

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: P332964-935

Luminaire Tested: **SA4XXRDIP-C1020D590U935-4F0-1E-UDD-F**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332964-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXRDIP-C1020D590U935-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1020 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 590 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

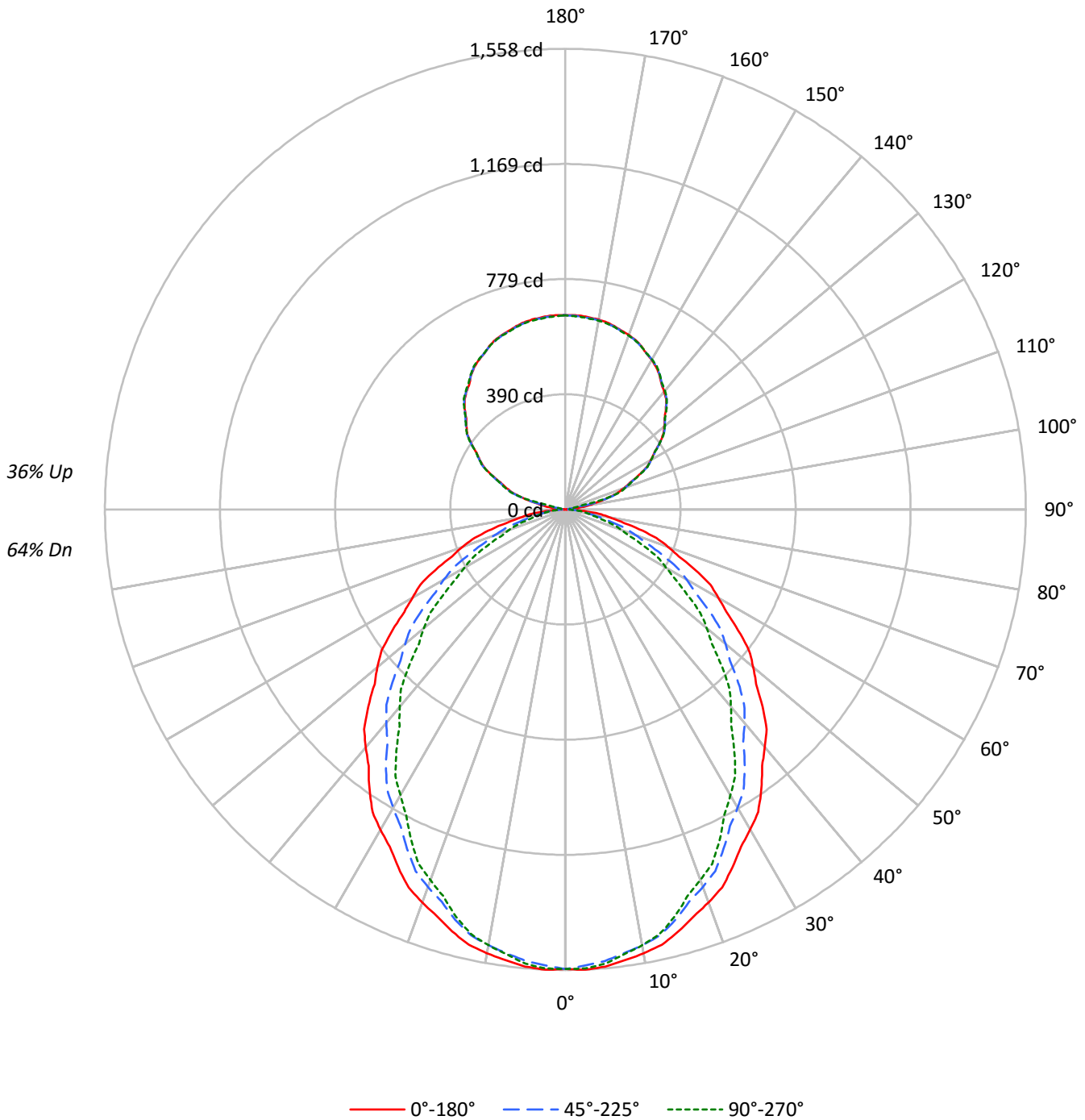
Lumens per Lamp: N/A
Luminaire Lumens: 5625.1 lumens
Efficiency: N/A
Efficacy: 115.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 48.8
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: P332964-935
CATALOG NUMBER: SA4XXRDIP-C1020D590U935-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P332964-935

CATALOG NUMBER: SA4XXRDIP-C1020D590U935-4F0-1E-UDD-F

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 | 97 | 93 | 90 | 95 | 91 | 88 | 85 | 80 | 78 | 76 | 71 | 69 | 67 | 61 | 60 | 59 | 55 |
| 2 | 92 | 85 | 79 | 74 | 87 | 80 | 75 | 70 | 71 | 67 | 63 | 62 | 59 | 57 | 54 | 52 | 50 | 46 |
| 3 | 85 | 75 | 68 | 62 | 79 | 71 | 64 | 59 | 63 | 58 | 54 | 55 | 51 | 48 | 49 | 46 | 43 | 40 |
| 4 | 78 | 67 | 59 | 53 | 73 | 63 | 56 | 50 | 56 | 50 | 46 | 50 | 45 | 42 | 44 | 40 | 37 | 34 |
| 5 | 71 | 60 | 52 | 45 | 67 | 56 | 49 | 44 | 50 | 44 | 40 | 45 | 40 | 36 | 39 | 36 | 33 | 30 |
| 6 | 66 | 54 | 46 | 40 | 62 | 51 | 44 | 38 | 46 | 40 | 35 | 41 | 36 | 32 | 36 | 32 | 29 | 26 |
| 7 | 61 | 49 | 41 | 35 | 57 | 46 | 39 | 34 | 41 | 35 | 31 | 37 | 32 | 28 | 33 | 29 | 26 | 23 |
| 8 | 57 | 44 | 37 | 31 | 53 | 42 | 35 | 30 | 38 | 32 | 28 | 34 | 29 | 26 | 30 | 26 | 23 | 21 |
| 9 | 53 | 41 | 33 | 28 | 50 | 39 | 32 | 27 | 35 | 29 | 25 | 31 | 27 | 23 | 28 | 24 | 21 | 19 |
| 10 | 50 | 37 | 30 | 25 | 47 | 36 | 29 | 24 | 32 | 27 | 23 | 29 | 24 | 21 | 26 | 22 | 19 | 17 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 12551 | 12551 | 12551 |
| 5° | 12580 | 12426 | 12503 |
| 10° | 12500 | 12276 | 12276 |
| 15° | 12357 | 12018 | 11929 |
| 20° | 12160 | 11679 | 11465 |
| 25° | 11908 | 11282 | 10996 |
| 30° | 11663 | 10864 | 10409 |
| 35° | 11392 | 10430 | 9819 |
| 40° | 11065 | 9936 | 9183 |
| 45° | 10764 | 9445 | 8535 |
| 50° | 10420 | 8881 | 7850 |
| 55° | 10054 | 8294 | 7104 |
| 60° | 9649 | 7650 | 6344 |
| 65° | 9278 | 6844 | 5593 |
| 70° | 8738 | 5958 | 4749 |
| 75° | 8057 | 4938 | 3862 |
| 80° | 7029 | 3761 | 3543 |
| 85° | 5956 | 3418 | 3196 |



TEST NUMBER: P332964-935

CATALOG NUMBER: SA4XXRDIP-C1020D590U935-4F0-1E-UDD-F

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 146.0 | 2.6 |
| 10°-20° | 407.3 | 7.2 |
| 20°-30° | 588.1 | 10.5 |
| 30°-40° | 666.6 | 11.9 |
| 40°-50° | 643.7 | 11.4 |
| 50°-60° | 535.3 | 9.5 |
| 60°-70° | 369.6 | 6.6 |
| 70°-80° | 187.4 | 3.3 |
| 80°-90° | 50.0 | 0.9 |
| 90°-100° | 22.5 | 0.4 |
| 100°-110° | 143.2 | 2.5 |
| 110°-120° | 273.9 | 4.9 |
| 120°-130° | 347.7 | 6.2 |
| 130°-140° | 372.1 | 6.6 |
| 140°-150° | 347.9 | 6.2 |
| 150°-160° | 280.6 | 5.0 |
| 160°-170° | 181.0 | 3.2 |
| 170°-180° | 62.4 | 1.1 |
| 0°-30° | 1141.4 | 20.3 |
| 0°-40° | 1808.0 | 32.1 |
| 0°-60° | 2987.0 | 53.1 |
| 0°-90° | 3593.9 | 63.9 |
| 90°-120° | 439.6 | 7.8 |
| 90°-150° | 1507.3 | 26.8 |
| 90°-180° | 2031.0 | 36.1 |
| 0°-180° | 5625.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1555 | 1555 | 1555 | 1555 | 1555 | |
| 5° | 1552 | 1547 | 1533 | 1544 | 1543 | 147 |
| 15° | 1478 | 1467 | 1438 | 1435 | 1427 | 416 |
| 25° | 1337 | 1314 | 1267 | 1247 | 1234 | 616 |
| 35° | 1156 | 1117 | 1058 | 1019 | 996 | 722 |
| 45° | 943 | 897 | 827 | 771 | 748 | 727 |
| 55° | 714 | 665 | 589 | 530 | 505 | 639 |
| 65° | 486 | 433 | 358 | 309 | 293 | 479 |
| 75° | 258 | 214 | 158 | 132 | 124 | 273 |
| 85° | 64 | 42 | 37 | 35 | 34 | 72 |
| 90° | 2 | 7 | 11 | 14 | 15 | 4 |
| 95° | 27 | 11 | 11 | 14 | 14 | 35 |
| 105° | 148 | 151 | 153 | 156 | 140 | 155 |
| 115° | 276 | 277 | 277 | 278 | 278 | 272 |
| 125° | 388 | 390 | 389 | 390 | 391 | 346 |
| 135° | 481 | 481 | 483 | 484 | 485 | 371 |
| 145° | 555 | 556 | 556 | 557 | 558 | 347 |
| 155° | 609 | 609 | 608 | 609 | 608 | 280 |
| 165° | 642 | 640 | 640 | 643 | 639 | 181 |
| 175° | 657 | 654 | 654 | 658 | 653 | 63 |
| 180° | 657 | 657 | 657 | 657 | 657 | |



TEST NUMBER: P332964-935

CATALOG NUMBER: SA4XXRDIP-C1020D590U935-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1554.7 | 1554.7 | 1554.7 | 1554.7 | 1554.7 | 1554.7 | 1554.7 | 1554.7 | 1554.7 | 1554.7 | 1554.7 |
| 2.5° | 1558.5 | 1557.6 | 1556.8 | 1556.0 | 1555.1 | 1553.5 | 1551.2 | 1548.9 | 1546.5 | 1544.2 | 1546.5 |
| 5° | 1552.3 | 1551.3 | 1550.2 | 1549.1 | 1548.1 | 1545.9 | 1542.8 | 1539.6 | 1536.5 | 1533.3 | 1535.9 |
| 7.5° | 1538.3 | 1537.1 | 1536.0 | 1534.9 | 1533.8 | 1531.2 | 1527.1 | 1522.9 | 1518.8 | 1514.7 | 1516.4 |
| 10° | 1524.9 | 1523.6 | 1522.2 | 1521.0 | 1519.7 | 1516.6 | 1511.8 | 1507.1 | 1502.3 | 1497.5 | 1498.6 |
| 12.5° | 1507.8 | 1506.2 | 1504.7 | 1503.2 | 1501.7 | 1498.1 | 1492.5 | 1486.9 | 1481.3 | 1475.7 | 1476.3 |
| 15° | 1478.5 | 1476.1 | 1473.8 | 1471.4 | 1469.0 | 1464.5 | 1457.8 | 1451.2 | 1444.7 | 1438.0 | 1437.5 |
| 17.5° | 1443.0 | 1439.6 | 1436.1 | 1432.7 | 1429.3 | 1423.6 | 1415.7 | 1407.7 | 1399.8 | 1391.8 | 1390.3 |
| 20° | 1415.4 | 1412.0 | 1408.5 | 1405.1 | 1401.6 | 1395.4 | 1386.5 | 1377.4 | 1368.5 | 1359.4 | 1357.4 |
| 22.5° | 1384.9 | 1381.0 | 1377.2 | 1373.4 | 1369.5 | 1362.7 | 1353.1 | 1343.5 | 1333.9 | 1324.2 | 1321.0 |
| 25° | 1336.9 | 1332.1 | 1327.3 | 1322.6 | 1317.8 | 1310.0 | 1299.2 | 1288.3 | 1277.5 | 1266.6 | 1262.1 |
| 27.5° | 1286.3 | 1280.4 | 1274.5 | 1268.4 | 1262.5 | 1253.7 | 1242.1 | 1230.5 | 1218.9 | 1207.3 | 1201.8 |
| 30° | 1251.1 | 1244.5 | 1237.9 | 1231.3 | 1224.7 | 1215.1 | 1202.7 | 1190.2 | 1177.8 | 1165.4 | 1158.8 |
| 32.5° | 1214.0 | 1206.5 | 1199.0 | 1191.6 | 1184.1 | 1174.0 | 1161.1 | 1148.3 | 1135.4 | 1122.6 | 1114.9 |
| 35° | 1155.9 | 1147.5 | 1138.9 | 1130.5 | 1122.1 | 1111.2 | 1097.9 | 1084.8 | 1071.5 | 1058.3 | 1049.3 |
| 37.5° | 1093.7 | 1085.0 | 1076.3 | 1067.6 | 1058.9 | 1047.1 | 1032.5 | 1017.9 | 1003.2 | 988.5 | 978.4 |
| 40° | 1050.0 | 1041.2 | 1032.5 | 1023.7 | 1015.0 | 1003.2 | 988.1 | 972.9 | 957.9 | 942.8 | 931.7 |
| 42.5° | 1008.1 | 998.9 | 989.7 | 980.6 | 971.5 | 959.0 | 943.3 | 927.6 | 911.9 | 896.1 | 884.8 |
| 45° | 942.8 | 933.1 | 923.3 | 913.4 | 903.6 | 890.8 | 874.9 | 859.1 | 843.2 | 827.3 | 814.4 |
| 47.5° | 875.5 | 865.3 | 855.2 | 845.2 | 835.0 | 821.7 | 805.2 | 788.7 | 772.1 | 755.7 | 742.3 |
| 50° | 829.7 | 819.4 | 809.1 | 798.7 | 788.4 | 774.8 | 757.9 | 741.0 | 724.0 | 707.1 | 693.9 |
| 52.5° | 783.1 | 772.9 | 762.8 | 752.8 | 742.6 | 728.9 | 711.5 | 694.2 | 676.8 | 659.5 | 646.1 |
| 55° | 714.3 | 703.7 | 693.1 | 682.5 | 671.9 | 658.1 | 640.8 | 623.6 | 606.5 | 589.3 | 575.5 |
| 57.5° | 646.2 | 635.2 | 624.1 | 613.1 | 602.2 | 588.1 | 571.3 | 554.3 | 537.4 | 520.5 | 506.5 |
| 60° | 597.6 | 587.0 | 576.4 | 565.8 | 555.3 | 541.5 | 524.6 | 507.6 | 490.7 | 473.8 | 460.0 |
| 62.5° | 553.8 | 542.8 | 531.8 | 520.7 | 509.8 | 495.6 | 478.2 | 460.9 | 443.5 | 426.2 | 413.5 |
| 65° | 485.7 | 474.3 | 463.0 | 451.6 | 440.2 | 426.0 | 409.1 | 392.2 | 375.2 | 358.3 | 347.0 |
| 67.5° | 415.0 | 404.1 | 393.2 | 382.3 | 371.3 | 358.1 | 342.3 | 326.7 | 310.9 | 295.2 | 285.4 |
| 70° | 370.2 | 359.1 | 348.0 | 336.9 | 325.8 | 312.7 | 297.6 | 282.5 | 267.4 | 252.4 | 243.7 |
| 72.5° | 322.6 | 312.5 | 302.5 | 292.5 | 282.4 | 270.3 | 256.1 | 241.8 | 227.6 | 213.4 | 205.9 |
| 75° | 258.3 | 248.6 | 238.8 | 228.9 | 219.2 | 208.0 | 195.6 | 183.2 | 170.7 | 158.3 | 152.2 |
| 77.5° | 193.1 | 184.8 | 176.5 | 168.2 | 159.9 | 150.7 | 140.6 | 130.6 | 120.5 | 110.5 | 106.9 |
| 80° | 151.2 | 143.5 | 135.9 | 128.2 | 120.5 | 112.7 | 104.8 | 96.9 | 88.9 | 80.9 | 80.2 |
| 82.5° | 115.0 | 108.0 | 100.9 | 93.8 | 86.9 | 81.0 | 76.5 | 72.0 | 67.4 | 62.9 | 62.3 |
| 85° | 64.3 | 59.0 | 53.7 | 48.4 | 43.1 | 40.0 | 39.3 | 38.5 | 37.7 | 36.9 | 36.3 |
| 87.5° | 22.2 | 20.8 | 19.3 | 17.8 | 16.4 | 15.7 | 15.6 | 15.6 | 15.5 | 15.5 | 15.4 |
| 90° | 1.5 | 2.7 | 3.9 | 5.1 | 6.3 | 7.3 | 8.2 | 9.0 | 9.9 | 10.8 | 11.5 |
| 92.5° | 6.2 | 6.3 | 6.3 | 6.4 | 6.5 | 6.9 | 7.8 | 8.7 | 9.6 | 10.4 | 11.1 |
| 95° | 27.0 | 23.3 | 19.6 | 15.8 | 12.1 | 10.3 | 10.5 | 10.6 | 10.7 | 10.8 | 11.5 |
| 97.5° | 57.3 | 59.7 | 62.0 | 64.3 | 66.6 | 61.6 | 49.5 | 37.4 | 25.1 | 13.0 | 13.0 |
| 100° | 80.5 | 82.5 | 84.5 | 86.4 | 88.4 | 81.9 | 66.8 | 51.7 | 36.7 | 21.6 | 19.7 |
| 102.5° | 106.5 | 107.9 | 109.3 | 110.8 | 112.3 | 112.0 | 110.0 | 108.1 | 106.1 | 104.1 | 84.1 |
| 105° | 147.8 | 148.5 | 149.1 | 149.8 | 150.4 | 151.0 | 151.6 | 152.1 | 152.7 | 153.3 | 154.2 |
| 107.5° | 186.2 | 186.6 | 186.9 | 187.2 | 187.5 | 188.0 | 188.8 | 189.6 | 190.3 | 191.1 | 191.6 |
| 110° | 212.2 | 212.5 | 212.8 | 213.2 | 213.4 | 214.0 | 214.6 | 215.2 | 215.9 | 216.6 | 216.8 |



TEST NUMBER: P332964-935

CATALOG NUMBER: SA4XXRDIP-C1020D590U935-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 237.3 | 237.9 | 238.5 | 239.1 | 239.7 | 240.1 | 240.4 | 240.7 | 241.1 | 241.3 | 241.3 |
| 115° | 276.0 | 276.4 | 276.6 | 277.0 | 277.3 | 277.4 | 277.3 | 277.2 | 277.1 | 277.0 | 277.2 |
| 117.5° | 310.9 | 311.3 | 311.8 | 312.2 | 312.6 | 313.0 | 313.2 | 313.5 | 313.7 | 313.9 | 313.9 |
| 120° | 334.5 | 334.9 | 335.4 | 335.8 | 336.2 | 336.4 | 336.3 | 336.1 | 336.0 | 336.0 | 336.1 |
| 122.5° | 356.5 | 356.7 | 357.0 | 357.2 | 357.5 | 357.7 | 357.9 | 358.0 | 358.2 | 358.3 | 358.4 |
| 125° | 388.0 | 388.4 | 388.9 | 389.3 | 389.8 | 389.9 | 389.6 | 389.4 | 389.2 | 389.0 | 389.3 |
| 127.5° | 417.8 | 417.9 | 418.1 | 418.2 | 418.3 | 418.6 | 419.1 | 419.6 | 420.1 | 420.6 | 420.5 |
| 130° | 437.1 | 437.2 | 437.3 | 437.5 | 437.6 | 437.7 | 438.1 | 438.4 | 438.8 | 439.1 | 439.2 |
| 132.5° | 454.8 | 455.0 | 455.2 | 455.4 | 455.6 | 455.9 | 456.3 | 456.7 | 457.1 | 457.5 | 457.6 |
| 135° | 481.3 | 481.2 | 481.1 | 481.0 | 480.9 | 481.0 | 481.5 | 481.9 | 482.3 | 482.8 | 483.0 |
| 137.5° | 504.8 | 504.8 | 504.9 | 504.9 | 505.0 | 505.2 | 505.7 | 506.2 | 506.7 | 507.1 | 507.4 |
| 140° | 520.1 | 520.3 | 520.6 | 520.7 | 521.0 | 521.2 | 521.4 | 521.7 | 521.9 | 522.1 | 522.4 |
| 142.5° | 533.9 | 534.3 | 534.7 | 535.0 | 535.5 | 535.7 | 535.8 | 536.0 | 536.1 | 536.2 | 536.5 |
| 145° | 555.0 | 555.3 | 555.6 | 555.9 | 556.3 | 556.5 | 556.5 | 556.5 | 556.5 | 556.5 | 556.6 |
| 147.5° | 571.8 | 572.4 | 573.0 | 573.6 | 574.2 | 574.5 | 574.4 | 574.3 | 574.1 | 574.0 | 574.1 |
| 150° | 583.9 | 584.4 | 584.9 | 585.3 | 585.7 | 585.9 | 585.7 | 585.7 | 585.6 | 585.4 | 585.4 |
| 152.5° | 594.2 | 594.5 | 594.9 | 595.2 | 595.6 | 595.6 | 595.5 | 595.3 | 595.0 | 594.9 | 595.0 |
| 155° | 608.6 | 608.6 | 608.7 | 608.8 | 609.0 | 608.8 | 608.6 | 608.2 | 607.9 | 607.5 | 608.0 |
| 157.5° | 620.6 | 620.5 | 620.4 | 620.4 | 620.4 | 620.1 | 619.7 | 619.4 | 619.0 | 618.6 | 619.2 |
| 160° | 627.7 | 627.3 | 627.0 | 626.7 | 626.4 | 626.1 | 626.0 | 625.9 | 625.8 | 625.7 | 626.4 |
| 162.5° | 634.0 | 633.5 | 633.1 | 632.7 | 632.3 | 632.1 | 631.9 | 631.8 | 631.7 | 631.6 | 632.2 |
| 165° | 641.9 | 641.4 | 640.8 | 640.2 | 639.7 | 639.5 | 639.5 | 639.5 | 639.5 | 639.5 | 640.3 |
| 167.5° | 648.2 | 647.6 | 647.0 | 646.5 | 645.9 | 645.6 | 645.6 | 645.5 | 645.4 | 645.3 | 646.4 |
| 170° | 651.8 | 651.1 | 650.4 | 649.8 | 649.1 | 648.8 | 648.9 | 649.0 | 649.2 | 649.3 | 650.1 |
| 172.5° | 654.1 | 653.4 | 652.8 | 652.1 | 651.5 | 651.2 | 651.3 | 651.4 | 651.5 | 651.6 | 652.6 |
| 175° | 656.7 | 656.0 | 655.3 | 654.7 | 654.0 | 653.8 | 653.8 | 654.0 | 654.1 | 654.2 | 655.1 |
| 177.5° | 657.8 | 657.2 | 656.6 | 656.0 | 655.4 | 655.1 | 655.3 | 655.5 | 655.7 | 655.8 | 656.6 |
| 180° | 656.7 | 656.7 | 656.7 | 656.7 | 656.7 | 656.7 | 656.7 | 656.7 | 656.7 | 656.7 | 656.7 |



TEST NUMBER: P332964-935

CATALOG NUMBER: SA4XXRDIP-C1020D590U935-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1554.7 | 1554.7 | 1554.7 | 1554.7 | 1554.7 | 1554.7 | 1554.7 | 1554.7 |
| 2.5° | 1548.9 | 1551.2 | 1553.5 | 1554.6 | 1554.4 | 1554.2 | 1553.9 | 1553.8 |
| 5° | 1538.5 | 1541.2 | 1543.9 | 1544.9 | 1544.4 | 1543.9 | 1543.3 | 1542.8 |
| 7.5° | 1518.1 | 1519.8 | 1521.5 | 1521.9 | 1521.0 | 1520.2 | 1519.3 | 1518.5 |
| 10° | 1499.7 | 1500.7 | 1501.8 | 1501.8 | 1500.7 | 1499.7 | 1498.6 | 1497.5 |
| 12.5° | 1476.9 | 1477.6 | 1478.2 | 1477.7 | 1476.3 | 1474.8 | 1473.3 | 1471.9 |
| 15° | 1437.0 | 1436.4 | 1435.9 | 1434.7 | 1432.9 | 1431.0 | 1429.2 | 1427.3 |
| 17.5° | 1388.9 | 1387.4 | 1386.0 | 1383.8 | 1381.0 | 1378.2 | 1375.4 | 1372.5 |
| 20° | 1355.2 | 1353.1 | 1351.0 | 1348.2 | 1344.8 | 1341.4 | 1337.9 | 1334.5 |
| 22.5° | 1317.8 | 1314.7 | 1311.6 | 1308.5 | 1305.7 | 1303.0 | 1300.1 | 1297.4 |
| 25° | 1257.6 | 1253.1 | 1248.6 | 1245.0 | 1242.4 | 1239.8 | 1237.1 | 1234.5 |
| 27.5° | 1196.2 | 1190.7 | 1185.1 | 1180.4 | 1176.6 | 1172.8 | 1169.0 | 1165.2 |
| 30° | 1152.2 | 1145.6 | 1138.9 | 1133.5 | 1129.3 | 1125.1 | 1120.8 | 1116.6 |
| 32.5° | 1107.2 | 1099.6 | 1091.9 | 1086.1 | 1082.0 | 1078.0 | 1074.0 | 1070.0 |
| 35° | 1040.3 | 1031.3 | 1022.3 | 1015.5 | 1010.6 | 1005.9 | 1001.2 | 996.3 |
| 37.5° | 968.5 | 958.4 | 948.3 | 940.9 | 936.2 | 931.3 | 926.6 | 921.9 |
| 40° | 920.6 | 909.5 | 898.4 | 890.4 | 885.7 | 880.9 | 876.2 | 871.4 |
| 42.5° | 873.5 | 862.2 | 850.8 | 842.7 | 837.8 | 832.8 | 827.8 | 822.9 |
| 45° | 801.4 | 788.4 | 775.5 | 766.6 | 761.9 | 757.1 | 752.3 | 747.6 |
| 47.5° | 728.8 | 715.4 | 701.9 | 692.6 | 687.3 | 682.1 | 676.8 | 671.7 |
| 50° | 680.6 | 667.4 | 654.2 | 645.1 | 640.1 | 635.0 | 630.0 | 625.0 |
| 52.5° | 632.6 | 619.1 | 605.7 | 596.4 | 591.2 | 585.9 | 580.7 | 575.5 |
| 55° | 561.7 | 548.0 | 534.3 | 524.9 | 519.8 | 514.8 | 509.8 | 504.7 |
| 57.5° | 492.5 | 478.5 | 464.6 | 455.7 | 451.9 | 448.1 | 444.3 | 440.5 |
| 60° | 446.3 | 432.5 | 418.8 | 409.7 | 405.5 | 401.3 | 397.1 | 392.9 |
| 62.5° | 400.8 | 388.1 | 375.4 | 367.3 | 363.9 | 360.6 | 357.1 | 353.8 |
| 65° | 335.5 | 324.2 | 312.8 | 305.6 | 302.4 | 299.2 | 296.0 | 292.8 |
| 67.5° | 275.6 | 265.9 | 256.1 | 249.4 | 245.9 | 242.5 | 238.9 | 235.5 |
| 70° | 234.9 | 226.2 | 217.5 | 211.7 | 209.1 | 206.5 | 203.8 | 201.2 |
| 72.5° | 198.4 | 191.0 | 183.5 | 178.6 | 176.1 | 173.7 | 171.3 | 168.8 |
| 75° | 146.2 | 140.1 | 134.0 | 130.2 | 128.5 | 127.0 | 125.4 | 123.8 |
| 77.5° | 103.4 | 99.9 | 96.3 | 94.3 | 93.8 | 93.3 | 92.8 | 92.4 |
| 80° | 79.4 | 78.6 | 77.7 | 77.2 | 77.0 | 76.7 | 76.5 | 76.2 |
| 82.5° | 61.6 | 61.1 | 60.5 | 60.1 | 59.8 | 59.6 | 59.3 | 59.1 |
| 85° | 35.8 | 35.3 | 34.8 | 34.5 | 34.5 | 34.5 | 34.5 | 34.5 |
| 87.5° | 15.3 | 15.2 | 15.2 | 15.2 | 15.5 | 15.8 | 16.0 | 16.3 |
| 90° | 12.1 | 12.7 | 13.4 | 13.9 | 14.1 | 14.3 | 14.6 | 14.7 |
| 92.5° | 11.7 | 12.4 | 13.0 | 13.3 | 13.4 | 13.4 | 13.5 | 13.5 |
| 95° | 12.1 | 12.7 | 13.4 | 13.8 | 13.9 | 14.0 | 14.1 | 14.2 |
| 97.5° | 13.1 | 13.2 | 13.3 | 13.3 | 13.4 | 13.5 | 13.6 | 13.8 |
| 100° | 17.9 | 16.0 | 14.2 | 13.3 | 13.4 | 13.5 | 13.6 | 13.8 |
| 102.5° | 64.1 | 44.1 | 24.0 | 14.0 | 14.1 | 14.1 | 14.1 | 14.1 |
| 105° | 155.2 | 156.2 | 157.1 | 155.7 | 151.8 | 147.8 | 143.9 | 140.0 |
| 107.5° | 192.0 | 192.5 | 193.0 | 193.4 | 193.8 | 194.2 | 194.7 | 195.1 |
| 110° | 217.1 | 217.2 | 217.5 | 217.7 | 218.1 | 218.3 | 218.7 | 219.0 |



TEST NUMBER: P332964-935

CATALOG NUMBER: SA4XXRDIP-C1020D590U935-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 241.3 | 241.3 | 241.2 | 241.3 | 241.8 | 242.2 | 242.6 | 243.0 |
| 115° | 277.4 | 277.7 | 277.8 | 278.0 | 278.0 | 278.0 | 278.0 | 278.0 |
| 117.5° | 313.8 | 313.8 | 313.7 | 313.7 | 313.7 | 313.7 | 313.6 | 313.6 |
| 120° | 336.4 | 336.6 | 336.8 | 336.8 | 336.6 | 336.4 | 336.1 | 336.0 |
| 122.5° | 358.6 | 358.7 | 358.9 | 358.8 | 358.6 | 358.3 | 358.2 | 357.9 |
| 125° | 389.6 | 389.9 | 390.3 | 390.5 | 390.6 | 390.7 | 390.8 | 391.0 |
| 127.5° | 420.5 | 420.4 | 420.3 | 420.3 | 420.2 | 420.1 | 420.0 | 419.9 |
| 130° | 439.3 | 439.4 | 439.5 | 439.5 | 439.5 | 439.5 | 439.5 | 439.5 |
| 132.5° | 457.8 | 457.9 | 458.0 | 458.0 | 457.9 | 457.8 | 457.7 | 457.6 |
| 135° | 483.2 | 483.5 | 483.6 | 483.9 | 484.1 | 484.3 | 484.6 | 484.7 |
| 137.5° | 507.6 | 507.9 | 508.1 | 508.2 | 508.2 | 508.1 | 508.0 | 507.9 |
| 140° | 522.7 | 523.1 | 523.4 | 523.6 | 523.7 | 523.8 | 523.9 | 524.0 |
| 142.5° | 536.7 | 536.9 | 537.2 | 537.4 | 537.4 | 537.4 | 537.4 | 537.4 |
| 145° | 556.6 | 556.8 | 556.9 | 557.1 | 557.2 | 557.5 | 557.8 | 557.9 |
| 147.5° | 574.2 | 574.3 | 574.4 | 574.5 | 574.6 | 574.7 | 574.8 | 574.9 |
| 150° | 585.4 | 585.4 | 585.4 | 585.5 | 585.6 | 585.7 | 585.8 | 585.9 |
| 152.5° | 595.2 | 595.4 | 595.6 | 595.6 | 595.6 | 595.5 | 595.4 | 595.4 |
| 155° | 608.4 | 608.8 | 609.2 | 609.3 | 609.0 | 608.6 | 608.4 | 608.0 |
| 157.5° | 619.7 | 620.4 | 620.9 | 620.9 | 620.4 | 619.7 | 619.2 | 618.6 |
| 160° | 627.0 | 627.7 | 628.4 | 628.4 | 627.7 | 627.0 | 626.4 | 625.7 |
| 162.5° | 632.9 | 633.5 | 634.2 | 634.2 | 633.4 | 632.7 | 632.0 | 631.2 |
| 165° | 641.2 | 642.0 | 643.0 | 642.9 | 641.9 | 640.9 | 640.0 | 638.9 |
| 167.5° | 647.3 | 648.2 | 649.2 | 649.1 | 648.1 | 647.0 | 645.8 | 644.8 |
| 170° | 651.0 | 651.9 | 652.8 | 652.6 | 651.6 | 650.5 | 649.4 | 648.3 |
| 172.5° | 653.4 | 654.3 | 655.1 | 655.0 | 653.8 | 652.6 | 651.4 | 650.2 |
| 175° | 656.2 | 657.1 | 658.1 | 658.0 | 656.7 | 655.3 | 654.0 | 652.7 |
| 177.5° | 657.3 | 658.0 | 658.7 | 658.5 | 657.5 | 656.4 | 655.3 | 654.3 |
| 180° | 656.7 | 656.7 | 656.7 | 656.7 | 656.7 | 656.7 | 656.7 | 656.7 |

(END OF REPORT)