

HORIZONTAL / VERTICAL PATTERN

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8" Down-Blow Slot	6" Inlet	2' Long	Airflow, cfm	38	56	75	94	113	131	150	
			Total Pressure	0.018	0.041	0.073	0.114	0.164	0.223	0.291	
			Static Pressure	0.016	0.035	0.063	0.098	0.141	0.192	0.251	
			NC (Noise Criteria)	-	12	19	25	29	33	36	
			Horizontal Throw	1-3-10	3-7-15	5-10-18	8-12-20	10-15-22	11-17-24	13-18-25	
			Vertical Throw	1-1-3	1-2-4	2-3-5	2-3-7	3-4-7	3-5-8	4-5-9	
	8" Inlet	2' Long	Airflow, cfm	38	56	75	94	113	131	150	
			Total Pressure	0.011	0.025	0.045	0.071	0.102	0.138	0.181	
			Static Pressure	0.010	0.023	0.041	0.065	0.093	0.127	0.165	
			NC (Noise Criteria)	-	-	15	21	25	29	32	
			Horizontal Throw	1-3-10	3-7-15	5-10-18	8-12-20	10-15-22	11-17-24	13-18-25	
			Vertical Throw	1-1-3	1-2-4	2-3-5	2-3-7	3-4-7	3-5-8	4-5-9	
	10" Inlet	2' Long	Airflow, cfm	38	56	75	94	113	131	150	
			Total Pressure	0.008	0.018	0.033	0.051	0.074	0.100	0.131	
			Static Pressure	0.008	0.017	0.031	0.048	0.069	0.094	0.123	
			NC (Noise Criteria)	-	-	13	18	23	26	30	
			Horizontal Throw	1-3-10	3-7-15	5-10-18	8-12-20	10-15-22	11-17-24	13-18-25	
			Vertical Throw	1-1-3	1-2-4	2-3-5	2-3-7	3-4-7	3-5-8	4-5-9	
12" Down-Blow Slot	6" Inlet	3' Long	Airflow, cfm	56	84	113	141	169	197	225	
			Total Pressure	0.027	0.061	0.109	0.171	0.246	0.334	0.437	
			Static Pressure	0.022	0.049	0.087	0.135	0.195	0.265	0.346	
			NC (Noise Criteria)	-	16	23	28	33	36	40	
			Horizontal Throw	2-4-12	4-8-18	6-12-22	10-15-25	12-18-27	14-21-29	16-22-31	
			Vertical Throw	1-2-3	2-2-5	2-3-7	3-4-8	3-5-9	4-6-10	4-7-10	
	6" Inlet	4' Long	Airflow, cfm	75	113	150	188	225	263	300	
			Total Pressure	0.032	0.073	0.129	0.202	0.291	0.396	0.517	
			Static Pressure	0.022	0.050	0.089	0.139	0.201	0.273	0.357	
			NC (Noise Criteria)	-	19	26	31	36	40	43	
			Horizontal Throw	2-4-15	4-10-22	8-15-27	12-18-30	15-22-33	17-25-36	19-27-38	
			Vertical Throw	1-2-3	2-2-5	2-3-7	3-4-8	3-5-9	4-6-10	4-7-10	
	6" Inlet	5' Long	Airflow, cfm	94	141	188	234	281	328	375	
			Total Pressure	0.038	0.085	0.152	0.237	0.341	0.464	0.606	
			Static Pressure	0.022	0.050	0.089	0.139	0.200	0.272	0.355	
			NC (Noise Criteria)	11	21	28	34	38	42	45	
			Horizontal Throw	2-5-17	5-11-25	9-17-31	14-21-35	17-25-38	20-29-41	22-31-44	
			Vertical Throw	1-2-3	2-2-5	2-3-7	3-4-8	3-5-9	4-6-10	4-7-10	
	8" Inlet	3' Long	Airflow, cfm	56	84	113	141	169	197	225	
			Total Pressure	0.017	0.038	0.068	0.106	0.153	0.208	0.271	
			Static Pressure	0.015	0.033	0.059	0.092	0.133	0.181	0.236	
			NC (Noise Criteria)	-	12	19	24	29	32	36	
			Horizontal Throw	2-4-12	4-8-18	6-12-22	10-15-25	12-18-27	14-21-29	16-22-31	
			Vertical Throw	1-2-3	2-2-5	2-3-7	3-4-8	3-5-9	4-6-10	4-7-10	
		8" Inlet	4' Long	Airflow, cfm	75	113	150	188	225	263	300
				Total Pressure	0.020	0.045	0.080	0.126	0.181	0.246	0.321
				Static Pressure	0.016	0.036	0.065	0.101	0.146	0.199	0.259
				NC (Noise Criteria)	-	15	22	28	32	36	39
				Horizontal Throw	2-4-15	4-10-22	8-15-27	12-18-30	15-22-33	17-25-36	19-27-38
				Vertical Throw	1-2-3	2-2-5	2-3-7	3-4-8	3-5-9	4-6-10	4-7-10
	8" Inlet	5' Long	Airflow, cfm	94	141	188	234	281	328	375	
			Total Pressure	0.024	0.053	0.094	0.147	0.212	0.288	0.377	
			Static Pressure	0.017	0.039	0.070	0.109	0.157	0.214	0.280	
			NC (Noise Criteria)	-	17	24	30	34	38	41	
			Horizontal Throw	2-5-17	5-11-25	9-17-31	14-21-35	17-25-38	20-29-41	22-31-44	
			Vertical Throw	1-2-3	2-2-5	2-3-7	3-4-8	3-5-9	4-6-10	4-7-10	
10" Inlet	3' Long	Airflow, cfm	56	84	113	141	169	197	225		
		Total Pressure	0.012	0.028	0.049	0.077	0.111	0.151	0.197		
		Static Pressure	0.011	0.025	0.045	0.070	0.100	0.137	0.178		
		NC (Noise Criteria)	-	-	16	22	26	30	33		
		Horizontal Throw	2-4-12	4-8-18	6-12-22	10-15-25	12-18-27	14-21-29	16-22-31		
		Vertical Throw	1-2-3	2-2-5	2-3-7	3-4-8	3-5-9	4-6-10	4-7-10		
	4' Long	Airflow, cfm	75	113	150	188	225	263	300		
		Total Pressure	0.015	0.033	0.058	0.091	0.131	0.178	0.233		
		Static Pressure	0.013	0.028	0.050	0.078	0.113	0.153	0.200		
		NC (Noise Criteria)	-	12	19	25	29	33	36		
		Horizontal Throw	2-4-15	4-10-22	8-15-27	12-18-30	15-22-33	17-25-36	19-27-38		
		Vertical Throw	1-2-3	2-2-5	2-3-7	3-4-8	3-5-9	4-6-10	4-7-10		
	5' Long	Airflow, cfm	94	141	188	234	281	328	375		
		Total Pressure	0.017	0.038	0.068	0.107	0.154	0.209	0.273		
		Static Pressure	0.014	0.031	0.056	0.087	0.125	0.170	0.222		
		NC (Noise Criteria)	-	15	22	27	32	35	39		
		Horizontal Throw	2-5-17	5-11-25	9-17-31	14-21-35	17-25-38	20-29-41	22-31-44		
		Vertical Throw	1-2-3	2-2-5	2-3-7	3-4-8	3-5-9	4-6-10	4-7-10		

15" Down-Blow Slot	6" Inlet	3' Long	Airflow, cfm	56	84	113	141	169	197	225
			Total Pressure	0.027	0.061	0.109	0.171	0.246	0.334	0.437
Static Pressure	0.022	0.049	0.087	0.135	0.195	0.265	0.346			
NC (Noise Criteria)	-	16	23	28	33	36	40			
Horizontal Throw	1-3-11	3-7-17	6-11-21	9-14-23	11-17-25	13-19-27	15-21-29			
Vertical Throw	1-2-4	2-3-6	2-4-7	3-5-9	4-6-10	4-6-11	5-7-12			
4' Long	Airflow, cfm	75	113	150	188	225	263	300		
	Total Pressure	0.035	0.079	0.141	0.221	0.318	0.432	0.565		
Static Pressure	0.025	0.057	0.101	0.158	0.227	0.309	0.404			
NC (Noise Criteria)	-	18	25	31	35	39	42			
Horizontal Throw	2-4-14	4-9-21	7-14-26	12-17-29	14-21-32	16-24-34	19-26-37			
Vertical Throw	1-2-4	2-3-6	2-4-7	3-5-9	4-6-10	4-6-11	5-7-12			
5' Long	Airflow, cfm	94	141	188	234	281	328	375		
	Total Pressure	0.040	0.091	0.162	0.253	0.364	0.495	0.647		
Static Pressure	0.025	0.056	0.099	0.155	0.223	0.303	0.396			
NC (Noise Criteria)	-	21	28	33	38	41	45			
Horizontal Throw	2-5-16	5-11-24	9-16-30	13-20-34	16-24-37	19-28-40	22-30-43			
Vertical Throw	1-2-4	2-3-6	2-4-7	3-5-9	4-6-10	4-6-11	5-7-12			
8" Inlet	3' Long	Airflow, cfm	56	84	113	141	169	197	225	
		Total Pressure	0.019	0.044	0.077	0.121	0.174	0.237	0.310	
Static Pressure	0.017	0.039	0.069	0.107	0.155	0.211	0.275			
NC (Noise Criteria)	-	-	18	23	28	31	35			
Horizontal Throw	1-3-11	3-7-17	6-11-21	9-14-23	11-17-25	13-19-27	15-21-29			
Vertical Throw	1-2-4	2-3-6	2-4-7	3-5-9	4-6-10	4-6-11	5-7-12			
4' Long	Airflow, cfm	75	113	150	188	225	263	300		
	Total Pressure	0.022	0.049	0.088	0.137	0.197	0.268	0.351		
Static Pressure	0.018	0.041	0.072	0.113	0.162	0.221	0.289			
NC (Noise Criteria)	-	14	21	27	31	35	38			
Horizontal Throw	2-4-14	4-9-21	7-14-26	12-17-29	14-21-32	16-24-34	19-26-37			
Vertical Throw	1-2-4	2-3-6	2-4-7	3-5-9	4-6-10	4-6-11	5-7-12			
5' Long	Airflow, cfm	94	141	188	234	281	328	375		
	Total Pressure	0.025	0.057	0.100	0.157	0.226	0.308	0.402		
Static Pressure	0.019	0.043	0.076	0.119	0.171	0.233	0.305			
NC (Noise Criteria)	-	17	24	29	34	38	41			
Horizontal Throw	2-5-16	5-11-24	9-16-30	13-20-34	16-24-37	19-28-40	22-30-43			
Vertical Throw	1-2-4	2-3-6	2-4-7	3-5-9	4-6-10	4-6-11	5-7-12			
10" Inlet	3' Long	Airflow, cfm	56	84	113	141	169	197	225	
		Total Pressure	0.014	0.032	0.056	0.088	0.126	0.172	0.225	
Static Pressure	0.013	0.029	0.052	0.081	0.116	0.158	0.206			
NC (Noise Criteria)	-	-	15	20	25	29	32			
Horizontal Throw	1-3-11	3-7-17	6-11-21	9-14-23	11-17-25	13-19-27	15-21-29			
Vertical Throw	1-2-4	2-3-6	2-4-7	3-5-9	4-6-10	4-6-11	5-7-12			
4' Long	Airflow, cfm	75	113	150	188	225	263	300		
	Total Pressure	0.016	0.036	0.064	0.099	0.143	0.195	0.254		
Static Pressure	0.014	0.031	0.055	0.087	0.125	0.170	0.222			
NC (Noise Criteria)	-	12	19	24	29	32	36			
Horizontal Throw	2-4-14	4-9-21	7-14-26	12-17-29	14-21-32	16-24-34	19-26-37			
Vertical Throw	1-2-4	2-3-6	2-4-7	3-5-9	4-6-10	4-6-11	5-7-12			
5' Long	Airflow, cfm	94	141	188	234	281	328	375		
	Total Pressure	0.018	0.041	0.073	0.114	0.164	0.223	0.291		
Static Pressure	0.015	0.034	0.060	0.094	0.135	0.184	0.240			
NC (Noise Criteria)	-	14	21	27	31	35	38			
Horizontal Throw	2-5-16	5-11-24	9-16-30	13-20-34	16-24-37	19-28-40	22-30-43			
Vertical Throw	1-2-4	2-3-6	2-4-7	3-5-9	4-6-10	4-6-11	5-7-12			

18" Down-Blow Slot	6" Inlet	3' Long	Airflow, cfm	56	84	113	141	169	197	225
			Total Pressure	0.036	0.082	0.146	0.227	0.327	0.446	0.582
Static Pressure	0.031	0.069	0.123	0.192	0.277	0.376	0.492			
NC (Noise Criteria)	-	13	20	26	30	34	37			
Horizontal Throw	1-3-10	3-7-15	5-10-19	9-13-21	10-15-23	12-18-25	14-19-27			
Vertical Throw	1-2-4	2-3-6	3-4-8	3-5-10	4-6-11	5-7-12	5-8-13			
4' Long	Airflow, cfm	75	113	150	188	225	263	300		
	Total Pressure	0.039	0.087	0.155	0.243	0.349	0.475	0.621		
	Static Pressure	0.029	0.065	0.115	0.180	0.259	0.352	0.460		
	NC (Noise Criteria)	-	17	24	30	34	38	41		
	Horizontal Throw	2-4-13	4-9-20	7-13-25	11-17-28	13-20-30	15-23-33	18-25-35		
	Vertical Throw	1-2-4	2-3-6	3-4-8	3-5-10	4-6-11	5-7-12	5-8-13		
5' Long	Airflow, cfm	94	141	188	234	281	328	375		
	Total Pressure	0.043	0.097	0.173	0.271	0.390	0.531	0.693		
	Static Pressure	0.028	0.062	0.110	0.173	0.249	0.338	0.442		
	NC (Noise Criteria)	-	20	27	33	37	41	44		
	Horizontal Throw	2-5-16	5-11-24	8-16-29	13-20-33	16-24-36	18-27-39	21-29-41		
	Vertical Throw	1-2-4	2-3-6	3-4-8	3-5-10	4-6-11	5-7-12	5-8-13		
8" Inlet	3' Long	Airflow, cfm	56	84	113	141	169	197	225	
		Total Pressure	0.023	0.051	0.090	0.141	0.203	0.277	0.362	
		Static Pressure	0.020	0.046	0.082	0.128	0.184	0.250	0.327	
		NC (Noise Criteria)	-	-	16	22	26	30	33	
		Horizontal Throw	1-3-10	3-7-15	5-10-19	9-13-21	10-15-23	12-18-25	14-19-27	
		Vertical Throw	1-2-4	2-3-6	3-4-8	3-5-10	4-6-11	5-7-12	5-8-13	
	4' Long	Airflow, cfm	75	113	150	188	225	263	300	
		Total Pressure	0.024	0.054	0.096	0.151	0.217	0.295	0.386	
		Static Pressure	0.020	0.046	0.081	0.126	0.182	0.248	0.324	
		NC (Noise Criteria)	-	14	21	26	30	34	37	
		Horizontal Throw	2-4-13	4-9-20	7-13-25	11-17-28	13-20-30	15-23-33	18-25-35	
		Vertical Throw	1-2-4	2-3-6	3-4-8	3-5-10	4-6-11	5-7-12	5-8-13	
	5' Long	Airflow, cfm	94	141	188	234	281	328	375	
		Total Pressure	0.027	0.061	0.108	0.168	0.242	0.330	0.430	
		Static Pressure	0.021	0.047	0.083	0.130	0.188	0.255	0.334	
		NC (Noise Criteria)	-	16	23	29	33	37	40	
		Horizontal Throw	2-5-16	5-11-24	8-16-29	13-20-33	16-24-36	18-27-39	21-29-41	
		Vertical Throw	1-2-4	2-3-6	3-4-8	3-5-10	4-6-11	5-7-12	5-8-13	
10" Inlet	3' Long	Airflow, cfm	56	84	113	141	169	197	225	
		Total Pressure	0.016	0.037	0.066	0.102	0.148	0.201	0.262	
		Static Pressure	0.015	0.034	0.061	0.095	0.137	0.187	0.244	
		NC (Noise Criteria)	-	-	14	19	24	27	31	
		Horizontal Throw	1-3-10	3-7-15	5-10-19	9-13-21	10-15-23	12-18-25	14-19-27	
		Vertical Throw	1-2-4	2-3-6	3-4-8	3-5-10	4-6-11	5-7-12	5-8-13	
	4' Long	Airflow, cfm	75	113	150	188	225	263	300	
		Total Pressure	0.017	0.039	0.070	0.109	0.157	0.214	0.280	
		Static Pressure	0.015	0.035	0.062	0.097	0.139	0.189	0.247	
		NC (Noise Criteria)	-	-	18	23	28	32	35	
		Horizontal Throw	2-4-13	4-9-20	7-13-25	11-17-28	13-20-30	15-23-33	18-25-35	
		Vertical Throw	1-2-4	2-3-6	3-4-8	3-5-10	4-6-11	5-7-12	5-8-13	
	5' Long	Airflow, cfm	94	141	188	234	281	328	375	
		Total Pressure	0.020	0.044	0.078	0.122	0.176	0.239	0.312	
		Static Pressure	0.016	0.037	0.065	0.102	0.147	0.200	0.261	
		NC (Noise Criteria)	-	14	21	26	31	34	38	
		Horizontal Throw	2-5-16	5-11-24	8-16-29	13-20-33	16-24-36	18-27-39	21-29-41	
		Vertical Throw	1-2-4	2-3-6	3-4-8	3-5-10	4-6-11	5-7-12	5-8-13	

- Throw values given are for terminal velocities of 150, 100 and 50 fpm and isothermal conditions
- All pressures given are in inches of wg
- Dash (-) in space denotes an NC value of less than 10
- Data obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70-2006. Actual performance, with flexible duct inlet, may vary in the field. See the section, Engineer Guidelines and the topic 'Other Grille and Diffuser Application Factors' for additional information.
- Each NC value represents the noise criteria curve that will not be exceeded by the sound pressure in any of the octave bands, 2 through 7, with a room absorption of 10 dB, re 10⁻¹² watts
- See the section, Engineering Guidelines and the topic 'Procedure to Obtain Catalog Throw Data' in this catalog for throw information

PERCENT OF SUPPLY AIR THROUGH DOWN-BLOW SECTION

Plenum Length	2'	3'	3'	3'	4'	4'	4'	5'	5'	5'
Down-Blow Length	8"	12"	15"	18"	12"	15"	18"	12"	15"	18"
% cfm Through Down-Blow	33%	33%	42%	50%	25%	31%	38%	20%	25%	30%

N-1-DR RETURN PERFORMANCE DATA

R Models	Airflow, cfm/ft.	30	40	50	60	70	80	90	100
	Static Pressure, inches wg	-0.010	-0.018	-0.028	-0.041	-0.056	-0.073	-0.092	-0.114