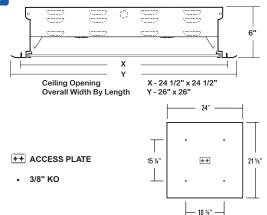




RECESSED MOUNTED HIGH IMPACT HIGH BAY LED LUMINAIRE



DIMENSIONS



APPLICATIONS

- Commercial, High Impact Areas, Vandal Resistant Areas
- Racquetball / Handball Court (FFLG Flat Trim Flange / DRP8(INV) Inverted High Impact Clear Prismatic Acrylic Nom. 0.187)

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

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)
- Wireless control options available (See <u>SENSOR OPTIONS</u> for wireless controls)
- Variety of lenses available (See OPTICAL OPTIONS for lenses)
- Emergency battery pack available (See BATTERY PACK OPTIONS for battery pack options)
- Tamper proof screws (hex with post) available
- Flat trim flange without beveled edges available (See FLANGE for flat trim flange)
- Hanger yokes available (See <u>ACCESSORIES</u> for details)
- Swing-out jacks available (See ACCESSORIES for details)

SPECIFICATIONS

CONSTRUCTION

- 22 ga. cold rolled steel housing with louvered vents for heat removal (20 ga. housing available as specified)
- 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 polyester finish (powder coated finish available) / minimum reflectance 86%
- Trim Flange and Door Frame powder coated finish / painted after fabrication

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

WARRANTY

5-year limited warranty

INSTALLATION NOTE:

- To be mounted in open plenum only
- Not to be installed in tightly enclosed spaces



Los Angeles Lighting Mfg. Co.

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To 10141 Oi
El Monte
Made in 10141 Oi

10141 Olney Street El Monte, CA 91731 Made in the USA





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: FBL229-16-2L-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.
FBL229		2L	FSW				DRDM	UNV			HT
FBL229 Trim Flanged High Impact High Bay LED Luminaire (HT - High Ambient Temperature Version)	8 Nom. 8000 Lumens 12 Nom. 12000 Lumens 16 Nom. 16000 Lumens 24 Nom. 24000 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	FFLG Flat Trim Flange without Beveled Edges See FLANGE for Options TP Tamper Proof Screws (Hex with Post) *Leave Blank if Not Specified Additional Mechanical Options	BPL1.5 Emergency Battery Pack, Nom. 1500 lm 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	2 Two LED Rows (Only 8000 / 12000 / 16000 lumens Systems) 4 Four LED Rows (Only 24000 lumens System)	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	6939 lm	49.5 W	140.2 lm/W	4-F24T5HO, 175 W (MH), 4-BX40	<u>LA-T3139-3</u>
	12000 lm		НТ	DRP8	10292 lm	76.1 W	135.2 lm/W	6-F24T5HO, 250 W (MH), 4-BX55	LA-T3140-3
2' x 2'	16000 lm	850	НТ	DRP8	13549 lm	103.3 W	131.1 lm/W	8-F24T5HO, 400 W (MH), 8-BX40	<u>LA-T3141-3</u>
	24000 lm		НТ	DRP8	21428 lm	163.6 W	131.0 lm/W	12-F24T5HO, 12-BX55	*

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

w.lalighting.com

VIEW PHOTOMETRICS



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SENSOR OPTIONS

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

DRDM - UNV

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

DRIVER OPTIONS

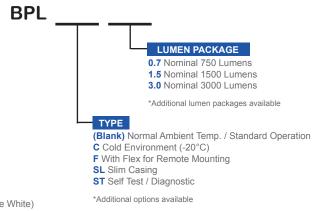
PLEASE CONSULT FACTORY TO SEE IF YOUR SELECTED DRIVER OPTION WORKS WITH THIS FIXTURE.

VOLTAGE 120V 120 Volt 277V 277 Volt UNV* Universal 120-277 Volt 347V 347 Volt 480V 480 Volt DRIVER TYPE **DRDM*** 0-10V Dimming Driver DRDM1 0-10V Dimming Driver, 1% Dimming DRDM2C 2-Channel 0-10V Dimming Driver (for Color Tunable White) DR2W 2-Wire Phase Dimming Driver DRDA Digital Addressable DALI Dimming Driver DRDA2C Digital Addressable DALI Type8 2-Channel Driver (for Color Tunable White) DRDA2.0 Digital Addressable DALI 2.0 Dimming Driver DRDA2.02C Digital Addressable DALI 2.0 Type8 2-Channel Driver (for Color Tunable White) **DRSD** Step Dimming Driver DR(LTEA2W) Lutron® 2-Wire 1% Dimming Driver (120V Forward Phase only) DR(LDE1) Lutron® EcoSystem 1% Soft-On, Fade-to-Black™ Dimming Driver DR(LDE5) Lutron® EcoSystem 5% Dimming Driver DR(PEQ0) Lutron® EcoSystem 0.1% Soft-On, Fade-to-Black Dimming Driver DR(PSQ0) Lutron® T-Series Digital 1% Dimming 2-Channel Driver (for Color Tunable White)

* Normal Stock Item

BATTERY PACK OPTIONS

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



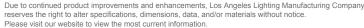
OF DRIVERS SPECIFIED (Blank) Not Specified

Number of Drivers Specified per Lighting Fixture













OPTICAL OPTIONS

STANDARD LENSES FOR FBL229

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			

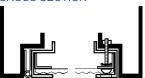






DOOR FRAME

CROSS SECTION



FEATURES

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



FLANGE

FFLG

- Flat Trim Flange
- Without beveled edges
- Powder coated finish
- · Painted after fabrication

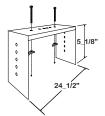


ACCESSORIES

HS-24_1/2

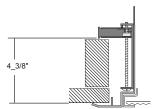
- Hanger Yokes
- Compatible with all types of recessed flanged fixtures
 1/4 20 x 3" machine screws locate into knockout on back of fixture housing
- Two (2) per fixture





SOJ

- Swing-Out Jacks
- Compatible with selected types of recessed flanged fixtures
- Spring loaded adjustable mounting bracket for mounting in drywall or plaster type ceiling
- Two (2) brackets on each side of fixture housing
- Four (4) per fixture







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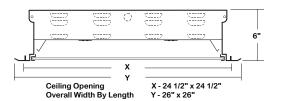


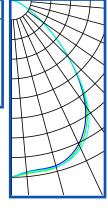
PHOTOMETRIC DATA - FBL229 SERIES

FBL229-8-2L-FSW-DRP8-1DRDM-UNV-2/850HT

TEST NO.=LA-T3139-3 LED TYPE=144 LED MODULE NO. OF MODULE=2 SYSTEM WATT (W)=49.5 CRI ≥ 80 L70(Hrs.) ≥ 50,000

PHOTOMETRY TYPE=C





(ANDLI	POWE	R
ANGLE	END		CROSS
0	3665	3665	3665
5	3532	3583	3611
15	3540	3573	3590
25	3285	3328	3392
35	2656	2713	2760
45	1659	1671	1656
55	759	759	752
65	281	280	279
75	80	80	80
85	11	11	11
90	1	1	0
95	0	0	0
115	0	0	0
125	0	0	0
135 145	0	0	0 0
	0	0	
155 165	0	0	0 0
175	0	0	0
180	0	0	0

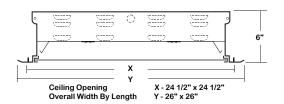
ZONAL LUMEN SUMMARY						
DEGREES			% FIXTURE			
0-30	2896	33.1	41.7			
0-40	4599	52.6	66.3			
0-60	6567	75.0	94.6			
0-90	6939	79.3	100.0			
90-120	0.1	0.0	0.0			
90-150	0.1	0.0	0.0			
90-180	0.1	0.0	0.0			
0-180	6939	79.3	100.00			

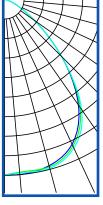
Luminaire Output= 6939 lumens Luminaire Efficacy = 140.2 lm/W

SPACING	CRITERION
ALONG	ACROSS
1.19	1.23

FBL229-12-2L-FSW-DRP8-1DRDM-UNV-2/850HT

TEST NO.=LA-T3140-3 LED TYPE=144 LED MODULE NO. OF MODULE=2 SYSTEM WATT (W)=76.1 CRI ≥ 80 L70(Hrs.) ≥ 50,000 PHOTOMETRY TYPE=C





ANGLE END 45 CROSS 0 5358 5358 5358 5 5365 5291 5318 15 5251 5288 5331 25 4877 4938 5006 35 3934 4021 4105 45 2465 2473 2463	S
5 5365 5291 5318 15 5251 5288 5331 25 4877 4938 5006 35 3934 4021 4105 45 2465 2473 2463	
15 5251 5288 5331 25 4877 4938 5006 35 3934 4021 4105 45 2465 2473 2463	
25 4877 4938 5006 35 3934 4021 4105 45 2465 2473 2463	
35 3934 4021 4105 45 2465 2473 2463	
45 2465 2473 2463	
55 1119 1131 1112	
65 418 416 418 75 119 119 120	
85 17 16 17	
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	

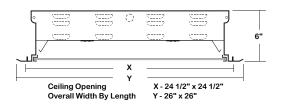
ZONA	AL LUM	EN SUN	IMARY
DEGREES			% FIXTURE
0-30	4294	33.1	41.7
0-40	6819	52.5	66.3
0-60	9738	75.0	94.6
0-90	10292	79.3	100.0
90-120	0.2	0.0	0.0
90-150	0.2	0.0	0.0
90-180	0.2	0.0	0.0
0-180	10292	79.3	100.00

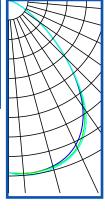
Luminaire Output= 10292 lumens Luminaire Efficacy = 135.2 lm/W

SPACING	CRITERION
ALONG	ACROSS
1.20	1.24

FBL229-16-2L-FSW-DRP8-1DRDM-UNV-2/850HT

TEST NO.=LA-T3141-3 **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	6930	6930	6930	
5	6987	6986	7061	
15	6900	6932	6992	
25	6408	6530	6587	
35	5201	5307	5411	
45	3246	3245	3233	
55	1470	1484	1469	
65	547	553	548	
75	156	157	153	
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	

ZONAL LUMEN SUMMARY				
DEGREES				
0-30	5650	33.1	41.7	
0-40	8984	52.6	66.3	
0-60	12819	75.0	94.6	
0-90	13548	79.3	100.0	
90-120	0.3	0.0	0.0	
90-150	0.3	0.0	0.0	
90-180	0.3	0.0	0.0	
0-180	13549	79.3	100.00	

Luminaire Output= 13549 lumens Luminaire Efficacy = 131.1 lm/W

SPACING CRITERION		
ACROSS		
1.26		

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