

# PERFORMANCE DATA

# FRD

## Flat Radial Diffuser

Module Size and Inlet Size	2-Way Pattern				Spread (ft)			Vertical Throw (ft)								
								5 Deg T			10 Deg T			15 Deg T		
	cfm	Ps	Pt	Nc	100-75-50	100-75-50	100-75-50	100-75-50	100-75-50	100-75-50	100-75-50	100-75-50	100-75-50	100-75-50		
24" X 24" 8" Inlet	250	0.055	0.087	25	1	2	5	1	2	3	1	2	3	1	2	4
	300	0.080	0.126	29	2	3	6	1	3	4	1	2	4	2	3	5
	400	0.142	0.224	37	3	5	7	3	3	5	2	4	5	3	5	7
	500	0.222	0.350	42	5	6	8	3	4	5	3	5	7	4	6	8
24" X 24" 10" Inlet	250	0.026	0.039	<20	1	1	3	0	1	2	0	1	2	1	1	2
	300	0.037	0.056	20	1	2	4	1	1	2	1	1	3	1	1	3
	475	0.093	0.140	27	3	5	7	1	3	6	2	3	6	2	4	7
	600	0.148	0.224	37	4	6	9	2	4	8	3	5	8	3	6	9
24" X 48" 10" Inlet	375	0.054	0.084	<20	3	4	6	0	1	1	1	1	2	1	1	2
	500	0.097	0.149	20	4	6	9	1	1	3	1	2	4	1	2	4
	700	0.190	0.292	42	6	8	10	1	2	5	2	4	6	2	4	7
	900	0.313	0.483	50	8	10	12	2	4	7	3	5	8	3	6	9
24" X 48" 12" Inlet	500	0.054	0.080	20	1	2	4	1	1	2	1	1	3	1	2	4
	650	0.092	0.135	26	2	3	7	1	2	4	1	2	5	2	3	6
	750	0.122	0.179	32	2	4	9	1	2	5	2	3	6	2	4	7
	1000	0.218	0.319	45	4	7	11	2	4	6	3	5	8	4	6	9

Module Size and Inlet Size	1-Way Pattern				Spread (ft)			Vertical Throw (ft)								
								5 Deg T			Deg T			15 Deg T		
	cfm	Ps	Pt	NC	100-75-50	100-75-50	100-75-50	100-75-50	100-75-50	100-75-50	100-75-50	100-75-50	100-75-50	100-75-50		
24" X 24" 8" Inlet	250	0.055	0.087	<20	1	2	3	0	0	1	1	1	2	1	1	3
	325	0.094	0.148	29	2	3	4	0	1	2	1	2	4	1	2	5
	400	0.142	0.224	35	3	3	4	1	1	3	2	3	6	2	4	8
	450	0.179	0.283	38	3	4	4	1	1	3	2	3	9	3	5	9
24" X 24" 10" Inlet	250	0.025	0.038	<20	1	2	4	1	1	3	1	1	3	2	3	7
	350	0.049	0.075	26	3	4	6	1	2	5	2	3	6	4	6	9
	450	0.081	0.123	27	4	5	7	2	4	6	3	5	7	6	8	9
24" X 48" 10" Inlet	500	0.092	0.144	28	1	2	3	1	2	4	1	2	4	3	6	9
	625	0.143	0.225	34	2	2	4	2	3	5	2	3	6	5	8	9
	750	0.206	0.324	39	2	3	4	2	4	6	2	4	7	7	9	9
24" X 48" 12" Inlet	900	0.297	0.467	44	3	4	6	4	5	8	4	7	9	8	9	9
	500	0.051	0.076	<20	1	2	3	2	4	7	4	6	8	4	6	8
	650	0.086	0.129	25	2	3	4	4	6	9	6	7	9	6	7	9
24" X 48" 12" Inlet	750	0.114	0.171	31	3	3	5	5	7	9	6	8	9	6	8	9
	1000	0.203	0.304	43	3	5	7	7	9	9	8	9	9	8	9	9

Spread is the maximum width of the isovel at the indicated terminal velocity. Vertical throw is the furthest distance below the ceiling where the indicated terminal velocity can be measured.

Tests were conducted in a 16 x 16 ft. room, with a 9 ft. ceiling, low side wall returns, in accordance with ASHRAE Std 113-1990, in several planes.

Low emissivity heaters were used to maintain loads, which were set to match the supply air conditions. There were no obstructions in the room during the tests.

Sound and pressure drop tests were conducted in accordance with ASHRAE Standard 70-1991 and ANSI S1.31 Procedures.

