MADE IN THE USA

CLDFR
RECESSED FLANGED LED CLEAN ROOM NARROW-SPECTRUM VIVARIUM

CLEANROOM LED LUMINAIRES

UL
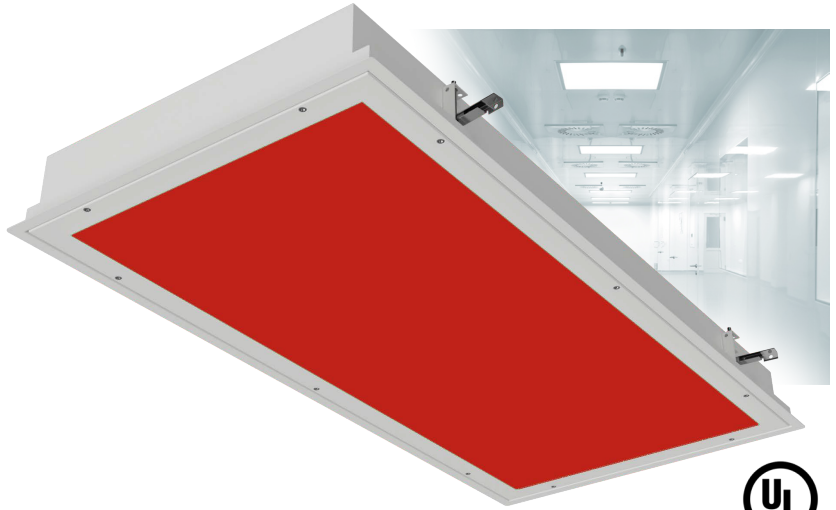
The **CLDFR** is an IP65, Wet location, IC-rated luminaire featuring a combination of 630nm red and white LEDs for vivarium applications. Gasketed housing and door frame create a sealed enclosure. The CLDF is available in 1x2, 1x4, 2x2, and 2x4 sizes. Available options such as anti-microbial paint, 90 CRI, MILSTD 461G compliant, and 14W emergency driver. Suitable for biosafety labs rated BSL 1 and 2 (inset doorframe) and biosafety labs rated BSL 3 and 4 (overlap doorframe). Suitable for Class 1/ISO 3 Cleanrooms. For use in insulated ceilings. NSF/ANSI 2 Food Zone, Splash Zone and Non-Food Zone Applications.

HOUSING: Various housing material options are available. If you do not see an option listed, please consult factory. **NEW:** 304 and 316 stainless steel are both available (consult factory for details). Seam-welded construction. All doors attached to the housing with stainless steel aircraft safety cables, and are completely sealed with closed cell neoprene gaskets. Stainless steel screws secure door frame to housing (Optional T25 Torx available). White TGIC polyester powder coat standard. Anti-microbial paint optional.

DOORFRAME: Inset or Overlap door frame options with choice of Cold Roll Steel, Stainless Steel, or Aluminum. White TGIC polyester powder coat standard, with optional Anti-Microbial Paint. Door-frame secured to housing with stainless steel aircraft cables and captive flush mounted Phillips head stainless steel fasteners. Closed-cell gasket completely seals the doorframe and the housing.

ELECTRICAL SYSTEM: Electronic driver 0-10V 1% dimming standard. Long-life LED system, white LEDs rated for >100K hours, 630nm red LEDs rated for >50K hours. Complies with federal energy efficiency standards.

OPTICAL SYSTEM: A variety of lensing options are available to fit the needs of any application. If additional lensing options are needed, consult factory. RF grid lens required for MIL STD 461G compliance.

LISTINGS: Approved to CSA and UL standards. UL listed for wet location. NSF Listed. Food Safe. IP65 rated with inset doorframe, IP66 rated with overlap doorframe. Inset doorframe suitable for biosafety labs rated BSL 1 and 2, overlap doorframe suitable for biosafety labs rated BSL3 and 4. Suitable for Class 1/ISO 3 Cleanrooms.

MOUNTING: Recessed flanged applications. Easy installation with adjustable 90° swing arm system standard. Universal mounting allows for both recessed flanged and recessed grid mounting.

LED: 80 CRI or 90 CRI LEDs available in 2700K, 3000K, 3500K, 4000K and 5000K. Life is 100,000 hours at 70% lumen maintenance for white LEDs, and 50,000 hours at 70% lumen maintenance for 630nm red LEDs. LM79, LM80 and TM21 compliant.

WARRANTY: 5-Year Limited Warranty. Complete warranty and terms located at **www.aelnow.com/warranty**.

Ordering Information on Next Page ▶

304 Stainless Steel   **316** Stainless Steel

NOTE: 304 and 316 Stainless steel are both available. Specify below:

ORDERING INFORMATION:
Example: CLDFR-24-40-50R50W-B20-B18INS-SY-M

SERIES	SIZE	WHITE CCT	ILLUMINATION LEVEL	HOUSING	DOOR FRAME	DOOR FRAME TYPE
CLDFR	14 1X4 22 2X2 24 2X4	BLANK Red Only 27 2700K 30 3000K 35 3500K 40 4000K 50 5000K	25R40W 25W Red/40W White LED 25R50W 25W Red/50W White LED 25R70W 25WRed/70W White LED 25R90W 25W Red/90W White LED 25R135W 25W Red/135W White LED 50R50W 50W Red/50W White LED 50R70W 50W Red/70W White LED 50R90W 50W Red/90W White LED 50R135W 50W Red/135W White LED 25R 25W Red LED 50R 50W Red LED	B20 20 Gauge Cold Roll Steel B18 18 Gauge Cold Roll Steel SH18 18 Gauge Stainless Steel (Polished 304) SH186 18 Gauge Stainless Steel (Polished 316) SHP18 18 Gauge Stainless Steel (Painted 304) SHP186 18 Gauge Stainless Steel (Painted 316) SHB18 18 Gauge Stainless Steel (Brushed 304) SHB186 18 Gauge Stainless Steel (Brushed 316) ALH .063" Aluminum (Painted)	B18 18 Gauge Cold Roll Steel SH18 18 Gauge Stainless Steel (Polished 304) SH186 18 Gauge Stainless Steel (Polished 316) SHP18 18 Gauge Stainless Steel (Painted 304) SHP186 18 Gauge Stainless Steel (Painted 316) SHB184 18 Gauge Stainless Steel (Brushed 304) SHB18 18 Gauge Stainless Steel (Brushed) ALH .063" Aluminum (Painted)	INS Inset OVL Overlap

LENS OPTIONS	VOLTAGE	DRIVER OPTIONS	CIRCUITS	OPTIONS
PA125 .125 Prismatic Acrylic (inverted) PA156 .156 Prismatic Acrylic (inverted) PA187 .187 Prismatic Acrylic (inverted) PP125 Prismatic Inner with .125 Clear Outer Polycarbonate SY Symmetric Diffused DR Acrylic 125P .125 Clear Polycarbonate 250P .250 Clear Polycarbonate K19RF KSH-19 RFI Prismatic Acrylic CPOL Clear .125 Polycarbonate Outer Lens	M Multi-Volt (120-277VAC) HV 347-480VAC	BLANK 0-10V Dimming Driver (included standard) CD5 0-10V 5% to Off Dimming Driver EDN Electronic Driver Non-Dimming DALI 1% Dimming Driver LDE1 Lutron Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology	1 1 Circuit 2 2 Circuits	14EBL 14 Watt Emergency Driver 90 90 CRI AM Anti-Microbial White Paint VDO Lutron Vive Integral Fixture Control (RF with Daylight and Occupancy Sensing) MIL1 MILSTD 461G compliant, 1 circuit* MILSTD MIL2 461G compliant, 2 circuit2 IF Install Frame IPH Full Length Internal Piano Hinge TRX T25 Torx Head Screws with Center Pin Reject

*K19RF lens option must be chosen for MILSTD 461G Compliance

Other options and configurations are available. Consult factory for details.

Dimensions on Next Page ▶

ENERGY AND PERFORMANCE DATA

INPUT VOLTAGE:	120/277VAC
SYSTEM INPUT POWER:	40 - 135 WATTS*
DELIVERED LUMEN OUTPUT:	1020 - 19300 LUMENS
STANDARD DIMMING CONTROL:	0-10V
CCT:	3000, 3500, 4000, 5000 KELVIN
CRI:	82 (MINIMUM)
LIFE TIME RATING:	>100,000 HRS @ L70
INPUT FREQUENCY:	50/60 HZ
POWER FACTOR:	>0.9
OPERATING TEMP:	-30° TO 50° C

*ACTUAL WATTAGE MAY DIFFER BY ±5% WHILE OPERATING 120/277V ±10%

APPROXIMATE COLOR TEMPERATURE MULTIPLIER

5000K	X	1.03
4000K	X	1
3500K	X	.97
3000K	X	.94
2700K	X	.91

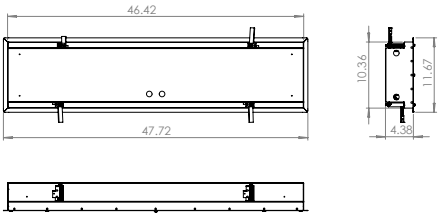| OUTPUT	DELIVERED LUMENS	WATTS	L70 @20C (HRS)
40W WHITE	5772	40	>100K
50W WHITE	7215	50	>100K
70W WHITE	10000	70	>100K
90W WHITE	12850	90	>100K
135W WHITE	19300	135	>100K
25W RED	1020	25	>100K
50W RED	2400	50	>100K

⚠️ **ROUGH IN SIZE LISTED BELOW.**
Please pay careful attention to these dimensions.

DIMENSIONS

1x4
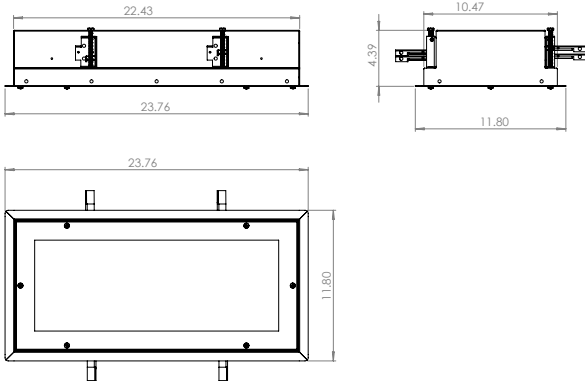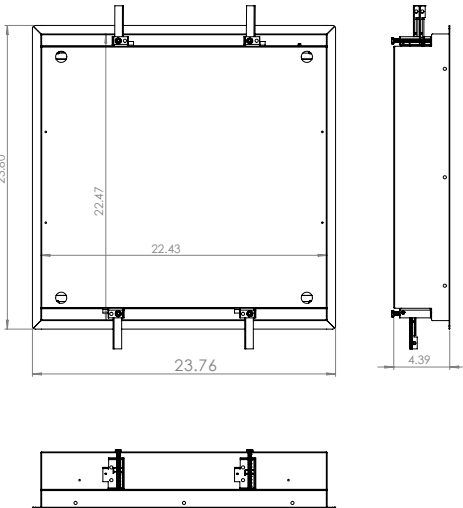**ROUGH IN SIZE** TO BE 46 11/16" X 10 5/8"

1x2
ROUGH IN SIZE TO BE 22 11/16" X 10 5/8"

2x2
ROUGH IN SIZE TO BE 22 5/8" X 22 5/8"

2x4
ROUGH IN SIZE TO BE 46 5/8" X 22 11/16