HBL-20

LED Linear Low Bay / High Bay

Project

Catalog

Type

Date

Product Description

The HBL LED Linear Low Bay/High Bay provides a lumen package that is ideal for replacing metal halide and linear fluorescent low bay systems. With output greater than 135 lumens per watt, this energy-efficient and economical fixture offers high performance and long life, excellent color rendering, and even uniformity. The HBL is available in 4000K and 5000K color temperatures and has suggested mounting heights from 15ft to 80ft, making it an ideal solution for warehouses, gymnasiums, garages and other storage areas, commercial and manufacturing facilities, as well as open and stack aisle applications.

Construction

- Durable steel construction with powder coat finish
- Vented steel housing provides thermal management through natural convection
- Top mounted wireway cover for easy wire access
- Offers four power level categories 110W, 162W, 223W, 321W
- Rated for use in damp locations.

Optical System

- Clear acrylic lens protects LEDs and provides optimal lumen output
- Frosted acrylic lens also available

Electrical

- Long-life LED system coupled with electrical driver to deliver optimal performance with over 135 lumens per watt with clear lens
- Utilizes advanced LED technology with CCT of 4000K and 5000K with >80 CRI
- Operating temperature rating of 0ºF to 104ºF (-18ºC to 40ºC)
- 10kA surge protection standard
- Input voltage of 120-277V
- 347-480V input option available
- Dimming: 0-10V standard
- DLC Premium Qualified

Mounting and Installation

- V-hook and chain mounting system included
- Optional pendant mount kit available
- Motion Sensor options available
- Six foot cord or FMC option available
- Wireguard option available for increased fixture protection
- Not for direct surface mount, a minimum of 3" from surface to driver cover.
- For installations where power surge may be possible, NICOR recommends installing additional surge protection at the fixture or electrical distribution panel

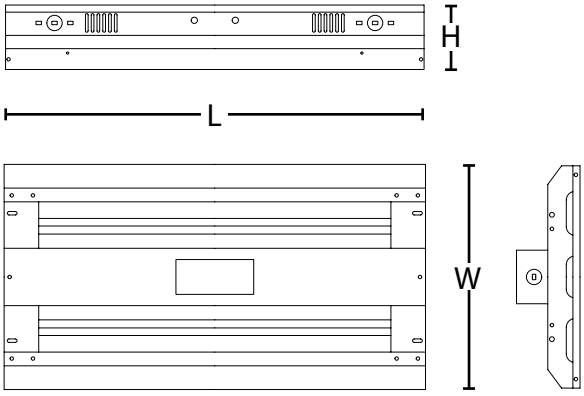
Warranty

- 5-year limited system warranty standard
- Warranty does not cover product failure due to an overvoltage event (power surge)
- TM-21 Projected L70 (9K) life > 122,000 hours
- LM-79, LM-80 testing performed in accordance with IESNA standards

Shown with optional frosted diffuser, wireguard and pendant kit

Product Measurements

	HBL-110W 50K	HBL-162W 50K	HBL-223W 50K	HBL-321W 50K
Length:	23.8 in. (605mm)	23.8 in. (605mm)	46 in. (1166mm)	46 in. (1166mm)
Width:	12.6 in. (320mm)	17.3 in. (440mm)	12.6 in. (320mm)	17.3 in. (440mm)
Height:	3.6 in. (92mm)	3.6 in. (92mm)	3.6 in. (92mm)	3.6 in. (92mm)



DLC PREMIUM · c UL us LISTED · DAMP LOCATION RATED · 5 YEAR WARRANTY

Photometric Data

HBL-20 110W 5000K

Input Voltage (VAC)	120-277
System Level Power (W)	110
Delivered Lumens (Lm)	14850
System Efficacy (Lm/W)	135
Correlated Color Temp (K)	5237
Color Rendering Index (CRI)	83
Total Harmonic Distortion	10%
Power Factor	>0.90
Beam Angle	112°
Spacing Criteria	1.30
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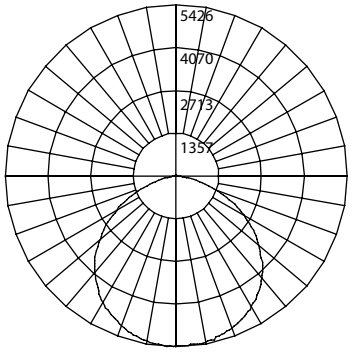


Intensity Summary (Candle Power)

Angle	Mean CP
0	5426
5	5408
15	5264
25	4949
35	4491
45	3781
55	2857
65	1699
75	624
85	52
90	10

CCT Data Multiplier

HBL-20-110W-UNV-40K	0.993

Diffused Lens Multiplier

HBL-20-110-FROS-DIFU	0.97

Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	23.95	44.48
17	18.65	50.41
20	13.47	59.30
23	10.19	68.20
25	8.62	74.13
28	6.87	83.02
30	5.98	88.95

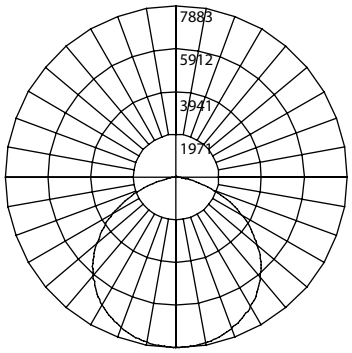
Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	4250	28.6%
0-40	7033	47.4%
0-60	12421	83.6%
0-90	14798	99.7%
90-180	51	0.3%
0-180	14850	100%

Fixture tested per LM-79-08. Photometric data is of the performance of a representative fixture. Results may vary in the field.

5000K 162W HBL-20

Luminaire	5000K
Input Voltage (VAC)	120
System Level Power (W)	162
Delivered Lumens* (Lm)	21870
System Efficacy (Lm/W)	135
Correlated Color Temp (K)	5159
Color Rendering Index (CRI)	83
Total Harmonic Distortion	10%
Power Factor	>0.90
Beam Angle	113°
Spacing Criteria	1.30



Intensity Summary (Candle Power)

Angle	Mean CP
0	7883
5	7865
15	7645
25	7187
35	6515
45	5515
55	4169
65	2554
75	971
85	65
90	11

CCT Data Multiplier

HBL-20-162W-UNV-40K	0.993

Diffused Lens Multiplier

HBL-20-162-FROS-DIFU	0.97

Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	34.92	44.48
17	27.19	50.41
20	19.65	59.30
23	14.85	68.20
25	12.57	74.13
28	10.02	83.02
30	8.73	88.95

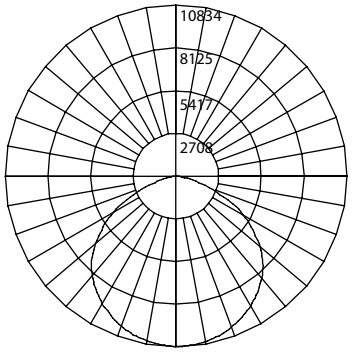
Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	6198	28.3%
0-40	10257	46.9%
0-60	18173	83.1%
0-90	21807	99.7%
90-180	63	0.3%
0-180	21870	100.0%

Fixture tested per LM-79-08. Photometric data is of the performance of a representative fixture. Results may vary in the field.

5000K 223W HBL-20

Luminaire	5000K
Input Voltage (VAC)	120
System Level Power (W)	223
Delivered Lumens* (Lm)	30105
System Efficacy (Lm/W)	135
Correlated Color Temp (K)	5220
Color Rendering Index (CRI)	83
Total Harmonic Distortion	10%
Power Factor	>0.90
Beam Angle	111°
Spacing Criteria	1.30



Intensity Summary (Candle Power)

Angle	Mean CP
0	10834
5	10794
15	10491
25	9871
35	8973
45	7609
55	5808
65	3497
75	1322
85	108
90	16

CCT Data Multiplier

HBL-20-223W-UNV-40K	0.993

Diffused Lens Multiplier

HBL-20-223-FROS-DIFU	0.97

Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	48.07	44.48
17	37.43	50.41
20	27.04	59.30
23	20.45	68.20
25	17.31	74.13
28	13.80	83.02
30	12.02	88.95

Zonal Lumen Summary

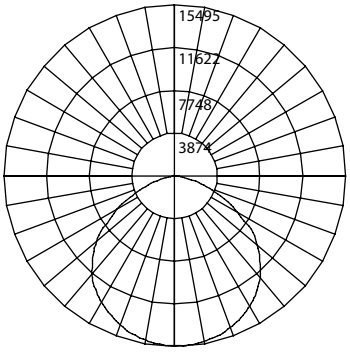
Zone	Lumens	% of Luminaire
0-30	8523	28.3%
0-40	14114	46.9%
0-60	25085	83.3%
0-90	30024	99.7%
90-180	82	0.3%
0-180	30105	100.0%

Fixture tested per LM-79-08. Photometric data is of the performance of a representative fixture. Results may vary in the field.

Ordering Information

5000K 321W HBL-20

Luminaire	5000K
Input Voltage (VAC)	120
System Level Power (W)	321
Delivered Lumens* (Lm)	43335
System Efficacy (Lm/W)	135
Correlated Color Temp (K)	5141
Color Rendering Index (CRI)	83
Total Harmonic Distortion	10%
Power Factor	>0.90
Beam Angle	112°
Spacing Criteria	1.30



Intensity Summary (Candle Power)

Angle	Mean CP
0	15495
5	15456
15	15014
25	14144
35	12841
45	10894
55	8325
65	5114
75	1965
85	154
90	23

CCT Data Multiplier

HBL-20-321W-UNV-40K	0.993

Diffused Lens Multiplier

HBL-20-321-FROS-DIFU	0.97

Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	68.47	44.48
17	53.31	50.41
20	38.52	59.30
23	29.12	68.20
25	24.65	74.13
28	19.65	83.02
30	17.12	88.95

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	12157	28.1%
0-40	20129	46.4%
0-60	35831	82.7%
0-90	43221	99.7%
90-180	114	0.3%
0-180	43335	100%

Fixture tested per LM-79-08. Photometric data is of the performance of a representative fixture. Results may vary in the field.

Performance Data

Model Number	Lumens	Watts	Lumens/Watt
HBL-20-110W-UNV-40K	14746	110	134
HBL-20-110W-UNV-50K	14850	110	135
HBL-20-162W-UNV-40K	21717	162	134
HBL-20-162W-UNV-50K	21870	162	135
HBL-20-223W-UNV-40K	29894	223	134
HBL-20-223W-UNV-50K	30105	223	135
HBL-20-321W-UNV-40K	43032	321	134
HBL-20-321W-UNV-50K	43335	321	135

Recommended Dimmers*

Lutron NTSTV

Lutron DVSTV

Cooper SF10P

Legrand RH4FBL3PW

**Not a complete list. Check compatibility before installation.*

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Ordering Information

Example: HBL-20-162W-HV-50K-DMF

Series	Version	Wattage	Voltage	CCT	Lens	Motion Sensor (Factory Install)	Emergency	Wiring Options	Field - Installed Plug Options*
HBL	20	☐ **110W**	☐ **MV** (120-277V)	☐ **40K** (4000K)	☐ (Blank) Clear	☐ (Blank) No Motion Sensor	☐ (Blank) No Emergency Backup	☐ (Blank) No Cord	☐ (Blank) No Plug
		☐ **162W**	☐ **HV** (347-480V)	☐ **50K** (5000K)	☐ **D** Diffused	☐ **M** PIR Sensor	☐ **E3** EMB250 Battery	☐ **C** [1] Cord	☐ **1** (515P) 15 amp 120V Straight Blade Plug
		☐ **223W**				☐ **W** Microwave Sensor		☐ **F** Flexible Metal Conduit	☐ **2** (L515P) 15 amp 120V Twist Lock Plug
		☐ **321W**							☐ **3** (L615P) 15 amp 240V Twist Lock Plug
									☐ **4** (L720P) 20 amp 277V Twist Lock Plug
									☐ **5** (L2420P) 20 amp 347V Twist Lock Plug
									☐ **6** (L820P) 20 amp 480V Twist Lock Plug
									☐ **7** (L715P) 15 amp 277V Twist Lock Plug

1 Plug option requires cord wiring option
** Will be provided in box. Plug not available on emergency enabled fixtures*
Specifications and dimensions subject to change without notice.

Wireguard Accessories*

Wireguard for 110W HBL	HBL-10-100-WG
Wireguard for 162W HBL	HBL-10-150-WG
Wireguard for 223W HBL	HBL-10-200-WG
Wireguard for 321W HBL	HBL-10-320-WG

Lens Accessories*

HBL 110W Frosted Diffuser	HBL-20-110-FROS-DIFU
HBL 162W Frosted Diffuser	HBL-20-162-FROS-DIFU
HBL 223W Frosted Diffuser	HBL-20-223-FROS-DIFU
HBL 321W Frosted Diffuser	HBL-20-321-FROS-DIFU

Pendant Kit*

Pendant Kit for HBL	HBL-10-PENDANT
Pendant for High Voltage Option	HBL-10-HV-PENDANT

Motion Sensors*

Microwave Motion Sensor	MWOS360
Infrared Motion Sensor	HBOS360WH

**HBL-20 is a version upgrade and accessories will use the current part number for ease of transition*