

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: P332959

Luminaire Tested: **SA4XXRDIP-C1020D365U835-4F0-1E-UDD-F1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332959
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXRDIP-C1020D365U835-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1020 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5440.9 lumens
Efficiency: N/A
Efficacy: 125.1 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

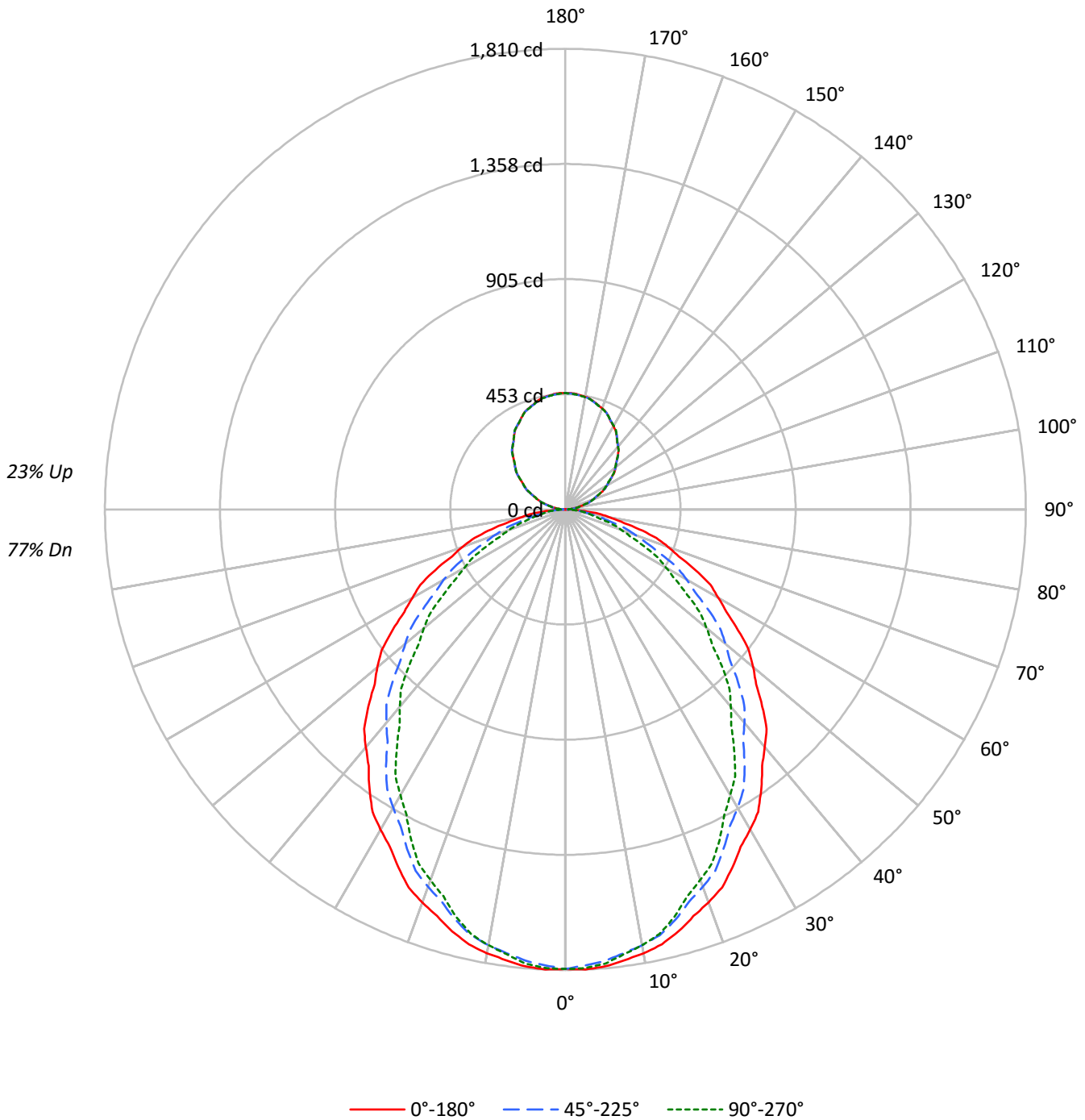
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332959

CATALOG NUMBER: SA4XXRDIP-C1020D365U835-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P332959

CATALOG NUMBER: SA4XXRDIP-C1020D365U835-4F0-1E-UDD-F1

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|----|
| RF | 20 | | | | | | | | | 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 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | | | | | | | | | | | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 114 | 114 | 114 | 114 | 108 | 108 | 108 | 108 | 98 | 98 | 98 | 89 | 89 | 89 | 81 | 81 | 81 | 77 | | | | | | | | | | | | | | | | | | | 77 | | | | | | | | | |
| 1 | 104 | 100 | 96 | 92 | 99 | 95 | 92 | 89 | 87 | 84 | 82 | 79 | 77 | 75 | 72 | 70 | 69 | 65 | | | | | | | | | | | | | | | | | | | 65 | | | | | | | | | |
| 2 | 95 | 88 | 81 | 76 | 91 | 84 | 78 | 74 | 77 | 72 | 68 | 70 | 67 | 63 | 64 | 61 | 59 | 55 | | | | | | | | | | | | | | | | | | | 55 | | | | | | | | | |
| 3 | 87 | 78 | 70 | 64 | 83 | 74 | 67 | 62 | 68 | 63 | 58 | 62 | 58 | 54 | 57 | 53 | 50 | 47 | | | | | | | | | | | | | | | | | | | 47 | | | | | | | | | |
| 4 | 80 | 69 | 61 | 55 | 76 | 66 | 59 | 53 | 61 | 55 | 50 | 56 | 51 | 47 | 51 | 47 | 44 | 41 | | | | | | | | | | | | | | | | | | | 41 | | | | | | | | | |
| 5 | 74 | 62 | 53 | 47 | 70 | 59 | 52 | 46 | 55 | 48 | 43 | 50 | 45 | 41 | 46 | 42 | 38 | 36 | | | | | | | | | | | | | | | | | | | 36 | | | | | | | | | |
| 6 | 68 | 56 | 47 | 41 | 65 | 54 | 46 | 40 | 50 | 43 | 38 | 46 | 40 | 36 | 42 | 38 | 34 | 32 | | | | | | | | | | | | | | | | | | | 32 | | | | | | | | | |
| 7 | 63 | 51 | 42 | 37 | 60 | 49 | 41 | 36 | 45 | 39 | 34 | 42 | 36 | 32 | 39 | 34 | 30 | 28 | | | | | | | | | | | | | | | | | | | 28 | | | | | | | | | |
| 8 | 59 | 46 | 38 | 33 | 56 | 45 | 37 | 32 | 41 | 35 | 30 | 38 | 33 | 29 | 36 | 31 | 27 | 25 | | | | | | | | | | | | | | | | | | | 25 | | | | | | | | | |
| 9 | 55 | 42 | 35 | 29 | 52 | 41 | 34 | 29 | 38 | 32 | 27 | 35 | 30 | 26 | 33 | 28 | 25 | 23 | | | | | | | | | | | | | | | | | | | 23 | | | | | | | | | |
| 10 | 52 | 39 | 32 | 27 | 49 | 38 | 31 | 26 | 35 | 29 | 25 | 33 | 28 | 24 | 31 | 26 | 23 | 21 | | | | | | | | | | | | | | | | | | | 21 | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 14577 | 14577 | 14577 |
| 5° | 14610 | 14431 | 14521 |
| 10° | 14519 | 14258 | 14258 |
| 15° | 14352 | 13959 | 13855 |
| 20° | 14123 | 13564 | 13315 |
| 25° | 13831 | 13104 | 12772 |
| 30° | 13546 | 12618 | 12089 |
| 35° | 13231 | 12113 | 11404 |
| 40° | 12852 | 11540 | 10666 |
| 45° | 12501 | 10970 | 9913 |
| 50° | 12103 | 10315 | 9117 |
| 55° | 11676 | 9633 | 8251 |
| 60° | 11207 | 8885 | 7367 |
| 65° | 10776 | 7950 | 6497 |
| 70° | 10150 | 6918 | 5516 |
| 75° | 9357 | 5736 | 4485 |
| 80° | 8164 | 4370 | 4114 |
| 85° | 6919 | 3974 | 3714 |



TEST NUMBER: P332959

CATALOG NUMBER: SA4XXRDIP-C1020D365U835-4F0-1E-UDD-F1

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 169.6 | 3.1 |
| 10°-20° | 473.0 | 8.7 |
| 20°-30° | 683.0 | 12.6 |
| 30°-40° | 774.2 | 14.2 |
| 40°-50° | 747.6 | 13.7 |
| 50°-60° | 621.7 | 11.4 |
| 60°-70° | 429.3 | 7.9 |
| 70°-80° | 217.6 | 4.0 |
| 80°-90° | 57.2 | 1.1 |
| 90°-100° | 30.1 | 0.6 |
| 100°-110° | 89.3 | 1.6 |
| 110°-120° | 151.5 | 2.8 |
| 120°-130° | 199.8 | 3.7 |
| 130°-140° | 224.4 | 4.1 |
| 140°-150° | 220.5 | 4.1 |
| 150°-160° | 185.4 | 3.4 |
| 160°-170° | 123.4 | 2.3 |
| 170°-180° | 43.2 | 0.8 |
| 0°-30° | 1325.6 | 24.4 |
| 0°-40° | 2099.9 | 38.6 |
| 0°-60° | 3469.2 | 63.8 |
| 0°-90° | 4173.2 | 76.7 |
| 90°-120° | 270.9 | 5.0 |
| 90°-150° | 915.6 | 16.8 |
| 90°-180° | 1268.0 | 23.3 |
| 0°-180° | 5440.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1806 | 1806 | 1806 | 1806 | 1806 | |
| 5° | 1803 | 1797 | 1781 | 1794 | 1792 | 171 |
| 15° | 1717 | 1704 | 1670 | 1667 | 1658 | 484 |
| 25° | 1553 | 1526 | 1471 | 1448 | 1434 | 715 |
| 35° | 1342 | 1297 | 1229 | 1183 | 1157 | 839 |
| 45° | 1095 | 1042 | 961 | 896 | 868 | 844 |
| 55° | 830 | 772 | 684 | 615 | 586 | 742 |
| 65° | 564 | 503 | 416 | 359 | 340 | 557 |
| 75° | 300 | 248 | 184 | 153 | 144 | 317 |
| 85° | 75 | 48 | 43 | 40 | 40 | 84 |
| 90° | 1 | 5 | 8 | 10 | 11 | 5 |
| 95° | 21 | 24 | 27 | 28 | 28 | 24 |
| 105° | 82 | 83 | 84 | 85 | 86 | 87 |
| 115° | 154 | 154 | 153 | 153 | 153 | 152 |
| 125° | 224 | 224 | 224 | 223 | 223 | 200 |
| 135° | 289 | 291 | 292 | 291 | 290 | 224 |
| 145° | 352 | 353 | 353 | 353 | 352 | 220 |
| 155° | 403 | 403 | 402 | 404 | 402 | 185 |
| 165° | 438 | 438 | 437 | 439 | 438 | 124 |
| 175° | 456 | 454 | 454 | 456 | 454 | 43 |
| 180° | 457 | 457 | 457 | 457 | 457 | |



TEST NUMBER: P332959

CATALOG NUMBER: SA4XXRDIP-C1020D365U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1805.7 | 1805.7 | 1805.7 | 1805.7 | 1805.7 | 1805.7 | 1805.7 | 1805.7 | 1805.7 | 1805.7 | 1805.7 |
| 2.5° | 1810.1 | 1809.1 | 1808.1 | 1807.2 | 1806.2 | 1804.3 | 1801.6 | 1798.9 | 1796.2 | 1793.5 | 1796.2 |
| 5° | 1802.9 | 1801.7 | 1800.5 | 1799.2 | 1798.0 | 1795.5 | 1791.9 | 1788.2 | 1784.5 | 1780.8 | 1783.9 |
| 7.5° | 1786.6 | 1785.3 | 1784.0 | 1782.7 | 1781.4 | 1778.4 | 1773.6 | 1768.8 | 1764.0 | 1759.2 | 1761.2 |
| 10° | 1771.1 | 1769.6 | 1768.0 | 1766.5 | 1765.0 | 1761.4 | 1755.9 | 1750.4 | 1744.8 | 1739.3 | 1740.5 |
| 12.5° | 1751.2 | 1749.4 | 1747.6 | 1745.9 | 1744.1 | 1739.9 | 1733.4 | 1726.9 | 1720.4 | 1713.9 | 1714.6 |
| 15° | 1717.2 | 1714.4 | 1711.7 | 1708.9 | 1706.1 | 1700.9 | 1693.2 | 1685.5 | 1677.9 | 1670.2 | 1669.6 |
| 17.5° | 1676.0 | 1672.0 | 1668.0 | 1664.0 | 1660.0 | 1653.4 | 1644.2 | 1635.0 | 1625.8 | 1616.5 | 1614.8 |
| 20° | 1643.9 | 1639.9 | 1635.9 | 1631.9 | 1627.9 | 1620.7 | 1610.3 | 1599.8 | 1589.4 | 1578.9 | 1576.5 |
| 22.5° | 1608.5 | 1604.0 | 1599.5 | 1595.1 | 1590.6 | 1582.7 | 1571.6 | 1560.4 | 1549.2 | 1538.0 | 1534.3 |
| 25° | 1552.7 | 1547.1 | 1541.6 | 1536.1 | 1530.5 | 1521.5 | 1508.9 | 1496.3 | 1483.7 | 1471.1 | 1465.9 |
| 27.5° | 1494.0 | 1487.1 | 1480.2 | 1473.2 | 1466.3 | 1456.1 | 1442.6 | 1429.2 | 1415.7 | 1402.2 | 1395.8 |
| 30° | 1453.1 | 1445.4 | 1437.8 | 1430.1 | 1422.4 | 1411.3 | 1396.9 | 1382.4 | 1368.0 | 1353.6 | 1345.9 |
| 32.5° | 1410.0 | 1401.3 | 1392.6 | 1384.0 | 1375.3 | 1363.5 | 1348.6 | 1333.7 | 1318.7 | 1303.8 | 1294.9 |
| 35° | 1342.5 | 1332.7 | 1322.8 | 1313.0 | 1303.2 | 1290.6 | 1275.2 | 1259.9 | 1244.5 | 1229.1 | 1218.7 |
| 37.5° | 1270.3 | 1260.2 | 1250.1 | 1239.9 | 1229.8 | 1216.2 | 1199.2 | 1182.2 | 1165.1 | 1148.1 | 1136.4 |
| 40° | 1219.5 | 1209.3 | 1199.2 | 1189.0 | 1178.9 | 1165.1 | 1147.6 | 1130.0 | 1112.5 | 1095.0 | 1082.1 |
| 42.5° | 1170.8 | 1160.2 | 1149.5 | 1138.9 | 1128.3 | 1113.8 | 1095.6 | 1077.3 | 1059.1 | 1040.8 | 1027.7 |
| 45° | 1095.0 | 1083.7 | 1072.3 | 1060.9 | 1049.5 | 1034.6 | 1016.2 | 997.8 | 979.3 | 960.9 | 945.9 |
| 47.5° | 1016.8 | 1005.0 | 993.3 | 981.6 | 969.8 | 954.4 | 935.2 | 916.0 | 896.8 | 877.7 | 862.1 |
| 50° | 963.7 | 951.7 | 939.7 | 927.7 | 915.7 | 899.9 | 880.3 | 860.6 | 840.9 | 821.3 | 805.9 |
| 52.5° | 909.5 | 897.7 | 886.0 | 874.3 | 862.5 | 846.6 | 826.4 | 806.3 | 786.1 | 766.0 | 750.4 |
| 55° | 829.6 | 817.3 | 805.0 | 792.7 | 780.4 | 764.3 | 744.3 | 724.3 | 704.4 | 684.4 | 668.4 |
| 57.5° | 750.5 | 737.7 | 724.9 | 712.1 | 699.4 | 683.1 | 663.5 | 643.8 | 624.1 | 604.5 | 588.3 |
| 60° | 694.1 | 681.8 | 669.5 | 657.2 | 644.9 | 628.9 | 609.3 | 589.6 | 569.9 | 550.3 | 534.3 |
| 62.5° | 643.2 | 630.4 | 617.6 | 604.8 | 592.1 | 575.6 | 555.4 | 535.3 | 515.1 | 495.0 | 480.2 |
| 65° | 564.1 | 550.9 | 537.7 | 524.5 | 511.3 | 494.8 | 475.2 | 455.5 | 435.8 | 416.2 | 403.0 |
| 67.5° | 482.0 | 469.3 | 456.7 | 444.0 | 431.3 | 415.9 | 397.6 | 379.4 | 361.1 | 342.9 | 331.5 |
| 70° | 430.0 | 417.1 | 404.2 | 391.3 | 378.4 | 363.2 | 345.7 | 328.1 | 310.6 | 293.1 | 283.0 |
| 72.5° | 374.7 | 363.0 | 351.3 | 339.7 | 328.0 | 313.9 | 297.4 | 280.8 | 264.3 | 247.8 | 239.1 |
| 75° | 300.0 | 288.7 | 277.3 | 265.9 | 254.6 | 241.6 | 227.2 | 212.8 | 198.3 | 183.9 | 176.8 |
| 77.5° | 224.3 | 214.6 | 205.0 | 195.3 | 185.7 | 175.0 | 163.3 | 151.7 | 140.0 | 128.3 | 124.2 |
| 80° | 175.6 | 166.7 | 157.8 | 148.9 | 140.0 | 130.9 | 121.7 | 112.5 | 103.2 | 94.0 | 93.1 |
| 82.5° | 133.6 | 125.4 | 117.2 | 109.0 | 100.9 | 94.1 | 88.9 | 83.6 | 78.3 | 73.0 | 72.3 |
| 85° | 74.7 | 68.5 | 62.4 | 56.2 | 50.1 | 46.5 | 45.6 | 44.7 | 43.8 | 42.9 | 42.2 |
| 87.5° | 25.7 | 23.9 | 22.1 | 20.3 | 18.5 | 17.5 | 17.4 | 17.3 | 17.2 | 17.0 | 16.9 |
| 90° | 1.1 | 1.9 | 2.8 | 3.7 | 4.5 | 5.3 | 5.9 | 6.5 | 7.1 | 7.8 | 8.2 |
| 92.5° | 7.6 | 8.6 | 9.5 | 10.5 | 11.5 | 12.2 | 12.7 | 13.1 | 13.6 | 14.0 | 14.3 |
| 95° | 21.2 | 21.9 | 22.6 | 23.3 | 24.0 | 24.7 | 25.2 | 25.8 | 26.3 | 26.9 | 27.1 |
| 97.5° | 37.0 | 37.6 | 38.2 | 38.7 | 39.3 | 39.9 | 40.5 | 41.2 | 41.8 | 42.5 | 42.8 |
| 100° | 49.5 | 49.8 | 50.1 | 50.4 | 50.7 | 51.2 | 51.9 | 52.7 | 53.4 | 54.1 | 54.2 |
| 102.5° | 62.5 | 62.6 | 62.7 | 62.9 | 63.0 | 63.4 | 64.0 | 64.7 | 65.3 | 65.9 | 66.2 |
| 105° | 82.3 | 82.4 | 82.5 | 82.6 | 82.6 | 82.8 | 83.2 | 83.5 | 83.8 | 84.1 | 84.3 |
| 107.5° | 103.2 | 103.3 | 103.4 | 103.5 | 103.6 | 103.6 | 103.7 | 103.7 | 103.8 | 103.8 | 104.0 |
| 110° | 117.3 | 117.5 | 117.6 | 117.8 | 117.9 | 118.0 | 117.9 | 117.8 | 117.7 | 117.7 | 117.5 |



TEST NUMBER: P332959

CATALOG NUMBER: SA4XXRDIP-C1020D365U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 132.0 | 132.0 | 132.1 | 132.1 | 132.1 | 132.1 | 131.9 | 131.8 | 131.7 | 131.5 | 131.5 |
| 115° | 154.1 | 154.1 | 154.1 | 154.1 | 154.1 | 154.0 | 153.8 | 153.7 | 153.5 | 153.4 | 153.3 |
| 117.5° | 174.8 | 174.9 | 175.0 | 175.0 | 175.1 | 175.1 | 175.0 | 174.9 | 174.7 | 174.6 | 174.4 |
| 120° | 188.7 | 189.0 | 189.3 | 189.6 | 190.0 | 190.0 | 189.8 | 189.5 | 189.3 | 189.1 | 188.7 |
| 122.5° | 203.1 | 203.2 | 203.4 | 203.5 | 203.6 | 203.6 | 203.5 | 203.4 | 203.3 | 203.2 | 202.9 |
| 125° | 224.4 | 224.4 | 224.4 | 224.4 | 224.4 | 224.3 | 224.3 | 224.2 | 224.1 | 224.0 | 223.9 |
| 127.5° | 243.7 | 243.9 | 244.2 | 244.4 | 244.6 | 244.7 | 244.6 | 244.4 | 244.3 | 244.2 | 244.0 |
| 130° | 257.3 | 257.5 | 257.7 | 258.0 | 258.2 | 258.3 | 258.3 | 258.3 | 258.3 | 258.3 | 258.2 |
| 132.5° | 271.1 | 271.3 | 271.4 | 271.6 | 271.8 | 271.8 | 271.8 | 271.7 | 271.7 | 271.6 | 271.4 |
| 135° | 289.4 | 289.9 | 290.3 | 290.8 | 291.3 | 291.5 | 291.5 | 291.5 | 291.5 | 291.5 | 291.4 |
| 137.5° | 309.3 | 309.6 | 309.8 | 310.0 | 310.2 | 310.4 | 310.5 | 310.6 | 310.8 | 310.9 | 310.7 |
| 140° | 322.6 | 322.8 | 322.9 | 323.1 | 323.3 | 323.3 | 323.3 | 323.3 | 323.3 | 323.3 | 323.3 |
| 142.5° | 334.8 | 334.9 | 335.1 | 335.2 | 335.4 | 335.5 | 335.4 | 335.3 | 335.3 | 335.2 | 335.2 |
| 145° | 351.6 | 351.9 | 352.2 | 352.5 | 352.9 | 353.1 | 353.1 | 353.2 | 353.3 | 353.4 | 353.3 |
| 147.5° | 368.3 | 368.7 | 369.0 | 369.4 | 369.8 | 369.9 | 369.9 | 369.8 | 369.8 | 369.7 | 369.6 |
| 150° | 378.5 | 378.8 | 379.1 | 379.4 | 379.7 | 379.9 | 379.9 | 379.9 | 379.9 | 379.9 | 379.9 |
| 152.5° | 388.1 | 388.3 | 388.4 | 388.6 | 388.8 | 388.9 | 389.0 | 389.1 | 389.1 | 389.2 | 389.4 |
| 155° | 402.8 | 402.8 | 402.8 | 402.8 | 402.8 | 402.8 | 402.7 | 402.6 | 402.6 | 402.5 | 402.8 |
| 157.5° | 415.3 | 415.1 | 415.0 | 414.9 | 414.7 | 414.6 | 414.6 | 414.6 | 414.6 | 414.6 | 414.8 |
| 160° | 422.6 | 422.5 | 422.5 | 422.4 | 422.3 | 422.2 | 422.2 | 422.1 | 422.0 | 421.9 | 422.2 |
| 162.5° | 429.4 | 429.2 | 429.0 | 428.8 | 428.6 | 428.5 | 428.4 | 428.3 | 428.2 | 428.1 | 428.6 |
| 165° | 438.5 | 438.3 | 438.1 | 437.8 | 437.6 | 437.4 | 437.2 | 437.1 | 436.9 | 436.8 | 437.2 |
| 167.5° | 445.5 | 445.2 | 444.9 | 444.5 | 444.2 | 444.0 | 444.1 | 444.1 | 444.1 | 444.1 | 444.6 |
| 170° | 449.5 | 449.1 | 448.7 | 448.3 | 447.9 | 447.8 | 447.8 | 447.9 | 448.0 | 448.1 | 448.5 |
| 172.5° | 452.3 | 452.0 | 451.6 | 451.3 | 451.0 | 450.8 | 450.8 | 450.9 | 450.9 | 450.9 | 451.4 |
| 175° | 456.2 | 455.8 | 455.4 | 455.0 | 454.6 | 454.4 | 454.3 | 454.2 | 454.2 | 454.1 | 454.6 |
| 177.5° | 457.5 | 457.2 | 456.8 | 456.5 | 456.2 | 456.1 | 456.1 | 456.1 | 456.1 | 456.1 | 456.5 |
| 180° | 456.9 | 456.9 | 456.9 | 456.9 | 456.9 | 456.9 | 456.9 | 456.9 | 456.9 | 456.9 | 456.9 |



TEST NUMBER: P332959

CATALOG NUMBER: SA4XXRDIP-C1020D365U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1805.7 | 1805.7 | 1805.7 | 1805.7 | 1805.7 | 1805.7 | 1805.7 | 1805.7 |
| 2.5° | 1798.9 | 1801.6 | 1804.3 | 1805.6 | 1805.3 | 1805.1 | 1804.8 | 1804.6 |
| 5° | 1786.9 | 1790.0 | 1793.1 | 1794.3 | 1793.7 | 1793.1 | 1792.5 | 1791.9 |
| 7.5° | 1763.2 | 1765.1 | 1767.1 | 1767.6 | 1766.6 | 1765.6 | 1764.6 | 1763.6 |
| 10° | 1741.8 | 1743.0 | 1744.2 | 1744.2 | 1743.0 | 1741.8 | 1740.5 | 1739.3 |
| 12.5° | 1715.3 | 1716.1 | 1716.8 | 1716.3 | 1714.6 | 1712.9 | 1711.2 | 1709.5 |
| 15° | 1669.0 | 1668.3 | 1667.7 | 1666.3 | 1664.2 | 1662.0 | 1659.9 | 1657.7 |
| 17.5° | 1613.1 | 1611.4 | 1609.7 | 1607.2 | 1603.9 | 1600.7 | 1597.4 | 1594.1 |
| 20° | 1574.0 | 1571.6 | 1569.1 | 1565.9 | 1561.9 | 1557.9 | 1553.9 | 1549.9 |
| 22.5° | 1530.6 | 1526.9 | 1523.3 | 1519.8 | 1516.5 | 1513.3 | 1510.0 | 1506.8 |
| 25° | 1460.6 | 1455.4 | 1450.2 | 1446.0 | 1443.0 | 1439.9 | 1436.8 | 1433.8 |
| 27.5° | 1389.3 | 1382.9 | 1376.4 | 1371.0 | 1366.6 | 1362.1 | 1357.7 | 1353.3 |
| 30° | 1338.2 | 1330.5 | 1322.8 | 1316.5 | 1311.6 | 1306.7 | 1301.8 | 1296.9 |
| 32.5° | 1286.0 | 1277.1 | 1268.2 | 1261.4 | 1256.7 | 1252.0 | 1247.4 | 1242.7 |
| 35° | 1208.2 | 1197.8 | 1187.3 | 1179.4 | 1173.8 | 1168.3 | 1162.8 | 1157.2 |
| 37.5° | 1124.8 | 1113.1 | 1101.4 | 1092.8 | 1087.3 | 1081.7 | 1076.2 | 1070.7 |
| 40° | 1069.2 | 1056.3 | 1043.4 | 1034.2 | 1028.7 | 1023.1 | 1017.6 | 1012.1 |
| 42.5° | 1014.5 | 1001.4 | 988.2 | 978.8 | 973.0 | 967.2 | 961.4 | 955.7 |
| 45° | 930.8 | 915.7 | 900.7 | 890.4 | 884.9 | 879.3 | 873.8 | 868.3 |
| 47.5° | 846.5 | 830.9 | 815.2 | 804.4 | 798.3 | 792.2 | 786.1 | 780.1 |
| 50° | 790.5 | 775.2 | 759.8 | 749.2 | 743.4 | 737.5 | 731.7 | 725.9 |
| 52.5° | 734.7 | 719.1 | 703.5 | 692.7 | 686.6 | 680.5 | 674.4 | 668.4 |
| 55° | 652.4 | 636.5 | 620.5 | 609.6 | 603.7 | 597.9 | 592.1 | 586.2 |
| 57.5° | 572.0 | 555.8 | 539.6 | 529.3 | 524.8 | 520.4 | 516.0 | 511.6 |
| 60° | 518.3 | 502.3 | 486.4 | 475.9 | 471.0 | 466.1 | 461.2 | 456.3 |
| 62.5° | 465.5 | 450.7 | 436.0 | 426.6 | 422.7 | 418.8 | 414.8 | 410.9 |
| 65° | 389.7 | 376.5 | 363.3 | 354.9 | 351.2 | 347.5 | 343.8 | 340.1 |
| 67.5° | 320.1 | 308.8 | 297.4 | 289.7 | 285.6 | 281.6 | 277.5 | 273.5 |
| 70° | 272.8 | 262.7 | 252.6 | 245.9 | 242.9 | 239.8 | 236.7 | 233.7 |
| 72.5° | 230.4 | 221.8 | 213.1 | 207.4 | 204.5 | 201.7 | 198.9 | 196.1 |
| 75° | 169.8 | 162.7 | 155.6 | 151.2 | 149.3 | 147.5 | 145.6 | 143.8 |
| 77.5° | 120.1 | 116.0 | 111.8 | 109.5 | 108.9 | 108.4 | 107.8 | 107.3 |
| 80° | 92.2 | 91.3 | 90.3 | 89.7 | 89.4 | 89.1 | 88.8 | 88.5 |
| 82.5° | 71.6 | 71.0 | 70.3 | 69.8 | 69.5 | 69.2 | 68.9 | 68.6 |
| 85° | 41.6 | 41.0 | 40.4 | 40.1 | 40.1 | 40.1 | 40.1 | 40.1 |
| 87.5° | 16.7 | 16.6 | 16.4 | 16.5 | 16.8 | 17.1 | 17.3 | 17.6 |
| 90° | 8.7 | 9.2 | 9.7 | 10.0 | 10.1 | 10.3 | 10.4 | 10.6 |
| 92.5° | 14.6 | 14.8 | 15.1 | 15.3 | 15.4 | 15.5 | 15.6 | 15.7 |
| 95° | 27.3 | 27.6 | 27.8 | 27.9 | 27.9 | 27.9 | 27.9 | 27.9 |
| 97.5° | 43.0 | 43.3 | 43.6 | 43.7 | 43.7 | 43.7 | 43.7 | 43.7 |
| 100° | 54.4 | 54.5 | 54.7 | 54.8 | 54.8 | 54.8 | 54.8 | 54.8 |
| 102.5° | 66.4 | 66.6 | 66.8 | 67.0 | 67.0 | 67.1 | 67.1 | 67.2 |
| 105° | 84.6 | 84.8 | 85.0 | 85.3 | 85.5 | 85.8 | 86.0 | 86.2 |
| 107.5° | 104.3 | 104.5 | 104.7 | 104.8 | 104.8 | 104.8 | 104.8 | 104.7 |
| 110° | 117.4 | 117.2 | 117.0 | 117.1 | 117.3 | 117.6 | 117.8 | 118.0 |



TEST NUMBER: P332959

CATALOG NUMBER: SA4XXRDIP-C1020D365U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 131.5 | 131.4 | 131.4 | 131.4 | 131.5 | 131.5 | 131.5 | 131.6 |
| 115° | 153.2 | 153.1 | 153.0 | 153.0 | 152.9 | 152.8 | 152.7 | 152.7 |
| 117.5° | 174.1 | 173.8 | 173.6 | 173.4 | 173.2 | 173.0 | 172.9 | 172.7 |
| 120° | 188.3 | 187.9 | 187.5 | 187.4 | 187.5 | 187.7 | 187.8 | 188.0 |
| 122.5° | 202.7 | 202.4 | 202.1 | 201.8 | 201.6 | 201.3 | 201.0 | 200.7 |
| 125° | 223.7 | 223.6 | 223.4 | 223.2 | 223.1 | 222.9 | 222.8 | 222.6 |
| 127.5° | 243.9 | 243.7 | 243.5 | 243.4 | 243.3 | 243.2 | 243.0 | 242.9 |
| 130° | 258.0 | 257.8 | 257.7 | 257.4 | 257.1 | 256.8 | 256.5 | 256.2 |
| 132.5° | 271.3 | 271.1 | 271.0 | 270.8 | 270.7 | 270.6 | 270.5 | 270.3 |
| 135° | 291.2 | 291.1 | 290.9 | 290.7 | 290.5 | 290.2 | 290.0 | 289.8 |
| 137.5° | 310.5 | 310.3 | 310.1 | 310.0 | 310.0 | 310.1 | 310.1 | 310.2 |
| 140° | 323.2 | 323.1 | 323.0 | 322.9 | 322.9 | 322.8 | 322.7 | 322.6 |
| 142.5° | 335.2 | 335.2 | 335.1 | 335.1 | 335.1 | 335.1 | 335.1 | 335.1 |
| 145° | 353.2 | 353.1 | 353.1 | 352.9 | 352.7 | 352.4 | 352.2 | 352.0 |
| 147.5° | 369.6 | 369.5 | 369.4 | 369.4 | 369.3 | 369.2 | 369.1 | 369.1 |
| 150° | 379.9 | 379.9 | 379.9 | 379.8 | 379.8 | 379.7 | 379.6 | 379.5 |
| 152.5° | 389.6 | 389.8 | 390.0 | 389.9 | 389.7 | 389.5 | 389.3 | 389.1 |
| 155° | 403.1 | 403.4 | 403.7 | 403.7 | 403.4 | 403.1 | 402.8 | 402.5 |
| 157.5° | 415.0 | 415.3 | 415.5 | 415.5 | 415.2 | 415.0 | 414.7 | 414.4 |
| 160° | 422.4 | 422.6 | 422.9 | 422.8 | 422.4 | 422.0 | 421.6 | 421.2 |
| 162.5° | 429.0 | 429.4 | 429.8 | 429.8 | 429.5 | 429.1 | 428.7 | 428.3 |
| 165° | 437.7 | 438.2 | 438.6 | 438.7 | 438.4 | 438.1 | 437.8 | 437.5 |
| 167.5° | 445.1 | 445.5 | 446.0 | 446.0 | 445.5 | 445.0 | 444.5 | 444.0 |
| 170° | 449.0 | 449.5 | 450.0 | 449.9 | 449.4 | 448.8 | 448.3 | 447.7 |
| 172.5° | 452.0 | 452.5 | 453.0 | 453.0 | 452.5 | 451.9 | 451.4 | 450.8 |
| 175° | 455.2 | 455.7 | 456.3 | 456.3 | 455.7 | 455.2 | 454.6 | 454.1 |
| 177.5° | 456.9 | 457.4 | 457.8 | 457.8 | 457.3 | 456.8 | 456.3 | 455.8 |
| 180° | 456.9 | 456.9 | 456.9 | 456.9 | 456.9 | 456.9 | 456.9 | 456.9 |

(END OF REPORT)