

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: P332972-940

Luminaire Tested: **SA4XXRDIP-C1020D810U940-4F0-1E-UDD-F4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332972-940
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-C1020D810U940-4F0-1E-UDD-F4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1020 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: 6303.2 lumens
Efficiency: N/A
Efficacy: 115.9 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: General Diffuse

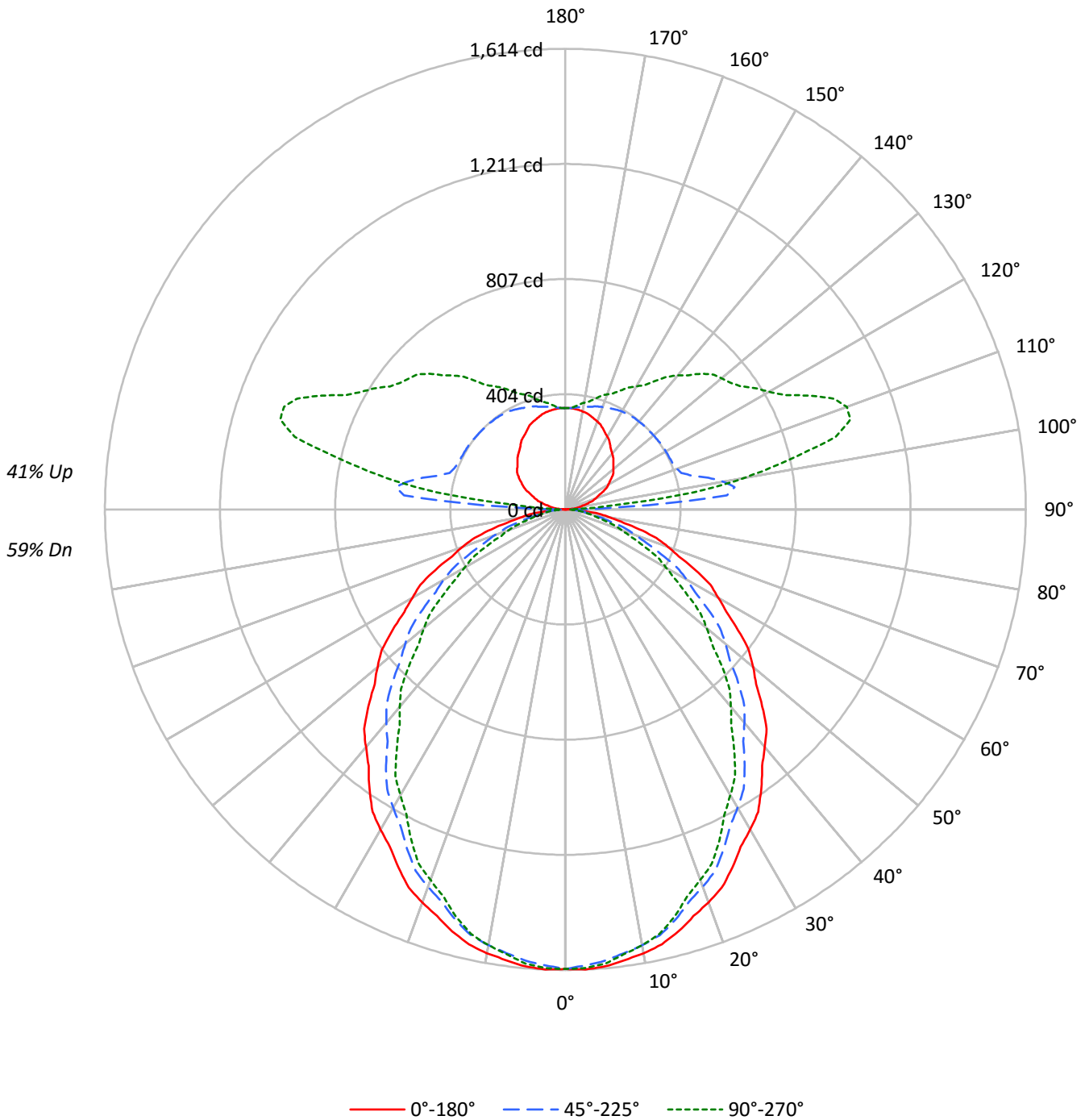
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332972-940

CATALOG NUMBER: SA4XXRDIP-C1020D810U940-4F0-1E-UDD-F4

Luminous Intensity Polar Plot





TEST NUMBER: P332972-940

CATALOG NUMBER: SA4XXRDIP-C1020D810U940-4F0-1E-UDD-F4

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 | 109 | 109 | 109 | 109 | 102 | 102 | 102 | 102 | 88 | 88 | 88 | 76 | 76 | 76 | 64 | 64 | 64 | 59 |
| 1 | 100 | 96 | 92 | 89 | 93 | 90 | 86 | 83 | 78 | 76 | 73 | 67 | 66 | 64 | 57 | 56 | 55 | 50 |
| 2 | 91 | 84 | 78 | 73 | 85 | 79 | 73 | 69 | 69 | 65 | 61 | 60 | 57 | 54 | 51 | 49 | 47 | 43 |
| 3 | 84 | 74 | 67 | 61 | 78 | 70 | 63 | 58 | 61 | 56 | 52 | 53 | 49 | 46 | 45 | 43 | 40 | 37 |
| 4 | 77 | 66 | 58 | 52 | 71 | 62 | 55 | 49 | 54 | 49 | 44 | 47 | 43 | 40 | 41 | 38 | 35 | 32 |
| 5 | 71 | 59 | 51 | 45 | 66 | 55 | 48 | 43 | 49 | 43 | 39 | 43 | 38 | 35 | 37 | 33 | 31 | 28 |
| 6 | 65 | 53 | 45 | 39 | 61 | 50 | 43 | 37 | 44 | 38 | 34 | 39 | 34 | 30 | 34 | 30 | 27 | 24 |
| 7 | 60 | 48 | 40 | 34 | 56 | 45 | 38 | 33 | 40 | 34 | 30 | 35 | 31 | 27 | 31 | 27 | 24 | 22 |
| 8 | 56 | 44 | 36 | 31 | 52 | 41 | 34 | 29 | 37 | 31 | 27 | 32 | 28 | 24 | 28 | 25 | 22 | 19 |
| 9 | 52 | 40 | 32 | 27 | 49 | 38 | 31 | 26 | 34 | 28 | 24 | 30 | 25 | 22 | 26 | 22 | 20 | 18 |
| 10 | 49 | 37 | 30 | 25 | 46 | 35 | 28 | 24 | 31 | 26 | 22 | 28 | 23 | 20 | 24 | 21 | 18 | 16 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 12999 | 12999 | 12999 |
| 5° | 13028 | 12869 | 12949 |
| 10° | 12946 | 12714 | 12714 |
| 15° | 12797 | 12447 | 12354 |
| 20° | 12594 | 12095 | 11874 |
| 25° | 12333 | 11685 | 11388 |
| 30° | 12078 | 11251 | 10781 |
| 35° | 11798 | 10801 | 10170 |
| 40° | 11460 | 10290 | 9511 |
| 45° | 11147 | 9782 | 8840 |
| 50° | 10792 | 9198 | 8130 |
| 55° | 10412 | 8590 | 7357 |
| 60° | 9993 | 7923 | 6570 |
| 65° | 9608 | 7089 | 5794 |
| 70° | 9050 | 6170 | 4919 |
| 75° | 8344 | 5115 | 3999 |
| 80° | 7280 | 3896 | 3668 |
| 85° | 6169 | 3548 | 3316 |



TEST NUMBER: P332972-940

CATALOG NUMBER: SA4XXRDIP-C1020D810U940-4F0-1E-UDD-F4

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 151.3 | 2.4 |
| 10°-20° | 421.8 | 6.7 |
| 20°-30° | 609.1 | 9.7 |
| 30°-40° | 690.4 | 11.0 |
| 40°-50° | 666.7 | 10.6 |
| 50°-60° | 554.4 | 8.8 |
| 60°-70° | 382.8 | 6.1 |
| 70°-80° | 194.0 | 3.1 |
| 80°-90° | 51.7 | 0.8 |
| 90°-100° | 256.3 | 4.1 |
| 100°-110° | 533.5 | 8.5 |
| 110°-120° | 477.9 | 7.6 |
| 120°-130° | 402.0 | 6.4 |
| 130°-140° | 335.1 | 5.3 |
| 140°-150° | 256.1 | 4.1 |
| 150°-160° | 180.0 | 2.9 |
| 160°-170° | 105.9 | 1.7 |
| 170°-180° | 34.4 | 0.5 |
| 0°-30° | 1182.1 | 18.8 |
| 0°-40° | 1872.5 | 29.7 |
| 0°-60° | 3093.5 | 49.1 |
| 0°-90° | 3722.1 | 59.1 |
| 90°-120° | 1267.7 | 20.1 |
| 90°-150° | 2260.9 | 35.9 |
| 90°-180° | 2581.0 | 40.9 |
| 0°-180° | 6303.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1610 | 1610 | 1610 | 1610 | 1610 | |
| 5° | 1608 | 1602 | 1588 | 1599 | 1598 | 152 |
| 15° | 1531 | 1519 | 1489 | 1486 | 1478 | 431 |
| 25° | 1385 | 1361 | 1312 | 1291 | 1278 | 638 |
| 35° | 1197 | 1156 | 1096 | 1055 | 1032 | 748 |
| 45° | 976 | 929 | 857 | 799 | 774 | 753 |
| 55° | 740 | 689 | 610 | 548 | 523 | 661 |
| 65° | 503 | 449 | 371 | 320 | 303 | 497 |
| 75° | 268 | 221 | 164 | 137 | 128 | 282 |
| 85° | 67 | 43 | 38 | 36 | 36 | 75 |
| 90° | 1 | 6 | 13 | 14 | 15 | 4 |
| 95° | 23 | 72 | 568 | 281 | 170 | 26 |
| 105° | 82 | 118 | 457 | 985 | 981 | 87 |
| 115° | 144 | 180 | 408 | 784 | 942 | 142 |
| 125° | 200 | 238 | 406 | 667 | 752 | 178 |
| 135° | 238 | 283 | 402 | 592 | 672 | 184 |
| 145° | 274 | 314 | 400 | 499 | 549 | 172 |
| 155° | 312 | 336 | 389 | 441 | 460 | 144 |
| 165° | 340 | 350 | 373 | 395 | 401 | 96 |
| 175° | 354 | 355 | 358 | 363 | 361 | 34 |
| 180° | 355 | 355 | 355 | 355 | 355 | |



TEST NUMBER: P332972-940

CATALOG NUMBER: SA4XXRDIP-C1020D810U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1610.2 | 1610.2 | 1610.2 | 1610.2 | 1610.2 | 1610.2 | 1610.2 | 1610.2 | 1610.2 | 1610.2 | 1610.2 |
| 2.5° | 1614.1 | 1613.2 | 1612.3 | 1611.5 | 1610.6 | 1608.9 | 1606.5 | 1604.1 | 1601.7 | 1599.3 | 1601.7 |
| 5° | 1607.7 | 1606.6 | 1605.5 | 1604.4 | 1603.3 | 1601.1 | 1597.9 | 1594.6 | 1591.3 | 1588.0 | 1590.7 |
| 7.5° | 1593.1 | 1592.0 | 1590.8 | 1589.7 | 1588.5 | 1585.8 | 1581.5 | 1577.3 | 1573.0 | 1568.7 | 1570.5 |
| 10° | 1579.3 | 1578.0 | 1576.5 | 1575.2 | 1573.9 | 1570.7 | 1565.8 | 1560.9 | 1555.9 | 1551.0 | 1552.0 |
| 12.5° | 1561.6 | 1560.0 | 1558.4 | 1556.8 | 1555.2 | 1551.5 | 1545.7 | 1539.9 | 1534.1 | 1528.3 | 1528.9 |
| 15° | 1531.2 | 1528.7 | 1526.3 | 1523.8 | 1521.3 | 1516.7 | 1509.8 | 1503.0 | 1496.2 | 1489.3 | 1488.8 |
| 17.5° | 1494.5 | 1490.9 | 1487.4 | 1483.8 | 1480.2 | 1474.4 | 1466.2 | 1457.9 | 1449.7 | 1441.5 | 1439.9 |
| 20° | 1465.9 | 1462.3 | 1458.7 | 1455.2 | 1451.6 | 1445.2 | 1435.9 | 1426.6 | 1417.3 | 1407.9 | 1405.8 |
| 22.5° | 1434.3 | 1430.3 | 1426.3 | 1422.4 | 1418.4 | 1411.3 | 1401.4 | 1391.4 | 1381.4 | 1371.5 | 1368.2 |
| 25° | 1384.6 | 1379.6 | 1374.7 | 1369.8 | 1364.8 | 1356.7 | 1345.5 | 1334.3 | 1323.0 | 1311.8 | 1307.2 |
| 27.5° | 1332.2 | 1326.1 | 1319.9 | 1313.7 | 1307.5 | 1298.4 | 1286.4 | 1274.4 | 1262.4 | 1250.4 | 1244.6 |
| 30° | 1295.7 | 1288.9 | 1282.1 | 1275.2 | 1268.4 | 1258.5 | 1245.6 | 1232.7 | 1219.9 | 1207.0 | 1200.2 |
| 32.5° | 1257.3 | 1249.6 | 1241.8 | 1234.1 | 1226.4 | 1215.8 | 1202.6 | 1189.3 | 1175.9 | 1162.6 | 1154.7 |
| 35° | 1197.1 | 1188.4 | 1179.6 | 1170.8 | 1162.1 | 1150.8 | 1137.1 | 1123.5 | 1109.7 | 1096.0 | 1086.7 |
| 37.5° | 1132.7 | 1123.7 | 1114.7 | 1105.6 | 1096.6 | 1084.5 | 1069.3 | 1054.2 | 1038.9 | 1023.8 | 1013.3 |
| 40° | 1087.4 | 1078.3 | 1069.3 | 1060.2 | 1051.2 | 1038.9 | 1023.3 | 1007.6 | 992.0 | 976.4 | 964.9 |
| 42.5° | 1044.0 | 1034.6 | 1025.0 | 1015.6 | 1006.1 | 993.2 | 977.0 | 960.6 | 944.4 | 928.1 | 916.4 |
| 45° | 976.4 | 966.3 | 956.2 | 946.0 | 935.9 | 922.6 | 906.2 | 889.7 | 873.3 | 856.8 | 843.5 |
| 47.5° | 906.7 | 896.2 | 885.7 | 875.3 | 864.8 | 851.0 | 833.9 | 816.8 | 799.7 | 782.7 | 768.7 |
| 50° | 859.3 | 848.6 | 837.9 | 827.2 | 816.5 | 802.5 | 785.0 | 767.4 | 749.8 | 732.4 | 718.6 |
| 52.5° | 811.0 | 800.5 | 790.1 | 779.6 | 769.1 | 754.9 | 736.9 | 719.0 | 701.0 | 683.1 | 669.1 |
| 55° | 739.8 | 728.8 | 717.8 | 706.9 | 695.9 | 681.5 | 663.7 | 645.9 | 628.1 | 610.3 | 596.0 |
| 57.5° | 669.2 | 657.8 | 646.4 | 635.0 | 623.7 | 609.1 | 591.7 | 574.1 | 556.5 | 539.0 | 524.6 |
| 60° | 618.9 | 608.0 | 597.0 | 586.0 | 575.1 | 560.8 | 543.3 | 525.8 | 508.2 | 490.7 | 476.4 |
| 62.5° | 573.5 | 562.1 | 550.7 | 539.3 | 528.0 | 513.3 | 495.3 | 477.3 | 459.3 | 441.4 | 428.2 |
| 65° | 503.0 | 491.2 | 479.5 | 467.7 | 455.9 | 441.2 | 423.7 | 406.2 | 388.6 | 371.1 | 359.4 |
| 67.5° | 429.8 | 418.5 | 407.2 | 395.9 | 384.6 | 370.9 | 354.5 | 338.3 | 322.0 | 305.8 | 295.6 |
| 70° | 383.4 | 371.9 | 360.4 | 348.9 | 337.4 | 323.9 | 308.3 | 292.6 | 277.0 | 261.4 | 252.4 |
| 72.5° | 334.1 | 323.7 | 313.3 | 302.9 | 292.5 | 279.9 | 265.2 | 250.4 | 235.7 | 221.0 | 213.2 |
| 75° | 267.5 | 257.4 | 247.3 | 237.1 | 227.0 | 215.4 | 202.6 | 189.8 | 176.8 | 164.0 | 157.7 |
| 77.5° | 200.0 | 191.4 | 182.8 | 174.2 | 165.6 | 156.0 | 145.6 | 135.3 | 124.8 | 114.4 | 110.8 |
| 80° | 156.6 | 148.6 | 140.7 | 132.8 | 124.8 | 116.7 | 108.5 | 100.3 | 92.0 | 83.8 | 83.0 |
| 82.5° | 119.1 | 111.8 | 104.5 | 97.2 | 90.0 | 83.9 | 79.3 | 74.5 | 69.8 | 65.1 | 64.5 |
| 85° | 66.6 | 61.1 | 55.6 | 50.1 | 44.7 | 41.5 | 40.7 | 39.9 | 39.1 | 38.3 | 37.6 |
| 87.5° | 22.8 | 21.3 | 20.0 | 18.4 | 16.8 | 15.8 | 16.4 | 16.2 | 16.2 | 16.3 | 16.0 |
| 90° | 0.7 | 2.1 | 4.2 | 4.9 | 5.6 | 5.6 | 9.7 | 9.7 | 11.1 | 12.6 | 11.9 |
| 92.5° | 7.9 | 11.6 | 18.1 | 26.7 | 36.8 | 51.3 | 86.8 | 140.8 | 193.6 | 221.1 | 184.2 |
| 95° | 23.0 | 25.1 | 32.1 | 41.1 | 57.9 | 87.1 | 147.8 | 262.2 | 428.8 | 568.3 | 584.3 |
| 97.5° | 41.3 | 41.3 | 47.3 | 55.6 | 70.0 | 94.5 | 141.2 | 235.7 | 401.4 | 598.5 | 734.1 |
| 100° | 53.0 | 53.0 | 57.9 | 66.3 | 79.5 | 101.8 | 142.9 | 221.8 | 364.0 | 560.6 | 739.0 |
| 102.5° | 64.1 | 65.3 | 69.6 | 77.4 | 90.1 | 111.3 | 148.5 | 217.8 | 338.9 | 513.2 | 697.2 |
| 105° | 81.6 | 83.6 | 87.1 | 95.5 | 108.1 | 128.3 | 161.8 | 219.6 | 317.3 | 457.4 | 621.3 |
| 107.5° | 100.9 | 102.2 | 105.7 | 114.6 | 126.6 | 146.6 | 177.3 | 230.0 | 313.3 | 426.1 | 559.9 |
| 110° | 113.7 | 115.0 | 118.5 | 126.9 | 139.5 | 158.3 | 189.0 | 237.7 | 314.4 | 415.5 | 529.2 |



TEST NUMBER: P332972-940

CATALOG NUMBER: SA4XXRDIP-C1020D810U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 125.9 | 127.3 | 131.3 | 139.2 | 151.7 | 170.6 | 200.1 | 246.1 | 317.8 | 410.5 | 511.9 |
| 115° | 143.7 | 145.7 | 150.6 | 157.6 | 170.9 | 189.7 | 217.6 | 259.4 | 324.2 | 407.9 | 495.7 |
| 117.5° | 162.0 | 164.0 | 168.4 | 176.0 | 188.4 | 207.9 | 234.4 | 272.9 | 331.1 | 407.2 | 488.5 |
| 120° | 174.3 | 175.7 | 180.6 | 188.2 | 200.1 | 219.6 | 246.1 | 282.4 | 336.1 | 407.2 | 484.6 |
| 122.5° | 185.5 | 186.9 | 191.7 | 198.9 | 211.8 | 230.8 | 257.3 | 291.3 | 341.1 | 406.6 | 480.1 |
| 125° | 200.1 | 202.9 | 207.1 | 214.7 | 228.0 | 247.5 | 272.6 | 304.7 | 348.7 | 405.8 | 472.7 |
| 127.5° | 213.1 | 215.3 | 220.3 | 229.1 | 242.9 | 262.6 | 286.9 | 316.3 | 354.6 | 404.3 | 462.8 |
| 130° | 220.3 | 223.1 | 228.7 | 239.2 | 252.4 | 272.6 | 296.3 | 323.5 | 359.1 | 403.7 | 456.7 |
| 132.5° | 227.6 | 229.8 | 237.1 | 247.0 | 261.4 | 280.4 | 304.2 | 330.7 | 363.0 | 403.1 | 451.1 |
| 135° | 237.7 | 240.6 | 247.5 | 259.4 | 274.0 | 292.1 | 315.1 | 340.3 | 368.8 | 402.3 | 442.7 |
| 137.5° | 248.0 | 250.6 | 258.2 | 269.6 | 284.7 | 302.0 | 323.5 | 347.0 | 372.3 | 402.2 | 435.5 |
| 140° | 255.2 | 257.3 | 264.9 | 276.8 | 291.4 | 308.2 | 329.1 | 351.4 | 375.1 | 401.6 | 431.6 |
| 142.5° | 263.0 | 265.1 | 272.2 | 283.5 | 297.6 | 313.8 | 334.1 | 354.7 | 377.4 | 401.6 | 428.3 |
| 145° | 274.0 | 276.1 | 283.1 | 292.8 | 306.1 | 321.5 | 339.6 | 358.4 | 378.6 | 400.2 | 422.5 |
| 147.5° | 286.4 | 287.1 | 293.3 | 303.3 | 314.3 | 328.1 | 345.2 | 361.6 | 379.3 | 397.7 | 417.4 |
| 150° | 294.3 | 295.0 | 300.5 | 308.9 | 319.3 | 332.6 | 347.9 | 363.3 | 379.3 | 396.0 | 413.5 |
| 152.5° | 301.5 | 301.7 | 307.2 | 315.0 | 324.4 | 336.5 | 350.2 | 364.4 | 378.2 | 393.2 | 409.0 |
| 155° | 311.7 | 312.4 | 316.6 | 323.5 | 331.2 | 341.6 | 353.5 | 365.3 | 376.5 | 389.1 | 402.3 |
| 157.5° | 321.6 | 321.6 | 325.5 | 330.9 | 337.6 | 345.8 | 355.9 | 365.3 | 374.7 | 384.8 | 395.5 |
| 160° | 327.7 | 327.7 | 330.5 | 335.4 | 341.0 | 348.7 | 357.0 | 365.3 | 373.0 | 381.4 | 390.5 |
| 162.5° | 333.3 | 332.7 | 334.9 | 339.3 | 344.3 | 350.3 | 358.1 | 365.3 | 371.4 | 378.1 | 386.0 |
| 165° | 339.6 | 339.6 | 341.0 | 344.5 | 347.9 | 352.1 | 358.4 | 364.0 | 368.2 | 373.0 | 378.6 |
| 167.5° | 345.8 | 345.2 | 345.8 | 348.5 | 350.4 | 353.7 | 358.3 | 362.3 | 364.8 | 368.0 | 371.9 |
| 170° | 348.7 | 347.9 | 348.7 | 350.7 | 352.1 | 354.2 | 357.7 | 361.1 | 362.6 | 364.6 | 367.5 |
| 172.5° | 351.4 | 350.7 | 350.9 | 352.4 | 353.2 | 354.7 | 357.1 | 360.1 | 360.3 | 361.3 | 363.6 |
| 175° | 354.2 | 353.5 | 353.5 | 354.2 | 354.9 | 354.9 | 356.3 | 358.4 | 357.7 | 357.7 | 359.1 |
| 177.5° | 355.4 | 354.9 | 354.4 | 354.9 | 354.9 | 354.9 | 355.4 | 356.6 | 355.4 | 355.4 | 356.0 |
| 180° | 354.9 | 354.9 | 354.9 | 354.9 | 354.9 | 354.9 | 354.9 | 354.9 | 354.9 | 354.9 | 354.9 |



TEST NUMBER: P332972-940

CATALOG NUMBER: SA4XXRDIP-C1020D810U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1610.2 | 1610.2 | 1610.2 | 1610.2 | 1610.2 | 1610.2 | 1610.2 | 1610.2 |
| 2.5° | 1604.1 | 1606.5 | 1608.9 | 1610.1 | 1609.8 | 1609.6 | 1609.4 | 1609.2 |
| 5° | 1593.4 | 1596.2 | 1598.9 | 1600.0 | 1599.5 | 1598.9 | 1598.4 | 1597.9 |
| 7.5° | 1572.3 | 1574.0 | 1575.7 | 1576.2 | 1575.3 | 1574.4 | 1573.5 | 1572.6 |
| 10° | 1553.2 | 1554.3 | 1555.3 | 1555.3 | 1554.3 | 1553.2 | 1552.0 | 1551.0 |
| 12.5° | 1529.6 | 1530.3 | 1530.9 | 1530.4 | 1528.9 | 1527.4 | 1525.9 | 1524.4 |
| 15° | 1488.3 | 1487.6 | 1487.1 | 1485.9 | 1484.0 | 1482.0 | 1480.2 | 1478.2 |
| 17.5° | 1438.4 | 1436.9 | 1435.4 | 1433.2 | 1430.2 | 1427.4 | 1424.4 | 1421.5 |
| 20° | 1403.6 | 1401.4 | 1399.2 | 1396.3 | 1392.8 | 1389.2 | 1385.6 | 1382.1 |
| 22.5° | 1364.9 | 1361.6 | 1358.3 | 1355.2 | 1352.3 | 1349.4 | 1346.5 | 1343.6 |
| 25° | 1302.4 | 1297.8 | 1293.2 | 1289.4 | 1286.7 | 1284.0 | 1281.2 | 1278.5 |
| 27.5° | 1238.9 | 1233.1 | 1227.4 | 1222.5 | 1218.6 | 1214.6 | 1210.7 | 1206.8 |
| 30° | 1193.3 | 1186.4 | 1179.6 | 1173.9 | 1169.6 | 1165.2 | 1160.8 | 1156.5 |
| 32.5° | 1146.7 | 1138.8 | 1130.9 | 1124.8 | 1120.6 | 1116.4 | 1112.3 | 1108.1 |
| 35° | 1077.4 | 1068.1 | 1058.7 | 1051.7 | 1046.7 | 1041.8 | 1036.9 | 1031.9 |
| 37.5° | 1003.0 | 992.6 | 982.1 | 974.5 | 969.6 | 964.6 | 959.7 | 954.8 |
| 40° | 953.4 | 941.9 | 930.4 | 922.2 | 917.3 | 912.3 | 907.4 | 902.5 |
| 42.5° | 904.6 | 893.0 | 881.2 | 872.8 | 867.6 | 862.5 | 857.3 | 852.2 |
| 45° | 830.0 | 816.5 | 803.2 | 794.0 | 789.1 | 784.1 | 779.2 | 774.3 |
| 47.5° | 754.8 | 740.9 | 726.9 | 717.3 | 711.9 | 706.4 | 701.0 | 695.6 |
| 50° | 704.9 | 691.3 | 677.5 | 668.1 | 662.9 | 657.6 | 652.5 | 647.3 |
| 52.5° | 655.1 | 641.2 | 627.3 | 617.7 | 612.2 | 606.8 | 601.4 | 596.0 |
| 55° | 581.8 | 567.6 | 553.3 | 543.6 | 538.3 | 533.2 | 528.0 | 522.7 |
| 57.5° | 510.1 | 495.6 | 481.2 | 472.0 | 468.0 | 464.0 | 460.1 | 456.2 |
| 60° | 462.2 | 447.9 | 433.7 | 424.4 | 420.0 | 415.6 | 411.3 | 406.9 |
| 62.5° | 415.1 | 401.9 | 388.8 | 380.4 | 376.9 | 373.4 | 369.9 | 366.4 |
| 65° | 347.5 | 335.7 | 324.0 | 316.5 | 313.2 | 309.9 | 306.6 | 303.3 |
| 67.5° | 285.4 | 275.4 | 265.2 | 258.3 | 254.7 | 251.1 | 247.4 | 243.9 |
| 70° | 243.3 | 234.3 | 225.2 | 219.3 | 216.6 | 213.8 | 211.1 | 208.4 |
| 72.5° | 205.5 | 197.8 | 190.0 | 184.9 | 182.4 | 179.9 | 177.4 | 174.9 |
| 75° | 151.4 | 145.1 | 138.8 | 134.8 | 133.1 | 131.5 | 129.8 | 128.2 |
| 77.5° | 107.1 | 103.4 | 99.7 | 97.6 | 97.1 | 96.7 | 96.1 | 95.7 |
| 80° | 82.2 | 81.4 | 80.5 | 80.0 | 79.7 | 79.5 | 79.2 | 78.9 |
| 82.5° | 63.8 | 63.3 | 62.7 | 62.2 | 62.0 | 61.7 | 61.4 | 61.2 |
| 85° | 37.1 | 36.6 | 36.0 | 35.8 | 35.8 | 35.8 | 35.8 | 35.8 |
| 87.5° | 15.9 | 15.8 | 15.7 | 15.7 | 16.1 | 16.4 | 16.5 | 16.8 |
| 90° | 12.6 | 13.3 | 13.9 | 13.9 | 14.6 | 15.3 | 14.6 | 14.6 |
| 92.5° | 137.0 | 103.1 | 82.0 | 68.0 | 59.8 | 56.1 | 53.7 | 53.7 |
| 95° | 516.7 | 408.6 | 315.1 | 247.5 | 213.4 | 191.7 | 179.2 | 170.1 |
| 97.5° | 763.3 | 723.2 | 655.0 | 582.2 | 532.2 | 490.2 | 469.2 | 454.8 |
| 100° | 840.9 | 854.8 | 820.6 | 769.1 | 708.4 | 665.8 | 645.0 | 639.4 |
| 102.5° | 837.0 | 906.2 | 916.1 | 894.6 | 857.4 | 826.5 | 804.5 | 800.0 |
| 105° | 781.0 | 901.5 | 970.5 | 999.2 | 1000.6 | 995.0 | 985.3 | 981.1 |
| 107.5° | 701.3 | 829.7 | 926.9 | 989.1 | 1023.6 | 1039.5 | 1046.4 | 1048.2 |
| 110° | 653.4 | 773.9 | 875.0 | 951.7 | 1001.2 | 1030.6 | 1043.1 | 1049.4 |



TEST NUMBER: P332972-940

CATALOG NUMBER: SA4XXRDIP-C1020D810U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|--------|-------|-------|-------|-------|-------|-------|--------|--------|
| 112.5° | 618.2 | 724.9 | 820.4 | 897.1 | 953.2 | 988.7 | 1006.3 | 1016.5 |
| 115° | 582.9 | 668.7 | 750.2 | 817.2 | 872.3 | 914.1 | 936.4 | 942.0 |
| 117.5° | 565.6 | 636.6 | 700.7 | 757.5 | 804.5 | 839.6 | 862.2 | 866.6 |
| 120° | 557.8 | 622.7 | 678.4 | 727.9 | 767.7 | 798.3 | 816.5 | 824.1 |
| 122.5° | 551.1 | 613.7 | 664.5 | 707.8 | 741.5 | 767.7 | 783.0 | 790.7 |
| 125° | 539.7 | 599.7 | 647.7 | 686.1 | 714.0 | 734.2 | 747.4 | 751.6 |
| 127.5° | 525.8 | 583.0 | 631.0 | 667.4 | 695.4 | 713.5 | 724.6 | 728.8 |
| 130° | 514.6 | 569.6 | 617.1 | 654.0 | 682.6 | 700.1 | 711.2 | 715.4 |
| 132.5° | 502.8 | 554.6 | 600.9 | 637.8 | 665.8 | 685.5 | 696.2 | 700.3 |
| 135° | 486.7 | 532.0 | 574.5 | 609.4 | 637.3 | 656.8 | 668.0 | 672.2 |
| 137.5° | 472.1 | 510.4 | 546.3 | 577.7 | 603.8 | 623.0 | 632.2 | 637.3 |
| 140° | 463.7 | 496.4 | 527.8 | 557.1 | 581.5 | 596.8 | 606.6 | 612.2 |
| 142.5° | 455.8 | 484.7 | 511.7 | 537.0 | 558.7 | 572.8 | 581.5 | 585.4 |
| 145° | 444.9 | 468.6 | 489.5 | 509.0 | 526.5 | 538.2 | 545.3 | 548.8 |
| 147.5° | 435.8 | 454.6 | 471.4 | 486.7 | 499.5 | 509.7 | 515.0 | 516.2 |
| 150° | 430.2 | 446.2 | 460.2 | 472.7 | 483.9 | 492.9 | 497.1 | 497.8 |
| 152.5° | 424.1 | 437.8 | 450.7 | 461.0 | 470.5 | 477.9 | 480.4 | 481.1 |
| 155° | 414.8 | 426.1 | 436.5 | 444.9 | 451.8 | 457.4 | 459.5 | 459.5 |
| 157.5° | 404.9 | 414.3 | 423.1 | 429.8 | 435.1 | 439.3 | 440.5 | 440.5 |
| 160° | 398.9 | 406.5 | 414.2 | 419.7 | 423.9 | 428.1 | 428.8 | 428.8 |
| 162.5° | 392.7 | 399.2 | 405.3 | 410.3 | 413.3 | 417.5 | 418.2 | 417.7 |
| 165° | 384.1 | 388.3 | 393.2 | 396.7 | 399.5 | 402.3 | 401.6 | 400.9 |
| 167.5° | 375.9 | 379.2 | 383.1 | 385.1 | 386.6 | 388.3 | 388.3 | 387.6 |
| 170° | 371.0 | 373.0 | 375.9 | 377.9 | 379.3 | 380.0 | 379.3 | 379.3 |
| 172.5° | 366.5 | 368.0 | 369.7 | 371.2 | 372.0 | 372.7 | 372.0 | 371.0 |
| 175° | 360.5 | 361.1 | 362.6 | 362.6 | 362.6 | 364.0 | 362.6 | 361.1 |
| 177.5° | 356.6 | 357.1 | 357.1 | 357.7 | 357.1 | 357.7 | 356.6 | 355.4 |
| 180° | 354.9 | 354.9 | 354.9 | 354.9 | 354.9 | 354.9 | 354.9 | 354.9 |

(END OF REPORT)