

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P831323

Luminaire Tested: S123DIP-S340D1025U840-4F0-1E-UDD-G4

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P831323  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-1, G3-1807-864-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-S340D1025U840-4F0-1E-UDD-G4  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 340 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 1025 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: -

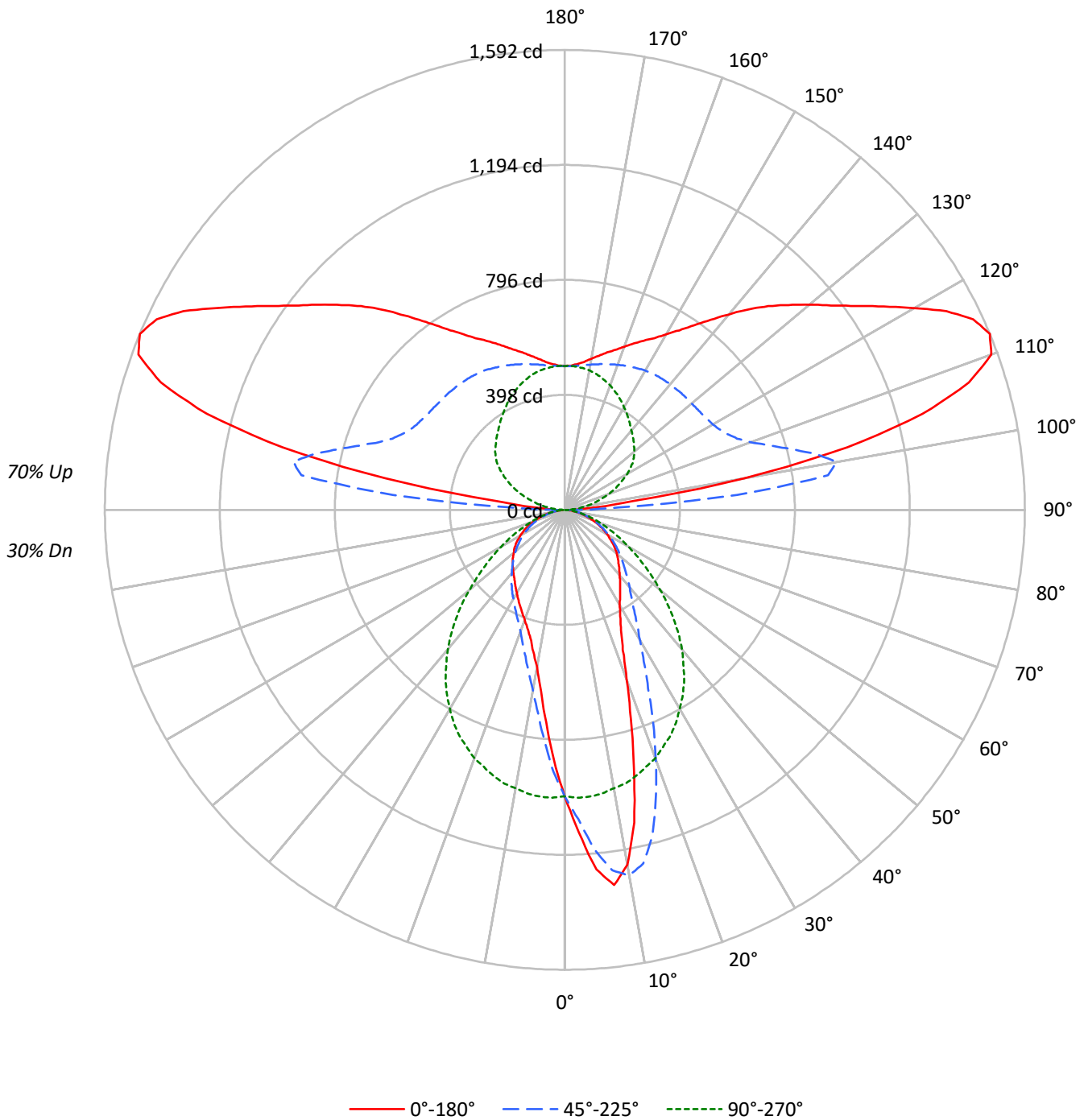
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5342.4 lumens  
Efficiency: N/A  
Efficacy: 139.5 lumens/watt  
Spacing Criteria (0/90/45): 0.65 / 1.19 / 0.89  
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 38.3  
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: 24 FT

TEST NUMBER: P831323

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### Luminous Intensity Polar Plot





TEST NUMBER: P831323

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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   | 102 | 102 | 102 | 102 | 92 | 92 | 92 | 92 | 72 | 72 | 72 | 54 | 54 | 54 | 38 | 38 | 38 | 30 |    |    |    |   |
| 1   | 94  | 89  | 86  | 83  | 84 | 80 | 77 | 75 | 64 | 62 | 60 | 48 | 47 | 46 | 34 | 33 | 32 | 26 |    |    |    |   |
| 2   | 85  | 78  | 73  | 68  | 76 | 71 | 66 | 62 | 56 | 53 | 50 | 43 | 40 | 39 | 30 | 29 | 28 | 22 |    |    |    |   |
| 3   | 78  | 69  | 62  | 57  | 70 | 62 | 57 | 52 | 50 | 46 | 42 | 38 | 35 | 33 | 27 | 25 | 24 | 19 |    |    |    |   |
| 4   | 72  | 61  | 54  | 48  | 64 | 56 | 49 | 44 | 44 | 40 | 36 | 34 | 31 | 29 | 24 | 23 | 21 | 17 |    |    |    |   |
| 5   | 66  | 55  | 47  | 42  | 59 | 50 | 43 | 38 | 40 | 35 | 31 | 31 | 27 | 25 | 22 | 20 | 19 | 15 |    |    |    |   |
| 6   | 61  | 49  | 42  | 36  | 54 | 45 | 38 | 33 | 36 | 31 | 28 | 28 | 25 | 22 | 20 | 18 | 17 | 13 |    |    |    |   |
| 7   | 56  | 45  | 37  | 32  | 50 | 40 | 34 | 29 | 33 | 28 | 24 | 25 | 22 | 20 | 19 | 17 | 15 | 12 |    |    |    |   |
| 8   | 52  | 40  | 33  | 28  | 47 | 37 | 30 | 26 | 30 | 25 | 22 | 23 | 20 | 18 | 17 | 15 | 13 | 11 |    |    |    |   |
| 9   | 49  | 37  | 30  | 25  | 44 | 34 | 27 | 23 | 27 | 23 | 20 | 22 | 18 | 16 | 16 | 14 | 12 | 10 |    |    |    |   |
| 10  | 45  | 34  | 27  | 22  | 41 | 31 | 25 | 21 | 25 | 21 | 18 | 20 | 17 | 14 | 15 | 13 | 11 | 9  |    |    |    |   |

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

|     | 0°    | 45°   | 90°   | 135°  | 180°  |
|-----|-------|-------|-------|-------|-------|
| 0°  | 10672 | 10672 | 10672 | 10672 | 10672 |
| 5°  | 13498 | 12739 | 10768 | 8678  | 7974  |
| 10° | 13629 | 14041 | 10696 | 6918  | 6044  |
| 15° | 10264 | 13036 | 10623 | 5858  | 5112  |
| 20° | 7152  | 10549 | 10488 | 5123  | 4643  |
| 25° | 5454  | 8112  | 10257 | 4713  | 4355  |
| 30° | 4718  | 6444  | 9887  | 4424  | 4123  |
| 35° | 4377  | 5441  | 9462  | 4214  | 3960  |
| 40° | 4144  | 4881  | 8864  | 4014  | 3905  |
| 45° | 4007  | 4518  | 8103  | 3859  | 3880  |
| 50° | 3937  | 4230  | 7204  | 3718  | 3860  |
| 55° | 3791  | 4020  | 6320  | 3582  | 3877  |
| 60° | 3655  | 3793  | 5449  | 3457  | 3813  |
| 65° | 3433  | 3581  | 4699  | 3321  | 3739  |
| 70° | 3172  | 3308  | 3997  | 3100  | 3519  |
| 75° | 2870  | 2965  | 3427  | 2878  | 3215  |
| 80° | 2368  | 2597  | 2709  | 2510  | 2709  |
| 85° | 1877  | 2100  | 1988  | 2137  | 2161  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 9252 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 93.7   | 1.8       |
| 10°-20°   | 233.2  | 4.4       |
| 20°-30°   | 276.1  | 5.2       |
| 30°-40°   | 277.6  | 5.2       |
| 40°-50°   | 254.7  | 4.8       |
| 50°-60°   | 210.2  | 3.9       |
| 60°-70°   | 148.7  | 2.8       |
| 70°-80°   | 79.4   | 1.5       |
| 80°-90°   | 22.9   | 0.4       |
| 90°-100°  | 270.2  | 5.1       |
| 100°-110° | 791.1  | 14.8      |
| 110°-120° | 772.6  | 14.5      |
| 120°-130° | 615.3  | 11.5      |
| 130°-140° | 485.4  | 9.1       |
| 140°-150° | 362.1  | 6.8       |
| 150°-160° | 252.5  | 4.7       |
| 160°-170° | 148.3  | 2.8       |
| 170°-180° | 48.2   | 0.9       |
| 0°-30°    | 603.1  | 11.3      |
| 0°-40°    | 880.7  | 16.5      |
| 0°-60°    | 1345.6 | 25.2      |
| 0°-90°    | 1596.6 | 29.9      |
| 90°-120°  | 1833.9 | 34.3      |
| 90°-150°  | 3296.7 | 61.7      |
| 90°-180°  | 3746.0 | 70.1      |
| 0°-180°   | 5342.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 45°  | 90° | 135° | 180° | Flux |
|------|------|------|-----|------|------|------|
| 0°   | 992  | 992  | 992 | 992  | 992  |      |
| 5°   | 1249 | 1179 | 997 | 803  | 738  | 119  |
| 15°  | 921  | 1170 | 953 | 526  | 459  | 254  |
| 25°  | 459  | 683  | 864 | 397  | 367  | 217  |
| 35°  | 333  | 414  | 720 | 321  | 301  | 209  |
| 45°  | 263  | 297  | 532 | 254  | 255  | 204  |
| 55°  | 202  | 214  | 337 | 191  | 207  | 181  |
| 65°  | 135  | 141  | 184 | 130  | 147  | 134  |
| 75°  | 69   | 71   | 82  | 69   | 77   | 73   |
| 85°  | 15   | 17   | 16  | 17   | 18   | 17   |
| 90°  | 29   | 25   | 2   | 25   | 29   | 16   |
| 95°  | 117  | 598  | 34  | 598  | 117  | 190  |
| 105° | 1282 | 810  | 117 | 810  | 1282 | 1279 |
| 115° | 1559 | 620  | 207 | 620  | 1559 | 1521 |
| 125° | 1230 | 579  | 287 | 579  | 1230 | 1113 |
| 135° | 997  | 570  | 337 | 570  | 997  | 773  |
| 145° | 779  | 564  | 384 | 564  | 779  | 495  |
| 155° | 646  | 545  | 436 | 545  | 646  | 301  |
| 165° | 564  | 522  | 477 | 522  | 564  | 161  |
| 175° | 507  | 501  | 497 | 501  | 507  | 49   |
| 180° | 498  | 498  | 498 | 498  | 498  |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 991.5  | 991.5  | 991.5  | 991.5  | 991.5  | 991.5  | 991.5  | 991.5  | 991.5  | 991.5  | 991.5  |
| 2.5°   | 1117.6 | 1116.4 | 1115.3 | 1109.5 | 1103.8 | 1101.0 | 1098.3 | 1090.0 | 1081.7 | 1072.5 | 1063.3 |
| 5°     | 1249.2 | 1252.4 | 1255.6 | 1251.9 | 1248.2 | 1237.0 | 1225.7 | 1210.7 | 1195.8 | 1179.0 | 1162.2 |
| 7.5°   | 1309.9 | 1311.7 | 1313.6 | 1311.3 | 1309.0 | 1306.0 | 1303.0 | 1289.7 | 1276.3 | 1259.1 | 1241.8 |
| 10°    | 1246.9 | 1251.0 | 1255.1 | 1264.1 | 1273.1 | 1283.2 | 1293.3 | 1291.5 | 1289.7 | 1284.6 | 1279.5 |
| 12.5°  | 1108.4 | 1113.4 | 1118.5 | 1136.4 | 1154.4 | 1177.4 | 1200.4 | 1220.2 | 1240.0 | 1253.8 | 1267.6 |
| 15°    | 921.1  | 935.1  | 949.2  | 965.5  | 981.8  | 1015.7 | 1049.5 | 1091.1 | 1132.8 | 1169.8 | 1206.8 |
| 17.5°  | 758.7  | 764.0  | 769.3  | 786.8  | 804.3  | 846.8  | 889.4  | 937.4  | 985.5  | 1047.0 | 1108.4 |
| 20°    | 624.4  | 629.2  | 634.0  | 657.0  | 680.0  | 713.4  | 746.7  | 800.8  | 854.9  | 920.9  | 986.9  |
| 22.5°  | 524.5  | 532.1  | 539.7  | 552.6  | 565.5  | 597.4  | 629.4  | 677.5  | 725.6  | 798.5  | 871.4  |
| 25°    | 459.2  | 464.7  | 470.2  | 478.0  | 485.9  | 511.4  | 536.9  | 576.5  | 616.1  | 683.0  | 750.0  |
| 27.5°  | 414.5  | 416.8  | 419.1  | 427.0  | 434.8  | 451.4  | 467.9  | 502.0  | 536.0  | 592.8  | 649.7  |
| 30°    | 379.6  | 381.2  | 382.8  | 389.7  | 396.6  | 407.9  | 419.1  | 443.8  | 468.4  | 518.5  | 568.7  |
| 32.5°  | 355.2  | 356.3  | 357.5  | 362.8  | 368.1  | 376.1  | 384.2  | 402.1  | 420.1  | 461.5  | 502.9  |
| 35°    | 333.1  | 333.8  | 334.5  | 338.4  | 342.3  | 348.3  | 354.3  | 367.8  | 381.4  | 414.1  | 446.8  |
| 37.5°  | 313.8  | 314.7  | 315.6  | 317.9  | 320.2  | 325.5  | 330.8  | 341.6  | 352.4  | 377.5  | 402.6  |
| 40°    | 294.9  | 296.5  | 298.1  | 299.8  | 301.4  | 305.7  | 310.1  | 318.4  | 326.7  | 347.4  | 368.1  |
| 42.5°  | 278.8  | 280.4  | 282.0  | 282.7  | 283.4  | 286.0  | 288.5  | 296.1  | 303.7  | 319.1  | 334.5  |
| 45°    | 263.2  | 263.9  | 264.6  | 265.2  | 265.9  | 268.0  | 270.1  | 276.7  | 283.4  | 296.8  | 310.1  |
| 47.5°  | 248.9  | 248.9  | 248.9  | 249.4  | 249.8  | 251.7  | 253.5  | 258.3  | 263.2  | 273.5  | 283.9  |
| 50°    | 235.1  | 235.1  | 235.1  | 234.4  | 233.7  | 234.9  | 236.0  | 239.7  | 243.4  | 252.6  | 261.8  |
| 52.5°  | 218.5  | 218.5  | 218.5  | 218.8  | 219.0  | 219.0  | 219.0  | 222.2  | 225.4  | 233.7  | 242.0  |
| 55°    | 202.0  | 202.9  | 203.8  | 203.1  | 202.4  | 202.9  | 203.4  | 205.4  | 207.5  | 214.2  | 220.8  |
| 57.5°  | 185.4  | 185.9  | 186.3  | 186.1  | 185.9  | 186.1  | 186.3  | 188.2  | 190.0  | 195.1  | 200.1  |
| 60°    | 169.8  | 169.8  | 169.8  | 169.3  | 168.9  | 169.3  | 169.8  | 170.7  | 171.6  | 176.2  | 180.8  |
| 62.5°  | 152.3  | 152.5  | 152.8  | 153.0  | 153.2  | 152.8  | 152.3  | 153.4  | 154.6  | 158.0  | 161.5  |
| 65°    | 134.8  | 135.0  | 135.3  | 136.0  | 136.6  | 136.2  | 135.7  | 136.9  | 138.0  | 140.6  | 143.1  |
| 67.5°  | 119.2  | 118.7  | 118.2  | 118.5  | 118.7  | 119.4  | 120.1  | 120.3  | 120.5  | 123.3  | 126.1  |
| 70°    | 100.8  | 101.2  | 101.7  | 101.5  | 101.2  | 101.5  | 101.7  | 102.4  | 103.1  | 105.1  | 107.2  |
| 72.5°  | 84.2   | 84.4   | 84.7   | 84.7   | 84.7   | 85.1   | 85.6   | 86.3   | 87.0   | 88.1   | 89.3   |
| 75°    | 69.0   | 69.0   | 69.0   | 69.5   | 69.9   | 70.2   | 70.4   | 70.4   | 70.4   | 71.3   | 72.2   |
| 77.5°  | 52.5   | 53.6   | 54.8   | 54.5   | 54.3   | 54.8   | 55.2   | 55.9   | 56.6   | 57.1   | 57.5   |
| 80°    | 38.2   | 38.2   | 38.2   | 38.4   | 38.6   | 39.3   | 40.0   | 40.5   | 40.9   | 41.9   | 42.8   |
| 82.5°  | 24.4   | 24.6   | 24.8   | 25.5   | 26.2   | 26.7   | 27.1   | 27.8   | 28.5   | 28.5   | 28.5   |
| 85°    | 15.2   | 14.7   | 14.3   | 14.7   | 15.2   | 15.6   | 16.1   | 16.3   | 16.6   | 17.0   | 17.5   |
| 87.5°  | 7.4    | 7.4    | 7.4    | 7.4    | 7.4    | 7.6    | 7.8    | 7.8    | 7.8    | 7.8    | 7.8    |
| 90°    | 29.2   | 30.2   | 29.2   | 28.2   | 29.2   | 27.2   | 26.2   | 25.2   | 24.2   | 25.2   | 22.2   |
| 92.5°  | 53.4   | 55.4   | 54.4   | 58.5   | 60.5   | 67.5   | 77.6   | 99.8   | 140.1  | 187.5  | 207.7  |
| 95°    | 116.9  | 121.0  | 128.0  | 137.1  | 156.2  | 192.5  | 246.0  | 362.9  | 484.9  | 597.8  | 532.2  |
| 97.5°  | 239.9  | 251.0  | 275.2  | 313.5  | 381.0  | 495.9  | 629.0  | 833.6  | 950.6  | 919.3  | 686.5  |
| 100°   | 632.0  | 631.0  | 670.3  | 743.9  | 845.7  | 988.9  | 1106.8 | 1188.5 | 1153.2 | 954.6  | 645.1  |
| 102.5° | 1001.0 | 1030.2 | 1061.5 | 1115.9 | 1189.5 | 1267.1 | 1323.5 | 1306.4 | 1163.3 | 889.1  | 584.7  |
| 105°   | 1282.2 | 1287.3 | 1319.5 | 1357.8 | 1404.2 | 1430.4 | 1411.2 | 1310.4 | 1099.8 | 810.5  | 537.3  |
| 107.5° | 1465.7 | 1476.8 | 1489.9 | 1508.0 | 1514.1 | 1486.8 | 1408.2 | 1250.0 | 1009.0 | 740.9  | 503.0  |
| 110°   | 1570.5 | 1572.5 | 1574.5 | 1566.5 | 1538.2 | 1467.7 | 1340.7 | 1155.2 | 924.4  | 683.4  | 484.9  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°   | 45°   | 50°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| 112.5° | 1591.7 | 1590.7 | 1580.6 | 1551.4 | 1493.9 | 1398.1 | 1252.0 | 1061.5 | 850.8 | 645.1 | 474.8 |
| 115°   | 1559.4 | 1554.4 | 1534.2 | 1489.9 | 1414.3 | 1304.4 | 1156.2 | 980.8  | 794.3 | 619.9 | 473.8 |
| 117.5° | 1488.9 | 1481.8 | 1451.6 | 1402.2 | 1323.5 | 1209.6 | 1073.5 | 918.3  | 757.0 | 602.8 | 474.8 |
| 120°   | 1396.1 | 1390.1 | 1365.9 | 1309.4 | 1229.8 | 1128.0 | 1007.0 | 870.9  | 728.8 | 591.7 | 478.8 |
| 122.5° | 1309.4 | 1301.4 | 1274.1 | 1224.8 | 1156.2 | 1063.5 | 953.6  | 833.6  | 705.6 | 584.7 | 485.9 |
| 125°   | 1229.8 | 1222.7 | 1197.5 | 1153.2 | 1088.7 | 1008.0 | 911.3  | 801.4  | 686.5 | 578.6 | 492.9 |
| 127.5° | 1161.2 | 1155.2 | 1132.0 | 1093.7 | 1035.2 | 960.6  | 871.9  | 772.1  | 668.3 | 575.6 | 501.0 |
| 130°   | 1104.8 | 1096.7 | 1075.6 | 1039.3 | 985.9  | 917.3  | 835.7  | 744.9  | 654.2 | 572.6 | 509.1 |
| 132.5° | 1049.4 | 1044.3 | 1026.2 | 989.9  | 940.5  | 876.0  | 801.4  | 719.7  | 641.1 | 571.6 | 515.1 |
| 135°   | 996.9  | 989.9  | 971.7  | 941.5  | 892.1  | 834.6  | 769.1  | 697.6  | 630.0 | 570.5 | 521.1 |
| 137.5° | 941.5  | 935.4  | 920.3  | 889.1  | 846.7  | 795.3  | 736.9  | 676.4  | 619.9 | 568.5 | 525.2 |
| 140°   | 883.0  | 884.0  | 867.9  | 839.7  | 801.4  | 758.0  | 709.7  | 658.2  | 610.9 | 567.5 | 529.2 |
| 142.5° | 828.6  | 829.6  | 815.5  | 791.3  | 760.1  | 723.8  | 683.4  | 641.1  | 602.8 | 565.5 | 532.2 |
| 145°   | 779.2  | 777.2  | 769.1  | 748.0  | 722.8  | 693.5  | 661.3  | 628.0  | 595.7 | 563.5 | 533.2 |
| 147.5° | 736.9  | 735.9  | 727.8  | 712.7  | 692.5  | 671.3  | 644.1  | 616.9  | 588.7 | 560.5 | 533.2 |
| 150°   | 700.6  | 700.6  | 694.5  | 683.4  | 668.3  | 649.2  | 628.0  | 604.8  | 581.6 | 556.4 | 533.2 |
| 152.5° | 670.3  | 670.3  | 667.3  | 657.2  | 646.1  | 631.0  | 612.9  | 593.7  | 573.6 | 551.4 | 530.2 |
| 155°   | 646.1  | 645.1  | 643.1  | 635.1  | 626.0  | 613.9  | 598.8  | 582.6  | 565.5 | 545.3 | 528.2 |
| 157.5° | 623.0  | 623.0  | 620.9  | 614.9  | 606.8  | 596.8  | 584.7  | 570.5  | 556.4 | 540.3 | 525.2 |
| 160°   | 600.8  | 601.8  | 601.8  | 595.7  | 588.7  | 581.6  | 571.6  | 560.5  | 547.4 | 534.3 | 523.2 |
| 162.5° | 580.6  | 581.6  | 581.6  | 576.6  | 572.6  | 566.5  | 557.4  | 548.4  | 538.3 | 528.2 | 519.1 |
| 165°   | 563.5  | 563.5  | 564.5  | 560.5  | 556.4  | 551.4  | 544.3  | 538.3  | 530.2 | 522.2 | 515.1 |
| 167.5° | 546.4  | 546.4  | 547.4  | 544.3  | 542.3  | 538.3  | 534.3  | 529.2  | 522.2 | 516.1 | 511.1 |
| 170°   | 531.2  | 531.2  | 532.2  | 530.2  | 529.2  | 527.2  | 523.2  | 520.1  | 515.1 | 510.1 | 507.0 |
| 172.5° | 517.1  | 518.1  | 520.1  | 518.1  | 518.1  | 517.1  | 514.1  | 512.1  | 508.0 | 505.0 | 504.0 |
| 175°   | 507.0  | 508.0  | 509.1  | 508.0  | 508.0  | 508.0  | 506.0  | 505.0  | 503.0 | 501.0 | 501.0 |
| 177.5° | 500.0  | 500.0  | 502.0  | 501.0  | 502.0  | 502.0  | 501.0  | 500.0  | 499.0 | 498.0 | 499.0 |
| 180°   | 498.0  | 498.0  | 498.0  | 498.0  | 498.0  | 498.0  | 498.0  | 498.0  | 498.0 | 498.0 | 498.0 |



TEST NUMBER: P831323

CATALOG NUMBER: S123DIP-S340D1025U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°   | 95°   | 100°  | 105°  |
|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| 0°     | 991.5  | 991.5  | 991.5  | 991.5  | 991.5  | 991.5  | 991.5  | 991.5 | 991.5 | 991.5 | 991.5 |
| 2.5°   | 1060.5 | 1057.8 | 1047.6 | 1037.5 | 1026.0 | 1014.5 | 1006.0 | 997.5 | 984.8 | 972.2 | 961.8 |
| 5°     | 1149.3 | 1136.4 | 1115.0 | 1093.7 | 1064.7 | 1035.7 | 1016.1 | 996.6 | 970.3 | 944.1 | 923.2 |
| 7.5°   | 1219.7 | 1197.6 | 1167.7 | 1137.8 | 1099.9 | 1061.9 | 1026.0 | 990.1 | 950.1 | 910.1 | 877.4 |
| 10°    | 1264.6 | 1249.6 | 1215.1 | 1180.6 | 1129.8 | 1078.9 | 1028.8 | 978.6 | 927.1 | 875.6 | 832.3 |
| 12.5°  | 1269.0 | 1270.3 | 1238.6 | 1206.8 | 1149.3 | 1091.8 | 1030.8 | 969.9 | 905.0 | 840.1 | 789.8 |
| 15°    | 1230.5 | 1254.2 | 1236.7 | 1219.3 | 1161.3 | 1103.3 | 1028.3 | 953.3 | 878.6 | 803.8 | 745.6 |
| 17.5°  | 1159.2 | 1210.1 | 1212.6 | 1215.1 | 1157.1 | 1099.2 | 1016.1 | 933.1 | 848.4 | 763.8 | 702.6 |
| 20°    | 1061.9 | 1136.9 | 1162.7 | 1188.4 | 1141.3 | 1094.1 | 1004.9 | 915.6 | 820.8 | 726.0 | 661.9 |
| 22.5°  | 962.5  | 1053.6 | 1100.8 | 1147.9 | 1113.0 | 1078.0 | 983.0  | 888.0 | 787.9 | 687.8 | 622.7 |
| 25°    | 849.3  | 948.7  | 1021.2 | 1093.7 | 1072.3 | 1050.9 | 957.2  | 863.6 | 757.1 | 650.6 | 584.1 |
| 27.5°  | 750.7  | 851.6  | 939.1  | 1026.5 | 1021.9 | 1017.3 | 924.3  | 831.4 | 722.4 | 613.3 | 549.1 |
| 30°    | 662.8  | 756.9  | 854.6  | 952.4  | 963.7  | 974.9  | 885.2  | 795.5 | 686.2 | 577.0 | 515.1 |
| 32.5°  | 585.0  | 667.1  | 772.0  | 876.9  | 899.0  | 921.1  | 840.1  | 759.2 | 651.0 | 542.9 | 483.3 |
| 35°    | 521.3  | 595.8  | 700.7  | 805.6  | 833.2  | 860.8  | 790.4  | 720.1 | 614.7 | 509.3 | 452.5 |
| 37.5°  | 464.9  | 527.3  | 629.6  | 732.0  | 765.8  | 799.7  | 736.6  | 673.6 | 574.9 | 476.2 | 424.0 |
| 40°    | 418.2  | 468.4  | 562.5  | 656.6  | 695.7  | 734.8  | 682.8  | 630.8 | 537.2 | 443.5 | 395.5 |
| 42.5°  | 379.1  | 423.8  | 509.1  | 594.4  | 631.9  | 669.4  | 625.5  | 581.6 | 498.3 | 415.0 | 371.1 |
| 45°    | 345.8  | 381.4  | 458.9  | 536.5  | 572.1  | 607.8  | 570.1  | 532.3 | 458.9 | 385.6 | 344.6 |
| 47.5°  | 314.5  | 345.1  | 411.3  | 477.6  | 509.3  | 541.1  | 511.6  | 482.2 | 420.1 | 358.0 | 320.9 |
| 50°    | 286.4  | 311.0  | 369.0  | 427.0  | 454.6  | 482.2  | 456.2  | 430.2 | 379.1 | 328.0 | 295.8 |
| 52.5°  | 262.0  | 282.0  | 330.6  | 379.1  | 402.8  | 426.5  | 404.2  | 381.9 | 341.4 | 300.9 | 272.8 |
| 55°    | 237.9  | 254.9  | 297.0  | 339.1  | 355.2  | 371.3  | 354.0  | 336.8 | 304.1 | 271.5 | 247.8 |
| 57.5°  | 215.3  | 230.5  | 265.0  | 299.5  | 311.9  | 324.4  | 308.7  | 293.1 | 268.5 | 243.9 | 224.1 |
| 60°    | 193.2  | 205.7  | 234.4  | 263.2  | 270.8  | 278.4  | 265.7  | 253.1 | 235.8 | 218.5 | 200.8 |
| 62.5°  | 172.8  | 184.0  | 205.4  | 226.8  | 231.9  | 237.0  | 227.3  | 217.6 | 204.5 | 191.4 | 177.6 |
| 65°    | 151.6  | 160.1  | 177.6  | 195.1  | 198.3  | 201.5  | 193.0  | 184.5 | 174.6 | 164.7 | 154.6 |
| 67.5°  | 132.0  | 138.0  | 152.3  | 166.6  | 166.8  | 167.0  | 160.1  | 153.2 | 147.7 | 142.2 | 134.1 |
| 70°    | 113.0  | 118.7  | 128.1  | 137.6  | 137.8  | 138.0  | 132.5  | 127.0 | 122.8 | 118.7 | 112.7 |
| 72.5°  | 93.4   | 97.5   | 104.7  | 111.8  | 111.3  | 110.9  | 107.4  | 104.0 | 100.8 | 97.5  | 93.2  |
| 75°    | 75.7   | 79.1   | 84.0   | 88.8   | 87.4   | 86.0   | 84.2   | 82.4  | 79.6  | 76.8  | 74.1  |
| 77.5°  | 59.6   | 61.7   | 64.4   | 67.2   | 66.3   | 65.3   | 63.7   | 62.1  | 60.0  | 58.0  | 56.8  |
| 80°    | 43.7   | 44.6   | 46.5   | 48.3   | 47.9   | 47.4   | 45.5   | 43.7  | 43.2  | 42.8  | 41.2  |
| 82.5°  | 29.7   | 30.8   | 31.3   | 31.7   | 31.5   | 31.3   | 29.9   | 28.5  | 28.1  | 27.6  | 27.4  |
| 85°    | 17.7   | 17.9   | 18.2   | 18.4   | 17.7   | 17.0   | 16.6   | 16.1  | 16.1  | 16.1  | 15.9  |
| 87.5°  | 8.1    | 8.3    | 8.3    | 8.3    | 8.1    | 7.8    | 7.4    | 6.9   | 7.1   | 7.4   | 7.4   |
| 90°    | 19.2   | 16.1   | 13.1   | 11.1   | 9.1    | 6.0    | 4.0    | 2.0   | 4.0   | 6.0   | 9.1   |
| 92.5°  | 155.2  | 101.8  | 69.6   | 51.4   | 41.3   | 32.3   | 22.2   | 15.1  | 22.2  | 32.3  | 41.3  |
| 95°    | 366.9  | 216.7  | 131.0  | 91.7   | 65.5   | 48.4   | 37.3   | 34.3  | 37.3  | 48.4  | 65.5  |
| 97.5°  | 408.3  | 233.9  | 149.2  | 105.8  | 79.6   | 64.5   | 55.4   | 54.4  | 55.4  | 64.5  | 79.6  |
| 100°   | 380.0  | 230.8  | 160.3  | 121.0  | 96.8   | 82.7   | 75.6   | 74.6  | 75.6  | 82.7  | 96.8  |
| 102.5° | 355.8  | 234.9  | 173.4  | 138.1  | 116.9  | 103.8  | 97.8   | 95.8  | 97.8  | 103.8 | 116.9 |
| 105°   | 346.8  | 242.9  | 188.5  | 157.3  | 138.1  | 126.0  | 120.0  | 116.9 | 120.0 | 126.0 | 138.1 |
| 107.5° | 344.7  | 256.0  | 207.7  | 178.4  | 160.3  | 148.2  | 142.1  | 139.1 | 142.1 | 148.2 | 160.3 |
| 110°   | 349.8  | 273.2  | 227.8  | 199.6  | 182.5  | 171.4  | 166.3  | 163.3 | 166.3 | 171.4 | 182.5 |





TEST NUMBER: P831323

CATALOG NUMBER: S123DIP-S340D1025U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

|        | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   | 95°   | 100°  | 105°  |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 359.9 | 290.3 | 249.0 | 221.8 | 204.6 | 193.5 | 188.5 | 185.5 | 188.5 | 193.5 | 204.6 |
| 115°   | 371.0 | 309.5 | 271.2 | 243.9 | 226.8 | 216.7 | 210.7 | 206.6 | 210.7 | 216.7 | 226.8 |
| 117.5° | 385.1 | 329.6 | 291.3 | 266.1 | 247.0 | 237.9 | 232.9 | 227.8 | 232.9 | 237.9 | 247.0 |
| 120°   | 401.2 | 348.8 | 312.5 | 287.3 | 268.1 | 258.1 | 253.0 | 250.0 | 253.0 | 258.1 | 268.1 |
| 122.5° | 416.3 | 368.9 | 333.7 | 306.4 | 288.3 | 277.2 | 272.2 | 269.1 | 272.2 | 277.2 | 288.3 |
| 125°   | 432.4 | 388.1 | 352.8 | 325.6 | 306.4 | 295.4 | 289.3 | 287.3 | 289.3 | 295.4 | 306.4 |
| 127.5° | 445.5 | 405.2 | 371.0 | 343.7 | 322.6 | 311.5 | 304.4 | 301.4 | 304.4 | 311.5 | 322.6 |
| 130°   | 458.7 | 420.3 | 387.1 | 359.9 | 338.7 | 326.6 | 317.5 | 314.5 | 317.5 | 326.6 | 338.7 |
| 132.5° | 470.7 | 433.5 | 401.2 | 375.0 | 353.8 | 338.7 | 328.6 | 324.6 | 328.6 | 338.7 | 353.8 |
| 135°   | 480.8 | 446.6 | 415.3 | 388.1 | 366.9 | 351.8 | 340.7 | 336.7 | 340.7 | 351.8 | 366.9 |
| 137.5° | 488.9 | 455.6 | 425.4 | 400.2 | 379.0 | 362.9 | 351.8 | 347.8 | 351.8 | 362.9 | 379.0 |
| 140°   | 494.9 | 464.7 | 435.5 | 410.3 | 390.1 | 374.0 | 363.9 | 358.9 | 363.9 | 374.0 | 390.1 |
| 142.5° | 501.0 | 471.8 | 443.5 | 420.3 | 400.2 | 386.1 | 375.0 | 371.0 | 375.0 | 386.1 | 400.2 |
| 145°   | 505.0 | 477.8 | 451.6 | 428.4 | 411.3 | 396.2 | 387.1 | 384.1 | 387.1 | 396.2 | 411.3 |
| 147.5° | 508.0 | 482.8 | 458.7 | 438.5 | 421.4 | 408.3 | 399.2 | 397.2 | 399.2 | 408.3 | 421.4 |
| 150°   | 509.1 | 487.9 | 464.7 | 446.6 | 432.4 | 419.3 | 411.3 | 410.3 | 411.3 | 419.3 | 432.4 |
| 152.5° | 511.1 | 490.9 | 471.8 | 454.6 | 442.5 | 431.4 | 423.4 | 423.4 | 423.4 | 431.4 | 442.5 |
| 155°   | 511.1 | 494.9 | 477.8 | 463.7 | 452.6 | 442.5 | 436.5 | 436.5 | 436.5 | 442.5 | 452.6 |
| 157.5° | 512.1 | 497.0 | 482.8 | 471.8 | 461.7 | 452.6 | 447.6 | 446.6 | 447.6 | 452.6 | 461.7 |
| 160°   | 512.1 | 500.0 | 487.9 | 477.8 | 470.7 | 462.7 | 458.7 | 458.7 | 458.7 | 462.7 | 470.7 |
| 162.5° | 511.1 | 501.0 | 490.9 | 482.8 | 476.8 | 470.7 | 467.7 | 467.7 | 467.7 | 470.7 | 476.8 |
| 165°   | 509.1 | 502.0 | 493.9 | 486.9 | 482.8 | 477.8 | 475.8 | 476.8 | 475.8 | 477.8 | 482.8 |
| 167.5° | 508.0 | 502.0 | 495.9 | 490.9 | 487.9 | 483.9 | 482.8 | 483.9 | 482.8 | 483.9 | 487.9 |
| 170°   | 505.0 | 501.0 | 495.9 | 493.9 | 491.9 | 488.9 | 487.9 | 489.9 | 487.9 | 488.9 | 491.9 |
| 172.5° | 504.0 | 501.0 | 497.0 | 495.9 | 494.9 | 492.9 | 492.9 | 493.9 | 492.9 | 492.9 | 494.9 |
| 175°   | 502.0 | 500.0 | 498.0 | 497.0 | 497.0 | 494.9 | 495.9 | 497.0 | 495.9 | 494.9 | 497.0 |
| 177.5° | 501.0 | 499.0 | 498.0 | 498.0 | 498.0 | 497.0 | 498.0 | 499.0 | 498.0 | 497.0 | 498.0 |
| 180°   | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 |



TEST NUMBER: P831323

CATALOG NUMBER: S123DIP-S340D1025U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

|        | 110°  | 115°  | 120°  | 125°  | 130°  | 135°  | 140°   | 145°   | 150°   | 155°   | 160°   |
|--------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| 0°     | 991.5 | 991.5 | 991.5 | 991.5 | 991.5 | 991.5 | 991.5  | 991.5  | 991.5  | 991.5  | 991.5  |
| 2.5°   | 951.5 | 942.5 | 933.5 | 926.6 | 919.7 | 908.0 | 896.3  | 893.5  | 890.7  | 886.8  | 882.9  |
| 5°     | 902.3 | 880.2 | 858.1 | 838.3 | 818.5 | 803.1 | 787.7  | 777.6  | 767.4  | 760.1  | 752.7  |
| 7.5°   | 844.7 | 811.6 | 778.5 | 755.0 | 731.6 | 709.2 | 686.9  | 679.8  | 672.7  | 663.0  | 653.3  |
| 10°    | 789.1 | 752.5 | 715.9 | 685.3 | 654.7 | 632.9 | 611.0  | 602.3  | 593.5  | 581.3  | 569.1  |
| 12.5°  | 739.4 | 699.3 | 659.3 | 628.5 | 597.7 | 576.5 | 555.3  | 542.7  | 530.0  | 523.1  | 516.2  |
| 15°    | 687.4 | 644.6 | 601.8 | 573.3 | 544.8 | 525.7 | 506.6  | 495.5  | 484.5  | 477.8  | 471.1  |
| 17.5°  | 641.4 | 599.0 | 556.7 | 529.3 | 502.0 | 484.5 | 467.0  | 457.3  | 447.7  | 442.6  | 437.6  |
| 20°    | 597.7 | 556.3 | 514.8 | 488.2 | 461.5 | 447.2 | 433.0  | 426.7  | 420.5  | 416.4  | 412.2  |
| 22.5°  | 557.6 | 516.9 | 476.2 | 453.4 | 430.7 | 419.1 | 407.6  | 403.3  | 398.9  | 395.5  | 392.0  |
| 25°    | 517.6 | 481.3 | 444.9 | 425.6 | 406.3 | 396.8 | 387.4  | 383.0  | 378.7  | 375.2  | 371.8  |
| 27.5°  | 484.9 | 450.2 | 415.5 | 398.9 | 382.3 | 375.0 | 367.6  | 364.2  | 360.7  | 357.5  | 354.3  |
| 30°    | 453.2 | 422.1 | 391.1 | 376.8 | 362.6 | 355.9 | 349.2  | 345.8  | 342.3  | 339.3  | 336.3  |
| 32.5°  | 423.8 | 397.1 | 370.4 | 357.3 | 344.2 | 338.6 | 333.1  | 329.0  | 324.8  | 322.5  | 320.2  |
| 35°    | 395.7 | 371.8 | 347.8 | 337.0 | 326.2 | 320.7 | 315.2  | 311.7  | 308.3  | 306.4  | 304.6  |
| 37.5°  | 371.8 | 350.4 | 329.0 | 318.6 | 308.3 | 303.0 | 297.7  | 294.7  | 291.7  | 291.0  | 290.3  |
| 40°    | 347.4 | 329.0 | 310.6 | 300.4 | 290.3 | 285.7 | 281.1  | 279.3  | 277.4  | 277.0  | 276.5  |
| 42.5°  | 327.1 | 309.2 | 291.2 | 282.0 | 272.8 | 268.9 | 265.0  | 264.1  | 263.2  | 263.9  | 264.6  |
| 45°    | 303.7 | 288.7 | 273.8 | 265.2 | 256.7 | 253.5 | 250.3  | 249.6  | 248.9  | 250.3  | 251.7  |
| 47.5°  | 283.9 | 270.1 | 256.3 | 248.2 | 240.2 | 237.9 | 235.6  | 235.3  | 235.1  | 237.0  | 238.8  |
| 50°    | 263.6 | 250.3 | 237.0 | 230.5 | 224.1 | 222.0 | 219.9  | 220.6  | 221.3  | 224.3  | 227.3  |
| 52.5°  | 244.8 | 232.3 | 219.9 | 213.9 | 208.0 | 206.6 | 205.2  | 206.8  | 208.4  | 211.6  | 214.9  |
| 55°    | 224.1 | 212.8 | 201.5 | 196.9 | 192.3 | 190.9 | 189.6  | 192.8  | 196.0  | 199.0  | 202.0  |
| 57.5°  | 204.3 | 194.4 | 184.5 | 180.4 | 176.2 | 176.0 | 175.8  | 178.7  | 181.7  | 185.0  | 188.2  |
| 60°    | 183.1 | 174.8 | 166.6 | 163.3 | 160.1 | 160.6 | 161.0  | 164.5  | 167.9  | 170.5  | 173.0  |
| 62.5°  | 163.8 | 156.9 | 150.0 | 147.0 | 144.0 | 145.2 | 146.3  | 149.8  | 153.2  | 156.2  | 159.2  |
| 65°    | 144.5 | 138.7 | 133.0 | 130.9 | 128.8 | 130.4 | 132.0  | 135.0  | 138.0  | 140.1  | 142.2  |
| 67.5°  | 126.1 | 121.2 | 116.4 | 114.8 | 113.2 | 114.8 | 116.4  | 119.4  | 122.4  | 124.5  | 126.5  |
| 70°    | 106.7 | 102.8 | 98.9  | 97.8  | 96.6  | 98.5  | 100.3  | 102.8  | 105.4  | 107.4  | 109.5  |
| 72.5°  | 88.8  | 85.8  | 82.8  | 82.6  | 82.4  | 84.0  | 85.6   | 88.1   | 90.6   | 92.0   | 93.4   |
| 75°    | 71.3  | 69.7  | 68.1  | 67.9  | 67.6  | 69.2  | 70.9   | 72.2   | 73.6   | 74.8   | 75.9   |
| 77.5°  | 55.7  | 54.3  | 52.9  | 53.1  | 53.4  | 54.5  | 55.7   | 57.1   | 58.4   | 59.1   | 59.8   |
| 80°    | 39.6  | 39.1  | 38.6  | 39.1  | 39.6  | 40.5  | 41.4   | 42.3   | 43.2   | 43.7   | 44.2   |
| 82.5°  | 27.1  | 26.7  | 26.2  | 26.9  | 27.6  | 28.3  | 29.0   | 29.7   | 30.4   | 30.6   | 30.8   |
| 85°    | 15.6  | 16.3  | 17.0  | 17.0  | 17.0  | 17.3  | 17.5   | 17.7   | 17.9   | 17.7   | 17.5   |
| 87.5°  | 7.4   | 7.6   | 7.8   | 7.8   | 7.8   | 8.1   | 8.3    | 8.3    | 8.3    | 8.1    | 7.8    |
| 90°    | 11.1  | 13.1  | 16.1  | 19.2  | 22.2  | 25.2  | 24.2   | 25.2   | 26.2   | 27.2   | 29.2   |
| 92.5°  | 51.4  | 69.6  | 101.8 | 155.2 | 207.7 | 187.5 | 140.1  | 99.8   | 77.6   | 67.5   | 60.5   |
| 95°    | 91.7  | 131.0 | 216.7 | 366.9 | 532.2 | 597.8 | 484.9  | 362.9  | 246.0  | 192.5  | 156.2  |
| 97.5°  | 105.8 | 149.2 | 233.9 | 408.3 | 686.5 | 919.3 | 950.6  | 833.6  | 629.0  | 495.9  | 381.0  |
| 100°   | 121.0 | 160.3 | 230.8 | 380.0 | 645.1 | 954.6 | 1153.2 | 1188.5 | 1106.8 | 988.9  | 845.7  |
| 102.5° | 138.1 | 173.4 | 234.9 | 355.8 | 584.7 | 889.1 | 1163.3 | 1306.4 | 1323.5 | 1267.1 | 1189.5 |
| 105°   | 157.3 | 188.5 | 242.9 | 346.8 | 537.3 | 810.5 | 1099.8 | 1310.4 | 1411.2 | 1430.4 | 1404.2 |
| 107.5° | 178.4 | 207.7 | 256.0 | 344.7 | 503.0 | 740.9 | 1009.0 | 1250.0 | 1408.2 | 1486.8 | 1514.1 |
| 110°   | 199.6 | 227.8 | 273.2 | 349.8 | 484.9 | 683.4 | 924.4  | 1155.2 | 1340.7 | 1467.7 | 1538.2 |



TEST NUMBER: P831323

CATALOG NUMBER: S123DIP-S340D1025U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

|        | 110°  | 115°  | 120°  | 125°  | 130°  | 135°  | 140°  | 145°   | 150°   | 155°   | 160°   |
|--------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| 112.5° | 221.8 | 249.0 | 290.3 | 359.9 | 474.8 | 645.1 | 850.8 | 1061.5 | 1252.0 | 1398.1 | 1493.9 |
| 115°   | 243.9 | 271.2 | 309.5 | 371.0 | 473.8 | 619.9 | 794.3 | 980.8  | 1156.2 | 1304.4 | 1414.3 |
| 117.5° | 266.1 | 291.3 | 329.6 | 385.1 | 474.8 | 602.8 | 757.0 | 918.3  | 1073.5 | 1209.6 | 1323.5 |
| 120°   | 287.3 | 312.5 | 348.8 | 401.2 | 478.8 | 591.7 | 728.8 | 870.9  | 1007.0 | 1128.0 | 1229.8 |
| 122.5° | 306.4 | 333.7 | 368.9 | 416.3 | 485.9 | 584.7 | 705.6 | 833.6  | 953.6  | 1063.5 | 1156.2 |
| 125°   | 325.6 | 352.8 | 388.1 | 432.4 | 492.9 | 578.6 | 686.5 | 801.4  | 911.3  | 1008.0 | 1088.7 |
| 127.5° | 343.7 | 371.0 | 405.2 | 445.5 | 501.0 | 575.6 | 668.3 | 772.1  | 871.9  | 960.6  | 1035.2 |
| 130°   | 359.9 | 387.1 | 420.3 | 458.7 | 509.1 | 572.6 | 654.2 | 744.9  | 835.7  | 917.3  | 985.9  |
| 132.5° | 375.0 | 401.2 | 433.5 | 470.7 | 515.1 | 571.6 | 641.1 | 719.7  | 801.4  | 876.0  | 940.5  |
| 135°   | 388.1 | 415.3 | 446.6 | 480.8 | 521.1 | 570.5 | 630.0 | 697.6  | 769.1  | 834.6  | 892.1  |
| 137.5° | 400.2 | 425.4 | 455.6 | 488.9 | 525.2 | 568.5 | 619.9 | 676.4  | 736.9  | 795.3  | 846.7  |
| 140°   | 410.3 | 435.5 | 464.7 | 494.9 | 529.2 | 567.5 | 610.9 | 658.2  | 709.7  | 758.0  | 801.4  |
| 142.5° | 420.3 | 443.5 | 471.8 | 501.0 | 532.2 | 565.5 | 602.8 | 641.1  | 683.4  | 723.8  | 760.1  |
| 145°   | 428.4 | 451.6 | 477.8 | 505.0 | 533.2 | 563.5 | 595.7 | 628.0  | 661.3  | 693.5  | 722.8  |
| 147.5° | 438.5 | 458.7 | 482.8 | 508.0 | 533.2 | 560.5 | 588.7 | 616.9  | 644.1  | 671.3  | 692.5  |
| 150°   | 446.6 | 464.7 | 487.9 | 509.1 | 533.2 | 556.4 | 581.6 | 604.8  | 628.0  | 649.2  | 668.3  |
| 152.5° | 454.6 | 471.8 | 490.9 | 511.1 | 530.2 | 551.4 | 573.6 | 593.7  | 612.9  | 631.0  | 646.1  |
| 155°   | 463.7 | 477.8 | 494.9 | 511.1 | 528.2 | 545.3 | 565.5 | 582.6  | 598.8  | 613.9  | 626.0  |
| 157.5° | 471.8 | 482.8 | 497.0 | 512.1 | 525.2 | 540.3 | 556.4 | 570.5  | 584.7  | 596.8  | 606.8  |
| 160°   | 477.8 | 487.9 | 500.0 | 512.1 | 523.2 | 534.3 | 547.4 | 560.5  | 571.6  | 581.6  | 588.7  |
| 162.5° | 482.8 | 490.9 | 501.0 | 511.1 | 519.1 | 528.2 | 538.3 | 548.4  | 557.4  | 566.5  | 572.6  |
| 165°   | 486.9 | 493.9 | 502.0 | 509.1 | 515.1 | 522.2 | 530.2 | 538.3  | 544.3  | 551.4  | 556.4  |
| 167.5° | 490.9 | 495.9 | 502.0 | 508.0 | 511.1 | 516.1 | 522.2 | 529.2  | 534.3  | 538.3  | 542.3  |
| 170°   | 493.9 | 495.9 | 501.0 | 505.0 | 507.0 | 510.1 | 515.1 | 520.1  | 523.2  | 527.2  | 529.2  |
| 172.5° | 495.9 | 497.0 | 501.0 | 504.0 | 504.0 | 505.0 | 508.0 | 512.1  | 514.1  | 517.1  | 518.1  |
| 175°   | 497.0 | 498.0 | 500.0 | 502.0 | 501.0 | 501.0 | 503.0 | 505.0  | 506.0  | 508.0  | 508.0  |
| 177.5° | 498.0 | 498.0 | 499.0 | 501.0 | 499.0 | 498.0 | 499.0 | 500.0  | 501.0  | 502.0  | 502.0  |
| 180°   | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0  | 498.0  | 498.0  | 498.0  |



TEST NUMBER: P831323

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**CANDELA DISTRIBUTION (continued):**

|        | 165°   | 170°   | 175°   | 180°   |
|--------|--------|--------|--------|--------|
| 0°     | 991.5  | 991.5  | 991.5  | 991.5  |
| 2.5°   | 881.3  | 879.7  | 873.3  | 866.8  |
| 5°     | 747.2  | 741.7  | 739.8  | 738.0  |
| 7.5°   | 652.9  | 652.4  | 642.8  | 633.1  |
| 10°    | 569.8  | 570.5  | 561.8  | 553.0  |
| 12.5°  | 510.5  | 504.7  | 504.0  | 503.3  |
| 15°    | 465.8  | 460.6  | 459.6  | 458.7  |
| 17.5°  | 434.3  | 431.1  | 430.2  | 429.3  |
| 20°    | 410.4  | 408.6  | 407.0  | 405.3  |
| 22.5°  | 389.7  | 387.4  | 386.0  | 384.6  |
| 25°    | 369.7  | 367.6  | 367.2  | 366.7  |
| 27.5°  | 351.7  | 349.2  | 349.2  | 349.2  |
| 30°    | 334.7  | 333.1  | 332.4  | 331.7  |
| 32.5°  | 318.8  | 317.5  | 317.5  | 317.5  |
| 35°    | 303.9  | 303.2  | 302.3  | 301.4  |
| 37.5°  | 290.3  | 290.3  | 289.9  | 289.4  |
| 40°    | 277.2  | 277.9  | 277.9  | 277.9  |
| 42.5°  | 265.2  | 265.9  | 265.9  | 265.9  |
| 45°    | 252.8  | 254.0  | 254.4  | 254.9  |
| 47.5°  | 240.6  | 242.5  | 242.9  | 243.4  |
| 50°    | 228.7  | 230.0  | 230.3  | 230.5  |
| 52.5°  | 216.5  | 218.1  | 219.2  | 220.4  |
| 55°    | 203.6  | 205.2  | 205.9  | 206.6  |
| 57.5°  | 189.8  | 191.4  | 191.6  | 191.9  |
| 60°    | 174.6  | 176.2  | 176.7  | 177.1  |
| 62.5°  | 160.1  | 161.0  | 161.5  | 162.0  |
| 65°    | 143.6  | 144.9  | 145.9  | 146.8  |
| 67.5°  | 127.7  | 128.8  | 128.8  | 128.8  |
| 70°    | 110.0  | 110.4  | 111.1  | 111.8  |
| 72.5°  | 93.6   | 93.9   | 93.9   | 93.9   |
| 75°    | 76.4   | 76.8   | 77.1   | 77.3   |
| 77.5°  | 60.0   | 60.3   | 60.3   | 60.3   |
| 80°    | 43.9   | 43.7   | 43.7   | 43.7   |
| 82.5°  | 30.1   | 29.4   | 29.4   | 29.4   |
| 85°    | 17.3   | 17.0   | 17.3   | 17.5   |
| 87.5°  | 7.8    | 7.8    | 7.8    | 7.8    |
| 90°    | 28.2   | 29.2   | 30.2   | 29.2   |
| 92.5°  | 58.5   | 54.4   | 55.4   | 53.4   |
| 95°    | 137.1  | 128.0  | 121.0  | 116.9  |
| 97.5°  | 313.5  | 275.2  | 251.0  | 239.9  |
| 100°   | 743.9  | 670.3  | 631.0  | 632.0  |
| 102.5° | 1115.9 | 1061.5 | 1030.2 | 1001.0 |
| 105°   | 1357.8 | 1319.5 | 1287.3 | 1282.2 |
| 107.5° | 1508.0 | 1489.9 | 1476.8 | 1465.7 |
| 110°   | 1566.5 | 1574.5 | 1572.5 | 1570.5 |



TEST NUMBER: P831323

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**CANDELA DISTRIBUTION (continued):**

|        | 165°   | 170°   | 175°   | 180°   |
|--------|--------|--------|--------|--------|
| 112.5° | 1551.4 | 1580.6 | 1590.7 | 1591.7 |
| 115°   | 1489.9 | 1534.2 | 1554.4 | 1559.4 |
| 117.5° | 1402.2 | 1451.6 | 1481.8 | 1488.9 |
| 120°   | 1309.4 | 1365.9 | 1390.1 | 1396.1 |
| 122.5° | 1224.8 | 1274.1 | 1301.4 | 1309.4 |
| 125°   | 1153.2 | 1197.5 | 1222.7 | 1229.8 |
| 127.5° | 1093.7 | 1132.0 | 1155.2 | 1161.2 |
| 130°   | 1039.3 | 1075.6 | 1096.7 | 1104.8 |
| 132.5° | 989.9  | 1026.2 | 1044.3 | 1049.4 |
| 135°   | 941.5  | 971.7  | 989.9  | 996.9  |
| 137.5° | 889.1  | 920.3  | 935.4  | 941.5  |
| 140°   | 839.7  | 867.9  | 884.0  | 883.0  |
| 142.5° | 791.3  | 815.5  | 829.6  | 828.6  |
| 145°   | 748.0  | 769.1  | 777.2  | 779.2  |
| 147.5° | 712.7  | 727.8  | 735.9  | 736.9  |
| 150°   | 683.4  | 694.5  | 700.6  | 700.6  |
| 152.5° | 657.2  | 667.3  | 670.3  | 670.3  |
| 155°   | 635.1  | 643.1  | 645.1  | 646.1  |
| 157.5° | 614.9  | 620.9  | 623.0  | 623.0  |
| 160°   | 595.7  | 601.8  | 601.8  | 600.8  |
| 162.5° | 576.6  | 581.6  | 581.6  | 580.6  |
| 165°   | 560.5  | 564.5  | 563.5  | 563.5  |
| 167.5° | 544.3  | 547.4  | 546.4  | 546.4  |
| 170°   | 530.2  | 532.2  | 531.2  | 531.2  |
| 172.5° | 518.1  | 520.1  | 518.1  | 517.1  |
| 175°   | 508.0  | 509.1  | 508.0  | 507.0  |
| 177.5° | 501.0  | 502.0  | 500.0  | 500.0  |
| 180°   | 498.0  | 498.0  | 498.0  | 498.0  |



TEST NUMBER: P831323

CATALOG NUMBER: S123DIP-S340D1025U840-4F0-1E-UDD-G4

**CIE UGR TABLE:**

| Reflectances:   |      |                  |       |       |       |       |                |       |       |       |       |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling         |      | 0.7              | 0.7   | 0.5   | 0.5   | 0.3   | 0.7            | 0.7   | 0.5   | 0.5   | 0.3   |
| Wall            |      | 0.5              | 0.3   | 0.5   | 0.3   | 0.3   | 0.5            | 0.3   | 0.5   | 0.3   | 0.3   |
| Reference plane |      | 0.2              | 0.2   | 0.2   | 0.2   | 0.2   | 0.2            | 0.2   | 0.2   | 0.2   | 0.2   |
| Room dimensions |      | Viewed crosswise |       |       |       |       | Viewed endwise |       |       |       |       |
| X=2H            | Y=2H | 9.54             | 10.23 | 10.66 | 11.34 | 12.87 | 11.78          | 12.47 | 12.90 | 13.57 | 15.11 |
|                 | 3H   | 11.18            | 11.79 | 12.30 | 12.91 | 14.46 | 13.19          | 13.81 | 14.32 | 14.92 | 16.47 |
|                 | 4H   | 11.75            | 12.33 | 12.88 | 13.45 | 15.00 | 13.63          | 14.22 | 14.77 | 15.33 | 16.89 |
|                 | 6H   | 12.11            | 12.65 | 13.25 | 13.77 | 15.33 | 13.90          | 14.44 | 15.04 | 15.56 | 17.12 |
|                 | 8H   | 12.20            | 12.71 | 13.35 | 13.85 | 15.41 | 13.96          | 14.47 | 15.11 | 15.60 | 17.16 |
|                 | 12H  | 12.24            | 12.72 | 13.39 | 13.85 | 15.44 | 13.97          | 14.46 | 15.12 | 15.58 | 17.17 |
| 4H              | 2H   | 10.10            | 10.68 | 11.24 | 11.80 | 13.35 | 11.92          | 12.51 | 13.07 | 13.62 | 15.18 |
|                 | 3H   | 11.91            | 12.40 | 13.06 | 13.54 | 15.11 | 13.53          | 14.01 | 14.67 | 15.16 | 16.72 |
|                 | 4H   | 12.60            | 13.05 | 13.75 | 14.18 | 15.77 | 14.10          | 14.55 | 15.25 | 15.68 | 17.27 |
|                 | 6H   | 13.07            | 13.45 | 14.23 | 14.61 | 16.18 | 14.50          | 14.88 | 15.66 | 16.04 | 17.61 |
|                 | 8H   | 13.20            | 13.56 | 14.36 | 14.71 | 16.30 | 14.61          | 14.96 | 15.76 | 16.11 | 17.71 |
|                 | 12H  | 13.26            | 13.58 | 14.43 | 14.74 | 16.34 | 14.64          | 14.97 | 15.82 | 16.13 | 17.72 |
| 8H              | 4H   | 12.86            | 13.21 | 14.01 | 14.36 | 15.95 | 14.20          | 14.55 | 15.35 | 15.70 | 17.29 |
|                 | 6H   | 13.44            | 13.73 | 14.61 | 14.92 | 16.51 | 14.69          | 14.99 | 15.87 | 16.18 | 17.77 |
|                 | 8H   | 13.64            | 13.90 | 14.83 | 15.07 | 16.68 | 14.87          | 15.13 | 16.05 | 16.29 | 17.91 |
|                 | 12H  | 13.76            | 13.99 | 14.95 | 15.15 | 16.80 | 14.97          | 15.19 | 16.15 | 16.35 | 18.00 |
| 12H             | 4H   | 12.85            | 13.17 | 14.02 | 14.33 | 15.93 | 14.16          | 14.49 | 15.33 | 15.64 | 17.24 |
|                 | 6H   | 13.49            | 13.74 | 14.67 | 14.91 | 16.52 | 14.71          | 14.96 | 15.89 | 16.13 | 17.74 |
|                 | 8H   | 13.71            | 13.94 | 14.90 | 15.10 | 16.75 | 14.90          | 15.12 | 16.08 | 16.29 | 17.93 |