

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

## E2HBA

LED PRO-CLASSICAL HIGH BAY  
50,000 Hour System Lifetime  
5-yr Warranty



\*shown w/ optional occupancy sensor



### OVERVIEW

Energetic Lighting's E2HBA LED Pro-Classical High Bay series is suitable for use in a broad range of commercial and industrial applications. Utilizing today's latest innovative LED solutions and technologies, this series provides the perfect blend of design, performance and reliability at a superior value to the customer.

An extremely versatile product thanks to its traditional round form factor and lumen packages ranging from 11,000 to 35,000 lumens to accommodate multiple mounting heights. Emergency and motion sensing options are also available for even more flexibility.

The E2HBA is well suited for many renovation and new construction applications including warehouse, industrial, manufacturing, retail, gymnasiums, and grocery stores. It delivers uniform illumination and visual comfort with 1-for-1 replacement of 175-400W HID (minimum) while maximizing energy savings.

### KEY FEATURES

- Available in 5 lumen packages (11,106 - 34,764 lms @ 4K)
- Efficacy up to 141 lm/W
- LED array is sealed via a glass lens
- Round form factor for simple symmetrical installation
- Light weight design for ease of installation
- Utilizes 0-10V, 50,000 hour rated drivers standard
- 89% lumen maintenance @ 54,000 hours - L89/54,000 (per IES TM21)
- Projected L70 @ 155,000 hours (per IES TM21)
- Available in 4000K @ 82 CRI and 5000K @ 82 CRI
- All configurations are DLC Premium qualified
- Optional integrated emergency battery pack
- Optional occupancy & daylight harvesting sensors

### SPECIFICATIONS & FEATURES

#### Construction

Housing and heatsink is made from diecast aluminum to maximize heat management and the life of the luminaire and electrical components. All painted components are high reflectance white powder coat for improved optical performance and visual aesthetic. Drivers are easily accessed from a separate driver compartment via two screws.

#### Mounting & Installation

Fixture mounts using a traditional mono-point hook accessory that is included standard. A safety cable is also included. See instruction sheet for details.

#### Optics

Uniform horizontal and vertical illumination is achieved by the coupling of the LED array with a performance acrylic refractive lens. The optical system creates a soft and uniform visual appearance for superior visual comfort.

#### Electrical

Efficient long life LED platform is coupled with 50,000 hour rated drivers to help deliver optimal performance and quality illumination for the extended life of the luminaire. 89% LED lumen maintenance at 54,000 hours (L89/54,000) per IES TM21. Projected L70 @ 155,000 hours. Drivers are available for 120-277V applications and are 0-10V dimming compatible standard.

#### Emergency Battery Pack Option

Optional integral emergency battery pack is available in 16-watts for 120-277V use to meet required life-safety requirements (40° C max ambient). The battery system provides 90-minutes of continuous power to the LED system for code compliance. Test switch and indicator light is located on the battery box. Multiply the lumens per watt of the specified SKU by X-watts of the battery pack for the approximate delivered lumens. (Ex. 137 LPW x 16-watts = 2192 lumens)

#### Compliance & Certification

All luminaires are built to UL1598 standards with appropriate UL/cUL labels. Suitable for damp location use. Emergency fixtures are labeled UL924 and are suitable for dry and damp location use. Adheres to LM79, LM80 and TM21 industry standards for performance and lifetime calculations. DesignLights Consortium® (DLC) qualified product. Refer to DLC website at [www.designlights.org/QPL](http://www.designlights.org/QPL) to confirm which specific product configurations are qualified.

#### Warranty

The E2HBA series of luminaires have a 5-year standard warranty. (Terms & Conditions apply).

#### Load Information

<b>Power Factor</b>	0.90
<b>THD</b>	21%
<b>Low Temp Start<sup>1</sup></b>	-25° C
<b>Max Temp</b>	40° C
<b>Unit Weight<sup>2,3</sup> (80-150W)</b>	13.5 lbs
<b>Unit Weight<sup>2,3</sup> (200-240W)</b>	16.0 lbs

- Emergency low temp start is 20° C
- Add 1.5 lbs for occupancy sensor option.
- Add 3.5 lbs for emergency battery option.

#### Shipping Information<sup>1,2</sup>

Item	Weight	Pallet (48"l x 40" w x 87" h)
80-150W	13.0 lbs	72 per (base unit)
80-150W	14.5 lbs	72 per (w/ occupancy)
80-150W	16.5 lbs	63 per (w/ emergency)
Item	Weight	Pallet (50"l x 40" w x 80" h)
200-240W	16.0 lbs	48 per (base unit)
200-240W	17.5 lbs	48 per (w/ occupancy)
Item	Weight	Pallet (48"l x 40" w x 87" h)
200-240W	19.5 lbs	45 per (w/ emergency)

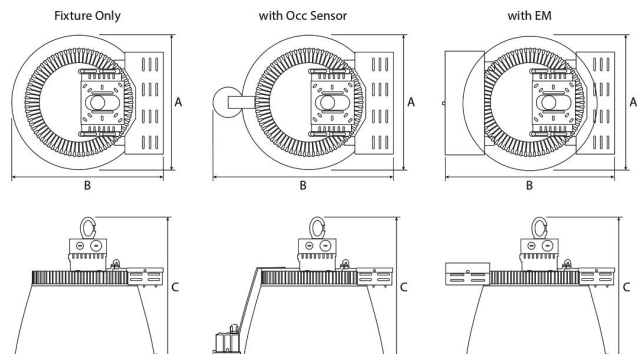
- Refractors ship separately (max 10/box @ 23.0 lbs/box).
- 30 refractor boxes per pallet (300 total, 50"l x 40" w x 87" h).

#### Lumen Maintenance

Ambient Temperature	TM-21 Lumen Maintenance (54,000 hours)	Theoretical L70 (Hours)
25° C	> 88.7%	155,000

#### Dimensions

Dimension (in inches)	80W, 100W, and 150W			200W and 240W		
	Fixture Only	with Occ Sensor	with EM	Fixture Only	with Occ Sensor	with EM
A	16.5	16.5	16.5	16.5	16.5	16.5
B	17	24	20	20	27	23
C	15	15	15	15	15	15



**STOCK ORDERING INFORMATION (4000K, base fixture only)**

Catalog Logic	Order #	Lumens	Wattage	LPW	Color Temp	CRI	Voltage	Dimming	DLC	Pallet Qty <sup>2,3</sup>
E2HBA80-840	80035	11106	81	137	4000K	82	120-277	0-10V <sup>1</sup>	Premium	72
E2HBA100-840	80036	13799	101	137	4000K	82	120-277	0-10V <sup>1</sup>	Premium	72
E2HBA150-840	80037	21119	153	138	4000K	82	120-277	0-10V <sup>1</sup>	Premium	72
E2HBA200-840	80038	27173	201	135	4000K	82	120-277	0-10V <sup>1</sup>	Premium	48
E2HBA240-840	80039	34764	246	141	4000K	82	120-277	0-10V <sup>1</sup>	Premium	48

**STOCK ORDERING INFORMATION (5000K, base fixture only)**

Catalog Logic	Order #	Lumens	Wattage	LPW	Color Temp	CRI	Voltage	Dimming	DLC	Pallet Qty <sup>2,3</sup>
E2HBA80-850	80030	11106	81	137	5000K	82	120-277	0-10V <sup>1</sup>	Premium	72
E2HBA100-850	80031	13799	101	137	5000K	82	120-277	0-10V <sup>1</sup>	Premium	72
E2HBA150-850	80032	21119	153	138	5000K	82	120-277	0-10V <sup>1</sup>	Premium	72
E2HBA200-850	80033	27173	201	135	5000K	82	120-277	0-10V <sup>1</sup>	Premium	48
E2HBA240-850	80034	34764	246	141	5000K	82	120-277	0-10V <sup>1</sup>	Premium	48

Notes:

- 0-10V dimming driver standard, leads are capped from the factory, dims to 10%.
- Refractors ship separately (max 10/box @ 23.0 lbs/box).
- 30 refractor boxes per pallet (300 total, 50"l x 40"w x 87"h).

**STOCK ORDERING INFORMATION (5000K, w/ occupancy sensor option)**

Catalog Logic	Order #	Lumens	Wattage	LPW	Color Temp	CRI	Voltage	Dimming	DLC	Pallet Qty <sup>5,6</sup>
E2HBA80M-850 <sup>1,2,3,4</sup>	80050	11106	81	137	5000K	82	120-277	Sensor Only	Premium	72
E2HBA100M-850 <sup>1,2,3,4</sup>	80051	13799	101	137	5000K	82	120-277	Sensor Only	Premium	72
E2HBA150M-850 <sup>1,2,3,4</sup>	80052	21119	153	138	5000K	82	120-277	Sensor Only	Premium	72
E2HBA200M-850 <sup>1,2,3,4</sup>	80053	27173	201	135	5000K	82	120-277	Sensor Only	Premium	48
E2HBA240M-850 <sup>1,2,3,4</sup>	80054	34764	246	141	5000K	82	120-277	Sensor Only	Premium	48

Notes:

- Occupancy sensor is set to 100% high and 20% low (infinite), with a standby time of 5 minutes and the daylight sensor 'off' as default from the factory.
- Max occupancy sensor height is 50' with a detection radius of 26'.
- Occupancy sensor is not compatible with 0-10V dimming (contact factory for availability if required).
- ZUV700A001 hand-held remote accessory required to change factory occupancy sensor settings (must be ordered separately, see separate remote spec sheet for details).
- Refractors ship separately (max 10/box @ 23.0 lbs/box).
- 30 refractor boxes per pallet (300 total, 50"l x 40"w x 87"h).

**STOCK ORDERING INFORMATION (5000K, w/ emergency battery pack option)**

Catalog Logic	Order #	Size	Lumens	Wattage	LPW	Color Temp	CRI	Voltage	Dimming	DLC	Pallet Qty <sup>4,5</sup>
E2HBA80E-850 <sup>1,2</sup>	80040	XX	11106	81	137	5000K	82	120-277	0-10V <sup>3</sup>	Premium	63
E2HBA100E-850 <sup>1,2</sup>	80041	XX	13799	101	137	5000K	82	120-277	0-10V <sup>3</sup>	Premium	63
E2HBA150E-850 <sup>1,2</sup>	80042	XX	21119	153	138	5000K	82	120-277	0-10V <sup>3</sup>	Premium	63
E2HBA200E-850 <sup>1,2</sup>	80043	XX	27173	201	135	5000K	82	120-277	0-10V <sup>3</sup>	Premium	45
E2HBA240E-850 <sup>1,2</sup>	80044	XX	34764	246	141	5000K	82	120-277	0-10V <sup>3</sup>	Premium	45

Notes:

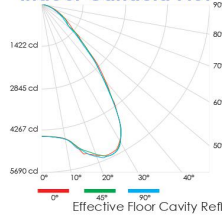
- The emergency battery system provides approximately 16-watts of continuous power to the LED system for code compliance (40° C max ambient).
- Approximate delivered lumens in emergency mode: Ex. 16-watts x 137 LPW = 2192 lumens.
- 0-10V dimming driver standard, leads are capped from the factory, dims to 10%.
- Refractors ship separately (max 10/box @ 23.0 lbs/box).
- 30 refractor boxes per pallet (300 total, 50"l x 40"w x 87"h).

**4000K PHOTOMETRIC DATA**  
**Luminaire Data**

Cat Logic: E2HBA80-840  
Test Report: E2HBA80-840.IES  
CCT: 4000  
Lamp Type: LED  
Lumens: 11106  
Input Watts: 81  
Efficacy: 137  
Spacing:  $0^\circ = 1.48$   $90^\circ = 1.46$

Photometric values based on tests performed in compliance with LM-79.

**Indoor Candela Plot**



**Zonal Lumen Summary**

Zone	Lumens	% Luminaire
0-30	4393	39.6
0-40	7107	64.0
0-60	9904	89.2
0-90	10917	98.3
0-180	1106.44	100.0

**Candlepower**

Angle	0°	90°
0	4456	4456
5	4490	4493
10	4602	4612
15	5116	5070
20	5428	5471
25	5558	5624
30	5344	5383
35	4566	4459
40	3428	3290
45	2488	2200
50	1691	1421
55	1181	1020
60	942	798
65	688	572
70	498	420
75	293	253
80	108	99
85	54	54
90	40	40

**Coefficients of Utilization**

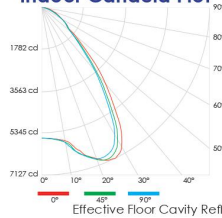
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	rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																											
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98									
1	111	107	103	100	108	104	101	99	100	97	95	96	94	92	92	90	89	87									
2	103	96	90	86	100	94	89	84	90	86	82	87	83	80	84	81	78	76									
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4	88	78	70	65	86	77	70	64	74	68	63	72	66	62	69	65	61	59									
5	82	71	63	57	80	70	62	57	67	61	56	65	60	55	63	59	55	53									
6	76	65	57	51	74	64	56	51	62	55	50	60	54	50	58	53	49	47									
7	71	59	51	46	69	58	51	46	57	50	45	55	49	45	54	48	44	43									
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	39									
9	62	50	43	38	61	50	42	38	48	42	37	47	41	37	46	41	37	35									
10	59	47	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32									

**4000K PHOTOMETRIC DATA**  
**Luminaire Data**

Cat Logic: E2HBA100-840  
Test Report: E2HBA100-840.IES  
CCT: 4000  
Lamp Type: LED  
Lumens: 13799  
Input Watts: 101  
Efficacy: 137  
Spacing:  $0^\circ = 1.48$   $90^\circ = 1.38$

Photometric values based on tests performed in compliance with LM-79.

**Indoor Candela Plot**



**Zonal Lumen Summary**

Zone	Lumens	% Luminaire
0-30	5467	39.6
0-40	8843	64.1
0-60	12318	89.3
0-90	13568	98.3
0-180	13799	100.0

**Candlepower**

Angle	0°	90°
0	5544	5544
5	5610	5591
10	5731	5814
15	6309	6415
20	6805	6814
25	7103	6804
30	6785	6232
35	5651	4822
40	4220	3618
45	2923	2410
50	1848	1658
55	1350	1333
60	1049	973
65	763	719
70	581	495
75	361	242
80	138	92
85	69	60.5
90	51	49.6

**Coefficients of Utilization**

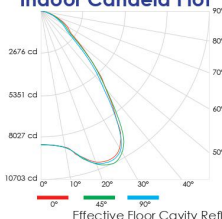
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RCR																											
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	101	101	101	98									
1	111	107	103	100	108	104	101	99	100	97	95	96	94	92	92	90	89	87									
2	103	96	90	86	100	94	89	84	90	86	82	87	83	80	84	81	78	76									
3	95	86	79	74	93	85	78	73	82	76	72	79	74	70	76	72	69	67									
4	88	78	70	65	86	77	70	64	74	68	63	72	66	62	69	65	61	59									
5	82	71	63	57	80	70	62	57	67	61	56	65	60	55	64	59	55	53									
6	76	65	57	51	74	64	56	51	62	55	50	60	54	50	58	53	49	47									
7	71	59	51	46	69	58	51	46	57	50	45	55	49	45	54	49	44	43									
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	39									
9	62	50	43	38	61	50	42	38	48	42	37	47	41	37	46	41	37	35									
10	59	47	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32									

**4000K PHOTOMETRIC DATA**  
**Luminaire Data**

Cat Logic: E2HBA150-840  
Test Report: E2HBA150-840.IES  
CCT: 4000  
Lamp Type: LED  
Lumens: 21119  
Input Watts: 153  
Efficacy: 138  
Spacing:  $0^\circ = 1.46$   $90^\circ = 1.46$

Photometric values based on tests performed in compliance with LM-79.

**Indoor Candela Plot**



**Zonal Lumen Summary**

Zone	Lumens	% Luminaire
0-30	8339	39.5
0-40	13493	63.9
0-60	18822	89.1
0-90	20756	98.3
0-180	21119	100.0

**Candlepower**

Angle	0°	90°
0	8480	8480
5	8563	8563
10	8784	8764
15	9524	9545
20	10166	10294
25	10399	10501
30	10030	10149
35	8537	8402
40	6435	6118
45	4719	4206
50	3263	2706
55	2251	1978
60	1872	1559
65	1360	1115
70	990	827
75	598	498
80	226	184
85	107	101
90	79	77

**Coefficients of Utilization**

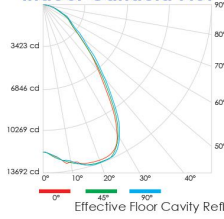
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	rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																											
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98									
1	111	107	103	100	108	104	101	99	100	97	95	96	94	92	92	90	89	87									
2	103	96	90	86	100	94	89	84	90	86	82	87	83	80	84	81	78	76									
3	95	86	79	74	93	85	78	73	81	76	72	79	74	70	76	72	69	67									
4	88	78	70	65	86	77	70	64	74	68	63	72	66	62	69	65	61	59									
5	82	71	63	57	80	70	62	57	67	61	56	65	60	55	63	59	55	53									
6	76	65	57	51	74	64	56	51	62	55	50	60	54	50	58	53	49	47									
7	71	59	51	46	69	58	51	46	57	50	45	55	49	45	54	48	44	43									
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	39									
9	62	50	43	38	61	50	42	38	48	42	37	47	41	37	46	41	37	35									
10	59	47	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32									

**4000K PHOTOMETRIC DATA**  
**Luminaire Data**

Cat Logic: E2HBA200-840  
Test Report: E2HBA200-840.JES  
CCT: 4000  
Lamp Type: LED  
Lumens: 27173  
Input Watts: 201  
Efficacy: 135  
Spacing: 0° = 1.34 90° = 1.38

Photometric values based on tests performed in compliance with LM-79.

**Indoor Candela Plot**



**Zonal Lumen Summary**

Zone	Lumens	% Luminaire
0-30	11106	40.9
0-40	17181	63.2
0-60	23978	88.2
0-90	26585	97.8
0-180	27173	100.0

**Candlepower**

Angle	0°	90°
0	11999	11999
5	12451	12367
10	12890	12912
15	13348	13483
20	13432	13655
25	13270	13526
30	12038	12465
35	9478	10351
40	7082	7820
45	5164	5819
50	3619	4294
55	2869	3093
60	2370	2548
65	1709	1911
70	1203	1318
75	661	780
80	254	310
85	141	149
90	111	111

**Coefficients of Utilization**

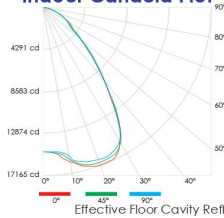
rc	80%				70%				50%				30%				10%				0%						
	rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																											
0		113	113	113	113	110	110	110	110	105	105	105	100	100	100	96	96	96	93								
1		106	102	99	96	103	100	97	94	95	93	91	91	89	88	88	86	85	83								
2		98	91	86	82	95	89	85	80	86	82	78	83	79	76	80	77	74	72								
3		91	82	76	71	88	81	75	70	78	73	68	75	71	67	72	69	66	64								
4		84	74	67	62	82	73	66	61	71	65	60	68	63	59	66	62	58	56								
5		78	68	60	55	76	67	60	54	64	58	54	62	57	53	61	56	52	50								
6		73	62	54	49	71	61	54	49	59	53	48	57	52	48	56	51	47	45								
7		68	57	49	44	66	56	49	44	54	48	43	53	47	43	51	46	43	41								
8		64	52	45	40	62	52	45	40	50	44	39	49	43	39	48	43	39	37								
9		60	48	41	36	59	48	41	36	47	40	36	45	40	36	44	39	36	34								
10		56	45	38	33	55	44	38	33	43	37	33	42	37	33	41	36	33	31								

**4000K PHOTOMETRIC DATA**  
**Luminaire Data**

Cat Logic: E2HBA240-840  
Test Report: E2HBA240-840.JES  
CCT: 4000  
Lamp Type: LED  
Lumens: 34764  
Input Watts: 246  
Efficacy: 141  
Spacing: 0° = 1.38 90° = 1.40

Photometric values based on tests performed in compliance with LM-79.

**Indoor Candela Plot**



**Zonal Lumen Summary**

Zone	Lumens	% Luminaire
0-30	13840	39.8
0-40	21905	63.0
0-60	30756	88.5
0-90	34216	98.4
0-180	34764	100.0

**Candlepower**

Angle	0°	90°
0	14694	14694
5	14900	14783
10	15966	15422
15	16758	16281
20	17101	16458
25	17008	16483
30	15713	15613
35	12856	13246
40	9734	9807
45	7056	6942
50	5013	4801
55	3566	3377
60	2987	2906
65	2195	2150
70	1556	1571
75	918	997
80	375	420
85	193	197
90	143	141

**Coefficients of Utilization**

rc	80%				70%				50%				30%				10%				0%							
	rw	70	50	30	10	70	50	30	10	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	110	110	110	105	105	105	101	101	101	98									
1		111	107	103	100	108	104	101	98	100	97	95	96	94	92	92	90	89	87									
2		102	96	90	85	100	94	88	84	90	86	82	87	83	80	83	81	78	76									
3		95	86	79	74	92	84	78	73	81	76	71	78	74	70	76	72	69	67									
4		88	78	70	64	86	76	69	64	74	68	63	71	66	62	69	65	61	59									
5		82	71	63	57	80	69	62	57	67	61	56	65	60	55	63	58	54	53									
6		76	64	56	51	74	63	56	51	62	55	50	60	54	50	58	53	49	47									
7		71	59	51	46	69	58	51	46	57	50	45	55	49	45	54	48	44	43									
8		66	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	39									
9		62	50	43	38	61	50	42	38	48	42	37	47	41	37	46	41	37	35									
10		59	47	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32									