LITHONIA LIGHTING®

DIGITAL NAVIGATION

Ordering Tree nLight Platform SensorSwitch Platform Photometrics Performance Data

Catalog Number	
Notes	
Type	

BLTR Relight Series

2BLT2R

2' x 2' Relight LED

FEATURES & SPECIFICATIONS

INTENDED USE — The 2BLT2R is designed to retrofit nearly any 2x2 fluorescent lensed or parabolic troffer with normal dimensions and construction (see dimensions). The standard kit is designed for T-grid mounted recessed units, but optional brackets are available for drywall / "hard-lid" ceilings or surface mounted housings. All 2BLT2Rs are UL rated for use in air-handling troffer housings. Integrated system bypasses all old fluorescent components for reliable, long-lasting performance and is a perfect platform for modern networked controls. Certain airborne contaminants can diminish integrity of acrylic. **Click here for Acrylic Environmental Compatibility table for suitable uses**.

CONSTRUCTION — Universal end brackets are painted steel and are designed to fit securely in nearly any 2x2 lensed or parabolic troffer (see dimensional requirements). Unitized doorframe reflector and electrical chassis does not require any field assembly, and is painted after fabrication with high reflectivity matte white powder coating. Diffuser trim rings add a finished appearance while providing a mounting point for integral controls and sensors. All electrical and mechanical components can be accessed from below the ceiling plane.

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. Optional lower glare, very low UGR (Unified Glare Rating) lens available.

ELECTRICAL — Long-life LEDs, coupled with high-efficiency drivers, provide superior quantity and quality of illumination for extended service life. Greater than 80% LED lumen maintenance at 60,000 hours (L80+ > 60,000). Calculated L70 lumen maintenance greater than 150,000 hours. Color variation within 3-step MacAdam ellipse (35DCM).

Base (non-configurable) BLTR: Generic 0-10 volt dimming driver. Dims to 10%

Configurable BLTR: 2x2 BLTR kits provide > 135 LPW across a broad range of lumen outputs, CCTs, and driver options.

eldoLED driver options deliver choice of dimming range, and choices for control, while assuring flicker-free, lowcurrent 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 Field Adjustable Output (FAOE, FAO) devices provide a simple mechanical means of "dialing in" preferred high-end lumens.

SENSOR— Integrated sensor (individual control): SensorSwitch 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 5 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 6 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, CLAIRITY™, which allows for simple sensor adjustment. See page 6 for more details on the Integrated Smart Sensor.

Integrated Wireless Sensor (single room control): Integrated Wireless Sensor (single room control): SensorSwitch SSAIR or SSAIR VAPIR luminaire-embedded occupancy and ambient light sensor allows the luminaire to power off when the space is unoccupied or when enough ambient light is entering the space. See page 4 for more details on the integrated wireless 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. Suitable for damp location installations. Damp location not available with sensor versions.

LISTINGS — UL/cUL Listed for use in fluorescent luminaires. Classified for use in both static and air-handling troffer housings (see installation instructions for details). Installing Relight assemblies per instructions will not impact existing fixture UL listing (wet location listings excluded). Tested to LM80 standards.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

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 to www.acuitybrands.com/buy-american for additional information.

Standard 2BLT2R meets TAA requirements.

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.

Specifications subject to change without notice.

Specifications

Length: 23.9 (60.7)
Width: 23.9 (60.7)
Depth: 2.75 (6.9)
Weight: 10 (25.4)

All dimensions are inches (centimeters) unless otherwise specified.

Embed nLight controls today. Prepare for tomorrow.

Now	Tomorrow
User-friendly install	Scalability
Enhanced energy savings	Space configuration
Code compliance	Future-ready

design select

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.
*See ordering tree for details

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 when used with Acuity Brands controls products.
All configurations of this luminaire are calibrated and tested to meet the Acuity Brands' specifications for chromatic consistency – including color rendering, color fidelity, and color temperature tolerance around standard CIE chromaticity coordinates.

To learn more about Acuity A+ standards, specifications, and testing visit www.acuitybrands.com/aplus.

Design Select 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		Trim Type/ Air Function		Lumens[2]		Diffuser		Voltage		Driver		Color temperature	
2BLT2R	2X2 BLTR	(blank)	Standard white two-piece flanged bracket	**Standard efficiency (>125 LPW)**		ADP	Curved, linear prisms	(blank)	MVOLT	EZ1	eldoLED dims to 1% (0-10 volt dimming)	LP830	82CRI, 3000 K
		A	Standard two-piece flanged bracket painted black to match parabolic / air-handling reveals	20L	2000	ADSM	Curved, smooth	120	120V	GZ1	Dims to 1% (0-10V dimming)[6]	LP835	82CRI, 3500 K
		F	Flangeless two-piece bracket for installation in drywall / "hard lid" ceilings	33L	3300	SDP	Square, linear prisms	277	277V	GZ10	Dims to 10% (0-10V dimming)[6]	LP840	82CRI, 4000 K
		LPB	One-piece low profile bracket for installation in some obstructed housings (consult factory) (see pg. 5)	40L	4000	SDSM	Square, smooth	347	347V[4,5]	SLD	Step-level dimming[7]	LP850	82CRI, 5000 K
				High efficiency[3] (>130 LPW)		**Diffusers w/ trim rings**						LP930	90CRI, 3000K
				20LHE	2000	ADPT	Curved, linear prisms					LP935	90CRI, 3500K
				33LHE	3300	ADSMT	Curved, smooth					LP940	90CRI, 4000K
				40LHE	4000	SDPT	Square, linear prisms					LP950	90CRI, 5000K
				48LHE	4800	SDSMT	Square, smooth						

nLight Interface

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[8]
N100	nLight without lumen management
N100EMG	nLight without lumen management. For use with generator supply EM power[8]

nLight Wireless

(blank)	no nLight ® interface
NLTAIR2	nLight AIR Generation 2 enabled[9]

Control[10]

nLight Wired

(blank)	No sensor control
NES7	nLight™ nES 7 PIR integral occupancy sensor[11]
NESPDT7	nLight™ nES PDT 7 dual technology integral occupancy control[11]
NES7ADCX	nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell[11]
NESPDT7ADCX	nLight™ nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell[11]

nLight Wireless

RES7	nLight AIR control with PIR integral occupancy sensor and automatic dimming photocell[17]
RES7PDT	nLight AIR control with PDT dual technology integral occupancy sensor and automatic dimming photocell[17]
RIO	nLight AIR radio module without sensor[17]
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[12]
MSDPDT7ADCX	PDT integral occupancy sensor with automatic dimming control photocell[12]
SSAIR	Wireless standalone embedded control by SensorSwitch[17]
SSAIR VAPIR	Wireless standalone embedded control by SensorSwitch with Passive Infrared Occ sensor with auto-dimming photocell[17]

Standby Mode

NOC	Occupancy sensor disabled[13]

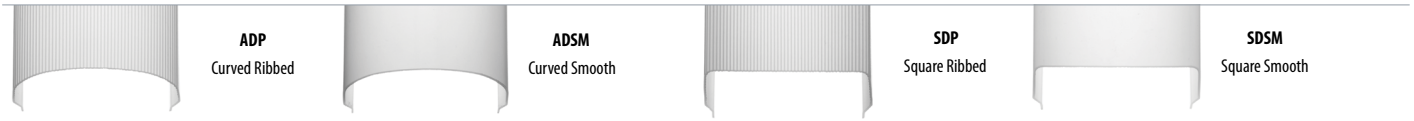
Options

BDP	Disconnect Plug
E7W	7W Emergency battery pack, constant power, Certified in CA Title 20 MAEDBS, User selectable Self-Diagnostic, AC Activate with Integral Test Switch (LINK)
E10W	10W Emergency battery pack, constant power, Certified in CA Title 20 MAEDBS, User selectable Self-Diagnostic, AC Activate with Integral Test Switch (LINK)
BGTD	Bodine Generator Transfer Device[14]
GLR	Fast-blowing fuse[15]
GMF	Slow-blowing fuse[15]
NPLT	Narrow pallet
FAOE	Field adjustable output - Energy Focused. 8 increment selections down to 17% wattage / 23% lumens
FAO	Field adjustable output (old style) - 8 increment selections down to 71% wattage / 67% lumens
BAA	Buy America(n) Act and/or Build America Buy America Qualified
JP40	Job Pack

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 E7W or E10W battery packs.
5 347 not available with SLD
6 GZ1, GZ10 not available with any Control or Sensor options.
7 Not available with N80, N80EMG, N100, N100EMG, NLTAIR2, or occupancy control.
8 nLight EMG option requires a connection to existing nLight network. Power is provided from a separate N80 or N100 enabled fixture.
9 Must order with RES7, RES7PDT, or RIO sensor. Only available with EZ1 driver.
10 Must specify diffuser with trim rings. See sensor options on page 4.
11 Requires N80, N80EMG, N100, or N100EMG.
12 Only available with EZ1 driver option. 0-10v dimming wires not accessible via access plate. Not available with Controls options. Not available with FAOE.
13 Can only be ordered in conjunction with EZ1, NLTAIR2, RES7/RES7PDT. Occupancy sensor disabled at factory but can be re-enabled upon commissioning.
14 Requires BSE labeling.
15 Must specify voltage, 120 or 277 with GLR & GMF fusing.
16 See UL924 Sequence of Operation instruction 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 Wired 0-10v dimming control not available. Not available with nLight Interface or Controls options. Not available with SLD, NOC, BGTD, or FAO. Must specify diffuser with trim rings.

Multiple Diffuser Options



ADP Curved Ribbed

ADSM Curved Smooth

SDP Square Ribbed

SDSM Square Smooth

Non-Configurable BLTR

Non-Configurable BLTR

Stock	Catalog Description*	UPC	Lumens	Wattage	LPW	Color Temperature	Voltage	Pallet Qty
Stock	2BLT2R 33L ADP LP835	190887550900	3313	27	124	3500K/80 CRI	120-277	52
	2BLT2R 33L ADP LP840	190887550931	3404	27	127	4000K/80 CRI	120-277	52

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 CL**AIR**ITY+ 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.

Accessories & Replacement Parts

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
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

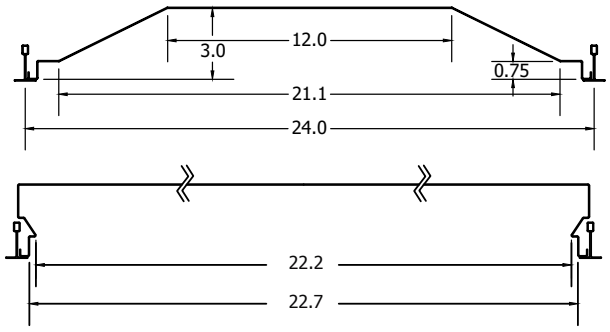
BSE Labeling Options

BSE10	Drivers load transfer relay installed per manufacturer's instructions. Voltage, BGTD and BSE10 called out.
BSE14	One voltage fixture with driver load control relay supplied with one prewire (PWS option). Prewire wired for normal circuit, the control relay for emergency circuit left unconnected. Voltage, BGTD, BSE14 and prewire called out, in the description.

*For configurations with Reloc or two voltages an RFA modification is required

Fit & Compatibility

The 2BLT2R 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

Emergency Battery Pack Options - Field Installable

Battery Model Number	Wattage	Runtime (Minutes)	Lumen Output* @ 120 Lumens/Watt	Other
ILB CP07 2H A	7W	120	840	Storm Shelter / 2 Hour Runtime
ILB CP10 A	10W	90	1200	
ILBLP CP10 HE SD A	10W	90	1200	Title 20, Self Diagnostic
ILB CP10 HE AELR A	10W	90	1200	Title 20; Enabled with Self Testing, Automated Reporting (STAR)
ILBLP CP15 HE SD A	15W	90	1800	Title 20, Self Diagnostic
ILB CP20 HE A	20W	90	2400	Title 20
ILB CP20 HE SD A	20W	90	2400	Title 20, Self Diagnostic

All the above are UL Listed products that are certified for field install external/remote to the fixture.

*Minimum delivered lumen output to assist in product selection for increased fixture mounting height.

The CP10 delivered emergency illumination outperforms legacy 1400 lumen fluorescent emergency ballast.

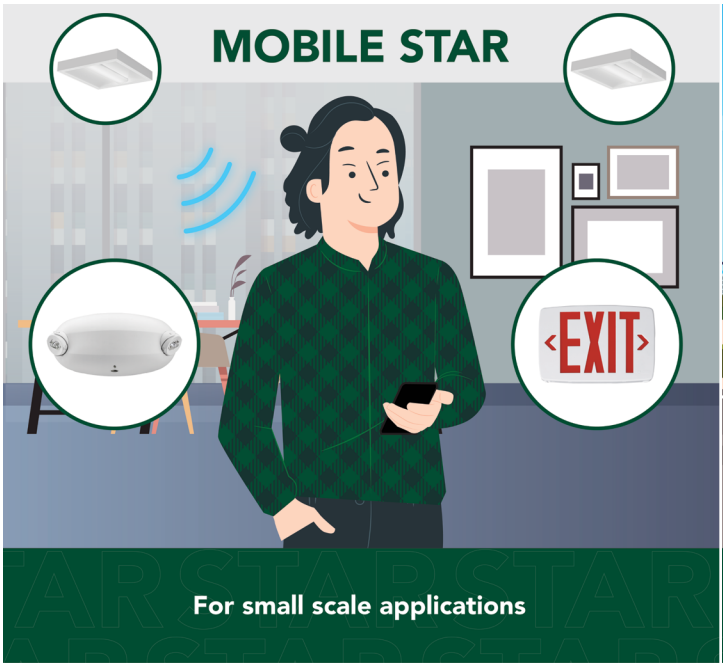
Please contact us at techsupport@iotaengineering.com for any Emergency Battery related questions.

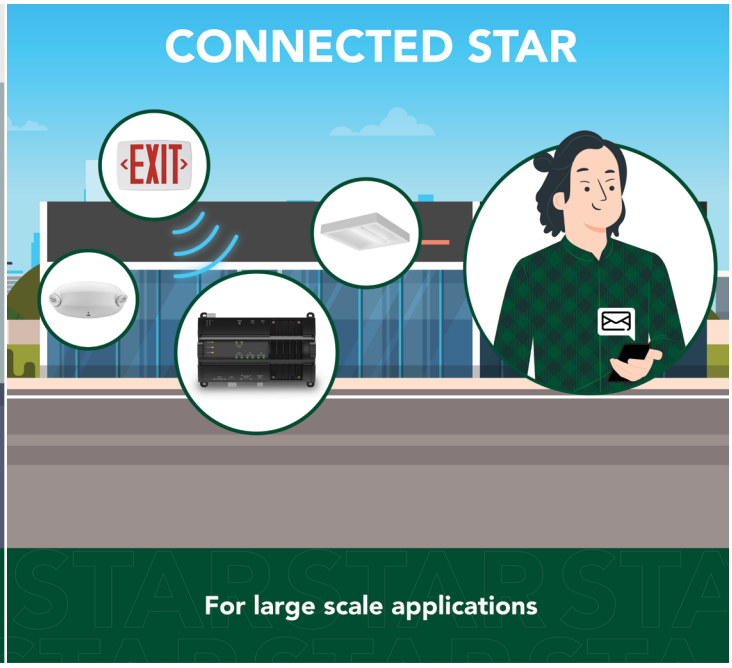
Enabled with STAR

Emergency Lighting with Self-Testing Automated Reporting (STAR), enables self-testing and automated reporting to aid in life safety code compliance. Build your solution and choose your preferred deployment from Mobile STAR, where test data is logged in each individual unit and broadcast to the ClAIRity™+ app, or Connected STAR, where test data is logged in the STAR Gateway by IOTA® and emailed directly. **Leave the ladders, disruptions and written records behind with emergency lighting solutions with STAR!**

Life Safety Code NFPA 101 testing and reporting requirements for emergency lighting include:

- Testing for 30 seconds every 30 days
- Testing for 90 minutes once a year
- Record keeping and to report to the authority having local jurisdiction





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).

BLTR Bracket "fit" recommendations

Ceiling type	15/16" T-grid	9/16" T-grid	Narrow Screw-slot	Hard Ceiling w/ "Lay-In" style plaster frame (drywall grid adapter)	Hard Ceiling with Integral drywall mounting ('swing gate' housing)	1x1 hard tile ceiling	Deep louver riser ("renovator" parabolic)
Recommended BLTR bracket type	Standard	Standard	F bracket *	Standard	F bracket	F bracket	LPB bracket

** Standard bracket may work in some*

BLTR "F" bracket vs. standard

Because the"F" bracket does not have the standard T-grid return flange, it can be used in many hard ceiling / drywall frame installations where the standard bracket would be obstructed.

This "F" bracket can also often be used in narrow screw-slot grid ceilings.

Replacement / Trial parts

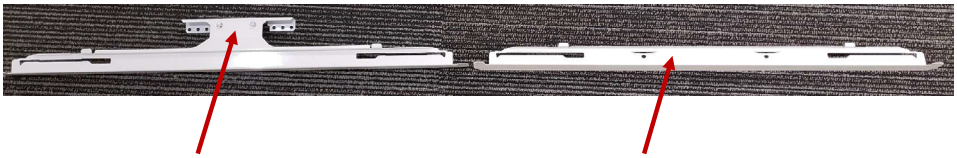
To order BLTR Standard 2pc end bracket replacement (shipped as assembled units):

- 2x4 = CI code *257YX0 T5746 (qty 2 required per kit)
- 2x2 = CI code *257YX0 T5746 (qty 2 required per kit)
- 1x4 = CI code *259VRM T5745 (qty 2 required per kit)

To order BLTR "F" 2pc end bracket replacement (shipped as assembled pairs):

- 2x4 = CI code *254PVS 2BLTRF FLANGE BRKT ASSEMBLY (qty 1 req. per kit)
- 2x2 = CI code *254PVS 2BLTRF FLANGE BRKT ASSEMBLY (qty 1 req. per kit)
- 1x4 = CI code *255SWN BLTRF FLANGE BRKT ASSEMBLY (qty 1 req. per kit)

Differences between standard BLTR 2pc bracket and LPB 1-piece low profile bracket



Current 2-piece bracket has upper "T" bracket that mounts in most troffer endplates and bridges over most obstructions

To order BLTR Standard 2pc end bracket replacement (shipped as assembled units):

- 2x4 = CI code *257YX0 T5746 (qty 2 required per kit)
- 2x2 = CI code *257YX0 T5746 (qty 2 required per kit)
- 1x4 = CI code *259VRM T5745 (qty 2 required per kit)

1-piece design was originally developed for large customer to fit some older troffers where standard bracket would not fit due to endplate obstructions

To order BLTR low profile 1pc LPB bracket (shipped as assembled units):

- 2x4 = CI code *268PJK GPF N320810 (qty 2 required per kit)
- 2x2 = CI code *268PJK GPF N320810 (qty 2 required per kit)
- 1x4 = CI code n/a *not available*

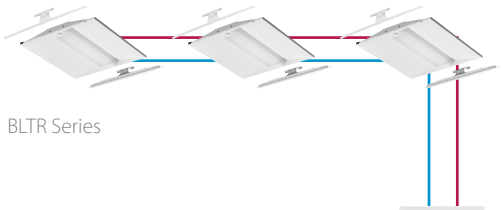
sensorswitch

Performance You Can Count On

SensorSwitch™ offers standalone wired and wireless lighting controls solutions designed for room-based applications. Our products offer reliable performance and ease of installation.

Sensorswitch.com

Wired Embedded Controls



BLTR Series

1. Install the luminaires with embedde controls
2. Install and wire the wall switch to power.
3. Connect load and 0-10 dimming wires from the wall switch to the luminaires.

SensorSwitch WSXA D

Wireless Embedded Controls

BLTR Series

1. Install the luminaires with embedde controls
2. Insert the pairing tool into the pinhole on the wall switch; press and hold any button for 6 seconds.
3. Once paired, each fixture will individually dim down to 10% brightness. All products will be fully functional.

SensorSwitch WSXA SSA

nLight Platform

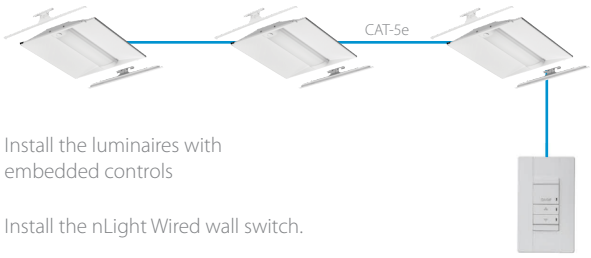
nLight embedded fixtures offer:	Customers get:
Manual Dimming	Convenience and visual comfort for occupants
Motion Sensing and/or Daylight Harvesting	Energy savings and code compliance
Fixture or Group Level Control	Ability to configure lighting to the space requirements
Flexibility	Ease of fixture moves, 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

Single Lighting Controls Platform for Indoor & Oudoor Spaces

nLIGHT® is your networked lighting controls platform, for indoor and outdoor applications, providing wired or wireless options. Scaling from room to campus-wide applications, it is the one platform that grows with your business today and tomorrow; to seamlessly address energy cost optimization, building code compliance, improved occupant comfort, and much more. nLIGHT also interfaces with DALI®, BACnet®, DMX and additional third-party devices.

nLIGHTcontrols.com

Wired Embedded Controls



1. Install the luminaires with embedded controls
2. Install the nLight Wired wall switch.
3. Connect the luminaires using standard CAT-5e cables and the controls devices will automatically discover each other and work (plug and play).

Wireless Embedded Controls

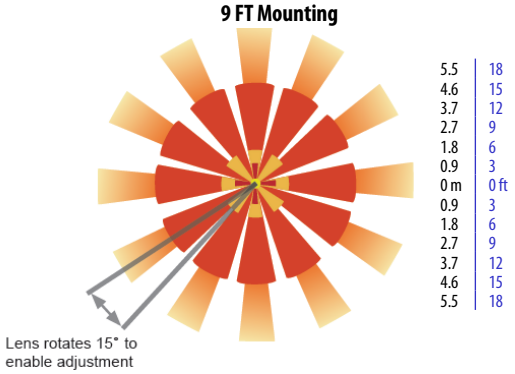
1. Install the luminaires with embedded controls
2. Install the nLight AIR battery-powered wall switch
3. Use CL**AIR**ITY + mobile app to pair the fixture with the wall switch and is desired, customize the sensor settings

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

9 FT Mounting



Embedded Controls by Sensorswitch

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.

A luminaire with a wireless nLight sensor

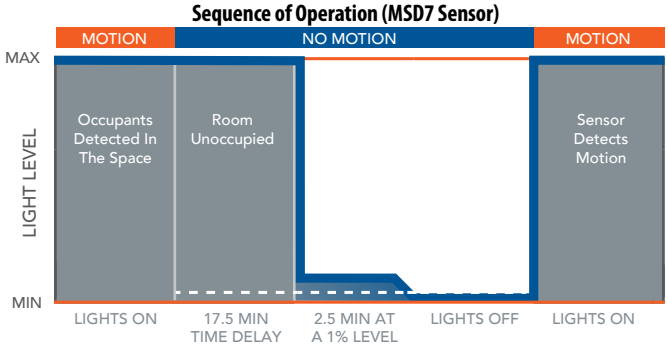
nLight AIR is the ideal solution for retrofit or new construction spaces where adding additional wiring can be labor intensive and nLight AIR is available with or without an integral sensor. The integrated rES7 or rES7PDT smart sensors are part of each luminaire in the nLight AIR network, which can be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

A luminaire with a wired sensor

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.

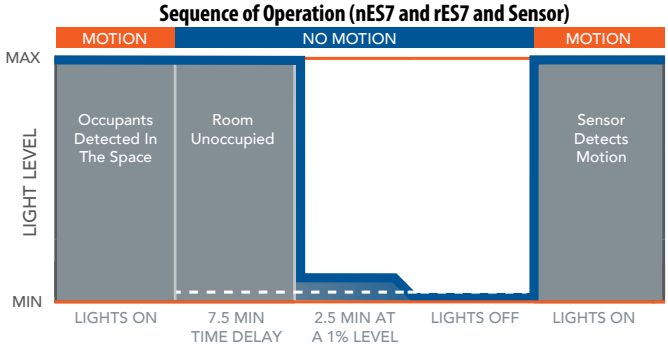
For areas like restrooms, private offices, open offices, conference rooms or any space with obstructions, the nES PDT 7 dual technology sensor is recommended. The nES PDT 7 utilizes both PIR (passive infrared) and Microphonics technologies to detect occupancy. Additionally, the nESPDT7ADCX includes an integrated photocell, which enables daylight harvesting controls which is ideal for areas where windows are present.

Sequence of Operation (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).

Controls Accessories

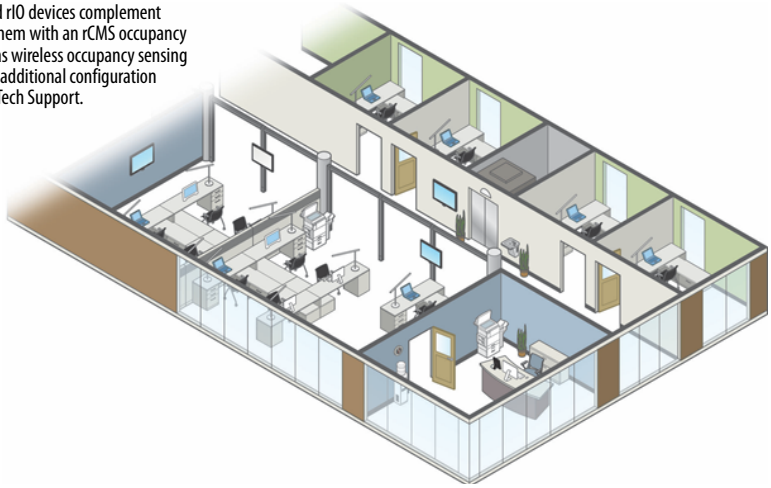
nLight® Wired Control Accessories:
Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlight.

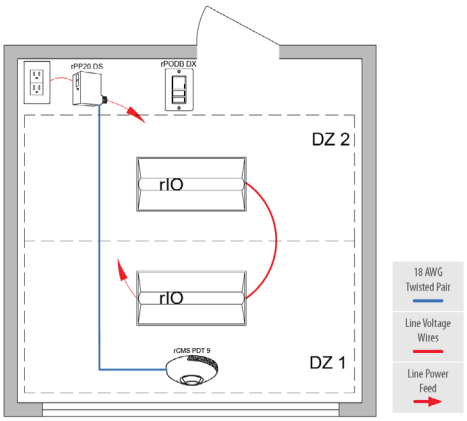
WallPod stations	Model number	Occupancy sensors	Model number
On/Off	nPODMA [Color]	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 RJB / nCM PDT 9 RJB
On/Off & raise/lower	nPODMA DX [Color]	Large motion 360°, ceiling (PIR / dual tech)	nCM10 RJB / nCM PDT 10 RJB
Graphic touchscreen	nPOD TOUCH [Color]	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	CAT5 10FT J1
		30' cable	CAT5 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

BLTR 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.





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 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

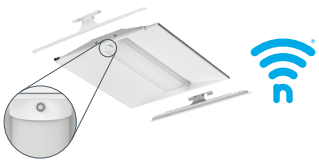
Notes
1 RCMS requires low voltage power from either RPP20 DS 24V G2 or PS150.

SensorSwitch WSX

nLight WIRED NPOD UNITOUCH

nLight WIRED nPODMA DX

nLight AIR rPODBA



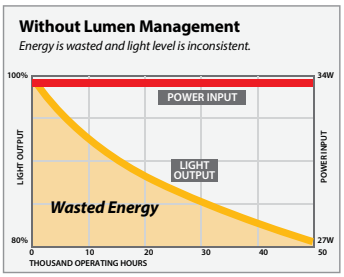
BLTR with rIO

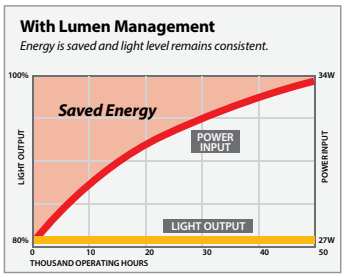
rPODBA

RCMS

Constant Lumen Management

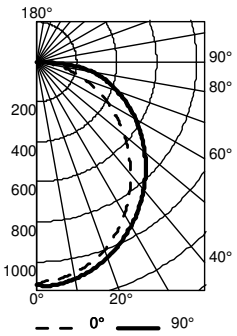
Enabled by the embedded nLight control, the BLT actively tracks its run-time and manages its light source such that constant lumen output is maintained over the system life. Referred to as lumen management, this feature eliminates the energy waste created by the traditional practice of over-lighting.





PHOTOMETRICS

2BLT2R 33L ADP LP835, 3241 delivered lumens



CP Summary

	0°	90
0°	1114	1114
5°	1092	1118
15°	1042	1075
25°	943	996
35°	808	891
45°	653	770
55°	492	638
65°	334	501
75°	177	359
85°	44	147
90	5	2

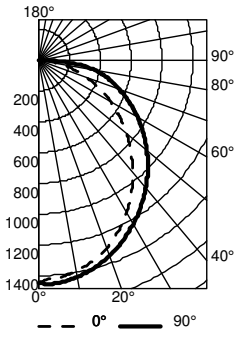
Coefficients of Utilization

	pf			20%								
	pc	80%			70%			50%				
	pw	70%	50%	30%	50%	30%	10%	50%	30%	10%		
RCR	0	119	119	119	116	116	116	111	111	111		
	1	108	103	98	100	96	92	96	92	89		
	2	98	89	82	87	80	75	83	78	73		
	3	89	78	69	76	68	62	73	66	61		
	4	81	69	60	67	59	52	65	57	52		
	5	75	61	52	60	52	45	58	50	44		
	6	69	55	46	54	46	39	52	45	39		
	7	64	50	41	49	41	35	48	40	34		
	8	59	46	37	45	37	31	44	36	31		
	9	56	42	34	41	33	28	40	33	28		
	10	52	39	31	38	30	25	37	30	25		

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	852	26.3	26.3
0° - 40°	1385	42.7	42.7
0° - 60°	2440	75.3	75.3
0° - 90°	3242	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	3242	100.0	100.0

2BLT2R 40L ADP LP835, 4210 delivered lumens



CP Summary

	0°	90
0°	1447	1447
5°	1419	1452
15°	1354	1396
25°	1224	1294
35°	1050	1158
45°	849	1001
55°	640	829
65°	434	650
75°	230	466
85°	57	191
90	7	3

Coefficients of Utilization

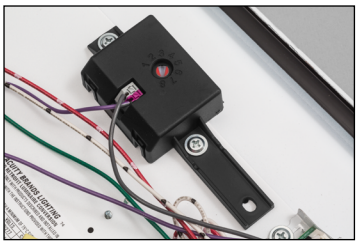
	pf			20%								
	pc	80%			70%			50%				
	pw	70%	50%	30%	50%	30%	10%	50%	30%	10%		
RCR	0	119	119	119	116	116	116	111	111	111		
	1	108	103	98	100	96	92	96	92	89		
	2	98	89	82	87	80	75	83	78	73		
	3	89	78	69	76	68	62	73	66	61		
	4	81	69	60	67	59	52	65	57	52		
	5	75	61	52	60	52	45	58	50	44		
	6	69	55	46	54	46	39	52	45	39		
	7	64	50	41	49	41	35	48	40	34		
	8	59	46	37	45	37	31	44	36	31		
	9	56	42	34	41	33	28	40	33	28		
	10	52	39	31	38	30	25	37	30	25		

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1107	26.3	26.3
0° - 40°	1799	42.7	42.7
0° - 60°	3169	75.3	75.3
0° - 90°	4211	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	4211	100.0	100.0

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.

FAOE SETTINGS - Field Adjustable Output - Energy Focused

	0-10 Voltage Dial Setting	% Lumen Output (approximate)	% Input Wattage (approximate)
Step 8	Full Output	100%	100%
Step 7	7.5 VDC	95%	93%
Step 6	6.5 VDC	85%	79%
Step 5	5.5 VDC	75%	66%
Step 4	4.5 VDC	63%	53%
Step 3	3.5 VDC	51%	41%
Step 2	2.5 VDC	37%	29%
Step 1	1.5 VDC	23%	17%

Performance Data			
Lumen Package	**Lumens**	**Input Watts**	**LPW**
20L ADP LP830	1981	16	127
20L ADP LP835	2051	16	132
20L ADP LP840	2084	16	134
20L ADP LP850	2143	16	138
33L ADP LP830	3237	26	125
33L ADP LP835	3351	26	130
33L ADP LP840	3404	26	132
33L ADP LP850	3502	26	135
40L ADP LP830	3900	31	125
40L ADP LP835	4038	31	130
40L ADP LP840	4102	31	132
40L ADP LP850	4220	31	136

HE Performance Data			
Lumen Package	**Lumens**	**Input Watts**	**LPW**
20LHE ADP LP830	2008	16	129
20LHE ADP LP835	2079	16	134
20LHE ADP LP840	2112	16	136
20LHE ADP LP850	2173	16	140
33LHE ADP LP830	3068	24	128
33LHE ADP LP835	3176	24	133
33LHE ADP LP840	3227	24	135
33LHE ADP LP850	3319	24	139
40LHE ADP LP830	3797	29	129
40LHE ADP LP835	3931	29	133
40LHE ADP LP840	3994	29	135
40LHE ADP LP850	4108	29	139
48LHE ADP LP830	4532	36	126
48LHE ADP LP835	4692	36	130
48LHE ADP LP840	4767	36	132
48LHE ADP LP850	4903	36	136