



CRF-LED

Security **LED** Recessed Flange

PRODUCT SPECIFICATION

The CRF series is designed for use in all levels of security facilities, behavioral health units, and high abuse applications. Anti-ligature for patient safety.

Mounting

Mounts recessed in metal pan or gypsum ceiling with swing brackets that extend and clamp with a single screw action.

Housing

18 gauge die-formed cold rolled steel with seams welded and ground smooth.

Door

One-piece die-formed cold rolled steel overlapping door with 14 gauge lens retainers. Freedom Hinge™ design permits removal and hinging from either side. Stainless steel available.

Internal Lens

Optic Plus lens (standard) completely hides diode image while providing minimum 95% light transmission.

Finish

Polyester powder-coated after phosphate pretreatment for superior adhesion and corrosion resistance. Brushed stainless steel door available.

Hardware

Recessed, stainless steel, tamper-proof fasteners.

Driver

0-10Vdc dimming, Range 1%-100%
-40°C Min. starting temperature, >0.9 PF, <20% THD

Wiring

Driver provided with pre-wired 3-wire self-aligning input power quick disconnect and 2-wire quick disconnect to LED module.

Certifications

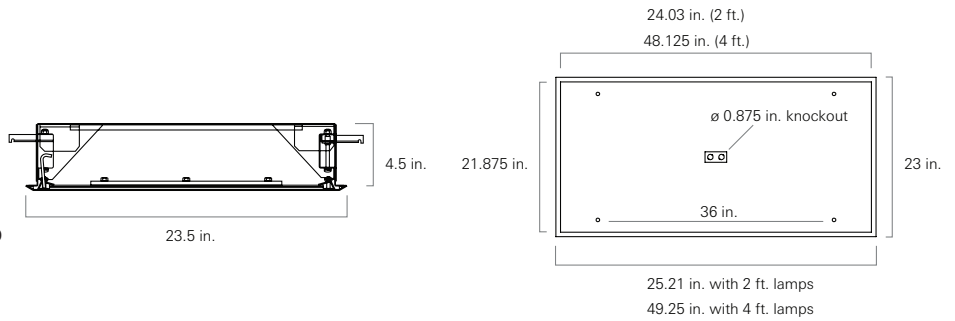
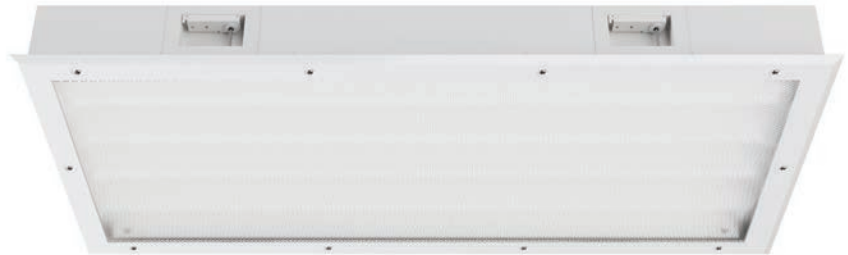
UL Listed damp or wet location. Wet location option is IP65 rated.

Job Name _____

Fixture Type _____

Catalog No. _____

Approval _____ Date _____



CRF	one	two	three	four	five	six	seven	eight	nine	/	ten	eleven	twelve	thirteen
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one	Luminaire Size	seven	Voltage	eleven	Door Fasteners
2	2 ft fixture	120	120 V, 60 Hz	AP	Stainless steel allen head with pin
4	4 ft fixture	277	277 V, 60 Hz	TP	Stainless steel torx head with pin
		VAR	Variable, 120-277 V, 50/60Hz	PH	Phillips, non-security
two	LED Rows	eight	Driver	twelve	UL Listing
2L	Two	DM	0-10Vdc Dimming, <u>standard</u>	D	Damp Location
3L	Three			W	Wet Location
4L	Four				
three	Color Temperature	nine	Internal Lens	thirteen	Options
30	3000K	122	Optic Plus LED diffusing acrylic lens, <u>standard</u>	SO	Specified output*
35	3500K	53	.125 in. K12 prismatic acrylic	2C	Two-circuit wired
40	4000K	12	.125 in K12 prismatic polycarbonate	CU	Canadian UL Listing
50	5000K	15	.156 in. K12 prismatic polycarbonate	EM	Emergency battery backup
four	Door Gauge	16	.187 in. K12 prismatic polycarbonate	FH	Fuse and holder
N	18 gauge, minimum security	75	.156 in. C73 prismatic tempered glass	NL-LED	Night light, LED
D	16 gauge, medium security	ten	External Lens	IMS	Integral Occ Sensor
X	14 gauge, maximum security	30	.187 in. clear polycarbonate	PF	Plaster frame
U	12 gauge, super max, <u>CRS only</u>	32	.250 in. clear polycarbonate		
five	Door Material	36	.375 in. clear polycarbonate		
C	Cold rolled steel	38	.500 in. clear polycarbonate		
S	Stainless steel	90	.187 in. clear tempered glass		
six	Finish	92	.250 in. clear tempered glass		
R	Brushed stainless steel	96	.375 in. clear tempered glass		
W	White				

* Indicated as SO(xx/xxxx). Specified output, Input watts / delivered lumens to be determined based on specified requirements.
Consult factory for 14 and 16 gauge CRS and SS housings.

Modifications are available to meet custom requirements.

Photometric Data for a 2x2 fixture with four rows (Full Output)

Lumens	Input Watts	Lumens / Watt	CCT	CRI	LED Life
13007	109 watts	119	4000K	>80	>100,000

Photometric Data for a 2x4 fixture with three rows (Full Output)

Lumens	Input Watts	Lumens / Watt	CCT	CRI	LED Life
22250	175.5 watts	127	4000K	>80	>100,000

Coefficients of Utilization - Zonal Cavity Method (CRF-LED 2x4)

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.10	1.05	1.01	.98	1.07	1.03	.99	.86	.99	.96	.93	.95	.92	.90	.91	.89	.88	.86
2	1.00	.92	.86	.80	.97	.90	.84	.73	.87	.82	.78	.84	.79	.76	.81	.77	.74	.72
3	.91	.81	.73	.67	.89	.80	.72	.63	.77	.71	.65	.74	.69	.64	.72	.67	.63	.61
4	.84	.72	.64	.57	.82	.71	.63	.54	.69	.62	.56	.66	.60	.55	.64	.59	.55	.53
5	.77	.65	.56	.50	.75	.64	.55	.48	.62	.54	.49	.60	.53	.48	.58	.52	.48	.46
6	.71	.58	.50	.43	.70	.58	.49	.42	.56	.48	.43	.54	.48	.43	.53	.47	.42	.40
7	.66	.53	.45	.39	.65	.52	.44	.37	.51	.43	.38	.49	.43	.38	.48	.42	.38	.36
8	.62	.49	.40	.34	.60	.48	.40	.34	.47	.39	.34	.45	.39	.34	.44	.38	.34	.32
9	.58	.45	.37	.31	.56	.44	.36	.30	.43	.36	.31	.42	.35	.31	.41	.35	.31	.29
10	.54	.41	.33	.28	.53	.41	.33	.28	.40	.33	.28	.39	.32	.28	.38	.32	.28	.26

CRF-LED - Polar Candela Distribution (CRF-LED 2x4)

