

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: P332660-830

Luminaire Tested: **S124DIP-S1020D1035U830-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332660-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DIP-S1020D1035U830-4F0-1E-UDD-F4  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1020 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7659.4 lumens  
Efficiency: N/A  
Efficacy: 126.6 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: General Diffuse

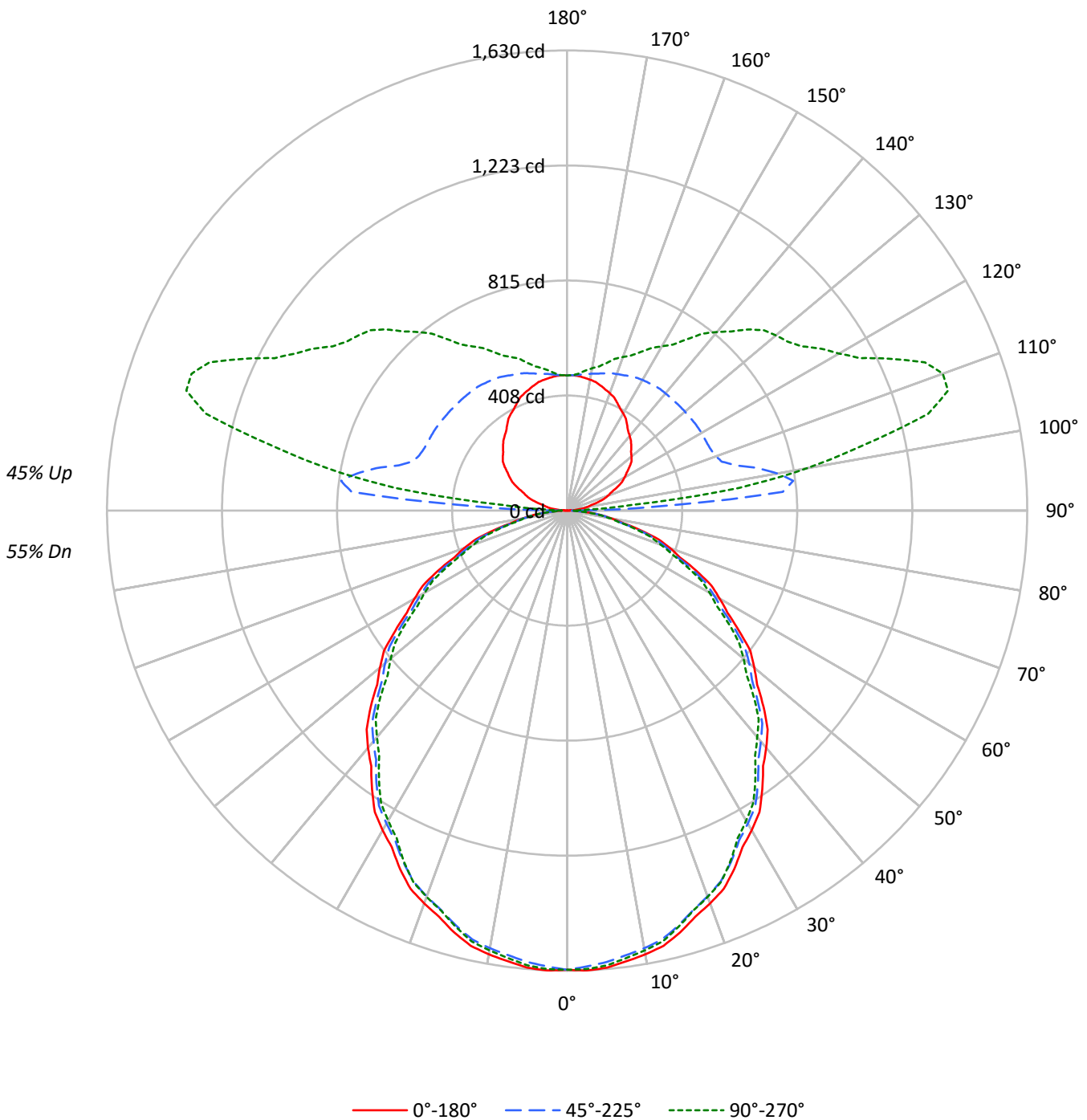
Input Watts (W): 60.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P332660-830

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### Luminous Intensity Polar Plot





TEST NUMBER: P332660-830

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**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   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 86 | 86 | 86 | 73 | 73 | 73 | 60 | 60 | 60 | 55 |
| 1   | 99  | 94  | 90  | 87  | 91  | 88  | 84  | 81  | 75 | 73 | 70 | 64 | 62 | 60 | 53 | 52 | 51 | 46 |
| 2   | 90  | 82  | 76  | 71  | 83  | 77  | 71  | 67  | 66 | 62 | 58 | 56 | 53 | 50 | 47 | 45 | 43 | 38 |
| 3   | 82  | 72  | 65  | 59  | 76  | 67  | 61  | 56  | 58 | 53 | 49 | 50 | 46 | 43 | 41 | 39 | 36 | 32 |
| 4   | 75  | 64  | 56  | 50  | 69  | 60  | 53  | 47  | 52 | 46 | 42 | 44 | 40 | 37 | 37 | 34 | 31 | 28 |
| 5   | 69  | 57  | 49  | 43  | 64  | 53  | 46  | 41  | 46 | 40 | 36 | 40 | 35 | 32 | 33 | 30 | 27 | 24 |
| 6   | 64  | 51  | 43  | 37  | 59  | 48  | 41  | 35  | 42 | 36 | 31 | 36 | 31 | 28 | 30 | 27 | 24 | 21 |
| 7   | 59  | 46  | 38  | 33  | 54  | 43  | 36  | 31  | 38 | 32 | 28 | 33 | 28 | 25 | 28 | 24 | 21 | 19 |
| 8   | 55  | 42  | 34  | 29  | 51  | 39  | 32  | 28  | 35 | 29 | 25 | 30 | 25 | 22 | 25 | 22 | 19 | 17 |
| 9   | 51  | 38  | 31  | 26  | 47  | 36  | 29  | 25  | 32 | 26 | 22 | 27 | 23 | 20 | 24 | 20 | 17 | 15 |
| 10  | 47  | 35  | 28  | 23  | 44  | 33  | 27  | 22  | 29 | 24 | 20 | 25 | 21 | 18 | 22 | 18 | 16 | 14 |

**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  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 153.2  | 2.0       |
| 10°-20°   | 431.5  | 5.6       |
| 20°-30°   | 635.2  | 8.3       |
| 30°-40°   | 738.4  | 9.6       |
| 40°-50°   | 738.4  | 9.6       |
| 50°-60°   | 645.9  | 8.4       |
| 60°-70°   | 479.7  | 6.3       |
| 70°-80°   | 272.5  | 3.6       |
| 80°-90°   | 81.3   | 1.1       |
| 90°-100°  | 345.9  | 4.5       |
| 100°-110° | 720.0  | 9.4       |
| 110°-120° | 644.9  | 8.4       |
| 120°-130° | 542.4  | 7.1       |
| 130°-140° | 452.3  | 5.9       |
| 140°-150° | 345.5  | 4.5       |
| 150°-160° | 242.9  | 3.2       |
| 160°-170° | 142.9  | 1.9       |
| 170°-180° | 46.5   | 0.6       |
| 0°-30°    | 1219.8 | 15.9      |
| 0°-40°    | 1958.2 | 25.6      |
| 0°-60°    | 3342.6 | 43.6      |
| 0°-90°    | 4176.1 | 54.5      |
| 90°-120°  | 1710.8 | 22.3      |
| 90°-150°  | 3051.1 | 39.8      |
| 90°-180°  | 3483.0 | 45.5      |
| 0°-180°   | 7659.4 | 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    | 8     | 17   | 19    | 20   | 5    |
| 95°  | 31   | 98    | 767  | 380   | 230  | 35   |
| 105° | 110  | 159   | 617  | 1329  | 1324 | 117  |
| 115° | 194  | 243   | 550  | 1058  | 1271 | 192  |
| 125° | 270  | 321   | 548  | 900   | 1014 | 240  |
| 135° | 321  | 382   | 543  | 799   | 907  | 248  |
| 145° | 370  | 423   | 540  | 674   | 741  | 232  |
| 155° | 421  | 454   | 525  | 595   | 620  | 194  |
| 165° | 458  | 472   | 503  | 533   | 541  | 129  |
| 175° | 478  | 479   | 483  | 489   | 487  | 45   |
| 180° | 479  | 479   | 479  | 479   | 479  |      |



TEST NUMBER: P332660-830

CATALOG NUMBER: S124DIP-S1020D1035U830-4F0-1E-UDD-F4

**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   | 27.4   | 27.8   | 27.7   | 27.7   | 27.4   | 28.4   | 28.1   | 28.3   | 28.4   | 28.2   |
| 90°    | 0.9    | 2.8    | 5.7    | 6.6    | 7.5    | 7.5    | 13.2   | 13.2   | 15.1   | 17.0   | 16.0   |
| 92.5°  | 10.7   | 15.6   | 24.5   | 35.9   | 49.7   | 69.3   | 117.1  | 190.1  | 261.2  | 298.5  | 248.6  |
| 95°    | 31.0   | 33.8   | 43.3   | 55.5   | 78.1   | 117.6  | 199.4  | 353.8  | 578.7  | 766.9  | 788.5  |
| 97.5°  | 55.7   | 55.7   | 63.8   | 75.1   | 94.4   | 127.6  | 190.7  | 318.0  | 541.6  | 807.7  | 990.6  |
| 100°   | 71.5   | 71.5   | 78.1   | 89.4   | 107.3  | 137.4  | 192.9  | 299.3  | 491.2  | 756.5  | 997.4  |
| 102.5° | 86.5   | 88.0   | 93.9   | 104.4  | 121.6  | 150.1  | 200.4  | 294.0  | 457.3  | 692.6  | 940.9  |
| 105°   | 110.1  | 112.9  | 117.6  | 128.9  | 145.8  | 173.1  | 218.3  | 296.4  | 428.1  | 617.3  | 838.4  |
| 107.5° | 136.1  | 138.0  | 142.6  | 154.7  | 170.9  | 197.7  | 239.2  | 310.3  | 422.8  | 575.1  | 755.5  |
| 110°   | 153.4  | 155.2  | 159.9  | 171.3  | 188.2  | 213.6  | 255.0  | 320.8  | 424.3  | 560.8  | 714.2  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 169.9 | 171.8 | 177.3 | 187.8 | 204.7 | 230.2 | 270.0 | 332.2 | 428.9 | 554.0 | 690.9 |
| 115°   | 193.9 | 196.6 | 203.2 | 212.6 | 230.5 | 255.9 | 293.6 | 350.1 | 437.5 | 550.4 | 669.0 |
| 117.5° | 218.7 | 221.3 | 227.2 | 237.5 | 254.2 | 280.6 | 316.3 | 368.3 | 446.8 | 549.5 | 659.2 |
| 120°   | 235.3 | 237.1 | 243.7 | 254.0 | 270.0 | 296.4 | 332.2 | 381.1 | 453.6 | 549.5 | 653.9 |
| 122.5° | 250.3 | 252.1 | 258.7 | 268.3 | 285.9 | 311.4 | 347.2 | 393.1 | 460.3 | 548.7 | 647.9 |
| 125°   | 270.0 | 273.8 | 279.5 | 289.8 | 307.6 | 334.0 | 367.9 | 411.2 | 470.5 | 547.6 | 638.0 |
| 127.5° | 287.6 | 290.6 | 297.4 | 309.2 | 327.8 | 354.4 | 387.1 | 426.8 | 478.5 | 545.5 | 624.6 |
| 130°   | 297.4 | 301.1 | 308.6 | 322.7 | 340.6 | 367.9 | 399.9 | 436.6 | 484.6 | 544.8 | 616.3 |
| 132.5° | 307.1 | 310.1 | 319.9 | 333.3 | 352.7 | 378.4 | 410.5 | 446.4 | 489.8 | 544.0 | 608.8 |
| 135°   | 320.8 | 324.6 | 334.0 | 350.1 | 369.8 | 394.3 | 425.3 | 459.2 | 497.8 | 542.9 | 597.5 |
| 137.5° | 334.4 | 338.2 | 348.6 | 363.7 | 384.3 | 407.6 | 436.6 | 468.3 | 502.5 | 542.7 | 587.7 |
| 140°   | 344.4 | 347.2 | 357.6 | 373.5 | 393.3 | 415.9 | 444.1 | 474.2 | 506.2 | 542.0 | 582.5 |
| 142.5° | 355.0 | 357.8 | 367.3 | 382.6 | 401.6 | 423.4 | 450.9 | 478.7 | 509.3 | 542.0 | 578.0 |
| 145°   | 369.8 | 372.6 | 382.0 | 395.2 | 413.1 | 433.8 | 458.3 | 483.6 | 511.0 | 540.1 | 570.2 |
| 147.5° | 386.5 | 387.5 | 395.8 | 409.3 | 424.1 | 442.8 | 465.8 | 488.0 | 511.9 | 536.7 | 563.3 |
| 150°   | 397.1 | 398.0 | 405.6 | 416.9 | 430.9 | 448.8 | 469.6 | 490.2 | 511.9 | 534.4 | 558.0 |
| 152.5° | 406.9 | 407.1 | 414.6 | 425.1 | 437.7 | 454.1 | 472.6 | 491.7 | 510.4 | 530.7 | 552.0 |
| 155°   | 420.6 | 421.5 | 427.2 | 436.6 | 447.0 | 461.1 | 477.0 | 493.0 | 508.1 | 525.1 | 542.9 |
| 157.5° | 433.9 | 433.9 | 439.2 | 446.6 | 455.6 | 466.7 | 480.2 | 493.0 | 505.7 | 519.2 | 533.7 |
| 160°   | 442.2 | 442.2 | 446.0 | 452.6 | 460.1 | 470.5 | 481.7 | 493.0 | 503.4 | 514.7 | 527.0 |
| 162.5° | 449.8 | 449.0 | 452.0 | 457.9 | 464.7 | 472.8 | 483.2 | 493.0 | 501.1 | 510.2 | 520.9 |
| 165°   | 458.3 | 458.3 | 460.1 | 464.9 | 469.6 | 475.1 | 483.6 | 491.2 | 496.8 | 503.4 | 511.0 |
| 167.5° | 466.7 | 465.8 | 466.7 | 470.3 | 473.0 | 477.2 | 483.4 | 488.9 | 492.3 | 496.6 | 501.9 |
| 170°   | 470.5 | 469.6 | 470.5 | 473.3 | 475.1 | 478.0 | 482.7 | 487.4 | 489.3 | 492.1 | 495.9 |
| 172.5° | 474.2 | 473.3 | 473.4 | 475.5 | 476.6 | 478.7 | 481.9 | 485.9 | 486.3 | 487.6 | 490.6 |
| 175°   | 478.0 | 477.0 | 477.0 | 478.0 | 478.9 | 478.9 | 480.8 | 483.6 | 482.7 | 482.7 | 484.6 |
| 177.5° | 479.7 | 478.9 | 478.2 | 478.9 | 478.9 | 478.9 | 479.7 | 481.2 | 479.7 | 479.7 | 480.4 |
| 180°   | 478.9 | 478.9 | 478.9 | 478.9 | 478.9 | 478.9 | 478.9 | 478.9 | 478.9 | 478.9 | 478.9 |



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**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°  | 28.4   | 28.6   | 28.7   | 28.7   | 28.9   | 29.1   | 28.9   | 28.9   |
| 90°    | 17.0   | 17.9   | 18.9   | 18.9   | 19.8   | 20.7   | 19.8   | 19.8   |
| 92.5°  | 184.8  | 139.1  | 110.7  | 91.8   | 80.8   | 75.7   | 72.5   | 72.5   |
| 95°    | 697.2  | 551.4  | 425.3  | 334.0  | 287.9  | 258.7  | 241.9  | 229.6  |
| 97.5°  | 1030.2 | 975.9  | 883.9  | 785.7  | 718.1  | 661.5  | 633.3  | 613.7  |
| 100°   | 1134.8 | 1153.6 | 1107.5 | 1037.8 | 956.0  | 898.6  | 870.3  | 862.9  |
| 102.5° | 1129.5 | 1222.9 | 1236.2 | 1207.2 | 1157.0 | 1115.4 | 1085.7 | 1079.7 |
| 105°   | 1053.9 | 1216.6 | 1309.8 | 1348.4 | 1350.3 | 1342.7 | 1329.6 | 1323.9 |
| 107.5° | 946.4  | 1119.7 | 1250.9 | 1334.8 | 1381.3 | 1402.8 | 1412.2 | 1414.7 |
| 110°   | 881.7  | 1044.4 | 1180.9 | 1284.4 | 1351.2 | 1390.7 | 1407.7 | 1416.2 |





TEST NUMBER: P332660-830

CATALOG NUMBER: S124DIP-S1020D1035U830-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

|        | 55°   | 60°   | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|-------|-------|--------|--------|--------|--------|--------|--------|
| 112.5° | 834.2 | 978.2 | 1107.1 | 1210.6 | 1286.5 | 1334.3 | 1358.0 | 1371.7 |
| 115°   | 786.6 | 902.4 | 1012.5 | 1102.8 | 1177.1 | 1233.6 | 1263.7 | 1271.2 |
| 117.5° | 763.3 | 859.1 | 945.7  | 1022.3 | 1085.7 | 1133.1 | 1163.6 | 1169.4 |
| 120°   | 752.7 | 840.3 | 915.6  | 982.3  | 1035.9 | 1077.4 | 1101.8 | 1112.2 |
| 122.5° | 743.8 | 828.2 | 896.7  | 955.3  | 1000.6 | 1035.9 | 1056.7 | 1067.1 |
| 125°   | 728.3 | 809.2 | 874.1  | 925.9  | 963.6  | 990.8  | 1008.7 | 1014.4 |
| 127.5° | 709.5 | 786.8 | 851.6  | 900.7  | 938.5  | 962.8  | 977.8  | 983.4  |
| 130°   | 694.5 | 768.7 | 832.7  | 882.6  | 921.1  | 944.7  | 959.8  | 965.4  |
| 132.5° | 678.6 | 748.5 | 810.9  | 860.8  | 898.6  | 925.1  | 939.4  | 945.1  |
| 135°   | 656.8 | 717.9 | 775.3  | 822.4  | 860.1  | 886.4  | 901.4  | 907.1  |
| 137.5° | 637.1 | 688.8 | 737.2  | 779.7  | 814.8  | 840.8  | 853.3  | 860.1  |
| 140°   | 625.8 | 670.0 | 712.3  | 751.8  | 784.8  | 805.5  | 818.6  | 826.1  |
| 142.5° | 615.2 | 654.1 | 690.5  | 724.7  | 753.8  | 773.1  | 784.8  | 790.0  |
| 145°   | 600.3 | 632.4 | 660.5  | 686.9  | 710.4  | 726.4  | 735.8  | 740.6  |
| 147.5° | 588.1 | 613.5 | 636.1  | 656.8  | 674.1  | 687.9  | 695.0  | 696.6  |
| 150°   | 580.6 | 602.2 | 621.0  | 638.0  | 653.0  | 665.2  | 670.9  | 671.8  |
| 152.5° | 572.3 | 590.9 | 608.2  | 622.2  | 635.0  | 644.9  | 648.3  | 649.2  |
| 155°   | 559.9 | 575.0 | 589.0  | 600.3  | 609.7  | 617.3  | 620.1  | 620.1  |
| 157.5° | 546.5 | 559.1 | 571.0  | 580.0  | 587.1  | 592.8  | 594.5  | 594.5  |
| 160°   | 538.2 | 548.6 | 558.9  | 566.5  | 572.1  | 577.8  | 578.7  | 578.7  |
| 162.5° | 529.9 | 538.8 | 546.9  | 553.6  | 557.8  | 563.5  | 564.4  | 563.6  |
| 165°   | 518.5 | 524.1 | 530.7  | 535.4  | 539.1  | 542.9  | 542.0  | 541.0  |
| 167.5° | 507.4 | 511.7 | 517.0  | 519.8  | 521.7  | 524.1  | 524.0  | 523.2  |
| 170°   | 500.6 | 503.4 | 507.2  | 510.0  | 511.9  | 512.8  | 511.9  | 511.9  |
| 172.5° | 494.6 | 496.6 | 498.9  | 501.0  | 502.1  | 503.0  | 502.1  | 500.6  |
| 175°   | 486.4 | 487.4 | 489.3  | 489.3  | 489.3  | 491.2  | 489.3  | 487.4  |
| 177.5° | 481.2 | 481.9 | 481.9  | 482.7  | 481.9  | 482.7  | 481.2  | 479.7  |
| 180°   | 478.9 | 478.9 | 478.9  | 478.9  | 478.9  | 478.9  | 478.9  | 478.9  |

(END OF REPORT)