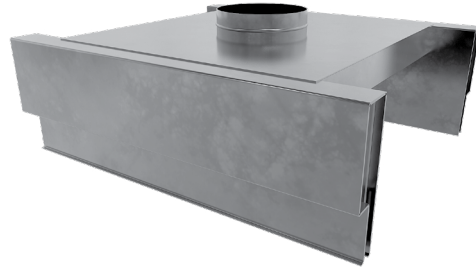


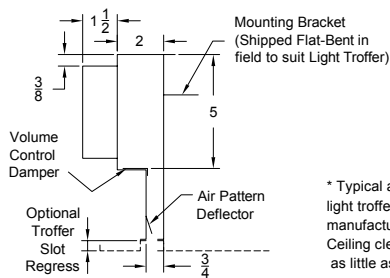
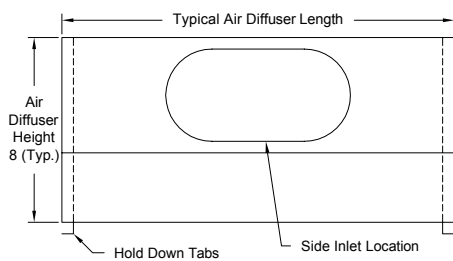
MODEL LT

The LT high performance light troffer diffusers is designed to attach quickly and easily to standard air handling fluorescent light fixtures. Light troffer diffusers have the architectural advantage of “hiding” the air distribution device by using a small slot on the outside of the light fixture to discharge or return conditioned air. The LT cuts down on ceiling clutter by using the same ceiling opening for the light fixture and air diffuser.



- Provides excellent air distribution while hiding the air distribution device into the light fixture
- Custom engineered to ensure a tight fit with minimum leakage
- Optional 1/2" internal insulation available
- Available with single or double sided supply configurations
- Model DS-LT double sided diffuser is available with side or top inlets for installation flexibility
- Matching single sided plenum return unit model SSR-LT is available

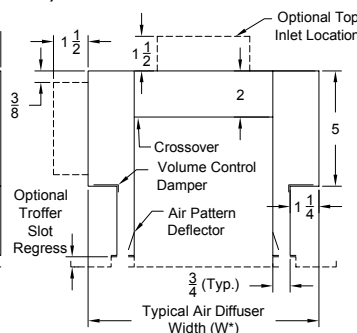
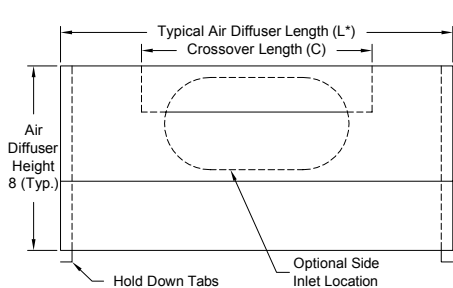
Model: SS-LT (SSI-LT)



Nominal Light Troffer Lengths	Typical Return Length
24	17
36	25 3/4
48	40

* Typical air diffuser lengths vary with air handling light troffer manufacturer. Specify the light fixture manufacturer's name and model number on all orders. Ceiling clearance required is typically 8" but can be as little as 6" above the ceiling line.

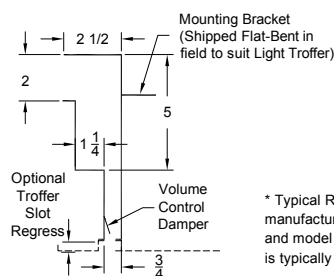
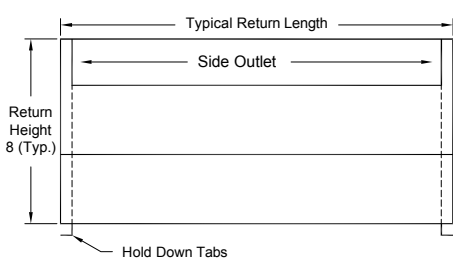
Model: DS-LT-6, DSI-LT-6 (Options: DST-LT-6, DSTI-LT-6)



Nominal Light Troffer Lengths (Width x Length)	Typical Air Diffuser Dimensions		
	W"	L"	C
12 x 48	12	40	18
24 x 24	24	17	12
24 x 48	24	40	18
36 x 36	36	25 3/4	18

* Typical air diffuser widths and lengths vary with air handling light troffer manufacturer. Specify the light fixture manufacturer's name and model number on all orders. Ceiling clearance required is typically 8" but can be as little as 6" above the ceiling line. Top inlet units extend above this dimension. Entire diffuser is shipped completely assembled to the job site.

Model: SSR-LT (SSRI-LTI)



Nominal Light Troffer Lengths	Typical Return Length
24	17
36	25 3/4
48	40

* Typical Return lengths vary with air handling light troffer manufacturer. Specify the light fixture manufacturer's name and model number on all orders. Ceiling clearance required is typically 8" but can be as little as 6" above the ceiling line.

SERIES LT - SPECIFICATIONS

SINGLE SIDED SUPPLY — LIGHT TROFFER DIFFUSER — T-BAR LAY-IN — INSULATED/NON-INSULATED

- Single sided supply light troffer diffusers shall be METALAIRE SS-LT-6 (non-insulated) or SSI-LT-6 (insulated). Light troffer diffusers shall be of the sizes as shown on the device schedule and shall be fabricated to fit the manufacturer and model of light fixture specified.
- Diffuser shall be single sided with a side inlet. Units shall be shipped fully assembled and include hold down tabs for positive alignment and locking the light troffer diffuser onto the slot of the light fixture.
- Inlets shall be oval, centrally located, with a minimum depth of 2 1/8" for ease of duct connection. Light troffer diffusers shall be constructed of corrosion-resistant galvanized steel.
- Diffuser face shall be black.
- Insulated diffusers shall be model SSI-LT-6. Internal insulation shall be 1/2" thick. External insulation shall be 1/2" thick with a vapor barrier.
- Matching return should be model SSRI-LT-6, insulated or model SSR-LT-6, non-insulated.

DOUBLE SIDED SUPPLY - SIDE/TOP INLET — LIGHT TROFFER DIFFUSER — T-BAR LAY-IN — INSULATED/NON-INSULATED

- Double sided supply light troffer diffusers shall be METALAIRE DS-LT-6 or DST-LT-6 (non-insulated) or DSI-LT-6 or DSTI-LT-6 (insulated). Light troffer diffusers shall be of the sizes as shown on the device schedule and shall be fabricated to fit the manufacturer and model of light fixture specified.
- Diffusers shall be double sided and be available with either a top or side inlet. Units shall be shipped fully assembled and include hold down tabs for positive alignment and locking the light troffer diffuser onto the slot of the light fixture.
- Side inlets shall be oval; top inlets shall be round.
- Inlets shall be centrally located, with a minimum depth of 2 1/8" for ease of duct connection. Light troffer diffusers shall be constructed of corrosion resistant galvanized steel.
- Diffuser face shall be black.
- Insulated diffusers shall be model DSI-LT-6 or DSTI-LT-6. Internal insulation shall be 1/2" thick. External insulation shall be 1/2" thick with a vapor barrier.

Performance Specification

The manufacturer shall provide published performance data. Data shall be tested in accordance to ANSI/ASHRAE Standard 70-2006.

LT — MODEL NUMBER SPECIFICATION LIGHT TROFFER DIFFUSER

Single Sided Supply		Inlets	Module	Available Finishes	
SS-LT-6	Non-insulated	4"	24" x 24"	Standard	
SS-LT-6	Insulated			27	All Black

Single Sided Return		Inlets	Module	Available Accessories	
SSR-LT-6	Non-insulated	6"	48" x 48"	LQ	Locking Quadrant Damper
SSE-LT-6	Insulated	7"		CC	Thermopure Insulation

Double Sided Side Inlet		Inlets	Module		
DS-LT-6	Non-insulated			4"	24" x 24"
DS-LT-6	Insulated			5"	36" x 36"
				6"	48" x 48"
Double Sided Top Inlet		7"	12" x 48"		
DST-LT-6	Non-insulated		24" x 48"		
DSTI-LT-6	Insulated				

SERIES SS-LT PERFORMANCE DATA MODEL SS-LT/SSI-LT

		CFM/LF	10	15	20	25	30	35	40	50	
2' Length	5" Inlet	Horizontal	CFM	20	30	40	50	60	70	80	100
			Ps	.020	.045	.081	.126	.182	.247	.323	.504
			Pt	.022	.048	.086	.134	.104	.264	.344	.538
		Throw	2-3-6	3-5-9	4-6-11	5-8-12	6-9-13	7-10-14	9-11-15	10-12-17	
		NC	<15	<15	15	22	28	33	37	44	
		Vertical	CFM	20	30	40	50	60	70	80	100
	Ps		.020	.045	.081	.126	.182	.247	.323	.504	
	Pt		.022	.048	.086	.134	.194	.264	.344	.538	
	Throw		1-2-4	2-3-5	2-4-7	3-4-8	4-5-9	4-6-9	5-7-10	6-8-11	
	NC		<15	<15	15	22	28	33	37	44	
	6" Inlet	Horizontal	CFM	20	30	40	50	60	70	80	100
			Ps	.019	.043	.077	.121	.174	.237	.309	.483
			Pt	.020	.045	.080	.125	.180	.245	.320	.499
			Throw	2-3-6	3-5-9	4-6-11	5-8-12	6-9-13	7-10-14	9-11-15	10-12-17
NC			<15	<15	15	22	28	33	37	44	
Vertical		CFM	20	30	40	50	60	70	80	100	
		Ps	.019	.043	.077	.121	.174	.237	.309	.483	
		Pt	.020	.045	.080	.125	.180	.245	.320	.499	
		Throw	1-2-4	2-3-5	2-4-7	3-4-8	4-5-9	4-6-9	5-7-10	6-8-11	
		NC	<15	<15	15	22	28	33	37	44	
3' Length	5" Inlet	Horizontal	CFM	30	45	60	75	90	105	120	-
			Ps	.024	.053	.095	.148	.213	.290	.379	-
			Pt	.027	.060	.107	.167	.240	.327	.427	-
		Throw	1-2-7	2-5-10	4-7-12	5-8-13	7-10-15	8-11-16	9-12-17	-	
		NC	<15	<15	18	25	31	37	42	-	
		Vertical	CFM	30	45	60	75	90	105	120	-
	Ps		.021	.048	.085	.133	.192	.261	.341	-	
	Pt		.024	.055	.097	.152	.219	.298	.390	-	
	Throw		1-2-4	2-3-6	3-4-8	3-5-9	4-6-10	5-7-11	5-8-12	-	
	NC		<15	<15	18	25	31	37	42	-	
	6" Inlet	Horizontal	CFM	30	45	60	75	90	105	120	-
			Ps	.024	.053	.095	.148	.213	.290	.379	-
			Pt	.025	.057	.100	.157	.226	.308	.402	-
			Throw	1-2-7	2-5-10	4-7-12	5-8-13	7-10-15	8-11-16	9-12-17	-
NC			<15	<15	18	25	31	37	42	-	
Vertical		CFM	30	45	60	75	90	105	120	-	
		Ps	.021	.048	.085	.133	.192	.261	.341	-	
		Pt	.023	.051	.091	.142	.205	.279	.365	-	
		Throw	1-2-4	2-3-6	3-4-8	3-5-9	4-6-10	5-7-11	5-8-12	-	
		NC	<15	<15	18	25	31	37	42	-	

SERIES SS-LT PERFORMANCE DATA

MODEL SS-LT/SSI-LT

		CFM/LF	10	15	20	25	30	35	40	50	
4' Length	5" Inlet	Horizontal	CFM	40	60	80	100	120	140	-	-
			Ps	.028	.062	.111	.173	.250	.340	-	-
			Pt	.033	.075	.132	.207	.298	.406	-	-
			Throw	1-2-6	2-4-9	4-6-10	5-7-12	6-9-13	7-10-14	-	-
			NC	<15	<15	23	30	37	44	-	-
		Vertical	CFM	40	60	80	100	120	140	-	-
			Ps	.026	.059	.105	.164	.236	.321	-	-
			Pt	.032	.071	.126	.197	.284	.387	-	-
			Throw	1-2-4	2-3-6	3-4-8	3-5-8	4-6-9	5-7-10	-	-
			NC	<15	<15	23	30	37	44	-	-
	6" Inlet	Horizontal	CFM	40	60	80	100	120	140	-	-
			Ps	.028	.062	.111	.173	.250	.340	-	-
			Pt	.030	.068	.121	.190	.273	.372	-	-
			Throw	1-2-6	2-4-9	4-6-10	5-7-12	6-9-13	7-10-14	-	-
			NC	<15	<15	23	30	37	44	-	-
Vertical		CFM	40	60	80	100	120	140	-	-	
		Ps	.026	.059	.105	.164	.236	.321	-	-	
		Pt	.029	.065	.115	.180	.259	.352	-	-	
		Throw	1-2-4	2-3-6	3-4-8	3-5-8	4-6-9	5-7-10	-	-	
		NC	<15	<15	23	30	37	44	-	-	

SERIES DS-LT PERFORMANCE DATA

MODEL DS-LT/DSI-LT - TOP INLET

W x L		CFM/LF	15	20	25	30	35	40	45	50	55	60		
2' x 2'	5" Inlet	Horizontal	CFM	30	40	50	60	70	80	90	100	110	120	
			Ps	.014	.026	.040	.057	.078	.102	.129	.160	.193	.230	
			Pt	.017	.031	.048	.070	.095	.124	.156	.193	.234	.278	
		Throw	0-1-2	0-1-3	1-2-4	1-2-4	1-3-5	2-3-6	2-3-7	2-4-7	3-4-8	3-4-9		
		NC	<15	<15	<15	<15	17	21	25	28	32	36		
		Vertical	CFM	30	40	50	60	70	80	90	100	110	120	
	Ps		.014	.026	.040	.057	.078	.102	.129	.160	.193	.230		
	Pt		.017	.031	.048	.070	.095	.124	.156	.193	.234	.278		
	Throw		1-1-3	1-2-4	1-3-5	2-3-7	3-4-8	3-4-8	3-5-9	4-5-9	4-6-10	4-7-10		
	NC		<15	<15	<15	<15	17	21	25	28	32	36		
	6" Inlet		Horizontal	CFM	30	40	50	60	70	80	90	100	110	120
		Ps		.013	.024	.037	.054	.073	.096	.121	.150	.181	.216	
		Pt		.015	.027	.042	.060	.081	.106	.135	.156	.201	.239	
		Throw		0-1-2	0-1-3	1-2-4	1-2-4	1-3-5	2-3-6	2-3-7	2-4-7	3-4-8	3-4-9	
		NC		<15	<15	<15	<15	17	21	25	28	32	36	
		Vertical		CFM	30	40	50	60	70	80	90	100	110	120
			Ps	.013	.024	.037	.054	.073	.096	.121	.159	.161	.216	
			Pt	.015	.027	.042	.060	.081	.106	.135	.168	.201	.239	
Throw			1-1-3	1-2-4	1-3-5	2-3-7	3-4-8	3-4-8	3-5-9	4-5-9	4-6-10	4-7-10		
NC			<15	<15	<15	<15	17	21	25	28	32	36		
3' x 3'			5" Inlet	Horizontal	CFM	45	60	75	90	105	120	135	150	165
		Ps			.017	.030	.048	.069	.093	.122	.154	.191	.231	.274
	Pt	.024			.043	.067	.096	.130	.170	.215	.266	.322	.383	
	Throw	0-1-4		1-2-5	1-2-6	2-4-7	2-4-8	3-5-10	4-5-10	4-6-11	4-7-11	5-7-12		
	NC	<15		<15	<15	16	21	25	29	32	35	37		
	Vertical	CFM		45	60	75	90	105	120	135	150	165	180	
		Ps	.017	.030	.048	.069	.093	.122	.154	.191	.231	.274		
		Pt	.024	.043	.067	.096	.130	.170	.215	.266	.322	.383		
		Throw	0-1-3	1-2-4	1-2-5	2-3-7	2-4-7	3-4-8	3-5-8	4-5-9	4-6-9	4-7-9		
		NC	<15	<15	<15	16	21	25	29	32	35	37		
		6" Inlet	Horizontal	CFM	45	60	75	90	105	120	135	150	165	180
	Ps			.015	.027	.042	.061	.083	.108	.137	.169	.205	.244	
	Pt			.019	.033	.051	.074	.101	.132	.167	.206	.249	.296	
	Throw			0-1-4	1-2-5	1-2-6	2-4-7	2-4-8	3-5-10	4-5-10	4-6-11	4-7-11	5-7-12	
	NC			<15	<15	<15	16	21	25	29	32	35	37	
	Vertical			CFM	45	60	75	90	105	120	135	150	165	180
			Ps	.015	.027	.042	.061	.083	.108	.137	.169	.205	.244	
			Pt	.019	.033	.051	.074	.101	.132	.167	.206	.249	.296	
Throw			0-1-3	1-2-4	1-2-5	2-3-7	2-4-7	3-4-8	3-5-8	4-5-9	4-6-9	4-7-9		
NC			<15	<15	<15	16	21	25	29	32	35	37		

PLENUM SLOT
DIFFUSERS

LIGHT TROFFER DIFFUSERS

LT

SERIES DS-LT PERFORMANCE DATA

MODEL DS-LT/DSI-LT - TOP INLET

W x L		CFM/LF	15	20	25	30	35	40	45	50	55	60	
4' x 4'	5" Inlet	Horizontal	CFM	60	80	100	120	140	160	180	200	220	-
			Ps	.023	.042	.065	.094	.127	.166	.210	.260	.314	-
			Pt	.035	.063	.099	.142	.193	.252	.319	.394	.477	-
			Throw	1-2-4	2-3-5	2-3-7	3-4-8	3-5-8	4-5-9	4-6-9	4-7-10	5-7-10	-
			NC	<15	<15	16	21	26	30	33	37	41	-
	Vertical	CFM	60	80	100	120	140	160	180	200	220	-	
		Ps	.023	.042	.065	.094	.127	.166	.210	.260	.314	-	
		Pt	.035	.063	.099	.142	.193	.252	.319	.394	.477	-	
		Throw	0-1-4	1-2-5	1-2-6	2-4-6	2-4-7	3-5-7	4-5-8	4-6-8	4-6-8	-	
		NC	<15	<15	16	21	26	30	33	37	41	-	
2' x 4'	5" Inlet	Horizontal	CFM	60	80	100	120	140	160	180	200	220	-
			Ps	.021	.037	.058	.083	.113	.148	.187	.231	.280	-
			Pt	.027	.047	.074	.107	.145	.189	.240	.296	.358	-
			Throw	1-2-4	2-3-5	2-3-7	3-4-8	3-5-8	4-5-9	4-6-9	4-7-10	5-7-10	-
			NC	<15	<15	16	21	26	30	33	37	41	-
	Vertical	CFM	60	80	100	120	140	160	180	200	220	-	
		Ps	.021	.037	.058	.083	.113	.148	.187	.231	.280	-	
		Pt	.027	.047	.074	.107	.145	.189	.240	.296	.358	-	
		Throw	0-1-4	1-2-5	1-2-6	2-4-6	2-4-7	3-5-7	4-5-8	4-6-8	4-6-8	-	
		NC	<15	<15	16	21	26	30	33	37	41	-	
1' x 4'	5" Inlet	Horizontal	CFM	60	80	100	120	140	160	180	200	220	-
			Ps	.021	.037	.058	.083	.113	.148	.187	.231	.280	-
			Pt	.027	.047	.074	.107	.145	.189	.240	.296	.358	-
			Throw	1-2-4	2-3-5	2-3-7	3-4-8	3-5-8	4-5-9	4-6-9	4-7-10	5-7-10	-
			NC	<15	<15	16	21	26	30	33	37	41	-
	Vertical	CFM	60	80	100	120	140	160	180	200	220	-	
		Ps	.021	.037	.058	.083	.113	.148	.187	.231	.280	-	
		Pt	.027	.047	.074	.107	.145	.189	.240	.296	.358	-	
		Throw	0-1-4	1-2-5	1-2-6	2-4-6	2-4-7	3-5-7	4-5-8	4-6-8	4-6-8	-	
		NC	<15	<15	16	21	26	30	33	37	41	-	

SERIES DS-LT PERFORMANCE DATA

MODEL DS-LT/DSI-LT - SIDE INLET

W x L		CFM/LF	15	20	25	30	35	40	45	50	55	60	
2' x 2'	5" Inlet	Horizontal	CFM	30	40	50	60	70	80	90	100	110	120
			Ps	.016	.029	.046	.066	.089	.117	.148	.182	.221	.263
			Pt	.019	.035	.054	.078	.106	.138	.175	.216	.261	.311
			Throw	0-1-2	0-1-4	1-2-6	1-2-9	1-3-10	2-4-11	2-5-11	3-6-12	3-7-13	4-9-13
			NC	<15	<15	<15	<15	17	22	26	29	32	36
		Vertical	CFM	30	40	50	60	70	80	90	100	110	120
			Ps	.016	.029	.046	.066	.089	.117	.148	.182	.221	.263
			Pt	.019	.035	.054	.078	.106	.138	.175	.216	.261	.311
			Throw	1-1-3	1-2-4	2-3-5	2-3-6	2-4-7	3-4-8	3-5-8	3-5-9	4-6-9	4-6-10
			NC	<15	<15	<15	<15	17	22	26	29	32	36
	6" Inlet	Horizontal	CFM	30	40	50	60	70	80	90	100	110	120
			Ps	.014	.025	.040	.057	.078	.102	.129	.159	.193	.229
			Pt	.016	.028	.044	.063	.086	.112	.142	.175	.212	.253
			Throw	0-1-2	0-1-4	1-2-6	1-2-9	1-3-10	2-4-11	2-5-11	3-6-12	3-7-13	4-9-13
			NC	<15	<15	<15	<15	17	22	26	29	32	36
		Vertical	CFM	30	40	50	60	70	80	90	100	110	120
Ps			.014	.025	.040	.057	.078	.102	.129	.159	.193	.229	
Pt			.016	.028	.044	.063	.086	.112	.142	.175	.212	.253	
Throw			1-1-3	1-2-4	2-3-5	2-3-6	2-4-7	3-4-8	3-5-8	.221	4-6-9	4-6-10	
NC			<15	<15	<15	<15	17	22	26	29	32	36	
3' x 3'	5" Inlet	Horizontal	CFM	45	60	75	90	105	120	135	150	165	180
			Ps	.021	.038	.059	.085	.115	.150	.190	.235	.284	.339
			Pt	.028	.050	.078	.112	.152	.199	.252	.311	.376	.447
			Throw	0-1-4	1-2-5	1-2-6	2-4-7	2-4-8	3-5-9	4-5-11	4-6-11	4-6-12	5-7-12
			NC	<15	<15	<15	19	24	28	31	34	36	39
		Vertical	CFM	45	60	75	90	105	120	135	150	165	180
			Ps	.021	.038	.059	.085	.115	.150	.190	.235	.284	.339
			Pt	.028	.050	.078	.112	.152	.199	.252	.311	.376	.447
			Throw	0-1-4	1-2-5	1-2-6	2-4-7	2-4-8	3-5-10	4-5-11	4-6-12	4-7-12	5-7-13
			NC	<15	<15	<15	19	24	28	31	34	36	39
	6" Inlet	Horizontal	CFM	45	60	75	90	105	120	135	150	165	180
			Ps	.018	.033	.051	.074	.100	.131	.166	.205	.248	.295
			Pt	.022	.039	.060	.087	.118	.154	.195	.241	.292	.347
			Throw	0-1-4	1-2-5	1-2-6	2-4-7	2-4-8	3-5-9	4-5-11	4-6-11	4-6-12	5-7-12
			NC	<15	<15	<15	19	24	28	31	34	36	39
		Vertical	CFM	45	80	75	90	105	120	135	150	165	180
Ps			.018	.033	.051	.074	.100	.131	.166	.205	.248	.295	
Pt			.022	.039	.060	.087	.118	.154	.195	.241	.292	.347	
Throw			0-1-4	1-2-5	1-2-6	2-4-7	2-4-8	3-5-10	4-5-11	4-6-12	4-7-12	5-7-13	
NC			<15	<15		19	24	28	31	34	36	39	

PLENUM SLOT
DIFFUSERS

LIGHT TROFFER DIFFUSERS

LT

SERIES DS-LT PERFORMANCE DATA

MODEL DS-LT/DSI-LT - SIDE INLET

W x L		CFM/LF	15	20	25	30	35	40	45	50	55	60	
1' x 4'	5" Inlet	Horizontal	CFM	60	80	100	120	140	160	180	200	-	-
			Ps	.031	.056	.087	.125	.171	.223	.282	.349	-	-
			Pt	.043	.077	.121	.174	.237	.309	.391	.483	-	-
			Throw	1-2-3	1-2-4	2--3-5	2-3-6	2-4-7	3-4-8	3-5-9	3-5-10	-	-
			NC	<15	<15	20	25	29	33	37	41	-	-
		Vertical	CFM	60	80	100	120	140	160	180	200	-	-
			Ps	.031	.056	.087	.125	.171	.223	.282	.349	-	-
			Pt	.043	.077	.121	.174	.237	.309	.391	.483	-	-
			Throw	0-1-2	0-1-4	1-1-6	1-2-6	1-3-7	2-4-7	2-5-8	3-6-8	-	-
			NC	<15	<15	20	25	29	33	37	41	-	-
	6" Inlet	Horizontal	CFM	60	80	100	120	140	160	180	200	-	-
			Ps	.026	.046	.072	.103	.141	.184	.233	.287	-	-
			Pt	.032	.056	.088	.127	.172	.225	.285	.352	-	-
			Throw	1-2-3	1-2-4	2-3-5	2-3-6	2-4-7	3-4-8	3-5-9	3-5-10	-	-
			NC	<15	<15	20	25	29	33	37	41	-	-
		Vertical	CFM	60	80	100	120	140	160	180	200	-	-
			Ps	.026	.046	.072	.103	.141	.184	.233	.287	-	-
			Pt	.032	.056	.088	.127	.172	.225	.285	.352	-	-
Throw			0-1-2	0-1-4	1-1-6	1-2-6	1-3-7	2-4-7	2-5-8	3-6-8	-	-	
NC			<15	<15	20	25	29	33	37	41	-	-	

PERFORMANCE NOTES FOR SERIES PHP

MODEL DS-LT

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

DEFINITION OF UNITS

Pt Total pressure (inches of water column)

Throw Isothermal throw (supply air temperature the same as average room temperature); values are for 150, 100 and 50fpm velocities

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