

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: P332078-840

Luminaire Tested: **S123DIP-S1165D1025U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332078-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123DIP-S1165D1025U840-4F0-1E-UDD-F  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1165 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1025 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8945.2 lumens  
Efficiency: N/A  
Efficacy: 133.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: General Diffuse

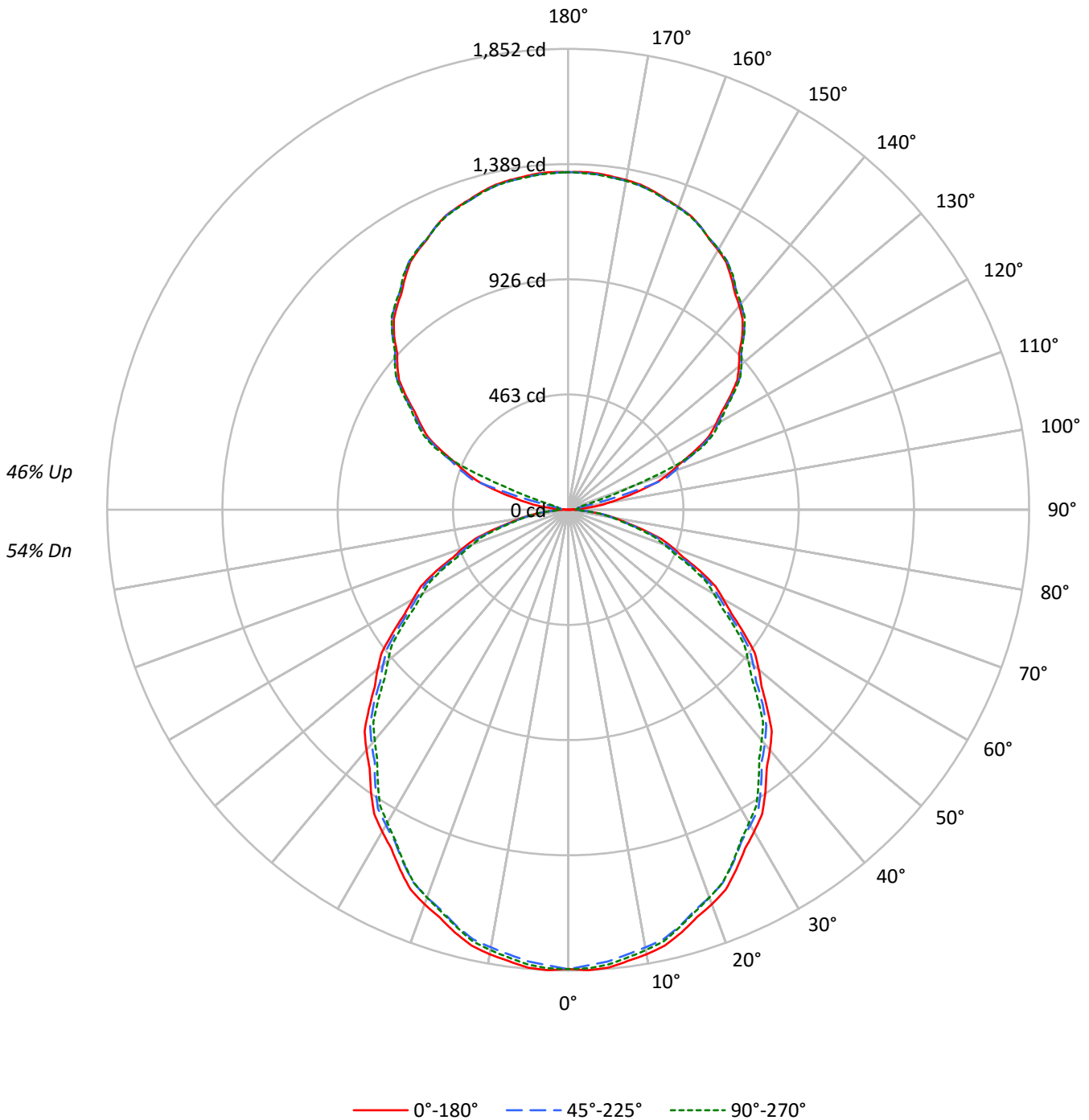
Input Watts (W): 66.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P332078-840

CATALOG NUMBER: S123DIP-S1165D1025U840-4F0-1E-UDD-F

### Luminous Intensity Polar Plot





TEST NUMBER: P332078-840

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

|     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| RF  | 20  |     |     |     |     | 20  |     |     |    |    | 20 |    |    |    |    | 20 |    |    |    |    | 20 |   |
| RC  | 80  |     |     |     |     | 70  |     |     |    |    | 50 |    |    |    |    | 30 |    |    |    |    | 10 | 0 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0  |   |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
| 0   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 85 | 85 | 85 | 72 | 72 | 72 | 60 | 60 | 60 | 54 |    |    |    |   |
| 1   | 99  | 94  | 90  | 87  | 91  | 87  | 84  | 81  | 75 | 72 | 70 | 63 | 61 | 60 | 53 | 51 | 50 | 45 |    |    |    |   |
| 2   | 90  | 82  | 76  | 71  | 83  | 76  | 71  | 66  | 66 | 61 | 58 | 55 | 53 | 50 | 46 | 44 | 42 | 38 |    |    |    |   |
| 3   | 82  | 72  | 65  | 59  | 76  | 67  | 61  | 55  | 58 | 53 | 49 | 49 | 45 | 42 | 41 | 38 | 36 | 32 |    |    |    |   |
| 4   | 75  | 64  | 56  | 50  | 69  | 60  | 52  | 47  | 51 | 46 | 41 | 44 | 39 | 36 | 37 | 33 | 31 | 27 |    |    |    |   |
| 5   | 69  | 57  | 49  | 43  | 63  | 53  | 46  | 40  | 46 | 40 | 36 | 39 | 35 | 31 | 33 | 30 | 27 | 24 |    |    |    |   |
| 6   | 63  | 51  | 43  | 37  | 58  | 48  | 40  | 35  | 41 | 36 | 31 | 35 | 31 | 27 | 30 | 26 | 24 | 21 |    |    |    |   |
| 7   | 59  | 46  | 38  | 32  | 54  | 43  | 36  | 31  | 38 | 32 | 28 | 32 | 28 | 24 | 27 | 24 | 21 | 18 |    |    |    |   |
| 8   | 54  | 42  | 34  | 29  | 50  | 39  | 32  | 27  | 34 | 29 | 24 | 29 | 25 | 22 | 25 | 22 | 19 | 17 |    |    |    |   |
| 9   | 51  | 38  | 31  | 26  | 47  | 36  | 29  | 24  | 31 | 26 | 22 | 27 | 23 | 19 | 23 | 20 | 17 | 15 |    |    |    |   |
| 10  | 47  | 35  | 28  | 23  | 44  | 33  | 26  | 22  | 29 | 23 | 20 | 25 | 21 | 18 | 21 | 18 | 15 | 14 |    |    |    |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 19871 | 19871 | 19871 |
| 5°  | 19966 | 19690 | 19827 |
| 10° | 19831 | 19519 | 19641 |
| 15° | 19601 | 19299 | 19334 |
| 20° | 19329 | 18984 | 19001 |
| 25° | 18966 | 18608 | 18570 |
| 30° | 18567 | 18191 | 18053 |
| 35° | 18148 | 17751 | 17521 |
| 40° | 17710 | 17265 | 16996 |
| 45° | 17230 | 16818 | 16407 |
| 50° | 16747 | 16268 | 15816 |
| 55° | 16117 | 15700 | 15221 |
| 60° | 15481 | 15035 | 14557 |
| 65° | 14918 | 14314 | 13868 |
| 70° | 14090 | 13489 | 12891 |
| 75° | 12872 | 12410 | 11882 |
| 80° | 11610 | 11120 | 11021 |
| 85° | 10189 | 9806  | 9411  |



TEST NUMBER: P332078-840

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 173.9  | 1.9       |
| 10°-20°   | 491.0  | 5.5       |
| 20°-30°   | 725.3  | 8.1       |
| 30°-40°   | 847.3  | 9.5       |
| 40°-50°   | 851.8  | 9.5       |
| 50°-60°   | 748.3  | 8.4       |
| 60°-70°   | 557.5  | 6.2       |
| 70°-80°   | 317.6  | 3.6       |
| 80°-90°   | 95.0   | 1.1       |
| 90°-100°  | 49.3   | 0.6       |
| 100°-110° | 235.1  | 2.6       |
| 110°-120° | 564.7  | 6.3       |
| 120°-130° | 719.1  | 8.0       |
| 130°-140° | 768.3  | 8.6       |
| 140°-150° | 718.5  | 8.0       |
| 150°-160° | 579.5  | 6.5       |
| 160°-170° | 374.0  | 4.2       |
| 170°-180° | 128.9  | 1.4       |
| 0°-30°    | 1390.3 | 15.5      |
| 0°-40°    | 2237.6 | 25.0      |
| 0°-60°    | 3837.7 | 42.9      |
| 0°-90°    | 4807.7 | 53.7      |
| 90°-120°  | 849.1  | 9.5       |
| 90°-150°  | 3055.0 | 34.2      |
| 90°-180°  | 4137.0 | 46.2      |
| 0°-180°   | 8945.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1846 | 1846  | 1846 | 1846  | 1846 |      |
| 5°   | 1848 | 1839  | 1822 | 1837  | 1835 | 175  |
| 15°  | 1759 | 1752  | 1732 | 1743  | 1735 | 496  |
| 25°  | 1597 | 1587  | 1567 | 1568  | 1564 | 735  |
| 35°  | 1381 | 1371  | 1351 | 1341  | 1333 | 864  |
| 45°  | 1132 | 1125  | 1105 | 1086  | 1078 | 873  |
| 55°  | 859  | 856   | 837  | 820   | 811  | 769  |
| 65°  | 586  | 577   | 562  | 550   | 544  | 578  |
| 75°  | 310  | 303   | 298  | 291   | 286  | 331  |
| 85°  | 82   | 80    | 79   | 76    | 76   | 91   |
| 90°  | 1    | 11    | 24   | 28    | 30   | 7    |
| 95°  | 62   | 23    | 31   | 38    | 38   | 76   |
| 105° | 300  | 306   | 221  | 52    | 44   | 318  |
| 115° | 564  | 570   | 579  | 588   | 593  | 556  |
| 125° | 794  | 802   | 806  | 808   | 810  | 709  |
| 135° | 989  | 995   | 999  | 1002  | 999  | 761  |
| 145° | 1141 | 1148  | 1150 | 1152  | 1152 | 714  |
| 155° | 1257 | 1255  | 1256 | 1260  | 1255 | 579  |
| 165° | 1326 | 1323  | 1322 | 1329  | 1322 | 374  |
| 175° | 1357 | 1352  | 1353 | 1359  | 1352 | 129  |
| 180° | 1357 | 1357  | 1357 | 1357  | 1357 |      |



TEST NUMBER: P332078-840

CATALOG NUMBER: S123DIP-S1165D1025U840-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1846.1 | 1846.1 | 1846.1 | 1846.1 | 1846.1 | 1846.1 | 1846.1 | 1846.1 | 1846.1 | 1846.1 | 1846.1 |
| 2.5°   | 1852.5 | 1851.4 | 1850.3 | 1849.2 | 1848.0 | 1845.8 | 1842.8 | 1839.7 | 1836.5 | 1833.4 | 1836.2 |
| 5°     | 1847.8 | 1846.0 | 1844.2 | 1842.5 | 1840.7 | 1837.9 | 1834.0 | 1830.1 | 1826.2 | 1822.3 | 1825.8 |
| 7.5°   | 1829.7 | 1827.9 | 1826.1 | 1824.3 | 1822.6 | 1819.7 | 1815.6 | 1811.7 | 1807.7 | 1803.6 | 1806.7 |
| 10°    | 1814.4 | 1812.6 | 1810.9 | 1809.1 | 1807.4 | 1804.2 | 1799.6 | 1795.0 | 1790.4 | 1785.8 | 1789.0 |
| 12.5°  | 1794.1 | 1792.6 | 1791.1 | 1789.7 | 1788.2 | 1785.2 | 1781.0 | 1776.7 | 1772.3 | 1768.1 | 1770.4 |
| 15°    | 1758.9 | 1757.5 | 1756.1 | 1754.6 | 1753.2 | 1750.2 | 1745.7 | 1741.0 | 1736.5 | 1731.8 | 1734.6 |
| 17.5°  | 1717.9 | 1716.1 | 1714.2 | 1712.4 | 1710.5 | 1707.4 | 1702.7 | 1698.2 | 1693.5 | 1689.0 | 1691.0 |
| 20°    | 1687.4 | 1685.3 | 1683.1 | 1681.0 | 1679.0 | 1675.6 | 1671.0 | 1666.5 | 1661.8 | 1657.3 | 1658.7 |
| 22.5°  | 1653.1 | 1651.0 | 1648.9 | 1646.8 | 1644.7 | 1641.3 | 1636.7 | 1632.1 | 1627.6 | 1623.0 | 1624.1 |
| 25°    | 1596.9 | 1594.8 | 1592.7 | 1590.5 | 1588.5 | 1585.1 | 1580.5 | 1576.0 | 1571.3 | 1566.8 | 1567.1 |
| 27.5°  | 1536.9 | 1534.9 | 1532.9 | 1530.8 | 1528.7 | 1525.3 | 1520.4 | 1515.4 | 1510.5 | 1505.5 | 1505.8 |
| 30°    | 1493.8 | 1492.0 | 1490.3 | 1488.4 | 1486.7 | 1483.4 | 1478.4 | 1473.5 | 1468.5 | 1463.6 | 1463.6 |
| 32.5°  | 1450.6 | 1448.2 | 1445.9 | 1443.6 | 1441.3 | 1438.1 | 1434.4 | 1430.6 | 1426.7 | 1423.0 | 1421.0 |
| 35°    | 1381.1 | 1379.0 | 1376.8 | 1374.7 | 1372.6 | 1369.3 | 1364.6 | 1360.1 | 1355.4 | 1350.9 | 1348.8 |
| 37.5°  | 1309.9 | 1307.3 | 1304.5 | 1301.9 | 1299.2 | 1295.6 | 1290.9 | 1286.3 | 1281.6 | 1276.9 | 1274.3 |
| 40°    | 1260.4 | 1258.3 | 1256.2 | 1254.1 | 1251.9 | 1248.4 | 1243.4 | 1238.5 | 1233.6 | 1228.7 | 1225.9 |
| 42.5°  | 1210.8 | 1208.5 | 1206.1 | 1203.7 | 1201.2 | 1197.6 | 1192.7 | 1187.7 | 1182.8 | 1177.9 | 1175.1 |
| 45°    | 1131.9 | 1130.4 | 1129.0 | 1127.6 | 1126.2 | 1123.2 | 1118.6 | 1114.0 | 1109.4 | 1104.8 | 1100.7 |
| 47.5°  | 1053.4 | 1051.4 | 1049.4 | 1047.2 | 1045.2 | 1042.1 | 1037.7 | 1033.4 | 1029.2 | 1024.8 | 1020.7 |
| 50°    | 1000.1 | 998.4  | 996.5  | 994.8  | 993.0  | 989.9  | 985.2  | 980.7  | 976.0  | 971.5  | 967.7  |
| 52.5°  | 944.2  | 943.0  | 941.8  | 940.6  | 939.4  | 936.3  | 931.5  | 926.7  | 921.8  | 916.9  | 913.5  |
| 55°    | 858.8  | 858.5  | 858.1  | 857.8  | 857.4  | 855.0  | 850.3  | 845.8  | 841.1  | 836.6  | 832.7  |
| 57.5°  | 777.5  | 776.3  | 775.1  | 774.0  | 772.7  | 770.3  | 766.6  | 763.0  | 759.3  | 755.6  | 752.1  |
| 60°    | 719.1  | 718.7  | 718.4  | 718.0  | 717.7  | 715.4  | 711.1  | 706.9  | 702.7  | 698.4  | 695.3  |
| 62.5°  | 667.0  | 666.1  | 665.2  | 664.3  | 663.4  | 660.8  | 656.5  | 652.3  | 648.1  | 643.9  | 640.7  |
| 65°    | 585.7  | 584.0  | 582.2  | 580.5  | 578.7  | 576.0  | 572.5  | 569.0  | 565.4  | 562.0  | 559.2  |
| 67.5°  | 499.7  | 498.2  | 496.7  | 495.0  | 493.5  | 491.4  | 488.7  | 486.0  | 483.3  | 480.7  | 478.2  |
| 70°    | 447.7  | 445.6  | 443.4  | 441.3  | 439.2  | 437.1  | 434.9  | 432.8  | 430.7  | 428.6  | 426.2  |
| 72.5°  | 393.0  | 391.5  | 389.9  | 388.4  | 386.9  | 384.9  | 382.4  | 380.0  | 377.7  | 375.3  | 373.0  |
| 75°    | 309.5  | 308.1  | 306.7  | 305.3  | 303.9  | 302.7  | 301.6  | 300.5  | 299.5  | 298.4  | 296.7  |
| 77.5°  | 235.6  | 234.8  | 234.0  | 233.3  | 232.5  | 231.5  | 230.1  | 228.9  | 227.6  | 226.4  | 225.2  |
| 80°    | 187.3  | 186.2  | 185.2  | 184.1  | 183.1  | 182.2  | 181.5  | 180.8  | 180.1  | 179.4  | 179.0  |
| 82.5°  | 140.4  | 140.1  | 139.9  | 139.7  | 139.5  | 139.3  | 139.2  | 139.1  | 138.9  | 138.8  | 138.1  |
| 85°    | 82.5   | 81.8   | 81.1   | 80.4   | 79.7   | 79.4   | 79.4   | 79.4   | 79.4   | 79.4   | 78.7   |
| 87.5°  | 33.2   | 32.8   | 32.4   | 32.0   | 31.6   | 31.6   | 31.9   | 32.2   | 32.5   | 32.8   | 32.7   |
| 90°    | 1.0    | 3.2    | 5.5    | 7.8    | 10.0   | 12.5   | 15.5   | 18.4   | 21.3   | 24.2   | 25.0   |
| 92.5°  | 18.8   | 18.1   | 17.5   | 16.9   | 16.3   | 17.1   | 19.2   | 21.4   | 23.6   | 25.9   | 27.3   |
| 95°    | 61.5   | 52.3   | 43.1   | 33.9   | 24.7   | 21.4   | 23.8   | 26.4   | 28.8   | 31.2   | 32.8   |
| 97.5°  | 123.6  | 119.5  | 115.3  | 111.2  | 107.0  | 96.9   | 80.9   | 64.7   | 48.6   | 32.4   | 34.2   |
| 100°   | 170.4  | 174.8  | 179.4  | 183.8  | 188.2  | 173.0  | 138.0  | 103.1  | 68.2   | 33.2   | 35.0   |
| 102.5° | 223.6  | 226.8  | 230.0  | 233.3  | 236.5  | 219.0  | 180.9  | 142.7  | 104.5  | 66.3   | 60.8   |
| 105°   | 300.3  | 302.9  | 305.3  | 307.8  | 310.2  | 301.3  | 281.2  | 261.1  | 241.0  | 220.8  | 181.1  |
| 107.5° | 381.4  | 383.4  | 385.4  | 387.4  | 389.3  | 391.9  | 395.1  | 398.3  | 401.4  | 404.7  | 375.6  |
| 110°   | 435.5  | 437.3  | 439.0  | 440.8  | 442.6  | 444.7  | 447.2  | 449.7  | 452.1  | 454.6  | 447.2  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 487.1  | 488.7  | 490.3  | 491.9  | 493.5  | 495.5  | 498.1  | 500.5  | 502.9  | 505.4  | 505.5  |
| 115°   | 563.5  | 564.8  | 566.1  | 567.5  | 568.9  | 570.6  | 572.5  | 574.5  | 576.5  | 578.6  | 580.9  |
| 117.5° | 637.4  | 639.1  | 640.8  | 642.5  | 644.1  | 645.4  | 646.4  | 647.5  | 648.5  | 649.5  | 651.4  |
| 120°   | 683.4  | 685.4  | 687.4  | 689.4  | 691.5  | 692.9  | 693.5  | 694.2  | 694.9  | 695.5  | 697.3  |
| 122.5° | 730.2  | 731.8  | 733.5  | 735.2  | 736.8  | 738.1  | 738.9  | 739.8  | 740.6  | 741.4  | 742.8  |
| 125°   | 794.3  | 796.1  | 797.9  | 799.7  | 801.4  | 802.8  | 803.8  | 804.6  | 805.5  | 806.4  | 806.9  |
| 127.5° | 856.4  | 858.2  | 860.0  | 861.7  | 863.5  | 864.9  | 866.1  | 867.2  | 868.2  | 869.3  | 870.0  |
| 130°   | 895.1  | 896.9  | 898.7  | 900.5  | 902.3  | 903.6  | 904.5  | 905.4  | 906.3  | 907.2  | 908.1  |
| 132.5° | 932.2  | 934.0  | 935.7  | 937.6  | 939.4  | 940.6  | 941.3  | 942.0  | 942.8  | 943.5  | 944.4  |
| 135°   | 988.9  | 990.2  | 991.5  | 992.9  | 994.2  | 995.3  | 996.2  | 997.1  | 998.0  | 999.0  | 999.6  |
| 137.5° | 1037.2 | 1038.9 | 1040.7 | 1042.4 | 1044.0 | 1045.1 | 1045.6 | 1046.1 | 1046.6 | 1047.1 | 1048.1 |
| 140°   | 1069.4 | 1070.9 | 1072.2 | 1073.5 | 1074.9 | 1075.9 | 1076.5 | 1077.2 | 1077.9 | 1078.5 | 1079.4 |
| 142.5° | 1099.3 | 1100.7 | 1102.0 | 1103.4 | 1104.7 | 1105.7 | 1106.4 | 1107.0 | 1107.7 | 1108.4 | 1109.1 |
| 145°   | 1141.0 | 1142.7 | 1144.2 | 1145.8 | 1147.3 | 1148.3 | 1148.8 | 1149.2 | 1149.6 | 1150.1 | 1150.5 |
| 147.5° | 1180.3 | 1181.4 | 1182.5 | 1183.5 | 1184.5 | 1185.2 | 1185.7 | 1186.1 | 1186.6 | 1187.0 | 1187.5 |
| 150°   | 1204.6 | 1205.3 | 1205.9 | 1206.6 | 1207.2 | 1207.8 | 1208.2 | 1208.7 | 1209.1 | 1209.6 | 1210.0 |
| 152.5° | 1226.3 | 1226.7 | 1227.0 | 1227.3 | 1227.6 | 1227.9 | 1228.1 | 1228.4 | 1228.7 | 1228.9 | 1229.7 |
| 155°   | 1257.0 | 1256.5 | 1256.1 | 1255.7 | 1255.2 | 1255.1 | 1255.3 | 1255.5 | 1255.8 | 1256.0 | 1257.1 |
| 157.5° | 1280.7 | 1280.7 | 1280.7 | 1280.6 | 1280.6 | 1280.4 | 1280.2 | 1280.0 | 1279.8 | 1279.5 | 1280.9 |
| 160°   | 1295.3 | 1295.1 | 1294.8 | 1294.6 | 1294.3 | 1294.1 | 1293.9 | 1293.7 | 1293.4 | 1293.2 | 1294.6 |
| 162.5° | 1309.0 | 1308.4 | 1307.8 | 1307.3 | 1306.7 | 1306.3 | 1306.1 | 1305.8 | 1305.6 | 1305.4 | 1306.9 |
| 165°   | 1325.5 | 1324.8 | 1324.1 | 1323.5 | 1322.8 | 1322.4 | 1322.1 | 1321.9 | 1321.7 | 1321.5 | 1323.2 |
| 167.5° | 1338.4 | 1337.6 | 1336.7 | 1335.7 | 1334.8 | 1334.3 | 1334.3 | 1334.3 | 1334.3 | 1334.3 | 1336.2 |
| 170°   | 1345.6 | 1344.7 | 1343.9 | 1343.0 | 1342.1 | 1341.6 | 1341.6 | 1341.6 | 1341.6 | 1341.6 | 1343.4 |
| 172.5° | 1350.5 | 1349.5 | 1348.4 | 1347.3 | 1346.3 | 1345.7 | 1345.9 | 1346.2 | 1346.3 | 1346.5 | 1348.3 |
| 175°   | 1356.8 | 1355.6 | 1354.5 | 1353.4 | 1352.3 | 1351.8 | 1352.0 | 1352.3 | 1352.5 | 1352.7 | 1354.3 |
| 177.5° | 1358.4 | 1357.5 | 1356.6 | 1355.6 | 1354.8 | 1354.4 | 1354.6 | 1354.8 | 1354.9 | 1355.1 | 1356.6 |
| 180°   | 1356.8 | 1356.8 | 1356.8 | 1356.8 | 1356.8 | 1356.8 | 1356.8 | 1356.8 | 1356.8 | 1356.8 | 1356.8 |



TEST NUMBER: P332078-840

CATALOG NUMBER: S123DIP-S1165D1025U840-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1846.1 | 1846.1 | 1846.1 | 1846.1 | 1846.1 | 1846.1 | 1846.1 | 1846.1 |
| 2.5°   | 1839.1 | 1841.9 | 1844.7 | 1846.0 | 1845.7 | 1845.4 | 1845.1 | 1844.9 |
| 5°     | 1829.4 | 1832.9 | 1836.4 | 1837.9 | 1837.1 | 1836.4 | 1835.7 | 1835.0 |
| 7.5°   | 1810.0 | 1813.1 | 1816.3 | 1817.7 | 1817.3 | 1816.8 | 1816.4 | 1816.0 |
| 10°    | 1792.2 | 1795.3 | 1798.6 | 1799.8 | 1799.1 | 1798.4 | 1797.7 | 1797.0 |
| 12.5°  | 1772.7 | 1775.0 | 1777.4 | 1778.4 | 1777.9 | 1777.5 | 1777.1 | 1776.7 |
| 15°    | 1737.5 | 1740.3 | 1743.1 | 1743.5 | 1741.4 | 1739.3 | 1737.2 | 1735.0 |
| 17.5°  | 1692.9 | 1695.0 | 1696.9 | 1697.5 | 1696.8 | 1696.0 | 1695.2 | 1694.5 |
| 20°    | 1660.1 | 1661.5 | 1662.9 | 1663.0 | 1662.0 | 1660.9 | 1659.9 | 1658.8 |
| 22.5°  | 1625.3 | 1626.4 | 1627.5 | 1627.4 | 1626.1 | 1624.7 | 1623.4 | 1622.0 |
| 25°    | 1567.5 | 1567.8 | 1568.2 | 1567.8 | 1566.8 | 1565.7 | 1564.7 | 1563.6 |
| 27.5°  | 1506.1 | 1506.3 | 1506.6 | 1506.1 | 1504.8 | 1503.4 | 1502.1 | 1500.8 |
| 30°    | 1463.6 | 1463.6 | 1463.6 | 1462.4 | 1459.9 | 1457.4 | 1454.9 | 1452.5 |
| 32.5°  | 1419.0 | 1417.0 | 1415.0 | 1413.4 | 1412.1 | 1410.7 | 1409.4 | 1408.1 |
| 35°    | 1346.7 | 1344.5 | 1342.4 | 1340.5 | 1338.7 | 1337.0 | 1335.1 | 1333.4 |
| 37.5°  | 1271.8 | 1269.3 | 1266.8 | 1265.0 | 1263.7 | 1262.6 | 1261.5 | 1260.4 |
| 40°    | 1223.0 | 1220.2 | 1217.4 | 1215.3 | 1213.9 | 1212.4 | 1211.0 | 1209.6 |
| 42.5°  | 1172.3 | 1169.4 | 1166.6 | 1164.5 | 1163.1 | 1161.6 | 1160.2 | 1158.8 |
| 45°    | 1096.4 | 1092.2 | 1087.9 | 1084.9 | 1083.2 | 1081.4 | 1079.6 | 1077.8 |
| 47.5°  | 1016.5 | 1012.4 | 1008.1 | 1005.3 | 1003.8 | 1002.2 | 1000.7 | 999.2  |
| 50°    | 963.7  | 959.9  | 955.9  | 953.0  | 950.9  | 948.8  | 946.6  | 944.5  |
| 52.5°  | 910.3  | 907.0  | 903.6  | 900.9  | 898.8  | 896.7  | 894.5  | 892.4  |
| 55°    | 828.8  | 825.0  | 821.0  | 818.2  | 816.5  | 814.7  | 812.9  | 811.1  |
| 57.5°  | 748.7  | 745.3  | 741.7  | 739.0  | 737.0  | 735.0  | 732.9  | 730.8  |
| 60°    | 692.2  | 688.9  | 685.8  | 683.3  | 681.6  | 679.7  | 678.0  | 676.2  |
| 62.5°  | 637.5  | 634.3  | 631.2  | 628.9  | 627.7  | 626.5  | 625.4  | 624.2  |
| 65°    | 556.3  | 553.5  | 550.7  | 548.8  | 547.6  | 546.6  | 545.5  | 544.5  |
| 67.5°  | 475.7  | 473.2  | 470.8  | 468.8  | 467.4  | 465.9  | 464.3  | 462.9  |
| 70°    | 423.6  | 421.2  | 418.7  | 416.6  | 414.9  | 413.0  | 411.3  | 409.6  |
| 72.5°  | 370.9  | 368.7  | 366.5  | 365.0  | 364.1  | 363.1  | 362.2  | 361.3  |
| 75°    | 294.9  | 293.2  | 291.3  | 289.9  | 288.9  | 287.8  | 286.8  | 285.7  |
| 77.5°  | 224.0  | 222.8  | 221.6  | 221.0  | 221.0  | 221.0  | 221.0  | 221.0  |
| 80°    | 178.6  | 178.3  | 177.9  | 177.8  | 177.8  | 177.8  | 177.8  | 177.8  |
| 82.5°  | 137.4  | 136.8  | 136.2  | 135.7  | 135.4  | 135.2  | 134.9  | 134.6  |
| 85°    | 78.0   | 77.3   | 76.5   | 76.2   | 76.2   | 76.2   | 76.2   | 76.2   |
| 87.5°  | 32.6   | 32.5   | 32.3   | 32.3   | 32.4   | 32.5   | 32.6   | 32.7   |
| 90°    | 26.0   | 26.9   | 27.8   | 28.5   | 28.9   | 29.4   | 29.8   | 30.2   |
| 92.5°  | 28.7   | 30.1   | 31.5   | 32.4   | 32.6   | 32.9   | 33.2   | 33.4   |
| 95°    | 34.3   | 36.0   | 37.6   | 38.3   | 38.3   | 38.3   | 38.3   | 38.3   |
| 97.5°  | 36.1   | 37.9   | 39.6   | 40.6   | 40.9   | 41.1   | 41.3   | 41.5   |
| 100°   | 36.9   | 38.7   | 40.4   | 41.4   | 41.7   | 41.9   | 42.1   | 42.3   |
| 102.5° | 55.2   | 49.7   | 44.1   | 41.5   | 41.9   | 42.3   | 42.7   | 43.1   |
| 105°   | 141.5  | 101.8  | 62.2   | 42.5   | 43.0   | 43.4   | 43.9   | 44.3   |
| 107.5° | 346.5  | 317.4  | 288.3  | 258.8  | 228.9  | 199.0  | 169.2  | 139.3  |
| 110°   | 439.8  | 432.4  | 425.1  | 405.4  | 373.2  | 341.2  | 309.2  | 277.2  |





TEST NUMBER: P332078-840

CATALOG NUMBER: S123DIP-S1165D1025U840-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 505.6  | 505.8  | 505.9  | 502.6  | 495.8  | 489.1  | 482.3  | 475.5  |
| 115°   | 583.1  | 585.3  | 587.5  | 589.2  | 590.0  | 590.9  | 591.8  | 592.7  |
| 117.5° | 653.2  | 654.9  | 656.7  | 657.7  | 657.9  | 658.0  | 658.2  | 658.4  |
| 120°   | 699.1  | 700.8  | 702.7  | 703.6  | 703.6  | 703.6  | 703.6  | 703.6  |
| 122.5° | 744.0  | 745.3  | 746.5  | 747.2  | 747.4  | 747.6  | 747.7  | 747.9  |
| 125°   | 807.3  | 807.7  | 808.2  | 808.6  | 809.1  | 809.5  | 810.0  | 810.4  |
| 127.5° | 870.7  | 871.4  | 872.1  | 872.3  | 871.8  | 871.4  | 870.9  | 870.5  |
| 130°   | 909.0  | 909.9  | 910.8  | 911.0  | 910.6  | 910.1  | 909.7  | 909.2  |
| 132.5° | 945.2  | 946.1  | 947.1  | 947.2  | 946.5  | 945.9  | 945.3  | 944.7  |
| 135°   | 1000.3 | 1001.0 | 1001.6 | 1001.6 | 1001.0 | 1000.3 | 999.6  | 999.0  |
| 137.5° | 1049.2 | 1050.4 | 1051.4 | 1051.7 | 1051.3 | 1050.9 | 1050.4 | 1050.0 |
| 140°   | 1080.4 | 1081.3 | 1082.2 | 1082.4 | 1081.9 | 1081.5 | 1081.1 | 1080.6 |
| 142.5° | 1109.8 | 1110.5 | 1111.3 | 1111.3 | 1110.6 | 1110.0 | 1109.4 | 1108.8 |
| 145°   | 1151.0 | 1151.4 | 1152.0 | 1152.2 | 1152.2 | 1152.2 | 1152.2 | 1152.2 |
| 147.5° | 1187.9 | 1188.3 | 1188.8 | 1188.5 | 1187.5 | 1186.5 | 1185.4 | 1184.4 |
| 150°   | 1210.5 | 1210.9 | 1211.4 | 1211.2 | 1210.6 | 1209.9 | 1209.2 | 1208.6 |
| 152.5° | 1230.5 | 1231.3 | 1232.1 | 1232.0 | 1231.0 | 1230.0 | 1229.0 | 1227.9 |
| 155°   | 1258.2 | 1259.3 | 1260.4 | 1260.3 | 1259.0 | 1257.7 | 1256.3 | 1255.0 |
| 157.5° | 1282.2 | 1283.5 | 1285.0 | 1284.8 | 1282.9 | 1281.2 | 1279.5 | 1277.8 |
| 160°   | 1296.0 | 1297.3 | 1298.6 | 1298.5 | 1297.0 | 1295.4 | 1293.8 | 1292.2 |
| 162.5° | 1308.4 | 1309.9 | 1311.4 | 1311.5 | 1310.1 | 1308.7 | 1307.4 | 1306.0 |
| 165°   | 1325.0 | 1326.9 | 1328.7 | 1328.8 | 1327.2 | 1325.6 | 1324.0 | 1322.5 |
| 167.5° | 1338.0 | 1339.8 | 1341.5 | 1341.5 | 1339.8 | 1338.0 | 1336.2 | 1334.3 |
| 170°   | 1345.2 | 1347.1 | 1348.8 | 1348.8 | 1347.1 | 1345.2 | 1343.4 | 1341.6 |
| 172.5° | 1350.1 | 1351.8 | 1353.6 | 1353.5 | 1351.6 | 1349.6 | 1347.7 | 1345.6 |
| 175°   | 1355.8 | 1357.5 | 1359.0 | 1358.9 | 1357.1 | 1355.3 | 1353.5 | 1351.7 |
| 177.5° | 1358.0 | 1359.5 | 1360.9 | 1360.7 | 1358.9 | 1357.2 | 1355.3 | 1353.5 |
| 180°   | 1356.8 | 1356.8 | 1356.8 | 1356.8 | 1356.8 | 1356.8 | 1356.8 | 1356.8 |

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