

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: P242490

Luminaire Tested: **S123DR-S1165D940-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242490  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123DR-S1165D940-X4F0-XX-UDD-A-W  
Description: DEFINE 3 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4116.4 lumens  
Efficiency: N/A  
Efficacy: 100.2 lumens/watt  
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5  
Luminous Opening: Rectangular (W 3.88' x L: 0.23' x H: 0')  
CIE Type: Direct

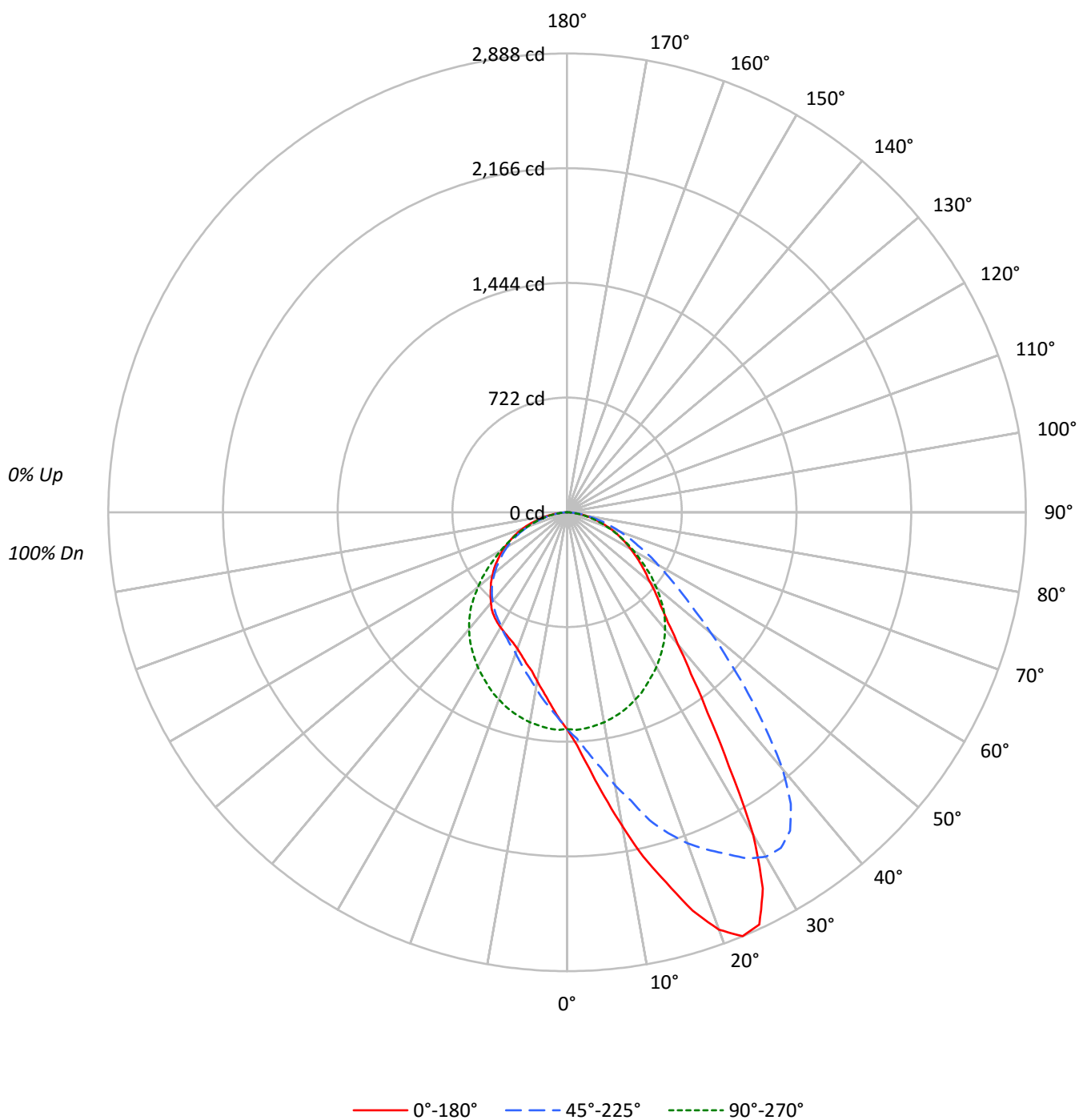
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P242490

CATALOG NUMBER: S123DR-S1165D940-X4F0-XX-UDD-A-W

### Luminous Intensity Polar Plot



TEST NUMBER: P242490

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

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|
| RF  | 20  |     |     |     | 20  |     |     |     |     | 20  |     |     |     |     | 20  |     |     |     |    | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     |     | 50  |     |     |     |     | 30  |     |     |     |    | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    | 100 |
| 1   | 110 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  | 95  | 92  | 90  | 91  | 89  | 87  | 85  |    | 85  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  | 84  | 80  | 76  | 81  | 78  | 74  | 72  |    | 72  |
| 3   | 92  | 82  | 74  | 68  | 89  | 80  | 73  | 67  | 77  | 71  | 66  | 75  | 69  | 65  | 72  | 68  | 64  | 62  |    | 62  |
| 4   | 84  | 73  | 65  | 58  | 82  | 72  | 64  | 58  | 69  | 62  | 57  | 67  | 61  | 56  | 65  | 60  | 56  | 53  |    | 53  |
| 5   | 78  | 66  | 57  | 51  | 76  | 64  | 56  | 50  | 62  | 55  | 50  | 60  | 54  | 49  | 59  | 53  | 49  | 47  |    | 47  |
| 6   | 72  | 59  | 51  | 44  | 70  | 58  | 50  | 44  | 56  | 49  | 44  | 55  | 48  | 43  | 53  | 48  | 43  | 41  |    | 41  |
| 7   | 67  | 54  | 45  | 39  | 65  | 53  | 45  | 39  | 52  | 44  | 39  | 50  | 44  | 39  | 49  | 43  | 38  | 36  |    | 36  |
| 8   | 62  | 49  | 41  | 35  | 61  | 49  | 41  | 35  | 47  | 40  | 35  | 46  | 39  | 35  | 45  | 39  | 35  | 33  |    | 33  |
| 9   | 58  | 45  | 37  | 32  | 57  | 45  | 37  | 32  | 43  | 36  | 32  | 42  | 36  | 31  | 41  | 36  | 31  | 29  |    | 29  |
| 10  | 55  | 42  | 34  | 29  | 53  | 41  | 34  | 29  | 40  | 33  | 29  | 39  | 33  | 29  | 38  | 33  | 28  | 27  |    | 27  |

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

|     | 0°    | 90°   | 180°  |
|-----|-------|-------|-------|
| 0°  | 16531 | 16531 | 16531 |
| 5°  | 19714 | 16603 | 14713 |
| 10° | 24676 | 16518 | 13289 |
| 15° | 30265 | 16385 | 12372 |
| 20° | 36053 | 16177 | 11779 |
| 25° | 38283 | 15925 | 11648 |
| 30° | 32813 | 15740 | 11708 |
| 35° | 22820 | 15478 | 11830 |
| 40° | 17189 | 15171 | 11793 |
| 45° | 14272 | 14713 | 11645 |
| 50° | 12783 | 13781 | 11539 |
| 55° | 11953 | 12777 | 11395 |
| 60° | 11212 | 11726 | 11278 |
| 65° | 10537 | 10690 | 10916 |
| 70° | 9881  | 9509  | 10398 |
| 75° | 8851  | 8322  | 9530  |
| 80° | 7748  | 6827  | 8209  |
| 85° | 6064  | 4965  | 5507  |

TEST NUMBER: P242490

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 134.1  | 3.3       |
| 10°-20°   | 430.8  | 10.5      |
| 20°-30°   | 724.9  | 17.6      |
| 30°-40°   | 819.2  | 19.9      |
| 40°-50°   | 733.8  | 17.8      |
| 50°-60°   | 592.3  | 14.4      |
| 60°-70°   | 412.7  | 10.0      |
| 70°-80°   | 216.6  | 5.3       |
| 80°-90°   | 51.9   | 1.3       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 1289.8 | 31.3      |
| 0°-40°    | 2109.1 | 51.2      |
| 0°-60°    | 3435.2 | 83.5      |
| 0°-90°    | 4116.4 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4116.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 1364 | 1364 | 1364 | 1364 | 1364 |      |
| 5°  | 1620 | 1518 | 1364 | 1236 | 1209 | 167  |
| 15° | 2412 | 2007 | 1306 | 1030 | 986  | 696  |
| 25° | 2862 | 2372 | 1191 | 885  | 871  | 1265 |
| 35° | 1542 | 2446 | 1046 | 782  | 800  | 995  |
| 45° | 833  | 1612 | 858  | 669  | 679  | 657  |
| 55° | 566  | 876  | 605  | 517  | 539  | 508  |
| 65° | 367  | 491  | 373  | 351  | 381  | 366  |
| 75° | 189  | 233  | 178  | 176  | 204  | 202  |
| 85° | 44   | 50   | 36   | 35   | 40   | 53   |
| 90° | 0    | 0    | 0    | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 |
| 2.5°  | 1468.2 | 1466.9 | 1463.6 | 1466.2 | 1461.0 | 1453.7 | 1453.0 | 1446.4 | 1427.3 | 1425.9 | 1420.6 |
| 5°    | 1620.2 | 1614.9 | 1614.2 | 1613.6 | 1604.3 | 1591.8 | 1568.0 | 1566.0 | 1534.3 | 1518.4 | 1499.3 |
| 7.5°  | 1803.9 | 1801.9 | 1796.6 | 1790.7 | 1759.6 | 1744.4 | 1722.0 | 1692.9 | 1655.9 | 1620.2 | 1597.7 |
| 10°   | 2004.8 | 2026.6 | 1999.5 | 1981.0 | 1963.8 | 1931.4 | 1893.8 | 1846.8 | 1799.9 | 1745.1 | 1703.5 |
| 12.5° | 2220.2 | 2228.1 | 2228.1 | 2210.9 | 2181.8 | 2128.3 | 2054.3 | 2001.5 | 1959.2 | 1858.7 | 1823.1 |
| 15°   | 2411.8 | 2452.1 | 2426.3 | 2366.9 | 2368.2 | 2321.3 | 2234.0 | 2138.2 | 2087.4 | 2007.4 | 1898.4 |
| 17.5° | 2628.5 | 2635.8 | 2627.9 | 2572.4 | 2545.3 | 2477.2 | 2398.6 | 2309.4 | 2213.6 | 2116.4 | 2003.4 |
| 20°   | 2795.0 | 2791.1 | 2767.9 | 2742.2 | 2685.4 | 2635.1 | 2547.3 | 2444.8 | 2312.7 | 2217.5 | 2091.3 |
| 22.5° | 2887.5 | 2880.3 | 2872.3 | 2851.9 | 2806.9 | 2752.1 | 2675.4 | 2561.1 | 2436.9 | 2296.8 | 2146.2 |
| 25°   | 2862.4 | 2871.0 | 2872.3 | 2866.4 | 2849.9 | 2817.5 | 2755.4 | 2666.2 | 2540.6 | 2372.1 | 2220.2 |
| 27.5° | 2668.2 | 2690.0 | 2717.7 | 2736.2 | 2766.0 | 2785.8 | 2766.0 | 2709.8 | 2606.7 | 2456.1 | 2269.1 |
| 30°   | 2344.4 | 2318.0 | 2383.4 | 2466.0 | 2522.1 | 2621.3 | 2676.8 | 2680.1 | 2627.9 | 2503.0 | 2321.9 |
| 32.5° | 1895.1 | 1938.0 | 1957.8 | 2064.2 | 2203.7 | 2318.0 | 2442.2 | 2552.5 | 2578.3 | 2505.6 | 2353.0 |
| 35°   | 1542.2 | 1578.6 | 1631.4 | 1684.3 | 1816.4 | 1930.1 | 2124.4 | 2293.5 | 2428.3 | 2446.2 | 2349.0 |
| 37.5° | 1281.9 | 1303.0 | 1335.4 | 1391.6 | 1482.1 | 1622.8 | 1776.8 | 1996.8 | 2182.5 | 2313.3 | 2300.1 |
| 40°   | 1086.3 | 1091.6 | 1129.2 | 1169.6 | 1239.6 | 1350.6 | 1486.1 | 1675.0 | 1909.0 | 2111.8 | 2196.4 |
| 42.5° | 939.6  | 952.8  | 963.4  | 1001.7 | 1053.9 | 1130.6 | 1254.1 | 1402.1 | 1611.6 | 1852.8 | 2038.5 |
| 45°   | 832.6  | 845.8  | 855.7  | 881.5  | 921.1  | 977.3  | 1065.2 | 1207.9 | 1371.1 | 1612.3 | 1834.9 |
| 47.5° | 758.6  | 757.2  | 765.8  | 786.3  | 814.7  | 859.7  | 924.4  | 1019.6 | 1176.2 | 1377.7 | 1610.9 |
| 50°   | 677.9  | 688.5  | 691.2  | 706.4  | 727.5  | 758.6  | 810.1  | 888.1  | 1011.0 | 1182.8 | 1392.9 |
| 52.5° | 621.1  | 622.4  | 631.0  | 640.9  | 658.8  | 681.2  | 724.2  | 781.0  | 870.9  | 1011.0 | 1199.9 |
| 55°   | 565.6  | 565.6  | 572.9  | 581.5  | 592.0  | 613.9  | 643.6  | 688.5  | 761.9  | 875.5  | 1035.4 |
| 57.5° | 514.1  | 516.7  | 523.3  | 525.3  | 534.6  | 549.8  | 575.5  | 611.2  | 667.4  | 759.2  | 891.4  |
| 60°   | 462.5  | 468.5  | 467.8  | 473.1  | 481.0  | 492.3  | 513.4  | 541.2  | 590.1  | 660.1  | 767.1  |
| 62.5° | 417.6  | 415.6  | 415.6  | 422.2  | 430.2  | 440.7  | 452.6  | 475.8  | 515.4  | 575.5  | 662.7  |
| 65°   | 367.4  | 366.1  | 370.7  | 374.7  | 377.3  | 385.2  | 395.8  | 416.9  | 444.7  | 490.9  | 561.7  |
| 67.5° | 323.8  | 319.8  | 323.1  | 324.4  | 329.1  | 335.7  | 346.2  | 359.5  | 381.9  | 420.9  | 477.7  |
| 70°   | 278.8  | 275.5  | 274.9  | 276.2  | 280.2  | 284.8  | 292.1  | 304.6  | 325.1  | 354.8  | 393.8  |
| 72.5° | 232.6  | 230.6  | 230.6  | 233.9  | 235.2  | 237.9  | 242.5  | 253.7  | 268.9  | 289.4  | 325.1  |
| 75°   | 189.0  | 189.0  | 189.0  | 189.6  | 191.6  | 194.3  | 198.2  | 204.2  | 216.7  | 232.6  | 257.0  |
| 77.5° | 149.3  | 150.0  | 148.7  | 148.0  | 151.3  | 152.6  | 153.3  | 159.9  | 167.2  | 179.1  | 198.2  |
| 80°   | 111.0  | 107.7  | 109.0  | 111.0  | 112.3  | 113.0  | 115.0  | 116.3  | 122.2  | 128.2  | 140.7  |
| 82.5° | 75.3   | 72.7   | 72.7   | 76.0   | 76.0   | 76.6   | 78.6   | 80.6   | 81.9   | 87.2   | 92.5   |
| 85°   | 43.6   | 43.6   | 44.3   | 44.3   | 44.9   | 44.3   | 46.3   | 46.9   | 46.9   | 50.2   | 54.2   |
| 87.5° | 19.8   | 18.5   | 19.2   | 19.8   | 19.2   | 19.8   | 20.5   | 21.1   | 21.8   | 22.5   | 23.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

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**CANDELA DISTRIBUTION (continued):**

|       | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    | 95°    | 100°   | 105°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 |
| 2.5°  | 1416.7 | 1411.4 | 1406.1 | 1396.9 | 1388.9 | 1377.7 | 1374.4 | 1370.4 | 1358.5 | 1348.0 | 1340.0 |
| 5°    | 1492.0 | 1476.1 | 1453.0 | 1431.9 | 1414.7 | 1391.6 | 1378.4 | 1364.5 | 1344.7 | 1326.8 | 1312.3 |
| 7.5°  | 1564.0 | 1536.3 | 1503.9 | 1468.9 | 1435.2 | 1402.8 | 1377.0 | 1353.9 | 1328.1 | 1303.0 | 1283.9 |
| 10°   | 1653.2 | 1608.3 | 1558.1 | 1503.9 | 1457.6 | 1412.7 | 1375.1 | 1342.0 | 1306.3 | 1275.3 | 1249.5 |
| 12.5° | 1755.0 | 1683.0 | 1609.0 | 1540.2 | 1483.4 | 1416.7 | 1369.1 | 1324.8 | 1283.2 | 1244.2 | 1214.5 |
| 15°   | 1831.0 | 1746.4 | 1664.5 | 1573.9 | 1490.7 | 1412.7 | 1358.5 | 1305.7 | 1258.8 | 1220.4 | 1183.4 |
| 17.5° | 1906.3 | 1813.8 | 1709.4 | 1600.4 | 1502.6 | 1412.7 | 1338.7 | 1281.9 | 1224.4 | 1178.1 | 1142.5 |
| 20°   | 1968.4 | 1859.4 | 1737.2 | 1622.8 | 1511.8 | 1408.8 | 1325.5 | 1254.1 | 1190.7 | 1141.1 | 1099.5 |
| 22.5° | 2021.9 | 1889.8 | 1762.3 | 1638.0 | 1511.2 | 1398.2 | 1301.0 | 1227.0 | 1157.0 | 1108.8 | 1063.8 |
| 25°   | 2055.6 | 1903.0 | 1776.1 | 1632.8 | 1494.7 | 1379.7 | 1274.0 | 1190.7 | 1122.0 | 1065.2 | 1019.6 |
| 27.5° | 2087.4 | 1901.0 | 1757.6 | 1603.0 | 1474.8 | 1360.5 | 1246.9 | 1157.7 | 1085.6 | 1024.2 | 977.3  |
| 30°   | 2119.1 | 1904.3 | 1725.3 | 1572.6 | 1443.1 | 1324.2 | 1214.5 | 1124.6 | 1048.0 | 985.2  | 941.6  |
| 32.5° | 2138.9 | 1902.3 | 1695.5 | 1530.3 | 1392.9 | 1291.1 | 1179.5 | 1085.6 | 1006.3 | 944.9  | 903.3  |
| 35°   | 2144.2 | 1891.1 | 1660.5 | 1468.9 | 1338.0 | 1235.6 | 1142.5 | 1046.0 | 963.4  | 905.9  | 858.3  |
| 37.5° | 2133.0 | 1870.6 | 1622.2 | 1413.4 | 1272.0 | 1170.2 | 1088.9 | 1006.3 | 927.1  | 863.0  | 821.3  |
| 40°   | 2096.6 | 1850.8 | 1575.9 | 1353.9 | 1203.3 | 1106.1 | 1039.4 | 958.8  | 880.8  | 820.7  | 782.3  |
| 42.5° | 2027.2 | 1810.5 | 1525.0 | 1287.8 | 1131.9 | 1034.8 | 974.6  | 910.5  | 837.9  | 782.3  | 744.0  |
| 45°   | 1905.6 | 1748.4 | 1474.2 | 1221.8 | 1061.8 | 961.4  | 907.2  | 858.3  | 791.6  | 736.8  | 703.7  |
| 47.5° | 1750.4 | 1664.5 | 1400.8 | 1152.4 | 988.5  | 891.4  | 834.5  | 794.2  | 742.0  | 697.8  | 665.4  |
| 50°   | 1587.2 | 1556.1 | 1326.2 | 1081.0 | 915.2  | 820.7  | 766.5  | 730.8  | 695.8  | 651.5  | 622.4  |
| 52.5° | 1398.8 | 1430.6 | 1238.9 | 1007.0 | 840.5  | 748.0  | 697.8  | 671.3  | 640.3  | 605.9  | 581.5  |
| 55°   | 1224.4 | 1293.8 | 1135.9 | 922.4  | 766.5  | 677.9  | 629.7  | 604.6  | 586.1  | 559.0  | 537.2  |
| 57.5° | 1055.2 | 1143.8 | 1028.8 | 837.2  | 693.8  | 616.5  | 568.9  | 540.5  | 528.6  | 513.4  | 495.6  |
| 60°   | 907.9  | 995.1  | 912.5  | 751.3  | 620.5  | 547.8  | 506.8  | 483.7  | 471.8  | 461.9  | 447.3  |
| 62.5° | 776.4  | 864.9  | 798.9  | 664.1  | 548.4  | 482.4  | 448.0  | 425.5  | 416.9  | 413.0  | 401.1  |
| 65°   | 658.1  | 734.1  | 687.9  | 572.9  | 480.4  | 420.9  | 388.5  | 372.7  | 364.1  | 362.1  | 354.2  |
| 67.5° | 555.7  | 614.5  | 578.8  | 492.3  | 416.9  | 362.8  | 334.3  | 320.5  | 313.2  | 312.5  | 305.9  |
| 70°   | 455.3  | 509.5  | 483.7  | 407.0  | 344.3  | 304.0  | 280.2  | 268.3  | 264.3  | 263.6  | 260.3  |
| 72.5° | 377.3  | 411.0  | 391.8  | 331.0  | 286.1  | 250.4  | 234.6  | 222.0  | 217.4  | 218.7  | 216.7  |
| 75°   | 290.7  | 319.1  | 307.3  | 263.0  | 224.0  | 200.2  | 185.7  | 177.7  | 173.8  | 175.8  | 173.1  |
| 77.5° | 222.0  | 241.8  | 229.9  | 196.2  | 171.1  | 153.3  | 142.1  | 136.8  | 132.8  | 132.8  | 131.5  |
| 80°   | 157.9  | 168.5  | 162.5  | 144.0  | 124.2  | 109.7  | 101.1  | 97.8   | 95.8   | 95.2   | 94.5   |
| 82.5° | 101.1  | 109.7  | 102.4  | 91.2   | 79.3   | 72.0   | 68.1   | 63.4   | 62.1   | 62.8   | 62.1   |
| 85°   | 56.8   | 60.1   | 57.5   | 49.6   | 44.3   | 40.3   | 37.7   | 35.7   | 34.4   | 35.0   | 33.7   |
| 87.5° | 24.4   | 25.1   | 23.1   | 20.5   | 19.2   | 17.2   | 17.2   | 15.9   | 14.5   | 14.5   | 13.9   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

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**CANDELA DISTRIBUTION (continued):**

|       | 110°   | 115°   | 120°   | 125°   | 130°   | 135°   | 140°   | 145°   | 150°   | 155°   | 160°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 | 1363.8 |
| 2.5°  | 1335.4 | 1330.8 | 1324.2 | 1314.3 | 1306.3 | 1293.8 | 1293.8 | 1295.8 | 1295.8 | 1295.1 | 1293.8 |
| 5°    | 1300.4 | 1290.5 | 1278.6 | 1264.7 | 1250.2 | 1235.6 | 1233.0 | 1227.7 | 1223.7 | 1221.1 | 1217.8 |
| 7.5°  | 1264.7 | 1248.2 | 1231.7 | 1212.5 | 1196.0 | 1182.1 | 1172.2 | 1163.6 | 1158.3 | 1152.4 | 1147.7 |
| 10°   | 1228.4 | 1206.6 | 1186.1 | 1165.6 | 1143.1 | 1125.3 | 1114.1 | 1106.1 | 1100.2 | 1094.9 | 1092.2 |
| 12.5° | 1185.4 | 1159.6 | 1136.5 | 1117.4 | 1092.2 | 1073.7 | 1063.2 | 1060.5 | 1053.3 | 1040.7 | 1034.1 |
| 15°   | 1143.8 | 1120.7 | 1093.6 | 1063.8 | 1051.9 | 1029.5 | 1016.9 | 1011.0 | 1007.0 | 998.4  | 995.8  |
| 17.5° | 1109.4 | 1078.4 | 1047.3 | 1025.5 | 1003.7 | 985.9  | 978.6  | 970.7  | 965.4  | 957.4  | 955.5  |
| 20°   | 1066.5 | 1039.4 | 1011.6 | 987.8  | 964.7  | 944.9  | 938.9  | 933.7  | 928.4  | 925.1  | 922.4  |
| 22.5° | 1022.9 | 995.8  | 974.0  | 952.2  | 927.1  | 915.8  | 909.2  | 903.3  | 900.0  | 898.0  | 895.3  |
| 25°   | 982.6  | 958.8  | 933.0  | 913.2  | 893.4  | 884.8  | 880.8  | 877.5  | 874.9  | 871.5  | 870.9  |
| 27.5° | 946.9  | 920.4  | 898.6  | 879.5  | 864.9  | 857.7  | 853.0  | 851.1  | 851.1  | 852.4  | 853.0  |
| 30°   | 905.9  | 882.1  | 864.9  | 849.1  | 835.9  | 829.3  | 828.6  | 828.6  | 831.2  | 831.9  | 833.2  |
| 32.5° | 868.2  | 849.7  | 832.6  | 817.4  | 808.1  | 804.2  | 807.5  | 807.5  | 809.4  | 811.4  | 814.1  |
| 35°   | 831.9  | 814.7  | 801.5  | 788.3  | 779.7  | 781.7  | 783.0  | 784.3  | 787.6  | 791.6  | 794.2  |
| 37.5° | 797.5  | 781.7  | 767.8  | 757.2  | 752.0  | 755.9  | 759.2  | 761.9  | 765.8  | 769.1  | 771.8  |
| 40°   | 759.9  | 748.6  | 735.4  | 726.2  | 727.5  | 729.5  | 732.1  | 735.4  | 738.7  | 740.7  | 743.4  |
| 42.5° | 724.9  | 713.0  | 703.7  | 696.4  | 698.4  | 701.1  | 702.4  | 703.7  | 707.7  | 711.6  | 713.0  |
| 45°   | 689.2  | 679.9  | 670.7  | 666.1  | 667.4  | 668.7  | 670.0  | 672.0  | 675.3  | 677.9  | 678.6  |
| 47.5° | 648.9  | 642.3  | 636.3  | 631.0  | 633.7  | 633.0  | 635.0  | 639.0  | 640.3  | 641.6  | 645.6  |
| 50°   | 610.5  | 604.6  | 597.3  | 596.0  | 596.0  | 596.0  | 596.7  | 602.0  | 602.0  | 604.6  | 607.2  |
| 52.5° | 568.3  | 565.0  | 561.0  | 558.3  | 557.0  | 557.0  | 560.3  | 562.3  | 563.6  | 567.6  | 570.2  |
| 55°   | 526.6  | 522.7  | 518.7  | 516.7  | 515.4  | 516.7  | 522.0  | 523.3  | 526.6  | 528.6  | 530.6  |
| 57.5° | 483.0  | 480.4  | 477.1  | 475.8  | 475.8  | 476.4  | 480.4  | 483.7  | 484.3  | 490.9  | 493.6  |
| 60°   | 440.1  | 435.4  | 432.8  | 432.8  | 431.5  | 437.4  | 436.1  | 442.7  | 444.0  | 448.0  | 452.6  |
| 62.5° | 395.8  | 389.2  | 388.5  | 388.5  | 391.2  | 391.8  | 394.5  | 396.5  | 400.4  | 405.7  | 409.0  |
| 65°   | 347.6  | 344.3  | 348.9  | 348.2  | 346.9  | 350.9  | 350.9  | 354.2  | 358.1  | 362.8  | 370.0  |
| 67.5° | 302.6  | 300.0  | 301.3  | 300.6  | 302.6  | 305.3  | 307.3  | 309.9  | 314.5  | 319.8  | 324.4  |
| 70°   | 257.0  | 259.0  | 255.7  | 258.4  | 260.3  | 261.0  | 262.3  | 266.3  | 271.6  | 274.9  | 280.2  |
| 72.5° | 212.8  | 212.1  | 213.4  | 214.1  | 216.1  | 217.4  | 218.7  | 223.3  | 229.3  | 231.9  | 235.9  |
| 75°   | 170.5  | 169.8  | 171.8  | 171.8  | 175.1  | 176.4  | 177.7  | 179.7  | 185.0  | 189.0  | 192.3  |
| 77.5° | 132.2  | 132.8  | 132.2  | 134.8  | 133.5  | 134.1  | 138.1  | 140.1  | 140.7  | 149.3  | 150.7  |
| 80°   | 93.8   | 95.2   | 95.8   | 96.5   | 97.1   | 95.8   | 100.4  | 102.4  | 102.4  | 107.0  | 110.3  |
| 82.5° | 60.8   | 61.5   | 63.4   | 64.1   | 64.1   | 66.1   | 65.4   | 66.7   | 68.7   | 70.0   | 74.7   |
| 85°   | 33.7   | 35.7   | 36.3   | 35.7   | 36.3   | 35.0   | 37.0   | 37.7   | 38.3   | 38.3   | 38.3   |
| 87.5° | 13.2   | 13.9   | 13.2   | 13.9   | 13.2   | 13.9   | 13.9   | 12.6   | 12.6   | 14.5   | 11.9   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

TEST NUMBER: P242490

CATALOG NUMBER: S123DR-S1165D940-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

|       | 165°   | 170°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|
| 0°    | 1363.8 | 1363.8 | 1363.8 | 1363.8 |
| 2.5°  | 1289.2 | 1288.5 | 1293.1 | 1289.8 |
| 5°    | 1213.8 | 1215.8 | 1209.2 | 1209.2 |
| 7.5°  | 1145.8 | 1143.1 | 1143.8 | 1139.2 |
| 10°   | 1084.3 | 1080.4 | 1079.0 | 1079.7 |
| 12.5° | 1033.4 | 1033.4 | 1022.9 | 1022.9 |
| 15°   | 995.8  | 983.2  | 981.9  | 985.9  |
| 17.5° | 954.1  | 946.9  | 947.5  | 946.2  |
| 20°   | 922.4  | 918.5  | 917.8  | 913.2  |
| 22.5° | 893.4  | 892.7  | 893.4  | 888.1  |
| 25°   | 870.2  | 873.5  | 870.9  | 870.9  |
| 27.5° | 854.4  | 854.4  | 852.4  | 852.4  |
| 30°   | 835.9  | 835.2  | 836.5  | 836.5  |
| 32.5° | 817.4  | 818.7  | 818.7  | 819.3  |
| 35°   | 798.2  | 798.9  | 800.8  | 799.5  |
| 37.5° | 773.1  | 776.4  | 775.7  | 777.1  |
| 40°   | 744.0  | 746.0  | 745.3  | 745.3  |
| 42.5° | 714.3  | 715.6  | 713.6  | 712.3  |
| 45°   | 681.2  | 679.9  | 681.9  | 679.3  |
| 47.5° | 644.9  | 645.6  | 646.2  | 648.9  |
| 50°   | 608.6  | 612.5  | 612.5  | 611.9  |
| 52.5° | 572.9  | 574.2  | 577.5  | 577.5  |
| 55°   | 535.9  | 537.2  | 538.5  | 539.2  |
| 57.5° | 498.2  | 497.6  | 500.2  | 500.9  |
| 60°   | 457.9  | 457.9  | 463.2  | 465.2  |
| 62.5° | 415.0  | 417.6  | 422.9  | 418.9  |
| 65°   | 373.3  | 378.6  | 378.0  | 380.6  |
| 67.5° | 329.7  | 333.0  | 338.3  | 338.3  |
| 70°   | 285.5  | 288.8  | 291.4  | 293.4  |
| 72.5° | 242.5  | 243.8  | 251.1  | 247.1  |
| 75°   | 196.9  | 201.5  | 205.5  | 203.5  |
| 77.5° | 153.3  | 159.2  | 160.6  | 158.6  |
| 80°   | 115.0  | 114.3  | 118.3  | 117.6  |
| 82.5° | 76.6   | 76.0   | 77.3   | 78.0   |
| 85°   | 41.0   | 42.9   | 40.3   | 39.6   |
| 87.5° | 11.9   | 11.9   | 11.2   | 10.6   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)