

A Compact, Revolutionary Quick Mount System For Faster, Easier Installations



Appleton™ Baymaster™ LED High Bay Luminaires
Technology and Application Guide.





Tough Environments Demand Uniform Light Distribution in an Easy-To-Install, Energy Efficient High Bay.

Harsh industrial and hazardous environments demand safety and reliability. Emerson understands this, and that is why we are constantly striving to improve your operational performance by protecting you, and your equipment, with the latest in today's lighting technology. Our newest Baymaster™ LED High Bay Luminaires, answer the need for safety and reliability with unprecedented innovation and unique to industry design.

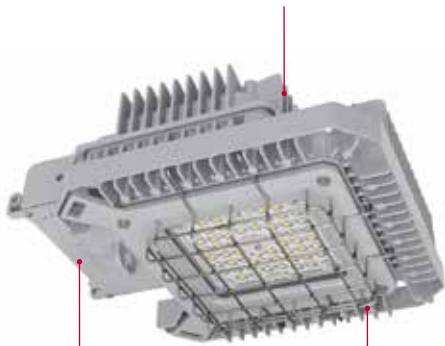
With its compact housing, quick-mount pendant system, and secondary optics; quick single person installations and superior light uniformity become a reality. Its 6 lumen output levels and two color options provide greater mounting height versatility and superior light quality. Demanding situations require high-performing lights, that's why we created the Baymaster™ LED High Bay. Bringing lighting comfort, safety, and dependability to all of your high bay applications.

Baymaster™ LED High Bay Luminaires — where exceptional quality meets lasting comfort.

Where Exceptional Craftsmanship and Technological Innovation Come Together

Emerson's outstanding quality and reliability, combined with Baymaster's secondary optics and quick mount system, come together to create a luminaire that other high bays just can't compete with. Choose from 6 lumen outputs, 2 color choices, and 4 light distribution patterns to ensure the diverse illumination needs of your high bay applications are met with high quality, uniform light and wider application versatility.

Superior thermal heat sink design provides cool operation from -40°C to $+65^{\circ}\text{C}$ (-40°F to $+149^{\circ}\text{F}$) – wide enough for any environment.

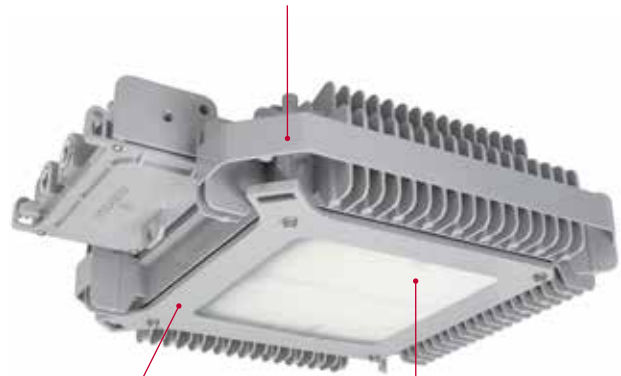


6KV standard surge protection – protects your investment and keeps you up and running.

Heavy gauge stainless steel wire guard provides extra protection.

IBLL(P) and BLL(P)
9,500 to 19,000 Lumens

Compact size and low weight for single person installation.



Replaceable cover and LED drivers extend luminaire life even beyond 84,000 hours.

Optional frosted glass for increased glare control.

IBHL(P) and BHL(P)
24,000 to 38,000 Lumens



Quick Mount Pendant System

Unique to the industry, this compact luminaire offers a quick-mount-pendant system which makes for faster and safer installations. Just pre-wire the mounting hood, line the arrows up, and lock into place—the need for a multi-person installation team disappears.



Rugged and Durable Compact Housing

Mounting hoods and bodies are made from copperfree aluminum with a baked epoxy-clad finish, electrostatically applied for complete uniform protection. Superior thermal design that is shock and impact resistant translates to a longer luminaire life.



Secondary Optics

Baymaster™ stands out with secondary optics placed over the LED to help shape the light, allowing for a variety of applications. With the choice of aisle, narrow, medium, or wide beam spreads, optimal light distribution in challenging areas such as aiseways and walkways becomes possible.



Large Lumen Output Range and Color Options

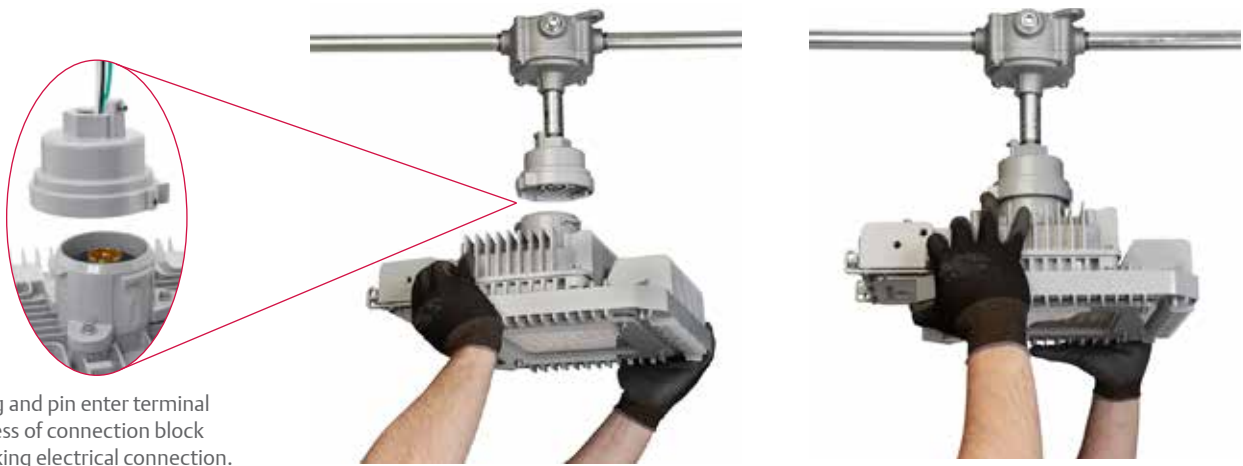
With 6 lumen output ranges (9,500 to 38,000) to choose from, you'll have flexibility for lots of different mounting heights and illumination levels. Two different color options (5000K cool white and 3000K warm white CCT) give you the choice for superior light quality.

Everything You Ever Want in a High Bay Luminaire

Emerson understands that installing high bays can be costly and hazardous. High ceilings, restricted access, and pre-existing conduit installations can drive labor costs to 30% or more of total lighting project costs. Regardless of the facility and mounting style preferences, the Appleton™ Baymaster™ enables faster and safer lighting installations with its low weight, unique design, and flexible mounting options.

Quick Mount Pendant System

With its quick-mount-pendant system, installation and maintenance have never been easier. Simply pre-wire the mounting hood, line the arrows up, and lock the Baymaster™ into place.

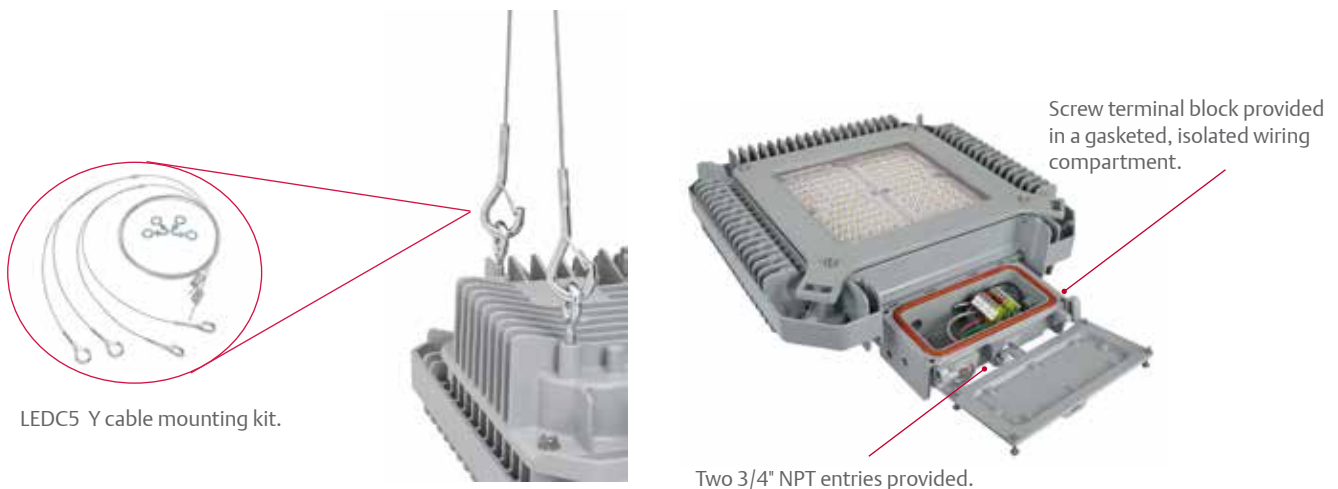


Ring and pin enter terminal recess of connection block making electrical connection.

Note: To specify quick mount, select IBLLP and IBHLP or BLLP and BHLP when ordering.

Traditional Cable Mount Style

As an alternative to our innovative quick mount, we offer an optional Y cable mounting kit. Simply attach 4 eyebolts and wire to the provided screw terminals in our field wiring compartment.



LEDC5 Y cable mounting kit.

Screw terminal block provided in a gasketed, isolated wiring compartment.

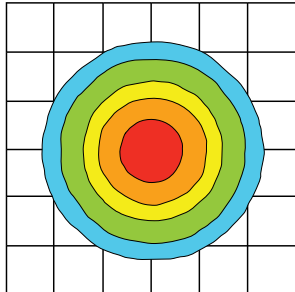
Two 3/4" NPT entries provided.

Note: To specify the cable style mounting, select IBLL and IBHL or BLL and BHL when ordering and order LEDC5 accessory mounting kit.

Offering Unrivaled Application Versatility to Bring You Light Where You Need It Most

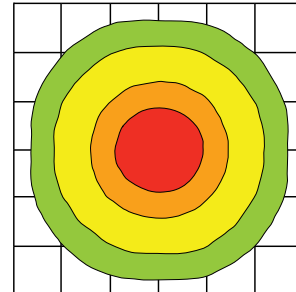
Overcome challenging areas such as aiseways and walkways with the choice of aisle, narrow, medium, or wide beam spreads.

Type V Medium
(120° beam angle)



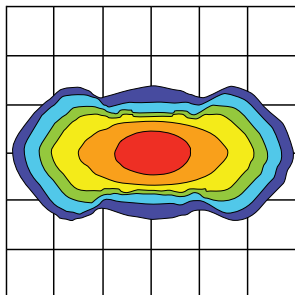
The standard high bay distribution is available with frosted glass to minimize glare.

Type V Wide
(140° beam angle)



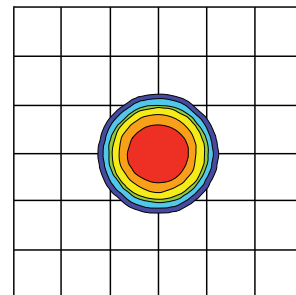
This Type V wide optic maximizes vertical illumination and light spread while minimizing glare.

Type I
(Aisle)



This specially designed optic is available on IBLL and BLL models. The Type I aisle pattern maximizes side-to-side throw while reducing glare.

Type V Narrow
(80° beam angle)



This specially designed optic is available on IBHL and BHL models, and provides a narrow beam angle, especially effective at high mounting heights.

Utilize the 6 lumen output ranges to conquer almost any mounting height or illumination requirement.

IBLL / IBLLP and BLL / BLLP

Model	Lumen Level	HID Equivalent
IBLL6 / BLL6	9,500 Lumens	175-250 Watt
IBLLP6 / BLLP6		
IBLL7 / BLL7	15,000 Lumens	250-400 Watt
IBLLP7 / BLLP7		
IBLL8 / BLL8	19,500 Lumens	400-750 Watt
IBLLP8 / BLLP8		

IBHL / IBHLP and BHL / BHL P

Model	Lumen Level	HID Equivalent
IBHLL1 / BHLL1	24,000 Lumens	1000 Watt
IBHLP1 / BHLPL1		
IBHLL2 / BHLL2	30,000 Lumens	1000-1500 Watt
IBHLP2 / BHLPL2		
IBHLL3 / BHLL3	38,000 Lumens	1500 Watt
IBHLP3 / BHLPL3		

Reducing Power Consumption and Maintenance Costs, While Bringing You Superior Illumination

Choose a Longer Lasting, Better Quality Luminaire

For over 100 years, you have been able to depend on Emerson's Appleton™ brand products for harsh industrial and hazardous locations. We understand that reliability is key to reducing expensive maintenance costs. Our intensive testing program addresses the entire luminaire, including corrosion resistance in harsh environments, vibration tolerance, noise and surge immunity, gasket endurance, thermal shock resistance, LED driver life, LED lumen depreciation and more.

A Top of Class High Bay LED Luminaire

The current options of traditional fluorescent, HIDs, and ineffective early generation LEDs are not cutting it any longer, you need a longer lasting, better quality luminaire.

- Baymaster™ LEDs have surpassed 14,000 hours of testing and can report a L70 of 84,000 hours.
- Baymaster™ economic life, which encompasses the entire luminaire performance, can exceed 200,000 hours.

Ambient Temperature	Luminaire Life (Hours)	Number of Years at 24 Hours Usage	Number of Years at 12 Hours Usage
+25 °C (+77 °F)	200,000	23	46
+40 °C (+104 °F)	100,000	11	22
+55 °C (+131 °F)	90,000	10	20
+65 °C (+149 °F)	60,000	6	12

Dramatically Reduce Your Lighting Costs

When retrofitting traditional HID high bays, you can quickly achieve break even on your investment. When comparing lighting systems, consider both the total system power consumption and the expected luminaire life, in order to evaluate energy and maintenance costs and savings.

5 Year Cumulative

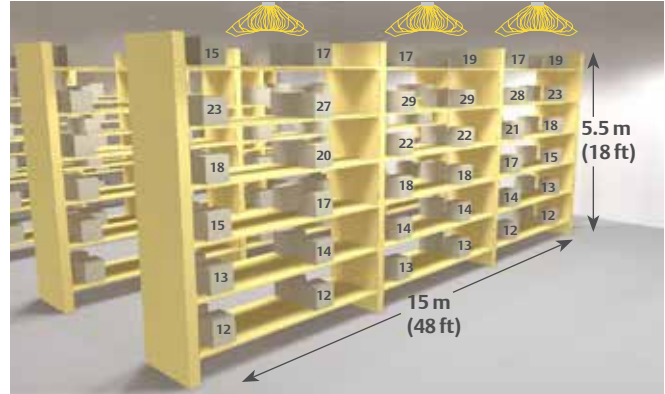
Luminaire	Power Consumption (W)	Lumen Output (LM)	Luminaire Efficacy (LM/W)	Yearly Energy Costs	LED/ Luminaire Life	Annual Maintenance Costs	Yearly Fixture Costs	Yearly LED Savings	Yearly Savings Percentage
Baymaster™ LED IBLLPL7CGMNBU	110	15,400	140	\$96.36	100,000 hrs	—	\$96.36	\$337.23	78%
Baymaster™ 400W HPS GHB71PLMT	465	30,900	66	\$407.34	24,000 hrs	\$26.25	\$433.59		

Energy Costs = Watts * 24 * 365 / 1000 (Kwh/yr) * \$.10/Kwh

Maintenance Costs = (100,000/24,000 * Lamp Cost + one ballast replacement) / 10 years

High Quality Illumination

Application Simulation



Luminaire Part Number	Luminaire Spacing	Luminaire Height	Average Illumination Target	Calculation Surface Dimensions
IBLLPL8CGANBU	5 meters (18 feet) [3 luminaires per aisle]	8 meters (25 feet)	215 LUX (20 Foot-candle)	15 meters (48 feet) wide x 5.5 meters (18 feet) tall [measured on front edge of shelving]

The Baymaster™ LED Type I (Aisle) optical pattern maximizes side-to-side throw while reducing glare. The Baymaster™ LED improves uniformity while delivering more light where it is needed across the beam pattern.

As shown in this DIALux lighting software simulation, twelve IBLLPL8, 19,500 Lumen Baymaster™ LED high bays, spaced 18 feet apart (3 luminaires per aisle) and at a mounting height of 25 feet, provide effective vertical illumination on the front of the shelf space while consuming 75 percent less power than their traditional HID counterparts.

Luminaire	Power Consumption	Lumen Output	Luminaire Efficacy	NEMA Pattern	Average Illuminance (EAV)		Maximum Illuminance (EAV)		Minimum Illuminance (EAV)		Uniformity (EMAX/EMIN)		Uniformity Improvement	Wattage Reduction
					FC	LX	FC	LX	FC	LX	FC	LX		
Baymaster™ LED IBLLPL8CGANBU	150	19,800	132	Type I (Aisle)	20	215	31	334	12	129	0.6	6	63%	68%
Baymaster™ HID GHB71LG7W BAYMASTER 250/400	465	31,000	67	Type V (Wide)	26	280	63	678	10	108	0.38	4		

Energy Savings

LED luminaires provide far greater lighting efficacy compared to traditional lighting sources, including fluorescent luminaires, the previous efficiency leader.

Maintenance Savings

Baymaster LED luminaires have a rated L70 of 84,000 hours and luminaire life can exceed 200,000 hours depending on ambient temperature.

Safety

LED luminaires provide instant-on and cold-start capabilities without end-of-life degradation or premature failures due to frequent cycling.

Baymaster™ LED Specifications

Baymaster™ LED

		IBLL6 / BLL6	IBLLPL6 / BLLPL6	IBLL7 / BLL7	IBLLPL7 / BLLPL7	IBLL8 / BLL8	IBLLPL8 / BLLPL8
Equivalent to HPS/PSMH		175-250 Watt		250-400 Watt		400-750 Watt	
Input Power		70 Watt		110 Watt		150 Watt	
Voltage Range	BU	120-277 Vac, 50/60 Hz, 170-300 Vdc					
	BH	347-480 Vac, 50/60 Hz					
Luminous Flux (Efficacy) ① for 5000K Clear	Type I (Aisle)	9700 (139)		15200 (138)		19800 (132)	
	Type V Medium (120° beam angle)	9800 (140)		15400 (140)		20100 (134)	
	Type V Wide (140° beam angle)	8700 (124)		13600 (124)		17700 (118)	
Correlated Color Temperature (CCT)		3000K/5000K		3000K/5000K		3000K/5000K	
Color Rendering Index (CRI)		80/70		80/70		80/70	
Ambient Temperature		-40 °C (-40 °F) to +65 °C (+149 °F)		-40 °C (-40 °F) to +65 °C (+149 °F)		-40 °C (-40 °F) to +65 °C (+149 °F)	
T Rating (NEC/CEC) Class I Division 2		T4 @ +65 °C (+149 °F)		T3C @ +65 °C (+149 °F)		T3A @ +65 °C (+149 °F)	
T Rating row for ATEX/IECEx Zone 2		T4 @ +65 °C (+149 °F)		T3 @ +65 °C (+149 °F)		T3 @ +65 °C (+149 °F)	
Luminaire Weight		9.8 kg (22 lb)		9.8 kg (22 lb)		9.8 kg (22 lb)	
Standard Materials		Housing: copperfree aluminum					
		Finish: baked grey epoxy clad finish					
		Lens: thermal shock- and impact-resistant glass or optional frosted glass					
Lifetime		>100,000 hours @ +40 °C (+104 °F) ambient temperature					
		>60,000 hours @ +65 °C (+149 °F) ambient temperature					
Warranty		5 years standard; 10 years for models with secondary optic and extra surge protection					

① All values typical +/-10%

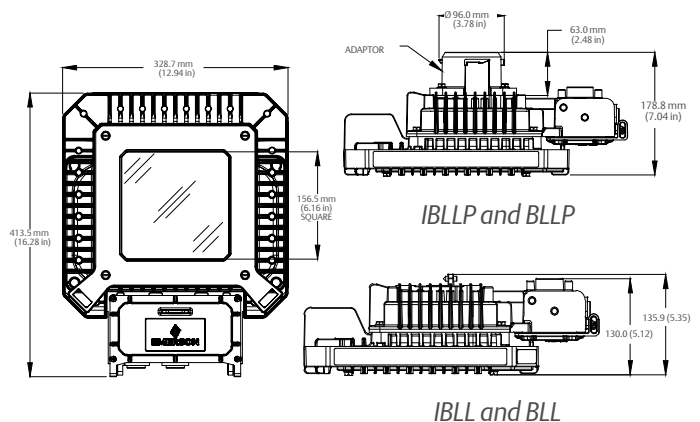
NEC/CEC Certifications

Ordinary Location (All Models)

- Marine outside type (salt water) for USA Only
- Wet locations
- Type 3R, 4, 4X
- IP66/67
- cCSAus: 164460, Certificate Number: 70073608

Hazardous Location (BLL and BHL Models)

- Class I, Division 2, Groups A, B, C, D
- Class I, Zone 2, Group IIC
- Class II, Division 1 and 2, Group E, F, G
- Class III
- Zone 20 and 21, Group IIIC
- Zone 22, Group IIIB



- Simultaneous Exposure
- cCSAus: 164460, Certificate Number: 70073613

Baymaster LED Product Ordering Guide

IBLL	P	L7	C	G	M	N	BU	S
Series: IBLL - Industrial Baymaster LED Series BLL - Hazardous Baymaster LED Series	Mounting: P - Quick Mount Pendant Blank - No Quick Mount	Lumen Level: L6 - 9K L7 - 15K L8 - 19K	Color Temp CCT: C - 5000K W - 3000K ②	Diffusion: G - Clear Glass F - Frosted Glass ③	Light Pattern: M - Medium W - Wide A - Aisle	Dimming: N - None	Voltage: BU = 120V-277Vac 50/60 Hz, 170-300 Vdc BH = 347-480Vac 50/60 Hz	F - Fusing ④ S - 10 KV Surge Protection

Example: IBLLPL7CGMNBUS

② 3000K CCT (Warm) is only available with Type V Wide or Aisle light patterns

③ Frosted Glass is only available with Type V Medium light pattern

④ Use of fuse voids Marine rating.

Baymaster™ LED Specifications

Baymaster™ LED HL

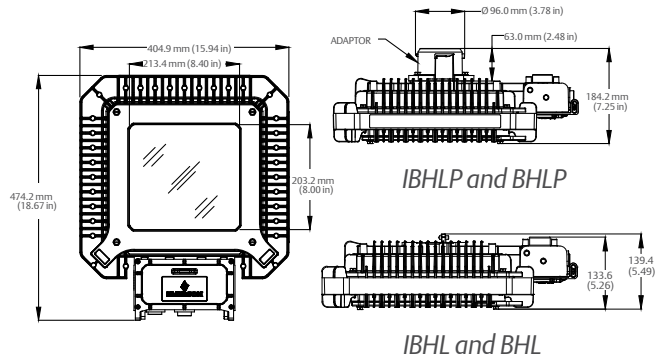
		IBHLL1 / BHLL1	IBHLPL1 / BHLPL1	IBHLL2 / BHLL2	IBHLPL2 / BHLPL2	IBHLL3 / BHLL3	IBHLPL3 / BHLPL3
Equivalent to HPS/PSMH		1000 Watt		1000-1500 Watt		1500 Watt	
Input Power		180 Watt		225 Watt		310 Watt	
Voltage Range	BU	120-277 Vac, 50/60 Hz, 170-300 Vdc					
	BH	347-480 Vac, 50/60 Hz					
Luminous Flux (Efficacy) ① for 5000K Clear	Type V Narrow (80° beam angle)	24500 (136)		30400 (135)		39000 (126)	
	Type V Medium (120° beam angle)	24400 (136)		30400 (135)		37600 (121)	
	Type V Wide (140° beam angle)	20700 (115)		25900 (115)		33400 (108)	
Correlated Color Temperature (CCT)		3000K/5000K		3000K/5000K		3000K/5000K	
Color Rendering Index (CRI)		80/70		80/70		80/70	
Ambient Temperature (NEC/CEC)		-40 °C (-40 °F) to +65 °C (+149 °F)		-40 °C (-40 °F) to +65 °C (+149 °F)		-40 °C (-40 °F) to +55 °C (+149 °F)	
T Rating (NEC/CEC) Class I Division 2		T4 @ +65 °C (+149 °F)		T3C @ +65 °C (+149 °F)		T3C @ +55 °C (+149 °F)	
T Rating row for ATEX/IECEx Zone 2		T4 @ +65 °C (+149 °F)		T3 @ +65 °C (+149 °F)		T3 @ +65 °C (+149 °F)	
Luminaire Weight		16.1 kg (35.4 lb)		16.1 kg (35.4 lb)		16.1 kg (35.4 lb)	
Standard Materials		Housing: copperfree aluminum					
		Finish: baked grey epoxy clad finish					
		Lens: thermal shock- and impact-resistant glass or optional frosted glass					
Lifetime		>100,000 hours @ +40 °C (+104 °F) ambient temperature					
Warranty		>60,000 hours @ +65 °C (+149 °F) ambient temperature					
		5 years standard; 10 years for models with secondary optic and extra surge protection					

① All values typical +/-10%

ATEX/IECEx Certifications

Hazardous Location (BLL and BHL Models)

- Certification Type: Baymaster LED
 - Gas: Zone 2
 - Conforming to ATEX 2014/34/EU: II 3 G
 - Type of Protection: Ex ec IIC Gc
 - Temperature Class: T5 to T3
 - Dust: Zone 22
 - Conforming to ATEX 2014/34/EU: II 3 D
 - Type of Protection: Ex tc IIIC Dc
 - Surface Temperature: +85 °C to +100 °C (+185 °F to +212 °F)
- Ambient Temperature: -40 °C up to +65 °C (-40 °F up to +268 °F)
- ATEX Certificate: SIRA 17ATEX3241 (BLL Models)



- IECEx Certificate: IECEx SIR 17.0079 (BLL Models)
- ATEX Certificate: SIRA 17ATEX3241 (BHL Models)
- IECEx Certificate: IECEx SIR 17.0079 (BHL Models)
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK10
- Photobiological Safety, IEC 62778 and IEC 62471: RG0

Baymaster LED HL Product Ordering Guide

IBHL	P	L2	C	G	M	N	BU	S
Series:	Mounting:	Lumen Level:	Color Temp CCT:	Diffusion:	Light Pattern:	Dimming:	Voltage:	
IBHL - Industrial Baymaster HL LED Series	P - Quick Mount Pendant	L1 - 24K L2 - 30K L3 - 38K	C - 5000K W - 3000K ②	G - Clear Glass F - Frosted Glass ③	M - Medium W - Wide N - Narrow	N - None	BU = 120V-277 Vac 50/60 Hz, 170-300 Vdc BH = 347-480 Vac 50/60 Hz	F - Fusing ④ S - 10 KV Surge Protection
BHL - Hazardous Baymaster HL LED Series	Blank - No Quick Mount							

Example: IBHLPL2CGMNBUS

② 3000K CCT (Warm) is only available with Type V Wide or Narrow light patterns

③ Frosted Glass is only available with Type V Medium light pattern

④ Use of fuse voids Marine rating.

Accessories

Drain

Luminaires experiencing water ingress, specifically pendant mount fixtures, is a frustrating problem faced by our customers. Conduit is the culprit in such instances and provides the perfect path for water to find its way into the wiring compartment or mounting hood. In response, Appleton™ provides an optional drain assembly for use with the quick mount pendant system. Simply remove the factory installed ½” NPT close up plug and install the drain assembly.

The drain assembly, catalog number LEDDR9, consists of one of each of the following:

- ½” trade size RMC iron conduit nipple, 9” long
- Appleton™ Drain, catalog number ECD50B4X
 - UL Listed and CSA Certified for Class I, Division 1 and 2, Groups B, C, D; Class II, Division 1 and 2, Groups E, F, G; Class III
 - NEMA 4X
- O-Z/Gedney Conduit Elbow, catalog number EL950:
 - UL Listed and CSA Certified for Class I, Division 1 and 2, Groups A, B, C, D; Class II, Division 1 and 2, Groups E, F, G; Class III



Closed Loop Safety Cable

- Designed with carabiner and threaded locknut on one end and a closed loop on opposite end.
- A 5:1 safety factor is achieved through cable rated to 250 lbs. safe working load.
- Catalog number LEDSC



Accessories

Baymaster™ LED Offers Versatility in Accessories

Wire Guard



Safety Cable



Drain



Y Mounting Cable



Replacement Covers



Cord Set with Loop



Catalog Number	Description
Accessories	
LGGUARD	Stainless Steel Wire Guard
LEDSC	Stainless Steel Safety Cable
LEDDR9	Drain
LEDC5	1.5 M (5 ft.) cable mount - stainless steel. Includes two (5ft.) Y cables with spring clips and four eye bolts.
EFHM-75	Safety support hooks
BLLCLEAR	Clear replacement cover for IBLL / IBLLP and BLL / BLLP models
BLLFROST	Frosted replacement cover for IBLL / IBLLP and BLL / BLLP models
BHLCLEAR	Clear replacement cover for IBHL / IBHLP and BHL / BHLP models
BHLFROST	Frosted replacement cover for IBHL / IBHLP and BHL / BHLP models
Explosionproof Flexible Fixture Hangers	
BKX Rigid Fixture Hangers	
CPU and EFHU Fixture Hangers	
Flexible Fixture Hangers, EXJF Couplings, ESD and ESS Swivels	
EFHC and EFHCA Fixture Hangers and Accessories	
GRF Conduit Outlet Boxes, Fixture Hanger Covers and Canopies	
Ordinary Location Flexible Fixture Hangers	
AHG and UNJ Flexible Fixture Hangers	
AL Ball and Cushion Flexible Fixture Hangers	
JB and GS Flexible Fixture Hangers	
SSH Flexible Fixture Hangers	
SHC Flexible Fixture Hangers	
EF and FHS Series Flexible Hangers	
FH and FHSN Series Flexible Fixture Hangers	
GHBPH Power Hook for Industrial High Bay Luminaires with Cord Set and Matching Loop	
Power Hook for Industrial High Bay Luminaires	

DEMAND PERFORMANCE, EXPECT QUALITY.

To achieve success, your company must consistently function at a high level; unexpected luminaire outages, poorly lit working areas, and dangerous maintenance practices can delay even the highest performing teams. Baymaster™ LED High Bay luminaires combines innovation, reliability, and versatility to bring you the best-in-class high bay illumination.

Contact your local Appleton™ representative or visit www.masteringled.com to learn more today.

Maximize usable light enabling you to comfortably and safely work in harsh or hazardous environments.



Appleton™ is the cornerstone brands of Emerson's Electrical Apparatus and Lighting business; trusted worldwide to make electrical installations safer, more productive and more reliable.

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