

PERFORMANCE DATA - LINEAR ARCHITECTURAL DIFFUSER

MODEL LAD - TWO-SLOT, COMBO BLADE, HORIZONTAL THROW WITH PLENUM

Two Slot — 1" Slot Width	Horizontal Throw	8" Oval Inlet	2 ft.	CFM	110	145	180	215	250	290	325	360
				Ps	.037	.065	.102	.147	.200	.261	.331	.408
				Pt	.044	.078	.121	.174	.236	.310	.392	.484
				NC	-	17	22	26	30	34	37	40
				Throw	6-10-15	9-13-18	11-14-20	13-15-22	14-17-24	15-18-25	15-19-27	16-20-28
			4 ft.	CFM	215	290	360	430	505	575	550	720
				Ps	.041	.073	.113	.163	.222	.290	.367	.454
				Pt	.068	.122	.189	.271	.371	.483	.613	.755
				NC	-	19	24	28	32	36	39	42
				Throw	9-14-22	12-18-25	15-20-28	18-22-31	19-24-33	21-25-36	22-27-38	23-28-40
			5 ft.	CFM	270	360	450	540	630	720	810	900
				Ps	.045	.080	.125	.180	.244	.319	.404	.499
				Pt	.087	.155	.243	.349	.476	.621	.786	.971
				NC	-	20	25	30	34	37	40	43
				Throw	12-18-24	16-24-28	21-27-32	24-29-35	26-32-37	28-34-40	29-36-42	31-38-45
	Horizontal Throw	10" Oval Inlet	2 ft.	CFM	110	145	180	215	250	290	325	360
				Ps	.033	.058	.091	.131	.179	.233	.295	.365
				Pt	.036	.065	.101	.145	.197	.258	.327	.403
				NC	-	17	22	26	30	34	37	40
				Throw	6-10-15	9-13-18	11-14-20	13-15-22	14-17-24	15-18-25	15-19-27	16-20-28
			4 ft.	CFM	215	290	360	430	505	575	550	720
				Ps	.036	.065	.101	.146	.198	.259	.328	.405
				Pt	.050	.090	.140	.201	.274	.357	.454	.559
				NC	-	19	24	28	32	36	39	42
				Throw	9-14-22	12-18-25	15-20-28	18-22-31	19-24-33	21-25-36	22-27-38	23-28-40
			5 ft.	CFM	270	360	450	540	530	720	810	900
				Ps	.040	.071	.111	.160	.218	.285	.361	.446
				Pt	.062	.110	.172	.247	.336	.439	.556	.686
				NC	-	20	25	30	34	37	40	43
				Throw	12-18-24	16-24-28	21-27-32	24-29-35	26-32-37	28-34-40	29-36-42	31-38-45

PERFORMANCE DATA - LINEAR ARCHITECTURAL DIFFUSER

MODEL LAD - TWO-SLOT, COMBO BLADE, HORIZONTAL THROW WITH PLENUM

Two Slot — 1.5" Slot Width	Horizontal Throw	8" Oval Inlet	2 ft.	CFM	95	125	155	185	215	250	280	310
				Ps	.018	.033	.051	.073	.100	.130	.165	.203
				Pt	.024	.042	.065	.093	.127	.166	.210	.259
				NC	-	17	22	27	31	34	37	40
				Throw	4-7-14	6-9-17	8-11-18	9-14-20	11-15-22	12-17-23	14-18-25	15-18-26
			4 ft.	CFM	185	250	310	370	435	495	560	620
				Ps	.020	.036	.056	.081	.111	.145	.183	.226
				Pt	.040	.073	.112	.161	.221	.287	.366	.450
				NC	-	19	24	29	33	36	39	42
				Throw	5-10-19	9-13-23	11-16-26	13-19-29	15-22-31	17-23-33	19-25-35	21-26-37
			5 ft.	CFM	235	310	390	465	545	620	700	775
				Ps	.022	.040	.062	.089	.122	.159	.201	.248
				Pt	.055	.096	.151	.215	.295	.383	.486	.598
				NC	15	21	26	30	34	38	41	43
				Throw	7-13-22	12-17-26	14-22-29	17-26-32	20-29-35	23-31-37	26-33-39	29-35-41
Two Slot — 1.5" Slot Width	Horizontal Throw	12" Oval Inlet	2 ft.	CFM	95	125	155	185	215	250	280	310
				Ps	.017	.030	.047	.068	.092	.120	.152	.188
				Pt	.019	.033	.051	.074	.100	.132	.166	.205
				NC	-	17	22	26	30	34	37	39
				Throw	4-7-14	6-9-17	8-11-18	9-14-20	11-15-22	12-17-23	14-18-25	15-18-26
			4 ft.	CFM	185	250	310	370	435	495	560	620
				Ps	.019	.033	.052	.075	.102	.134	.169	.209
				Pt	.025	.045	.070	.100	.136	.178	.226	.278
				NC	-	19	24	28	32	36	39	41
				Throw	5-10-19	9-13-23	11-16-26	13-19-29	15-22-31	17-23-33	19-25-35	21-26-37
			5 ft.	CFM	235	310	390	465	545	620	700	775
				Ps	.021	.037	.057	.083	.113	.147	.186	.230
				Pt	.031	.054	.085	.122	.166	.216	.274	.338
				NC	-	20	25	30	34	37	40	43
				Throw	7-13-22	12-17-26	14-22-29	17-26-32	20-29-35	23-31-37	26-33-39	29-35-41

PERFORMANCE DATA - LINEAR ARCHITECTURAL DIFFUSER

MODEL LAD - TWO-SLOT, COMBO BLADE, HORIZONTAL THROW WITH PLENUM

Two Slot — 2" Slot Width	Horizontal Throw	8" Oval Inlet	2 ft.	CFM	100	140	175	210	250	285	325	360
				Ps	.015	.028	.044	.065	.090	.119	.151	.188
				Pt	.021	.039	.062	.091	.126	.166	.213	.264
				NC	-	17	22	27	31	35	38	41
				Throw	6-9-15	8-12-17	11-14-20	12-15-22	14-17-23	14-18-25	15-19-27	16-20-28
			4 ft.	CFM	200	275	350	425	500	570	645	720
				Ps	.016	.031	.049	.072	.100	.132	.168	.209
				Pt	.040	.075	.121	.178	.246	.321	.410	.511
				NC	-	19	24	29	33	37	40	43
				Throw	4-9-18	7-12-25	11-16-28	13-19-31	15-22-33	17-25-36	19-27-38	22-28-40
			5 ft.	CFM	255	345	440	530	625	715	810	900
				Ps	.018	.034	.054	.080	.110	.145	.185	.230
				Pt	.056	.103	.167	.243	.337	.443	.567	.701
				NC	-	20	26	30	34	38	41	44
				Throw	5-12-20	10-17-28	14-21-31	17-26-34	20-30-37	23-34-40	26-36-42	29-38-45
	Horizontal Throw	12" Oval Inlet	2 ft.	CFM	100	140	175	210	250	285	325	360
				Ps	.013	.024	.039	.057	.079	.104	.133	.165
				Pt	.015	.028	.044	.065	.090	.119	.152	.188
				NC	-	17	22	27	31	35	38	41
				Throw	3-6-13	5-9-17	7-11-20	9-14-22	11-16-23	12-18-25	14-19-27	15-20-28
			4 ft.	CFM	200	275	350	425	500	570	645	720
				Ps	.014	.027	.043	.063	.088	.116	.147	.183
				Pt	.022	.040	.065	.096	.132	.174	.222	.276
				NC	-	19	24	29	33	37	40	43
				Throw	4-9-18	7-12-25	11-16-28	13-19-31	15-22-33	17-25-36	19-27-38	22-28-40
			5 ft.	CFM	255	345	440	530	625	715	810	900
				Ps	.016	.030	.048	0.07	.090	.127	.162	.201
				Pt	.028	.051	.082	0.12	.167	.219	.280	.347
				NC	-	20	26	30	34	38	41	44
				Throw	5-12-20	10-17-28	14-21-31	17-26-34	20-30-37	23-34-40	26-36-42	29-38-45

PERFORMANCE DATA - LINEAR ARCHITECTURAL DIFFUSER
MODEL LAD - TWO-SLOT, COMBO BLADE, HORIZONTAL THROW WITH PLENUM

Two Slot — 2.5" Slot Width	Horizontal Throw	10" Oval Inlet	2 ft.	CFM	140	185	230	275	320	370	415	460
				Ps	.015	.027	.042	.061	.083	.108	.137	.169
				Pt	.021	.037	.058	.083	.113	.140	.188	.232
				NC	-	17	22	26	30	33	37	39
				Throw	4-8-16	6-11-20	9-13-23	11-16-25	12-18-27	14-20-28	16-21-30	18-23-32
			4 ft.	CFM	275	370	460	550	645	735	830	920
				Ps	.017	.030	.047	.068	.092	.120	.152	.188
				Pt	.039	.071	.110	.157	.216	.281	.357	.439
				NC	-	19	24	28	32	35	39	41
				Throw	5-11-22	9-15-28	12-19-32	15-22-35	17-26-38	20-28-40	22-30-43	25-32-45
			5 ft.	CFM	345	460	575	690	805	920	1035	1150
				Ps	.019	.033	.052	.074	.101	.132	.167	.207
				Pt	.054	.096	.150	.216	.294	.384	.486	.599
				NC	-	20	25	30	33	37	40	43
				Throw	7-15-25	12-20-32	17-25-36	20-30-39	23-35-42	27-38-45	30-41-48	33-43-50
Two Slot — 2.5" Slot Width	Horizontal Throw	12" Oval Inlet	2 ft.	CFM	140	185	230	275	320	370	415	460
				Ps	.014	.025	.039	.056	.076	.099	.125	.155
				Pt	.017	.031	.048	.069	.094	.124	.156	.193
				NC	-	16	21	25	29	32	35	38
				Throw	4-8-16	6-11-20	9-13-23	11-16-25	12-18-27	14-20-28	16-21-30	18-23-32
			4 ft.	CFM	275	370	460	550	645	735	830	920
				Ps	.015	.028	.043	.062	.084	.110	.139	.172
				Pt	.029	.052	.081	.116	.159	.207	.263	.324
				NC	-	18	23	27	31	34	37	40
				Throw	5-11-22	9-15-28	12-19-32	15-22-35	17-26-38	20-28-40	22-30-43	25-32-45
			5 ft.	CFM	345	460	575	690	805	920	1035	1150
				Ps	.017	.030	.047	.068	.093	.121	.153	.189
				Pt	.038	.068	.107	.154	.209	.273	.346	.427
				NC	-	19	24	28	32	36	39	42
				Throw	7-15-25	12-20-32	17-25-36	20-30-39	23-35-42	27-38-45	30-41-48	33-43-50

PERFORMANCE DATA - LINEAR ARCHITECTURAL DIFFUSER

MODEL LAD - TWO-SLOT, COMBO BLADE, HORIZONTAL THROW WITH PLENUM

Two Slot — 3" Slot Width	Horizontal Throw	10" Oval Inlet	2 ft.	CFM	150	200	250	300	350	400	450	500
				Ps	.015	.027	.042	.061	.083	.108	.137	.169
				Pt	.022	.039	.061	.087	.119	.156	.197	.243
				NC	-	17	22	26	30	34	37	40
				Throw	3-7-16	6-10-21	9-13-23	10-16-26	12-18-28	14-21-30	16-22-32	17-23-33
			4 ft.	CFM	300	400	500	600	700	800	900	1000
				Ps	.017	.030	.047	.068	.092	.120	.152	.188
				Pt	.044	.078	.121	.174	.237	.310	.392	.485
				NC	-	19	24	28	32	36	39	42
				Throw	5-10-22	8-15-29	12-18-33	15-22-36	17-26-39	20-29-42	22-32-45	25-33-53
			5 ft.	CFM	375	500	625	750	875	1000	1125	1250
				Ps	.019	.033	.052	.074	.101	.132	.167	.206
				Pt	.060	.107	.168	.241	.328	.429	.543	.670
				NC	-	20	25	30	34	37	40	43
				Throw	6-14-25	11-20-33	16-25-37	20-30-41	23-35-44	26-40-47	30-42-50	33-45-53
Two Slot — 3" Slot Width	Horizontal Throw	12" Oval Inlet	2 ft.	CFM	150	200	250	300	350	400	450	500
				Ps	.014	.026	.040	.058	.079	.103	.130	.160
				Pt	.018	.033	.051	.074	.101	.131	.166	.205
				NC	-	16	21	25	29	32	35	38
				Throw	3-7-16	6-10-21	9-13-23	10-16-26	12-18-28	14-21-30	16-22-32	17-23-33
			4 ft.	CFM	300	400	500	600	700	800	900	1000
				Ps	.016	.029	.045	.064	.087	.114	.144	.178
				Pt	.032	.057	.089	.129	.175	.229	.290	.358
				NC	-	18	23	27	31	34	37	40
				Throw	5-10-22	8-15-29	12-18-33	15-22-36	17-26-39	20-29-42	22-32-45	25-33-47
			5 ft.	CFM	375	500	625	750	875	1000	1125	1250
				Ps	.018	.031	.049	.071	.096	.125	.159	.196
				Pt	.043	.076	.119	.172	.234	.305	.386	.477
				NC	-	19	24	29	32	36	39	42
				Throw	6-14-25	11-20-33	16-25-37	20-30-41	23-35-44	26-40-47	30-42-50	33-45-53

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