

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: P651732

Luminaire Tested: **GALN-SA2A-840-U-SL4-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P651732  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA2A-840-U-SL4-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 80 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6362.2 lumens  
Efficiency: N/A  
Efficacy: 101.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

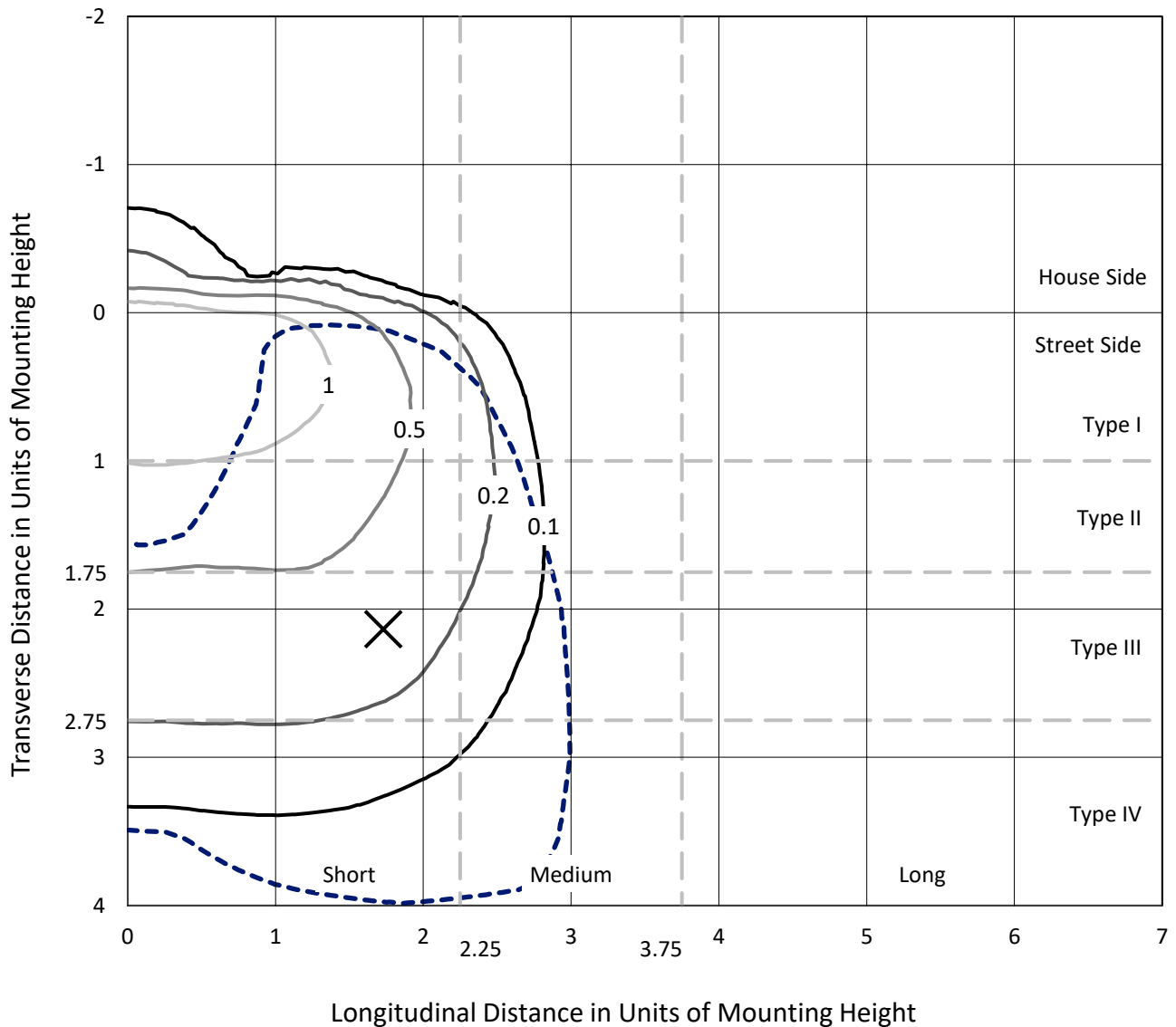
Input Watts (W): 63  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

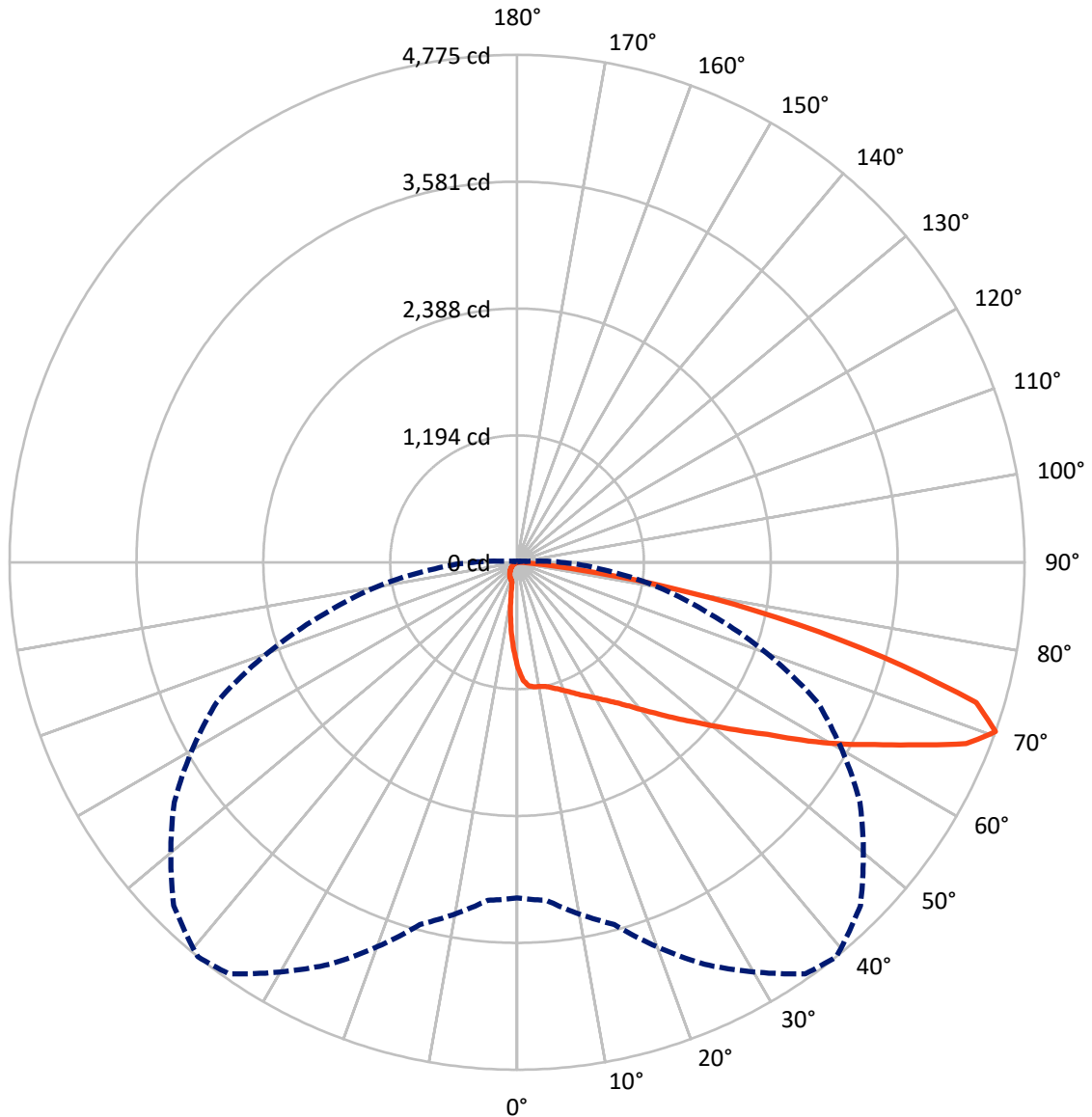
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 414.8    | 0.0    | 414.8  |
|                    | % Fixture | 6.5      | 0.0    | 6.5    |
| <b>Street Side</b> | Lumens    | 5947.3   | 0.0    | 5947.3 |
|                    | % Fixture | 93.5     | 0.0    | 93.5   |
| <b>Total</b>       | Lumens    | 6362.2   | 0.0    | 6362.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 84.7   | 1.3       |
| 10°-20°   | 220.0  | 3.5       |
| 20°-30°   | 368.6  | 5.8       |
| 30°-40°   | 571.7  | 9.0       |
| 40°-50°   | 906.0  | 14.2      |
| 50°-60°   | 1328.0 | 20.9      |
| 60°-70°   | 1702.2 | 26.8      |
| 70°-80°   | 1069.6 | 16.8      |
| 80°-90°   | 111.4  | 1.8       |
| 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°    | 6362.2 | 100.0     |
| 0°-180°   | 6362.2 | 100.0     |

**Coefficient of Utilization**

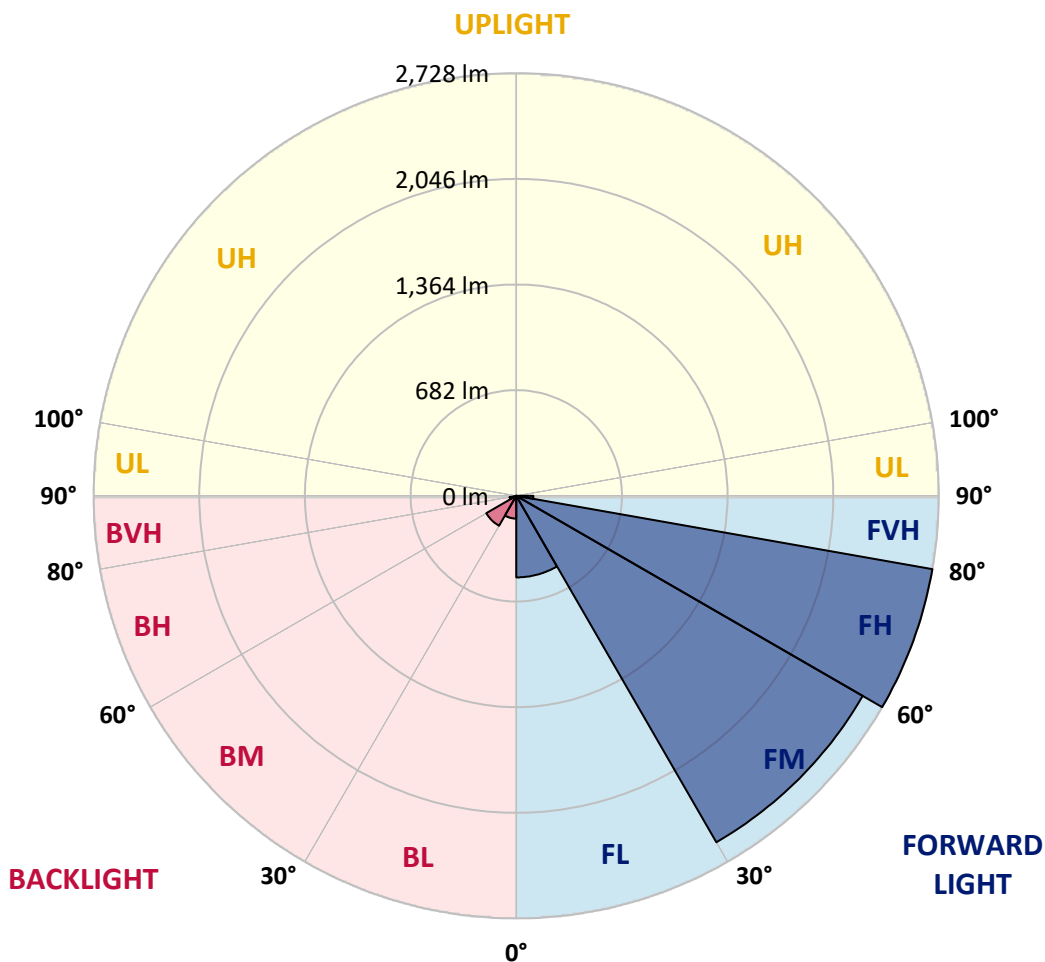


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 526.4  | 8.3       |                         |      |         |
| FM (30°-60°)   | 2582.4 | 40.6      |                         |      |         |
| FH (60°-80°)   | 2727.9 | 42.9      |                         |      | G2/5000 |
| FVH (80°-90°)  | 110.6  | 1.7       |                         |      | G2/225  |
| BL (0°-30°)    | 146.9  | 2.3       | B1/500                  |      |         |
| BM (30°-60°)   | 223.3  | 3.5       | B1/1000                 |      |         |
| BH (60°-80°)   | 43.9   | 0.7       | B0/110                  |      | G0/110  |
| BVH (80°-90°)  | 0.8    | 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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 39°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 992.7  | 992.7  | 992.7  | 992.7  | 992.7  | 992.7  | 992.7  | 992.7  | 992.7  | 992.7  | 992.7  |
| 2.5°  | 1147.0 | 1143.2 | 1138.0 | 1132.1 | 1115.0 | 1112.0 | 1101.7 | 1079.9 | 1053.9 | 1032.5 | 1003.0 |
| 5°    | 1201.4 | 1203.5 | 1199.6 | 1188.9 | 1176.6 | 1169.2 | 1156.5 | 1122.7 | 1088.9 | 1045.7 | 997.4  |
| 7.5°  | 1213.7 | 1218.0 | 1213.3 | 1203.1 | 1191.1 | 1183.4 | 1173.1 | 1144.1 | 1104.7 | 1055.5 | 989.3  |
| 10°   | 1212.5 | 1217.6 | 1214.6 | 1205.2 | 1195.4 | 1188.1 | 1177.0 | 1153.9 | 1122.2 | 1070.5 | 991.9  |
| 12.5° | 1210.4 | 1217.2 | 1216.8 | 1212.0 | 1203.9 | 1198.3 | 1191.5 | 1171.0 | 1141.5 | 1092.3 | 1006.0 |
| 15°   | 1204.3 | 1212.9 | 1220.6 | 1224.4 | 1224.8 | 1224.8 | 1216.3 | 1194.5 | 1166.3 | 1121.0 | 1024.3 |
| 17.5° | 1206.9 | 1216.8 | 1236.0 | 1247.1 | 1254.8 | 1253.9 | 1244.9 | 1221.5 | 1190.3 | 1150.5 | 1043.6 |
| 20°   | 1222.7 | 1236.0 | 1262.9 | 1285.1 | 1292.9 | 1290.3 | 1278.3 | 1250.9 | 1215.5 | 1175.7 | 1062.4 |
| 22.5° | 1261.7 | 1273.6 | 1307.3 | 1333.5 | 1339.0 | 1332.1 | 1315.1 | 1277.9 | 1245.8 | 1203.1 | 1085.1 |
| 25°   | 1319.8 | 1333.9 | 1365.1 | 1384.8 | 1384.8 | 1380.9 | 1357.0 | 1313.4 | 1280.0 | 1241.1 | 1114.6 |
| 27.5° | 1390.3 | 1402.3 | 1433.1 | 1450.6 | 1440.3 | 1429.2 | 1405.3 | 1352.7 | 1320.6 | 1289.0 | 1150.1 |
| 30°   | 1461.7 | 1469.4 | 1501.9 | 1509.6 | 1498.9 | 1484.8 | 1459.1 | 1406.6 | 1378.3 | 1354.0 | 1201.4 |
| 32.5° | 1529.3 | 1545.9 | 1572.8 | 1571.2 | 1556.6 | 1549.8 | 1526.2 | 1470.2 | 1454.4 | 1451.9 | 1273.2 |
| 35°   | 1596.8 | 1609.7 | 1633.6 | 1639.5 | 1626.7 | 1625.5 | 1608.3 | 1566.9 | 1567.3 | 1584.0 | 1385.2 |
| 37.5° | 1654.9 | 1666.5 | 1694.7 | 1708.0 | 1710.5 | 1717.0 | 1710.1 | 1682.8 | 1721.6 | 1767.4 | 1533.6 |
| 40°   | 1703.7 | 1719.9 | 1755.8 | 1779.0 | 1805.5 | 1828.9 | 1830.3 | 1836.2 | 1914.5 | 1993.1 | 1727.2 |
| 42.5° | 1741.7 | 1764.4 | 1816.6 | 1859.3 | 1920.0 | 1949.9 | 1973.9 | 2006.8 | 2138.5 | 2256.1 | 1955.5 |
| 45°   | 1791.3 | 1817.4 | 1882.4 | 1949.5 | 2044.5 | 2093.6 | 2127.0 | 2215.0 | 2401.8 | 2562.2 | 2189.8 |
| 47.5° | 1873.4 | 1887.1 | 1953.4 | 2051.3 | 2176.1 | 2246.2 | 2311.2 | 2444.6 | 2684.5 | 2828.1 | 2384.7 |
| 50°   | 1979.0 | 1988.0 | 2038.0 | 2174.0 | 2335.5 | 2427.9 | 2546.4 | 2703.2 | 2977.7 | 3048.7 | 2495.1 |
| 52.5° | 2095.8 | 2098.7 | 2136.3 | 2309.0 | 2514.3 | 2630.6 | 2763.1 | 2956.8 | 3216.7 | 3206.1 | 2568.2 |
| 55°   | 2231.3 | 2227.0 | 2259.0 | 2455.7 | 2725.9 | 2858.9 | 3013.2 | 3216.3 | 3424.0 | 3317.6 | 2610.0 |
| 57.5° | 2386.4 | 2374.9 | 2406.1 | 2650.2 | 2997.0 | 3156.0 | 3312.9 | 3440.3 | 3584.8 | 3411.3 | 2630.1 |
| 60°   | 2548.9 | 2525.9 | 2563.0 | 2868.7 | 3316.3 | 3467.3 | 3597.6 | 3631.9 | 3754.1 | 3485.6 | 2595.5 |
| 62.5° | 2678.4 | 2678.9 | 2748.1 | 3101.3 | 3644.6 | 3776.8 | 3846.1 | 3876.8 | 3899.9 | 3469.4 | 2413.4 |
| 65°   | 2880.7 | 2887.5 | 2998.2 | 3424.0 | 4024.8 | 4139.3 | 4186.8 | 4086.8 | 3906.3 | 3267.6 | 2139.8 |
| 67.5° | 3089.3 | 3111.1 | 3313.8 | 3868.7 | 4463.8 | 4556.1 | 4495.0 | 4127.4 | 3731.9 | 2807.2 | 1622.5 |
| 70°   | 3157.3 | 3193.2 | 3527.1 | 4174.8 | 4727.2 | 4775.0 | 4568.1 | 3938.0 | 3119.7 | 1876.9 | 816.6  |
| 72.5° | 2893.0 | 2951.2 | 3404.4 | 4063.2 | 4559.1 | 4517.7 | 4087.2 | 3302.6 | 1983.3 | 712.7  | 249.3  |
| 75°   | 2040.2 | 2065.8 | 2829.4 | 3370.6 | 3666.9 | 3549.4 | 3109.0 | 2129.1 | 815.7  | 200.1  | 85.5   |
| 77.5° | 1053.4 | 1041.0 | 1682.8 | 2236.4 | 2615.2 | 2493.3 | 2035.9 | 1102.1 | 309.1  | 83.3   | 53.0   |
| 80°   | 544.6  | 553.6  | 728.1  | 1171.8 | 1596.4 | 1469.0 | 1085.5 | 510.9  | 164.6  | 46.2   | 40.6   |
| 82.5° | 305.3  | 286.4  | 418.6  | 511.7  | 746.5  | 585.3  | 416.4  | 361.7  | 71.8   | 27.8   | 38.5   |
| 85°   | 55.6   | 58.1   | 229.6  | 276.6  | 259.1  | 164.6  | 134.2  | 241.5  | 20.9   | 15.4   | 26.9   |
| 87.5° | 0.8    | 0.8    | 44.5   | 79.6   | 50.5   | 23.1   | 42.3   | 34.6   | 4.3    | 6.0    | 4.7    |
| 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°    | 992.7  | 992.7  | 992.7 | 992.7 | 992.7 | 992.7 | 992.7 | 992.7 | 992.7 | 992.7 | 992.7 |
| 2.5°  | 988.0  | 971.8  | 941.4 | 911.5 | 873.5 | 842.3 | 821.2 | 799.5 | 777.3 | 778.9 | 784.1 |
| 5°    | 970.9  | 942.7  | 882.9 | 819.6 | 758.8 | 704.2 | 650.3 | 602.0 | 582.3 | 564.3 | 565.2 |
| 7.5°  | 953.8  | 914.1  | 826.4 | 727.2 | 635.3 | 542.1 | 474.6 | 419.0 | 389.5 | 367.3 | 360.9 |
| 10°   | 946.1  | 893.6  | 774.6 | 638.3 | 507.9 | 406.1 | 319.3 | 274.1 | 239.0 | 227.9 | 230.9 |
| 12.5° | 949.6  | 883.3  | 728.1 | 557.9 | 402.8 | 283.0 | 222.3 | 199.2 | 191.5 | 190.2 | 189.4 |
| 15°   | 956.0  | 876.0  | 682.3 | 469.0 | 295.9 | 210.3 | 186.9 | 182.6 | 181.7 | 180.8 | 181.2 |
| 17.5° | 964.5  | 869.6  | 633.6 | 385.6 | 227.0 | 183.8 | 177.0 | 174.8 | 174.4 | 174.4 | 174.4 |
| 20°   | 973.0  | 862.4  | 579.3 | 311.3 | 189.4 | 173.6 | 169.3 | 168.0 | 167.6 | 167.6 | 167.2 |
| 22.5° | 982.9  | 855.9  | 524.1 | 244.6 | 174.4 | 166.3 | 162.5 | 161.6 | 161.1 | 160.7 | 160.7 |
| 25°   | 997.0  | 847.8  | 465.6 | 200.1 | 165.0 | 159.5 | 155.6 | 154.7 | 154.3 | 152.6 | 153.1 |
| 27.5° | 1015.8 | 841.8  | 405.3 | 172.7 | 156.5 | 150.9 | 148.4 | 147.1 | 146.2 | 144.9 | 145.3 |
| 30°   | 1041.5 | 836.7  | 341.2 | 157.8 | 146.7 | 142.0 | 139.4 | 138.5 | 137.7 | 136.4 | 136.4 |
| 32.5° | 1085.9 | 838.8  | 273.6 | 145.7 | 137.7 | 132.1 | 129.5 | 128.7 | 127.8 | 126.6 | 126.6 |
| 35°   | 1152.6 | 851.2  | 218.9 | 135.5 | 127.0 | 121.4 | 118.8 | 118.8 | 117.6 | 115.9 | 115.5 |
| 37.5° | 1261.7 | 882.9  | 175.7 | 125.7 | 116.7 | 111.6 | 108.6 | 107.7 | 106.5 | 103.9 | 103.4 |
| 40°   | 1390.3 | 932.0  | 147.9 | 115.9 | 107.3 | 102.2 | 99.6  | 97.1  | 93.6  | 91.1  | 90.7  |
| 42.5° | 1551.9 | 982.5  | 128.3 | 106.1 | 98.3  | 93.6  | 90.7  | 86.4  | 81.2  | 77.8  | 77.4  |
| 45°   | 1720.3 | 1028.6 | 115.0 | 97.1  | 89.8  | 86.0  | 82.5  | 75.7  | 69.3  | 65.0  | 64.6  |
| 47.5° | 1846.1 | 1037.2 | 104.3 | 88.5  | 82.5  | 78.6  | 73.9  | 65.4  | 56.9  | 53.0  | 51.7  |
| 50°   | 1905.5 | 995.7  | 93.2  | 80.0  | 75.3  | 71.0  | 65.0  | 55.2  | 45.8  | 41.0  | 40.2  |
| 52.5° | 1926.4 | 923.9  | 84.2  | 72.2  | 68.0  | 62.8  | 55.6  | 44.5  | 35.9  | 31.2  | 30.8  |
| 55°   | 1917.9 | 833.3  | 76.1  | 65.0  | 59.5  | 53.4  | 46.2  | 35.5  | 26.5  | 22.6  | 21.8  |
| 57.5° | 1873.0 | 717.8  | 68.0  | 57.7  | 50.9  | 44.9  | 36.8  | 26.5  | 18.0  | 14.5  | 14.1  |
| 60°   | 1752.0 | 560.5  | 59.9  | 49.6  | 43.1  | 36.8  | 29.1  | 18.8  | 11.1  | 8.2   | 8.2   |
| 62.5° | 1547.6 | 416.0  | 52.1  | 41.5  | 36.3  | 29.5  | 20.5  | 11.9  | 6.0   | 4.3   | 3.9   |
| 65°   | 1293.3 | 307.0  | 43.6  | 35.1  | 30.4  | 23.1  | 14.5  | 7.2   | 3.0   | 1.3   | 0.8   |
| 67.5° | 902.5  | 189.4  | 36.3  | 28.7  | 24.8  | 16.7  | 9.0   | 3.0   | 1.3   | 0.0   | 0.0   |
| 70°   | 410.0  | 90.2   | 27.8  | 21.8  | 18.8  | 11.9  | 4.7   | 1.7   | 0.8   | 0.0   | 0.0   |
| 72.5° | 127.4  | 47.4   | 19.7  | 15.8  | 12.9  | 7.7   | 2.6   | 1.3   | 0.8   | 0.0   | 0.0   |
| 75°   | 59.0   | 30.4   | 12.4  | 8.6   | 7.2   | 3.9   | 1.7   | 0.8   | 0.4   | 0.0   | 0.0   |
| 77.5° | 44.1   | 23.5   | 7.2   | 4.7   | 3.9   | 2.6   | 1.3   | 0.8   | 0.4   | 0.0   | 0.0   |
| 80°   | 38.5   | 11.9   | 4.3   | 3.0   | 2.1   | 1.7   | 0.8   | 0.4   | 0.0   | 0.0   | 0.0   |
| 82.5° | 34.6   | 6.0    | 2.6   | 1.7   | 1.3   | 0.8   | 0.4   | 0.4   | 0.0   | 0.0   | 0.0   |
| 85°   | 18.8   | 3.4    | 1.7   | 1.3   | 0.8   | 0.4   | 0.4   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 3.4    | 1.7    | 1.3   | 0.8   | 0.8   | 0.4   | 0.4   | 0.4   | 0.0   | 0.0   | 0.0   |
| 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)