

**PLQR Performance Data: Horizontal Throw**

IP/METRIC DATA: PLQR, 12"x12" PANEL, ROUND NECK (NO DAMPER)

ARCHITECTURAL & PLAQUE DIFFUSERS

	IP Data					NC	Metric Data					Octave Band, dB						
	Neck Vel	Air Flow	Ps	Pt	Throw		Neck Vel	Air Flow	Ps	Pt	Throw	2	3	4	5	6	7	
	FPM	CFM	"WG	"WG	ft		m/s	L/s	Pa	Pa	m							
<b>6" Dia.</b>	200	39	0.004	.006	0 - 1 - 3	-	1.02	19	0.9	1.5	0.1 - 0.3 - 0.8	20	-	-	-	-	-	
	300	59	0.008	.014	1 - 2 - 4	-	1.52	28	2.1	3.5	0.3 - 0.6 - 1.3	26	17	12	-	-	-	
	500	98	0.023	.039	2 - 3 - 7	-	2.54	46	5.8	9.7	0.7 - 1.1 - 2.1	33	28	24	16	-	-	
	600	118	0.033	.056	3 - 4 - 8	-	3.05	56	8.3	13.9	0.8 - 1.3 - 2.4	36	31	28	20	11	-	
	700	137	0.046	.076	3 - 5 - 9	<b>14</b>	3.56	65	11.3	18.9	1.0 - 1.5 - 2.6	38	35	31	24	17	-	
	800	157	0.059	.099	4 - 6 - 9	<b>18</b>	4.06	74	14.8	24.7	1.1 - 1.7 - 2.8	40	37	35	28	21	13	
	900	177	0.075	.126	4 - 6 - 10	<b>21</b>	4.57	83	18.7	31.3	1.3 - 1.9 - 2.9	42	40	37	31	25	17	
	1000	196	0.093	.155	5 - 7 - 10	<b>24</b>	5.08	93	23.1	38.7	1.4 - 2.1 - 3.1	44	42	40	34	29	21	
	1100	216	0.112	.188	5 - 8 - 11	<b>26</b>	5.59	102	28.0	46.8	1.5 - 2.3 - 3.3	45	44	42	36	32	24	
<b>7" Dia.</b>	200	53	0.008	.010	1 - 1 - 3	-	1.02	25	1.9	2.5	0.2 - 0.4 - 1.0	22	12	-	-	-	-	
	300	80	0.017	.023	1 - 2 - 5	-	1.52	38	4.3	5.7	0.4 - 0.7 - 1.5	28	20	16	-	-	-	
	500	134	0.048	.064	3 - 4 - 8	-	2.54	63	12.0	15.9	0.8 - 1.2 - 2.5	36	31	28	21	12	-	
	600	160	0.069	.092	3 - 5 - 9	<b>15</b>	3.05	76	17.2	22.8	1.0 - 1.5 - 2.8	38	34	32	26	18	-	
	700	187	0.094	.125	4 - 6 - 10	<b>19</b>	3.56	88	23.5	31.1	1.1 - 1.7 - 3.0	41	38	35	30	23	16	
	800	214	0.123	.163	4 - 6 - 11	<b>23</b>	4.06	101	30.7	40.6	1.3 - 2.0 - 3.2	43	40	38	33	28	20	
	900	241	0.156	.206	5 - 7 - 11	<b>26</b>	4.57	114	38.8	51.4	1.5 - 2.2 - 3.4	44	43	41	36	32	25	
	1000	267	0.192	.255	5 - 8 - 12	<b>29</b>	5.08	126	47.9	63.4	1.6 - 2.5 - 3.6	46	45	43	39	35	28	
	1100	294	0.233	.308	6 - 9 - 13	<b>31</b>	5.59	139	58.0	76.7	1.8 - 2.7 - 3.8	47	47	46	42	39	32	
<b>8" Dia.</b>	200	70	0.012	.015	1 - 1 - 4	-	1.02	33	3.1	3.7	0.2 - 0.4 - 1.1	24	14	-	-	-	-	
	300	105	0.028	.033	1 - 3 - 6	-	1.52	49	6.9	8.3	0.4 - 0.8 - 1.7	30	23	19	12	-	-	
	500	175	0.077	.092	3 - 5 - 9	<b>14</b>	2.54	82	19.1	23.0	0.9 - 1.4 - 2.8	38	33	31	25	17	-	
	600	209	0.111	.133	4 - 6 - 11	<b>19</b>	3.05	99	27.5	33.1	1.1 - 1.7 - 3.2	40	37	35	30	24	17	
	700	244	0.150	.181	4 - 6 - 11	<b>23</b>	3.56	115	37.5	45.1	1.3 - 2.0 - 3.5	43	40	39	34	29	22	
	800	279	0.197	.236	5 - 7 - 12	<b>27</b>	4.06	132	48.9	58.9	1.5 - 2.3 - 3.7	45	43	42	38	33	27	
	900	314	0.249	.299	6 - 8 - 13	<b>30</b>	4.57	148	61.9	74.5	1.7 - 2.5 - 3.9	46	45	44	41	37	31	
	1000	349	0.307	.369	6 - 9 - 14	<b>33</b>	5.08	165	76.5	92.0	1.9 - 2.8 - 4.1	48	48	47	43	41	35	
	1100	384	0.372	.447	7 - 10 - 14	<b>35</b>	5.59	181	92.5	111.3	2.1 - 3.1 - 4.3	49	50	49	46	44	38	

NOTES: Throw values are given for isothermal conditions and terminal velocities of 150, 100, and 50 FPM (0.75, 0.50, and 0.25 m/s). NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re 10<sup>-12</sup> Watts. Dash in space denotes a NC or dB value of less than 10. Nominal duct is duct width. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. See Krueger's selection software for performance data not shown, including octave band data.

**PLQR Performance Data: Horizontal Throw**

IP/METRIC DATA: PLQR, 24"x24" PANEL, ROUND NECK (NO DAMPER)

	IP Data					NC	Metric Data					Octave Band, dB						
	Neck Vel	Air Flow	Ps	Pt	Throw		Neck Vel	Air Flow	Ps	Pt	Throw	2	3	4	5	6	7	
	FPM	CFM	"WG	"WG	ft		m/s	L/s	Pa	Pa	m							
6" Dia.	200	39	0.000	.003	0 - 0 - 2	-	1.02	19	0.1	0.7	0.1 - 0.1 - 0.5	23	14	-	-	-	-	
	300	59	0.001	.006	0 - 1 - 2	-	1.52	28	0.2	1.6	0.1 - 0.3 - 0.7	29	21	13	-	-	-	
	500	98	0.002	.017	1 - 2 - 4	-	2.54	46	0.4	4.3	0.4 - 0.6 - 1.2	36	31	26	14	-	-	
	600	118	0.002	.025	2 - 2 - 5	13	3.05	56	0.6	6.2	0.5 - 0.7 - 1.5	39	35	30	20	-	-	
	700	137	0.003	.034	2 - 3 - 6	17	3.56	65	0.8	8.4	0.6 - 0.9 - 1.7	41	38	34	25	12	-	
	800	157	0.004	.044	2 - 3 - 7	21	4.06	74	1.1	11.0	0.7 - 1.0 - 2.0	43	40	38	29	17	-	
	900	177	0.006	.056	2 - 4 - 7	25	4.57	83	1.4	14.0	0.7 - 1.1 - 2.2	45	42	41	33	22	14	
	1000	196	0.007	.069	3 - 4 - 8	28	5.08	93	1.7	17.2	0.8 - 1.2 - 2.4	46	44	43	36	25	17	
	1100	216	0.008	.084	3 - 4 - 8	31	5.59	102	2.1	20.8	0.9 - 1.4 - 2.5	48	46	46	39	29	20	
8" Dia.	200	70	0.002	.005	0 - 1 - 3	-	1.02	33	0.5	1.1	0.1 - 0.3 - 0.8	25	17	-	-	-	-	
	300	105	0.005	.010	1 - 2 - 4	-	1.52	49	1.1	2.5	0.3 - 0.6 - 1.2	31	25	17	-	-	-	
	500	175	0.012	.028	2 - 3 - 7	13	2.54	82	3.1	7.0	0.7 - 1.0 - 2.0	39	35	30	20	-	-	
	600	209	0.018	.040	3 - 4 - 8	18	3.05	99	4.5	10.1	0.8 - 1.2 - 2.4	42	38	35	26	14	-	
	700	244	0.024	.055	3 - 5 - 9	23	3.56	115	6.1	13.7	0.9 - 1.4 - 2.7	44	41	39	31	20	12	
	800	279	0.032	.072	4 - 5 - 9	27	4.06	132	8.0	17.9	1.1 - 1.6 - 2.9	46	44	42	35	25	16	
	900	314	0.040	.091	4 - 6 - 10	30	4.57	148	10.1	22.7	1.2 - 1.8 - 3.0	48	46	45	39	29	20	
	1000	349	0.050	.112	4 - 7 - 11	33	5.08	165	12.4	28.0	1.3 - 2.0 - 3.2	49	48	48	42	33	24	
	1100	384	0.060	.136	5 - 7 - 11	36	5.59	181	15.1	33.8	1.5 - 2.2 - 3.4	50	50	50	45	36	27	
10" Dia.	200	109	0.004	.007	1 - 2 - 4	-	1.02	51	1.1	1.7	0.2 - 0.5 - 1.1	28	20	-	-	-	-	
	300	164	0.009	.015	2 - 3 - 6	-	1.52	77	2.4	3.8	0.5 - 0.8 - 1.7	33	28	21	-	-	-	
	500	273	0.026	.042	3 - 5 - 9	17	2.54	129	6.6	10.4	0.9 - 1.4 - 2.8	41	37	34	25	13	-	
	600	327	0.038	.060	4 - 6 - 10	22	3.05	154	9.4	15.0	1.1 - 1.7 - 3.1	44	41	38	30	20	12	
	700	382	0.052	.082	4 - 6 - 11	27	3.56	180	12.9	20.5	1.3 - 2.0 - 3.4	46	44	42	35	25	17	
	800	436	0.067	.107	5 - 7 - 12	31	4.06	206	16.8	26.7	1.5 - 2.3 - 3.6	48	46	46	40	30	22	
	900	491	0.085	.136	6 - 8 - 13	34	4.57	232	21.3	33.8	1.7 - 2.5 - 3.8	50	49	49	43	35	25	
	1000	545	0.105	.168	6 - 9 - 13	37	5.08	257	26.2	41.8	1.9 - 2.8 - 4.0	51	51	51	47	38	29	
	1100	600	0.128	.203	7 - 10 - 14	40	5.59	283	31.8	50.5	2.1 - 3.0 - 4.2	53	53	54	50	42	32	
12" Dia.	200	157	0.007	.009	1 - 2 - 5	-	1.02	74	1.7	2.3	0.4 - 0.7 - 1.5	29	22	13	-	-	-	
	300	236	0.016	.021	2 - 4 - 7	-	1.52	111	3.9	5.3	0.7 - 1.1 - 2.2	35	30	23	12	-	-	
	400	314	0.028	.038	3 - 5 - 10	14	2.03	148	6.9	9.4	1.0 - 1.5 - 2.9	39	35	31	21	-	-	
	500	393	0.043	.059	4 - 6 - 11	20	2.54	185	10.8	14.7	1.2 - 1.8 - 3.4	43	40	36	28	18	11	
	600	471	0.062	.085	5 - 7 - 12	26	3.05	222	15.5	21.1	1.5 - 2.2 - 3.7	45	43	41	34	25	16	
	700	550	0.085	.115	6 - 8 - 13	30	3.56	259	21.1	28.7	1.7 - 2.6 - 4.0	48	46	45	39	30	21	
	800	628	0.111	.151	6 - 10 - 14	34	4.06	297	27.6	37.5	2.0 - 2.9 - 4.3	50	49	48	43	35	26	
	900	707	0.140	.191	7 - 11 - 15	37	4.57	334	34.9	47.5	2.2 - 3.2 - 4.6	51	51	51	47	39	29	
	1000	785	0.173	.236	8 - 11 - 16	40	5.08	371	43.1	58.6	2.4 - 3.4 - 4.8	53	53	54	50	43	33	
14" Dia.	200	214	0.010	.013	2 - 3 - 6	-	1.02	101	2.5	3.1	0.5 - 0.9 - 1.8	31	24	15	-	-	-	
	300	321	0.023	.028	3 - 4 - 9	-	1.52	151	5.7	7.1	0.9 - 1.4 - 2.7	37	32	26	15	-	-	
	400	428	0.041	.051	4 - 6 - 12	17	2.03	202	10.1	12.6	1.2 - 1.8 - 3.5	41	37	33	25	14	-	
	500	535	0.063	.079	5 - 7 - 13	23	2.54	252	15.8	19.6	1.5 - 2.3 - 4.0	44	42	39	32	22	14	
	600	641	0.091	.114	6 - 9 - 14	28	3.05	303	22.7	28.3	1.8 - 2.7 - 4.3	47	45	43	37	29	20	
	700	748	0.124	.155	7 - 10 - 15	33	3.56	353	30.9	38.5	2.1 - 3.2 - 4.7	49	48	47	42	34	25	
	800	855	0.162	.202	8 - 12 - 17	37	4.06	404	40.4	50.3	2.4 - 3.5 - 5.0	51	51	51	46	39	29	
	900	962	0.205	.256	9 - 12 - 18	40	4.57	454	51.1	63.7	2.7 - 3.8 - 5.3	53	53	54	50	43	33	
	1000	1069	0.253	.316	10 - 13 - 18	43	5.08	505	63.1	78.6	3.0 - 4.0 - 5.6	54	55	56	53	47	36	
15" Dia.	200	245	0.012	.014	2 - 3 - 7	-	1.02	116	3.0	3.6	0.6 - 1.0 - 2.0	31	25	16	-	-	-	
	300	368	0.027	.032	3 - 5 - 10	-	1.52	174	6.7	8.1	1.0 - 1.5 - 3.0	37	33	27	17	-	-	
	400	491	0.048	.058	4 - 7 - 13	18	2.03	232	11.9	14.4	1.3 - 2.0 - 3.8	41	38	34	26	16	-	
	500	614	0.074	.090	5 - 8 - 14	24	2.54	290	18.5	22.4	1.6 - 2.5 - 4.3	45	42	40	33	24	16	
	600	736	0.107	.130	7 - 10 - 15	30	3.05	347	26.7	32.3	2.0 - 3.0 - 4.7	47	46	44	39	30	22	
	700	859	0.146	.177	8 - 11 - 17	34	3.56	405	36.4	44.0	2.3 - 3.5 - 5.0	50	49	48	44	34	26	
	800	982	0.191	.231	9 - 13 - 18	38	4.06	463	47.5	57.4	2.6 - 3.8 - 5.4	52	51	52	48	41	31	
	900	1104	0.241	.292	10 - 13 - 19	41	4.57	521	60.1	72.7	3.0 - 4.0 - 5.7	53	54	55	52	45	34	
	1000	1227	0.298	.360	11 - 14 - 20	45	5.08	579	74.2	89.7	3.3 - 4.3 - 6.0	55	56	57	55	49	38	

ARCHITECTURAL &amp; PLAQUE DIFFUSERS

NOTES: Throw values are given for isothermal conditions and terminal velocities of 150, 100, and 50 FPM (0.75, 0.50, and 0.25 m/s). NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re 10<sup>-12</sup> Watts. Dash in space denotes a NC or dB value of less than 10. Nominal duct is duct width. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. See Krueger's selection software for performance data not shown, including octave band data.