



ENERGETIC
LIGHTING

Project:	Catalog #:	Type:
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Prepared by:	Notes:	Date:
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E1BPL

LED Back-lit Flat Panel
Selectable CCT & Wattage
2x4, 2x2, 1x4 options • 10-yr Warranty

OVERVIEW

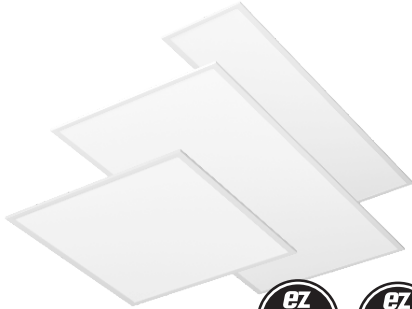
Energetic Lighting's E1BPL series is suitable for use in a broad range of commercial applications. Utilizing today's latest innovative LED solutions and technologies paired with world class manufacturing practices, the E1BPL provides customers an affordable LED back-lit panel offering with the perfect blend of design, performance, value and reliability.

An extremely versatile product thanks to its low-profile design that is as shallow as many other higher priced edge-lit panels available today. As a result the E1BPL is well suited for installations with shallow plenum access. With our integral EZCCT field-selectable CCT along with EZWATT field-selectable wattage, these panels extend use to a broad range of commercial and industrial applications

The E1BPL is a great choice for renovation opportunities replacing existing fluorescent luminaires or for new construction projects that require code compliant energy saving LED solutions. Ideally suited for office spaces, schools, retail, hospitality and healthcare applications, the E1BPL provides high quality illumination with optimal energy savings.

KEY FEATURES

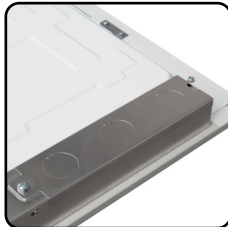
- EZCCT field-selectable CCT - 3500K, 4000K & 5000K @ >80 CRI
- EZWATT field-selectable Wattage - 3 steps, varied by models (see stock ordering information)
- 2x4, 2x2, and 1x4 configurations available for design flexibility
- Acrylic over-optics with polymer diffusing lens creates an extremely uniform visual aesthetic and provides target uniform illumination.
- 125+ LPW provides 40-60% in energy savings vs. fluorescent
- Die-formed steel housing won't flex during installation
- Integrated occupancy sensor and Emergency battery backup systems available
- Reduced weight design makes for easier installation (as much as 50% weight reduction compared to edge-lit equivalents)
- 88% lumen maintenance @ 60,000 hours – L88/60,000 (per IES TM21)
- Projected L70 @ 174,000 hours = maintenance free illumination (per IES TM21)



Highlights



Field-selectable CCT and wattage control provides flexibility to installation and stocking



Various knock-outs available for ease of installation and wiring configuration needs



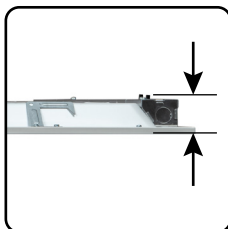
Integrated fold-out seismic hooks with suspension cable mounting hole



Extruded aluminum lens frame with visually seamless corners



Reinforced die-formed steel housing provides a structurally rigid enclosure



Ultra-thin profile at only 1.5 inches saves weight, packaging, storage, and challenging plenum clearance scenarios

Load Information

Input Voltage	Base fixture	120-347Vac
	with occ sensor or EM system	120-277Vac
Power Factor	0.99	
THD	11%	
Low Temp Start	-25°C (-13°F)	
Max Temp	45°C (113°F)	
Unit Weight	2x4 profile	11 LBS
	2x2 profile	TBA
	1x4 profile	6 LBS

Shipping Information

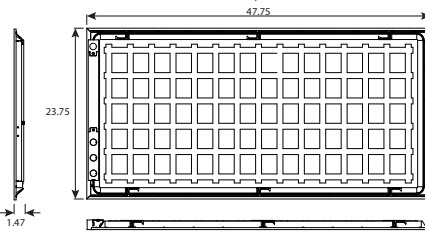
Item	Weight	Box Qty.
2x4 profile	27 lbs	2 per
2x2 profile	TBA	2 per
1x4 profile	15.5 lbs	2 per

Lumen Maintenance

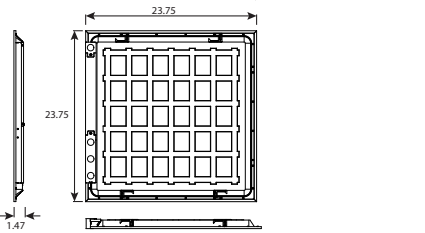
Ambient Temperature	TM-21 Lumen Maintenance (60,000 hours)	Theoretical L70 (hours)
25°C	>88%	174,000

Dimensions

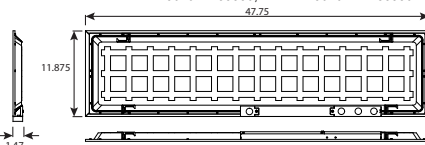
2x4 models: E1BPL4-H3645D-83550, E1BPL4-3645DM-83550, E1BPL4-3645DE-83550, E1BPL4-3645DME-83550



2x2 models: E1BPL2-H2130D-83550, E1BPL2-2130DM-83550, E1BPL2-2130DE-83550, E1BPL2-2130DME-83550



1x4 models: E1BPL1-H3040D-83550, E1BPL1-3040DM-83550, E1BPL1-3040DE-83550, E1BPL1-3040DME-83550



Specific Lumen Output

Profile	Wattage Setting	Color Temperature Setting		
		3500K	4000K	5000K
2x4 (36W, 40W, 45W)	36W	4638	4774	4738
	40W	5047	5195	5156
	45W	5367	5525	5484
2x2 (21W, 25W, 30W)	21W	2529	2592	2525
	25W	2978	3052	2973
	30W	3660	3752	3656
1x4 (30W, 35W, 40W)	30W	3662	3723	3745
	35W	4345	4418	4445
	40W	4968	5052	5084

STOCK ORDERING INFORMATION

2x4 Profile

Catalog Logic	Order #	Lumens	Wattage	LPW	Color Temp	CRI	Voltage	Dimming	DLC	Pallet Qty
E1BPL4-H3645D-83550	65135	4630, 5040, 5360 (LM) Selectable	36W, 40W, 45W Selectable	125	3500K, 4000K, 5000K Selectable	82	120-347	0-10v	DLC5.0-P	30

2x4 Profile with Integrated Occupancy Sensor

Catalog Logic	Order #	Lumens	Wattage	LPW	Color Temp	CRI	Voltage	Dimming	DLC	Pallet Qty
E1BPL4-3645DM-83550	65141	4630, 5040, 5360 (LM) Selectable	36W, 40W, 45W Selectable	125	3500K, 4000K, 5000K Selectable	82	120-277	0-10v	DLC5.0-P	TBA

2x4 Profile with Emergency Battery Backup System

Catalog Logic	Order #	Lumens	Wattage	LPW	Color Temp	CRI	Voltage	Dimming	DLC	Pallet Qty
E1BPL4-3645DE-83550	65138	4630, 5040, 5360 (LM) Selectable	36W, 40W, 45W Selectable	125	3500K, 4000K, 5000K Selectable	82	120-277	0-10v	DLC5.0-P	TBA

2x4 Profile with Integrated Occupancy Sensor & Emergency Battery Backup System

Catalog Logic	Order #	Lumens	Wattage	LPW	Color Temp	CRI	Voltage	Dimming	DLC	Pallet Qty
E1BPL4-3645DME-83550	65149	4630, 5040, 5360 (LM) Selectable	36W, 40W, 45W Selectable	125	3500K, 4000K, 5000K Selectable	82	120-277	0-10v	DLC5.0-P	TBA

2x2 Profile

Catalog Logic	Order #	Lumens	Wattage	LPW	Color Temp	CRI	Voltage	Dimming	DLC	Pallet Qty
E1BPL2-H2130D-83550	65134	2520, 2970, 3660 (LM) Selectable	21W, 25W, 30W Selectable	125	3500K, 4000K, 5000K Selectable	82	120-347	0-10v	DLC5.0-P	TBA

2x2 Profile with Integrated Occupancy Sensor

Catalog Logic	Order #	Lumens	Wattage	LPW	Color Temp	CRI	Voltage	Dimming	DLC	Pallet Qty
E1BPL2-2130DM-83550	65140	2520, 2970, 3660 (LM) Selectable	21W, 25W, 30W Selectable	125	3500K, 4000K, 5000K Selectable	82	120-277	0-10v	DLC5.0-P	TBA

2x2 Profile with Emergency Battery Backup System

Catalog Logic	Order #	Lumens	Wattage	LPW	Color Temp	CRI	Voltage	Dimming	DLC	Pallet Qty
E1BPL2-2130DE-83550	65137	2520, 2970, 3660 (LM) Selectable	21W, 25W, 30W Selectable	125	3500K, 4000K, 5000K Selectable	82	120-277	0-10v	DLC5.0-P	TBA

2x2 Profile with Integrated Occupancy Sensor & Emergency Battery Backup System

Catalog Logic	Order #	Lumens	Wattage	LPW	Color Temp	CRI	Voltage	Dimming	DLC	Pallet Qty
E1BPL2-2130DME-83550	65148	2520, 2970, 3660 (LM) Selectable	21W, 25W, 30W Selectable	125	3500K, 4000K, 5000K Selectable	82	120-277	0-10v	DLC5.0-P	TBA

1x4 Profile

Catalog Logic	Order #	Lumens	Wattage	LPW	Color Temp	CRI	Voltage	Dimming	DLC	Pallet Qty
E1BPL1-H3040D-83550	65133	3660, 4340, 4960 (LM) Selectable	30W, 35W, 40W Selectable	126	3500K, 4000K, 5000K Selectable	81	120-347	0-10v	DLC5.0-P	TBA

1x4 Profile with Integrated Occupancy Sensor

Catalog Logic	Order #	Lumens	Wattage	LPW	Color Temp	CRI	Voltage	Dimming	DLC	Pallet Qty
E1BPL1-3040DM-83550	65139	3660, 4340, 4960 (LM) Selectable	30W, 35W, 40W Selectable	126	3500K, 4000K, 5000K Selectable	81	120-277	0-10v	DLC5.0-P	TBA

1x4 Profile with Emergency Battery Backup System

Catalog Logic	Order #	Lumens	Wattage	LPW	Color Temp	CRI	Voltage	Dimming	DLC	Pallet Qty
E1BPL1-3040DE-83550	65136	3660, 4340, 4960 (LM) Selectable	30W, 35W, 40W Selectable	126	3500K, 4000K, 5000K Selectable	81	120-277	0-10v	DLC5.0-P	TBA

1x4 Profile with Integrated Occupancy Sensor & Emergency Battery Backup System

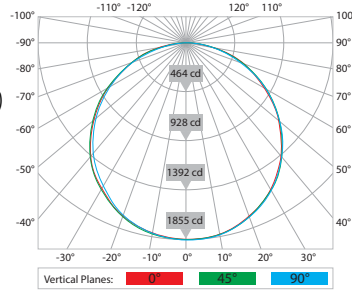
Catalog Logic	Order #	Lumens	Wattage	LPW	Color Temp	CRI	Voltage	Dimming	DLC	Pallet Qty
E1BPL1-3040DME-83550	65147	3660, 4340, 4960 (LM) Selectable	30W, 35W, 40W Selectable	126	3500K, 4000K, 5000K Selectable	81	120-277	0-10v	DLC5.0-P	TBA

Options and Accessories

Catalog Logic	Order #	Description
FPSURF24	65152	2x4 flat panel surface-mount kit (2-inch drop height)
FPSURF22	65151	2x2 flat panel surface-mount kit (2-inch drop height)
FPSURF14	65150	1x4 flat panel surface-mount kit (2-inch drop height)
FPSUSP	65153	Cable suspension kit

PHOTOMETRIC DATA

Cat Logic: E1BPL4-H3645D-83550*
 Applicable: E1BPL4-3645DM-83550
 Models: E1BPL4-3645DE-83550
 E1BPL4-3645DME-83550
 Test Report: E1BPL4-H3645D-83550_(4000K)
 CCT: set at 4000K for test
 Lamp Type: LED
 Lumens: 5525 LM
 Input Watts: 41.87 W
 Efficacy: 132 LM/W
 Spacing Criteria: [0° : 1.28] [90° : 1.28]

Polar Candela Plot

Zonal Lumen Summary

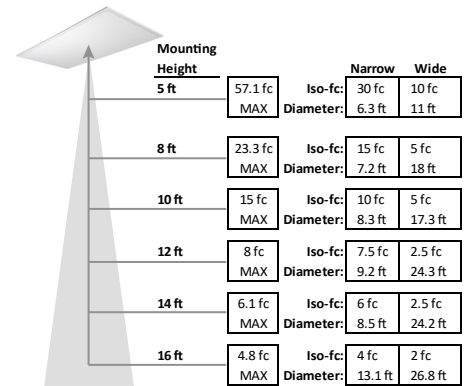
Zone	Lumens	%Luminaire
0-20	680.68	12.3
0-30	1451.16	26.3
0-40	2387.87	43.2
0-60	4263.59	77.2
0-80	5390.84	97.6
0-90	5519.87	99.9
0-180	5525.46	100

Coefficients of Utilization

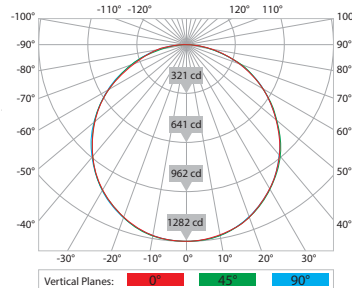
Effective Floor Cavity Reflectance 0.20

rc	80%				70%				50%				30%				10%				0%			
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
RCR																								
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100						
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83						
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	68						
3	89	79	70	63	87	77	69	63	74	67	62	71	65	61	69	64	60	57						
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49						
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42						
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	50	43	39	37						
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32						
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29						
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26						
10	52	39	31	26	51	38	31	25	37	30	25	36	30	25	35	29	25	23						

* NOTE: Data produced from 4000K CCT setting where:
 - 3500K values can be estimated by reduction of 0.972 factor from 4000K
 - 5000K values can be estimated by increasing by a factor of 0.992 from 4000K
 Data produced from highest wattage setting where lower wattage data values may be estimated by an equivalent proportional reduction as the wattage reduction factor (example: 45W to 35W use: 0.778 reduction factor)

Isofootcandle Sampling

PHOTOMETRIC DATA

Cat Logic: E1BPL2-H2130D-83550*
 Applicable: E1BPL2-2130DM-83550
 Models: E1BPL2-2130DE-83550
 E1BPL2-2130DME-83550
 Test Report: E1BPL2-H2130D-83550_(4000K)
 CCT: set at 4000K for test
 Lamp Type: LED
 Lumens: 3752 LM
 Input Watts: 27.51 W
 Efficacy: 136 LM/W
 Spacing Criteria: [0° : 1.26] [90° : 1.28]

Polar Candela Plot

Zonal Lumen Summary

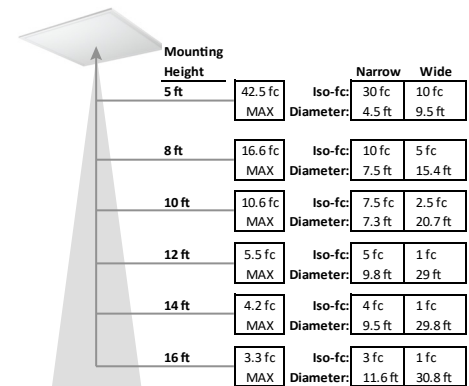
Zone	Lumens	%Luminaire
0-20	469.34	12.5
0-30	998.05	26.6
0-40	1637.57	43.6
0-60	2910.12	77.6
0-80	3666.56	97.7
0-90	3748.49	99.9
0-180	3752.06	100

Coefficients of Utilization

Effective Floor Cavity Reflectance 0.20

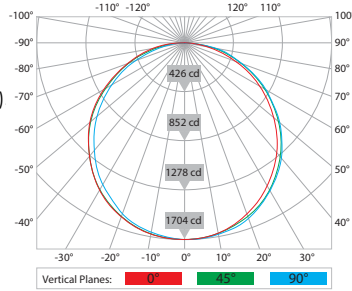
rc	80%				70%				50%				30%				10%				0%			
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
RCR																								
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100						
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83						
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69						
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58						
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49						
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42						
6	69	56	47	40	67	55	46	40	53	45	40	51	45	39	50	44	39	37						
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33						
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29						
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26						
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24						

* NOTE: Data produced from 4000K CCT setting where:
 - 3500K values can be estimated by reduction of 0.976 factor from 4000K
 - 5000K values can be estimated by increasing by a factor of 0.974 from 4000K
 Data produced from highest wattage setting where lower wattage data values may be estimated by an equivalent proportional reduction as the wattage reduction factor (example: 30W to 20W use: 0.667 reduction factor)

Isofootcandle Sampling


PHOTOMETRIC DATA

Cat Logic: E1BPL1-H3040D-83550*
 Applicable: E1BPL1-3040DM-83550
 Models: E1BPL1-3040DE-83550
 E1BPL1-3040DME-83550
 Test Report: E1BPL1-H3040D-83550_(4000K)
 CCT: set at 4000K for test
 Lamp Type: LED
 Lumens: 5052 LM
 Input Watts: 37.37 W
 Efficacy: 135 LM/W
 Spacing Criteria: [0° : 1.26] [90° : 1.30]

Polar Candela Plot

Zonal Lumen Summary

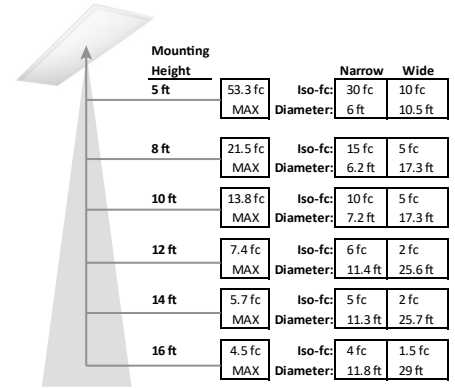
Zone	Lumens	%Luminaire
0-20	624.13	12.4
0-30	1329.27	26.3
0-40	2184.79	43.2
0-60	3895.16	77.1
0-80	4922.21	97.4
0-90	5044.34	99.8
0-180	5052.21	100

Coefficients of Utilization

Effective Floor Cavity Reflectance 0.20

rc	80%				70%				50%			30%			10%			0%	
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																			
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	
1	108	103	99	95	106	101	97	93	97	93	90	93	90	87	89	87	85	83	
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	68	
3	89	79	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57	
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49	
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42	
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	50	43	39	37	
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32	
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29	
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26	
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	35	29	25	23	

* NOTE: Data produced from 4000K CCT setting where:
 -3500K values can be estimated by reduction of 0.984 factor from 4000K
 -5000K values can be estimated by increasing by a factor of 1.01 from 4000K
 Data produced from highest wattage setting where lower wattage data values may be estimated by an equivalent proportional reduction as the wattage reduction factor (example: 40W to 30W use 0.75 reduction factor)

Isofootcandle Sampling




ENERGETIC
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E1BPL

CCT&W-Select LED Back-lit Flat Panel
60,000 System Lifetime • 10-yr Warranty

NOTES:

A large, empty rectangular box with a blue border, intended for user notes or specifications.



ENERGETIC
L I G H T I N G

E1BPL

CCT&W-Select LED Back-lit Flat Panel
60,000 System Lifetime • 10-yr Warranty

NOTES:

Empty rectangular box for notes.