**Supplementary Info Tables – 2**

**Table A**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Samples Lot #** | **Sample #** | **SP 30mm** | | | | **PG 30mm** | | | |
| **Area** | | **Ovality ratio** | | **Angle** | | **Width** | |
| **Narrow-angle**  **Atomizer** | 1 | 1764.3 | 1816.1 | 1.311 | 1.309 | 72.5 | 73.7 | 44.09 | 45.11 |
| 1828.9 | 1.3 | 75.8 | 46.77 |
| 1855 | 1.317 | 72.8 | 44.47 |
| 2 | 2008.8 | 1917.3 | 1.395 | 1.394 | 81.9 | 80.5 | 52.14 | 50.99 |
| 1868.2 | 1.376 | 82.8 | 52.9 |
| 1874.8 | 1.412 | 76.8 | 47.92 |
| 3 | 2212.9 | 2346.4 | 1.225 | 1.187 | 80.1 | 80.1 | 50.6 | 50.60 |
| 2392.3 | 1.168 | 80.2 | 50.6 |
| 2433.9 | 1.167 | 80.1 | 50.6 |
| 4 | 2091.2 | 2099.1 | 1.356 | 1.332 | 76.6 | 76.7 | 47.92 | 48.30 |
| 2106.4 | 1.287 | 71 | 44.09 |
| 2099.8 | 1.353 | 82.4 | 52.9 |
| 5 | 2021.1 | 1963.5 | 1.218 | 1.255 | 72.1 | 73.3 | 43.7 | 44.72 |
| 1930.4 | 1.279 | 74.6 | 46 |
| 1939 | 1.268 | 73.1 | 44.47 |
| **Minimum value** | | 1816.1 | | 1.187 | | 73.3 | | 44.72 | |
| **Maximal value** | | 2346.4 | | 1.394 | | 80.5 | | 50.99 | |
| **Average** | | **2028.5** | | **1.295** | | **76.9** | | **47.94** | |
| **Table B** | | | | | | | | | |
| **Samples Lot #** | **Sample #** | **SP 30mm** | | | | **PG 30mm** | | | |
| **Area** | | **Ovality ratio** | | **Angle** | | **Width** | |
| **Open-angle Swirling Effect atomizer**  **(Soft Nozzle)** | 1 | 923.2 | 938.6 | 1.173 | 1.155 | 68.1 | 69.2 | 40.62 | 41.51 |
| 963.6 | 1.141 | 70 | 42.15 |
| 929.1 | 1.15 | 69.6 | 41.77 |
| 2 | 928.8 | 927.7 | 1.256 | 1.224 | 71.4 | 70.3 | 43.3 | 42.41 |
| 914.3 | 1.242 | 70 | 42.15 |
| 940 | 1.173 | 69.4 | 41.77 |
| 3 | 929.2 | 935.7 | 1.195 | 1.193 | 69 | 70.3 | 41.38 | 42.41 |
| 929.5 | 1.212 | 69.6 | 41.77 |
| 948.3 | 1.171 | 72.3 | 44.07 |
| 4 | 793.8 | 784.6 | 1.388 | 1.390 | 66.1 | 65.1 | 39.09 | 38.32 |
| 783 | 1.407 | 66.6 | 39.47 |
| 777.1 | 1.376 | 62.5 | 36.4 |
| 5 | 769.1 | 764.6 | 1.37 | 1.381 | 66.9 | 66.7 | 39.85 | 39.60 |
| 764.3 | 1.393 | 66 | 39.09 |
| 760.4 | 1.379 | 67.1 | 39.85 |
| **Minimum value** | | 764.6 | | 1.155 | | 65.1 | | 38.32 | |
| **Maximal value** | | 938.6 | | 1.390 | | 70.3 | | 42.41 | |
| **Average** | | **870.2** | | **1.268** | | **68.3** | | **40.85** | |