Table 3 Positive dimensionless air exchange rate (ACH+) for the street canyons with the void deck

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Regular canyon (H/W=1) | | 0.0333 | 0.1053 | 0.0020 | 0.0108 | 0.0020 | 0.0108 | -------- | -------- | -------- | -------- | 0.0372 | 0.1269 | 0.1642 | 22.7% | 77.3% |
| Void deck  (H/6) | Leeward side | 0.0908 | 0.1217 | 0.0142 | 0.0093 | 0.0142 | 0.0093 | 0.0000 | 0.0107 | -------- | -------- | 0.1193 | 0.1511 | 0.2704 | 44.1% | 55.9% |
|  | Windward side | 0.0485 | 0.0915 | 0.0030 | 0.0104 | 0.0030 | 0.0104 | -------- | -------- | 0.0026 | 0.0056 | 0.0572 | 0.1179 | 0.1751 | 32.7% | 67.3% |
|  | Both side | 0.0329 | 0.1190 | 0.0066 | 0.0094 | 0.0066 | 0.0094 | 0.0000 | 0.0111 | 0.0854 | 0.0108 | 0.1315 | 0.1596 | 0.2911 | 45.2% | 54.8% |
| Void deck  (H/4) | Leeward side | 0.1384 | 0.1177 | 0.0207 | 0.0089 | 0.0207 | 0.0089 | 0.0000 | 0.0200 | -------- | -------- | 0.1797 | 0.1555 | 0.3352 | 53.6% | 46.4% |
|  | Windward side | 0.0590 | 0.0879 | 0.0037 | 0.0101 | 0.0037 | 0.0101 | ---------- | ---------- | 0.0041 | 0.0096 | 0.0706 | 0.1177 | 0.1882 | 37.5% | 62.5% |
|  | Both side | 0.0301 | 0.1205 | 0.0075 | 0.0093 | 0.0075 | 0.0093 | 0.0000 | 0.0212 | 0.1513 | 0.0190 | 0.1964 | 0.1793 | 0.3757 | 52.3% | 47.7% |
| Regular canyon (H/W=2) | | 0.0200 | 0.0622 | 0.0036 | 0.0107 | 0.0036 | 0.0107 | -------- | -------- | -------- | -------- | 0.0272 | 0.0836 | 0.1108 | 24.5% | 75.5% |
| Void deck  (H/6) | Leeward side | 0.0483 | 0.0672 | 0.0118 | 0.0112 | 0.0118 | 0.0112 | 0.0000 | 0.0072 | -------- | -------- | 0.0718 | 0.0967 | 0.1686 | 42.6% | 57.4% |
|  | Windward side | 0.0364 | 0.0486 | 0.0073 | 0.0094 | 0.0073 | 0.0094 | -------- | -------- | 0.0000 | 0.0035 | 0.0509 | 0.0710 | 0.1219 | 41.8% | 58.2% |
|  | Both side | 0.0251 | 0.0642 | 0.0064 | 0.0118 | 0.0064 | 0.0118 | 0.0000 | 0.0072 | 0.0464 | 0.0056 | 0.0843 | 0.1007 | 0.1850 | 45.6% | 54.4% |
| Void deck  (H/4) | Leeward side | 0.0735 | 0.0672 | 0.0173 | 0.0113 | 0.0173 | 0.0113 | 0.0000 | 0.0140 | -------- | -------- | 0.1082 | 0.1038 | 0.2120 | 51.0% | 49.0% |
|  | Windward side | 0.0447 | 0.0437 | 0.0095 | 0.0086 | 0.0095 | 0.0086 | -------- | -------- | 0.0000 | 0.0065 | 0.0637 | 0.0673 | 0.1310 | 48.6% | 51.4% |
|  | Both side | 0.0289 | 0.0642 | 0.0080 | 0.0122 | 0.0080 | 0.0122 | 0.0000 | 0.0143 | 0.0795 | 0.0106 | 0.1243 | 0.1135 | 0.2379 | 52.3% | 47.7% |

Table 4 Negative dimensionless air exchange rate (ACH-) for the street canyons with void deck

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Regular canyon (H/W=1) | | -0.0211 | -0.1053 | -0.0083 | -0.0108 | -0.0083 | -0.0108 | -------- | -------- | -------- | -------- | -0.0377 | -0.1269 | -0.1646 | 22.9% | 77.1% |
| Void deck  (H/6) | Leeward side | -0.0089 | -0.1217 | -0.0000 | -0.0093 | -0.0000 | -0.0093 | -0.1128 | -0.0107 | -------- | -------- | -0.1217 | -0.1511 | -0.2728 | 44.6% | 55.4% |
| Windward side | -0.0120 | -0.0915 | -0.0042 | -0.0104 | -0.0042 | -0.0104 | -------- | -------- | -0.0392 | -0.0056 | -0.0596 | -0.1179 | -0.1774 | 33.6% | 66.4% |
| Both side | -0.0058 | -0.1190 | -0.0056 | -0.0094 | -0.0056 | -0.0094 | -0.1176 | -0.0111 | 0.0000 | -0.0108 | -0.1346 | -0.1596 | -0.2942 | 45.7% | 54.3% |
| Void deck  (H/4) | Leeward side | -0.0109 | -0.1177 | -0.0000 | -0.0089 | -0.0000 | -0.0089 | -0.1714 | -0.0200 | -------- | -------- | -0.1823 | -0.1555 | -0.3378 | 54.0% | 46.0% |
| Windward side | -0.0101 | -0.0879 | -0.0023 | -0.0101 | -0.0023 | -0.0101 | -------- | -------- | -0.0581 | -0.0096 | -0.0729 | -0.1177 | -0.1905 | 38.3% | 61.7% |
| Both side | -0.0054 | -0.1205 | -0.0045 | -0.0093 | -0.0045 | -0.0093 | -0.1854 | -0.0212 | 0.0000 | -0.0190 | -0.1997 | -0.1793 | -0.3791 | 52.7% | 47.3% |
| Regular canyon (H/W=2) | | -0.0245 | -0.0622 | -0.0015 | -0.0107 | -0.0015 | -0.0107 | -------- | -------- | -------- | -------- | -0.0276 | -0.0836 | -0.1112 | 24.8% | 75.2% |
| Void deck  (H/6) | Leeward side | -0.0010 | -0.0672 | -0.0007 | -0.0112 | -0.0007 | -0.0112 | -0.0711 | -0.0072 | -------- | -------- | -0.0735 | -0.0967 | -0.1702 | 43.2% | 56.8% |
| Windward side | -0.0115 | -0.0486 | -0.0005 | -0.0094 | -0.0005 | -0.0094 | -------- | -------- | -0.0395 | -0.0035 | -0.0521 | -0.0710 | -0.1230 | 42.3% | 57.7% |
| Both side | -0.0048 | -0.0642 | -0.0047 | -0.0118 | -0.0047 | -0.0118 | -0.0715 | -0.0072 | 0.0000 | -0.0056 | -0.0857 | -0.1007 | -0.1864 | 46.0% | 54.0% |
| Void deck  (H/4) | Leeward side | -0.0017 | -0.0672 | -0.0001 | -0.0113 | -0.0001 | -0.0113 | -0.1079 | -0.0140 | -------- | -------- | -0.1099 | -0.1038 | -0.2137 | 51.4% | 48.6% |
| Windward side | -0.0064 | -0.0437 | -0.0002 | -0.0086 | -0.0002 | -0.0086 | -------- | -------- | -0.0581 | -0.0065 | -0.0650 | -0.0673 | -0.1323 | 49.1% | 50.9% |
| Both side | -0.0049 | -0.0642 | -0.0055 | -0.0122 | -0.0055 | -0.0122 | -0.1102 | -0.0143 | 0.0000 | -0.0106 | -0.1261 | -0.1135 | -0.2396 | 52.6% | 47.4% |