

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: P529827

Luminaire Tested: **GALN-SA5A-730-U-T2R-GRSBK**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P529827  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-057-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA5A-730-U-T2R-GRSBK  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS WITH BLACK GLARE REDUCTION SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13794 lumens  
Efficiency: N/A  
Efficacy: 89.6 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B2 - U0 - G1

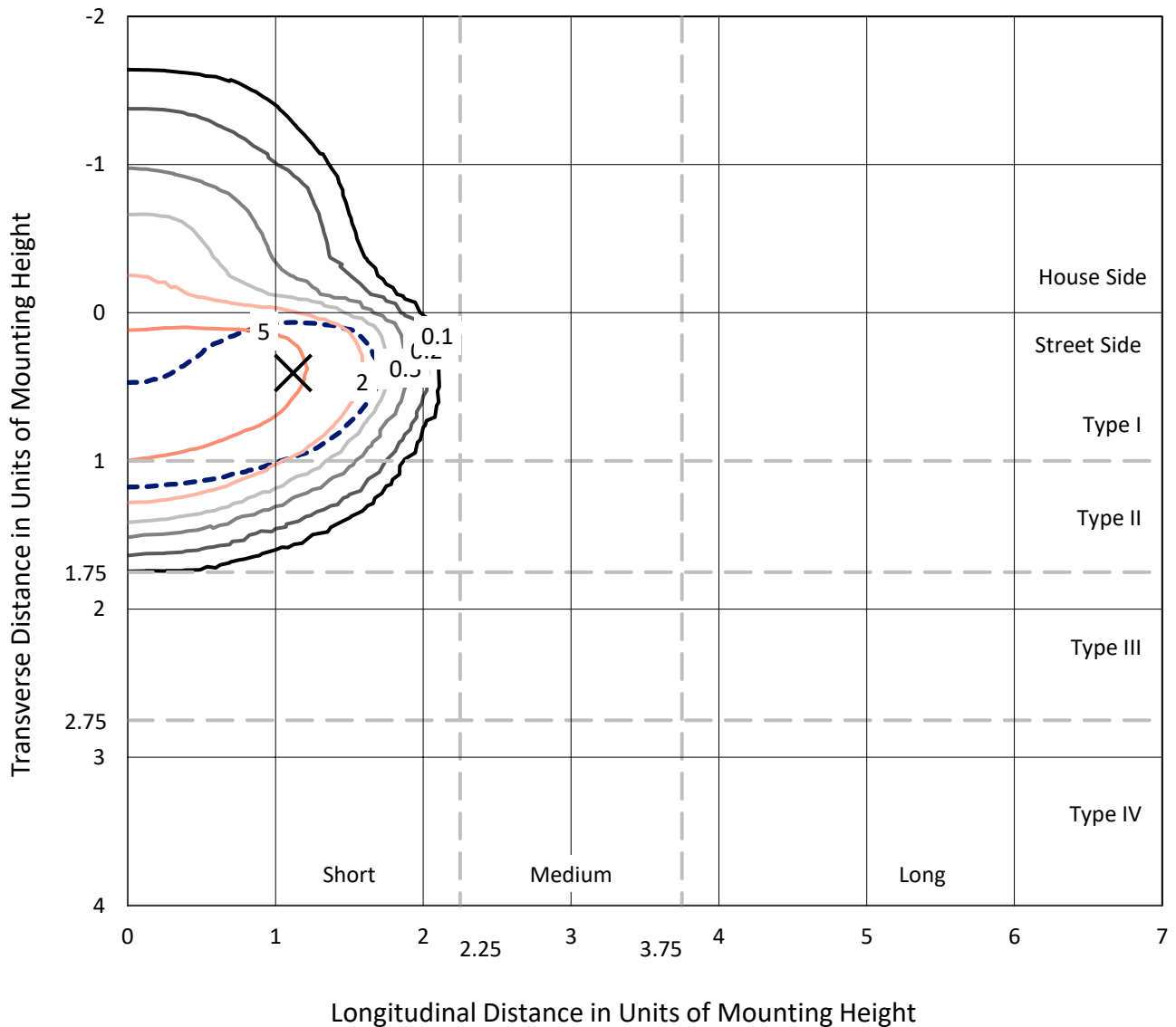
Input Watts (W): 154  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

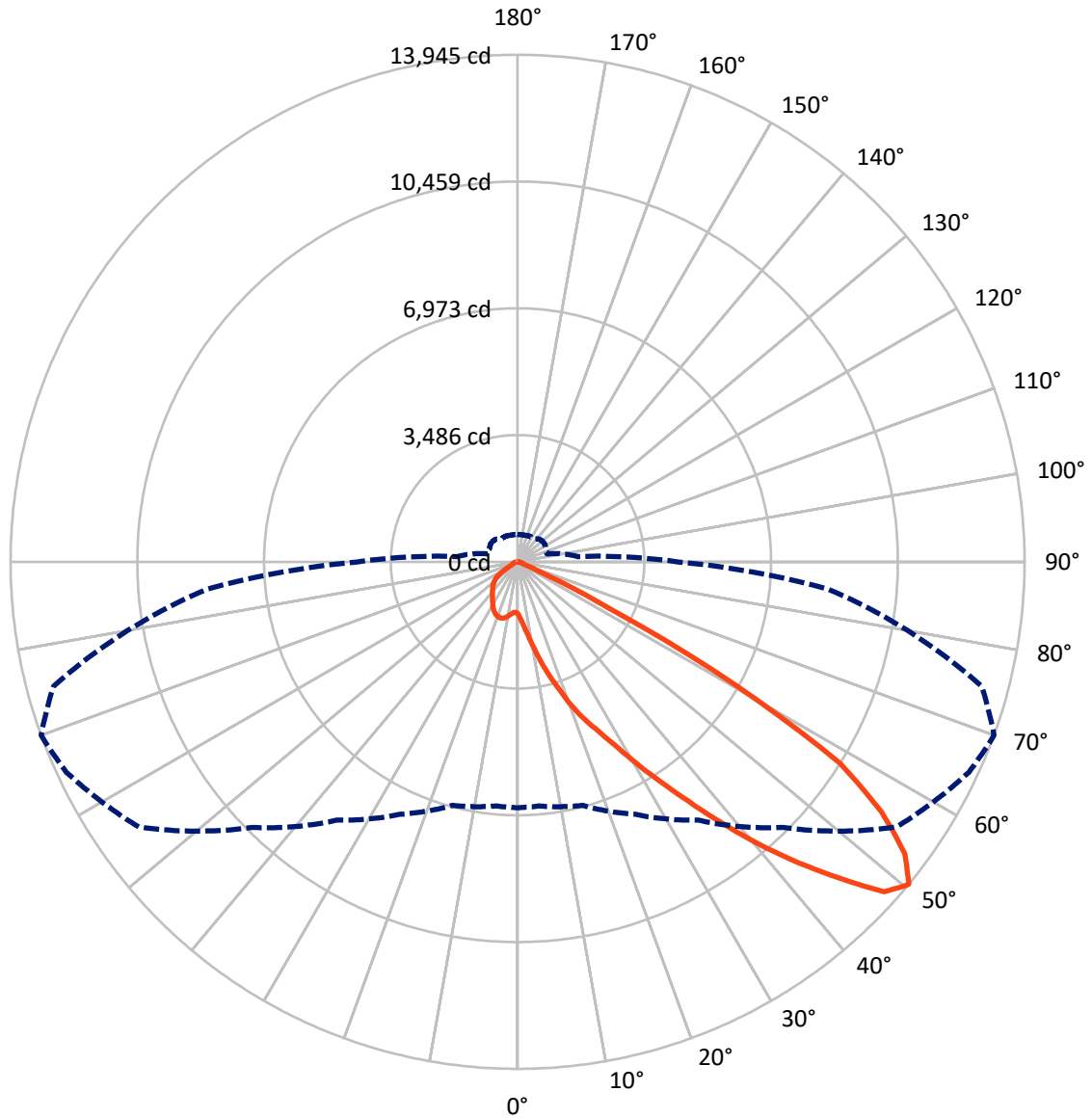
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.2 fc  
 Type I - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral    - - - Horizontal Cone Through 50-Deg Vertical

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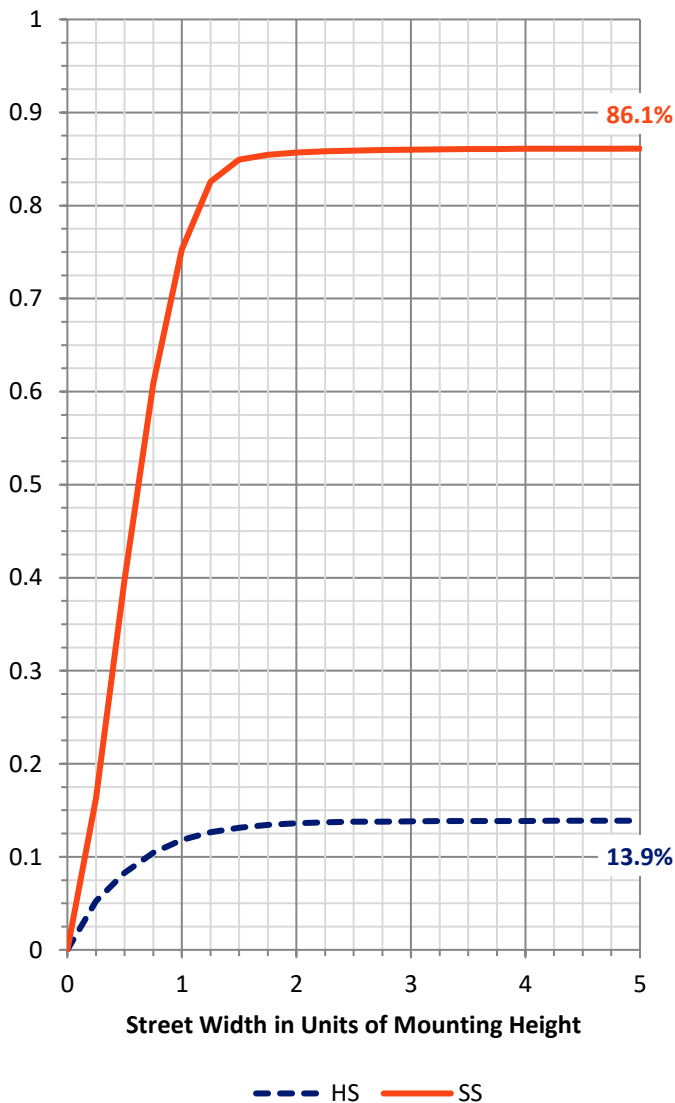
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1926.4   | 0.0    | 1926.4  |
|                    | % Fixture | 14.0     | 0.0    | 14.0    |
| <b>Street Side</b> | Lumens    | 11867.6  | 0.0    | 11867.6 |
|                    | % Fixture | 86.0     | 0.0    | 86.0    |
| <b>Total</b>       | Lumens    | 13794.0  | 0.0    | 13794.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 185.8   | 1.3       |
| 10°-20°   | 803.7   | 5.8       |
| 20°-30°   | 1686.0  | 12.2      |
| 30°-40°   | 2906.1  | 21.1      |
| 40°-50°   | 4247.2  | 30.8      |
| 50°-60°   | 3307.9  | 24.0      |
| 60°-70°   | 560.5   | 4.1       |
| 70°-80°   | 77.0    | 0.6       |
| 80°-90°   | 19.9    | 0.1       |
| 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°    | 13794.0 | 100.0     |
| 0°-180°   | 13794.0 | 100.0     |

**Coefficient of Utilization**



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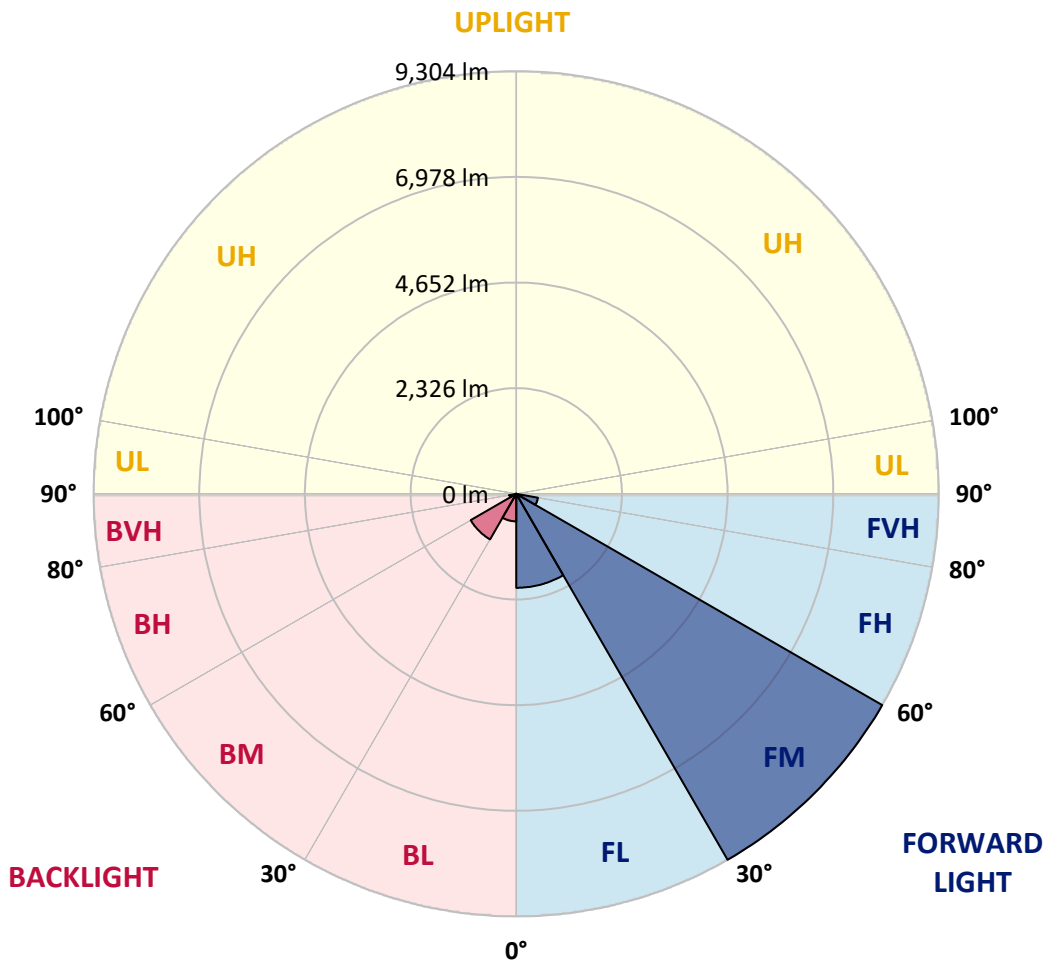
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |        |
|----------------|--------|-----------|-------------------------|------|--------|
|                |        |           | B                       | U    | G      |
| FL (0°-30°)    | 2069.3 | 15.0      |                         |      |        |
| FM (30°-60°)   | 9303.8 | 67.4      |                         |      |        |
| FH (60°-80°)   | 485.3  | 3.5       |                         |      | G0/660 |
| FVH (80°-90°)  | 9.2    | 0.1       |                         |      | G0/10  |
| BL (0°-30°)    | 606.2  | 4.4       | B2/1000                 |      |        |
| BM (30°-60°)   | 1157.3 | 8.4       | B2/2500                 |      |        |
| BH (60°-80°)   | 152.2  | 1.1       | B1/500                  |      | G1/500 |
| BVH (80°-90°)  | 10.7   | 0.1       |                         |      | G1/100 |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |        |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |        |

**BUG Rating: B2-U0-G1**

Type I Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 55°     | 65°     | 70°     | 75°     | 85°    |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|
| 0°    | 1428.8 | 1428.8 | 1428.8 | 1428.8 | 1428.8 | 1428.8  | 1428.8  | 1428.8  | 1428.8  | 1428.8  | 1428.8 |
| 2.5°  | 1871.0 | 1857.4 | 1827.9 | 1773.5 | 1750.8 | 1696.4  | 1664.6  | 1603.4  | 1564.9  | 1521.8  | 1474.1 |
| 5°    | 2635.3 | 2565.0 | 2521.9 | 2460.7 | 2281.5 | 2170.4  | 1986.7  | 1830.2  | 1757.6  | 1678.3  | 1569.4 |
| 7.5°  | 3424.6 | 3379.2 | 3320.2 | 3188.7 | 3066.2 | 2834.9  | 2519.7  | 2174.9  | 2027.5  | 1891.4  | 1676.0 |
| 10°   | 4077.7 | 3950.7 | 3943.9 | 3846.4 | 3712.6 | 3435.9  | 3057.2  | 2628.5  | 2365.4  | 2165.9  | 1827.9 |
| 12.5° | 4533.6 | 4417.9 | 4470.1 | 4458.7 | 4334.0 | 4080.0  | 3642.3  | 3075.3  | 2800.9  | 2490.2  | 1984.4 |
| 15°   | 4948.6 | 4901.0 | 4885.1 | 4871.5 | 4821.6 | 4633.4  | 4241.0  | 3619.6  | 3222.7  | 2848.5  | 2161.3 |
| 17.5° | 5354.5 | 5232.1 | 5291.0 | 5302.4 | 5297.9 | 5127.8  | 4760.4  | 4136.7  | 3669.5  | 3227.2  | 2347.3 |
| 20°   | 5715.1 | 5726.5 | 5647.1 | 5631.2 | 5617.6 | 5610.8  | 5252.5  | 4649.2  | 4218.3  | 3624.1  | 2590.0 |
| 22.5° | 6177.8 | 6098.4 | 6168.7 | 6123.4 | 6034.9 | 5980.5  | 5706.1  | 5102.8  | 4694.6  | 4102.7  | 2837.2 |
| 25°   | 6724.4 | 6787.9 | 6622.3 | 6604.2 | 6506.6 | 6318.4  | 6071.2  | 5610.8  | 5152.7  | 4547.2  | 3104.8 |
| 27.5° | 7397.9 | 7286.8 | 7243.7 | 7143.9 | 6967.0 | 6887.7  | 6597.4  | 6134.7  | 5706.1  | 5014.4  | 3363.3 |
| 30°   | 7976.3 | 7946.8 | 7731.3 | 7613.4 | 7459.2 | 7456.9  | 7050.9  | 6844.6  | 6427.3  | 5746.9  | 3719.4 |
| 32.5° | 8448.0 | 8318.7 | 8239.3 | 8157.7 | 8033.0 | 8067.0  | 7724.5  | 7615.7  | 7196.1  | 6427.3  | 4138.9 |
| 35°   | 8763.2 | 8670.2 | 8622.6 | 8497.9 | 8461.6 | 8613.5  | 8470.7  | 8425.3  | 8080.6  | 7384.3  | 4631.1 |
| 37.5° | 8863.0 | 8892.5 | 8883.4 | 8726.9 | 8804.0 | 9214.5  | 9398.2  | 9280.3  | 9098.9  | 8393.6  | 5164.0 |
| 40°   | 8951.5 | 8971.9 | 8926.5 | 9110.2 | 9330.2 | 9797.4  | 10461.9 | 10266.9 | 10198.8 | 9416.4  | 5905.7 |
| 42.5° | 9001.4 | 8985.5 | 8985.5 | 9303.0 | 9636.4 | 10575.3 | 11489.3 | 11360.0 | 11307.8 | 10505.0 | 6762.9 |
| 45°   | 8785.9 | 8631.7 | 8797.2 | 9228.1 | 9899.5 | 10958.6 | 12310.2 | 12489.4 | 12414.6 | 11800.0 | 7765.3 |
| 47.5° | 7980.8 | 8076.0 | 8169.0 | 8745.1 | 9579.7 | 10840.6 | 12813.7 | 13423.8 | 13562.1 | 12888.6 | 8423.0 |
| 50°   | 6762.9 | 6742.5 | 6935.3 | 7661.0 | 8674.8 | 10332.6 | 12716.2 | 13693.7 | 13945.4 | 13215.1 | 8561.4 |
| 52.5° | 4919.1 | 5068.8 | 5277.4 | 5998.6 | 7200.6 | 9017.2  | 11457.5 | 12997.4 | 13333.1 | 12813.7 | 8470.7 |
| 55°   | 2864.4 | 2698.8 | 3168.3 | 3778.3 | 4912.3 | 6801.5  | 9686.3  | 11521.0 | 12142.4 | 12083.5 | 8012.5 |
| 57.5° | 1147.6 | 1111.3 | 1272.3 | 1714.5 | 2562.7 | 4216.1  | 7044.1  | 9466.3  | 10461.9 | 11067.4 | 7041.9 |
| 60°   | 503.5  | 492.1  | 578.3  | 698.5  | 1047.8 | 1943.6  | 3853.2  | 5887.5  | 6926.2  | 7733.6  | 4846.5 |
| 62.5° | 362.9  | 358.3  | 401.4  | 444.5  | 553.4  | 845.9   | 1619.3  | 2372.2  | 2957.4  | 3572.0  | 2170.4 |
| 65°   | 292.6  | 303.9  | 333.4  | 356.1  | 408.2  | 469.5   | 571.5   | 660.0   | 809.6   | 839.1   | 478.5  |
| 67.5° | 238.1  | 247.2  | 274.4  | 299.4  | 308.4  | 254.0   | 263.1   | 231.3   | 231.3   | 206.4   | 165.6  |
| 70°   | 174.6  | 176.9  | 208.6  | 238.1  | 190.5  | 102.1   | 179.2   | 179.2   | 161.0   | 154.2   | 140.6  |
| 72.5° | 129.3  | 131.5  | 156.5  | 147.4  | 74.8   | 63.5    | 131.5   | 145.1   | 131.5   | 124.7   | 113.4  |
| 75°   | 95.3   | 97.5   | 81.6   | 34.0   | 31.8   | 40.8    | 77.1    | 99.8    | 95.3    | 93.0    | 86.2   |
| 77.5° | 18.1   | 13.6   | 11.3   | 15.9   | 22.7   | 34.0    | 49.9    | 61.2    | 63.5    | 68.0    | 63.5   |
| 80°   | 2.3    | 2.3    | 6.8    | 13.6   | 24.9   | 36.3    | 52.2    | 59.0    | 61.2    | 63.5    | 59.0   |
| 82.5° | 0.0    | 2.3    | 6.8    | 13.6   | 24.9   | 34.0    | 45.4    | 52.2    | 56.7    | 59.0    | 56.7   |
| 85°   | 0.0    | 2.3    | 4.5    | 11.3   | 20.4   | 24.9    | 22.7    | 15.9    | 13.6    | 15.9    | 11.3   |
| 87.5° | 0.0    | 0.0    | 2.3    | 2.3    | 4.5    | 4.5     | 4.5     | 4.5     | 4.5     | 4.5     | 4.5    |
| 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°    | 1428.8 | 1428.8 | 1428.8 | 1428.8 | 1428.8 | 1428.8 | 1428.8 | 1428.8 | 1428.8 | 1428.8 | 1428.8 |
| 2.5°  | 1446.9 | 1437.9 | 1406.1 | 1372.1 | 1342.6 | 1356.2 | 1342.6 | 1331.3 | 1335.8 | 1331.3 | 1326.7 |
| 5°    | 1526.3 | 1485.5 | 1417.4 | 1388.0 | 1363.0 | 1360.7 | 1353.9 | 1351.7 | 1353.9 | 1353.9 | 1333.5 |
| 7.5°  | 1601.1 | 1535.4 | 1462.8 | 1431.1 | 1401.6 | 1403.8 | 1388.0 | 1388.0 | 1385.7 | 1374.4 | 1369.8 |
| 10°   | 1714.5 | 1626.1 | 1533.1 | 1476.4 | 1440.1 | 1433.3 | 1417.4 | 1401.6 | 1401.6 | 1401.6 | 1378.9 |
| 12.5° | 1839.3 | 1728.2 | 1601.1 | 1535.4 | 1492.3 | 1458.3 | 1433.3 | 1428.8 | 1403.8 | 1399.3 | 1388.0 |
| 15°   | 1948.1 | 1807.5 | 1646.5 | 1555.8 | 1501.4 | 1456.0 | 1417.4 | 1392.5 | 1381.2 | 1374.4 | 1365.3 |
| 17.5° | 2054.7 | 1875.6 | 1671.5 | 1555.8 | 1496.8 | 1444.7 | 1403.8 | 1381.2 | 1353.9 | 1358.5 | 1340.3 |
| 20°   | 2197.6 | 1948.1 | 1678.3 | 1526.3 | 1453.7 | 1403.8 | 1349.4 | 1338.1 | 1322.2 | 1308.6 | 1313.1 |
| 22.5° | 2336.0 | 2000.3 | 1657.8 | 1490.0 | 1385.7 | 1326.7 | 1299.5 | 1285.9 | 1279.1 | 1267.8 | 1251.9 |
| 25°   | 2460.7 | 2057.0 | 1626.1 | 1424.3 | 1313.1 | 1270.0 | 1245.1 | 1242.8 | 1226.9 | 1226.9 | 1197.5 |
| 27.5° | 2587.7 | 2077.4 | 1571.7 | 1347.1 | 1249.6 | 1224.7 | 1213.3 | 1208.8 | 1202.0 | 1186.1 | 1165.7 |
| 30°   | 2732.8 | 2084.2 | 1492.3 | 1267.8 | 1192.9 | 1165.7 | 1181.6 | 1192.9 | 1163.4 | 1134.0 | 1143.0 |
| 32.5° | 2853.0 | 2068.3 | 1397.0 | 1192.9 | 1152.1 | 1138.5 | 1170.2 | 1181.6 | 1147.6 | 1115.8 | 1099.9 |
| 35°   | 2998.2 | 2029.8 | 1304.1 | 1134.0 | 1111.3 | 1138.5 | 1165.7 | 1165.7 | 1097.7 | 1059.1 | 1050.0 |
| 37.5° | 3218.2 | 1986.7 | 1217.9 | 1084.1 | 1068.2 | 1124.9 | 1161.2 | 1136.2 | 1029.6 | 982.0  | 970.7  |
| 40°   | 3454.0 | 1959.5 | 1134.0 | 1034.2 | 1045.5 | 1102.2 | 1122.6 | 1045.5 | 936.6  | 907.2  | 898.1  |
| 42.5° | 3796.5 | 1905.0 | 1059.1 | 991.1  | 1025.1 | 1070.5 | 1070.5 | 932.1  | 891.3  | 875.4  | 873.1  |
| 45°   | 4222.9 | 1866.5 | 993.3  | 954.8  | 995.6  | 1007.0 | 970.7  | 873.1  | 843.7  | 839.1  | 841.4  |
| 47.5° | 4431.5 | 1791.7 | 925.3  | 911.7  | 941.2  | 943.5  | 848.2  | 825.5  | 800.6  | 793.8  | 789.2  |
| 50°   | 4399.8 | 1657.8 | 836.9  | 855.0  | 895.8  | 873.1  | 773.4  | 777.9  | 755.2  | 752.9  | 741.6  |
| 52.5° | 4177.5 | 1446.9 | 748.4  | 791.5  | 836.9  | 771.1  | 712.1  | 707.6  | 707.6  | 678.1  | 666.8  |
| 55°   | 3703.5 | 1165.7 | 641.8  | 696.3  | 750.7  | 648.6  | 632.7  | 628.2  | 616.9  | 589.7  | 582.9  |
| 57.5° | 2932.4 | 855.0  | 483.1  | 542.0  | 637.3  | 551.1  | 548.8  | 528.4  | 498.9  | 478.5  | 478.5  |
| 60°   | 1744.0 | 492.1  | 303.9  | 331.1  | 421.8  | 446.8  | 496.7  | 487.6  | 437.7  | 406.0  | 396.9  |
| 62.5° | 796.0  | 254.0  | 192.8  | 197.3  | 226.8  | 290.3  | 390.1  | 451.3  | 381.0  | 326.6  | 322.0  |
| 65°   | 267.6  | 188.2  | 158.8  | 152.0  | 156.5  | 174.6  | 233.6  | 319.8  | 303.9  | 251.7  | 242.7  |
| 67.5° | 163.3  | 167.8  | 149.7  | 138.3  | 138.3  | 136.1  | 133.8  | 145.1  | 179.2  | 174.6  | 176.9  |
| 70°   | 140.6  | 154.2  | 138.3  | 124.7  | 120.2  | 113.4  | 95.3   | 79.4   | 68.0   | 79.4   | 83.9   |
| 72.5° | 113.4  | 122.5  | 117.9  | 106.6  | 95.3   | 86.2   | 68.0   | 52.2   | 38.6   | 34.0   | 34.0   |
| 75°   | 83.9   | 90.7   | 95.3   | 81.6   | 72.6   | 61.2   | 49.9   | 34.0   | 20.4   | 13.6   | 13.6   |
| 77.5° | 61.2   | 68.0   | 70.3   | 63.5   | 54.4   | 43.1   | 31.8   | 22.7   | 11.3   | 4.5    | 4.5    |
| 80°   | 52.2   | 61.2   | 68.0   | 63.5   | 56.7   | 40.8   | 29.5   | 15.9   | 9.1    | 2.3    | 2.3    |
| 82.5° | 49.9   | 61.2   | 68.0   | 61.2   | 54.4   | 38.6   | 29.5   | 18.1   | 6.8    | 2.3    | 2.3    |
| 85°   | 11.3   | 15.9   | 20.4   | 24.9   | 29.5   | 29.5   | 22.7   | 13.6   | 6.8    | 2.3    | 2.3    |
| 87.5° | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 2.3    | 2.3    | 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)