

Project:		Catalog #:		Type:	
Preparer:		Notes:		Date:	



**SOLID STATE
LIGHTING
INC.**

HB Series

ECO Round High Bay

17,651 - 29,756 Lumens | 175-400W HID Equivalent

Project Applications

Retrofit, New Construction, Commercial, Industrial, Warehouse, Manufacturing, Big Box Retail, General Open Spaces



*120W/150W fixtures shown (drop reflectors & yoke accessories are ordered separately)



PRODUCT OVERVIEW

ETI SSL's HB ECO Round High Bay Series combines a robust and durable die-cast design with excellent performance (17,651 - 29,756 lumen packages available @ up to 148 LPW) It is an ideal design solution with its universal round form factor for many new construction and retrofit commercial and industrial applications. Our products are engineered using the latest innovative LED technologies to provide the perfect mix of modern design, performance, world class quality and reliability. All at a superior value to the designer, specifier, contractor and end-user.

The HB series is rated IP65 to minimize environmental impact from contaminants like dust and bugs to maximize photometric performance over the lifetime of the luminaire. Our extremely efficient optical system qualifies for DLC Premium for superior energy savings and can qualify for maximum energy rebate opportunities. The HB series delivers a performance first uniform light distribution optimized for most general open space applications. Optional secondary drop prismatic and aluminum reflectors are available for additional design flexibility. Each fixture includes an optional diffusing lens filter that can be easily installed to help significantly reduce direct-view visual glare, brightness and LED pixelation for superior visual comfort within the space when needed.

Robust thermal management is optimized thanks to the luminaire's pass-through convective cooling die-cast heatsink design. Helping to maximize the total system life and performance of the luminaire. Even in demanding high ambient applications thanks to our 50° C high ambient temperature rating. ETI takes great pride in our dedication to providing solutions with the product reliability and quality that you can always depend on.

In-stock base HB SKUs typically ship in 2-3 days. Rapid Ship SKUs (w/ installed occupancy sensors, BBUs or both) typically ship in 2-weeks or less.

KEY PRODUCT FEATURES, DETAILS & SPECS

- All configurations to be DLC Premium qualified for max energy savings & rebates
- Up to 148 LPW provides 60+% in energy savings vs. legacy HID, T5 & T8 luminaires
- 120W @ 17,651 lumens, 150W @ 22,242 lumens, 202W @ 29,756 lumens
- 80+ CRI standard for true accurate color rendering & visual performance
- Fixture ships w/ optional diffusing lens filter to improve visual glare (field installed)
- Die-cast design w/ pass-through convective heatsink maximizes life & performance
- 40° to 50° C (-40° to 122° F) high ambient temp rating for demanding applications
- IP65 rated luminaire minimizes environmental impact from contaminants
- Robust 4kV LED driver surge protection is standard for added protection
- Reported L72/102,000, Projected L70 @ 128,000 hours (min shown per IES TM21)
- Drop prismatic or aluminum reflectors available for added design flexibility
- Standard universal O-ring mount for quick & easy pendant installation
- Weighing in at only 9.3 lbs allows for ease of handling & fixture installation
- Optional yoke mount w/ hook allows for tilt aiming & added install flexibility
- 120-277V drivers w/ 0-10V dimming capability as standard
- Optional occupancy sensor for added energy savings & code compliance
- EM battery backup options for safety & code compliance (CA Title 20 MAEDBS)
- Ideal for many commercial & industrial applications (retrofit & new construction)

STOCK ORDERING INFORMATION (typical 2-3 day shipment lead time)^{1,2,3}

Catalog Logic/PT#	Model #	UPC	Size	Lumens	Wattage	LPW	CCT	CRI	Voltage	Dimming	DLC ³
HB-16200LM-8-50K-MV-LVD	63802161	849489066059	10.2" dia.	17,651	120.3	146.7	5000K	80 (min)	120-277V	0-10V	Premium (PENDING)
HB-20250LM-8-50K-MV-LVD	63802261	849489066066	10.2" dia.	22,242	150.5	147.8					
HB-27000LM-8-50K-MV-LVD	63803361	849489066073	11.4" dia.	29,756	201.8	147.4					

Notes:

- See next page for additional available rapid ship product configurations and stock accessories.
- Stock SKUs typically ship in 24-48 hours upon receipt of an approved released order.
- Search first 6-digits of the model # followed by '##' on the DLC QPL...Ex. '638021##') to view DLC qualified SKUs.



ETI Solid State Lighting
720 Northgate Parkway, Wheeling, IL 60090 | TEL: 1.855.384.7754
E-mail: etiors@ETISSL.com | www.ETISSL.com

All specifications are subject to change without notice.
All reported values are nominal or typical values, measured under laboratory conditions @ 25° C (77° F).
Actual performance can vary slightly as a result of end-user application & environment.

2-WEEK RAPID SHIP PROGRAM DETAILS (typical 2-week shipment lead time)^{1,2,3}

OCCUPANCY SENSOR INSTALLED - RAPID SHIP ORDERING INFORMATION^{1,2,3}

Catalog Logic/PT#	Model #	Rapid Ship Option	Sensor Model # ²	DLC ³
HB-16200LM-8-50K-MV-LVD-EOS	63802161-I	OC Sensor	70201102	Premium (PENDING)
HB-20250LM-8-50K-MV-LVD-EOS	63802261-I			
HB-27000LM-8-50K-MV-LVD-EOS	63803361-I			

BATTERY BACKUP UNIT (BBU) INSTALLED - RAPID SHIP ORDERING INFORMATION^{1,2,3,4}

Catalog Logic/PT#	Model #	Rapid Ship Option	BBU Model # ^{2,4}	DLC ³
HB-16200LM-8-50K-MV-LVD-EM-R	63802161-EM-R	BBU Round	70114401-2 (40W)	Premium (PENDING)
HB-20250LM-8-50K-MV-LVD-EM-R	63802261-EM-R	BBU Round		
HB-27000LM-8-50K-MV-LVD-EM-R	63803361-EM-R	BBU Round		

OCCUPANCY SENSOR & BATTERY BACKUP UNIT (BBU) INSTALLED - RAPID SHIP ORDERING INFORMATION^{1,2,3,4}

Catalog Logic/PT#	Model #	Rapid Ship Options	Sensor Model # ²	BBU Model # ^{2,4}	DLC ³
HB-16200LM-8-50K-MV-LVD-EOS-EM-R	63802161-I-EM-R	OC Sensor & BBU Round	70201102	70114401-2 (40W)	Premium (PENDING)
HB-20250LM-8-50K-MV-LVD-EOS-EM-R	63802261-I-EM-R	OC Sensor & BBU Round			
HB-27000LM-8-50K-MV-LVD-EOS-EM-R	63803361-I-EM-R	OC Sensor & BBU Round			

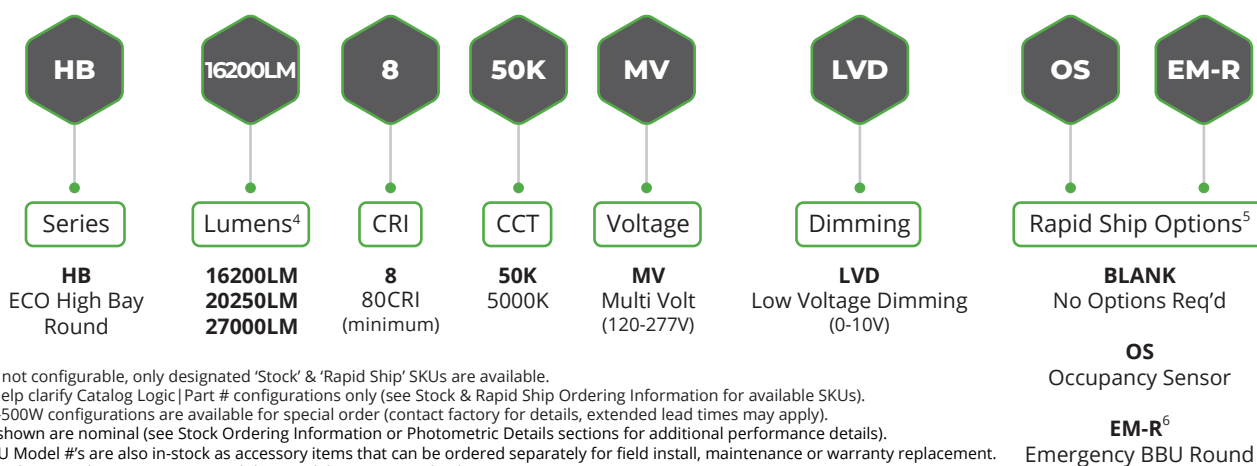
Notes:

1. Rapid Ship SKUs typically ship in 2-weeks or less, direct from ETI with the available options pre-installed (lead times can be quantity dependent, always contact factory to confirm).
2. Sensor and BBU Model #'s are also in-stock as accessory items that can be ordered separately for field install, maintenance or warranty replacement (see below for additional item details).
3. Search first 6-digits of the model # followed by '##' on the DLC QPL...Ex. '638021##') to view DLC qualified SKUs ('Rapid Ship' SKUs are currently DLC PENDING, always check QPL to confirm).
4. BBUs are certified in CA Title 20 MAEDBS (search by standalone BBU catalog logic/PT#).

CATALOG LOGIC | PART # DECODER^{1, 2, 3}

Example SKU: HB-16200LM-8-50K-MV-LVD

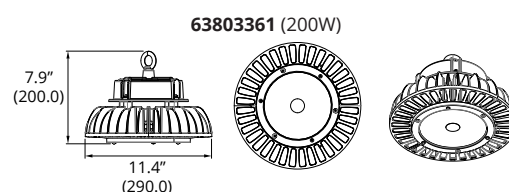
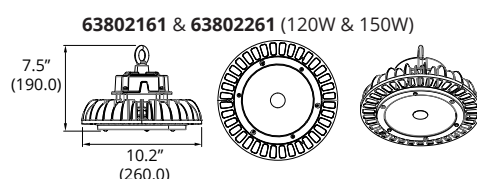
(Model # 63802161)



Notes:

1. This product is not configurable, only designated 'Stock' & 'Rapid Ship' SKUs are available.
2. Decoder is to help clarify Catalog Logic | Part # configurations only (see Stock & Rapid Ship Ordering Information for available SKUs).
3. Additional 240-500W configurations are available for special order (contact factory for details, extended lead times may apply).
4. Lumen values shown are nominal (see Stock Ordering Information or Photometric Details sections for additional performance details).
5. Sensor and BBU Model #'s are also in-stock as accessory items that can be ordered separately for field install, maintenance or warranty replacement.
6. BBUs are certified in CA Title 20 MAEDBS (search by standalone BBU catalog logic/PT#).

KEY DIMENSIONAL INFORMATION



Note: All dimensions are in inches (millimeters).

HB Series

ECO Round High Bay
17,651 - 29,756 Lumens | 175-400W HID Equivalent | DLC Premium | 5-yr Warranty

AVAILABLE STOCK ACCESSORIES (must be ordered separately)



*Yoke shown assembled (requires field assembly & installation).

Additional Mounting Accessories^{1,2,3} (field installed)

Catalog Logic/PT#	Model #	Description
EHBR-YKHK ^{1,2}	70507101	Yoke & hook mount kit (100-240W)

Notes:

1. Yoke & hook mount kit requires field assembly & installation to luminaire.
2. Yoke can be surface mounted without the included hook accessory.
3. Yoke allows for tilt adjustment up to 85° from horizontal.



Occupancy Sensor^{1,2,3,4} (field installed)

Catalog Logic/PT#	Model #	Description
MC054V-RC2-A-KIT ^{1,2}	70201102-KIT	External step-dim microwave OC sensor kit
MH10 ^{3,4}	70205101	OC sensor handheld remote programmer

Notes:

1. 70201102-KIT includes the OC sensor (70201102) & the hardware installation kit (70316101).
2. OC sensor kit is compatible for use with secondary drop reflectors.
3. Factory OC sensor settings can be changed w/ (70205101) handheld remote programmer accessory.
4. Max handheld remote programmer operating distance of 49.2' (15m) (see Instruction Manual for settings & details)



*shown w/ optional OC sensor installed



Emergency LED Driver/BBU^{1,2}

(BBU field installed - fixture only & w/ OC sensor or 0-10V dimming)

Catalog Logic/PT#	Model #	Description
EMUFO-25170-YY (G3)	70112201-2	Round, 25W, IP rated, 90 minutes
EMUFO-40170-YY (G3)	70114401-2	Round, 40W, IP rated, 90 minutes
EM-R-TEST-REMOTE	70203101	Round BBU handheld test remote

Notes:

1. BBU's certified in CA Title 20 MAEDBS. (search by BBU catalog logic/PT#, Ex. 'EMUFO-25170-YY')
2. Multiply the LPW of specified SKU by BBU wattage for the approximate delivered lumens.
(Ex. 147 LPW x 25-watts = approximately 3,675 lumens)



*shown installed w/ optional OC sensor

Additional Performance Accessories^{1,2} (field installed)

Catalog Logic/PT#	Model #	Description
EHBR-ALR	70505101	90° drop aluminum reflector
EHBR-CPR	70506101	90° drop prismatic reflector
EHBR-WG	70509101	Wire guard

Notes:

1. All additional performance accessories requires field installation.
2. OC sensor kit is compatible for use with secondary drop reflectors.

OCCUPANCY SENSOR FACTORY SETTINGS DETAILS

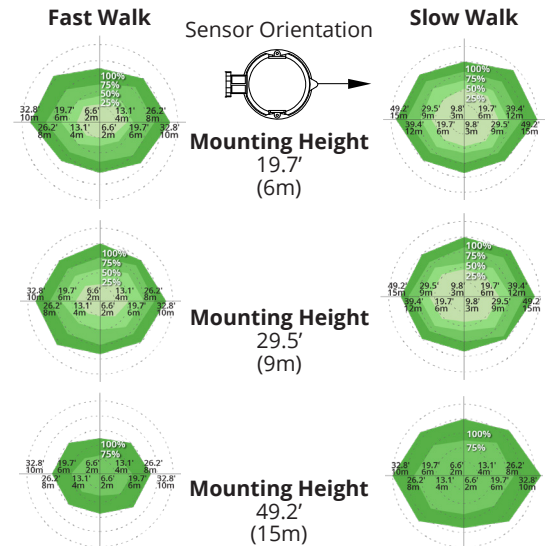
Additional Factory Sensor Settings^{1,2}

Function	Factory Settings
Detection Area	100% (sensor range)
Sensitivity Level	HS - High Sensitivity
Daylight Sensor	Disabled

Notes:

1. Settings can be changed using the (70205101) remote programmer.
(Max handheld remote programmer operating distance of 49.2' (15m))
2. See Instruction Manual for operation and additional setting details.

Sensor Detection Pattern & Range



100%

Occupancy Light Level - 'High Light Level'

When 'Occupancy' is detected, the fixture will remain or switch on at the set dimming level or 'High Light Level'.

5 min

Hold Time - 'Zero Occupancy Time'

Time required with zero occupancy before dimming to the 'Low Light Level' mode or switching to an 'off state'.

10%

Standby Dim Level - 'Low Light Level'

After 'Hold Time' elapses with zero occupancy detected the fixture will dim to the 'Low Light Level' or standby dim level.

5 min

Standby Period - 'Time to OFF State'

Time required after 'Hold Time' elapses before the fixture will switch to an 'off state' with zero occupancy detected.
If set to 0 seconds, fixture will switch to an 'off state' after 'Hold Time' elapses. If set to +∞, the fixture will stay in the 'Low Light Level' mode until occupancy is detected.

PHOTOMETRIC DETAILS

HB-16200LM-8-50K-MV-LVD

Luminaire Data

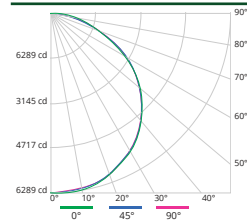
IES File Name	63802161.IES
CCT & CRI	5000K, 80CRI minimum
Initial Delivered Lumens	17,651
Wattage	120.3W
Efficacy	146.7
Beam Angle	50° = 114° 10% = 154°
Spacing	0° = 1.32 90° = 1.30

Photometric values based on tests performed in compliance with LM-63 & LM-79

Coefficients of Utilization

		Effective Floor Cavity Reflectance 20%															
		80%				70%				50%				30%			
rc	rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30
RCR																	
0		119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102
1		110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89
2		100	92	86	80	97	90	84	79	87	82	77	83	79	76	80	77
3		91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67
4		84	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58
5		77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51
6		71	58	49	43	69	57	48	42	55	47	42	53	47	42	52	46
7		66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41
8		61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37
9		57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34
10		53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31

Indoor Candela Plot



Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	4944	28.0%
0-40	8173	46.3%
0-60	14589	82.7%
0-90	17634	99.9%
0-180	17651	100.0%

Candlepower

Angle	0°	90°
0	6285	6285
5	6268	6257
10	6206	6192
15	6108	6085
20	5959	5930
25	5765	5730
30	5528	5484
35	5233	5191
40	4879	4845
45	4470	4440
50	4019	3972
55	3519	3449
60	2916	2803
65	2237	2149
70	1540	1444
75	885	804
80	350	297
85	87	65
90	7	5

HB-20250LM-8-50K-MV-LVD

Luminaire Data

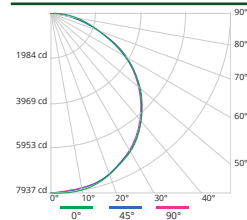
IES File Name	63802261.IES
CCT & CRI	5000K, 80CRI minimum
Initial Delivered Lumens	22,242
Wattage	150.5W
Efficacy	147.8
Beam Angle	50° = 114° 10% = 154°
Spacing	0° = 1.32 90° = 1.30

Photometric values based on tests performed in compliance with LM-63 & LM-79

Coefficients of Utilization

		Effective Floor Cavity Reflectance 20%															
		80%				70%				50%				30%			
rc	rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30
RCR																	
0		119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102
1		110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89
2		100	92	86	80	97	90	84	79	87	82	77	83	79	76	80	77
3		91	81	73	67	89	79	72	66	77	70	65	74	68	64	71	67
4		84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58
5		77	64	55	49	75	63	55	49	61	54	48	59	53	47	57	51
6		71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46
7		66	52	44	38	64	51	43	37	50	43	37	48	42	37	47	41
8		61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37
9		57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34
10		53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31

Indoor Candela Plot



Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	6248	28.1%
0-40	10319	46.4%
0-60	18421	82.8%
0-90	22220	99.9%
0-180	22242	100.0%

Candlepower

Angle	0°	90°
0	7933	7933
5	7915	7901
10	7838	7817
15	7712	7681
20	7526	7483
25	7275	7226
30	6959	6915
35	6580	6528
40	6140	6064
45	5638	5537
50	5074	4958
55	4438	4314
60	3630	3501
65	2785	2626
70	1903	1744
75	1077	942
80	421	328
85	97	81
90	7	4

HB-27000LM-8-50K-MV-LVD

Luminaire Data

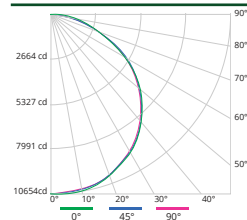
IES File Name	63803361.IES
CCT & CRI	5000K, 80CRI minimum
Initial Delivered Lumens	29,756
Wattage	201.8W
Efficacy	147.5
Beam Angle	50° = 114° 10% = 154°
Spacing	0° = 1.30 90° = 1.30

Photometric values based on tests performed in compliance with LM-63 & LM-79

Coefficients of Utilization

		Effective Floor Cavity Reflectance 20%															
		80%				70%				50%				30%			
rc	rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30
RCR																	
0		119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102
1		110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89
2		100	92	86	80	97	90	84	79	87	82	77	83	79	76	80	77
3		91	81	73	67	89	79	72	66	77	70	65	74	68	64	71	67
4		84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58
5		77	64	55	49	75	63	55	49	61	54	48	59	53	47	57	51
6		71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46
7		66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41
8		61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37
9		57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34
10		53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31

Indoor Candela Plot



Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	8374	28.1%
0-40	13811	46.4%
0-60	24624	82.8%
0-90	29727	99.9%
0-180	29756	100.0%

Candlepower

Angle	0°	90°
0	10651	10651
5	10610	10600
10	10503	10482
15	10325	10293
20	10076	10024
25	9714	9663
30	9264	9211
35	8726	8681
40	8123	8081
45	7448	7402
50	6683	6616
55	5795	5720
60	4778	4682
65	3632	3545
70	2445	2370
75	1348	1268
80	514	452
85	113	99
90	15	6

HB Series

ECO Round High Bay
17,651 - 29,756 Lumens | 175-400W HID Equivalent | DLC Premium | 5-yr Warranty

PRODUCT SPECIFICATIONS

Construction

Die-cast white primary housing with specially engineered alternating heatsink fins and dedicated slots to help promote pass-through convective cooling. Reduces the fixture's operating temperatures to increase life of all electrical components and improved lumen maintenance over time. A separate die-cast driver housing is isolated from the primary heatsink to further increase component life. Complete fixture, including the driver housing and optical assembly are fully sealed and rated for IP65 ingress protection to protect the luminaire from environmental contaminants. Fixture is designed for use in wet locations.

Optics & LED Platform

LEDs are surface mounted to a metal printed circuit board (MCPCB) and is coupled with a clear tempered glass lens. Designed to generate an extremely uniform all-purpose symmetrical beam distribution (50% beam @ 114°, 10% beam @ 144°). An optional diffusing lens filter is included with each fixture (field installed) to provide a uniform and soft visual appearance when in direct-view to help reduce glare, brightness and LED pixelation for excellent visual comfort. Optional 90° secondary prismatic and aluminum reflectors are available separately. Available in 5000K CCT, with a minimum CRI of 80.

Electrical

UL recognized drivers are rated for 50,000 hours to deliver optimal performance over the extended system life of the luminaire. Universal 120-277V with 0-10V dimming capability (dimming range of 100% to 10%) for use with secondary controls by others. Fixture is supplied with 6' of 3-wire S/O cord and 6' of 2-wire dimming cord. Drivers shall have a power factor greater than 0.90 and less than 20% total harmonic distortion. 4kV surge protection is standard. Drivers are rated for FCC part 15 Class B use in commercial applications. 75.3% LED lumen maintenance at 102,000 hours (L75/102,000) per IES TM21. Projected L70 @ 128,000 hours.
(150 & 200W unit LM shown, see LM table for details)

Mounting & Installation

Luminaire is designed for easy and flexible pendant/suspension mount installation via standard O-ring mounting system. Fixture includes 6' of 5-wire S/O cord with dimming leads provided for ease of installation. Optional adjustable yoke mount bracket accessory with hook mount accessory (use as needed) is available for field installation and field aiming as required (see mounting options for more detail). Installer must ensure installation compatibility in any application and overall compliance to all applicable local and national building and electrical codes.

Compliance & Certification

All luminaires are cULus listed and are built for wet location use. Complete fixture, including driver housing and optical assembly are rated IP65. Shall be suitable for use in -40° C (-40° F) to 50° C (122° F) high ambient environments. Complies to FCC part 15 Class B. Adheres to LM79, LM80 and TM21 industry standards for performance and lifetime calculations. DesignLights Consortium® (DLC) Premium qualified product. Always refer to DLC website at www.designlights.org/QPL to confirm specific product configurations that are qualified.
(Search first 6-digits of the model # followed by '##' on the DLC QPL...Ex. '638021##' to view DLC qualified products)

Standard Available Control Options

Optional external mounted microwave occupancy sensors are available (compatible with fixture only & secondary reflector accessories). Factory sensor settings can be changed using an optional handheld remote programmer accessory (15m | 49.2' max distance, see instruction manual for details). Standard factory default settings: 100% high, 10% low, hold time @ 5 minutes (no motion detected, dim to low), standby time @ 5 minutes (time after hold time w/ no motion detected fixture turns off), daylight sensor is disabled.

Standard Available Emergency BBU Options

Optional remote/external emergency battery backup units are available in approximately 25 or 40-watts for 120-277V use to meet required life-safety requirements (50° C/122° F max ambient). The battery system provides 90-minutes of continuous power to the LED system for code compliance. BBUs are certified in CA Title 20 MAEDBS. Test switch/indicator light is located on the exterior housing of the round BBU housing. An optional handheld test remote is also available. Multiply the lumens per watt of the specified SKU by the BBU wattage for the approximate delivered lumens. (Ex. 147 LPW x 25-watts = approximately 3,675 lumens)

Warranty

The HB Series of round high bay luminaires ships with ETI SSL's 5-year standard warranty. (Terms & Conditions apply)

MISCELLANEOUS PRODUCT SPECIFICATIONS & DETAILS

Load Information

Power Factor	> 0.90
THD	< 20%
Frequency	50/60 Hz
Sound Rating	< 20 Dba
Low Temp Start	-40° C (-40° F)
Max Temp	50° C (122° F)
Unit Weight (120W)	7.0 lbs
Unit Weight (150W)	7.0 lbs
Unit Weight (200W)	9.3 lbs

Lumen Maintenance

Ambient Temperature	TM-21 Lumen Maintenance (102,000 hours)
25° C (77° F)	> 71.58% (120W unit)
	> 75.29% (150W unit)
	> 75.29% (202W unit)
Ambient Temperature	TM-21 Theoretical L70 (hours)
25° C (77° F)	128,000 (120W unit)
	128,000 (150W unit)
	128,000 (202W unit)

Shipping Information*

Size	Unit Weight	Pallet (TBD"l x TBD"w x TBD"h)
120W	8.3 lbs	TBD units per
150W	8.3 lbs	TBD units per
200W	10.8 lbs	TBD units per

*Pallet details coming soon.

PROJECT NOTES

