

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: McGRAW-EDISON

Report Number: P451298

Luminaire Tested: **GALN-SA2A-830-U-SL2-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P451298  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA2A-830-U-SL2-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5981 lumens  
Efficiency: N/A  
Efficacy: 94.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 63  
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: 24 FT

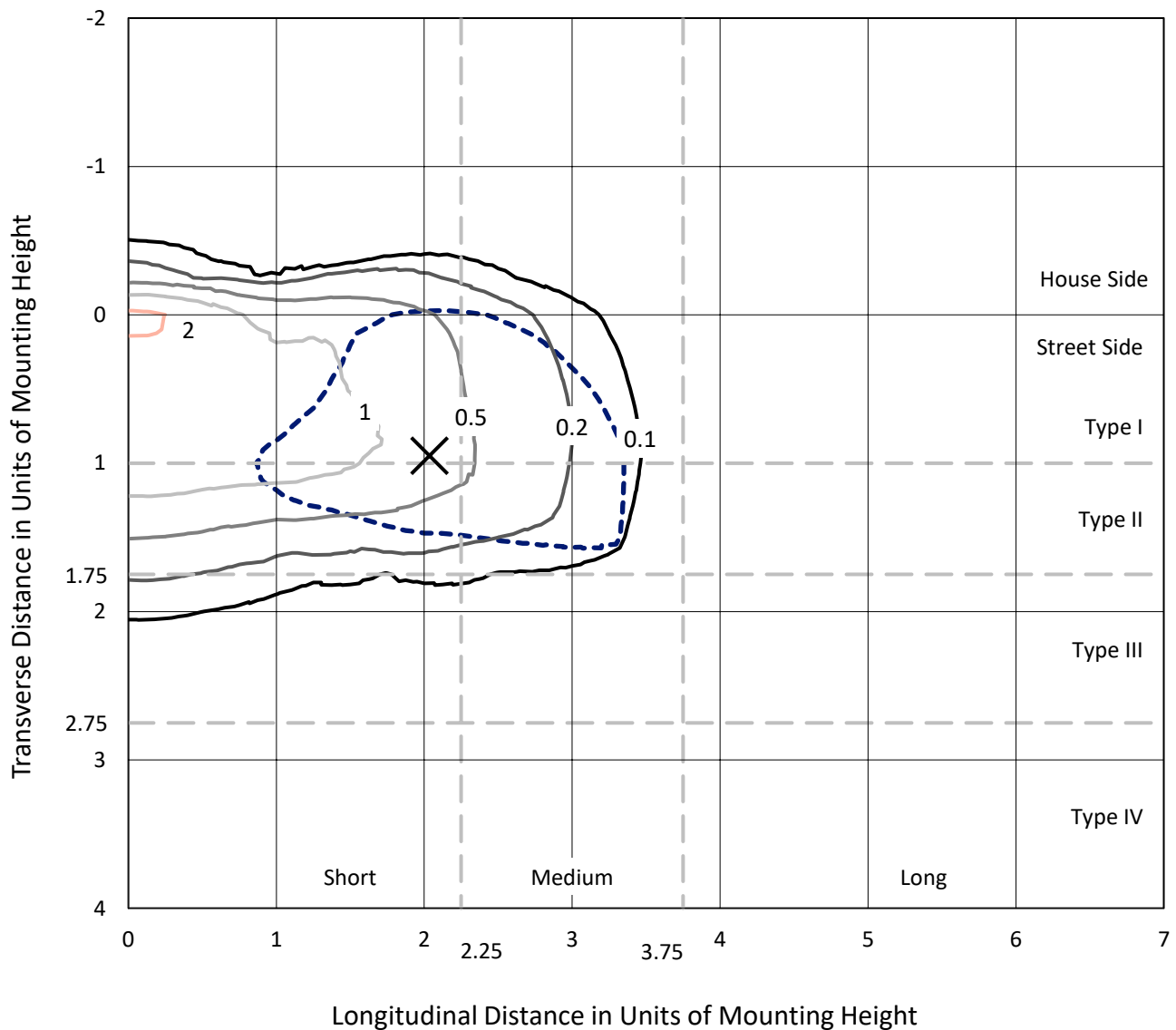


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## Iso-Footcandle Lines of Horizontal Illumination

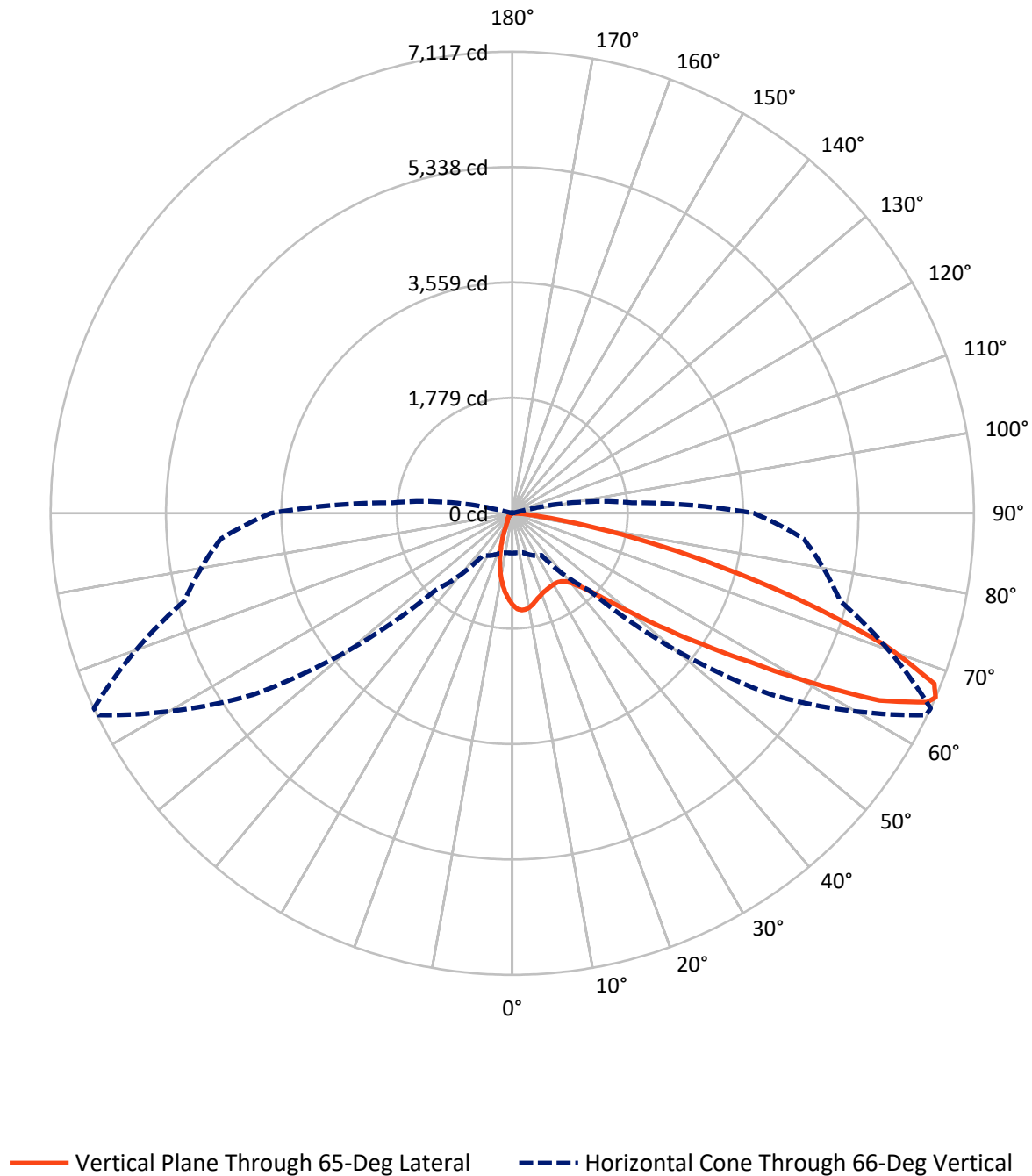
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc  
 Type II - Short - N/A

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## Luminous Intensity Polar Plot



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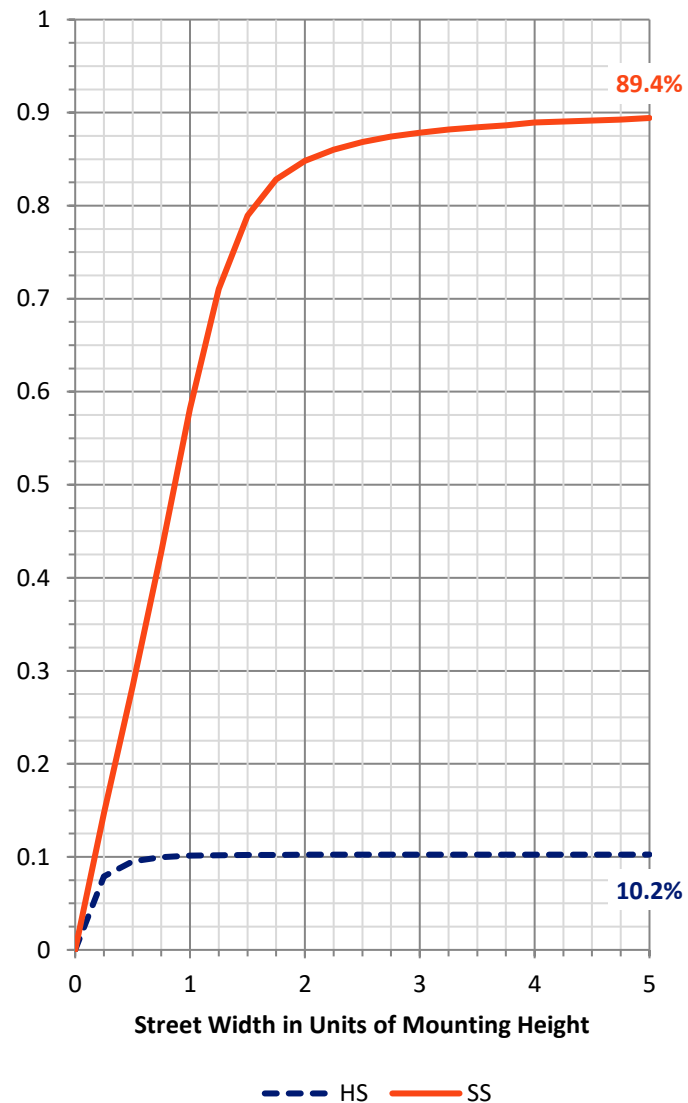
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 618.5    | 0.0    | 618.5  |
|                    | % Fixture | 10.3     | 0.0    | 10.3   |
| <b>Street Side</b> | Lumens    | 5362.5   | 0.0    | 5362.5 |
|                    | % Fixture | 89.7     | 0.0    | 89.7   |
| <b>Total</b>       | Lumens    | 5981.0   | 0.0    | 5981.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 116.0  | 1.9       |
| 10°-20°   | 252.7  | 4.2       |
| 20°-30°   | 362.0  | 6.1       |
| 30°-40°   | 528.8  | 8.8       |
| 40°-50°   | 886.7  | 14.8      |
| 50°-60°   | 1479.8 | 24.7      |
| 60°-70°   | 1570.7 | 26.3      |
| 70°-80°   | 711.4  | 11.9      |
| 80°-90°   | 72.8   | 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°    | 5981.0 | 100.0     |
| 0°-180°   | 5981.0 | 100.0     |

**Coefficient of Utilization**



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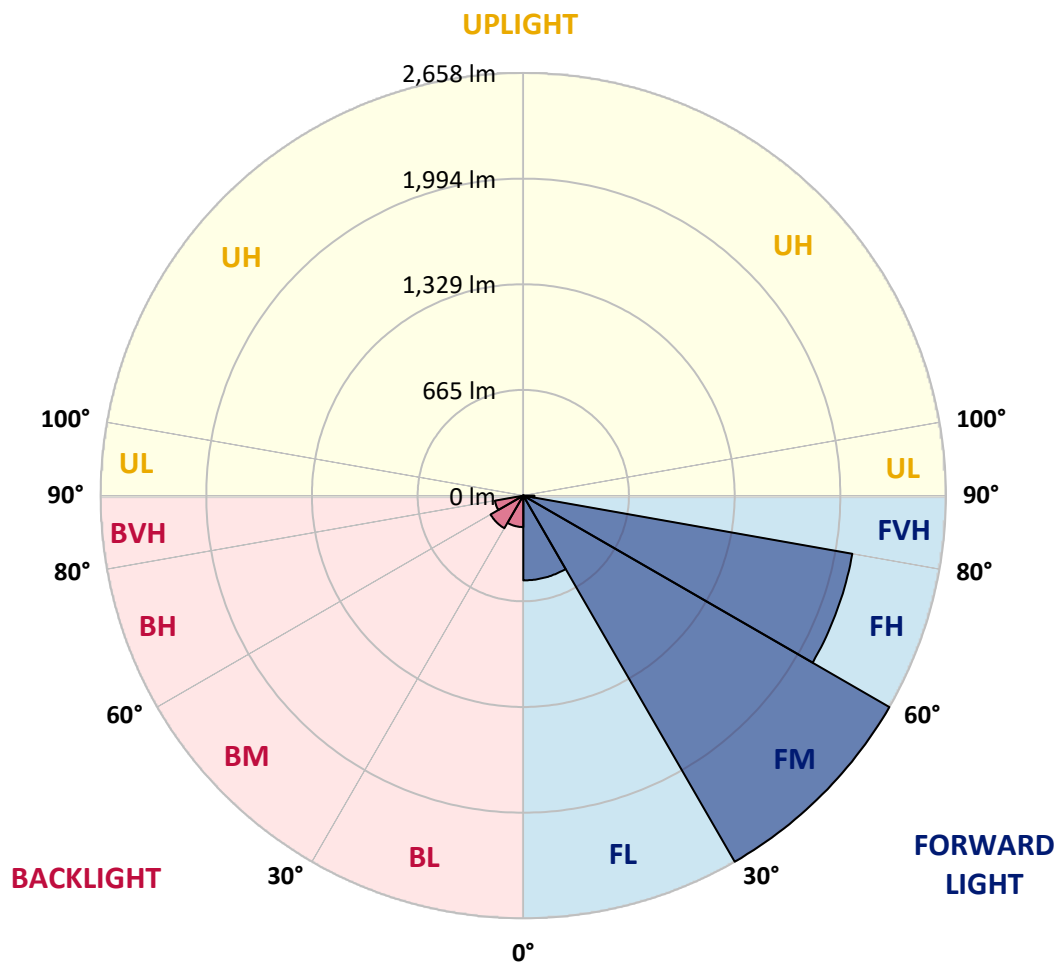
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 532.9  | 8.9       |                         |      |         |
| FM   | (30°-60°)   | 2658.1 | 44.4      |                         |      |         |
| FH   | (60°-80°)   | 2101.0 | 35.1      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 70.5   | 1.2       |                         |      | G1/100  |
| BL   | (0°-30°)    | 197.9  | 3.3       | B1/500                  |      |         |
| BM   | (30°-60°)   | 237.2  | 4.0       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 181.1  | 3.0       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 2.3    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**

Type II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 64°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1418.3 | 1418.3 | 1418.3 | 1418.3 | 1418.3 | 1418.3 | 1418.3 | 1418.3 | 1418.3 | 1418.3 | 1418.3 |
| 2.5°  | 1494.7 | 1496.3 | 1498.3 | 1501.1 | 1503.1 | 1497.1 | 1488.6 | 1478.9 | 1476.9 | 1456.3 | 1431.2 |
| 5°    | 1414.7 | 1417.1 | 1434.9 | 1444.6 | 1466.4 | 1486.2 | 1498.7 | 1500.3 | 1499.5 | 1480.1 | 1440.1 |
| 7.5°  | 1300.8 | 1307.6 | 1325.0 | 1342.0 | 1382.8 | 1420.3 | 1464.8 | 1495.9 | 1497.9 | 1492.6 | 1443.0 |
| 10°   | 1208.3 | 1212.7 | 1221.6 | 1255.1 | 1289.0 | 1346.4 | 1408.6 | 1467.2 | 1472.0 | 1493.0 | 1440.5 |
| 12.5° | 1135.9 | 1142.4 | 1153.3 | 1179.2 | 1220.0 | 1274.1 | 1344.8 | 1423.6 | 1433.7 | 1485.4 | 1433.7 |
| 15°   | 1085.4 | 1088.7 | 1099.6 | 1125.0 | 1164.6 | 1214.7 | 1286.2 | 1377.9 | 1386.8 | 1475.3 | 1432.5 |
| 17.5° | 1061.6 | 1065.3 | 1072.9 | 1093.1 | 1125.8 | 1172.3 | 1242.2 | 1341.2 | 1352.5 | 1468.8 | 1436.9 |
| 20°   | 1068.1 | 1071.3 | 1071.7 | 1082.2 | 1104.4 | 1143.6 | 1209.9 | 1306.8 | 1321.4 | 1464.8 | 1444.2 |
| 22.5° | 1104.8 | 1105.2 | 1100.4 | 1095.5 | 1103.2 | 1131.5 | 1190.1 | 1285.0 | 1300.0 | 1464.0 | 1452.7 |
| 25°   | 1159.8 | 1161.0 | 1152.9 | 1135.9 | 1120.6 | 1135.1 | 1185.6 | 1270.9 | 1284.2 | 1461.9 | 1457.9 |
| 27.5° | 1235.7 | 1235.3 | 1232.9 | 1204.6 | 1161.0 | 1151.3 | 1189.3 | 1263.2 | 1274.5 | 1456.3 | 1459.9 |
| 30°   | 1342.0 | 1338.7 | 1333.5 | 1301.6 | 1234.9 | 1190.5 | 1204.6 | 1258.3 | 1268.8 | 1448.2 | 1454.7 |
| 32.5° | 1446.6 | 1458.7 | 1457.9 | 1427.6 | 1344.4 | 1260.4 | 1236.5 | 1264.8 | 1272.5 | 1443.0 | 1447.0 |
| 35°   | 1568.6 | 1568.2 | 1599.3 | 1588.0 | 1490.6 | 1349.6 | 1291.1 | 1286.2 | 1292.3 | 1446.6 | 1443.4 |
| 37.5° | 1681.7 | 1692.2 | 1740.7 | 1752.4 | 1663.5 | 1475.7 | 1368.2 | 1332.3 | 1334.3 | 1471.2 | 1452.2 |
| 40°   | 1822.7 | 1842.9 | 1915.2 | 1954.4 | 1876.0 | 1662.7 | 1482.1 | 1416.7 | 1417.1 | 1531.8 | 1485.8 |
| 42.5° | 2004.5 | 2036.4 | 2103.8 | 2169.3 | 2127.3 | 1884.1 | 1653.0 | 1550.4 | 1549.6 | 1638.5 | 1562.5 |
| 45°   | 2225.4 | 2247.7 | 2324.4 | 2428.2 | 2401.6 | 2193.1 | 1901.9 | 1757.6 | 1747.1 | 1813.4 | 1698.7 |
| 47.5° | 2416.1 | 2446.4 | 2524.4 | 2642.7 | 2763.9 | 2570.4 | 2199.2 | 2042.4 | 2035.6 | 2091.7 | 1932.2 |
| 50°   | 2499.3 | 2526.0 | 2608.0 | 2774.0 | 3067.7 | 3065.7 | 2641.9 | 2458.1 | 2446.4 | 2476.7 | 2293.3 |
| 52.5° | 2408.0 | 2433.1 | 2515.9 | 2722.7 | 3210.7 | 3669.2 | 3283.4 | 2979.6 | 2965.5 | 2926.7 | 2724.7 |
| 55°   | 2095.4 | 2116.0 | 2238.4 | 2475.9 | 3155.8 | 4071.5 | 4167.3 | 3624.0 | 3569.0 | 3418.3 | 3213.1 |
| 57.5° | 1668.4 | 1657.9 | 1733.8 | 2009.7 | 2833.4 | 4206.5 | 5074.6 | 4426.6 | 4328.5 | 3843.3 | 3626.4 |
| 60°   | 1156.1 | 1188.5 | 1219.2 | 1400.9 | 2130.5 | 3972.6 | 5638.9 | 5435.7 | 5306.5 | 4261.4 | 4022.3 |
| 62.5° | 849.9  | 871.3  | 891.5  | 975.6  | 1339.5 | 3171.9 | 5738.7 | 6472.3 | 6357.6 | 4705.4 | 4400.0 |
| 65°   | 672.2  | 673.8  | 681.9  | 764.7  | 882.7  | 2062.6 | 5259.2 | 7056.8 | 7027.3 | 5132.8 | 4553.1 |
| 66°   | 612.4  | 612.8  | 625.3  | 714.2  | 792.2  | 1679.7 | 4875.0 | 7101.3 | 7117.4 | 5235.4 | 4508.2 |
| 67.5° | 535.3  | 533.6  | 551.8  | 641.9  | 721.5  | 1211.1 | 4187.5 | 6921.1 | 7016.8 | 5314.1 | 4347.1 |
| 70°   | 414.9  | 412.9  | 435.1  | 538.5  | 664.5  | 807.9  | 2783.3 | 5942.7 | 6097.0 | 5153.0 | 3846.1 |
| 72.5° | 276.3  | 277.9  | 315.9  | 425.0  | 634.2  | 711.4  | 1674.4 | 4520.8 | 4738.9 | 4255.4 | 3025.7 |
| 75°   | 161.2  | 164.0  | 207.2  | 315.9  | 550.6  | 678.3  | 947.7  | 3223.6 | 3363.0 | 2938.4 | 1884.9 |
| 77.5° | 84.4   | 85.6   | 115.9  | 208.4  | 422.1  | 629.8  | 631.4  | 2059.4 | 2124.8 | 1428.0 | 746.1  |
| 80°   | 44.8   | 43.6   | 62.2   | 125.6  | 290.4  | 553.0  | 512.2  | 1090.3 | 1133.5 | 424.2  | 188.7  |
| 82.5° | 17.0   | 18.6   | 33.1   | 82.4   | 171.7  | 397.1  | 441.1  | 481.9  | 467.0  | 93.3   | 79.2   |
| 85°   | 3.2    | 4.0    | 14.1   | 48.9   | 86.4   | 166.0  | 325.2  | 236.3  | 218.9  | 35.1   | 45.6   |
| 87.5° | 0.4    | 0.8    | 4.0    | 11.7   | 12.5   | 56.2   | 96.1   | 65.4   | 56.6   | 12.9   | 19.0   |
| 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):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1418.3 | 1418.3 | 1418.3 | 1418.3 | 1418.3 | 1418.3 | 1418.3 | 1418.3 | 1418.3 | 1418.3 | 1418.3 |
| 2.5°  | 1419.1 | 1408.2 | 1371.9 | 1335.9 | 1299.1 | 1266.0 | 1243.4 | 1206.6 | 1197.3 | 1184.0 | 1176.3 |
| 5°    | 1416.3 | 1390.8 | 1321.0 | 1244.6 | 1173.5 | 1096.8 | 1038.2 | 981.6  | 951.3  | 936.0  | 930.3  |
| 7.5°  | 1408.2 | 1367.8 | 1258.8 | 1139.2 | 1025.3 | 910.5  | 810.8  | 734.8  | 685.9  | 652.4  | 629.8  |
| 10°   | 1392.1 | 1336.3 | 1186.4 | 1022.0 | 849.9  | 698.5  | 572.0  | 475.9  | 401.5  | 378.1  | 378.9  |
| 12.5° | 1375.5 | 1301.2 | 1105.6 | 892.0  | 678.7  | 487.6  | 353.5  | 277.5  | 242.0  | 230.3  | 227.8  |
| 15°   | 1360.1 | 1267.6 | 1026.5 | 765.9  | 505.4  | 315.9  | 227.8  | 201.2  | 191.5  | 189.5  | 189.1  |
| 17.5° | 1352.1 | 1236.5 | 942.0  | 621.7  | 352.7  | 214.5  | 182.6  | 175.3  | 172.5  | 170.5  | 169.7  |
| 20°   | 1345.2 | 1209.5 | 861.3  | 486.8  | 241.2  | 175.7  | 163.6  | 156.7  | 151.9  | 149.9  | 148.7  |
| 22.5° | 1340.4 | 1181.6 | 777.6  | 376.9  | 184.6  | 155.9  | 145.0  | 136.1  | 129.3  | 126.8  | 125.2  |
| 25°   | 1333.1 | 1150.9 | 693.2  | 275.5  | 155.5  | 138.6  | 126.0  | 115.5  | 106.6  | 102.2  | 101.4  |
| 27.5° | 1322.6 | 1116.2 | 600.7  | 204.0  | 139.0  | 123.2  | 107.9  | 94.9   | 86.0   | 81.2   | 81.6   |
| 30°   | 1305.6 | 1079.8 | 508.2  | 162.0  | 125.6  | 107.5  | 90.9   | 78.4   | 69.9   | 66.3   | 65.8   |
| 32.5° | 1285.4 | 1035.8 | 423.4  | 139.0  | 113.5  | 93.3   | 75.9   | 65.0   | 58.6   | 55.7   | 55.3   |
| 35°   | 1266.4 | 991.3  | 336.9  | 124.8  | 101.0  | 80.4   | 63.8   | 54.5   | 49.7   | 47.3   | 47.7   |
| 37.5° | 1255.9 | 951.7  | 262.6  | 113.5  | 90.9   | 69.1   | 54.9   | 46.9   | 42.4   | 40.4   | 40.0   |
| 40°   | 1262.8 | 919.4  | 208.8  | 103.4  | 79.6   | 59.4   | 47.3   | 40.4   | 36.0   | 33.1   | 33.1   |
| 42.5° | 1295.1 | 905.3  | 168.5  | 93.7   | 69.1   | 51.3   | 41.2   | 34.7   | 29.9   | 27.1   | 27.5   |
| 45°   | 1393.7 | 920.2  | 141.0  | 84.8   | 59.4   | 44.4   | 35.5   | 28.7   | 24.2   | 22.2   | 21.8   |
| 47.5° | 1557.3 | 976.4  | 122.0  | 75.5   | 50.9   | 38.0   | 29.9   | 23.8   | 19.4   | 17.8   | 17.4   |
| 50°   | 1843.3 | 1092.3 | 107.9  | 66.3   | 43.2   | 32.3   | 24.6   | 19.0   | 15.4   | 13.7   | 13.7   |
| 52.5° | 2236.7 | 1345.2 | 97.8   | 55.7   | 36.4   | 27.5   | 20.2   | 15.4   | 12.1   | 10.9   | 10.5   |
| 55°   | 2648.0 | 1611.8 | 92.5   | 46.9   | 30.3   | 22.6   | 16.2   | 12.1   | 9.3    | 8.1    | 7.7    |
| 57.5° | 3043.5 | 1821.1 | 86.4   | 38.0   | 24.2   | 17.4   | 12.5   | 9.3    | 6.5    | 5.7    | 5.3    |
| 60°   | 3422.8 | 1990.3 | 73.5   | 30.3   | 19.0   | 12.5   | 9.3    | 6.5    | 4.4    | 3.6    | 3.6    |
| 62.5° | 3762.1 | 2088.9 | 57.8   | 24.2   | 14.5   | 8.9    | 6.1    | 4.8    | 3.2    | 2.4    | 2.4    |
| 65°   | 3801.7 | 1960.8 | 43.6   | 18.6   | 10.5   | 5.7    | 3.6    | 3.6    | 2.4    | 1.6    | 1.6    |
| 66°   | 3722.1 | 1852.2 | 38.4   | 17.0   | 9.3    | 4.8    | 3.2    | 2.8    | 2.0    | 1.2    | 1.2    |
| 67.5° | 3544.4 | 1666.8 | 33.1   | 14.5   | 7.7    | 3.6    | 2.4    | 2.4    | 1.6    | 0.8    | 0.8    |
| 70°   | 3062.4 | 1361.4 | 26.3   | 10.9   | 5.7    | 2.8    | 1.6    | 1.6    | 1.2    | 0.8    | 0.8    |
| 72.5° | 2334.1 | 1016.4 | 21.4   | 8.1    | 4.0    | 2.0    | 1.2    | 1.2    | 1.2    | 0.8    | 0.8    |
| 75°   | 1407.8 | 547.4  | 16.6   | 6.1    | 3.6    | 1.6    | 0.8    | 1.2    | 1.6    | 1.2    | 0.8    |
| 77.5° | 518.7  | 186.2  | 12.9   | 4.8    | 2.8    | 1.6    | 0.8    | 0.8    | 1.6    | 1.2    | 1.2    |
| 80°   | 127.2  | 48.5   | 9.3    | 4.0    | 2.8    | 1.6    | 0.8    | 0.8    | 1.6    | 1.6    | 1.6    |
| 82.5° | 59.0   | 20.6   | 6.5    | 3.6    | 2.8    | 1.6    | 0.8    | 0.8    | 1.2    | 1.6    | 1.6    |
| 85°   | 33.9   | 9.7    | 5.3    | 4.0    | 2.8    | 1.6    | 0.8    | 0.8    | 1.2    | 1.6    | 1.6    |
| 87.5° | 13.7   | 4.8    | 4.8    | 4.0    | 3.2    | 2.0    | 0.8    | 0.8    | 0.8    | 1.2    | 1.2    |
| 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)