LITHONIA LIGHTING®

FEATURES & SPECIFICATIONS

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

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

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

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

Diffusers are extruded from impact modified acrylic for increased durability. Injection molded diffuser light traps add a finished look to the diffuser ends and help seal the diffuser to the housing end plates. Optional diffuser trim rings provide an attractive mounting for integral sensors as well as adding a decorative element to the luminaire aesthetics.

LED boards are accessible from below; driver is accessible from the plenum.

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

ELECTRICAL — Long-life LEDs, coupled with high-efficiency drivers, provide superior quantity and quality of illumination for extended service life. 90% LED lumen maintenance at 60,000 hours (L90/60,000).

Non-Configurable BLT: 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. Simply connect all the nLight enabled control devices and the BLT luminaires 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.

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 2 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 2 for the nLight sensor options.

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) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List to confirm which versions are qualified.

WARRANTY — 5-year limited warranty

NOTE: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

Catalog Number	
Notes	
Type	

BLT Series LED

2BLT

2' x 4'
LED

eldoLED

Specifications

Length: 47-3/4 (121.2)

Width: 23-3/4 (60.3)

Depth: 2-3/8 (6.0)

All dimensions are inches (centimeters) unless otherwise specified.

Mulitple Diffuser Options

ADP
Curved Ribbed

ADSM
Curved Smooth

SDP
Square Ribbed

SDSM
Square Smooth

2BLT Volumetric Recessed Lighting 2'x4'

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

Example: 2BTL4 40L ADP SLD LP840

2BLT4

Series	Air function	Lumens[1]		Diffuser	Voltage	Driver	Color temperature
2BLT4 2x4 BLT	(blank) Static	**Standard efficiency (>100 LPW)**	**High efficiency (>130 LPW)**	ADP Curved, Linear Prisms	(blank) MVOLT	EZ1 eldoLED dims to 1% (0-10 volt dimming)	LP830 82CRI, 3000 K
		30L 3000	48LHE 4800	ADSM Curved, Smooth	347 347[2]	SLD Step-level dimming[3]	LP835 82CRI, 3500 K
		40L 4000	60LHE 6000	SDP Square, Linear Prisms			LP840 82CRI, 4000 K
		48L 4800	72LHE 7200	SDSM Square, Smooth			LP850 82CRI, 5000 K
		60L 6000	85LHE 8500	**Diffusers w/ trim rings**			LP930 90CRI, 3000K
		72L 7200		ADPT Curved, Linear Prisms			LP935 90CRI, 3500K
				ADSMT Curved, Smooth			LP940 90CRI, 4000K
				SDPT Square, Linear Prisms			LP950 90CRI, 5000K
				SDSMT Square, Smooth			

Controls

(blank)	No nLight®
N80	nLight® with 80% lumen management
N80EMG	nLight® with 80% lumen management For use with generator supply EM power[4]
N100	nLight® without lumen management
N100EMG	nLight® without lumen management For use with generator supply EM power[4]

Occupancy Control[5]

(blank)	No sensor control
	nLight Wired Networking
NES7	nLight™ nES 7 PIR integral occupancy sensor[6]
NESPDT7	nLight™ nES PDT 7 dual technology integral occupancy control[6]
NES7ADCX	nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell[6]
NESPDT7ADCX	nLight™ nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell[6]
	Individual Control
MSD7ADCX	PIR integral occupancy sensor with automatic dimming control photocell[3,7]
MSDPDT7ADCX	PDT integral occupancy sensor with automatic dimming control photocell[3,7]

Options

EL7L	700 lumen battery pack[8]
EL14L	1400 lumen battery pack[8]
CP	Chicago plenum
BGTD	Bodine Generator Transfer Device
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
PWS1856LV	6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit w/low voltage purple and grey wires
GLR	Fast-blowing fuse[9]
GMF	Slow-blowing fuse[9]
NPLT	Narrow pallet
RRL_	RELOC®-ready luminaire[10]
LATC	Earthquake clip
DWAM	Anti-Microbial paint

Accessories: *Order as separate catalog number.*

DGA24	Drywall grid adapter for 2x4 recessed fixture

nLight® Control Accessories:
Order as separate catalog number. Visit www.sensorswitch.com/nLight for complete listing of nLight controls.

WallPod stations	Model number	Occupancy sensors	Model number
On/Off	nPODM [color]	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 / nCM PDT 9
On/Off & Raise/Lower	nPODM DX [color]	Large motion 360°, ceiling (PIR / dual tech)	nCM 10 / nCM PDT 10
Graphic Touchscreen	nPOD GFX	Wall switch with raise/lower	nWSXPDTLVDX
Photocell controls	**Model number**	**Cat-5 cable bundles (plenum rated)**	**Model number**
On/Off & Dimming	nCM ADCX	10', 15 pieces per bundle	CAT5 10FT
		30', 15 pieces per bundle	CAT5 30FT

Non-Configurable BLT Configurations

Stock/MTO	Catalog Description *	UPC	Lumens	Wattage	LPW	Color Temperature	Voltage	Pallet Qty
Stock	2BLT4 40L ADP LP835	00889804471953	3945	34	116	3500K/82 CRI	120-277	26
	2BLT4 40L ADP LP840	00889804488265	4032	34	118	4000K/82CRI	120-277	26
	2BLT4 46L ADP LP835	00889804541403	4520	38.34	118	3500K/82 CRI	120-277	26
	2BLT4 46L ADP LP840	00889804541533	4620	38.34	120	4000K/82CRI	120-277	26
MTO	2BLT4 40L ADP 347 LP835	00889804569452	3945	34	116	3500K/82 CRI	347	26
	2BLT4 40L ADP 347 LP840	00889804569469	4032	34	118	4000K/82CRI	347	26
	2BLT4 46L ADP 347 LP835	00889804569476	4520	38.34	118	3500K/82 CRI	347	26
	2BLT4 46L ADP 347 LP840	00889804569490	4620	38.34	120	4000K/82CRI	347	26

*0-10V Dimming to 10%.

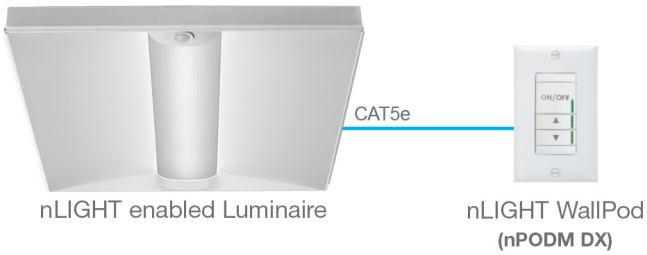
Notes

1 Approximate lumen output.
2 Not available with SLD,EL7L or EL14L battery packs.
3 Not available with N80, N80EMG, N100, N100EMG or occupancy control.
4 nLight EMG option requires a connection to existing nLight network. Power is provided from a separate N80 or N100 enabled fixture.
5 Must specify diffuser with trims rings. See sensor options on page 3.
6 Requires N80, N80EMG, N100, or N100EMG.
7 Only available with EZ1 driver option. 0-10v dimming wires not accessible via access plate.
8 When using pre-wire option, use PWS1846 or PWS1846 PWSLV.
9 Must specify voltage, 120 or 277.
10 For ordering logic consult: RRL_2013.

2BLT Volumetric Recessed Lighting 2'x4'

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

Basic nLight Zone



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.

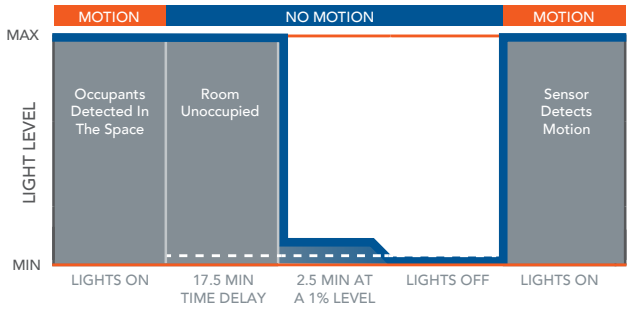
The MSDPDT7ADCX PIR/Microphonics Dual Tech occupancy sensor/automatic dimming photocell is ideal for areas with obstructions and where daylight harvesting is desired. Suggested applications include, but not limited to, open offices, private offices, classrooms, public restrooms, and conference rooms.

nLight Wired Networking

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

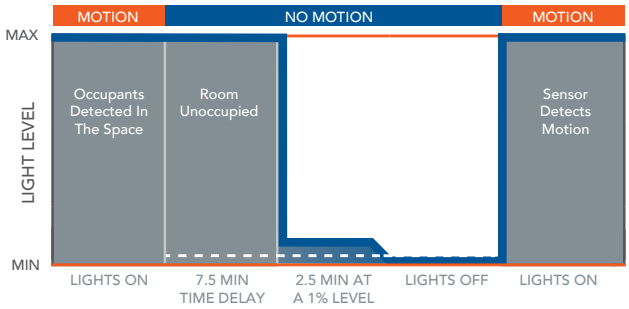
For areas like restrooms, private offices, open offices, conference rooms or any space with obstructions, the nES PDT 7 dual technology sensor is recommended. The nES PDT 7 utilizes both PIR (passive infrared) and Microphonics technologies to detect occupancy. Additionally, the NESPDT7ADCX includes an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

Sequence of Operation



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

Sequence of Operation

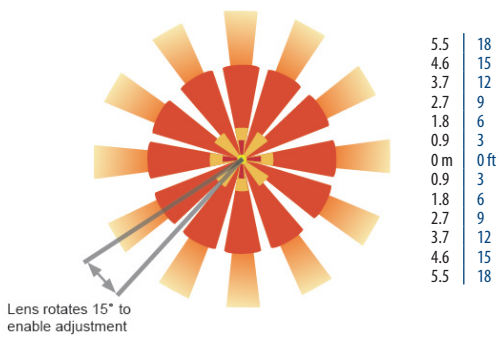


*The presetting on the automatic dimming photocell is 5fc.

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

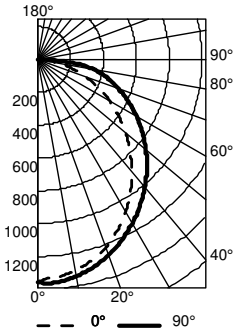
9 FT Mounting



2BLT Volumetric Recessed Lighting 2'x4'

PHOTOMETRICS

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



CP Summary

	0°	90
0°	1356	1356
5°	1330	1361
15°	1269	1309
25°	1147	1212
35°	984	1085
45°	795	938
55°	599	777
65°	407	609
75°	216	437
85°	54	179
90	6	2

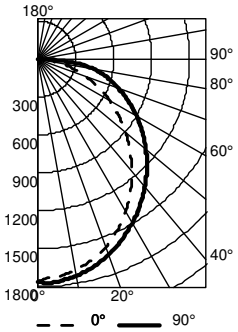
Coefficients of Utilization

RCR	80% 70%	80% 50%	80% 30%	70% 50%	70% 30%	70% 10%	50% 50%	50% 30%	50% 10%
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°	1037	26.3	26.3
0° - 40°	1686	42.7	42.7
0° - 60°	2970	75.3	75.3
0° - 90°	3947	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	3947	100.0	100.0

2BLT4 48L ADP L835, 5121 delivered lumens, test no. LTL28918P41, tested in accordance to IESNA LM-79



CP Summary

	0°	90
0°	1760	1760
5°	1726	1767
15°	1647	1699
25°	1490	1574
35°	1277	1409
45°	1033	1217
55°	778	1008
65°	528	791
75°	280	567
85°	70	232
90	8	3

Coefficients of Utilization

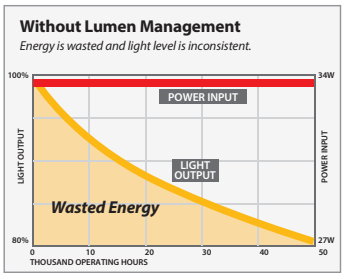
RCR	80% 70%	80% 50%	80% 30%	70% 50%	70% 30%	70% 10%	50% 50%	50% 30%	50% 10%
0	119	119	119	116	116	116	111	111	111
1	108	103	98	100	96	92	96	92	89
2	98	89	82	87	80	75	83	78	73
3	89	78	69	76	68	62	73	66	61
4	81	69	60	67	59	52	65	57	52
5	75	61	52	60	52	45	58	50	44
6	69	55	46	54	46	39	52	45	39
7	64	50	41	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

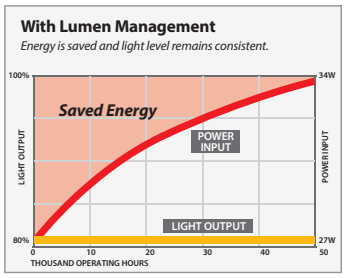
Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1346	26.3	26.3
0° - 40°	2188	42.7	42.7
0° - 60°	3856	75.3	75.3
0° - 90°	5123	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	5123	100.0	100.0

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.





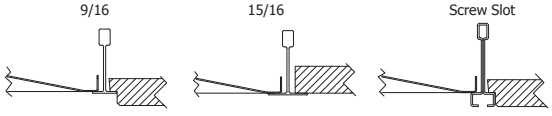
Performance Data

Lumen Package	Lumens	Input Watts	LPW
30L ADP LP830	3286	30	110
30L ADP LP835	3371	30	113
30L ADP LP840	3445	30	115
30L ADP LP850	3614	30	121
40L ADP LP830	3846	34	113
40L ADP LP835	3945	34	116
40L ADP LP840	4032	34	118
40L ADP LP850	4230	34	124
48L ADP LP830	4993	45	111
48L ADP LP835	5121	45	114
48L ADP LP840	5234	45	116
48L ADP LP850	5492	45	122
60L ADP LP830	6014	53	114
60L ADP LP835	6169	53	117
60L ADP LP840	6305	53	119
60L ADP LP850	6615	53	125
72L ADP LP830	7388	67	110
72L ADP LP835	7579	67	113
72L ADP LP840	7746	67	115
72L ADP LP850	8127	67	121

HE Performance Data

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

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



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