

PERFORMANCE DATA - LINEAR ARCHITECTURAL DIFFUSER

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

1" Slot Width	1 Slot	CFM/LF	50	75	100	120	140	160	180	200
		Ps	.033	.074	.131	.189	.257	.335	.424	.524
		NC	-	20	25	29	32	34	36	38
		Throw	3-11-18	4-15-22	5-18-25	6-19-27	7-21-29	9-22-31	10-24-33	11-25-35
	2 Slot	CFM/LF	75	115	150	180	210	240	270	300
		Ps	.022	.052	.089	.128	.174	.227	.287	.355
		NC	-	18	23	26	29	32	34	36
		Throw	3-12-22	4-18-27	6-22-30	7-24-33	8-26-36	9-27-39	10-29-41	11-30-43
1.5" Slot Width	1 Slot	CFM/LF	65	95	125	150	175	200	225	250
		Ps	.027	.068	.100	.145	.197	.257	.326	.402
		NC	-	18	24	27	30	33	35	37
		Throw	3-12-20	4-17-24	5-20-28	7-22-30	8-23-33	9-25-35	10-26-37	11-28-39
	2 Slot	CFM/LF	110	160	215	255	300	340	385	425
		Ps	.023	.049	.089	.125	.174	.223	.286	.349
		NC	-	18	24	27	30	32	35	37
		Throw	3-14-26	5-21-31	7-26-36	8-28-40	9-30-43	11-32-46	12-35-49	13-36-51
2" Slot Width	1 Slot	CFM/LF	100	150	200	240	280	320	360	400
		Ps	.039	.089	.158	.227	.309	.403	.511	.630
		NC	-	22	27	31	33	36	38	40
		Throw	4-16-25	6-22-30	8-25-35	9-27-39	11-29-42	12-31-45	14-33-47	15-35-50
	2 Slot	CFM/LF	150	225	300	360	420	480	540	600
		Ps	.027	.060	.106	.153	.208	.272	.344	.425
		NC	-	19	25	28	31	34	36	38
		Throw	4-17-30	6-25-37	8-30-43	10-33-47	11-36-51	13-39-55	14-41-58	16-43-61
2.5" Slot Width	1 Slot	CFM/LF	125	190	250	300	350	400	450	500
		Ps	.041	.095	.164	.237	.322	.421	.533	.658
		NC	-	22	27	31	33	36	38	40
		Throw	4-18-28	6-24-34	8-28-39	10-30-43	12-33-47	13-35-50	15-37-53	17-39-56
	2 Slot	CFM/LF	190	285	375	450	525	600	675	750
		Ps	.028	.064	.111	.160	.217	.284	.359	.443
		NC	-	19	25	28	31	34	36	38
		Throw	5-19-34	7-29-42	9-34-48	11-37-53	13-40-57	14-43-61	16-46-65	18-48-68
3" Slot Width	1 Slot	CFM/LF	150	225	300	360	420	480	540	600
		Ps	.047	.106	.189	.272	.370	.484	.612	.756
		NC	-	22	27	31	33	36	38	40
		Throw	5-19-30	7-26-37	9-30-43	11-33-47	13-36-51	15-39-55	17-41-58	18-43-61
	2 Slot	CFM/LF	225	340	450	540	630	720	810	900
		Ps	.032	.073	.128	.184	.250	.327	.413	.510
		NC	-	19	25	28	31	34	36	38
		Throw	5-21-37	7-31-46	10-37-53	12-41-58	14-44-62	16-47-67	18-50-71	20-53-75

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