

PERFORMANCE DATA:

MODEL 49-280 • 1/2" (13) SPACING • 1/8" (3) BARS • 0° DEFLECTION

| Free Area Square Feet per Lineal Foot | Nominal Duct Width | Total Pressure | .009 | .020 | .035 | .056 | .078 | .107 | .140 | .178 | .220 |
|---------------------------------------|--------------------|------------------|---------------|----------|----------|----------|----------|----------|----------|----------|----------|
| .035 | 1 1/2" | Airflow, CFM/FT. | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| | | Noise Criteria | – | – | 16 | 22 | 28 | 32 | 36 | 39 | 42 |
| | | Throw | Sill or Floor | 1-1-1 | 2-2-2 | 4-4-4 | 7-7-7 | 8-9-10 | 10-11-12 | 11-12-14 | 12-14-17 |
| | | Side Wall | 2-4-6 | 4-7-10 | 6-7-13 | 7-12-17 | 8-13-19 | 10-16-22 | 11-17-24 | 12-19-26 | 13-21-29 |
| .055 | 2" | Airflow, CFM/FT. | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 110 |
| | | Noise Criteria | – | – | – | 18 | 23 | 28 | 32 | 35 | 38 |
| | | Throw | Sill or Floor | 1-1-1 | 4-4-4 | 7-7-7 | 9-9-10 | 11-11-12 | 13-14-16 | 14-16-18 | 15-17-20 |
| | | Side Wall | 3-5-7 | 5-8-12 | 7-11-16 | 9-14-20 | 11-17-23 | 13-19-26 | 14-21-28 | 15-22-30 | 17-25-33 |
| .074 | 2 1/2" | Airflow, CFM/FT. | 30 | 44 | 59 | 74 | 89 | 104 | 118 | 133 | 148 |
| | | Noise Criteria | – | – | – | 17 | 22 | 27 | 31 | 34 | 37 |
| | | Throw | Sill or Floor | 1-1-1 | 5-5-5 | 9-9-9 | 11-11-12 | 13-14-15 | 15-16-17 | 18-19-20 | 20-21-23 |
| | | Side Wall | 4-6-8 | 6-9-13 | 9-13-17 | 11-16-21 | 13-18-24 | 15-21-28 | 17-24-31 | 20-27-35 | 23-31-39 |
| .096 | 3" | Airflow, CFM/FT. | 38 | 58 | 77 | 96 | 115 | 134 | 154 | 173 | 192 |
| | | Noise Criteria | – | – | – | 17 | 22 | 27 | 31 | 34 | 37 |
| | | Throw | Sill or Floor | 2-2-2 | 7-7-7 | 10-10-11 | 12-13-14 | 15-16-17 | 18-19-20 | 20-21-23 | 23-24-25 |
| | | Side Wall | 5-7-10 | 7-10-14 | 10-14-19 | 12-17-23 | 15-20-26 | 18-24-30 | 20-27-34 | 23-30-38 | 25-33-41 |
| .116 | 3 1/2" | Airflow, CFM/FT. | 46 | 69 | 93 | 116 | 139 | 162 | 186 | 209 | 232 |
| | | Noise Criteria | – | – | – | 17 | 22 | 27 | 31 | 34 | 37 |
| | | Throw | Sill or Floor | 3-3-3 | 8-8-8 | 12-12-12 | 15-15-16 | 18-19-20 | 20-21-23 | 23-24-25 | 25-26-27 |
| | | Side Wall | 5-7-10 | 9-12-16 | 12-16-20 | 15-20-25 | 18-23-28 | 20-26-32 | 23-29-36 | 25-32-39 | 29-36-43 |
| .139 | 4" | Airflow, CFM/FT. | 56 | 83 | 111 | 139 | 167 | 195 | 222 | 250 | 278 |
| | | Noise Criteria | – | – | – | 18 | 23 | 28 | 32 | 35 | 38 |
| | | Throw | Sill or Floor | 3-3-3 | 9-9-9 | 13-13-13 | 16-16-17 | 20-20-21 | 23-23-24 | 24-25-26 | 27-27-27 |
| | | Side Wall | 6-8-11 | 10-13-17 | 13-17-21 | 16-20-25 | 20-25-30 | 22-28-34 | 24-30-37 | 28-35-41 | 31-38-44 |
| .179 | 5" | Airflow, CFM/FT. | 72 | 107 | 143 | 179 | 215 | 250 | 286 | 322 | 358 |
| | | Noise Criteria | – | – | – | 18 | 23 | 28 | 32 | 35 | 38 |
| | | Throw | Sill or Floor | 4-4-4 | 10-10-10 | 14-14-14 | 18-18-18 | 22-22-23 | 24-24-24 | 27-27-28 | 30-30-31 |
| | | Side Wall | 8-10-13 | 11-14-18 | 15-19-23 | 18-22-27 | 22-27-32 | 24-30-36 | 27-33-39 | 30-37-43 | 34-41-47 |
| .221 | 6" | Airflow, CFM/FT. | 88 | 133 | 177 | 221 | 265 | 310 | 354 | 398 | 442 |
| | | Noise Criteria | – | – | – | 20 | 24 | 29 | 33 | 36 | 39 |
| | | Throw | Sill or Floor | 5-5-5 | 10-10-10 | 15-15-15 | 18-18-18 | 23-23-23 | 25-25-25 | 28-28-28 | 31-31-31 |
| | | Side Wall | 9-12-15 | 13-16-20 | 16-20-24 | 20-24-29 | 24-29-34 | 28-33-39 | 30-35-40 | 34-40-45 | 38-44-49 |

Performance Notes:

- Throws are given at 150, 100 and 50 fpm terminal velocities.
- Throw values are based on a 4 foot section with a cooling ΔT of 20°F (11°C). For other lengths, use the correction factor table shown.
- Total Pressure is in inches w.g..
- Noise Criteria [NC] values are based on a 10 foot active section. For other lengths, use the correction factor table shown.
- Return Air Applications:
Noise Criteria value is increased by + 4.
Negative Static Pressure = 0.8 x Total Pressure.
- Dash (–) in space indicates an Noise Criteria level of less than 15.
- Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70–2023.

Noise Criteria Correction for Length

| Active Length, ft. | 1 | 2 | 4 | 8 | 10 | 15 | 20 |
|--------------------|-----|----|----|----|----|----|----|
| Correction Factor | -10 | -7 | -4 | -1 | 0 | +2 | +3 |

Throw Correction for Length

| Active Length | Terminal Velocity | | |
|---------------|-------------------|---------|--------|
| | 150 fpm | 100 fpm | 50 fpm |
| 1 ft. | 0.5 | 0.6 | 0.7 |
| 10 ft. + | 1.6 | 1.4 | 1.2 |

| Nominal Width | Ak Factor per foot | |
|---------------|--------------------|--------|
| | Supply | Return |
| 1 1/2" | .047 | .040 |
| 2" | .066 | .055 |
| 2 1/2" | .084 | .073 |
| 3" | .107 | .089 |
| 3 1/2" | .127 | .113 |
| 4" | .150 | .127 |
| 5" | .190 | .163 |
| 6" | .232 | .197 |