

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: P332696-830

Luminaire Tested: **S124DIP-S1195D810U830-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332696-830  
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-S1195D810U830-4F0-1E-UDD-F4  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1195 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7550.4 lumens  
Efficiency: N/A  
Efficacy: 124.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Semi-Direct

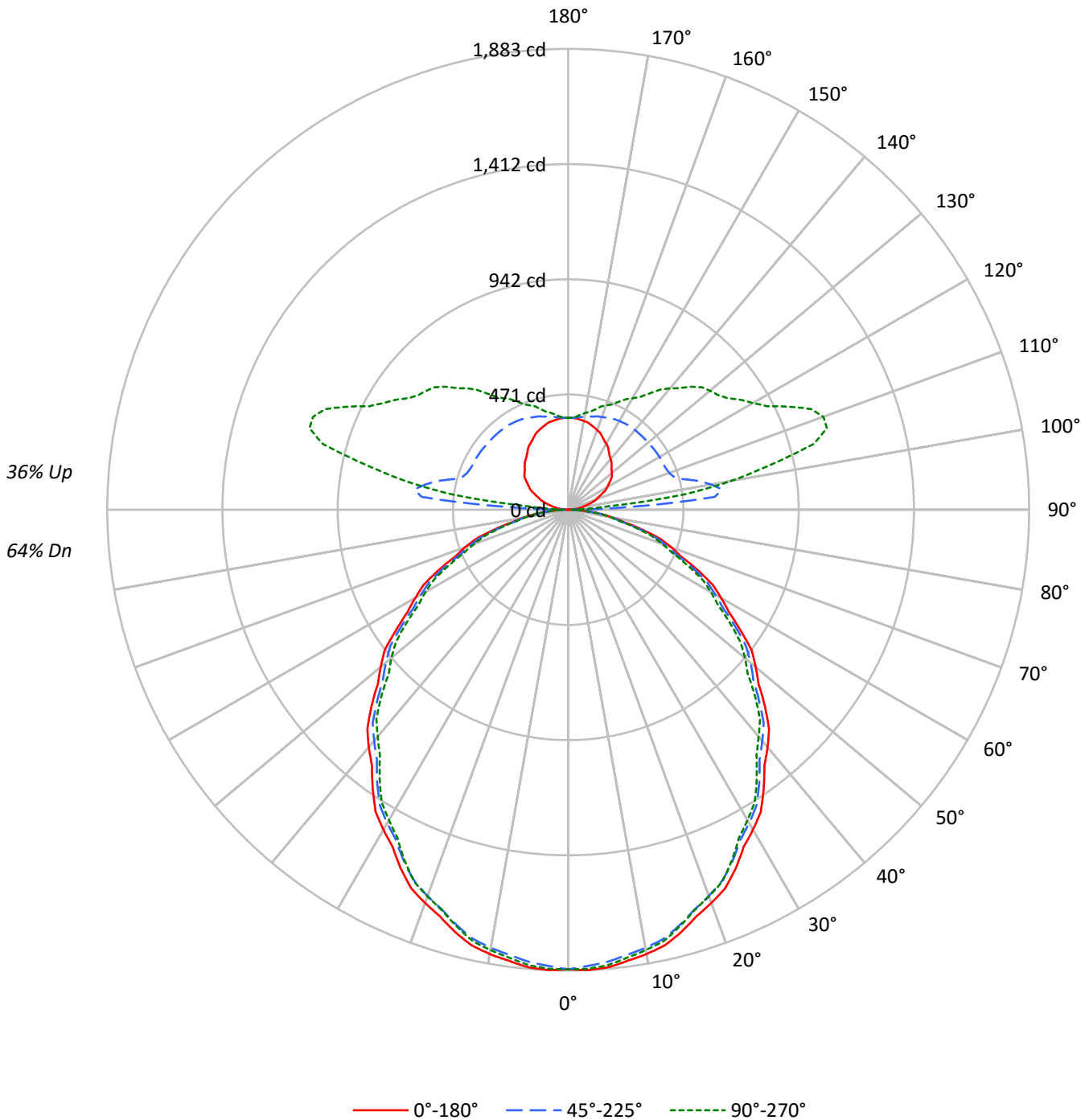
Input Watts (W): 60.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

|     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20 |    |    |    | 20 |    |    |    | 20 |    |
| RC  | 80  |     |     |     | 70  |     |     |     | 50 |    |    |    | 30 |    |    |    | 10 | 0  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0  |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |
| 0   | 110 | 110 | 110 | 110 | 104 | 104 | 104 | 104 | 91 | 91 | 91 | 79 | 79 | 79 | 69 | 69 | 69 | 64 |
| 1   | 101 | 96  | 92  | 89  | 95  | 91  | 87  | 84  | 80 | 77 | 75 | 70 | 68 | 66 | 61 | 59 | 58 | 54 |
| 2   | 92  | 84  | 78  | 73  | 86  | 79  | 74  | 69  | 70 | 66 | 62 | 61 | 58 | 55 | 54 | 51 | 49 | 45 |
| 3   | 84  | 74  | 66  | 60  | 78  | 70  | 63  | 58  | 62 | 56 | 52 | 54 | 50 | 47 | 47 | 44 | 42 | 38 |
| 4   | 77  | 66  | 57  | 51  | 72  | 62  | 55  | 49  | 55 | 49 | 44 | 48 | 44 | 40 | 42 | 39 | 36 | 33 |
| 5   | 70  | 59  | 50  | 44  | 66  | 55  | 48  | 42  | 49 | 43 | 38 | 44 | 39 | 35 | 38 | 34 | 31 | 28 |
| 6   | 65  | 53  | 44  | 38  | 61  | 50  | 42  | 37  | 44 | 38 | 34 | 39 | 34 | 31 | 35 | 31 | 28 | 25 |
| 7   | 60  | 48  | 39  | 34  | 56  | 45  | 38  | 32  | 40 | 34 | 30 | 36 | 31 | 27 | 32 | 28 | 25 | 22 |
| 8   | 56  | 43  | 35  | 30  | 52  | 41  | 34  | 29  | 37 | 31 | 26 | 33 | 28 | 24 | 29 | 25 | 22 | 20 |
| 9   | 52  | 40  | 32  | 27  | 49  | 38  | 31  | 26  | 34 | 28 | 24 | 30 | 25 | 22 | 27 | 23 | 20 | 18 |
| 10  | 49  | 36  | 29  | 24  | 46  | 35  | 28  | 23  | 31 | 25 | 21 | 28 | 23 | 20 | 25 | 21 | 18 | 16 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 15163 | 15163 | 15163 |
| 5°  | 15209 | 15027 | 15135 |
| 10° | 15114 | 14905 | 14978 |
| 15° | 14931 | 14692 | 14730 |
| 20° | 14689 | 14430 | 14442 |
| 25° | 14412 | 14130 | 14091 |
| 30° | 14072 | 13778 | 13651 |
| 35° | 13720 | 13409 | 13232 |
| 40° | 13354 | 12991 | 12752 |
| 45° | 12973 | 12578 | 12337 |
| 50° | 12552 | 12210 | 11833 |
| 55° | 12096 | 11736 | 11354 |
| 60° | 11641 | 11202 | 10863 |
| 65° | 11127 | 10695 | 10264 |
| 70° | 10551 | 10017 | 9626  |
| 75° | 9669  | 9201  | 8968  |
| 80° | 8605  | 8257  | 8047  |
| 85° | 7521  | 7243  | 7104  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 176.9  | 2.3       |
| 10°-20°   | 498.4  | 6.6       |
| 20°-30°   | 733.6  | 9.7       |
| 30°-40°   | 852.8  | 11.3      |
| 40°-50°   | 852.8  | 11.3      |
| 50°-60°   | 746.0  | 9.9       |
| 60°-70°   | 554.0  | 7.3       |
| 70°-80°   | 314.7  | 4.2       |
| 80°-90°   | 92.9   | 1.2       |
| 90°-100°  | 270.9  | 3.6       |
| 100°-110° | 563.9  | 7.5       |
| 110°-120° | 505.1  | 6.7       |
| 120°-130° | 424.9  | 5.6       |
| 130°-140° | 354.3  | 4.7       |
| 140°-150° | 270.6  | 3.6       |
| 150°-160° | 190.2  | 2.5       |
| 160°-170° | 111.9  | 1.5       |
| 170°-180° | 36.4   | 0.5       |
| 0°-30°    | 1408.8 | 18.7      |
| 0°-40°    | 2261.6 | 30.0      |
| 0°-60°    | 3860.5 | 51.1      |
| 0°-90°    | 4822.1 | 63.9      |
| 90°-120°  | 1340.0 | 17.7      |
| 90°-150°  | 2389.7 | 31.7      |
| 90°-180°  | 2728.0 | 36.1      |
| 0°-180°   | 7550.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1878 | 1878  | 1878 | 1878  | 1878 |      |
| 5°   | 1877 | 1870  | 1854 | 1870  | 1868 | 178  |
| 15°  | 1786 | 1780  | 1758 | 1766  | 1762 | 503  |
| 25°  | 1618 | 1607  | 1586 | 1587  | 1582 | 744  |
| 35°  | 1392 | 1381  | 1361 | 1350  | 1343 | 870  |
| 45°  | 1136 | 1125  | 1102 | 1086  | 1081 | 876  |
| 55°  | 859  | 854   | 834  | 816   | 807  | 769  |
| 65°  | 582  | 575   | 560  | 545   | 537  | 577  |
| 75°  | 310  | 302   | 295  | 289   | 288  | 329  |
| 85°  | 81   | 81    | 78   | 78    | 77   | 89   |
| 90°  | 1    | 6     | 13   | 15    | 16   | 6    |
| 95°  | 24   | 77    | 601  | 297   | 180  | 27   |
| 105° | 86   | 125   | 483  | 1041  | 1037 | 92   |
| 115° | 152  | 191   | 431  | 828   | 996  | 151  |
| 125° | 212  | 251   | 429  | 705   | 794  | 188  |
| 135° | 251  | 299   | 425  | 626   | 710  | 194  |
| 145° | 290  | 332   | 423  | 528   | 580  | 182  |
| 155° | 329  | 356   | 411  | 466   | 486  | 152  |
| 165° | 359  | 370   | 394  | 418   | 424  | 101  |
| 175° | 374  | 375   | 378  | 383   | 382  | 36   |
| 180° | 375  | 375   | 375  | 375   | 375  |      |



TEST NUMBER: P332696-830

CATALOG NUMBER: S124DIP-S1195D810U830-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1878.3 | 1878.3 | 1878.3 | 1878.3 | 1878.3 | 1878.3 | 1878.3 | 1878.3 | 1878.3 | 1878.3 | 1878.3 |
| 2.5°   | 1883.1 | 1882.4 | 1881.5 | 1880.7 | 1879.9 | 1878.0 | 1875.1 | 1872.2 | 1869.3 | 1866.3 | 1869.0 |
| 5°     | 1876.8 | 1875.5 | 1874.2 | 1872.8 | 1871.5 | 1869.0 | 1865.3 | 1861.6 | 1857.9 | 1854.3 | 1857.9 |
| 7.5°   | 1859.4 | 1858.0 | 1856.7 | 1855.3 | 1854.0 | 1851.3 | 1847.2 | 1843.1 | 1839.1 | 1834.9 | 1838.0 |
| 10°    | 1843.7 | 1842.4 | 1841.1 | 1839.7 | 1838.3 | 1835.5 | 1831.2 | 1826.8 | 1822.5 | 1818.2 | 1820.8 |
| 12.5°  | 1823.3 | 1821.9 | 1820.5 | 1819.2 | 1817.9 | 1814.9 | 1810.3 | 1805.7 | 1801.1 | 1796.5 | 1799.4 |
| 15°    | 1786.5 | 1785.2 | 1783.9 | 1782.5 | 1781.1 | 1778.0 | 1772.9 | 1767.9 | 1762.9 | 1757.9 | 1759.9 |
| 17.5°  | 1742.3 | 1740.6 | 1738.9 | 1737.3 | 1735.6 | 1732.4 | 1727.6 | 1722.9 | 1718.2 | 1713.4 | 1714.7 |
| 20°    | 1709.8 | 1708.1 | 1706.4 | 1704.8 | 1703.1 | 1699.7 | 1694.7 | 1689.7 | 1684.7 | 1679.6 | 1680.6 |
| 22.5°  | 1674.8 | 1672.6 | 1670.5 | 1668.2 | 1666.0 | 1662.4 | 1657.4 | 1652.4 | 1647.4 | 1642.3 | 1644.2 |
| 25°    | 1618.0 | 1615.6 | 1613.3 | 1610.9 | 1608.5 | 1605.1 | 1600.3 | 1595.7 | 1591.0 | 1586.3 | 1586.7 |
| 27.5°  | 1552.9 | 1550.5 | 1548.1 | 1545.7 | 1543.3 | 1539.9 | 1535.6 | 1531.3 | 1526.9 | 1522.5 | 1521.7 |
| 30°    | 1509.6 | 1506.9 | 1504.2 | 1501.6 | 1498.9 | 1495.3 | 1491.0 | 1486.7 | 1482.3 | 1478.0 | 1476.7 |
| 32.5°  | 1463.9 | 1461.4 | 1459.1 | 1456.6 | 1454.2 | 1450.7 | 1446.0 | 1441.4 | 1436.8 | 1432.2 | 1430.6 |
| 35°    | 1392.2 | 1389.9 | 1387.5 | 1385.2 | 1382.8 | 1379.3 | 1374.6 | 1370.0 | 1365.3 | 1360.6 | 1358.2 |
| 37.5°  | 1316.6 | 1314.5 | 1312.4 | 1310.2 | 1308.1 | 1304.5 | 1299.5 | 1294.5 | 1289.4 | 1284.4 | 1281.9 |
| 40°    | 1267.2 | 1264.6 | 1261.9 | 1259.2 | 1256.6 | 1252.7 | 1247.7 | 1242.6 | 1237.7 | 1232.7 | 1229.3 |
| 42.5°  | 1214.3 | 1212.7 | 1211.1 | 1209.5 | 1207.9 | 1204.3 | 1198.7 | 1193.2 | 1187.6 | 1182.0 | 1178.2 |
| 45°    | 1136.3 | 1134.0 | 1131.6 | 1129.3 | 1127.0 | 1123.1 | 1117.8 | 1112.4 | 1107.0 | 1101.7 | 1098.1 |
| 47.5°  | 1054.7 | 1053.1 | 1051.5 | 1049.9 | 1048.3 | 1045.1 | 1040.1 | 1035.2 | 1030.2 | 1025.3 | 1021.2 |
| 50°    | 999.4  | 998.1  | 996.6  | 995.3  | 994.0  | 991.0  | 986.3  | 981.7  | 976.9  | 972.2  | 967.6  |
| 52.5°  | 945.2  | 943.6  | 942.0  | 940.4  | 938.8  | 935.5  | 930.6  | 925.6  | 920.7  | 915.7  | 911.5  |
| 55°    | 859.4  | 858.4  | 857.4  | 856.4  | 855.4  | 852.5  | 847.8  | 843.2  | 838.5  | 833.8  | 829.8  |
| 57.5°  | 777.5  | 776.4  | 775.2  | 774.1  | 773.0  | 770.1  | 765.4  | 760.8  | 756.2  | 751.6  | 747.8  |
| 60°    | 721.0  | 719.3  | 717.6  | 716.0  | 714.3  | 711.2  | 706.9  | 702.6  | 698.1  | 693.8  | 690.8  |
| 62.5°  | 665.5  | 664.1  | 662.7  | 661.3  | 660.0  | 657.0  | 652.3  | 647.7  | 643.1  | 638.5  | 635.7  |
| 65°    | 582.5  | 580.8  | 579.1  | 577.4  | 575.8  | 573.3  | 570.0  | 566.6  | 563.3  | 559.9  | 556.6  |
| 67.5°  | 498.8  | 497.3  | 495.7  | 494.2  | 492.7  | 490.2  | 487.0  | 483.8  | 480.6  | 477.4  | 474.2  |
| 70°    | 447.0  | 444.7  | 442.3  | 440.0  | 437.6  | 435.2  | 432.4  | 429.8  | 427.1  | 424.4  | 421.8  |
| 72.5°  | 391.6  | 389.3  | 386.9  | 384.6  | 382.3  | 380.0  | 377.9  | 375.7  | 373.6  | 371.5  | 369.3  |
| 75°    | 310.0  | 308.4  | 306.7  | 305.0  | 303.3  | 301.7  | 300.0  | 298.3  | 296.7  | 295.0  | 293.7  |
| 77.5°  | 232.1  | 231.3  | 230.6  | 229.9  | 229.1  | 228.0  | 226.6  | 225.1  | 223.7  | 222.2  | 221.8  |
| 80°    | 185.1  | 184.1  | 183.1  | 182.1  | 181.2  | 180.3  | 179.6  | 178.9  | 178.2  | 177.6  | 176.9  |
| 82.5°  | 139.4  | 138.9  | 138.5  | 138.0  | 137.5  | 137.2  | 137.0  | 137.0  | 136.8  | 136.7  | 136.3  |
| 85°    | 81.2   | 81.2   | 81.2   | 81.2   | 81.2   | 81.0   | 80.3   | 79.6   | 78.9   | 78.2   | 78.2   |
| 87.5°  | 31.5   | 31.5   | 31.7   | 31.6   | 31.4   | 31.1   | 31.8   | 31.5   | 31.5   | 31.6   | 31.4   |
| 90°    | 0.8    | 2.2    | 4.4    | 5.2    | 5.9    | 5.9    | 10.3   | 10.3   | 11.8   | 13.3   | 12.5   |
| 92.5°  | 8.4    | 12.3   | 19.1   | 28.2   | 38.9   | 54.2   | 91.7   | 148.8  | 204.6  | 233.8  | 194.7  |
| 95°    | 24.3   | 26.5   | 33.9   | 43.5   | 61.2   | 92.1   | 156.3  | 277.1  | 453.3  | 600.7  | 617.6  |
| 97.5°  | 43.6   | 43.6   | 50.0   | 58.8   | 74.0   | 99.9   | 149.3  | 249.1  | 424.2  | 632.6  | 775.9  |
| 100°   | 56.0   | 56.0   | 61.2   | 70.0   | 84.0   | 107.6  | 151.1  | 234.4  | 384.7  | 592.6  | 781.2  |
| 102.5° | 67.8   | 69.0   | 73.5   | 81.8   | 95.2   | 117.6  | 156.9  | 230.3  | 358.2  | 542.4  | 737.0  |
| 105°   | 86.2   | 88.4   | 92.1   | 100.9  | 114.2  | 135.6  | 171.0  | 232.1  | 335.4  | 483.4  | 656.7  |
| 107.5° | 106.6  | 108.0  | 111.7  | 121.1  | 133.8  | 155.0  | 187.4  | 243.1  | 331.2  | 450.4  | 591.8  |
| 110°   | 120.2  | 121.6  | 125.3  | 134.1  | 147.4  | 167.3  | 199.7  | 251.3  | 332.3  | 439.2  | 559.4  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 133.1 | 134.6 | 138.8 | 147.1 | 160.3 | 180.3 | 211.5 | 260.1 | 335.9 | 433.9 | 541.1 |
| 115°   | 151.8 | 154.0 | 159.2 | 166.5 | 180.6 | 200.5 | 230.0 | 274.2 | 342.7 | 431.1 | 524.0 |
| 117.5° | 171.3 | 173.3 | 178.0 | 186.1 | 199.2 | 219.8 | 247.8 | 288.4 | 350.0 | 430.4 | 516.3 |
| 120°   | 184.3 | 185.7 | 190.9 | 199.0 | 211.5 | 232.1 | 260.1 | 298.5 | 355.2 | 430.4 | 512.2 |
| 122.5° | 196.0 | 197.6 | 202.6 | 210.2 | 223.9 | 243.9 | 271.9 | 307.9 | 360.5 | 429.8 | 507.5 |
| 125°   | 211.5 | 214.4 | 218.9 | 227.0 | 241.0 | 261.6 | 288.1 | 322.1 | 368.5 | 429.0 | 499.6 |
| 127.5° | 225.3 | 227.6 | 232.9 | 242.1 | 256.7 | 277.6 | 303.2 | 334.3 | 374.8 | 427.3 | 489.2 |
| 130°   | 232.9 | 235.8 | 241.8 | 252.8 | 266.8 | 288.1 | 313.2 | 342.0 | 379.6 | 426.7 | 482.8 |
| 132.5° | 240.5 | 242.9 | 250.6 | 261.1 | 276.3 | 296.4 | 321.5 | 349.6 | 383.7 | 426.1 | 476.8 |
| 135°   | 251.3 | 254.3 | 261.6 | 274.2 | 289.6 | 308.8 | 333.1 | 359.7 | 389.8 | 425.3 | 468.0 |
| 137.5° | 262.1 | 264.9 | 273.0 | 284.9 | 301.0 | 319.2 | 342.0 | 366.7 | 393.5 | 425.1 | 460.3 |
| 140°   | 269.8 | 271.9 | 280.0 | 292.6 | 308.0 | 325.7 | 347.9 | 371.5 | 396.5 | 424.5 | 456.2 |
| 142.5° | 278.0 | 280.2 | 287.8 | 299.6 | 314.5 | 331.7 | 353.2 | 374.9 | 398.9 | 424.5 | 452.7 |
| 145°   | 289.6 | 291.8 | 299.3 | 309.5 | 323.6 | 339.8 | 358.9 | 378.8 | 400.2 | 423.0 | 446.6 |
| 147.5° | 302.7 | 303.5 | 310.0 | 320.6 | 332.2 | 346.9 | 364.9 | 382.2 | 401.0 | 420.4 | 441.2 |
| 150°   | 311.0 | 311.8 | 317.6 | 326.5 | 337.5 | 351.6 | 367.8 | 384.0 | 401.0 | 418.6 | 437.1 |
| 152.5° | 318.7 | 318.9 | 324.7 | 333.0 | 342.9 | 355.7 | 370.1 | 385.1 | 399.7 | 415.7 | 432.3 |
| 155°   | 329.4 | 330.2 | 334.6 | 342.0 | 350.1 | 361.1 | 373.6 | 386.2 | 397.9 | 411.2 | 425.3 |
| 157.5° | 339.9 | 339.9 | 344.0 | 349.8 | 356.8 | 365.5 | 376.2 | 386.2 | 396.1 | 406.7 | 418.0 |
| 160°   | 346.4 | 346.4 | 349.3 | 354.5 | 360.4 | 368.5 | 377.3 | 386.2 | 394.3 | 403.1 | 412.7 |
| 162.5° | 352.3 | 351.7 | 354.0 | 358.6 | 363.9 | 370.2 | 378.5 | 386.2 | 392.6 | 399.6 | 408.0 |
| 165°   | 358.9 | 358.9 | 360.4 | 364.1 | 367.8 | 372.2 | 378.8 | 384.7 | 389.2 | 394.3 | 400.2 |
| 167.5° | 365.5 | 364.9 | 365.5 | 368.3 | 370.4 | 373.8 | 378.7 | 383.0 | 385.6 | 389.0 | 393.1 |
| 170°   | 368.5 | 367.8 | 368.5 | 370.7 | 372.2 | 374.4 | 378.1 | 381.7 | 383.2 | 385.4 | 388.4 |
| 172.5° | 371.5 | 370.7 | 370.9 | 372.5 | 373.3 | 374.9 | 377.5 | 380.6 | 380.9 | 381.9 | 384.3 |
| 175°   | 374.4 | 373.6 | 373.6 | 374.4 | 375.1 | 375.1 | 376.6 | 378.8 | 378.1 | 378.1 | 379.6 |
| 177.5° | 375.7 | 375.1 | 374.6 | 375.1 | 375.1 | 375.1 | 375.7 | 376.9 | 375.7 | 375.7 | 376.3 |
| 180°   | 375.1 | 375.1 | 375.1 | 375.1 | 375.1 | 375.1 | 375.1 | 375.1 | 375.1 | 375.1 | 375.1 |



TEST NUMBER: P332696-830

CATALOG NUMBER: S124DIP-S1195D810U830-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1878.3 | 1878.3 | 1878.3 | 1878.3 | 1878.3 | 1878.3 | 1878.3 | 1878.3 |
| 2.5°   | 1871.6 | 1874.3 | 1877.0 | 1878.2 | 1877.9 | 1877.6 | 1877.4 | 1877.1 |
| 5°     | 1861.6 | 1865.3 | 1869.0 | 1870.5 | 1869.8 | 1869.2 | 1868.5 | 1867.7 |
| 7.5°   | 1840.9 | 1843.8 | 1846.7 | 1848.0 | 1847.7 | 1847.2 | 1846.8 | 1846.4 |
| 10°    | 1823.4 | 1826.2 | 1828.8 | 1829.9 | 1829.2 | 1828.5 | 1827.8 | 1827.1 |
| 12.5°  | 1802.3 | 1805.3 | 1808.3 | 1809.2 | 1808.3 | 1807.3 | 1806.4 | 1805.4 |
| 15°    | 1761.9 | 1764.0 | 1765.9 | 1766.4 | 1765.5 | 1764.4 | 1763.4 | 1762.5 |
| 17.5°  | 1715.9 | 1717.2 | 1718.4 | 1718.7 | 1718.1 | 1717.4 | 1716.7 | 1716.1 |
| 20°    | 1681.7 | 1682.6 | 1683.7 | 1683.9 | 1683.2 | 1682.5 | 1681.9 | 1681.1 |
| 22.5°  | 1646.0 | 1647.8 | 1649.5 | 1649.8 | 1648.7 | 1647.5 | 1646.2 | 1645.0 |
| 25°    | 1587.1 | 1587.3 | 1587.7 | 1587.1 | 1585.8 | 1584.5 | 1583.2 | 1581.9 |
| 27.5°  | 1520.9 | 1520.1 | 1519.3 | 1518.1 | 1516.4 | 1514.8 | 1513.1 | 1511.4 |
| 30°    | 1475.3 | 1473.9 | 1472.6 | 1471.1 | 1469.4 | 1467.8 | 1466.1 | 1464.4 |
| 32.5°  | 1429.0 | 1427.4 | 1425.8 | 1424.2 | 1422.5 | 1420.8 | 1419.2 | 1417.5 |
| 35°    | 1355.9 | 1353.6 | 1351.2 | 1349.2 | 1347.6 | 1345.9 | 1344.2 | 1342.6 |
| 37.5°  | 1279.3 | 1276.8 | 1274.2 | 1271.9 | 1269.7 | 1267.4 | 1265.3 | 1263.0 |
| 40°    | 1226.0 | 1222.6 | 1219.3 | 1216.7 | 1215.1 | 1213.4 | 1211.7 | 1210.0 |
| 42.5°  | 1174.3 | 1170.4 | 1166.6 | 1164.0 | 1162.9 | 1161.8 | 1160.6 | 1159.5 |
| 45°    | 1094.4 | 1090.7 | 1087.0 | 1084.7 | 1083.6 | 1082.6 | 1081.7 | 1080.6 |
| 47.5°  | 1017.0 | 1012.9 | 1008.7 | 1005.3 | 1002.8 | 1000.2 | 997.7  | 995.1  |
| 50°    | 962.9  | 958.2  | 953.6  | 950.2  | 948.2  | 946.2  | 944.1  | 942.2  |
| 52.5°  | 907.4  | 903.2  | 899.1  | 895.8  | 893.2  | 890.7  | 888.2  | 885.6  |
| 55°    | 825.8  | 821.8  | 817.7  | 814.7  | 812.8  | 810.8  | 808.7  | 806.7  |
| 57.5°  | 744.0  | 740.2  | 736.4  | 733.5  | 731.6  | 729.6  | 727.6  | 725.8  |
| 60°    | 687.8  | 684.9  | 681.8  | 679.5  | 677.8  | 676.1  | 674.5  | 672.8  |
| 62.5°  | 632.9  | 630.2  | 627.5  | 625.3  | 623.6  | 621.9  | 620.3  | 618.6  |
| 65°    | 553.2  | 549.9  | 546.5  | 544.0  | 542.3  | 540.6  | 538.9  | 537.3  |
| 67.5°  | 471.0  | 467.8  | 464.6  | 462.7  | 462.2  | 461.8  | 461.3  | 460.8  |
| 70°    | 419.1  | 416.4  | 413.7  | 411.9  | 410.9  | 409.9  | 408.9  | 407.8  |
| 72.5°  | 367.2  | 365.0  | 362.9  | 361.3  | 360.3  | 359.3  | 358.3  | 357.3  |
| 75°    | 292.3  | 291.0  | 289.6  | 288.8  | 288.5  | 288.1  | 287.8  | 287.5  |
| 77.5°  | 221.3  | 220.9  | 220.6  | 219.9  | 219.0  | 218.2  | 217.3  | 216.4  |
| 80°    | 176.3  | 175.6  | 174.9  | 174.5  | 174.1  | 173.7  | 173.4  | 173.1  |
| 82.5°  | 135.8  | 135.4  | 135.1  | 134.7  | 134.3  | 134.0  | 133.7  | 133.4  |
| 85°    | 78.2   | 78.2   | 78.2   | 78.1   | 77.8   | 77.4   | 77.1   | 76.7   |
| 87.5°  | 31.6   | 31.7   | 31.9   | 31.9   | 32.0   | 32.1   | 32.0   | 32.0   |
| 90°    | 13.3   | 14.0   | 14.7   | 14.7   | 15.5   | 16.2   | 15.5   | 15.5   |
| 92.5°  | 144.8  | 109.0  | 86.7   | 71.9   | 63.2   | 59.3   | 56.7   | 56.7   |
| 95°    | 546.1  | 431.9  | 333.1  | 261.6  | 225.6  | 202.6  | 189.5  | 179.8  |
| 97.5°  | 806.8  | 764.4  | 692.3  | 615.4  | 562.5  | 518.1  | 496.0  | 480.7  |
| 100°   | 888.8  | 903.5  | 867.4  | 812.9  | 748.8  | 703.8  | 681.7  | 675.8  |
| 102.5° | 884.7  | 957.8  | 968.3  | 945.6  | 906.3  | 873.6  | 850.4  | 845.6  |
| 105°   | 825.5  | 952.9  | 1025.9 | 1056.1 | 1057.6 | 1051.7 | 1041.4 | 1037.0 |
| 107.5° | 741.3  | 877.0  | 979.8  | 1045.5 | 1081.9 | 1098.7 | 1106.1 | 1108.0 |
| 110°   | 690.6  | 818.0  | 924.9  | 1006.0 | 1058.3 | 1089.3 | 1102.6 | 1109.2 |





TEST NUMBER: P332696-830

CATALOG NUMBER: S124DIP-S1195D810U830-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

|        | 55°   | 60°   | 65°   | 70°   | 75°    | 80°    | 85°    | 90°    |
|--------|-------|-------|-------|-------|--------|--------|--------|--------|
| 112.5° | 653.5 | 766.2 | 867.1 | 948.2 | 1007.6 | 1045.1 | 1063.7 | 1074.4 |
| 115°   | 616.1 | 706.8 | 793.0 | 863.7 | 922.0  | 966.2  | 989.8  | 995.7  |
| 117.5° | 597.9 | 672.9 | 740.6 | 800.7 | 850.4  | 887.5  | 911.3  | 916.0  |
| 120°   | 589.6 | 658.2 | 717.1 | 769.4 | 811.4  | 843.9  | 863.0  | 871.1  |
| 122.5° | 582.5 | 648.7 | 702.4 | 748.2 | 783.7  | 811.4  | 827.6  | 835.8  |
| 125°   | 570.4 | 633.9 | 684.7 | 725.2 | 754.7  | 776.1  | 790.0  | 794.5  |
| 127.5° | 555.7 | 616.2 | 666.9 | 705.5 | 735.1  | 754.1  | 765.9  | 770.3  |
| 130°   | 543.9 | 602.1 | 652.2 | 691.3 | 721.5  | 740.0  | 751.8  | 756.2  |
| 132.5° | 531.5 | 586.2 | 635.2 | 674.2 | 703.8  | 724.6  | 735.8  | 740.3  |
| 135°   | 514.4 | 562.3 | 607.3 | 644.1 | 673.6  | 694.3  | 706.1  | 710.5  |
| 137.5° | 499.0 | 539.5 | 577.4 | 610.7 | 638.2  | 658.6  | 668.3  | 673.6  |
| 140°   | 490.1 | 524.7 | 557.9 | 588.9 | 614.6  | 630.8  | 641.2  | 647.1  |
| 142.5° | 481.8 | 512.4 | 540.8 | 567.6 | 590.5  | 605.5  | 614.6  | 618.8  |
| 145°   | 470.2 | 495.3 | 517.4 | 538.0 | 556.5  | 568.9  | 576.4  | 580.0  |
| 147.5° | 460.6 | 480.5 | 498.2 | 514.4 | 528.0  | 538.8  | 544.3  | 545.6  |
| 150°   | 454.7 | 471.6 | 486.4 | 499.6 | 511.5  | 521.0  | 525.5  | 526.2  |
| 152.5° | 448.3 | 462.8 | 476.4 | 487.3 | 497.3  | 505.1  | 507.7  | 508.5  |
| 155°   | 438.5 | 450.3 | 461.4 | 470.2 | 477.6  | 483.4  | 485.7  | 485.7  |
| 157.5° | 428.0 | 437.9 | 447.2 | 454.3 | 459.9  | 464.3  | 465.6  | 465.6  |
| 160°   | 421.6 | 429.7 | 437.8 | 443.7 | 448.1  | 452.5  | 453.3  | 453.3  |
| 162.5° | 415.1 | 422.0 | 428.4 | 433.7 | 436.9  | 441.3  | 442.1  | 441.5  |
| 165°   | 406.0 | 410.5 | 415.7 | 419.3 | 422.3  | 425.3  | 424.5  | 423.8  |
| 167.5° | 397.4 | 400.8 | 404.9 | 407.1 | 408.6  | 410.5  | 410.4  | 409.7  |
| 170°   | 392.1 | 394.3 | 397.3 | 399.4 | 401.0  | 401.6  | 401.0  | 401.0  |
| 172.5° | 387.4 | 389.0 | 390.8 | 392.4 | 393.2  | 394.0  | 393.2  | 392.1  |
| 175°   | 381.1 | 381.7 | 383.2 | 383.2 | 383.2  | 384.7  | 383.2  | 381.7  |
| 177.5° | 376.9 | 377.5 | 377.5 | 378.1 | 377.5  | 378.1  | 376.9  | 375.7  |
| 180°   | 375.1 | 375.1 | 375.1 | 375.1 | 375.1  | 375.1  | 375.1  | 375.1  |

(END OF REPORT)