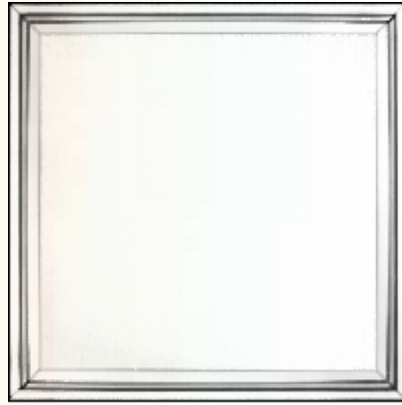


LDA



LDA Linear Diffuser Ceiling Tiles

Models LDA and LDAR are designed to be visually pleasing while providing superior performance.

Designed so that a ceiling tile (by Others) can be field cut and inserted in the face of the diffuser.

This results in a smooth, clean appearance that blends with the ceiling, as used in the series ML linear diffusers.

Supply diffuser delivers a 4 ways horizontal throw or vertical throw.

With horizontal throw the blanket of air is held tight against the ceiling even with varying volumes of air.

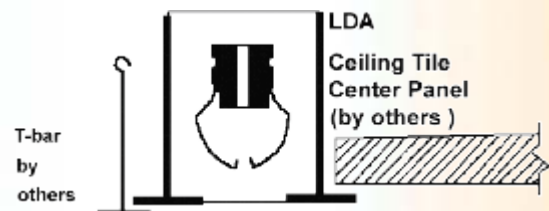
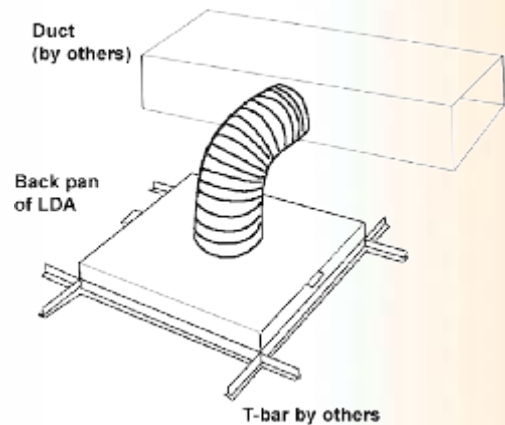
LDA Discharge direction are adjustable through 180°.

Choice of 1,2,3, or 4 slots.

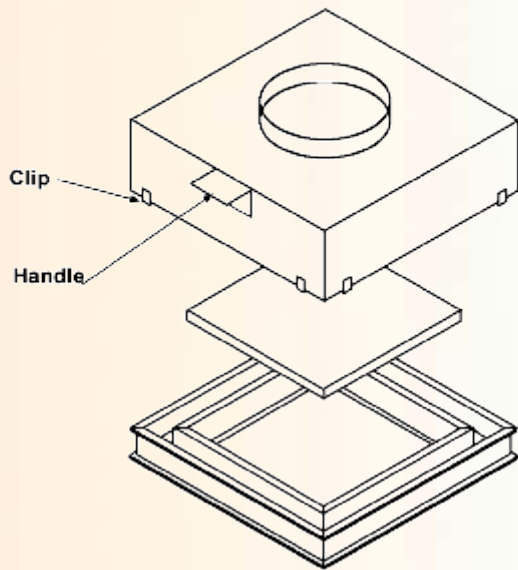
Choice of 1/2", 3/4", or 1" slot

Fit 24" x 24 " ceiling grid.

Inlet View



Field Installation of Center Tile



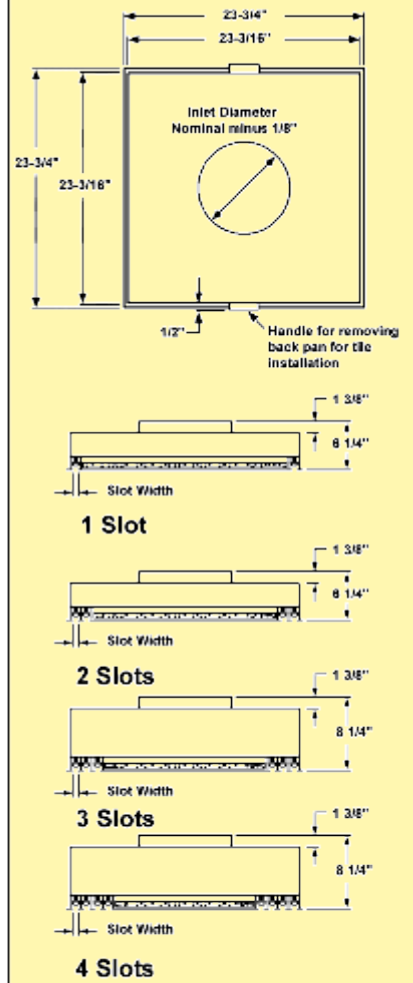
Center Panel Ceiling Tile . Cutting Dimension

No. of Slots	Slot Width	
	3/4"	1"
1	19 7/8 x 19 7/8	19 3/8 x 19 3/8
2	16 7/8 x 16 7/8	15 7/8 x 15 7/8
3	13 7/8 x 13 7/8	12 7/8 x 12 7/8
4	10 7/8 x 10 7/8	8 7/8 x 8 7/8

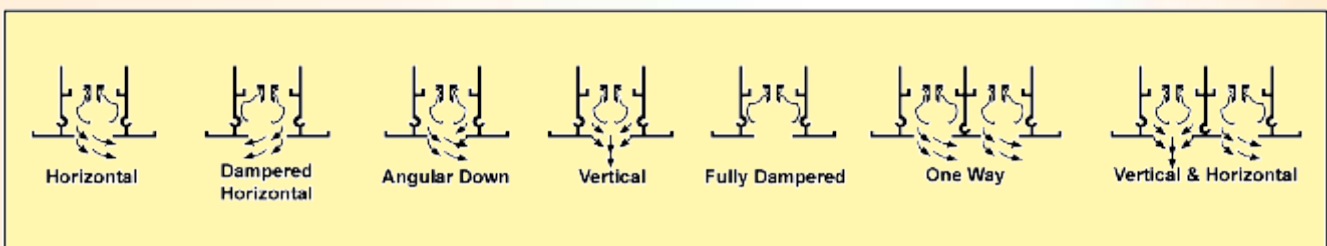
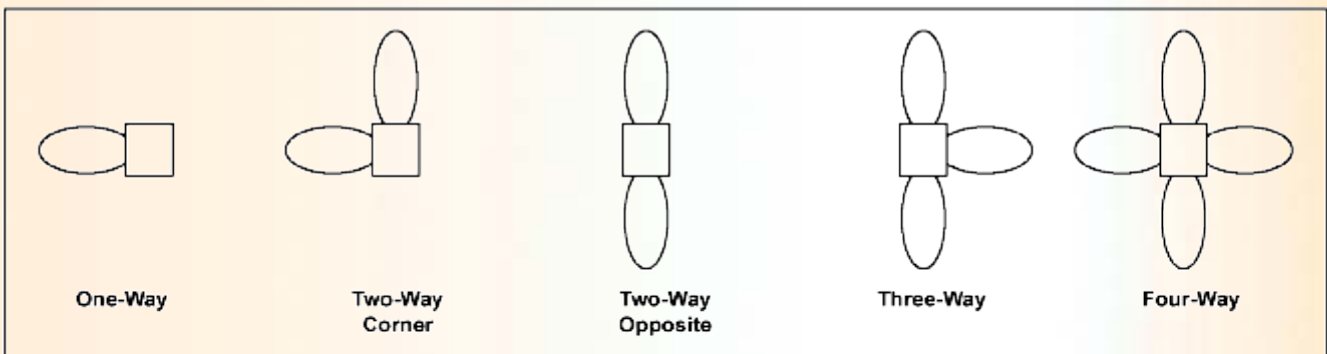
Available Inlet Sizes
8"
10"
12"
14"

All dimensions are in inches.

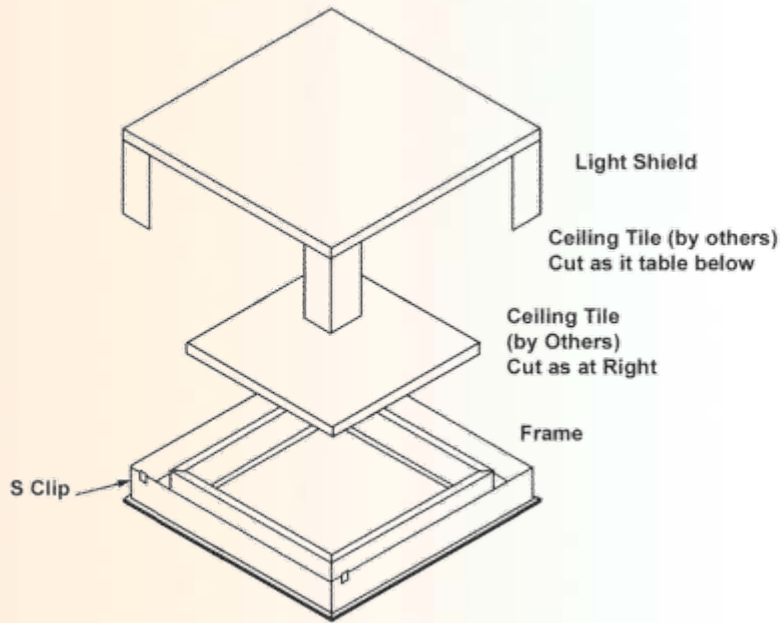
Dimensions



Discharge Patterns . Field Adjustable



Field Installation of Center Tile

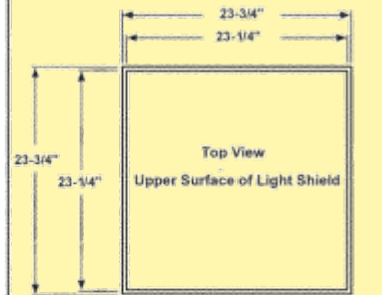


Center Panel Ceiling Tile . Cutting Dimension

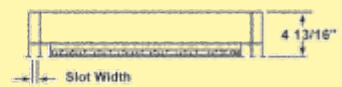
No. of Slots	Slot Width	
	3/4"	1"
1	19 7/8 x 19 7/8	19 3/8 x 19 3/8
2	16 7/8 x 16 7/8	15 7/8 x 15 7/8
3	13 7/8 x 13 7/8	12 7/8 x 12 7/8
4	10 7/8 x 10 7/8	8 7/8 x 8 7/8

All dimensions are in inches.

Dimensions



1 Slot



2 Slots

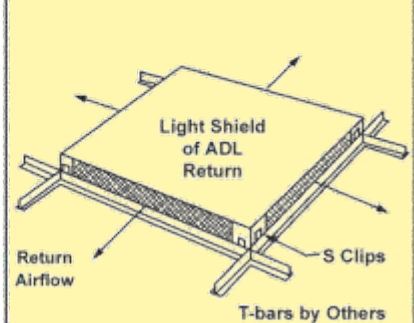


3 Slots



4 Slots

Return View



Model: LDA. Slot 3/4" . Supply

Neck Velocity	300	400	500	600	700	800	900	1000	1100
Velocity Pressure	0.008	0.010	0.016	0.022	0.031	0.040	0.050	0.062	0.075

1 Slot	8" Dia.	Airflow, cfm	105	140	175	209	244	279	314	349	384
		Total Pressure	0.047	0.064	0.131	0.168	0.257	0.335	0.424	0.542	0.633
		NC (Noise Criteria)	19	25	30	34	37	40	43	45	47
		Throw	4 - 6 - 12	5 - 8 - 16	7 - 10 - 20	8 - 12 - 24	9 - 14 - 28	11 - 16 - 32	12 - 18 - 35	13 - 20 - 37	15 - 22 - 39

2 Slot	8" Dia.	Airflow, cfm	105	140	175	209	244	279	314	349	384
		Total Pressure	0.018	0.032	0.049	0.071	0.097	0.126	0.160	0.197	0.239
		NC (Noise Criteria)	-	14	19	23	27	29	32	34	36
		Throw	2 - 4 - 9	3 - 6 - 12	5 - 7 - 15	6 - 9 - 18	7 - 10 - 21	8 - 12 - 24	9 - 13 - 26	10 - 15 - 29	11 - 16 - 32

2 Slot	10" Dia.	Airflow, cfm	164	218	273	327	382	436	491	545	600
		Total Pressure	0.035	0.063	0.088	0.141	0.192	0.250	0.317	0.381	0.474
		NC (Noise Criteria)	16	22	27	31	34	37	40	42	44
		Throw	4 - 7 - 14	6 - 9 - 18	8 - 11 - 23	9 - 14 - 28	11 - 16 - 32	12 - 18 - 37	14 - 21 - 41	15 - 23 - 45	17 - 25 - 48

3 Slot	10" Dia.	Airflow, cfm	105	140	175	209	244	279	314	349	384
		Total Pressure	0.011	0.019	0.030	0.043	0.053	0.076	0.086	0.118	0.143
		NC (Noise Criteria)	-	15	20	24	27	30	33	35	37
		Throw	1 - 2 - 7	2 - 4 - 10	3 - 6 - 12	4 - 7 - 15	5 - 9 - 17	7 - 10 - 20	7 - 11 - 22	8 - 12 - 25	9 - 14 - 27

3 Slot	10" Dia.	Airflow, cfm	164	210	273	327	382	436	491	545	600
		Total Pressure	0.018	0.032	0.050	0.071	0.097	0.127	0.151	0.188	0.243
		NC (Noise Criteria)	17	23	28	32	35	38	40	43	45
		Throw	3 - 6 - 12	5 - 8 - 16	7 - 10 - 20	8 - 12 - 23	9 - 14 - 27	10 - 16 - 31	12 - 18 - 35	13 - 20 - 39	14 - 21 - 43

3 Slot	12" Dia.	Airflow, cfm	236	314	393	471	550	628	707	785	864
		Total Pressure	0.031	0.055	0.088	0.124	0.163	0.221	0.279	0.345	0.417
		NC (Noise Criteria)	23	29	34	39	41	44	47	48	51
		Throw	5 - 8 - 17	7 - 11 - 22	8 - 14 - 28	11 - 17 - 34	13 - 20 - 39	15 - 22 - 45	17 - 29 - 51	19 - 28 - 55	21 - 31 - 58

4 Slot	8" Dia.	Airflow, cfm	105	140	175	209	244	279	314	349	384
		Total Pressure	0.009	0.016	0.025	0.036	0.043	0.064	0.081	0.100	0.121
		NC (Noise Criteria)	-	12	17	21	24	27	29	32	34
		Throw	1 - 2 - 7	1 - 3 - 9	2 - 5 - 11	3 - 7 - 14	4 - 8 - 16	5 - 9 - 18	7 - 10 - 20	8 - 11 - 23	8 - 12 - 25

4 Slot	10" Dia.	Airflow, cfm	164	218	273	327	382	436	491	545	600
		Total Pressure	0.014	0.025	0.038	0.055	0.075	0.096	0.125	0.154	0.185
		NC (Noise Criteria)	13	20	24	28	32	35	37	38	41
		Throw	2 - 4 - 11	3 - 7 - 14	5 - 9 - 18	7 - 11 - 21	8 - 12 - 25	9 - 14 - 28	11 - 16 - 32	12 - 18 - 35	13 - 19 - 39

4 Slot	12" Dia.	Airflow, cfm	236	314	393	471	550	628	707	785	864
		Total Pressure	0.023	0.040	0.053	0.081	0.124	0.161	0.204	0.252	0.305
		NC (Noise Criteria)	20	26	31	35	38	41	43	45	48
		Throw	4 - 8 - 15	7 - 10 - 20	8 - 13 - 25	10 - 15 - 31	12 - 18 - 36	14 - 20 - 41	15 - 23 - 48	17 - 25 - 51	18 - 28 - 56

4 Slot	14" Dia.	Airflow, cfm	321	428	535	641	748	855	962	1069	1176
		Total Pressure	0.037	0.066	0.103	0.149	0.203	0.265	0.335	0.414	0.501
		NC (Noise Criteria)	25	31	36	40	43	46	48	51	53
		Throw	7 - 10 - 21	9 - 14 - 28	12 - 17 - 35	14 - 21 - 42	18 - 24 - 49	18 - 26 - 55	21 - 31 - 61	23 - 35 - 65	25 - 36 - 68

Model: LDA. Slot 1" . Supply

2 Slot	8"	Airflow, cfm	105	140	175	209	244	279	314	349	384
		Total Pressure	0.014	0.025	0.039	0.056	0.076	0.100	0.126	0.155	0.188
		NC (Noise Criteria)	-	-	16	20	23	26	28	30	33
		Throw	1 - 3 - 8	2 - 6 - 10	3 - 5 - 13	5 - 8 - 15	6 - 9 - 18	7 - 10 - 21	8 - 12 - 23	9 - 13 - 25	9 - 14 - 26
2 Slot	10"	Airflow, cfm	164	218	273	327	382	436	491	545	600
		Total Pressure	0.026	0.045	0.072	0.104	0.142	0.185	0.235	0.280	0.351
		NC (Noise Criteria)	12	19	23	27	31	33	36	38	40
		Throw	3 - 6 - 12	5 - 8 - 16	7 - 10 - 20	8 - 12 - 24	9 - 14 - 28	11 - 16 - 32	12 - 18 - 35	13 - 20 - 40	15 - 22 - 44
3 Slot	8"	Airflow, cfm	105	140	175	209	244	279	314	349	384
		Total Pressure	0.008	0.015	0.026	0.037	0.051	0.065	0.083	0.103	0.125
		NC (Noise Criteria)	-	12	17	21	24	27	30	32	34
		Throw	1 - 2 - 7	1 - 3 - 9	2 - 5 - 11	3 - 7 - 13	4 - 8 - 15	5 - 6 - 18	7 - 10 - 20	7 - 11 - 22	8 - 12 - 24
3 Slot	10"	Airflow, cfm	164	218	273	327	382	436	491	545	600
		Total Pressure	0.015	0.025	0.040	0.058	0.076	0.101	0.131	0.162	0.195
		NC (Noise Criteria)	14	20	25	29	32	35	37	40	42
		Throw	2 - 4 - 10	3 - 7 - 14	5 - 9 - 17	7 - 10 - 21	8 - 12 - 24	9 - 14 - 28	10 - 16 - 31	12 - 17 - 35	13 - 19 - 38
3 Slot	12"	Airflow, cfm	236	314	393	471	550	628	707	785	864
		Total Pressure	0.024	0.043	0.067	0.067	0.132	0.172	0.218	0.269	0.325
		NC (Noise Criteria)	20	26	31	35	38	41	44	46	48
		Throw	4 - 8 - 15	7 - 10 - 20	8 - 13 - 25	10 - 15 - 30	12 - 18 - 35	13 - 20 - 40	15 - 23 - 45	17 - 25 - 50	18 - 28 - 55
4 Slot	8"	Airflow, cfm	105	140	175	209	244	279	314	349	384
		Total Pressure	0.008	0.015	0.023	0.033	0.045	0.058	0.074	0.091	0.110
		NC (Noise Criteria)	-	-	14	18	21	24	26	29	31
		Throw	1 - 1 - 5	1 - 2 - 8	2 - 4 - 10	2 - 5 - 12	3 - 7 - 14	4 - 8 - 16	5 - 9 - 18	6 - 10 - 20	7 - 11 - 22
4 Slot	10"	Airflow, cfm	164	218	273	327	382	436	491	545	600
		Total Pressure	0.012	0.021	0.033	0.048	0.065	0.085	0.107	0.132	0.160
		NC (Noise Criteria)	-	17	22	26	29	32	34	36	39
		Throw	1 - 3 - 10	2 - 6 - 13	4 - 8 - 16	6 - 10 - 19	7 - 11 - 22	8 - 13 - 25	10 - 14 - 28	11 - 15 - 32	12 - 18 - 35
4 Slot	12"	Airflow, cfm	236	314	393	471	550	628	707	785	864
		Total Pressure	0.018	0.033	0.052	0.075	0.102	0.133	0.168	0.208	0.251
		NC (Noise Criteria)	17	23	28	32	35	38	41	42	45
		Throw	3 - 7 - 14	5 - 8 - 18	8 - 11 - 23	9 - 14 - 28	11 - 16 - 32	12 - 18 - 37	14 - 21 - 41	15 - 23 - 46	17 - 25 - 50
4 Slot	14"	Airflow, cfm	321	428	535	641	748	855	962	1069	1176
		Total Pressure	0.030	0.053	0.083	0.119	0.163	0.212	0.269	0.332	0.401
		NC (Noise Criteria)	22	28	33	37	41	43	46	48	50
		Throw	6 - 9 - 19	8 - 12 - 25	10 - 16 - 31	12 - 19 - 37	15 - 22 - 44	17 - 25 - 50	19 - 28 - 55	21 - 31 - 62	23 - 34 - 68

DATA NOTES

• Data were obtained from tests conducted in accordance with ANSI / ASHRAE Standard 70-1991. Actual Performance, with flexible duct inlet, may vary in the field.

• If the diffuser is mounted on an exposed duct, the throw values are 70% of those listed in the table.

THROW

• Throw values are given for terminal velocities of 150, 100, and 50 fpm.

• Throw values are given for isothermal conditions.

NC

• NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10 dB.

• Each NC value represents the noise criteria curve which will not be exceeded by the sound pressure in any of the octave bands, 2nd through 7th, with a room absorption of 10 dB, re 10⁻¹² watts.

• Dash (-) in space denotes an NC value of less than 10.

PRESSURE

• All Pressures are given in inches of water.

• To obtain static pressure, subtract the velocity pressure from the total pressure.

Model: LDAR. Return with Light Shield

3/4" Wide Slot

Size	Pressure	0.007	0.028	0.063	0.108	0.17	0.25	0.345	0.45
1 Slot	Airflow, cfm	75	150	225	300	375	450	525	600
	NC (Noise Criteria)	-	-	16	24	30	35	39	43
2 Slot	Airflow, cfm	145	290	435	580	725	870	1015	1160
	NC (Noise Criteria)	-	12	20	28	34	39	43	47
3 Slot	Airflow, cfm	210	420	630	840	1050	1260	1470	1680
	NC (Noise Criteria)	-	15	21	28	35	40	44	48
4 Slot	Airflow, cfm	270	540	810	1080	1350	1620	1890	2160
	NC (Noise Criteria)	-	17	22	30	36	40	45	49

1" Wide Slot

Size	Pressure	0.018	0.04	0.07	0.108	0.16	0.215	0.28	0.45
1 Slot	Airflow, cfm	147	220	293	367	440	513	586	733
	NC (Noise Criteria)	-	-	17	23	28	32	36	42
2 Slot	Airflow, cfm	280	420	560	700	840	980	1120	1400
	NC (Noise Criteria)	-	16	24	30	35	39	43	49
3 Slot	Airflow, cfm	400	600	800	1000	1200	1400	1600	2000
	NC (Noise Criteria)	-	19	27	33	38	42	46	52
4 Slot	Airflow, cfm	507	760	1013	1267	1520	1773	2026	2533
	NC (Noise Criteria)	-	21	29	35	40	44	48	54

- Static Pressures are in negative inches of water
- NC is based on room absorption of 10 dB re 10-12 watts.
- Data obtained per ANSI/ASHRAE Standard 70-91.