

PERFORMANCE DATA - LINEAR ARCHITECTURAL DIFFUSER

MODEL LAD - PRESSURIZED CEILING PLENUM WITH COMBO BLADE PATTERN CONTROLLER, HORIZONTAL THROW

1" Slot Width	1 Slot	CFM/LF	25	40	65	80	95	110	125	140
		Ps	.023	.058	.152	.230	.325	.436	.563	.706
		NC	-	21	35	40	45	49	52	55
		Throw	6-11-15	9-13-19	12-17-24	13-19-27	14-20-29	15-22-31	16-23-33	17-25-35
	2 Slot	CFM/LF	40	60	100	120	145	165	190	210
		Ps	.015	.033	.092	.133	.194	.251	.333	.406
		NC	-	18	30	35	41	44	48	51
		Throw	5-13-19	10-16-23	15-21-30	16-23-33	18-25-36	19-27-38	20-29-41	21-30-43
1.5" Slot Width	1 Slot	CFM/LF	30	50	80	95	115	130	150	170
		Ps	.023	.063	.160	.226	.331	.423	.563	.723
		NC	-	19	31	36	41	45	48	52
		Throw	5-12-16	9-15-21	13-19-27	14-20-29	16-23-32	17-24-34	18-26-36	19-27-39
	2 Slot	CFM/LF	45	75	120	145	175	195	225	255
		Ps	.013	.037	.094	.137	.200	.248	.330	.424
		NC	-	16	26	31	36	39	44	47
		Throw	6-14-20	12-18-26	16-23-33	18-25-36	19-28-39	20-29-41	22-32-45	23-34-47
2" Slot Width	1 Slot	CFM/LF	35	55	90	110	110	155	175	195
		Ps	.025	.061	.162	.242	.242	.481	.613	.761
		NC	-	15	27	33	33	42	46	48
		Throw	4-12-18	9-16-22	14-20-28	15-22-31	15-22-31	18-26-37	19-28-39	20-29-41
	2 Slot	CFM/LF	55	85	135	165	165	235	265	295
		Ps	.015	.037	.093	.139	.139	.283	.360	.446
		NC	-	-	23	28	28	37	41	44
		Throw	4-13-22	9-19-27	16-24-35	19-27-38	19-27-38	22-32-46	24-34-48	25-36-51
2.5" Slot Width	1 Slot	CFM/LF	40	60	100	120	145	165	190	210
		Ps	.025	.056	.156	.225	.329	.426	.564	.689
		NC	-	-	24	29	34	38	42	44
		Throw	4-12-19	8-16-23	14-21--30	16-23-33	18-25-36	19-27-38	20-29-41	21-30-43
	2 Slot	CFM/LF	60	90	150	180	220	250	285	315
		Ps	.014	.033	.091	.130	.195	.252	.327	.400
		NC	-	-	20	24	29	33	37	39
		Throw	3-13-23	7-19-28	15-26-36	19-28-40	22-31-44	22-37-47	25-35-50	26-37-53
3" Slot Width	1 Slot	CFM/LF	45	70	115	145	170	200	225	250
		Ps	.023	.055	.149	.237	.325	.450	.570	.703
		NC	-	-	23	29	33	38	41	44
		Throw	4-12-20	9-18-25	15-23-32	18-25-36	19-27-39	21-30-42	22-32-45	23-33-47
	2 Slot	CFM/LF	70	105	175	220	255	300	340	375
		Ps	.014	.032	.090	.142	.191	.264	.339	.413
		NC	-	-	19	25	28	33	36	39
		Throw	3-14-25	7-20-30	16-28-39	21-31-44	23-34-47	25-36-51	27-39-55	28-41-58

PERFORMANCE NOTES FOR LAD LINEAR ARCHITECTURAL DIFFUSER SERIES

All data is tested in accordance with ANSI/ASHRAE 70-2006.

DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

CFM/LF Cubic Feet per Minute per Linear Foot (air)

Velocity Velocity of air stream in Feet per Minute

Ps Negative static pressure (inches of water column)

NC Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re: 10^{-12} watts minus a 10dB room attenuation in all octave bands

1. All pressures are given in inches of water.
2. Isothermal throws are given for velocities of 150, 100 and 50 fpm.
3. Throw values are based on a one-way discharge from the slot with the controller set at 0 discharge. For two-way discharges, throw is based upon the number and size of the slots throwing in each direction, with the total supply airflow split equally between all slots in the unit.
4. Data was collected in accordance to ASHRAE Standard 70-2006 "Method of Testing for Rating the Performance of Air Outlets and Inlets."
5. Correction factor tables are only to be used with continuous pressurized ceiling plenum performance data.

Table 1. NC Correction For Length

Length (feet)	2	4	6	8	10
Supply	-2	+0	+2	+3	+5
Return	+0	+3	+5	+6	+8

Table 2. Throw Correction Multiplier For Length

Length (feet)	2	4	8	10	12
Throw Correction	0.72	0	1.5	1.7	1.8