

# **APPLICATIONS**

· Commercial, High Impact Areas, Vandal Resistant Areas

#### FEATURES

- · High (HT) ambient temperature version for extreme temperature ranges (See SYSTEM DATA for ranges)
- 0-10V dimming driver standard (See <u>DRIVER OPTIONS</u> for other dimming types)
- Supports California Title 24 compliance
- Safety cables attached to door frame and LED gear tray
- · Formed air slot that allows air circulation for heat removal

# OPTIONS

- Full customization available upon request
- Additional lumen packages and color temperatures available
- Controls and sensors available (See <u>SENSOR OPTIONS</u> for controls and sensors)
- $\bullet \ \, \text{Wireless control options available } (\textit{See } \underline{\textit{SENSOR OPTIONS}} \ \textit{for wireless controls}) \\$
- Custom colors available (See <u>CUSTOM COLORS</u> for standard and custom options)
- Variety of lenses available (See OPTICAL OPTIONS for lenses)
- Emergency battery pack available (See <u>BATTERY PACK OPTIONS</u> for battery pack options)
- Cable suspension systems available (See ACCESSORIES for details)
- Tamper proof screws (hex with post) available

### SPECIFICATIONS

#### CONSTRUCTION

- 20 ga. cold rolled steel housing with louvered vents for heat removal
- 20 ga. cold rolled steel door frame secured by full length piano hinge and 2 captive screws
- One way polyurethane gasket standard

#### FINISH

Baked white powder coated finish / painted after fabrication / minimum reflectance 90%

#### OPTICAL

- High impact clear prismatic acrylic lens (nominal 0.187) standard
- Inner frame lens retainer rail

#### ELECTRICAL

- High efficiency drivers coupled with long-life LEDs
- Service life greater than 50,000 hours (L70)
- Universal voltage 120V through 277V (347V / 480V available)
- Power Factor (PF) ≥ 0.9
- Total Harmonic Distortion (THD) ≤ 20%

#### LISTING

• UL USA and Canada listed / suitable for damp locations

#### WARRANT

5-year limited warranty



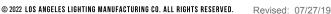
Los Angeles Lighting Mfg. Co.







Due to continued product improvements and enhancements, Los Angeles Lighting Manufacturing Company reserves the right to alter specifications, dimensions, data, and/or materials without notice. Please visit our website to view the most current information.





# ORDERING INFORMATION EXAMPLE: MBL229-16-2L-FSW-DRP8-BPL1.5-DRDM-UNV-2/850HT

SERIES	LED LUMEN PACKAGE	NOMINAL LENGTH	DOOR FRAME	OPTICAL	MECHANICAL	ELECTRICAL	DRIVER	VOLTAGE	# OF LED ROW	CRI / CCT	AMBIENT TEMP.
MBL229		2L	FSW				DRDM	UNV	2		HT
MBL229 High Impact High Bay LED Luminair (HT - High Ambient Temperature Version)	8 Nom. 8000 Lumens 12 Nom. 12000 Lumens 16 Nom. 16000 Lumens *Additional Lumen Packages Available	2L 2' x 2'	FSW Flat Steel White Enamel Door Frame See DOOR FRAME for Options	DRP8 High Impact Clear Prismatic Acrylic 0.187  DRP2 High Impact Clear Prismatic Acrylic 0.125 See OPTICAL OPTIONS for Options	TP Tamper Proof Screws (Hex with Post) *Leave Blank if Not Specified	BPL1.5 Emergency Battery Pack, Nom. 1500 Im  See BATTERY PACK OPTIONS for Options  MSxx Motion Sensor WLC(LEDRU) Wireless Control  See SENSOR OPTIONS for Options  *Leave Blank if Not Specified Additional Electrical Options	DRDM 0-10V Dimming Driver  See DRIVER OPTIONS for Options	UNV 120V-277V See DRIVER OPTIONS for Options	Two LED Rows	835 80+CRI / 3500K Color Temp. 840 80+CRI / 4000K Color Temp. 850 80+CRI / 5000K Color Temp. *Additional Color Temp. Available	HT High Ambient Temp.

# SYSTEM DATA

# THESE ARE THE MOST POPULAR LUMEN PACKAGES. PLEASE CONSULT FACTORY FOR ADDITIONAL SYSTEM DATA.

NOMINAL SIZE	LED LUMEN PACKAGE	CRI / CCT	AMBIENT TEMP.	OPTICAL	DELIVERED LUMENS	SYSTEM WATTS	LUMINAIRE EFFICACY	FLUORESCENT / HID / CFL EQUIVALENT	IES FILES
	8000 lm		НТ	DRP8	4376 lm	22.0 W	198.6 lm/W	4-F24T5HO, 175 W (MH), 4-BX40	<u>LA-T3144-2</u>
2' x 2'	12000 lm	850	HT	DRP8	9794 lm	76.1 W	128.6 lm/W	6-F24T5HO, 250 W (MH), 4-BX55	<u>LA-T3145-2</u>
	16000 lm		HT	DRP8	12887 lm	103.3 W	124.7 lm/W	8-F24T5HO, 400 W (MH), 8-BX40	LA-T3146-2

System data above is based on 120V input voltage.

Actual performance may differ as a result of end-user environment and application. HT: High Ambient Operating Temperature Minimum -30°C / Maximum (please consult factory)

Additional lumen packages and color temperatures available.

PERFORMANCE DATA

**VIEW PHOTOMETRICS** 









# SENSOR OPTIONS

#### DRY AND DAMP LOCATIONS - HIGH / LOW AISLE MOUNTING APPLICATIONS - END MOUNT

#### MS - Motion Sensor

- Turns light ON/OFF based on motion detection
- Fixture mounting height 8-45
- Universal Voltage (120V-277V)
- 480V available

#### MSSD - Motion Sensor - Step Dimming

- Step-dims light to desired preset level (based on motion detection)
- Used in conjunction with 0-10V Ballast/Driver
- Fixture mounting height 8-45
- Universal Voltage (120V-277V)

#### MSPC - Motion Sensor & Photocell

- Holds lights OFF when sufficient daylight is present regardless of motion detection
- Fixture mounting height 8-45'
- Universal Voltage (120V-277V)

# MSPCD(ADC) - Motion Sensor & PhotoCell Dimming (Auto Dim Control)

- Variably dims output to desired preset footcandle level through photocell ON/OFF with motion detection
- · Used in conjunction with 0-10V Ballast/Driver
- Fixture mounting height 8-45
- Universal Voltage (120V-277V)

#### MSPCD(ANL) - Motion Sensor & Photocell Dimming (Auto Night Light)

- · Variably dims output to desired footcandles through photocell
- · Low setting when unoccupied (full on with motion)
- For 24 hour use
- · Used in conjunction with 0-10V Ballast/Driver
- Fixture mounting height 8-45
- · Universal Voltage (120V-277V)

#### MSPCDR - Motion Sensor & Photocell Dimming (Setup with Remote Control)

- · Field adjustable dimming sensor capabilities:
- Step Dim (HIGH/LOW output)
- Auto Dim Control (dim to desired footcandles, ON/OFF with motion)
- Auto Night Light (dim to desired footcandles, LOW without motion)
- Used in conjunction with 0-10V dimming Ballast /Driver
- Holds lights OFF when sufficient daylight is present regardless of motion detection
- Adjustable ramp up and fade down time
- Fixture mounting height 8-40'
- Universal Voltage (120V-277V)
- Remote setup and adjustment with handheld wireless tool (sold separately)

- PCS Photocell Sensor
   Turns light ON/OFF based on light levels
- Fixture mounting height 8-45'
- Universal Voltage (120V-277V)

#### **PCD** - Photocell Dimming

- Dims output to desired footcandles through photocell
- Used in conjunction with 0-10V Ballast/Driver
- Fixture mounting height 8-45'
- Universal Voltage (120V-277V)

#### **HIGH FREQUENCY** - INTERNAL FIXTURE MOUNT

#### MSHPC - Motion Sensor High Frequency (Microwave) & Photocell

- · Super high frequency motion sensor (also known as microwave sensor) which detects movement when installed behind low density fixture materials, such as polycarbonate, acrylic and glass diffusers
- · Holds lights OFF when sufficient daylight is present regardless of motion detection
- · Selectable sensitivity and detection area
- Universal Voltage (120V-277V)
- Mounting height: 10-20 feet

### MSHPCD - Motion Sensor High Frequency (Microwave) & Photocell Dimming

- · Super high frequency motion sensor (also known as microwave sensor) which detects movement when installed behind low density fixture materials, such as polycarbonate, acrylic and glass diffusers
- · Holds lights OFF when sufficient daylight is present regardless of motion detection
- Variably dims output to desired preset level and stand-by period when unoccupied (full on with motion)
- · Selectable sensitivity and detection area
- Universal Voltage (120V-277V)
- Mounting height: 10-20 feet

# **CONTROLS AND SENSORS**

#### LEDRU - EnOcean® LED Relay Zone Controller

- · Supports a single LED fixture or multiple daisy chained LED fixtures
- · Module installed inside lighting fixture

### ESRPU-W-EO - EnOcean® Rocker Switch - Single - Surface Mount

- · Wireless single rocker switch with mounting plate
- No batteries needed

# ESDRPU-W-EO - EnOcean® Rocker Switch - Double - Surface Mount

- · Wireless double rocker switch with mounting plate
- No batteries needed

#### S3054-N30 - EnOcean® Navigan NWC 300U - Commissioning Tool

- Navigan Wireless Commissioner is used to configure EnOcean controllers & sensors
- It can be used to define link tables, change parameters/settings, and to edit & store projects
- · Configuration settings can be saved and cloned to enable quick configuration
- Connectivity is through the NWC 300U USB Stick

#### EOSWU-W-EO - EnOcean® Occupancy Sensor - Wall Mount

- · Wireless wall mounted occupancy sensor
- Solar powered no batteries needed (coin battery operated in low light conditions)
- PIR motion sensor with both wide angle (50') and long range (100') options
- · Mounting height: 6-8 feet

# EOSCU-W-EO - EnOcean® Occupancy Sensor - Ceiling Mount

- · Wireless ceiling mounted occupancy sensor
- · Solar powered no batteries needed (coin battery operated in low light conditions)
- PIR motion sensor with 360 degree viewing angle lens (34' diameter)
- Mounting height: 7-10 feet

#### EOSCU-W-EO - EnOcean® Light Level Sensor

- · Light Level sensor that measures and reports the level of available natural light
- Solar powered no batteries needed (coin battery operated in low light conditions)
   Enables implementation of daylight harvesting control systems
- · Mounting position: At the ceiling, close to ambient light source



Los Angeles Lighting Mfg. Co. Contact Us T: 626-454-8300 F: 626-454-8399 El Monte, CA 913 Made in the USA www.lalighting.com







Revised: 07/27/19

# OPTICAL OPTIONS

# STANDARD LENSES FOR MBL229

DRP8	High Impact Clear Prismatic Acrylic, Nom. 0.187 OA Thickness, Female Prisms 3/16 Square Base
DRP2	High Impact Clear Prismatic Acrylic, Nom. 0.125 OA Thickness, Female Prisms 3/16 Square Base

### ADDITIONAL AVAILABLE LENSES

(Not all optics suitable for fixture. Please consult factory to ensure selected optical option suits fixture. Please consult factory regarding any optical options not shown)

#### **EXTRUDED PRISMATIC PATTERNS**

FPA2	Frosted Prismatic Acrylic, Nom. 0.125 OA Thickness			
PA2	Clear Prismatic Acrylic, Nom. 0.125 OA Thickness, Female Prisms 3/16 Square Base			
PA	Clear Prismatic Acrylic, No Thickness Specified, Female Prisms 3/16 Square Base			
PA3	Clear Prismatic Acrylic, Min. 0.125 OA Thickness, Female Prisms 3/16 Square Base			
PA8	Clear Prismatic Acrylic, Nom. 0.187 OA Thickness, Female Prisms 3/16 Square Base			
P15	Clear Prismatic Acrylic, Nom. 0.200 OA Thickness, Female Prisms 3/8 Square Base			
P195	Clear Prismatic Acrylic, Nom. 0.150 OA Thickness, Male Conical Prisms 3/16 Square Base			
P3E	3E Batwing Pattern Lens			
P195RF	Clear Prismatic Acrylic, 19 Shunts Radio Frequencies To Ground, Nom. 0.150 OA Thickness			

#### **FLAT DIFFUSERS**

FFA Frosted Flat Acrylic, No Thickness Specified		FFA2	Frosted Flat Acrylic, Nom. 0.125 Thickness
CA Clear Acrylic, No Thickness Specified		CA2	Clear Acrylic, Nom. 0.125 OA Thickness
CA8 Clear Acrylic, Nom. 0.187 OA Thickness			

### **HIGH IMPACT**

VL25	Clear Polycarbonate, Nom. 0.125 Thickness with 0.125 Clear Prismatic Acrylic Overlay			
VL37	Clear Polycarbonate, Nom. 0.250 Thickness with 0.125 Clear Prismatic Acrylic Overlay			
CPC2	Clear Polycarbonate, Nom. 0.125 OA Thickness			
CPC8	Clear Polycarbonate, Nom. 0.187 OA Thickness			
PPC2	Clear Prismatic Polycarbonate, Nom. 0.125 OA Thickness, Female Prisms 3/16 Square Base			
PPC8	Clear Prismatic Polycarbonate, Nom. 0.187 OA Thickness, Female Prisms 3/16 Square Base			
DRP2	High Impact Clear Prismatic Acrylic, Nom. 0.125 OA Thickness, Female Prisms 3/16 Square Base			
DRP3	High Impact Clear Prismatic Acrylic, Min. 0.125 OA Thickness, Female Prisms 3/16 Square Base			
DRP8	High Impact Clear Prismatic Acrylic, Nom. 0.187 OA Thickness, Female Prisms 3/16 Square Base			

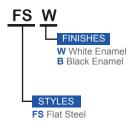
# DOOR FRAME

# **CROSS SECTION**



## **FEATURES**

- Full Length Piano Hinge
- Two Captive Screws
- Welded Inner Frame Lens Retainer Rail



# AIR SLOT

- Formed air slot
- · Allows air circulation for heat removal





Los Angeles Lighting Mfg. Co.

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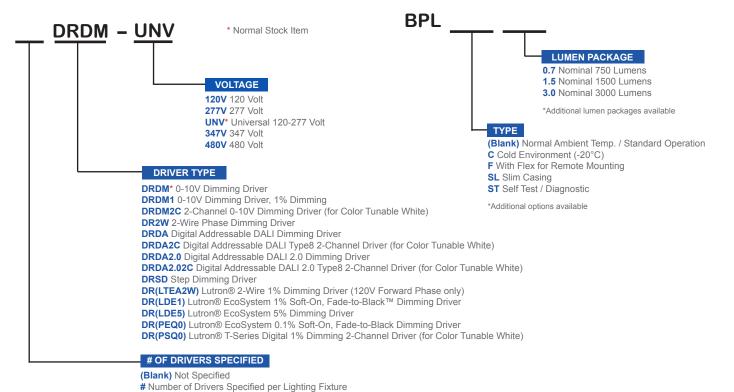


# DRIVER OPTIONS

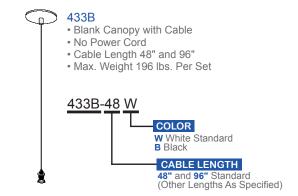
# BATTERY PACK OPTIONS

# PLEASE CONSULT FACTORY TO SEE IF YOUR SELECTED DRIVER OPTION WORKS WITH THIS FIXTURE.

# PLEASE CONSULT FACTORY TO SEE IF YOUR SELECTED BATTERY PACK OPTION WORKS WITH THIS FIXTURE.



# **ACCESSORIES**



• Feed-In Canopy with Straight Cord Includes Power Cord · Cable Length 48" and 96" · Max. Weight 196 lbs. Per Set 444F-48SW-2C # OF CIRCUIT 2C Two Circuits LV 0-10V Dimming Leave blank for one circuit COLOR W White Standard **B** Black CORD TYPE S Straight Cord CABLE LENGTH

444F

NEEDED PER FIXTURE:

- 3x Blank Canopy with Cable (433B)
- 1x Feed-In Canopy with Straight Cord (444F)

# **CUSTOM COLORS**

**BLK - Matte Black** 

**CS - Camaro Silver** 

**BZ** - Statuary Bronze

Variety of RAL colors & Axalta/DuPont colors available upon request.



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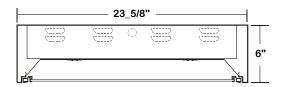
**48"** and **96"** Standard (Other Lengths As Specified)

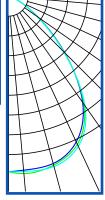
# **PHOTOMETRIC DATA - MBL229 SERIES**

#### MBL229-8-2L-FSW-DRP8-1DRDM-UNV-2/850HT

TEST NO.=LA-T3144-2 LED TYPE=144 LED MODULE NO. OF MODULE=2 SYSTEM WATT (W)=49.5 CRI ≥ 80 L70(Hrs.) ≥ 50,000

PHOTOMETRY TYPE=C





C	ANDLI	EPOWE	R
ANGLE	END	45	CROSS
0	3452	3451	3452
5	3433	3502	3459
15	3405	3436	3466
25	3161	3212	3256
35	2550	2591	2630
45	1572	1555	1540
55	717	704	695
65	266	260	255
75	76	73	74
85	11	11	11
90	1	1	0
95	0	0	0
115	0	0	0
125	0	0	0
135	0	0	0
145	0	0	0
155	0	0	0
165 175	0	0 0	0
180	0	0	0

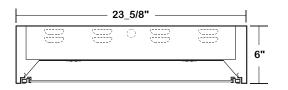
ZONA	L LUMI	EN SUM	IMARY
DEGREES			
0-30	2791	31.9	42.28
0-40	4419	50.5	66.93
0-60	6256	71.4	94.76
0-90	6602	75.4	100.0
90-120	0.1	0.0	0.0
90-150	0.1	0.0	0.0
90-180	0.1	0.0	0.0
0-180	6602	75.4	100.00

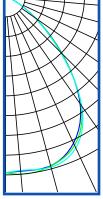
Luminaire Output= 6602 lumens Luminaire Efficacy = 133.3 lm/W

SPACING	CRITERION
ALONG	ACROSS
1.21	1.24

# MBL229-12-2L-FSW-DRP8-1DRDM-UNV-2/850HT

TEST NO.=LA-T3145-2 LED TYPE=144 LED MODULE NO. OF MODULE=2 SYSTEM WATT (W)=76.1 CRI ≥ 80 L70(Hrs.) ≥ 50.000 PHOTOMETRY TYPE=C





C	ANDL	EPOWE	R
ANGLE	END		CROSS
0	5112	5112	5112
5	5088	5176	5067
15	5085	5093	5127
25	4691	4762	4847
35	3791	3845	3877
45	2334	2313	2253
55	1065	1054	1030
65	386	386	381
75	111	111	110
85	1	1	1
90	1	1	0
95	0	0	0
115	0	0	0
125	0	0	0
135	0	0	0
145	0	0	0
155	0	0	0
165	0	0	0
175	0	0	0
180	0	0	0

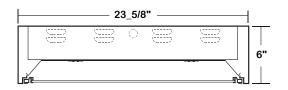
ZONAL LUMEN SUMMARY						
DEGREES			% FIXTURE			
0-30	4141	31.8	42.2			
0-40	6553	50.4	66.9			
0-60	9280	71.4	94.76			
0-90	9793	75.4	100			
90-120	0.2	0.0	0.0			
90-150	0.2	0.0	0.0			
90-180	0.2	0.0	0.0			
0-180	9793	75.4	100			

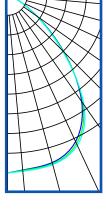
Luminaire Output= 9793 lumens Luminaire Efficacy = 128.7 lm/W

SPACING (	CRITERION
ALONG	ACROSS
1.21	1.24

#### MBL229-16-2L-FSW-DRP8-1DRDM-UNV-2/850HT

TEST NO.=LA-T3136-2 LED TYPE=144 LED MODULE NO. OF MODULE=2 SYSTEM WATT (W)=103.3 CRI ≥ 80 L70(Hrs.) ≥ 50,000 PHOTOMETRY TYPE=C





CANDLEPOWER				
ANGLE	END		CROSS	
0	6820	6820	6820	
5	6733	6748	6780	
15	6648	6696	6726	
25	6198	6283	6357	
35	4978	5062	5129	
45	3080	3039	2964	
55	1402	1381	1359	
65	514	506	502	
75	145	145	140	
85	21	22	22	
90	1	1	1	
95	0	0	0	
115	0	0	0	
125	0	0	0	
135	0	0	0	
145	0	0	0	
155	0	0	0	
165	0	0	0	
175	0	0	0	
180	0	0	0	

CANDI EDOMED

Ī	ZONAL LUMEN SUMMARY					
ı	DEGREES					
I	0-30	5449	31.8	42.2		
ı	0-40	8626	50.7	66.9		
	0-60	12213	71.4	94.7		
	0-90	12886	75.4	100.0		
	90-120	0.3	0.0	0.0		
ı	90-150	0.3	0.0	0.0		
1	90-180	0.3	0.0	0.0		
	0-180	12886	75.4	100.00		

Luminaire Output= 12886 lumens Luminaire Efficacy = 124.7 lm/W

SPACING CRITERION		
ALONG	ACROSS	
1.20	1.23	

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