

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: P332642-940

Luminaire Tested: **SA4XXDIP-C1020D590U940-4F0-1E-UDD-F4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332642-940
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: SA4XXDIP-C1020D590U940-4F0-1E-UDD-F4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1020 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

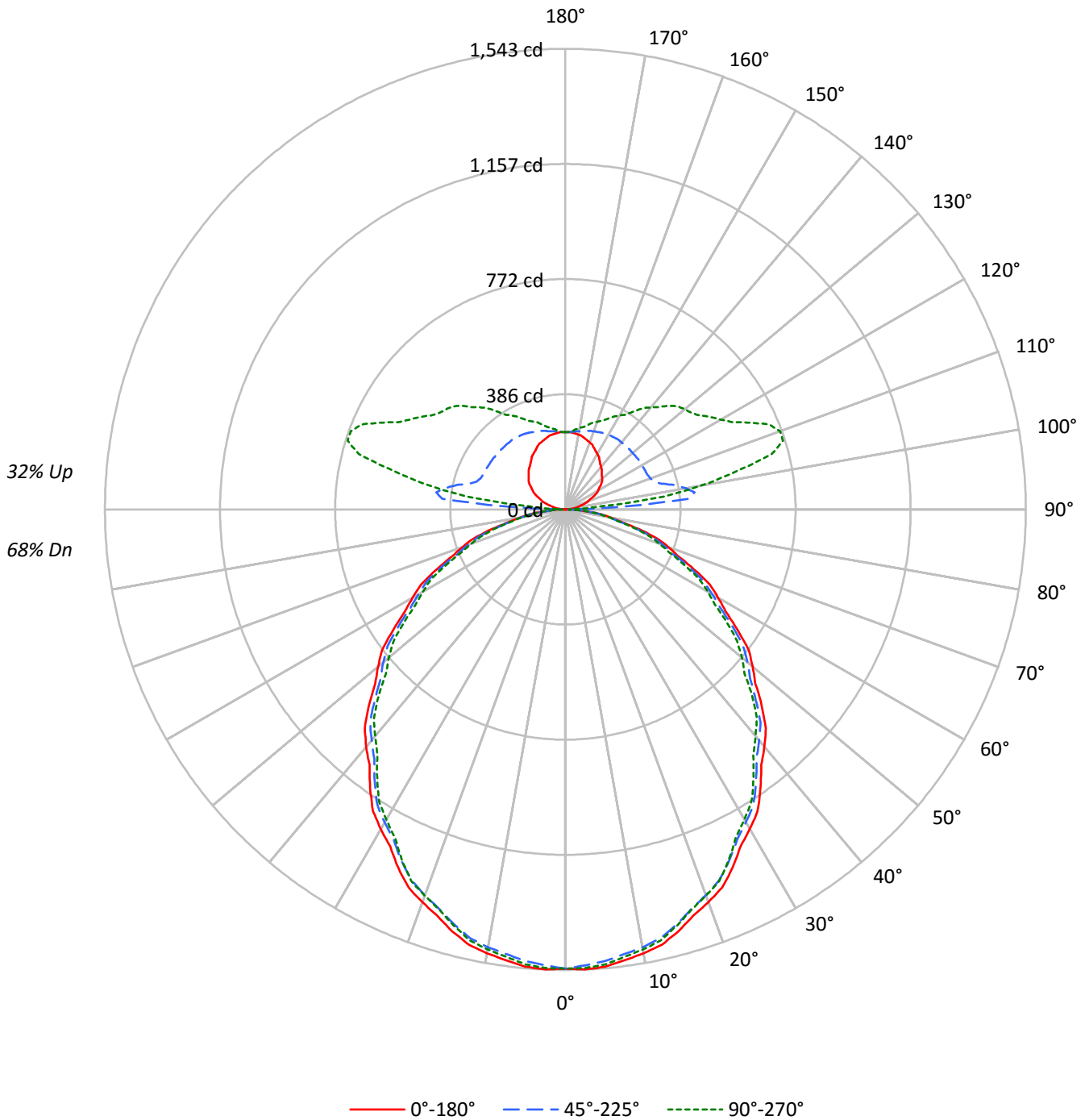
Lumens per Lamp: N/A
Luminaire Lumens: 5832.9 lumens
Efficiency: N/A
Efficacy: 119.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Direct

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: P332642-940
CATALOG NUMBER: SA4XXDIP-C1020D590U940-4F0-1E-UDD-F4

Luminous Intensity Polar Plot





TEST NUMBER: P332642-940

CATALOG NUMBER: SA4XXDIP-C1020D590U940-4F0-1E-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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 111 | 111 | 111 | 111 | 105 | 105 | 105 | 105 | 93 | 93 | 93 | 82 | 82 | 82 | 72 | 72 | 72 | 68 | | | | |
| 1 | 102 | 97 | 93 | 90 | 96 | 92 | 88 | 85 | 82 | 79 | 77 | 72 | 70 | 69 | 64 | 62 | 61 | 57 | | | | |
| 2 | 93 | 85 | 79 | 73 | 87 | 80 | 75 | 70 | 72 | 67 | 63 | 64 | 60 | 57 | 56 | 54 | 51 | 48 | | | | |
| 3 | 85 | 75 | 67 | 61 | 79 | 71 | 64 | 58 | 63 | 58 | 53 | 56 | 52 | 48 | 50 | 47 | 44 | 40 | | | | |
| 4 | 77 | 66 | 58 | 52 | 73 | 63 | 55 | 50 | 56 | 50 | 46 | 50 | 45 | 42 | 45 | 41 | 38 | 35 | | | | |
| 5 | 71 | 59 | 51 | 44 | 67 | 56 | 48 | 43 | 50 | 44 | 39 | 45 | 40 | 36 | 40 | 36 | 33 | 30 | | | | |
| 6 | 66 | 53 | 45 | 39 | 62 | 50 | 43 | 37 | 46 | 39 | 34 | 41 | 36 | 32 | 36 | 32 | 29 | 26 | | | | |
| 7 | 61 | 48 | 40 | 34 | 57 | 46 | 38 | 33 | 41 | 35 | 30 | 37 | 32 | 28 | 33 | 29 | 26 | 23 | | | | |
| 8 | 56 | 44 | 36 | 30 | 53 | 42 | 34 | 29 | 38 | 32 | 27 | 34 | 29 | 25 | 31 | 26 | 23 | 21 | | | | |
| 9 | 53 | 40 | 32 | 27 | 50 | 38 | 31 | 26 | 35 | 29 | 24 | 31 | 26 | 23 | 28 | 24 | 21 | 19 | | | | |
| 10 | 49 | 37 | 29 | 24 | 47 | 35 | 28 | 24 | 32 | 26 | 22 | 29 | 24 | 21 | 26 | 22 | 19 | 17 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 12421 | 12421 | 12421 |
| 5° | 12459 | 12309 | 12399 |
| 10° | 12381 | 12209 | 12269 |
| 15° | 12232 | 12035 | 12066 |
| 20° | 12032 | 11820 | 11832 |
| 25° | 11805 | 11575 | 11541 |
| 30° | 11527 | 11286 | 11182 |
| 35° | 11239 | 10984 | 10838 |
| 40° | 10940 | 10642 | 10446 |
| 45° | 10628 | 10304 | 10106 |
| 50° | 10282 | 10003 | 9693 |
| 55° | 9909 | 9614 | 9301 |
| 60° | 9536 | 9177 | 8898 |
| 65° | 9116 | 8760 | 8407 |
| 70° | 8641 | 8207 | 7886 |
| 75° | 7923 | 7539 | 7346 |
| 80° | 7053 | 6760 | 6592 |
| 85° | 6169 | 5937 | 5826 |



TEST NUMBER: P332642-940

CATALOG NUMBER: SA4XXDIP-C1020D590U940-4F0-1E-UDD-F4

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 144.9 | 2.5 |
| 10°-20° | 408.3 | 7.0 |
| 20°-30° | 600.9 | 10.3 |
| 30°-40° | 698.6 | 12.0 |
| 40°-50° | 698.6 | 12.0 |
| 50°-60° | 611.1 | 10.5 |
| 60°-70° | 453.8 | 7.8 |
| 70°-80° | 257.8 | 4.4 |
| 80°-90° | 75.8 | 1.3 |
| 90°-100° | 187.0 | 3.2 |
| 100°-110° | 389.2 | 6.7 |
| 110°-120° | 348.6 | 6.0 |
| 120°-130° | 293.2 | 5.0 |
| 130°-140° | 244.5 | 4.2 |
| 140°-150° | 186.8 | 3.2 |
| 150°-160° | 131.3 | 2.3 |
| 160°-170° | 77.2 | 1.3 |
| 170°-180° | 25.1 | 0.4 |
| 0°-30° | 1154.1 | 19.8 |
| 0°-40° | 1852.6 | 31.8 |
| 0°-60° | 3162.3 | 54.2 |
| 0°-90° | 3949.8 | 67.7 |
| 90°-120° | 924.8 | 15.9 |
| 90°-150° | 1649.4 | 28.3 |
| 90°-180° | 1883.0 | 32.3 |
| 0°-180° | 5832.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1539 | 1539 | 1539 | 1539 | 1539 | |
| 5° | 1537 | 1532 | 1519 | 1532 | 1530 | 146 |
| 15° | 1464 | 1458 | 1440 | 1447 | 1444 | 412 |
| 25° | 1325 | 1316 | 1300 | 1300 | 1296 | 609 |
| 35° | 1140 | 1131 | 1114 | 1106 | 1100 | 713 |
| 45° | 931 | 922 | 902 | 889 | 885 | 717 |
| 55° | 704 | 700 | 683 | 669 | 661 | 630 |
| 65° | 477 | 471 | 459 | 447 | 440 | 472 |
| 75° | 254 | 248 | 242 | 237 | 236 | 270 |
| 85° | 67 | 66 | 64 | 64 | 63 | 73 |
| 90° | 0 | 4 | 9 | 10 | 11 | 4 |
| 95° | 17 | 53 | 415 | 205 | 124 | 19 |
| 105° | 60 | 86 | 334 | 719 | 716 | 63 |
| 115° | 105 | 132 | 298 | 572 | 687 | 104 |
| 125° | 146 | 173 | 296 | 486 | 548 | 130 |
| 135° | 173 | 206 | 294 | 432 | 490 | 134 |
| 145° | 200 | 229 | 292 | 364 | 400 | 125 |
| 155° | 227 | 245 | 284 | 321 | 335 | 105 |
| 165° | 248 | 255 | 272 | 288 | 292 | 70 |
| 175° | 258 | 259 | 261 | 264 | 264 | 25 |
| 180° | 259 | 259 | 259 | 259 | 259 | |



TEST NUMBER: P332642-940

CATALOG NUMBER: SA4XXDIP-C1020D590U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1538.6 | 1538.6 | 1538.6 | 1538.6 | 1538.6 | 1538.6 | 1538.6 | 1538.6 | 1538.6 | 1538.6 | 1538.6 |
| 2.5° | 1542.6 | 1541.9 | 1541.2 | 1540.6 | 1540.0 | 1538.4 | 1536.0 | 1533.6 | 1531.2 | 1528.7 | 1531.0 |
| 5° | 1537.4 | 1536.3 | 1535.3 | 1534.1 | 1533.0 | 1531.0 | 1527.9 | 1524.9 | 1522.0 | 1518.9 | 1522.0 |
| 7.5° | 1523.1 | 1522.0 | 1520.9 | 1519.8 | 1518.8 | 1516.5 | 1513.1 | 1509.8 | 1506.5 | 1503.2 | 1505.6 |
| 10° | 1510.3 | 1509.2 | 1508.1 | 1507.0 | 1505.9 | 1503.6 | 1500.0 | 1496.5 | 1492.9 | 1489.3 | 1491.5 |
| 12.5° | 1493.5 | 1492.5 | 1491.3 | 1490.2 | 1489.2 | 1486.7 | 1482.9 | 1479.2 | 1475.3 | 1471.6 | 1474.0 |
| 15° | 1463.5 | 1462.3 | 1461.2 | 1460.2 | 1459.0 | 1456.4 | 1452.3 | 1448.2 | 1444.1 | 1440.0 | 1441.6 |
| 17.5° | 1427.2 | 1425.8 | 1424.4 | 1423.1 | 1421.7 | 1419.1 | 1415.1 | 1411.3 | 1407.4 | 1403.6 | 1404.5 |
| 20° | 1400.5 | 1399.2 | 1397.8 | 1396.4 | 1395.1 | 1392.3 | 1388.2 | 1384.1 | 1380.0 | 1375.9 | 1376.7 |
| 22.5° | 1372.0 | 1370.1 | 1368.3 | 1366.5 | 1364.8 | 1361.7 | 1357.6 | 1353.5 | 1349.4 | 1345.3 | 1346.8 |
| 25° | 1325.3 | 1323.5 | 1321.5 | 1319.6 | 1317.7 | 1314.8 | 1311.0 | 1307.2 | 1303.3 | 1299.5 | 1299.8 |
| 27.5° | 1272.1 | 1270.2 | 1268.1 | 1266.1 | 1264.2 | 1261.4 | 1257.8 | 1254.3 | 1250.7 | 1247.1 | 1246.5 |
| 30° | 1236.6 | 1234.4 | 1232.2 | 1230.0 | 1227.8 | 1224.9 | 1221.4 | 1217.8 | 1214.2 | 1210.7 | 1209.6 |
| 32.5° | 1199.1 | 1197.1 | 1195.2 | 1193.2 | 1191.2 | 1188.3 | 1184.5 | 1180.8 | 1177.0 | 1173.2 | 1171.9 |
| 35° | 1140.4 | 1138.5 | 1136.6 | 1134.7 | 1132.7 | 1129.9 | 1126.1 | 1122.2 | 1118.4 | 1114.5 | 1112.6 |
| 37.5° | 1078.5 | 1076.7 | 1075.0 | 1073.3 | 1071.5 | 1068.6 | 1064.4 | 1060.3 | 1056.2 | 1052.1 | 1050.1 |
| 40° | 1038.1 | 1035.9 | 1033.7 | 1031.5 | 1029.3 | 1026.2 | 1022.1 | 1018.0 | 1013.9 | 1009.8 | 1007.0 |
| 42.5° | 994.7 | 993.4 | 992.0 | 990.8 | 989.4 | 986.5 | 982.0 | 977.4 | 972.9 | 968.3 | 965.1 |
| 45° | 930.9 | 928.9 | 927.0 | 925.1 | 923.2 | 920.0 | 915.6 | 911.2 | 906.9 | 902.5 | 899.5 |
| 47.5° | 864.0 | 862.7 | 861.4 | 860.1 | 858.7 | 856.0 | 852.0 | 847.9 | 843.9 | 839.8 | 836.4 |
| 50° | 818.7 | 817.5 | 816.5 | 815.4 | 814.2 | 811.8 | 808.0 | 804.1 | 800.3 | 796.5 | 792.6 |
| 52.5° | 774.3 | 772.9 | 771.6 | 770.3 | 769.0 | 766.3 | 762.2 | 758.2 | 754.1 | 750.1 | 746.7 |
| 55° | 704.0 | 703.1 | 702.3 | 701.5 | 700.7 | 698.4 | 694.6 | 690.7 | 686.9 | 683.1 | 679.8 |
| 57.5° | 636.9 | 636.0 | 635.1 | 634.1 | 633.2 | 630.8 | 627.1 | 623.3 | 619.5 | 615.7 | 612.6 |
| 60° | 590.6 | 589.2 | 587.8 | 586.5 | 585.1 | 582.6 | 579.1 | 575.5 | 571.9 | 568.4 | 565.9 |
| 62.5° | 545.2 | 544.0 | 542.9 | 541.7 | 540.6 | 538.1 | 534.3 | 530.6 | 526.7 | 523.0 | 520.8 |
| 65° | 477.2 | 475.7 | 474.4 | 473.1 | 471.6 | 469.6 | 466.8 | 464.1 | 461.4 | 458.6 | 455.9 |
| 67.5° | 408.6 | 407.3 | 406.1 | 404.8 | 403.5 | 401.6 | 399.0 | 396.4 | 393.7 | 391.1 | 388.4 |
| 70° | 366.1 | 364.3 | 362.3 | 360.4 | 358.5 | 356.4 | 354.3 | 352.0 | 349.9 | 347.7 | 345.4 |
| 72.5° | 320.8 | 318.9 | 317.0 | 315.0 | 313.2 | 311.3 | 309.5 | 307.8 | 306.0 | 304.3 | 302.6 |
| 75° | 254.0 | 252.6 | 251.2 | 249.9 | 248.5 | 247.1 | 245.8 | 244.4 | 243.0 | 241.7 | 240.6 |
| 77.5° | 190.1 | 189.5 | 188.9 | 188.3 | 187.7 | 186.8 | 185.6 | 184.4 | 183.2 | 182.0 | 181.6 |
| 80° | 151.7 | 150.8 | 150.0 | 149.2 | 148.4 | 147.7 | 147.1 | 146.6 | 146.1 | 145.4 | 144.9 |
| 82.5° | 114.1 | 113.8 | 113.4 | 113.0 | 112.6 | 112.4 | 112.3 | 112.2 | 112.1 | 111.9 | 111.6 |
| 85° | 66.6 | 66.6 | 66.6 | 66.6 | 66.6 | 66.3 | 65.7 | 65.2 | 64.6 | 64.1 | 64.1 |
| 87.5° | 25.8 | 25.8 | 25.9 | 25.7 | 25.6 | 25.3 | 25.8 | 25.5 | 25.5 | 25.5 | 25.4 |
| 90° | 0.5 | 1.5 | 3.0 | 3.6 | 4.1 | 4.1 | 7.1 | 7.1 | 8.1 | 9.2 | 8.6 |
| 92.5° | 5.8 | 8.5 | 13.2 | 19.4 | 26.8 | 37.5 | 63.3 | 102.7 | 141.2 | 161.3 | 134.4 |
| 95° | 16.8 | 18.3 | 23.4 | 30.1 | 42.2 | 63.6 | 107.8 | 191.3 | 312.8 | 414.6 | 426.2 |
| 97.5° | 30.1 | 30.1 | 34.5 | 40.6 | 51.1 | 69.0 | 103.1 | 171.9 | 292.8 | 436.7 | 535.6 |
| 100° | 38.7 | 38.7 | 42.2 | 48.3 | 58.0 | 74.3 | 104.2 | 161.8 | 265.6 | 408.9 | 539.2 |
| 102.5° | 46.8 | 47.6 | 50.7 | 56.4 | 65.7 | 81.1 | 108.3 | 158.9 | 247.2 | 374.4 | 508.6 |
| 105° | 59.5 | 61.1 | 63.6 | 69.7 | 78.8 | 93.6 | 118.0 | 160.2 | 231.5 | 333.7 | 453.3 |
| 107.5° | 73.6 | 74.5 | 77.1 | 83.6 | 92.4 | 106.9 | 129.3 | 167.7 | 228.6 | 310.9 | 408.5 |
| 110° | 82.9 | 83.9 | 86.5 | 92.6 | 101.7 | 115.5 | 137.9 | 173.4 | 229.4 | 303.2 | 386.1 |



TEST NUMBER: P332642-940

CATALOG NUMBER: SA4XXDIP-C1020D590U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 91.8 | 92.9 | 95.9 | 101.6 | 110.7 | 124.4 | 146.0 | 179.6 | 231.8 | 299.5 | 373.4 |
| 115° | 104.8 | 106.3 | 109.9 | 114.9 | 124.7 | 138.4 | 158.7 | 189.2 | 236.6 | 297.6 | 361.7 |
| 117.5° | 118.2 | 119.7 | 122.8 | 128.4 | 137.4 | 151.7 | 171.0 | 199.1 | 241.5 | 297.0 | 356.4 |
| 120° | 127.2 | 128.2 | 131.7 | 137.3 | 146.0 | 160.2 | 179.6 | 206.0 | 245.2 | 297.0 | 353.6 |
| 122.5° | 135.3 | 136.3 | 139.9 | 145.1 | 154.5 | 168.4 | 187.7 | 212.5 | 248.9 | 296.7 | 350.3 |
| 125° | 146.0 | 148.0 | 151.1 | 156.7 | 166.3 | 180.6 | 198.9 | 222.3 | 254.3 | 296.0 | 344.9 |
| 127.5° | 155.4 | 157.1 | 160.8 | 167.1 | 177.2 | 191.5 | 209.3 | 230.8 | 258.7 | 294.9 | 337.7 |
| 130° | 160.8 | 162.7 | 166.8 | 174.5 | 184.1 | 198.9 | 216.2 | 236.0 | 262.0 | 294.5 | 333.1 |
| 132.5° | 166.0 | 167.6 | 173.0 | 180.2 | 190.6 | 204.6 | 221.9 | 241.3 | 264.8 | 294.1 | 329.1 |
| 135° | 173.4 | 175.5 | 180.6 | 189.2 | 199.9 | 213.1 | 229.9 | 248.3 | 269.1 | 293.5 | 323.0 |
| 137.5° | 180.9 | 182.8 | 188.4 | 196.6 | 207.8 | 220.3 | 236.0 | 253.2 | 271.6 | 293.4 | 317.7 |
| 140° | 186.2 | 187.7 | 193.3 | 202.0 | 212.6 | 224.8 | 240.1 | 256.4 | 273.7 | 293.0 | 314.9 |
| 142.5° | 191.9 | 193.4 | 198.6 | 206.8 | 217.1 | 228.9 | 243.8 | 258.8 | 275.3 | 293.0 | 312.5 |
| 145° | 199.9 | 201.4 | 206.5 | 213.7 | 223.3 | 234.5 | 247.7 | 261.4 | 276.3 | 291.9 | 308.3 |
| 147.5° | 208.9 | 209.5 | 213.9 | 221.2 | 229.3 | 239.4 | 251.8 | 263.8 | 276.7 | 290.2 | 304.5 |
| 150° | 214.6 | 215.2 | 219.3 | 225.3 | 233.0 | 242.6 | 253.9 | 265.0 | 276.7 | 288.9 | 301.7 |
| 152.5° | 220.0 | 220.1 | 224.1 | 229.8 | 236.7 | 245.5 | 255.5 | 265.8 | 275.9 | 286.9 | 298.4 |
| 155° | 227.4 | 227.9 | 231.0 | 236.0 | 241.7 | 249.2 | 257.9 | 266.5 | 274.6 | 283.8 | 293.5 |
| 157.5° | 234.6 | 234.6 | 237.5 | 241.4 | 246.3 | 252.3 | 259.7 | 266.5 | 273.4 | 280.7 | 288.6 |
| 160° | 239.1 | 239.1 | 241.1 | 244.7 | 248.7 | 254.3 | 260.5 | 266.5 | 272.2 | 278.2 | 284.9 |
| 162.5° | 243.2 | 242.7 | 244.3 | 247.5 | 251.2 | 255.6 | 261.3 | 266.5 | 270.9 | 275.8 | 281.6 |
| 165° | 247.7 | 247.7 | 248.7 | 251.3 | 253.9 | 256.9 | 261.4 | 265.6 | 268.6 | 272.2 | 276.3 |
| 167.5° | 252.3 | 251.8 | 252.3 | 254.2 | 255.7 | 258.0 | 261.4 | 264.3 | 266.2 | 268.5 | 271.3 |
| 170° | 254.3 | 253.9 | 254.3 | 255.8 | 256.9 | 258.4 | 260.9 | 263.5 | 264.5 | 266.0 | 268.0 |
| 172.5° | 256.4 | 255.8 | 255.9 | 257.1 | 257.7 | 258.8 | 260.6 | 262.7 | 262.9 | 263.6 | 265.2 |
| 175° | 258.4 | 257.9 | 257.9 | 258.4 | 259.0 | 259.0 | 259.9 | 261.4 | 260.9 | 260.9 | 262.0 |
| 177.5° | 259.3 | 259.0 | 258.5 | 259.0 | 259.0 | 259.0 | 259.3 | 260.1 | 259.3 | 259.3 | 259.8 |
| 180° | 259.0 | 259.0 | 259.0 | 259.0 | 259.0 | 259.0 | 259.0 | 259.0 | 259.0 | 259.0 | 259.0 |



TEST NUMBER: P332642-940

CATALOG NUMBER: SA4XXDIP-C1020D590U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1538.6 | 1538.6 | 1538.6 | 1538.6 | 1538.6 | 1538.6 | 1538.6 | 1538.6 |
| 2.5° | 1533.1 | 1535.3 | 1537.6 | 1538.6 | 1538.3 | 1538.1 | 1537.8 | 1537.7 |
| 5° | 1524.9 | 1527.9 | 1531.0 | 1532.2 | 1531.7 | 1531.1 | 1530.5 | 1530.0 |
| 7.5° | 1508.0 | 1510.4 | 1512.8 | 1513.9 | 1513.5 | 1513.1 | 1512.8 | 1512.5 |
| 10° | 1493.7 | 1495.9 | 1498.1 | 1498.9 | 1498.3 | 1497.8 | 1497.3 | 1496.7 |
| 12.5° | 1476.4 | 1478.8 | 1481.2 | 1482.0 | 1481.3 | 1480.5 | 1479.7 | 1479.0 |
| 15° | 1443.3 | 1444.9 | 1446.6 | 1447.0 | 1446.2 | 1445.4 | 1444.6 | 1443.7 |
| 17.5° | 1405.6 | 1406.7 | 1407.7 | 1407.9 | 1407.4 | 1406.9 | 1406.3 | 1405.7 |
| 20° | 1377.5 | 1378.4 | 1379.2 | 1379.3 | 1378.8 | 1378.2 | 1377.7 | 1377.2 |
| 22.5° | 1348.3 | 1349.8 | 1351.2 | 1351.5 | 1350.5 | 1349.5 | 1348.5 | 1347.6 |
| 25° | 1300.0 | 1300.3 | 1300.6 | 1300.1 | 1299.0 | 1298.0 | 1296.8 | 1295.7 |
| 27.5° | 1245.9 | 1245.2 | 1244.6 | 1243.6 | 1242.2 | 1240.8 | 1239.4 | 1238.1 |
| 30° | 1208.5 | 1207.4 | 1206.3 | 1205.1 | 1203.7 | 1202.3 | 1201.0 | 1199.6 |
| 32.5° | 1170.5 | 1169.3 | 1168.0 | 1166.6 | 1165.2 | 1163.9 | 1162.5 | 1161.1 |
| 35° | 1110.7 | 1108.8 | 1106.9 | 1105.2 | 1103.8 | 1102.5 | 1101.1 | 1099.7 |
| 37.5° | 1047.9 | 1045.9 | 1043.8 | 1041.9 | 1040.1 | 1038.2 | 1036.4 | 1034.7 |
| 40° | 1004.2 | 1001.5 | 998.8 | 996.8 | 995.3 | 994.0 | 992.7 | 991.2 |
| 42.5° | 962.0 | 958.8 | 955.6 | 953.5 | 952.6 | 951.6 | 950.7 | 949.9 |
| 45° | 896.4 | 893.4 | 890.4 | 888.5 | 887.7 | 886.9 | 886.0 | 885.2 |
| 47.5° | 833.0 | 829.6 | 826.3 | 823.5 | 821.4 | 819.3 | 817.3 | 815.2 |
| 50° | 788.8 | 785.0 | 781.1 | 778.4 | 776.7 | 775.1 | 773.5 | 771.8 |
| 52.5° | 743.3 | 739.9 | 736.5 | 733.8 | 731.6 | 729.6 | 727.5 | 725.4 |
| 55° | 676.5 | 673.2 | 669.9 | 667.4 | 665.8 | 664.1 | 662.5 | 660.8 |
| 57.5° | 609.5 | 606.4 | 603.2 | 600.8 | 599.2 | 597.7 | 596.1 | 594.5 |
| 60° | 563.5 | 561.0 | 558.5 | 556.6 | 555.2 | 553.8 | 552.5 | 551.1 |
| 62.5° | 518.5 | 516.2 | 514.0 | 512.2 | 510.9 | 509.4 | 508.1 | 506.8 |
| 65° | 453.2 | 450.4 | 447.6 | 445.6 | 444.3 | 442.9 | 441.5 | 440.1 |
| 67.5° | 385.8 | 383.2 | 380.6 | 379.1 | 378.6 | 378.3 | 377.9 | 377.6 |
| 70° | 343.3 | 341.1 | 338.9 | 337.4 | 336.6 | 335.7 | 334.9 | 334.1 |
| 72.5° | 300.8 | 299.0 | 297.3 | 296.0 | 295.2 | 294.4 | 293.6 | 292.7 |
| 75° | 239.4 | 238.4 | 237.3 | 236.6 | 236.3 | 236.0 | 235.8 | 235.5 |
| 77.5° | 181.3 | 181.0 | 180.7 | 180.1 | 179.4 | 178.7 | 178.0 | 177.3 |
| 80° | 144.4 | 143.8 | 143.3 | 142.9 | 142.6 | 142.3 | 142.0 | 141.8 |
| 82.5° | 111.3 | 110.9 | 110.7 | 110.3 | 110.0 | 109.8 | 109.5 | 109.2 |
| 85° | 64.1 | 64.1 | 64.1 | 63.9 | 63.7 | 63.4 | 63.1 | 62.9 |
| 87.5° | 25.5 | 25.6 | 25.7 | 25.7 | 25.8 | 25.9 | 25.8 | 25.8 |
| 90° | 9.2 | 9.6 | 10.2 | 10.2 | 10.7 | 11.1 | 10.7 | 10.7 |
| 92.5° | 99.9 | 75.2 | 59.8 | 49.7 | 43.6 | 40.9 | 39.1 | 39.1 |
| 95° | 376.9 | 298.1 | 229.9 | 180.6 | 155.7 | 139.9 | 130.7 | 124.1 |
| 97.5° | 556.9 | 527.6 | 477.9 | 424.7 | 388.3 | 357.6 | 342.3 | 331.7 |
| 100° | 613.5 | 623.7 | 598.7 | 561.1 | 516.8 | 485.8 | 470.6 | 466.5 |
| 102.5° | 610.6 | 661.1 | 668.3 | 652.6 | 625.4 | 603.0 | 586.9 | 583.6 |
| 105° | 569.7 | 657.7 | 708.1 | 729.0 | 730.0 | 725.9 | 718.7 | 715.7 |
| 107.5° | 511.7 | 605.3 | 676.3 | 721.6 | 746.7 | 758.3 | 763.4 | 764.7 |
| 110° | 476.6 | 564.6 | 638.4 | 694.4 | 730.5 | 751.8 | 761.0 | 765.5 |



TEST NUMBER: P332642-940

CATALOG NUMBER: SA4XXDIP-C1020D590U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 451.0 | 528.8 | 598.5 | 654.4 | 695.4 | 721.3 | 734.1 | 741.5 |
| 115° | 425.3 | 487.9 | 547.3 | 596.2 | 636.3 | 666.9 | 683.1 | 687.2 |
| 117.5° | 412.6 | 464.4 | 511.2 | 552.6 | 586.9 | 612.5 | 629.0 | 632.2 |
| 120° | 407.0 | 454.2 | 494.9 | 531.0 | 560.1 | 582.5 | 595.7 | 601.3 |
| 122.5° | 402.1 | 447.7 | 484.7 | 516.4 | 540.9 | 560.1 | 571.2 | 576.8 |
| 125° | 393.7 | 437.5 | 472.5 | 500.5 | 520.8 | 535.7 | 545.3 | 548.3 |
| 127.5° | 383.5 | 425.3 | 460.4 | 486.9 | 507.4 | 520.5 | 528.6 | 531.6 |
| 130° | 375.4 | 415.6 | 450.1 | 477.2 | 498.0 | 510.7 | 518.9 | 521.9 |
| 132.5° | 366.8 | 404.6 | 438.4 | 465.3 | 485.8 | 500.2 | 507.8 | 511.0 |
| 135° | 355.1 | 388.2 | 419.1 | 444.6 | 464.9 | 479.2 | 487.3 | 490.4 |
| 137.5° | 344.4 | 372.4 | 398.5 | 421.5 | 440.5 | 454.6 | 461.3 | 464.9 |
| 140° | 338.2 | 362.2 | 385.0 | 406.4 | 424.3 | 435.4 | 442.6 | 446.7 |
| 142.5° | 332.6 | 353.7 | 373.3 | 391.8 | 407.5 | 417.9 | 424.3 | 427.0 |
| 145° | 324.5 | 341.8 | 357.1 | 371.3 | 384.1 | 392.7 | 397.8 | 400.3 |
| 147.5° | 317.9 | 331.6 | 343.8 | 355.1 | 364.4 | 371.8 | 375.7 | 376.7 |
| 150° | 313.9 | 325.6 | 335.7 | 344.9 | 353.0 | 359.6 | 362.7 | 363.2 |
| 152.5° | 309.3 | 319.4 | 328.8 | 336.4 | 343.2 | 348.7 | 350.4 | 351.0 |
| 155° | 302.6 | 310.8 | 318.4 | 324.5 | 329.7 | 333.7 | 335.2 | 335.2 |
| 157.5° | 295.4 | 302.3 | 308.6 | 313.5 | 317.4 | 320.5 | 321.4 | 321.4 |
| 160° | 291.0 | 296.6 | 302.1 | 306.2 | 309.2 | 312.4 | 312.8 | 312.8 |
| 162.5° | 286.5 | 291.2 | 295.6 | 299.3 | 301.6 | 304.6 | 305.1 | 304.7 |
| 165° | 280.3 | 283.3 | 286.9 | 289.4 | 291.5 | 293.5 | 293.0 | 292.5 |
| 167.5° | 274.3 | 276.6 | 279.5 | 281.0 | 282.0 | 283.3 | 283.2 | 282.9 |
| 170° | 270.6 | 272.2 | 274.2 | 275.7 | 276.7 | 277.2 | 276.7 | 276.7 |
| 172.5° | 267.3 | 268.5 | 269.7 | 270.8 | 271.4 | 272.0 | 271.4 | 270.6 |
| 175° | 263.0 | 263.5 | 264.5 | 264.5 | 264.5 | 265.6 | 264.5 | 263.5 |
| 177.5° | 260.1 | 260.6 | 260.6 | 260.9 | 260.6 | 260.9 | 260.1 | 259.3 |
| 180° | 259.0 | 259.0 | 259.0 | 259.0 | 259.0 | 259.0 | 259.0 | 259.0 |

(END OF REPORT)