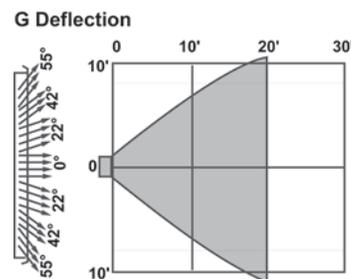
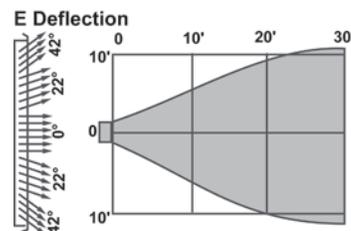
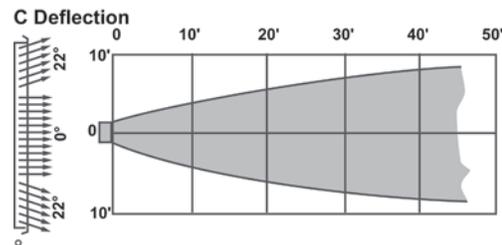
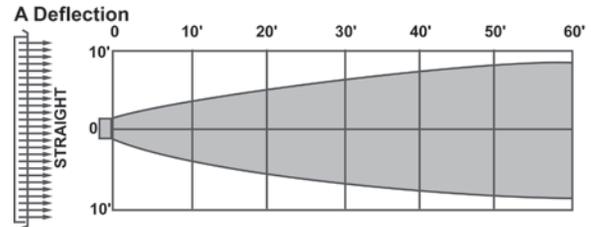


Recommended NC Criteria

	Communication Environment	Typical Occupancy
< NC 25	Extremely quiet environment; suppressed speech is quite audible; suitable for acute pickup of all sounds.	Broadcasting studios, concert halls, music rooms.
NC 30	Very quiet office; suitable for large conferences; telephone use satisfactory.	Residences, theaters, libraries, executive offices, directors rooms.
NC 35	Quiet office; satisfactory for conference at a 15-foot table; normal voice 10 to 30 feet; telephone use satisfactory.	Private offices, schools, hotel guestrooms, courtrooms, churches, hospital rooms.
NC 40	Satisfactory for conferences at a 6-to 8-foot table; normal voice 6 to 12 feet; telephone use satisfactory.	General office, labs, dining rooms.
NC 45	Satisfactory for conferences at a 4- to 5-foot table; normal voice 3 to 6 feet; raised voice 6 to 12 feet; telephone use occasionally difficult.	Retail stores, cafeterias, lobby areas, large drafting and engineering offices, reception areas.
> NC 50	Unsatisfactory for conference of more than two or three persons; normal voice 1 to 2 feet; raised voice 3 to 6 feet; telephone use slightly difficult.	Computer rooms, stenographic pools, print machine rooms, process areas.

Air Pattern Obtained with Various Deflection Settings



Velocity Limitations for Various Applications

The sound caused by an air outlet in operation is directly proportional to the velocity of the air passing through it. By selecting outlets of proper sizes, face velocities can be controlled within safe sound limits.

The following recommended face velocities are within the safe sound limits for most applications, when NC data are not available.

Application	Recommended Velometer Velocities
Broadcasting Studios	500 FPM
Residences	500 to 750 FPM
Apartments	500 to 750 FPM
Churches	500 to 750 FPM
Hotel Guestrooms	500 to 750 FPM
Legitimate Theaters	500 to 1000 FPM
Private Offices, acoustically treated	500 to 1000 FPM
Private Offices, not treated	1000 to 1250 FPM
Motion Picture Theaters	1000 to 1250 FPM
General Offices	1250 to 1500 FPM
Stores, upper floors	1500 FPM
Stores, main floors	1500 FPM
Industrial Buildings	1500 to 2000 FPM

Rezzin Sidewall Register

2-Way

Two-Way Air Pattern

Face Velocity		300	400	500	600	700	800	900	1000
8 x 4 Ak .095	CFM	28	38	47	57	66	76	85	95
	Ps	.02	.02	.02	.03	.04	.05	.06	.07
	Throw	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
10 x 4 Ak .117	CFM	35	47	59	70	82	94	105	117
	Ps	.01	.01	.02	.02	.03	.04	.05	.06
	Throw	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
10 x 6 Ak .193	CFM	58	77	97	116	135	154	174	193
	Ps	.01	.01	.02	.02	.03	.04	.05	.06
	Throw	1.5	2.0	2.5	3.0	3.5	4.5	5.0	5.5
12 x 6 Ak .238	CFM	71	95	119	143	167	190	214	238
	Ps	.01	.01	.01	.02	.03	.04	.05	.06
	Throw	5.5	7.0	9.0	10.5	12.5	14.0	16.0	17.5
14 x 6 Ak .291	CFM	87	116	145	174	204	233	262	291
	Ps	.01	.01	.02	.02	.03	.04	.05	.06
	Throw	NA	NA	NA	NA	NA	NA	NA	NA
14 x 8 Ak .395	CFM	119	158	198	237	277	316	356	395
	Ps	.01	.01	.01	.02	.03	.04	.05	.06
	Throw	NA	NA	NA	NA	NA	NA	NA	NA

Terminal Velocity of 75 FPM

NA = Not Available

3-Way

Three-Way Air Pattern

Face Velocity		300	400	500	600	700	800	900	1000
8 x 4 Ak .108	CFM	32	43	54	65	75	86	97	108
	Ps	.01	.01	.02	.03	.04	.05	.07	.08
	Throw Short	NA							
	Throw Long	NA							
10 x 6 Ak .193	CFM	58	77	97	116	135	154	174	193
	Ps	.01	.01	.02	.03	.03	.04	.05	.06
	Throw Short	2.0	3.0	3.5	4.0	5.0	5.5	6.5	7.0
	Throw Long	1.0	1.5	2.0	2.5	2.5	3.0	3.5	4.0
10 x 8 Ak .246	CFM	74	98	123	148	172	197	221	246
	Ps	.01	.01	.01	.02	.03	.03	.04	.05
	Throw Short	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
	Throw Long	2.5	3.5	4.5	5.0	6.0	7.0	7.5	8.5
12 x 6 Ak .238	CFM	71	95	119	143	167	190	214	238
	Ps	.01	.01	.02	.02	.03	.04	.05	.07
	Throw Short	2.5	3.5	4.5	5.0	6.0	7.0	7.5	8.5
	Throw Long	2.5	3.5	4.5	5.0	6.0	7.0	7.5	8.5
14 x 6 Ak .297	CFM	89	119	148	178	208	237	267	297
	Ps	.01	.01	.02	.03	.03	.04	.06	.07
	Throw Short	NA							
	Throw Long	NA							
14 x 8 Ak .399	CFM	120	160	199	239	279	319	359	399
	Ps	.01	.01	.01	.02	.03	.04	.05	.06
	Throw Short	NA							
	Throw Long	NA							

Terminal Velocity of 75 FPM

NA = Not Available

4-Way

Four-Way Air Pattern

Face Velocity		300	400	500	600	700	800	900	1000
6 x 6 Ak .124	CFM	37	49	62	74	87	99	111	124
	Ps	.01	.01	.02	.03	.03	.05	.06	.07
	Throw	NA							
8 x 8 Ak .231	CFM	69	92	115	139	162	185	208	231
	Ps	.00	.01	.01	.02	.02	.03	.04	.04
	Throw	NA							
10 x 10 Ak .347	CFM	104	139	173	208	243	277	312	347
	Ps	.01	.01	.02	.02	.03	.04	.05	.07
	Throw	NA							
12 x 12 Ak .510	CFM	153	204	255	306	357	408	459	510
	Ps	.01	.01	.02	.02	.03	.04	.05	.07
	Throw	NA							

Terminal Velocity of 75 FPM

NA = Not Available