

Model: R-OMNI

F

Diffusers

Neck Velocity, FPM	400	500	600	700	800	900	1000	1200	1400
Velocity Pressure, IN WG	0.010	0.016	0.022	0.031	0.040	0.050	0.062	0.090	0.122

Positions	Air Flow, CFM	140	175	209	244	279	314	349	419	489
Center	Total Pressure, IN WG	0.019	0.029	0.042	0.057	0.075	0.095	0.117	0.168	0.229
	NC (Noise Criteria)	-	-	-	12	16	20	24	30	35
	Horizontal Throw, FT	2-3-6	3-4-8	3-5-9	4-5-10	4-6-11	5-7-12	5-8-12	6-9-13	7-10-15
Down	Total Pressure, IN WG	0.014	0.021	0.031	0.042	0.055	0.070	0.086	0.124	0.168
	NC (Noise Criteria)	-	-	-	-	13	17	21	27	33
	Horizontal Throw, FT	2-3-6	3-4-8	3-5-9	4-5-10	4-6-11	5-7-12	5-8-12	6-9-13	7-10-15
Up	Total Pressure	0.039	0.062	0.089	0.121	0.158	0.200	0.247	0.355	0.484
	NC (Noise Criteria)	-	-	10	15	20	25	28	35	41
	50 FPM Vert. Proj., FT @ 10° F Heating	6	7	8	9	10	11	12	14	16
	50 FPM Vert. Proj., FT @ 20° F Heating	5	6	7	8	9	10	11	13	15
	50 FPM Vert. Proj., FT @ 30° F Heating	5	6	7	8	9	9	10	12	14
	50 FPM Vert. Proj., FT @ 40° F Heating	4	5	6	7	8	9	10	12	14

Positions	Air Flow, CFM	218	273	327	382	436	491	545	654	764
Center	Total Pressure, IN WG	0.019	0.030	0.043	0.059	0.077	0.098	0.121	0.174	0.237
	NC (Noise Criteria)	-	-	14	19	23	27	30	35	40
	Horizontal Throw, FT	3-4-8	3-5-10	4-6-11	5-7-12	5-8-13	6-9-13	6-10-14	8-11-16	9-12-17
Down	Total Pressure, IN WG	0.015	0.024	0.034	0.046	0.060	0.076	0.094	0.136	0.185
	NC (Noise Criteria)	-	-	-	13	18	23	27	34	39
	Horizontal Throw, FT	3-4-8	3-5-10	4-6-11	5-7-12	5-8-13	6-9-13	6-10-14	8-11-16	9-12-17
Up	Total Pressure	0.028	0.044	0.064	0.087	0.114	0.144	0.178	0.256	0.348
	NC (Noise Criteria)	-	-	-	16	21	27	31	39	46
	50 FPM Vert. Proj., FT @ 10° F Heating	7	8	9	10	11	12	13	15	17
	50 FPM Vert. Proj., FT @ 20° F Heating	7	8	9	9	10	11	12	14	16
	50 FPM Vert. Proj., FT @ 30° F Heating	6	7	8	9	10	10	11	13	15
	50 FPM Vert. Proj., FT @ 40° F Heating	5	6	7	8	9	10	11	13	15

Positions	Air Flow, CFM	314	393	471	550	628	707	785	942	1100
Center	Total Pressure, IN WG	0.022	0.034	0.048	0.066	0.086	0.109	0.134	0.194	0.263
	NC (Noise Criteria)	15	19	22	25	27	30	32	35	38
	Horizontal Throw, FT	5-7-14	6-9-16	7-10-17	8-12-18	9-14-20	10-15-21	11-16-22	14-17-24	15-18-26
Down	Total Pressure, IN WG	0.016	0.025	0.036	0.049	0.064	0.081	0.100	0.144	0.196
	NC (Noise Criteria)	10	15	19	22	25	28	30	34	37
	Horizontal Throw, FT	4-6-11	5-7-14	6-8-16	6-10-17	7-11-18	8-13-19	9-14-20	11-16-22	13-17-24
Up	Total Pressure	0.033	0.052	0.074	0.101	0.132	0.167	0.206	0.297	0.404
	NC (Noise Criteria)	10	15	20	23	27	29	32	36	40
	50 FPM Vert. Proj., FT @ 10° F Heating	8	9	11	12	13	15	16	18	21
	50 FPM Vert. Proj., FT @ 20° F Heating	8	9	10	11	13	14	15	17	20
	50 FPM Vert. Proj., FT @ 30° F Heating	7	8	9	10	12	13	14	17	20
	50 FPM Vert. Proj., FT @ 40° F Heating	7	8	9	10	12	13	14	16	19

Positions	Air Flow, CFM	428	535	641	748	855	962	1069	1283	1497
Center	Total Pressure, IN WG	0.015	0.024	0.034	0.046	0.061	0.077	0.095	0.137	0.186
	NC (Noise Criteria)	-	13	18	23	26	30	33	38	42
	Horizontal Throw, FT	4-6-12	5-8-14	6-9-15	7-11-16	8-12-17	9-13-18	10-14-19	12-15-21	13-16-23
Down	Total Pressure, IN WG	0.010	0.016	0.024	0.032	0.042	0.053	0.066	0.094	0.129
	NC (Noise Criteria)	-	12	17	21	25	28	31	36	40
	Horizontal Throw, FT	3-6-12	5-8-14	6-9-16	7-11-17	8-12-18	9-14-19	10-14-20	9-13-19	14-17-24
Up	Total Pressure	0.022	0.034	0.050	0.067	0.088	0.112	0.138	0.198	0.270
	NC (Noise Criteria)	-	15	20	24	28	31	34	39	43
	50 FPM Vert. Proj., FT @ 10° F Heating	10	12	14	15	17	19	21	24	28
	50 FPM Vert. Proj., FT @ 20° F Heating	10	12	13	15	17	19	20	24	28
	50 FPM Vert. Proj., FT @ 30° F Heating	9	11	13	14	16	18	20	24	28
	50 FPM Vert. Proj., FT @ 40° F Heating	9	11	12	14	16	18	19	23	27

DATA NOTES

- All data except vertical projection was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70-1991.
- Vertical projection data was calculated from computational fluid dynamics models.
- All data based upon supply performance.
- All pressures are in inches of water.
- Diffusers are shipped in center position.
- To obtain static pressure, subtract the velocity pressure from the total pressure.
- The negative static pressure for return performance is equal to the total pressure of supply at the same CFM.
- Return NC is 2 NC higher than supply NC at the same CFM.
- Horizontal throw values are for terminal velocities of 150, 100, and 50 FPM under isothermal conditions.
- If mounted on an exposed duct, the throw values are 70% of those listed in the table.
- Vertical projections are for terminal velocity of 50 FPM in heating mode.
- NC values are based on a room absorption of 10 dB.
- Dash (-) in space indicates NC value less than 10.