

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.

BLT Tunable White is perfect in classrooms and educational settings as it allows the light color temperature to be adjusted to the optimal light level for student tasks such as reading or test taking.

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. 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 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).

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

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-5e cabling. Unique plug-and-play convenience as devices and luminaires automatically discover each other and self-commission.

Mainstream Dynamic Tunable White with nTune Technology: Tunable white nTune™ is an all digital light color temperature control within an nLight enabled luminaire. This brings tunable white lighting control into the mainstream with repeatable, consistent results in an economical luminaire form and system already familiar to schools. Designers and facility operators are granted the freedom to tie scenes to specific activities or to complement colors or materials within a visual environment. nTune™ allows color temperature settings through the Productivity Range of 3000K-5000K and the Rhythm Range of 2700K to 6500K. Refer to the Programming User's Guide for instructions on customizing to your application with SensorView.

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-5e 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.

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.

Catalog Number
Notes
Type

BLT Series LED

2BLT2 Tunable White

2' x 2'
LED

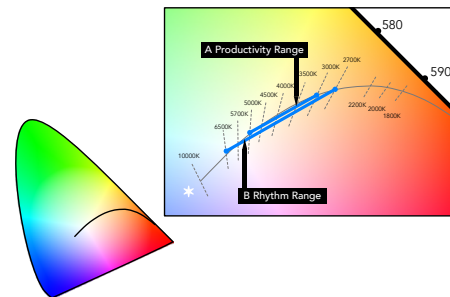


eldoLED



Tunable White GPHD

- **Gamut:** One dimensional Warm-Cool
- **Path:** Direct 3000K to 5000K (Productivity Range) or 2700K to 6500K (Rhythm Range)
- **Handle:** Two Natural Language Handles: Intensity and CCT
- **Data:** nLight with nTune technology for both handles of control



- A Productivity Range 3000K to 5000K
- B Rhythm Range 2700K to 6500K

CSA+ Capable Luminaire

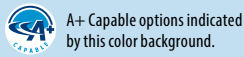
This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- 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

2BLT Tunable White Volumetric Recessed Lighting 2'x2'



ORDERING INFORMATION

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

Example: 2BLT2 TUWH PROR 40L ADP NLT

2BLT2	Series	Dynamic feature	Dynamic range	Lumens ²	Diffuser	Voltage	Control interface type
2BLT2 2X2 BLT	TUWH Tunable white	PROR Productivity range (3000-5000K) RHYR Rhythm range (2700-6500K) ¹	20L 2000 33L 3300 40L 4000	ADP Curved, linear prisms ADSM Curved, smooth SDP Square, linear prisms SDSM Square, smooth Diffusers w/ trim rings ADPT Curved, linear prisms ADSMT Curved, smooth SDPT Square, linear prisms SDSMT Square, smooth	(blank) MVOLT 120 120 277 277 347 347 ³	NLT nLight nTune interface ⁴ NLTEMG nLight nTune Interface. For use with generator supply EM power.	

Occupancy control ⁵	Options
(blank) No sensor control	BDP Disconnect Plug
nLight Wired Networking	EL7L 700 lumen battery pack (Noncompliant with CA T20) ⁶
NES7 nLight™ nES 7 PIR integral occupancy sensor	EL14L 1400 lumen battery pack (Noncompliant with CA T20) ⁶
NESPT7 nLight™ nES PDT 7 dual technology integral occupancy control	E10WLCP EM Self-Diagnostic battery pack, 10W Constant Power, Certified in CA Title 20 MAEDBS ⁶
NES7ADCX nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell	BGTD Bodine Generator Transfer Device ⁷
NESPT7ADCX nLight™ nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell	PWS1836 6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit
	PWS1846 6' pre-wire, 3/8" diameter, 18 gauge, 2 circuit
	GLR Fast-blowing fuse ⁸
	GMF Slow-blowing fuse ⁸
	NPLT Narrow pallet
	RRL_ RELOC®-ready luminaire ⁹
	LATC Earthquake clip
	DWAM Anti-Microbial paint
	90CRI 90 CRI

Accessories: Order as separate catalog number.	
DGA22	Drywall grid adapter for 2x2 recessed fixture
2X2SMKSH PAF	Surface Mount Troffer Kit Post Paint
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	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 RJB / nCM PDT 9 RJB
On/Off & raise/lower	nPODM DX	Large motion 360°, ceiling (PIR / dual tech)	nCM10 RJB / nCM PDT 10 RJB
		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	CAT-5e 10FT J1
		30' cable	CAT-5e 30FT J1
Power Supply			
nLight Power Supply	nPS 80		

Replacement parts: Order as separate catalog number.		
*237LJR	2DBLT24 ADP LENS ASSEMBLY	2 ft. replacement lens (light traps included)
*237LKH	2DBLT24 SDP LENS ASSEMBLY	2 ft. replacement lens (light traps included)
*237LKY	2DBLT24 ADSM LENS ASSEMBLY	2 ft. replacement lens (light traps included)
*237LL7	2DBLT24 SDSM LENS ASSEMBLY	2 ft. replacement lens (light traps included)
*237LT1	2DBLT24 ADPT LENS ASSEMBLY	2 ft. replacement lens (trims included)
*237LT3	2DBLT24 SDPT LENS ASSEMBLY	2 ft. replacement lens (trims included)
*237LT5	2DBLT24 ADSMT LENS ASSEMBLY	2 ft. replacement lens (trims included)
*237LT7	2DBLT24 SDSMT LENS ASSEMBLY	2 ft. replacement lens (trims included)
*237LT9	2DBLT24 ADPT SENSOR LENS ASSEMBLY	2 ft. replacement lens (trims included)
*237M4Y	2DBLT24 SDPT SENSOR LENS ASSEMBLY	2 ft. replacement lens (trims included)
*237M57	2DBLT24 ADSMT SENSOR LENS ASSEMBLY	2 ft. replacement lens (trims included)
*237M5H	2DBLT24 SDSMT SENSOR LENS ASSEMBLY	2 ft. replacement lens (trims included)

Notes

- Only RHYR versions are DLC listed.
- Approximate lumen output.
- Not available with EL7L, EL14L, or E10WLCP battery packs.
- Requires power from nLight network bridge or nPS 80.
- Must specify diffuser with trim rings. See sensor options in ordering information.
- When using pre-wire option, use PWS1846.
- Must specify voltage. Requires BSE labeling. Consult factory for options.
- Must specify voltage, 120 or 277 with GLR & GMF fusing.
- For ordering logic consult: RRL_2013.



2BLT Tunable White Volumetric Recessed Lighting 2'x2'

Specifications

Length: 23-3/4 (60.3)

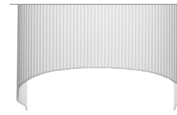
Width: 23-3/4 (60.3)

Depth: 2-3/8" (6)

All dimensions are inches (centimeters) unless otherwise specified.



Multiple Diffuser Options



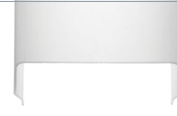
ADP
Curved Ribbed



ADSM
Curved Smooth



SDP
Square Ribbed



SDSM
Square Smooth

Tunable White Wall Pods



nPODM 2P DX CCT

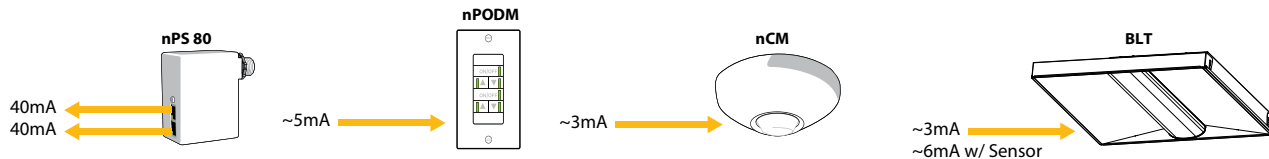
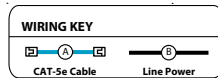
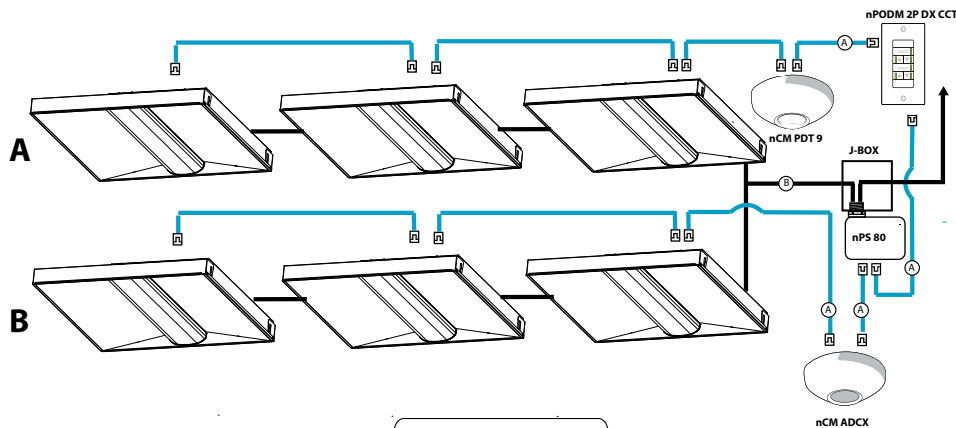


nPODM 4S DX EDUTW



nPODM 4S EDUTW

Typical nLight network layout with power supply, sensor and wallpod.



2BLT Tunable White Volumetric Recessed Lighting 2'x2'

Sensor Options*				
Option	Automatic Dimming Photocell	Occupancy Sensing		nLight Wired Networking
		PIR	PDT	
NES7		X		X
NES7ADCX	X	X		X
NESPD7			X	X
NESPD7ADCX	X		X	X

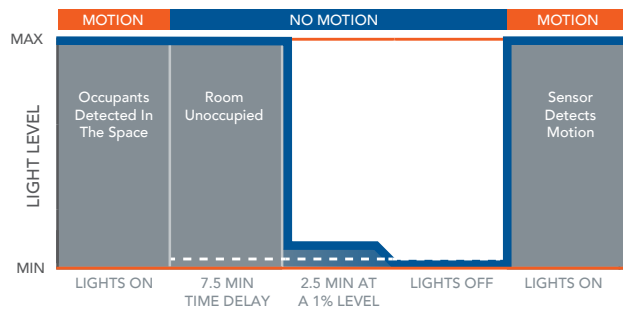
* Requires network to be present for sensors to operate

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 NESPD7ADCX includes an integrated photocell, which enables daylight harvesting controls which is ideal for areas where windows are present.

Sequence of Operation

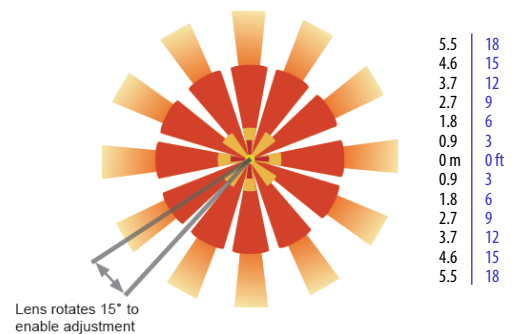


*The presetting on the automatic dimming photocell is 5fc.

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

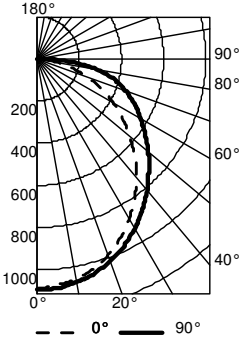
9 FT Mounting



2BLT Tunable White Volumetric Recessed Lighting 2'x2'

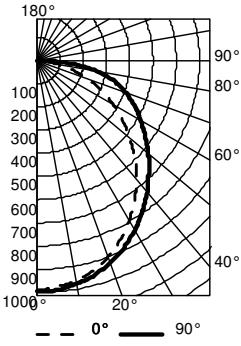
PHOTOMETRICS

2BLT2 TUWH RHYR 33L ADP @2700K, 82CRI,



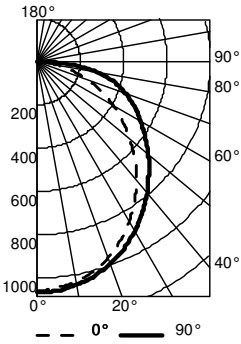
CP Summary			Coefficients of Utilization									Zonal Lumen Summary					
	0°	90°	pf	80%			70%			50%			Zone	Lumens	% Lamp	% Fixture	
			pc	70%	50%	30%	50%	30%	10%	50%	30%	10%					
	0°	1090	1090	0	119	119	119	116	116	116	111	111	111	0° - 30°	843	25.6	25.6
	5°	1077	1091	1	108	102	97	100	96	92	96	92	89	0° - 40°	1374	41.7	41.7
	15°	1029	1052	2	97	88	81	86	80	74	83	77	72	0° - 60°	2436	74.0	74.0
	25°	935	977	3	88	77	69	76	68	61	72	66	60	0° - 90°	3290	100.0	100.0
	35°	808	871	4	81	68	59	67	58	52	64	57	51	90° - 120°	2	0.0	0.0
	45°	656	748	5	74	61	51	60	51	44	57	50	44	90° - 130°	2	0.0	0.0
	55°	494	626	6	68	55	45	54	45	39	52	44	38	90° - 150°	2	0.0	0.0
	65°	335	511	7	63	50	40	49	40	34	47	39	34	90° - 180°	2	0.0	0.0
	75°	175	379	8	59	45	36	44	36	30	43	36	30	0° - 180°	3292	100.0	100.0
	85°	39	162	9	55	41	33	41	33	27	40	32	27				
	90°	1	14	10	52	38	30	38	30	25	37	30	25				

2BLT2 TUWH RHYR 33L ADP @4500K, 82CRI,



CP Summary			Coefficients of Utilization									Zonal Lumen Summary					
	0°	90°	pf	80%			70%			50%			Zone	Lumens	% Lamp	% Fixture	
			pc	70%	50%	30%	50%	30%	10%	50%	30%	10%					
	0°	992	992	0	119	119	119	116	116	116	111	111	111	0° - 30°	767	25.6	25.6
	5°	980	992	1	108	102	97	100	96	92	96	92	89	0° - 40°	1250	41.7	41.7
	15°	936	957	2	97	88	81	86	80	74	83	77	72	0° - 60°	2216	74.0	74.0
	25°	850	888	3	88	77	69	76	68	61	72	66	60	0° - 90°	2993	100.0	100.0
	35°	735	792	4	81	68	59	67	58	52	64	57	51	90° - 120°	1	0.0	0.0
	45°	596	680	5	74	61	51	60	51	44	57	50	44	90° - 130°	1	0.0	0.0
	55°	450	570	6	68	55	45	54	45	39	52	44	38	90° - 150°	1	0.0	0.0
	65°	305	465	7	63	50	40	49	40	34	47	39	34	90° - 180°	1	0.0	0.0
	75°	159	345	8	59	45	36	44	36	30	43	36	30	0° - 180°	2994	100.0	100.0
	85°	36	148	9	55	41	33	41	33	27	40	32	27				
	90°	1	13	10	52	38	30	38	30	25	37	30	25				

2BLT2 TUWH RHYR 33L ADP @6500K, 82CRI,



CP Summary			Coefficients of Utilization									Zonal Lumen Summary					
	0°	90°	pf	80%			70%			50%			Zone	Lumens	% Lamp	% Fixture	
			pc	70%	50%	30%	50%	30%	10%	50%	30%	10%					
	0°	1062	1062	0	119	119	119	116	116	116	111	111	111	0° - 30°	821	25.6	25.6
	5°	1049	1063	1	108	102	97	100	96	92	96	92	89	0° - 40°	1338	41.7	41.7
	15°	1003	1025	2	97	88	81	86	80	74	83	77	72	0° - 60°	2374	74.0	74.0
	25°	911	952	3	88	77	69	76	68	61	72	66	60	0° - 90°	3206	100.0	100.0
	35°	787	849	4	81	68	59	67	58	52	64	57	51	90° - 120°	2	0.0	0.0
	45°	639	729	5	74	61	51	60	51	44	57	50	44	90° - 130°	2	0.0	0.0
	55°	482	610	6	68	55	45	54	45	39	52	44	38	90° - 150°	2	0.0	0.0
	65°	327	498	7	63	50	40	49	40	34	47	39	34	90° - 180°	2	0.0	0.0
	75°	170	369	8	59	45	36	44	36	30	43	36	30	0° - 180°	3207	100.0	100.0
	85°	38	158	9	55	41	33	41	33	27	40	32	27				
	90°	1	13	10	52	38	30	38	30	25	37	30	25				

2BLT Tunable White Volumetric Recessed Lighting 2'x2'

LUMEN OUTPUT

Fixture size	Lumen package	[RHYR] LUMEN OUTPUT PER SCALING PROCEDURE, PER CCT							
		2700K	3000K	3500K	4000K	4500K	5000K	5700K	6500K
2BLT2	2000	1981	1912	1822	1764	1716	1736	1789	1922
	3300	3292	3184	3043	2951	2994	2909	2994	3207
	4000	3925	3810	3661	3563	3573	3521	3615	3846

DLC information is subject to change, for the most up-to-date information please refer to www.designlights.org. Above listings do not cover 347v.

POWER OUTPUT

Fixture size	Lumen package	[RHYR] POWER OUTPUT PER SCALING PROCEDURE, PER CCT							
		2700K	3000K	3500K	4000K	4500K	5000K	5700K	6500K
2BLT2	2000	17.11	16.31	15.22	14.43	13.96	13.80	14.09	15.17
	3300	28.62	27.13	25.14	23.73	22.93	22.72	23.43	25.68
	4000	34.98	33.15	30.69	28.97	27.98	27.73	28.62	31.41

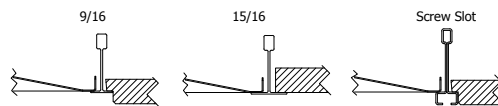
DLC information is subject to change, for the most up-to-date information please refer to www.designlights.org. Above listings do not cover 347v.

LUMENS PER WATT (LPW)

Fixture size	Lumen package	[RHYR] LPW OUTPUT PER SCALING PROCEDURE, PER CCT							
		2700K	3000K	3500K	4000K	4500K	5000K	5700K	6500K
2BLT2	2000	116	117	120	122	123	126	127	127
	3300	115	117	121	124	131	128	128	125
	4000	112	115	119	123	128	127	126	122

DLC information is subject to change, for the most up-to-date information please refer to www.designlights.org. Above listings do not cover 347v.

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 24-3/4" (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.