

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: P332632-830

Luminaire Tested: **SA4XXDIP-C1020D365U830-4F0-1E-UDD-F1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332632-830
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: SA4XXDIP-C1020D365U830-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1020 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

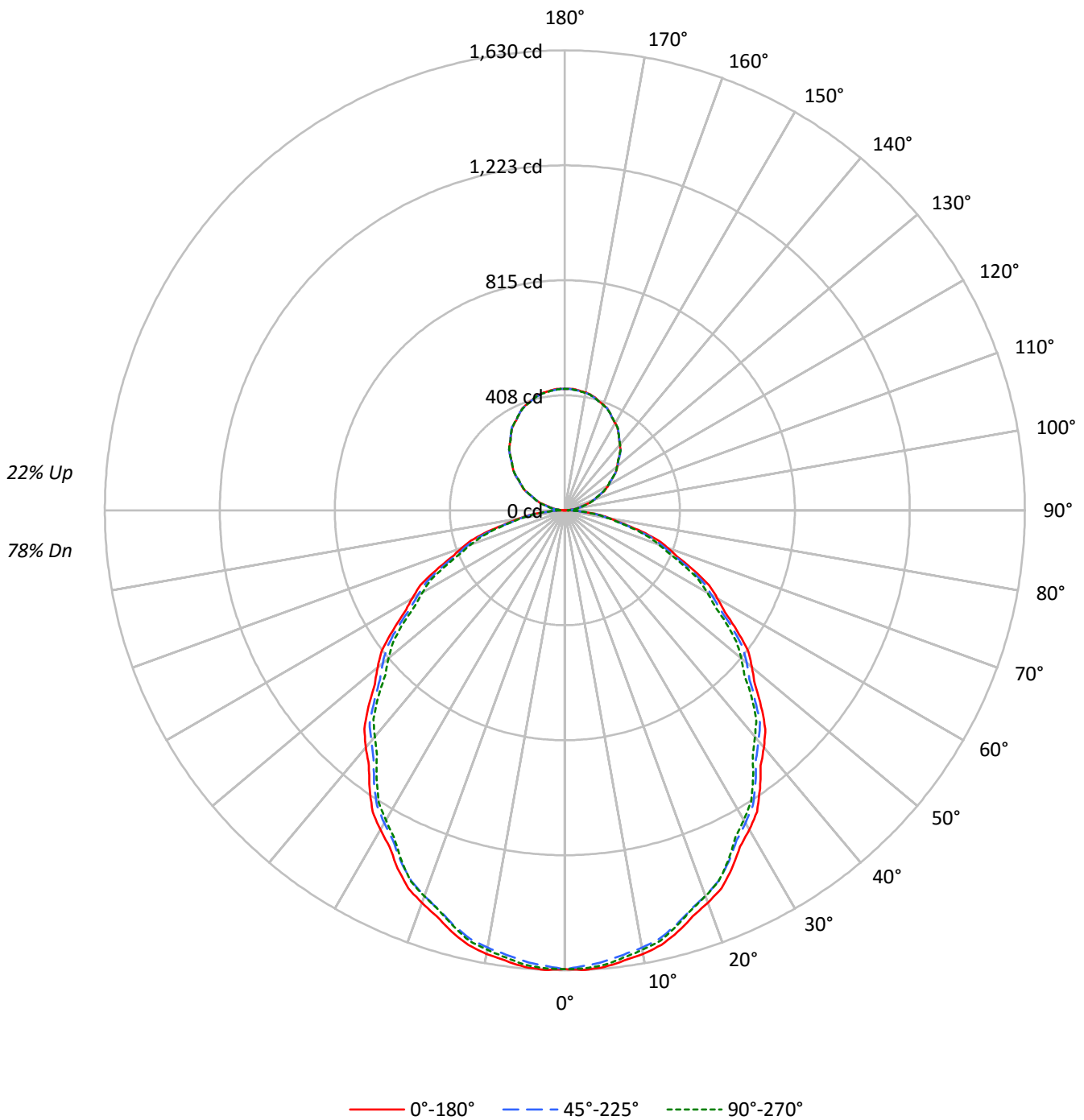
Lumens per Lamp: N/A
Luminaire Lumens: 5369.6 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 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: P332632-830
CATALOG NUMBER: SA4XXDIP-C1020D365U830-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P332632-830

CATALOG NUMBER: SA4XXDIP-C1020D365U830-4F0-1E-UDD-F1

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 | 114 | 114 | 114 | 114 | 109 | 109 | 109 | 109 | 99 | 99 | 99 | 90 | 90 | 90 | 82 | 82 | 82 | 78 |
| 1 | 104 | 99 | 95 | 92 | 99 | 95 | 91 | 88 | 87 | 84 | 81 | 79 | 77 | 75 | 72 | 70 | 69 | 65 |
| 2 | 95 | 87 | 80 | 75 | 90 | 83 | 77 | 72 | 76 | 71 | 67 | 69 | 66 | 63 | 63 | 61 | 58 | 55 |
| 3 | 86 | 76 | 69 | 63 | 82 | 73 | 66 | 61 | 67 | 61 | 57 | 61 | 57 | 53 | 56 | 53 | 49 | 46 |
| 4 | 79 | 68 | 59 | 53 | 75 | 65 | 57 | 51 | 60 | 53 | 48 | 55 | 50 | 45 | 50 | 46 | 43 | 40 |
| 5 | 73 | 61 | 52 | 46 | 69 | 58 | 50 | 44 | 54 | 47 | 42 | 49 | 44 | 40 | 45 | 41 | 37 | 35 |
| 6 | 67 | 55 | 46 | 40 | 64 | 52 | 45 | 39 | 48 | 42 | 37 | 45 | 39 | 35 | 41 | 36 | 33 | 30 |
| 7 | 62 | 49 | 41 | 35 | 59 | 48 | 40 | 34 | 44 | 37 | 33 | 41 | 35 | 31 | 38 | 33 | 29 | 27 |
| 8 | 58 | 45 | 37 | 31 | 55 | 43 | 36 | 31 | 40 | 34 | 29 | 37 | 32 | 28 | 35 | 30 | 26 | 24 |
| 9 | 54 | 41 | 33 | 28 | 52 | 40 | 32 | 27 | 37 | 31 | 26 | 34 | 29 | 25 | 32 | 27 | 24 | 22 |
| 10 | 51 | 38 | 30 | 25 | 48 | 37 | 30 | 25 | 34 | 28 | 24 | 32 | 26 | 23 | 30 | 25 | 22 | 20 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 13130 | 13130 | 13130 |
| 5° | 13169 | 13011 | 13105 |
| 10° | 13086 | 12904 | 12969 |
| 15° | 12929 | 12721 | 12754 |
| 20° | 12718 | 12494 | 12506 |
| 25° | 12479 | 12235 | 12200 |
| 30° | 12185 | 11929 | 11820 |
| 35° | 11880 | 11610 | 11456 |
| 40° | 11564 | 11248 | 11041 |
| 45° | 11233 | 10891 | 10683 |
| 50° | 10868 | 10574 | 10246 |
| 55° | 10473 | 10162 | 9831 |
| 60° | 10078 | 9700 | 9405 |
| 65° | 9635 | 9259 | 8886 |
| 70° | 9135 | 8674 | 8337 |
| 75° | 8372 | 7966 | 7764 |
| 80° | 7452 | 7146 | 6969 |
| 85° | 6521 | 6280 | 6150 |



TEST NUMBER: P332632-830

CATALOG NUMBER: SA4XXDIP-C1020D365U830-4F0-1E-UDD-F1

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 153.2 | 2.9 |
| 10°-20° | 431.5 | 8.0 |
| 20°-30° | 635.2 | 11.8 |
| 30°-40° | 738.4 | 13.8 |
| 40°-50° | 738.4 | 13.8 |
| 50°-60° | 645.9 | 12.0 |
| 60°-70° | 479.7 | 8.9 |
| 70°-80° | 272.5 | 5.1 |
| 80°-90° | 79.9 | 1.5 |
| 90°-100° | 28.4 | 0.5 |
| 100°-110° | 84.2 | 1.6 |
| 110°-120° | 142.8 | 2.7 |
| 120°-130° | 188.3 | 3.5 |
| 130°-140° | 211.5 | 3.9 |
| 140°-150° | 207.8 | 3.9 |
| 150°-160° | 174.8 | 3.3 |
| 160°-170° | 116.3 | 2.2 |
| 170°-180° | 40.7 | 0.8 |
| 0°-30° | 1219.8 | 22.7 |
| 0°-40° | 1958.2 | 36.5 |
| 0°-60° | 3342.6 | 62.3 |
| 0°-90° | 4174.8 | 77.7 |
| 90°-120° | 255.4 | 4.8 |
| 90°-150° | 863.0 | 16.1 |
| 90°-180° | 1195.0 | 22.3 |
| 0°-180° | 5369.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1626 | 1626 | 1626 | 1626 | 1626 | |
| 5° | 1625 | 1619 | 1606 | 1619 | 1617 | 154 |
| 15° | 1547 | 1541 | 1522 | 1529 | 1526 | 436 |
| 25° | 1401 | 1391 | 1374 | 1374 | 1370 | 644 |
| 35° | 1205 | 1196 | 1178 | 1169 | 1162 | 753 |
| 45° | 984 | 974 | 954 | 940 | 936 | 758 |
| 55° | 744 | 739 | 722 | 707 | 698 | 666 |
| 65° | 504 | 497 | 485 | 472 | 465 | 499 |
| 75° | 268 | 262 | 255 | 250 | 249 | 285 |
| 85° | 70 | 70 | 68 | 68 | 66 | 77 |
| 90° | 1 | 5 | 7 | 9 | 10 | 5 |
| 95° | 20 | 23 | 25 | 26 | 26 | 22 |
| 105° | 78 | 78 | 79 | 80 | 81 | 82 |
| 115° | 145 | 145 | 145 | 144 | 144 | 143 |
| 125° | 212 | 211 | 211 | 210 | 210 | 188 |
| 135° | 273 | 275 | 275 | 274 | 273 | 211 |
| 145° | 331 | 333 | 333 | 333 | 332 | 207 |
| 155° | 380 | 380 | 379 | 380 | 379 | 175 |
| 165° | 413 | 412 | 412 | 413 | 412 | 116 |
| 175° | 430 | 428 | 428 | 430 | 428 | 41 |
| 180° | 431 | 431 | 431 | 431 | 431 | |



TEST NUMBER: P332632-830

CATALOG NUMBER: SA4XXDIP-C1020D365U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1626.4 | 1626.4 | 1626.4 | 1626.4 | 1626.4 | 1626.4 | 1626.4 | 1626.4 | 1626.4 | 1626.4 | 1626.4 |
| 2.5° | 1630.5 | 1629.8 | 1629.1 | 1628.4 | 1627.8 | 1626.1 | 1623.5 | 1621.0 | 1618.4 | 1615.9 | 1618.3 |
| 5° | 1625.0 | 1623.9 | 1622.8 | 1621.6 | 1620.4 | 1618.3 | 1615.0 | 1611.8 | 1608.7 | 1605.5 | 1608.7 |
| 7.5° | 1610.0 | 1608.7 | 1607.6 | 1606.5 | 1605.3 | 1603.0 | 1599.4 | 1595.9 | 1592.3 | 1588.8 | 1591.4 |
| 10° | 1596.4 | 1595.3 | 1594.0 | 1592.9 | 1591.8 | 1589.3 | 1585.5 | 1581.8 | 1578.0 | 1574.2 | 1576.5 |
| 12.5° | 1578.7 | 1577.5 | 1576.3 | 1575.2 | 1574.0 | 1571.4 | 1567.4 | 1563.5 | 1559.4 | 1555.5 | 1558.0 |
| 15° | 1546.9 | 1545.7 | 1544.5 | 1543.4 | 1542.2 | 1539.5 | 1535.1 | 1530.8 | 1526.4 | 1522.1 | 1523.8 |
| 17.5° | 1508.5 | 1507.1 | 1505.6 | 1504.2 | 1502.8 | 1500.0 | 1495.8 | 1491.8 | 1487.6 | 1483.6 | 1484.6 |
| 20° | 1480.4 | 1478.9 | 1477.5 | 1476.0 | 1474.6 | 1471.7 | 1467.4 | 1463.0 | 1458.7 | 1454.3 | 1455.2 |
| 22.5° | 1450.2 | 1448.2 | 1446.3 | 1444.4 | 1442.6 | 1439.4 | 1435.0 | 1430.7 | 1426.3 | 1422.0 | 1423.6 |
| 25° | 1400.9 | 1398.9 | 1396.8 | 1394.8 | 1392.8 | 1389.8 | 1385.7 | 1381.7 | 1377.6 | 1373.6 | 1373.9 |
| 27.5° | 1344.6 | 1342.6 | 1340.4 | 1338.3 | 1336.2 | 1333.3 | 1329.6 | 1325.8 | 1322.0 | 1318.2 | 1317.6 |
| 30° | 1307.1 | 1304.8 | 1302.4 | 1300.1 | 1297.8 | 1294.8 | 1291.0 | 1287.2 | 1283.5 | 1279.7 | 1278.6 |
| 32.5° | 1267.4 | 1265.4 | 1263.3 | 1261.2 | 1259.1 | 1256.0 | 1252.1 | 1248.1 | 1244.1 | 1240.1 | 1238.7 |
| 35° | 1205.4 | 1203.4 | 1201.4 | 1199.4 | 1197.3 | 1194.3 | 1190.2 | 1186.2 | 1182.1 | 1178.1 | 1176.0 |
| 37.5° | 1140.0 | 1138.1 | 1136.3 | 1134.4 | 1132.6 | 1129.5 | 1125.1 | 1120.8 | 1116.4 | 1112.1 | 1109.9 |
| 40° | 1097.3 | 1095.0 | 1092.6 | 1090.3 | 1088.0 | 1084.7 | 1080.3 | 1076.0 | 1071.7 | 1067.3 | 1064.4 |
| 42.5° | 1051.4 | 1050.0 | 1048.6 | 1047.3 | 1045.8 | 1042.7 | 1037.9 | 1033.1 | 1028.3 | 1023.5 | 1020.1 |
| 45° | 983.9 | 981.8 | 979.9 | 977.8 | 975.8 | 972.4 | 967.8 | 963.2 | 958.6 | 953.9 | 950.7 |
| 47.5° | 913.2 | 911.9 | 910.5 | 909.1 | 907.7 | 904.8 | 900.6 | 896.3 | 892.0 | 887.7 | 884.1 |
| 50° | 865.3 | 864.1 | 863.0 | 861.9 | 860.6 | 858.1 | 854.0 | 850.0 | 845.9 | 841.9 | 837.8 |
| 52.5° | 818.4 | 817.0 | 815.6 | 814.3 | 812.8 | 810.0 | 805.7 | 801.4 | 797.1 | 792.9 | 789.3 |
| 55° | 744.1 | 743.2 | 742.3 | 741.5 | 740.6 | 738.2 | 734.1 | 730.1 | 726.0 | 722.0 | 718.5 |
| 57.5° | 673.3 | 672.2 | 671.3 | 670.2 | 669.3 | 666.8 | 662.8 | 658.8 | 654.8 | 650.8 | 647.5 |
| 60° | 624.2 | 622.7 | 621.3 | 619.9 | 618.4 | 615.9 | 612.1 | 608.3 | 604.5 | 600.8 | 598.1 |
| 62.5° | 576.3 | 575.0 | 573.8 | 572.6 | 571.4 | 568.8 | 564.8 | 560.8 | 556.8 | 552.8 | 550.4 |
| 65° | 504.4 | 502.8 | 501.4 | 500.0 | 498.5 | 496.3 | 493.4 | 490.6 | 487.7 | 484.7 | 481.9 |
| 67.5° | 431.9 | 430.6 | 429.2 | 427.9 | 426.5 | 424.5 | 421.7 | 419.0 | 416.1 | 413.4 | 410.6 |
| 70° | 387.0 | 385.0 | 383.0 | 381.0 | 378.9 | 376.7 | 374.5 | 372.1 | 369.9 | 367.5 | 365.1 |
| 72.5° | 339.1 | 337.1 | 335.1 | 333.0 | 331.0 | 329.0 | 327.2 | 325.4 | 323.5 | 321.6 | 319.8 |
| 75° | 268.4 | 267.0 | 265.5 | 264.1 | 262.7 | 261.2 | 259.8 | 258.4 | 256.8 | 255.4 | 254.3 |
| 77.5° | 201.0 | 200.3 | 199.6 | 199.1 | 198.4 | 197.5 | 196.1 | 194.9 | 193.6 | 192.4 | 192.0 |
| 80° | 160.3 | 159.4 | 158.5 | 157.7 | 156.8 | 156.1 | 155.5 | 155.0 | 154.4 | 153.7 | 153.2 |
| 82.5° | 120.6 | 120.3 | 119.9 | 119.4 | 119.0 | 118.8 | 118.7 | 118.6 | 118.5 | 118.3 | 118.0 |
| 85° | 70.4 | 70.4 | 70.4 | 70.4 | 70.4 | 70.1 | 69.5 | 68.9 | 68.3 | 67.8 | 67.8 |
| 87.5° | 27.3 | 27.2 | 27.1 | 27.1 | 27.1 | 27.0 | 26.9 | 26.7 | 26.6 | 26.5 | 26.6 |
| 90° | 1.0 | 1.8 | 2.6 | 3.5 | 4.2 | 5.0 | 5.6 | 6.1 | 6.7 | 7.4 | 7.7 |
| 92.5° | 7.2 | 8.1 | 9.0 | 9.9 | 10.8 | 11.5 | 12.0 | 12.3 | 12.8 | 13.2 | 13.5 |
| 95° | 20.0 | 20.6 | 21.3 | 22.0 | 22.6 | 23.3 | 23.8 | 24.3 | 24.8 | 25.4 | 25.5 |
| 97.5° | 34.9 | 35.4 | 36.0 | 36.5 | 37.0 | 37.6 | 38.2 | 38.8 | 39.4 | 40.1 | 40.3 |
| 100° | 46.7 | 46.9 | 47.2 | 47.5 | 47.8 | 48.3 | 48.9 | 49.7 | 50.3 | 51.0 | 51.1 |
| 102.5° | 58.9 | 59.0 | 59.1 | 59.3 | 59.4 | 59.8 | 60.3 | 61.0 | 61.5 | 62.1 | 62.4 |
| 105° | 77.6 | 77.7 | 77.8 | 77.9 | 77.9 | 78.0 | 78.4 | 78.7 | 79.0 | 79.3 | 79.5 |
| 107.5° | 97.3 | 97.4 | 97.5 | 97.6 | 97.6 | 97.6 | 97.7 | 97.7 | 97.8 | 97.8 | 98.0 |
| 110° | 110.6 | 110.7 | 110.8 | 111.0 | 111.1 | 111.2 | 111.1 | 111.0 | 110.9 | 110.9 | 110.7 |



TEST NUMBER: P332632-830

CATALOG NUMBER: SA4XXDIP-C1020D365U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 124.4 | 124.4 | 124.5 | 124.5 | 124.5 | 124.5 | 124.3 | 124.2 | 124.1 | 123.9 | 123.9 |
| 115° | 145.2 | 145.2 | 145.2 | 145.2 | 145.2 | 145.2 | 145.0 | 144.9 | 144.7 | 144.6 | 144.5 |
| 117.5° | 164.8 | 164.9 | 164.9 | 164.9 | 165.0 | 165.0 | 164.9 | 164.9 | 164.7 | 164.6 | 164.4 |
| 120° | 177.9 | 178.1 | 178.4 | 178.7 | 179.1 | 179.1 | 178.9 | 178.6 | 178.4 | 178.2 | 177.9 |
| 122.5° | 191.4 | 191.5 | 191.7 | 191.8 | 191.9 | 191.9 | 191.8 | 191.7 | 191.6 | 191.5 | 191.2 |
| 125° | 211.5 | 211.5 | 211.5 | 211.5 | 211.5 | 211.4 | 211.4 | 211.3 | 211.2 | 211.1 | 211.0 |
| 127.5° | 229.7 | 229.9 | 230.2 | 230.4 | 230.5 | 230.6 | 230.5 | 230.4 | 230.3 | 230.2 | 230.0 |
| 130° | 242.5 | 242.7 | 242.9 | 243.2 | 243.4 | 243.5 | 243.5 | 243.5 | 243.5 | 243.5 | 243.4 |
| 132.5° | 255.5 | 255.7 | 255.8 | 256.0 | 256.2 | 256.2 | 256.2 | 256.1 | 256.1 | 256.0 | 255.8 |
| 135° | 272.8 | 273.2 | 273.6 | 274.1 | 274.6 | 274.8 | 274.8 | 274.8 | 274.8 | 274.8 | 274.7 |
| 137.5° | 291.5 | 291.8 | 292.0 | 292.2 | 292.4 | 292.6 | 292.7 | 292.8 | 292.9 | 293.0 | 292.8 |
| 140° | 304.1 | 304.3 | 304.3 | 304.5 | 304.7 | 304.7 | 304.7 | 304.7 | 304.7 | 304.7 | 304.7 |
| 142.5° | 315.6 | 315.7 | 315.8 | 315.9 | 316.1 | 316.2 | 316.1 | 316.0 | 316.0 | 315.9 | 315.9 |
| 145° | 331.4 | 331.7 | 332.0 | 332.2 | 332.6 | 332.8 | 332.8 | 332.9 | 333.0 | 333.1 | 333.0 |
| 147.5° | 347.1 | 347.5 | 347.8 | 348.2 | 348.6 | 348.6 | 348.6 | 348.6 | 348.6 | 348.5 | 348.4 |
| 150° | 356.8 | 357.0 | 357.3 | 357.6 | 357.9 | 358.1 | 358.1 | 358.1 | 358.1 | 358.1 | 358.1 |
| 152.5° | 365.8 | 366.0 | 366.1 | 366.3 | 366.5 | 366.6 | 366.6 | 366.7 | 366.7 | 366.8 | 367.0 |
| 155° | 379.7 | 379.7 | 379.7 | 379.7 | 379.7 | 379.7 | 379.6 | 379.5 | 379.5 | 379.4 | 379.7 |
| 157.5° | 391.4 | 391.2 | 391.2 | 391.1 | 390.9 | 390.8 | 390.8 | 390.8 | 390.8 | 390.8 | 391.0 |
| 160° | 398.3 | 398.2 | 398.2 | 398.1 | 398.0 | 397.9 | 397.9 | 397.8 | 397.8 | 397.7 | 397.9 |
| 162.5° | 404.7 | 404.5 | 404.4 | 404.2 | 404.0 | 403.9 | 403.8 | 403.7 | 403.6 | 403.5 | 404.0 |
| 165° | 413.3 | 413.1 | 412.9 | 412.6 | 412.5 | 412.3 | 412.1 | 412.0 | 411.8 | 411.7 | 412.1 |
| 167.5° | 419.9 | 419.6 | 419.3 | 419.0 | 418.7 | 418.5 | 418.6 | 418.6 | 418.6 | 418.6 | 419.1 |
| 170° | 423.7 | 423.3 | 422.9 | 422.5 | 422.2 | 422.1 | 422.1 | 422.2 | 422.3 | 422.4 | 422.7 |
| 172.5° | 426.3 | 426.0 | 425.7 | 425.4 | 425.1 | 424.9 | 424.9 | 425.0 | 425.0 | 425.0 | 425.5 |
| 175° | 430.0 | 429.6 | 429.2 | 428.9 | 428.5 | 428.3 | 428.2 | 428.1 | 428.1 | 428.0 | 428.5 |
| 177.5° | 431.2 | 430.9 | 430.6 | 430.3 | 430.0 | 429.9 | 429.9 | 429.9 | 429.9 | 429.9 | 430.3 |
| 180° | 430.6 | 430.6 | 430.6 | 430.6 | 430.6 | 430.6 | 430.6 | 430.6 | 430.6 | 430.6 | 430.6 |



TEST NUMBER: P332632-830

CATALOG NUMBER: SA4XXDIP-C1020D365U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1626.4 | 1626.4 | 1626.4 | 1626.4 | 1626.4 | 1626.4 | 1626.4 | 1626.4 |
| 2.5° | 1620.5 | 1622.9 | 1625.2 | 1626.3 | 1626.0 | 1625.8 | 1625.5 | 1625.3 |
| 5° | 1611.8 | 1615.0 | 1618.3 | 1619.6 | 1619.0 | 1618.3 | 1617.8 | 1617.2 |
| 7.5° | 1593.9 | 1596.5 | 1599.0 | 1600.2 | 1599.8 | 1599.4 | 1599.0 | 1598.7 |
| 10° | 1578.9 | 1581.2 | 1583.5 | 1584.3 | 1583.8 | 1583.2 | 1582.6 | 1582.1 |
| 12.5° | 1560.6 | 1563.1 | 1565.7 | 1566.5 | 1565.8 | 1564.9 | 1564.1 | 1563.3 |
| 15° | 1525.6 | 1527.3 | 1529.1 | 1529.5 | 1528.6 | 1527.8 | 1526.9 | 1526.0 |
| 17.5° | 1485.7 | 1486.9 | 1487.9 | 1488.2 | 1487.6 | 1487.0 | 1486.5 | 1485.8 |
| 20° | 1456.0 | 1457.0 | 1457.8 | 1457.9 | 1457.4 | 1456.8 | 1456.2 | 1455.7 |
| 22.5° | 1425.1 | 1426.7 | 1428.2 | 1428.5 | 1427.5 | 1426.4 | 1425.4 | 1424.4 |
| 25° | 1374.1 | 1374.4 | 1374.7 | 1374.2 | 1373.1 | 1372.0 | 1370.7 | 1369.6 |
| 27.5° | 1316.9 | 1316.2 | 1315.5 | 1314.5 | 1313.0 | 1311.5 | 1310.0 | 1308.6 |
| 30° | 1277.4 | 1276.2 | 1275.1 | 1273.8 | 1272.3 | 1270.8 | 1269.4 | 1268.0 |
| 32.5° | 1237.3 | 1236.0 | 1234.5 | 1233.1 | 1231.6 | 1230.2 | 1228.8 | 1227.3 |
| 35° | 1174.0 | 1172.0 | 1170.0 | 1168.2 | 1166.8 | 1165.4 | 1163.9 | 1162.4 |
| 37.5° | 1107.7 | 1105.5 | 1103.3 | 1101.3 | 1099.4 | 1097.4 | 1095.5 | 1093.6 |
| 40° | 1061.5 | 1058.6 | 1055.7 | 1053.6 | 1052.1 | 1050.7 | 1049.2 | 1047.7 |
| 42.5° | 1016.8 | 1013.4 | 1010.0 | 1007.9 | 1006.9 | 1005.9 | 1004.9 | 1004.0 |
| 45° | 947.5 | 944.3 | 941.1 | 939.1 | 938.3 | 937.5 | 936.5 | 935.7 |
| 47.5° | 880.5 | 876.9 | 873.4 | 870.4 | 868.3 | 866.0 | 863.8 | 861.7 |
| 50° | 833.8 | 829.7 | 825.7 | 822.7 | 821.0 | 819.3 | 817.6 | 815.8 |
| 52.5° | 785.7 | 782.0 | 778.4 | 775.6 | 773.4 | 771.2 | 769.0 | 766.8 |
| 55° | 715.0 | 711.5 | 708.0 | 705.5 | 703.7 | 702.0 | 700.2 | 698.5 |
| 57.5° | 644.2 | 640.9 | 637.6 | 635.1 | 633.4 | 631.8 | 630.1 | 628.4 |
| 60° | 595.6 | 593.0 | 590.3 | 588.3 | 586.8 | 585.4 | 584.0 | 582.5 |
| 62.5° | 548.1 | 545.6 | 543.3 | 541.4 | 540.0 | 538.5 | 537.1 | 535.6 |
| 65° | 479.0 | 476.1 | 473.2 | 471.0 | 469.6 | 468.2 | 466.7 | 465.2 |
| 67.5° | 407.8 | 405.0 | 402.3 | 400.7 | 400.2 | 399.8 | 399.4 | 399.1 |
| 70° | 362.9 | 360.5 | 358.3 | 356.7 | 355.8 | 354.9 | 354.0 | 353.2 |
| 72.5° | 317.9 | 316.0 | 314.2 | 312.8 | 312.0 | 311.1 | 310.3 | 309.3 |
| 75° | 253.1 | 251.9 | 250.8 | 250.1 | 249.8 | 249.5 | 249.2 | 248.9 |
| 77.5° | 191.6 | 191.3 | 191.0 | 190.4 | 189.6 | 188.9 | 188.1 | 187.4 |
| 80° | 152.6 | 152.0 | 151.5 | 151.0 | 150.7 | 150.4 | 150.1 | 149.9 |
| 82.5° | 117.6 | 117.3 | 117.0 | 116.6 | 116.3 | 116.0 | 115.7 | 115.5 |
| 85° | 67.8 | 67.8 | 67.8 | 67.6 | 67.3 | 67.0 | 66.7 | 66.4 |
| 87.5° | 26.7 | 26.8 | 26.9 | 26.9 | 27.0 | 27.0 | 27.0 | 27.1 |
| 90° | 8.2 | 8.7 | 9.1 | 9.4 | 9.5 | 9.7 | 9.8 | 10.0 |
| 92.5° | 13.8 | 13.9 | 14.2 | 14.4 | 14.5 | 14.6 | 14.7 | 14.8 |
| 95° | 25.7 | 26.0 | 26.2 | 26.3 | 26.3 | 26.3 | 26.3 | 26.3 |
| 97.5° | 40.5 | 40.8 | 41.1 | 41.2 | 41.2 | 41.2 | 41.2 | 41.2 |
| 100° | 51.3 | 51.4 | 51.6 | 51.7 | 51.7 | 51.7 | 51.7 | 51.7 |
| 102.5° | 62.6 | 62.8 | 63.0 | 63.2 | 63.2 | 63.2 | 63.2 | 63.3 |
| 105° | 79.7 | 79.9 | 80.1 | 80.4 | 80.6 | 80.9 | 81.1 | 81.2 |
| 107.5° | 98.3 | 98.5 | 98.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.7 |
| 110° | 110.7 | 110.5 | 110.3 | 110.4 | 110.6 | 110.8 | 111.0 | 111.2 |



TEST NUMBER: P332632-830

CATALOG NUMBER: SA4XXDIP-C1020D365U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 123.9 | 123.9 | 123.9 | 123.9 | 123.9 | 123.9 | 123.9 | 124.0 |
| 115° | 144.4 | 144.3 | 144.2 | 144.2 | 144.1 | 144.0 | 143.9 | 143.9 |
| 117.5° | 164.1 | 163.8 | 163.6 | 163.4 | 163.2 | 163.1 | 163.0 | 162.8 |
| 120° | 177.5 | 177.1 | 176.7 | 176.6 | 176.7 | 176.9 | 177.0 | 177.2 |
| 122.5° | 191.1 | 190.8 | 190.5 | 190.2 | 190.0 | 189.7 | 189.5 | 189.2 |
| 125° | 210.8 | 210.8 | 210.6 | 210.4 | 210.3 | 210.1 | 210.0 | 209.8 |
| 127.5° | 229.9 | 229.7 | 229.5 | 229.4 | 229.3 | 229.2 | 229.0 | 228.9 |
| 130° | 243.2 | 243.0 | 242.9 | 242.6 | 242.3 | 242.0 | 241.8 | 241.5 |
| 132.5° | 255.7 | 255.5 | 255.4 | 255.2 | 255.1 | 255.1 | 255.0 | 254.8 |
| 135° | 274.5 | 274.4 | 274.2 | 274.0 | 273.8 | 273.5 | 273.3 | 273.1 |
| 137.5° | 292.7 | 292.5 | 292.3 | 292.2 | 292.2 | 292.3 | 292.3 | 292.4 |
| 140° | 304.6 | 304.5 | 304.4 | 304.3 | 304.3 | 304.3 | 304.2 | 304.1 |
| 142.5° | 315.9 | 315.9 | 315.8 | 315.8 | 315.8 | 315.8 | 315.8 | 315.8 |
| 145° | 332.9 | 332.8 | 332.8 | 332.6 | 332.4 | 332.2 | 332.0 | 331.8 |
| 147.5° | 348.4 | 348.3 | 348.2 | 348.2 | 348.1 | 348.0 | 347.9 | 347.9 |
| 150° | 358.1 | 358.1 | 358.1 | 358.0 | 358.0 | 357.9 | 357.8 | 357.7 |
| 152.5° | 367.2 | 367.4 | 367.6 | 367.5 | 367.3 | 367.1 | 366.9 | 366.7 |
| 155° | 379.9 | 380.2 | 380.5 | 380.5 | 380.2 | 379.9 | 379.7 | 379.4 |
| 157.5° | 391.2 | 391.4 | 391.6 | 391.6 | 391.3 | 391.2 | 390.9 | 390.6 |
| 160° | 398.1 | 398.3 | 398.6 | 398.5 | 398.1 | 397.8 | 397.4 | 397.0 |
| 162.5° | 404.4 | 404.7 | 405.1 | 405.1 | 404.8 | 404.4 | 404.1 | 403.7 |
| 165° | 412.6 | 413.0 | 413.4 | 413.5 | 413.2 | 412.9 | 412.6 | 412.4 |
| 167.5° | 419.5 | 419.9 | 420.4 | 420.4 | 419.9 | 419.4 | 419.0 | 418.5 |
| 170° | 423.2 | 423.7 | 424.1 | 424.0 | 423.6 | 423.0 | 422.5 | 422.0 |
| 172.5° | 426.0 | 426.5 | 427.0 | 427.0 | 426.5 | 425.9 | 425.5 | 424.9 |
| 175° | 429.0 | 429.5 | 430.1 | 430.1 | 429.5 | 429.0 | 428.5 | 428.0 |
| 177.5° | 430.6 | 431.1 | 431.5 | 431.5 | 431.0 | 430.6 | 430.1 | 429.6 |
| 180° | 430.6 | 430.6 | 430.6 | 430.6 | 430.6 | 430.6 | 430.6 | 430.6 |

(END OF REPORT)