TABLES

Table 1. The variation of calibration curve parameters and transducer diameter (in viscous units) with measurement location on a 6:1 prolate spheroid at $\alpha = 10°$.

		$x/L = 0.600$			$x/L = 0.772$	
ϕ	ζ	f_n (Hz)	d^+	ζ	f_n (Hz)	d^+
90°	0.090	9950	68	0.085	12100	63
95°	0.090	9950	67	0.085	12100	62
100°	0.090	9950	65	0.085	12100	61
105°	0.085	9950	64	0.085	12000	58
110°	0.080	9950	62	0.085	12000	55
115°	0.080	9830	61	0.085	11800	52
120°	0.080	9830	60	0.085	11775	49
125°	0.080	9650	57	0.090	11675	47
130°	0.070	9600	55	0.090	11600	43
135°	0.070	9600	53	0.090	11550	42
140°	0.070	9500	51	0.090	11550	43
145°	0.070	9600	51	0.087	11700	46
150°	0.070	9600	51	0.087	11900	49
155°	0.070	9600	52	0.087	11900	53
160°	0.070	9600	53	0.085	11900	57
165°	0.070	9600	55	0.085	11900	59
170°	0.070	9600	56	0.085	11900	62
175°	0.070	9600	57	0.083	11900	61
180°	0.070	9600	58	0.080	11900	60

Table 2. The variation of calibration curve parameters and transducer diameter (in viscous units) with measurement location on a 6:1 prolate spheroid at $\alpha = 20°$.

	$x/L = 0.600$			$x/L = 0.772$		
ϕ	ζ	f_n (Hz)	d^+	ζ	f_n (Hz)	d^+
90°	0.095	9850	77	0.095	12110	68
95°	0.095	9850	74	0.090	12100	62
100°	0.090	9750	71	0.085	12050	56
105°	0.085	9700	67	0.083	11700	51
110°	0.085	9700	63	0.085	11660	44
115°	0.075	9650	56	0.088	11570	38
120°	0.075	9600	49	0.089	11750	43
125°	0.070	9500	42	0.088	12000	54
130°	0.070	9500	39	0.088	12150	64
135°	0.065	9500	51	0.085	12250	68
140°	0.065	9650	57	0.083	12000	73
145°	0.070	9650	57	0.084	12000	51
150°	0.085	9710	73	0.088	12250	61
155°	0.100	9800	87	0.100	12400	85
160°	0.100	9900	92	0.105	12400	92
165°	0.100	9900	88	0.105	12350	90
170°	0.100	9900	84	0.104	12325	88
175°	0.100	9900	81	0.103	12300	84
180°	0.100	9900	78	0.103	12310	79

Table 3. Boundary layer parameters for the present flows and for some previous studies of zero pressure gradient, two-dimensional boundary layers.

Author	Re_θ	Re_δ	d^+	U_e m/s	u_τ m/s	δ mm	δ^* mm	ν (× 10^5) m²/s	ρ kg/m^3
Present Study	7300	2268	29	27.1	0.98	39.1	6.20	1.69	1.09
	23400	8327	31	31.3	1.03	134.2	15.8	1.66	1.11
Blake (1970)	8210	2480	43	22.25	0.85	45.7	7.85	1.58	N/A
	10200	2791	51	28.75	1.06	43.2	7.24	1.63	N/A
	13200	3420	63	37.94	1.33	42.9	7.19	1.65	N/A
	17000	4154	78	49.98	1.65	42.4	7.11	1.67	N/A
Farabee and Casarella (1991)	3386	1169	33	15.5	0.63	27.9	4.50	1.49	N/A
	4487	1535	44	21.3	0.83	27.4	4.29	1.49	N/A
	6025	2010	57	28.3	1.07	27.8	4.29	1.48	N/A
Gravante *et al.* (1998)	4972	1706	12	15.7	0.58	44.9	6.50†	1.52	N/A
	6241	2012	12	15.7	0.57	53.9	8.06†	1.52	N/A
	7076	2348	12	15.3	0.57	62.9	9.10†	1.52	N/A
McGrath and Simpson (1987)	7010	2317	27	22.34	0.84	43.2	6.58	1.56	1.19
	18820	5531	35	32.48	1.09	79.2	11.88	1.56	1.19
Schewe (1983)	1400	556	19	6.3	0.28	30.0	4.60	1.51	1.15

† Calculated using the θ given and assumming that $H \equiv \delta^*/\theta = 1.3$

Table 4. Outer boundary layer parameters. Pressure gradients are in wall-shear-stress coordinates. Lower Re_θ flow data (Re_θ = 7300 (2-D), 5940 (3-D)) of Ölçmen and Simpson (1996). Higher Re_θ flow data (Re_θ = 23400 (2-D), 23200 (3-D)) of Ölçmen *et al*. (1998).

Station	U_e m/s	δ mm	δ^* mm	Q_e Pa	$\left(\frac{\partial C_p}{\partial\left(\frac{x}{t_{max}}\right)}\right)_{\mathrm{WC}}$	$\left(\frac{\partial C_p}{\partial\left(\frac{z}{t_{max}}\right)}\right)_{\mathrm{WC}}$	β_W deg	β_{FS} deg
Re_θ = 7300 (2-D), 5940 (3-D)								
2D	27.1	39.1	6.20	399	—	—	—	—
0	26.4	N/A	N/A	379	N/A	N/A	-6.1	-4.9
1	24.9	39.2	6.90	340	0.069	0.112	-11.5	-8.5
2	24.8	40.2	7.54	337	-0.054	0.208	-24.0	-21.5
3	25.3	39.3	6.86	351	-0.378	0.146	-33.7	-18.0
4	27.3	39.0	5.53	409	-0.449	-0.097	-30.6	-30.2
5	29.5	39.6	5.37	477	-0.416	-0.218	-19.7	-25.3
6	30.5	39.2	5.24	511	-0.287	-0.400	-7.2	-20.8
7	31.0	38.8	5.20	528	0.042	-0.480	-3.5	-10.9
8	30.9	38.4	5.08	524	0.085	-0.320	2.6	0.9
9	30.5	40.7	5.68	511	0.080	-0.159	4.7	4.7
Re_θ = 23400 (2-D), 23200 (3-D)								
2D	31.3	134.2	15.8	543	—	—	—	—
0	31.0	N/A	N/A	532	N/A	N/A	N/A	N/A
1	29.3	136.4	22.8	470	0.049	0.100	-10.8	-2.2
2	28.7	135.1	18.4	451	-0.049	0.168	-23.1	-4.7
3	29.0	136.8	16.8	462	-0.320	0.131	-31.2	-7.7
4	31.1	131.9	17.3	530	-0.391	0.020	-25.7	-8.8
5	33.0	123.3	13.7	598	-0.336	-0.159	-16.3	-8.0
6	34.7	128.6	17.2	660	-0.268	-0.317	-10.3	-5.7
7	35.5	129.0	12.9	694	0.007	-0.255	-3.8	-2.7
8	35.2	133.5	13.0	682	0.028	-0.162	4.2	0.6
9	34.3	134.6	13.5	650	0.061	-0.117	6.6	2.3

Table 5. Inner boundary layer parameters. Lower Re_θ data taken from Ölçmen and Simpson (1996). Higher Re_θ data taken from Ölçmen *et al.* (1998).

	$Re_\theta = 7300$ (2-D), 5940 (3-D)				$Re_\theta = 23400$ (2-D), 23200 (3-D)			
Station	u_τ, m/s	ν, m²/s ($\times 10^5$)	τ_w, Pa	d^+	u_τ, m/s	ν, m²/s ($\times 10^5$)	τ_w, Pa	d^+
2D	0.98	1.69	1.04	29.5	1.03	1.66	1.17	31.5
0	1.15	1.69	1.44	34.6	N/A	1.66	N/A	30.6
1	0.86	1.68	0.818	26.2	0.91	1.68	0.906	27.5
2	0.87	1.68	0.821	26.2	0.92	1.68	0.918	27.7
3	0.96	1.68	1.00	29.0	1.09	1.68	1.31	33.2
4	1.11	1.67	1.35	33.7	1.24	1.68	1.68	37.5
5	1.15	1.67	1.45	34.9	1.21	1.67	1.60	36.7
6	1.16	1.67	1.48	35.3	1.21	1.67	1.60	36.7
7	1.20	1.67	1.58	36.5	1.30	1.67	1.88	39.8
8	1.02	1.67	1.15	31.1	1.13	1.67	1.40	34.4
9	1.01	1.67	1.12	30.7	1.10	1.66	1.35	33.8

Table 6. Variation of $\overline{p^2}$ and p' for the lower Re_θ flows, Re_θ = 7300 (2-D), 5940 (3-D) and the low and the high frequency contributions to the $\overline{p^2}$ integral. The values of $\overline{p^2}$ presented here were calculated by integrating the p spectra.

		Contribution to $\overline{p^2}$ integral, Pa²							
Station	$\overline{p^2}$, Pa²	< 1 kHz		> 1 kHz		p'/τ_W	p'/Q_e	"Non-flat" $\overline{p^2}$, Pa²	
				Re_θ = 7300 (2-D), 5940 (3-D)					
2D	12.9	5.4	42%	7.5	58%	3.44	0.0090		
0	13.7	7.3	53%	6.4	47%	2.57	0.0098		
1	14.8	8.3	56%	6.5	44%	4.71	0.0114		
2	17.5	10.8	62%	6.7	38%	5.10	0.0124		
3	21.4	14.7	69%	6.7	31%	4.61	0.0132		
4	27.7	13.1	47%	14.6	53%	3.90	0.0129	21.9	79%
5	17.6	10.1	57%	7.5	43%	2.89	0.0088	15.8	90%
6	20.7	8.2	40%	12.5	60%	3.08	0.0089	17.1	82%
7	28.7	8.1	28%	20.6	72%	3.39	0.0102	20.2	70%
8	30.6	7.9	26%	22.7	74%	4.80	0.0106	23.2	76%
9	33.0	9.5	29%	23.5	71%	5.12	0.0113	23.2	70%
				Re_θ = 23400 (2-D), 23200 (3-D)					
2D	25.8	11.4	44%	14.4	56%	4.32	0.0094		
0	26.8	15.4	57%	11.4	43%	4.67	0.0097		
1	27.8	17.3	62%	10.5	38%	5.81	0.0112		
2	33.8	23.6	70%	10.2	30%	6.34	0.0129		
3	40.1	30.2	75%	9.9	25%	4.82	0.0137		
4	34.2	24.6	72%	9.6	28%	3.48	0.0110		
5	29.5	18.7	63%	10.8	37%	3.39	0.0091	26.2	89%
6	30.2	15.2	50%	15.0	50%	3.43	0.0083	23.3	77%
7	36.1	13.6	38%	22.5	62%	3.20	0.0087	24.2	67%
8	38.8	12.6	32%	26.2	68%	4.44	0.0091	23.3	60%
9	41.3	13.2	32%	28.1	68%	4.77	0.0099	28.3	68%

Table 7. Candidate length (L_S), velocity (V_S), and pressure scales (P_S) used to normalize the p spectra, in the form $\Phi(\omega)V_S/P_S^2 L_S$, and frequency, in the form $\omega L_S/V_S$.

Length scale	Velocity scale	Pressure scale
ν/u_τ	u_τ	τ_W
δ^*	U_e	τ_W
δ^*	U_e	Q_e
δ^*	u_τ	τ_W
δ^*	u_τ	Q_e
δ	u_τ	τ_W
δ	u_τ	Q_e
δ	U_e	τ_W
δ	U_e	Q_e
Δ	u_τ	τ_W
Δ	u_τ	Q_e
Δ	U_e	τ_W
Δ	U_e	Q_e
The velocities below are in the tunnel coordinate system		
y at τ_{MAX}	$(U^2+W^2)^{1/2}$ at τ_{MAX}	τ_{MAX}
y at W_{MAX}	$(U^2+W^2)^{1/2}$ at W_{MAX}	$\frac{1}{2}\rho W_{MAX}^2$

Table 8. Some boundary layer parameters of the flow at $\alpha = 10°$, $x/L = 0.600$.

ϕ deg	ρ kg/m^3	$\nu\,(\times 10^5)$ m²/s	u_τ [†] m/s	U_e [‡] m/s	U_∞ m/s	δ^* [‡] mm	d^+ [†]	Re_θ [‡]
90	1.05	1.79	2.45	54.8	54.7	1.16	68	2483
95	1.05	1.80	2.42	55.3	55.2	1.25	67	2673
100	1.05	1.80	2.36	55.3	55.2	1.35	65	2863
105	1.05	1.80	2.31	55.3	55.2	1.45	64	3073
110	1.06	1.78	2.23	54.8	54.6	1.56	62	3283
115	1.06	1.78	2.17	54.7	54.4	1.79	61	3739
120	1.06	1.76	2.10	54.2	53.9	2.01	60	4195
125	1.10	1.67	1.91	51.3	51.1	2.34	57	4797
130	1.10	1.66	1.82	51.1	50.9	2.66	55	5399
135	1.10	1.66	1.76	50.9	50.7	3.03	53	6084
140	1.10	1.66	1.70	50.9	50.7	3.40	51	6770
145	1.10	1.66	1.70	50.9	50.7	3.58	51	7182
150	1.10	1.65	1.70	50.8	50.6	3.76	51	7594
155	1.10	1.66	1.74	51.0	50.8	3.65	52	7501
160	1.10	1.66	1.77	51.0	50.8	3.55	53	7407
165	1.10	1.66	1.82	51.2	50.8	3.30	55	7031
170	1.10	1.66	1.88	51.6	51.0	3.05	56	6654
175	1.10	1.66	1.90	51.6	51.0	2.86	57	6254
180	1.10	1.66	1.92	51.5	51.0	2.67	58	5855

[†] Calculated using the C_f measurements of Chesnakas and Simpson (1997)

[‡] Calculated using the δ^*, θ, and U_e/U_∞ measurements of Goody *et al.* (1998)

Table 9. Some boundary layer parameters of the flow at $\alpha = 10°$, $x/L = 0.772$.

ϕ deg	ρ kg/m^3	$\nu\,(\times 10^5)$ m²/s	u_τ [†] m/s	U_e [‡] m/s	U_∞ m/s	δ^* [‡] mm	d^+ [†]	Re_θ [‡]
90	1.06	1.79	2.25	58.0	54.7	1.47	63	3145
95	1.05	1.80	2.23	58.0	55.0	1.59	62	3368
100	1.05	1.79	2.19	57.3	54.8	1.70	61	3592
105	1.06	1.79	2.07	56.8	54.7	1.99	58	4122
110	1.06	1.77	1.94	55.9	54.1	2.28	55	4651
115	1.07	1.76	1.82	55.3	53.8	2.79	52	5555
120	1.07	1.75	1.70	54.9	53.6	3.31	49	6458
125	1.07	1.74	1.65	54.6	53.4	4.06	47	7716
130	1.07	1.74	1.50	56.2	53.2	5.62	43	10417
135	1.07	1.73	1.47	55.6	53.1	6.39	42	11636
140	1.07	1.74	1.50	55.2	53.2	7.33	43	13394
145	1.07	1.74	1.61	54.4	53.2	7.24	46	14016
150	1.07	1.73	1.71	53.5	53.1	7.16	49	14637
155	1.08	1.73	1.84	52.5	52.9	5.81	53	12549
160	1.08	1.72	1.95	51.3	52.6	4.47	57	10640
165	1.09	1.70	2.01	51.2	52.0	3.57	59	8430
170	1.09	1.69	2.08	51.4	51.7	2.67	62	6400
175	1.09	1.68	2.06	51.3	51.5	2.25	61	5307
180	1.10	1.67	2.02	50.9	51.0	1.83	61	4213

[†] Calculated using the C_f measurements of Chesnakas and Simpson (1997)

[‡] Calculated using the δ^*, θ, and U_e/U_∞ measurements of Goody *et al.* (1998)

Table 10. Some boundary layer parameters of the flow at $\alpha = 20°$, $x/L = 0.600$.

ϕ deg	ρ kg/m^3	$\nu\,(\times 10^5)$ m²/s	u_τ [†] m/s	U_e [‡] m/s	U_∞ m/s	δ^* [‡] mm	d^+ [†]	Re_θ [‡]
90	1.10	1.66	2.55	51.0	50.9	0.67	77	1406
95	1.10	1.66	2.47	51.0	50.9	0.76	74	1586
100	1.10	1.66	2.38	50.9	50.9	0.85	71	1767
105	1.10	1.66	2.24	50.9	50.9	1.01	67	2056
110	1.10	1.66	2.10	50.9	50.9	1.18	63	2346
115	1.10	1.66	1.88	50.8	50.9	1.80	56	3358
120	1.10	1.66	1.62	50.8	50.9	2.42	49	4370
125	1.10	1.66	1.41	50.6	50.9	3.5	43	5790
130	1.10	1.66	1.29	50.4	50.9	4.98	39	10827
135	1.10	1.66	1.70	50.2	50.9	5.94	51	10546
140	1.10	1.66	1.91	50.0	50.9	6.24	57	12940
145	1.10	1.66	1.88	56.1	50.9	5.47	57	12242
150	1.10	1.66	2.44	54.8	50.9	4.57	73	10889
155	1.10	1.66	2.88	51.8	50.9	4.34	87	10405
160	1.10	1.66	3.04	49.5	50.9	4.00	92	9493
165	1.10	1.66	2.93	49.9	50.9	2.14	88	5045
170	1.10	1.66	2.80	50.4	50.9	0.28	84	597
175	1.10	1.66	2.71	50.7	50.9	0.37	81	781
180	1.10	1.66	2.61	51.0	50.9	0.45	78	965

[†] Calculated using the C_f measurements of Chesnakas and Simpson (1997)

[‡] Calculated using the δ^*, θ, and U_e/U_∞ measurements of Goody *et al.* (1998)

Table 11. Some boundary layer parameters of the flow at $\alpha = 20°$, $x/L = 0.772$.

ϕ deg	ρ kg/m^3	$\nu\,(\times 10^5)$ m²/s	u_τ [†] m/s	U_e [‡] m/s	U_∞ m/s	δ^* [‡] mm	d^+ [†]	Re_θ [‡]
90	1.07	1.74	2.36	59.4	53.3	0.82	68	1647
95	1.06	1.77	2.21	64.7	54.3	1.05	62	2055
100	1.06	1.77	2.00	68.8	54.3	1.28	56	2462
105	1.06	1.77	1.82	57.6	54.2	1.75	51	3249
110	1.05	1.79	1.56	57.5	54.9	2.60	44	4458
115	1.05	1.79	1.35	56.8	54.9	3.80	38	5910
120	1.06	1.78	1.53	55.7	54.5	5.19	43	8136
125	1.05	1.80	1.96	57.1	55.3	6.23	54	11434
130	1.05	1.80	2.29	57.7	55.1	7.28	64	14732
135	1.05	1.79	2.45	53.7	54.9	6.08	68	13550
140	1.05	1.80	2.62	50.2	55.3	4.88	73	12368
145	1.05	1.80	1.83	56.4	55.3	6.40	51	14625
150	1.05	1.80	2.21	57.3	55.1	5.29	61	13406
155	1.05	1.80	3.08	56.2	55.3	3.52	85	8935
160	1.05	1.79	3.29	55.5	54.9	2.60	92	6348
165	1.06	1.78	3.20	56.8	54.5	1.44	90	3474
170	1.05	1.80	3.15	58.9	55.0	0.28	88	600
175	1.05	1.79	2.99	58.0	54.8	0.34	84	727
180	1.05	1.79	2.83	57.2	54.8	0.39	79	854

[†] Calculated using the C_f measurements of Chesnakas and Simpson (1997)

[‡] Calculated using the δ^*, θ, and U_e/U_∞ measurements of Goody *et al.* (1998)

Table 12. Variation of $\overline{p^2}/Q_\infty^2$ with ϕ at $\alpha = 10°$, $x/L = 0.600$ showing the contribution of various frequency ranges to the $\overline{p^2}$ integral including the Analytical Integral Contribution (AIC). The values presented here were calculated by integrating the p spectra.

ϕ	Total $\overline{p^2}/Q_\infty^2$	Contribution to $\overline{p^2}/Q_\infty^2$ $(\times 10^5)$					
deg	$(\times 10^5)$	$f \le 994$ Hz		994 Hz $< f \le$ 25 kHz		$f >$ 25 kHz (AIC)	
90	14.5	2.5	17%	8.7	60%	3.3	23%
95	13.2	2.4	18%	8.1	61%	2.7	21%
100	12.2	2.3	19%	7.8	64%	2.1	17%
105	11.1	2.2	20%	7.2	65%	1.7	15%
110	10.4	2.3	22%	6.9	66%	1.2	12%
115	9.6	2.3	24%	6.4	67%	0.9	9%
120	9.3	2.5	28%	6.1	65%	0.7	7%
125	7.9	2.1	26%	5.5	70%	0.3	4%
130	7.1	2.1	29%	4.8	68%	0.2	3%
135	6.4	2.1	32%	4.2	66%	0.1	2%
140	6.1	2.2	36%	3.8	63%	0.09	1%
145	5.4	1.9	35%	3.4	63%	0.09	2%
150	5.5	2.0	36%	3.4	63%	0.09	1%
155	5.7	2.0	34%	3.6	64%	0.1	2%
160	6.1	2.0	33%	4.0	65%	0.1	2%
165	6.8	2.0	30%	4.6	67%	0.2	3%
170	7.5	2.0	27%	5.2	69%	0.3	4%
175	7.9	2.1	26%	5.5	70%	0.3	4%
180	8.0	2.0	25%	5.6	70%	0.4	5%

Table 13. Variation of $\overline{p^2}/Q_\infty^2$ with ϕ at $\alpha = 10°$, $x/L = 0.772$ showing the contribution of various frequency ranges to the $\overline{p^2}$ integral including the Analytical Integral Contribution (AIC). The values presented here were calculated by integrating the p spectra.

ϕ	Total $\overline{p^2}/Q_\infty^2$	Contribution to $\overline{p^2}/Q_\infty^2$ ($\times 10^5$)					
deg	($\times 10^5$)	$f \leq 994$ Hz		994 Hz < $f \leq$ 25 kHz		f > 25 kHz (AIC)	
90	11.9	2.3	19%	8.2	69%	1.4	12%
95	11.0	2.3	21%	7.6	68%	1.2	11%
100	10.4	2.4	24%	7.0	67%	1.0	9%
105	9.3	2.4	25%	6.4	69%	0.5	6%
110	8.9	3.0	34%	5.6	63%	0.3	3%
115	7.9	3.0	37%	4.8	61%	0.1	2%
120	6.6	2.7	41%	3.8	58%	0.06	1%
125	5.8	2.8	47%	3.0	52%	0.04	1%
130	5.0	2.6	53%	2.4	47%	0.01	0%
135	4.5	2.7	60%	1.8	40%	0.01	0%
140	4.1	2.5	60%	1.6	40%	0.01	0%
145	4.5	2.3	51%	2.2	48%	0.03	1%
150	5.6	2.4	43%	3.1	56%	0.07	1%
155	6.7	2.3	35%	4.2	63%	0.2	2%
160	8.1	2.2	27%	5.6	69%	0.3	4%
165	9.6	2.3	24%	6.8	71%	0.5	5%
170	10.3	2.0	19%	7.5	73%	0.8	8%
175	10.5	2.0	20%	7.7	73%	0.8	7%
180	10.7	2.2	21%	7.8	73%	0.7	6%

Table 14. Variation of $\overline{p^2}/Q_\infty^2$ with ϕ at $\alpha = 20°$, $x/L = 0.600$ showing the contribution of various frequency ranges to the $\overline{p^2}$ integral including the Analytical Integral Contribution (AIC). The values presented here were calculated by integrating the p spectra.

ϕ	Total $\overline{p^2}/Q_\infty^2$	Contribution to $\overline{p^2}/Q_\infty^2$ $(\times 10^5)$					
deg	$(\times 10^5)$	$f \leq$ 994 Hz		994 Hz $< f \leq$ 25 kHz		$f >$ 25 kHz (AIC)	
90	26.8	1.9	7%	11.4	43%	13.5	50%
95	24.4	1.9	8%	11.4	46%	11.1	46%
100	21.3	2.0	9%	11.1	52%	8.2	39%
105	17.9	2.0	11%	10.5	59%	5.4	30%
110	14.7	2.2	15%	9.7	66%	2.8	19%
115	11.5	2.4	20%	8.4	73%	0.7	7%
120	10.1	2.8	28%	7.1	70%	0.2	2%
125	8.2	3.3	41%	4.9	59%	0.03	0%
130	6.1	3.5	58%	2.6	42%	0.01	0%
135	5.5	3.1	57%	2.3	42%	0.07	1%
140	9.2	4.1	44%	4.7	51%	0.4	5%
145	12.3	3.9	32%	7.3	59%	1.1	9%
150	24.9	4.0	16%	9.9	40%	11.0	44%
155	45.2	4.2	9%	10.9	24%	30.1	67%
160	58.3	4.0	7%	11.8	20%	42.5	73%
165	46.8	3.2	7%	11.9	25%	31.7	68%
170	38.0	2.7	7%	12.0	32%	23.3	61%
175	30.5	2.0	7%	11.1	36%	17.4	57%
180	27.1	2.1	8%	10.8	40%	14.2	52%

Table 15. Variation of $\overline{p^2}/Q_\infty^2$ with ϕ at $\alpha = 20°$, $x/L = 0.772$ showing the contribution of various frequency ranges to the $\overline{p^2}$ integral including the Analytical Integral Contribution (AIC). The values presented here were calculated by integrating the p spectra.

ϕ	Total $\overline{p^2}/Q_\infty^2$	Contribution to $\overline{p^2}/Q_\infty^2$ $(\times 10^5)$					
deg	$(\times 10^5)$	$f \le 994$ Hz		994 Hz $< f \le 23$ kHz		$f > 23$ kHz (AIC)	
90	22.4	3.1	14%	11.2	50%	8.1	36%
95	18.7	3.3	18%	10.8	58%	4.6	24%
100	15.6	3.8	24%	10.0	65%	1.8	11%
105	12.9	4.1	32%	8.3	64%	0.5	4%
110	10.5	4.5	43%	5.9	56%	0.07	1%
115	8.2	5.4	66%	2.8	34%	0.006	0%
120	9.9	6.1	62%	3.7	37%	0.08	1%
125	14.9	6.6	45%	7.2	48%	1.1	7%
130	27.4	9.6	35%	13.7	50%	4.1	15%
135	44.9	22.0	49%	17.2	38%	5.7	13%
140	18.2	9.0	50%	6.8	37%	2.4	13%
145	23.9	10.0	42%	13.3	55%	0.6	3%
150	35.8	18.3	51%	11.7	33%	5.8	16%
155	59.5	8.0	14%	10.2	17%	41.3	69%
160	66.8	4.4	7%	11.0	16%	51.4	77%
165	54.9	2.7	5%	11.0	20%	41.2	75%
170	47.5	2.6	6%	10.5	22%	34.4	72%
175	40.2	2.3	6%	10.6	26%	27.3	68%
180	34.7	2.4	7%	10.1	29%	22.2	64%