

## SSPLT-R Lay-In Perforated Return Diffuser

|                        |                        |                |      |      |      |      |      |      |      |      |      |
|------------------------|------------------------|----------------|------|------|------|------|------|------|------|------|------|
| 12 x 12 Face           | Neck Size              | Neck Vel, fpm  | 300  | 400  | 500  | 600  | 700  | 800  | 1000 | 1200 | 1400 |
|                        |                        | Vp, in. Wg     | 0.01 | 0.01 | 0.02 | 0.02 | 0.03 | 0.04 | 0.06 | 0.09 | 0.12 |
|                        |                        | Ps (-), in. Wg | 0.03 | 0.06 | 0.09 | 0.13 | 0.17 | 0.23 | 0.36 | 0.51 | 0.70 |
|                        | 6 Dia. *               | Flow Rate, cfm | 59   | 78   | 98   | 118  | 137  | 157  | 196  | 235  | 275  |
|                        |                        | Room NC        | -    | -    | -    | 14   | 18   | 21   | 27   | 32   | 36   |
|                        | 6 x 6 Neck *           | Flow Rate, cfm | 75   | 100  | 125  | 150  | 175  | 200  | 250  | 300  | 350  |
|                        |                        | Room NC        | -    | -    | 12   | 17   | 21   | 24   | 30   | 35   | 39   |
|                        | 10 x 10 Neck           | Flow Rate, cfm | 208  | 278  | 347  | 417  | 486  | 556  | 694  | 833  | 972  |
| Room NC                |                        | 15             | 23   | 29   | 33   | 37   | 41   | 47   | 51   | 55   |      |
| 24 x 24 Face           | Neck Size              | Neck Vel, fpm  | 300  | 400  | 500  | 600  | 700  | 800  | 1000 | 1200 | 1400 |
|                        |                        | Vp, in. Wg     | 0.01 | 0.01 | 0.02 | 0.02 | 0.03 | 0.04 | 0.06 | 0.09 | 0.12 |
|                        |                        | Ps (-), in. Wg | 0.03 | 0.06 | 0.09 | 0.13 | 0.18 | 0.24 | 0.37 | 0.54 | 0.73 |
|                        | 6 Dia. *               | Flow Rate, cfm | 59   | 78   | 98   | 118  | 137  | 157  | 196  | 235  | 275  |
|                        |                        | Room NC        | -    | -    | -    | 13   | 17   | 20   | 26   | 31   | 34   |
|                        | 6 x 6 Neck *           | Flow Rate, cfm | 75   | 100  | 125  | 150  | 175  | 200  | 250  | 300  | 350  |
|                        |                        | Room NC        | -    | -    | -    | 14   | 18   | 21   | 27   | 32   | 35   |
|                        | 8 Dia. *               | Flow Rate, cfm | 105  | 140  | 174  | 209  | 244  | 279  | 349  | 419  | 488  |
|                        |                        | Room NC        | -    | -    | 13   | 17   | 21   | 24   | 30   | 35   | 38   |
|                        | 8 x 8 Neck *           | Flow Rate, cfm | 133  | 178  | 222  | 267  | 311  | 356  | 444  | 533  | 622  |
|                        |                        | Room NC        | -    | -    | 14   | 18   | 22   | 25   | 31   | 36   | 39   |
|                        | 10 Dia.*               | Flow Rate, cfm | 164  | 218  | 273  | 327  | 382  | 436  | 545  | 654  | 763  |
|                        |                        | Room NC        | -    | -    | 16   | 20   | 24   | 27   | 33   | 38   | 41   |
|                        | 10 x 10 Neck *         | Flow Rate, cfm | 208  | 278  | 347  | 417  | 486  | 556  | 694  | 833  | 972  |
|                        |                        | Room NC        | -    | 11   | 17   | 21   | 25   | 28   | 34   | 39   | 42   |
|                        | 12 Dia. *              | Flow Rate, cfm | 235  | 314  | 392  | 471  | 549  | 628  | 785  | 942  | 1099 |
|                        |                        | Room NC        | -    | 12   | 17   | 22   | 26   | 29   | 34   | 39   | 43   |
|                        | 12 x 12 Neck *         | Flow Rate, cfm | 300  | 400  | 500  | 600  | 700  | 800  | 1000 | 1200 | 1400 |
|                        |                        | Room NC        | -    | 14   | 20   | 24   | 28   | 31   | 37   | 42   | 45   |
|                        | 14 Dia. *              | Flow Rate, cfm | 320  | 427  | 534  | 641  | 748  | 855  | 1068 | 1282 | 1495 |
|                        |                        | Room NC        | -    | 15   | 21   | 25   | 29   | 32   | 38   | 43   | 46   |
|                        | 15 x 15 Neck *         | Flow Rate, cfm | 469  | 625  | 781  | 938  | 1094 | 1250 | 1563 | 1875 | 2188 |
|                        |                        | Room NC        | -    | 16   | 22   | 26   | 30   | 33   | 39   | 44   | 47   |
|                        | 16 Dia. *              | Flow Rate, cfm | 419  | 558  | 698  | 837  | 977  | 1116 | 1395 | 1674 | 1953 |
| Room NC                |                        | 11             | 18   | 24   | 28   | 32   | 35   | 41   | 46   | 49   |      |
| 18 x 18 Neck *         | Flow Rate, cfm         | 675            | 900  | 1125 | 1350 | 1575 | 1800 | 2250 | 2700 | 3150 |      |
|                        | Room NC                | 11             | 18   | 24   | 28   | 32   | 36   | 41   | 46   | 49   |      |
| 22 x 22 Neck           | Flow Rate, cfm         | 1008           | 1344 | 1681 | 2017 | 2353 | 2689 | 3361 | 4033 | 4706 |      |
|                        | Room NC                | 13             | 20   | 26   | 30   | 34   | 37   | 43   | 47   | 51   |      |
| Other Sizes            | Neck Size              | Neck Vel, fpm  | 300  | 400  | 500  | 600  | 700  | 800  | 1000 | 1200 | 1400 |
|                        |                        | Vp, in. Wg     | 0.01 | 0.01 | 0.02 | 0.02 | 0.03 | 0.04 | 0.06 | 0.09 | 0.12 |
|                        |                        | Ps (-), in. Wg | 0.03 | 0.06 | 0.09 | 0.13 | 0.17 | 0.23 | 0.36 | 0.51 | 0.70 |
|                        | 10 x 22 (12 x 24 Face) | Flow Rate, cfm | 458  | 611  | 764  | 917  | 1069 | 1222 | 1528 | 1833 | 2139 |
|                        |                        | Room NC        | -    | -    | -    | 14   | 18   | 21   | 27   | 32   | 36   |
|                        | 14 x 14 (16 x 16 Face) | Flow Rate, cfm | 408  | 544  | 681  | 817  | 953  | 1089 | 1361 | 1633 | 1906 |
|                        |                        | Room NC        | -    | -    | 12   | 17   | 21   | 24   | 30   | 35   | 39   |
|                        | 18 x 18 (20 x 20 Face) | Flow Rate, cfm | 675  | 900  | 1125 | 1350 | 1575 | 1800 | 2250 | 2700 | 3150 |
| Room NC                |                        | -              | 11   | 17   | 22   | 26   | 29   | 35   | 40   | 44   |      |
| 22 x 46 (24 x 48 Face) | Flow Rate, cfm         | 2108           | 2811 | 3514 | 4217 | 4919 | 5622 | 7028 | 8433 | 9839 |      |
|                        | Room NC                | 12             | 20   | 25   | 30   | 34   | 38   | 43   | 48   | 52   |      |

- Data obtained from tests conducted in accordance with ANSI / ASHRAE Standard 70-2006. Actual performance, with flexible duct inlet, may vary in the field. See the Engineering Guidelines section of this catalog for additional information.
- Throw values given are for terminal velocities of 150, 100 and 50 fpm and for isothermal conditions.
- For an explanation of catalog throw data, see the section, Engineering Guidelines.
- NC values based on octave band 2 to 7 sound power levels minus a room absorption of 10 dB.
- Each NC value represents the noise criteria curve that will not be exceeded by the sound pressure in any of the octave bands, 2 through 7, with a room absorption of 10 dB, re 10<sup>-12</sup> watts.
- Dash (-) in space denotes an NC value of less than 10.
- All pressures are given in inches of water.
- To obtain static pressure, subtract the velocity pressure from the total pressure.