

COOPER LIGHTING - METALUX®

DESCRIPTION

The HB LED is an outstanding value for a wide variety of applications and mounting heights. Precision designed optics, multiple distributions, lumen outputs and color temperatures make the HB LED ideal for industrial, commercial, manufacturing, gymnasium and other applications that utilize traditional HID and linear fluorescent high bays. The proprietary low-power, low-brightness LED module assembly offers exceptional optical performance, equivalent to or greater than fluorescent systems, with the enhanced benefits of LED lighting, including energy savings, extended system life, a reduced carbon footprint.

SPECIFICATION FEATURES

Construction

Full body construction is achieved with channel and end plates, along w/stiffening brackets and side rails to help create a strong, clean finished frame for this luminaire. Side rails are standard on all HBLED products.

Electrical

Long-life LED system coupled with electrical driver to deliver optimal performance. LED's available in 4000k and 5000k with a CRI ≥ 80. Projected life is 60,000 hours at 70% lumen output. cULus listed. Electronic drivers are available for 120- 277V applications. An optional 0-10V dimming driver is available.

Finish

White enamel finish preceded by a multistage cleaning cycle, iron phosphate coating with rust inhibitor to protect against contaminants and oxidation.

Optics

Precision designed optics deliver even illumination. General and aisle distribution ensures superior performance to key areas within an application.

Shielding

Door frame and lens assembly is optional for more demanding environments.

Options

Integral Occupancy Sensor available and provides from 600 sq. ft. up to 1250 sq. ft. of coverage in a maximum mounting height of 40' using interchangeable lens caps provided.

Catalog

Project

Comments

Prepared by

Type

Date

Mounting

The HBLED series is ideally suited for suspension mounting with optional wire hook and chain set, or cable mounting. Single monopoint mounting is also available with SPM tong hanger.

Compliance

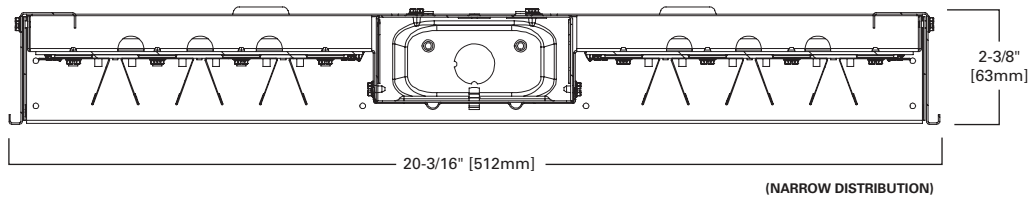
Luminaires are cULus listed for damp locations -20°C - 55°C ambient environments in open configurations with fixed output (ED option) drivers and 40°C with dimming drivers (CD option) or lensed configurations. RoHS compliant, and LED modules comply with IESNA LM-79 and LM-80 standards. DesignLights™ Consortium Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.



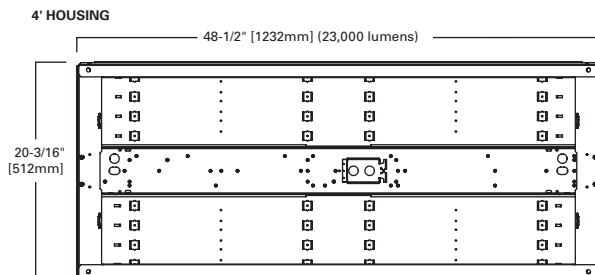
HB LED

20" X 48"
20" X 48"

LED High Bay Efficiency Luminaire



DIMENSION TOP VIEW



ENERGY DATA

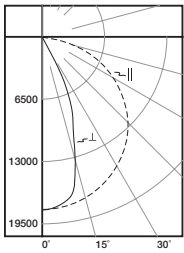
Input Watts:

10 (10,000 lumens)=102W
18 (18,000 lumens)=203W
24 (24,000 lumens)=224W
30 (30,000 lumens)=303W

LINEAR DISCONNECT

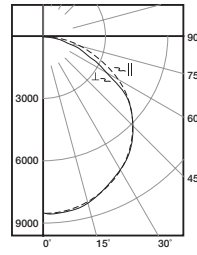
Safe and convenient means of disconnecting power

PHOTOMETRICS



HBLED-LD3-18-N-UNV-L850-ED2-U
 Fixed Output Driver
 Linear LED 5000K
 Spacing criterion:
 (II) 1.28 x mounting
 height, (⊥) 1.66 x
 mounting height
 Lumens: 20573
 Input Watts: 201.5
 Efficacy: 102 LPW
 Test Report: P23906

Candela			
Angle	Along II	45°	Across
0	17961	17961	17961
5	17807	17809	17830
10	17631	17366	16992
15	17263	16270	13322
20	16794	13398	9288
25	16196	9791	5954
30	15468	7744	4516
35	14610	4142	408
40	13636	1173	156
45	12546	391	182
50	11309	137	188
55	9994	171	174
60	8509	199	115
65	6894	180	66
70	5196	98	37
75	3490	50	47
80	1833	34	45
85	520	27	39
90	0	0	0



HBLED-LD3-24-W-UNV-L850-ED3-U
 Fixed Output Driver
 Linear LED 5000K
 Spacing criterion:
 (II) 1.3 x mounting
 height, (⊥) 1.32 x
 mounting height
 Lumens: 25078
 Input Watts: 225.4
 Efficacy: 111 LPW
 Test Report: P23964

Candela			
Angle	Along II	45°	Across
0	8518	8518	8518
5	8456	8483	8517
10	8373	8408	8459
15	8217	8270	8322
20	8016	8064	8099
25	7743	7795	7834
30	7404	7467	7477
35	7012	7089	7093
40	6574	6647	6639
45	6066	6147	6136
50	5497	5580	5567
55	4866	4949	4937
60	4176	4259	3546
65	3418	3424	2537
70	2575	2226	1855
75	1733	1315	989
80	939	530	290
85	311	143	154
90	0	0	0

Coefficients of Utilization

rc	Effective floor cavity reflectance												20%
	80%				70%				50%				0%
	70	50	30	10	70	50	30	10	50	30	10	50	
RCR	70	50	30	10	70	50	30	10	50	30	10	50	0
0	119	119	119	119	116	116	116	116	111	111	111	106	100
1	112	108	105	102	109	106	103	101	102	100	97	98	90
2	104	98	93	89	102	96	92	88	93	89	86	90	80
3	98	90	83	78	95	88	82	78	85	81	76	83	72
4	91	82	75	70	89	81	75	70	79	73	69	77	65
5	86	76	69	63	84	75	68	63	73	67	62	71	60
6	81	70	63	58	79	69	62	58	68	62	57	66	55
7	76	65	58	53	75	64	58	53	63	57	53	62	50
8	72	61	54	49	70	60	53	49	59	53	49	58	47
9	68	57	50	45	67	56	50	45	55	49	45	54	43
10	64	53	47	42	63	53	47	42	52	46	42	51	40

Zonal Lumen Summary

Zone	Lumens	%Fixture
0-30	10995	53.4
0-40	14707	71.5
0-60	18975	92.2
0-90	20573	100.0
0-180	20573	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	28620	892	415
55	28106	481	489
65	26313	687	252
75	21751	312	293
85	9624	500	722

Coefficients of Utilization

rc	Effective floor cavity reflectance												20%
	80%				70%				50%				0%
	70	50	30	10	70	50	30	10	50	30	10	50	
RCR	70	50	30	10	70	50	30	10	50	30	10	50	0
0	119	119	119	119	116	116	116	116	111	111	111	106	100
1	109	105	100	97	106	102	99	95	98	95	92	94	85
2	99	91	85	79	97	89	83	78	86	81	76	83	71
3	91	80	72	66	88	78	71	65	76	69	64	73	59
4	83	71	62	55	80	70	61	55	67	60	54	65	51
5	76	63	54	48	74	62	54	47	60	52	47	58	44
6	70	57	48	41	68	56	47	41	54	46	41	52	38
7	65	51	43	36	63	51	42	36	49	41	36	48	33
8	60	47	38	32	59	46	38	32	45	37	32	44	30
9	56	43	35	29	55	42	34	29	41	34	29	40	27
10	53	40	32	26	52	39	31	26	38	31	26	37	24

Zonal Lumen Summary

Zone	Lumens	%Fixture
0-30	6750	26.9
0-40	11187	44.6
0-60	20289	80.9
0-90	25079	100.0
0-180	25079	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	13838	14023	13998
55	13685	13918	13884
65	13046	13069	9683
75	10801	8196	6164
85	5756	2647	2850

Modular F-Bay Power Supply Option

Cooper Lighting's F-Bay Modular Power Supply option is available for use with all F-Bay products. The modular power supply allows external fixture access for safe and easy servicing. There is no need to remove lamps or reflectors to disconnect fixture power with F-Bay Modular Power Supply. Access to the individual fixture's power supply allows servicing without turning off all the fixtures, disrupting occupants. F-Bay Modular Power Supply is a time saver in installation – **simply plug & power.**



1. Modular Power Supply Receptacle supplied mounted into fixture Access Plate
2. Modular Power Cord & Plugs in 120, 277, 347, & 480V configurations for easy plug & power into existing supply

No internal fixture access required for installation or disconnecting power

Modular Motion Sensor Option supplied with Mounting Box and Modular Power Supply Receptacle

Code Compliance

- UL/cUL Certified for Make/Break under load (UL2549)
- Meets NEC requirements for ballast disconnect (NEC 410.73G)
- Allows for addition of Occupancy Sensor without hard connections
- Receptacles complete with insulating/dust cap

ORDERING INFORMATION

SAMPLE NUMBER: HBLEDD-LD3-18-W-UNV-L850-ED2-U

Includes V Hangers for rapid installation

Series⁽⁸⁾ HBLED=LED High Bay Linear	Voltage⁽¹⁾ 120V=120 Volt 277V=277 Volt 347V=347 Volt^{(6), (10)} 480V=480 Volt^{(6), (10)} UNV=Universal Voltage 120/277 UNC=Universal Voltage 347/480⁽⁶⁾	Driver Type CD=0-10V Dimming Driver ED=Electronic Fixed Output Driver 5LTD=Dali Fifth Light^{(9), (7)}	Options MP=Modular Power Receptacle (used for all Cord or Cord and Plug options)⁽⁸⁾ MS=360° or 180° motion sensor installed, 120V through 277V⁽²⁾	Packaging U=Unit Pack PALC=Job Pack In Carton
Lamp Type LD3=LED 3.0	Options⁽⁵⁾ Emergency EL=Emergency Installed, 700 lumens⁽¹⁾ EL14=Emergency Installed, 1400 lumens^{(1), (4)}	Number of Drivers 1=1 Driver (10,000 lumen version) 2=2 Drivers (18,000 lumen version) 3=3 Drivers (24,000 and 30,000 lumen versions)		
LED Lumen Output 10=10,000 Lumens 18=18,000 Lumens 24=24,000 Lumens⁽⁷⁾ 30=30,000 Lumens⁽¹³⁾	Lamps Installed L840=4000K L850=5000K	Accessories (order separately) HBL-SPM=Single Monopoint Hanger w/Hub RH-1=Retrofit Hanger FH-1=Fixture Hook FL-1=Fixture Loop Y-TOGGLE=Y Mounting Toggle, #2 Cable (Specify 10' or 30") HBAYC-CHAIN/SET/U=(2) V-Hook Hangers, 36" Chain Sets w/S-Hooks MPC3=3' Modular Power Cord & Plug (Specify Voltage) MC6=6' Modular Power Cord MPC6=6' Modular Power Cord & Plug (Specify Voltage) MMS=360° or 180° Aisle Motion Sensor with Modular Power Receptacle (120-277V) WG/HBL6-4FT-B=Field Installable, Wireguard for HBLED⁽¹²⁾		
Distribution N=Narrow (Aisle) W=Wide (General)				
Shielding [Blank]=None WG=Wireguard A=Prismatic Acrylic Lens & Doorframe^{(8), (11)} CL=Clear Acrylic Lens & Doorframe^{(8), (11)} A/WG=Acrylic Lens, Wireguard & Doorframe^{(8), (11)} CL/WG=Clear Lens, Wireguard & Doorframe^{(8), (11)} AI=Prismatic Acrylic Lens Insert⁽⁸⁾ CLI=Clear Acrylic Lens Insert⁽⁸⁾ POLY125/WG=Polycarbonate Lens, Wireguard and Doorframe^{(8), (11)}				

NOTES: ⁽¹⁾ Voltage must be specified when ordered with plugs or emergency drivers. ⁽²⁾ When ordering MS option, specify as UNV (for 120 or 277V), 347 or 480V. ⁽³⁾ Requires use of MC or MPC cord accessories, specify voltage for plugs (MP). ⁽⁴⁾ Not available in 347V. ⁽⁵⁾ EM options limited to 40C ambient. ⁽⁶⁾ Not available with dual switching. ⁽⁷⁾ Lumens output will vary depending on dimming or fixed output drivers refer to IES files for delivered lumens. ⁽⁸⁾ Rated for 40°C ambient. ⁽⁹⁾ DesignLights™ Consortium Qualified (some models are not DLC qualified). Refer to www.designlights.org Qualified Products List under Family Models for a complete listing. ⁽¹⁰⁾ EM options not available with 30,000 lumen configuration at 347V or 480V. ⁽¹¹⁾ Not available with 30,000 lumen configuration. ⁽¹²⁾ Not available with lens insert options AI and CI. ⁽¹³⁾ Not available with 5LTD driver option.

Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Representative for availability and ordering information.

SHIPPING DATA

Catalog No.	Wt.
HBLED-LD3-10	19 lbs.
HBLED-LD3-18	22 lbs.
HBLED-LD3-24	24 lbs.
HBLED-LD3-30	24 lbs.