

FEATURES & SPECIFICATIONS

INTENDED USE — The BLTR Best-Value Low Profile LED Relight Assembly is a cost effective solution for renovating existing fluorescent troffer and parabolic fixtures while providing upgraded aesthetics and outstanding performance. The BLTR's popular center basket design offers a clean, versatile style, and volumetric distribution. The wide range of lumen packages and control and driver options make the BLTR a great choice for many applications including offices, schools, hospitals, retail spaces and other general lighting applications.

CONSTRUCTION — Universal end brackets are constructed of 22-gauge powder-painted steel and are secured to the host fixture with provided TEKS™ screws. The driver and light engine assembly is integrated in the BLTR door assembly making this an extremely "simple", time saving, relight solution. The door frame and reflector assembly is made of cold-rolled steel and is painted after fabrication with a matte white powder paint for improved aesthetics and increased light diffusion. Diffusers are extruded from impact modified acrylic for increased durability. Diffuser trim rings provide an attractive mounting for integral sensors as well as adding a decorative element to the luminaire aesthetics.

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. 70% LED lumen maintenance at 60,000 hours (L70/60,000).

Non-Configurable BLTR Relight: Generic 0-10 volt dimming driver. Dims to 10%

Configurable BLTR Relight: available in High Efficiency (HE) versions for applications where a lower wattage (over the standard product) is required. 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.

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

Optional integrated nLight™ controls make each luminaire addressable — allowing it to digitally communicate with other nLight enabled controls such as dimmers, switches, nLight AIR RIO, RES7 occupancy sensors, and photo controls. Simply connect all the nLight enabled control devices and the BLTR Relight assembly using standard Cat-5 cabling. Unique plug-and-play convenience as devices and luminaires automatically discover each other and self-commission. 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. 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 microphonics (PDT) dual technology occupancy sensor. It pairs to other luminaires and wall switches through our mobile app, CLAI/RITY™, which allows for simple sensor adjustment. See page 4 for more details on the Integrated Smart Sensor.

INSTALLATION — After existing fluorescent components are removed from the host housing, universal end brackets are secured in place with TEKS™ screws. The BLTR's integrated driver and light engine door assembly can then be hinged to the universal end brackets and will hang in place for completion of assembly plug-in wiring. Rotate the doorframe assembly closed and pivot the cam latches to secure the doorframe in place. LED boards include plug-in connectors for easy replacement or servicing. Suitable for damp location installations. Damp location not available with sensor versions.

LISTINGS — UL/cUL Listed for use in fluorescent light fixtures. Installing Relight assemblies per instructions will not impact existing fixture UL listing. Tested to LM80 standards. DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC 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/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

2BLTR Series LED Relight

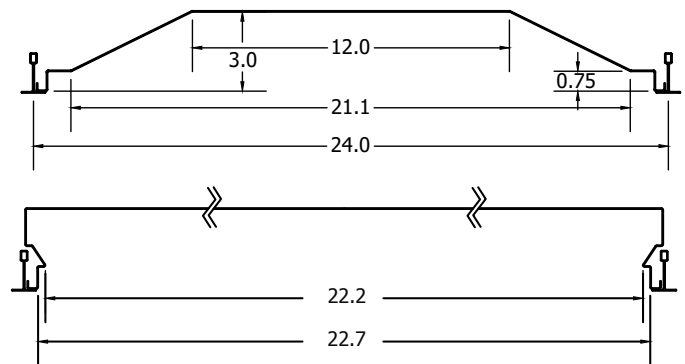
2BLTR

2' x 2' Relight
LED



Fit Compatibility:

The 2BLTR Relight Assembly was designed to upgrade recessed 2x2 fixtures, including most parabolic and lensed troffers from all major manufacturers. Dimensional requirements are below, but Lithonia Lighting recommends a trial installation prior to purchasing project quantities.



SIDE SECTION

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

2BLT2R Volumetric Recessed Lighting 2'x2' Relight



A+ Capable options indicated by this color background.

ORDERING INFORMATION

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

Example: 2BLT2R 33L ADP EZ1 LP835

2BLT2R						
Series	Air Function	Lumens ²	Diffuser	Voltage	Driver	Color temperature
2BLT2R 2X2 BLTR	(blank) Static (white end brackets for troffers) A Air supply/return or to maintain black reveal (black end brackets for parabolics) ¹	Standard efficiency (>100 LPW) 20L 2000 33L 3300 40L 4000 High efficiency³ (>130 LPW) 33LHE 3300 40LHE 4000 48LHE 4800	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) 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 [®] interface NLTAIR2 nLight AIR Generation 2 enabled ⁸	nLight Wired (blank) No sensor control NES7 nLight™ nES 7 PIR integral occupancy sensor ¹⁰ NESPDT7 nLight™ nES PDT 7 dual technology integral occupancy control ¹⁰ NES7ADCX nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell ¹⁰ NESPDT7ADCX nLight™ nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell ¹⁰ nLight Wireless RES7 nLight AIR PIR integral occupancy sensor with automatic dimming photocell for Networking Capabilities Individual Control RES7PDT nLight AIR microphonics dual technology occupancy sensor with automatic dimming photocell for Zone Control RIO nLight AIR radio module without sensor	Individual Control MSD7ADCX PIR integral occupancy sensor with automatic dimming control photocell ¹¹ MSDPDT7ADCX PDT integral occupancy sensor with automatic dimming control photocell ¹¹ EL7L 700 lumen battery pack EL14L 1400 lumen battery pack E10WLCP EM Self-Diagnostic battery pack, 10W Constant Power, CEC compliant BGTD Bodine Generator Transfer Device ¹² GLR Fast-blowing fuse ¹³ GMF Slow-blowing fuse ¹³ NPLT Narrow pallet FAO Field adjustable output ¹⁴ USPOM US Point of Manufacture JP20 Job Pack

Non-Configurable BLT								
Stock	Catalog Description*	UPC	Lumens	Wattage	LPW	Color Temperature	Voltage	Pallet Qty
Stock	2BLT2R 33L ADP LP835	190887550900	3241	30	108	3500K/82 CRI	120-277	52
	2BLT2R 33L ADP LP840	190887550931	3313	30	111	4000K/82 CRI	120-277	52

* Dims to 10%

Accessories next page

- Notes
- 1

Consult factory for airflow data.
- 2

Approximate lumen output.
- 3

All versions may not achieve 130+ LPW. Refer to photometry on www.acuitybrands.com.
- 4

Not available with EL7L or EL14L battery packs.
- 5

GZ10 not available with 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, RES7PDT, or RIO sensor. Only available with EZ1 driver.
- 9

Must specify diffuser with trim 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. Not available with Controls options.
- 12

Requires BSE labeling. Consult factory for options.
- 13


Must specify voltage, 120 or 277 with GLR & GMF fusing.
- 14

Must specify EZ1 driver. FAO restricts use of external dimming controls. See chart on page 3 for additional details.


Multiple Diffuser Options




ADP
Curved Ribbed



ADSM
Curved Smooth



SDP
Square Ribbed



SDSM
Square Smooth

2BLT2R Volumetric Recessed Lighting 2'x2' Relight

nLight® AIR Control Accessories: <i>Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlightair.</i>	
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

Application Guide

2BLT2R — Typically used for lensed troffer installations. Assembly contains white end brackets and is supplied with white trim strips for use in closing gaps down fixture sides (installer's choice - not required).

**Note: This kit will fit in Lithonia's Avante non-air fixture.*



2BLT2R A — Typically used for parabolic installations with black reveal. Assembly contains black end brackets to match black reveal around host housing. Does not interfere with host housing air supply/return if present (along fixture sides).



rCMS ¹								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	[blank]	PIR Detection PDT ² Dual Tech PIR/ Microphonics	10	Large Motion/ Extended Range 360°	[BLANK]	None AR Auxiliary Relay	G2	Generation 2 compatibility
		PS 150	Standard 150 mA Power Supply			9	Small Motion/ Extended Range 360°				
						6	High Bay 360° Lens				

Notes

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



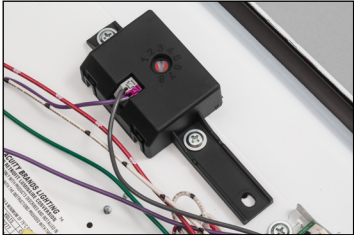
2BLT2R Volumetric Recessed Lighting 2'x2' Relight

Replacement Parts: *Order as separate catalog number.*

DBLTR24 ADP LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 SDP LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 ADSM LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 SDSM LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 ADPT LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 SDPT LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 ADSMT LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 SDSMT LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 ADPT SENSOR LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 SDPT SENSOR LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 ADSMT SENSOR LENS ASSEMBLY	2 ft. replacement lens (trims included)
DBLTR24 SDSMT SENSOR LENS ASSEMBLY	2 ft. replacement lens (trims included)
U10528B	2 ft. replacement troffer trim strip

FAO SETTINGS (Field Adjustable Output)

	0-10 Voltage Dimmer	% Lumen Output (approximate)	% Wattage (approximate)
Step 8	Full Output	100%	100%
Step 7	9.0 VDC	98%	100%
Step 6	8.0 VDC	88%	86%
Step 5	7.0 VDC	86%	82%
Step 4	6.0 VDC	82%	80%
Step 3	5.0 VDC	76%	75%
Step 2	4.0 VDC	71%	72%
Step 1	3.0 VDC	67%	71%



Simple adjustment of output through the use of a flat head screwdriver.

2BLT2R Volumetric Recessed Lighting 2'x2' Relight

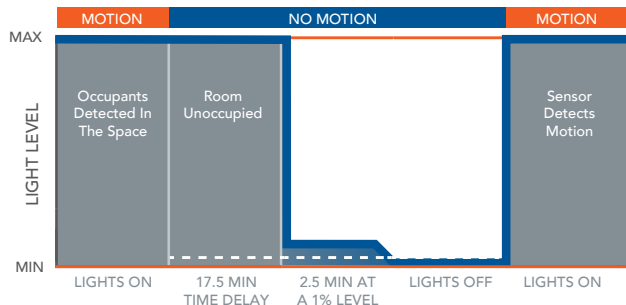
Sensor Options					
Option	Automatic Dimming Photocell	Occupancy Sensing		nLight Wired Networking	nLight AIR Networking
		PIR	PDT		
MSD7ADCX	X	X			
MSDPDT7ADCX	X		X		
NES7		X		X	
NES7ADCX	X	X		X	
NESPTD7			X	X	
NESPTD7ADCX	X		X	X	
RES7	X	X			X
RESPD7	X	X	X		X

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



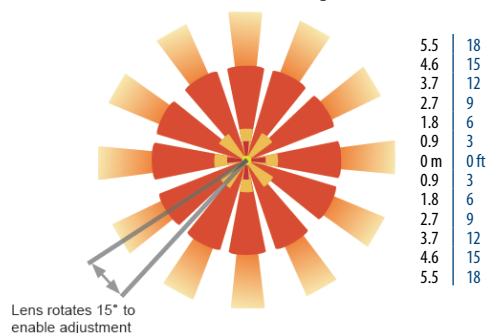
*The presetting on the automatic dimming photocell is 5fc.

Sensor Coverage Pattern

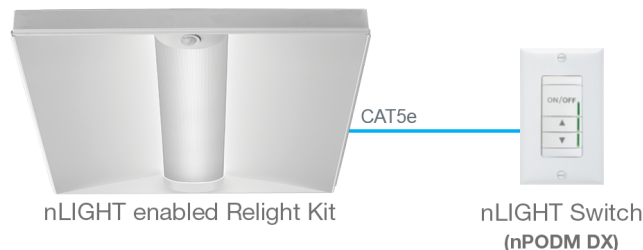
Mini 360° Lens

- 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



Basic nLight Zone

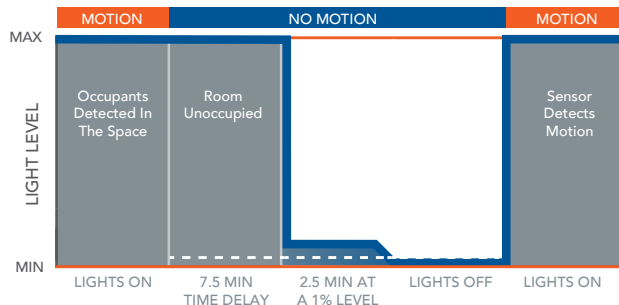


nLight Wired Networking

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 NESPTD7ADCX 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

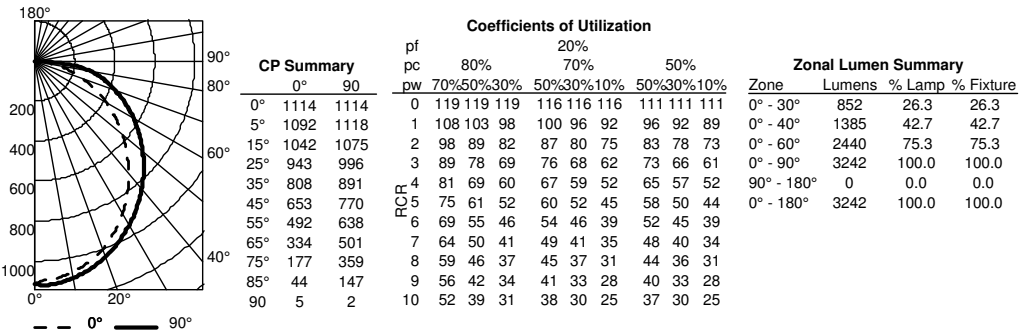
nLight AIR is the ideal solution for retrofit or new construction spaces where adding additional wiring can be labor intensive and costly. nLight AIR is available with or without and integral sensor. The integrated rES 7 or RES7PDT smart sensor is part of each luminaire in the nLight AIR network, which 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.



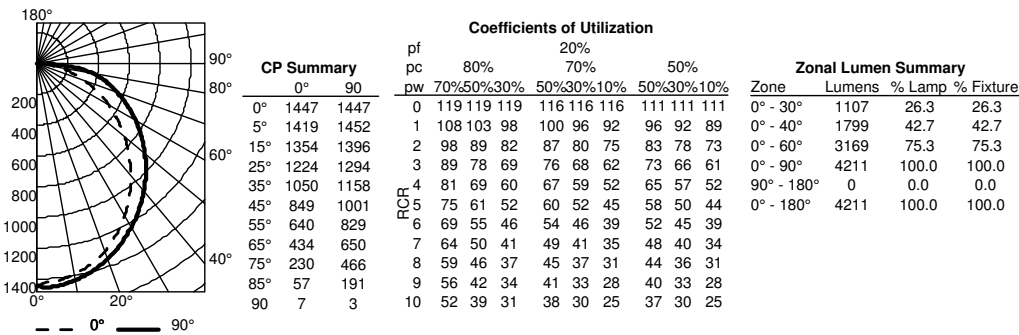
2BLT2R Volumetric Recessed Lighting 2'x2' Relight

PHOTOMETRICS

2BLT2R 33L ADP LP835, 3241 delivered lumens, test no. LTL28918P404, tested in accordance to IESNA LM-79



2BLT2R 40L ADP LP835, 4210 delivered lumens, test no. LTL28918P405, tested in accordance to IESNA LM-79



Performance Data			
Lumen Package	Lumens	Input Watts	LPW
20L ADP LP830	2157	20	110
20L ADP LP835	2213	20	113
20L ADP LP840	2261	20	116
20L ADP LP850	2373	20	121
33L ADP LP830	3160	30	106
33L ADP LP835	3241	30	108
33L ADP LP840	3313	30	111
33L ADP LP850	3476	30	116
40L ADP LP830	4103	39	106
40L ADP LP835	4209	39	108
40L ADP LP840	4302	39	111
40L ADP LP850	4514	39	116

HE Performance Data			
Lumen Package	Lumens	Input Watts	LPW
33LHE ADP LP830	3537	28	126
33LHE ADP LP835	3628	28	130
33LHE ADP LP840	3708	28	132
33LHE ADP LP850	3891	28	139
40LHE ADP LP830	4118	32	129
40LHE ADP LP835	4224	32	132
40LHE ADP LP840	4317	32	135
40LHE ADP LP850	4530	32	142
48LHE ADP LP830	4699	37	127
48LHE ADP LP835	4820	37	130
48LHE ADP LP840	4927	37	133
48LHE ADP LP850	5169	37	140