

PERFORMANCE DATA
Ceiling Diffuser Square 4 Cone
MODEL CDS-4C/CDS-A-4C

Listed Size	Neck Size	fpm Vn	400	500	600	700	800	900	1000	1200	1400	1600
		Pv	0.01	0.016	0.022	0.031	0.04	0.05	0.062	0.09	0.122	0.249
12 x 12	6	CFM	80	100	120	135	155	175	195	235	275	315
		Ps	0.026	0.040	0.058	0.073	0.097	0.123	0.153	0.223	0.305	0.400
		Pt	0.036	0.056	0.080	0.104	0.137	0.174	0.216	0.312	0.427	0.559
		Throw*	3-4-6	3-5-7	4-5-7	4-6-8	5-6-8	5-6-9	5-7-9	6-7-10	6-8-11	7-9-12
		Throw	2-4-6	3-5-7	4-5-7	4-6-8	5-6-8	5-6-9	5-7-9	6-7-10	6-8-11	7-9-12
		NC	-	-	18	21	24	26	29	33	35	37
	8	CFM	140	175	210	245	280	315	350	420	490	560
		Ps	0.026	0.041	0.059	0.080	0.104	0.132	0.163	0.235	0.319	0.417
		Pt	0.036	0.056	0.081	0.110	0.144	0.182	0.225	0.324	0.442	0.577
		Throw*	3-5-8	4-6-9	5-7-10	6-8-11	7-8-11	7-9-12	7-9-13	8-10-14	9-11-15	9-11-16
		Throw	3-5-8	4-6-9	5-7-10	6-8-11	6-8-11	7-9-12	7-9-13	8-10-14	9-11-15	9-11-16
		NC	-	-	19	22	25	28	30	34	37	40
20 x 20	6	CFM	80	100	120	135	155	175	195	235	275	395
		Ps	0.018	0.027	0.040	0.051	0.066	0.085	0.105	0.153	0.209	0.432
		Pt	0.028	0.043	0.062	0.081	0.106	0.136	0.167	0.242	0.331	0.682
		Throw*	2-2-5	2-3-5	2-3-6	3-3-6	3-4-6	4-5-6	4-5-7	5-6-7	5-6-8	5-6-9
		Throw	2-4-7	3-5-8	4-5-9	4-6-9	5-7-9	5-8-10	6-8-11	7-9-12	8-10-14	9-11-15
		NC	-	-	-	-	-	18	21	26	31	49
	8	CFM	140	175	210	245	280	315	350	420	490	700
		Ps	0.021	0.033	0.047	0.062	0.082	0.104	0.129	0.185	0.252	0.514
		Pt	0.031	0.048	0.069	0.093	0.122	0.155	0.191	0.275	0.374	0.764
		Throw*	2-3-6	3-4-7	3-5-7	4-6-8	4-6-8	5-6-9	5-7-9	6-7-9	7-8-10	8-10-11
		Throw	3-5-10	4-6-11	5-7-12	6-9-12	6-10-13	7-10-14	8-11-14	10-12-15	11-13-16	13-16-20
		NC	-	-	-	-	-	21	24	30	35	63
	10	CFM	220	275	325	380	435	490	545	655	765	1090
		Ps	0.025	0.039	0.055	0.074	0.098	0.125	0.153	0.222	0.303	0.615
		Pt	0.035	0.055	0.077	0.105	0.138	0.175	0.216	0.312	0.425	0.864
		Throw*	3-4-8	3-5-8	4-6-9	5-7-9	5-8-10	6-8-10	7-8-11	8-9-12	8-10-13	10-12-16
		Throw	4-6-11	5-8-13	6-9-15	7-11-15	8-12-16	9-13-17	10-14-18	12-15-19	13-16-21	16-19-25
		NC	-	-	-	-	18	23	28	35	40	72

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Listed Size	Neck Size	fpm Vn	400	500	600	700	800	900	1000	1200	1400	1600
		Pv	0.01	0.016	0.022	0.031	0.04	0.05	0.062	0.09	0.122	0.249
24 x 24	6	CFM	80	100	120	135	155	175	195	235	275	315
		Ps	0.013	0.020	0.029	0.037	0.048	0.061	0.076	0.111	0.152	0.199
		Pt	0.023	0.036	0.051	0.067	0.088	0.112	0.139	0.201	0.274	0.359
		Throw*	3-4-5	3-4-6	4-5-7	4-5-7	4-5-7	5-6-8	5-6-8	5-6-9	6-7-10	6-7-11
		Throw	3-4-7	3-5-8	4-6-9	5-7-10	5-7-10	6-8-11	7-8-11	7-9-13	8-10-14	8-10-15
		NC	-	-	-	-	-	18	21	25	28	31
	8	CFM	140	175	210	245	280	315	350	420	490	560
		Ps	0.014	0.022	0.032	0.043	0.056	0.071	0.088	0.126	0.172	0.225
		Pt	0.024	0.038	0.054	0.074	0.096	0.122	0.150	0.216	0.294	0.384
		Throw*	4-5-7	5-6-8	5-6-9	5-7-9	6-7-10	6-7-11	6-8-11	7-9-12	8-9-13	8-10-14
		Throw	4-5-10	4-7-11	5-8-12	6-9-13	7-10-14	8-10-15	9-11-15	10-12-17	10-13-18	11-14-19
		NC	-	-	-	-	17	21	24	30	34	35
	10	CFM	220	275	325	380	435	490	545	655	765	875
		Ps	0.018	0.028	0.039	0.053	0.070	0.088	0.109	0.158	0.215	0.282
		Pt	0.028	0.043	0.061	0.084	0.110	0.139	0.172	0.248	0.337	0.441
		Throw*	5-6-9	6-7-10	6-8-11	7-8-12	7-9-12	8-9-13	8-10-14	9-11-15	9-12-16	10-12-18
		Throw	4-7-12	6-8-14	7-10-15	8-11-16	9-12-17	10-13-18	11-14-19	12-15-21	13-16-23	14-17-24
		NC	-	-	-	-	19	23	27	33	38	40
	12	CFM	315	395	470	550	630	705	785	940	1100	1255
		Ps	0.022	0.035	0.049	0.067	0.088	0.111	0.137	0.197	0.270	0.351
		Pt	0.032	0.050	0.072	0.098	0.128	0.161	0.200	0.287	0.392	0.511
		Throw*	6-7-11	7-8-12	7-9-13	8-10-14	9-11-15	9-11-16	10-12-17	11-13-18	11-14-20	12-15-21
		Throw	5-8-15	7-10-16	8-12-18	9-14-19	11-15-21	12-15-22	13-16-23	15-18-25	16-19-27	17-21-29
		NC	-	-	-	16	21	26	30	36	41	43
14	CFM	430	535	640	750	855	960	1070	1285	1495	1710	
	Ps	0.032	0.049	0.071	0.097	0.126	0.159	0.198	0.285	0.386	0.505	
	Pt	0.042	0.065	0.093	0.128	0.166	0.210	0.260	0.375	0.508	0.665	
	Throw*	7-9-12	8-10-14	9-11-15	9-12-16	10-12-17	11-13-18	11-14-19	12-15-21	13-16-23	14-17-25	
	Throw	6-9-17	8-12-19	9-14-21	11-16-22	12-17-24	14-18-25	15-19-27	17-21-29	18-22-32	20-24-34	
	NC	-	-	-	17	22	27	32	39	44	47	
15	CFM	490	615	735	860	980	1105	1225	1475	1720	1965	
	Ps	0.036	0.056	0.080	0.109	0.142	0.181	0.222	0.322	0.438	0.571	
	Pt	0.046	0.072	0.102	0.140	0.182	0.231	0.284	0.412	0.560	0.731	
	Throw*	7-9-13	9-10-15	9-11-16	10-12-17	11-13-19	11-14-20	12-15-21	13-16-23	14-17-25	15-19-26	
	Throw	7-10-18	8-12-20	10-15-22	12-17-24	13-18-26	15-19-27	17-20-29	18-22-32	20-24-34	21-26-36	
	NC	-	-	-	18	23	29	33	41	46	49	

PERFORMANCE NOTES FOR CDS-4C

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

DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

fpm Velocity of air stream in Feet per Minute

Pv Velocity pressure (inches of water column)

Pt Total pressure (inches of water column)

Ps Static pressure = Pt-Pv (inches of water column)

Throw* Non-isothermal horizontal throw (supply air temperature 15°F colder than average room temperature); values are for 150, 100 and 50fpm velocities

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

Vn Neck Velocity