

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: P459445

Luminaire Tested: **GALN-SA9A-735-U-AFL**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P459445  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA9A-735-U-AFL  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 3500K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 38998 lumens  
Efficiency: N/A  
Efficacy: 142.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

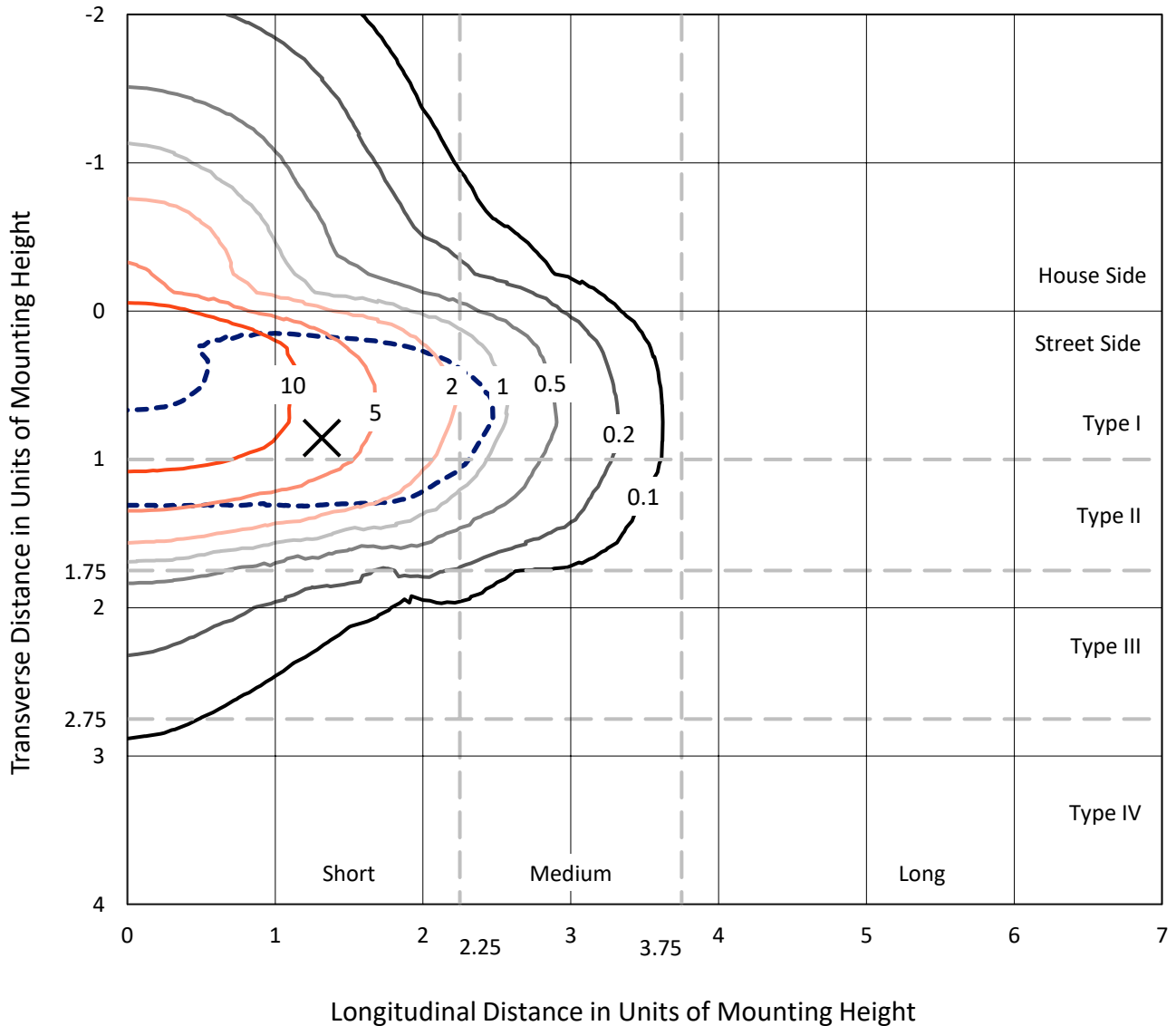
Input Watts (W): 274  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

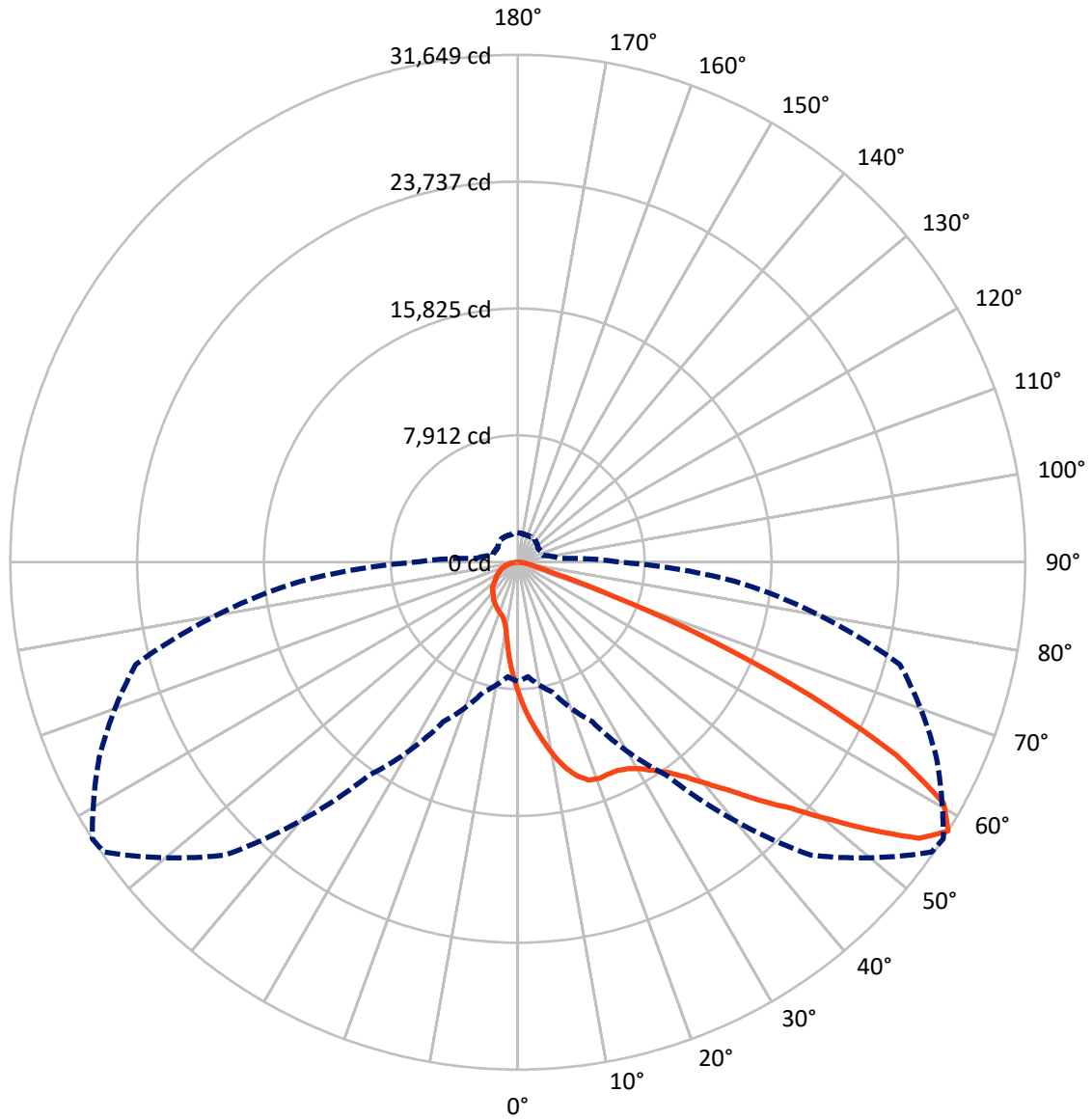
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 19.9 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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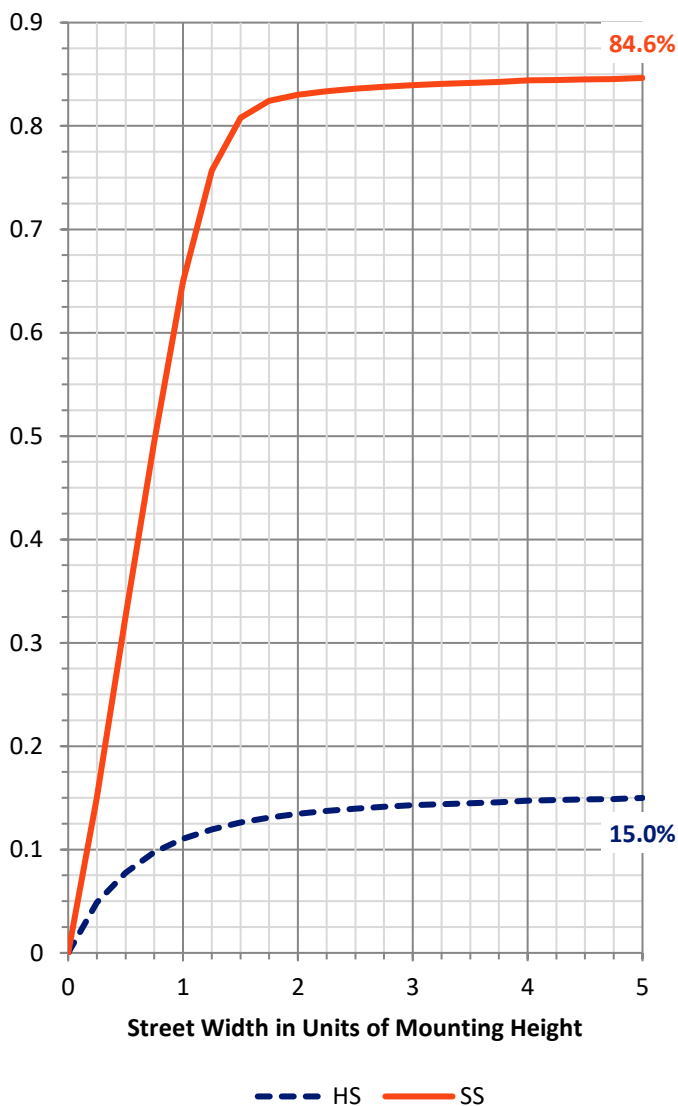
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 5930.5   | 0.0    | 5930.5  |
|                    | % Fixture | 15.2     | 0.0    | 15.2    |
| <b>Street Side</b> | Lumens    | 33067.5  | 0.0    | 33067.5 |
|                    | % Fixture | 84.8     | 0.0    | 84.8    |
| <b>Total</b>       | Lumens    | 38998.0  | 0.0    | 38998.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 787.4   | 2.0       |
| 10°-20°   | 2320.6  | 6.0       |
| 20°-30°   | 3853.4  | 9.9       |
| 30°-40°   | 5804.3  | 14.9      |
| 40°-50°   | 8714.7  | 22.3      |
| 50°-60°   | 9768.1  | 25.0      |
| 60°-70°   | 5716.7  | 14.7      |
| 70°-80°   | 1691.0  | 4.3       |
| 80°-90°   | 341.8   | 0.9       |
| 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°    | 38998.0 | 100.0     |
| 0°-180°   | 38998.0 | 100.0     |

**Coefficient of Utilization**



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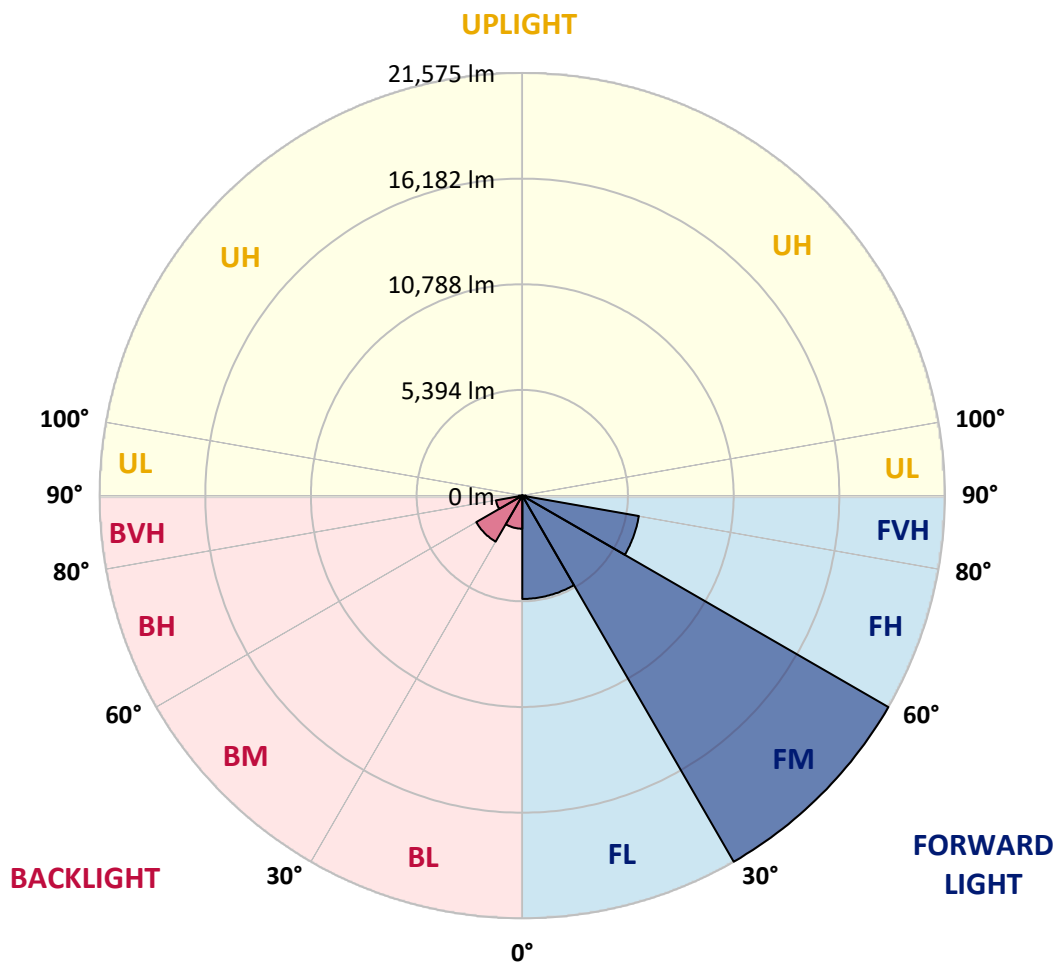
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 5271.6  | 13.5      |                         |      |         |
| FM   | (30°-60°)   | 21575.4 | 55.3      |                         |      |         |
| FH   | (60°-80°)   | 6043.1  | 15.5      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 177.3   | 0.5       |                         |      | G2/225  |
| BL   | (0°-30°)    | 1689.8  | 4.3       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 2711.7  | 7.0       | B3/5000                 |      |         |
| BH   | (60°-80°)   | 1364.6  | 3.5       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 164.5   | 0.4       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 57°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 8193.0  | 8193.0  | 8193.0  | 8193.0  | 8193.0  | 8193.0  | 8193.0  | 8193.0  | 8193.0  | 8193.0  | 8193.0  |
| 2.5°  | 10180.5 | 10069.4 | 9981.9  | 9905.1  | 9804.7  | 9533.6  | 9262.5  | 9258.3  | 9042.6  | 8709.6  | 8368.1  |
| 5°    | 11839.1 | 11689.7 | 11708.9 | 11469.8 | 11230.7 | 10837.9 | 10263.7 | 10233.8 | 9774.9  | 9151.5  | 8517.5  |
| 7.5°  | 12919.3 | 12921.4 | 12861.7 | 12725.0 | 12466.7 | 12020.6 | 11369.5 | 11222.2 | 10583.9 | 9638.2  | 8688.3  |
| 10°   | 12863.8 | 12921.4 | 13021.8 | 13139.2 | 13218.2 | 12998.3 | 12404.8 | 12225.5 | 11395.1 | 10227.4 | 8878.3  |
| 12.5° | 12125.2 | 12214.8 | 12357.9 | 12652.5 | 13128.5 | 13491.4 | 13288.6 | 13143.4 | 12334.4 | 10814.5 | 9087.5  |
| 15°   | 11664.1 | 11717.4 | 11796.4 | 11995.0 | 12507.3 | 13376.1 | 13901.3 | 13824.4 | 13220.3 | 11478.4 | 9322.3  |
| 17.5° | 11523.2 | 11576.6 | 11602.2 | 11723.9 | 12088.9 | 12979.1 | 14142.5 | 14279.1 | 14005.9 | 12088.9 | 9559.3  |
| 20°   | 11664.1 | 11689.7 | 11689.7 | 11762.3 | 12048.3 | 12746.4 | 14131.8 | 14407.2 | 14650.5 | 12821.1 | 9781.3  |
| 22.5° | 12033.4 | 12044.1 | 12029.1 | 12054.7 | 12268.2 | 12810.4 | 14031.5 | 14373.0 | 15171.4 | 13442.3 | 9954.2  |
| 25°   | 12633.2 | 12650.3 | 12552.1 | 12492.3 | 12648.2 | 13092.2 | 14087.0 | 14400.8 | 15579.1 | 14035.7 | 10069.4 |
| 27.5° | 13314.2 | 13335.6 | 13216.0 | 13077.3 | 13149.8 | 13440.2 | 14304.7 | 14586.5 | 15884.4 | 14620.7 | 10142.0 |
| 30°   | 14148.9 | 14157.4 | 13956.8 | 13790.3 | 13743.3 | 13958.9 | 14676.2 | 14938.7 | 16264.4 | 15310.2 | 10250.9 |
| 32.5° | 15002.8 | 15066.8 | 14808.5 | 14573.7 | 14494.7 | 14560.9 | 15224.8 | 15478.8 | 16716.9 | 16050.9 | 10425.9 |
| 35°   | 16164.1 | 16174.7 | 15865.2 | 15579.1 | 15318.7 | 15404.1 | 15927.1 | 16110.7 | 17342.4 | 16906.9 | 10673.6 |
| 37.5° | 17613.5 | 17711.7 | 17284.8 | 16751.1 | 16430.9 | 16307.1 | 16776.7 | 16977.4 | 18219.8 | 17957.2 | 11047.1 |
| 40°   | 19223.1 | 19259.4 | 18894.4 | 18561.3 | 17976.4 | 17617.8 | 17942.3 | 18160.0 | 19302.1 | 19210.3 | 11480.5 |
| 42.5° | 20235.0 | 20313.9 | 20341.7 | 20307.5 | 19867.8 | 19265.8 | 19389.6 | 19492.1 | 20582.9 | 20386.5 | 11924.5 |
| 45°   | 20576.5 | 20693.9 | 21091.0 | 21932.1 | 21979.0 | 21385.6 | 21097.4 | 21195.6 | 21979.0 | 21573.4 | 12349.3 |
| 47.5° | 20010.8 | 20211.5 | 20943.7 | 22668.5 | 23960.0 | 24004.9 | 23136.0 | 22920.4 | 23251.3 | 22557.5 | 12656.7 |
| 50°   | 18548.5 | 18591.2 | 19712.0 | 22209.6 | 24888.6 | 26508.9 | 25610.2 | 25208.8 | 24459.6 | 23285.5 | 12868.1 |
| 52.5° | 16285.7 | 16334.8 | 17274.1 | 20077.0 | 24316.5 | 28259.3 | 28504.8 | 27787.6 | 25687.0 | 23851.2 | 13006.8 |
| 55°   | 12088.9 | 12372.8 | 13406.0 | 16115.0 | 21605.4 | 28095.0 | 30806.1 | 30398.3 | 27170.6 | 24299.5 | 13224.6 |
| 57.5° | 7433.1  | 7172.6  | 8398.0  | 10963.9 | 16249.4 | 25836.4 | 31516.9 | 31649.3 | 28803.7 | 24675.2 | 13589.6 |
| 60°   | 3419.8  | 3471.0  | 3977.0  | 5654.9  | 9905.1  | 20211.5 | 29685.3 | 30522.1 | 29706.7 | 24662.4 | 13681.4 |
| 62.5° | 2356.7  | 2309.8  | 2181.7  | 2482.7  | 4517.1  | 12782.7 | 25074.4 | 26491.8 | 27896.4 | 23896.0 | 13316.3 |
| 65°   | 2107.0  | 2060.0  | 1812.4  | 1729.1  | 2074.9  | 5571.6  | 18228.3 | 20017.2 | 23488.3 | 21961.9 | 12407.0 |
| 67.5° | 1968.2  | 1904.2  | 1648.0  | 1485.8  | 1481.5  | 2218.0  | 10748.3 | 12902.2 | 17421.4 | 18567.7 | 10750.4 |
| 70°   | 1823.0  | 1771.8  | 1517.8  | 1338.5  | 1261.6  | 1394.0  | 4724.1  | 6184.3  | 11311.9 | 13380.4 | 8374.5  |
| 72.5° | 1677.9  | 1618.1  | 1389.7  | 1197.6  | 1097.2  | 1043.9  | 1810.2  | 2354.6  | 6391.3  | 8022.3  | 5134.0  |
| 75°   | 1466.5  | 1436.7  | 1242.4  | 1084.4  | 975.6   | 843.2   | 1148.5  | 1310.7  | 3056.9  | 3684.5  | 2576.6  |
| 77.5° | 1283.0  | 1250.9  | 1103.6  | 947.8   | 868.8   | 685.2   | 815.5   | 890.2   | 1289.4  | 1494.3  | 1163.4  |
| 80°   | 939.3   | 971.3   | 930.7   | 836.8   | 774.9   | 537.9   | 548.6   | 610.5   | 766.4   | 847.5   | 710.9   |
| 82.5° | 595.6   | 655.4   | 717.3   | 644.7   | 587.0   | 424.8   | 380.0   | 403.5   | 523.0   | 555.0   | 315.9   |
| 85°   | 249.8   | 254.0   | 416.3   | 392.8   | 335.2   | 251.9   | 228.4   | 241.2   | 279.6   | 292.5   | 147.3   |
| 87.5° | 96.1    | 93.9    | 147.3   | 136.6   | 104.6   | 72.6    | 72.6    | 81.1    | 111.0   | 102.5   | 47.0    |
| 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°    | 8193.0 | 8193.0 | 8193.0 | 8193.0 | 8193.0 | 8193.0 | 8193.0 | 8193.0 | 8193.0 | 8193.0 | 8193.0 |
| 2.5°  | 8220.8 | 8069.2 | 7768.2 | 7394.7 | 7121.4 | 6814.0 | 6542.9 | 6348.6 | 6276.1 | 6241.9 | 6177.9 |
| 5°    | 8214.4 | 7915.5 | 7292.2 | 6639.0 | 6113.8 | 5575.9 | 5121.2 | 4826.6 | 4801.0 | 4604.6 | 4585.4 |
| 7.5°  | 8216.5 | 7759.7 | 6767.0 | 5806.4 | 5005.9 | 4455.1 | 4079.4 | 3981.2 | 3863.8 | 3833.9 | 3848.9 |
| 10°   | 8222.9 | 7561.2 | 6203.5 | 4982.4 | 4207.5 | 3846.8 | 3705.9 | 3667.4 | 3671.7 | 3684.5 | 3686.7 |
| 12.5° | 8231.5 | 7369.0 | 5618.6 | 4357.0 | 3759.2 | 3609.8 | 3594.9 | 3629.0 | 3665.3 | 3693.1 | 3699.5 |
| 15°   | 8242.1 | 7149.2 | 5048.6 | 3853.2 | 3535.1 | 3522.3 | 3571.4 | 3629.0 | 3680.2 | 3720.8 | 3727.2 |
| 17.5° | 8229.3 | 6893.0 | 4570.4 | 3543.6 | 3411.3 | 3473.2 | 3554.3 | 3626.9 | 3673.8 | 3712.3 | 3716.5 |
| 20°   | 8199.4 | 6606.9 | 4109.3 | 3325.9 | 3334.4 | 3434.8 | 3522.3 | 3590.6 | 3641.8 | 3661.0 | 3676.0 |
| 22.5° | 8084.2 | 6265.4 | 3708.0 | 3157.2 | 3242.6 | 3381.4 | 3486.0 | 3526.5 | 3468.9 | 3428.4 | 3439.0 |
| 25°   | 7887.8 | 5821.4 | 3334.4 | 3020.6 | 3159.4 | 3306.7 | 3413.4 | 3315.2 | 3268.2 | 3251.2 | 3259.7 |
| 27.5° | 7642.3 | 5334.7 | 3052.6 | 2877.6 | 3052.6 | 3223.4 | 3193.5 | 3176.5 | 3155.1 | 3127.4 | 3133.8 |
| 30°   | 7377.6 | 4858.6 | 2813.6 | 2766.6 | 2937.4 | 3035.6 | 3048.4 | 3076.1 | 3052.6 | 3009.9 | 3027.0 |
| 32.5° | 7132.1 | 4410.3 | 2632.1 | 2672.7 | 2856.2 | 2841.3 | 2937.4 | 2969.4 | 2860.5 | 2717.5 | 2723.9 |
| 35°   | 6922.9 | 3994.1 | 2495.5 | 2580.9 | 2717.5 | 2723.9 | 2820.0 | 2709.0 | 2591.5 | 2523.2 | 2527.5 |
| 37.5° | 6764.9 | 3669.6 | 2405.8 | 2501.9 | 2540.3 | 2621.4 | 2570.2 | 2512.6 | 2497.6 | 2450.7 | 2452.8 |
| 40°   | 6671.0 | 3385.7 | 2348.2 | 2440.0 | 2433.6 | 2489.1 | 2324.7 | 2382.3 | 2403.7 | 2388.7 | 2390.9 |
| 42.5° | 6577.1 | 3185.0 | 2288.4 | 2354.6 | 2352.5 | 2243.6 | 2207.3 | 2256.4 | 2311.9 | 2318.3 | 2314.0 |
| 45°   | 6502.3 | 3029.2 | 2226.5 | 2224.4 | 2267.1 | 2096.3 | 2085.6 | 2115.5 | 2194.5 | 2232.9 | 2230.8 |
| 47.5° | 6419.1 | 2898.9 | 2132.6 | 2072.8 | 2085.6 | 2004.5 | 1987.4 | 2000.2 | 2096.3 | 2158.2 | 2175.3 |
| 50°   | 6314.5 | 2768.7 | 2015.2 | 1934.1 | 1880.7 | 1919.1 | 1923.4 | 1925.5 | 2021.6 | 2092.0 | 2107.0 |
| 52.5° | 6231.2 | 2670.5 | 1880.7 | 1820.9 | 1756.9 | 1842.3 | 1874.3 | 1878.5 | 1936.2 | 1993.8 | 2004.5 |
| 55°   | 6280.3 | 2615.0 | 1748.3 | 1705.6 | 1648.0 | 1763.3 | 1825.2 | 1833.7 | 1846.5 | 1889.2 | 1895.6 |
| 57.5° | 6427.6 | 2627.8 | 1641.6 | 1586.1 | 1543.4 | 1669.3 | 1773.9 | 1780.4 | 1771.8 | 1823.0 | 1831.6 |
| 60°   | 6472.5 | 2621.4 | 1562.6 | 1453.7 | 1428.1 | 1569.0 | 1699.2 | 1712.0 | 1709.9 | 1784.6 | 1799.6 |
| 62.5° | 6284.6 | 2540.3 | 1483.6 | 1342.7 | 1325.7 | 1466.5 | 1594.6 | 1645.9 | 1656.5 | 1763.3 | 1782.5 |
| 65°   | 5842.7 | 2373.8 | 1379.0 | 1225.3 | 1225.3 | 1357.7 | 1494.3 | 1564.7 | 1594.6 | 1737.7 | 1759.0 |
| 67.5° | 5259.9 | 2177.4 | 1272.3 | 1125.0 | 1120.7 | 1253.1 | 1387.6 | 1460.1 | 1507.1 | 1701.4 | 1714.2 |
| 70°   | 4365.5 | 1912.7 | 1139.9 | 1016.1 | 1016.1 | 1135.7 | 1257.3 | 1344.9 | 1413.2 | 1633.1 | 1633.1 |
| 72.5° | 2990.7 | 1590.4 | 979.8  | 892.3  | 894.4  | 1005.5 | 1129.3 | 1227.5 | 1308.6 | 1496.4 | 1500.7 |
| 75°   | 1891.4 | 1242.4 | 804.8  | 760.0  | 768.5  | 873.1  | 1001.2 | 1103.6 | 1265.9 | 1479.4 | 1485.8 |
| 77.5° | 1005.5 | 873.1  | 640.4  | 629.7  | 640.4  | 736.5  | 879.5  | 1020.4 | 1270.2 | 1283.0 | 1261.6 |
| 80°   | 651.1  | 619.1  | 505.9  | 484.6  | 488.8  | 593.5  | 783.4  | 969.2  | 1020.4 | 1033.2 | 986.2  |
| 82.5° | 354.4  | 392.8  | 358.6  | 337.3  | 337.3  | 463.2  | 668.2  | 770.6  | 732.2  | 608.4  | 580.6  |
| 85°   | 151.6  | 183.6  | 185.7  | 162.2  | 155.8  | 286.1  | 448.3  | 420.5  | 390.7  | 373.6  | 369.3  |
| 87.5° | 42.7   | 59.8   | 59.8   | 44.8   | 34.2   | 79.0   | 89.7   | 25.6   | 0.0    | 2.1    | 4.3    |
| 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)