

## Single Side Diffusers – Side Entry 24 inch for use with 2' x 2' troffers

Supply Rate – CFM		30	40	50	60	70	80	90	100
Projection Ft.	V	3-4	4-6	5-7	6-8	7-9	8-10	9-10	9-11
	H	6-8	7-10	8-12	9-13	10-14	11-15	12-16	13-17
Min. P In H <sub>2</sub> O	5" inlet	.04	.08	.13	.19	.25	.32	.41	.50
	6" inlet	.04	.08	.12	.18	.24	.31	.39	.48
NC (Noise Criteria Level)		(20)	(20)	22	29	33	36	41	44

## 36 inch for use with 3' x 3' troffers

Supply Rate – CFM		40	50	60	70	80	90	100	110
Projection Ft.	V	3-5	4-6	5-7	6-8	6-9	7-9	7-10	8-10
	H	4-6	5-8	6-10	8-11	9-13	10-14	11-15	12-16
Min. P In H <sub>2</sub> O	5" inlet	.04	.06	.09	.12	.17	.21	.27	.32
	6" inlet	.04	.06	.08	.11	.15	.19	.24	.29
NC (Noise Criteria Level)		(20)	(20)	(20)	23	27	32	35	39

## 48 inch for use with 1' x 4' – 2' x 4' troffers

Supply Rate – CFM		50	60	70	80	90	100	110	120
Projection Ft.	V	3-4	4-5	5-6	5-7	6-8	6-8	6-9	7-9
	H	4-6	5-7	5-8	6-9	7-10	7-11	8-12	9-13
Min. P In H <sub>2</sub> O	5" inlet	.04	.06	.08	.11	.15	.17	.21	.25
	6" inlet	.04	.06	.08	.11	.14	.16	.20	.23
NC (Noise Criteria Level)		(20)	(20)	23	27	30	34	37	39

- Projection – V and H are vertical and horizontal distances in feet to reach terminal velocities of 100 FPM and 50 FPM respectively.
- Min. P inches H<sub>2</sub>O – The static pressure drop across the diffuser with dampers full open and horizontal air projection.
- NC – A one number evaluation of sound generation derived from sound power levels (re: 10<sup>-12</sup> Watts) less 8 db room absorption.

## Dual Side Diffuser – Side Entry 24 inch for use with 2' x 2' troffers

Supply Rate – CFM		50	60	70	80	90	100	110	120
Projection Ft.	V	3-5	4-6	5-7	5-8	6-8	6-9	7-9	7-10
	H	2-4	4-8	6-10	7-10	7-11	8-11	8-12	9-13
Min. P In H <sub>2</sub> O	5" inlet	.05	.06	.08	.10	.13	.16	.19	.23
	6" inlet	.04	.06	.08	.10	.12	.15	.18	.21
NC (Noise Criteria Level)		(20)	(20)	21	25	29	32	36	39

## 36 inch for use with 3' x 3' troffers

Supply Rate – CFM		90	100	110	120	130	140	150	160
Projection Ft.	V	3-5	3-6	4-6	4-6	5-7	6-7	6-8	6-9
	H	4-6	5-7	6-8	6-9	7-9	7-10	8-11	8-12
Min. P In H <sub>2</sub> O	5" inlet	.07	.08	.10	.12	.14	.17	.19	.22
	6" inlet	.06	.07	.09	.11	.13	.15	.17	.19
NC (Noise Criteria Level)		20	23	25	29	30	33	34	39

## 48 inch for use with 1' x 4' – 2' x 4' troffers

Supply Rate – CFM		60	80	100	120	140	160	180	200
Projection Ft.	V	1-2	1-3	2-3	2-4	3-5	4-6	5-7	6-8
	H	2-3	2-4	3-5	4-6	4-7	5-8	6-9	7-10
Min. P In H <sub>2</sub> O	5" inlet	.02	.04	.07	.10	.13	.16	.21	.26
	6" inlet	.02	.04	.06	.08	.11	.15	.19	.23
NC (Noise Criteria Level)		(20)	(20)	21	26	30	33	37	

- Projection – V and H are vertical and horizontal distances in feet to reach terminal velocities of 100 FPM and 50 FPM respectively.
- Min. P inches H<sub>2</sub>O – The static pressure drop across the diffuser with dampers full open and horizontal air projection.
- NC – A one number evaluation of sound generation derived from sound power levels (re: 10<sup>-12</sup> Watts) less 8 db room absorption.

## Dual Side Diffuser – Top Entry 24 inch for use with 2' x 2' troffers

Supply Rate – CFM		50	60	70	80	90	100	110	120
Projection Ft.	V	3-5	4-6	5-7	5-8	6-8	6-9	7-9	7-10
	H	2-4	4-8	6-10	7-10	7-11	8-11	8-12	9-13
Min. P In H <sub>2</sub> O	5" inlet	.05	.07	.09	.12	.15	.18	.22	.26
	6" inlet	.04	.06	.08	.10	.13	.16	.19	.23
NC (Noise Criteria Level)		(20)	(20)	(20)	22	26	31	33	36

## 36 inch for use with 3' x 3' troffers

Supply Rate – CFM		90	100	110	120	130	140	150	160
Projection Ft.	V	3-5	3-6	4-6	4-6	5-7	6-7	6-8	6-9
	H	4-6	5-7	6-8	6-9	7-9	7-10	8-11	8-12
Min. P In H <sub>2</sub> O	5" inlet	.08	.10	.12	.15	.18	.20	.23	.26
	6" inlet	.08	.09	.11	.13	.16	.18	.20	.23
NC (Noise Criteria Level)		20	23	26	28	32	33	34	37

## 48 inch for use with 1' x 4' – 2' x 4' troffers

Supply Rate – CFM		60	80	100	120	140	160	180	200
Projection Ft.	V	1-2	1-3	2-3	2-4	3-5	4-6	5-7	6-8
	H	2-3	2-4	3-5	4-6	4-7	5-8	6-9	7-10
Min. P In H <sub>2</sub> O	5" inlet	.03	.06	.09	.13	.17	.22	.28	.35
	6" inlet	.03	.05	.08	.10	.14	.18	.23	.29
NC (Noise Criteria Level)		(20)	(20)	21	24	31	33	37	41

- Projection – V and H are vertical and horizontal distances in feet to reach terminal velocities of 100 FPM and 50 FPM respectively.
- Min. P inches H<sub>2</sub>O – The static pressure drop across the diffuser with dampers full open and horizontal air projection.
- NC – A one number evaluation of sound generation derived from sound power levels (re: 10<sup>-12</sup> Watts) less 8 db room absorption.

## General Data

AG-Series Luminaire Diffusers must be coordinated with the Luminaire arrangement and desired sound level criteria of the occupied space. The diffusers should be located uniformly in the ceiling module and typically in back of 30% to 70% of all Luminaires in order to uniformly condition the occupied area.

Diffuser sound ratings will be increased by localized dampening, non-uniform air flow and the addition of system noise. The ratings will also be increased if two or more diffusers are located in an area of 200 square feet or less.

The performance data on Pages 3, 5 and 7 are the combined performance of the diffuser and the Luminaire, not the diffuser alone. On-the-job performance will be a result of the diffuser used in conjunction with a specific Luminaire. The size, shape and design of the Luminaire slot and outlet passages can greatly affect the performance of the diffuser.

$$P_v + P_s = P_t$$

P <sub>v</sub> Velocity pressure inches H <sub>2</sub> O		CFM								
Inlet Size		60	80	100	120	140	160	180	200	
5		.01	.02	.03	.05	.07	.09	.11	.14	
6		.01	.01	.02	.02	.03	.04	.05	.07	

P<sub>v</sub> = Velocity Pressure inches H<sub>2</sub>O  
P<sub>s</sub> = Static Pressure inches H<sub>2</sub>O  
P<sub>t</sub> = Total Pressure inches H<sub>2</sub>O

## Recommended NC Criteria

NC	APPLICATION
Below NC 25	Extremely quiet. Suitable for pickup of all sounds.
NC 30	Very quiet. For residences, theaters, libraries, executive offices.
NC 35	Quiet. For schools, courtrooms, churches, private offices.
NC 40	For general offices, labs, dining rooms. Telephone use satisfactory.
NC 45	For retail stores, cafeterias, lobby areas, reception areas, telephone use occasionally difficult.
NC 50	For steno pools, machine rooms, telephone use slightly difficult.