

DIGITAL NAVIGATION

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FEATURES & SPECIFICATIONS

INTENDED USE — The BLTX surface mount 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 BLTX the perfect choice for many lighting applications including schools, offices and other commercial spaces, retail, hospitals and healthcare facilities.

CONSTRUCTION — BLTX 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.

Diffusers are extruded from impact modified acrylic for increased durability.

LED boards and driver are accessible from below.

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).

Configurable BLTX: 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 on page 2.

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 or through standard Cat-5 cabling. nLight offers unique plug-and-play convenience as devices and luminaires automatically discover each other and self-commission, while 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 BLTX is designed to be surface mounted on a level ceiling. The BLTX can be aircraft cable suspended. See Mounting Data section on page 3.

Suitable for damp location.

LISTINGS — UL Listed to meet U.S. and Canadian standards.

BUY AMERICAN ACT — Product with the BAA option 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 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. The product images shown are for illustration purposes only and may not be an exact representation of the product. Specifications subject to change without notice.

Catalog Number
Notes
Type

BLT Series LED

BLTX4

Surface Mount

1' x 4'
LED



Specifications

Length: 48 3/4 (123.8)
Width: 12 3/4 (32.4)
Depth: 4 3/4 (12.1)



All dimensions are inches (centimeters) unless otherwise specified.

Embed nLight controls today. Prepare for tomorrow.

Now

- User-friendly install
- Enhanced energy savings
- Code compliance

Tomorrow

- Scalability
- Space configuration
- Future-ready

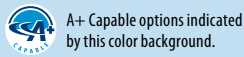
A+ Capable Luminaire

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.



ORDERING INFORMATION

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

Example: BLTX4 30L ADP EZ1 LP835

BLTX4							
Series	Lumens ¹	Diffuser	Voltage	Driver	Color temperature		
BLTX4 1x4 BLTX Surface Mount	Standard efficiency (>100 LPW) 20L 2000 30L 3000 40L 4000 48L 4800 60L 6000 High efficiency^{2,3} (>130 LPW) 30LHE 3000 40LHE 4000 48LHE 4800 60LHE 6000	ADP Curved, linear prisms ADSM Curved, smooth SDP Square, linear prisms SDSM Square, smooth Diffusers w/ trim rings ADPT Curved, linear prisms ADSMT Curved, smooth SDPT Square, linear prisms SDSMT Square, smooth	(blank) MVOLT 120 120V 277 277V 347 347V ⁴	EZ1 eldoLED dims to 1% (0-10 volt dimming) GZ1 Dims to 1% (0-10V dimming) ⁵ GZ10 Dims to 10% (0-10V dimming) ⁵ SLD Step-level dimming ⁶	LP830 82CRI, 3000 K	LP835 82CRI, 3500 K	LP840 82CRI, 4000 K
					LP850 82CRI, 5000 K	LP930 90CRI, 3000K	
					LP935 90CRI, 3500K	LP940 90CRI, 4000K	
					LP950 90CRI, 5000K		

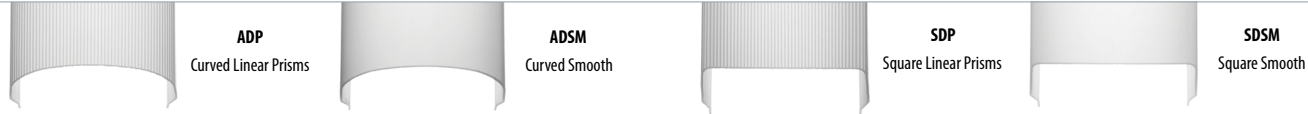
nLight Interface	Control ⁹	Options
nLight Wired (blank) no nLight [®] interface N80 nLight with 80% lumen management N80EMG nLight with 80% lumen management For use with generator supply EM power ⁷ N100 nLight without lumen management N100EMG nLight without lumen management For use with generator supply EM power ⁷ nLight Wireless (blank) no nLight AIR interface NLTAIR2 nLight AIR Generation 2 enabled ⁸	nLight Wired (blank) no nLight [®] control NES7 nLight™ nES 7 PIR integral occupancy sensor ^{10, 11} NESPDT7 nLight™ nES PDT 7 dual technology integral occupancy control ^{10, 11} NES7ADCX nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell ^{10, 11} NESPDT7ADCX nLight™ nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell ^{10, 11} nLight Wireless (blank) No nLight [®] control RES7 nLight AIR control with PIR integral occupancy sensor and automatic dimming photocell ¹⁶ RES7PDT nLight AIR control with PDT dual technology integral occupancy sensor and automatic dimming photocell ¹⁶ RIO nLight AIR radio module without sensor ¹⁶ RES7EM nLight AIR PIR integral occupancy sensor with automatic dimming photocell and UL924 Emergency Operation, via power interrupt detection ¹⁷ RES7PDTEM nLight AIR microphonics dual technology occupancy sensor with automatic dimming photocell and UL924 Emergency Operation, via power interrupt detection ¹⁷ RIOEM nLight AIR radio module less sensor, with UL924 Emergency Operation, via power interrupt detection ¹⁷	Individual Control MSD7ADCX PIR integral occupancy sensor with automatic dimming control photocell ¹¹ MSDPDT7ADCX PDT integral occupancy sensor with automatic dimming control photocell ¹¹ BDP Disconnect Plug EL7L 700 lumen battery pack ^{12, 13} EL14L 1400 lumen battery pack ^{12, 13} E10WLCP EM Self-Diagnostic battery pack, 10W Constant Power, Certified in CA Title 20 MAEDBS ^{12, 13} BGTD Bodine Generator Transfer Device ¹⁴ GLR Fast-blowing fuse ¹⁵ GMF Slow-blowing fuse ¹⁵ DWAM Anti-microbial paint BAA Buy America(n) Act Compliant

Accessories next page

Notes

- 1 Approximate lumen output.
- 2 All versions may not achieve 130+ LPW. Refer to photometry on www.acuitybrands.com.
- 3 90 CRI and versions with integral sensor trim rings may not achieve 130 LPW.
- 4 Not available with SLD driver, EL7L or EL14L battery packs.
- 5 GZ1 and GZ10 not available any Control or Sensor options.
- 6 Not available with N80, N80EMG, N100, N100EMG, NLTAIR2, or occupancy control.
- 7 nLight EMG option requires a connection to existing nLight network. Power is provided from a separate N80 or N100 enabled fixture.
- 8 Must order with RES7, RESPDT7, or RIO sensor. Only available with EZ1 driver.
- 9 Must specify diffuser with trims rings. See sensor options on page 4.
- 10 Requires N80, N80EMG, N100, or N100EMG.
- 11 Only available with EZ1 driver option. 0-10v dimming wires not accessible via access plate.
- 12 When using pre-wire option, use PWS1846 or PWS1846 PWSLV.
- 13 Not available with 60L or 60LHE.
- 14 Requires BSE labeling, voltage specific. Consult factory for options.
- 15 Must specify voltage, 120 or 277 with GLR & GMF fusing and BGTD.
- 16 See UL 924 Sequence of Operation chart on page 3. When combined with the EZ1 option, can be used as a normal power sensing device for nLight AIR devices and luminaires with EM emergency options.
- 17 See UL924 Sequence of Operation chart on page 3.

Multiple Diffuser Options



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.

MOUNTING DATA

For unit installation. Surface mount only. BLTX is to be installed on even surfaces only.

For aircraft cable mount:

one STACG_, STACGF_, or STACGE_ required for each 1/4" suspension point.

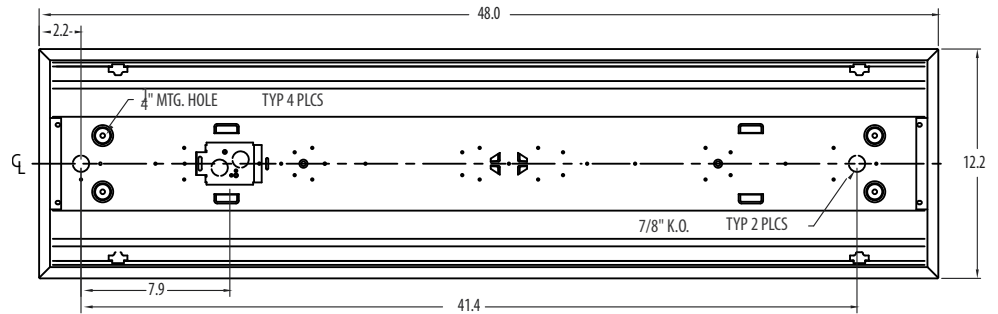
Suspension Kit Ceiling Types:

F1 for use with most T-bar and screw slot grid ceiling applications. Designed for on-grid and off-grid installations.

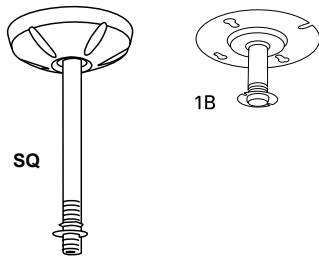
F2 for use with recessed or surface-mount horizontal J-box applications.

Stem-mount: two stems are recommended per fixture, utilizing 7/8" knock outs.

SQ or 1B stem See Accessories below:



NO EXTERNAL nLIGHT CAT5 CONNECTION PROVIDED.
CAT5 TO BE ROUTED INTO LUMINAIRE FOR nLIGHT.



Accessories & Replacement Parts

Replacement Parts: Order as separate catalog number.	
DBLTX48 ADP LENS ASSEMBLY	4 ft. replacement lens with trim rings
DBLTX48 SDP LENS ASSEMBLY	4 ft. replacement lens with trim rings
DBLTX48 ADSM LENS ASSEMBLY	4 ft. replacement lens with trim rings
DBLTX48 SDSM LENS ASSEMBLY	4 ft. replacement lens with trim rings
DBLTX48 ADPT LENS ASSEMBLY	4 ft. replacement lens with trim rings
DBLTX48 SDPT LENS ASSEMBLY	4 ft. replacement lens with trim rings
DBLTX48 ADSMT LENS ASSEMBLY	4 ft. replacement lens with trim rings
DBLTX48 SDSMT LENS ASSEMBLY	4 ft. replacement lens with trim rings
DBLTX48 ADPT SENSOR LENS ASSEMBLY	4 ft. replacement lens with trim rings
DBLTX48 SDPT SENSOR LENS ASSEMBLY	4 ft. replacement lens with trim rings
DBLTX48 ADSMT SENSOR LENS ASSEMBLY	4 ft. replacement lens with trim rings
DBLTX48 SDSMT SENSOR LENS ASSEMBLY	4 ft. replacement lens with trim rings
RK8BDP 2P U	Disconnect Plug (BDP), 2 Pole, Package of 1
RK8BDP 3P U	Disconnect Plug (BDP), 3 Pole, Package of 1
RK8BDP 2P J10	Disconnect Plug (BDP), 2 Pole, Package of 10
RK8BDP 2P J40	Disconnect Plug (BDP), 2 Pole, Package of 40

nLight Platform

nLight embedded fixtures offer:	Customers get:
Manual Dimming	Convenience and visual comfort for occupants
Motion Sensing and/or Daylight Harvesting	Energy savings and code compliance
Fixture or Group Level Control	Ability to configure lighting to the space requirements
Flexibility	Ease of fixture moves, adds and changes
Wireless Wall Switch (nLight AIR Only)	Ease and flexibility of placement
Astronomical and Time of Day Scheduling	Energy savings and building security
Scalable Solution	nLight controls to grow with your business
Future-Ready	nLight platform to set foundation for future upgrades and capabilities

nLight Air Wireless



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



nLight Wired Networking



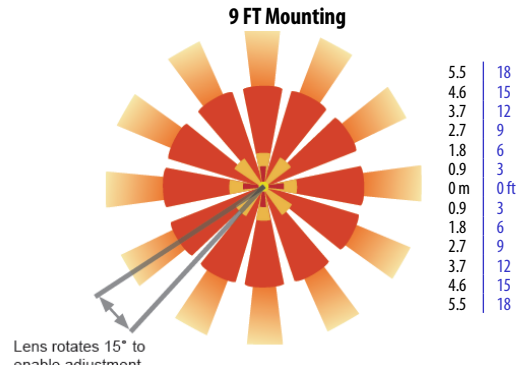
Simple as 1,2,3

1. Install the nLight® Wired fixtures with embedded control
2. Install the nLight Wired wall switch
3. Connect the fixtures using standard CAT5e cables and the devices will automatically discover each other and work (plug and play)

Sensor Options					
Option	Automatic Dimming Photocell	Occupancy Sensing		nLight Wired Networking	nLight AIR 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

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



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.

nLight AIR Wireless

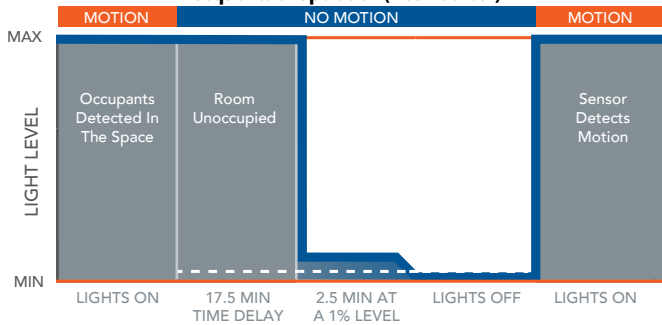
nLight AIR is the ideal solution for retrofit or new construction spaces where adding additional wiring can be labor intensive and nLight AIR is available with or without an integral sensor. The integrated rES7 or rES7PDT smart sensors are part of each luminaire in the nLight AIR network, which can be 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.

nLight Wired Networking

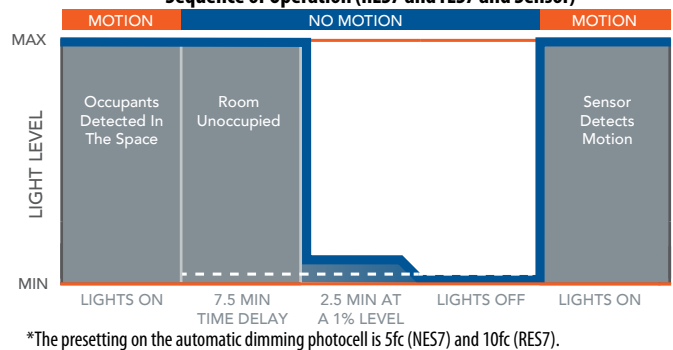
The nES7 is ideal for small rooms without obstructions or areas with primarily walking motion. Ideal areas include hallways, corridors, storage rooms, and breakrooms. Additionally, the nES7ADCX includes an integrated photocell, which enables daylight harvesting controls.

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 (MSD7 Sensor)



Sequence of Operation (nES7 and rES7 and Sensor)



Controls Accessories

nLight® Wired Control Accessories:

Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlight.

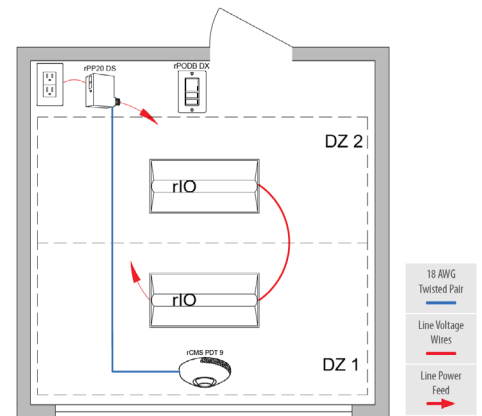
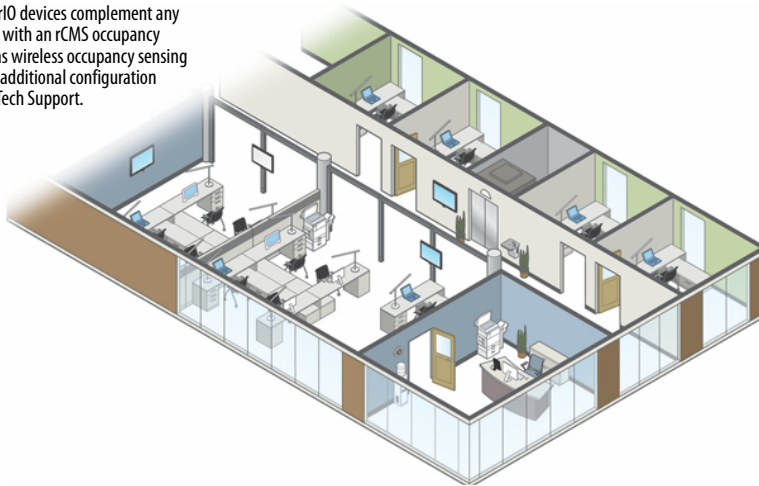
WallPod stations	Model number	Occupancy sensors	Model number
On/Off	nPODMA [Color]	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 RJB / nCM PDT 9 RJB
On/Off & raise/lower	nPODMA DX [Color]	Large motion 360°, ceiling (PIR / dual tech)	nCM10 RJB / nCM PDT 10 RJB
Graphic touchscreen	nPOD TOUCH [Color]	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	CATS 10FT J1
		30' cable	CATS 30FT J1

nLight® AIR Control Accessories:

Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlightair.

Wall switches	Model number
On/Off single pole	rPODBA [color] G2
On/Off two pole	rPODB A2P [color] G2
On/Off & raise/lower single pole	rPODBA DX [color] G2
On/Off & raise/lower two pole	rPODBA 2P DX [color] G2

BLT fixtures with integrated rIO devices complement any small office space. Pair them with an rCMS occupancy sensor and the space now has wireless occupancy sensing and dimming capability. For additional configuration options please consult with Tech Support.



rCMS¹ Example: RCMS PDT 10 AR G2

Series / Detection	Power Supply ¹	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

Notes

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



Sensor Switch
WSXA D



nLight WIRED
NPOD UNITOUCH



nLight WIRED
nPODMA DX



nLight AIR
rPODBA



BLT with rIO



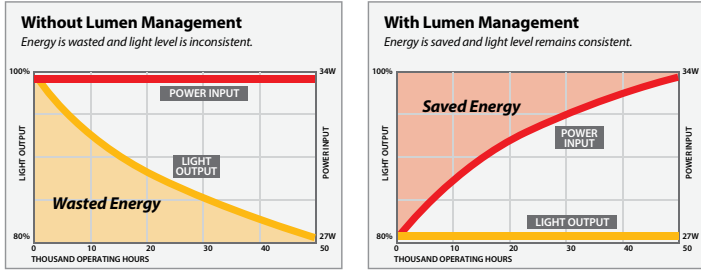
rPODBA



RCMS

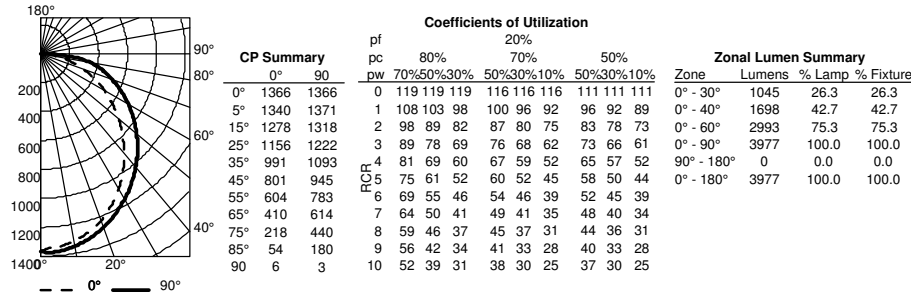
Constant Lumen Management

Enabled by the embedded nLight control, the BLTX 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.

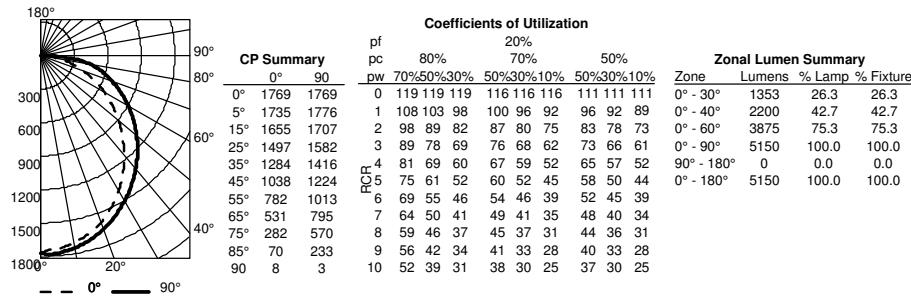


PHOTOMETRICS

BLTX4 40L ADP LP835, 3975 delivered lumens, test no. LTL28918P741, tested in accordance to IESNA LM-79



BLTX4 48L ADP LP835, 5148 delivered lumens, test no. LTL28918P745, tested in accordance to IESNA LM-79



HE Performance Data			
Lumen Package	Lumens	Input Watts	LPW
48LHE ADP LP830	4701	36	129
48LHE ADP LP835	4822	36	132
48LHE ADP LP840	4929	36	135
48LHE ADP LP850	5171	36	142
60LHE ADP LP830	5400	42	128
60LHE ADP LP835	5540	42	132
60LHE ADP LP840	5662	42	134
60LHE ADP LP850	5941	42	141

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
20L ADP LP830	2231	19	120
20L ADP LP835	2289	19	123
20L ADP LP840	2339	19	126
20L ADP LP850	2454	19	132
30L ADP LP830	3311	29	113
30L ADP LP835	3397	29	116
30L ADP LP840	3471	29	119
30L ADP LP850	3642	29	124
40L ADP LP830	3875	34	113
40L ADP LP835	3975	34	116
40L ADP LP840	4062	34	119
40L ADP LP850	4262	34	125
48L ADP LP830	5018	46	110
48L ADP LP835	5148	46	112
48L ADP LP840	5261	46	115
48L ADP LP850	5520	46	121
60L ADP LP830	5969	53	112
60L ADP LP835	6124	53	115
60L ADP LP840	6258	53	117
60L ADP LP850	6566	53	123