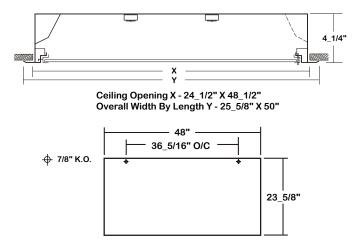




# CLASS 1000/10000 RECESSED MOUNTED LED LUMINAIRE

# **DIMENSIONS**





## APPLICATIONS

Clean Room, Sealed Ceiling Areas, Commercial

### **FEATURES**

- 0-10V dimming driver standard
- Supports California Title 24 compliance

## OPTIONS |

- Full customization available upon request
- · Additional lumen packages and color temperatures available
- · Controls and sensors available
- Wireless control options available
- · Variety of lenses available
- Emergency battery pack available
- · Antimicrobial finished housing and door frame available
- · Tamper proof screws available
- · Hanger yokes available

## SPECIFICATIONS

# CONSTRUCTION

- · Class 1000/10000 / ISO Class 6 equivalent / ISO Class 7 equivalent
- · 22 ga. cold rolled steel welded housing
- · All parts fitted and sealed
- 20 ga. cold rolled steel door frame secured by T-hinges and positive spring loaded latches
- · Door frame sealed with neoprene gasket

#### **FINISH**

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

• Inverted clear prismatic acrylic lens (nominal 0.125) standard

- 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%

· UL USA and Canada listed / suitable for damp locations

• 5-year limited warranty 10-year limited warranty available



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www.lalighting.com









# FCR720 (2X4) SERIES CLASS 1000 / 1000 TRIM FLANGE CLEAN ROOM LUMINAIRE LED CLEAN ROOM

ORDERING INFORMATION EXAMPLE: FCR720-4-4L-FSW-PA2-TP-BPL1.5-DRDM-UNV-2/840

SERIES	LED LUMEN PACKAGE	EFFICACY	NOMINAL LENGTH	FINISH	DOOR FRAME	OPTICAL	MECHANICAL	ELECTRICAL	DRIVER	VOLTAGE	# OF LED ROW	CRI / CCT
FCR720			4L		FSW				DRDM	UNV	2	
FCR720 Class 1000 / 10000 Trim Flange Clean Room LED Luminaire	2 Nom. 2000 Lumens 4 Nom. 4000 Lumens 6 Nom. 6000 Lumens 8 Nom. 8000 Lumens 12 Nom. 12000 Lumens *Additional Lumen Packages Available	(Blank) Standard HE High Efficacy (Only 2000 / 4000 / 6000 / 12000 lumens Systems)	4L 2' x 4'	AMF Antimicrobial Finished Housing and Door Frame *Leave Blank if Not Specified	FSW Flat Steel White Enamel Door Frame	PA2 Clear Prismatic Acrylic 0.125 Nominal  FPA2 Frosted Prismatic Acrylic 0.125 Nominal	TP Tamper Proof Screws (Hex Socket with Post) *Leave Blank if Not Specified	BPL1.5 Emergency Battery Pack, Nom. 1500 lm  MSxx Motion Sensor  WLC(LEDRU) Wireless Control  *Leave Blank if Not Specified	DRDM 0-10V Dimming Driver	UNV 120V-277V	2 Two LED Rows	830 80+CRI / 3000K Color Temp. 835 80+CRI / 3500K Color Temp. 840 80+CRI / 4000K Color Temp. 850 80+CRI / 5000K Color Temp. *Additional CRI & Color Temp

# SYSTEM DATA

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

LED LUMEN PACKAGE	NORMAL AMBIENT TEMPERATURE PRODUCT CODE	DELIVERED LUMENS	SYSTEM WATTS	LUMINAIRE EFFICACY	AMBIENT TEMP.	FLUORESCENT EQUIVALENT	IES FILES
2000 Lumens (Nominal)	FCR720-2-4L-FSW-PA2-DRDM-UNV-2/840	1763 lm	15.2 W	116.0 lm/W	-20°C / 35°C	1-F32T8	*
4000 Lumens (Nominal)	FCR720-4-4L-FSW-PA2-DRDM-UNV-2/840	3447 lm	31.3 W	110.1 lm/W	-20°C / 35°C	2-F32T8, 1-F54T5HO	LA-T3174-3
6000 Lumens (Nominal)	FCR720-6-4L-FSW-PA2-DRDM-UNV-2/840	4903 lm	45.5 W	107.9 lm/W	-20°C / 35°C	3-F32T8	LA-T3395-3
8000 Lumens (Nominal)	FCR720-8-4L-FSW-PA2-DRDM-UNV-2/840	6587 lm	66.7 W	98.8 lm/W	-20°C / 35°C	4-F32T8, 2-F54T5HO	*
12000 Lumens (Nominal)	FCR720-12-4L-FSW-PA2-DRDM-UNV-2/840	9419 lm	104.1 W	90.0 lm/W	-20°C / 35°C	6-F32T8, 3-F54T5HO	*

LED LUMEN PACKAGE	NORMAL AMBIENT TEMPERATURE (HIGH EFFICACY) PRODUCT CODE	DELIVERED LUMENS	SYSTEM WATTS	LUMINAIRE EFFICACY	AMBIENT TEMP.	FLUORESCENT EQUIVALENT	IES FILES
2000 Lumens (Nominal)	FCR720-2HE-4L-FSW-PA2-DRDM-UNV-2/840	1616 lm	12.6 W	128.7 lm/W	-20°C / 35°C	1-F32T8	*
4000 Lumens (Nominal)	FCR720-4HE-4L-FSW-PA2-DRDM-UNV-2/840	3272 lm	25.4 W	128.9 lm/W	-20°C / 35°C	2-F32T8, 1-F54T5HO	*
6000 Lumens (Nominal)	FCR720-6HE-4L-FSW-PA2-DRDM-UNV-2/840	4904 lm	38.5 W	127.4 lm/w	-20°C / 35°C	3-F32T8	*
8000 Lumens (Nominal)	FCR720-8HE-4L-FSW-PA2-DRDM-UNV-2/840	6513 lm	51.8 W	125.6 lm/W	-20°C / 35°C	4-F32T8, 2-F54T5HO	*
12000 Lumens (Nominal)	FCR720-12HE-4L-FSW-PA2-DRDM-UNV-2/840	9663 lm	79.3 W	121.9 lm/W	-20°C / 35°C	6-F32T8, 3-F54T5HO	*

System data above is based on 120V input voltage.

Actual performance may differ as a result of end-user environment and application.

This fixture has been tested and listed in accordance with UL Standards. L.A. Lighting certifies that it will operate safely when installed properly, and within an ambient temperature range from -20°C to 35°C. Additional lumen packages and color temperatures available.













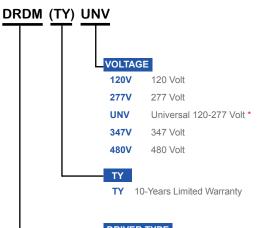
## DRIVER OPTIONS

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

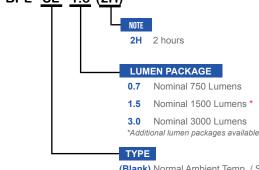
## **BATTERY PACK OPTIONS**

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

LED EMERGENCY BATTERY PACKS



(Operate for 90 minutes unless otherwise specified) **BPL SL 1.5 (2H)** 



(Blank) Normal Ambient Temp. / Standard Operation

\* Normal Stock Item

- С Cold Environment (-20°C)
- With Flex for Remote Mounting
- SL Slim Casing
- Self Test / Diagnostic

**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 Digit 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(PEQ0E) Lutron® EcoSystem 0.1% Soft-On, Fade-to-Black Dimming Driver

DR(PSQ020) Lutron® T-Series Digital 1% Dimming 2-Channel Driver (for Color Tunable White)

DRCR Control Ready Driver Osram Dexal Driver DRCR(DXL)

DRCR(SR) Philips Sensor Ready Driver









# **SENSOR OPTIONS**

### **HIGH FREQUENCY** - INTERNALLY MOUNTED BEHIND FIXTURE LENS

## MSHPC - Motion Sensor High Frequency (Microwave) with Photocell Option

- · 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)
- · Photocell is disabled by default

#### MSH - Motion Sensor High Frequency (Microwave)

- · 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
- · Turns light ON/OFF based on motion detection
- Universal Voltage (120V-277V)



## **CONTROLS AND SENSORS**

WLC(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

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

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

### S3054-N300 - EnOcean® Navigan NWC 300U - Commissioning Tool

- Navigan Wireless Commissioner is used to configure EnOcean controllers &
- It can be used to define link tables, change parameters/settings, and to edit &
- 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

### ELLSU-W-EO - EnOcean® Light Level Sensor - Ceiling Mount

- · 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









# OPTICAL OPTIONS

# STANDARD LENSES FOR FCR720

PA2	Clear Prismatic Acrylic, Nom. 0.125 OA Thickness, Female Prisms 3/16 Square Base
FPA2	Frosted 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 - Please consult factory for availability and suitability for selected fixture type.

* FPA2	Frosted 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
* PA2	Clear Prismatic Acrylic, Nom. 0.125 OA Thickness, 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
PA2RF	Clear Prismatic Acrylic, 12 Shunts Radio Frequencies to Ground, Nom. 0.125 OA Thickness, Female Prisms 3/16 Square Base
	·

<sup>\*</sup> Normal stock item

# FLAT SMOOTH LENSES - Please consult factory for availability and suitability for selected fixture type.

*	* FFA Frosted Flat White Acrylic, No Thickness Specified		CA	Clear Acrylic, No Thickness Specified
FFA2 Frosted Flat Acrylic, Nom. 0.125 Thickness		CA2	Clear Acrylic, Nom. 0.125 OA Thickness	
	FWA Frosted White Stipple Finish, Nom. 0.080 Thickness		CA8	Clear Acrylic, Nom. 0.187 OA Thickness

<sup>\*</sup> Normal stock item

# HIGH IMPACT - Please consult factory for availability and suitability for selected fixture type.

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			

<sup>\*</sup> Normal stock item



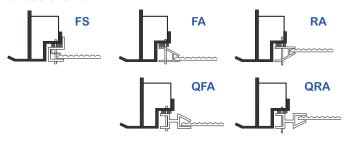






# DOOR FRAME

### **CROSS SECTION**



## **FEATURES**

- Inverted Lens
- T-Hinges with Positive Spring Loaded Latches
- Sealed with Neoprene Gasket
- Light Stop Covers Installed
- Internal Frame Rail



W White Enamel **B** Black Enamel

N Natural Anodized Aluminum (Only FA / RA / QFA / QRA styles)

### STYLES

FS Flat Steel (with internal frame rail)

FA Flat Extruded Aluminum

RA 5/8" Regressed Extruded Aluminum

QFA Flat Extruded Aluminum-Black Reveal
QRA 1/2" Regressed Extruded Aluminum-Black Reveal

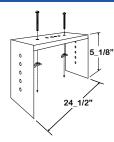
# ACCESSORIES

# 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

Note: Must drill own holes. Caulking compound should be used to seal the holes.











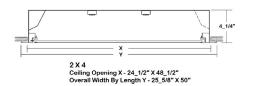
# **PHOTOMETRIC DATA - FCR720 SERIES**

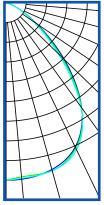
07-17-2020

## FCR720-4-4L-FSW-PA2-DRDM-UNV-2/840

TEST NO. = LA-T3174-3 LED TYPE = 48 LED MODULE NO. OF MODULE = 4 SYSTEM WATT (W) = 31.3 CRI ≥ 80 L70(Hrs.) ≥ 50,000

PHOTOMETRY TYPE = C





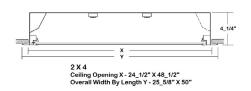
ZONAL LUMEN SUMMARY						
			% FIXTURE			
0-30	1479	32.9	42.9			
0-40	2325	51.8	67.4			
0-60	3273	73.0	94.9			
0-90	3447	76.8	100.0			
90-120	.04	0.0	0.0			
90-150	.04	0.0	0.0			
90-180	.04	0.0	0.0			
0-180	3447	76.8	100.00			

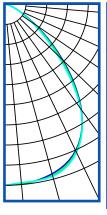
Luminaire Output= 3447 lumens Luminaire Efficacy = 110.1 lm/W

SPACING CRITERION					
ALONG	ACROSS				
1.19	1.20				

### FCR720-6-4L-FSW-PA2-DRDM-UNV-2/840

TEST NO. = LA-T3395-1 **LED TYPE = 48 LED MODULE** NO. OF MODULE = 4 SYSTEM WATT (W) = 45.5 CRI ≥ 80 L70(Hrs.) ≥ 50,000 PHOTOMETRY TYPE = C





C	ANDLI	EPOWE	R
ANGLE	END	45	CROSS
0 5 15 25 35 45 55 65 75 85 90 95 115 125 135 145 165 175	2707 2698 2625 2416 1924 1178 533 190 52 7 0 0 0 0 0	2707 2689 2650 2430 1914 1133 505 183 52 7 0 0 0 0 0	2707 2679 2664 2447 1906 1071 478 176 6 0 0 0 0 0 0 0

ZONAL LUMEN SUMMARY						
DEGREES			% FIXTURE			
0-30	2132	34	43			
0-40	3335	53	68			
0-60	4662	75	95			
0-90	4904	79	100			
90-120	0	0	0			
90-150	0	0	0			
90-180	0	0	0			
0-180	4904	79	100			

Luminaire Output= 4903.7 lumens Luminaire Efficacy = 107.8 lm/W

SPACING CRITERION	
1.19	1.19