applications, Drywall Grid Adapters (DGA) are available as an accessory. See Accessories section.

**LISTINGS** — CSA Certified to meet U.S. and Canadian standards. IC rated. DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at [www.designlights.org/QPL](http://www.designlights.org/QPL) to confirm which versions are qualified.

**WARRANTY** — 5-year limited warranty. Complete warranty terms located at: [www.acuitybrands.com/CustomerResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx)

**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. Specifications subject to change without notice.

Catalog Number
Notes
Type

BLT Series LED

# 2BLT

2' x 4'  
LED



eldoLED



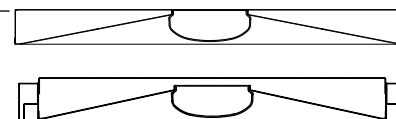
### Specifications

Length: 47-3/4 (121.2)

Width: 23-3/4 (60.3)

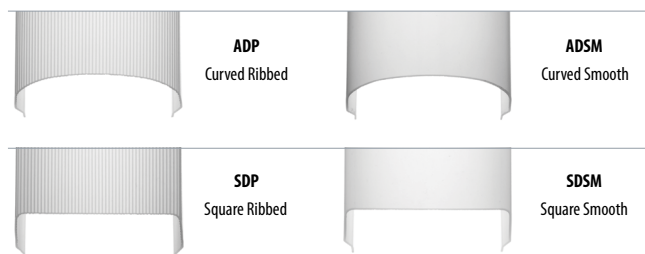
Depth: 2-3/8 (6.0)

Depth with Air supply/return: 2-3/4 (6.9)



All dimensions are inches (centimeters) unless otherwise specified.

## Multiple Diffuser Options



## 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

# 2BLT Volumetric Recessed Lighting 2'x4'



A+ Capable options indicated by this color background.

## ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: 2BLT4 40L ADP EZ1 LP840

2BLT4													
Series		Air function		Lumens <sup>2</sup>		Diffuser		Voltage		Driver		Color temperature	
2BLT4	2x4 BLT	(blank) Static A Air supply/ return <sup>1</sup>	<b>Standard efficiency (&gt;100 LPW)</b>	<b>High efficiency<sup>3,4</sup> (&gt;130 LPW)</b>	ADP	Curved, linear prisms	(blank) MVOLT	EZ1	eldoLED dims to 1% (0-10 volt dimming)	LP830	82CRI, 3000 K		
					ADSM	Curved, smooth				LP835	82CRI, 3500 K		
					SDP	Square, linear prisms				LP840	82CRI, 4000 K		
					SDSM	Square, smooth				LP850	82CRI, 5000 K		
					<b>Includes trim rings to match sensed version</b>					LP930	90CRI, 3000K		
					ADPT	Curved, linear prisms				LP935	90CRI, 3500K		
					ADSMT	Curved, smooth				LP940	90CRI, 4000K		
					SDPT	Square, linear prisms				LP950	90CRI, 5000K		

nLight Interface	Control <sup>12</sup>		Options	
<b>nLight Wired</b> (blank) no nLight <sup>®</sup> interface N80 nLight with 80% lumen management N80EMG nLight with 80% lumen management For use with generator supply EM power <sup>9</sup> N100 nLight without lumen management N100EMG nLight without lumen management For use with generator supply EM power <sup>9</sup>	<b>nLight Wired</b> (blank) No sensor control NES7 nLight™ nES 7 PIR integral occupancy sensor <sup>12</sup> NESPDT7 nLight™ nES PDT 7 dual technology integral occupancy control <sup>12</sup> NES7ADCX nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell <sup>12</sup> NESPDT7ADCX nLight™ nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell <sup>12</sup>	<b>Individual Control</b> MSD7ADCX PIR integral occupancy sensor with automatic dimming control photocell <sup>7,13</sup> MSDPDT7ADCX PDT integral occupancy sensor with automatic dimming control photocell <sup>7,13</sup>	EL7L 700 lumen battery pack (non-CEC compliant) <sup>14</sup> EL14L 1400 lumen battery pack (non-CEC compliant) <sup>14</sup> EL14LSD 1400 lumen battery pack with self-diagnostic testing feature (non-CEC compliant) <sup>14,15</sup> E10WLCP EM Self-Diagnostic battery pack, 10W Constant Power, CEC compliant <sup>14</sup> CP Chicago plenum <sup>16</sup> BGTD Bodine Generator Transfer Device <sup>17</sup> PWS1836 6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit PWS1846 6' pre-wire, 3/8" diameter, 18 gauge, 2 circuit PWS1846 PWSLV Two cables: one 6' pre-wire, 3/8" diameter, 18 gauge, 2 circuits; one 6' pre-wire, 3/8" diameter, 18 gauge, purple and gray <sup>18</sup> PWS1856LV 6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit w/low voltage purple and grey wires <sup>18</sup> GLR Fast-blowing fuse <sup>19</sup> GMF Slow-blowing fuse <sup>19</sup> NPLT Narrow pallet RRL_ RELOC <sup>®</sup> -ready luminaire <sup>20</sup> LATC Earthquake clip DWAM Anti-Microbial paint JP16 Job packaging IP5X Gasketed diffuser compartment to meet IP5X rating <sup>21</sup>	
<b>nLight Wireless</b> (blank) no nLight <sup>®</sup> interface NLTAIR2 nLight AIR Generation 2 enabled <sup>10</sup>	<b>nLight Wireless</b> RES7 nLight AIR PIR integral occupancy sensor with automatic dimming photocell for Networking Capabilities <sup>13</sup> RES7PDT nLight AIR microphonics dual technology occupancy sensor with automatic dimming photocell <sup>13</sup> RIO nLight AIR radio module without sensor			

Accessories next page

## Notes

- Consult factory for airflow data.
- Approximate lumen output.
- All versions may not achieve 130+ LPW. Refer to photometry on [www.acuitybrands.com](http://www.acuitybrands.com).
- Air supply/return option, 90 CRI, and versions with integral sensor trim rings may not achieve 130 LPW.
- Not available with SLD EL7L, or EL14L options.
- GZ1 and GZ10 not available with any Control or Sensor options
- Not available with N80, N80EMG, N100, N100EMG, NLTAIR, or occupancy control.

- Not available with controls, occupancy controls, or PWS options. Consult factory for Hi-Lume dimming.
- nLight EMG option requires a connection to existing nLight network. Power is provided from a separate N80 or N100 enabled fixture.
- Must order with RES7, RES7PDT, or RIO module. Only available with EZ1 driver. Not available with 72L, 72LHE, or 85LHE options.
- Must specify diffuser with trim rings. See sensor options on page 4.
- Requires N80, N80EMG, N100, or N100EMG.
- Only available with EZ1 driver option. 0-10v dimming wires not accessible via access plate.
- When using pre-wire option, use PWS1846 or PWS1846 PWSLV.

- For more information, please see the [PSSD2 specification sheet](#).
- Not available with N80, N80EMG, N100, or N100EMG.
- Must specify voltage. Requires BSE labeling, voltage specific. Consult factory for options.
- Not available with nLight wired/wireless network or individual controls.
- Must specify voltage, 120 or 277, with GLR and GFM fusing.
- For ordering logic consult [RRL\\_2013](#).
- Not available with air supply/return or Wired Networking (NES\_) and Individual Control (MSD\_) sensors.

# 2BLT Volumetric Recessed Lighting 2'x4'

Non-Configurable BLT								
Stock/MTO	Catalog Description *	UPC	Lumens	Wattage	LPW	Color Temperature	Voltage	Pallet Qty
Stock	2BLT4 40L ADP LP835	00190887470789	3945	34	116	3500K/82 CRI	120-277	26
	2BLT4 40L ADP LP840	00190887470765	4032	34	118	4000K/82CRI	120-277	26
	2BLT4 46L ADP LP835	00190887468656	4520	38.34	118	3500K/82 CRI	120-277	26
	2BLT4 46L ADP LP840	00190887468649	4620	38.34	120	4000K/82CRI	120-277	26
	2BLT4 40L ADP EL 14L LP835	00190887470925	3945	34	116	3500K/82 CRI	120-277	26
	2BLT4 40L ADP EL 14L LP840	00190887470918	4032	34	118	4000K/82 CRI	120-277	26
	2BLT4 46L ADP EL 14L LP835	00190887468670	4520	38.34	118	3500K/82 CRI	120-277	26
	2BLT4 46L ADP EL 14L LP840	00190887468663	4620	38.34	120	4000K/82 CRI	120-277	26
MTO	2BLT4 40L ADP 347 LP835		3945	34	116	3500K/82 CRI	347	26
	2BLT4 40L ADP 347 LP840		4032	34	118	4000K/82CRI	347	26
	2BLT4 46L ADP 347 LP835		4520	38.34	118	3500K/82 CRI	347	26
	2BLT4 46L ADP 347 LP840		4620	38.34	120	4000K/82CRI	347	26

\*Generic 0-10V Dimming to 10%.

Accessories: Order as separate catalog number.	
DGA24	Drywall grid adapter for 2x4 recessed fixture
2X4SMK	Surface Mount Troffer Kit

## nLight® Wired Control Accessories:

Order as separate catalog number. Visit [www.acuitybrands.com/products/controls/nlight](http://www.acuitybrands.com/products/controls/nlight).

WallPod stations	Model number	Occupancy sensors	Model number
On/Off	nPODM [color]	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 RJB / nCM PDT 9 RJB
On/Off & raise/lower	nPODM DX [color]	Large motion 360°, ceiling (PIR / dual tech)	nCM10 RJB / nCM PDT 10 RJB
Graphic touchscreen	nPOD GFX [color]	Wall switch with raise/lower	nWSX PDT LV DX [color]
Photocell controls	Model number	Cat-5 cable (plenum rated)	Model number
Full range dimming	nCM ADCX RJB	10' cable	CAT5 10FT J1
		30' cable	CAT5 30FT J1

## nLight® AIR Control Accessories:

Order as separate catalog number. Visit [www.acuitybrands.com/products/controls/nlightair](http://www.acuitybrands.com/products/controls/nlightair).

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
On/Off & raise/lower single pole	rPODBZ DX WH G2

rCMS						Example: RCMS PDT 10 AR G2	
Series / Detection	Power Supply <sup>1</sup>	Occupancy Detection	Lens (Required)	Operating Mode	Generation		
RCMS nLight AIR occupancy and daylight sensor	[blank] Power Supply ordered separately PS 150 Standard 150 mA Power Supply	[blank] PIR Detection PDT Dual Tech PIR/ Microphonics	10 Large Motion/ Extended Range 360° 9 Small Motion/ Extended Range 360° 6 High Bay 360° Lens	[BLANK] None AR Auxiliary Relay	G2 Generation 2 compatibility		

Replacement Parts: Order as separate catalog number.		
*249P2N	2DBLT48 ADP LENS ASSEMBLY	4 ft. replacement lens
*249P2T	2DBLT48 SDP LENS ASSEMBLY	4 ft. replacement lens
*249P30	2DBLT48 ADSM LENS ASSEMBLY	4 ft. replacement lens
*249P33	2DBLT48 ADSM LENS ASSEMBLY	4 ft. replacement lens
*237LT2	2DBLT48 ADPT LENS ASSEMBLY	4 ft. replacement lens
*237LT4	2DBLT48 SDPT LENS ASSEMBLY	4 ft. replacement lens
*237LT6	2DBLT48 ADSMT LENS ASSEMBLY	4 ft. replacement lens
*237LT8	2DBLT48 SDSMT LENS ASSEMBLY	4 ft. replacement lens
*237LTA	2DBLT48 ADPT SENSOR LENS ASSEMBLY	4 ft. replacement lens
*237M52	2DBLT48 SDPT SENSOR LENS ASSEMBLY	4 ft. replacement lens
*237M5A	2DBLT48 ADSMT SENSOR LENS ASSEMBLY	4 ft. replacement lens
*237M5L	2DBLT48 SDSMT SENSOR LENS ASSEMBLY	4 ft. replacement lens

## Notes

- RCMS requires low voltage power from either RPP20 DS 24V G2 or PS150.



# 2BLT Volumetric Recessed Lighting 2'x4'

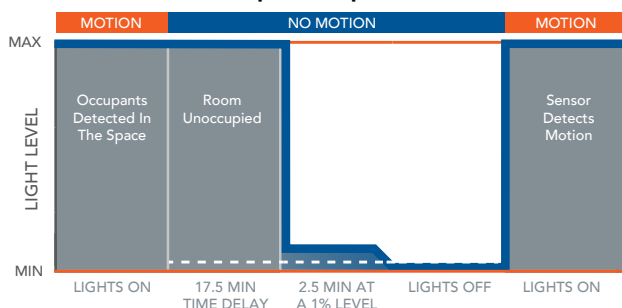
Sensor Options				
Option	Automatic Dimming Photocell	Occupancy Sensing		nLight Wired Networking
		PIR	PDT	
MSD7ADCX	X	X		
MSDPDT7ADCX	X		X	
NES7		X		X
NES7ADCX	X	X		X
NESPDT7			X	X
NESPDT7ADCX	X		X	X
RES7	X	X		X
RESPDT7	X	X	X	X

## Integrated Sensor with Individual Control

The MSD7ADCX PIR occupancy sensor/automatic dimming photocell is ideal for areas without obstructions and where daylight harvesting may be desired. Suggested applications include, but not limited to, hallways, corridors, storage rooms, and breakrooms or other areas where people are typically moving.

The MSDPDT7ADCX PIR/Microphonics Dual Tech occupancy sensor/automatic dimming photocell is ideal for areas with obstructions and where daylight harvesting is desired. Suggested applications include, but not limited to, open offices, private offices, classrooms, public restrooms, and conference rooms.

## Sequence of Operation

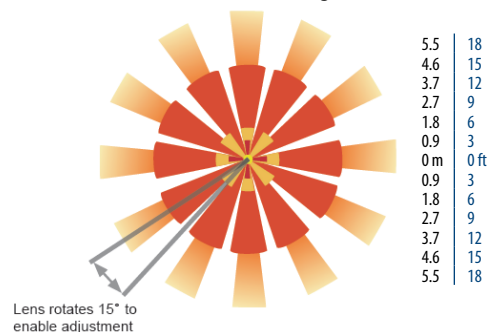


\*The presetting on the automatic dimming photocell is 5fc.

## Sensor Coverage Pattern Mini 360° Lens

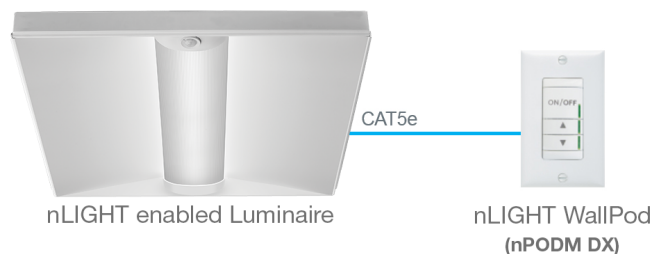
- Recommended for walking motion detection from mounting heights between 8 ft (2.44 m) and 20 ft (6.10 m)
- Initial detection of walking motion along sensor axes at distances of 2x the mounting height up to 15 ft (4.57 m) and
- 1.75x up to 20 ft (6.10 m).
- Provides 12 ft (3.66 m) radial detection of small motion when mounted at 9 ft (2.74 m)
- Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor

## 9 FT Mounting



Lens rotates 15° to enable adjustment

## Basic nLight Zone

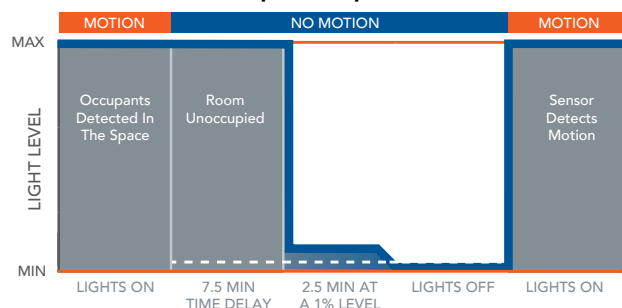


## nLight Wired Networking

The nES 7 is ideal for small rooms without obstructions or areas with primarily walking motion. Ideal areas include hallways, corridors, storage rooms, and breakrooms. Additionally, the NES7ADCX includes an integrated photocell, which enables daylight harvesting controls.

For areas like restrooms, private offices, open offices, conference rooms or any space with obstructions, the nES PDT 7 dual technology sensor is recommended. The nES PDT 7 utilizes both PIR (passive infrared) and Microphonics technologies to detect occupancy. Additionally, the NESPDT7ADCX includes an integrated photocell, which enables daylight harvesting controls which is ideal for areas where windows are present.

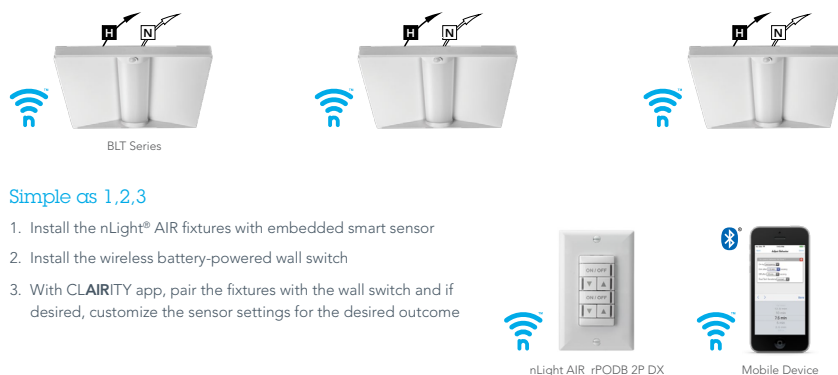
## Sequence of Operation



\*The presetting on the automatic dimming photocell is 5fc.

## nLight AIR Wireless

nLight AIR is the ideal solution for retrofit or new construction spaces where adding additional wiring can be labor intensive and nLight AIR is available with or without an integral sensor. Integrated RES7 or RES7PDT smart sensors are part of each luminaire in the nLight AIR network, which can be grouped to control multiple luminaires. The granularity of control with the digital PIR occupancy detection and daylight sensing makes a great solution for any application.



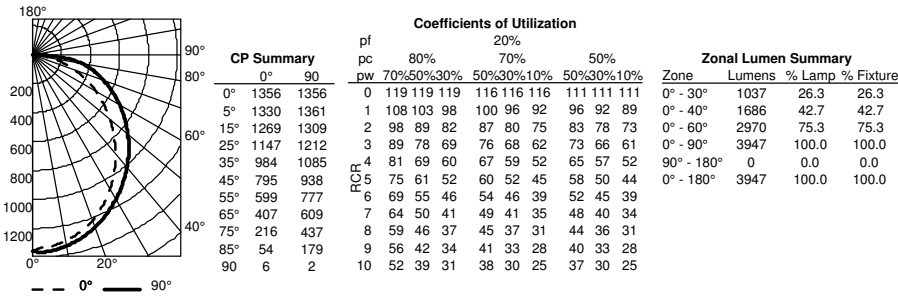
## Simple as 1,2,3

1. Install the nLight® AIR fixtures with embedded smart sensor
2. Install the wireless battery-powered wall switch
3. With CLAIRITY app, pair the fixtures with the wall switch and if desired, customize the sensor settings for the desired outcome

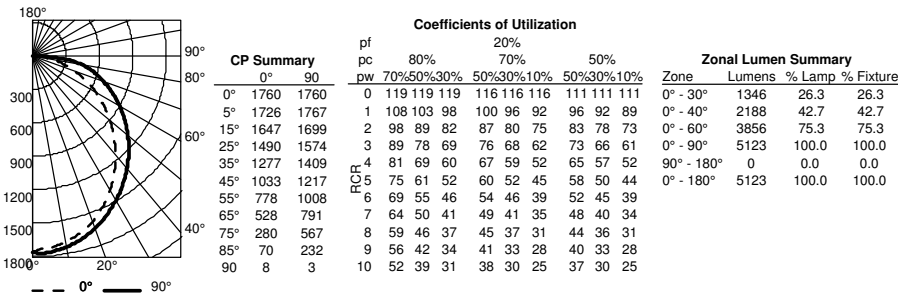
2BLT Volumetric Recessed Lighting 2'x4'

PHOTOMETRICS

2BLT4 40L ADP LP835, 3945 delivered lumens, test no. LTL28918P37, tested in accordance to IESNA LM-79

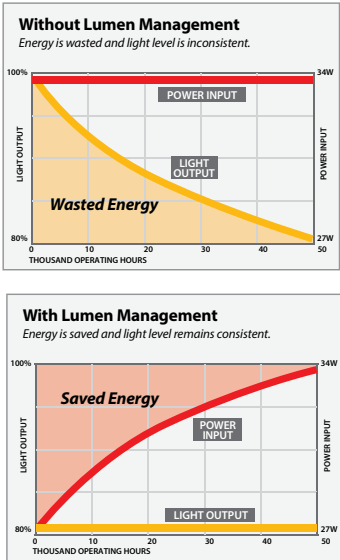


2BLT4 48L ADP LP835, 5121 delivered lumens, test no. LTL28918P41, tested in accordance to IESNA LM-79



Constant Lumen Management

Enabled by the embedded nLight control, the BLT actively tracks its run-time and manages its light source such that constant lumen output is maintained over the system life. Referred to as lumen management, this feature eliminates the energy waste created by the traditional practice of over-lighting.



How to Estimate Delivered Lumens in Emergency Mode

Use the formula below to estimate the delivered lumens in emergency mode

Delivered Lumens = 1.25 x P x LPW

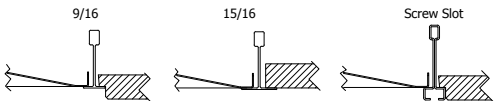
P = Output power of emergency driver. P = 10W for E10WLCP option.

LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet. LPW = Lumen per watt rating of the luminaire. LPW information available in Performance Data section.

Performance Data			
Lumen Package	Lumens	Input Watts	LPW
30L ADP LP830	3286	30	110
30L ADP LP835	3371	30	113
30L ADP LP840	3445	30	115
30L ADP LP850	3614	30	121
40L ADP LP830	3846	34	113
40L ADP LP835	3945	34	116
40L ADP LP840	4032	34	118
40L ADP LP850	4230	34	124
48L ADP LP830	4993	45	111
48L ADP LP835	5121	45	114
48L ADP LP840	5234	45	116
48L ADP LP850	5492	45	122
60L ADP LP830	6014	53	114
60L ADP LP835	6169	53	117
60L ADP LP840	6305	53	119
60L ADP LP850	6615	53	125
72L ADP LP830	7388	67	110
72L ADP LP835	7579	67	113
72L ADP LP840	7746	67	115
72L ADP LP850	8127	67	121
AIR 30L ADP LP830	3075	30	103
AIR 30L ADP LP835	3138	30	105
AIR 30L ADP LP840	3223	30	108
AIR 30L ADP LP850	3250	30	108
AIR 40L ADP LP830	3599	34	105
AIR 40L ADP LP835	3673	34	108
AIR 40L ADP LP840	3772	34	110
AIR 40L ADP LP850	3804	34	111
AIR 48L ADP LP830	4672	45	104
AIR 48L ADP LP835	4897	45	109
AIR 48L ADP LP840	4897	45	109
AIR 48L ADP LP850	4939	45	110
AIR 60L ADP LP830	5628	53	106
AIR 60L ADP LP835	5743	53	108
AIR 60L ADP LP840	5899	53	111
AIR 60L ADP LP850	5949	53	112
AIR 72L ADP LP830	6914	67	103
AIR 72L ADP LP835	7055	67	105
AIR 72L ADP LP840	7247	67	108
AIR 72L ADP LP850	7309	67	109

HE Performance Data			
Lumen Package	Lumens	Input Watts	LPW
30LHE ADP LP830	2755	22	126
30LHE ADP LP835	2826	22	132
30LHE ADP LP840	2888	22	134
30LHE ADP LP850	3030	22	140
48LHE ADP LP830	4655	36	127
48LHE ADP LP835	4775	36	130
48LHE ADP LP840	4880	36	133
48LHE ADP LP850	5121	36	139
60LHE ADP LP830	5473	42	129
60LHE ADP LP835	5614	42	132
60LHE ADP LP840	5738	42	135
60LHE ADP LP850	6020	42	142
72LHE ADP LP830	6805	52	130
72LHE ADP LP835	6981	52	133
72LHE ADP LP840	7135	52	136
72LHE ADP LP850	7486	52	143
85LHE ADP LP830	8189	64	127.
85LHE ADP LP835	8400	64	131
85LHE ADP LP840	8585	64	134
85LHE ADP LP850	9008	64	140

MOUNTING DATA	
Ceiling Type	Appropriate Trim Type
Exposed grid tee (1' and 9/16")	G
Concealed grid tee	G
Plaster or plasterboard	G*



\*DGA accessory available to provide ceiling trim flange and fixture support for plaster or plasterboard ceiling. Recommended rough-in dimensions for DGA installation is 24-3/4" x 48-3/4" (Tolerance is +1/8", -0").