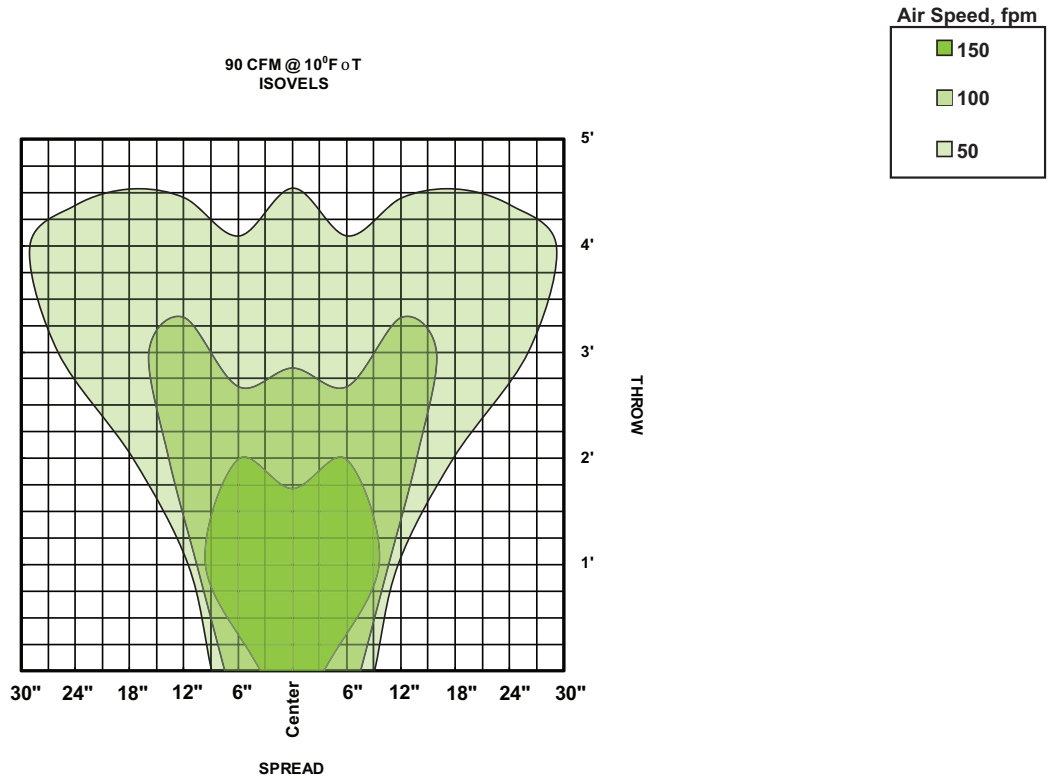


The TAFR-AA can supply 90 cfm at 0.10-inch wg. of plenum pressure and generates a low NC of 19. The following charts show a favorable terminal velocity and temperature gradient in the comfort zone (range = 4 to 4.5 feet).

The HVAC system should be designed to operate at reduced capacity to avoid over cooling and excessive temperature swings. Significant 'passive' cooling may be experienced with underfloor air distribution systems.

Centerline Velocity Profile



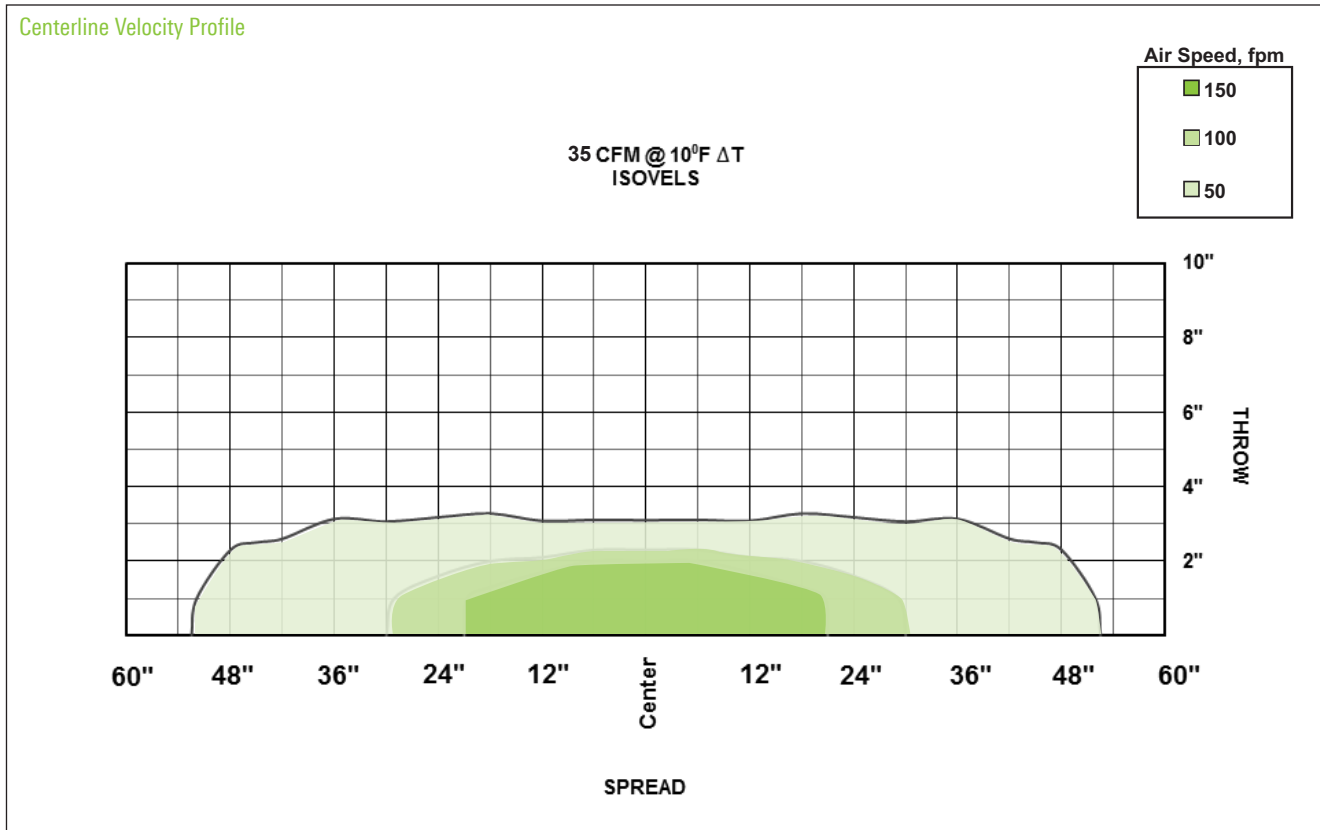
TAFR-AA 8" Swirl Diffuser											
	NC	-	-	-	-	-	15	16	18	19	20
	Airflow (cfm)	49	56	63	69	75	80	85	90	94	98
	Plenum Pressure (wc)	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.1	0.11	0.12
10° F	Throw (ft)@ 150-100-50 fpm	1.1-1.6-3.2	1.2-1.8-3.4	1.4-2.1-3.6	1.5-2.2-3.8	1.6-2.4-3.9	1.7-2.6-4	1.8-2.8-4.2	1.9-2.9-4.3	2-3.1-4.4	2.1-3.2-4.5
ΔT	Spread ft @ 50 fpm	2.7	3.1	3.5	3.9	4.2	4.5	4.6	4.8	4.9	5

- NC values are based on octave band 2-7 sound power levels minus a room absorption of 10dB
- Dash (-) in space denotes an NC value of less than 10
- Data obtained from test conducted in accordance with ANSI/ASHRAE Standard 70-2006
- Spread is the total width of the 50 fpm isovel. Projection is the maximum distance above the floor where the indicated terminal velocity was observed.

- Spread and Projection data is determined in a room with a 9-foot ceiling, and 10° ΔT between the supply and average occupied zone temperatures
- Ventilation efficiency ( $E_z$ ) is 1.2 for floor supply of cool air and ceiling return, provided low-velocity displacement ventilation achieves unidirectional flow and thermal stratification or underfloor air distribution systems where the vertical throw is less than or equal to 50 fpm (0.25 m/s) at a height of 4.5 (1.4m) above the floor per ASHRAE 62.1-2016 Addenda a

The following charts show a favorable terminal velocity and temperature gradient in the comfort zone.

The HVAC system should be designed to operate at reduced capacity to avoid over cooling and excessive temperature swings. Significant 'passive' cooling may be experienced with underfloor air distribution systems.



TAFR-AA 8" Displacement Diffuser											
NC		-	-	-	16	18	20	21	23	24	26
Airflow (cfm)		28	32	36	39	42	45	48	51	53	55
Plenum Pressure (wc)		0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12
5°F ΔT	Spread ft @ 50 fpm	6.1	7	7.9	8.6	8.9	9.3	9.6	9.9	10.1	10.2
10°F ΔT	Spread ft @ 50 fpm	6.2	6.7	7.1	7.4	7.7	7.9	8.2	8.5	8.6	8.8

- NC values are based on octave band 2-7 sound power levels minus a room absorption of 10dB
- Dash (-) in space denotes an NC value of less than 10
- Data obtained from test conducted in accordance with ANSI/ASHRAE Standard 70-2006
- Spread is the total width of the 50 fpm isovel. Projection is the maximum distance above the floor where the indicated terminal velocity was observed.

- Spread and Projection data is determined in a room with a 9-foot ceiling, and 10° ΔT between the supply and average occupied zone temperatures
- Ventilation efficiency ( $E_v$ ) is 1.2 for floor supply of cool air and ceiling return, provided low-velocity displacement ventilation achieves unidirectional flow and thermal stratification or underfloor air distribution systems where the vertical throw is less than or equal to 50 fpm (0.25 m/s) at a height of 4.5 (1.4m) above the floor per ASHRAE 62.1-2016 Addenda a