

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: P333002-830

Luminaire Tested: **SA4XXRDIP-C1195D810U830-4F0-1E-UDD-F4**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P333002-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA4XXRDIP-C1195D810U830-4F0-1E-UDD-F4  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1195 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

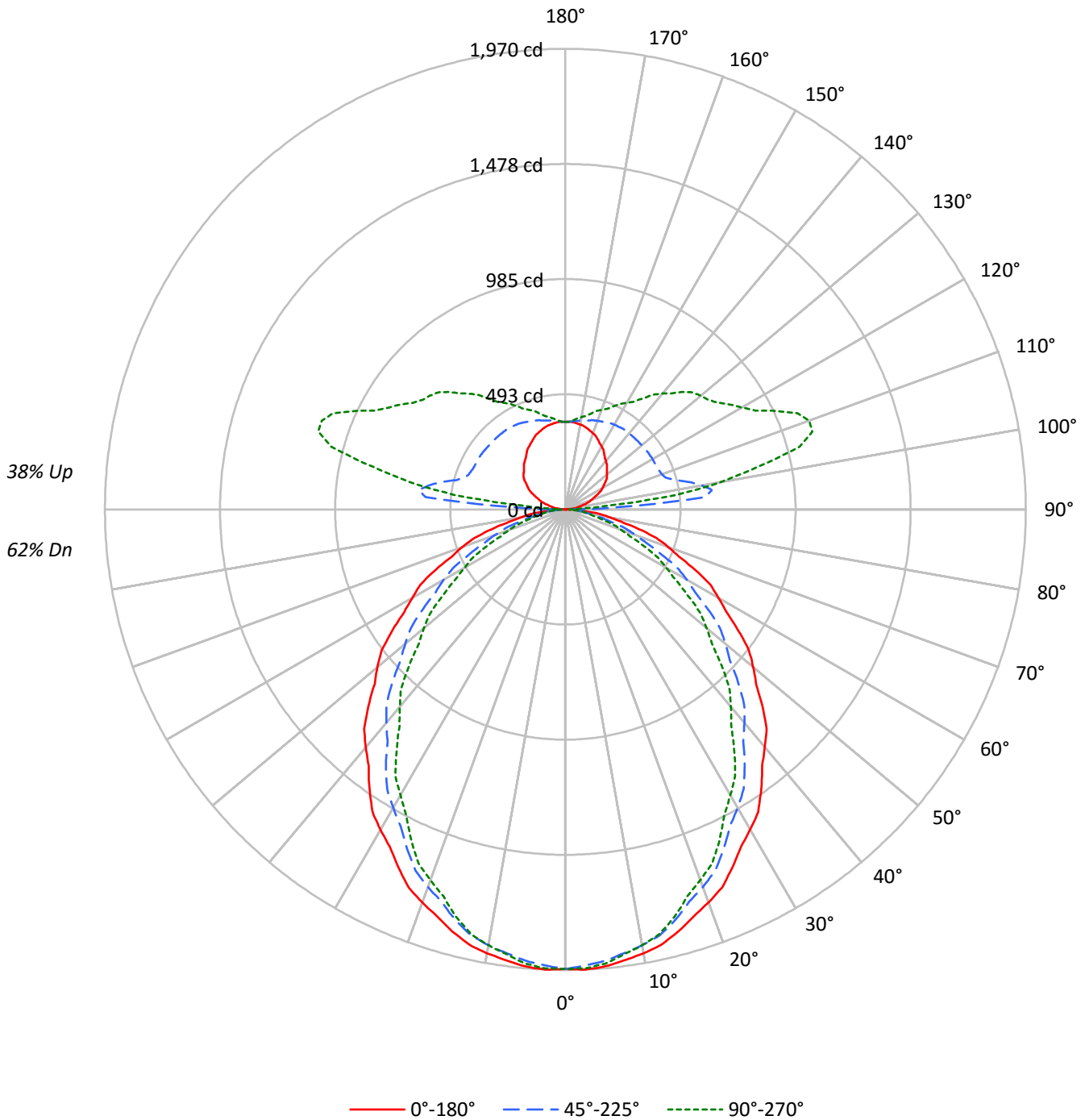
Lumens per Lamp: N/A  
Luminaire Lumens: 7271.7 lumens  
Efficiency: N/A  
Efficacy: 119.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 60.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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: P333002-830  
CATALOG NUMBER: SA4XXRDIP-C1195D810U830-4F0-1E-UDD-F4

### Luminous Intensity Polar Plot





TEST NUMBER: P333002-830

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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 | 103 | 103 | 103 | 103 | 90 | 90 | 90 | 78 | 78 | 78 | 68 | 68 | 68 | 62 |
| 1   | 101 | 97  | 93  | 89  | 94  | 91  | 87  | 84  | 80 | 77 | 75 | 70 | 68 | 66 | 60 | 59 | 58 | 53 |
| 2   | 92  | 85  | 79  | 74  | 86  | 80  | 74  | 70  | 70 | 66 | 63 | 62 | 58 | 56 | 53 | 51 | 49 | 45 |
| 3   | 84  | 75  | 68  | 62  | 79  | 70  | 64  | 59  | 62 | 57 | 53 | 55 | 51 | 48 | 48 | 45 | 42 | 39 |
| 4   | 77  | 66  | 59  | 53  | 72  | 63  | 56  | 50  | 56 | 50 | 46 | 49 | 45 | 41 | 43 | 39 | 37 | 33 |
| 5   | 71  | 59  | 51  | 45  | 66  | 56  | 49  | 43  | 50 | 44 | 40 | 44 | 39 | 36 | 39 | 35 | 32 | 29 |
| 6   | 66  | 54  | 45  | 40  | 61  | 51  | 43  | 38  | 45 | 39 | 35 | 40 | 35 | 32 | 35 | 31 | 28 | 26 |
| 7   | 61  | 48  | 40  | 35  | 57  | 46  | 39  | 33  | 41 | 35 | 31 | 37 | 32 | 28 | 32 | 28 | 25 | 23 |
| 8   | 57  | 44  | 36  | 31  | 53  | 42  | 35  | 30  | 38 | 32 | 27 | 34 | 29 | 25 | 30 | 26 | 23 | 21 |
| 9   | 53  | 40  | 33  | 28  | 50  | 38  | 31  | 27  | 35 | 29 | 25 | 31 | 26 | 23 | 27 | 24 | 21 | 19 |
| 10  | 49  | 37  | 30  | 25  | 46  | 35  | 29  | 24  | 32 | 26 | 22 | 29 | 24 | 21 | 26 | 22 | 19 | 17 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 15868 | 15868 | 15868 |
| 5°  | 15904 | 15709 | 15807 |
| 10° | 15805 | 15521 | 15521 |
| 15° | 15623 | 15195 | 15082 |
| 20° | 15374 | 14766 | 14495 |
| 25° | 15055 | 14264 | 13903 |
| 30° | 14746 | 13736 | 13160 |
| 35° | 14402 | 13186 | 12415 |
| 40° | 13990 | 12562 | 11610 |
| 45° | 13609 | 11942 | 10791 |
| 50° | 13175 | 11228 | 9923  |
| 55° | 12711 | 10486 | 8981  |
| 60° | 12198 | 9671  | 8018  |
| 65° | 11731 | 8653  | 7072  |
| 70° | 11049 | 7532  | 6005  |
| 75° | 10187 | 6245  | 4885  |
| 80° | 8884  | 4761  | 4477  |
| 85° | 7521  | 4326  | 4039  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 184.6  | 2.5       |
| 10°-20°   | 514.9  | 7.1       |
| 20°-30°   | 743.5  | 10.2      |
| 30°-40°   | 842.8  | 11.6      |
| 40°-50°   | 813.8  | 11.2      |
| 50°-60°   | 676.7  | 9.3       |
| 60°-70°   | 467.3  | 6.4       |
| 70°-80°   | 236.9  | 3.3       |
| 80°-90°   | 62.8   | 0.9       |
| 90°-100°  | 270.9  | 3.7       |
| 100°-110° | 563.9  | 7.8       |
| 110°-120° | 505.1  | 6.9       |
| 120°-130° | 424.9  | 5.8       |
| 130°-140° | 354.3  | 4.9       |
| 140°-150° | 270.6  | 3.7       |
| 150°-160° | 190.2  | 2.6       |
| 160°-170° | 111.9  | 1.5       |
| 170°-180° | 36.4   | 0.5       |
| 0°-30°    | 1443.1 | 19.8      |
| 0°-40°    | 2285.8 | 31.4      |
| 0°-60°    | 3776.4 | 51.9      |
| 0°-90°    | 4543.5 | 62.5      |
| 90°-120°  | 1340.0 | 18.4      |
| 90°-150°  | 2389.7 | 32.9      |
| 90°-180°  | 2728.0 | 37.5      |
| 0°-180°   | 7271.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1966 | 1966  | 1966 | 1966  | 1966 |      |
| 5°   | 1963 | 1956  | 1938 | 1953  | 1951 | 186  |
| 15°  | 1869 | 1854  | 1818 | 1815  | 1805 | 526  |
| 25°  | 1690 | 1661  | 1601 | 1576  | 1561 | 778  |
| 35°  | 1461 | 1412  | 1338 | 1288  | 1260 | 913  |
| 45°  | 1192 | 1134  | 1046 | 975   | 945  | 919  |
| 55°  | 903  | 841   | 745  | 669   | 638  | 807  |
| 65°  | 614  | 548   | 453  | 391   | 370  | 606  |
| 75°  | 327  | 270   | 200  | 167   | 157  | 345  |
| 85°  | 81   | 53    | 47   | 44    | 44   | 91   |
| 90°  | 1    | 6     | 13   | 15    | 16   | 5    |
| 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  |      |



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CATALOG NUMBER: SA4XXRDIP-C1195D810U830-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1965.6 | 1965.6 | 1965.6 | 1965.6 | 1965.6 | 1965.6 | 1965.6 | 1965.6 | 1965.6 | 1965.6 | 1965.6 |
| 2.5°   | 1970.4 | 1969.3 | 1968.3 | 1967.2 | 1966.1 | 1964.2 | 1961.2 | 1958.2 | 1955.3 | 1952.4 | 1955.3 |
| 5°     | 1962.6 | 1961.2 | 1959.9 | 1958.6 | 1957.3 | 1954.6 | 1950.6 | 1946.5 | 1942.6 | 1938.5 | 1941.8 |
| 7.5°   | 1944.8 | 1943.4 | 1942.0 | 1940.6 | 1939.2 | 1935.9 | 1930.7 | 1925.5 | 1920.2 | 1915.1 | 1917.2 |
| 10°    | 1928.0 | 1926.3 | 1924.7 | 1923.0 | 1921.3 | 1917.4 | 1911.5 | 1905.4 | 1899.4 | 1893.4 | 1894.7 |
| 12.5°  | 1906.3 | 1904.4 | 1902.4 | 1900.4 | 1898.6 | 1894.0 | 1887.0 | 1879.9 | 1872.7 | 1865.7 | 1866.5 |
| 15°    | 1869.3 | 1866.2 | 1863.3 | 1860.3 | 1857.3 | 1851.5 | 1843.2 | 1834.8 | 1826.5 | 1818.1 | 1817.4 |
| 17.5°  | 1824.5 | 1820.0 | 1815.7 | 1811.4 | 1807.0 | 1799.9 | 1789.8 | 1779.8 | 1769.7 | 1759.7 | 1757.8 |
| 20°    | 1789.5 | 1785.2 | 1780.8 | 1776.5 | 1772.2 | 1764.3 | 1752.9 | 1741.5 | 1730.1 | 1718.8 | 1716.1 |
| 22.5°  | 1751.0 | 1746.2 | 1741.3 | 1736.4 | 1731.5 | 1723.0 | 1710.7 | 1698.6 | 1686.4 | 1674.2 | 1670.2 |
| 25°    | 1690.2 | 1684.1 | 1678.1 | 1672.2 | 1666.1 | 1656.2 | 1642.6 | 1628.8 | 1615.1 | 1601.4 | 1595.7 |
| 27.5°  | 1626.4 | 1618.8 | 1611.3 | 1603.7 | 1596.1 | 1585.1 | 1570.4 | 1555.8 | 1541.1 | 1526.4 | 1519.4 |
| 30°    | 1581.9 | 1573.5 | 1565.1 | 1556.7 | 1548.4 | 1536.3 | 1520.6 | 1504.9 | 1489.2 | 1473.5 | 1465.1 |
| 32.5°  | 1534.8 | 1525.4 | 1516.0 | 1506.6 | 1497.1 | 1484.3 | 1468.0 | 1451.8 | 1435.5 | 1419.3 | 1409.6 |
| 35°    | 1461.4 | 1450.7 | 1440.0 | 1429.3 | 1418.6 | 1404.9 | 1388.2 | 1371.5 | 1354.7 | 1338.0 | 1326.6 |
| 37.5°  | 1382.9 | 1371.8 | 1360.7 | 1349.7 | 1338.7 | 1323.9 | 1305.4 | 1286.9 | 1268.4 | 1249.8 | 1237.1 |
| 40°    | 1327.5 | 1316.4 | 1305.4 | 1294.4 | 1283.3 | 1268.3 | 1249.2 | 1230.1 | 1211.1 | 1192.0 | 1178.0 |
| 42.5°  | 1274.5 | 1262.9 | 1251.3 | 1239.7 | 1228.2 | 1212.5 | 1192.6 | 1172.7 | 1152.9 | 1133.0 | 1118.7 |
| 45°    | 1192.0 | 1179.6 | 1167.2 | 1154.9 | 1142.6 | 1126.2 | 1106.3 | 1086.2 | 1066.1 | 1046.0 | 1029.6 |
| 47.5°  | 1106.8 | 1094.0 | 1081.3 | 1068.5 | 1055.7 | 1038.9 | 1018.0 | 997.1  | 976.3  | 955.5  | 938.4  |
| 50°    | 1049.0 | 1035.9 | 1022.9 | 1009.9 | 996.8  | 979.6  | 958.2  | 936.8  | 915.4  | 894.0  | 877.3  |
| 52.5°  | 990.0  | 977.2  | 964.5  | 951.7  | 939.0  | 921.5  | 899.7  | 877.7  | 855.7  | 833.8  | 816.8  |
| 55°    | 903.1  | 889.7  | 876.3  | 862.9  | 849.5  | 832.0  | 810.2  | 788.5  | 766.8  | 745.0  | 727.6  |
| 57.5°  | 816.9  | 803.0  | 789.1  | 775.2  | 761.3  | 743.7  | 722.3  | 700.8  | 679.4  | 658.0  | 640.4  |
| 60°    | 755.5  | 742.2  | 728.8  | 715.4  | 702.0  | 684.7  | 663.3  | 641.9  | 620.4  | 599.0  | 581.6  |
| 62.5°  | 700.1  | 686.3  | 672.3  | 658.5  | 644.5  | 626.6  | 604.6  | 582.7  | 560.7  | 538.9  | 522.7  |
| 65°    | 614.1  | 599.6  | 585.3  | 570.9  | 556.6  | 538.7  | 517.3  | 495.9  | 474.5  | 453.0  | 438.7  |
| 67.5°  | 524.6  | 510.9  | 497.1  | 483.3  | 469.6  | 452.7  | 432.8  | 413.0  | 393.1  | 373.2  | 360.9  |
| 70°    | 468.1  | 454.0  | 440.0  | 425.9  | 411.9  | 395.3  | 376.3  | 357.2  | 338.2  | 319.1  | 308.0  |
| 72.5°  | 407.8  | 395.2  | 382.5  | 369.8  | 357.0  | 341.7  | 323.7  | 305.7  | 287.7  | 269.7  | 260.2  |
| 75°    | 326.6  | 314.2  | 301.8  | 289.5  | 277.1  | 263.1  | 247.3  | 231.6  | 215.9  | 200.2  | 192.5  |
| 77.5°  | 244.1  | 233.7  | 223.1  | 212.6  | 202.1  | 190.5  | 177.8  | 165.1  | 152.4  | 139.7  | 135.2  |
| 80°    | 191.1  | 181.4  | 171.7  | 162.0  | 152.3  | 142.5  | 132.4  | 122.4  | 112.4  | 102.4  | 101.3  |
| 82.5°  | 145.4  | 136.5  | 127.6  | 118.7  | 109.8  | 102.5  | 96.7   | 91.0   | 85.2   | 79.5   | 78.7   |
| 85°    | 81.2   | 74.6   | 67.9   | 61.2   | 54.5   | 50.7   | 49.7   | 48.6   | 47.7   | 46.7   | 46.0   |
| 87.5°  | 27.8   | 26.0   | 24.3   | 22.3   | 20.3   | 19.1   | 19.7   | 19.4   | 19.5   | 19.5   | 19.1   |
| 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 |



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CATALOG NUMBER: SA4XXRDIP-C1195D810U830-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1965.6 | 1965.6 | 1965.6 | 1965.6 | 1965.6 | 1965.6 | 1965.6 | 1965.6 |
| 2.5°   | 1958.2 | 1961.2 | 1964.2 | 1965.5 | 1965.2 | 1964.9 | 1964.6 | 1964.4 |
| 5°     | 1945.2 | 1948.5 | 1951.9 | 1953.2 | 1952.6 | 1951.9 | 1951.3 | 1950.6 |
| 7.5°   | 1919.3 | 1921.5 | 1923.6 | 1924.1 | 1923.1 | 1922.0 | 1920.9 | 1919.9 |
| 10°    | 1896.0 | 1897.3 | 1898.8 | 1898.8 | 1897.3 | 1896.0 | 1894.7 | 1893.4 |
| 12.5°  | 1867.3 | 1868.1 | 1868.9 | 1868.3 | 1866.5 | 1864.6 | 1862.7 | 1860.9 |
| 15°    | 1816.8 | 1816.1 | 1815.4 | 1813.9 | 1811.6 | 1809.2 | 1806.9 | 1804.6 |
| 17.5°  | 1756.0 | 1754.1 | 1752.2 | 1749.5 | 1746.0 | 1742.4 | 1738.9 | 1735.3 |
| 20°    | 1713.4 | 1710.7 | 1708.1 | 1704.6 | 1700.3 | 1695.9 | 1691.5 | 1687.2 |
| 22.5°  | 1666.2 | 1662.2 | 1658.2 | 1654.4 | 1650.9 | 1647.3 | 1643.8 | 1640.2 |
| 25°    | 1590.0 | 1584.3 | 1578.7 | 1574.1 | 1570.7 | 1567.4 | 1564.1 | 1560.8 |
| 27.5°  | 1512.4 | 1505.3 | 1498.4 | 1492.4 | 1487.6 | 1482.8 | 1478.0 | 1473.2 |
| 30°    | 1456.7 | 1448.4 | 1440.0 | 1433.1 | 1427.8 | 1422.5 | 1417.1 | 1411.7 |
| 32.5°  | 1399.9 | 1390.2 | 1380.4 | 1373.1 | 1368.0 | 1362.9 | 1357.8 | 1352.7 |
| 35°    | 1315.2 | 1303.9 | 1292.5 | 1283.8 | 1277.8 | 1271.8 | 1265.7 | 1259.7 |
| 37.5°  | 1224.4 | 1211.6 | 1199.0 | 1189.6 | 1183.6 | 1177.5 | 1171.6 | 1165.5 |
| 40°    | 1163.9 | 1149.9 | 1135.9 | 1125.8 | 1119.7 | 1113.7 | 1107.8 | 1101.7 |
| 42.5°  | 1104.4 | 1090.1 | 1075.7 | 1065.5 | 1059.1 | 1052.9 | 1046.6 | 1040.3 |
| 45°    | 1013.2 | 996.8  | 980.4  | 969.2  | 963.3  | 957.2  | 951.2  | 945.2  |
| 47.5°  | 921.4  | 904.5  | 887.5  | 875.6  | 869.0  | 862.4  | 855.7  | 849.1  |
| 50°    | 860.5  | 843.9  | 827.1  | 815.6  | 809.3  | 802.9  | 796.5  | 790.1  |
| 52.5°  | 799.8  | 782.9  | 765.8  | 754.0  | 747.4  | 740.8  | 734.1  | 727.5  |
| 55°    | 710.2  | 692.9  | 675.4  | 663.5  | 657.2  | 650.8  | 644.5  | 638.1  |
| 57.5°  | 622.7  | 605.0  | 587.4  | 576.2  | 571.4  | 566.5  | 561.7  | 556.9  |
| 60°    | 564.2  | 546.9  | 529.4  | 518.1  | 512.7  | 507.4  | 502.0  | 496.6  |
| 62.5°  | 506.7  | 490.7  | 474.6  | 464.4  | 460.1  | 455.9  | 451.6  | 447.3  |
| 65°    | 424.2  | 409.9  | 395.5  | 386.3  | 382.3  | 378.2  | 374.3  | 370.2  |
| 67.5°  | 348.6  | 336.1  | 323.8  | 315.4  | 310.9  | 306.5  | 302.1  | 297.7  |
| 70°    | 297.0  | 286.0  | 274.9  | 267.8  | 264.4  | 261.1  | 257.7  | 254.4  |
| 72.5°  | 250.8  | 241.4  | 232.0  | 225.7  | 222.6  | 219.6  | 216.5  | 213.4  |
| 75°    | 184.8  | 177.1  | 169.4  | 164.6  | 162.6  | 160.5  | 158.5  | 156.6  |
| 77.5°  | 130.7  | 126.2  | 121.8  | 119.2  | 118.6  | 118.0  | 117.4  | 116.8  |
| 80°    | 100.4  | 99.3   | 98.3   | 97.6   | 97.4   | 97.0   | 96.7   | 96.3   |
| 82.5°  | 78.0   | 77.3   | 76.5   | 76.0   | 75.7   | 75.3   | 75.0   | 74.6   |
| 85°    | 45.3   | 44.7   | 44.0   | 43.6   | 43.6   | 43.6   | 43.6   | 43.6   |
| 87.5°  | 18.9   | 18.9   | 18.8   | 18.8   | 19.1   | 19.6   | 19.7   | 20.0   |
| 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: P333002-830

CATALOG NUMBER: SA4XXRDIP-C1195D810U830-4F0-1E-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)