

# AFCS80 / AFCS85

Return Grille | Architectural, Curved Blade



## PERFORMANCE DATA | AFCS85 | 30° DEFLECTION (NO DAMPER)

		IP DATA				NC	METRIC DATA					OCTAVE BAND, dB						
NOM DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	NOM DUCT		DUCT AREA	NECK VEL	AIRFLOW	Ps	2	3	4	5	6	7		
in	ft <sup>2</sup>	FPM	CFM	"WG	mm		m <sup>2</sup>	m/s	L/s	Pa								
6" x 6"	0.25	500	96	-0.49	12	152 x 152	0.02	2.54	45	-12.1	23	28	29	16	11	-		
		613	117	-0.73	21			3.11	55	-18.2	31	36	37	28	23	20		
		725	139	-1.02	29			3.68	65	-25.4	37	43	44	38	34	29		
		838	160	-1.36	35			4.25	76	-33.9	42	49	50	46	43	38		
		950	182	-1.75	41			4.83	86	-43.7	47	54	56	54	51	45		
10" x 6"	0.42	475	160	-0.44	12	254 x 152	0.04	2.41	76	-10.9	24	29	29	16	11	-		
		575	194	-0.64	21			2.92	92	-16.0	31	37	37	27	23	19		
		675	228	-0.89	28			3.43	107	-22.0	37	43	44	37	33	28		
		775	261	-1.17	35			3.94	123	-29.1	42	48	50	45	41	36		
		875	295	-1.49	40			4.45	139	-37.0	46	53	55	52	49	43		
12" x 6"	0.50	450	185	-0.39	11	305 x 152	0.05	2.29	87	-9.8	23	28	28	14	-	-		
		550	226	-0.59	20			2.79	106	-14.6	30	36	36	26	21	17		
		650	267	-0.82	28			3.30	126	-20.4	36	42	43	36	32	27		
		750	308	-1.09	34			3.81	145	-27.2	42	48	49	44	41	35		
		850	349	-1.40	40			4.32	165	-35.0	46	53	54	52	48	42		
12" x 8"	0.67	450	255	-0.39	12	305 x 203	0.06	2.29	120	-9.8	24	29	29	16	11	-		
		550	312	-0.59	22			2.79	147	-14.6	32	37	38	28	23	19		
		650	368	-0.82	29			3.30	174	-20.4	38	44	45	38	34	29		
		750	425	-1.09	36			3.81	200	-27.2	43	49	51	46	42	37		
		850	481	-1.40	42			4.32	227	-35.0	48	54	56	53	50	44		
18" x 6"	0.75	430	270	-0.36	11	457 x 152	0.07	2.18	128	-8.9	23	28	28	14	-	-		
		529	333	-0.54	20			2.69	157	-13.5	31	36	36	26	21	17		
		628	395	-0.77	28			3.19	186	-19.1	37	43	44	36	32	27		
		726	457	-1.02	35			3.69	216	-25.5	42	49	50	45	41	36		
		825	519	-1.32	41			4.19	245	-32.9	47	54	55	52	49	43		
22" x 6"	0.92	425	329	-0.35	11	559 x 152	0.09	2.16	155	-8.7	24	28	28	14	-	-		
		519	402	-0.52	20			2.64	190	-13.0	31	36	37	26	21	17		
		613	475	-0.73	28			3.11	224	-18.2	37	43	44	36	32	27		
		706	547	-0.97	35			3.59	258	-24.1	42	48	50	44	41	35		
		800	620	-1.24	40			4.06	293	-31.0	47	53	55	52	48	42		
18" x 10"	1.25	410	454	-0.33	11	457 x 254	0.12	2.08	214	-8.1	24	29	28	14	-	-		
		501	555	-0.49	21			2.55	262	-12.2	31	37	37	26	21	17		
		593	657	-0.68	28			3.01	310	-17.0	37	43	44	36	32	27		
		684	758	-0.91	35			3.47	358	-22.6	43	49	50	44	41	35		
		775	859	-1.17	41			3.94	405	-29.1	47	54	55	52	48	42		
27" x 8"	1.50	400	529	-0.31	11	686 x 203	0.14	2.03	249	-7.7	24	28	28	14	-	-		
		488	644	-0.46	20			2.48	304	-11.5	31	36	36	25	20	17		
		575	760	-0.64	28			2.92	359	-16.0	37	43	43	35	31	26		
		663	876	-0.85	35			3.37	413	-21.2	42	48	49	43	40	34		
		750	991	-1.09	40			3.81	468	-27.2	47	53	54	51	47	41		
24" x 10"	1.67	400	597	-0.31	12	610 x 254	0.15	2.03	282	-7.7	24	29	29	14	-	-		
		488	728	-0.46	21			2.48	344	-11.5	32	37	37	26	21	17		
		575	859	-0.64	29			2.92	405	-16.0	38	43	44	36	31	27		
		663	989	-0.85	35			3.37	467	-21.2	43	49	50	44	40	35		
		750	1120	-1.09	41			3.81	529	-27.2	47	54	55	51	48	42		
16" x 16"	1.78	400	646	-0.31	12	406 x 406	0.17	2.03	305	-7.7	25	29	29	15	-	-		
		488	787	-0.46	21			2.48	372	-11.5	32	37	37	26	22	18		
		575	929	-0.64	29			2.92	438	-16.0	38	44	44	36	32	27		
		663	1070	-0.85	36			3.37	505	-21.2	43	49	50	45	41	35		
		750	1211	-1.09	41			3.81	572	-27.2	48	54	55	52	49	42		
18" x 18"	2.25	380	785	-0.28	11	457 x 457	0.21	1.93	371	-7.0	24	28	28	13	-	-		
		465	961	-0.42	20			2.36	453	-10.5	31	36	37	25	20	16		
		550	1137	-0.59	28			2.79	536	-14.6	38	43	44	35	31	26		
		635	1312	-0.78	35			3.23	619	-19.5	43	49	50	43	40	34		
		720	1488	-1.01	41			3.66	702	-25.1	47	54	55	51	47	41		

NOTE: See notes on page J1-108.

## PERFORMANCE DATA | AFCS85 | 30° DEFLECTION (NO DAMPER)

		IP DATA				NC	METRIC DATA					OCTAVE BAND, dB						
NOM DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	NOM DUCT		DUCT AREA	NECK VEL	AIRFLOW	Ps								
in	ft <sup>2</sup>	FPM	CFM	"WG	mm		m <sup>2</sup>	m/s	L/s	Pa	2	3	4	5	6	7		
30" x 12"	2.50	380	868	-0.28	12	762 x 305	0.23	1.93	410	-7.0	24	29	29	14	-	-		
		470	1074	-0.43	21			2.39	507	-10.7	32	37	37	26	21	17		
		560	1280	-0.61	30			2.84	604	-15.2	39	44	45	37	32	27		
		650	1485	-0.82	36			3.30	701	-20.4	44	50	51	45	42	36		
		740	1691	-1.06	42			3.76	798	-26.5	49	55	56	53	50	43		
20" x 20"	2.78	380	978	-0.28	12	508 x 508	0.26	1.93	462	-7.0	25	29	29	14	-	-		
		465	1197	-0.42	22			2.36	565	-10.5	32	37	37	26	21	17		
		550	1415	-0.59	29			2.79	668	-14.6	38	44	45	36	32	27		
		635	1634	-0.78	36			3.23	771	-19.5	44	50	51	45	41	35		
30" x 16"	3.33	360	1115	-0.25	11	762 x 406	0.31	1.83	526	-6.3	24	28	28	12	-	-		
		445	1378	-0.38	20			2.26	651	-9.6	32	36	36	25	20	16		
		530	1642	-0.55	29			2.69	775	-13.6	38	43	44	35	31	26		
		615	1905	-0.74	35			3.12	899	-18.3	43	49	50	44	40	34		
		700	2168	-0.95	41			3.56	1023	-23.7	48	54	55	52	48	42		
36" x 14"	3.50	360	1168	-0.25	11	914 x 356	0.33	1.83	551	-6.3	24	28	28	13	-	-		
		445	1443	-0.38	21			2.26	681	-9.6	32	37	37	25	20	16		
		530	1719	-0.55	29			2.69	811	-13.6	38	44	44	35	31	26		
		615	1995	-0.74	36			3.12	941	-18.3	44	49	50	44	40	35		
30" x 18"	3.75	360	1261	-0.25	11	762 x 457	0.35	1.83	595	-6.3	24	29	28	13	-	-		
		440	1542	-0.38	21			2.24	728	-9.4	32	37	37	25	20	16		
		520	1822	-0.53	28			2.64	860	-13.1	38	43	44	35	30	25		
		600	2102	-0.70	35			3.05	992	-17.4	43	49	50	43	39	34		
		680	2383	-0.90	41			3.45	1124	-22.4	48	54	55	50	47	41		
36" x 18"	4.50	360	1520	-0.25	12	914 x 457	0.42	1.83	717	-6.3	25	29	29	14	-	-		
		435	1837	-0.37	21			2.21	867	-9.2	32	37	37	25	20	16		
		510	2154	-0.51	28			2.59	1016	-12.6	38	43	44	35	30	25		
		585	2470	-0.67	35			2.97	1166	-16.6	43	49	49	43	39	33		
42" x 18"	5.25	360	1779	-0.25	13	1067 x 457	0.49	1.83	840	-6.3	26	30	30	15	-	-		
		430	2125	-0.36	21			2.18	1003	-8.9	32	37	37	25	20	16		
		500	2471	-0.49	28			2.54	1166	-12.1	38	43	43	34	30	25		
		570	2817	-0.63	34			2.90	1329	-15.7	43	48	49	42	38	32		
		640	3163	-0.80	40			3.25	1493	-19.8	47	53	54	49	45	39		
30" x 28"	5.83	340	1882	-0.22	11	762 x 711	0.54	1.73	888	-5.6	24	28	28	12	-	-		
		415	2297	-0.33	20			2.11	1084	-8.3	32	36	36	24	19	15		
		490	2712	-0.47	28			2.49	1280	-11.6	38	43	43	34	29	24		
		565	3127	-0.62	35			2.87	1476	-15.4	43	49	49	42	38	32		
30" x 30"	6.25	340	2020	-0.22	11	762 x 762	0.58	1.73	953	-5.6	25	29	28	13	-	-		
		415	2466	-0.33	21			2.11	1164	-8.3	32	37	37	24	19	15		
		490	2911	-0.47	28			2.49	1374	-11.6	38	43	43	34	30	25		
		565	3357	-0.62	35			2.87	1584	-15.4	43	49	49	43	38	33		
		640	3803	-0.80	41			3.25	1795	-19.8	48	54	55	50	46	40		
46" x 22"	7.03	340	2270	-0.22	12	1168 x 559	0.65	1.73	1071	-5.6	25	29	29	13	-	-		
		410	2738	-0.33	21			2.08	1292	-8.1	32	37	37	24	19	15		
		480	3205	-0.45	28			2.44	1513	-11.1	38	43	43	34	29	24		
		550	3673	-0.59	34			2.79	1733	-14.6	43	48	49	42	37	32		
36" x 30"	7.50	340	2434	-0.22	12	914 x 762	0.70	1.73	1149	-5.6	25	30	29	14	-	-		
		410	2936	-0.33	21			2.08	1385	-8.1	32	37	37	25	19	15		
		480	3437	-0.45	28			2.44	1622	-11.1	38	43	43	34	29	24		
		550	3938	-0.59	35			2.79	1859	-14.6	43	49	49	42	38	32		
		620	4439	-0.75	40			3.15	2095	-18.6	47	53	54	49	45	39		

NOTE: See notes on page J1-108.

# AFCS80 / AFCS85

Return Grille | Architectural, Curved Blade



## PERFORMANCE DATA | AFCS85 | 30° DEFLECTION (NO DAMPER)

		IP DATA				NC	METRIC DATA					OCTAVE BAND, dB					
NOM DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	NOM DUCT		DUCT AREA	NECK VEL	AIRFLOW	Ps	2	3	4	5	6	7	
in	ft <sup>2</sup>	FPM	CFM	"WG	mm		m <sup>2</sup>	m/s	L/s	Pa							
34" x 34"	8.03	340	2610	-0.22	13	864 x 864	0.75	1.73	1232	-5.6	26	30	29	14	-	-	
		410	3148	-0.33	21			2.08	1486	-8.1	33	37	37	25	20	16	
		480	3685	-0.45	29			2.44	1739	-11.1	38	44	44	34	30	25	
		550	4223	-0.59	35			2.79	1993	-14.6	43	49	49	42	38	33	
		620	4760	-0.75	40			3.15	2246	-18.6	48	54	55	49	46	39	
42" x 30"	8.75	340	2849	-0.22	13	1067 x 762	0.81	1.73	1344	-5.6	26	30	30	14	-	-	
		410	3435	-0.33	22			2.08	1621	-8.1	33	38	38	26	20	16	
		480	4022	-0.45	29			2.44	1898	-11.1	39	44	44	35	30	25	
		550	4608	-0.59	35			2.79	2175	-14.6	44	49	50	43	39	33	
		620	5195	-0.75	41			3.15	2452	-18.6	48	54	55	50	46	40	
48" x 30"	10.00	320	3071	-0.20	11	1219 x 762	0.93	1.63	1449	-5.0	25	29	28	12	-	-	
		390	3743	-0.30	20			1.98	1767	-7.4	32	36	36	23	18	14	
		460	4415	-0.41	28			2.34	2084	-10.2	38	43	43	33	28	23	
		530	5087	-0.55	34			2.69	2401	-13.6	43	49	49	41	37	32	
		600	5759	-0.70	40			3.05	2718	-17.4	48	53	54	49	45	39	
42" x 36"	10.50	320	3231	-0.20	11	1067 x 914	0.98	1.63	1525	-5.0	25	29	28	12	-	-	
		390	3938	-0.30	20			1.98	1859	-7.4	32	37	36	24	18	14	
		460	4645	-0.41	28			2.34	2192	-10.2	38	43	43	33	29	24	
		530	5352	-0.55	35			2.69	2526	-13.6	43	49	49	42	38	32	
		600	6059	-0.70	40			3.05	2859	-17.4	48	54	54	49	45	39	
42" x 38"	11.08	320	3415	-0.20	12	1067 x 965	1.03	1.63	1612	-5.0	25	29	28	12	-	-	
		390	4162	-0.30	21			1.98	1964	-7.4	32	37	37	24	19	14	
		460	4908	-0.41	28			2.34	2317	-10.2	38	43	44	34	29	24	
		530	5655	-0.55	35			2.69	2669	-13.6	43	49	49	42	38	32	
		600	6402	-0.70	41			3.05	3022	-17.4	48	54	55	49	46	39	
48" x 36"	12.00	320	3701	-0.20	12	1219 x 914	1.11	1.63	1747	-5.0	25	29	29	13	-	-	
		390	4511	-0.30	21			1.98	2129	-7.4	33	37	37	24	19	15	
		460	5321	-0.41	29			2.34	2511	-10.2	39	44	44	34	29	24	
		530	6130	-0.55	35			2.69	2893	-13.6	44	49	50	42	38	33	
		600	6940	-0.70	41			3.05	3275	-17.4	48	54	55	50	46	40	
44" x 44"	13.44	320	4157	-0.20	13	1118 x 1118	1.25	1.63	1962	-5.0	26	30	29	13	-	-	
		385	5001	-0.29	21			1.96	2360	-7.2	33	37	37	24	19	15	
		450	5846	-0.39	28			2.29	2759	-9.8	38	43	43	33	29	24	
		515	6690	-0.52	35			2.62	3157	-12.8	43	49	49	41	37	31	
		580	7534	-0.65	40			2.95	3556	-16.3	48	53	54	48	45	38	
46" x 46"	14.69	320	4550	-0.20	13	1168 x 1168	1.37	1.63	2147	-5.0	26	30	30	14	-	-	
		385	5474	-0.29	22			1.96	2584	-7.2	33	38	37	25	20	15	
		450	6399	-0.39	29			2.29	3020	-9.8	39	44	44	34	29	24	
		515	7323	-0.52	35			2.62	3456	-12.8	44	49	50	42	38	32	
		580	8247	-0.65	41			2.95	3892	-16.3	48	54	55	49	45	39	
48" x 48"	16.00	320	4961	-0.20	13	1219 x 1219	1.49	1.63	2341	-5.0	27	31	30	14	-	-	
		385	5969	-0.29	22			1.96	2817	-7.2	33	38	38	25	20	16	
		450	6977	-0.39	29			2.29	3293	-9.8	39	44	44	34	30	25	
		515	7985	-0.52	36			2.62	3768	-12.8	44	50	50	42	38	32	
		580	8992	-0.65	41			2.95	4244	-16.3	48	54	55	49	46	39	

NOTES: 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. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. See Krueger's selection program for performance data not shown, including octave band data.