

PERFORMANCE DATA - LINEAR ARCHITECTURAL DIFFUSER

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

One Slot — 1" Slot Width	Vertical Throw	8" Oval Inlet	2 ft.	CFM	70	110	155	200	240	285	325	370
				Ps	.009	.025	.048	.078	.116	.161	.213	.273
				Pt	.012	.032	.062	.101	.149	.208	.275	.353
				NC	-	20	26	30	34	37	40	43
				Throw	4-5-10	6-9-13	8-11-15	10-12-18	11-14-19	12-15-21	13-16-23	14-17-24
		4 ft.		CFM	140	225	310	395	480	570	655	740
				Ps	.014	.036	.068	.112	.166	.230	.305	.390
				Pt	.025	.065	.124	.203	.300	.419	.555	.709
				NC	-	22	28	32	36	39	42	45
				Throw	5-8-15	8-13-19	12-15-22	14-18-25	16-19-27	17-21-30	18-23-32	20-24-4
		5 ft.		CFM	175	280	390	495	605	710	820	925
				Ps	.018	.046	.089	.145	.215	.299	.396	.507
				Pt	.035	.092	.178	.288	.428	.592	.788	1.005
				NC	15	23	29	34	38	41	44	46
				Throw	7-10-16	11-17-21	15-21-24	19-23-28	21-26-31	23-28-33	25-30-36	26-32-38
One Slot — 1" Slot Width	Vertical Throw		2 ft.	CFM	70	110	155	200	240	285	325	370
				Ps	.012	.031	.060	.097	.144	.200	.204	.340
				Pt	.013	.035	.067	.109	.161	.225	.223	.381
				NC	-	17	22	26	29	32	33	36
				Throw	4-5-10	6-9-13	8-11-15	10-12-18	11-14-19	12-15-21	13-16-23	14-17-24
		4 ft.		CFM	140	225	310	395	480	570	655	740
				Ps	.017	.045	.085	.139	.206	.286	.291	.486
				Pt	.023	.060	.114	.186	.275	.383	.368	.649
				NC	-	19	24	28	31	34	35	38
				Throw	5-8-15	8-13-19	12-15-22	14-18-25	16-19-27	17-21-30	18-23-32	20-24-34
		5 ft.		CFM	175	280	390	495	605	710	820	925
				Ps	.022	.058	.111	.181	.268	.372	.379	.632
				Pt	.031	.081	.156	.254	.377	.522	.500	.886
				NC	-	20	26	30	33	35	36	40
				Throw	7-10-16	11-17-21	15-21-24	19-23-28	21-26-31	23-28-33	25-30-36	26-32-38

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

One Slot — 1" Slot Width	Vertical Throw	12" Oval Inlet	2 ft.	CFM	70	110	155	200	240	285	325	370
				Ps	.009	.024	.046	.075	.111	.154	.204	.261
				Pt	.010	.026	.050	.082	.121	.168	.223	.286
				NC	-	-	18	23	27	30	33	35
				Throw	4-5-10	6-9-13	8-11-15	10-12-18	11-14-19	12-15-21	13-16-23	14-17-24
			4 ft.	CFM	140	225	310	395	480	570	655	740
				Ps	.013	.034	.065	.107	.158	.220	.291	.373
				Pt	.016	.043	.083	.135	.200	.278	.368	.471
				NC	-	-	20	25	29	32	35	37
				Throw	5-8-15	8-13-19	12-15-22	14-18-25	16-19-27	17-21-30	18-23-32	20-24-34
			5 ft.	CFM	175	280	390	495	605	710	820	925
				Ps	.017	.044	.085	.139	.206	.286	.379	.485
				Pt	.022	.059	.112	.183	.272	.376	.500	.639
				NC	-	16	22	27	30	33	36	38
				Throw	7-10-16	11-17-21	15-21-24	19-23-28	21-26-31	23-28-33	25-30-36	26-32-38
One Slot — 1.5" Slot Width	Vertical Throw	8" Oval Inlet	2 ft.	CFM	80	140	200	260	320	380	440	500
				Ps	.012	.037	.075	.127	.192	.270	.363	.468
				Pt	.016	.048	.098	.166	.251	.354	.475	.614
				NC	-	18	25	30	34	37	40	42
				Throw	3-5-10	6-9-15	9-12-18	11-14-20	13-16-22	14-17-24	15-18-26	16-20-28
			4 ft.	CFM	160	280	400	520	640	760	880	1000
				Ps	.017	.052	.107	.181	.274	.386	.518	.669
				Pt	0.032	0.098	0.2	0.338	0.512	0.723	0.969	1.251
				NC	-	20	27	32	36	39	42	44
				Throw	5-7-15	9-13-21	12-18-25	16-20-28	18-22-31	20-24-34	21-26-37	23-28-39
			5 ft.	CFM	200	350	500	650	800	950	1100	1250
				Ps	.022	.068	.139	.235	.356	.502	.673	.869
				Pt	.046	.139	.285	.481	.729	1.028	1.378	1.779
				NC	-	22	28	39	37	40	43	46
				Throw	7-10-16	11-17-23	16-24-28	21-27-32	24-30-35	27-33-38	29-35-41	30-37-44

PERFORMANCE DATA - LINEAR ARCHITECTURAL DIFFUSER

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

One Slot — 1.5" Slot Width	Vertical Throw	10" Oval Inlet	2 ft.	CFM	80	140	200	260	320	380	440	500
				Ps	.008	.026	.052	.088	.134	.189	.253	.326
				Pt	.010	.031	.064	.108	.164	.231	.310	.401
				NC	-	15	21	26	29	32	34	36
				Throw	3-5-10	6-9-15	9-12-18	11-14-20	13-16-22	14-17-24	15-18-26	16-20-28
			4 ft.	CFM	160	280	400	520	640	760	880	1000
				Ps	.012	.037	.075	.126	.191	.269	.361	.466
				Pt	.020	.060	.122	.206	.313	.441	.591	.763
				NC	-	17	23	28	31	34	36	38
				Throw	5-7-15	9-13-21	12-18-25	16-20-28	18-22-31	20-24-34	21-26-37	23-28-39
			5 ft.	CFM	200	350	500	650	800	950	1100	1250
				Ps	.016	.048	.097	.164	.248	.350	.469	.606
				Pt	.027	.084	.171	.289	.438	.618	.829	1.070
				NC	-	19	25	29	32	35	37	40
				Throw	7-10-16	11-17-23	16-24-28	21-27-32	24-30-35	27-33-38	29-35-41	30-37-44
One Slot — 1.5" Slot Width	Vertical Throw	12" Oval Inlet	2 ft.	CFM	80	140	200	260	320	380	440	500
				Ps	.006	.020	.040	.068	.103	.145	.194	.250
				Pt	.008	.023	.047	.080	.121	.170	.229	.295
				NC	-	-	17	22	26	30	32	35
				Throw	3-5-10	6-9-15	9-12-18	11-14-20	13-16-22	14-17-24	15-18-26	16-20-28
			4 ft.	CFM	160	280	400	520	640	760	880	1000
				Ps	.009	.028	.057	.097	.146	.206	.277	.358
				Pt	.014	.042	.086	.145	.220	.310	.416	.537
				NC	-	-	19	24	28	32	34	37
				Throw	5-7-15	9-13-21	12-18-25	16-20-28	18-22-31	20-24-34	21-26-37	23-28-39
			5 ft.	CFM	200	350	500	650	800	950	1100	1250
				Ps	.012	.036	.074	.126	.190	.268	.360	.465
				Pt	.019	.058	.119	.202	.305	.431	.577	.746
				NC	-	-	21	26	30	33	36	38
				Throw	7-10-16	11-17-23	16-24-28	21-27-32	24-30-35	27-33-38	29-35-41	30-37-44

PERFORMANCE DATA - LINEAR ARCHITECTURAL DIFFUSER

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

One Slot — 2" Slot Width	Vertical Throw	8" Oval Inlet	2 ft.	CFM	70	125	180	235	290	350	405	460
				Ps	.007	.024	.051	.088	.134	.191	.257	.333
				Pt	.010	.033	.070	.120	.183	.262	.353	.456
				NC	-	19	25	31	35	38	41	44
				Throw	2-3-7	4-6-12	6-9-18	8-12-22	10-15-24	12-17-26	13-20-28	15-21-30
			4 ft.	CFM	135	250	360	470	585	695	810	920
				Ps	.010	.035	.073	.125	.192	.272	.367	.476
				Pt	.021	.071	.148	.254	.391	.554	.749	.969
				NC	-	21	27	33	37	40	43	46
				Throw	3-5-10	6-9-18	8-13-25	11-17-31	14-21-34	16-25-37	19-28-40	22-30-43
			5 ft.	CFM	170	310	450	590	730	870	1010	1150
				Ps	.014	.045	.095	.163	.249	.354	.477	.619
				Pt	.030	.101	.213	.366	.560	.795	1.071	1.389
				NC	-	22	29	34	38	41	44	47
				Throw	4-6-11	8-12-20	11-17-28	15-22-34	18-28-38	22-33-42	26-38-45	29-41-48
		10" Oval Inlet	2 ft.	CFM	70	125	180	235	290	350	405	460
				Ps	.006	.020	.041	.071	.109	.155	.209	.271
				Pt	.007	.024	.051	.088	.134	.191	.258	.334
				NC	-	15	22	26	30	32	35	37
				Throw	2-3-7	4-6-12	6-9-18	8-12-22	10-15-24	12-17-26	13-20-28	15-21-30
			4 ft.	CFM	135	250	360	470	585	695	810	920
				Ps	.008	.028	.059	.102	.156	.221	.298	.387
				Pt	.014	.047	.098	.167	.257	.365	.493	.638
				NC	-	17	24	28	32	34	37	39
				Throw	3-5-10	6-9-18	8-13-25	11-17-31	14-21-34	16-25-37	19-28-40	22-30-43
			5 ft.	CFM	170	310	450	590	730	870	1010	1150
				Ps	.011	.037	.077	.132	.203	.288	.388	.503
				Pt	.020	.065	.137	.236	.361	.513	.691	.896
				NC	-	19	25	30	33	36	38	41
				Throw	4-6-11	8-12-20	11-17-28	15-22-34	18-28-38	22-33-42	26-38-45	29-41-48
One Slot — 2" Slot Width	Vertical Throw	12" Oval Inlet	2 ft.	CFM	70	125	180	235	290	350	405	460
				Ps	.004	.012	.026	.044	.067	.095	.129	.167
				Pt	.005	.015	.031	.054	.082	.117	.158	.205
				NC	-	-	18	23	27	31	33	36
				Throw	2-3-7	4-6-12	6-9-18	8-12-22	10-15-24	12-17-26	13-20-28	15-21-30
			4 ft.	CFM	135	250	360	470	585	695	810	920
				Ps	.005	.017	.036	.063	.096	.136	.184	.238
				Pt	.008	.029	.060	.102	.157	.223	.302	.390
				NC	-	-	20	25	29	33	35	38
				Throw	3-5-10	6-9-18	8-13-25	11-17-31	14-21-34	16-25-37	19-28-40	22-30-43
			5 ft.	CFM	170	310	450	590	730	870	1010	1150
				Ps	.007	.022	.047	.081	.125	.177	.239	.309
				Pt	.012	.040	.084	.144	.220	.313	.422	.547
				NC	-	-	22	27	31	34	37	39
				Throw	4-6-11	8-12-20	11-17-28	15-22-34	18-28-38	22-33-42	26-38-45	29-41-48

PERFORMANCE DATA - LINEAR ARCHITECTURAL DIFFUSER

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

One Slot — 2.5" Slot Width	Vertical Throw	12" Oval Inlet	2 ft.	CFM	195	290	385	480	575	670	765	860
				Ps	.017	.037	.065	.101	.145	.196	.256	.324
				Pt	.023	.052	.091	.142	.204	.277	.361	.456
				NC	-	22	27	32	35	38	40	42
				Throw	6-9-18	9-13-24	12-18-28	15-22-31	17-24-34	20-26-37	23-28-39	24-29-41
			4 ft.	CFM	390	580	770	960	1150	1340	1530	1720
				Ps	.024	.053	.093	.144	.207	.281	.366	.462
				Pt	.051	.113	.199	.310	.444	.603	.786	.994
				NC	17	24	29	34	37	40	42	44
				Throw	8-13-25	12-19-34	17-25-39	21-31-44	25-34-48	29-37-52	32-39-55	34-41-59
			5 ft.	CFM	490	725	965	1200	1440	1675	1915	2150
				Ps	.031	.068	.120	.187	.269	.365	.475	.601
				Pt	.074	.163	.288	.446	.641	.869	1.134	1.432
				NC	18	25	31	35	38	41	43	45
				Throw	11-17-28	17-25-38	22-33-44	28-42-49	33-45-54	39-49-58	43-52-62	45-56-66
One Slot — 3" Slot Width	Vertical Throw	12" Oval Inlet	2 ft.	CFM	195	290	385	480	575	670	765	860
				Ps	.015	.033	.058	.090	.130	.176	.229	.290
				Pt	.022	.048	.085	.132	.189	.257	.335	.423
				NC	-	-	20	24	28	31	33	35
				Throw	6-9-18	9-13-24	12-18-28	15-22-31	17-24-34	20-26-37	23-29-39	24-29-41
			4 ft.	CFM	390	580	770	960	1150	1340	1530	1720
				Ps	.021	.047	.083	.129	.185	.251	.328	.414
				Pt	.049	.108	.190	.295	.423	.574	.748	.946
				NC	-	17	22	26	30	33	35	37
				Throw	8-13-25	12-19-34	17-25-39	21-31-44	25-34-48	29-37-52	32-39-55	34-41-59
			5 ft.	CFM	490	725	965	1200	1440	1675	1915	2150
				Ps	.028	.061	.108	.168	.241	.327	.426	.538
				Pt	.071	.156	.275	.426	.613	.831	1.085	1.369
				NC	-	18	24	28	31	34	37	39
				Throw	11-17-28	17-25-38	22-33-44	28-42-49	33-45-54	39-49-58	43-52-62	45-56-66

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