CLEANROOM
L≡D
FCR221
CLASS 100 FLANGED CLEANROOM LUMINAIRE

JOB	
TYPE	
DATE	

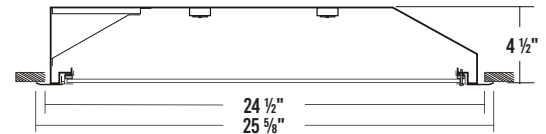## Recessed Flanged

2' x 4'

Overall dimensions including flange: 25 5/8" x 49 5/8"
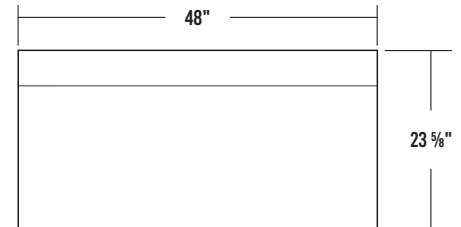*Required ceiling opening: 24 1/2 " x 48 1/2"*

2' x 2'

Overall dimensions including flange: 25 5/8" x 26"
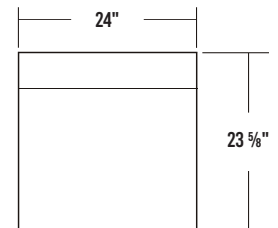*Required ceiling opening: 24 1/2 " x 24 1/2"*

CROSS SECTION

4 ½"
24 ½"
25 ⅝"

4' BACKPLATE

48"
23 ⅝"

* No Unused Holes or KOs on Backplate

2' BACKPLATE

24"
23 ⅝"

SPECIFICATIONS

Construction
• Class 100 / ISO Class 5 equivalent
• 22 gauge cold-rolled steel welded housing
• 20 gauge cold-rolled steel door frame secured by full length piano hinge and 2 captive screws
• 18 gauge cold-rolled steel trim flange
• Door frame and lens sealed with closed cell neoprene gasket
• All parts fitted and sealed, no unused holes or knockouts

Finish
• Painted after fabrication
• Baked white powder-coated finish
• Minimum reflectance 90%

Optical
• Inverted clear prismatic acrylic lens (nominal 0.125" thickness)

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 standard. 10-Year limited warranty also available

APPLICATIONS

• Cleanroom, Sealed Ceiling Areas, Commercial

FEATURES

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

OPTIONS

• Range of lumen packages and color temperatures
• Tunable white (2700K - 6500K)
• Colored LEDs, including True/Native Amber
• Sensors and controls
• Lens options
• Antimicrobial finish
• Wet location
• Emergency battery pack
• Tamper-proof screws
• Hanger yokes
• Customization available upon request

RoHS COMPLIANT
UL CERTIFIED

Revised: 12/16/24

MADE IN THE USA
BAA Compliant

ORDERING INFORMATION: Additional Options Available. Visit www.lalighting.com/resources for more information

EXAMPLE: FCR221-4-4L-FSW-PA2-BPL1.5-DRDM-UNV-2/840

SERIES	NOMINAL LED LUMENS	NOMINAL LENGTH	FINISH	DOOR FRAME	OPTICAL	MECHANICAL	ELECTRICAL	DRIVER	VOLTAGE	# OF LED ROWS	CRI / CCT
FCR221										**2**	
FCR221 • Class 100 Flanged Cleanroom Luminaire	**2** - 2000 lm **4** - 4000 lm **6** - 6000 lm **8** - 8000 lm **12** - 12000 lm **High Efficacy** **2HE** - 2000 lm **4HE** - 4000 lm **6HE** - 6000 lm **8HE** - 8000 lm	**2L** • 2'	**AMF** • Antimicrobial Finish *Leave blank if not specified	**FSW** • Flat Steel White Enamel Door Frame	**PA2** • Clear Prismatic Acrylic 0.125" **FPA2** • Frosted Prismatic Acrylic 0.125" **DRP8** • High-Impact Clear Prismatic Acrylic 0.187" **FFWA** • Flat Frosted White Acrylic	**WL** • Wet Location **TP** • Tamper Proof Screws (Hex Socket with Post) **GSKN3** • Three-Way Gasket *Leave blank if not specified	**BPL1.5** • 1500 lm emergency battery pack *Leave blank if not specified	**DRDM** • 0-10V Dimming Driver **DRDM2C** • 2-Channel 0-10V Dimming Driver (for Color Tunable White) **DRSD** • Step Dimming Driver **DR2W** • 120V 2-Wire Phase Dimming Driver (Must Specify 120V in Voltage Column)	**UNV** • 120V-277V	**2** • Two LED Rows	**827** • 80+CRI / 2700K **830** • 80+CRI / 3000K **835** • 80+CRI / 3500K **840** • 80+CRI / 4000K **850** • 80+CRI / 5000K **865** • 80+CRI / 6500K **8TW** • 80+CRI Tunable White 2700K-6500K Requires DRDM2C driver **AM8**[1] • PC Yellow 575 nm - 590 nm **AM9**[1] • PC Amber 586 nm - 593 nm **AMT**[1] • True Amber 585 nm - 595 nm
	2 - 2000 lm **4** - 4000 lm **6** - 6000 lm **8** - 8000 lm **12** - 12000 lm **High Efficacy** **2HE** - 2000 lm **4HE** - 4000 lm **6HE** - 6000 lm **8HE** - 8000 lm **12HE** - 12000 lm	**4L** • 4									

Standard options for FCR221 shown above. For additional options, including lumen packages, controls, lenses, switches, finishes, and more, visit www.lalighting.com/resources or contact customer service.

90CRI Also available

Contact customer service for additional CRI/CCT packages.

1 For amber and other color LEDs, available lumen packages vary. Contact customer service for more information.

DOOR FRAME

CROSS SECTION
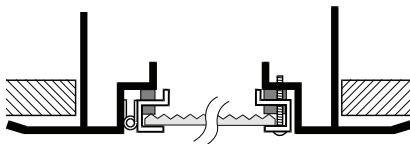
FEATURES
• Full Length Stainless Steel Piano Hinge
• Inverted Lens
• Two 10-24 Stainless Steel Captive Machine Screws
• Sealed with Closed Cell Neoprene Gasket

FS **W**

FINISHES
W White Enamel
B Black Enamel

STYLES
FS Flat Steel

OPTICAL OPTIONS

STANDARD LENSES FOR FCR221 - Prismatic lenses are inverted to position the flat side facing down.

PA2 Clear Prismatic Acrylic, Nom. 0.125" OA Thickness, Female Prisms 3/16" Square Base, Pattern 12

FPA2 Frosted Prismatic Acrylic, Nom. 0.125" OA Thickness, Female Prisms 3/16" Square Base, Pattern 12

DRP8 High-Impact Clear Prismatic Acrylic, Nom. 0.187" OA Thickness, Female Prisms 3/16" Square Base, Pattern 12

FFWA Flat Frosted White Acrylic, No Thickness Specified

RoHS COMPLIANT

UL CERTIFIED

Revised: 12/16/24
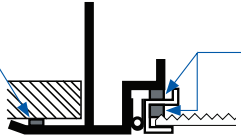
MADE IN THE USA
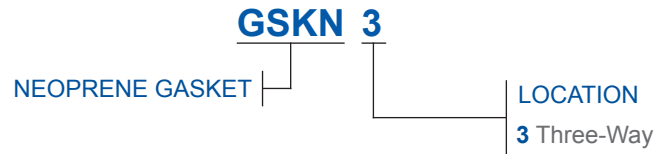BAA Compliant

NEOPRENE GASKET

3-WAY
Additional gasket between flange and ceiling.

Optional neoprene gasketing between flange and ceiling

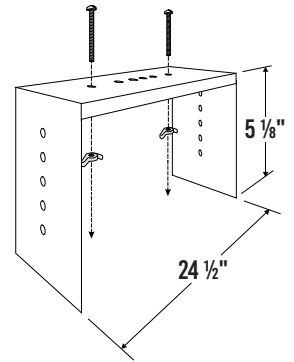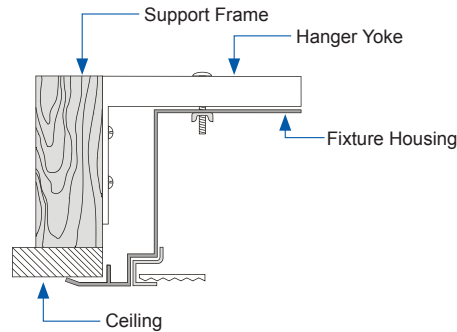Standard neoprene gasketing for lens and door frame

GSKN 3

NEOPRENE GASKET

LOCATION
3 Three-Way

MOUNTING HARDWARE

HANGER YOKES: HS-24_1/2
- Used to secure recessed flanged fixtures to support frame in hard ceilings
- Provided screws secure hanger yoke to fixture
- Two hanger yokes required for each 4' fixture.

Note: Housing does not have knockouts for hanger yokes. Installer must drill required holes, staying clear of electrical components. Suitable caulking compound must be used to seal holes after installation.

Support Frame

Hanger Yoke

Fixture Housing

Ceiling

5 ⅛"

24 ½"

SYSTEM DATA: Additional Lumen Packages Available. Contact Customer Service for More Information

2'	LED LUMEN PACKAGE	NORMAL AMBIENT TEMPERATURE PRODUCT CODE	DELIVERED LUMENS	SYSTEM WATTS	LUMINAIRE EFFICACY	AMBIENT TEMP.	FLUORESCENT EQUIVALENT	IES FILES
Normal Temp	2000 Lumens (Nominal)	FCR221-2-2L-FSW-PA2-DRDM-UNV-2/840	1632	12.5	130.9 lm/W	-20°C / 35°C (-4°F / 95°F)	1x F24T5HO 2x F17T8	*
	4000 Lumens (Nominal)	FCR221-4-2L-FSW-PA2-DRDM-UNV-2/840	3204	25.5	125.5 lm/W	-20°C / 35°C (-4°F / 95°F)	2x F24T5HO 4x F17T8	*
	6000 Lumens (Nominal)	FCR221-6-2L-FSW-PA2-DRDM-UNV-2/840	4730	39.1	121.1 lm/W	-20°C / 35°C (-4°F / 95°F)	3x F24T5HO 6x F17T8	*
	8000 Lumens (Nominal)	FCR221-8-2L-FSW-PA2-DRDM-UNV-2/840	6211	53.1	117.1 lm/W	-20°C / 35°C (-4°F / 95°F)	2x F54T5HO 4x F24T5HO	*
	12000 Lumens (Nominal)	FCR221-12-2L-FSW-PA2-DRDM-UNV-2/840	9459	78.0	121.3 lm/W	-20°C / 35°C (-4°F / 95°F)	3x F54T5HO 6x F24T5HO	*

2'	LED LUMEN PACKAGE	NORMAL AMBIENT TEMPERATURE (HIGH EFFICACY) PRODUCT CODE	DELIVERED LUMENS	SYSTEM WATTS	LUMINAIRE EFFICACY	AMBIENT TEMP.	FLUORESCENT EQUIVALENT	IES FILES
Normal Temp High Efficacy	2000 Lumens (Nominal)	FCR221-2HE-2L-FSW-PA2-DRDM-UNV-2/840	1659	12.4	134.3 lm/W	-20°C / 35°C (-4°F / 95°F)	1x F24T5HO 2x F17T8	*
	4000 Lumens (Nominal)	FCR221-4HE-2L-FSW-PA2-DRDM-UNV-2/840	3265	24.9	130.9 lm/W	-20°C / 35°C (-4°F / 95°F)	2x F24T5HO 4x F17T8	*
	6000 Lumens (Nominal)	FCR221-6HE-2L-FSW-PA2-DRDM-UNV-2/840	4847	37.8	128.4 lm/W	-20°C / 35°C (-4°F / 95°F)	3x F24T5HO 6x F17T8	*
	8000 Lumens (Nominal)	FCR221-8HE-2L-FSW-PA2-DRDM-UNV-2/840	6407	50.9	125.8 lm/W	-20°C / 35°C (-4°F / 95°F)	2x F54T5HO 4x F24T5HO	*

SYSTEM DATA: Additional Lumen Packages Available. Contact Customer Service for More Information

Normal Temp

4' LED LUMEN PACKAGE	NORMAL AMBIENT TEMPERATURE PRODUCT CODE	DELIVERED LUMENS	SYSTEM WATTS	LUMINAIRE EFFICACY	AMBIENT TEMP.	FLUORESCENT EQUIVALENT	IES FILES
2000 Lumens (Nominal)	FCR221-2-4L-FSW-PA2-DRDM-UNV-2/840	1727	12.4	139.8 lm/W	-20°C / 35°C (-4°F / 95°F)	1x F32T8	*
4000 Lumens (Nominal)	FCR221-4-4L-FSW-PA2-DRDM-UNV-2/840	3399	24.9	136.3 lm/W	-20°C / 35°C (-4°F / 95°F)	2x F32T8	*
6000 Lumens (Nominal)	FCR221-6-4L-FSW-PA2-DRDM-UNV-2/840	5046	37.8	133.6 lm/W	-20°C / 35°C (-4°F / 95°F)	3x F32T8	*
8000 Lumens (Nominal)	FCR221-8-4L-FSW-PA2-DRDM-UNV-2/840	6674	50.9	131.0 lm/W	-20°C / 35°C (-4°F / 95°F)	2x F54T5HO 4x F32T8	*
12000 Lumens (Nominal)	FCR221-12-4L-FSW-PA2-DRDM-UNV-2/840	9849	78.0	126.3 lm/W	-20°C / 35°C (-4°F / 95°F)	3x F54T5HO 6x F32T8	*

Normal Temp High Efficacy

4' 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)	FCR221-2HE-4L-FSW-PA2-DRDM-UNV-2/840	1765	12.2	144.2 lm/W	-20°C / 35°C (-4°F / 95°F)	1x F32T8	*
4000 Lumens (Nominal)	FCR221-4HE-4L-FSW-PA2-DRDM-UNV-2/840	3454	24.6	140.5 lm/W	-20°C / 35°C (-4°F / 95°F)	2x F32T8	*
6000 Lumens (Nominal)	FCR221-6HE-4L-FSW-PA2-DRDM-UNV-2/840	4797	34.6	138.7 lm/W	-20°C / 35°C (-4°F / 95°F)	3x F32T8	*
8000 Lumens (Nominal)	FCR221-8HE-4L-FSW-PA2-DRDM-UNV-2/840	6464	47.2	137.0 lm/W	-20°C / 35°C (-4°F / 95°F)	2x F54T5HO 4x F32T8	*
12000 Lumens (Nominal)	FCR221-12HE-4L-FSW-PA2-DRDM-UNV-2/840	9765	72.8	134.1 lm/W	-20°C / 35°C (-4°F / 95°F)	3x F54T5HO 6x F32T8	*

NOTE:
System data as of 1/6/25 (K-Boards).
Luminaire efficiency: 2x2 - 76.6%
Luminaire efficiency: 2x4 - 79.7%
Subject to change without notice.
System data 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 noted in the system data table.
Additional lumen packages and color temperatures available.

Los Angeles Lighting Mfg. Co.
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