

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: P451314

Luminaire Tested: **GALN-SA2A-830-U-T3**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P451314  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-12)  
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-T3  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7247 lumens  
Efficiency: N/A  
Efficacy: 115.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - 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

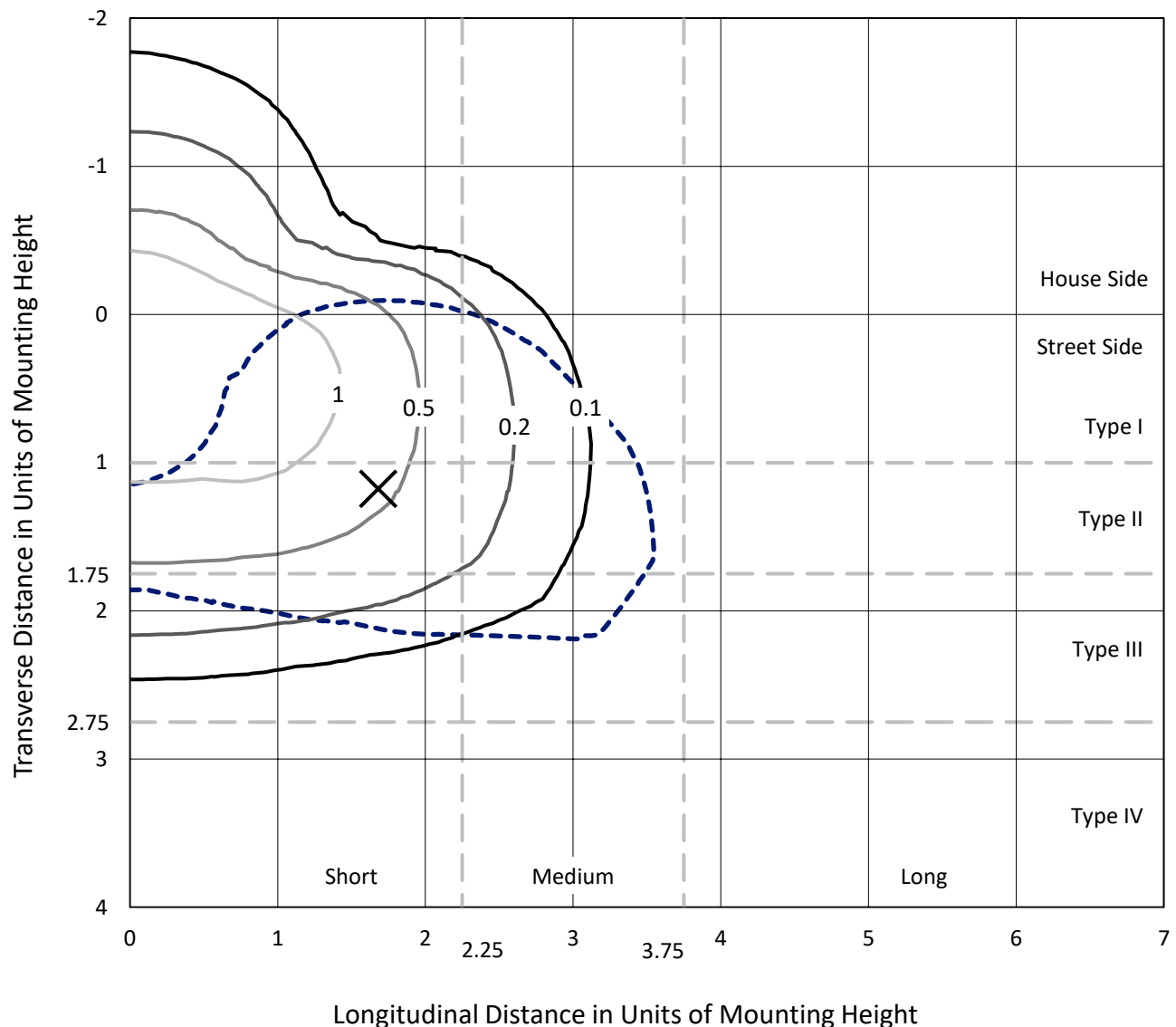


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## Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

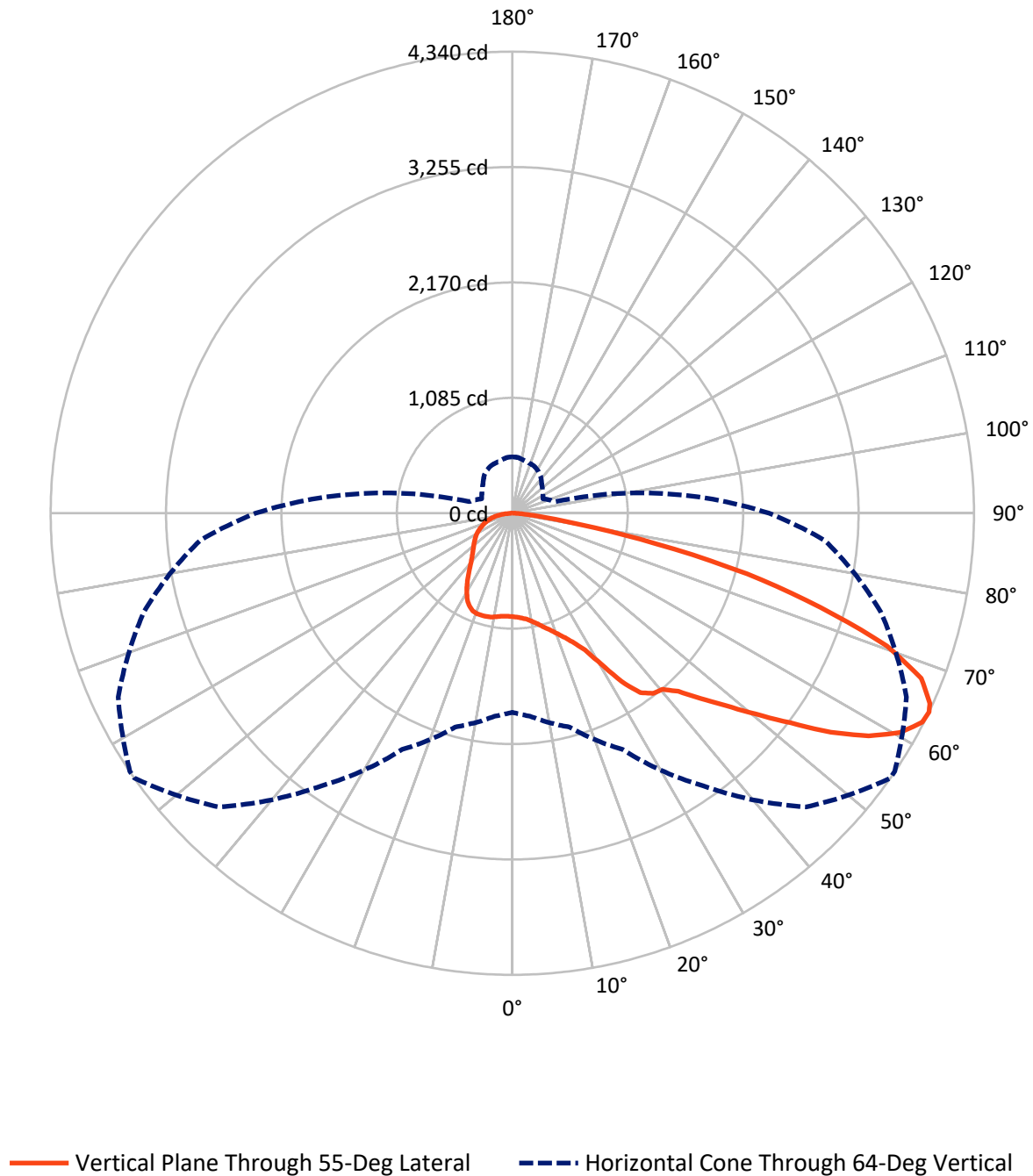


Based on 25 foot mounting height. Maximum calculated value = 1.8 fc  
 Type III - Short - N/A

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## Luminous Intensity Polar Plot



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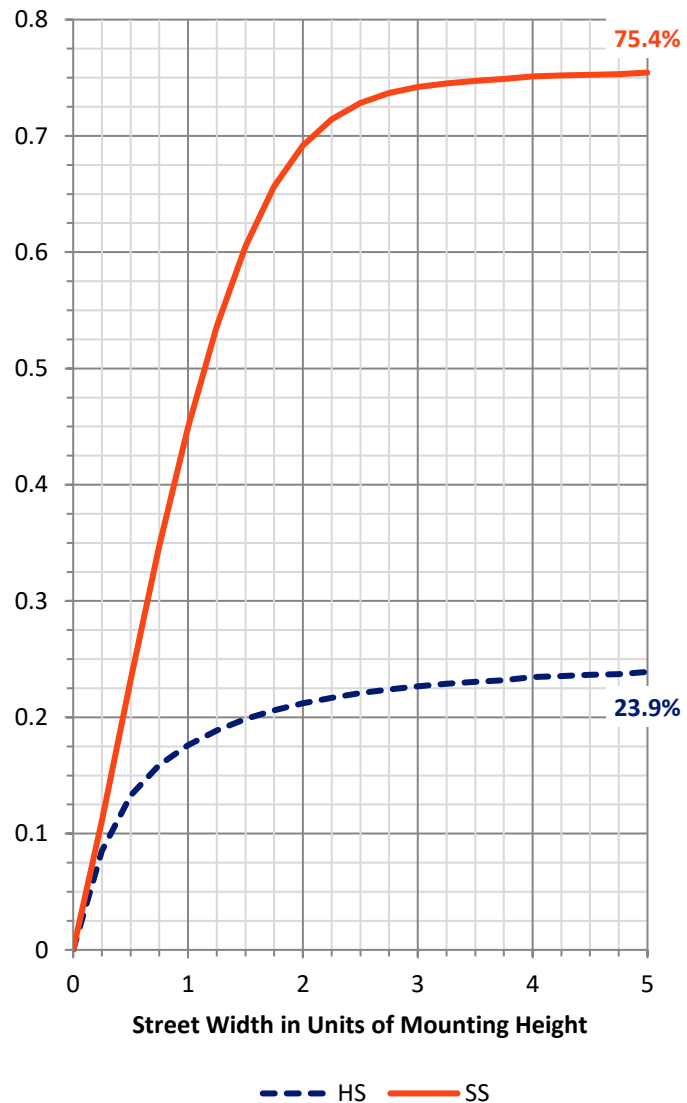
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1760.4   | 0.0    | 1760.4 |
|                    | % Fixture | 24.3     | 0.0    | 24.3   |
| <b>Street Side</b> | Lumens    | 5486.6   | 0.0    | 5486.6 |
|                    | % Fixture | 75.7     | 0.0    | 75.7   |
| <b>Total</b>       | Lumens    | 7247.0   | 0.0    | 7247.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 94.6   | 1.3       |
| 10°-20°   | 298.4  | 4.1       |
| 20°-30°   | 531.3  | 7.3       |
| 30°-40°   | 817.4  | 11.3      |
| 40°-50°   | 1158.8 | 16.0      |
| 50°-60°   | 1677.3 | 23.1      |
| 60°-70°   | 1735.9 | 24.0      |
| 70°-80°   | 812.9  | 11.2      |
| 80°-90°   | 120.3  | 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°-90°    | 7247.0 | 100.0     |
| 0°-180°   | 7247.0 | 100.0     |

**Coefficient of Utilization**



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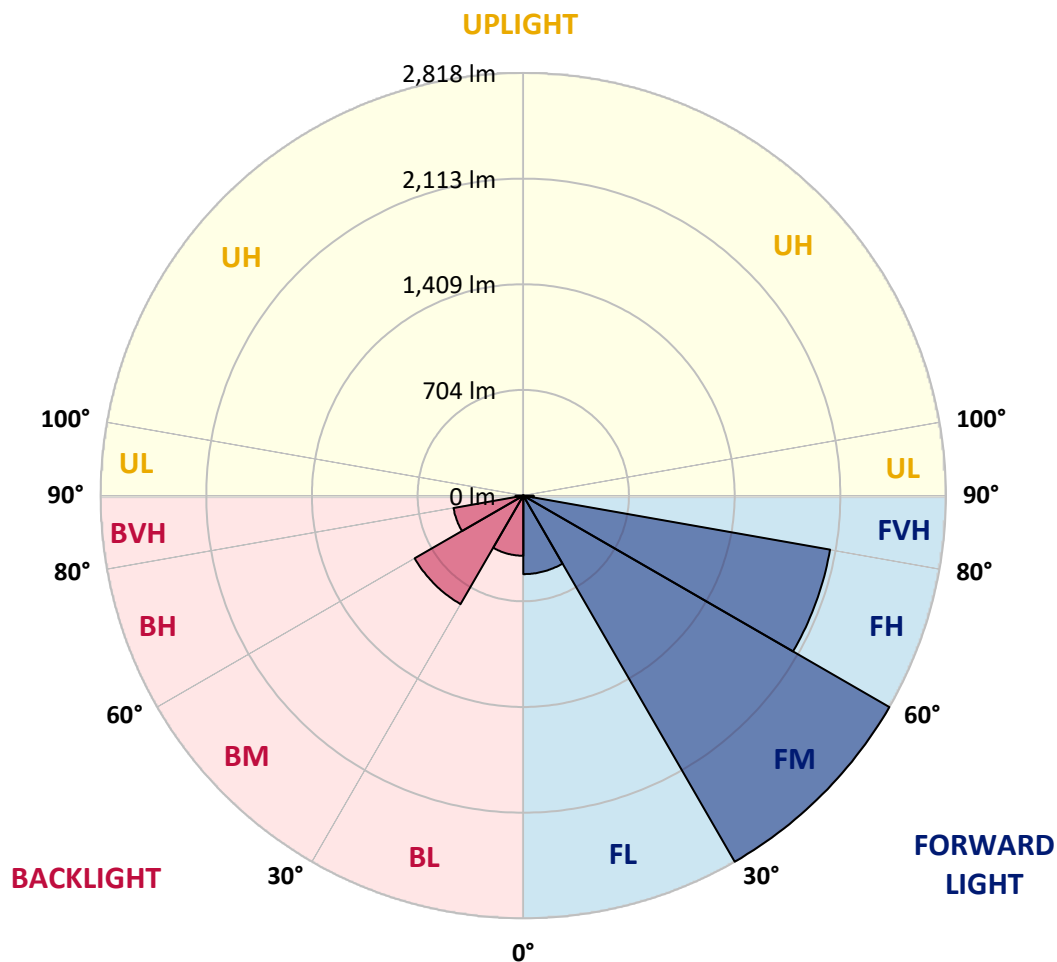
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 523.3  | 7.2       |                         |      |         |
| FM   | (30°-60°)   | 2817.8 | 38.9      |                         |      |         |
| FH   | (60°-80°)   | 2076.5 | 28.7      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 68.9   | 1.0       |                         |      | G1/100  |
| BL   | (0°-30°)    | 401.0  | 5.5       | B1/500                  |      |         |
| BM   | (30°-60°)   | 835.7  | 11.5      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 472.3  | 6.5       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 51.4   | 0.7       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

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

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 56°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 972.3  | 972.3  | 972.3  | 972.3  | 972.3  | 972.3  | 972.3  | 972.3  | 972.3  | 972.3  | 972.3  |
| 2.5°  | 983.2  | 982.8  | 984.0  | 982.8  | 983.6  | 980.8  | 979.6  | 980.4  | 979.2  | 977.2  | 973.5  |
| 5°    | 995.4  | 995.0  | 995.4  | 993.7  | 994.5  | 992.9  | 990.1  | 990.9  | 988.9  | 984.4  | 979.2  |
| 7.5°  | 1016.0 | 1014.3 | 1014.3 | 1013.9 | 1012.3 | 1009.9 | 1007.9 | 1007.1 | 1005.0 | 999.4  | 991.3  |
| 10°   | 1042.6 | 1042.6 | 1043.0 | 1039.8 | 1041.8 | 1037.4 | 1035.3 | 1034.9 | 1028.1 | 1020.8 | 1009.5 |
| 12.5° | 1077.8 | 1079.8 | 1078.6 | 1077.0 | 1076.1 | 1074.5 | 1067.7 | 1069.3 | 1061.6 | 1049.1 | 1035.3 |
| 15°   | 1121.4 | 1124.6 | 1122.6 | 1121.8 | 1119.8 | 1113.7 | 1110.9 | 1109.7 | 1099.6 | 1081.4 | 1063.2 |
| 17.5° | 1179.2 | 1175.1 | 1173.5 | 1171.5 | 1163.0 | 1158.6 | 1153.7 | 1152.9 | 1144.0 | 1122.6 | 1094.3 |
| 20°   | 1229.7 | 1235.3 | 1232.1 | 1230.1 | 1221.6 | 1213.1 | 1209.5 | 1208.2 | 1200.6 | 1177.1 | 1131.9 |
| 22.5° | 1289.8 | 1291.1 | 1292.3 | 1287.4 | 1283.4 | 1276.9 | 1270.5 | 1268.4 | 1265.6 | 1241.4 | 1186.0 |
| 25°   | 1354.1 | 1358.9 | 1354.9 | 1350.0 | 1345.2 | 1344.8 | 1350.8 | 1350.0 | 1348.8 | 1325.4 | 1257.9 |
| 27.5° | 1458.7 | 1463.1 | 1464.4 | 1459.1 | 1440.5 | 1442.1 | 1455.9 | 1460.3 | 1478.9 | 1440.1 | 1350.4 |
| 30°   | 1517.7 | 1522.1 | 1532.2 | 1552.0 | 1581.5 | 1607.4 | 1640.5 | 1650.6 | 1668.3 | 1595.2 | 1460.3 |
| 32.5° | 1554.0 | 1555.6 | 1573.8 | 1610.6 | 1699.1 | 1795.6 | 1885.7 | 1889.3 | 1900.6 | 1798.0 | 1560.9 |
| 35°   | 1611.4 | 1612.6 | 1627.1 | 1667.5 | 1771.4 | 1932.1 | 2071.5 | 2075.9 | 2066.7 | 1861.0 | 1607.8 |
| 37.5° | 1682.1 | 1685.3 | 1694.6 | 1728.1 | 1852.2 | 2046.5 | 2148.7 | 2145.4 | 2063.0 | 1911.1 | 1690.6 |
| 40°   | 1785.1 | 1785.1 | 1774.2 | 1819.4 | 1937.4 | 2111.9 | 2175.7 | 2170.1 | 2148.3 | 2056.1 | 1816.6 |
| 42.5° | 1876.0 | 1874.4 | 1900.2 | 1930.9 | 2044.0 | 2212.9 | 2289.2 | 2298.5 | 2334.5 | 2238.3 | 1960.0 |
| 45°   | 1994.3 | 2001.6 | 2016.2 | 2071.9 | 2225.4 | 2385.4 | 2483.9 | 2492.8 | 2543.7 | 2452.8 | 2127.7 |
| 47.5° | 2113.9 | 2116.3 | 2162.0 | 2236.3 | 2450.0 | 2619.3 | 2700.1 | 2714.6 | 2761.1 | 2703.7 | 2308.2 |
| 50°   | 2198.7 | 2221.8 | 2294.9 | 2412.0 | 2681.5 | 2904.5 | 2967.5 | 2984.9 | 3066.9 | 2976.8 | 2518.7 |
| 52.5° | 2288.4 | 2311.0 | 2400.3 | 2578.9 | 2947.3 | 3196.1 | 3273.7 | 3285.4 | 3370.6 | 3253.1 | 2734.0 |
| 55°   | 2365.2 | 2386.2 | 2487.6 | 2726.7 | 3159.0 | 3493.8 | 3634.4 | 3620.7 | 3661.5 | 3466.0 | 2900.0 |
| 57.5° | 2377.7 | 2394.7 | 2522.3 | 2821.2 | 3318.1 | 3749.1 | 3950.7 | 3958.8 | 3911.5 | 3625.1 | 3037.0 |
| 60°   | 2280.8 | 2315.5 | 2462.1 | 2811.1 | 3389.6 | 3926.9 | 4186.6 | 4192.3 | 4058.2 | 3706.7 | 3091.5 |
| 62.5° | 2109.1 | 2105.4 | 2282.8 | 2648.8 | 3289.4 | 3967.3 | 4325.6 | 4319.5 | 4115.5 | 3667.5 | 3038.6 |
| 64°   | 1871.9 | 1915.6 | 2081.2 | 2449.2 | 3127.9 | 3905.1 | 4340.1 | 4336.9 | 4088.1 | 3585.9 | 2948.5 |
| 65°   | 1727.3 | 1724.9 | 1888.5 | 2286.0 | 2967.1 | 3811.4 | 4314.3 | 4309.8 | 4030.7 | 3512.8 | 2878.6 |
| 67.5° | 1247.0 | 1252.7 | 1414.3 | 1764.1 | 2412.0 | 3445.0 | 4145.8 | 4129.3 | 3804.5 | 3270.4 | 2612.8 |
| 70°   | 755.4  | 758.6  | 885.5  | 1170.3 | 1731.4 | 2784.9 | 3737.0 | 3737.8 | 3458.3 | 2908.5 | 2223.8 |
| 72.5° | 397.9  | 406.4  | 457.3  | 664.5  | 1051.5 | 1953.9 | 3031.7 | 3103.6 | 2969.1 | 2482.3 | 1756.8 |
| 75°   | 221.4  | 222.6  | 258.5  | 327.6  | 536.5  | 1093.5 | 2278.7 | 2299.3 | 2350.6 | 1998.0 | 1299.1 |
| 77.5° | 168.9  | 171.3  | 182.6  | 211.7  | 292.1  | 507.0  | 1379.1 | 1482.5 | 1656.6 | 1408.6 | 741.3  |
| 80°   | 136.9  | 139.4  | 149.1  | 166.4  | 194.3  | 240.4  | 640.7  | 696.4  | 886.7  | 625.3  | 289.2  |
| 82.5° | 106.6  | 105.0  | 117.6  | 128.9  | 141.4  | 142.2  | 263.0  | 290.9  | 361.1  | 269.0  | 125.2  |
| 85°   | 79.2   | 79.2   | 89.3   | 86.9   | 91.3   | 83.2   | 115.9  | 128.1  | 144.6  | 114.3  | 58.2   |
| 87.5° | 31.5   | 34.7   | 58.6   | 52.5   | 40.8   | 32.7   | 42.8   | 45.2   | 50.1   | 44.8   | 24.2   |
| 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):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| 0°    | 972.3  | 972.3  | 972.3  | 972.3  | 972.3  | 972.3 | 972.3 | 972.3 | 972.3 | 972.3 | 972.3 |
| 2.5°  | 973.9  | 975.2  | 972.3  | 970.3  | 969.5  | 968.3 | 967.1 | 967.5 | 969.1 | 970.7 | 970.3 |
| 5°    | 978.8  | 979.2  | 974.3  | 971.9  | 970.3  | 968.7 | 968.7 | 969.9 | 973.1 | 975.6 | 975.6 |
| 7.5°  | 990.9  | 990.9  | 984.0  | 979.6  | 977.2  | 974.3 | 973.5 | 973.9 | 976.4 | 979.6 | 980.0 |
| 10°   | 1009.9 | 1008.3 | 999.4  | 992.5  | 988.1  | 981.2 | 975.2 | 971.9 | 973.1 | 975.2 | 975.2 |
| 12.5° | 1032.9 | 1028.5 | 1017.2 | 1007.9 | 997.0  | 984.0 | 971.5 | 965.1 | 964.7 | 966.7 | 965.9 |
| 15°   | 1057.6 | 1052.7 | 1037.0 | 1020.0 | 1001.0 | 982.0 | 967.1 | 957.8 | 950.5 | 948.5 | 952.9 |
| 17.5° | 1086.2 | 1076.1 | 1054.3 | 1030.9 | 1002.6 | 978.0 | 954.6 | 935.6 | 922.6 | 919.0 | 920.2 |
| 20°   | 1121.0 | 1107.7 | 1078.2 | 1041.4 | 1001.4 | 963.4 | 927.1 | 901.6 | 880.6 | 874.2 | 875.0 |
| 22.5° | 1169.1 | 1146.0 | 1102.8 | 1046.7 | 991.3  | 936.0 | 885.5 | 852.4 | 826.9 | 816.8 | 822.9 |
| 25°   | 1223.6 | 1198.5 | 1126.2 | 1045.4 | 965.1  | 891.9 | 836.2 | 793.0 | 769.9 | 755.0 | 758.2 |
| 27.5° | 1298.7 | 1254.3 | 1151.3 | 1034.5 | 927.5  | 838.2 | 773.6 | 732.8 | 711.8 | 704.1 | 707.7 |
| 30°   | 1394.9 | 1326.6 | 1178.3 | 1005.0 | 868.1  | 770.3 | 710.6 | 683.9 | 671.4 | 661.7 | 664.9 |
| 32.5° | 1464.4 | 1377.5 | 1184.4 | 955.4  | 803.9  | 708.5 | 667.7 | 647.9 | 634.2 | 624.9 | 626.9 |
| 35°   | 1514.0 | 1420.7 | 1181.6 | 894.4  | 736.8  | 657.6 | 633.8 | 617.7 | 595.4 | 575.2 | 571.6 |
| 37.5° | 1580.7 | 1474.9 | 1161.0 | 827.7  | 670.6  | 623.3 | 606.3 | 576.4 | 544.5 | 517.5 | 516.3 |
| 40°   | 1682.9 | 1538.3 | 1116.9 | 749.3  | 614.0  | 597.9 | 577.3 | 538.5 | 504.1 | 482.3 | 480.7 |
| 42.5° | 1788.3 | 1596.8 | 1057.2 | 666.9  | 567.6  | 571.2 | 546.2 | 507.8 | 486.8 | 472.6 | 471.0 |
| 45°   | 1917.2 | 1660.3 | 992.5  | 595.4  | 533.2  | 546.2 | 519.1 | 496.9 | 484.3 | 475.1 | 472.6 |
| 47.5° | 2056.6 | 1725.3 | 919.8  | 531.2  | 504.1  | 523.1 | 507.8 | 497.7 | 490.8 | 484.3 | 481.5 |
| 50°   | 2206.8 | 1798.0 | 851.5  | 479.5  | 477.9  | 499.3 | 506.6 | 502.9 | 498.9 | 496.9 | 494.4 |
| 52.5° | 2371.6 | 1872.3 | 794.2  | 443.1  | 454.9  | 482.3 | 507.0 | 509.8 | 509.8 | 508.6 | 507.0 |
| 55°   | 2483.1 | 1924.1 | 736.0  | 413.7  | 431.4  | 468.6 | 506.2 | 517.1 | 521.1 | 519.5 | 517.9 |
| 57.5° | 2565.5 | 1952.3 | 662.9  | 388.2  | 411.6  | 455.3 | 501.7 | 517.9 | 521.9 | 523.9 | 523.1 |
| 60°   | 2582.5 | 1926.1 | 567.2  | 361.5  | 390.2  | 435.9 | 485.6 | 505.8 | 511.0 | 523.5 | 524.7 |
| 62.5° | 2506.2 | 1845.3 | 471.8  | 335.3  | 364.0  | 406.4 | 463.7 | 492.0 | 502.5 | 521.9 | 523.9 |
| 64°   | 2412.4 | 1754.8 | 418.9  | 318.7  | 347.0  | 389.8 | 452.8 | 488.4 | 502.1 | 528.0 | 529.6 |
| 65°   | 2343.8 | 1689.0 | 385.8  | 308.2  | 336.1  | 378.9 | 446.8 | 489.6 | 505.8 | 537.3 | 539.7 |
| 67.5° | 2090.9 | 1462.3 | 319.1  | 283.6  | 310.2  | 360.3 | 448.0 | 499.7 | 504.9 | 540.9 | 540.5 |
| 70°   | 1730.2 | 1164.2 | 267.4  | 261.0  | 285.2  | 345.4 | 443.1 | 483.5 | 483.9 | 507.8 | 502.1 |
| 72.5° | 1295.5 | 860.4  | 231.9  | 237.5  | 257.3  | 309.8 | 418.5 | 461.7 | 454.9 | 458.1 | 452.4 |
| 75°   | 889.9  | 569.2  | 199.6  | 212.5  | 228.2  | 273.9 | 383.8 | 419.3 | 408.4 | 404.4 | 400.3 |
| 77.5° | 475.1  | 314.7  | 166.0  | 187.8  | 198.3  | 236.7 | 334.9 | 369.2 | 357.9 | 342.2 | 336.9 |
| 80°   | 192.3  | 148.3  | 133.7  | 155.5  | 161.6  | 190.7 | 278.7 | 300.1 | 291.7 | 264.2 | 255.3 |
| 82.5° | 96.5   | 88.9   | 105.0  | 122.4  | 122.8  | 136.1 | 207.2 | 227.4 | 208.4 | 174.9 | 167.2 |
| 85°   | 50.5   | 52.1   | 72.3   | 86.0   | 75.9   | 73.5  | 124.4 | 137.7 | 126.4 | 109.9 | 99.0  |
| 87.5° | 18.2   | 21.0   | 38.0   | 37.6   | 26.7   | 14.1  | 27.5  | 13.3  | 7.3   | 4.4   | 5.7   |
| 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)