

## PERFORMANCE DATA:

### MODEL 49-481 • 1/4" (6) 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	.012	.026	.049	.077	.109	.148	.195	.247	.304	
<b>.034</b>	<b>1 1/2"</b>	Airflow, CFM/FT.	14	20	27	34	41	48	54	61	68	
		Noise Criteria	-	-	22	30	35	39	43	46	49	
		Throw	Sill or Floor	1-1-1	3-3-3	4-4-4	7-7-7	9-9-10	10-11-12	12-13-15	13-14-16	14-16-18
			Side Wall	2-4-6	4-7-10	6-10-14	7-12-17	9-14-20	10-16-22	12-18-25	13-20-27	14-22-30
<b>.049</b>	<b>2"</b>	Airflow, CFM/FT.	20	29	39	49	59	69	78	88	98	
		Noise Criteria	-	-	20	27	32	37	41	44	47	
		Throw	Sill or Floor	1-1-1	4-4-4	6-6-6	9-9-9	11-11-12	12-13-15	14-16-18	15-17-19	16-18-20
			Side Wall	3-5-7	5-8-11	7-11-15	9-14-19	11-16-22	12-18-25	14-20-27	15-22-29	16-24-32
<b>.065</b>	<b>2 1/2"</b>	Airflow, CFM/FT.	26	39	52	65	78	91	104	117	130	
		Noise Criteria	-	-	20	27	32	37	41	44	47	
		Throw	Sill or Floor	1-1-1	5-5-5	8-8-8	10-10-11	13-14-15	14-15-17	17-18-20	19-20-21	21-21-22
			Side Wall	4-6-8	6-9-12	8-12-16	10-15-20	13-19-24	14-20-26	17-23-30	19-26-33	21-28-36
<b>.082</b>	<b>3"</b>	Airflow, CFM/FT.	33	49	66	82	98	115	131	148	164	
		Noise Criteria	-	-	20	27	32	37	41	44	47	
		Throw	Sill or Floor	2-2-2	6-6-6	9-9-9	12-12-13	15-15-16	17-18-19	20-21-22	21-22-23	23-23-24
			Side Wall	4-6-9	7-10-13	9-13-17	12-16-21	15-20-25	17-22-28	20-26-32	21-28-35	23-31-39
<b>.099</b>	<b>3 1/2"</b>	Airflow, CFM/FT.	40	59	79	99	119	138	158	178	198	
		Noise Criteria	-	-	20	28	33	37	41	44	47	
		Throw	Sill or Floor	2-2-2	8-8-8	11-11-11	13-13-14	16-17-18	19-20-21	22-22-23	23-24-25	26-26-26
			Side Wall	5-7-9	8-11-14	11-15-19	13-17-22	16-21-26	19-24-30	22-28-34	23-30-37	26-33-40
<b>.117</b>	<b>4"</b>	Airflow, CFM/FT.	47	70	94	117	140	164	187	220	234	
		Noise Criteria	-	-	21	28	34	38	42	45	48	
		Throw	Sill or Floor	3-3-3	9-9-9	12-12-12	15-15-15	18-19-20	21-21-22	23-24-25	25-25-26	28-28-28
			Side Wall	5-7-10	9-12-15	12-16-20	15-19-24	18-23-28	21-26-32	23-29-35	25-32-39	29-36-42
<b>.152</b>	<b>5"</b>	Airflow, CFM/FT.	61	91	121	152	182	212	243	274	304	
		Noise Criteria	-	-	22	29	34	39	43	46	49	
		Throw	Sill or Floor	3-3-3	9-9-9	13-13-13	16-16-17	20-20-21	23-23-24	25-25-26	28-28-28	31-31-31
			Side Wall	7-9-12	10-13-17	14-18-22	16-21-26	20-25-30	23-28-34	25-31-37	28-34-40	31-38-44
<b>.186</b>	<b>6"</b>	Airflow, CFM/FT.	74	111	149	186	223	260	298	335	372	
		Noise Criteria	-	-	22	30	35	40	43	47	50	
		Throw	Sill or Floor	4-4-4	10-10-10	14-14-14	18-18-18	22-22-22	25-25-25	28-28-28	30-30-30	33-32-32
			Side Wall	8-10-13	11-14-18	15-19-23	19-23-27	23-27-31	25-30-35	28-33-39	31-37-42	34-40-45

#### 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 70-2023.

#### 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"	.045	.041
2"	.059	.053
2 1/2"	.074	.065
3"	.091	.080
3 1/2"	.108	.091
4"	.126	.108
5"	.161	.138
6"	.195	.166