

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

One Slot — 1" Slot Width	Horizontal Throw	6" Round Inlet	2 ft.	CFM	20	40	60	80	100	120	140	160
				Ps	.004	.018	.040	.071	.111	.159	.217	.283
				Pt	.005	.020	.046	.081	.127	.182	.248	.324
				NC	-	-	20	26	31	35	38	41
				Throw	1-3-7	4-7-11	7-10-14	9-11-16	10-13-18	11-14-19	12-15-21	13-16-22
			4 ft.	CFM	40	80	120	160	200	240	280	320
				Ps	.005	.020	.044	.079	.123	.177	.241	.314
				Pt	.008	.030	.068	.120	.188	.270	.368	.480
				NC	-	-	22	28	33	37	40	43
				Throw	2-4-9	6-9-16	9-14-19	13-16-22	14-18-25	16-19-27	17-21-30	18-22-32
			5 ft.	CFM	50	100	150	200	250	300	350	400
				Ps	.005	.022	.049	.086	.135	.195	.265	.346
				Pt	.009	.038	.085	.151	.236	.340	.463	.605
				NC	-	16	23	29	34	38	42	45
				Throw	2-5-11	8-13-18	13-18-22	17-21-25	19-24-28	21-26-31	23-28-33	24-30-35
	Horizontal Throw	8" Oval Inlet	2 ft.	CFM	20	40	60	80	100	120	140	160
				Ps	.003	.011	.025	.045	.070	.101	.137	.179
				Pt	.003	.012	.027	.049	.076	.109	.149	.194
				NC	-	-	-	21	26	31	35	39
				Throw	1-3-7	4-7-11	7-10-14	9-11-16	10-13-18	11-14-19	12-15-21	13-16-22
			4 ft.	CFM	40	80	120	160	200	240	280	320
				Ps	.003	.012	.028	.050	.078	.112	.152	.199
				Pt	.004	.016	.036	.065	.101	.146	.198	.259
				NC	-	-	17	23	28	33	37	41
				Throw	2-4-9	6-9-16	9-14-19	13-16-22	14-18-25	16-19-27	17-21-30	18-22-32
			5 ft.	CFM	50	100	150	200	250	300	350	400
				Ps	.003	.014	.031	.055	.086	.123	.168	.219
				Pt	.005	.020	.044	.078	.122	.176	.239	.312
				NC	-	-	18	24	30	35	39	42
				Throw	2-5-11	8-13-18	13-18-22	17-21-25	19-24-28	21-26-31	23-28-33	24-30-35

PERFORMANCE DATA - LINEAR ARCHITECTURAL DIFFUSER

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

One Slot — 1.5" Slot Width	Horizontal Throw	6" Round Inlet	2 ft.	CFM	30	60	90	120	150	180	210	240
				Ps	.009	.035	.078	.139	.217	.313	.426	.557
				Pt	.010	.041	.091	.162	.254	.366	.498	.650
				NC	-	-	21	27	32	36	39	42
				Throw	2-3-8	5-8-14	8-12-17	11-14-19	13-15-22	14-17-24	15-18-26	16-19-27
			4 ft.	CFM	60	120	180	240	300	360	420	480
				Ps	.010	.039	.087	.155	.242	.348	.474	.619
				Pt	.015	.062	.139	.248	.387	.558	.759	.991
				NC	-	16	23	29	34	38	41	44
				Throw	2-5-12	8-12-19	12-17-24	15-19-27	18-22-31	19-24-34	21-26-36	22-27-39
			5 ft.	CFM	75	150	225	300	375	450	525	600
				Ps	.011	.043	.096	.170	.266	.383	.521	.680
				Pt	.020	.079	.178	.316	.493	.710	.967	1.263
				NC	-	17	25	30	35	39	43	46
				Throw	3-7-13	10-16-22	16-23-27	21-26-31	24-29-34	26-32-38	28-34-41	30-37-43
One Slot — 1.5" Slot Width	Horizontal Throw	8" Oval Inlet	2 ft.	CFM	30	60	90	120	150	180	210	240
				Ps	.006	.022	.050	.088	.138	.198	.270	.353
				Pt	.006	.024	.054	.097	.151	.217	.296	.386
				NC	-	-	16	22	28	32	37	40
				Throw	2-3-8	5-8-14	8-12-17	11-14-19	13-15-22	14-17-24	15-18-26	16-19-27
			4 ft.	CFM	60	120	180	240	300	360	420	480
				Ps	.006	.024	.055	.098	.153	.220	.300	.392
				Pt	.008	.033	.074	.131	.205	.296	.403	.526
				NC	-	-	18	24	30	34	39	42
				Throw	2-5-12	8-12-19	12-17-24	15-19-27	18-22-31	19-24-34	21-26-36	22-27-39
			5 ft.	CFM	75	150	225	300	375	450	525	600
				Ps	.007	.027	.061	.108	.168	.242	.330	.431
				Pt	.010	.040	.090	.160	.250	.360	.490	.640
				NC	-	-	19	26	31	36	40	44
				Throw	3-7-13	10-16-22	16-23-27	21-26-31	24-29-34	26-32-38	28-34-41	30-37-43

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

One Slot — 2" Slot Width	Horizontal Throw	10" Oval Inlet	2 ft.	CFM	70	100	130	160	190	220	250	280
				Ps	.022	.044	.075	.113	.159	.213	.276	.346
				Pt	.023	.047	.080	.121	.170	.228	.294	.369
				NC	-	-	20	25	30	33	37	40
				Throw	5-8-15	8-12-18	10-14-20	13-16-22	14-17-24	15-19-26	16-20-28	17-21-30
			4 ft.	CFM	140	200	260	320	380	440	500	560
				Ps	.024	.049	.083	.125	.177	.237	.306	.384
				Pt	.030	.061	.103	.156	.220	.295	.381	.477
				NC	-	17	22	27	3	35	39	42
				Throw	8-12-21	11-17-25	14-20-29	18-22-32	20-24-34	21-26-37	23-28-40	24-30-42
			5 ft.	CFM	175	250	325	400	475	550	625	700
				Ps	.026	.054	.091	.138	.195	.261	.337	.423
				Pt	.036	.072	.122	.186	.262	.351	.453	.568
				NC	-	18	24	29	33	37	40	43
				Throw	10-16-23	15-22-28	19-27-32	24-30-35	27-33-39	29-35-41	31-38-44	32-40-47
	Horizontal Throw	12" Oval Inlet	2 ft.	CFM	70	100	130	160	190	220	250	280
				Ps	.020	.041	.069	.104	.147	.197	.255	.320
				Pt	.021	.043	.072	.109	.154	.206	.266	.334
				NC	-	-	20	25	30	33	37	40
				Throw	5-8-15	8-12-18	10-14-20	13-16-22	14-17-24	15-19-26	16-20-28	17-21-30
			4 ft.	CFM	140	200	260	320	380	440	500	560
				Ps	.022	.045	.077	.116	.164	.219	.283	.355
				Pt	.026	.052	.089	.134	.189	.254	.328	.412
				NC	-	17	22	27	32	35	39	42
				Throw	8-12-21	11-17-25	14-20-29	18-22-32	20-24-34	21-26-37	23-38-40	24-30-42
			5 ft.	CFM	175	250	325	400	475	550	625	700
				Ps	.024	.050	.084	.128	.180	.241	.311	.391
				Pt	.030	.061	.103	.156	.220	.296	.382	.479
				NC	-	18	24	29	33	37	40	43
				Throw	10-16-23	15-22-28	19-27-32	24-30-35	27-33-39	29-35-41	31-38-44	32-40-47

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

One Slot — 2.5" Slot Width	Horizontal Throw	10" Oval Inlet	2 ft.	CFM	65	110	150	190	235	275	320	360
				Ps	.016	.042	.081	.133	.197	.274	.364	.467
				Pt	.017	.046	.088	.143	.214	.297	.394	.505
				NC	-	-	19	24	29	34	37	41
				Throw	3-4-8	4-6-12	6-9-17	7-11-22	9-13-25	11-16-27	12-18-29	14-21-31
			4 ft.	CFM	130	215	300	385	470	550	635	720
				Ps	.017	.047	.090	.147	.219	.305	.404	.518
				Pt	.022	.060	.117	.191	.285	.395	.524	.672
				NC	-	-	21	26	31	36	39	43
				Throw	4-5-11	6-9-18	8-12-24	10-16-31	13-19-35	15-23-38	17-26-41	20-29-44
			5 ft.	CFM	165	270	375	480	585	690	795	900
				Ps	.019	.051	.099	.162	.241	.335	.445	.570
				Pt	.027	.073	.141	.231	.343	.477	.633	.811
				NC	-	15	22	28	33	37	41	44
				Throw	5-7-12	8-12-20	11-16-27	14-21-35	17-26-39	20-30-43	23-35-46	26-39-49
One Slot — 2.5" Slot Width	Horizontal Throw	12" Oval Inlet	2 ft.	CFM	65	110	150	190	235	275	320	360
				Ps	.015	.040	.076	.125	.186	.259	.344	.440
				Pt	.016	.042	.080	.132	.196	.272	.362	.464
				NC	-	-	19	24	29	34	37	41
				Throw	3-4-8	4-6-12	6-9-17	7-11-22	9-13-25	11-16-27	12-18-29	14-21-31
			4 ft.	CFM	130	215	300	385	470	550	635	720
				Ps	.016	.044	.085	.139	.207	.288	.382	.489
				Pt	.019	.052	.101	.166	.246	.342	.454	.582
				NC	-	-	21	26	31	36	39	43
				Throw	4-5-11	6-9-18	8-12-24	10-16-31	13-19-35	15-23-38	17-26-41	20-29-44
			5 ft.	CFM	165	270	375	480	585	690	795	900
				Ps	.018	.048	.093	.153	.227	.316	.420	.538
				Pt	.023	.062	.119	.194	.289	.402	.533	.684
				NC	-	15	22	28	33	37	41	44
				Throw	5-7-12	8-12-20	11-16-27	14-21-35	17-26-39	20-30-43	23-35-46	26-39-49

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

One Slot — 3" Slot Width	Horizontal Throw	10" Oval Inlet	2 ft.	CFM	135	180	220	260	305	345	390	430
				Ps	.032	.055	.084	.119	.160	.207	.260	.320
				Pt	.037	.064	.098	.139	.187	.242	.305	.374
				NC	-	18	23	28	31	35	38	40
				Throw	5-7-14	6-9-19	8-12-23	9-14-26	11-16-28	12-18-30	14-20-32	15-23-34
			4 ft.	CFM	270	355	440	525	610	690	775	860
				Ps	.036	.061	.093	.132	.177	.230	.289	.355
				Pt	.057	.098	.150	.214	.288	.371	.467	.575
				NC	-	20	25	30	33	37	40	42
				Throw	7-10-20	9-13-26	11-16-33	13-19-37	15-23-40	17-26-43	19-29-45	21-32-48
			5 ft.	CFM	340	445	550	655	760	865	970	1075
				Ps	.039	.067	.102	.145	.195	.253	.318	.391
				Pt	.073	.126	.192	.272	.367	.475	.597	.734
				NC	16	22	27	31	35	38	41	44
				Throw	9-14-23	12-18-30	15-22-37	17-26-42	20-30-45	23-35-48	26-39-51	29-43-53
	Horizontal Throw	12" Oval Inlet	2 ft.	CFM	135	180	220	260	305	345	390	430
				Ps	.030	.052	.079	.112	.151	.195	.246	.302
				Pt	.033	.057	.088	.124	.167	.217	.273	.335
				NC	-	18	23	28	31	35	38	40
				Throw	5-7-14	6-9-19	8-12-23	9-14-26	11-16-28	12-18-30	14-20-32	15-23-34
			4 ft.	CFM	270	355	440	525	610	690	775	860
				Ps	.034	.057	.088	.124	.167	.217	.273	.335
				Pt	.047	.080	.122	.174	.234	.302	.381	.468
				NC	-	20	25	30	33	37	40	42
				Throw	7-10-20	9-13-26	11-16-33	13-19-37	15-23-40	17-26-43	19-29-45	21-32-48
			5 ft.	CFM	340	445	550	655	760	865	970	1075
				Ps	.037	.063	.096	.137	.184	.239	.300	.369
				Pt	.058	.099	.151	.214	.288	.373	.469	.576
				NC	16	22	27	31	35	38	41	44
				Throw	9-14-23	12-18-30	15-22-37	17-26-42	20-30-45	23-35-48	26-39-51	29-43-53

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