

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: P332648-840

Luminaire Tested: **S124DIP-S1020D810U840-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332648-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DIP-S1020D810U840-4F0-1E-UDD-D4  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1020 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7175.7 lumens  
Efficiency: N/A  
Efficacy: 131.9 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

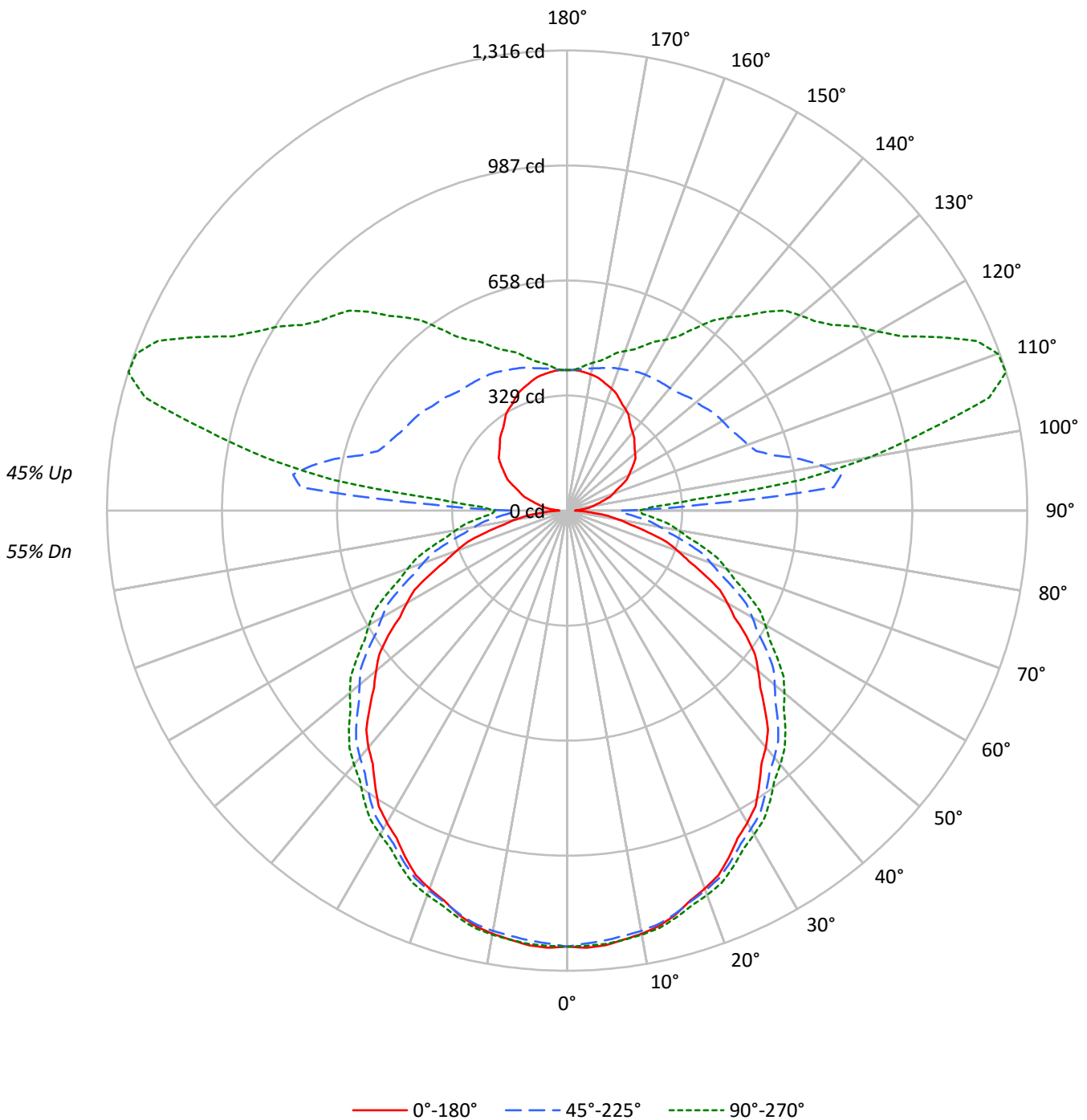
Input Watts (W): 54.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P332648-840

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### Luminous Intensity Polar Plot





TEST NUMBER: P332648-840

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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 | 0  |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |
| 0   | 108 | 108 | 108 | 108 | 101 | 101 | 101 | 101 | 86 | 86 | 86 | 73 | 73 | 73 | 61 | 61 | 61 | 55 |
| 1   | 98  | 93  | 89  | 85  | 90  | 86  | 82  | 79  | 74 | 71 | 68 | 62 | 60 | 58 | 52 | 50 | 49 | 44 |
| 2   | 89  | 80  | 74  | 68  | 82  | 75  | 69  | 64  | 64 | 60 | 56 | 54 | 51 | 48 | 45 | 42 | 40 | 36 |
| 3   | 80  | 70  | 63  | 56  | 74  | 65  | 58  | 53  | 56 | 51 | 46 | 47 | 43 | 40 | 39 | 36 | 34 | 30 |
| 4   | 73  | 62  | 54  | 47  | 68  | 58  | 50  | 45  | 50 | 44 | 39 | 42 | 38 | 34 | 35 | 32 | 29 | 25 |
| 5   | 67  | 55  | 47  | 40  | 62  | 51  | 44  | 38  | 44 | 38 | 34 | 38 | 33 | 29 | 31 | 28 | 25 | 22 |
| 6   | 62  | 49  | 41  | 35  | 57  | 46  | 38  | 33  | 40 | 34 | 29 | 34 | 29 | 25 | 28 | 25 | 22 | 19 |
| 7   | 57  | 44  | 36  | 30  | 53  | 42  | 34  | 29  | 36 | 30 | 26 | 31 | 26 | 22 | 26 | 22 | 19 | 17 |
| 8   | 53  | 40  | 32  | 27  | 49  | 38  | 30  | 25  | 33 | 27 | 23 | 28 | 23 | 20 | 24 | 20 | 17 | 15 |
| 9   | 49  | 37  | 29  | 24  | 46  | 34  | 27  | 23  | 30 | 24 | 20 | 26 | 21 | 18 | 22 | 18 | 15 | 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°  | 10066 | 10066 | 10066 |
| 5°  | 10097 | 9838  | 9866  |
| 10° | 10035 | 9677  | 9669  |
| 15° | 9945  | 9490  | 9439  |
| 20° | 9810  | 9285  | 9213  |
| 25° | 9657  | 9054  | 8967  |
| 30° | 9492  | 8825  | 8712  |
| 35° | 9305  | 8591  | 8490  |
| 40° | 9154  | 8367  | 8259  |
| 45° | 8931  | 8161  | 8059  |
| 50° | 8744  | 7924  | 7849  |
| 55° | 8549  | 7700  | 7603  |
| 60° | 8247  | 7415  | 7378  |
| 65° | 7914  | 7109  | 7102  |
| 70° | 7513  | 6760  | 6779  |
| 75° | 6949  | 6374  | 6488  |
| 80° | 6328  | 6004  | 6203  |
| 85° | 5536  | 5679  | 6037  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 118.1  | 1.6       |
| 10°-20°   | 338.3  | 4.7       |
| 20°-30°   | 511.5  | 7.1       |
| 30°-40°   | 618.9  | 8.6       |
| 40°-50°   | 654.3  | 9.1       |
| 50°-60°   | 615.8  | 8.6       |
| 60°-70°   | 510.9  | 7.1       |
| 70°-80°   | 358.9  | 5.0       |
| 80°-90°   | 205.1  | 2.9       |
| 90°-100°  | 410.8  | 5.7       |
| 100°-110° | 693.4  | 9.7       |
| 110°-120° | 601.0  | 8.4       |
| 120°-130° | 489.0  | 6.8       |
| 130°-140° | 394.2  | 5.5       |
| 140°-150° | 292.9  | 4.1       |
| 150°-160° | 203.8  | 2.8       |
| 160°-170° | 119.9  | 1.7       |
| 170°-180° | 39.0   | 0.5       |
| 0°-30°    | 967.9  | 13.5      |
| 0°-40°    | 1586.8 | 22.1      |
| 0°-60°    | 2856.9 | 39.8      |
| 0°-90°    | 3931.8 | 54.8      |
| 90°-120°  | 1705.2 | 23.8      |
| 90°-150°  | 2881.2 | 40.2      |
| 90°-180°  | 3244.0 | 45.2      |
| 0°-180°   | 7175.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1247 | 1247  | 1247 | 1247  | 1247 |      |
| 5°   | 1248 | 1244  | 1234 | 1245  | 1244 | 118  |
| 15°  | 1197 | 1198  | 1194 | 1206  | 1205 | 337  |
| 25°  | 1095 | 1103  | 1107 | 1122  | 1124 | 504  |
| 35°  | 958  | 974   | 989  | 1007  | 1012 | 600  |
| 45°  | 799  | 825   | 852  | 875   | 882  | 617  |
| 55°  | 626  | 656   | 697  | 724   | 733  | 557  |
| 65°  | 433  | 478   | 525  | 559   | 571  | 429  |
| 75°  | 240  | 292   | 350  | 388   | 402  | 255  |
| 85°  | 74   | 133   | 196  | 236   | 251  | 79   |
| 90°  | 23   | 85    | 152  | 193   | 206  | 16   |
| 95°  | 44   | 147   | 265  | 376   | 464  | 44   |
| 105° | 105  | 176   | 310  | 541   | 749  | 113  |
| 115° | 171  | 227   | 328  | 483   | 673  | 170  |
| 125° | 232  | 276   | 349  | 520   | 725  | 207  |
| 135° | 272  | 324   | 368  | 505   | 604  | 211  |
| 145° | 312  | 355   | 353  | 474   | 535  | 196  |
| 155° | 353  | 381   | 341  | 499   | 520  | 163  |
| 165° | 385  | 396   | 322  | 447   | 454  | 109  |
| 175° | 401  | 402   | 305  | 411   | 409  | 38   |
| 180° | 402  | 402   | 302  | 402   | 402  |      |



TEST NUMBER: P332648-840

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1246.9 | 1246.9 | 1246.9 | 1246.9 | 1246.9 | 1246.9 | 1246.9 | 1246.9 | 1246.9 | 1246.9 | 1246.9 |
| 2.5°   | 1251.3 | 1250.6 | 1249.8 | 1249.1 | 1248.3 | 1247.0 | 1245.0 | 1243.0 | 1241.0 | 1239.0 | 1240.7 |
| 5°     | 1248.2 | 1247.3 | 1246.4 | 1245.5 | 1244.6 | 1242.9 | 1240.8 | 1238.6 | 1236.5 | 1234.3 | 1236.8 |
| 7.5°   | 1237.6 | 1237.1 | 1236.5 | 1236.0 | 1235.4 | 1234.3 | 1232.4 | 1230.6 | 1228.8 | 1227.0 | 1229.8 |
| 10°    | 1228.7 | 1228.4 | 1228.1 | 1227.8 | 1227.5 | 1226.5 | 1225.0 | 1223.5 | 1221.8 | 1220.3 | 1223.1 |
| 12.5°  | 1216.4 | 1216.4 | 1216.3 | 1216.2 | 1216.2 | 1215.6 | 1214.6 | 1213.5 | 1212.4 | 1211.3 | 1214.0 |
| 15°    | 1196.6 | 1196.9 | 1197.2 | 1197.5 | 1197.8 | 1197.5 | 1196.6 | 1195.7 | 1194.7 | 1193.8 | 1196.6 |
| 17.5°  | 1169.5 | 1170.4 | 1171.3 | 1172.3 | 1173.3 | 1173.6 | 1173.4 | 1173.3 | 1173.1 | 1172.9 | 1175.7 |
| 20°    | 1150.5 | 1151.4 | 1152.4 | 1153.3 | 1154.3 | 1154.9 | 1155.2 | 1155.5 | 1155.8 | 1156.1 | 1159.2 |
| 22.5°  | 1129.2 | 1130.4 | 1131.7 | 1132.9 | 1134.0 | 1134.9 | 1135.4 | 1136.0 | 1136.5 | 1137.1 | 1140.2 |
| 25°    | 1094.7 | 1096.5 | 1098.3 | 1100.2 | 1102.1 | 1103.5 | 1104.4 | 1105.4 | 1106.3 | 1107.2 | 1110.6 |
| 27.5°  | 1056.1 | 1058.8 | 1061.6 | 1064.3 | 1067.0 | 1069.1 | 1070.6 | 1072.0 | 1073.4 | 1074.8 | 1078.0 |
| 30°    | 1030.5 | 1032.9 | 1035.4 | 1037.8 | 1040.4 | 1042.7 | 1044.8 | 1047.0 | 1049.1 | 1051.4 | 1054.8 |
| 32.5°  | 1002.5 | 1005.5 | 1008.5 | 1011.5 | 1014.4 | 1017.1 | 1019.6 | 1022.0 | 1024.4 | 1026.8 | 1030.7 |
| 35°    | 957.9  | 961.6  | 965.2  | 969.0  | 972.7  | 976.1  | 979.3  | 982.3  | 985.4  | 988.6  | 992.9  |
| 37.5°  | 912.8  | 917.2  | 921.4  | 925.7  | 930.0  | 934.0  | 937.9  | 941.7  | 945.6  | 949.5  | 953.8  |
| 40°    | 883.8  | 887.9  | 891.9  | 896.0  | 900.0  | 904.1  | 908.5  | 912.8  | 917.2  | 921.5  | 926.1  |
| 42.5°  | 850.3  | 854.9  | 859.4  | 863.9  | 868.4  | 873.2  | 878.3  | 883.4  | 888.5  | 893.6  | 898.8  |
| 45°    | 798.6  | 804.6  | 810.4  | 816.4  | 822.2  | 828.1  | 834.0  | 839.9  | 845.8  | 851.7  | 857.0  |
| 47.5°  | 749.2  | 755.3  | 761.3  | 767.5  | 773.6  | 780.0  | 786.8  | 793.7  | 800.5  | 807.3  | 812.7  |
| 50°    | 713.5  | 720.3  | 727.1  | 734.0  | 740.7  | 747.6  | 754.5  | 761.2  | 768.1  | 774.9  | 781.1  |
| 52.5°  | 677.7  | 684.6  | 691.4  | 698.2  | 705.1  | 712.4  | 720.1  | 728.0  | 735.8  | 743.7  | 749.8  |
| 55°    | 625.5  | 632.1  | 638.5  | 645.1  | 651.6  | 659.4  | 668.8  | 678.1  | 687.4  | 696.7  | 703.0  |
| 57.5°  | 567.1  | 575.2  | 583.3  | 591.4  | 599.5  | 608.0  | 617.3  | 626.6  | 635.8  | 645.1  | 652.5  |
| 60°    | 529.2  | 537.2  | 545.3  | 553.4  | 561.5  | 570.6  | 580.9  | 591.1  | 601.3  | 611.6  | 618.6  |
| 62.5°  | 492.3  | 501.1  | 510.0  | 518.8  | 527.6  | 537.0  | 547.3  | 557.5  | 567.8  | 578.0  | 585.2  |
| 65°    | 432.8  | 442.7  | 452.7  | 462.6  | 472.5  | 482.8  | 493.3  | 503.9  | 514.4  | 525.0  | 532.7  |
| 67.5°  | 375.6  | 386.2  | 396.7  | 407.3  | 417.8  | 428.7  | 440.0  | 451.3  | 462.6  | 473.9  | 481.8  |
| 70°    | 336.5  | 347.1  | 357.6  | 368.1  | 378.7  | 389.9  | 401.6  | 413.4  | 425.3  | 437.1  | 445.5  |
| 72.5°  | 298.5  | 309.3  | 320.1  | 330.9  | 341.7  | 353.4  | 365.9  | 378.4  | 391.0  | 403.5  | 411.6  |
| 75°    | 240.1  | 251.7  | 263.1  | 274.6  | 286.1  | 298.3  | 311.3  | 324.4  | 337.4  | 350.4  | 359.1  |
| 77.5°  | 185.7  | 197.8  | 210.1  | 222.2  | 234.4  | 247.2  | 260.9  | 274.6  | 288.2  | 301.8  | 310.6  |
| 80°    | 152.2  | 164.6  | 177.0  | 189.5  | 201.9  | 214.9  | 228.5  | 242.2  | 255.8  | 269.4  | 278.8  |
| 82.5°  | 118.7  | 131.6  | 144.5  | 157.4  | 170.3  | 183.6  | 197.2  | 210.9  | 224.6  | 238.2  | 247.7  |
| 85°    | 74.0   | 87.1   | 100.1  | 113.1  | 126.1  | 139.7  | 153.6  | 167.5  | 181.5  | 195.5  | 204.8  |
| 87.5°  | 41.5   | 54.4   | 67.6   | 80.4   | 93.2   | 106.3  | 120.9  | 134.5  | 148.3  | 162.3  | 171.2  |
| 90°    | 23.1   | 37.2   | 51.9   | 65.1   | 78.3   | 91.2   | 109.3  | 122.6  | 137.5  | 152.5  | 160.7  |
| 92.5°  | 30.2   | 45.5   | 64.1   | 84.9   | 107.6  | 136.2  | 189.8  | 264.4  | 337.4  | 382.0  | 348.9  |
| 95°    | 44.2   | 56.9   | 74.9   | 95.4   | 124.6  | 169.3  | 250.7  | 392.9  | 594.4  | 765.1  | 791.5  |
| 97.5°  | 63.2   | 72.0   | 87.7   | 105.9  | 131.0  | 169.5  | 235.0  | 354.6  | 554.7  | 790.6  | 952.3  |
| 100°   | 75.3   | 83.4   | 97.0   | 114.6  | 137.6  | 173.0  | 231.7  | 333.1  | 506.2  | 740.9  | 951.5  |
| 102.5° | 88.0   | 96.3   | 108.4  | 124.2  | 145.7  | 179.2  | 233.2  | 323.5  | 472.4  | 681.7  | 898.3  |
| 105°   | 104.9  | 113.5  | 123.7  | 139.4  | 159.8  | 191.6  | 241.0  | 317.9  | 440.0  | 610.2  | 803.4  |
| 107.5° | 126.4  | 133.1  | 142.2  | 157.3  | 176.0  | 206.6  | 252.2  | 322.8  | 428.1  | 566.6  | 725.8  |
| 110°   | 139.9  | 145.8  | 154.1  | 167.9  | 186.5  | 215.4  | 260.9  | 327.1  | 424.9  | 550.2  | 686.1  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 152.7 | 158.0 | 166.5 | 179.3 | 197.2 | 225.7 | 269.5 | 332.0 | 423.5 | 539.0 | 660.7 |
| 115°   | 171.1 | 176.2 | 184.5 | 195.2 | 213.0 | 240.7 | 282.2 | 339.5 | 422.8 | 527.6 | 633.9 |
| 117.5° | 191.6 | 195.5 | 202.1 | 212.5 | 228.1 | 255.7 | 295.0 | 347.8 | 422.9 | 518.4 | 616.9 |
| 120°   | 204.4 | 206.9 | 213.4 | 223.0 | 237.3 | 264.4 | 303.4 | 353.5 | 423.2 | 512.8 | 606.6 |
| 122.5° | 217.0 | 218.8 | 224.5 | 232.8 | 247.6 | 273.5 | 311.9 | 359.0 | 423.8 | 506.5 | 596.0 |
| 125°   | 232.2 | 235.1 | 239.4 | 247.8 | 262.6 | 288.4 | 324.6 | 368.7 | 426.2 | 498.7 | 580.4 |
| 127.5° | 246.6 | 248.8 | 254.2 | 263.9 | 279.1 | 304.3 | 337.7 | 377.0 | 426.4 | 488.6 | 560.5 |
| 130°   | 253.7 | 256.6 | 262.6 | 274.1 | 288.8 | 314.1 | 345.9 | 381.6 | 426.9 | 482.3 | 548.0 |
| 132.5° | 262.0 | 264.2 | 272.1 | 283.0 | 298.9 | 322.3 | 353.1 | 387.3 | 427.8 | 477.3 | 536.9 |
| 135°   | 272.1 | 275.2 | 283.1 | 296.5 | 313.2 | 334.8 | 362.9 | 393.5 | 428.1 | 468.2 | 519.0 |
| 137.5° | 283.6 | 286.3 | 294.7 | 307.1 | 324.1 | 344.0 | 369.4 | 397.0 | 426.8 | 461.6 | 503.9 |
| 140°   | 291.8 | 293.9 | 302.3 | 315.4 | 331.6 | 350.5 | 374.6 | 400.1 | 427.3 | 457.7 | 495.6 |
| 142.5° | 299.5 | 301.8 | 309.8 | 322.6 | 338.4 | 356.7 | 379.5 | 402.7 | 428.1 | 455.3 | 489.1 |
| 145°   | 311.7 | 313.8 | 321.3 | 332.1 | 346.8 | 364.1 | 384.6 | 405.9 | 428.8 | 453.2 | 480.4 |
| 147.5° | 325.8 | 326.3 | 332.9 | 344.0 | 356.1 | 371.6 | 390.9 | 409.5 | 429.6 | 450.4 | 472.9 |
| 150°   | 334.7 | 335.1 | 341.1 | 350.3 | 361.8 | 376.7 | 394.0 | 411.4 | 429.6 | 448.5 | 468.3 |
| 152.5° | 341.7 | 341.8 | 348.1 | 356.9 | 367.4 | 381.1 | 396.6 | 412.6 | 428.3 | 445.4 | 463.2 |
| 155°   | 352.9 | 353.8 | 358.5 | 366.4 | 375.1 | 386.9 | 400.3 | 413.7 | 426.4 | 440.6 | 455.7 |
| 157.5° | 364.2 | 364.2 | 368.6 | 374.8 | 382.3 | 391.6 | 403.0 | 413.7 | 424.3 | 435.8 | 447.9 |
| 160°   | 371.1 | 371.1 | 374.3 | 379.8 | 386.2 | 394.9 | 404.2 | 413.7 | 422.4 | 431.9 | 442.2 |
| 162.5° | 377.5 | 376.8 | 379.3 | 384.3 | 389.9 | 396.7 | 405.6 | 413.7 | 420.6 | 428.2 | 437.2 |
| 165°   | 384.6 | 384.6 | 386.2 | 390.1 | 394.0 | 398.8 | 405.9 | 412.2 | 417.0 | 422.4 | 428.8 |
| 167.5° | 391.6 | 390.9 | 391.6 | 394.7 | 396.9 | 400.5 | 405.8 | 410.3 | 413.1 | 416.8 | 421.2 |
| 170°   | 394.9 | 394.0 | 394.9 | 397.2 | 398.8 | 401.1 | 405.1 | 409.0 | 410.6 | 412.9 | 416.2 |
| 172.5° | 398.0 | 397.2 | 397.4 | 399.1 | 400.0 | 401.7 | 404.5 | 407.8 | 408.1 | 409.2 | 411.7 |
| 175°   | 401.1 | 400.3 | 400.3 | 401.1 | 401.9 | 401.9 | 403.5 | 405.9 | 405.1 | 405.1 | 406.7 |
| 177.5° | 402.5 | 401.9 | 401.3 | 401.9 | 401.9 | 401.9 | 402.5 | 403.8 | 402.5 | 402.5 | 403.1 |
| 180°   | 401.9 | 401.9 | 401.9 | 401.9 | 401.9 | 401.9 | 401.9 | 401.9 | 401.9 | 401.9 | 401.9 |



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**CANDELA DISTRIBUTION (continued):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1246.9 | 1246.9 | 1246.9 | 1246.9 | 1246.9 | 1246.9 | 1246.9 | 1246.9 |
| 2.5°   | 1242.5 | 1244.3 | 1246.0 | 1246.7 | 1246.5 | 1246.2 | 1246.0 | 1245.8 |
| 5°     | 1239.2 | 1241.7 | 1244.3 | 1245.3 | 1245.0 | 1244.7 | 1244.4 | 1244.1 |
| 7.5°   | 1232.6 | 1235.4 | 1238.2 | 1239.4 | 1239.1 | 1238.8 | 1238.5 | 1238.2 |
| 10°    | 1225.9 | 1228.7 | 1231.5 | 1232.7 | 1232.4 | 1232.1 | 1231.8 | 1231.5 |
| 12.5°  | 1216.5 | 1219.0 | 1221.5 | 1222.8 | 1222.7 | 1222.6 | 1222.6 | 1222.5 |
| 15°    | 1199.4 | 1202.1 | 1205.0 | 1206.2 | 1205.9 | 1205.6 | 1205.3 | 1205.0 |
| 17.5°  | 1178.5 | 1181.4 | 1184.3 | 1185.6 | 1185.3 | 1185.1 | 1184.8 | 1184.6 |
| 20°    | 1162.3 | 1165.4 | 1168.5 | 1170.0 | 1170.0 | 1170.0 | 1170.0 | 1170.0 |
| 22.5°  | 1143.3 | 1146.4 | 1149.5 | 1151.3 | 1151.9 | 1152.3 | 1152.8 | 1153.3 |
| 25°    | 1114.1 | 1117.4 | 1120.8 | 1122.8 | 1123.1 | 1123.4 | 1123.7 | 1124.0 |
| 27.5°  | 1081.2 | 1084.3 | 1087.5 | 1089.2 | 1089.6 | 1090.0 | 1090.4 | 1090.8 |
| 30°    | 1058.2 | 1061.6 | 1065.0 | 1067.0 | 1067.6 | 1068.2 | 1068.9 | 1069.5 |
| 32.5°  | 1034.6 | 1038.5 | 1042.5 | 1044.7 | 1045.3 | 1045.9 | 1046.5 | 1047.2 |
| 35°    | 997.2  | 1001.6 | 1005.9 | 1008.6 | 1009.5 | 1010.4 | 1011.4 | 1012.3 |
| 37.5°  | 958.3  | 962.7  | 967.0  | 969.8  | 970.8  | 971.8  | 972.7  | 973.7  |
| 40°    | 930.8  | 935.4  | 940.2  | 943.1  | 944.3  | 945.5  | 946.8  | 948.1  |
| 42.5°  | 903.9  | 909.1  | 914.2  | 917.3  | 918.3  | 919.3  | 920.3  | 921.2  |
| 45°    | 862.2  | 867.6  | 872.8  | 876.3  | 877.8  | 879.3  | 880.9  | 882.4  |
| 47.5°  | 818.2  | 823.6  | 829.2  | 832.8  | 834.7  | 836.6  | 838.4  | 840.3  |
| 50°    | 787.3  | 793.6  | 799.7  | 803.8  | 805.7  | 807.5  | 809.3  | 811.2  |
| 52.5°  | 756.1  | 762.2  | 768.5  | 772.4  | 774.4  | 776.2  | 778.1  | 779.9  |
| 55°    | 709.1  | 715.4  | 721.5  | 725.6  | 727.4  | 729.3  | 731.1  | 733.1  |
| 57.5°  | 659.8  | 667.2  | 674.6  | 679.1  | 680.9  | 682.7  | 684.4  | 686.1  |
| 60°    | 625.8  | 633.0  | 640.1  | 644.9  | 647.4  | 649.8  | 652.4  | 654.8  |
| 62.5°  | 592.3  | 599.5  | 606.6  | 611.4  | 613.9  | 616.3  | 618.8  | 621.4  |
| 65°    | 540.5  | 548.3  | 556.0  | 561.2  | 563.6  | 566.1  | 568.6  | 571.1  |
| 67.5°  | 489.7  | 497.6  | 505.4  | 510.6  | 513.0  | 515.4  | 517.9  | 520.3  |
| 70°    | 453.7  | 462.1  | 470.5  | 475.8  | 478.0  | 480.2  | 482.3  | 484.5  |
| 72.5°  | 419.8  | 427.9  | 436.1  | 441.3  | 443.7  | 446.2  | 448.6  | 451.0  |
| 75°    | 367.8  | 376.5  | 385.2  | 390.9  | 393.7  | 396.6  | 399.3  | 402.1  |
| 77.5°  | 319.5  | 328.3  | 337.1  | 343.1  | 346.0  | 349.0  | 351.9  | 355.0  |
| 80°    | 288.1  | 297.4  | 306.7  | 312.6  | 315.1  | 317.6  | 320.0  | 322.6  |
| 82.5°  | 257.3  | 266.9  | 276.4  | 282.6  | 285.3  | 288.0  | 290.7  | 293.5  |
| 85°    | 214.1  | 223.4  | 232.7  | 238.9  | 242.1  | 245.1  | 248.2  | 251.4  |
| 87.5°  | 180.3  | 189.5  | 198.6  | 204.5  | 207.3  | 210.3  | 212.8  | 215.5  |
| 90°    | 170.5  | 180.3  | 190.1  | 195.7  | 199.0  | 202.3  | 204.0  | 206.5  |
| 92.5°  | 304.1  | 274.5  | 259.4  | 249.2  | 242.4  | 240.5  | 240.3  | 242.9  |
| 95°    | 723.4  | 609.4  | 511.9  | 440.9  | 405.0  | 383.3  | 371.8  | 364.4  |
| 97.5°  | 993.6  | 956.2  | 887.2  | 810.1  | 756.1  | 711.1  | 690.1  | 676.4  |
| 100°   | 1075.2 | 1099.3 | 1069.0 | 1015.8 | 949.4  | 903.3  | 881.8  | 877.7  |
| 102.5° | 1064.7 | 1151.1 | 1170.4 | 1151.4 | 1111.7 | 1079.2 | 1056.6 | 1054.0 |
| 105°   | 992.1  | 1136.4 | 1222.3 | 1259.8 | 1263.9 | 1260.1 | 1251.5 | 1249.2 |
| 107.5° | 893.5  | 1046.6 | 1164.4 | 1239.7 | 1280.9 | 1301.2 | 1311.3 | 1315.6 |
| 110°   | 833.7  | 977.4  | 1099.1 | 1190.8 | 1249.3 | 1285.0 | 1301.7 | 1311.3 |





TEST NUMBER: P332648-840

CATALOG NUMBER: S124DIP-S1020D810U840-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

|        | 55°   | 60°   | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|-------|-------|--------|--------|--------|--------|--------|--------|
| 112.5° | 787.9 | 915.5 | 1030.7 | 1122.2 | 1188.3 | 1230.9 | 1253.2 | 1267.3 |
| 115°   | 739.4 | 843.3 | 942.6  | 1022.9 | 1087.4 | 1137.0 | 1164.4 | 1173.0 |
| 117.5° | 710.7 | 797.6 | 876.7  | 945.4  | 1001.1 | 1043.4 | 1071.5 | 1078.8 |
| 120°   | 695.8 | 775.4 | 844.8  | 905.2  | 952.7  | 990.0  | 1012.9 | 1024.1 |
| 122.5° | 682.6 | 759.7 | 823.4  | 876.8  | 917.1  | 949.0  | 968.6  | 979.5  |
| 125°   | 662.1 | 735.9 | 796.3  | 843.5  | 877.0  | 901.8  | 918.7  | 925.2  |
| 127.5° | 637.2 | 707.8 | 767.7  | 812.7  | 846.6  | 869.1  | 883.8  | 890.7  |
| 130°   | 619.0 | 687.0 | 746.3  | 791.8  | 826.1  | 847.7  | 862.2  | 868.8  |
| 132.5° | 600.9 | 664.8 | 722.6  | 768.0  | 801.5  | 825.7  | 839.6  | 846.2  |
| 135°   | 573.7 | 630.0 | 683.1  | 726.0  | 759.4  | 783.4  | 797.9  | 804.5  |
| 137.5° | 549.8 | 597.7 | 642.9  | 681.6  | 712.7  | 736.0  | 748.0  | 755.3  |
| 140°   | 535.9 | 577.1 | 616.7  | 652.7  | 681.9  | 700.7  | 713.4  | 721.2  |
| 142.5° | 523.9 | 560.2 | 594.1  | 625.3  | 651.1  | 668.5  | 679.6  | 685.3  |
| 145°   | 507.6 | 536.2 | 561.8  | 585.4  | 606.4  | 621.1  | 630.3  | 635.4  |
| 147.5° | 494.0 | 515.6 | 534.8  | 552.8  | 568.4  | 580.8  | 587.8  | 590.3  |
| 150°   | 487.2 | 505.3 | 521.2  | 535.3  | 548.1  | 558.3  | 563.0  | 563.8  |
| 152.5° | 480.3 | 495.8 | 510.4  | 522.1  | 532.8  | 541.2  | 544.0  | 544.8  |
| 155°   | 469.8 | 482.5 | 494.3  | 503.8  | 511.7  | 518.0  | 520.4  | 520.4  |
| 157.5° | 458.6 | 469.2 | 479.2  | 486.8  | 492.7  | 497.5  | 498.9  | 498.9  |
| 160°   | 451.7 | 460.4 | 469.1  | 475.3  | 480.1  | 484.8  | 485.6  | 485.6  |
| 162.5° | 444.7 | 452.1 | 459.0  | 464.6  | 468.1  | 472.8  | 473.6  | 473.0  |
| 165°   | 435.0 | 439.8 | 445.4  | 449.3  | 452.4  | 455.7  | 454.8  | 454.0  |
| 167.5° | 425.8 | 429.4 | 433.8  | 436.2  | 437.8  | 439.8  | 439.7  | 439.0  |
| 170°   | 420.1 | 422.4 | 425.7  | 428.0  | 429.6  | 430.3  | 429.6  | 429.6  |
| 172.5° | 415.1 | 416.8 | 418.7  | 420.4  | 421.3  | 422.1  | 421.3  | 420.1  |
| 175°   | 408.3 | 409.0 | 410.6  | 410.6  | 410.6  | 412.2  | 410.6  | 409.0  |
| 177.5° | 403.8 | 404.5 | 404.5  | 405.1  | 404.5  | 405.1  | 403.8  | 402.5  |
| 180°   | 401.9 | 401.9 | 401.9  | 401.9  | 401.9  | 401.9  | 401.9  | 401.9  |

(END OF REPORT)