



# The Comfort First Filtered Diffuser™

## Specification Sheet



### PERFORMANCE DATA\*

Velocity (fpm)		300	400	500	600	700	800	900	1000
6"	Flow Rate (cfm)	59	79	98	118	137	157	177	196
	Pressure Drop (sp)	0.076	0.107	0.144	0.176	0.215	0.257	0.301	0.343
	Noise Criteria (nc)	<20	<20	22	27	32	36	40	43
8"	Flow Rate (cfm)	105	140	174	209	244	279	314	349
	Pressure Drop (sp)	0.076	0.107	0.144	0.176	0.215	0.257	0.301	0.343
	Noise Criteria (nc)	<20	<20	24	29	34	37	41	44
10"	Flow Rate (cfm)	164	218	273	327	382	436	491	545
	Pressure Drop (sp)	0.076	0.107	0.144	0.176	0.215	0.257	0.301	0.343
	Noise Criteria (nc)	<20	20	26	31	36	39	43	46
12"	Flow Rate (cfm)	236	314	393	471	550	628	707	785
	Pressure Drop (sp)	0.076	0.107	0.144	0.176	0.215	0.257	0.301	0.343
	Noise Criteria (nc)	<20	21	27	32	37	40	44	47
14"	Flow Rate (cfm)	321	427	534	641	748	855	962	1068
	Pressure Drop (sp)	0.076	0.107	0.144	0.176	0.215	0.257	0.301	0.343
	Noise Criteria (nc)	<21	27	32	38	43	46	>50	>50

### Filter Efficiency vs. Particle Diameter MERV Rating = 12

Size Range (µm)	Initial Fractional Efficiency (%)	
	150 fpm	250 fpm
0.3 – 0.4	40.6	31.1
0.4 – 0.55	50.3	42.5
0.55 – 0.7	60.1	54.6
0.7 – 1.0	70.3	67.0
1.0 – 1.3	78.4	75.5
1.3 – 1.6	82.4	79.9
1.6 – 2.2	86.5	82.9
2.2 – 3.0	89.6	84.4
3.0 – 4.0	92.3	85.5
4.0 – 5.5	94.1	86.4
5.5 – 7.0	95.1	87.2
7.0 – 10.0	95.9	87.9

Test results certified by LMS Technologies

\*Data extrapolated from tests conducted on an 8" Comfort First Filtered Diffuser™ with filters installed

### Comfort First Filtered Diffuser™

Throw Data and Velocity in Feet Per Minute (fpm)

Distance From Ceiling Inches	Distance from diffuser (in feet)																			
	1'	2'	3'	4'	5'	6'	7'	8'	9'	10'	11'	12'	13'	14'	15'	16'	17'	18'	19'	
1	340	310	265	240	210	180	170	150	130	120	105	95	90	80	75	70	60	50		
3	145	170	190	190	170	155	150	135	120	110	105	95	85	75	70	65	60	55		
6	55	65	85	85	85	90	95	95	80	90	80	80	70	60	55	55	50			
9	55						50	50	55	55	50	55	55	50						
12	80																			
18	150																			
24	55	65																		
30		95	50																	
36		80	70	50																
42			65	60																
48			50	65	50															
54				55	50															
60				50	50															

#### Test Conditions

Air Volume (CFM) 300  
 Inlet Static Pressure (in. of H<sub>2</sub>O) 0.060"  
 Room Ambient Temp. (Deg. F) 74 ± 2  
 Supply Air Temp. (Deg. F) 74 ± 2  
 Inlet Dimensions: 10 inch diameter

Test results certified by Intertek ETL Semko

FPM Horizontal Throw (vanes parallel to ceiling)  
 FPM Downward Throw (vanes diagonal to ceiling)

**Comfort First Products \* International Diversified Marketing, Inc.**

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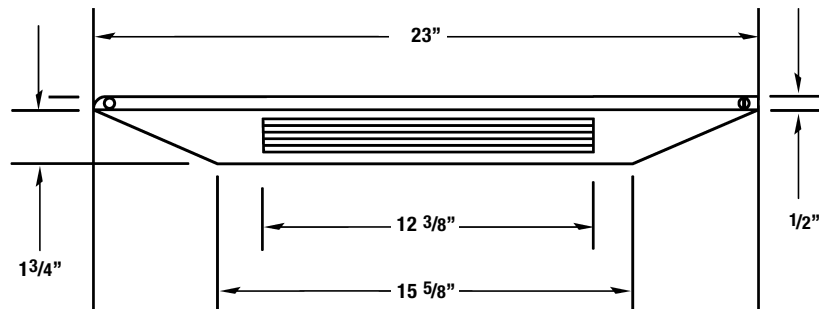
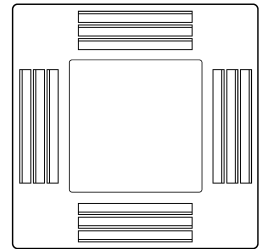
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**CFFD 77500 07-01-08**

## Comfort First Filtered Diffuser Steel • Electrostatic Filters

**Model: CFFD 77500 • Supply • Adjustable Discharge**



LEED Friendly

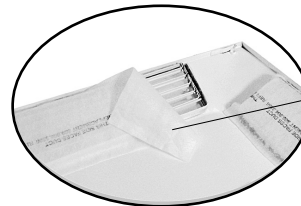


Member

Vertical dimensions are plus or minus 1/4" and horizontal dimensions are plus or minus 1/16"



Aesthetically pleasing, streamlined and low profile  
Only 1 3/4" inches below ceiling



Easy-to-replace  
0.3 micron  
electrostatic filter



Optional backpan



**Download Performance Data and Submittal forms at: [www.comfortfirst.us](http://www.comfortfirst.us)**

### Features:

- Improves indoor Air Quality by capturing airborne contaminants before they enter room
- 4-Way adjustable flow pattern
- Eliminates cold air drafts
- Reduces energy costs
- Filters last 6 – 8 months on average
- Attaches to most perforated diffuser backpans
- Hinges open for easy filter replacement
- 0.3 micron electrostatic filter
- White powder coated epoxy finish

### Comfort First Filtered Diffuser™ 24" x 24" Lay-in

For use in conjunction with an existing or new steel backpan. New backpans available with 6", 8", 10", 12" or 14" necks.

The **CFFD** may qualify for up to **3 LEED points:**

- One for energy savings
- One for IAQ
- One for indoor comfort