

PERFORMANCE DATA:

MODEL 49-281 • 1/2" (13) SPACING • 1/8" (3) BARS • 15° DEFLECTION

B LINEAR DIFFUSERS AND BAR GRILLES

Free Area Square Feet per Lineal Foot	Nominal Duct Width	Total Pressure	.009	.020	.035	.056	.078	.107	.140	.178	.220	
.039	1 1/2"	Airflow, CFM/FT.	16	23	31	39	47	55	62	70	78	
		Noise Criteria	–	18	27	33	38	43	47	50	53	
		Throw	Sill or Floor	1-1-1	3-3-3	5-5-5	8-8-8	9-9-10	10-11-13	12-13-15	13-15-17	14-16-18
			Side Wall	2-4-6	4-7-10	6-10-14	8-13-18	9-14-20	10-16-23	12-18-25	13-20-27	14-22-30
.056	2"	Airflow, CFM/FT.	22	34	45	56	67	78	90	101	112	
		Noise Criteria	–	–	20	26	31	36	40	44	47	
		Throw	Sill or Floor	1-1-1	4-4-4	7-7-7	9-9-10	11-12-13	12-14-16	14-16-18	15-17-20	18-19-21
			Side Wall	3-5-7	5-8-12	7-11-16	9-14-20	11-17-23	12-18-25	14-20-27	15-22-30	18-26-34
.075	2 1/2"	Airflow, CFM/FT.	30	45	60	75	90	105	120	135	150	
		Noise Criteria	–	–	18	24	30	35	39	43	46	
		Throw	Sill or Floor	1-1-1	5-5-5	8-8-9	11-11-12	13-14-15	15-16-18	17-19-21	20-21-22	22-22-23
			Side Wall	4-6-8	6-9-13	8-12-17	11-16-21	13-19-25	15-21-27	17-24-31	20-27-35	22-30-38
.093	3"	Airflow, CFM/FT.	37	56	74	93	112	130	149	167	186	
		Noise Criteria	–	–	17	23	29	34	38	42	45	
		Throw	Sill or Floor	2-2-2	6-6-6	10-10-10	12-12-13	15-16-17	18-19-20	20-21-23	23-23-24	25-25-25
			Side Wall	4-6-9	7-10-14	10-13-18	12-17-22	15-20-26	18-24-30	20-26-33	23-30-37	25-32-39
.113	3 1/2"	Airflow, CFM/FT.	45	68	90	113	136	158	181	203	226	
		Noise Criteria	–	–	17	23	29	34	38	42	45	
		Throw	Sill or Floor	2-2-2	7-7-7	12-12-12	14-14-15	17-18-19	20-21-22	22-23-24	25-25-26	27-27-27
			Side Wall	5-7-10	8-11-15	12-16-20	14-18-23	17-22-27	20-25-31	22-28-35	25-32-39	27-34-41
.133	4"	Airflow, CFM/FT.	53	80	106	133	160	186	212	239	266	
		Noise Criteria	–	–	18	24	30	35	39	43	46	
		Throw	Sill or Floor	3-3-3	8-8-9	13-13-13	15-15-16	19-19-20	22-22-23	24-24-25	26-26-27	30-30-30
			Side Wall	6-8-11	9-12-16	13-17-21	15-19-24	19-24-29	22-27-33	24-30-36	26-33-39	30-37-43
.173	5"	Airflow, CFM/FT.	69	104	138	173	208	242	277	312	346	
		Noise Criteria	–	–	18	24	30	35	39	43	46	
		Throw	Sill or Floor	4-4-4	9-9-9	14-14-14	17-17-17	20-21-22	24-24-24	26-26-27	29-29-29	32-32-32
			Side Wall	8-10-13	11-14-18	15-19-23	17-21-26	20-25-31	24-29-35	26-33-38	29-35-41	32-39-45
.212	6"	Airflow, CFM/FT.	85	127	170	212	254	296	339	382	424	
		Noise Criteria	–	–	18	24	30	35	39	43	46	
		Throw	Sill or Floor	5-5-5	10-10-10	15-15-15	18-18-18	23-23-23	25-25-25	28-28-28	30-30-30	34-34-34
			Side Wall	9-11-14	13-16-20	16-20-24	20-24-28	23-27-32	25-30-36	28-33-39	31-37-42	35-41-46

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"	.052	.047
2"	.067	.060
2 1/2"	.086	.075
3"	.103	.091
3 1/2"	.123	.103
4"	.143	.126
5"	.183	.157
6"	.222	.188