

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: P332691-930

Luminaire Tested: **SA4XXDIP-C1195D810U930-4F0-1E-UDD-D**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332691-930  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-C1195D810U930-4F0-1E-UDD-D  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1195 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

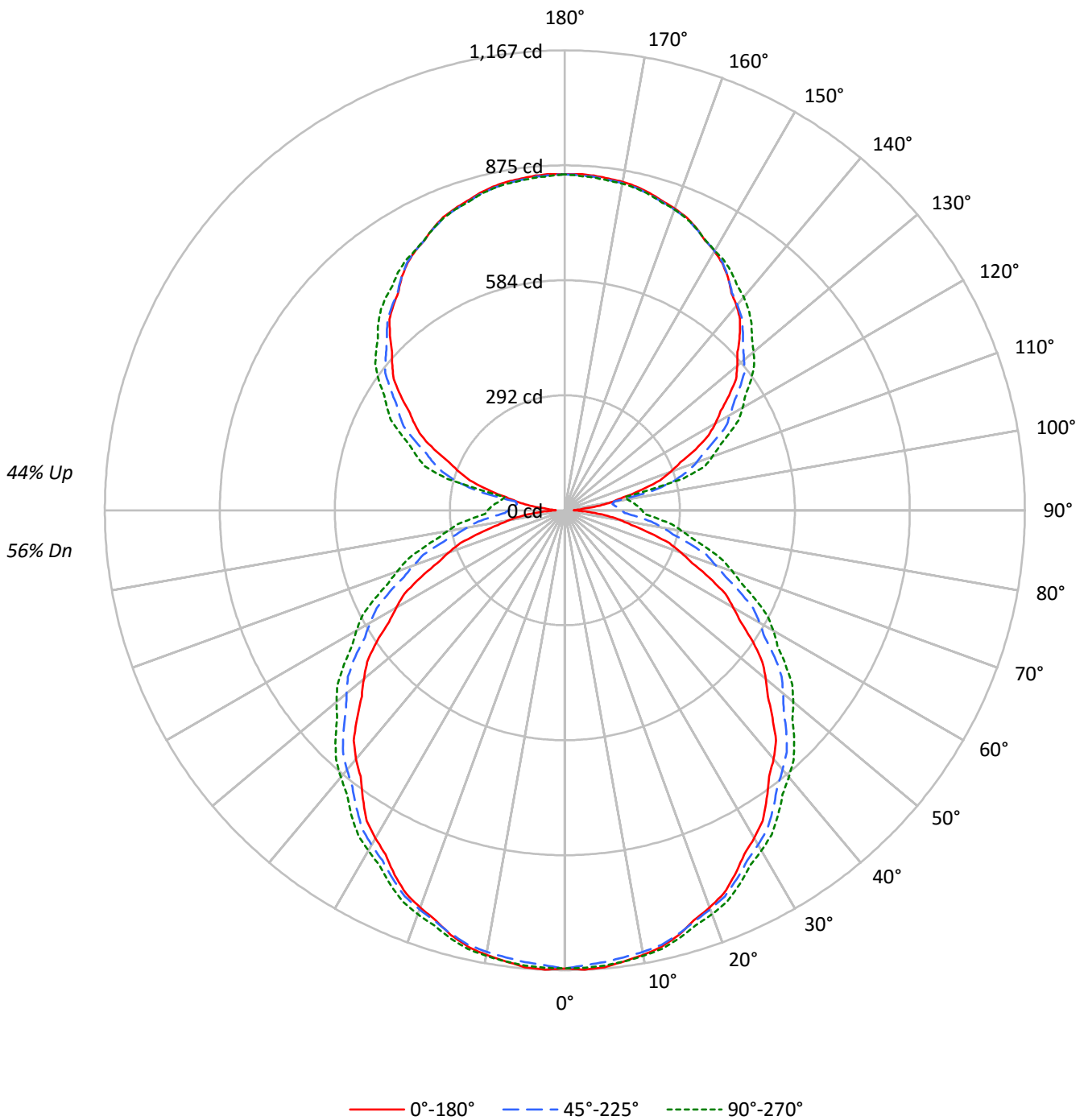
Lumens per Lamp: N/A  
Luminaire Lumens: 6602.0 lumens  
Efficiency: N/A  
Efficacy: 108.8 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

Input Watts (W): 60.7  
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



TEST NUMBER: P332691-930  
CATALOG NUMBER: SA4XXDIP-C1195D810U930-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P332691-930

CATALOG NUMBER: SA4XXDIP-C1195D810U930-4F0-1E-UDD-D

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

|     |    |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |    |
|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|----|
| RF  | 20 |     |     |     |     |     |     |     |     | 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 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |    |
| RCR | 0  | 108 | 108 | 108 | 108 | 101 | 101 | 101 | 101 | 86 | 86 | 86 | 73 | 73 | 73 | 61 | 61 | 61 | 56 |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |    |
|     | 1  | 98  | 93  | 89  | 85  | 91  | 86  | 83  | 79  | 74 | 71 | 69 | 63 | 61 | 59 | 52 | 51 | 49 | 44 |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |    |
|     | 2  | 89  | 81  | 74  | 68  | 82  | 75  | 69  | 64  | 64 | 60 | 56 | 54 | 51 | 48 | 45 | 43 | 41 | 36 |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |    |
|     | 3  | 81  | 70  | 63  | 56  | 74  | 66  | 59  | 53  | 56 | 51 | 46 | 48 | 44 | 40 | 40 | 37 | 34 | 30 |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |    |
|     | 4  | 74  | 62  | 54  | 47  | 68  | 58  | 50  | 45  | 50 | 44 | 39 | 42 | 38 | 34 | 35 | 32 | 29 | 26 |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |    |
|     | 5  | 67  | 55  | 47  | 40  | 62  | 51  | 44  | 38  | 44 | 38 | 34 | 38 | 33 | 29 | 32 | 28 | 25 | 22 |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |    |
|     | 6  | 62  | 49  | 41  | 35  | 57  | 46  | 38  | 33  | 40 | 34 | 29 | 34 | 29 | 26 | 29 | 25 | 22 | 19 |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |    |
|     | 7  | 57  | 45  | 36  | 30  | 53  | 42  | 34  | 29  | 36 | 30 | 26 | 31 | 26 | 23 | 26 | 22 | 19 | 17 |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |    |
|     | 8  | 53  | 40  | 32  | 27  | 49  | 38  | 31  | 25  | 33 | 27 | 23 | 28 | 23 | 20 | 24 | 20 | 17 | 15 |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |    |
|     | 9  | 49  | 37  | 29  | 24  | 46  | 35  | 27  | 23  | 30 | 24 | 20 | 26 | 21 | 18 | 22 | 18 | 16 | 13 |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |    |
|     | 10 | 46  | 34  | 26  | 21  | 43  | 32  | 25  | 20  | 28 | 22 | 18 | 24 | 19 | 16 | 20 | 17 | 14 | 12 |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |    |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9386 | 9386 | 9386 |
| 5°  | 9414 | 9173 | 9199 |
| 10° | 9357 | 9022 | 9016 |
| 15° | 9273 | 8849 | 8800 |
| 20° | 9147 | 8658 | 8591 |
| 25° | 9004 | 8442 | 8360 |
| 30° | 8849 | 8228 | 8124 |
| 35° | 8675 | 8010 | 7917 |
| 40° | 8536 | 7801 | 7700 |
| 45° | 8329 | 7610 | 7515 |
| 50° | 8153 | 7388 | 7319 |
| 55° | 7973 | 7179 | 7089 |
| 60° | 7689 | 6913 | 6880 |
| 65° | 7380 | 6628 | 6622 |
| 70° | 7004 | 6302 | 6322 |
| 75° | 6483 | 5945 | 6051 |
| 80° | 5900 | 5600 | 5784 |
| 85° | 5162 | 5295 | 5626 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 110.1  | 1.7       |
| 10°-20°   | 315.4  | 4.8       |
| 20°-30°   | 477.0  | 7.2       |
| 30°-40°   | 577.1  | 8.7       |
| 40°-50°   | 610.1  | 9.2       |
| 50°-60°   | 574.2  | 8.7       |
| 60°-70°   | 476.4  | 7.2       |
| 70°-80°   | 334.6  | 5.1       |
| 80°-90°   | 191.6  | 2.9       |
| 90°-100°  | 141.5  | 2.1       |
| 100°-110° | 269.0  | 4.1       |
| 110°-120° | 411.4  | 6.2       |
| 120°-130° | 482.8  | 7.3       |
| 130°-140° | 496.5  | 7.5       |
| 140°-150° | 454.3  | 6.9       |
| 150°-160° | 364.2  | 5.5       |
| 160°-170° | 234.9  | 3.6       |
| 170°-180° | 81.0   | 1.2       |
| 0°-30°    | 902.5  | 13.7      |
| 0°-40°    | 1479.6 | 22.4      |
| 0°-60°    | 2663.8 | 40.3      |
| 0°-90°    | 3666.4 | 55.5      |
| 90°-120°  | 821.8  | 12.4      |
| 90°-150°  | 2255.5 | 34.2      |
| 90°-180°  | 2936.0 | 44.5      |
| 0°-180°   | 6602.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1163 | 1163  | 1163 | 1163  | 1163 |      |
| 5°   | 1164 | 1160  | 1151 | 1161  | 1160 | 110  |
| 15°  | 1116 | 1117  | 1113 | 1124  | 1124 | 314  |
| 25°  | 1021 | 1028  | 1032 | 1046  | 1048 | 470  |
| 35°  | 893  | 908   | 922  | 939   | 944  | 559  |
| 45°  | 745  | 769   | 794  | 815   | 823  | 575  |
| 55°  | 583  | 611   | 650  | 675   | 684  | 520  |
| 65°  | 404  | 445   | 490  | 521   | 532  | 400  |
| 75°  | 224  | 272   | 327  | 362   | 375  | 238  |
| 85°  | 69   | 124   | 182  | 220   | 234  | 73   |
| 90°  | 23   | 82    | 143  | 183   | 196  | 15   |
| 95°  | 52   | 75    | 127  | 165   | 179  | 59   |
| 105° | 204  | 235   | 285  | 320   | 310  | 214  |
| 115° | 366  | 381   | 421  | 450   | 460  | 361  |
| 125° | 509  | 512   | 541  | 567   | 576  | 454  |
| 135° | 627  | 627   | 638  | 660   | 670  | 484  |
| 145° | 722  | 722   | 722  | 731   | 737  | 451  |
| 155° | 790  | 790   | 789  | 791   | 789  | 364  |
| 165° | 833  | 830   | 830  | 834   | 829  | 235  |
| 175° | 852  | 849   | 849  | 854   | 847  | 81   |
| 180° | 852  | 852   | 852  | 852   | 852  |      |



TEST NUMBER: P332691-930

CATALOG NUMBER: SA4XXDIP-C1195D810U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1162.6 | 1162.6 | 1162.6 | 1162.6 | 1162.6 | 1162.6 | 1162.6 | 1162.6 | 1162.6 | 1162.6 | 1162.6 |
| 2.5°   | 1166.8 | 1166.0 | 1165.4 | 1164.7 | 1164.0 | 1162.7 | 1160.8 | 1159.0 | 1157.2 | 1155.3 | 1156.9 |
| 5°     | 1163.8 | 1163.0 | 1162.1 | 1161.3 | 1160.4 | 1158.9 | 1156.9 | 1154.9 | 1152.9 | 1150.9 | 1153.2 |
| 7.5°   | 1154.0 | 1153.5 | 1152.9 | 1152.4 | 1151.9 | 1150.8 | 1149.2 | 1147.5 | 1145.7 | 1144.1 | 1146.7 |
| 10°    | 1145.7 | 1145.3 | 1145.1 | 1144.8 | 1144.5 | 1143.6 | 1142.2 | 1140.8 | 1139.3 | 1137.8 | 1140.4 |
| 12.5°  | 1134.2 | 1134.2 | 1134.1 | 1134.0 | 1134.0 | 1133.4 | 1132.5 | 1131.5 | 1130.5 | 1129.5 | 1131.9 |
| 15°    | 1115.7 | 1116.0 | 1116.3 | 1116.6 | 1116.9 | 1116.6 | 1115.7 | 1114.8 | 1113.9 | 1113.1 | 1115.7 |
| 17.5°  | 1090.5 | 1091.4 | 1092.2 | 1093.1 | 1093.9 | 1094.3 | 1094.1 | 1093.9 | 1093.7 | 1093.6 | 1096.3 |
| 20°    | 1072.8 | 1073.6 | 1074.5 | 1075.4 | 1076.2 | 1076.8 | 1077.1 | 1077.4 | 1077.7 | 1078.0 | 1080.8 |
| 22.5°  | 1053.0 | 1054.0 | 1055.2 | 1056.2 | 1057.4 | 1058.2 | 1058.7 | 1059.2 | 1059.7 | 1060.2 | 1063.2 |
| 25°    | 1020.7 | 1022.4 | 1024.2 | 1025.9 | 1027.6 | 1028.9 | 1029.8 | 1030.6 | 1031.5 | 1032.4 | 1035.6 |
| 27.5°  | 984.7  | 987.3  | 989.9  | 992.4  | 994.9  | 996.9  | 998.2  | 999.6  | 1000.9 | 1002.2 | 1005.1 |
| 30°    | 960.7  | 963.1  | 965.4  | 967.8  | 970.0  | 972.2  | 974.2  | 976.2  | 978.3  | 980.3  | 983.5  |
| 32.5°  | 934.7  | 937.5  | 940.3  | 943.1  | 945.8  | 948.4  | 950.6  | 952.9  | 955.1  | 957.4  | 961.1  |
| 35°    | 893.1  | 896.6  | 900.0  | 903.5  | 906.9  | 910.1  | 913.1  | 915.9  | 918.8  | 921.7  | 925.8  |
| 37.5°  | 851.2  | 855.2  | 859.2  | 863.2  | 867.2  | 870.9  | 874.5  | 878.1  | 881.7  | 885.3  | 889.4  |
| 40°    | 824.1  | 827.9  | 831.6  | 835.4  | 839.1  | 843.0  | 847.1  | 851.2  | 855.2  | 859.2  | 863.6  |
| 42.5°  | 792.9  | 797.0  | 801.3  | 805.5  | 809.8  | 814.2  | 819.0  | 823.7  | 828.4  | 833.2  | 838.0  |
| 45°    | 744.7  | 750.2  | 755.7  | 761.2  | 766.6  | 772.2  | 777.6  | 783.2  | 788.6  | 794.2  | 799.1  |
| 47.5°  | 698.5  | 704.3  | 710.0  | 715.6  | 721.3  | 727.3  | 733.7  | 740.0  | 746.4  | 752.8  | 757.8  |
| 50°    | 665.3  | 671.6  | 678.0  | 684.4  | 690.7  | 697.1  | 703.4  | 709.8  | 716.2  | 722.5  | 728.3  |
| 52.5°  | 631.9  | 638.3  | 644.7  | 651.0  | 657.4  | 664.2  | 671.5  | 678.8  | 686.1  | 693.4  | 699.2  |
| 55°    | 583.3  | 589.3  | 595.4  | 601.4  | 607.6  | 614.9  | 623.6  | 632.3  | 641.0  | 649.6  | 655.4  |
| 57.5°  | 528.8  | 536.4  | 543.9  | 551.4  | 558.9  | 567.0  | 575.6  | 584.2  | 592.9  | 601.4  | 608.4  |
| 60°    | 493.4  | 500.9  | 508.4  | 516.0  | 523.5  | 532.1  | 541.6  | 551.1  | 560.7  | 570.2  | 576.9  |
| 62.5°  | 459.0  | 467.2  | 475.5  | 483.7  | 491.9  | 500.8  | 510.4  | 519.9  | 529.5  | 539.0  | 545.6  |
| 65°    | 403.6  | 412.9  | 422.1  | 431.4  | 440.6  | 450.1  | 460.0  | 469.9  | 479.6  | 489.5  | 496.8  |
| 67.5°  | 350.2  | 360.0  | 369.9  | 379.7  | 389.6  | 399.7  | 410.3  | 420.8  | 431.3  | 441.9  | 449.2  |
| 70°    | 313.7  | 323.6  | 333.5  | 343.2  | 353.1  | 363.5  | 374.5  | 385.5  | 396.5  | 407.5  | 415.3  |
| 72.5°  | 278.3  | 288.4  | 298.5  | 308.5  | 318.6  | 329.5  | 341.2  | 352.9  | 364.5  | 376.3  | 383.8  |
| 75°    | 224.0  | 234.6  | 245.3  | 256.0  | 266.8  | 278.2  | 290.3  | 302.5  | 314.6  | 326.8  | 334.8  |
| 77.5°  | 173.2  | 184.5  | 195.8  | 207.2  | 218.5  | 230.6  | 243.3  | 256.0  | 268.7  | 281.4  | 289.7  |
| 80°    | 141.9  | 153.4  | 165.0  | 176.6  | 188.2  | 200.3  | 213.0  | 225.8  | 238.6  | 251.3  | 259.9  |
| 82.5°  | 110.6  | 122.7  | 134.8  | 146.8  | 158.8  | 171.2  | 183.9  | 196.7  | 209.4  | 222.1  | 231.0  |
| 85°    | 69.0   | 81.1   | 93.3   | 105.4  | 117.6  | 130.2  | 143.2  | 156.2  | 169.3  | 182.3  | 190.9  |
| 87.5°  | 38.9   | 51.0   | 63.2   | 75.3   | 87.4   | 99.9   | 112.8  | 125.7  | 138.6  | 151.5  | 160.0  |
| 90°    | 22.7   | 35.9   | 49.0   | 62.1   | 75.3   | 88.6   | 102.2  | 115.8  | 129.3  | 142.9  | 152.1  |
| 92.5°  | 27.8   | 38.3   | 48.8   | 59.4   | 69.8   | 81.9   | 95.5   | 109.0  | 122.5  | 136.2  | 145.1  |
| 95°    | 52.0   | 56.7   | 61.5   | 66.2   | 70.9   | 79.2   | 91.3   | 103.3  | 115.3  | 127.3  | 135.9  |
| 97.5°  | 89.8   | 101.0  | 112.3  | 123.5  | 134.7  | 138.3  | 134.2  | 130.1  | 126.0  | 122.1  | 129.7  |
| 100°   | 118.9  | 128.9  | 139.0  | 149.1  | 159.1  | 160.0  | 151.8  | 143.5  | 135.3  | 127.0  | 132.4  |
| 102.5° | 152.5  | 161.0  | 169.4  | 177.9  | 186.4  | 194.9  | 203.3  | 211.9  | 220.4  | 228.9  | 210.5  |
| 105°   | 203.6  | 210.3  | 216.9  | 223.5  | 230.2  | 239.1  | 250.5  | 262.0  | 273.4  | 284.8  | 293.3  |
| 107.5° | 253.2  | 258.4  | 263.5  | 268.7  | 273.9  | 282.0  | 293.1  | 304.2  | 315.3  | 326.4  | 334.1  |
| 110°   | 285.8  | 290.2  | 294.7  | 299.2  | 303.7  | 311.4  | 322.4  | 333.4  | 344.4  | 355.3  | 362.2  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 317.4 | 321.7 | 326.1 | 330.4 | 334.8 | 342.0 | 352.0 | 362.2 | 372.2 | 382.3 | 388.7 |
| 115°   | 366.1 | 369.1 | 372.1 | 375.1 | 378.2 | 384.3 | 393.4 | 402.5 | 411.6 | 420.7 | 427.4 |
| 117.5° | 411.1 | 413.2 | 415.3 | 417.4 | 419.6 | 425.1 | 434.1 | 443.0 | 451.9 | 460.9 | 466.8 |
| 120°   | 440.7 | 442.1 | 443.5 | 444.9 | 446.4 | 451.2 | 459.4 | 467.7 | 476.0 | 484.2 | 490.2 |
| 122.5° | 469.2 | 469.7 | 470.2 | 470.8 | 471.2 | 475.6 | 483.7 | 491.8 | 499.9 | 508.1 | 514.0 |
| 125°   | 508.8 | 509.1 | 509.4 | 509.6 | 509.9 | 513.6 | 520.5 | 527.4 | 534.3 | 541.4 | 547.2 |
| 127.5° | 547.3 | 547.1 | 547.0 | 546.9 | 546.7 | 549.8 | 556.0 | 562.1 | 568.3 | 574.5 | 579.7 |
| 130°   | 571.3 | 571.1 | 571.0 | 570.8 | 570.6 | 573.2 | 578.2 | 583.3 | 588.3 | 593.4 | 598.7 |
| 132.5° | 594.2 | 594.2 | 594.1 | 594.1 | 594.1 | 596.1 | 600.4 | 604.6 | 608.9 | 613.1 | 618.2 |
| 135°   | 627.3 | 627.2 | 627.0 | 626.9 | 626.8 | 628.0 | 630.6 | 633.2 | 635.8 | 638.4 | 643.3 |
| 137.5° | 657.8 | 657.5 | 657.4 | 657.1 | 656.9 | 657.5 | 659.2 | 660.8 | 662.3 | 664.0 | 668.5 |
| 140°   | 677.7 | 677.7 | 677.7 | 677.7 | 677.7 | 677.9 | 678.5 | 679.1 | 679.6 | 680.2 | 684.4 |
| 142.5° | 694.5 | 695.0 | 695.4 | 695.9 | 696.3 | 696.5 | 696.5 | 696.5 | 696.5 | 696.5 | 700.1 |
| 145°   | 721.6 | 721.8 | 721.9 | 722.0 | 722.2 | 722.3 | 722.3 | 722.3 | 722.3 | 722.3 | 724.1 |
| 147.5° | 743.5 | 744.0 | 744.4 | 744.9 | 745.4 | 745.7 | 745.5 | 745.3 | 745.2 | 745.1 | 745.4 |
| 150°   | 759.3 | 759.5 | 759.8 | 760.1 | 760.3 | 760.4 | 760.3 | 760.2 | 760.0 | 759.9 | 759.9 |
| 152.5° | 771.5 | 771.8 | 772.3 | 772.7 | 773.1 | 773.1 | 772.9 | 772.7 | 772.3 | 772.1 | 772.3 |
| 155°   | 789.9 | 789.9 | 790.1 | 790.3 | 790.4 | 790.3 | 789.9 | 789.4 | 789.0 | 788.6 | 789.1 |
| 157.5° | 805.5 | 805.4 | 805.4 | 805.3 | 805.2 | 804.9 | 804.4 | 804.0 | 803.5 | 803.0 | 803.7 |
| 160°   | 814.7 | 814.2 | 813.8 | 813.4 | 813.0 | 812.7 | 812.6 | 812.4 | 812.3 | 812.1 | 813.0 |
| 162.5° | 822.9 | 822.3 | 821.7 | 821.3 | 820.7 | 820.4 | 820.2 | 820.1 | 819.9 | 819.8 | 820.7 |
| 165°   | 833.2 | 832.5 | 831.8 | 831.0 | 830.4 | 830.0 | 830.0 | 830.0 | 830.0 | 830.0 | 831.1 |
| 167.5° | 841.3 | 840.6 | 839.8 | 839.1 | 838.4 | 838.0 | 837.9 | 837.8 | 837.7 | 837.6 | 838.9 |
| 170°   | 846.0 | 845.1 | 844.2 | 843.3 | 842.5 | 842.2 | 842.3 | 842.4 | 842.6 | 842.8 | 843.8 |
| 172.5° | 849.0 | 848.2 | 847.3 | 846.4 | 845.6 | 845.2 | 845.4 | 845.5 | 845.6 | 845.8 | 846.9 |
| 175°   | 852.3 | 851.4 | 850.6 | 849.8 | 848.9 | 848.6 | 848.7 | 848.8 | 849.0 | 849.1 | 850.4 |
| 177.5° | 853.9 | 853.0 | 852.2 | 851.4 | 850.7 | 850.4 | 850.6 | 850.8 | 851.1 | 851.3 | 852.2 |
| 180°   | 852.3 | 852.3 | 852.3 | 852.3 | 852.3 | 852.3 | 852.3 | 852.3 | 852.3 | 852.3 | 852.3 |



TEST NUMBER: P332691-930

CATALOG NUMBER: SA4XXDIP-C1195D810U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1162.6 | 1162.6 | 1162.6 | 1162.6 | 1162.6 | 1162.6 | 1162.6 | 1162.6 |
| 2.5°   | 1158.5 | 1160.2 | 1161.8 | 1162.5 | 1162.2 | 1162.0 | 1161.8 | 1161.6 |
| 5°     | 1155.5 | 1157.8 | 1160.1 | 1161.1 | 1160.8 | 1160.6 | 1160.3 | 1160.0 |
| 7.5°   | 1149.3 | 1151.9 | 1154.5 | 1155.7 | 1155.4 | 1155.1 | 1154.8 | 1154.5 |
| 10°    | 1143.0 | 1145.7 | 1148.3 | 1149.4 | 1149.2 | 1148.8 | 1148.5 | 1148.3 |
| 12.5°  | 1134.2 | 1136.6 | 1139.0 | 1140.2 | 1140.1 | 1140.0 | 1140.0 | 1140.0 |
| 15°    | 1118.3 | 1121.0 | 1123.5 | 1124.7 | 1124.4 | 1124.1 | 1123.8 | 1123.5 |
| 17.5°  | 1098.9 | 1101.6 | 1104.2 | 1105.5 | 1105.2 | 1105.0 | 1104.7 | 1104.5 |
| 20°    | 1083.8 | 1086.6 | 1089.6 | 1091.0 | 1091.0 | 1091.0 | 1091.0 | 1091.0 |
| 22.5°  | 1066.0 | 1068.9 | 1071.8 | 1073.5 | 1074.0 | 1074.4 | 1074.9 | 1075.4 |
| 25°    | 1038.8 | 1042.0 | 1045.1 | 1046.8 | 1047.2 | 1047.4 | 1047.7 | 1048.0 |
| 27.5°  | 1008.1 | 1011.1 | 1014.0 | 1015.6 | 1016.0 | 1016.4 | 1016.7 | 1017.0 |
| 30°    | 986.7  | 989.9  | 993.0  | 994.9  | 995.5  | 996.1  | 996.6  | 997.3  |
| 32.5°  | 964.7  | 968.3  | 972.0  | 974.1  | 974.7  | 975.3  | 975.8  | 976.4  |
| 35°    | 929.8  | 933.8  | 937.9  | 940.4  | 941.3  | 942.2  | 943.0  | 943.9  |
| 37.5°  | 893.5  | 897.6  | 901.7  | 904.2  | 905.1  | 906.0  | 907.0  | 907.9  |
| 40°    | 867.9  | 872.3  | 876.6  | 879.4  | 880.5  | 881.7  | 882.8  | 883.9  |
| 42.5°  | 842.8  | 847.6  | 852.4  | 855.2  | 856.2  | 857.1  | 858.0  | 859.0  |
| 45°    | 804.0  | 808.9  | 813.8  | 817.0  | 818.5  | 819.9  | 821.3  | 822.8  |
| 47.5°  | 763.0  | 768.0  | 773.1  | 776.5  | 778.3  | 780.0  | 781.7  | 783.5  |
| 50°    | 734.1  | 739.9  | 745.7  | 749.4  | 751.2  | 752.9  | 754.6  | 756.4  |
| 52.5°  | 705.0  | 710.8  | 716.5  | 720.3  | 722.0  | 723.7  | 725.5  | 727.2  |
| 55°    | 661.2  | 667.0  | 672.8  | 676.5  | 678.2  | 680.0  | 681.8  | 683.5  |
| 57.5°  | 615.2  | 622.2  | 629.0  | 633.2  | 634.9  | 636.5  | 638.1  | 639.8  |
| 60°    | 583.5  | 590.2  | 596.8  | 601.3  | 603.6  | 605.9  | 608.3  | 610.6  |
| 62.5°  | 552.3  | 559.0  | 565.6  | 570.1  | 572.4  | 574.7  | 577.0  | 579.4  |
| 65°    | 503.9  | 511.2  | 518.4  | 523.2  | 525.5  | 527.8  | 530.2  | 532.5  |
| 67.5°  | 456.6  | 463.9  | 471.2  | 476.1  | 478.3  | 480.5  | 482.8  | 485.1  |
| 70°    | 423.1  | 430.9  | 438.7  | 443.7  | 445.6  | 447.7  | 449.7  | 451.8  |
| 72.5°  | 391.4  | 399.0  | 406.6  | 411.5  | 413.8  | 416.0  | 418.2  | 420.5  |
| 75°    | 343.0  | 351.1  | 359.1  | 364.5  | 367.1  | 369.7  | 372.3  | 375.0  |
| 77.5°  | 297.9  | 306.1  | 314.3  | 319.8  | 322.6  | 325.4  | 328.2  | 330.9  |
| 80°    | 268.6  | 277.3  | 286.0  | 291.5  | 293.8  | 296.1  | 298.4  | 300.8  |
| 82.5°  | 239.9  | 248.8  | 257.7  | 263.5  | 266.0  | 268.6  | 271.1  | 273.6  |
| 85°    | 199.6  | 208.3  | 217.0  | 222.7  | 225.7  | 228.5  | 231.5  | 234.3  |
| 87.5°  | 168.6  | 177.2  | 185.7  | 191.3  | 193.9  | 196.5  | 199.1  | 201.7  |
| 90°    | 161.4  | 170.6  | 179.9  | 185.8  | 188.4  | 191.0  | 193.6  | 196.2  |
| 92.5°  | 154.2  | 163.1  | 172.2  | 177.9  | 180.3  | 182.6  | 185.0  | 187.4  |
| 95°    | 144.6  | 153.3  | 161.9  | 167.6  | 170.4  | 173.1  | 175.9  | 178.6  |
| 97.5°  | 137.4  | 145.0  | 152.7  | 157.8  | 160.5  | 163.1  | 165.8  | 168.4  |
| 100°   | 137.8  | 143.2  | 148.6  | 152.4  | 154.6  | 156.7  | 158.9  | 161.0  |
| 102.5° | 192.1  | 173.7  | 155.3  | 147.2  | 149.5  | 151.8  | 154.1  | 156.4  |
| 105°   | 301.8  | 310.3  | 318.9  | 321.7  | 318.9  | 316.2  | 313.3  | 310.5  |
| 107.5° | 341.9  | 349.6  | 357.3  | 362.5  | 365.1  | 367.7  | 370.4  | 373.0  |
| 110°   | 369.2  | 376.2  | 383.1  | 387.9  | 390.7  | 393.4  | 396.2  | 398.8  |





TEST NUMBER: P332691-930

CATALOG NUMBER: SA4XXDIP-C1195D810U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

|        | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 395.0 | 401.4 | 407.7 | 412.3 | 415.2 | 418.0 | 420.9 | 423.7 |
| 115°   | 434.0 | 440.7 | 447.4 | 451.7 | 453.7 | 455.7 | 457.7 | 459.7 |
| 117.5° | 472.8 | 478.7 | 484.7 | 488.8 | 491.1 | 493.3 | 495.5 | 497.8 |
| 120°   | 496.4 | 502.4 | 508.5 | 512.5 | 514.5 | 516.6 | 518.6 | 520.7 |
| 122.5° | 520.0 | 525.9 | 531.9 | 535.7 | 537.5 | 539.4 | 541.2 | 543.0 |
| 125°   | 553.2 | 559.1 | 565.0 | 568.9 | 570.8 | 572.7 | 574.5 | 576.4 |
| 127.5° | 584.8 | 590.0 | 595.1 | 598.6 | 600.4 | 602.3 | 604.1 | 605.9 |
| 130°   | 604.1 | 609.4 | 614.7 | 618.2 | 620.0 | 621.7 | 623.5 | 625.3 |
| 132.5° | 623.4 | 628.5 | 633.7 | 637.0 | 638.6 | 640.3 | 641.9 | 643.4 |
| 135°   | 648.2 | 653.1 | 658.0 | 661.5 | 663.5 | 665.5 | 667.6 | 669.5 |
| 137.5° | 673.0 | 677.6 | 682.2 | 685.1 | 686.4 | 687.8 | 689.2 | 690.6 |
| 140°   | 688.6 | 692.8 | 697.0 | 699.9 | 701.5 | 703.0 | 704.7 | 706.2 |
| 142.5° | 703.8 | 707.4 | 710.9 | 713.4 | 714.6 | 715.8 | 717.1 | 718.4 |
| 145°   | 726.0 | 727.9 | 729.8 | 731.4 | 732.9 | 734.3 | 735.7 | 737.2 |
| 147.5° | 745.8 | 746.1 | 746.5 | 747.1 | 748.2 | 749.3 | 750.4 | 751.5 |
| 150°   | 759.9 | 759.9 | 759.9 | 759.9 | 760.1 | 760.2 | 760.3 | 760.5 |
| 152.5° | 772.6 | 772.8 | 773.0 | 773.1 | 773.0 | 772.9 | 772.8 | 772.7 |
| 155°   | 789.7 | 790.3 | 790.8 | 790.9 | 790.4 | 790.0 | 789.6 | 789.2 |
| 157.5° | 804.5 | 805.2 | 805.9 | 805.9 | 805.2 | 804.5 | 803.7 | 803.0 |
| 160°   | 813.8 | 814.7 | 815.5 | 815.5 | 814.7 | 813.8 | 813.0 | 812.1 |
| 162.5° | 821.5 | 822.3 | 823.2 | 823.1 | 822.1 | 821.2 | 820.3 | 819.3 |
| 165°   | 832.3 | 833.4 | 834.5 | 834.5 | 833.2 | 831.9 | 830.6 | 829.3 |
| 167.5° | 840.2 | 841.4 | 842.6 | 842.5 | 841.1 | 839.7 | 838.3 | 836.9 |
| 170°   | 845.0 | 846.1 | 847.3 | 847.1 | 845.7 | 844.3 | 842.9 | 841.5 |
| 172.5° | 848.1 | 849.2 | 850.4 | 850.1 | 848.6 | 847.1 | 845.5 | 844.0 |
| 175°   | 851.7 | 853.0 | 854.2 | 854.0 | 852.3 | 850.6 | 848.9 | 847.2 |
| 177.5° | 853.1 | 854.0 | 854.9 | 854.7 | 853.3 | 852.0 | 850.6 | 849.2 |
| 180°   | 852.3 | 852.3 | 852.3 | 852.3 | 852.3 | 852.3 | 852.3 | 852.3 |

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