

# HBG1

## LED Linear Low Bay/High Bay

### Product Description

The HBG1 LED Linear Low Bay/High Bay provides exceptional quality and energy efficiency with up to 180 lumens per watt. The HBG1 is the solution for a wide variety of applications including warehousing, manufacturing, gymnasiums, manufacturing facilities and other large scale spaces. With precision designed optics available in multiple distributions, a choice of lumen outputs and two color temperatures, the HBG1 is the ideal solution for all areas of your application. The rectangular Aisle optic illumination pattern fits aisles perfectly, reducing the overall number of fixtures required. Suggested mounting heights are from 15ft up to 50ft and floor plans of open and/or stack aisle applications.

#### Construction

- Durable steel construction with powder coat finish
- Vented steel housing provides thermal management through natural convection
- Front mounted wireway cover for easy wire access
- Wireway cover is captured and attached with a cable to the housing for easy wiring
- Rated for use in damp locations

#### Optical System

- Three optical systems to choose from: Aisle Optic, Diffuse Lens and No Lens
- Precision injection molded Aisle Optic provides exceptional illumination for aisle warehouse applications with a rectangular luminous shape
- For maximum efficiency the HBG1 is also available with a No Lens option

#### Electrical

- Utilizes advanced LED technology with CCT of 4000K and 5000K with 70 or 80 CRI
- Operating temperature rating of -4°F to 122°F (-20°C to 50°C) when mounted minimum 18" from ceiling
- Input voltage of 120-277V, standard
- Power factor >0.9 PF
- Industry leading 10kA surge protection standard, per ANSI C82.77-5-2015
- Dimming: 0-10V standard, dimming down to 10% or less with specified dimmers
- Available with a PIR sensor option to meet ASHRAE 90.1 energy efficiency requirements
- Available with optional microwave sensor
- NLC (Network Lighting Controls)
- Bluetooth Low Energy (BLE) mesh network providing Luminaire Level Lighting Control
- Field installable BLE PIR/Daylight sensor (NLCIND) available
- Configurable with the NICOR NLC app available on iOS and Android devices
- Provides full dimming control with occupancy and daylight harvesting functions
- All EM packs certified per CA Title 20

#### Mounting and Installation

- Suspension mount with 10' aircraft cable is standard
- Optional pendant mount kit available
- Motion Sensor options available
- Six and Ten foot cord and Six foot FMC option available
- Wireguard accessory available for increased fixture protection
- To maintain ambient temperature rating, fixture should be mounted at a minimum 18" from the ceiling
- 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)

#### Listings

- UL and cUL 1598 listed for damp location
- DLC 5.1 Premium Listed for Aisle and Diffuse models
- ASHRAE 90.1 compliance when specified with P sensor option
- Lifetime : L88 at 60,000 hours, L70 > 160,000
- LM-79, LM-80 testing performed in accordance with IESNA standards

Project

Catalog

Type

Date



**HBG1**  
**LED Linear Low Bay/High Bay**  
16,000/23,000/33,000 Lumen  
4000K and 5000K  
70 or 80 CRI



# HBG1

## LED Linear Low Bay / High Bay

Ordering Information										Example: HBG123U508A
Series	Lumens	Voltage	CCT	CRI	Lens	Sensor	Emergency	Wiring Options	Field Installed Plug Options <sup>7</sup>	
HBG1	16 (16,000 lm, 102W)	U (120-277V)	40 (4000K)	7 (70+) <sup>1</sup>	A (Aisle)	(Blank) No Sensor	(Blank) No Backup	(Blank) No Cord	(Blank) No Plug	
	23 (23,000 lm, 145W)	H (347-480V)	50 (5000K)	8 (80+)	D (Diffuse) <sup>2</sup>	P (HB011-PDX)	E3 (EMB250) <sup>4</sup>	C6 (6 ft cord) <sup>5</sup>	1 (515P) 15 amp 120V Straight Blade Plug	
	33 (33,000 lm, 204W)				N (No lens) <sup>3</sup>	R (MWOS360R)		C10 (10 ft cord) <sup>5</sup>	2 (L515P) 15 amp 120V Twist Lock Plug	
								F6 (6 ft Flexible Metal Conduit) <sup>6</sup>	3 (L615P) 15 amp 250V Twist Lock Plug	
									4 (L715P) 15 amp 277V Twist Lock Plug	
									5 (L720P) 20 amp 277V Twist Lock Plug	
									6 (L2320P) 20 amp 347V Twist Lock Plug	
									7 (L820P) 20 amp 480V Twist Lock Plug	

Specifications and dimensions subject to change without notice.

1. Consult factory. May have extended lead times or MOQ.

2. If field modification is required, diffuse lens will snap over 'A' aisle lens or 'N' no lens options.

3. 'N' (No lens) option is not DLC5.1 Qualified.

4. The EMB400 is only available as an accessory providing up to 40W of illumination. The EMB400 hangs above the luminaire and has an integral junction box for wiring. Only available with 120-277V. See EMB400 spec sheet for complete information.

5. Cord is 18/5 wire, 6' or 10' long, black. Other lengths available upon request.

6. Flexible metal conduit is 6' long, 18/5 wire configuration. Other lengths available upon request.

7. Field installed plugs are placed inside the carton for field attachment only. Plug not available with emergency enabled fixtures.

### Wireguard Accessories

Wireguard for 16,000lm	HBG116WG
Wireguard for 23,000lm	HBG123WG
Wireguard for 33,000lm	HBG133WG

### Pendant Kit

Pendant Kit for all models	HBG1PEDNDANTKIT
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### Sensors Accessories *(see page 5 for more information)*

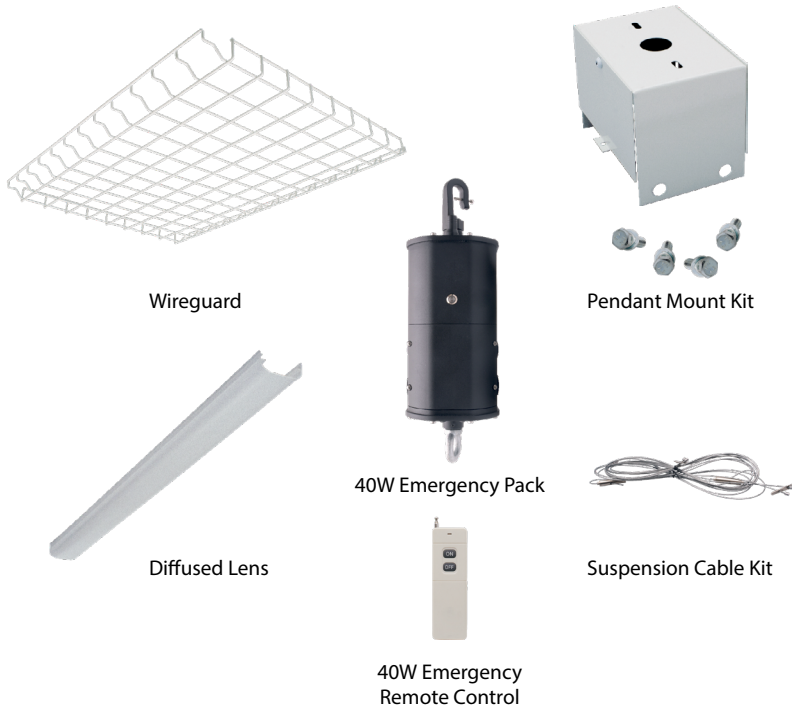
PIR Dimming Sensor w/Daylighting	HB011-PDX
Microwave Motion Sensor	MWOS360R
Remote Control for MWOS360R	MWOS-REMOTE
NLC Bluetooth Sensor	NLCIND

### Emergency Accessories

40W Emergency Pack	EMB4001UNVBK <sup>4</sup>
40W Emergency Remote Control	EMB4001REMOTE

### Replacement Parts

Diffuse Lens for 16,000lm	HBG1DIFFLENS2 <sup>2</sup>
Diffuse Lens for 23,000/33,000lm	HBG1DIFFLENS4 <sup>2</sup>
Aisle Lens for all models	HBG1AISLELENS
Suspension Cable Kit (2 piece)	TOGGLECABLEKIT
Gripple Suspension Cable (1 piece)	YHF2-HG-10FT-460MM



## Performance Data

Normal Operation 80 CRI				Emergency	
Model Number	Lumens	Watts	Lumens/Watt	E3 Lumens	E4 Lumens
HBG116U408A	16325	101.6	160.7	4018	6428
HBG116U408D	15684	101.6	154.4	3860	6176
HBG116U408N	17378	101.6	171.0	4275	6840
HBG116U508A	16371	101.6	161.1	4028	6444
HBG116U508D	15794	101.6	155.5	3888	6220
HBG116U508N	17515	101.6	172.4	4310	6896
HBG123U408A	23266	145.3	160.1	4003	6404
HBG123U408D	22499	145.3	154.8	3870	6192
HBG123U408N	24654	145.3	169.7	4243	6788
HBG123U508A	23326	145.3	160.4	4030	6448
HBG123U508D	22663	145.3	156.0	3900	6240
HBG123U508N	24813	145.3	170.8	4270	6832
HBG133U408A	32854	204.4	160.7	4018	6428
HBG133U408D	32231	204.4	157.7	3943	6308
HBG133U408N	35268	204.4	172.5	4313	6900
HBG133U508A	33219	204.4	162.5	4063	6500
HBG133U508D	32396	204.4	158.5	3963	6340
HBG133U508N	35446	204.4	173.4	4335	6936

Normal Operation 70 CRI				Emergency	
Model Number	Lumens	Watts	Lumens/Watt	E3 Lumens	E4 Lumens
HBG116U407A	16771	101.6	165.1	4128	6604
HBG116U407D	16090	101.6	158.4	3960	6336
HBG116U407N	17954	101.6	176.7	4418	7068
HBG116U507A	16818	101.6	165.5	4138	6620
HBG116U507D	16203	101.6	159.5	3988	6380
HBG116U507N	18095	101.6	178.1	4453	7124
HBG123U407A	23918	145.3	164.6	4115	6584
HBG123U407D	23315	145.3	160.5	4013	6420
HBG123U407N	25797	145.3	177.5	4438	7100
HBG123U507A	24073	145.3	165.7	4143	6628
HBG123U507D	23485	145.3	161.6	4040	6464
HBG123U507N	25963	145.3	178.7	4468	7148
HBG133U407A	33727	204.4	165.0	4125	6600
HBG133U407D	32731	204.4	160.1	4003	6404
HBG133U407N	35970	204.4	176.0	4400	7040
HBG133U507A	34102	204.4	166.8	4170	6672
HBG133U507D	32899	204.4	161.0	4025	6440
HBG133U507N	36152	204.4	176.9	4423	7076

Lumens v. Ambient Temperature		
Ambient °C	Ambient °F	Lumen Multiplier
-20	-4	1.05
-15	5	1.04
-10	14	1.04
-5	23	1.03
0	32	1.03
5	41	1.03
10	50	1.02
15	59	1.01
20	68	1.00
25	77	1.00
30	86	0.99
35	95	0.99
40	104	0.98
45	113	0.97
50	122	0.96

Ambient Temperature Ratings		
Model Number	Normal	EM
HBG116U	50°C	45°C
HBG123U		
HBG133U		

Projected Lumen Maintenance	
Operating Hours	Maintenance Factor
0	1
15,000	0.97
30,000	0.94
45,000	0.91
60,000	0.88
100,000	0.80

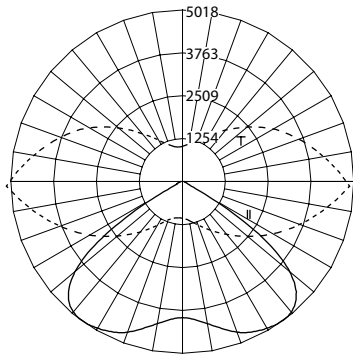
# HBG1

## LED Linear Low Bay / High Bay

### Photometric Data

#### HBG123U508A

Input Voltage (VAC)	120-277
System Level Power (W)	145
Delivered Lumens (Lm)	23326
System Efficacy (Lm/W)	160.4
Correlated Color Temp (K)	5000
Color Rendering Index (CRI)	80
Total Harmonic Distortion	<20%
Power Factor	>0.9
Beam Angle (H)	116°
Beam Angle (T)	49°
Spacing Criteria (H)	0.62
Spacing Criteria (T)	1.88



#### Cone of Light Tabulation

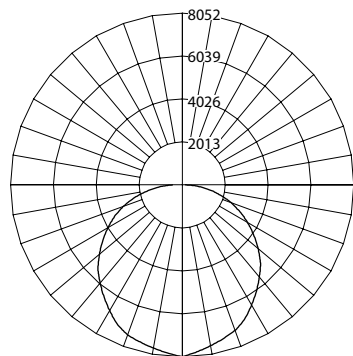
Mounted height (Feet)	Footcandles Beam Center	Length (Feet)	Width (Feet)
15	22.6	48.0	13.7
17	17.6	54.4	15.5
20	12.8	64.0	18.2
23	9.6	73.6	21.0
25	8.2	80.0	22.8
28	6.5	89.6	25.5
30	5.7	96.0	27.3

#### Data Multiplier

	4000K		5000K	
	70CRI	80CRI	70CRI	80CRI
HBG116U	0.716	0.697	0.718	0.699
HBG123U	1.021	0.994	1.028	1.000
HBG133U	1.440	1.403	1.456	1.419

#### HBG123U508D

Input Voltage (VAC)	120-277
System Level Power (W)	145
Delivered Lumens (Lm)	22663
System Efficacy (Lm/W)	156
Correlated Color Temp (K)	5000
Color Rendering Index (CRI)	80
Total Harmonic Distortion	<20%
Power Factor	>0.9
Beam Angle (H)	102°
Beam Angle (T)	117°
Spacing Criteria (H)	1.20
Spacing Criteria (T)	1.26



#### Cone of Light Tabulation

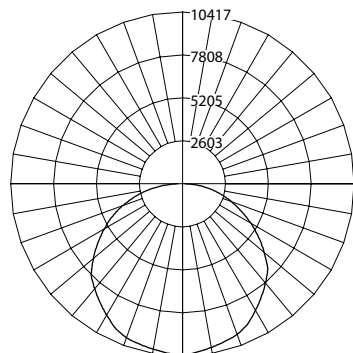
Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	34.6	37.0
17	26.9	42.0
20	19.5	49.4
23	14.7	56.8
25	12.5	61.7
28	9.9	69.2
30	8.7	74.1

#### Data Multiplier

	4000K		5000K	
	70CRI	80CRI	70CRI	80CRI
HBG116U	0.710	0.692	0.715	0.697
HBG123U	1.029	0.993	1.036	1.000
HBG133U	1.444	1.422	1.452	1.429

#### HBG123U508N

Input Voltage (VAC)	120-277
System Level Power (W)	145
Delivered Lumens (Lm)	24813
System Efficacy (Lm/W)	171
Correlated Color Temp (K)	5000
Color Rendering Index (CRI)	80
Total Harmonic Distortion	<20%
Power Factor	>0.9
Beam Angle (H)	117°
Beam Angle (T)	117°
Spacing Criteria (H)	1.30
Spacing Criteria (T)	1.30



#### Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	37.2	49.0
17	28.9	55.5
20	20.9	65.3
23	15.8	75.1
25	13.4	81.6
28	10.7	91.4
30	9.3	97.9

#### Data Multiplier

	4000K		5000K	
	70CRI	80CRI	70CRI	80CRI
HBG116U	0.742	0.700	0.729	0.706
HBG123U	1.040	0.994	1.046	1.000
HBG133U	1.450	1.421	1.457	1.429

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

## Dimmers, Sensors and Controls

### Recommended Dimmers\*

Lutron NTSTV  
Lutron DVSTV  
Cooper SF10P  
Legrand RH4FBL3PW

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

### PIR Dimming Sensor - HB011-PDX

See the individual spec sheet for further information

- Auto Calibration for daylighting, easy ladderless configuration
- Integrated photocell
- Adjustable time delay
- 0-10V dimming
- Adjustable PIR sensitivity
- Daylighting configuration
- Visual LED indications for easy troubleshooting
- 360 degree field-of-view for 20' - 40' High Bay mounting heights
- 360 degree field-of-view for 8' to 20' Low Bay mounting heights
- ASHRAE 90.1 compliant
- Available as an accessory or an option installed at the factory



### Microwave Motion Sensor - MWOS360R

See the individual spec sheet for further information

- Microwave motion detector with built in daylight sensor
- Self contained relay, no power pack required
- Compatible with Electronic & Magnetic Ballasts, CFL, LED and Incandescent loads
- No minimum load requirement
- Remote and DIP switch programmable, additional setting options with remote handheld to adapt different installation environment and applications
- Highly configurable: Detection Area, Time Delay, Daylight
- Threshold, Dimming Level, Stand-by Period
- IP65 Rated
- Available with a remote control sold separately MWOS-REMOTE



### NLC Control Option

- Bluetooth Low Energy (BLE) mesh network providing Luminaire Level Lighting Control (LLLC)
- Field installable BLE PIR/Daylight sensor (NLCIND) available
- Configurable with the NICOR NLC app available on iOS and Android devices
- Provides full dimming control with occupancy and daylight harvesting functions
- See [www.nicorlighting.com/network-lighting-controls](http://www.nicorlighting.com/network-lighting-controls) for more information and NLC Component Data Sheets

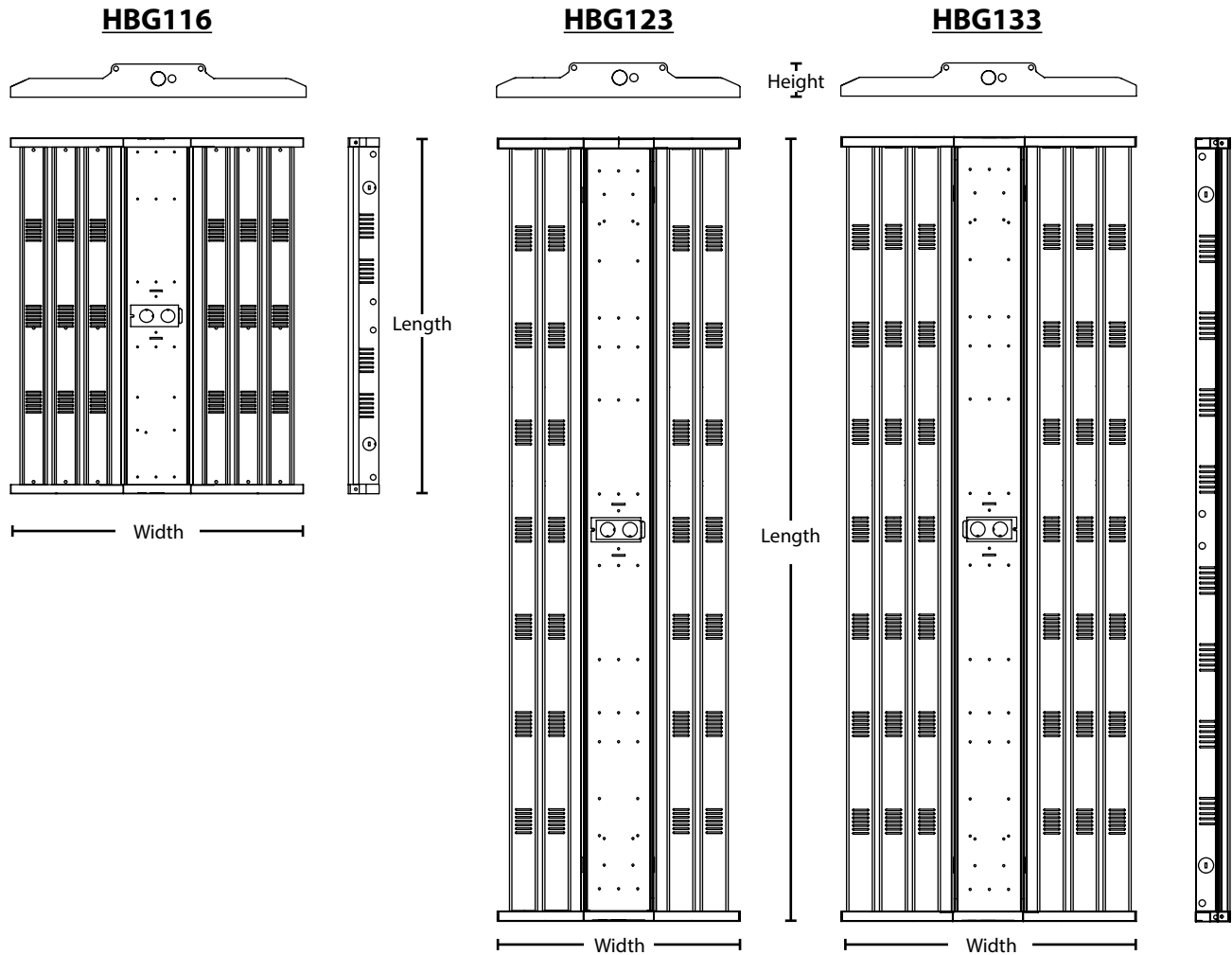


### Modular Wiring System

NICOR's modular power supply system for lighting control and power distribution provides advantages for contractors and facility managers. The flexible system not only reduces installation time but saves time for maintenance and future renovations for any space. The plug-n-play system quickly snaps together and offers a selection of drop boxes, fixture drops and cables. Contact NICOR today for more information.

# Dimensions

	HBG116	HBG123	HBG133
<b>Length</b>	24.8" (630 mm)	48.2" (1224 mm)	
<b>Width</b>	18.9" (480 mm)	15.0" (380 mm)	18.9" (480 mm)
<b>Height</b>	2.2" (55mm)		
<b>Weight</b>	15.0 lbs (6.8 kg)	16.5 lbs (7.5 kg)	18.3 lbs (8.3 kg)



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.