LITHONIA LIGHTING®

2BLTR Series LED Relight

BLTR

1' x 4' Relight
LED

FEATURES & SPECIFICATIONS

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

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

LED boards and driver are accessible from below.

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

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

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

Configurable BLTR Relight: available in High Efficiency (HE) versions for applications where a lower wattage (over the standard product) is required. High Efficiency versions deliver >130 LPW and can be specified via the Lumen Package designations in the Ordering Information below.

eldoLED driver options deliver choice of dimming range, and choices for control, while assuring flicker-free, low-current inrush, 89% efficiency and low EMI.

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

Optional integrated nLight®controls make each luminaire addressable - allowing it to digitally communicate with other nLight enabled controls such as dimmers, switches, nLight AIR RIO, RES7 occupancy sensors and photo controls. Simply connect all the nLight enabled control devices and the BLTR Relight assembly using standard Cat-5 cabling. Unique plug-and-play convenience as devices and luminaires automatically discover each other and self-commission. Lumen Management: Unique lumen management system (option N80) provides on board intelligence that actively manages the LED light source so that constant lumen output is maintained over the system life, preventing the energy waste created by the traditional practice of over-lighting. Driver disconnect provided where required to comply with US and Canadian codes.

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

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

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

Integrated Smart Sensor (nLight Air Wireless Platform): The rES7 sensor is nLight AIR enabled, meaning it has the ability to communicate over the wireless nLight control platform. It is available with an automatic dimming photocell, and either a digital PIR or microphonics (PDT) dual technology occupancy sensor. It pairs to other luminaires and wall switches through our mobile app, CL*AIR*ITY™, which allows for simple sensor adjustment. See page 4 fore more details on the Integrated Smart Sensor.

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

LISTINGS — UL/cUL Listed for use in fluorescent light fixtures. Installing Relight assemblies per instructions will not impact existing fixture UL listing. Tested to LM80 standards. DesignLights Consortium® (DLC) 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.

ATRIUS™   C/A+ CAPABLE   DLC PREMIUM   eldoLED   nLIGHT

Fit Compatibility:
The BLT4R Relight Assembly was designed to upgrade recessed 1x4 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.

6.0
3.75
0.75
9.5
12.0
46.2
46.7
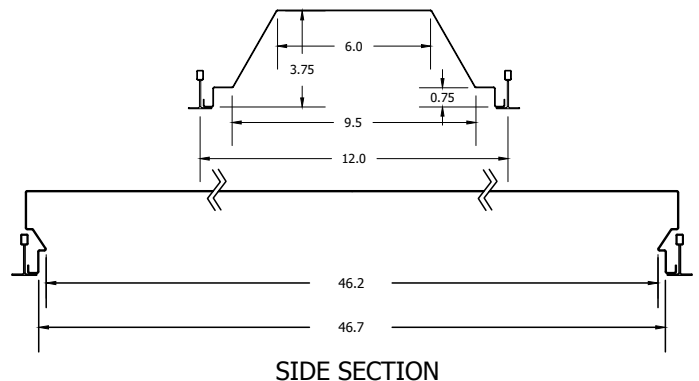
SIDE SECTION

C/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

BLT4R Volumetric Recessed Lighting 1'x4' Relight
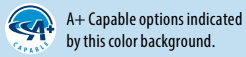
A+ Capable options indicated by this color background.

BLT4R

Series		Air Function		Lumens[2]				Diffuser		Voltage		Driver		Color temperature	
BLT4R	1X4 BLTR	(blank)	Static (white end brackets for troffers)	**Standard efficiency (>100 LPW)**		**High efficiency[3] (>130 LPW)**		ADP	Curved, linear prisms	(blank)	MVOLT	EZ1	eldoLED dims to 1% (0-10 volt dimming)	LP830	82CRI, 3000 K
		A	Air supply/ return or to maintain black reveal (black end brackets for parabolics)[1]	20L	2000	20LHE	2000	ADSM	Curved, smooth	120	120V			LP835	82CRI, 3500 K
				30L	3000	30LHE	3000	SDP	Square, linear prisms	277	277V	GZ1	Dims to 1% (0-10V dimming)[5]	LP840	82CRI, 4000 K
				40L	4000	40LHE	4000	SDSM	Square, smooth	347	347V[4]			LP850	82CRI, 5000 K
				48L	4800	48LHE	4800	**Diffusers w/ trim rings**				GZ10	Dims to 10% (0-10V dimming)[5]	LP930	90CRI, 3000K
		F	Flanged Brackets	60L	6000	60LHE	6000	ADPT	Curved, linear prisms					LP935	90CRI, 3500K
								ADSMT	Curved, smooth			SLD	Step-level dimming[6]	LP940	90CRI, 4000K
								SDPT	Square, linear prisms			EOHN	On/Off (Non-dim)	LP950	90CRI, 5000K
								SDSMT	Square, smooth						

nLight Interface		Control[9]				Options	
nLight Wired		**nLight Wired**		**Individual Control**		EL7L	700 lumen battery pack[12]
(blank)	no nLight® interface	(blank)	No sensor control	MSD7ADCX	PIR integral occupancy sensor with automatic dimming control photocell[11]	EL14L	1400 lumen battery pack[13]
N80	nLight with 80% lumen management	NES7	nLight™ nES 7 PIR integral occupancy sensor[10]			E10WLCP	EM Self-Diagnostic battery pack, 10W Constant Power, Certified in CA Title 20 MAEDBS
N80EMG	nLight with 80% lumen management For use with generator supply EM power[7]	NESPDT7	nLight™ nES PDT 7 dual technology integral occupancy control[10]				
N100	nLight without lumen management	NES7ADCX	nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell[10]	MSDPDT7ADCX	PDT integral occupancy sensor with automatic dimming control photocell[11]	BGTD	Bodine Generator Transfer Device[14]
N100EMG	nLight without lumen management For use with generator supply EM power[7]	NESPDT7ADCX	nLight™ nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell[10]			GLR	Fast-blowing fuse[15]
						GMF	Slow-blowing fuse[15]
nLight Wireless		**nLight Wireless**				NPLT	Narrow pallet
(blank)	no nLight® interface	RES7	nLight AIR PIR integral occupancy sensor with automatic dimming photocell for Networking Capabilities Individual Control			FAO	Field adjustable output[16]
NLTAIR2	nLight AIR Generation 2 enabled[8]	RES7PDT	nLight AIR microphonics dual technology occupancy sensor with automatic dimming photocell for Zone Control			USPOM	US Point of Manufacture
		RIO	nLight AIR radio module without sensor				

Accessories next page

Non-Configurable BLT

Stock	Catalog Description*	UPC	Lumens	Wattage	LPW	Color Temperature	Voltage	Pallet Qty
Stock	BLT4R 40L ADP LP835	190887551013	4072	33	123	3500K/80 CRI	120-277	30
	BLT4R 40L ADP LP840	190887551082	4076	33	123	4000K/80 CRI	120-277	30

* Dims to 10%

Notes
1. Consult factory for airflow data.
2. Approximate lumen output.
3. All versions may not achieve 130+ LPW. Refer to photometry on www.acuitybrands.com.
4. Not available with EL7L or EL14L battery packs.
5. GZ1, GZ10 not available with any Control or Sensor options.
6. Not available with N80, N80EMG, N100, N100EMG, NLTAIR2, or occupancy control.
7. nLight EMG option requires a connection to existing nLight network. Power is provided from a separate N80 or N100 enabled fixture.
8. Must order with RES7, RES7PDT, or RIO sensor. Only available with EZ1 driver.
9. Must specify diffuser with trim rings. See sensor options on page 4.
10. Requires N80, N80EMG, N100, or N100EMG.
11. Only available with EZ1 driver option. 0-10v dimming wires not accessible via access plate. Not available with Controls options.
12. Not available in 60L or 60LHE.
13. Not available in 48L, 60L, 48LHE, or 60LHE.
14. Requires BSE labeling. Consult factory for options.
15. Must specify voltage, 120 or 277 with GLR & GMF fusing.
16. Consult factory.

Multiple Diffuser Options

ADP Curved Ribbed

ADSM Curved Smooth

SDP Square Ribbed

SDSM Square Smooth

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BLTR-1X4
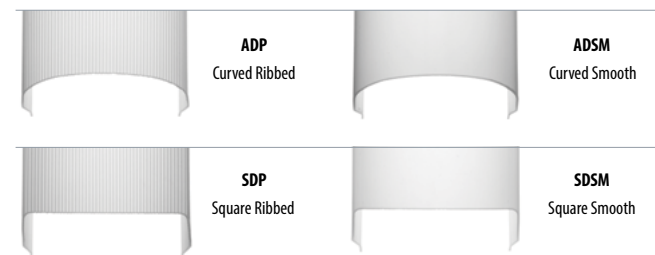
BLT4R Volumetric Recessed Lighting 1'x4' Relight

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] G2
On/Off two pole	rPODB 2P [color] G2
On/Off & raise/lower single pole	rPODB DX [color] G2
On/Off & raise/lower two pole	rPODB 2P DX [color] G2
On/Off & raise/lower single pole	rPODBZ DX WH G2

Application Guide

BLT4R — 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.

BLT4R A — Typically used for parabolic installations with black reveal. Assembly contains black end brackets to match black reveal around host housing. Does not interfere with host housing air supply/return if present (along fixture sides)..

rCMS[1]					Example: RCMS PDT 10 AR G2
Series / Detection	**Power Supply[1]**	**Occupancy Detection**	**Lens (Required)**	**Operating Mode**	**Generation**
RCMS nLight AIR occupancy and daylight sensor	[blank] Power Supply ordered separately	[blank] PIR Detection	10 Large Motion/ Extended Range 360°	[BLANK] None	G2 Generation 2 compatibility
	PS 150 Standard 150 mA Power Supply	PDT[2] Dual Tech PIR/ Microphonics	9 Small Motion/ Extended Range 360°	AR Auxiliary Relay	
			6 High Bay 360° Lens		

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

nLight Air rIO

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| Replacement Parts: *Order as separate catalog number.*	
DBLTR48 ADP LENS ASSEMBLY	4 ft. replacement lens (trims included)
DBLTR48 SDP LENS ASSEMBLY	4 ft. replacement lens (trims included)
DBLTR48 ADSM LENS ASSEMBLY	4 ft. replacement lens (trims included)
DBLTR48 SDSM LENS ASSEMBLY	4 ft. replacement lens (trims included)
DBLTR48 ADPT LENS ASSEMBLY	4 ft. replacement lens (trims included)
DBLTR48 SDPT LENS ASSEMBLY	4 ft. replacement lens (trims included)
DBLTR48 ADSMT LENS ASSEMBLY	4 ft. replacement lens (trims included)
DBLTR48 SDSMT LENS ASSEMBLY	4 ft. replacement lens (trims included)
DBLTR48 ADPT SENSOR LENS ASSEMBLY	4 ft. replacement lens (trims included)
DBLTR48 SDPT SENSOR LENS ASSEMBLY	4 ft. replacement lens (trims included)
DBLTR48 ADSMT SENSOR LENS ASSEMBLY	4 ft. replacement lens (trims included)
DBLTR48 SDSMT SENSOR LENS ASSEMBLY	4 ft. replacement lens (trims included)
U10528A	4 ft. replacement troffer trim strip

BLT4R Volumetric Recessed Lighting 1'x4' Relight

Sensor Options

Option	Automatic Dimming Photocell	Occupancy Sensing		nLight Wired Networking	nLight AIR Networking
		PIR	PDT		
MSD7ADCX	X	X			
MSDPDT7ADCX	X		X		
NES7		X		X	
NES7ADCX	X	X		X	
NESPDT7			X	X	
NESPDT7ADCX	X		X	X	
RES7	X	X			X
RESPDT7	X	X	X		X

Basic nLight Zone

CAT5e

nLIGHT enabled Relight Kit

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.
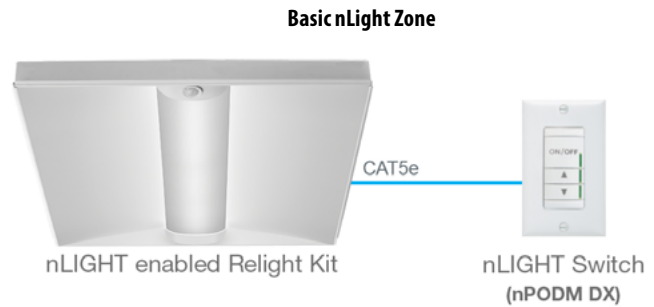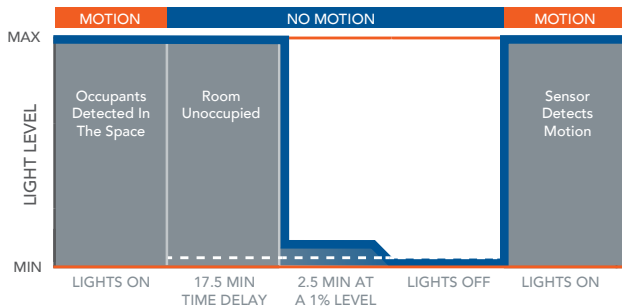
nLight Wired Networking

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

MAX — LIGHT LEVEL — MIN

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

MAX — LIGHT LEVEL — MIN

LIGHTS ON | 7.5 MIN TIME DELAY | 2.5 MIN AT A 1% LEVEL | LIGHTS OFF | LIGHTS ON
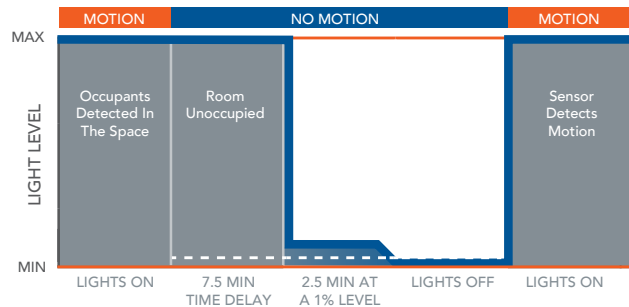
*The presetting on the automatic dimming photocell is 5fc.

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

nLight AIR Wireless

nLight AIR is the ideal solution for retrofit or new construction spaces where adding additional wiring can be labor intensive and costly. nLight AIR is available with or without and integral sensor. The integrated rES 7 or RES7PDT smart sensor is part of each luminaire in the nLight AIR network, which can be grouped to control multiple luminaires. The granularity of control with the digital PIR occupancy detection and daylight sensing makes a great solution for any application.

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

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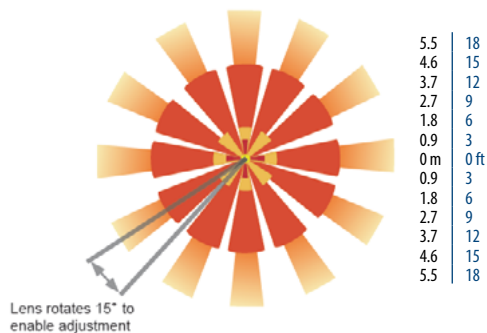
PHOTOMETRICS

BLT4R 40L ADP LP835, 3975 delivered lumens, test no. LTL28918P441, tested in accordance to IESNA LM-79

CP Summary		
	0°	90
0°	1366	1366
5°	1340	1371
15°	1278	1318
25°	1156	1222
35°	991	1093
45°	801	945
55°	604	783
65°	410	614
75°	218	440
85°	54	180
90	6	3

Coefficients of Utilization

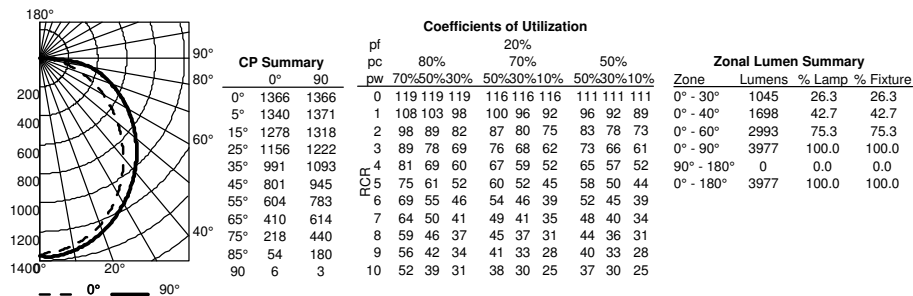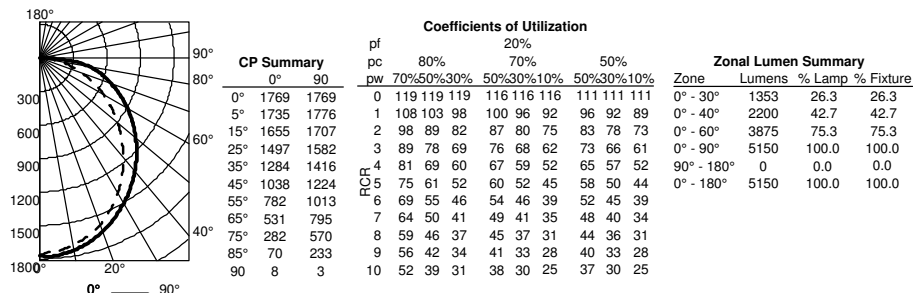| pf				20%					
pc	80%			70%			50%		
pw	70%	50%	30%	50%	30%	10%	50%	30%	10%
RCR 0	119	119	119	116	116	116	111	111	111
1	108	103	98	100	96	92	96	92	89
2	98	89	82	87	80	75	83	78	73
3	89	78	69	76	68	62	73	66	61
4	81	69	60	67	59	52	65	57	52
5	75	61	52	60	52	45	58	50	44
6	69	55	46	54	46	39	52	45	39
7	64	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°	1045	26.3	26.3
0° - 40°	1698	42.7	42.7
0° - 60°	2993	75.3	75.3
0° - 90°	3977	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	3977	100.0	100.0

BLT4R 48L ADP LP835, 5148 delivered lumens, test no. LTL28918P445, tested in accordance to IESNA LM-79

CP Summary		
	0°	90
0°	1769	1769
5°	1735	1776
15°	1655	1707
25°	1497	1582
35°	1284	1416
45°	1038	1224
55°	782	1013
65°	531	795
75°	282	570
85°	70	233
90	8	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°	1353	26.3	26.3
0° - 40°	2200	42.7	42.7
0° - 60°	3875	75.3	75.3
0° - 90°	5150	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	5150	100.0	100.0

Performance Data			
Lumen Package	Lumens	Input Watts	LPW
20L ADP LP830	1824	15	123
20L ADP LP835	1888	15	128
20L ADP LP840	1918	15	130
20L ADP LP850	1973	15	133
30L ADP LP830	2790	23	123
30L ADP LP835	2889	23	128
30L ADP LP840	2935	23	130
30L ADP LP850	3019	23	133
40L ADP LP830	3934	32	121
40L ADP LP835	4073	32	125
40L ADP LP840	4138	32	127
40L ADP LP850	4256	32	131
48L ADP LP830	4674	39	121
48L ADP LP835	4839	39	125
48L ADP LP840	4916	39	127
48L ADP LP850	5057	39	131
60L ADP LP830	5773	48	120
60L ADP LP835	5977	48	124
60L ADP LP840	6072	48	126
60L ADP LP850	6246	48	129

HE Performance Data			
Lumen Package	Lumens	Input Watts	LPW
20LHE ADP LP830	1836	15	126
20LHE ADP LP835	1901	15	131
20LHE ADP LP840	1931	15	133
20LHE ADP LP850	1986	15	137
30LHE ADP LP830	2856	21	134
30LHE ADP LP835	2957	21	139
30LHE ADP LP840	3004	21	141
30LHE ADP LP850	3090	21	145
40LHE ADP LP830	4009	30	135
40LHE ADP LP835	4151	30	140
40LHE ADP LP840	4217	30	142
40LHE ADP LP850	4338	30	146
48LHE ADP LP830	4463	34	130
48LHE ADP LP835	4620	34	135
48LHE ADP LP840	4694	34	137
48LHE ADP LP850	4828	34	141
60LHE ADP LP830	5655	44	129
60LHE ADP LP835	5855	44	133
60LHE ADP LP840	5948	44	135
60LHE ADP LP850	6118	44	139

LITHONIA LIGHTING®