

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: P332638-940

Luminaire Tested: **SA4XXDIP-C1020D590U940-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332638-940  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-C1020D590U940-4F0-1E-UDD-D1  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1020 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

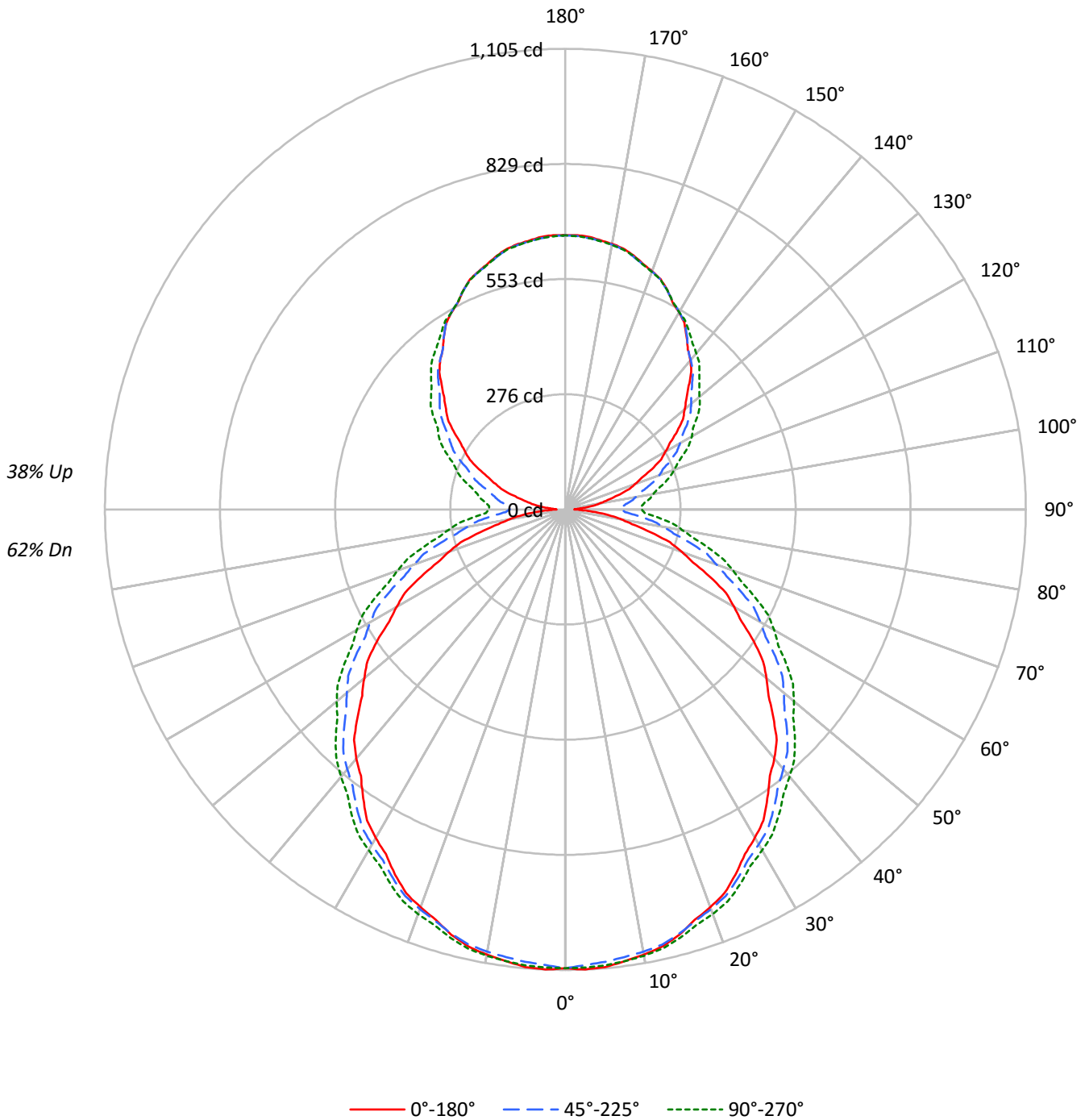
Lumens per Lamp: N/A  
Luminaire Lumens: 5579.5 lumens  
Efficiency: N/A  
Efficacy: 114.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')  
CIE Type: Semi-Direct

Input Watts (W): 48.8  
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: P332638-940  
CATALOG NUMBER: SA4XXDIP-C1020D590U940-4F0-1E-UDD-D1

### Luminous Intensity Polar Plot





TEST NUMBER: P332638-940

CATALOG NUMBER: SA4XXDIP-C1020D590U940-4F0-1E-UDD-D1

**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 | 0  |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |
| 0   | 110 | 110 | 110 | 110 | 103 | 103 | 103 | 103 | 90 | 90 | 90 | 78 | 78 | 78 | 67 | 67 | 67 | 62 |
| 1   | 99  | 94  | 90  | 86  | 93  | 88  | 84  | 81  | 77 | 74 | 72 | 67 | 65 | 63 | 58 | 56 | 54 | 50 |
| 2   | 90  | 82  | 75  | 69  | 84  | 77  | 70  | 65  | 67 | 62 | 58 | 58 | 54 | 51 | 50 | 47 | 45 | 41 |
| 3   | 82  | 71  | 63  | 57  | 76  | 67  | 60  | 54  | 59 | 53 | 48 | 51 | 47 | 43 | 44 | 40 | 38 | 34 |
| 4   | 75  | 63  | 54  | 48  | 69  | 59  | 51  | 45  | 52 | 46 | 41 | 45 | 40 | 36 | 39 | 35 | 32 | 29 |
| 5   | 68  | 56  | 47  | 41  | 64  | 53  | 45  | 39  | 46 | 40 | 35 | 40 | 35 | 31 | 35 | 31 | 28 | 25 |
| 6   | 63  | 50  | 41  | 35  | 59  | 47  | 39  | 34  | 42 | 35 | 30 | 36 | 31 | 27 | 32 | 27 | 24 | 21 |
| 7   | 58  | 45  | 37  | 31  | 54  | 43  | 35  | 29  | 38 | 31 | 27 | 33 | 28 | 24 | 29 | 25 | 21 | 19 |
| 8   | 54  | 41  | 33  | 27  | 50  | 39  | 31  | 26  | 34 | 28 | 24 | 30 | 25 | 21 | 26 | 22 | 19 | 17 |
| 9   | 50  | 37  | 30  | 24  | 47  | 35  | 28  | 23  | 31 | 25 | 21 | 28 | 23 | 19 | 24 | 20 | 17 | 15 |
| 10  | 47  | 34  | 27  | 22  | 44  | 33  | 26  | 21  | 29 | 23 | 19 | 26 | 21 | 17 | 23 | 18 | 16 | 14 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8888 | 8888 | 8888 |
| 5°  | 8916 | 8686 | 8711 |
| 10° | 8861 | 8544 | 8538 |
| 15° | 8782 | 8380 | 8334 |
| 20° | 8662 | 8198 | 8135 |
| 25° | 8527 | 7995 | 7918 |
| 30° | 8381 | 7793 | 7693 |
| 35° | 8216 | 7585 | 7497 |
| 40° | 8083 | 7388 | 7292 |
| 45° | 7887 | 7207 | 7117 |
| 50° | 7721 | 6996 | 6931 |
| 55° | 7549 | 6799 | 6714 |
| 60° | 7282 | 6547 | 6515 |
| 65° | 6989 | 6278 | 6271 |
| 70° | 6633 | 5968 | 5986 |
| 75° | 6136 | 5628 | 5730 |
| 80° | 5588 | 5302 | 5476 |
| 85° | 4893 | 5013 | 5328 |



TEST NUMBER: P332638-940

CATALOG NUMBER: SA4XXDIP-C1020D590U940-4F0-1E-UDD-D1

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 104.3  | 1.9       |
| 10°-20°   | 298.7  | 5.4       |
| 20°-30°   | 451.7  | 8.1       |
| 30°-40°   | 546.5  | 9.8       |
| 40°-50°   | 577.7  | 10.4      |
| 50°-60°   | 543.7  | 9.7       |
| 60°-70°   | 451.1  | 8.1       |
| 70°-80°   | 316.9  | 5.7       |
| 80°-90°   | 181.1  | 3.2       |
| 90°-100°  | 149.7  | 2.7       |
| 100°-110° | 207.2  | 3.7       |
| 110°-120° | 270.9  | 4.9       |
| 120°-130° | 317.4  | 5.7       |
| 130°-140° | 335.8  | 6.0       |
| 140°-150° | 320.0  | 5.7       |
| 150°-160° | 266.9  | 4.8       |
| 160°-170° | 177.6  | 3.2       |
| 170°-180° | 62.2   | 1.1       |
| 0°-30°    | 854.6  | 15.3      |
| 0°-40°    | 1401.1 | 25.1      |
| 0°-60°    | 2522.6 | 45.2      |
| 0°-90°    | 3471.7 | 62.2      |
| 90°-120°  | 627.9  | 11.3      |
| 90°-150°  | 1601.0 | 28.7      |
| 90°-180°  | 2108.0 | 37.8      |
| 0°-180°   | 5579.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1101 | 1101  | 1101 | 1101  | 1101 |      |
| 5°   | 1102 | 1098  | 1090 | 1099  | 1098 | 105  |
| 15°  | 1057 | 1058  | 1054 | 1065  | 1064 | 298  |
| 25°  | 967  | 974   | 978  | 991   | 992  | 445  |
| 35°  | 846  | 860   | 873  | 889   | 894  | 529  |
| 45°  | 705  | 729   | 752  | 772   | 779  | 545  |
| 55°  | 552  | 579   | 615  | 639   | 647  | 492  |
| 65°  | 382  | 422   | 464  | 493   | 504  | 379  |
| 75°  | 212  | 258   | 309  | 343   | 355  | 226  |
| 85°  | 65   | 117   | 173  | 208   | 222  | 70   |
| 90°  | 21   | 76    | 133  | 170   | 183  | 15   |
| 95°  | 46   | 92    | 146  | 179   | 192  | 47   |
| 105° | 130  | 156   | 202  | 234   | 246  | 138  |
| 115° | 229  | 242   | 279  | 304   | 313  | 226  |
| 125° | 328  | 328   | 357  | 378   | 386  | 292  |
| 135° | 419  | 422   | 431  | 449   | 455  | 324  |
| 145° | 507  | 508   | 508  | 515   | 519  | 317  |
| 155° | 580  | 580   | 579  | 581   | 579  | 267  |
| 165° | 631  | 630   | 629  | 631   | 630  | 178  |
| 175° | 657  | 654   | 654  | 657   | 654  | 62   |
| 180° | 658  | 658   | 658  | 658   | 658  |      |



TEST NUMBER: P332638-940

CATALOG NUMBER: SA4XXDIP-C1020D590U940-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1101.0 | 1101.0 | 1101.0 | 1101.0 | 1101.0 | 1101.0 | 1101.0 | 1101.0 | 1101.0 | 1101.0 | 1101.0 |
| 2.5°   | 1104.9 | 1104.3 | 1103.6 | 1103.0 | 1102.2 | 1101.1 | 1099.3 | 1097.6 | 1095.8 | 1094.0 | 1095.6 |
| 5°     | 1102.2 | 1101.4 | 1100.5 | 1099.7 | 1098.9 | 1097.5 | 1095.6 | 1093.7 | 1091.8 | 1089.8 | 1092.1 |
| 7.5°   | 1092.8 | 1092.3 | 1091.8 | 1091.4 | 1090.8 | 1089.8 | 1088.2 | 1086.6 | 1085.0 | 1083.4 | 1085.9 |
| 10°    | 1084.9 | 1084.7 | 1084.4 | 1084.1 | 1083.9 | 1083.0 | 1081.6 | 1080.3 | 1078.9 | 1077.5 | 1080.0 |
| 12.5°  | 1074.1 | 1074.1 | 1074.0 | 1073.9 | 1073.9 | 1073.4 | 1072.5 | 1071.5 | 1070.6 | 1069.6 | 1071.9 |
| 15°    | 1056.6 | 1056.9 | 1057.1 | 1057.4 | 1057.7 | 1057.4 | 1056.6 | 1055.8 | 1054.9 | 1054.1 | 1056.6 |
| 17.5°  | 1032.7 | 1033.5 | 1034.3 | 1035.1 | 1036.0 | 1036.3 | 1036.1 | 1036.0 | 1035.8 | 1035.6 | 1038.1 |
| 20°    | 1015.9 | 1016.7 | 1017.5 | 1018.3 | 1019.2 | 1019.8 | 1020.0 | 1020.3 | 1020.6 | 1020.8 | 1023.6 |
| 22.5°  | 997.1  | 998.2  | 999.3  | 1000.3 | 1001.3 | 1002.1 | 1002.6 | 1003.1 | 1003.5 | 1004.1 | 1006.8 |
| 25°    | 966.6  | 968.2  | 969.8  | 971.5  | 973.1  | 974.4  | 975.2  | 976.1  | 976.9  | 977.7  | 980.7  |
| 27.5°  | 932.6  | 935.0  | 937.4  | 939.8  | 942.2  | 944.1  | 945.3  | 946.6  | 947.8  | 949.0  | 951.9  |
| 30°    | 909.9  | 912.0  | 914.3  | 916.4  | 918.6  | 920.7  | 922.6  | 924.5  | 926.4  | 928.4  | 931.4  |
| 32.5°  | 885.2  | 887.9  | 890.5  | 893.1  | 895.7  | 898.1  | 900.3  | 902.4  | 904.6  | 906.7  | 910.1  |
| 35°    | 845.8  | 849.1  | 852.3  | 855.6  | 858.9  | 861.9  | 864.7  | 867.4  | 870.1  | 872.9  | 876.7  |
| 37.5°  | 806.0  | 809.9  | 813.6  | 817.4  | 821.2  | 824.7  | 828.1  | 831.5  | 835.0  | 838.4  | 842.2  |
| 40°    | 780.4  | 784.0  | 787.6  | 791.1  | 794.7  | 798.3  | 802.2  | 806.0  | 809.9  | 813.7  | 817.8  |
| 42.5°  | 750.8  | 754.8  | 758.8  | 762.9  | 766.8  | 771.1  | 775.5  | 780.1  | 784.5  | 789.1  | 793.6  |
| 45°    | 705.2  | 710.4  | 715.6  | 720.9  | 726.0  | 731.2  | 736.5  | 741.6  | 746.8  | 752.1  | 756.7  |
| 47.5°  | 661.6  | 666.9  | 672.3  | 677.7  | 683.1  | 688.8  | 694.7  | 700.8  | 706.9  | 712.8  | 717.6  |
| 50°    | 630.0  | 636.1  | 642.0  | 648.1  | 654.1  | 660.1  | 666.2  | 672.2  | 678.2  | 684.2  | 689.7  |
| 52.5°  | 598.4  | 604.5  | 610.5  | 616.5  | 622.6  | 629.0  | 635.9  | 642.8  | 649.7  | 656.7  | 662.1  |
| 55°    | 552.3  | 558.1  | 563.8  | 569.6  | 575.3  | 582.3  | 590.6  | 598.8  | 607.0  | 615.2  | 620.7  |
| 57.5°  | 500.8  | 507.9  | 515.1  | 522.2  | 529.3  | 536.9  | 545.1  | 553.3  | 561.4  | 569.6  | 576.1  |
| 60°    | 467.3  | 474.4  | 481.5  | 488.7  | 495.8  | 503.8  | 512.9  | 521.9  | 530.9  | 540.0  | 546.3  |
| 62.5°  | 434.7  | 442.5  | 450.3  | 458.1  | 465.8  | 474.2  | 483.3  | 492.3  | 501.4  | 510.4  | 516.7  |
| 65°    | 382.2  | 390.9  | 399.8  | 408.5  | 417.2  | 426.3  | 435.6  | 445.0  | 454.2  | 463.6  | 470.4  |
| 67.5°  | 331.6  | 341.0  | 350.3  | 359.6  | 368.9  | 378.5  | 388.5  | 398.5  | 408.5  | 418.5  | 425.4  |
| 70°    | 297.1  | 306.5  | 315.8  | 325.0  | 334.4  | 344.3  | 354.6  | 365.1  | 375.5  | 385.9  | 393.3  |
| 72.5°  | 263.6  | 273.1  | 282.7  | 292.2  | 301.8  | 312.0  | 323.1  | 334.1  | 345.3  | 356.3  | 363.5  |
| 75°    | 212.0  | 222.2  | 232.3  | 242.5  | 252.6  | 263.4  | 274.9  | 286.4  | 297.9  | 309.4  | 317.1  |
| 77.5°  | 164.0  | 174.7  | 185.5  | 196.2  | 207.0  | 218.3  | 230.4  | 242.5  | 254.5  | 266.5  | 274.3  |
| 80°    | 134.4  | 145.3  | 156.3  | 167.3  | 178.3  | 189.8  | 201.8  | 213.8  | 225.9  | 237.9  | 246.2  |
| 82.5°  | 104.8  | 116.2  | 127.6  | 139.0  | 150.3  | 162.1  | 174.2  | 186.2  | 198.3  | 210.4  | 218.7  |
| 85°    | 65.4   | 76.9   | 88.4   | 99.9   | 111.4  | 123.3  | 135.6  | 147.9  | 160.2  | 172.6  | 180.8  |
| 87.5°  | 36.8   | 48.2   | 59.7   | 71.1   | 82.5   | 94.3   | 106.5  | 118.7  | 130.8  | 143.0  | 151.1  |
| 90°    | 21.2   | 33.4   | 45.7   | 57.9   | 70.1   | 82.5   | 95.1   | 107.9  | 120.6  | 133.2  | 141.9  |
| 92.5°  | 29.6   | 40.9   | 52.2   | 63.5   | 74.8   | 86.6   | 99.1   | 111.5  | 123.9  | 136.3  | 144.4  |
| 95°    | 46.5   | 56.6   | 66.7   | 76.7   | 86.8   | 97.8   | 109.9  | 121.9  | 133.8  | 145.9  | 153.6  |
| 97.5°  | 67.9   | 76.4   | 85.1   | 93.6   | 102.2  | 112.5  | 124.6  | 136.6  | 148.7  | 160.8  | 168.4  |
| 100°   | 84.8   | 92.4   | 99.9   | 107.5  | 115.0  | 124.7  | 136.4  | 148.1  | 159.8  | 171.5  | 179.1  |
| 102.5° | 103.4  | 109.9  | 116.4  | 122.8  | 129.2  | 138.1  | 149.5  | 160.9  | 172.3  | 183.7  | 191.2  |
| 105°   | 129.6  | 135.2  | 140.8  | 146.3  | 151.9  | 160.1  | 170.7  | 181.2  | 191.8  | 202.4  | 209.6  |
| 107.5° | 159.3  | 164.0  | 168.6  | 173.3  | 177.9  | 185.0  | 194.7  | 204.3  | 214.0  | 223.6  | 230.7  |
| 110°   | 178.7  | 182.8  | 186.8  | 190.9  | 194.9  | 201.7  | 211.2  | 220.7  | 230.2  | 239.6  | 245.7  |



TEST NUMBER: P332638-940

CATALOG NUMBER: SA4XXDIP-C1020D590U940-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 198.9 | 202.3 | 205.8 | 209.2 | 212.7 | 218.8 | 227.8 | 236.7 | 245.7 | 254.7 | 260.6 |
| 115°   | 229.2 | 231.6 | 234.1 | 236.6 | 239.0 | 244.5 | 253.1 | 261.6 | 270.1 | 278.7 | 284.5 |
| 117.5° | 258.8 | 260.4 | 261.9 | 263.5 | 265.1 | 269.8 | 277.9 | 285.9 | 293.9 | 301.9 | 307.2 |
| 120°   | 277.8 | 279.0 | 280.3 | 281.6 | 282.9 | 287.3 | 294.9 | 302.5 | 310.1 | 317.7 | 322.6 |
| 122.5° | 298.5 | 298.8 | 299.2 | 299.5 | 299.9 | 303.7 | 311.1 | 318.4 | 325.7 | 333.1 | 338.2 |
| 125°   | 327.9 | 327.6 | 327.3 | 327.1 | 326.8 | 330.0 | 336.8 | 343.5 | 350.3 | 357.0 | 361.9 |
| 127.5° | 355.4 | 355.4 | 355.5 | 355.6 | 355.7 | 358.2 | 363.3 | 368.4 | 373.4 | 378.5 | 383.3 |
| 130°   | 374.0 | 374.0 | 374.1 | 374.2 | 374.3 | 376.4 | 380.8 | 385.2 | 389.6 | 394.0 | 398.7 |
| 132.5° | 393.9 | 393.9 | 393.9 | 393.8 | 393.8 | 395.5 | 398.9 | 402.3 | 405.7 | 409.1 | 413.7 |
| 135°   | 419.0 | 419.6 | 420.4 | 421.1 | 421.7 | 423.0 | 424.9 | 426.9 | 428.7 | 430.7 | 434.8 |
| 137.5° | 447.6 | 447.7 | 447.7 | 447.8 | 447.8 | 448.4 | 449.5 | 450.7 | 451.7 | 452.9 | 456.6 |
| 140°   | 466.8 | 466.7 | 466.7 | 466.6 | 466.6 | 466.7 | 467.0 | 467.3 | 467.5 | 467.8 | 471.3 |
| 142.5° | 483.3 | 483.5 | 483.7 | 483.8 | 484.0 | 483.9 | 483.7 | 483.5 | 483.2 | 483.0 | 486.1 |
| 145°   | 507.3 | 507.5 | 507.7 | 507.8 | 508.0 | 508.1 | 508.3 | 508.4 | 508.5 | 508.5 | 510.1 |
| 147.5° | 531.3 | 531.5 | 531.8 | 532.1 | 532.4 | 532.4 | 532.4 | 532.3 | 532.2 | 532.1 | 532.2 |
| 150°   | 545.9 | 546.1 | 546.3 | 546.4 | 546.6 | 546.7 | 546.7 | 546.7 | 546.7 | 546.7 | 546.7 |
| 152.5° | 558.7 | 559.0 | 559.2 | 559.5 | 559.6 | 559.8 | 559.9 | 560.0 | 560.1 | 560.2 | 560.4 |
| 155°   | 579.8 | 579.8 | 579.8 | 579.8 | 579.8 | 579.7 | 579.6 | 579.5 | 579.4 | 579.3 | 579.7 |
| 157.5° | 597.7 | 597.4 | 597.3 | 597.1 | 596.9 | 596.7 | 596.7 | 596.7 | 596.7 | 596.6 | 597.0 |
| 160°   | 608.2 | 608.1 | 608.1 | 608.0 | 607.8 | 607.7 | 607.6 | 607.5 | 607.3 | 607.3 | 607.6 |
| 162.5° | 618.0 | 617.8 | 617.4 | 617.2 | 616.9 | 616.6 | 616.5 | 616.4 | 616.4 | 616.2 | 616.8 |
| 165°   | 631.2 | 630.8 | 630.4 | 630.2 | 629.8 | 629.5 | 629.3 | 629.1 | 628.8 | 628.7 | 629.3 |
| 167.5° | 641.2 | 640.8 | 640.2 | 639.8 | 639.4 | 639.1 | 639.1 | 639.2 | 639.2 | 639.2 | 639.9 |
| 170°   | 646.9 | 646.4 | 645.8 | 645.2 | 644.6 | 644.4 | 644.5 | 644.6 | 644.8 | 644.9 | 645.6 |
| 172.5° | 650.9 | 650.5 | 650.1 | 649.6 | 649.1 | 648.9 | 648.9 | 648.9 | 648.9 | 649.0 | 649.7 |
| 175°   | 656.6 | 656.0 | 655.5 | 654.9 | 654.3 | 654.0 | 653.9 | 653.8 | 653.6 | 653.5 | 654.3 |
| 177.5° | 658.4 | 658.0 | 657.5 | 657.1 | 656.6 | 656.4 | 656.4 | 656.4 | 656.4 | 656.4 | 657.0 |
| 180°   | 657.6 | 657.6 | 657.6 | 657.6 | 657.6 | 657.6 | 657.6 | 657.6 | 657.6 | 657.6 | 657.6 |



TEST NUMBER: P332638-940

CATALOG NUMBER: SA4XXDIP-C1020D590U940-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1101.0 | 1101.0 | 1101.0 | 1101.0 | 1101.0 | 1101.0 | 1101.0 | 1101.0 |
| 2.5°   | 1097.2 | 1098.7 | 1100.2 | 1100.8 | 1100.6 | 1100.4 | 1100.2 | 1100.0 |
| 5°     | 1094.2 | 1096.4 | 1098.7 | 1099.6 | 1099.3 | 1099.0 | 1098.8 | 1098.5 |
| 7.5°   | 1088.4 | 1090.8 | 1093.3 | 1094.4 | 1094.1 | 1093.9 | 1093.6 | 1093.3 |
| 10°    | 1082.4 | 1084.9 | 1087.4 | 1088.5 | 1088.2 | 1088.0 | 1087.7 | 1087.4 |
| 12.5°  | 1074.2 | 1076.4 | 1078.6 | 1079.8 | 1079.7 | 1079.6 | 1079.6 | 1079.5 |
| 15°    | 1059.1 | 1061.5 | 1064.0 | 1065.1 | 1064.8 | 1064.5 | 1064.3 | 1064.0 |
| 17.5°  | 1040.6 | 1043.2 | 1045.7 | 1046.9 | 1046.6 | 1046.4 | 1046.2 | 1046.0 |
| 20°    | 1026.3 | 1029.0 | 1031.8 | 1033.1 | 1033.1 | 1033.1 | 1033.1 | 1033.1 |
| 22.5°  | 1009.5 | 1012.3 | 1015.0 | 1016.6 | 1017.1 | 1017.4 | 1017.9 | 1018.3 |
| 25°    | 983.7  | 986.7  | 989.7  | 991.4  | 991.7  | 991.9  | 992.2  | 992.5  |
| 27.5°  | 954.7  | 957.4  | 960.3  | 961.8  | 962.2  | 962.5  | 962.8  | 963.1  |
| 30°    | 934.4  | 937.4  | 940.4  | 942.2  | 942.7  | 943.3  | 943.9  | 944.4  |
| 32.5°  | 913.6  | 917.0  | 920.5  | 922.5  | 923.0  | 923.5  | 924.1  | 924.7  |
| 35°    | 880.6  | 884.4  | 888.2  | 890.6  | 891.4  | 892.2  | 893.0  | 893.9  |
| 37.5°  | 846.1  | 850.1  | 853.9  | 856.3  | 857.2  | 858.1  | 858.9  | 859.8  |
| 40°    | 821.9  | 826.0  | 830.2  | 832.8  | 833.8  | 834.9  | 836.1  | 837.1  |
| 42.5°  | 798.2  | 802.7  | 807.3  | 809.9  | 810.8  | 811.7  | 812.6  | 813.4  |
| 45°    | 761.3  | 766.1  | 770.7  | 773.7  | 775.1  | 776.4  | 777.8  | 779.2  |
| 47.5°  | 722.5  | 727.3  | 732.2  | 735.4  | 737.0  | 738.7  | 740.3  | 742.0  |
| 50°    | 695.2  | 700.7  | 706.1  | 709.7  | 711.4  | 713.0  | 714.6  | 716.3  |
| 52.5°  | 667.6  | 673.1  | 678.6  | 682.1  | 683.8  | 685.4  | 687.1  | 688.7  |
| 55°    | 626.2  | 631.7  | 637.1  | 640.7  | 642.3  | 644.0  | 645.6  | 647.3  |
| 57.5°  | 582.6  | 589.2  | 595.7  | 599.7  | 601.2  | 602.8  | 604.3  | 605.8  |
| 60°    | 552.6  | 558.9  | 565.2  | 569.4  | 571.7  | 573.8  | 576.0  | 578.2  |
| 62.5°  | 523.0  | 529.3  | 535.7  | 539.8  | 542.1  | 544.2  | 546.4  | 548.7  |
| 65°    | 477.2  | 484.1  | 491.0  | 495.5  | 497.7  | 499.9  | 502.0  | 504.3  |
| 67.5°  | 432.4  | 439.3  | 446.3  | 450.8  | 453.0  | 455.1  | 457.3  | 459.4  |
| 70°    | 400.6  | 408.0  | 415.4  | 420.2  | 422.0  | 424.0  | 425.9  | 427.8  |
| 72.5°  | 370.7  | 377.8  | 385.0  | 389.7  | 391.8  | 394.0  | 396.1  | 398.2  |
| 75°    | 324.8  | 332.4  | 340.1  | 345.2  | 347.7  | 350.2  | 352.6  | 355.1  |
| 77.5°  | 282.1  | 289.9  | 297.7  | 302.9  | 305.5  | 308.2  | 310.8  | 313.4  |
| 80°    | 254.4  | 262.6  | 270.8  | 276.0  | 278.2  | 280.4  | 282.6  | 284.8  |
| 82.5°  | 227.2  | 235.7  | 244.1  | 249.5  | 251.9  | 254.3  | 256.7  | 259.1  |
| 85°    | 189.0  | 197.2  | 205.5  | 211.0  | 213.7  | 216.4  | 219.2  | 221.9  |
| 87.5°  | 159.2  | 167.3  | 175.4  | 180.7  | 183.1  | 185.6  | 188.0  | 190.5  |
| 90°    | 150.5  | 159.1  | 167.7  | 173.3  | 175.7  | 178.1  | 180.5  | 182.9  |
| 92.5°  | 152.6  | 160.7  | 168.8  | 174.1  | 176.4  | 178.7  | 181.0  | 183.3  |
| 95°    | 161.4  | 169.2  | 176.8  | 182.0  | 184.4  | 186.9  | 189.4  | 191.8  |
| 97.5°  | 175.9  | 183.5  | 191.1  | 196.1  | 198.4  | 200.8  | 203.1  | 205.5  |
| 100°   | 186.7  | 194.4  | 202.0  | 206.8  | 208.7  | 210.6  | 212.5  | 214.5  |
| 102.5° | 198.7  | 206.2  | 213.7  | 218.5  | 220.7  | 222.9  | 225.2  | 227.4  |
| 105°   | 216.8  | 224.0  | 231.1  | 236.0  | 238.5  | 241.1  | 243.6  | 246.1  |
| 107.5° | 237.7  | 244.8  | 251.9  | 256.4  | 258.3  | 260.3  | 262.3  | 264.2  |
| 110°   | 251.8  | 257.9  | 263.9  | 268.2  | 270.8  | 273.3  | 275.8  | 278.4  |





TEST NUMBER: P332638-940

CATALOG NUMBER: SA4XXDIP-C1020D590U940-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

|        | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 266.7 | 272.8 | 278.7 | 282.9 | 285.2 | 287.5 | 289.7 | 291.9 |
| 115°   | 290.5 | 296.4 | 302.3 | 306.2 | 308.0 | 309.8 | 311.6 | 313.4 |
| 117.5° | 312.5 | 317.8 | 323.2 | 326.8 | 328.8 | 330.7 | 332.7 | 334.7 |
| 120°   | 327.5 | 332.4 | 337.3 | 341.0 | 343.5 | 345.9 | 348.3 | 350.7 |
| 122.5° | 343.3 | 348.4 | 353.5 | 356.9 | 358.4 | 360.0 | 361.5 | 363.1 |
| 125°   | 366.9 | 371.9 | 376.9 | 380.0 | 381.5 | 382.9 | 384.3 | 385.8 |
| 127.5° | 388.0 | 392.7 | 397.3 | 400.6 | 402.3 | 403.9 | 405.6 | 407.3 |
| 130°   | 403.4 | 408.0 | 412.8 | 415.7 | 417.0 | 418.1 | 419.3 | 420.5 |
| 132.5° | 418.1 | 422.6 | 427.1 | 430.1 | 431.5 | 433.0 | 434.4 | 436.0 |
| 135°   | 439.0 | 443.2 | 447.3 | 450.0 | 451.4 | 452.6 | 454.0 | 455.2 |
| 137.5° | 460.3 | 464.0 | 467.7 | 470.3 | 471.7 | 473.1 | 474.6 | 476.0 |
| 140°   | 474.7 | 478.1 | 481.6 | 483.9 | 485.3 | 486.5 | 487.8 | 489.0 |
| 142.5° | 489.1 | 492.2 | 495.3 | 497.5 | 498.6 | 499.7 | 500.9 | 501.9 |
| 145°   | 511.7 | 513.2 | 514.7 | 515.9 | 516.6 | 517.4 | 518.1 | 518.9 |
| 147.5° | 532.4 | 532.4 | 532.6 | 533.1 | 533.8 | 534.6 | 535.3 | 536.1 |
| 150°   | 546.7 | 546.7 | 546.7 | 546.7 | 546.5 | 546.4 | 546.4 | 546.3 |
| 152.5° | 560.7 | 561.0 | 561.2 | 561.2 | 561.0 | 560.6 | 560.4 | 560.1 |
| 155°   | 580.1 | 580.6 | 581.1 | 581.1 | 580.6 | 580.1 | 579.7 | 579.3 |
| 157.5° | 597.4 | 597.7 | 598.1 | 598.0 | 597.6 | 597.3 | 596.8 | 596.5 |
| 160°   | 608.0 | 608.2 | 608.6 | 608.5 | 608.0 | 607.3 | 606.8 | 606.3 |
| 162.5° | 617.4 | 618.0 | 618.7 | 618.7 | 618.1 | 617.5 | 617.0 | 616.4 |
| 165°   | 630.0 | 630.6 | 631.3 | 631.4 | 631.0 | 630.5 | 630.1 | 629.6 |
| 167.5° | 640.5 | 641.2 | 641.9 | 641.9 | 641.2 | 640.5 | 639.8 | 639.1 |
| 170°   | 646.2 | 646.9 | 647.6 | 647.6 | 646.8 | 646.0 | 645.2 | 644.4 |
| 172.5° | 650.5 | 651.3 | 652.0 | 652.0 | 651.2 | 650.4 | 649.6 | 648.9 |
| 175°   | 655.1 | 655.9 | 656.7 | 656.7 | 655.9 | 655.1 | 654.3 | 653.5 |
| 177.5° | 657.6 | 658.3 | 658.9 | 658.9 | 658.2 | 657.5 | 656.7 | 655.9 |
| 180°   | 657.6 | 657.6 | 657.6 | 657.6 | 657.6 | 657.6 | 657.6 | 657.6 |

(END OF REPORT)