

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: P647900

Luminaire Tested: **GALN-SA4A-835-U-T2**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P647900  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA4A-835-U-T2  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 3500K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14246 lumens  
Efficiency: N/A  
Efficacy: 117.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

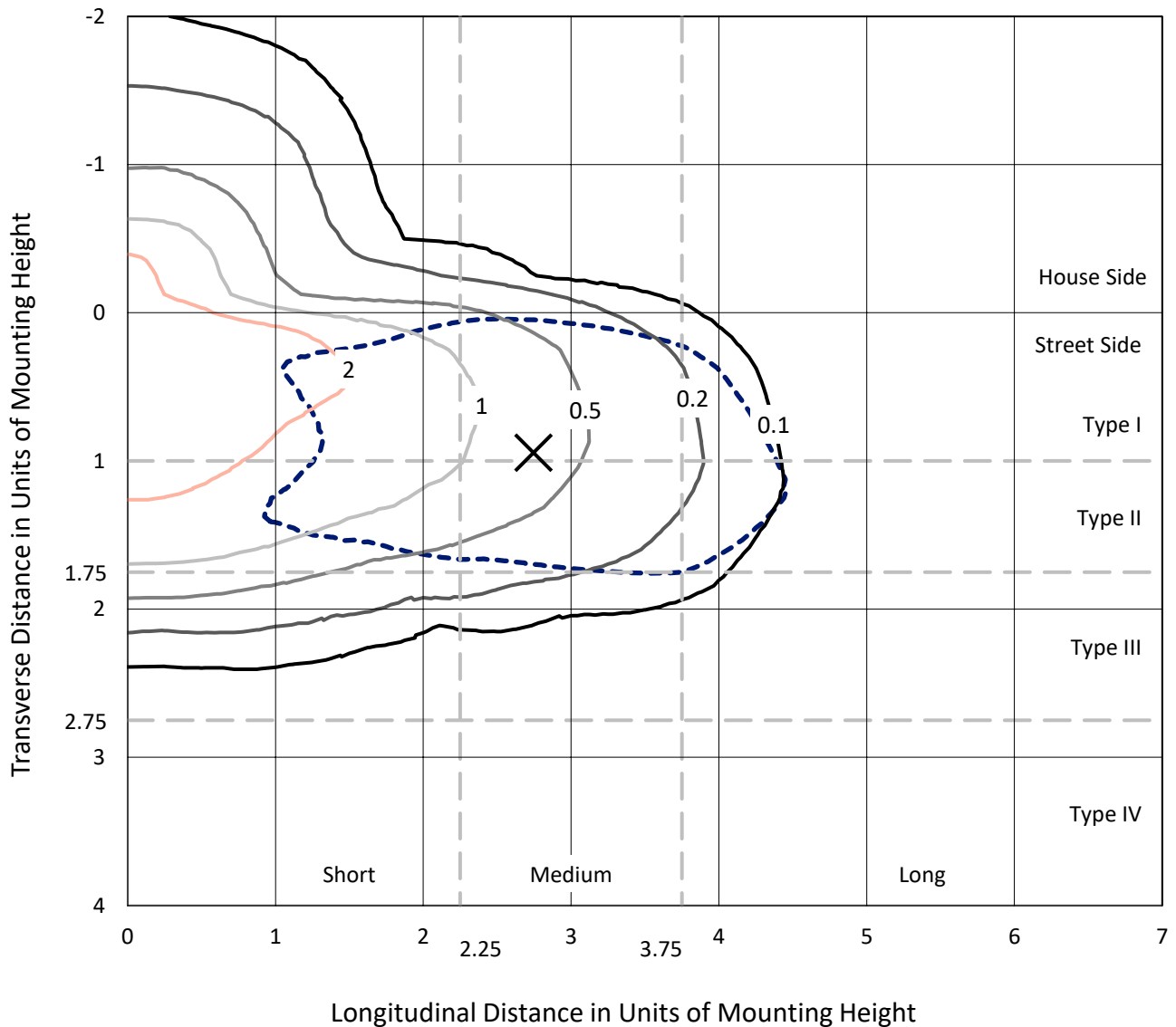
Input Watts (W): 121  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

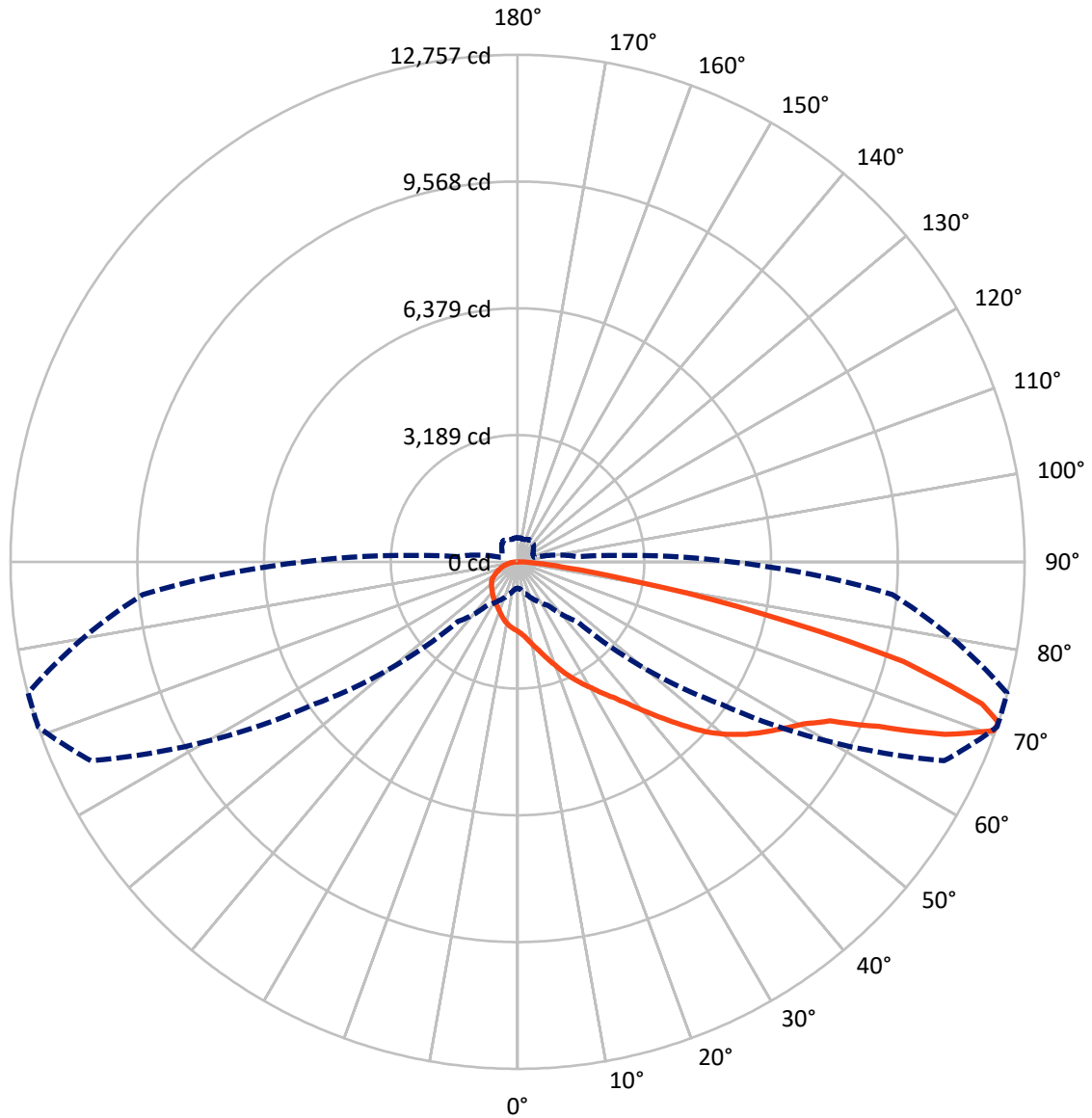
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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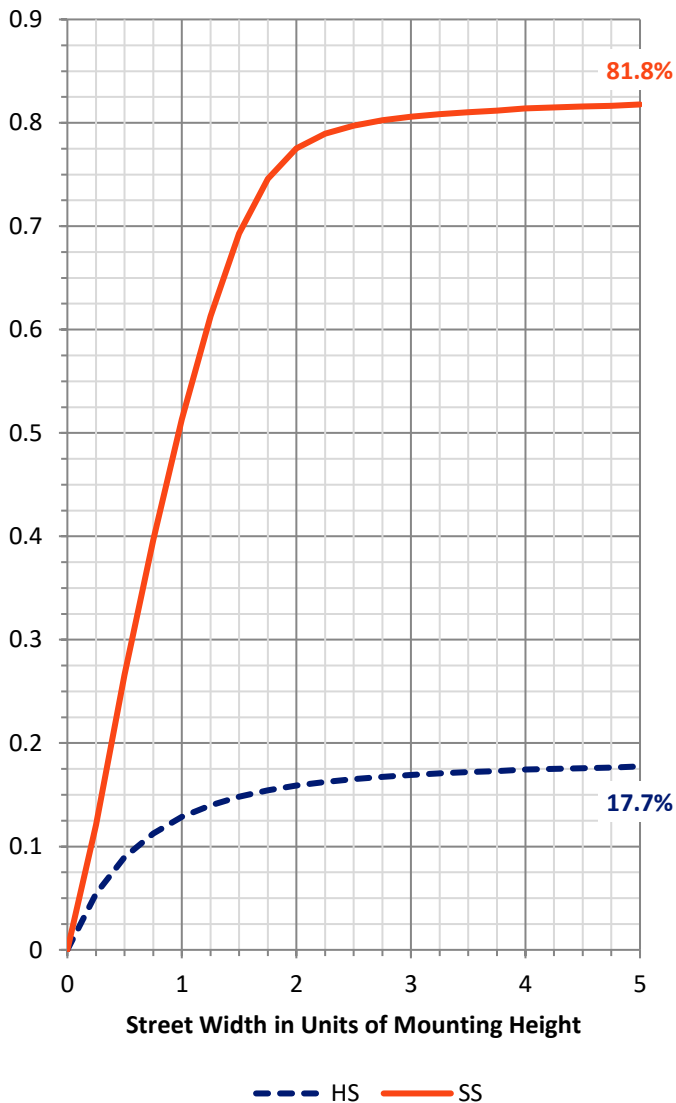
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2562.1   | 0.0    | 2562.1  |
|                    | % Fixture | 18.0     | 0.0    | 18.0    |
| <b>Street Side</b> | Lumens    | 11683.8  | 0.0    | 11683.8 |
|                    | % Fixture | 82.0     | 0.0    | 82.0    |
| <b>Total</b>       | Lumens    | 14246.0  | 0.0    | 14246.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 175.6   | 1.2       |
| 10°-20°   | 570.4   | 4.0       |
| 20°-30°   | 996.7   | 7.0       |
| 30°-40°   | 1482.5  | 10.4      |
| 40°-50°   | 2184.3  | 15.3      |
| 50°-60°   | 3058.1  | 21.5      |
| 60°-70°   | 3420.3  | 24.0      |
| 70°-80°   | 2089.3  | 14.7      |
| 80°-90°   | 268.8   | 1.9       |
| 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°    | 14246.0 | 100.0     |
| 0°-180°   | 14246.0 | 100.0     |



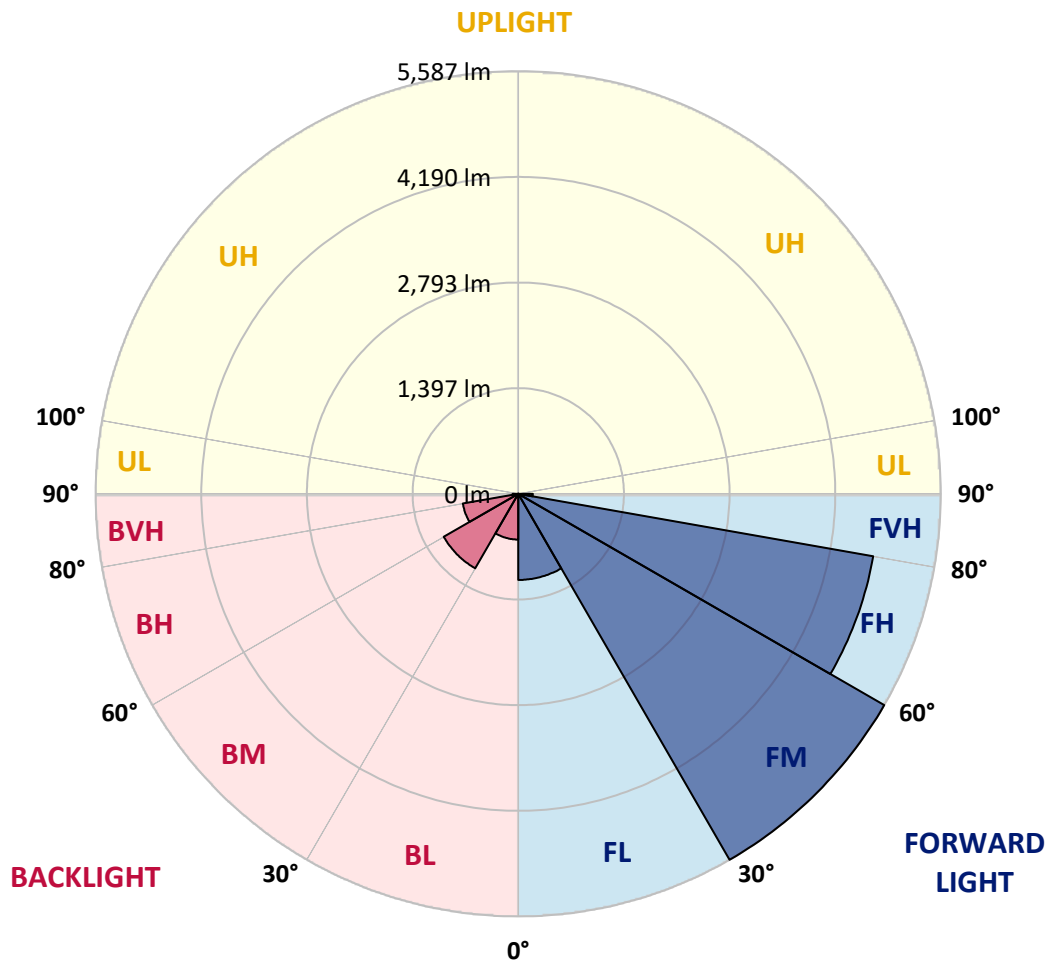
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1138.2 | 8.0       |                         |      |         |
| FM (30°-60°)   | 5587.0 | 39.2      |                         |      |         |
| FH (60°-80°)   | 4765.2 | 33.4      |                         |      | G2/5000 |
| FVH (80°-90°)  | 193.4  | 1.4       |                         |      | G2/225  |
| BL (0°-30°)    | 604.4  | 4.2       | B2/1000                 |      |         |
| BM (30°-60°)   | 1137.9 | 8.0       | B2/2500                 |      |         |
| BH (60°-80°)   | 744.4  | 5.2       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 75.4   | 0.5       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°     | 71°     | 75°     | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|--------|
| 0°    | 1748.4 | 1748.4 | 1748.4 | 1748.4 | 1748.4 | 1748.4 | 1748.4 | 1748.4  | 1748.4  | 1748.4  | 1748.4 |
| 2.5°  | 1941.0 | 1931.6 | 1932.4 | 1919.1 | 1901.9 | 1883.1 | 1856.5 | 1833.0  | 1814.2  | 1803.2  | 1771.1 |
| 5°    | 2150.8 | 2141.4 | 2129.7 | 2100.7 | 2088.2 | 2042.0 | 1983.3 | 1930.0  | 1889.4  | 1866.7  | 1802.5 |
| 7.5°  | 2320.7 | 2318.4 | 2315.3 | 2298.8 | 2266.7 | 2202.5 | 2152.4 | 2060.0  | 1999.7  | 1956.6  | 1847.1 |
| 10°   | 2425.7 | 2429.6 | 2431.9 | 2435.1 | 2421.7 | 2388.1 | 2319.2 | 2202.5  | 2125.8  | 2071.0  | 1905.0 |
| 12.5° | 2478.9 | 2482.8 | 2496.1 | 2525.1 | 2543.1 | 2539.2 | 2482.8 | 2368.5  | 2262.8  | 2190.8  | 1966.8 |
| 15°   | 2511.8 | 2518.0 | 2541.5 | 2579.9 | 2640.2 | 2678.6 | 2651.2 | 2545.5  | 2429.6  | 2344.2  | 2040.4 |
| 17.5° | 2547.8 | 2554.9 | 2580.7 | 2635.5 | 2714.6 | 2797.6 | 2827.3 | 2736.5  | 2610.4  | 2508.7  | 2122.6 |
| 20°   | 2568.2 | 2577.6 | 2614.4 | 2686.4 | 2778.8 | 2899.4 | 2998.0 | 2950.3  | 2812.5  | 2699.7  | 2217.4 |
| 22.5° | 2601.0 | 2608.9 | 2640.2 | 2716.9 | 2827.3 | 2978.5 | 3168.7 | 3158.5  | 3037.2  | 2891.5  | 2321.5 |
| 25°   | 2690.3 | 2702.8 | 2718.5 | 2764.7 | 2871.2 | 3059.1 | 3310.4 | 3380.9  | 3254.9  | 3092.0  | 2417.0 |
| 27.5° | 2858.7 | 2868.8 | 2868.1 | 2874.3 | 2934.6 | 3128.8 | 3433.4 | 3600.9  | 3471.0  | 3294.8  | 2509.4 |
| 30°   | 3050.5 | 3054.4 | 3057.5 | 3043.4 | 3056.8 | 3200.0 | 3546.1 | 3818.6  | 3688.6  | 3503.1  | 2590.1 |
| 32.5° | 3283.8 | 3291.7 | 3265.0 | 3229.0 | 3218.1 | 3305.7 | 3639.3 | 4036.3  | 3946.2  | 3714.5  | 2670.0 |
| 35°   | 3559.4 | 3579.8 | 3525.8 | 3462.3 | 3417.7 | 3457.6 | 3764.6 | 4258.7  | 4210.1  | 3984.6  | 2775.7 |
| 37.5° | 3874.2 | 3899.3 | 3849.1 | 3724.7 | 3661.2 | 3672.2 | 3928.2 | 4533.5  | 4543.7  | 4292.3  | 2933.0 |
| 40°   | 4131.8 | 4164.7 | 4166.3 | 3990.1 | 3893.8 | 3906.3 | 4135.7 | 4829.5  | 4946.1  | 4672.9  | 3118.6 |
| 42.5° | 4301.7 | 4333.8 | 4367.5 | 4264.1 | 4163.1 | 4234.4 | 4377.7 | 5150.5  | 5398.7  | 5134.8  | 3377.8 |
| 45°   | 4488.1 | 4517.0 | 4535.8 | 4488.9 | 4432.5 | 4617.3 | 4669.7 | 5491.9  | 5881.0  | 5650.8  | 3661.2 |
| 47.5° | 4704.2 | 4736.3 | 4754.3 | 4709.7 | 4688.5 | 4953.2 | 4984.5 | 5810.5  | 6396.2  | 6151.9  | 3974.4 |
| 50°   | 4992.3 | 5016.6 | 5007.2 | 4979.0 | 4974.3 | 5210.8 | 5286.7 | 6108.8  | 6821.3  | 6691.4  | 4299.4 |
| 52.5° | 5350.9 | 5379.9 | 5390.1 | 5350.2 | 5332.2 | 5394.8 | 5530.3 | 6380.5  | 7208.1  | 7154.9  | 4646.2 |
| 55°   | 5567.8 | 5614.0 | 5769.1 | 5831.6 | 5874.7 | 5632.8 | 5792.5 | 6680.4  | 7555.0  | 7643.5  | 5019.0 |
| 57.5° | 5289.9 | 5349.4 | 5696.2 | 6009.4 | 6414.2 | 6227.8 | 6164.4 | 6993.6  | 7901.9  | 8117.2  | 5465.3 |
| 60°   | 4611.8 | 4625.1 | 5072.2 | 5649.3 | 6463.5 | 6992.8 | 6940.4 | 7491.6  | 8277.7  | 8594.8  | 6053.2 |
| 62.5° | 3199.3 | 3227.4 | 3756.0 | 4676.8 | 5854.3 | 7268.4 | 8260.5 | 8351.3  | 8816.4  | 9309.7  | 6915.3 |
| 65°   | 1649.8 | 1613.0 | 2094.4 | 2939.3 | 4413.7 | 6613.8 | 9330.1 | 9932.1  | 9984.6  | 10427.8 | 8128.9 |
| 67.5° | 1015.6 | 1032.0 | 1257.5 | 1716.3 | 2609.7 | 4806.8 | 9218.1 | 11863.8 | 11587.4 | 11800.4 | 9255.7 |
| 70°   | 762.6  | 783.0  | 938.0  | 1174.5 | 1591.1 | 2748.3 | 7413.3 | 12332.0 | 12718.0 | 12663.2 | 9598.6 |
| 71°   | 663.2  | 684.3  | 845.6  | 1068.8 | 1336.6 | 2121.1 | 6245.8 | 11841.9 | 12757.2 | 12747.8 | 9469.4 |
| 72.5° | 565.3  | 578.6  | 704.7  | 905.1  | 1126.7 | 1486.9 | 4692.4 | 10620.4 | 12213.0 | 12525.4 | 9008.3 |
| 75°   | 444.0  | 454.1  | 510.5  | 690.6  | 887.1  | 913.0  | 2518.0 | 7962.2  | 10030.8 | 10625.9 | 7499.4 |
| 77.5° | 361.7  | 368.8  | 397.8  | 512.9  | 684.3  | 646.8  | 1320.9 | 5182.6  | 6284.2  | 6883.2  | 4417.6 |
| 80°   | 287.4  | 295.2  | 312.4  | 347.7  | 512.9  | 461.2  | 630.3  | 2626.1  | 3035.6  | 3029.3  | 1763.3 |
| 82.5° | 223.2  | 225.5  | 245.9  | 255.3  | 350.8  | 327.3  | 341.4  | 1111.9  | 1231.7  | 1272.4  | 636.6  |
| 85°   | 140.9  | 148.0  | 217.7  | 195.8  | 209.8  | 191.8  | 168.3  | 441.6   | 544.2   | 536.4   | 254.5  |
| 87.5° | 43.1   | 45.4   | 73.6   | 83.0   | 93.2   | 83.8   | 61.9   | 130.0   | 158.9   | 172.3   | 63.4   |
| 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°    | 1748.4 | 1748.4 | 1748.4 | 1748.4 | 1748.4 | 1748.4 | 1748.4 | 1748.4 | 1748.4 | 1748.4 | 1748.4 |
| 2.5°  | 1758.6 | 1750.0 | 1719.5 | 1694.4 | 1670.9 | 1645.1 | 1623.2 | 1616.9 | 1611.4 | 1609.1 | 1608.3 |
| 5°    | 1775.1 | 1749.2 | 1688.9 | 1639.6 | 1600.5 | 1564.4 | 1541.7 | 1531.5 | 1521.4 | 1521.4 | 1524.5 |
| 7.5°  | 1798.6 | 1751.6 | 1658.4 | 1584.8 | 1535.5 | 1501.8 | 1485.4 | 1483.8 | 1486.1 | 1488.5 | 1489.3 |
| 10°   | 1824.4 | 1750.0 | 1613.8 | 1522.2 | 1478.3 | 1462.6 | 1463.4 | 1476.7 | 1489.3 | 1498.7 | 1500.2 |
| 12.5° | 1849.4 | 1740.6 | 1561.3 | 1463.4 | 1435.2 | 1438.4 | 1460.3 | 1490.0 | 1514.3 | 1527.6 | 1528.4 |
| 15°   | 1877.6 | 1725.7 | 1497.9 | 1407.8 | 1398.4 | 1422.7 | 1463.4 | 1508.8 | 1545.6 | 1567.6 | 1569.9 |
| 17.5° | 1901.1 | 1700.7 | 1431.3 | 1353.8 | 1365.6 | 1410.2 | 1466.6 | 1525.3 | 1569.9 | 1597.3 | 1602.0 |
| 20°   | 1927.7 | 1668.6 | 1362.4 | 1302.1 | 1335.8 | 1396.1 | 1460.3 | 1523.7 | 1569.9 | 1596.5 | 1602.8 |
| 22.5° | 1948.8 | 1623.2 | 1296.6 | 1259.8 | 1309.2 | 1378.9 | 1439.2 | 1490.0 | 1527.6 | 1541.7 | 1551.1 |
| 25°   | 1957.4 | 1566.0 | 1234.8 | 1225.4 | 1288.0 | 1350.7 | 1391.4 | 1420.4 | 1432.1 | 1430.5 | 1434.5 |
| 27.5° | 1952.7 | 1500.2 | 1181.5 | 1198.0 | 1261.4 | 1306.8 | 1327.2 | 1324.8 | 1303.7 | 1284.1 | 1293.5 |
| 30°   | 1933.1 | 1421.9 | 1136.9 | 1169.8 | 1227.0 | 1252.0 | 1248.9 | 1218.3 | 1178.4 | 1141.6 | 1144.0 |
| 32.5° | 1898.0 | 1337.4 | 1095.4 | 1137.7 | 1178.4 | 1189.4 | 1168.2 | 1128.3 | 1071.1 | 1023.4 | 1016.3 |
| 35°   | 1868.2 | 1256.7 | 1058.6 | 1100.9 | 1129.9 | 1124.4 | 1104.0 | 1052.4 | 1000.7 | 958.4  | 951.3  |
| 37.5° | 1863.5 | 1187.8 | 1023.4 | 1059.4 | 1075.8 | 1068.0 | 1043.0 | 999.1  | 980.3  | 948.2  | 944.3  |
| 40°   | 1888.6 | 1139.3 | 987.4  | 1015.6 | 1023.4 | 1017.1 | 989.7  | 964.7  | 981.9  | 974.1  | 974.1  |
| 42.5° | 1956.6 | 1113.4 | 955.3  | 971.7  | 978.0  | 982.7  | 963.1  | 941.9  | 963.1  | 927.1  | 915.3  |
| 45°   | 2064.7 | 1114.2 | 926.3  | 928.6  | 947.4  | 963.9  | 950.6  | 919.2  | 908.3  | 836.2  | 822.2  |
| 47.5° | 2223.6 | 1140.8 | 902.8  | 887.9  | 921.6  | 949.0  | 930.2  | 884.8  | 836.2  | 788.5  | 779.9  |
| 50°   | 2409.2 | 1188.6 | 881.7  | 845.6  | 887.1  | 930.2  | 916.1  | 862.9  | 812.8  | 783.8  | 778.3  |
| 52.5° | 2615.1 | 1248.9 | 855.8  | 798.7  | 844.9  | 921.6  | 919.2  | 859.7  | 790.8  | 771.3  | 766.6  |
| 55°   | 2869.6 | 1308.4 | 823.7  | 743.8  | 807.3  | 914.5  | 910.6  | 833.9  | 786.1  | 772.0  | 770.5  |
| 57.5° | 3165.6 | 1394.5 | 777.5  | 688.3  | 764.2  | 885.6  | 877.0  | 818.2  | 770.5  | 760.3  | 759.5  |
| 60°   | 3642.4 | 1528.4 | 711.7  | 637.4  | 720.4  | 834.7  | 845.6  | 791.6  | 745.4  | 743.1  | 742.3  |
| 62.5° | 4269.6 | 1716.3 | 643.6  | 584.9  | 669.5  | 768.9  | 800.2  | 755.6  | 718.8  | 730.5  | 732.1  |
| 65°   | 5135.6 | 1874.5 | 573.2  | 540.3  | 613.1  | 705.5  | 757.2  | 721.9  | 689.0  | 711.7  | 711.7  |
| 67.5° | 5700.2 | 1877.6 | 509.0  | 494.1  | 555.9  | 652.2  | 711.7  | 682.0  | 650.7  | 689.0  | 690.6  |
| 70°   | 5582.7 | 1645.1 | 455.7  | 445.5  | 500.3  | 595.1  | 661.6  | 638.1  | 602.1  | 636.6  | 624.1  |
| 71°   | 5393.2 | 1515.9 | 434.6  | 426.7  | 478.4  | 567.7  | 638.1  | 618.6  | 582.6  | 605.3  | 598.2  |
| 72.5° | 5091.0 | 1316.2 | 400.1  | 401.7  | 445.5  | 533.2  | 605.3  | 584.9  | 548.9  | 561.4  | 559.1  |
| 75°   | 4303.3 | 1149.4 | 342.2  | 349.2  | 382.9  | 474.5  | 539.5  | 523.8  | 487.0  | 487.0  | 484.7  |
| 77.5° | 2690.3 | 803.4  | 284.2  | 288.1  | 324.9  | 406.4  | 463.5  | 450.2  | 415.0  | 403.2  | 400.1  |
| 80°   | 1003.8 | 415.0  | 222.4  | 227.1  | 249.8  | 320.2  | 383.7  | 371.1  | 335.1  | 321.8  | 309.3  |
| 82.5° | 379.8  | 208.3  | 163.6  | 159.7  | 184.0  | 244.3  | 300.7  | 285.8  | 257.6  | 225.5  | 216.1  |
| 85°   | 143.3  | 103.4  | 100.2  | 97.1   | 108.1  | 144.9  | 186.4  | 183.2  | 153.5  | 130.8  | 128.4  |
| 87.5° | 37.6   | 33.7   | 39.2   | 29.0   | 30.5   | 27.4   | 28.2   | 11.7   | 5.5    | 2.3    | 1.6    |
| 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)