

PERFORMANCE DATA:

MODEL 49-243 • 1/2" (13) SPACING • 1/4" (6) BARS • 30° DEFLECTION

Free Area Square Feet per Lineal Foot	Nominal Duct Width	Total Pressure	.012	.025	.047	.074	.105	.142	.187	.237	.294
.031	1 1/2"	Airflow, CFM/FT.	12	19	25	31	37	43	50	56	62
		Noise Criteria	–	16	24	32	37	42	46	49	52
		Throw	Sill or Floor	1-1-1	3-3-3	5-5-5	7-7-7	9-9-10	10-11-12	12-13-15	13-15-17
		Side Wall	2-4-6	4-7-10	6-10-14	7-12-17	9-14-20	10-16-23	12-18-25	13-20-27	14-22-30
.048	2"	Airflow, CFM/FT.	19	29	38	48	58	67	77	86	96
		Noise Criteria	–	–	20	27	32	37	41	44	47
		Throw	Sill or Floor	1-1-1	4-4-4	7-7-7	9-9-10	11-12-13	13-14-15	15-16-18	16-18-20
		Side Wall	3-5-7	5-8-12	7-11-16	9-14-20	11-17-24	13-19-26	15-22-29	16-23-31	17-25-34
.067	2 1/2"	Airflow, CFM/FT.	27	40	54	67	80	94	107	120	134
		Noise Criteria	–	–	20	27	32	37	41	44	47
		Throw	Sill or Floor	1-1-1	5-5-5	9-9-9	11-11-12	13-14-15	15-16-18	17-19-21	20-21-22
		Side Wall	4-6-8	6-9-13	9-13-17	11-16-21	14-19-25	15-21-27	17-24-31	20-27-35	22-29-38
.086	3"	Airflow, CFM/FT.	34	52	69	86	103	120	138	155	172
		Noise Criteria	–	–	20	27	32	37	41	44	47
		Throw	Sill or Floor	2-2-2	6-6-6	10-10-11	12-13-14	15-16-18	18-19-20	20-21-23	23-24-25
		Side Wall	4-6-9	8-11-15	10-14-19	13-18-23	16-21-27	18-24-31	21-28-35	23-30-38	26-34-41
.105	3 1/2"	Airflow, CFM/FT.	42	63	84	105	126	147	168	189	210
		Noise Criteria	–	–	20	28	33	38	42	45	48
		Throw	Sill or Floor	2-2-2	8-8-8	11-11-12	15-15-15	17-18-19	21-21-22	22-23-25	25-25-26
		Side Wall	6-8-11	9-12-16	12-16-21	14-19-24	18-23-29	21-27-33	23-29-36	25-32-39	28-36-43
.127	4"	Airflow, CFM/FT.	51	76	102	127	152	178	203	228	254
		Noise Criteria	–	–	21	29	34	39	43	46	49
		Throw	Sill or Floor	3-3-3	9-9-9	13-13-13	16-16-17	19-20-21	22-22-23	24-25-26	27-27-27
		Side Wall	6-9-12	10-13-17	13-17-22	15-20-25	19-24-30	22-28-34	25-31-38	28-36-41	30-37-44
.167	5"	Airflow, CFM/FT.	67	100	134	167	200	234	267	301	334
		Noise Criteria	–	–	21	29	34	39	43	46	49
		Throw	Sill or Floor	4-4-4	10-10-10	14-14-14	18-18-18	21-21-22	24-24-25	26-27-28	30-30-30
		Side Wall	8-11-14	11-15-19	15-19-24	19-23-28	21-26-32	24-30-36	26-32-39	29-36-42	33-39-46
.210	6"	Airflow, CFM/FT.	84	126	168	210	252	294	336	378	420
		Noise Criteria	–	15	23	31	36	41	45	48	51
		Throw	Sill or Floor	5-5-5	10-10-10	15-15-15	19-19-19	23-23-23	25-25-25	28-28-29	31-31-31
		Side Wall	9-12-15	14-17-21	17-21-25	20-24-29	24-29-34	27-32-38	29-35-40	32-38-43	36-42-47

Performance Notes:

- Throws are given at 150, 100 and 50 fpm terminal velocities.
- Throw values are based on a 4 foot section with a cooling ΔT of 20°F (11°C). For other lengths, use the correction factor table shown.
- Total Pressure is in inches w.g..
- Noise Criteria [NC] values are based on a 10 foot active section. For other lengths, use the correction factor table shown.
- Return Air Applications:
Noise Criteria value is increased by +4.
Negative Static Pressure = 0.8 x Total Pressure.
- Dash (–) in space indicates an Noise Criteria level of less than 15.
- Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70–2006.

Noise Criteria Correction for Length

Active Length, ft.	1	2	4	8	10	15	20
Correction Factor	-10	-7	-4	-1	0	+2	+3

Throw Correction for Length

Active Length	Terminal Velocity		
	150 fpm	100 fpm	50 fpm
1 ft.	0.5	0.6	0.7
10 ft. +	1.6	1.4	1.2

Nominal Width	Ak Factor per foot	
	Supply	Return
1 1/2"	.041	.037
2"	.058	.051
2 1/2"	.076	.066
3"	.095	.080
3 1/2"	.115	.098
4"	.137	.113
5"	.177	.148
6"	.230	.189

B

LINEAR DIFFUSERS AND BAR GRILLES