

DESCRIPTION

The Fail-Safe CFD Cleanroom Troffer is enclosed and gasketed to maintain ceiling integrity and protect against infiltration of particles and airborne bacteria. The housing and door are designed to work with 1" inverted T-Grid ceilings. The sealed, hole-free housing prevents air exchange between the fixture and plenum and allows relamping without contamination of clean areas. These luminaires are UL/cUL listed for wet locations for covered ceiling applications, and are manufactured in accordance with U.S.D.A., F.D.A., and Federal Standard 209E.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Application

The CFD is suitable for use in I.E.S. Class 1,000, 10,000 and 100,000 clean room environments. Applications include cleanrooms, technical and biomedical labs, food processing/testing centers and pharmaceutical labs.

Housing

Nominal 3 3/4" deep recessed housing consists of one-piece, code gauge, prime cold rolled steel. The hole-free embossed housing has full length die formed stiffeners for added strength. End plates are securely attached and completely sealed for air-tight construction.

Finish

Electrostatically applied baked white polyester powder enamel finish. Minimum reflectance 90%. Multistage cleaning cycle, iron phosphate coating with rust inhibitor. Conveyorized application and baking timing accurately controlled at an elevated temperature.

Door Frame

Die formed, heavy gauge, flat extruded aluminum door with reinforced corners and baked white enamel finish. Positive light seals.

Hinging/ Latching

Two slide-latches with safety screws secure lens frame in the

closed position. Lens frame hinges and is removable without the use of tools.

Gasket

One piece continuous gasket surrounds perimeter of lens to seal lens to door frame. Additional gasketing seals door to housing.

Ballast

Standard Class P, CBM/ETL ballast.

Labels

UL/cUL listed. 100 PSI High-Pressure hose-down rated. Optional 200 PSI rating.

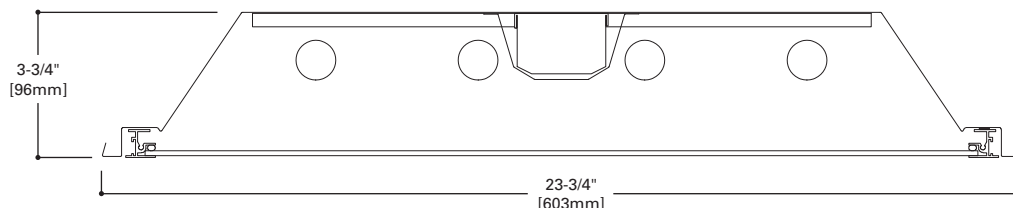


CFD

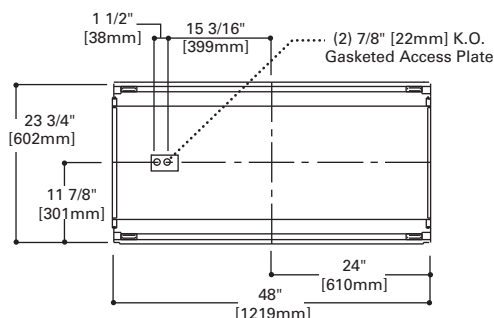
2x4
Cleanroom

RECESSED GRID
Inset Flat Door
1" Grid

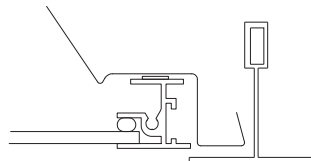
100 PSI Hosedown



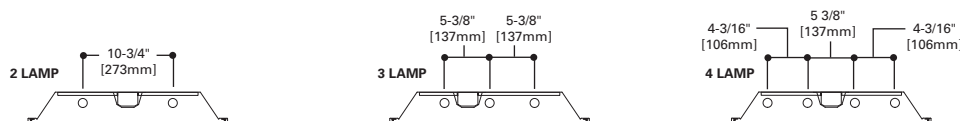
MOUNTING DIMENSIONS



DOOR FRAME



LAMP CONFIGURATIONS



ENERGY DATA

Input Watts:
ES Ballasts & STD Lamps
(2) 32WT8 Fluorescents: 71W
(3) 32WT8 Fluorescents: 108W
(4) 32WT8 Fluorescents: 142W

Electronic Ballast Data

Consult Cooper Lighting Representative

ORDERING INFORMATION

SAMPLE NUMBER: CFDA-432A125-UNV-EL4-EB81-U

SAMPLE NUMBER: CFDFA-432A125-UNV-EL4-EB81-U										Accessories (Order Separately)
Product Family	No. of Lamps	Wattage (Length)	Lamp Type	Voltage	Options	Ballast ²	Options	Packaging		
CFD										
Series CFD = Fluorescent Grid		A125 = #12 Pattern Acrylic (0.125" Nominal thickness)		GL = Internal Single Element Fusing EL4 = Emergency Battery Pack, 1T8 lamp EL5HO = Emergency Battery Pack, 1T5 or T5HO lamp GM = Internal Double Element Fusing		RIF1 = Radio Interference Suppressor PSI = 200 PSI Hose Down Rating 15T = Compatible with 1 1/2" T-Grid Ceilings G3 = Gasket applied to housing lip to seal against grid		U =Unit Pack PALC =Palletized in Carton EQ-Clip-U = Safety Earthquake Clips		
Door Frame FA = Flat White Extruded Aluminum Door		A19/156 = #19 Pattern Acrylic (0.156" Nominal thickness) KSH25 = BatWing Distribution ¹ POLY12/125 = #12 Pattern Polycarbonate (0.125" Nominal thickness)		EB81 = (1) Ballast for use with T8 Lamp EB82 = (2) Ballasts for use with T8 Lamp EB51 = (1) Ballast for use with T5 Lamp EB52 = (2) Ballasts for use with T5 Lamp						
2, 3, or 4 Lamps (Not included)										
32 = 32WT8 28T5 = 28WT5 54T5 = 54WT5HO		120 = 120V 277 = 277V 347 = 347V UNV =120V-277V								

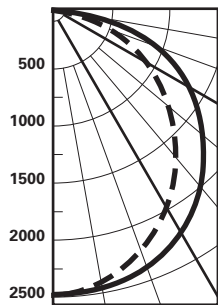
Notes:

Electronic ballast may cause interference with other electronic devices. If interference occurs, move the device away from the product or plug/connect into a different circuit/outlet.

¹ The KSH25 provides improved visual performance and wide angle distribution. This lens has an integral prism pattern designed so that prisms face the lamp cavity and still supply superior photometrics. Highly recommended for all high tech manufacturing environments² For Specific Electronic Ballast Specify Brand and Catalog Number.

PHOTOMETRICS

Candlepower Distribution



Test No. 180P104
CFDSF-332A
 Lamp=(3) 32WT8
 Lumens=2800
 Spacing Criteria
 I=1.2 II=1.1
 Efficiency=80.2%

Average Luminance

Deg.	I	II
45	4010	3423
55	3943	3222
65	3778	2967
75	3388	2516
85	2629	1680

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Luminaire
0-30	1871	22.3	27.8
0-40	3026	36.0	44.9
0-60	5304	63.1	78.7
0-90	6736	80.2	100.0
90-180	0	0.0	0.0
0-180	6736	80.2	100.0

Coefficient of Utilization

rc	80%				70%			50%		30%		10%		0%
rw	70	50	30	10	50	30	10	50	10	50	10	50	10	0
RCR														
0	95	95	95	95	93	93	93	89	89	85	85	82	82	80
1	88	84	81	78	82	79	77	79	74	76	72	73	70	68
2	80	74	69	65	73	68	64	70	62	60	52	58	51	50
3	74	66	59	54	64	59	54	62	53	53	45	52	44	43
4	68	58	52	46	57	51	46	55	45	53	45	52	44	43
5	62	52	44	39	51	44	39	49	39	47	38	46	38	36
6	57	46	39	34	45	39	34	44	34	43	33	41	33	31
7	52	42	35	30	41	34	29	40	34	29	38	29	37	29
8	48	37	30	26	37	30	26	36	25	35	25	34	25	24
9	44	33	27	22	33	27	22	32	22	31	22	30	22	20
10	41	30	24	20	30	24	20	29	19	28	19	28	19	18

rc=Ceiling reflectance, rw=W all reflectance, RCR=Room cavity ratio

CU Data Based on 20% Effective Floor Cavity Reflectance.