

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P332178-840

Luminaire Tested: **S123DIW-S775D1535U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332178-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123DIW-S775D1535U840-4F0-1E-UDD-F  
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 775 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1535 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9402.6 lumens  
Efficiency: N/A  
Efficacy: 138.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

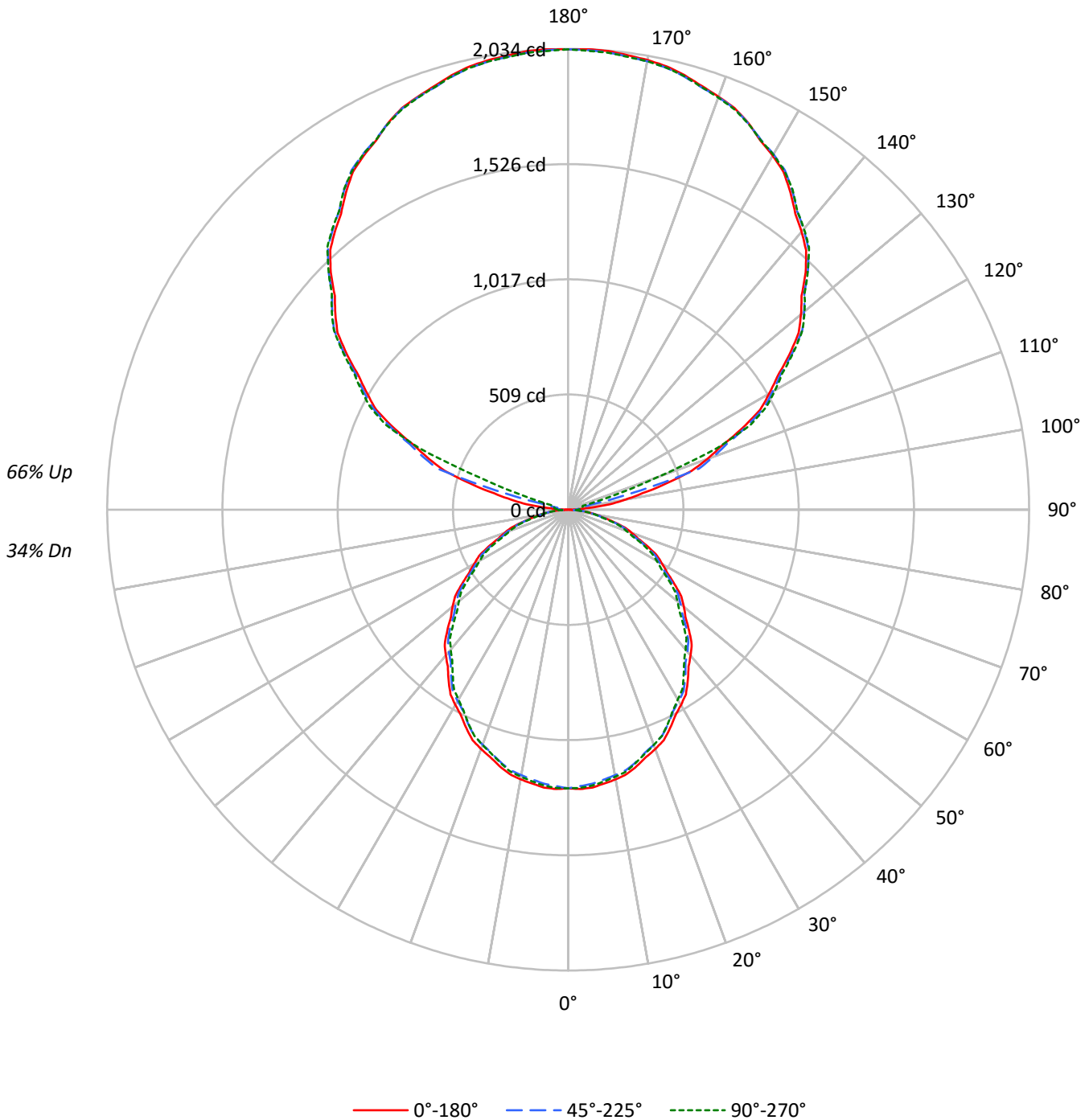
Input Watts (W): 68.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| RF  | 20  |     |     |     |    | 20 |    |    |    |    | 20 |    |    |    |    | 20 |    |    |    |    | 20 |   |
| RC  | 80  |     |     |     |    | 70 |    |    |    |    | 50 |    |    |    |    | 30 |    |    |    |    | 10 | 0 |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0  |   |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
| 0   | 103 | 103 | 103 | 103 | 93 | 93 | 93 | 93 | 74 | 74 | 74 | 57 | 57 | 57 | 42 | 42 | 42 | 34 |    |    |    |   |
| 1   | 94  | 90  | 86  | 83  | 85 | 81 | 78 | 75 | 65 | 63 | 61 | 50 | 49 | 48 | 37 | 36 | 35 | 29 |    |    |    |   |
| 2   | 86  | 78  | 72  | 67  | 77 | 71 | 66 | 62 | 57 | 53 | 50 | 44 | 42 | 40 | 32 | 31 | 29 | 24 |    |    |    |   |
| 3   | 78  | 69  | 62  | 56  | 70 | 62 | 56 | 51 | 50 | 46 | 42 | 39 | 36 | 33 | 28 | 27 | 25 | 20 |    |    |    |   |
| 4   | 71  | 61  | 53  | 47  | 64 | 55 | 49 | 43 | 45 | 40 | 36 | 35 | 31 | 29 | 25 | 23 | 21 | 17 |    |    |    |   |
| 5   | 65  | 54  | 46  | 40  | 59 | 49 | 42 | 37 | 40 | 35 | 31 | 31 | 27 | 25 | 23 | 21 | 19 | 15 |    |    |    |   |
| 6   | 60  | 48  | 41  | 35  | 54 | 44 | 37 | 32 | 36 | 31 | 27 | 28 | 24 | 22 | 21 | 18 | 16 | 13 |    |    |    |   |
| 7   | 56  | 44  | 36  | 30  | 50 | 40 | 33 | 28 | 32 | 27 | 24 | 25 | 22 | 19 | 19 | 16 | 15 | 12 |    |    |    |   |
| 8   | 51  | 39  | 32  | 27  | 46 | 36 | 29 | 25 | 29 | 24 | 21 | 23 | 20 | 17 | 17 | 15 | 13 | 10 |    |    |    |   |
| 9   | 48  | 36  | 29  | 24  | 43 | 33 | 26 | 22 | 27 | 22 | 19 | 21 | 18 | 15 | 16 | 14 | 12 | 9  |    |    |    |   |
| 10  | 45  | 33  | 26  | 21  | 40 | 30 | 24 | 20 | 25 | 20 | 17 | 20 | 16 | 14 | 15 | 12 | 11 | 9  |    |    |    |   |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 13237 | 13237 | 13237 |
| 5°  | 13299 | 13116 | 13207 |
| 10° | 13210 | 13002 | 13083 |
| 15° | 13056 | 12856 | 12880 |
| 20° | 12875 | 12645 | 12657 |
| 25° | 12634 | 12396 | 12371 |
| 30° | 12367 | 12117 | 12026 |
| 35° | 12089 | 11825 | 11671 |
| 40° | 11797 | 11500 | 11323 |
| 45° | 11478 | 11204 | 10930 |
| 50° | 11156 | 10836 | 10535 |
| 55° | 10736 | 10457 | 10141 |
| 60° | 10312 | 10015 | 9698  |
| 65° | 9938  | 9536  | 9235  |
| 70° | 9385  | 8985  | 8585  |
| 75° | 8576  | 8268  | 7918  |
| 80° | 7736  | 7407  | 7345  |
| 85° | 6780  | 6533  | 6274  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 115.8  | 1.2       |
| 10°-20°   | 327.1  | 3.5       |
| 20°-30°   | 483.2  | 5.1       |
| 30°-40°   | 564.4  | 6.0       |
| 40°-50°   | 567.4  | 6.0       |
| 50°-60°   | 498.4  | 5.3       |
| 60°-70°   | 371.3  | 3.9       |
| 70°-80°   | 211.6  | 2.3       |
| 80°-90°   | 66.4   | 0.7       |
| 90°-100°  | 73.9   | 0.8       |
| 100°-110° | 352.1  | 3.7       |
| 110°-120° | 845.8  | 9.0       |
| 120°-130° | 1077.0 | 11.5      |
| 130°-140° | 1150.8 | 12.2      |
| 140°-150° | 1076.1 | 11.4      |
| 150°-160° | 868.0  | 9.2       |
| 160°-170° | 560.2  | 6.0       |
| 170°-180° | 193.1  | 2.1       |
| 0°-30°    | 926.1  | 9.8       |
| 0°-40°    | 1490.5 | 15.9      |
| 0°-60°    | 2556.3 | 27.2      |
| 0°-90°    | 3205.7 | 34.1      |
| 90°-120°  | 1271.8 | 13.5      |
| 90°-150°  | 4575.6 | 48.7      |
| 90°-180°  | 6197.0 | 65.9      |
| 0°-180°   | 9402.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1230 | 1230  | 1230 | 1230  | 1230 |      |
| 5°   | 1231 | 1225  | 1214 | 1224  | 1222 | 117  |
| 15°  | 1172 | 1167  | 1154 | 1161  | 1156 | 330  |
| 25°  | 1064 | 1057  | 1044 | 1044  | 1042 | 490  |
| 35°  | 920  | 913   | 900  | 894   | 888  | 575  |
| 45°  | 754  | 749   | 736  | 724   | 718  | 582  |
| 55°  | 572  | 570   | 557  | 546   | 540  | 512  |
| 65°  | 390  | 385   | 374  | 366   | 363  | 385  |
| 75°  | 206  | 202   | 199  | 194   | 190  | 221  |
| 85°  | 55   | 53    | 53   | 51    | 51   | 60   |
| 90°  | 2    | 17    | 36   | 42    | 45   | 7    |
| 95°  | 92   | 35    | 47   | 57    | 57   | 114  |
| 105° | 450  | 458   | 331  | 78    | 66   | 477  |
| 115° | 844  | 853   | 867  | 881   | 888  | 833  |
| 125° | 1190 | 1201  | 1208 | 1211  | 1214 | 1062 |
| 135° | 1481 | 1490  | 1496 | 1500  | 1496 | 1140 |
| 145° | 1709 | 1719  | 1723 | 1726  | 1726 | 1069 |
| 155° | 1883 | 1880  | 1881 | 1888  | 1880 | 867  |
| 165° | 1985 | 1981  | 1979 | 1990  | 1981 | 561  |
| 175° | 2032 | 2025  | 2026 | 2035  | 2025 | 193  |
| 180° | 2032 | 2032  | 2032 | 2032  | 2032 |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1229.8 | 1229.8 | 1229.8 | 1229.8 | 1229.8 | 1229.8 | 1229.8 | 1229.8 | 1229.8 | 1229.8 | 1229.8 |
| 2.5°   | 1234.0 | 1233.2 | 1232.5 | 1231.7 | 1231.0 | 1229.6 | 1227.5 | 1225.5 | 1223.4 | 1221.3 | 1223.1 |
| 5°     | 1230.8 | 1229.6 | 1228.5 | 1227.3 | 1226.1 | 1224.3 | 1221.6 | 1219.1 | 1216.5 | 1213.9 | 1216.3 |
| 7.5°   | 1218.8 | 1217.6 | 1216.4 | 1215.3 | 1214.1 | 1212.1 | 1209.4 | 1206.8 | 1204.1 | 1201.4 | 1203.6 |
| 10°    | 1208.6 | 1207.4 | 1206.3 | 1205.1 | 1204.0 | 1201.8 | 1198.7 | 1195.7 | 1192.7 | 1189.6 | 1191.7 |
| 12.5°  | 1195.1 | 1194.1 | 1193.2 | 1192.1 | 1191.1 | 1189.2 | 1186.4 | 1183.5 | 1180.6 | 1177.7 | 1179.3 |
| 15°    | 1171.6 | 1170.6 | 1169.7 | 1168.8 | 1167.8 | 1165.9 | 1162.8 | 1159.7 | 1156.7 | 1153.7 | 1155.5 |
| 17.5°  | 1144.3 | 1143.1 | 1141.9 | 1140.6 | 1139.4 | 1137.3 | 1134.3 | 1131.1 | 1128.1 | 1125.1 | 1126.4 |
| 20°    | 1124.0 | 1122.6 | 1121.3 | 1119.8 | 1118.4 | 1116.1 | 1113.1 | 1110.0 | 1107.0 | 1103.9 | 1104.9 |
| 22.5°  | 1101.2 | 1099.7 | 1098.3 | 1096.9 | 1095.5 | 1093.3 | 1090.3 | 1087.2 | 1084.2 | 1081.1 | 1081.9 |
| 25°    | 1063.8 | 1062.4 | 1061.0 | 1059.6 | 1058.1 | 1055.9 | 1052.8 | 1049.8 | 1046.7 | 1043.7 | 1043.9 |
| 27.5°  | 1023.8 | 1022.4 | 1021.1 | 1019.7 | 1018.3 | 1016.0 | 1012.7 | 1009.5 | 1006.1 | 1002.8 | 1003.0 |
| 30°    | 995.0  | 993.8  | 992.7  | 991.5  | 990.3  | 988.1  | 984.8  | 981.5  | 978.3  | 974.9  | 974.9  |
| 32.5°  | 966.2  | 964.7  | 963.1  | 961.6  | 960.1  | 958.1  | 955.4  | 952.9  | 950.4  | 947.9  | 946.5  |
| 35°    | 920.0  | 918.6  | 917.2  | 915.7  | 914.3  | 912.1  | 909.0  | 905.9  | 902.9  | 899.9  | 898.5  |
| 37.5°  | 872.5  | 870.8  | 869.0  | 867.2  | 865.5  | 863.0  | 859.9  | 856.8  | 853.6  | 850.6  | 848.9  |
| 40°    | 839.6  | 838.2  | 836.8  | 835.4  | 833.9  | 831.6  | 828.3  | 825.1  | 821.7  | 818.4  | 816.6  |
| 42.5°  | 806.6  | 805.0  | 803.3  | 801.8  | 800.2  | 797.8  | 794.5  | 791.1  | 787.9  | 784.6  | 782.7  |
| 45°    | 754.0  | 753.0  | 752.0  | 751.1  | 750.1  | 748.2  | 745.1  | 742.0  | 739.0  | 736.0  | 733.2  |
| 47.5°  | 701.7  | 700.3  | 698.9  | 697.6  | 696.2  | 694.1  | 691.3  | 688.4  | 685.5  | 682.7  | 679.8  |
| 50°    | 666.2  | 665.0  | 663.8  | 662.7  | 661.5  | 659.3  | 656.3  | 653.3  | 650.2  | 647.1  | 644.6  |
| 52.5°  | 628.9  | 628.1  | 627.3  | 626.5  | 625.7  | 623.7  | 620.5  | 617.2  | 614.0  | 610.8  | 608.5  |
| 55°    | 572.1  | 571.8  | 571.6  | 571.4  | 571.1  | 569.5  | 566.4  | 563.4  | 560.3  | 557.2  | 554.7  |
| 57.5°  | 518.0  | 517.2  | 516.3  | 515.5  | 514.7  | 513.1  | 510.7  | 508.2  | 505.7  | 503.3  | 501.0  |
| 60°    | 479.0  | 478.8  | 478.6  | 478.3  | 478.1  | 476.6  | 473.7  | 470.9  | 468.1  | 465.2  | 463.1  |
| 62.5°  | 444.3  | 443.7  | 443.1  | 442.5  | 441.9  | 440.2  | 437.4  | 434.5  | 431.7  | 428.9  | 426.8  |
| 65°    | 390.2  | 389.0  | 387.8  | 386.7  | 385.5  | 383.7  | 381.3  | 379.0  | 376.7  | 374.4  | 372.4  |
| 67.5°  | 332.9  | 331.8  | 330.8  | 329.7  | 328.7  | 327.3  | 325.6  | 323.8  | 321.9  | 320.2  | 318.5  |
| 70°    | 298.2  | 296.8  | 295.4  | 294.0  | 292.6  | 291.1  | 289.7  | 288.3  | 286.9  | 285.5  | 283.9  |
| 72.5°  | 261.9  | 260.7  | 259.7  | 258.7  | 257.7  | 256.4  | 254.8  | 253.2  | 251.6  | 249.9  | 248.5  |
| 75°    | 206.2  | 205.2  | 204.3  | 203.4  | 202.5  | 201.6  | 200.9  | 200.2  | 199.4  | 198.8  | 197.6  |
| 77.5°  | 156.9  | 156.4  | 155.9  | 155.4  | 154.8  | 154.2  | 153.3  | 152.5  | 151.7  | 150.8  | 150.0  |
| 80°    | 124.8  | 124.1  | 123.4  | 122.7  | 122.0  | 121.4  | 120.9  | 120.5  | 120.0  | 119.5  | 119.3  |
| 82.5°  | 93.5   | 93.3   | 93.2   | 93.0   | 92.9   | 92.8   | 92.7   | 92.6   | 92.5   | 92.4   | 92.0   |
| 85°    | 54.9   | 54.5   | 54.0   | 53.6   | 53.1   | 52.9   | 52.9   | 52.9   | 52.9   | 52.9   | 52.4   |
| 87.5°  | 22.3   | 22.4   | 22.5   | 22.6   | 22.7   | 23.1   | 23.8   | 24.4   | 25.1   | 25.9   | 26.0   |
| 90°    | 1.5    | 4.8    | 8.2    | 11.6   | 14.9   | 18.8   | 23.1   | 27.5   | 31.9   | 36.3   | 37.6   |
| 92.5°  | 28.1   | 27.2   | 26.2   | 25.2   | 24.3   | 25.4   | 28.8   | 32.1   | 35.3   | 38.7   | 40.8   |
| 95°    | 92.1   | 78.4   | 64.6   | 50.8   | 37.1   | 32.0   | 35.7   | 39.4   | 43.1   | 46.8   | 49.2   |
| 97.5°  | 185.1  | 178.9  | 172.8  | 166.5  | 160.4  | 145.2  | 121.1  | 96.9   | 72.8   | 48.6   | 51.3   |
| 100°   | 255.2  | 261.9  | 268.5  | 275.3  | 282.0  | 259.1  | 206.8  | 154.5  | 102.2  | 49.8   | 52.5   |
| 102.5° | 334.9  | 339.7  | 344.6  | 349.3  | 354.2  | 328.0  | 270.8  | 213.7  | 156.5  | 99.4   | 91.0   |
| 105°   | 449.9  | 453.6  | 457.3  | 461.0  | 464.6  | 451.4  | 421.2  | 391.0  | 360.8  | 330.6  | 271.2  |
| 107.5° | 571.3  | 574.2  | 577.1  | 580.2  | 583.1  | 586.9  | 591.7  | 596.5  | 601.3  | 606.0  | 562.5  |
| 110°   | 652.2  | 654.9  | 657.5  | 660.2  | 663.0  | 666.1  | 669.8  | 673.5  | 677.2  | 680.9  | 669.8  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 729.5  | 732.0  | 734.4  | 736.8  | 739.1  | 742.3  | 745.9  | 749.6  | 753.3  | 757.0  | 757.2  |
| 115°   | 843.9  | 846.0  | 848.0  | 850.0  | 852.0  | 854.5  | 857.6  | 860.5  | 863.5  | 866.6  | 869.9  |
| 117.5° | 954.7  | 957.3  | 959.7  | 962.2  | 964.7  | 966.7  | 968.3  | 969.8  | 971.3  | 972.9  | 975.5  |
| 120°   | 1023.6 | 1026.6 | 1029.7 | 1032.7 | 1035.7 | 1037.7 | 1038.6 | 1039.7 | 1040.7 | 1041.7 | 1044.4 |
| 122.5° | 1093.7 | 1096.1 | 1098.6 | 1101.1 | 1103.6 | 1105.5 | 1106.7 | 1108.0 | 1109.2 | 1110.5 | 1112.5 |
| 125°   | 1189.6 | 1192.3 | 1195.1 | 1197.7 | 1200.4 | 1202.4 | 1203.8 | 1205.1 | 1206.5 | 1207.8 | 1208.5 |
| 127.5° | 1282.6 | 1285.4 | 1288.1 | 1290.7 | 1293.4 | 1295.6 | 1297.2 | 1298.8 | 1300.4 | 1302.0 | 1303.0 |
| 130°   | 1340.6 | 1343.3 | 1346.0 | 1348.7 | 1351.4 | 1353.4 | 1354.7 | 1356.0 | 1357.5 | 1358.8 | 1360.1 |
| 132.5° | 1396.2 | 1398.9 | 1401.6 | 1404.2 | 1406.9 | 1408.9 | 1409.9 | 1411.0 | 1412.0 | 1413.1 | 1414.4 |
| 135°   | 1481.1 | 1483.1 | 1485.1 | 1487.1 | 1489.1 | 1490.8 | 1492.1 | 1493.5 | 1494.8 | 1496.1 | 1497.1 |
| 137.5° | 1553.5 | 1556.1 | 1558.6 | 1561.2 | 1563.7 | 1565.4 | 1566.1 | 1566.8 | 1567.6 | 1568.3 | 1569.9 |
| 140°   | 1601.8 | 1603.9 | 1605.9 | 1607.9 | 1609.9 | 1611.3 | 1612.4 | 1613.4 | 1614.4 | 1615.4 | 1616.8 |
| 142.5° | 1646.5 | 1648.5 | 1650.5 | 1652.5 | 1654.6 | 1656.1 | 1657.1 | 1658.1 | 1659.1 | 1660.1 | 1661.1 |
| 145°   | 1709.0 | 1711.3 | 1713.7 | 1716.1 | 1718.4 | 1719.9 | 1720.6 | 1721.2 | 1721.9 | 1722.6 | 1723.2 |
| 147.5° | 1767.9 | 1769.5 | 1771.0 | 1772.5 | 1774.0 | 1775.1 | 1775.8 | 1776.6 | 1777.2 | 1777.9 | 1778.6 |
| 150°   | 1804.1 | 1805.1 | 1806.1 | 1807.2 | 1808.2 | 1809.0 | 1809.7 | 1810.4 | 1811.0 | 1811.7 | 1812.3 |
| 152.5° | 1836.7 | 1837.2 | 1837.7 | 1838.2 | 1838.7 | 1839.1 | 1839.5 | 1839.9 | 1840.3 | 1840.7 | 1841.9 |
| 155°   | 1882.6 | 1882.0 | 1881.3 | 1880.7 | 1880.0 | 1879.8 | 1880.2 | 1880.5 | 1880.8 | 1881.1 | 1882.8 |
| 157.5° | 1918.2 | 1918.2 | 1918.1 | 1918.0 | 1918.0 | 1917.8 | 1917.4 | 1917.1 | 1916.8 | 1916.4 | 1918.4 |
| 160°   | 1940.1 | 1939.6 | 1939.3 | 1939.0 | 1938.6 | 1938.3 | 1938.0 | 1937.6 | 1937.3 | 1937.0 | 1939.0 |
| 162.5° | 1960.6 | 1959.6 | 1958.8 | 1957.9 | 1957.0 | 1956.4 | 1956.1 | 1955.8 | 1955.4 | 1955.1 | 1957.4 |
| 165°   | 1985.3 | 1984.3 | 1983.3 | 1982.3 | 1981.3 | 1980.6 | 1980.2 | 1979.9 | 1979.6 | 1979.2 | 1982.0 |
| 167.5° | 2004.6 | 2003.3 | 2002.0 | 2000.6 | 1999.2 | 1998.6 | 1998.6 | 1998.6 | 1998.6 | 1998.6 | 2001.2 |
| 170°   | 2015.5 | 2014.2 | 2012.8 | 2011.4 | 2010.1 | 2009.4 | 2009.4 | 2009.4 | 2009.4 | 2009.4 | 2012.2 |
| 172.5° | 2022.8 | 2021.1 | 2019.5 | 2017.9 | 2016.3 | 2015.6 | 2015.9 | 2016.2 | 2016.4 | 2016.7 | 2019.4 |
| 175°   | 2032.1 | 2030.4 | 2028.7 | 2027.1 | 2025.4 | 2024.7 | 2025.1 | 2025.4 | 2025.7 | 2026.1 | 2028.4 |
| 177.5° | 2034.5 | 2033.2 | 2031.8 | 2030.5 | 2029.1 | 2028.6 | 2028.9 | 2029.1 | 2029.4 | 2029.7 | 2031.8 |
| 180°   | 2032.1 | 2032.1 | 2032.1 | 2032.1 | 2032.1 | 2032.1 | 2032.1 | 2032.1 | 2032.1 | 2032.1 | 2032.1 |



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**CANDELA DISTRIBUTION (continued):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1229.8 | 1229.8 | 1229.8 | 1229.8 | 1229.8 | 1229.8 | 1229.8 | 1229.8 |
| 2.5°   | 1225.1 | 1227.0 | 1228.8 | 1229.7 | 1229.5 | 1229.3 | 1229.1 | 1228.9 |
| 5°     | 1218.6 | 1220.9 | 1223.4 | 1224.3 | 1223.8 | 1223.4 | 1222.8 | 1222.3 |
| 7.5°   | 1205.7 | 1207.8 | 1209.9 | 1210.8 | 1210.5 | 1210.2 | 1209.9 | 1209.7 |
| 10°    | 1193.9 | 1195.9 | 1198.0 | 1198.9 | 1198.4 | 1197.9 | 1197.5 | 1197.0 |
| 12.5°  | 1180.8 | 1182.3 | 1184.0 | 1184.6 | 1184.3 | 1184.0 | 1183.8 | 1183.5 |
| 15°    | 1157.4 | 1159.2 | 1161.1 | 1161.3 | 1159.9 | 1158.5 | 1157.2 | 1155.8 |
| 17.5°  | 1127.7 | 1129.0 | 1130.3 | 1130.7 | 1130.2 | 1129.7 | 1129.2 | 1128.7 |
| 20°    | 1105.8 | 1106.7 | 1107.7 | 1107.8 | 1107.1 | 1106.4 | 1105.7 | 1105.0 |
| 22.5°  | 1082.6 | 1083.4 | 1084.1 | 1084.0 | 1083.2 | 1082.3 | 1081.4 | 1080.5 |
| 25°    | 1044.1 | 1044.4 | 1044.6 | 1044.4 | 1043.7 | 1043.0 | 1042.3 | 1041.6 |
| 27.5°  | 1003.2 | 1003.4 | 1003.6 | 1003.2 | 1002.4 | 1001.5 | 1000.6 | 999.7  |
| 30°    | 974.9  | 974.9  | 974.9  | 974.1  | 972.5  | 970.8  | 969.2  | 967.6  |
| 32.5°  | 945.2  | 943.9  | 942.6  | 941.5  | 940.6  | 939.7  | 938.8  | 938.0  |
| 35°    | 897.1  | 895.6  | 894.2  | 892.9  | 891.7  | 890.6  | 889.4  | 888.2  |
| 37.5°  | 847.2  | 845.5  | 843.8  | 842.6  | 841.8  | 841.1  | 840.3  | 839.6  |
| 40°    | 814.7  | 812.8  | 810.9  | 809.5  | 808.6  | 807.6  | 806.7  | 805.8  |
| 42.5°  | 780.8  | 778.9  | 777.1  | 775.7  | 774.8  | 773.8  | 772.8  | 771.9  |
| 45°    | 730.3  | 727.5  | 724.7  | 722.7  | 721.5  | 720.3  | 719.1  | 718.0  |
| 47.5°  | 677.1  | 674.4  | 671.6  | 669.6  | 668.6  | 667.6  | 666.6  | 665.5  |
| 50°    | 642.0  | 639.3  | 636.8  | 634.8  | 633.4  | 632.0  | 630.6  | 629.1  |
| 52.5°  | 606.3  | 604.1  | 601.9  | 600.2  | 598.7  | 597.3  | 595.9  | 594.5  |
| 55°    | 552.1  | 549.5  | 546.9  | 545.0  | 543.8  | 542.7  | 541.5  | 540.4  |
| 57.5°  | 498.7  | 496.4  | 494.1  | 492.3  | 490.9  | 489.6  | 488.2  | 486.9  |
| 60°    | 461.0  | 458.9  | 456.8  | 455.1  | 453.9  | 452.8  | 451.6  | 450.5  |
| 62.5°  | 424.6  | 422.5  | 420.4  | 419.0  | 418.2  | 417.4  | 416.6  | 415.8  |
| 65°    | 370.5  | 368.7  | 366.8  | 365.5  | 364.8  | 364.1  | 363.3  | 362.6  |
| 67.5°  | 316.9  | 315.3  | 313.6  | 312.3  | 311.3  | 310.3  | 309.3  | 308.3  |
| 70°    | 282.3  | 280.5  | 278.9  | 277.5  | 276.3  | 275.2  | 274.0  | 272.8  |
| 72.5°  | 247.0  | 245.6  | 244.2  | 243.1  | 242.5  | 241.9  | 241.3  | 240.7  |
| 75°    | 196.4  | 195.3  | 194.1  | 193.2  | 192.5  | 191.8  | 191.1  | 190.4  |
| 77.5°  | 149.2  | 148.3  | 147.5  | 147.2  | 147.2  | 147.2  | 147.2  | 147.2  |
| 80°    | 119.1  | 118.8  | 118.6  | 118.5  | 118.5  | 118.5  | 118.5  | 118.5  |
| 82.5°  | 91.6   | 91.2   | 90.7   | 90.4   | 90.3   | 90.1   | 89.9   | 89.7   |
| 85°    | 51.9   | 51.5   | 51.0   | 50.8   | 50.8   | 50.8   | 50.8   | 50.8   |
| 87.5°  | 26.1   | 26.1   | 26.2   | 26.3   | 26.5   | 26.6   | 26.7   | 26.9   |
| 90°    | 38.9   | 40.3   | 41.6   | 42.6   | 43.3   | 43.9   | 44.6   | 45.2   |
| 92.5°  | 42.9   | 45.1   | 47.3   | 48.5   | 48.9   | 49.3   | 49.7   | 50.1   |
| 95°    | 51.5   | 53.8   | 56.1   | 57.4   | 57.4   | 57.4   | 57.4   | 57.4   |
| 97.5°  | 54.0   | 56.7   | 59.4   | 60.9   | 61.2   | 61.5   | 61.9   | 62.2   |
| 100°   | 55.1   | 57.9   | 60.6   | 62.1   | 62.4   | 62.7   | 63.1   | 63.4   |
| 102.5° | 82.7   | 74.4   | 66.0   | 62.2   | 62.8   | 63.4   | 64.0   | 64.6   |
| 105°   | 211.9  | 152.5  | 93.1   | 63.7   | 64.4   | 65.1   | 65.7   | 66.4   |
| 107.5° | 518.9  | 475.3  | 431.8  | 387.7  | 343.0  | 298.1  | 253.4  | 208.6  |
| 110°   | 658.7  | 647.6  | 636.6  | 607.0  | 559.1  | 511.1  | 463.1  | 415.2  |





TEST NUMBER: P332178-840

CATALOG NUMBER: S123DIW-S775D1535U840-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 757.4  | 757.6  | 757.8  | 752.9  | 742.7  | 732.6  | 722.5  | 712.3  |
| 115°   | 873.3  | 876.7  | 880.0  | 882.3  | 883.7  | 885.0  | 886.4  | 887.8  |
| 117.5° | 978.3  | 980.9  | 983.6  | 985.1  | 985.3  | 985.6  | 985.9  | 986.1  |
| 120°   | 1047.1 | 1049.8 | 1052.5 | 1053.8 | 1053.8 | 1053.8 | 1053.8 | 1053.8 |
| 122.5° | 1114.3 | 1116.2 | 1118.1 | 1119.1 | 1119.4 | 1119.6 | 1119.9 | 1120.2 |
| 125°   | 1209.1 | 1209.8 | 1210.4 | 1211.1 | 1211.8 | 1212.4 | 1213.2 | 1213.9 |
| 127.5° | 1304.1 | 1305.3 | 1306.3 | 1306.5 | 1305.9 | 1305.1 | 1304.4 | 1303.8 |
| 130°   | 1361.4 | 1362.8 | 1364.1 | 1364.4 | 1363.8 | 1363.1 | 1362.4 | 1361.8 |
| 132.5° | 1415.8 | 1417.1 | 1418.5 | 1418.7 | 1417.7 | 1416.8 | 1415.8 | 1414.9 |
| 135°   | 1498.1 | 1499.1 | 1500.2 | 1500.2 | 1499.1 | 1498.1 | 1497.1 | 1496.1 |
| 137.5° | 1571.6 | 1573.2 | 1574.8 | 1575.2 | 1574.6 | 1573.9 | 1573.2 | 1572.6 |
| 140°   | 1618.1 | 1619.4 | 1620.7 | 1621.1 | 1620.4 | 1619.8 | 1619.1 | 1618.4 |
| 142.5° | 1662.2 | 1663.3 | 1664.4 | 1664.5 | 1663.6 | 1662.5 | 1661.6 | 1660.7 |
| 145°   | 1723.9 | 1724.6 | 1725.3 | 1725.7 | 1725.7 | 1725.7 | 1725.7 | 1725.7 |
| 147.5° | 1779.2 | 1779.9 | 1780.6 | 1780.1 | 1778.6 | 1777.1 | 1775.4 | 1773.9 |
| 150°   | 1813.0 | 1813.7 | 1814.3 | 1814.2 | 1813.2 | 1812.2 | 1811.2 | 1810.2 |
| 152.5° | 1843.1 | 1844.3 | 1845.5 | 1845.3 | 1843.8 | 1842.2 | 1840.7 | 1839.2 |
| 155°   | 1884.5 | 1886.1 | 1887.8 | 1887.6 | 1885.6 | 1883.6 | 1881.6 | 1879.7 |
| 157.5° | 1920.5 | 1922.5 | 1924.5 | 1924.2 | 1921.6 | 1918.9 | 1916.3 | 1913.7 |
| 160°   | 1941.1 | 1943.0 | 1945.0 | 1944.9 | 1942.5 | 1940.2 | 1937.8 | 1935.5 |
| 162.5° | 1959.6 | 1962.0 | 1964.2 | 1964.3 | 1962.3 | 1960.1 | 1958.1 | 1956.0 |
| 165°   | 1984.6 | 1987.3 | 1990.0 | 1990.1 | 1987.8 | 1985.5 | 1983.1 | 1980.7 |
| 167.5° | 2004.0 | 2006.6 | 2009.3 | 2009.3 | 2006.6 | 2004.0 | 2001.2 | 1998.6 |
| 170°   | 2014.8 | 2017.5 | 2020.2 | 2020.2 | 2017.5 | 2014.8 | 2012.2 | 2009.4 |
| 172.5° | 2022.1 | 2024.8 | 2027.4 | 2027.3 | 2024.4 | 2021.4 | 2018.4 | 2015.5 |
| 175°   | 2030.7 | 2033.1 | 2035.5 | 2035.3 | 2032.6 | 2029.9 | 2027.2 | 2024.6 |
| 177.5° | 2034.0 | 2036.1 | 2038.3 | 2038.0 | 2035.3 | 2032.7 | 2029.9 | 2027.3 |
| 180°   | 2032.1 | 2032.1 | 2032.1 | 2032.1 | 2032.1 | 2032.1 | 2032.1 | 2032.1 |

(END OF REPORT)