

Catalog #:	Project :	Type :
Prenared Rv ·		Date ·

# **Modular High Bay Light (MHB)**

## Industrial & Warehouse



















### **QUICK LINKS**

OVERVIEW							
Lumen Package (lm)	12,000 - 90,000						
Color Temperature (K)	4000K, 5000K						
Wattage Range (W)	79 - 560						
Efficacy Range (LPW)	146 - 162						
Weight lbs (kg)	7.5 - 22.5 (3.3 - 9.9)						

### **FEATURES & SPECIFICATIONS**

## Construction

- Constructed of 14 gauge die formed aluminum with a post-paint polyester coat
- · Module configurations are factory installed
- Access panel provides hinged access to wiring and driver connections
- Luminaire is certified to UL/cUL Standards for Damp Locations
- · Manufactured in the USA

#### **Optical System**

- High impact clear polycarbonate lens available in wide and narrow distributions
- Wide distributions also available with diffuse lens for smoother light
- · Minimum CRI of 80

#### **Electrical**

- 0-10V dimming (10%-100%) standard
- Standard Universal Voltage (120-277 Vac) Input 50/60 or optional High Voltage (347-480V)
- L70 Calculated Life: >200K hours
- Total Harmonic distortion (THD): <20%
- Operating Temperature -35 to +50C (-31F to +122F)
- · Standard surge protection rated to 20kV/10kA
- Power factor (PF): >.95

- High-performance programmable driver features overvoltage, under voltage, shortcircuit and over temperature protection. Custom lumen and wattage packages available.
- Optional emergency battery packs are available to meet critical life-safety lighting requirements.
- Integral 10W for 120-277V
- External 30W for 120-277V or 347-480V

#### **Controls**

## • Stand-Alone Controls

External and Passive Infrared Bluetooth Motion/Photocell Sensor (OMSBTxL, IMSBTxL)

- Switches luminaire light levels based on motion and daylight (see the controls section for more details)
- Fixtures operate independently and can be commissioned via iOS or Android configuration app

## • LSI's AirLink™ Blue

- App based, wireless Bluetooth mesh lighting control system
- Automated control of grouped fixtures based on motion sensors, daylight or a fully customizable schedule.

#### Installation

- Standard mounting with included V hangar
- · Optional mounting accessories for chain, cable, or single (pendant) monopoint suspension.
- · To maintain ambient listing, mount minimum 6" from ceiling

## Warranty

- · LSI luminaires carry a 5-year limited warranty. Refer to <a href="https://www.lsicorp.">https://www.lsicorp.</a> com/resources/terms-conditionswarranty/ for more information.
- 1 Year warranty on optional Battery Backup. Test regularly in accordance with local codes.

## Listinas

- List for UL 1598 and UL 8750
- · Suitable for damp locations
- Meets Buy American Act Requirements
- · State of California Title 24 compliant
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- IK08 rated luminaire per IEC 66262 mechanical impact code
- Lenses are IP5X rated (dust-resistant)





## **ORDERING GUIDE**

TYPICAL ORD	ER EXAMPLE: M	HB 1	LED	18L CPW UNV	40 EM				
Prefix	Module Size	Light So	ource	Lumen Package	Lens/Optic		Voltage	Driver	Color Temperature / Rendering
MHB - Modular High Bay Light	<b>1</b> - Single (13.5")	LED		<b>12L</b> - 12,000 Lumens <b>15L</b> - 15,000 Lumens <b>18L</b> - 18,000 Lumens <b>24L</b> - 24,000 Lumens <b>30L</b> - 30,000 Lumens	CPW - Clear Polyo DPW - Diffuse Po CPN - Clear Polyo	lycarbonate Wide <sup>3</sup>	UNV - Universal Voltage (120 - 277V) HV - High Voltage (347-480V)	Standard - 0-10V Dimming	<b>40</b> - 4000K / 80CRI <b>50</b> - 5000K / 80CRI
	<b>2</b> - Double (27")			<b>30L</b> - 30,000 Lumens <b>36L</b> - 36,000 Lumens <b>48L</b> - 48,000 Lumens <b>60L</b> - 60,000 Lumens					
	<b>3</b> - Triple (40.5") <sup>1</sup>			<b>72L</b> - 72,000 Lumens <b>90L</b> - 90,000 Lumens					
				Custom Lumens <sup>2</sup>					
Controls			EM Opt	tions		Options			
OMS2-480 - Exte 480V application OMSBT2L - Extern photo sensor up	OMS2 - External PIR sensor up to 40ft OMS2-480 - External PIR sensor up to 40ft for 480V applications OMSBT2L - External Bluetooth PIR motion and photo sensor up to 40ft  EM - 10W Emergency Backup <sup>4,5</sup> EMC - EM with 6ft 16/4 non-dimmin EMCD - EM with 6ft 16/6 dimming le EM30 - 30W Emergency Backup <sup>4,5,6</sup> EM30HV - 30W Emergency Backup <sup>4,5,6</sup> EM30HV - 30W Emergency Backup <sup>4,5,6</sup>		ng leads cord <sup>4,5</sup>	cord <sup>4.5</sup> (CLDSP - Center Leads for pendant mount <sup>9</sup> L615P - 6-15P Twistlock Plug (250V) <sup>8.10</sup> E6CN - 6ft cord 16/3 non-dimming; no plug installed on TOP END L715P - 7-15P Twistlock Plug (277V) <sup>8.10</sup> L820P - 8-20P Twistlock Plug (480V) <sup>8.10</sup>			15P Twistlock Plug (125V) <sup>8,10</sup> 15P Twistlock Plug (250V) <sup>8,10</sup> 15P Twistlock Plug (277V) <sup>8,10</sup>		
photo sensor up	al Bluetooth PIR motior to 40ft	n and					16/5 dimming; no plug installed on TOP El		24 ZOT TWISHOCKT ING OTHY (347 V)
ALBCS2 - AirLink Sensor Controller For low mounting hei	Blue Wireless Motion 8 r (25-40' mounting height ght below 20ft, substitute "2" ." For programming, please so	ght 'in							
"Sensors Sequence of						*See Cord Notes for spo	ecific applications		



## **Need more information?**

Click here for our glossary

Have additional questions? Call us at (800) 436-7800



Note: Controls - For low mounting height below 20ft, substitute "2" in nomenclature with "1." For programming, please see "Sensors Sequence of Operations Charts."

## ACCESSORY ORDERING INFORMATION (Mounting Options are field installed)

Part Number	Order Number	Description
744308	MHB PMK <sup>5,6</sup>	Pendant Mount Kit
572488	KIT SHC	Single Hub/Chain Mount
783379R4	MCH10 <sup>11</sup>	10' Mini Hook Cable Hanger (2 per) - Up/Down adjustable and Left/Right adjustable

Part Number	Order Number	Description
751410	MHB WG1	MHB 1 Wireguard
751411	MHB WG2	MHB 2 Wireguard
781368	MHB WG3	MHB 3 Wireguard

Cord Application Notes									
			Not Di	Dimming					
		No Emergency or Controls	Emergency	Controls <sup>11</sup>	Emergency and Controls	No Emergency or Controls	Emergency		
Switched Circuitry Using a	Plug	Yes	No	Yes	No	No	No		
Wall Switch to Dim <sup>12</sup>	# of Cord Wires	3	4	3	4	5	6		
Non-Switched Circuitry	Plug	Yes	Yes	Yes	Yes	No	No		
Using Controls to Dim <sup>13</sup>	# of Cord Wires	3	3	3	3	5	6		

- Pendant Mount Kit (PMK) not available with Triple module.
- Custom lumen and wattages available, consult factory. Values are within industry standard tolerances and not DLC listed.
- Lenses are IP5X rated (dust-resistant).
- Not available with HV.
- EM30 and EM30HV is externally mounted and only available in Double and Triple Modules (60L-90L).
- Pendant Mount options (MHB PMK, CLDSP) are not compatible with externally mounted EM (EM30, EM30HV).

- 8 EXT and CLDS leads are standarding 16/5 dimming.
- 9 Pendant mount requires CLDSP option.
- $10 \quad \text{Standard with 6' cord unless specified with cord/no plug option.} \\$
- See Product Dimensions section for accessory examples.
- 12 External dim leads not available with controls.
- Switched circuitry uses an external switched device to control dimming and requires a second hot to operate the EM.
- 14 Non-switched circuitry uses controls to operate dimming and can be ordered with battery, cord and plug. Battery is fed by the primary incoming hot.





## **PERFORMANCE**

			4000K CCT					5000K CCT	
Lumen Package	Model Size	Distribution	CRI	Delivered Lumens	Efficacy	Wattage	Delivered Lumens	Efficacy	Wattage
12L	1	CPW	80	12,386	158	78	12,669	159	79
15L	1	CPW	80	16,144	154	105	16,513	157	105
18L	1	CPW	80	18,597	152	121	19,022	156	121
24L	1	CPW	80	23,910	148	162	23,899	148	162
30L	1	CPW	80	29,550	159	186	30,370	166	183
30L	2	CPW	80	28,347	160	177	29,134	164	177
36L	2	CPW	80	37,194	153	244	38,044	156	244
48L	2	CPW	80	47,820	148	324	47,798	147	324
60L	2	CPW	80	59,100	159	371	60,740	165	367
72L	3	CPW	80	73,035	147	496	74,978	151	496
90L	3	CPW	80	89,545	161	557	91,927	165	557
12L	1	DPW	80	11,126	143	78	11,418	144	79
15L	1	DPW	80	14,567	140	105	14,949	143	105
18L	1	DPW	80	16,767	137	122	17,207	141	122
24L	1	DPW	80	21,506	133	162	21,404	133	162
30L	1	DPW	80	26,470	143	185	27,343	149	184
30L	2	DPW	80	25,537	144	178	26,379	149	177
36L	2	DPW	80	33,534	137	244	34,414	141	244
48L	2	DPW	80	43,012	132	324	42,808	136	323
60L	2	DPW	80	52,940	142	371	54,686	149	367
72L	3	DPW	80	64,943	133	489	66,671	136	489
90L	3	DPW	80	79,424	142	559	81,537	146	559
12L	1	CPN	80	11,089	142	78	11,501	145	79
15L	1	CPN	80	14,652	140	105	15,196	145	105
18L	1	CPN	80	16,766	138	122	17,389	143	122
24L	1	CPN	80	21,363	143	162	21,491	132	162
30L	1	CPN	80	26,488	143	185	27,097	148	183
30L	2	CPN	80	25,400	144	177	25,552	145	177
36L	2	CPN	80	33,532	138	243	34,778	143	243
48L	2	CPN	80	42,726	132	323	42,982	133	324
60L	2	CPN	80	52,976	143	371	54,194	148	367
72L	3	CPN	80	60,801	125	487	62,419	128	487
90L	3	CPN	80	76,157	136	560	78,183	140	560

Recommended Lumen Maintenance <sup>1</sup> – 12L–18L								
Ambient Temperature °C	Initial <sup>2</sup>	25K hrs. <sup>2</sup>	50K hrs. <sup>2</sup>	75K hrs. <sup>3</sup>	100K hrs. <sup>3</sup>			
0-25	101%	96%	91%	87%	82%			
40	101%	95%	90%	85%	80%			

Recommended Lumen Maintenance¹ – 30L								
Ambient Temperature °C	Initial <sup>2</sup>	25K hrs. <sup>2</sup>	50K hrs. <sup>2</sup>	75K hrs. <sup>3</sup>	100K hrs. <sup>3</sup>			
40	99%	97%	94%	92%	90%			

Recommended Lumen Maintenance <sup>1</sup> - 24L-30L Double Module								
Ambient Temperature °C	Initial <sup>2</sup>	25K hrs. <sup>2</sup>	50K hrs. <sup>2</sup>	75K hrs. <sup>3</sup>	100K hrs. <sup>3</sup>			
0-25	101%	96%	91%	87%	83%			
40	101%	95%	90%	86%	81%			

Recommended Lumen Maintenance <sup>1</sup> – 36L								
Ambient Temperature °C	Initial <sup>2</sup>	25K hrs. <sup>2</sup>	50K hrs. <sup>2</sup>	75K hrs. <sup>3</sup>	100K hrs. <sup>3</sup>			
0-25	101%	96%	91%	87%	82%			
40	101%	95%	90%	85%	80%			

Recommended Lumen Maintenance¹ – 48L								
Ambient Temperature °C	Initial <sup>2</sup>	25K hrs. <sup>2</sup>	50K hrs. <sup>2</sup>	75K hrs. <sup>3</sup>	100K hrs. <sup>3</sup>			
0-25	101%	96%	91%	87%	83%			
40	101%	95%	90%	86%	81%			

Recommended Lumen Maintenance <sup>1</sup> – 60L					
Ambient Temperature °C	Initial <sup>2</sup>	25K hrs. <sup>2</sup>	50K hrs. <sup>2</sup>	75K hrs. <sup>3</sup>	100K hrs. <sup>3</sup>
40	99%	97%	94%	92%	90%

Recommended Lumen Maintenance¹ - 72L					
Ambient Temperature °C	Initial <sup>2</sup>	25K hrs. <sup>2</sup>	50K hrs. <sup>2</sup>	75K hrs. <sup>3</sup>	100K hrs. <sup>3</sup>
0-25	101%	96%	91%	87%	83%
40	101%	95%	90%	86%	81%

Recommended Lumen Maintenance <sup>1</sup> – 90L					
Ambient Temperature °C	Initial <sup>2</sup>	25K hrs. <sup>2</sup>	50K hrs. <sup>2</sup>	75K hrs. <sup>3</sup>	100K hrs. <sup>3</sup>
40	99%	97%	94%	92%	90%

Type : \_\_\_\_\_

<sup>1</sup> Lumen maintenance values at 25C are calculated per TM-21 based on LM-80 and in-situ testing.

<sup>2</sup> In accordance with IESNA TM-21-11, projected values represent interpolated value based on time durations that are within six times the IESNA LM-80-08 total test duration for the device under testing.

<sup>3</sup> In accordance with IESNA TM-21-11, calculated values represent time durations that exceed six times the IESNA LM-80-08 total test duration for the device under testing.

**Have questions?** Call us at (800) 436-7800

## **PHOTOMETRICS**

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

See https://www.lsicorp.com/product/modular-high-bay/ for detailed photometric data.

## MHB 24L CPW 50 80CRI

Luminaire Data		
Wide Distribution		
Description	5000 Kelvin, 80 CRI	
Delivered Lumens	23,899	
Watts	162	
Efficacy	148	

#### MHB 24L DPW 50 80CRI

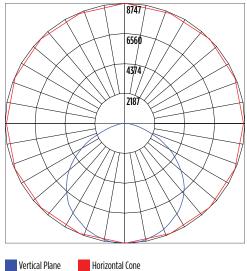
Luminaire Data	
Wide Distribution	
Description	5000 Kelvin, 80 CRI
Delivered Lumens	21,405
Watts	162
Efficacy	132

#### MHB 24L CPN 50 80CRI

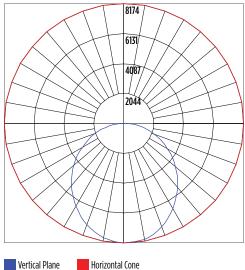
Luminaire Data		
Wide Distribution		
Description	5000 Kelvin, 80 CRI	
Delivered Lumens	21,491	
Watts	162	
Efficacy	133	

Type: \_\_\_\_\_

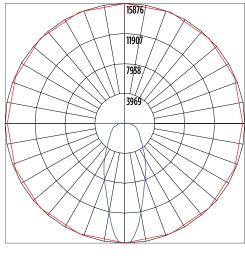




## **Polar Curve**



## **Polar Curve**







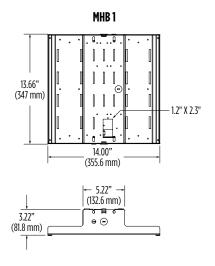
Vertical Plane

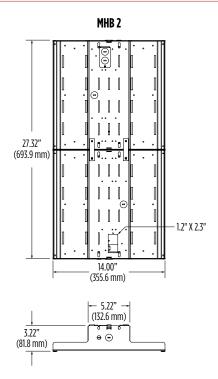
Horizontal Cone

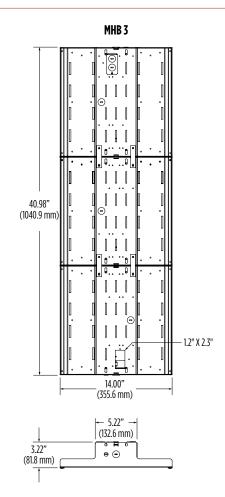
Type : \_\_\_\_\_

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## **PRODUCT DIMENSIONS**









**High Bay Bottom Wireguard** 



**High Bay Pendant Mount Conduit** 



Components of the MCH10 Hardware Kit



MCH10 hooks attached to MHB



View of MHB with MCH10 hardware kit



### **CONTROLS**

#### Integral Bluetooth™ Motion and Photocell Sensor (IMSBTxL)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is IP66 rated for cold and wet locations (-40°F to 167°F). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

Click here to learn more details about IMSBT







**LEVITON App** 

Apple

Android

## AirLink Blue (ALBCSx)

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/Site, Wall Mounted, Parking Garage and Canopy luminaires.

Click here to learn more details about AirLink Blue





AirLink Blue App

Apple

## **Sensor Sequence of Operations**

Standard Programming	On Event	On Light Event	Dim Light Level	Delay to Dim	Delay to Off	Sensitivity
OMSBTxL/IMSBTxL	Motion	100%	50%	5 seconds	10 seconds	High
OMS	Motion	N/A	N/A	N/A	30 seconds	Auto

Operation	Description
On Event	Trigger that activates lights to turn on; either automatic via motion detected or manually activated via push of button.
Off Event	Trigger that activates lights to turn off; either automatic via no motion detected or manually activated via push of button.
On Light Level	The light level that the fixtures will turn on to when ON EVENT occurs.
Dim Light Level	The light level that the fixtures will dim down to when no motion is detected.
Delay to Dim	The amount of time after which no motion is detected that the fixtures will be triggered to dim down. This sequence is optional, and sensor can be programmed to only trigger the fixture to turn off by entering 100% in this field.
Delay to Off	The amount of time after which no motion is detected that the fixtures will be triggered to turn off. If delay to dim is part of the programmed functionality, this is the amount of time after which no motion is detected after the fixture have already dimmed down.
Sensitivity	The sensitivity can be set to high, medium, low, or auto where applicable. High will detect smaller, simple motions. Low will only detect larger more complex motions. Auto temperature calibration adjusts the PIR sensitivity as ambient temperature rises to increase detection of heat movement through the field of view.

Type: \_\_\_\_