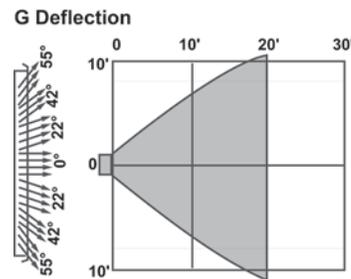
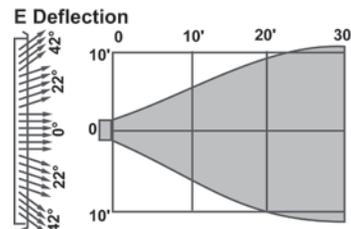
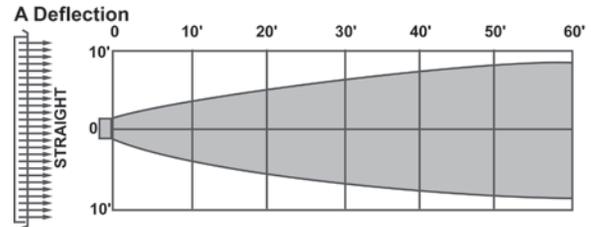


**Recommended NC Criteria**

	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



**4205FF**  
**Eggcrate Return Filter Grille**

6" Diameter Inlet Ak .840	CFM	100	150	200	225	250	275	300
	NC	<20	<20	<20	22	25	28	32
	Static Pressure	-.040	-.091	-.162	-.205	-.253	-.306	-.364
8" Diameter Inlet Ak .930	CFM	150	200	250	300	400	500	600
	NC	<20	<20	<20	<20	24	30	36
	Static Pressure	-.029	-.051	-.080	-.115	-.205	-.320	-.460
10" Diameter Inlet Ak 1.035	CFM	400	500	600	700	800	900	1000
	NC	<20	<20	23	27	31	35	39
	Static Pressure	-.084	-.131	-.189	-.257	-.335	-.424	-.524
12" Diameter Inlet Ak 1.175	CFM	500	600	700	800	1000	1200	1400
	NC	<20	<20	<20	22	27	32	38
	Static Pressure	-.063	-.091	-.124	-.162	-.253	-.364	-.495
14" Diameter Inlet Ak 1.330	CFM	800	900	1000	1200	1400	1600	1800
	NC	<20	<20	20	24	27	31	35
	Static Pressure	-.087	-.110	-.136	-.196	-.267	-.349	-.442
16" Diameter Inlet Ak 1.520	CFM	800	1000	1200	1400	1800	2200	2600
	NC	<20	<20	<20	21	27	33	39
	Static Pressure	-.051	-.080	-.115	-.157	-.259	-.387	-.540

**4260FF**  
**Stamped-Face Return Filter Grille**

6" Diameter Inlet Ak .730	CFM	100	150	200	225	250	275	300
	NC	<20	<20	21	24	27	30	32
	Static Pressure	-.057	-.127	-.226	-.287	-.354	-.428	-.509
8" Diameter Inlet Ak .795	CFM	150	200	250	300	400	500	550
	NC	<20	<20	<20	<20	25	31	36
	Static Pressure	-.040	-.072	-.112	-.161	-.287	-.448	-.542
10" Diameter Inlet Ak .880	CFM	300	400	500	600	700	800	850
	NC	<20	<20	<20	24	28	33	35
	Static Pressure	-.066	-.117	-.183	-.264	-.359	-.469	-.530
12" Diameter Inlet Ak .980	CFM	400	500	600	700	800	1000	1200
	NC	<20	<20	<20	<20	22	28	34
	Static Pressure	-.057	-.088	-.127	-.173	-.226	-.354	-.509
14" Diameter Inlet Ak 1.105	CFM	600	700	800	1000	1200	1400	1600
	NC	<20	<20	<20	20	24	28	34
	Static Pressure	-.069	-.094	-.122	-.191	-.275	-.374	-.489
16" Diameter Inlet Ak 1.240	CFM	800	1000	1200	1600	1800	2000	2200
	NC	<20	<20	<20	25	28	31	36
	Static Pressure	-.072	-.112	-.161	-.287	-.363	-.448	-.542

**Notes:**

1. All performance was determined from testing in accordance with ASHRAE Standard 70-1991 in an ADC-certified testing laboratory.
2. Total and static pressures are given in inch w.c.
3. NC values are given for a typical office (12 feet wide x 12 feet long x 9 feet high) as determined from the octave band sound power levels in accordance with ARI Standard 885.
4. Throw distances (measured in feet) are listed for isothermal conditions with terminal velocities of 150 FPM, 100 FPM and 50 FPM, respectively.
5. Area factor (Ak) determined with an Alnor 2220 probe.
6. Data based on units without opposed-blade dampers.
7. Return filter grille tests performed with standard 1-inch fiberglass filter (by others) in place.