

PERFORMANCE DATA - MODEL LSD
LINEAR SLOT DIFFUSERS - SUPPLY - 1/2" SLOT - CFM PER LINEAR FOOT

Slots	Static Pressure	Horizontal Vertical	.005	.021	.047	.083	.130	.188	.255	.334	.422	.521
			.004	.015	.033	.058	.091	.132	.179	.234	.295	.365
1	CFMLF		5	10	15	20	25	30	35	40	45	50
	Horizontal Throw		1-1-6	3-6-12	6-10-14	10-12-17	11-13-19	12-14-20	13-16-22	14-17-24	14-18-25	15-19-26
	Vertical Throw		2	7	9	11	12	13	14	15	16	17
	Horizontal NC		<15	<15	<15	17	22	27	30	34	36	38
	Vertical NC		<15	<15	<15	<15	<15	15	18	22	24	26
2	CFMLF		10	20	30	40	50	60	70	80	90	100
	Horizontal Throw		1-2-8	4-8-17	8-14-20	14-17-24	15-19-26	17-20-29	18-22-31	19-24-33	20-25-35	22-36-37
	Vertical Throw		3	9	13	15	17	18	20	21	23	24
	Horizontal NC		<15	<15	<15	20	25	30	33	37	39	41
	Vertical NC		<15	<15	<15	<15	<15	18	21	25	27	29
3	CFMLF		16	30	45	60	75	90	105	120	135	150
	Horizontal Throw		2-4-13	6-13-20	13-18-25	17-20-29	19-23-32	20-25-35	22-27-38	18-22-31	19-24-33	20-25-35
	Vertical Throw		5	11	16	18	21	23	24	26	28	29
	Horizontal NC		<15	<15	15	22	27	32	35	39	41	43
	Vertical NC		<15	<15	<15	<15	15	20	23	27	29	31
4	CFMLF		20	40	60	80	100	120	140	160	180	200
	Horizontal Throw		3-6-15	10-15-24	15-20-29	19-24-33	22-26-37	24-29-41	26-31-44	27-33-47	29-35-50	31-37-53
	Vertical Throw		5	13	18	21	24	26	28	30	32	34
	Horizontal NC		<15	<15	17	24	29	33	36	40	42	44
	Vertical NC		<15	<15	<15	<15	17	21	24	28	30	32
5	CFMLF		25	50	75	100	125	150	175	200	225	250
	Horizontal Throw		3-7-16	11-16-25	16-23-32	22-26-30	24-30-42	26-32-46	29-35-49	31-37-53	32-40-56	34-42-59
	Vertical Throw		6	19	23	26	29	32	34	37	39	41
	Horizontal NC		<15	<15	19	26	31	35	37	41	43	45
	Vertical NC		<15	<15	<15	<15	19	23	25	29	31	33
6	CFMLF		30	60	90	120	150	180	210	240	270	300
	Horizontal Throw		4-8-20	14-20-29	20-25-35	24-29-41	26-32-46	29-35-50	31-38-54	33-41-58	35-43-61	37-56-65
	Vertical Throw		6	16	23	26	20	32	34	37	39	41
	Horizontal NC		<15	17	20	27	32	36	38	42	44	46
	Vertical NC		<15	<15	<15	15	20	24	26	30	32	35
7	CFMLF		35	70	105	140	175	210	245	280	315	350
	Horizontal Throw		5-9-18	12-18-31	18-27-38	24-31-44	29-35-49	31-38-54	34-41-59	36-44-63	38-47-66	40-49-70
	Vertical Throw		7	17	24	28	31	34	37	40	42	45
	Horizontal NC		<15	18	21	28	33	37	39	43	45	47
	Vertical NC		<15	<15	<15	16	21	25	27	31	33	35
8	CFMLF		40	80	120	160	200	240	280	320	360	400
	Horizontal Throw		6-10-19	13-19-33	19-29-41	26-33-47	31-37-53	33-41-58	36-44-63	39-47-67	41-50-71	45-53-75
	Vertical Throw		7	18	26	30	34	37	40	43	45	48
	Horizontal NC		<15	20	22	29	34	39	40	44	46	48
	Vertical NC		<15	<15	<15	17	22	27	28	32	34	36

PERFORMANCE DATA - MODEL LSD
LINEAR SLOT DIFFUSERS - SUPPLY - 3/4" SLOT - CFM PER LINEAR FOOT

Slots	Static Pressure	Horizontal Vertical	0.011	0.024	0.042	0.066	0.095	0.129	0.168	0.213	0.263	0.318
			.007	.014	.025	.040	.057	.077	.101	.128	.158	.191
1	CFMLF		10	15	20	25	30	35	40	45	50	55
	Horizontal Throw		1-2-6	2-4-14	3-6-22	4-10-24	6-14-27	9-19-29	11-22-31	14-26-33	18-24-35	20-26-36
	Vertical Throw		2	6	10	12	13	14	15	16	17	18
	Horizontal NC		<15	<15	<15	15	19	23	25	28	31	33
	Vertical NC		<15	<15	<15	<15	<15	<15	<15	16	19	21
2	CFMLF		20	30	40	50	60	70	80	90	100	110
	Horizontal Throw		1-3-10	3-6-22	5-10-29	7-16-35	10-22-38	14-26-41	19-29-44	22-33-46	25-35-49	27-36-51
	Vertical Throw		4	8	14	17	18	20	21	23	24	25
	Horizontal NC		<15	<15	<15	18	22	26	28	31	34	36
	Vertical NC		<15	<15	<15	<15	<15	<15	16	19	22	24
3	CFMLF		30	45	60	75	90	105	120	135	150	165
	Horizontal Throw		1-3-13	3-7-27	6-13-36	9-20-41	13-27-44	17-32-48	23-36-51	27-39-54	30-41-57	33-43-60
	Vertical Throw		4	10	17	21	23	24	26	28	29	31
	Horizontal NC		<15	<15	<15	20	24	28	30	33	35	37
	Vertical NC		<15	<15	<15	<15	<15	16	18	21	23	25
4	CFMLF		40	60	80	100	120	140	160	180	200	220
	Horizontal Throw		4-10-24	10-18-36	16-24-42	20-30-47	24-36-51	28-39-55	32-42-59	36-44-63	38-47-66	40-49-70
	Vertical Throw		5	11	20	24	26	28	30	32	34	35
	Horizontal NC		<15	15	16	22	25	30	31	35	37	39
	Vertical NC		<15	<15	<15	<15	<15	18	19	23	25	27
5	CFMLF		50	75	100	125	150	175	200	225	250	275
	Horizontal Throw		10-15-30	15-23-41	20-30-47	25-37-52	30-41-57	35-44-62	38-47-66	41-50-70	43-52-74	45-55-78
	Vertical Throw		6	13	22	27	29	31	34	36	38	39
	Horizontal NC		<15	16	17	23	26	32	33	36	38	40
	Vertical NC		<15	<15	<15	<15	<15	20	21	24	20	28
6	CFMLF		60	90	120	150	180	210	240	270	300	330
	Horizontal Throw		10-15-29	15-22-44	20-29-51	24-37-57	29-44-63	34-48-68	39-51-73	44-54-77	47-57-81	49-60-85
	Vertical Throw		6	14	24	29	32	34	37	39	41	43
	Horizontal NC		<15	17	19	24	28	33	34	37	39	41
	Vertical NC		<15	<15	<15	<15	16	21	22	25	27	29
7	CFMLF		70	105	140	175	210	245	280	315	350	385
	Horizontal Throw		11-16-32	16-24-48	21-32-55	26-40-63	32-48-68	37-52-73	42-55-78	48-59-83	51-62-88	53-65-92
	Vertical Throw		7	15	26	31	34	37	40	42	45	47
	Horizontal NC		16	18	20	24	29	34	35	38	40	42
	Vertical NC		<15	<15	<15	<15	17	22	23	26	28	30
8	CFMLF		80	120	160	200	240	280	320	360	400	440
	Horizontal Throw		11-17-34	17-25-51	23-34-59	28-42-66	34-51-73	40-55-78	45-59-84	51-63-89	54-66-94	57-70-99
	Vertical Throw		7	16	28	34	37	40	43	45	48	50
	Horizontal NC		18	19	22	25	30	35	37	39	41	43
	Vertical NC		<15	<15	<15	<15	18	23	25	27	29	31

PERFORMANCE DATA - MODEL LSD

LINEAR SLOT DIFFUSERS - SUPPLY - 1" SLOT - CFM PER LINEAR FOOT

Slots	Static Pressure	Horizontal Vertical	.008	.030	.047	.068	.092	.120	.152	.188	.227	.270
			.003	.012	.020	.028	.037	.040	.061	.076	.092	.109
1	CFMLF		10	20	25	30	35	40	45	50	55	60
	Horizontal Throw		1-2-6	3-6-22	4-10-24	6-14-27	9-19-29	11-22-31	14-23-33	18-24-35	20-26-36	22-27-38
	Vertical Throw		2	10	12	13	14	15	16	17	18	18
	Horizontal NC		<15	<15	<15	<15	19	22	24	26	28	30
	Vertical NC		<15	<15	<15	<15	<15	<15	<15	<15	16	18
2	CFMLF		20	40	50	60	70	80	90	100	110	120
	Horizontal Throw		1-3-10	5-10-29	7-16-35	10-22-38	14-26-41	19-29-44	22-33-46	25-35-49	27-36-51	29-38-54
	Vertical Throw		4	14	17	18	20	21	23	24	25	26
	Horizontal NC		<15	<15	<15	<15	21	25	27	29	31	33
	Vertical NC		<15	<15	<15	<15	<15	<15	15	17	19	21
3	CFMLF		30	60	75	90	105	120	135	150	165	180
	Horizontal Throw		3-7-18	12-18-36	15-23-41	18-27-44	21-32-48	24-26-51	27-39-54	30-41-57	33-43-60	36-44-63
	Vertical Throw		4	17	21	23	24	26	28	29	31	32
	Horizontal NC		<15	<15	<15	17	22	27	28	30	32	34
	Vertical NC		<15	<15	<15	<15	<15	15	16	18	20	22
4	CFMLF		40	80	100	120	140	160	180	200	220	240
	Horizontal Throw		4-10-24	16-24-42	20-30-47	24-36-51	28-39-55	32-42-59	36-44-63	38-47-66	40-49-70	42-51-73
	Vertical Throw		5	20	24	26	28	30	32	34	35	37
	Horizontal NC		<15	<15	15	19	24	29	30	32	34	36
	Vertical NC		<15	<15	<15	<15	<15	17	18	20	22	24
5	CFMLF		50	100	125	150	175	200	225	250	275	300
	Horizontal Throw		10-15-30	20-30-47	25-37-52	30-41-57	35-44-62	38-47-66	41-50-70	43-52-74	45-55-78	47-57-81
	Vertical Throw		6	24	29	32	34	37	39	41	43	45
	Horizontal NC		<15	<15	16	21	25	31	32	34	35	37
	Vertical NC		<15	<15	<15	<15	<15	19	20	22	23	25
6	CFMLF		60	120	150	180	210	240	270	300	330	360
	Horizontal Throw		10-15-29	20-29-51	24-37-57	29-44-63	34-48-68	39-51-73	44-54-77	47-57-81	49-60-85	51-63-89
	Vertical Throw		6	24	29	32	34	37	39	41	43	45
	Horizontal NC		<15	15	17	22	27	33	34	35	36	38
	Vertical NC		<15	<15	<15	<15	<15	21	22	23	24	26
7	CFMLF		70	140	175	210	245	280	315	350	385	420
	Horizontal Throw		11-16-32	21-32-55	26-40-62	32-48-68	37-52-73	42-55-78	48-59-83	51-62-88	53-65-92	55-68-96
	Vertical Throw		7	26	31	34	37	40	42	45	47	49
	Horizontal NC		<15	16	18	24	28	34	36	37	37	39
	Vertical NC		<15	<15	<15	<15	16	22	24	25	25	27
8	CFMLF		80	160	200	240	280	320	360	400	440	480
	Horizontal Throw		11-17-34	23-34-59	28-42-66	34-51-73	40-55-78	45-59-84	51-63-89	54-66-94	57-70-98	59-73-103
	Vertical Throw		7	28	34	37	40	43	47	48	50	52
	Horizontal NC		<15	16	20	26	30	35	37	38	39	41
	Vertical NC		<15	<15	<15	<15	18	23	25	26	27	29

PERFORMANCE DATA - MODEL LSD

LINEAR SLOT DIFFUSERS - SUPPLY - 1-1/2" SLOT - CFM PER LINEAR FOOT

Slots	Static Pressure	Horizontal	0.005	0.038	0.052	0.069	0.089	0.112	0.137	0.165	0.196	0.229
		Vertical	0.006	0.042	0.058	0.077	0.098	0.123	0.151	0.182	0.216	0.253
1	CFM/LF		10	25	30	35	40	45	50	55	60	65
	Horizontal Throw		1-2-6	4-10-24	6-14-27	9-19-29	11-22-31	14-23-33	18-24-35	20-26-36	22-27-38	23-28-39
	Vertical Throw		2	12	13	14	15	16	17	18	18	19
	Horizontal NC		<15	<15	<15	19	22	24	26	28	30	32
	Vertical NC		<15	<15	<15	<15	<15	<15	<15	16	18	20
2	CFM/LF		20	50	60	70	80	90	100	110	120	130
	Horizontal Throw		1-3-10	7-16-35	10-22-38	14-26-41	19-29-44	22-33-46	25-35-49	27-36-51	29-38-54	32-39-56
	Vertical Throw		4	17	18	20	21	23	24	25	26	27
	Horizontal NC		<15	<15	<15	21	25	27	29	31	33	36
	Vertical NC		<15	<15	<15	<15	<15	15	17	19	21	23
3	CFM/LF		30	75	90	105	120	135	150	165	180	195
	Horizontal Throw		3-7-18	15-23-41	18-27-44	21-32-48	24-36-51	27-39-54	30-41-57	33-43-60	36-44-63	38-46-65
	Vertical Throw		4	21	23	24	26	28	29	31	32	33
	Horizontal NC		<15	<15	17	22	27	28	30	32	34	37
	Vertical NC		<15	<15	<15	<15	15	16	18	20	22	24
4	CFM/LF		40	100	120	140	160	180	200	220	240	260
	Horizontal Throw		4-10-24	20-30-47	24-36-51	28-39-55	32-42-59	36-44-63	38-47-66	40-49-70	42-51-73	44-53-76
	Vertical Throw		5	24	26	28	30	32	34	35	37	38
	Horizontal NC		<15	15	19	24	29	30	32	34	36	39
	Vertical NC		<15	<15	<15	<15	17	18	20	22	24	26

PERFORMANCE DATA - MODEL LSD

LINEAR SLOT DIFFUSERS - RETURN - 1/2" SLOT - CFM PER LINEAR FOOT

Number of Slots	Negative Ps Inches of Water	.020	.040	.060	.080	.100	.150
1	CFM/ft.	15	20	25	30	35	40
	NC	-	20	27	32	37	41
2	CFM/ft.	35	50	60	70	80	95
	NC	-	22	27	32	37	41
3	CFM/ft.	55	80	95	110	125	150
	NC	-	23	28	33	37	42
4	CFM/ft.	70	100	120	140	155	190
	NC	-	24	30	34	37	44
5	CFM/ft.	90	135	155	180	200	245
	NC	-	25	30	34	37	44
6	CFM/ft.	110	155	195	220	245	300
	NC	-	26	33	37	40	96
7	CFM/ft.	130	185	225	260	290	365
	NC	-	27	33	37	41	47
8	CFM/ft.	140	200	245	280	310	385
	NC	-	28	34	38	42	48

PERFORMANCE DATA - MODEL LSD

LINEAR SLOT DIFFUSERS - RETURN - 3/4" SLOT - CFM PER LINEAR FOOT

Number of Slots	Negative Ps Inches of Water	.020	.040	.060	.080	.100	.150
1	CFM/ft.	25	35	45	50	55	70
	NC	-	21	29	32	35	42
2	CFM/ft.	55	80	90	100	110	135
	NC	-	25	29	32	35	42
3	CFM/ft.	90	115	140	160	180	220
	NC	-	26	32	36	40	46
4	CFM/ft.	100	140	175	200	225	275
	NC	-	27	34	38	41	47
5	CFM/ft.	140	185	225	260	290	360
	NC	-	28	34	38	42	48
6	CFM/ft.	160	225	275	320	360	440
	NC	-	29	35	40	43	49
7	CFM/ft.	175	250	305	350	395	480
	NC	-	30	36	40	44	50
8	CFM/ft.	200	285	350	400	450	545
	NC	-	31	37	41	45	51

PERFORMANCE DATA - MODEL LSD

LINEAR SLOT DIFFUSERS - RETURN - 1" SLOT - CFM PER LINEAR FOOT

Number of Slots	Negative Ps Inches of Water	.020	.040	.060	.080	.100	.150
1	CFM/ft.	35	50	60	70	80	95
	NC	-	25	31	36	40	45
2	CFM/ft.	70	100	125	140	155	190
	NC	-	27	33	37	41	47
3	CFM/ft.	105	150	185	210	235	285
	NC	-	29	35	39	43	49
4	CFM/ft.	140	200	250	280	310	380
	NC	-	31	37	41	45	51
5	CFM/ft.	175	250	300	350	390	475
	NC	-	32	38	42	46	52
6	CFM/ft.	210	300	375	420	465	570
	NC	-	33	40	43	47	53
7	CFM/ft.	245	350	425	490	545	665
	NC	-	34	41	44	47	54
8	CFM/ft.	280	400	475	560	620	760
	NC	-	35	42	45	48	55

PERFORMANCE DATA - MODEL LSD

LINEAR SLOT DIFFUSERS - RETURN - 1-1/2" SLOT - CFM PER LINEAR FOOT

Number of Slots	Negative Ps Inches of Water	.020	.040	.060	.080	.100	.150
1	CFM/ft.	55	80	90	110	130	145
	NC	-	31	33	42	48	50
2	CFM/ft.	100	140	195	220	245	300
	NC	-	29	39	45	51	55
3	CFM/ft.	135	220	275	310	345	415
	NC	-	33	39	43	45	53
4	CFM/ft.	220	320	400	440	480	590
	NC	-	37	41	45	50	56

PERFORMANCE NOTES FOR SERIES LSD

All data is tested in accordance with ANSI/ASHRAE 70-2006.

DEFINITION OF UNITS

1. On units without UP plenums, pressure drop reported is across the diffuser element only.
The field supply plenum pressure drop should be included when determining system fan requirements.
A good approximation of the static pressure requirements can be calculated by adding the velocity pressure through the plenum inlet to the diffuser section pressure drop.
2. NC is based on a 4 ft. section of diffuser.
The following table should be used to calculate sound levels for lengths other than 4 ft.
3. To correct throws for lengths other than the 4 ft. lengths used in determining catalog performance, throws should be adjusted per the following table:

NC Correction for Length			
Length (feet)	2	4	6
NC Correction	-2	0	2
Throw Correction Multiplier for Length			
Length (feet)	2	4	8
Throw Correction	-7	1	1.2

4. All pressures are in inches of water.
5. Isothermal throws are given for terminal velocities of 150, 100 and 50 fpm, based upon 4 ft. section.
6. Vertical throw values are based on a 50 fpm terminal velocity.
7. For Vertical supply subtract one NC.
8. For Returns minus pattern controllers, deduct 12 NC.
9. Throw values are based on a One-Way discharge from the slot. For Two-Way discharge, 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.
10. Data was collected in accordance with ASHRAE standard 70-2006 Method of Testing for rating the performance of air outlets and inlets.