

PERFORMANCE DATA - LINEAR ARCHITECTURAL DIFFUSER

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

Two Slot — 1" Slot Width	Vertical Throw	8" Oval Inlet	2 ft.	CFM	95	150	205	260	315	370	425	480
				Ps	.013	.032	.059	.095	.139	.192	.253	.323
				Pt	.018	.045	.083	.134	.197	.271	.358	.457
				NC	-	20	25	30	33	36	39	42
				Throw	3-4-8	4-6-13	6-9-17	7-11-22	9-13-27	10-16-30	12-18-32	14-20-34
		4 ft.		CFM	190	300	410	520	630	740	850	960
				Ps	.018	.045	.084	.135	.198	.274	.361	.461
				Pt	.039	.097	.182	.293	.430	.593	.782	.997
				NC	-	22	27	32	35	38	41	44
				Throw	4-6-11	6-9-18	8-12-25	10-16-31	13-19-38	15-22-42	17-26-45	19-29-48
	5 ft.			CFM	240	375	515	650	790	925	1065	1200
				Ps	.023	.059	.109	.176	.258	.356	.470	.599
				Pt	.057	.140	.264	.422	.621	.540	1.130	1.437
				NC	15	23	29	33	37	40	43	45
				Throw	5-8-13	8-12-20	11-17-28	14-21-35	17-25-42	20-30-47	23-34-51	26-39-54
Two Slot — 1" Slot Width	Vertical Throw	10" Oval Inlet	2 ft.	CFM	95	150	205	260	315	370	425	48
				Ps	.007	.018	.034	.055	.081	.111	.147	.187
				Pt	.010	.025	.047	.075	.110	.152	.200	.256
				NC	-	16	22	26	29	31	33	35
				Throw	3-4-8	4-6-13	6-9-17	7-11-22	9-13-27	10-16-30	12-18-32	14-20-34
		4 ft.		CFM	190	300	410	520	630	740	850	960
				Ps	.010	.026	.049	.078	.115	.159	.210	.267
				Pt	.021	.053	.099	.159	.233	.321	.424	.541
				NC	-	18	24	28	31	33	35	37
				Throw	4-6-11	6-9-18	8-12-25	10-16-31	13-19-38	15-22-42	17-26-45	19-29-48
	5 ft.			CFM	240	375	515	650	790	925	1065	1200
				Ps	.014	.034	.063	.102	.150	.206	.272	.347
				Pt	.031	.076	.142	.227	.335	.461	.609	.775
				NC	-	20	25	29	32	35	37	39
				Throw	5-8-13	8-12-20	11-17-28	14-21-35	17-25-42	20-30-47	23-34-51	26-39-54

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

Two Slot — 1" Slot Width	Vertical Throw	12" Oval Inlet	2 ft.	CFM	95	150	205	260	315	370	425	480
				Ps	.009	.022	.041	.066	.097	.134	.177	.226
				Pt	.010	.026	.049	.078	.115	.159	.209	.267
				NC	-	-	18	22	26	29	32	34
				Throw	3-4-8	4-6-13	6-9-17	7-11-22	9-13-27	10-16-30	12-18-32	14-20-34
			4 ft.	CFM	190	300	410	520	630	740	850	960
				Ps	.013	.032	.059	.095	.139	.192	.253	.323
				Pt	.019	.048	.089	.143	.210	.290	.383	.488
				NC	-	-	20	24	28	31	34	36
				Throw	4-6-11	6-9-18	8-12-25	10-16-31	13-19-38	15-22-42	17-26-45	19-29-48
			5 ft.	CFM	240	375	515	650	790	925	1065	1200
				Ps	.016	.041	.076	.123	.181	.249	.329	.419
				Pt	.027	.066	.124	.199	.293	.403	.533	.678
				NC	-	16	21	26	29	33	35	37
				Throw	5-8-13	8-12-20	11-17-28	14-21-35	17-25-42	20-30-47	23-34-51	26-39-54
	Vertical Throw	8" Oval Inlet	2 ft.	CFM	195	310	420	530	645	755	870	980
				Ps	.027	.066	.123	.198	.290	.400	.527	.672
				Pt	.049	.122	.226	.362	.533	.732	.968	1.231
				NC	-	20	26	30	34	37	40	42
				Throw	5-7-14	7-11-21	10-15-29	12-18-36	15-22-39	18-26-43	20-30-46	23-34-49
			4 ft.	CFM	390	615	840	1065	1290	1510	1735	1960
				Ps	.038	.095	.176	.283	.415	.572	.753	.960
				Pt	.127	.315	.587	.943	1.384	1.899	2.506	3.197
				NC	-	22	28	32	36	39	42	44
				Throw	6-10-19	10-15-30	14-21-41	17-26-51	21-32-56	25-37-60	28-43-65	32-48-69
			5 ft.	CFM	490	770	1050	1330	1610	1890	2170	2450
				Ps	.050	.123	.229	.368	.539	.743	.979	1.249
				Pt	.190	.469	.871	1.398	2.048	2.823	3.721	4.743
				NC	16	24	29	34	37	40	43	46
				Throw	9-13-22	14-20-34	18-28-46	23-35-57	28-42-62	33-50-68	38-57-72	43-65-77

PERFORMANCE DATA - LINEAR ARCHITECTURAL DIFFUSER

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

Two Slot — 1.5" Slot Width	Vertical Throw	10" Oval Inlet	2 ft.	CFM	195	310	420	530	645	755	870	980
				Ps	.018	.044	.081	.131	.192	.264	.348	.444
				Pt	.029	.072	.134	.214	.315	.433	.573	.729
				NC	-	20	25	29	32	34	37	39
				Throw	5-7-14	7-11-21	10-15-29	12-18-36	15-22-39	18-26-43	20-30-46	23-34-49
		4 ft.		CFM	390	615	840	1065	1290	1510	1735	1960
				Ps	.025	.063	.116	.187	.274	.377	.497	.634
				Pt	.071	.175	.326	.524	.768	1.054	1.391	1.775
				NC	-	22	27	31	34	36	39	41
				Throw	6-10-19	10-15-30	14-21-41	17-26-51	21-32-56	25-37-60	28-43-65	32-48-69
	5 ft.			CFM	490	770	1050	1330	1610	1890	2170	2450
				Ps	.033	.081	.151	.243	.356	.490	.646	.824
				Pt	.104	.258	.479	.768	1.126	1.551	2.045	2.607
				NC	16	23	29	32	35	38	40	43
				Throw	9-13-22	14-20-34	18-28-46	23-35-57	28-42-62	33-50-68	38-57-72	43-65-77
Two Slot — 1.5" Slot Width	Vertical Throw	12" Oval Inlet	2 ft.	CFM	195	310	420	530	645	755	870	980
				Ps	.017	.042	.077	.124	.181	.250	.330	.420
				Pt	.024	.059	.109	.174	.256	.352	.466	.593
				NC	-	-	18	23	26	29	32	34
				Throw	5-7-14	7-11-21	10-15-29	12-18-36	15-22-39	18-26-43	20-30-46	23-34-49
		4 ft.		CFM	390	615	840	1065	1290	1510	1735	1960
				Ps	.024	.059	.110	.177	.259	.357	.471	.600
				Pt	.051	.127	.237	.381	.558	.767	1.012	1.291
				NC	-	-	20	25	28	31	34	36
				Throw	6-10-19	10-15-30	14-21-41	17-26-51	21-32-56	25-37-60	28-43-65	32-48-69
	5 ft.			CFM	490	770	1050	1330	1610	1890	2170	2450
				Ps	.031	.077	.143	.230	.337	.464	.612	.780
				Pt	.074	.184	.341	.548	.803	1.106	1.458	1.859
				NC	-	16	22	26	30	33	36	38
				Throw	9-13-22	14-20-34	18-28-46	23-35-57	28-42-62	33-50-68	38-57-72	43-65-77

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

Two Slot — 2" Slot Width	Vertical Throw	8" Oval Inlet	2 ft.	CFM	170	260	350	440	530	620	710	800
				Ps	.044	.104	.188	.296	.430	.589	.772	.980
				Pt	.061	.143	.259	.409	.594	.812	1.065	1.353
				NC	-	-	19	23	27	30	32	34
				Throw	3-5-10	5-8-16	7-11-21	9-13-27	11-16-29	13-19-32	14-22-34	16-24-36
			4 ft.	CFM	340	520	700	880	1060	1240	1420	1600
				Ps	.063	.148	.268	.424	.614	.841	1.103	1.400
				Pt	.131	.305	.553	.874	1.269	1.736	2.277	2.890
				NC	-	16	21	25	29	32	34	36
				Throw	5-7-15	7-11-22	10-15-30	13-19-38	15-23-41	18-27-45	20-31-48	23-34-51
			5 ft.	CFM	425	650	875	1100	1325	1550	1775	2000
				Ps	.082	.192	.348	.551	.799	1.093	1.434	1.820
				Pt	.187	.438	.794	1.255	1.821	2.492	3.268	4.149
				NC	-	18	23	27	30	33	36	38
				Throw	7-10-16	10-15-25	13-20-34	17-25-42	20-31-46	24-36-50	27-41-54	31-46-57
	Vertical Throw	10" Oval Inlet	2 ft.	CFM	170	260	350	440	530	620	710	800
				Ps	.008	.019	.035	.056	.081	.110	.145	.184
				Pt	.017	.039	.072	.113	.164	.225	.294	.374
				NC	-	21	26	29	32	35	37	40
				Throw	3-5-10	5-8-16	7-11-21	9-13-27	11-16-29	13-19-32	14-22-34	16-24-36
			4 ft.	CFM	340	520	700	880	1060	1240	1420	1600
				Ps	.012	.028	.050	.079	.115	.158	.207	.262
				Pt	.046	.108	.196	.309	.449	.614	.806	1.023
				NC	15	23	28	31	34	37	39	42
				Throw	5-7-15	7-11-22	10-15-30	13-19-38	15-23-41	18-27-45	20-31-48	23-34-51
			5 ft.	CFM	425	650	875	1100	1325	1550	1775	2000
				Ps	.015	.036	.065	.103	.150	.205	.269	.341
				Pt	.069	.162	.293	.463	.671	.919	1.205	1.529
				NC	17	24	29	33	36	38	41	43
				Throw	7-10-16	10-15-25	13-20-34	17-25-42	20-31-46	24-36-50	27-41-54	31-46-57

PERFORMANCE DATA - LINEAR ARCHITECTURAL DIFFUSER

MODEL LAD - TWO-SLOT, COMBO BLADE, VERTICAL THROW WITH PLENUMV

Two Slot — 2" Slot Width	Vertical Throw	12" Oval Inlet	2 ft.	CFM	170	260	350	440	530	620	710	800
				Ps	.008	.020	.036	.057	.083	.113	.148	.188
				Pt	.014	.032	.058	.092	.133	.182	.239	.303
				NC	-	17	22	27	30	33	36	38
				Throw	3-5-10	5-8-16	7-11-21	9-13-27	11-16-29	13-19-32	14-22-34	16-24-36
			4 ft.	CFM	340	520	700	880	1060	1240	1420	1600
				Ps	.012	.028	.051	.081	.118	.161	.212	.269
				Pt	.033	.077	.139	.220	.320	.438	.574	.729
				NC	-	19	24	29	32	35	38	40
				Throw	5-7-15	7-11-22	10-15-30	13-19-38	15-23-41	18-27-45	20-31-48	23-34-51
			5 ft.	CFM	425	650	875	1100	1325	1550	1775	2000
				Ps	.016	.037	.067	.106	.153	.210	.275	.349
				Pt	.048	.113	.204	.323	.469	.642	.841	1.068
				NC	-	20	26	30	34	37	39	41
				Throw	7-10-16	10-15-25	13-20-34	17-25-42	20-31-46	24-36-50	27-41-54	31-46-57
Two Slot — 2.5" Slot Width	Vertical Throw	12" Oval Inlet	2 ft.	CFM	215	330	440	550	665	775	890	1000
				Ps	.009	.021	.038	.060	.086	.118	.155	.196
				Pt	.017	.041	.073	.114	.166	.226	.297	.376
				NC	-	17	23	27	30	33	36	38
				Throw	4-6-12	6-9-18	8-12-24	10-15-30	12-18-33	14-21-35	16-24-38	18-27-40
			4 ft.	CFM	430	655	880	1105	1330	1550	1775	2000
				Ps	.013	.030	.054	.085	.123	.169	.221	.280
				Pt	.046	.107	.193	.305	.441	.600	.787	.999
				NC	-	19	25	29	32	35	38	40
				Throw	6-8-17	8-13-25	11-17-34	14-21-42	17-26-46	20-30-50	23-34-54	26-38-57
			5 ft.	CFM	540	820	1100	1380	1660	1940	2220	2500
				Ps	.017	.039	.070	.111	.160	.219	.287	.364
				Pt	.069	.160	.288	.453	.656	.895	1.173	1.487
				NC	-	21	26	30	34	37	39	41
				Throw	7-11-19	11-17-28	15-23-38	19-28-47	23-34-52	27-40-56	31-46-60	34-52-64

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

Two Slot — 3" Slot Width	Vertical Throw	12" Oval Inlet	2 ft.	CFM	430	595	760	925	1090	1250	1415	1580
				Ps	.022	.042	.068	.101	.139	.185	.236	.294
				Pt	.055	.105	.172	.254	.353	.465	.596	.743
				NC	-	19	24	28	31	34	36	38
				Throw	7-11-21	10-15-30	13-19-35	15-23-39	18-27-42	21-31-45	23-34-48	26-36-51
			4 ft.	CFM	865	1190	1520	1850	2175	2505	2830	3160
				Ps	.031	.060	.097	.144	.199	.264	.337	.420
				Pt	.166	.314	.512	.759	1.049	1.391	1.776	2.214
				NC	16	21	26	30	33	36	38	40
				Throw	10-15-30	14-21-42	18-27-50	22-32-55	25-38-59	29-44-64	33-48-68	37-51-72
			5 ft.	CFM	1080	1490	1900	2310	2720	3130	3540	3950
				Ps	.041	.078	.126	.187	.259	.343	.439	.546
				Pt	.250	.477	.775	1.145	1.588	2.103	2.690	3.350
				NC	17	23	28	31	34	37	39	41
				Throw	14-20-34	19-28-47	24-36-55	29-43-61	34-51-66	39-59-71	44-64-76	50-68-80

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