

DIGITAL NAVIGATION

Ordering Tree nLight Platform Controls Photometrics Performance Data

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 — Prior to fabrication, BLT components are coated with a proprietary paint blend and die-formed for dimensional consistency.

The BLT reflector is available in both smooth and ribbed finishes. For a ribbed finish, add RIB to the end of the product description. See the ordering tree below for additional detail.

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 ribbed 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 MSDPD7ADCX ((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 to confirm which versions are qualified.

WARRANTY — 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/customer-support/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. Specifications subject to change without notice.

Catalog Number
Notes
Type

BLT Series LED

2BLT4

2' x 4'
LED



ADP Diffuser Option



Ribbed Reflector Option



Specifications

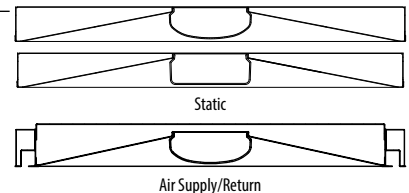
Length: 47-3/4 (121.2)

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.



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

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		Air function		Lumens ²		Diffuser		Voltage		Driver		Color temperature	
2BLT4	2x4 BLT	(blank) Static	A	Standard efficiency (>100 LPW)	High efficiency ^{3,4} (>130 LPW)	ADP	Curved, ribbed	(blank) MVOLT	EZ1	elidoLED dims to 1% (0-10 volt dimming)	LP830	82CRI, 3000 K	
		Air supply/return ¹		30L 3000	30LHE 3000	ADSM	Curved, smooth	120 120V			LP835	82CRI, 3500 K	
				40L 4000	40LHE 4000	SDP	Square, ribbed	277 277V	GZ1	Dims to 1% (0-10V dimming) ⁶	LP840	82CRI, 4000 K	
				48L 4800	48LHE 4800	SDSM	Square, smooth	347 347V ⁵	GZ10	Dims to 10% (0-10V dimming) ⁶	LP850	82CRI, 5000 K	
				60L 6000	60LHE 6000	Includes trim rings to match sensored version			SLD	Step-level dimming ⁷	LP930	90CRI, 3000K	
				72L 7200	72LHE 7200	ADPT	Curved, ribbed				LP935	90CRI, 3500K	
				85L 8500	85LHE 8500	ADSM	Curved, smooth				LP940	90CRI, 4000K	
				100L 10000		SDPT	Square, ribbed				LP950	90CRI, 5000K	
				120L 12000		SDSMT	Square, smooth						

nLight Interface		Control ¹⁰	
nLight Wired		nLight Wired	
(blank)	no nLight [®] interface	(blank)	No sensor control
N80	nLight with 80% lumen management	NES7	nLight™ nES 7 PIR integral occupancy sensor ¹¹
N80EMG	nLight with 80% lumen management For use with generator supply EM power ⁸	NESPDT7	nLight™ nES PDT 7 dual technology integral occupancy control ¹¹
N100	nLight without lumen management	NES7ADCX	nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell ¹¹
N100EMG	nLight without lumen management For use with generator supply EM power ⁸	NESPDT7ADCX	nLight™ nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell ¹¹
nLight Wireless		nLight Wireless	
(blank)	no nLight [®] interface	RES7	nLight AIR PIR integral occupancy sensor with automatic dimming photocell for Networking Capabilities
NLTAIR2	nLight AIR Generation 2 enabled ²	RES7PDT	nLight AIR microphonics dual technology occupancy sensor with automatic dimming photocell
		RIO	nLight AIR radio module without sensor
		RES7EM	nLight AIR PIR integral occupancy sensor with automatic dimming photocell and UL924 Emergency Operation, via power interrupt detection ²³
		RES7PDTEM	nLight AIR microphonics dual technology occupancy sensor with automatic dimming photocell and UL924 Emergency Operation, via power interrupt detection ²³
		RIOEM	nLight AIR radio module less sensor, with UL924 Emergency Operation, via power interrupt detection ²³
		Individual Control	
		MSD7ADCX	PIR integral occupancy sensor with automatic dimming control photocell ¹²
		MSDPDT7ADCX	PDT integral occupancy sensor with automatic dimming control photocell ¹²

Standby Mode		Options	
NOC	NOC Occupancy sensor disabled ¹³	RIB	Ribbed reflector
		EL7L	700 lumen battery pack (Noncompliant with CA T20) ¹⁴
		EL14L	1400 lumen battery pack (Noncompliant with CA T20) ¹⁴
		EL14LSD	1400 lumen battery pack with self-diagnostic testing feature (Noncompliant with CA T20) ^{14,15}
		E10WLCP	EM Self-Diagnostic battery pack, 10W Constant Power, Certified in CA Title 20 MAEDBS ¹⁴
		CP	Chicago plenum ¹⁶
		BGTD	Bodine Generator Transfer Device ¹⁷
		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 ¹⁸
		PWS1856LV	6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit w/low voltage purple and grey wires ¹⁸
		GLR	Fast-blowing fuse ¹⁹
		GMF	Slow-blowing fuse ¹⁹
		NPLT	Narrow pallet
		RRL_	RELOC [®] -ready luminaire ²⁰
		LATC	Earthquake clip
		DWAM	Anti-Microbial paint
		JP14	Job packaging ²¹
		JP18	Job packaging
		IP5X	Gasketed diffuser compartment to meet IP5X rating ²²

- Notes**
- Consult factory for airflow data.
 - Approximate lumen output.
 - All versions may not achieve 130+ LPW. Refer to photometry on 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, EL14L, or E10WLCP options.
 - GZ1 and GZ10 not available with any Control or Sensor options
 - Not available with N80, N80EMG, N100, N100EMG, NLTAIR, or occupancy control.
 - 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 85L, 100L, or 120L options.
 - Must specify diffuser with trim rings. See sensor options on page 4.
 - Requires N80, N80EMG, N100, or N100EMG. Only available with EZ1 driver.
 - Only available with EZ1 driver option. 0-10v dimming wires not accessible via access plate.
 - Can only be ordered in conjunction with EZ1, NLTAIR2, RES7/RES7PDT. Occupancy sensor disabled at factory but can be re-enabled upon commissioning.
 - 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](#).
 - Only available with option: NES7, NESPDT7, NESPDT7ADCX, MSD7ADCX, MSDPDT7ADCX, RES7, RES7PDT, RIO.
 - Not available with air supply/return or Wired Networking (NES_) and Individual Control (MSD_) sensors.
 - See UL924 Sequence of Operation chart on page 3.

2BLT Volumetric Recessed Lighting 2'x4'

Multiple Diffuser Options

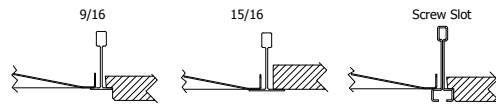


Non-Configurable BLT

Non-Configurable BLT								
Stock/MTO	Catalog Description *	UPC	Lumens	Wattage	LPW	Color Temperature	Voltage	Pallet Qty
Stock	2BLT4 40L ADP LP835	00190887470789	4000	31	129	3500K/82 CRI	120-277	28
	2BLT4 40L ADP LP840	00190887470765	4063	31	131	4000K/82CRI	120-277	28
	2BLT4 46L ADP LP835	00190887468656	4960	38	131	3500K/82 CRI	120-277	28
	2BLT4 46L ADP LP840	00190887468649	5039	38	133	4000K/82CRI	120-277	28
	2BLT4 40L ADP EL14L LP835	00190887470925	4000	31	129	3500K/82 CRI	120-277	28
	2BLT4 40L ADP EL14L LP840	00190887470918	4063	31	131	4000K/82 CRI	120-277	28
	2BLT4 46L ADP EL14L LP835	00190887468670	4960	38	131	3500K/82 CRI	120-277	28
	2BLT4 46L ADP EL14L LP840	00190887468663	5039	38	133	4000K/82 CRI	120-277	28
MTO	2BLT4 40L ADP 347 LP835	00193047562188	4000	31	129	3500K/82 CRI	347	28
	2BLT4 40L ADP 347 LP840	00193047059183	4063	31	131	4000K/82CRI	347	28
	2BLT4 46L ADP 347 LP835	00193047562225	4960	38	131	3500K/82 CRI	347	28
	2BLT4 46L ADP 347 LP840	00193047686426	5039	38	133	4000K/82CRI	347	28

*Generic 0-10V Dimming to 10%.

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 24-3/4" (Tolerance is +1/8", -0").

UL924 Sequence of Operation

For 90 minutes following any complete AC power interruption >200 ms:

- Digital dimming is commanded to high end trim level.
- Device ignores wireless lighting control commands.

Accessories & Replacement Parts

Accessories: Order as separate catalog number.	
DGA24	Drywall grid adapter for 2x4 recessed fixture
2X4SMKSH PAF	Surface Mount Troffer Kit Post Paint

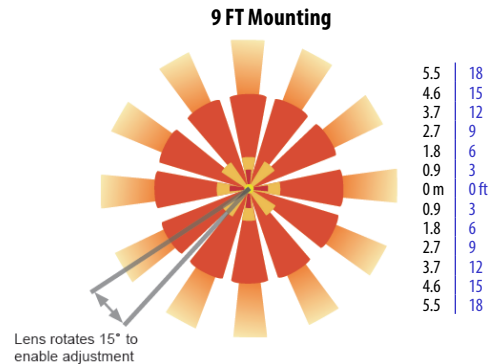
Replacement Parts: Order as separate catalog number.		
*249P2N	2DBLT48 ADP LENS ASSEMBLY	4 ft. replacement lens
*249P2T	2DBLT48 SDP LENS ASSEMBLY	4 ft. replacement lens
*249P30	2DBLT48 ADSM LENS ASSEMBLY	4 ft. replacement lens
*249P33	2DBLT48 SDSM LENS ASSEMBLY	4 ft. replacement lens
*237LT2	2DBLT48 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

2BLT Volumetric Recessed Lighting 2'x4'

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	
NESPD7			X	X	
NESPD7ADCX	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.

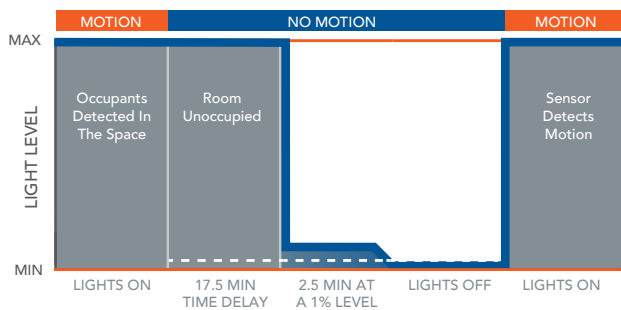
nLight AIR Wireless

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

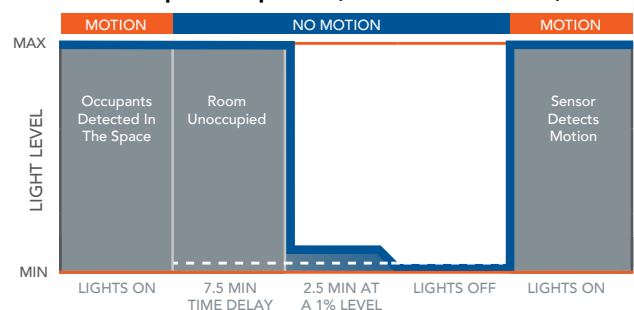
The nES7 is ideal for small rooms without obstructions or areas with primarily walking motion. Ideal areas include hallways, corridors, storage rooms, and breakrooms. Additionally, the nES7ADCX includes an integrated photocell, which enables daylight harvesting controls. For areas like restrooms, private 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 nESPD7ADCX includes an integrated photocell, which enables daylight harvesting controls which is ideal for areas where windows are present.

Sequence of Operation (MSD7 Sensor)



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

Sequence of Operation (nES7 and rES7 and Sensor)



*The presetting on the automatic dimming photocell is 5fc (NES7) and 10fc (RES7).