LED HIGH BAY MAX™ AMBIENT
Luminaires for High Bay Applications

PROJECT INFORMATION

Job Name _____

Fixture Type _____

Catalog Number _____

Approved by _____

HBMA SERIES

PRODUCT FEATURES:

- Rated for continuous 50°C ambient temperature conditions
- Available hazardous location (Class I, Div 2) rating
- Lumen outputs ranging from 9,500-23,000lm
- Textured tertiary lens for glare reduction; flat and drop lens
- Various distribution patterns available, including Aisle-Lighter
- 10 year limited product warranty

SPECIFICATIONS:

HOUSING: Marine-grade die-cast aluminum construction. Integral aluminum heat sink with concealed air inlet and convection fins. All power electronics removed from primary thermal path; all drivers with dedicated heat sink to exterior of luminaire. TGIC polyester powder coat finish with five-step pre-treatment; salt-spray test 1,000 hours. See Ordering Information for available finishes. Closed-cell silicone gasketing at all housing interfaces.

OPTICS: Type II, III, IV, V-Narrow Round, V-Wide Square or Aisle-lighter optical distributions. Clear textured acrylic or polycarbonate tertiary flat lens for full-cutoff applications or injection-molded clear textured acrylic or polycarbonate tertiary drop lens for uplight and enhanced glare control.

ELECTRICAL: Replaceable high-brightness LED array. See Ordering Information for color temperature and CRI options. 120-277VAC, 347VAC or 480VAC, 50/60Hz input with replaceable high power factor electronic constant-current driver (<10% THD, >0.95 PF). Standard 0-10V dimming with 10-100% range. Minimum 85% driver efficiency. EMC performance compliant with FCC CFR Part 15. Standard 20kV/kA surge protection to IEEE/ANSI C62.41 Cat. A. (except with C1D2 option).

TEKLINK™ TL50: An independent lighting control system integral to the luminaire, featuring its own occupancy sensor, daylight harvesting and adjustable time-out/dimming settings.

TEKLINK™ TL100: Centralized, wired zonal occupancy and closed-loop daylight harvesting control system. TL100 controllers are standalone devices and ordered separately for luminaire. Click here for specifications.

TEKLINK™ TL1000/2000: An adaptive lighting control system with wired or wireless communication between system nodes. In addition to occupancy detection and daylight harvesting, TL1000 and TL2000 feature advanced scheduling and energy management capabilities with cloud-based management of system settings, reporting and notifications.

INSTALLATION: PENDANT: Sealed threaded hub supplied for ¾" rigid pendant. Pendants by others. LOOP HANGER: Sealed hub with loop style hanger and 6' black power cord. IP65 rated quick connector. Hook by others. Center of gravity is along center axis of luminaire. TRUNNION: Length-adjustable trunnion bracket system with 6' black power cord and IP65 electrical hub.

PHOTOMETRICS: Photometry tested at 25°C. (See photometric data for light output reductions at higher ambient temperatures). Photometry tested to the IESNA LM-79-08 standard by an ILAC/ISO17025 accredited laboratory. For additional photometric data, please go to www.kenall.com.

WARRANTY: Limited ten (10) year warranty.

AMBIENT TEMPERATURE RATING: Product is -40°C to 65°C rated unless otherwise noted. Product configured with C1D2 option is -20°C to 40°C, T code T5 rating.

LISTINGS: Luminaire is certified to UL Standards by Intertek Testing Laboratory for Wet Location. IP65 rating per IEC 60598. Optional Class I, Division 2 listing for Groups A,B,C,D; Class I Zone 2, Groups IIA, IIB, IIC applications.

LED · ETL · IP65 · HAZ (Optional)

ORDERING INFORMATION (Ex: HBMA26-PM-2-DTA-GW-100L40K-DV-C1D2)

Model	Mounting	Dist. Type	Lens Type	Finish	Lamp Type	Voltage	Options	TekLink	Controls Kit
HBMA26									< >

Mounting

PM	Pendant Mount
TK†	Trunnion Kit
HL†	Loop Hanger

Distribution Type

A	Aisle
2	Type II
3	Type III
4	Type IV
5N	Type V – Narrow Round
5S	Type V – Wide Square

Lens Type

DTA	Drop Clear Textured Acrylic
DTP	Drop Clear Textured Polycarbonate
FTA	Flat Clear Textured Acrylic
FTP	Flat Clear Textured Polycarbonate

Finish

DB	Dark Bronze
GW	Gloss White
LG	Light Gray
MB	Matte Black
MW	Matte White
CC	Custom Color (Consult factory)

Lamp Type

100L35K	100 Watt 3500K LED (80 CRI)
100L40K	100 Watt 4000K LED (70 CRI)
100L40KH	100 Watt 4000K LED (80 CRI)
100L50K	100 Watt 5000K LED (70 CRI)
100L57K	100 Watt 5700K LED (70 CRI)
160L35K	160 Watt 3500K LED (80 CRI)
160L40K	160 Watt 4000K LED (70 CRI)
160L40KH	160 Watt 4000K LED (80 CRI)
160L50K	160 Watt 5000K LED (70 CRI)
160L57K	160 Watt 5700K LED (70 CRI)
216L35K	216 Watt 3500K LED (80 CRI)
216L40K	216 Watt 4000K LED (70 CRI)
216L40KH	216 Watt 4000K LED (80 CRI)
216L50K	216 Watt 5000K LED (70 CRI)
216L57K	216 Watt 5700K LED (70 CRI)

Voltage

DV	120-277 Volts
347*	347 Volts
480*†	480 Volts

Options

LELC•	Ceiling Mounted 20W Emergency Battery Backup (to view dimensional drawing click here)
LELP•	Pendant Mounted 20W Emergency Battery Backup (to view dimensional drawing click here)
2C‡	Two-Circuit Wiring
BG	Bird Guard
FS†	Single Fuse & Holder
SCM4▾	Safety Cable Mount (4')
C1D2	Class I, Div 2 Hazardous Location Rating

TekLink

TL50†	TL50 Control System (Click here for specifications)
TL100	TL100 Control System (Click here for specifications)
TL1000†	TL1000 Wired Control System (Click here for specifications)
TL2000†	TL2000 Wireless Control System (Click here for specifications)
TLOS▲†	TL Sensor Only (Click here for specifications)

Please consult Kenall Applications when ordering Controls

Controls Kit

< > Internal Code

* (60Hz, maximum 40°C ambient)
▲ Used in conjunction with TL100
▾ n/a with TK mounting
‡ Suitable for bi-level switching; n/a with TekLink Options
• Suitable for damp locations and 0°C-50°C ambient temperatures. N/A with 347V or 480V input voltages or C1D2 option. Available only with 'PM' Mounting Type.
† n/a with C1D2 Option

www.kenall.com **P: 800-4-Kenall** **F: 262-891-9701** **10200 55th Street Kenosha, Wisconsin 53144**

For additional photometry, go to www.kenall.com

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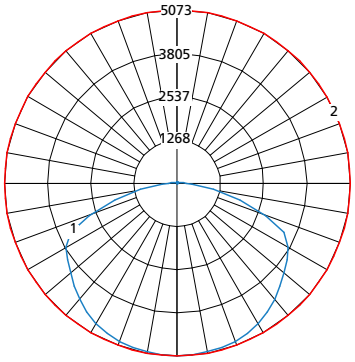
Displayed information below is for luminaires within a 25ºC ambient environment. To determine expected flux and efficacy within a 40ºC environment, apply a 0.95 operating factor to the provided values. To determine expected flux and efficacy within a 50ºC environment, apply a 0.92 operating factor to the provided values. Additional optical distributions are also available. Visit www.kenall.com for IES files and additional information.

PERFORMANCE

	Initial Delivered Lumens						
	Type 5N DTA		Type 5N FTA				
Lamp Type	@25°C (lm)	Efficacy (lm/W)	@25°C (lm)	Efficacy (lm/W)	Input Power (W)	Drive Current (mA)	Estd. L70 LED Life @ 25° Ambient (Hrs)
100L57K	12,821	119	12,298	114	109	350	150,000
160L57K	18,077	108	17,340	104	167	525	150,000
216L57K	22,821	96	21,891	92	237	700	100,000
100L50K	11,991	111	11,502	106	109	350	150,000
160L50K	16,907	101	16,218	97	167	525	150,000
216L50K	21,343	90	20,473	86	237	700	100,000
100L40K	11,253	104	10,794	100	109	350	150,000
160L40K	15,866	95	15,220	91	167	525	150,000
216L40K	20,030	85	19,213	81	237	700	100,000
100L40KH	9,869	91	9,467	88	109	350	150,000
160L40KH	13,916	83	13,348	80	167	525	150,000
216L40KH	17,567	74	16,851	71	237	700	100,000
100L35K	9,869	91	9,467	88	109	350	150,000
160L35K	13,916	83	13,348	80	167	525	150,000
216L35K	17,567	74	16,851	71	237	700	100,000

	Type 5S DTA		Type 5S FTA				
Lamp Type	@25°C (lm)	Efficacy (lm/W)	@25°C (lm)	Efficacy (lm/W)	Input Power (W)	Drive Current (mA)	Estd. L70 LED Life @ 25° Ambient (Hrs)
100L57K	12,266	112	11,482	104	109	350	150,000
160L57K	17,294	104	16,190	97	167	525	150,000
216L57K	21,833	92	20,439	86	237	700	100,000
100L50K	11,471	104	10,739	98	109	350	150,000
160L50K	16,175	97	15,142	91	167	525	150,000
216L50K	20,419	86	19,115	81	237	700	100,000
100L40K	10,765	98	10,078	92	109	350	150,000
160L40K	15,179	91	14,210	85	167	525	150,000
216L40K	19,163	81	17,939	76	237	700	100,000
100L40KH	9,442	86	8,839	80	109	350	150,000
160L40KH	13,313	80	12,463	75	167	525	150,000
216L40KH	16,806	71	15,733	66	237	700	100,000
100L35K	9,442	86	8,839	80	109	350	150,000
160L35K	13,313	80	12,463	75	167	525	150,000
216L35K	16,806	71	15,733	66	237	700	100,000

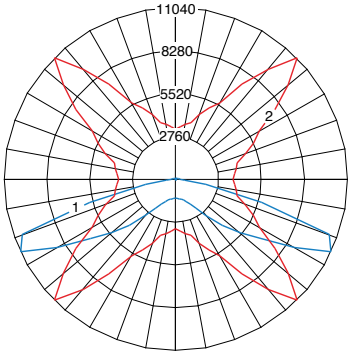
Model: HBMA26-5N-DTA-MW-216L40K-DV



Max Candela = 5073 Located At Horizontal Angle = 0, Vertical Angle = 0

1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

Model: HBMA26-5S-DTA-MW-216L40K-DV



Max Candela = 11040 Located At Horizontal Angle = 45, Vertical Angle = 65

1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

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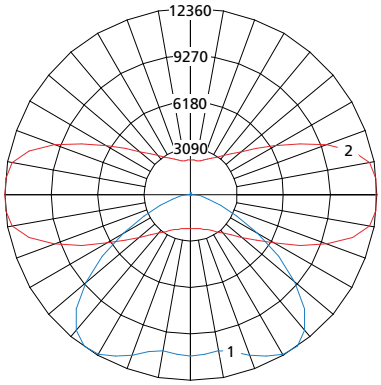
PERFORMANCE

	Initial Delivered Lumens						
	Type A DTA		Type A FTA				
Lamp Type	@25°C (lm)	Efficacy (lm/W)	@25°C (lm)	Efficacy (lm/W)	Input Power (W)	Drive Current (mA)	Estd. L70 LED Life @ 25° Ambient (Hrs)
100L57K	11,919	109	12,409	114	109	350	150,000
160L57K	16,805	101	17,496	105	167	525	150,000
216L57K	20,818	88	20,606	87	237	700	100,000
100L50K	11,147	102	11,605	106	109	350	150,000
160L50K	15,717	94	16,363	98	167	525	150,000
216L50K	19,470	82	19,272	81	237	700	100,000
100L40K	10,461	96	10,891	100	109	350	150,000
160L40K	14,750	88	15,356	92	167	525	150,000
216L40K	18,272	77	18,086	76	237	700	100,000
100L40KH	9,175	84	9,552	88	109	350	150,000
160L40KH	12,936	77	13,468	81	167	525	150,000
216L40KH	16,025	68	15,862	67	237	700	100,000
100L35K	9,175	84	9,552	88	109	350	150,000
160L35K	12,936	77	13,468	81	167	525	150,000
216L35K	16,025	68	15,862	67	237	700	100,000

Model: HBMA26-PM-A-FTA-MW-216L40K-DV

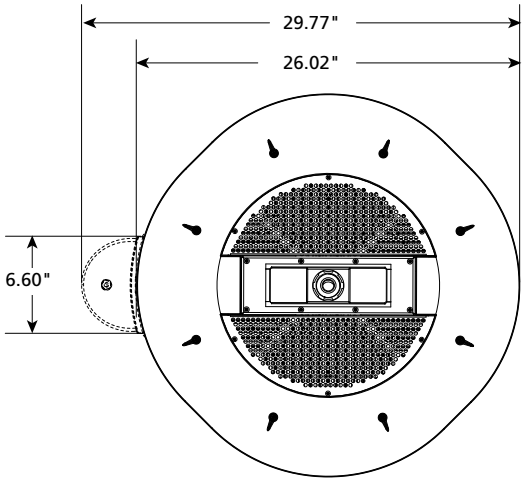


Max Candela = 12359 Located At Horizontal Angle = 5, Vertical Angle = 35

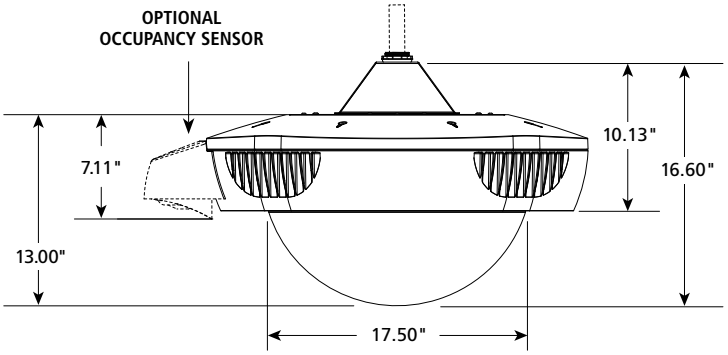
1 - Vertical Plane Through Horizontal Angles (5 - 185) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (35) (Through Max. Cd.)

DIMENSIONAL DATA

TOP VIEW



SIDE VIEW



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