LITHONIA LIGHTING®

BLT Series LED

2BLT2

600x600
LED

DLC LISTED   ISO Class 5-9   CA+ CAPABLE   eldoLED   nLIGHT

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 also makes it an excellent choice for renovation projects.

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

The 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. 70% LED lumen maintenance at 60,000 hours (L70/60,000). Color Variation within 3-step MacAdam ellipse (3SDCM).

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.

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 provides increased installation flexibility especially in restrictive plenum applications. Designed for use in NEMA standard Type G (1" & 15/16"), NFG (9/16"), and SS (9/16") grid ceilings. Consult factory about other ceiling types. Suitable for damp location.

LISTINGS — CSA Certified to meet U.S. and Canadian standards. IC rated. Tested in accordance with ISO 14644-1; suitable for use in ISO 5-9 positive and negative pressure clean rooms.

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. 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.
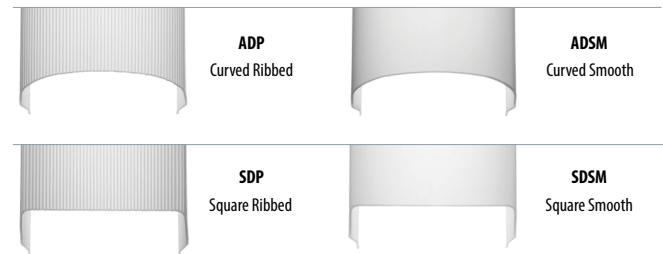
Specifications

Length: 593.60 (23.37)
Width: 593.60 (23.37)
Depth: 63.50 (2.50)

All dimensions are millimeter (inches) unless otherwise specified.

Multiple Diffuser Options

ADP
Curved Ribbed

ADSM
Curved Smooth

SDP
Square Ribbed

SDSM
Square Smooth

CA+ 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

2BLT2 Volumetric Recessed Lighting 600x600

A+ Capable options indicated by this color background.

2BLT2							
Series	**Trim Type**	**Lumens**[1]		**Diffuser**	**Voltage**	**Driver**	**Color temperature**
2BLT2 BLT series 600x600	MG Metric Grid	**Standard efficiency (>100 LPW)** 20L 2000 33L 3300 40L 4000	**High efficiency** [2,3] **(>130 LPW)** 33LHE 3300 40LHE 4000 48LHE 4800	ADP Curved, linear prisms ADSM Curved, smooth SDP Square, linear prisms SDSM Square, smooth **Includes trim rings to match sensored version** 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) SLD Step-level dimming [5]	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**[7]		**Options**	
(blank) No nLight®		(blank) No sensor control	**Individual Control**	**BDP Disconnect Plug**	
N80	nLight® with 80% lumen management	**nLight Wired Networking**	MSD7ADCX PIR integral occupancy sensor with automatic dimming control photocell [5,9]	EL7L	700 lumen battery pack [10]
N80EMG	nLight® with 80% lumen management For use with generator supply EM power [6]	NES7 nLight™ nES 7 PIR integral occupancy sensor [8]		EL14L	1400 lumen battery pack [10]
N100	nLight® without lumen management	NESPDT7 nLight™ nES PDT 7 dual technology integral occupancy control [8]	MSDPDT7ADCX PDT integral occupancy sensor with automatic dimming control photocell [5,9]	BGTD	Bodine Generator Transfer Device [11]
N100EMG	nLight® without lumen management For use with generator supply EM power [6]	NES7ADCX nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell [8]		PWS1836	6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit
		NESPDT7ADCX nLight™ nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell [8]		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 [12]
				PWS1856LV	6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit w/low voltage wires [12]
				GLR	Fast-blowing fuse [13]
				GMF	Slow-blowing fuse [13]
				NPLT	Narrow pallet
				RRL_	RELOC®-ready luminaire [14]
				LATC	Earthquake clip
				DWAM	Anti-Microbial paint
				CP	Chicago Plenum [15]

Notes

1 Approximate lumen output.
2 All versions may not achieve 130+ LPW. Refer to photometry on www.acuitybrands.com.
3 90 CRI and versions with integral sensor trim rings may not achieve 130 LPW.
4 Not available with SLD driver, EL7L or EL14L battery packs.
5 Not available with N80, N80EMG, N100 N100EMG or occupancy control.
6 nLight EMG option requires a connection to existing nLight network. Power is provided from a separate N80 or N100 enabled fixture.
7 Must specify diffuser with trim rings. See sensor options on page 3.
8 Requires N80, N80EMG, N100, or N100EMG.
9 Only available with EZ1 driver option. 0-10v dimming wires not accessible via access plate.
10 When using pre-wire option, use PWS1846. or PWS1846 PWSLV.
11 Must specify voltage. Requires BSE labeling. Consult factory for options.
12 Not available with nLIGHT wired network or individual controls.
13 Must specify voltage, 120 or 277 with GLR & GMF fusing.
14 For ordering logic consult: RRL_2013.
15 Not available with N80, N80EMG, N100, N100EMG, PWS1836, PWS1846, PWS1846 PWSLV or PWS1856LV.

Accessories: *Order as separate catalog number.*

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

nLight® 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

Replacement Parts: *Order as separate catalog number.*

*249P3P	DBLT24 ADP LENS ASSEMBLY	2 ft. replacement lens
*249P3V	DBLT24 SDP LENS ASSEMBLY	2 ft. replacement lens
*249P3Y	DBLT24 ADSM LENS ASSEMBLY	2 ft. replacement lens
*249P4L	DBLT24 SDSM LENS ASSEMBLY	2 ft. replacement lens
*237LT1	DBLT24 ADPT LENS ASSEMBLY	2 ft. replacement lens
*237LT3	DBLT24 SDPT LENS ASSEMBLY	2 ft. replacement lens
*237LT5	DBLT24 ADSMT LENS ASSEMBLY	2 ft. replacement lens
*237LT7	DBLT24 SDSMT LENS ASSEMBLY	2 ft. replacement lens
*237LT9	DBLT24 ADPT SENSOR LENS ASSEMBLY	2 ft. replacement lens
*237M4Y	DBLT24 SDPT SENSOR LENS ASSEMBLY	2 ft. replacement lens
*237M57	DBLT24 ADSMT SENSOR LENS ASSEMBLY	2 ft. replacement lens
*237M5H	DBLT24 SDSMT SENSOR LENS ASSEMBLY	2 ft. replacement lens

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

nLIGHT enabled Luminaire

CAT5e

nLIGHT Switch
(nPODM DX)
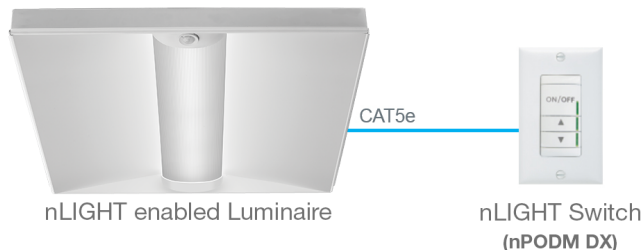
Integrated Sensor with Individual Control

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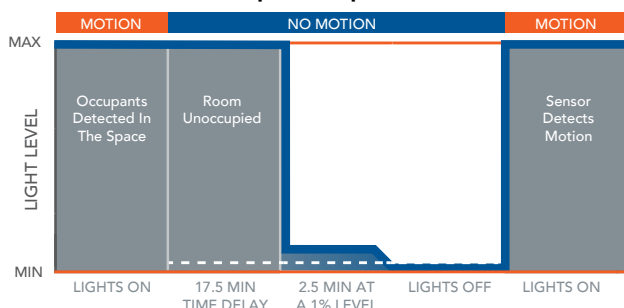
The MSDPDT7ADCX PIR/Microphonics Dual Tech occupancy sensor/automatic dimming photocell is ideal for areas with obstructions and where daylight harvesting is desired. Suggested applications include, but not limited to, open offices, private offices, classrooms, public restrooms, and conference rooms.

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

MOTION	NO MOTION			MOTION
Occupants Detected In The Space	Room Unoccupied			Sensor Detects Motion
LIGHTS ON	17.5 MIN TIME DELAY	2.5 MIN AT A 1% LEVEL	LIGHTS OFF	LIGHTS ON

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

Sequence of Operation

MOTION	NO MOTION			MOTION
Occupants Detected In The Space	Room Unoccupied			Sensor Detects Motion
LIGHTS ON	7.5 MIN TIME DELAY	2.5 MIN AT A 1% LEVEL	LIGHTS OFF	LIGHTS ON
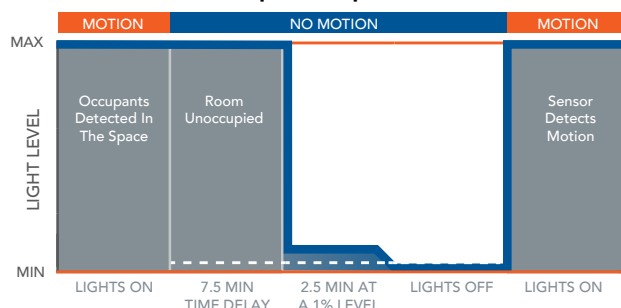
*The presetting on the automatic dimming photocell is 5fc.

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

5.5	18
4.6	15
3.7	12
2.7	9
1.8	6
0.9	3
0 m	0 ft
0.9	3
1.8	6
2.7	9
3.7	12
4.6	15
5.5	18

Lens rotates 15° to enable adjustment
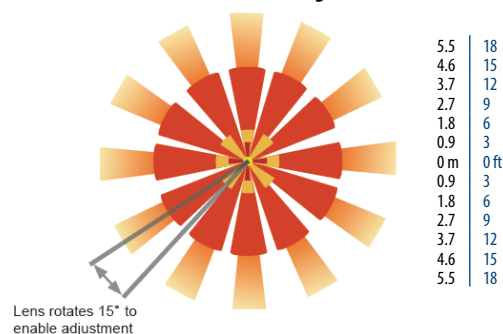
PHOTOMETRICS

2BLT2 MG 33L ADP LP835, 3241 delivered lumens, test no. LTL28918P128, tested in accordance to IESNA LM-79

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%
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

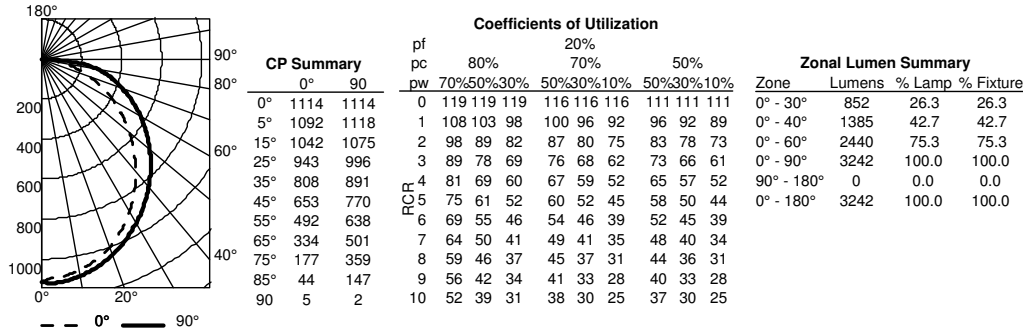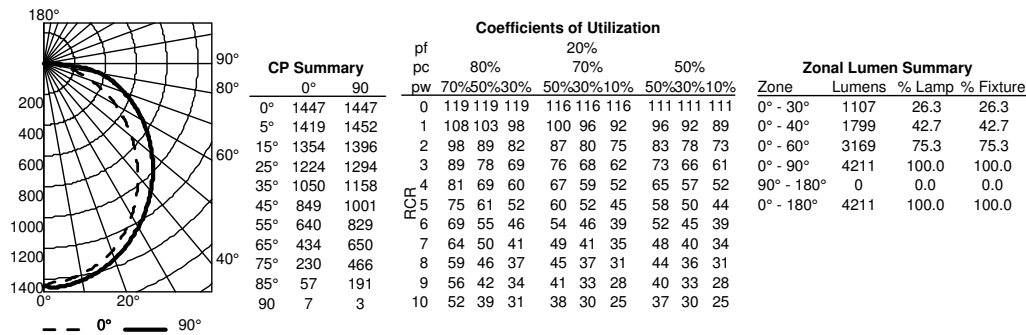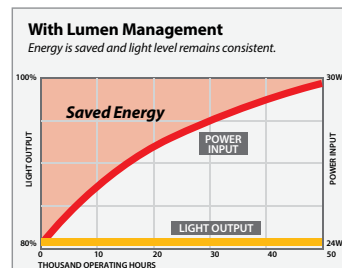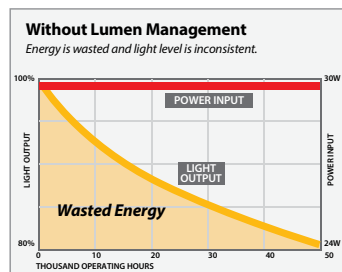| Zone	Lumens	% Lamp	% Fixture
0° - 30°	852	26.3	26.3
0° - 40°	1385	42.7	42.7
0° - 60°	2440	75.3	75.3
0° - 90°	3242	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	3242	100.0	100.0

2BLT2 MG 40L ADP LP835, 4210 delivered lumens, test no. LTL28918P129, tested in accordance to IESNA LM-79

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%
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

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.

Without Lumen Management
Energy is wasted and light level is inconsistent.

With Lumen Management
Energy is saved and light level remains consistent.

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
40LHE ADP LP830	4118	32	127
40LHE ADP LP835	4224	32	131
40LHE ADP LP840	4317	32	134
40LHE ADP LP850	4530	32	140
48LHE ADP LP830	4699	37	128
48LHE ADP LP835	4820	37	131
48LHE ADP LP840	4927	37	134
48LHE ADP LP850	5169	37	140

MOUNTING DATA

Ceiling Type	Appropriate Trim Type
Exposed grid tee (1' and 9/16")	MG
Concealed grid tee	MG

9/16   15/16   Screw Slot