

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: FAIL-SAFE

Report Number: P709183

Luminaire Tested: **4APN-28-30L930-UNV**

Issue Date: 09/12/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P709183  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 09/12/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 4APN-28-30L930-UNV  
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture Ambient and Exam Light  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

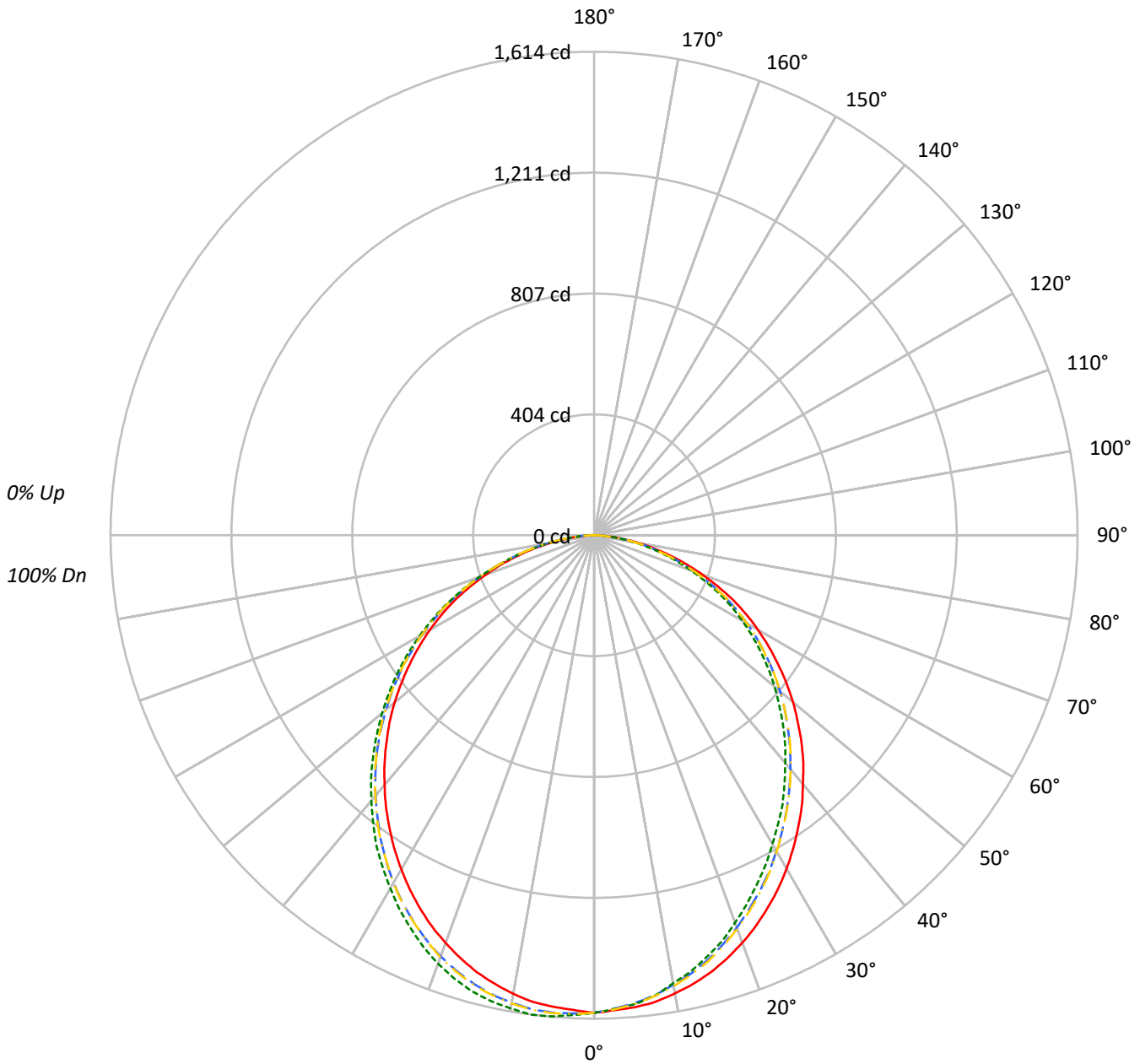
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4215.2 lumens  
Efficiency: N/A  
Efficacy: 64.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.19 / 1.32  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 65  
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

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### Luminous Intensity Polar Plot



— 0°-180°    - - 45°-225°    - - - 90°-270°    - · - 135°-315°



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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  | 50  | 30  | 10  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 102 | 102 | 102 | 100 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 95  | 92  | 94  | 91  | 89  | 90  | 88  | 86  | 86  | 86  | 86  | 84  |
| 2   | 99  | 91  | 84  | 79  | 97  | 89  | 83  | 78  | 86  | 80  | 76  | 82  | 78  | 74  | 79  | 76  | 72  | 72  | 72  | 72  | 70  |
| 3   | 90  | 80  | 72  | 66  | 88  | 78  | 71  | 65  | 75  | 69  | 64  | 73  | 67  | 63  | 70  | 66  | 62  | 62  | 62  | 62  | 59  |
| 4   | 83  | 71  | 62  | 56  | 81  | 70  | 62  | 55  | 67  | 60  | 54  | 65  | 59  | 54  | 63  | 57  | 53  | 53  | 53  | 53  | 51  |
| 5   | 76  | 64  | 55  | 48  | 74  | 62  | 54  | 48  | 60  | 53  | 47  | 58  | 52  | 47  | 56  | 51  | 46  | 46  | 46  | 46  | 44  |
| 6   | 71  | 57  | 48  | 42  | 69  | 56  | 48  | 42  | 55  | 47  | 41  | 53  | 46  | 41  | 51  | 45  | 41  | 41  | 41  | 41  | 39  |
| 7   | 65  | 52  | 43  | 37  | 64  | 51  | 43  | 37  | 50  | 42  | 37  | 48  | 41  | 36  | 47  | 41  | 36  | 36  | 36  | 36  | 34  |
| 8   | 61  | 48  | 39  | 33  | 59  | 47  | 39  | 33  | 45  | 38  | 33  | 44  | 38  | 33  | 43  | 37  | 32  | 32  | 32  | 32  | 31  |
| 9   | 57  | 44  | 35  | 30  | 56  | 43  | 35  | 30  | 42  | 35  | 30  | 41  | 34  | 30  | 40  | 34  | 29  | 29  | 29  | 29  | 28  |
| 10  | 53  | 40  | 32  | 27  | 52  | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 31  | 27  | 37  | 31  | 27  | 27  | 27  | 27  | 25  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 90°   | 180°  | 270°  |
|-----|-------|-------|-------|-------|
| 0°  | 14712 | 14712 | 14712 | 14712 |
| 5°  | 14647 | 14552 | 14630 | 14933 |
| 10° | 14553 | 14229 | 14562 | 15027 |
| 15° | 14417 | 13917 | 14427 | 15052 |
| 20° | 14213 | 13515 | 14223 | 14948 |
| 25° | 13965 | 13087 | 13993 | 14737 |
| 30° | 13696 | 12679 | 13716 | 14494 |
| 35° | 13383 | 12350 | 13415 | 14259 |
| 40° | 13059 | 11954 | 13105 | 13928 |
| 45° | 12779 | 11631 | 12792 | 13610 |
| 50° | 12446 | 11289 | 12472 | 13253 |
| 55° | 12050 | 10920 | 12095 | 12878 |
| 60° | 11662 | 10540 | 11680 | 12406 |
| 65° | 11182 | 10077 | 11182 | 11856 |
| 70° | 10380 | 9320  | 10356 | 11014 |
| 75° | 9414  | 8445  | 9347  | 9914  |
| 80° | 8108  | 7263  | 7959  | 8506  |
| 85° | 6246  | 5547  | 6045  | 6838  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 150.6  | 3.6       |
| 10°-20°   | 426.4  | 10.1      |
| 20°-30°   | 631.3  | 15.0      |
| 30°-40°   | 740.6  | 17.6      |
| 40°-50°   | 750.6  | 17.8      |
| 50°-60°   | 666.2  | 15.8      |
| 60°-70°   | 500.1  | 11.9      |
| 70°-80°   | 277.7  | 6.6       |
| 80°-90°   | 71.7   | 1.7       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 1208.2 | 28.7      |
| 0°-40°    | 1948.9 | 46.2      |
| 0°-60°    | 3365.6 | 79.8      |
| 0°-90°    | 4215.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4215.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 90°  | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 1595 | 1595 | 1595 | 1595 | 1595 |      |
| 5°  | 1582 | 1571 | 1580 | 1612 | 1582 | 150  |
| 15° | 1509 | 1457 | 1510 | 1576 | 1509 | 425  |
| 25° | 1372 | 1286 | 1375 | 1448 | 1372 | 632  |
| 35° | 1188 | 1096 | 1191 | 1266 | 1188 | 744  |
| 45° | 979  | 891  | 980  | 1043 | 979  | 755  |
| 55° | 749  | 679  | 752  | 801  | 749  | 671  |
| 65° | 512  | 462  | 512  | 543  | 512  | 505  |
| 75° | 264  | 237  | 262  | 278  | 264  | 281  |
| 85° | 59   | 52   | 57   | 65   | 59   | 71   |
| 90° | 0    | 0    | 0    | 0    | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 10°    | 20°    | 30°    | 40°    | 50°    | 60°    | 70°    | 80°    | 90°    | 100°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 |
| 2.5°  | 1587.1 | 1590.9 | 1595.6 | 1590.9 | 1583.4 | 1579.7 | 1579.7 | 1578.7 | 1581.5 | 1582.5 | 1581.5 |
| 5°    | 1581.5 | 1583.4 | 1584.3 | 1578.7 | 1570.3 | 1565.6 | 1563.7 | 1562.8 | 1566.5 | 1571.2 | 1566.5 |
| 7.5°  | 1571.2 | 1570.3 | 1569.4 | 1561.9 | 1552.5 | 1545.9 | 1543.1 | 1542.2 | 1545.9 | 1550.6 | 1546.9 |
| 10°   | 1553.4 | 1552.5 | 1549.7 | 1540.3 | 1528.2 | 1519.7 | 1516.9 | 1514.1 | 1516.9 | 1518.8 | 1516.9 |
| 12.5° | 1533.8 | 1530.0 | 1526.3 | 1516.0 | 1502.9 | 1493.5 | 1488.8 | 1485.1 | 1488.8 | 1491.6 | 1489.8 |
| 15°   | 1509.4 | 1503.8 | 1497.3 | 1486.0 | 1472.9 | 1462.6 | 1457.0 | 1453.2 | 1456.1 | 1457.0 | 1457.0 |
| 17.5° | 1480.4 | 1473.8 | 1467.3 | 1453.2 | 1437.3 | 1426.1 | 1419.5 | 1414.8 | 1418.6 | 1420.5 | 1420.5 |
| 20°   | 1447.6 | 1440.1 | 1431.7 | 1416.7 | 1399.9 | 1387.7 | 1380.2 | 1374.6 | 1375.5 | 1376.5 | 1376.5 |
| 22.5° | 1412.0 | 1402.7 | 1392.4 | 1376.5 | 1358.7 | 1345.6 | 1338.1 | 1331.5 | 1331.5 | 1332.4 | 1332.4 |
| 25°   | 1371.8 | 1361.5 | 1351.2 | 1335.3 | 1316.5 | 1302.5 | 1293.1 | 1286.6 | 1286.6 | 1285.6 | 1287.5 |
| 27.5° | 1330.6 | 1319.3 | 1309.0 | 1292.2 | 1272.5 | 1258.5 | 1249.1 | 1242.6 | 1241.6 | 1240.7 | 1242.6 |
| 30°   | 1285.6 | 1272.5 | 1261.3 | 1243.5 | 1224.8 | 1210.7 | 1201.4 | 1193.9 | 1192.0 | 1190.1 | 1192.0 |
| 32.5° | 1237.9 | 1225.7 | 1213.5 | 1194.8 | 1176.1 | 1162.0 | 1152.7 | 1145.2 | 1144.2 | 1143.3 | 1145.2 |
| 35°   | 1188.2 | 1175.1 | 1163.9 | 1146.1 | 1127.4 | 1113.3 | 1103.0 | 1096.5 | 1096.5 | 1096.5 | 1096.5 |
| 37.5° | 1139.6 | 1126.4 | 1114.3 | 1096.5 | 1077.8 | 1063.7 | 1053.4 | 1046.9 | 1045.0 | 1044.0 | 1045.0 |
| 40°   | 1084.3 | 1073.1 | 1061.8 | 1045.0 | 1026.3 | 1012.2 | 1003.8 | 996.3  | 994.4  | 992.5  | 995.4  |
| 42.5° | 1033.7 | 1022.5 | 1010.3 | 994.4  | 975.7  | 961.6  | 952.3  | 945.7  | 944.8  | 943.9  | 944.8  |
| 45°   | 979.4  | 966.3  | 954.2  | 939.2  | 922.3  | 909.2  | 899.8  | 893.3  | 892.4  | 891.4  | 892.4  |
| 47.5° | 922.3  | 912.0  | 901.7  | 886.7  | 869.9  | 856.8  | 848.3  | 840.9  | 839.0  | 837.1  | 839.0  |
| 50°   | 867.1  | 855.8  | 845.5  | 831.5  | 815.6  | 803.4  | 795.9  | 789.4  | 787.5  | 786.5  | 787.5  |
| 52.5° | 809.0  | 798.7  | 789.4  | 775.3  | 762.2  | 750.0  | 741.6  | 736.0  | 735.0  | 734.1  | 735.0  |
| 55°   | 749.1  | 739.7  | 731.3  | 720.1  | 707.0  | 695.7  | 688.2  | 681.7  | 680.7  | 678.9  | 680.7  |
| 57.5° | 691.0  | 683.5  | 675.1  | 662.9  | 650.8  | 640.5  | 633.9  | 628.3  | 627.4  | 626.4  | 627.4  |
| 60°   | 632.0  | 624.6  | 617.1  | 606.8  | 594.6  | 584.3  | 578.7  | 574.0  | 572.1  | 571.2  | 572.1  |
| 62.5° | 573.1  | 565.6  | 559.9  | 549.6  | 538.4  | 530.0  | 524.4  | 519.7  | 517.8  | 516.9  | 517.8  |
| 65°   | 512.2  | 505.6  | 499.1  | 489.7  | 481.3  | 474.7  | 469.1  | 464.4  | 462.6  | 461.6  | 461.6  |
| 67.5° | 447.6  | 442.0  | 437.3  | 428.9  | 419.5  | 412.9  | 407.3  | 403.6  | 401.7  | 400.8  | 401.7  |
| 70°   | 384.8  | 380.2  | 375.5  | 368.9  | 361.4  | 355.8  | 352.1  | 348.3  | 346.5  | 345.5  | 345.5  |
| 72.5° | 324.9  | 321.2  | 316.5  | 310.9  | 305.3  | 299.6  | 295.9  | 293.1  | 291.2  | 290.3  | 290.3  |
| 75°   | 264.1  | 260.3  | 258.4  | 253.8  | 248.1  | 244.4  | 240.6  | 238.8  | 236.9  | 236.9  | 236.9  |
| 77.5° | 206.9  | 205.1  | 203.2  | 198.5  | 194.8  | 191.0  | 188.2  | 187.3  | 185.4  | 185.4  | 185.4  |
| 80°   | 152.6  | 151.7  | 150.8  | 147.9  | 144.2  | 140.5  | 138.6  | 137.6  | 136.7  | 136.7  | 136.7  |
| 82.5° | 103.0  | 103.0  | 102.1  | 99.3   | 96.4   | 95.5   | 93.6   | 92.7   | 92.7   | 92.7   | 92.7   |
| 85°   | 59.0   | 59.0   | 59.0   | 58.1   | 56.2   | 56.2   | 54.3   | 53.4   | 52.4   | 52.4   | 52.4   |
| 87.5° | 23.4   | 24.3   | 25.3   | 24.3   | 22.5   | 22.5   | 22.5   | 22.5   | 22.5   | 22.5   | 22.5   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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**CANDELA DISTRIBUTION (continued):**

|       | 110°   | 120°   | 130°   | 140°   | 150°   | 160°   | 170°   | 180°   | 190°   | 200°   | 210°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 |
| 2.5°  | 1578.7 | 1580.6 | 1581.5 | 1586.2 | 1591.8 | 1595.6 | 1590.9 | 1586.2 | 1593.7 | 1602.1 | 1602.1 |
| 5°    | 1562.8 | 1564.7 | 1567.5 | 1573.1 | 1580.6 | 1585.3 | 1583.4 | 1579.7 | 1590.9 | 1600.3 | 1601.2 |
| 7.5°  | 1543.1 | 1545.0 | 1548.8 | 1554.4 | 1563.7 | 1570.3 | 1570.3 | 1571.2 | 1581.5 | 1592.8 | 1595.6 |
| 10°   | 1514.1 | 1518.8 | 1524.4 | 1532.8 | 1542.2 | 1550.6 | 1553.4 | 1554.4 | 1567.5 | 1579.7 | 1583.4 |
| 12.5° | 1487.0 | 1491.6 | 1497.3 | 1506.6 | 1517.9 | 1527.2 | 1530.0 | 1533.8 | 1547.8 | 1561.9 | 1567.5 |
| 15°   | 1456.1 | 1460.7 | 1467.3 | 1476.7 | 1488.8 | 1499.1 | 1504.7 | 1510.4 | 1524.4 | 1539.4 | 1545.9 |
| 17.5° | 1419.5 | 1424.2 | 1430.8 | 1442.0 | 1456.1 | 1468.2 | 1474.8 | 1481.3 | 1497.3 | 1513.2 | 1519.7 |
| 20°   | 1376.5 | 1383.0 | 1392.4 | 1403.6 | 1419.5 | 1433.6 | 1441.1 | 1448.6 | 1465.4 | 1481.3 | 1488.8 |
| 22.5° | 1332.4 | 1339.9 | 1350.2 | 1363.3 | 1380.2 | 1395.2 | 1404.5 | 1413.9 | 1430.8 | 1446.7 | 1455.1 |
| 25°   | 1288.4 | 1296.9 | 1307.2 | 1321.2 | 1337.1 | 1352.1 | 1363.3 | 1374.6 | 1391.4 | 1408.3 | 1416.7 |
| 27.5° | 1243.5 | 1251.0 | 1261.3 | 1275.3 | 1293.1 | 1309.0 | 1320.3 | 1332.4 | 1349.3 | 1367.1 | 1375.5 |
| 30°   | 1193.9 | 1202.3 | 1211.7 | 1225.7 | 1245.4 | 1263.2 | 1274.4 | 1287.5 | 1304.4 | 1322.1 | 1330.6 |
| 32.5° | 1146.1 | 1153.6 | 1163.0 | 1177.0 | 1196.7 | 1215.4 | 1227.6 | 1240.7 | 1257.5 | 1275.3 | 1282.8 |
| 35°   | 1096.5 | 1104.0 | 1114.3 | 1128.3 | 1148.0 | 1165.8 | 1177.9 | 1191.1 | 1207.0 | 1223.8 | 1232.3 |
| 37.5° | 1047.8 | 1055.3 | 1065.6 | 1079.6 | 1098.4 | 1116.1 | 1128.3 | 1141.4 | 1157.3 | 1173.3 | 1180.8 |
| 40°   | 997.2  | 1004.7 | 1013.1 | 1027.2 | 1045.9 | 1063.7 | 1074.9 | 1088.1 | 1104.0 | 1120.8 | 1128.3 |
| 42.5° | 945.7  | 953.2  | 963.5  | 977.6  | 995.4  | 1011.3 | 1023.4 | 1035.6 | 1050.6 | 1065.6 | 1073.1 |
| 45°   | 894.2  | 900.8  | 911.1  | 924.2  | 941.0  | 956.0  | 968.2  | 980.4  | 994.4  | 1008.5 | 1016.0 |
| 47.5° | 840.9  | 848.3  | 856.8  | 869.9  | 886.7  | 902.7  | 914.8  | 926.1  | 939.2  | 953.2  | 959.8  |
| 50°   | 789.4  | 795.9  | 804.3  | 816.5  | 832.4  | 847.4  | 857.7  | 868.9  | 881.1  | 894.2  | 899.8  |
| 52.5° | 736.0  | 742.5  | 751.0  | 763.1  | 776.2  | 790.3  | 799.7  | 810.0  | 822.1  | 834.3  | 839.9  |
| 55°   | 681.7  | 686.4  | 693.8  | 705.1  | 719.1  | 732.2  | 741.6  | 751.9  | 762.2  | 772.5  | 779.1  |
| 57.5° | 628.3  | 633.9  | 641.4  | 651.7  | 663.9  | 676.1  | 684.5  | 692.9  | 703.2  | 713.5  | 718.2  |
| 60°   | 574.0  | 578.7  | 584.3  | 593.7  | 605.8  | 616.1  | 624.6  | 633.0  | 641.4  | 650.8  | 655.5  |
| 62.5° | 518.7  | 523.4  | 529.0  | 538.4  | 548.7  | 558.1  | 565.6  | 573.1  | 580.5  | 589.0  | 593.7  |
| 65°   | 463.5  | 468.2  | 473.8  | 480.4  | 488.8  | 497.2  | 504.7  | 512.2  | 517.8  | 523.4  | 528.1  |
| 67.5° | 403.6  | 408.3  | 413.9  | 419.5  | 427.0  | 435.4  | 441.0  | 447.6  | 453.2  | 459.8  | 462.6  |
| 70°   | 347.4  | 351.1  | 356.8  | 361.4  | 368.0  | 373.6  | 378.3  | 383.9  | 387.7  | 393.3  | 398.0  |
| 72.5° | 292.1  | 295.9  | 300.6  | 305.3  | 309.0  | 313.7  | 319.3  | 324.0  | 328.7  | 334.3  | 336.2  |
| 75°   | 238.8  | 240.6  | 244.4  | 248.1  | 251.9  | 255.6  | 258.4  | 262.2  | 265.9  | 269.7  | 272.5  |
| 77.5° | 186.3  | 188.2  | 192.0  | 194.8  | 197.6  | 200.4  | 202.3  | 204.1  | 207.9  | 210.7  | 213.5  |
| 80°   | 136.7  | 138.6  | 141.4  | 144.2  | 147.0  | 149.8  | 149.8  | 149.8  | 154.5  | 158.2  | 159.2  |
| 82.5° | 92.7   | 93.6   | 95.5   | 97.4   | 99.3   | 101.1  | 101.1  | 100.2  | 103.0  | 105.8  | 107.7  |
| 85°   | 53.4   | 54.3   | 56.2   | 56.2   | 57.1   | 57.1   | 57.1   | 57.1   | 59.0   | 61.8   | 63.7   |
| 87.5° | 21.5   | 21.5   | 22.5   | 22.5   | 23.4   | 23.4   | 22.5   | 21.5   | 23.4   | 26.2   | 27.2   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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**CANDELA DISTRIBUTION (continued):**

|       | 220°   | 230°   | 240°   | 250°   | 260°   | 270°   | 280°   | 290°   | 300°   | 310°   | 320°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 | 1594.6 |
| 2.5°  | 1598.4 | 1597.4 | 1600.3 | 1601.2 | 1603.1 | 1603.1 | 1604.0 | 1604.0 | 1602.1 | 1599.3 | 1600.3 |
| 5°    | 1599.3 | 1599.3 | 1602.1 | 1604.9 | 1608.7 | 1612.4 | 1609.6 | 1606.8 | 1604.9 | 1602.1 | 1601.2 |
| 7.5°  | 1594.6 | 1596.5 | 1599.3 | 1604.0 | 1608.7 | 1614.3 | 1610.6 | 1606.8 | 1602.1 | 1598.4 | 1596.5 |
| 10°   | 1583.4 | 1585.3 | 1590.0 | 1594.6 | 1599.3 | 1604.0 | 1600.3 | 1596.5 | 1592.8 | 1588.1 | 1586.2 |
| 12.5° | 1569.4 | 1572.2 | 1577.8 | 1582.5 | 1587.1 | 1592.8 | 1588.1 | 1583.4 | 1578.7 | 1574.0 | 1571.2 |
| 15°   | 1548.8 | 1552.5 | 1559.1 | 1564.7 | 1571.2 | 1575.9 | 1572.2 | 1568.4 | 1562.8 | 1556.2 | 1551.6 |
| 17.5° | 1522.5 | 1528.2 | 1534.7 | 1541.3 | 1546.9 | 1551.6 | 1548.8 | 1545.0 | 1538.5 | 1531.0 | 1525.3 |
| 20°   | 1493.5 | 1499.1 | 1504.7 | 1511.3 | 1517.9 | 1522.5 | 1518.8 | 1514.1 | 1507.6 | 1501.9 | 1496.3 |
| 22.5° | 1459.8 | 1465.4 | 1472.0 | 1477.6 | 1483.2 | 1487.9 | 1483.2 | 1477.6 | 1472.0 | 1466.4 | 1460.7 |
| 25°   | 1421.4 | 1427.0 | 1434.5 | 1440.1 | 1443.9 | 1447.6 | 1443.9 | 1439.2 | 1433.6 | 1428.0 | 1422.3 |
| 27.5° | 1381.1 | 1386.8 | 1394.2 | 1399.9 | 1403.6 | 1407.4 | 1403.6 | 1398.9 | 1393.3 | 1387.7 | 1382.1 |
| 30°   | 1336.2 | 1341.8 | 1349.3 | 1354.9 | 1357.7 | 1360.5 | 1356.8 | 1353.0 | 1348.4 | 1342.7 | 1337.1 |
| 32.5° | 1288.4 | 1294.1 | 1299.7 | 1305.3 | 1310.0 | 1313.7 | 1310.0 | 1306.2 | 1300.6 | 1293.1 | 1287.5 |
| 35°   | 1237.9 | 1243.5 | 1250.0 | 1255.7 | 1261.3 | 1266.0 | 1260.3 | 1253.8 | 1249.1 | 1244.4 | 1239.7 |
| 37.5° | 1184.5 | 1191.1 | 1198.5 | 1205.1 | 1207.0 | 1210.7 | 1207.0 | 1203.2 | 1198.5 | 1193.9 | 1188.2 |
| 40°   | 1132.1 | 1137.7 | 1144.2 | 1150.8 | 1153.6 | 1156.4 | 1152.7 | 1148.9 | 1143.3 | 1138.6 | 1133.0 |
| 42.5° | 1077.8 | 1083.4 | 1089.0 | 1094.6 | 1098.4 | 1102.1 | 1098.4 | 1092.7 | 1089.0 | 1085.2 | 1080.6 |
| 45°   | 1021.6 | 1027.2 | 1031.9 | 1037.5 | 1040.3 | 1043.1 | 1039.4 | 1034.7 | 1030.9 | 1028.1 | 1023.4 |
| 47.5° | 964.5  | 969.1  | 973.8  | 978.5  | 980.4  | 983.2  | 979.4  | 976.6  | 973.8  | 971.0  | 967.3  |
| 50°   | 904.5  | 909.2  | 914.8  | 919.5  | 920.4  | 923.3  | 919.5  | 916.7  | 913.9  | 911.1  | 908.3  |
| 52.5° | 845.5  | 849.3  | 854.0  | 858.6  | 860.5  | 862.4  | 858.6  | 854.9  | 852.1  | 850.2  | 847.4  |
| 55°   | 783.7  | 787.5  | 792.2  | 795.9  | 798.7  | 800.6  | 796.8  | 793.1  | 790.3  | 789.4  | 786.5  |
| 57.5° | 721.9  | 725.7  | 730.4  | 734.1  | 736.0  | 737.9  | 734.1  | 730.4  | 728.5  | 726.6  | 724.7  |
| 60°   | 659.2  | 662.9  | 666.7  | 669.5  | 671.4  | 672.3  | 668.6  | 665.8  | 664.8  | 663.9  | 662.0  |
| 62.5° | 597.4  | 599.3  | 603.0  | 604.9  | 606.8  | 607.7  | 604.9  | 603.0  | 602.1  | 601.1  | 600.2  |
| 65°   | 532.8  | 537.5  | 540.3  | 542.2  | 542.2  | 543.1  | 540.3  | 539.3  | 538.4  | 537.5  | 535.6  |
| 67.5° | 466.3  | 470.1  | 471.9  | 473.8  | 473.8  | 473.8  | 473.8  | 473.8  | 472.9  | 471.0  | 469.1  |
| 70°   | 402.6  | 405.4  | 407.3  | 408.3  | 408.3  | 408.3  | 406.4  | 405.4  | 406.4  | 406.4  | 405.4  |
| 72.5° | 338.0  | 339.9  | 340.8  | 341.8  | 340.8  | 340.8  | 340.8  | 342.7  | 342.7  | 341.8  | 339.9  |
| 75°   | 275.3  | 277.2  | 278.1  | 279.0  | 278.1  | 278.1  | 278.1  | 280.0  | 279.0  | 279.0  | 278.1  |
| 77.5° | 216.3  | 217.2  | 217.2  | 218.2  | 217.2  | 217.2  | 218.2  | 220.0  | 219.1  | 219.1  | 219.1  |
| 80°   | 160.1  | 160.1  | 160.1  | 161.1  | 160.1  | 160.1  | 161.1  | 162.9  | 162.0  | 162.0  | 162.0  |
| 82.5° | 108.6  | 109.6  | 109.6  | 109.6  | 110.5  | 111.4  | 111.4  | 111.4  | 111.4  | 111.4  | 110.5  |
| 85°   | 64.6   | 65.5   | 64.6   | 64.6   | 64.6   | 64.6   | 65.5   | 66.5   | 66.5   | 66.5   | 66.5   |
| 87.5° | 28.1   | 29.0   | 28.1   | 27.2   | 26.2   | 26.2   | 28.1   | 30.0   | 30.0   | 29.0   | 29.0   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |





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**CANDELA DISTRIBUTION (continued):**

|       | 330°   | 340°   | 350°   | 360°   |
|-------|--------|--------|--------|--------|
| 0°    | 1594.6 | 1594.6 | 1594.6 | 1594.6 |
| 2.5°  | 1604.0 | 1604.0 | 1595.6 | 1587.1 |
| 5°    | 1603.1 | 1601.2 | 1591.8 | 1581.5 |
| 7.5°  | 1597.4 | 1594.6 | 1582.5 | 1571.2 |
| 10°   | 1584.3 | 1580.6 | 1567.5 | 1553.4 |
| 12.5° | 1568.4 | 1562.8 | 1547.8 | 1533.8 |
| 15°   | 1547.8 | 1541.3 | 1525.3 | 1509.4 |
| 17.5° | 1520.7 | 1513.2 | 1497.3 | 1480.4 |
| 20°   | 1491.6 | 1483.2 | 1465.4 | 1447.6 |
| 22.5° | 1456.1 | 1448.6 | 1429.8 | 1412.0 |
| 25°   | 1417.7 | 1409.2 | 1390.5 | 1371.8 |
| 27.5° | 1376.5 | 1367.1 | 1348.4 | 1330.6 |
| 30°   | 1331.5 | 1322.1 | 1303.4 | 1285.6 |
| 32.5° | 1283.8 | 1276.3 | 1257.5 | 1237.9 |
| 35°   | 1235.1 | 1225.7 | 1207.0 | 1188.2 |
| 37.5° | 1183.6 | 1175.1 | 1157.3 | 1139.6 |
| 40°   | 1129.3 | 1120.8 | 1102.1 | 1084.3 |
| 42.5° | 1075.9 | 1068.4 | 1050.6 | 1033.7 |
| 45°   | 1018.8 | 1011.3 | 994.4  | 979.4  |
| 47.5° | 961.6  | 954.2  | 938.2  | 922.3  |
| 50°   | 903.6  | 896.1  | 881.1  | 867.1  |
| 52.5° | 842.7  | 837.1  | 823.1  | 809.0  |
| 55°   | 781.9  | 775.3  | 761.3  | 749.1  |
| 57.5° | 721.0  | 716.3  | 703.2  | 691.0  |
| 60°   | 658.3  | 652.6  | 642.3  | 632.0  |
| 62.5° | 597.4  | 592.7  | 582.4  | 573.1  |
| 65°   | 532.8  | 529.0  | 520.6  | 512.2  |
| 67.5° | 466.3  | 463.5  | 455.1  | 447.6  |
| 70°   | 402.6  | 398.0  | 391.4  | 384.8  |
| 72.5° | 338.0  | 336.2  | 330.5  | 324.9  |
| 75°   | 276.2  | 274.4  | 268.7  | 264.1  |
| 77.5° | 218.2  | 216.3  | 211.6  | 206.9  |
| 80°   | 161.1  | 160.1  | 156.4  | 152.6  |
| 82.5° | 110.5  | 109.6  | 106.7  | 103.0  |
| 85°   | 66.5   | 64.6   | 61.8   | 59.0   |
| 87.5° | 29.0   | 28.1   | 25.3   | 23.4   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)