

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 (2-3/4") 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.

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 linear prisms or a smooth frosted finish.

ELECTRICAL — Long-life LEDs, coupled with high-efficiency drivers, provide superior quantity and quality of illumination for extended service life. 80% LED lumen maintenance at 60,000 hours (L80/60,000).

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 or through standard Cat-5 cabling. nLight offers unique plug-and-play convenience as devices and luminaires automatically discover each other and self-commission, while nLight AIR is commissioned easily through an intuitive mobile app.

Lumen Management: Unique lumen management system (option N80) provides on board intelligence that actively manages the LED light source so that constant lumen output is maintained over the system life, preventing the energy waste created by the traditional practice of over-lighting.

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

Driver disconnect provided where required to comply with US and Canadian codes.

SENSOR — Integrated sensor (individual control): Sensor Switch MSD7ADCX ((Passive infrared (PIR) or MSDPDT7ADCX ((PIR/Microphonics Dual Tech (PDT)) integrated occupancy sensor/automatic dimming photocell allows the luminaire to power off when the space is unoccupied or enough ambient light is entering the space. See page 4 for more details on the integrated sensor.

Integrated Sensor (nLight Wired Networking): This sensor is nLight-enabled, meaning it has the ability to communicate over an nLight network. When wired, using CAT-5 cabling, with other nLight-enabled sensors, power packs, or WallPods, an nLight control zone is created. Once linked to a Gateway, directly or via a Bridge, the zone becomes capable of remote status monitoring and control via SensorView software. See page 4 for the nLight sensor options.

Integrated Smart Sensor (nLight Air Wireless Platform): The rE57 sensor is nLight AIR enabled, meaning it has the ability to communicate over the wireless nLight control platform. It is both a digital PIR occupancy sensor/automatic dimming photocell. 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 2-3/4" 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/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

BLT Series LED

BLT

1' x 4'
LED



Specifications

Length: 47-3/4 (121.2)

Width: 11-3/4 (29.8)

Depth: 2-3/4 (6.9)

Depth with Air supply/return: 3-5/8 (9.2)



All dimensions are inches (centimeters) unless otherwise specified.

Multiple Diffuser Options



ADP
Curved Ribbed



ADSM
Curved Smooth



SDP
Square Ribbed



SDSM
Square Smooth

A+ Capable Luminaire

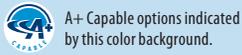
This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- 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

BLT Volumetric Recessed Lighting 1'x4'



ORDERING INFORMATION

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

Example: BLT4 30L ADP EZ1 LP835

BLT4		Air function		Lumens ²		Diffuser		Voltage		Driver		Color temperature	
BLT4	1x4 BLT	(blank) Static A Air supply/ return ¹		Standard efficiency (>100 LPW)	High efficiency^{3,4} (>130 LPW)	ADP Curved, linear prisms ADSM Curved, smooth SDP Square, linear prisms SDSM Square, smooth Includes trim rings to match sensed version ADPT Curved, linear prisms ADSMT Curved, smooth SDPT Square, linear prisms SDSMT Square, smooth		(blank) MVOLT 120 120V 277 277V 347 347V ⁵		EZ1 eldoLED dims to 1% (0-10 volt dimming) SLD Step-level dimming ⁶ LE1 Lutron Ecosystem driver dims to 1% ^{6,7}		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	

Controls		Occupancy control ¹⁰		Options	
(blank) No nLight [®]		(blank) No sensor control		EL7L 700 lumen battery pack (non-CEC compliant) ¹³	
N80 nLight [®] with 80% lumen management		nLight Wired Networking		EL14L 1400 lumen battery pack (non-CEC compliant) ¹³	
N80EMG nLight [®] with 80% lumen management For use with generator supply EM power ⁸		NES7 nLight™ nES 7 PIR integral occupancy sensor ¹¹	Individual Control	EL14LSD 1400 lumen battery pack with self-diagnostic testing feature (non-CEC compliant) ^{13,14}	
N100 nLight [®] without lumen management		NESPDT7 nLight™ nES PDT 7 dual technology integral occupancy control ¹¹	MSD7ADCX PIR integral occupancy sensor with automatic dimming control photocell ^{6,12}	E10WLCP EM Self-Diagnostic battery pack, 10W Constant Power, CEC compliant ¹⁵	
N100EMG nLight [®] without lumen management For use with generator supply EM power ⁸		NES7ADCX nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell ¹¹	MSDPDT7ADCX PDT integral occupancy sensor with automatic dimming control photocell ^{6,12}	CP Chicago plenum ¹⁵	
NLTAIR nLight AIR enabled ⁹		nLight Wireless Networking	nLight Wireless Zone	BGTD Bodine Generator Transfer Device ¹⁶	
		RES7N nLight AIR PIR integral occupancy sensor with automatic dimming photocell for Networking Capabilities	RES7Z nLight AIR PIR integral occupancy sensor with automatic dimming photocell for Zone Control	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 ¹⁷	
				PWS1856LV 6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit w/low voltage purple and grey wires ¹⁷	
				GLR Fast-blowing fuse ¹⁸	
				GMF Slow-blowing fuse ¹⁸	
				NPLT Narrow pallet	
				RRL_ RELOC [®] -ready luminaire ¹⁹	
				LATC Earthquake clip	
				DWAM Anti-Microbial paint	
				IP5X Gasketed diffuser compartment to meet IP5X rating ²⁰	

Non-Configurable BLT

Stock/MTO	Catalog Description *	UPC	Lumens	Wattage	LPW	Color Temperature	Voltage	Pallet Qty
Stock	BLT4 40L ADP LP835	00190887466218	3975	34	116	3500K/82 CRI	120-277	39
	BLT4 40L ADP LP840	00190887465228	4062	34	119	4000K/82 CRI	120-277	39
	BLT4 40L ADP EL14L LP835	00190887466621	3975	34	116	3500K/82 CRI	120-277	39
	BLT4 40L ADP EL14L LP840	00190887466614	4062	34	119	4000K/82 CRI	120-277	39
MTO	BLT4 40L ADP 347 LP835		3975	34	116	3500K/82 CRI	347	39
	BLT4 40L ADP 347 LP840		4062	34	119	4000K/82CRI	347	39

*Generic 0-10V Dimming to 10%.

Notes and Accessories next page



BLT-1X4

BLT Volumetric Recessed Lighting 1'x4'

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 Air supply/return option, 90 CRI, and versions with integral sensor trim rings may not achieve 130 LPW.
- 5 Not available with SLD EL7L, or EL14L options.
- 6 Not available with N80, N80EMG, N100, N100EMG, NLTAIR, or occupancy control.
- 7 Not available with controls, occupancy controls, or PWS options. Consult factory for Hi-Lume dimming.
- 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 RES7N or RES7Z 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.
- 13 When using pre-wire option, use PWS1846 or PWS1846 PWSLV.
- 14 For more information, please see the [PSSD2 specification sheet](#).
- 15 Not available with N80, N80EMG, N100, or N100EMG.
- 16 Must specify voltage. Requires BSE labeling, voltage specific. Consult factory for options.
- 17 Not available with nLight wired/wireless network or individual controls.
- 18 Must specify voltage, 120 or 277, with GLR and GFM fusing.
- 19 For ordering logic consult [RRL_2013](#).
- 20 Not available with air supply/return or Wired Networking (NES_) and Individual Control (MSD_) sensors.

Accessories: Order as separate catalog number.	
DGA14	Drywall grid adapter for 1x4 recessed fixture

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	nPODM [color]	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 RJB / nCM PDT 9 RJB
On/Off & raise/lower	nPODM DX [color]	Large motion 360°, ceiling (PIR / dual tech)	nCM10 RJB / nCM PDT 10 RJB
Graphic touchscreen	nPOD GFX [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	rPODB [color]
On/Off two pole	rPODB 2P [color]
On/Off & raise/lower single pole	rPODB DX [color]
On/Off & raise/lower two pole	rPODB 2P DX [color]
On/Off & raise/lower single pole	rPODBZ DX WH ¹

Notes

- 1 Can only be ordered with the RES7Z zone control sensor version.

Replacement Parts: Order as separate catalog number.		
*249P36	DBLT48 ADP LENS ASSEMBLY	4 ft. replacement lens
*249P3C	DBLT48 SDP LENS ASSEMBLY	4 ft. replacement lens
*249P3H	DBLT48 ADSM LENS ASSEMBLY	4 ft. replacement lens
*249P3L	DBLT48 SDSM LENS ASSEMBLY	4 ft. replacement lens
*239UJR	DBLT48 ADPT LENS ASSEMBLY	4 ft. replacement lens
*239TXC	DBLT48 SDPT LENS ASSEMBLY	4 ft. replacement lens
*239UK6	DBLT48 ADSMT LENS ASSEMBLY	4 ft. replacement lens
*239UK6	DBLT48 SDSMT LENS ASSEMBLY	4 ft. replacement lens
*239TVV	DBLT48 ADPT SENSOR LENS ASSEMBLY	4 ft. replacement lens
*239TXM	DBLT48 SDPT SENSOR LENS ASSEMBLY	4 ft. replacement lens
*239UKG	DBLT48 ADSMT SENSOR LENS ASSEMBLY	4 ft. replacement lens
*239UOK	DBLT48 SDSMT SENSOR LENS ASSEMBLY	4 ft. replacement lens

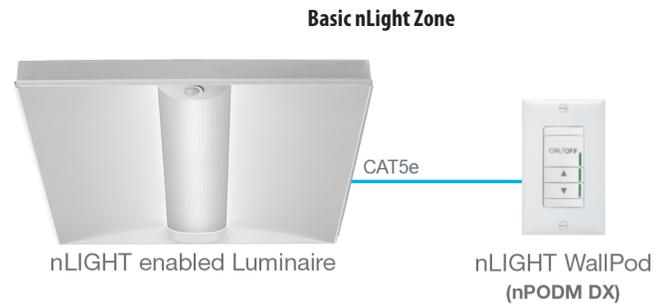
BLT Volumetric Recessed Lighting 1'x4'

Sensor Options						
Option	Automatic Dimming Photocell	Occupancy Sensing		nLight Wired Networking	nLight AIR Networking	nLight AIR Zone
		PIR	PDT			
MSD7ADCX	X	X				
MSDPDT7ADCX	X		X			
NES7		X		X		
NES7ADCX	X	X		X		
NESPDT7			X	X		
NESPDT7ADCX	X		X	X		
RES7N	X	X			X	
RES7Z	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.

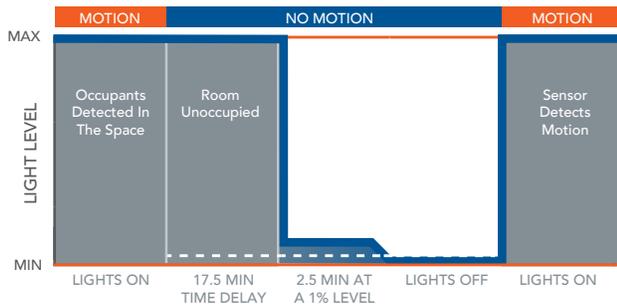


nLight Wired Networking

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.

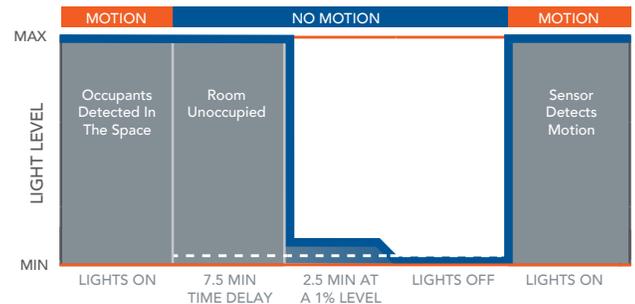
For areas like restrooms, private offices, open offices, conference rooms or any space with obstructions, the nES PDT 7 dual technology sensor is recommended. The nES PDT 7 utilizes both PIR (passive infrared) and Microphonics technologies to detect occupancy. Additionally, the NESPDT7ADCX includes an 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

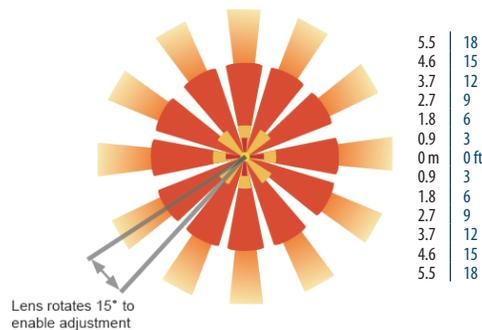


*The presetting on the automatic dimming photocell is 5fc.

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



Simple as 1,2,3

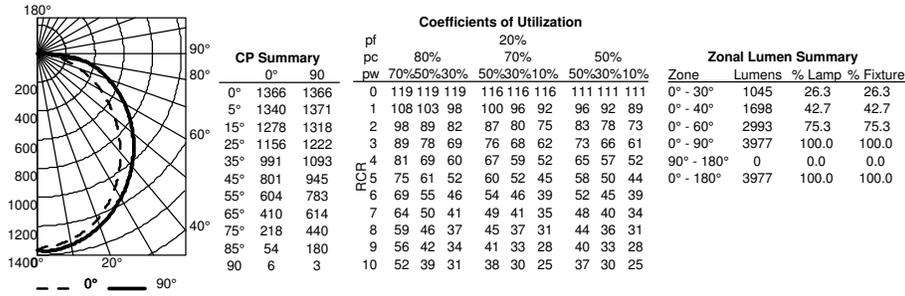
1. Install the nLight® AIR fixtures with embedded smart sensor
2. Install the wireless battery-powered wall switch
3. With CLAIRITY app, pair the fixtures with the wall switch and if desired, customize the sensor settings for the desired outcome



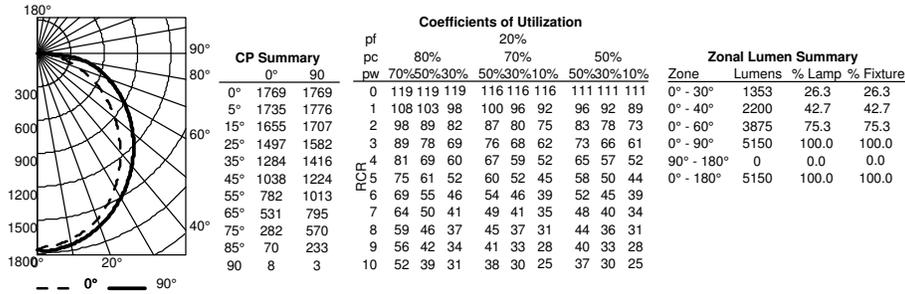
BLT Volumetric Recessed Lighting 1'x4'

PHOTOMETRICS

BLT4 40L ADP LP835, 3975 delivered lumens, test no. LTL28918P61, tested in accordance to IESNA LM-79

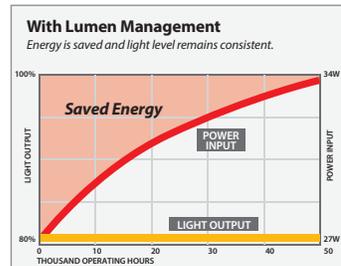
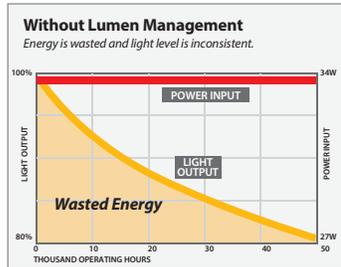


BLT4 48L ADP LP835, 5148 delivered lumens, test no. LTL28918P65, tested in accordance to IESNA LM-79



Constant Lumen Management

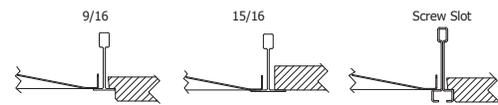
Enabled by the embedded nLight control, the BLT actively tracks its run-time and manages its light source such that constant lumen output is maintained over the system life. Referred to as lumen management, this feature eliminates the energy waste created by the traditional practice of over-lighting.



Performance Data			
Lumen Package	Lumens	Input Watts	LPW
20L ADP LP830	2231	19	120
20L ADP LP835	2289	19	123
20L ADP LP840	2339	19	126
20L ADP LP850	2454	19	132
30L ADP LP830	3311	29	113
30L ADP LP835	3397	29	116
30L ADP LP840	3471	29	119
30L ADP LP850	3642	29	124
40L ADP LP830	3875	34	113
40L ADP LP835	3975	34	116
40L ADP LP840	4062	34	119
40L ADP LP850	4262	34	125
48L ADP LP830	5018	46	110
48L ADP LP835	5148	46	112
48L ADP LP840	5261	46	115
48L ADP LP850	5520	46	121
60L ADP LP830	5969	53	112
60L ADP LP835	6124	53	115
60L ADP LP840	6258	53	117
60L ADP LP850	6566	53	123
AIR 20L ADP LP830	2157	19	116
AIR 20L ADP LP835	2201	19	118
AIR 20L ADP LP840	2216	19	119
AIR 20L ADP LP850	2280	19	122
AIR 30L ADP LP830	3201	29	109
AIR 30L ADP LP835	3267	29	112
AIR 30L ADP LP840	3288	29	112
AIR 30L ADP LP850	3384	29	116
AIR 40L ADP LP830	3747	34	110
AIR 40L ADP LP835	3823	34	112
AIR 40L ADP LP840	3848	34	112
AIR 40L ADP LP850	3960	34	116
AIR 48L ADP LP830	4852	46	106
AIR 48L ADP LP835	4951	46	108
AIR 48L ADP LP840	4984	46	109
AIR 48L ADP LP850	5129	46	112
AIR 60L ADP LP830	5772	53	108
AIR 60L ADP LP835	5889	53	110
AIR 60L ADP LP840	5928	53	111
AIR 60L ADP LP850	6101	53	114

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

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 12-3/4" x 48-3/4" (Tolerance is +1/8", -0").

How to Calculate Delivered Lumens in Emergency Mode

Use the formula below to determine the delivered lumens in emergency mode

$$\text{Delivered Lumens} = 1.25 \times P \times \text{LPW}$$

P = Output power of emergency driver. P = 10W for E10WLCP option.

LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet. LPW = Lumen per watt rating of the luminaire. LPW information available in Performance Data section.