

## PERFORMANCE DATA:

### LINEAR LOUVER DIFFUSERS

#### Model: 48LL1 • One-Way Pattern

Nominal Duct Width Size	Neck Velocity, FPM	300	400	500	600	700	800	900
	Velocity Pressure	.006	.010	.016	.022	.031	.040	.050
Total Pressure	.037	.064	.101	.145	.197	.258	.326	
3"	Airflow, CFM/FT.	75	100	125	150	175	200	225
	Noise Criteria	–	–	20	24	28	32	35
	Throw	14-17-24	16-20-28	16-22-31	20-24-34	21-26-38	20-28-39	24-30-42
4 1/2"	Airflow, CFM/FT.	113	150	188	225	263	300	338
	Noise Criteria	–	16	22	26	30	34	37
	Throw	18-22-32	21-26-37	23-29-41	28-32-44	28-34-48	30-37-51	32-39-55
6"	Airflow, CFM/FT.	150	200	250	300	350	400	450
	Noise Criteria	–	17	23	27	31	35	38
	Throw	21-25-36	24-29-31	27-33-46	29-36-51	32-39-55	34-41-59	36-44-63
7 1/2"	Airflow, CFM/FT.	187	150	312	375	437	500	563
	Noise Criteria	–	17	23	27	31	35	38
	Throw	3-29-41	27-33-47	29-37-52	33-41-56	36-43-61	38-47-65	41-49-70
9"	Airflow, CFM/FT.	225	300	375	450	525	600	675
	Noise Criteria	–	18	24	28	32	36	39
	Throw	25-31-44	30-36-52	33-40-58	35-45-63	39-48-67	42-52-73	45-56-77
10 1/2"	Airflow, CFM/FT.	263	350	438	525	613	700	788
	Noise Criteria	–	18	25	28	33	37	40
	Throw	27-34-48	32-39-60	34-43-61	39-48-66	42-50-72	48-55-76	48-58-82
12"	Airflow, CFM/FT.	300	400	500	600	700	800	900
	Noise Criteria	–	19	25	29	33	37	40
	Throw	29-36-51	34-42-59	37-46-65	42-51-71	45-54-77	48-59-82	51-62-88

#### Model 48LL2 • Two-Way Pattern

Nominal Duct Width Size	Neck Velocity, FPM	300	400	500	600	700	800	900
	Velocity Pressure	.006	.010	.016	.022	.031	.040	.050
Total Pressure	.037	.064	.101	.145	.197	.258	.326	
3"	Airflow, CFM/FT.	75	100	125	150	175	200	225
	Noise Criteria	–	–	18	23	27	30	34
	Throw	8-12-22	11-16-25	13-20-28	16-22-30	19-23-33	20-25-35	21-26-37
6"	Airflow, CFM/FT.	150	200	250	300	350	400	450
	Noise Criteria	–	16	21	26	30	33	37
	Throw	11-17-30	16-23-34	19-27-39	23-30-42	27-33-45	28-34-49	30-36-52
9"	Airflow, CFM/FT.	225	300	375	450	525	600	675
	Noise Criteria	–	18	24	28	32	36	39
	Throw	25-31-44	30-36-52	33-40-58	35-45-63	39-48-67	42-52-73	45-56-77
12"	Airflow, CFM/FT.	300	400	500	600	700	800	900
	Noise Criteria	–	19	25	29	33	37	40
	Throw	16-24-42	21-32-48	26-38-54	32-42-59	37-45-64	39-48-68	41-51-72

#### Throw Correction Factors for Various Lengths

Length (ft.)	2	3	4	5	6	8	10	12
Multiplier	.70	.86	1.0	1.1	1.25	1.4	1.55	1.7

#### Noise Criteria Correction Factors for Various Lengths

Length (ft.)	2	3	4	5	6	8	10
Supply	-3	-1	0	+1	+2	+3	+5

#### Performance Notes:

- Horizontal throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
- Throw values are based on a 4 ft. section. For other lengths, use the correction factor table above.
- Total Pressure is in inches w.g..
- Noise Criteria [NC] values are based on a 4 ft. section and a room absorption of 10 dB, re 10<sup>-12</sup> watts. 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.

B

LINEAR DIFFUSERS AND BAR GRILLES