

PERFORMANCE DATA

RCD / RCDA - Four Cone

| Size | NC 20 | | | | | | | | | | | NC30 | | | NC 40 | | |
|----------|------------------------------|------------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|-------|-------|--|--|
| | Neck Velocity (fpm) | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1200 | 1400 | 1600 | | | | | |
| | Velocity Pressure (in. w.g.) | | 0.010 | 0.016 | 0.023 | 0.031 | 0.040 | 0.051 | 0.063 | 0.090 | 0.122 | 0.160 | | | | | |
| | Total Pressure (in. w.g.) | Horizontal | 0.021 | 0.034 | 0.048 | 0.065 | 0.084 | 0.107 | 0.132 | 0.189 | 0.256 | 0.346 | | | | | |
| Vertical | | 0.027 | 0.044 | 0.063 | 0.085 | 0.109 | 0.139 | 0.172 | 0.246 | 0.333 | 0.437 | | | | | | |
| 6 | Flow Rate (cfm) | | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 235 | 275 | 315 | | | | | |
| | Radius of Diffusion (ft.) | | 1-2-3 | 2-3-4 | 2-3-5 | 2-4-6 | 3-4-7 | 3-5-7 | 4-5-8 | 4-6-10 | 5-7-11 | 6-8-13 | | | | | |
| | Sound (NC) | | - | - | 15 | 20 | 24 | 27 | 31 | 36 | 41 | 45 | | | | | |
| 8 | Flow Rate (cfm) | | 140 | 175 | 210 | 245 | 280 | 315 | 350 | 420 | 490 | 560 | | | | | |
| | Radius of Diffusion (ft.) | | 2-3-4 | 2-3-5 | 3-3-7 | 3-5-8 | 4-5-9 | 4-6-10 | 5-7-11 | 5-9-13 | 6-9-15 | 7-11-17 | | | | | |
| | Sound (NC) | | - | - | 17 | 22 | 27 | 30 | 33 | 39 | 44 | 48 | | | | | |
| 10 | Flow Rate (cfm) | | 220 | 270 | 330 | 380 | 435 | 490 | 545 | 655 | 765 | 870 | | | | | |
| | Radius of Diffusion (ft.) | | 2-3-5 | 3-4-7 | 3-5-8 | 4-6-9 | 4-7-11 | 5-8-12 | 6-8-14 | 7-10-16 | 8-12-19 | 9-13-22 | | | | | |
| | Sound (NC) | | - | - | 17 | 22 | 27 | 30 | 33 | 39 | 44 | 48 | | | | | |
| 12 | Flow Rate (cfm) | | 315 | 390 | 470 | 550 | 630 | 705 | 785 | 940 | 1100 | 1255 | | | | | |
| | Radius of Diffusion (ft.) | | 3-4-7 | 3-5-8 | 4-6-10 | 5-7-11 | 5-8-13 | 6-9-15 | 7-10-16 | 8-12-19 | 9-14-23 | 11-16-26 | | | | | |
| | Sound (NC) | | - | - | 18 | 23 | 27 | 31 | 34 | 40 | 45 | 50 | | | | | |
| 14 | Flow Rate (cfm) | | 425 | 530 | 635 | 745 | 850 | 955 | 1060 | 1270 | 1490 | 1695 | | | | | |
| | Radius of Diffusion (ft.) | | 3-5-8 | 4-6-9 | 5-5-11 | 5-8-13 | 6-9-15 | 7-11-17 | 8-12-19 | 9-14-22 | 11-16-26 | 13-19-30 | | | | | |
| | Sound (NC) | | - | - | 19 | 24 | 28 | 32 | 35 | 41 | 46 | 50 | | | | | |
| 16 | Flow Rate (cfm) | | 560 | 700 | 840 | 980 | 1120 | 1260 | 1400 | 1680 | 1960 | 2240 | | | | | |
| | Radius of Diffusion (ft.) | | 4-5-9 | 5-7-11 | 5-8-13 | 6-9-15 | 7-11-17 | 8-12-20 | 9-14-22 | 11-16-26 | 13-19-30 | 14-22-35 | | | | | |
| | Sound (NC) | | - | - | 19 | 25 | 29 | 32 | 36 | 41 | 46 | 51 | | | | | |
| 18 | Flow Rate (cfm) | | 710 | 885 | 1060 | 1240 | 1420 | 1590 | 1770 | 2120 | 2480 | 2830 | | | | | |
| | Radius of Diffusion (ft.) | | 4-6-10 | 5-8-12 | 6-9-15 | 7-11-17 | 8-12-20 | 9-14-22 | 10-15-24 | 12-18-29 | 14-21-34 | 16-24-39 | | | | | |
| | Sound (NC) | | - | 15 | 20 | 26 | 30 | 33 | 36 | 42 | 46 | 52 | | | | | |
| 20 | Flow Rate (cfm) | | 875 | 1100 | 1310 | 1530 | 1750 | 1970 | 2190 | 2610 | 3060 | 3500 | | | | | |
| | Radius of Diffusion (ft.) | | 4-7-11 | 6-9-14 | 7-10-16 | 8-12-19 | 9-14-22 | 10-15-24 | 11-14-27 | 13-19-32 | 16-24-38 | 18-27-43 | | | | | |
| | Sound (NC) | | - | 15 | 21 | 26 | 30 | 34 | 37 | 43 | 48 | 52 | | | | | |
| 24 | Flow Rate (cfm) | | 1260 | 1570 | 1880 | 2200 | 2510 | 2830 | 3140 | 3770 | 4400 | 5020 | | | | | |
| | Radius of Diffusion (ft.) | | 5-8-13 | 7-10-16 | 8-12-19 | 9-14-23 | 11-16-26 | 12-18-29 | 14-20-32 | 16-24-39 | 19-28-45 | 22-32-52 | | | | | |
| | Sound (NC) | | - | 16 | 22 | 27 | 31 | 35 | 38 | 44 | 49 | 53 | | | | | |
| 30 | Flow Rate (cfm) | | 1960 | 2450 | 2940 | 3430 | 3920 | 4410 | 4900 | 5880 | 6860 | 7840 | | | | | |
| | Radius of Diffusion (ft.) | | 7-10-16 | 8-13-20 | 10-15-24 | 12-18-28 | 13-20-32 | 15-23-36 | 17-25-41 | 20-30-49 | 24-34-57 | 27-40-65 | | | | | |
| | Sound (NC) | | - | 17 | 23 | 27 | 32 | 36 | 39 | 45 | 50 | 54 | | | | | |
| 36 | Flow Rate (cfm) | | 2820 | 3520 | 4230 | 4930 | 5630 | 6340 | 7040 | 8450 | 9850 | 11,260 | | | | | |
| | Radius of Diffusion (ft.) | | 8-12-20 | 10-15-24 | 12-18-29 | 14-21-34 | 16-24-39 | 18-27-44 | 20-30-49 | 24-36-58 | 28-42-68 | 32-48-78 | | | | | |
| | Sound (NC) | | - | 18 | 24 | 28 | 33 | 37 | 40 | 46 | 51 | 55 | | | | | |
| | | | NC 20 | | | | NC 30 | | | | NC 40 | | | NC 50 | | | |

Performance Notes:

1. Tested in accordance with ASHRAE Standard 70 – 2023 "Method of Testing for Rating the Performance of Air Outlets and Inlets."
2. Air flow is in cfm.
3. All pressures are in in. w.g.
4. Throw values are measured in feet for terminal velocities of 150 fpm (minimum), 100 fpm (middle) and 50 fpm (maximum). If the diffuser is mounted on an exposed duct, multiply the throw value in table by 0.70.
5. Throw data is based on supply air and room air being at isothermal conditions.
6. NC values are based on room absorption of 10 dB re 10⁻¹² Watts and one diffuser. Values shown are for a horizontal pattern. Add 1 dB for a vertical pattern.
7. Blanks "-" indicate an NC level below 15.

PERFORMANCE DATA

RCDE - Three Cone

| Size | Neck Velocity (fpm) Velocity Pressure (in. w.g.) | NC 20 | | | | | NC 30 | | | NC 40 | | NC 50 |
|------|---|--------|---------|---------|----------|----------|----------|----------|----------|----------|----------|-------|
| | | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1200 | 1400 | 1600 | |
| | | .010 | .016 | .023 | .031 | .040 | .051 | .063 | .090 | .122 | .160 | |
| 6 | Total Pressure (in. w.g.) | .026 | .041 | .059 | .079 | .102 | .130 | .161 | .230 | .311 | .408 | |
| | Flow Rate (cfm) | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 235 | 275 | 315 | |
| | Radius of Diffusion (ft.) | 2-2-4 | 2-3-5 | 2-4-6 | 3-4-7 | 3-5-8 | 4-5-9 | 4-6-10 | 5-7-11 | 6-8-13 | 6-10-15 | |
| | Sound (NC) | - | - | - | 19 | 23 | 26 | 30 | 35 | 40 | 44 | |
| 8 | Total Pressure (in. w.g.) | .033 | .052 | .075 | .101 | .130 | .166 | .205 | .292 | .397 | .520 | |
| | Flow Rate (cfm) | 140 | 175 | 210 | 245 | 280 | 315 | 350 | 420 | 490 | 560 | |
| | Radius of Diffusion (ft.) | 2-4-8 | 3-4-7 | 4-5-9 | 4-6-10 | 5-7-11 | 5-8-13 | 6-9-14 | 7-11-17 | 8-13-20 | 10-14-23 | |
| | Sound (NC) | - | 15 | 21 | 26 | 31 | 34 | 37 | 44 | 48 | 53 | |
| 10 | Total Pressure (in. w.g.) | .027 | .043 | .062 | .084 | .108 | .138 | .170 | .243 | .329 | .432 | |
| | Flow Rate (cfm) | 220 | 270 | 330 | 380 | 435 | 490 | 545 | 655 | 765 | 870 | |
| | Radius of Diffusion (ft.) | 3-4-7 | 3-5-8 | 4-6-10 | 5-7-11 | 5-8-13 | 6-9-15 | 7-10-16 | 8-12-20 | 10-14-23 | 11-16-26 | |
| | Sound (NC) | - | - | 17 | 21 | 26 | 30 | 33 | 39 | 44 | 48 | |
| 12 | Total Pressure (in. w.g.) | .026 | .042 | .060 | .081 | .105 | .135 | .166 | .236 | .320 | .420 | |
| | Flow Rate (cfm) | 315 | 390 | 470 | 550 | 630 | 705 | 785 | 940 | 1100 | 1255 | |
| | Radius of Diffusion (ft.) | 3-5-8 | 4-6-10 | 5-7-12 | 6-8-13 | 6-10-15 | 7-11-17 | 8-12-19 | 10-14-23 | 11-17-23 | 12-19-31 | |
| | Sound (NC) | - | - | 17 | 22 | 26 | 30 | 33 | 39 | 45 | 49 | |
| 14 | Total Pressure (in. w.g.) | .038 | .061 | .087 | .118 | .152 | .194 | .240 | .342 | .465 | .608 | |
| | Flow Rate (cfm) | 425 | 530 | 635 | 745 | 850 | 955 | 1060 | 1270 | 1490 | 1695 | |
| | Radius of Diffusion (ft.) | 4-6-10 | 5-8-12 | 6-9-15 | 7-11-17 | 8-12-20 | 9-14-22 | 10-15-24 | 12-18-29 | 14-21-34 | 16-24-39 | |
| | Sound (NC) | - | 18 | 23 | 28 | 32 | 36 | 40 | 46 | 51 | 55 | |
| 16 | Total Pressure (in. w.g.) | .033 | .053 | .076 | .102 | .132 | .168 | .208 | .297 | .403 | .528 | |
| | Flow Rate (cfm) | 560 | 700 | 840 | 980 | 1120 | 1260 | 1400 | 1680 | 1960 | 2240 | |
| | Radius of Diffusion (ft.) | 5-7-11 | 6-9-14 | 7-10-16 | 8-12-19 | 9-14-22 | 10-15-24 | 11-17-27 | 14-20-33 | 16-24-38 | 18-27-43 | |
| | Sound (NC) | 16 | 16 | 22 | 27 | 31 | 35 | 39 | 44 | 49 | 53 | |
| 18 | Total Pressure (in. w.g.) | .030 | .048 | .069 | .093 | .120 | .153 | .189 | .270 | .366 | .480 | |
| | Flow Rate (cfm) | 710 | 885 | 1060 | 1240 | 1420 | 1590 | 1770 | 2120 | 2480 | 2830 | |
| | Radius of Diffusion (ft.) | 5-7-12 | 6-9-15 | 7-11-18 | 9-13-21 | 10-15-24 | 11-17-27 | 12-19-30 | 15-22-36 | 17-26-42 | 20-30-48 | |
| | Sound (NC) | - | 15 | 21 | 26 | 30 | 34 | 37 | 43 | 48 | 52 | |
| 20 | Total Pressure (in. w.g.) | .030 | .047 | .068 | .091 | .118 | .151 | .186 | .266 | .360 | .472 | |
| | Flow Rate (cfm) | 875 | 1100 | 1310 | 1530 | 1750 | 1970 | 2190 | 2610 | 3060 | 3500 | |
| | Radius of Diffusion (ft.) | 6-8-13 | 7-10-17 | 8-12-20 | 10-15-23 | 11-17-27 | 12-19-30 | 14-21-33 | 16-25-40 | 19-29-46 | 22-33-53 | |
| | Sound (NC) | - | 16 | 21 | 26 | 30 | 34 | 38 | 43 | 48 | 52 | |
| 24 | Total Pressure (in. w.g.) | .024 | .038 | .054 | .073 | .094 | .120 | .148 | .211 | .286 | .376 | |
| | Flow Rate (cfm) | 1260 | 1570 | 1880 | 2200 | 2510 | 2820 | 3140 | 3770 | 4400 | 5020 | |
| | Radius of Diffusion (ft.) | 6-9-15 | 8-12-19 | 9-14-22 | 11-16-26 | 12-19-30 | 14-21-34 | 16-23-37 | 19-28-45 | 22-33-52 | 25-37-60 | |
| | Sound (NC) | - | - | 19 | 24 | 28 | 32 | 35 | 41 | 46 | 50 | |
| | | NC 20 | | | NC 30 | | | NC 40 | | NC 50 | | |

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4. Throw values are measured in feet for terminal velocities of 150 fpm (minimum), 100 fpm (middle) and 50 fpm (maximum). If the diffuser is mounted on an exposed duct, multiply the throw value in table by 0.70.
5. Throw data is based on supply air and room air being at isothermal conditions.
6. NC values are based on room absorption of 10 dB re 10⁻¹² Watts and one diffuser. Values shown are for a horizontal pattern. Add 1 dB for a vertical pattern.
7. Blanks "-" indicate an NC level below 15.