

## 681 One-Way Sidewall/Ceiling Register (Page 20)

## 681M One-Way Sidewall/Ceiling Register (Page 20)

Face Velocity		300	400	500	600	700	800	900	1000
Pressure Loss		.006	.010	.016	.022	.031	.040	.050	.062
8 x 6	CFM	40	55	70	90	100	110	125	140
Ak .140	Throw	5.0	6.0	8.0	9.0	11.0	12.0	14.0	15.0
10 x 6	CFM	55	80	95	110	130	150	165	185
Ak .185	Throw	5.0	7.0	10.0	11.0	13.0	14.0	16.0	18.0
12 x 6	CFM	70	90	115	135	160	180	205	225
Ak .225	Throw	6.0	8.0	12.0	14.0	16.0	18.0	20.0	20.0
14 x 6	CFM	85	115	145	175	205	230	260	290
Ak .290	Throw	7.0	9.0	16.0	14.0	17.0	19.0	21.0	24.0
16 x 6	CFM	100	130	165	200	230	265	295	330
Ak .330	Throw	8.0	10.0	18.0	15.0	18.0	20.0	23.0	25.0
18 x 6	CFM	115	155	195	235	275	310	350	390
Ak .390	Throw	8.0	11.0	21.0	17.0	20.0	22.0	25.0	28.0
20 x 6	CFM	130	175	220	265	310	360	395	440
Ak .440	Throw	5.0	12.0	24.0	18.0	21.0	24.0	27.0	30.0

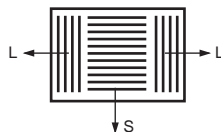
Terminal Velocity of 75 FPM

## 683 Three-Way Sidewall/Ceiling Register (Page 21)

## 683M Three-Way Sidewall/Ceiling Register (Page 21)

Face Velocity		300	400	500	600	700	800	900	1000
Pressure Loss		.006	.010	.016	.022	.031	.040	.050	.062
8 x 4	Total CFM	25	35	45	55	65	70	80	90
Ak .090	CFM L/S	13/6	17/9	24/11	29/13	34/16	37/17	42/19	48/22
	Throw L/S	3.0/2.5	4.0/3.0	5.0/3.5	6.0/4.0	7.0/5.0	7.5/5.5	8.5/6.0	10.0/6.5
6 x 6	Total CFM	30	40	50	65	75	85	95	105
Ak .105	CFM L/S	10/10	13/14	16/17	21/22	24/26	27/29	30/32	34/36
	Throw L/S	3.0/3.0	3.5/3.5	4.0/4.0	5.5/5.5	6.0/6.0	7.0/7.0	8.0/8.0	9.0/9.0
10 x 4	Total CFM	35	45	60	70	80	90	105	115
Ak .115	CFM L/S	21/7	29/8	38/11	45/13	51/14	58/16	67/19	74/21
	Throw L/S	4.0/2.0	5.0/2.5	6.0/3.5	7.5/4.0	8.5/4.5	9.5/5.0	11.0/6.0	12.0/6.5
12 x 4	Total CFM	40	55	70	85	100	110	125	140
Ak .140	CFM L/S	21/10	29/13	36/17	44/20	52/24	57/26	65/30	73/34
	Throw L/S	3.5/2.5	5.0/3.0	6.0/4.0	7.5/5.0	8.5/5.5	9.5/6.0	10.5/7.0	12.0/8.0
10 x 6	Total CFM	55	75	95	110	130	150	165	185
Ak .185	CFM L/S	35/10	48/14	61/17	70/20	83/23	96/27	106/30	118/33
	Throw L/S	4.5/2.5	6.5/3.5	8.0/4.0	9.0/5.0	11.0/5.5	12.5/6.5	14.0/7.5	15.5/8.0
8 x 8	Total CFM	60	80	100	120	140	160	180	200
Ak .200	CFM L/S	31/14	42/19	52/24	62/29	73/34	83/38	94/43	104/48
	Throw L/S	4.5/3.0	6.0/4.0	7.5/5.0	8.5/6.0	10.5/7.0	11.5/8.0	13.0/9.0	14.5/10.0
12 x 6	Total CFM	70	90	115	135	160	180	205	225
A. 225	CFM L/S	36/17	47/22	60/28	70/32	83/38	94/43	107/49	117/54
	Throw L/S	4.5/3.5	6.0/4.0	8.0/5.5	9.0/6.0	11.0/7.5	12.5/8.0	14.0/6.5	15.5/10.5
14 x 6	Total CFM	85	115	145	175	205	230	260	290
Ak .290	CFM L/S	51/17	69/23	87/29	105/35	123/41	138/46	156/52	174/58
	Throw L/S	5.5/3.5	7.5/4.5	10.0/5.5	12.0/6.5	14.0/8.0	15.5/9.0	18.0/10.0	20.0/11.0
10 x 10	Total CFM	95	125	155	185	215	250	280	310
Ak .310	CFM L/S	61/17	80/23	99/28	118/33	138/39	160/45	179/50	198/56
	Throw L/S	6.0/3.5	8.0/4.5	10.0/5.5	12.0/6.5	14.0/7.5	16.5/9.0	18.0/9.5	20.0/10.5
12 x 8	Total CFM	95	130	160	190	225	255	290	320
Ak .320	CFM L/S	49/23	68/31	83/38	99/46	117/54	133/61	151/70	166/77
	Throw L/S	5.5/4.0	7.5/5.0	9.5/6.0	11.0/7.5	13.0/9.0	15.0/10.0	17.0/11.5	19.0/12.5
14 x 8	Total CFM	115	155	195	235	275	310	350	390
Ak .390	CFM L/S	69/23	93/31	117/39	141/47	165/55	186/62	210/70	234/78
	Throw L/S	6.5/4.0	9.0/5.0	11.0/6.0	13.5/7.5	16.0/9.0	18.0/10.0	20.0/11.5	22.0/12.5
12 x 12	Total CFM	140	190	235	280	330	375	425	470
Ak .470	CFM L/S	73/34	99/46	122/56	146/67	172/79	195/90	221/102	244/113
	Throw L/S	7.0/4.5	9.0/6.0	11.5/7.5	13.5/9.0	16.0/10.5	18.0/12.0	20.0/14.0	23.0/15.5
14 x 14	Total CFM	195	260	325	390	455	520	585	650
Ak .650	CFM L/S	117/39	156/52	195/65	234/78	273/91	312/104	351/117	390/130
	Throw L/S	8.5/5.0	11.5/6.5	14.0/8.0	17.0/9.5	20.0/11.5	23.0/13.0	26.0/14.5	28.0/16.0
16 x 16	Total CFM	280	370	465	560	650	745	835	930
Ak .930	CFM L/S	164/67	192/89	242/112	291/134	338/156	387/179	434/200	484/223
	Throw L/S	10.0/6.5	13.0/9.0	16.5/11.0	20.0/13.0	23.0/15.5	26.0/17.0	29.0/20.0	33.0/22.0

Terminal Velocity of 75 FPM



## 682 Two-Way Sidewall/Ceiling Register (Page 21)

## 682M Two-Way Sidewall/Ceiling Register (Page 21)

Face Velocity		300	400	500	600	700	800	900	1000
Pressure Loss		.006	.010	.016	.022	.031	.040	.050	.062
8 x 4	CFM	25	35	45	55	65	70	80	90
Ak .090	Throw	2.0	3.5	4.5	5.5	6.5	7.0	8.0	9.0
6 x 6	CFM	30	40	50	65	75	85	95	105
Ak .105	Throw	3.0	3.5	4.5	6.0	7.0	8.0	9.0	10.0
10 x 4	CFM	35	45	60	70	80	90	105	115
Ak .115	Throw	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
12 x 4	CFM	40	55	70	85	100	110	125	140
Ak .140	Throw	3.5	4.5	5.5	6.5	8.0	9.0	10.0	11.5
10 x 6	CFM	55	75	95	110	130	150	165	185
Ak .185	Throw	4.0	5.0	6.5	8.0	9.0	10.5	12.0	13.0
8 x 8	CFM	60	80	100	120	140	160	180	200
Ak .200	Throw	4.0	5.5	7.0	8.0	9.5	11.0	12.5	13.5
12 x 6	CFM	70	90	115	135	160	180	205	225
Ak .225	Throw	4.5	6.0	7.5	8.5	10.5	12.0	13.0	14.5
14 x 6	CFM	85	115	145	175	205	230	260	290
Ak .290	Throw	5.0	6.5	8.5	10.0	11.5	13.5	15.0	17.0
10 x 10	CFM	95	125	155	185	215	250	280	310
Ak .310	Throw	5.0	7.0	8.5	10.0	12.0	14.0	15.5	17.0
12 x 8	CFM	95	130	160	190	225	255	290	320
Ak .320	Throw	5.5	7.0	9.0	10.5	12.5	14.0	16.0	18.0
14 x 8	CFM	115	155	195	235	275	310	350	390
Ak .390	Throw	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0
12 x 12	CFM	140	190	235	280	330	375	425	470
Ak .470	Throw	6.5	8.5	10.5	12.5	15.0	17.0	19.0	21.0

Terminal Velocity of 75 FPM

## 684 Four-Way Sidewall/Ceiling Register (Page 21)

## 684 Four-Way Sidewall/Ceiling Register (Page 21)

Face Velocity		300	400	500	600	700	800	900	1000
Pressure Loss		.006	.010	.016	.022	.031	.040	.050	.062
6 x 6	Total CFM	30	40	50	65	75	85	95	105
Ak .105	CFM L/S	4/11	6/14	8/17	10/22	12/26	14/29	15/32	17/36
	Throw L/S	2.0/3.0	2.0/3.5	3.0/4.0	3.5/5.5	4.5/6.5	5.0/7.0	5.5/8.0	6.0/9.0
8 x 8	Total CFM	60	80	100	120	140	160	180	200
Ak .200	CFM L/S	16/14	21/19	26/24	31/29	37/34	42/38	47/43	52/48
	Throw L/S	3.0/3.0	4.0/4.0	5.0/5.0	6.0/6.0	7.5/7.0	8.5/8.0	9.5/9.0	10.5/10.0
10 x 10	Total CFM	95	125	155	185	215	250	280	310
Ak .310	CFM L/S	31/17	40/23	50/28	59/33	69/39	80/45	90/50	99/56
	Throw L/S	4.5/3.5	6.0/4.5	7.0/5.5	8.5/6.5	10.0/7.5	11.0/9.0	13.0/9.5	14.5/10.5
12 x 12	Total CFM	140	190	235	280	330	375	425	470
Ak .470	CFM L/S	37/34	50/46	61/56	73/67	86/79	98/90	111/102	122/113
	Throw L/S	5.0/4.5	6.5/6.0	8.0/7.5	9.5/9.0	11.5/10.5	13.0/12.0	14.5/14.0	16.0/15.5
14 x 14	Total CFM	195	260	325	390	455	520	585	650
Ak .650	CFM L/S	59/39	78/52	98/65	117/78	137/91	156/104	176/117	195/130
	Throw L/S	6.0/5.0	8.0/6.5	10.0/8.0	12.0/9.5	14.0/11.5	16.0/13.0	18.0/14.5	20.0/16.0
16 x 16	Total CFM	280	370	465	560	650	745	835	930
Ak .930	CFM L/S	73/67	96/89	121/112	146/134	169/156	194/179	217/200	242/223
	Throw L/S	7.0/6.5	9.0/9.0	11.5/11.0	14.0/1				