

PERFORMANCE DATA
Ceiling Diffuser - Round
Model CDR

Neck Size	fpm Neck Vel	400	500	600	700	800	900	1000	1200	1400	1600
	Pv	0.01	0.016	0.023	0.031	0.04	0.051	0.063	0.09	0.122	0.16
	Ps Horiz.	0.025	0.039	0.056	0.076	0.1	0.126	0.156	0.225	0.304	0.398
	Ps Vert.	0.049	0.076	0.109	0.149	0.194	0.247	0.305	0.44	0.594	0.777
6	CFM	75	.94	113	132	151	169	188	226	264	301
	Throw	2-3-6	3-4-8	3-5-9	4-5-11	4-6-12	5-7-14	5-8-16	6-9-19	7-11-22	9-13-26
	NC	-	-	-	-	-	23	26	32	36	40
8	CFM	135	169	203	237	271	304	338	406	474	541
	Throw	3-5-9	3-5-10	4-6-12	4-7-13	5-8-15	6-9-17	7-10-20	8-12-25	10-14-29	10-15-30
	NC	-	-	-	20	24	28	31	37	42	46
10	CFM	213	266	319	372	425	479	532	638	745	851
	Throw	4-16-12	4-7-13	5-7-15	5-8-17	6-9-18	7-10-20	7-11-23	9-14-27	11-16-32	12-18-36
	NC	-	20	23	26	29	31	34	40	45	49
12	CFM	308	385	461	538	615	692	769	923	1077	1231
	Throw	5-7-15	5-8-16	6-9-18	7-10-20	7-11-22	8-12-24	9-13-26	11-16-32	12-19-37	14-21-43
	NC	-	22	25	28	31	34	37	42	47	51
14	CFM	420	525	630	735	840	945	1050	1260	1470	1680
	Throw	6-9-18	6-10-19	7-11-21	8-12-23	8-13-25	9-14-28	10-15-30	12-18-36	14-21-43	17-25-57
	NC	22	25	28	31	34	37	39	44	48	52
16	CFM	550	687	825	962	1100	1237	1375	1649	1924	2194
	Throw	7-10-21	7-11-22	8-12-25	9-14-27	10-15-30	11-17-33	12-18-37	14-22-43	17-25-50	19-29-57
	NC	24	27	30	32	35	38	40	45	50	54
18	CFM	697	871	1046	1220	1394	1568	1743	2091	2440	2788
	Throw	8-12-24	9-13-27	10-15-32	11-16-32	12-17-35	13-19-38	14-20-43	16-24-48	18-28-55	21-32-64
	NC	25	28	31	33	36	39	41	45	50	54
20	CFM	862	1077	1293	1508	1724	1939	2154	2585	3016	3447
	Throw	9-13-27	10-15-30	11-16-32	12-18-36	13-20-39	14-22-43	16-24-47	19-28-56	22-33-65	24-36-72
	NC	27	30	32	35	37	39	41	45	50	54
24	CFM	1224	1554	1885	2176	2487	2798	3109	3731	4353	4974
	Throw	12-18-36	13-20-40	15-22-45	16-25-49	18-27-54	20-30-59	21-32-64	25-37-75	28-42-84	31-47-93
	NC	28	31	33	36	38	40	42	46	50	54
30	CFM	1947	2434	2921	3408	3894	4381	4868	5842	6815	7789
	Throw	17-26-51	19-29-54	27-32-64	24-35-71	26-39-78	28-42-85	31-46-92	35-53-105	39-58-117	42-63-126
	NC	30	32	35	37	39	41	43	47	51	54
36	CFM	2808	3510	4212	4914	5616	6318	7020	8423	9827	11231
	Throw	24-36-72	27-40-81	30-45-90	33-49-99	36-54-108	39-59-118	42-63-127	48-72-144	53-79-158	58-84-168
	NC	31	33	36	38	40	42	44	48	57	54

PERFORMANCE NOTES FOR SERIES CDR

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

DEFINITION OF UNITS

- 1 *Tabulated radial throw in feet is based on a 9' ceiling height, ambient supply air, MAX Throw @ $V_t = 75$ fpm, MIN Throw @ $V_t = 150$ fpm, and the diffuser inner cones in down position for 360° horizontal air distribution pattern.*
- 2 *For vertical down protection air pattern with cooling supply air temperature 20° below room temperature and diffuser inner cones in up position: multiply the tabulated radial throw values by a factor of 0.80 to obtain vertical down projection distances at MIN and MAX (V_t) terminal velocities.*
- 3 *For vertical down projection air pattern with heating supply air temperatures 20° above room temperature and diffuser inner cones in up position: multiply the tabulated radial throw values by a factor of 0.60 to obtain vertical down projection distances at MIN and MAX (V_t) terminal velocities.*
- 4 *Velocity Pressure (P_v) and Static Pressure (P_s) are in inches of water.*
- 5 *Series 3000 Diffusers are tested in accordance with ASHRAE 70-2006. Sound data are calculated in accordance with International Standard ISO 3741 comparison method. The NC values are based on a room absorption of 10dB for sound power level (lw) re: 10^{-12} watts - symbol indicates NC less than 20.*
- 6 *All data is applicable for exposed for exposed duct mounting or ceiling installation.*