Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: INVUE

Report Number: P148683

Luminaire Tested: **VXM-F03-LED-E1-RW-8030**

Issue Date: 03/03/2020

Report Generated By E0454808

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Peachtree City, GA 30269

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-08 |
| Report Number: | P148683 |
| | REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33677) |
| Test Lab: | INNOVATION CENTER-P3 |
| Issue Date: | 03/03/2020 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | INVUE |
| Catalog Number: | VXM-F03-LED-E1-RW-8030 |
| Description: | VISION SITE MEDIUM LED LUMINAIRE |
| | (3) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE |
| Light Source: | (21) 3000K CCT, 80 CRI LEDs |
| Ballast/Driver: | - |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 6529.7 lumens |
| Efficiency: | N/A |
| Efficacy: | 83.4 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 1' x H: 0') |
| IES Classification: | Type I - Short - Full Cutoff |
| BUG Rating: | B3 - U0 - G3 |

| | |
|---|---|
| Input Watts (W): | 78.3 |
| Input Voltage (V): | NR |
| 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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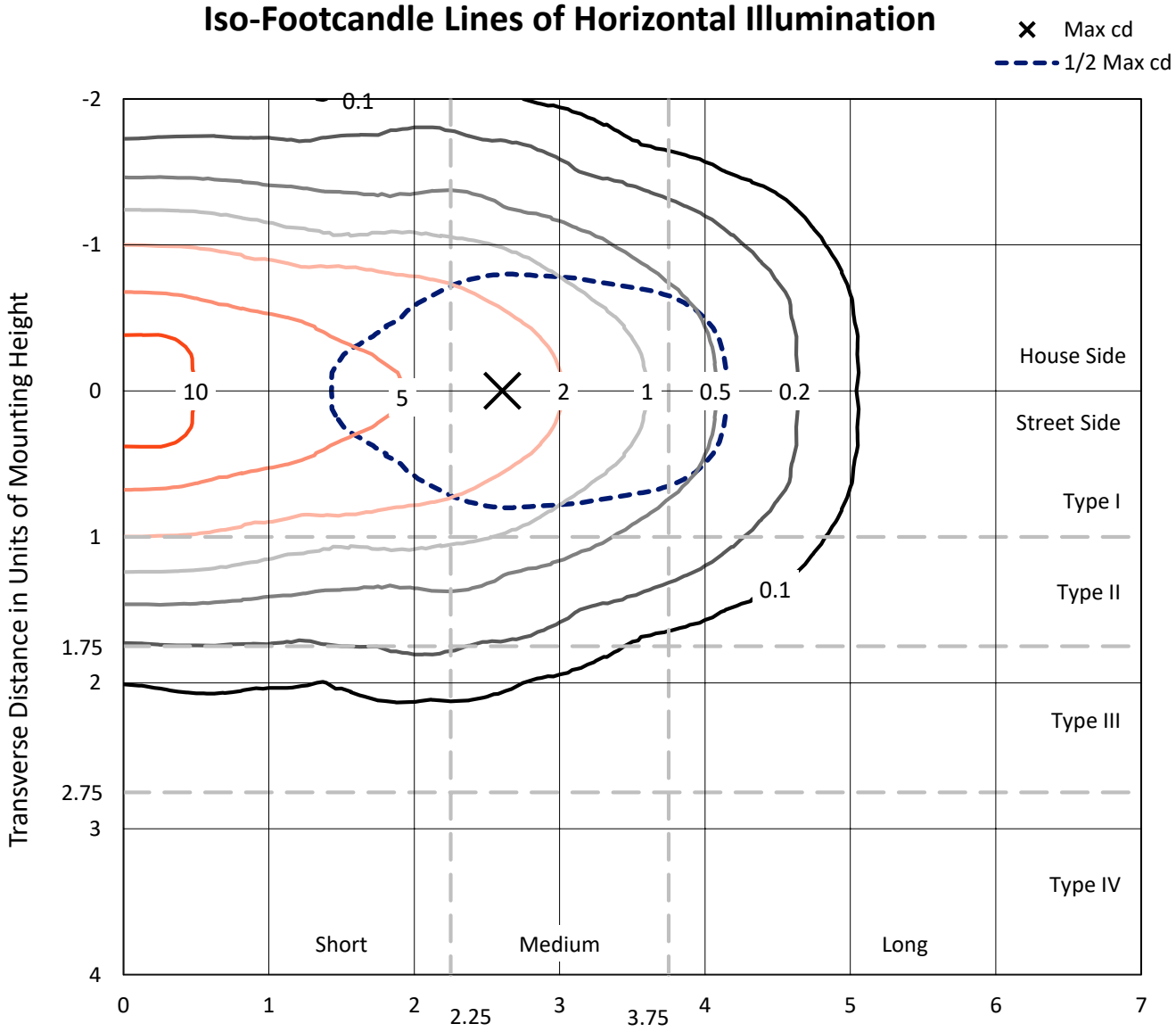
## Iso-Footcandle Lines of Horizontal Illumination




Based on 10 foot mounting height. Maximum calculated value = 12.5 fc
Type I - Short - Full Cutoff

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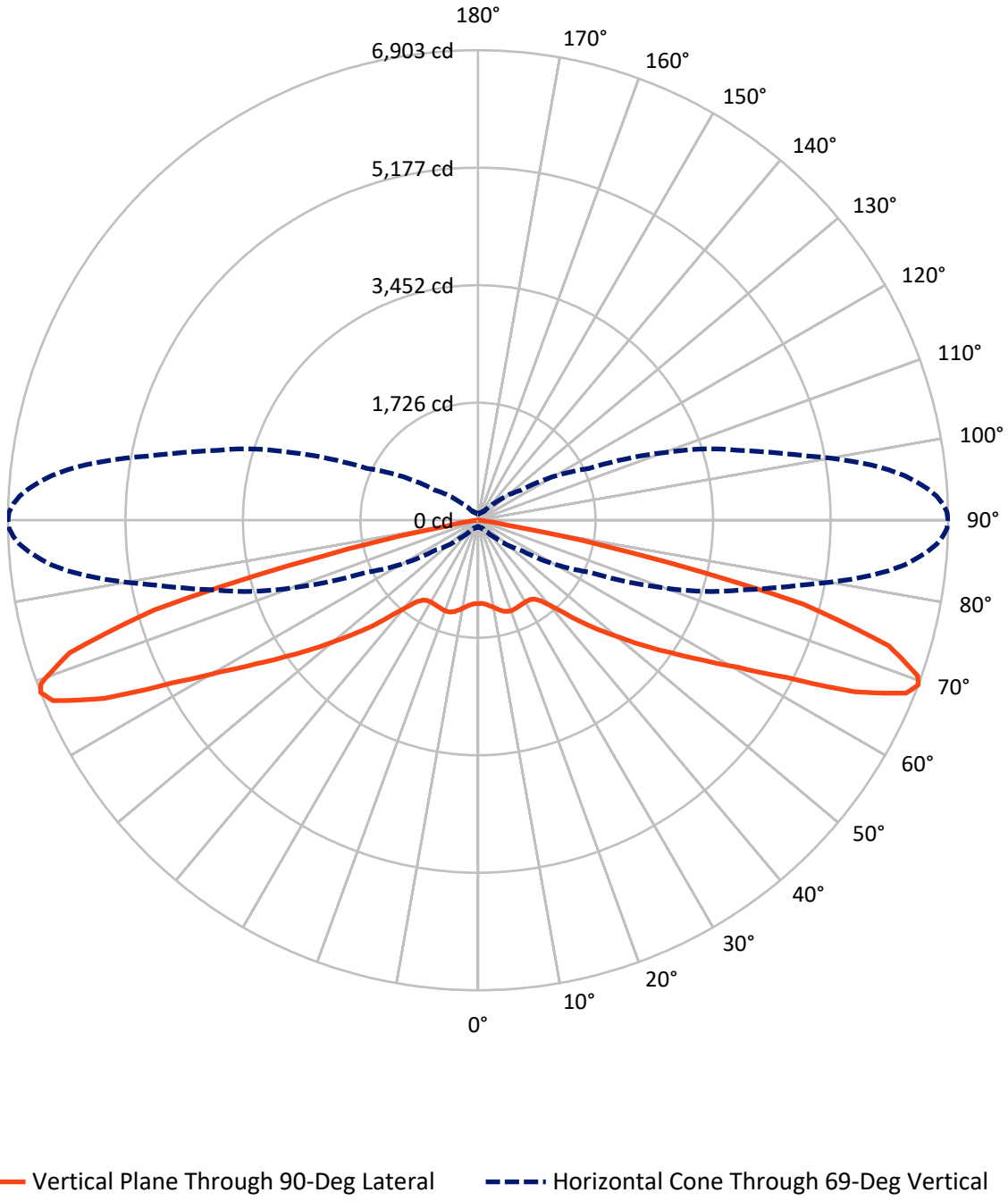
## Luminous Intensity Polar Plot



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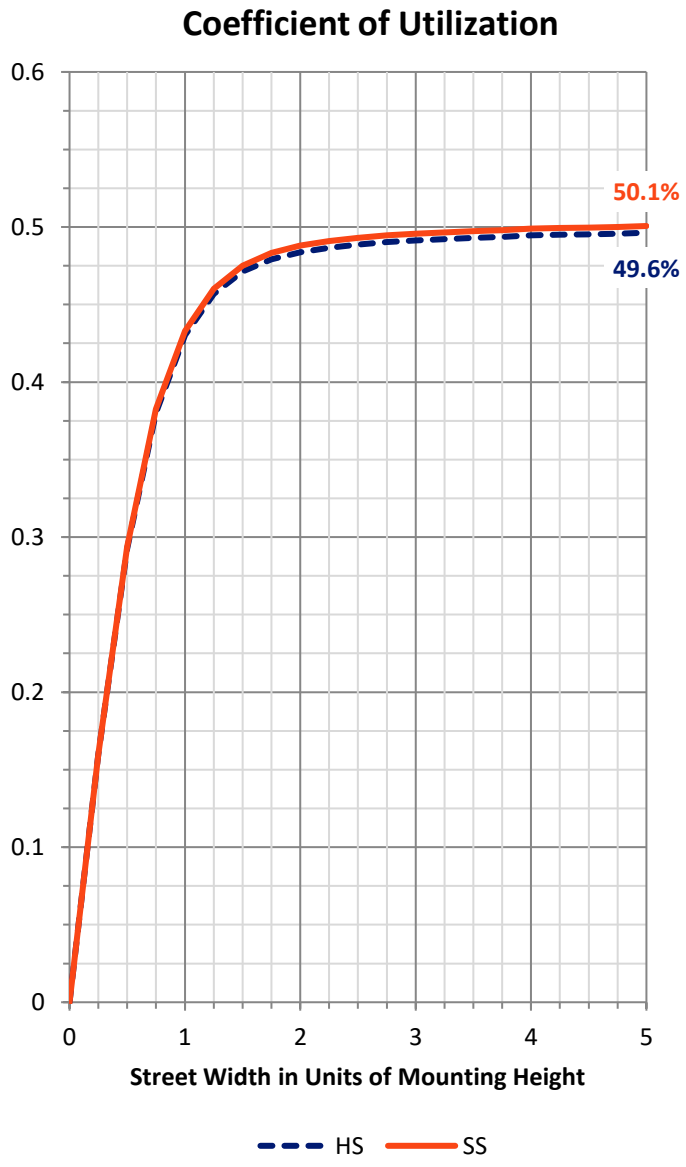
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 3264.8 | 0.0 | 3264.8 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| **Street Side** | Lumens | 3264.8 | 0.0 | 3264.8 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| **Total** | Lumens | 6529.7 | 0.0 | 6529.7 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 120.0 | 1.8 |
| 10°-20° | 378.6 | 5.8 |
| 20°-30° | 613.3 | 9.4 |
| 30°-40° | 764.4 | 11.7 |
| 40°-50° | 955.2 | 14.6 |
| 50°-60° | 1179.4 | 18.1 |
| 60°-70° | 1465.5 | 22.4 |
| 70°-80° | 972.9 | 14.9 |
| 80°-90° | 80.3 | 1.2 |
| 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°-90° | 6529.7 | 100.0 |
| 0°-180° | 6529.7 | 100.0 |



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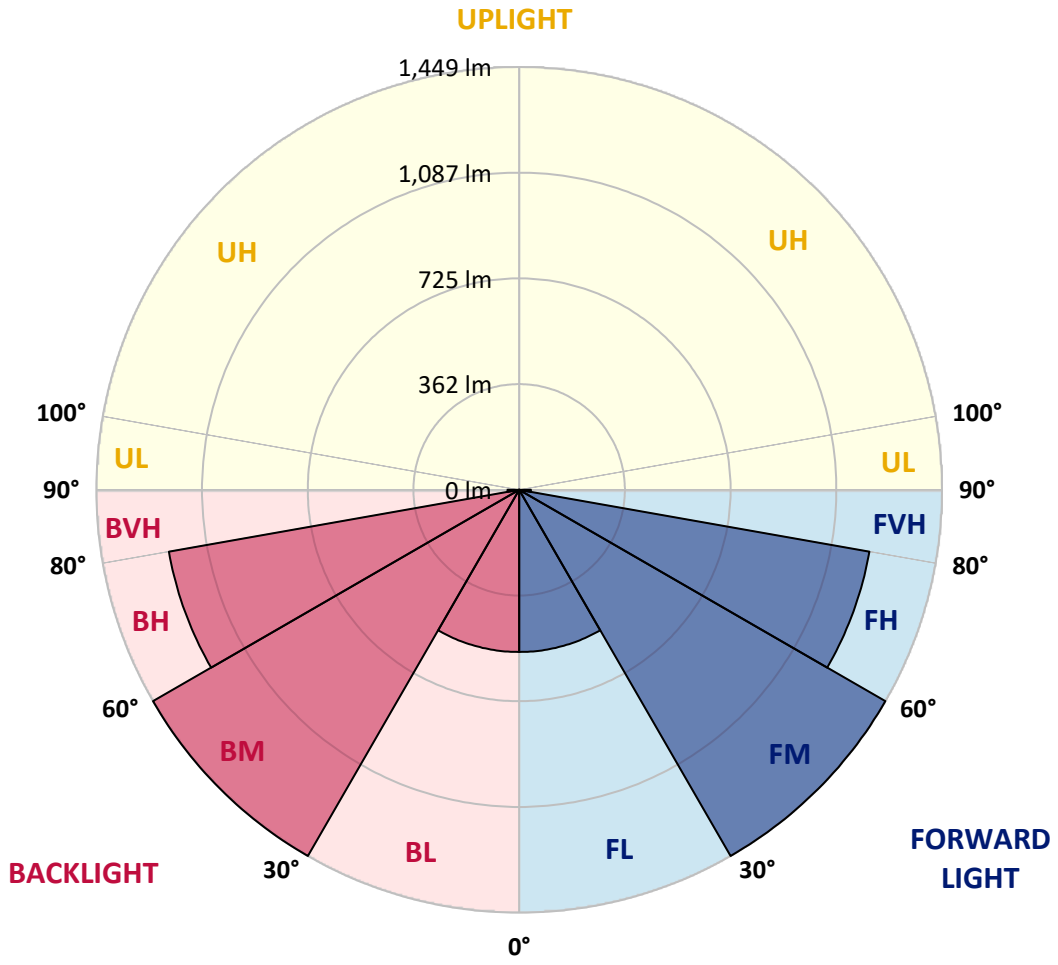
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 556.0 | 8.5 | | | |
| FM | (30°-60°) | 1449.5 | 22.2 | | | |
| FH | (60°-80°) | 1219.2 | 18.7 | | | G1/1800 |
| FVH | (80°-90°) | 40.2 | 0.6 | | | G1/100 |
| BL | (0°-30°) | 556.0 | 8.5 | B2/1000 | | |
| BM | (30°-60°) | 1449.5 | 22.2 | B2/2500 | | |
| BH | (60°-80°) | 1219.2 | 18.7 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 40.2 | 0.6 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B3-U0-G3**
Type I Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 67° | 68° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 |
| 2.5° | 1229.0 | 1230.1 | 1229.4 | 1230.8 | 1230.4 | 1230.4 | 1229.8 | 1228.4 | 1228.2 | 1228.0 | 1227.8 |
| 5° | 1240.8 | 1239.4 | 1241.6 | 1243.6 | 1243.0 | 1243.4 | 1243.0 | 1242.9 | 1242.8 | 1242.7 | 1242.5 |
| 7.5° | 1253.4 | 1253.1 | 1254.5 | 1260.0 | 1260.7 | 1262.8 | 1265.3 | 1267.0 | 1267.1 | 1267.1 | 1267.2 |
| 10° | 1264.2 | 1264.6 | 1268.1 | 1276.0 | 1280.2 | 1286.8 | 1293.5 | 1298.7 | 1299.1 | 1299.5 | 1299.9 |
| 12.5° | 1273.0 | 1273.3 | 1278.5 | 1291.0 | 1301.2 | 1313.7 | 1328.0 | 1336.0 | 1336.7 | 1337.4 | 1338.1 |
| 15° | 1273.6 | 1274.7 | 1283.7 | 1304.3 | 1324.5 | 1345.0 | 1362.1 | 1372.9 | 1373.5 | 1374.1 | 1374.6 |
| 17.5° | 1264.6 | 1265.3 | 1280.6 | 1310.9 | 1344.7 | 1376.8 | 1394.5 | 1399.4 | 1399.6 | 1399.8 | 1400.0 |
| 20° | 1240.9 | 1242.6 | 1264.2 | 1309.2 | 1360.8 | 1402.5 | 1421.0 | 1414.4 | 1413.7 | 1413.1 | 1412.4 |
| 22.5° | 1202.6 | 1202.2 | 1230.4 | 1291.1 | 1363.9 | 1422.8 | 1439.1 | 1421.7 | 1419.6 | 1417.6 | 1415.5 |
| 25° | 1140.6 | 1144.8 | 1177.8 | 1250.3 | 1346.1 | 1427.2 | 1452.0 | 1425.5 | 1422.5 | 1419.6 | 1416.6 |
| 27.5° | 1073.3 | 1075.8 | 1110.9 | 1188.6 | 1304.6 | 1411.6 | 1458.2 | 1433.2 | 1429.8 | 1426.6 | 1423.2 |
| 30° | 995.0 | 998.1 | 1035.7 | 1116.9 | 1238.1 | 1371.2 | 1456.6 | 1450.6 | 1446.7 | 1442.9 | 1439.0 |
| 32.5° | 918.3 | 921.8 | 955.6 | 1044.4 | 1168.1 | 1315.8 | 1446.0 | 1475.4 | 1471.4 | 1467.4 | 1463.4 |
| 35° | 838.8 | 844.1 | 885.2 | 975.0 | 1100.4 | 1254.1 | 1430.0 | 1507.0 | 1504.9 | 1502.7 | 1500.5 |
| 37.5° | 773.0 | 774.0 | 813.8 | 908.2 | 1037.8 | 1195.2 | 1408.8 | 1547.1 | 1548.7 | 1550.3 | 1551.9 |
| 40° | 699.6 | 706.2 | 745.8 | 845.5 | 981.0 | 1145.4 | 1388.6 | 1601.4 | 1609.8 | 1618.1 | 1626.4 |
| 42.5° | 633.7 | 634.4 | 674.8 | 777.6 | 919.4 | 1105.4 | 1377.4 | 1667.0 | 1684.8 | 1702.6 | 1720.4 |
| 45° | 564.4 | 567.2 | 603.7 | 703.0 | 848.3 | 1058.0 | 1377.1 | 1742.6 | 1771.0 | 1799.4 | 1827.8 |
| 47.5° | 498.8 | 499.9 | 538.6 | 630.9 | 766.8 | 991.8 | 1374.6 | 1823.8 | 1862.4 | 1901.1 | 1939.8 |
| 50° | 436.2 | 435.1 | 473.0 | 561.9 | 686.3 | 905.0 | 1353.4 | 1915.7 | 1964.6 | 2013.4 | 2062.3 |
| 52.5° | 364.4 | 369.2 | 408.6 | 493.6 | 613.1 | 817.0 | 1291.4 | 2016.4 | 2074.8 | 2133.3 | 2191.7 |
| 55° | 294.0 | 296.2 | 338.3 | 417.7 | 539.0 | 734.7 | 1183.4 | 2109.0 | 2177.9 | 2246.8 | 2315.7 |
| 57.5° | 216.7 | 223.0 | 259.8 | 338.2 | 463.6 | 665.4 | 1046.2 | 2157.1 | 2240.9 | 2324.8 | 2408.6 |
| 60° | 153.0 | 157.8 | 190.6 | 256.4 | 381.1 | 592.6 | 928.0 | 2130.2 | 2239.2 | 2348.2 | 2457.2 |
| 62.5° | 119.2 | 123.0 | 149.1 | 192.0 | 297.2 | 519.8 | 843.4 | 2043.6 | 2191.8 | 2340.1 | 2488.3 |
| 65° | 104.5 | 108.0 | 131.7 | 153.6 | 221.9 | 445.6 | 797.0 | 1952.0 | 2147.9 | 2343.9 | 2539.9 |
| 67.5° | 94.4 | 98.6 | 119.1 | 134.5 | 180.8 | 388.8 | 784.9 | 1894.0 | 2116.0 | 2338.0 | 2560.0 |
| 69° | *89.9* | *94.1* | *112.6* | *125.4* | *168.0* | *368.6* | *764.0* | *1803.2* | *2023.8* | *2244.5* | *2465.2* |
| 70° | 87.1 | 90.6 | 107.6 | 120.8 | 163.8 | 354.7 | 729.2 | 1689.6 | 1906.3 | 2123.0 | 2339.8 |
| 72.5° | 80.8 | 82.6 | 97.6 | 110.4 | 151.9 | 286.7 | 560.9 | 1254.8 | 1442.7 | 1630.6 | 1818.4 |
| 75° | 71.4 | 73.5 | 87.4 | 99.9 | 118.4 | 178.0 | 355.0 | 776.2 | 916.4 | 1056.7 | 1196.9 |
| 77.5° | 61.6 | 63.4 | 75.6 | 95.4 | 92.0 | 111.1 | 212.2 | 432.0 | 513.3 | 594.6 | 676.0 |
| 80° | 49.5 | 51.6 | 62.4 | 94.8 | 76.0 | 86.4 | 152.6 | 302.0 | 324.0 | 345.9 | 367.9 |
| 82.5° | 36.2 | 38.0 | 48.8 | 76.6 | 58.2 | 65.2 | 116.4 | 256.0 | 263.7 | 271.3 | 278.9 |
| 85° | 18.5 | 18.8 | 31.0 | 46.7 | 36.9 | 33.8 | 65.4 | 175.2 | 180.1 | 185.0 | 189.9 |
| 87.5° | 3.2 | 3.2 | 7.0 | 8.0 | 9.0 | 5.6 | 8.4 | 30.0 | 30.9 | 31.8 | 32.8 |
| 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):**

| | 69° | 70° | 71° | 72° | 73° | 74° | 75° | 76° | 77° | 78° | 79° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 |
| 2.5° | 1227.6 | 1227.5 | 1226.9 | 1227.0 | 1227.4 | 1227.2 | 1227.6 | 1227.7 | 1228.1 | 1226.8 | 1226.5 |
| 5° | 1242.4 | 1242.2 | 1242.2 | 1242.1 | 1242.4 | 1242.3 | 1242.6 | 1243.2 | 1243.0 | 1242.2 | 1242.0 |
| 7.5° | 1267.3 | 1267.4 | 1267.7 | 1267.4 | 1268.0 | 1267.7 | 1267.0 | 1268.1 | 1268.9 | 1269.0 | 1269.7 |
| 10° | 1300.2 | 1300.6 | 1301.8 | 1301.7 | 1302.9 | 1302.7 | 1302.9 | 1304.1 | 1304.9 | 1305.0 | 1305.9 |
| 12.5° | 1338.8 | 1339.5 | 1340.1 | 1340.8 | 1342.0 | 1341.3 | 1343.0 | 1343.7 | 1344.7 | 1346.8 | 1345.8 |
| 15° | 1375.2 | 1375.7 | 1377.6 | 1377.7 | 1378.9 | 1379.4 | 1381.0 | 1381.6 | 1381.8 | 1383.5 | 1383.8 |
| 17.5° | 1400.2 | 1400.4 | 1401.2 | 1400.8 | 1401.8 | 1401.5 | 1402.6 | 1403.1 | 1404.0 | 1404.9 | 1406.5 |
| 20° | 1411.7 | 1411.1 | 1410.7 | 1410.3 | 1409.6 | 1408.5 | 1408.8 | 1409.3 | 1409.4 | 1410.3 | 1411.5 |
| 22.5° | 1413.5 | 1411.4 | 1409.3 | 1407.9 | 1405.8 | 1404.0 | 1402.2 | 1402.3 | 1402.5 | 1402.2 | 1403.1 |
| 25° | 1413.7 | 1410.7 | 1407.4 | 1403.4 | 1400.4 | 1396.4 | 1393.1 | 1392.8 | 1391.9 | 1392.0 | 1392.4 |
| 27.5° | 1419.9 | 1416.6 | 1412.0 | 1407.4 | 1401.0 | 1395.6 | 1390.3 | 1388.4 | 1386.6 | 1385.4 | 1384.9 |
| 30° | 1435.1 | 1431.2 | 1425.7 | 1419.8 | 1412.9 | 1404.6 | 1397.0 | 1394.6 | 1391.9 | 1389.5 | 1387.5 |
| 32.5° | 1459.5 | 1455.5 | 1449.4 | 1443.2 | 1433.9 | 1425.7 | 1418.2 | 1414.4 | 1410.5 | 1406.4 | 1402.5 |
| 35° | 1498.3 | 1496.1 | 1490.7 | 1485.3 | 1478.5 | 1472.0 | 1465.2 | 1460.9 | 1454.5 | 1451.2 | 1446.6 |
| 37.5° | 1553.5 | 1555.1 | 1555.1 | 1555.8 | 1553.7 | 1550.6 | 1545.7 | 1541.2 | 1539.1 | 1530.4 | 1524.8 |
| 40° | 1634.8 | 1643.1 | 1650.7 | 1656.6 | 1661.8 | 1666.9 | 1671.4 | 1668.8 | 1669.7 | 1667.4 | 1664.0 |
| 42.5° | 1738.2 | 1756.0 | 1772.2 | 1788.5 | 1800.2 | 1818.6 | 1831.4 | 1835.4 | 1845.7 | 1849.8 | 1857.3 |
| 45° | 1856.2 | 1884.7 | 1912.0 | 1937.2 | 1960.7 | 1987.0 | 2012.6 | 2031.6 | 2052.3 | 2075.8 | 2099.4 |
| 47.5° | 1978.5 | 2017.2 | 2057.5 | 2090.4 | 2124.3 | 2163.2 | 2197.2 | 2225.8 | 2263.1 | 2297.7 | 2335.7 |
| 50° | 2111.2 | 2160.0 | 2205.9 | 2246.5 | 2290.2 | 2334.9 | 2381.4 | 2423.5 | 2473.9 | 2529.3 | 2589.1 |
| 52.5° | 2250.2 | 2308.6 | 2361.7 | 2412.6 | 2463.8 | 2515.1 | 2564.6 | 2624.1 | 2686.3 | 2759.4 | 2834.1 |
| 55° | 2384.6 | 2453.6 | 2513.7 | 2570.3 | 2629.0 | 2686.4 | 2737.4 | 2817.0 | 2893.4 | 2980.5 | 3078.1 |
| 57.5° | 2492.5 | 2576.3 | 2645.7 | 2713.0 | 2779.2 | 2840.2 | 2902.9 | 2992.6 | 3090.0 | 3191.8 | 3315.6 |
| 60° | 2566.1 | 2675.1 | 2763.7 | 2844.5 | 2925.8 | 3002.5 | 3074.7 | 3191.9 | 3307.7 | 3434.3 | 3588.4 |
| 62.5° | 2636.6 | 2784.9 | 2900.4 | 3010.6 | 3120.2 | 3218.7 | 3308.4 | 3455.8 | 3607.2 | 3763.6 | 3947.0 |
| 65° | 2735.9 | 2931.8 | 3102.0 | 3255.8 | 3407.5 | 3552.2 | 3686.4 | 3873.2 | 4064.2 | 4270.2 | 4489.0 |
| 67.5° | 2782.0 | 3004.0 | 3225.5 | 3432.8 | 3625.4 | 3808.7 | 3981.2 | 4206.9 | 4431.7 | 4670.4 | 4934.9 |
| 69° | *2685.9* | *2906.6* | *3143.4* | *3369.9* | *3582.7* | *3777.0* | *3963.7* | *4194.3* | *4428.0* | *4671.7* | *4938.5* |
| 70° | 2556.5 | 2773.2 | 3012.2 | 3248.9 | 3452.4 | 3655.0 | 3848.4 | 4077.2 | 4313.9 | 4558.3 | 4837.6 |
| 72.5° | 2006.3 | 2194.2 | 2427.4 | 2657.0 | 2861.3 | 3064.5 | 3252.4 | 3486.4 | 3724.8 | 3981.5 | 4245.9 |
| 75° | 1337.2 | 1477.4 | 1651.1 | 1864.2 | 2051.5 | 2231.1 | 2413.2 | 2611.2 | 2843.6 | 3055.3 | 3297.1 |
| 77.5° | 757.3 | 838.7 | 939.6 | 1078.2 | 1212.5 | 1320.1 | 1449.9 | 1543.1 | 1678.0 | 1794.5 | 1917.6 |
| 80° | 389.8 | 411.8 | 441.9 | 475.1 | 494.1 | 491.1 | 510.4 | 491.3 | 495.5 | 479.9 | 463.2 |
| 82.5° | 286.6 | 294.2 | 307.8 | 314.5 | 313.8 | 291.9 | 268.6 | 236.3 | 207.8 | 177.9 | 150.4 |
| 85° | 194.7 | 199.6 | 203.0 | 208.2 | 206.7 | 197.2 | 176.2 | 148.2 | 120.8 | 96.9 | 77.5 |
| 87.5° | 33.7 | 34.7 | 34.4 | 37.3 | 37.4 | 34.7 | 28.6 | 24.4 | 20.5 | 15.4 | 10.8 |
| 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):**

| | 80° | 81° | 82° | 83° | 84° | 85° | 86° | 87° | 88° | 89° | 90° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | 1223.5 | *1223.5* |
| 2.5° | 1226.2 | 1226.2 | 1227.0 | 1226.2 | 1226.2 | 1226.2 | 1226.0 | 1226.6 | 1226.3 | 1225.2 | *1224.2* |
| 5° | 1242.2 | 1241.2 | 1240.9 | 1241.6 | 1242.3 | 1240.9 | 1242.0 | 1243.0 | 1241.2 | 1241.6 | *1240.9* |
| 7.5° | 1269.1 | 1268.8 | 1268.4 | 1269.1 | 1269.1 | 1268.8 | 1269.1 | 1268.1 | 1267.4 | 1268.4 | *1269.5* |
| 10° | 1305.0 | 1304.6 | 1305.3 | 1305.4 | 1306.7 | 1306.1 | 1305.7 | 1306.8 | 1306.1 | 1305.4 | *1305.7* |
| 12.5° | 1347.1 | 1346.1 | 1347.8 | 1347.8 | 1348.9 | 1348.9 | 1348.6 | 1348.9 | 1348.6 | 1347.5 | *1346.8* |
| 15° | 1384.8 | 1383.4 | 1383.7 | 1386.5 | 1386.2 | 1386.8 | 1386.9 | 1386.2 | 1385.8 | 1385.4 | *1385.8* |
| 17.5° | 1407.4 | 1406.7 | 1406.7 | 1408.1 | 1409.2 | 1408.8 | 1408.8 | 1408.8 | 1408.4 | 1408.8 | *1409.5* |
| 20° | 1411.6 | 1411.6 | 1411.9 | 1413.4 | 1415.1 | 1414.0 | 1414.1 | 1414.8 | 1414.0 | 1414.8 | *1415.1* |
| 22.5° | 1403.6 | 1404.3 | 1405.0 | 1406.8 | 1407.1 | 1407.1 | 1407.0 | 1407.4 | 1408.1 | 1408.1 | *1408.8* |
| 25° | 1392.4 | 1393.1 | 1394.2 | 1395.6 | 1397.0 | 1397.0 | 1396.9 | 1397.6 | 1397.6 | 1398.0 | *1398.3* |
| 27.5° | 1384.1 | 1384.8 | 1385.8 | 1387.2 | 1389.0 | 1388.9 | 1389.0 | 1389.6 | 1389.6 | 1390.0 | *1390.7* |
| 30° | 1385.1 | 1383.7 | 1384.8 | 1385.4 | 1386.5 | 1386.5 | 1386.2 | 1386.5 | 1386.8 | 1386.8 | *1387.2* |
| 32.5° | 1400.1 | 1397.0 | 1395.9 | 1395.6 | 1396.0 | 1394.8 | 1394.5 | 1393.8 | 1393.1 | 1393.2 | *1392.8* |
| 35° | 1439.9 | 1434.9 | 1434.6 | 1431.8 | 1429.0 | 1426.2 | 1426.6 | 1424.4 | 1425.1 | 1423.4 | *1422.0* |
| 37.5° | 1521.3 | 1515.8 | 1519.2 | 1513.4 | 1509.4 | 1506.7 | 1503.6 | 1499.4 | 1497.0 | 1500.1 | *1500.1* |
| 40° | 1667.3 | 1663.4 | 1662.4 | 1663.4 | 1660.0 | 1661.7 | 1654.0 | 1652.0 | 1647.4 | 1650.6 | *1654.7* |
| 42.5° | 1869.0 | 1866.6 | 1879.8 | 1882.2 | 1883.6 | 1885.7 | 1887.1 | 1875.6 | 1875.2 | 1872.8 | *1865.9* |
| 45° | 2118.0 | 2132.8 | 2132.0 | 2148.0 | 2148.8 | 2143.8 | 2146.0 | 2140.7 | 2138.6 | 2131.0 | *2140.4* |
| 47.5° | 2374.1 | 2402.0 | 2412.4 | 2416.0 | 2429.2 | 2432.3 | 2419.8 | 2415.6 | 2422.9 | 2410.4 | *2412.1* |
| 50° | 2649.0 | 2679.0 | 2703.4 | 2719.7 | 2729.1 | 2729.8 | 2720.4 | 2718.3 | 2724.9 | 2701.2 | *2712.4* |
| 52.5° | 2919.3 | 2964.6 | 3010.6 | 3035.0 | 3052.4 | 3053.8 | 3061.1 | 3052.4 | 3055.9 | 3050.3 | *3061.5* |
| 55° | 3185.8 | 3264.2 | 3318.2 | 3365.9 | 3396.2 | 3422.4 | 3424.8 | 3434.2 | 3434.9 | 3446.4 | *3434.9* |
| 57.5° | 3446.4 | 3531.8 | 3625.8 | 3710.5 | 3757.5 | 3787.1 | 3815.0 | 3853.0 | 3861.3 | 3856.8 | *3864.1* |
| 60° | 3754.0 | 3886.0 | 4013.9 | 4111.4 | 4192.6 | 4270.3 | 4312.1 | 4371.6 | 4381.1 | 4406.8 | *4384.6* |
| 62.5° | 4142.8 | 4334.4 | 4507.8 | 4639.2 | 4762.5 | 4883.4 | 4974.7 | 5020.7 | 5048.5 | 5102.5 | *5084.8* |
| 65° | 4739.2 | 4969.1 | 5198.6 | 5386.8 | 5559.6 | 5703.4 | 5842.2 | 5908.4 | 5981.5 | 6058.1 | *6072.1* |
| 67.5° | 5230.4 | 5515.0 | 5773.8 | 6003.1 | 6212.4 | 6372.4 | 6516.6 | 6631.2 | 6720.4 | 6776.8 | *6781.3* |
| 69° | *5252.7* | *5548.4* | *5829.6* | *6075.6* | *6294.0* | *6464.0* | *6615.8* | *6743.4* | *6830.1* | *6887.9* | *6903.3* |
| 70° | 5146.0 | 5448.8 | 5748.4 | 5996.8 | 6220.4 | 6394.3 | 6555.2 | 6676.8 | 6773.7 | 6832.6 | *6853.1* |
| 72.5° | 4546.6 | 4869.8 | 5190.0 | 5407.8 | 5636.2 | 5843.2 | 5972.0 | 6096.1 | 6232.6 | 6250.4 | *6306.9* |
| 75° | 3584.0 | 3855.8 | 4104.1 | 4270.6 | 4461.6 | 4647.2 | 4773.7 | 4806.5 | 4877.8 | 4967.8 | *4935.7* |
| 77.5° | 2077.0 | 2160.6 | 2320.8 | 2362.0 | 2327.1 | 2408.0 | 2434.8 | 2377.6 | 2374.8 | 2427.4 | *2322.9* |
| 80° | 460.2 | 434.1 | 466.8 | 442.4 | 443.2 | 443.8 | 436.5 | 433.7 | 439.0 | 433.8 | *426.4* |
| 82.5° | 127.5 | 123.4 | 124.0 | 122.6 | 125.0 | 123.3 | 122.2 | 125.0 | 124.7 | 124.4 | *126.8* |
| 85° | 61.3 | 60.6 | 59.6 | 59.2 | 57.8 | 56.1 | 53.3 | 53.3 | 54.7 | 52.6 | *53.6* |
| 87.5° | 8.0 | 7.7 | 7.7 | 9.1 | 8.0 | 6.6 | 6.6 | 6.6 | 6.3 | 6.3 | *6.3* |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | *0.0* |

(END OF REPORT)