

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: P647184

Luminaire Tested: **GALN-SA9C-835-U-T2R**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P647184  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA9C-835-U-T2R  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 CRI, 3500K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 50859 lumens  
Efficiency: N/A  
Efficacy: 105.7 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G5

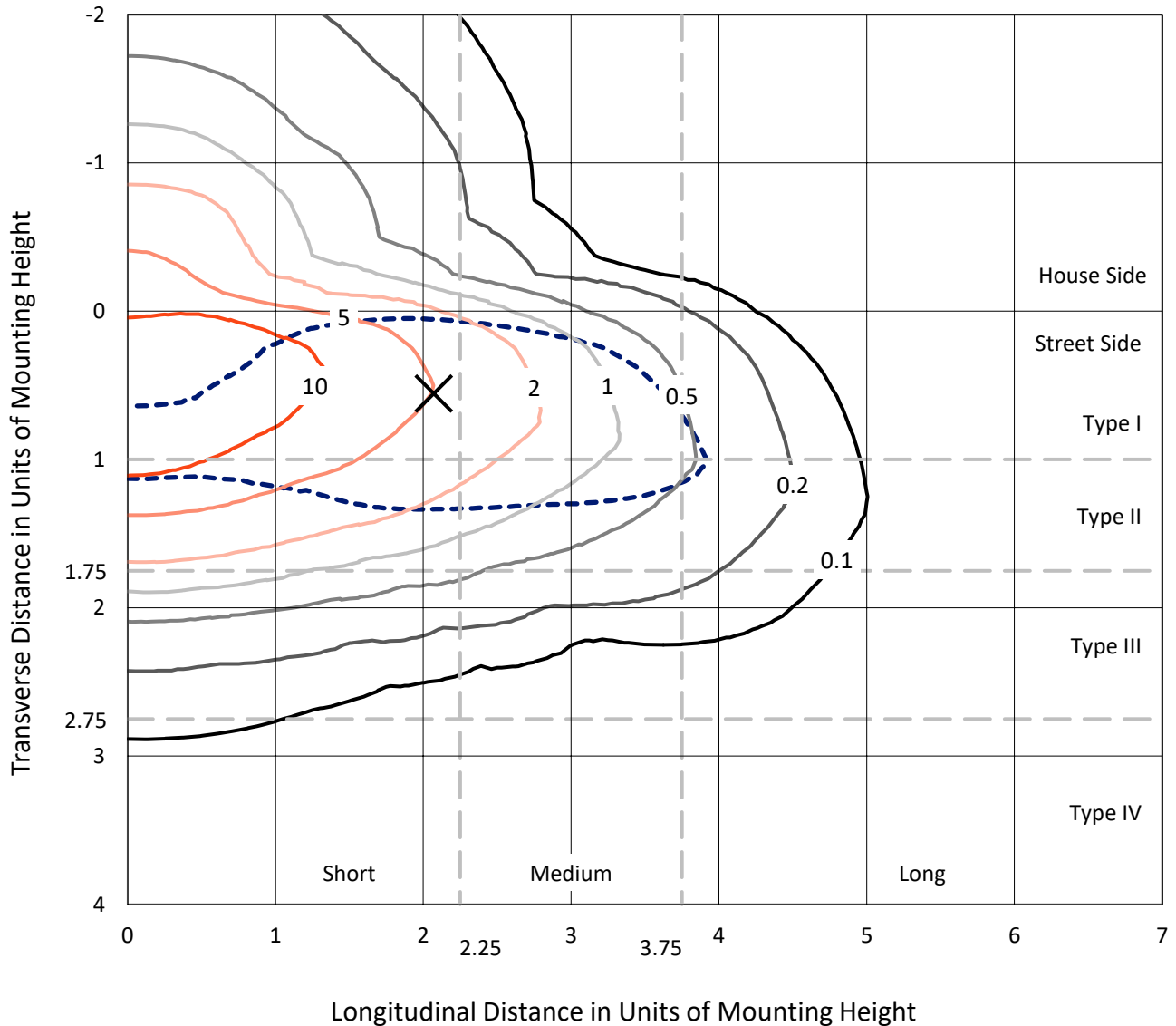
Input Watts (W): 481  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

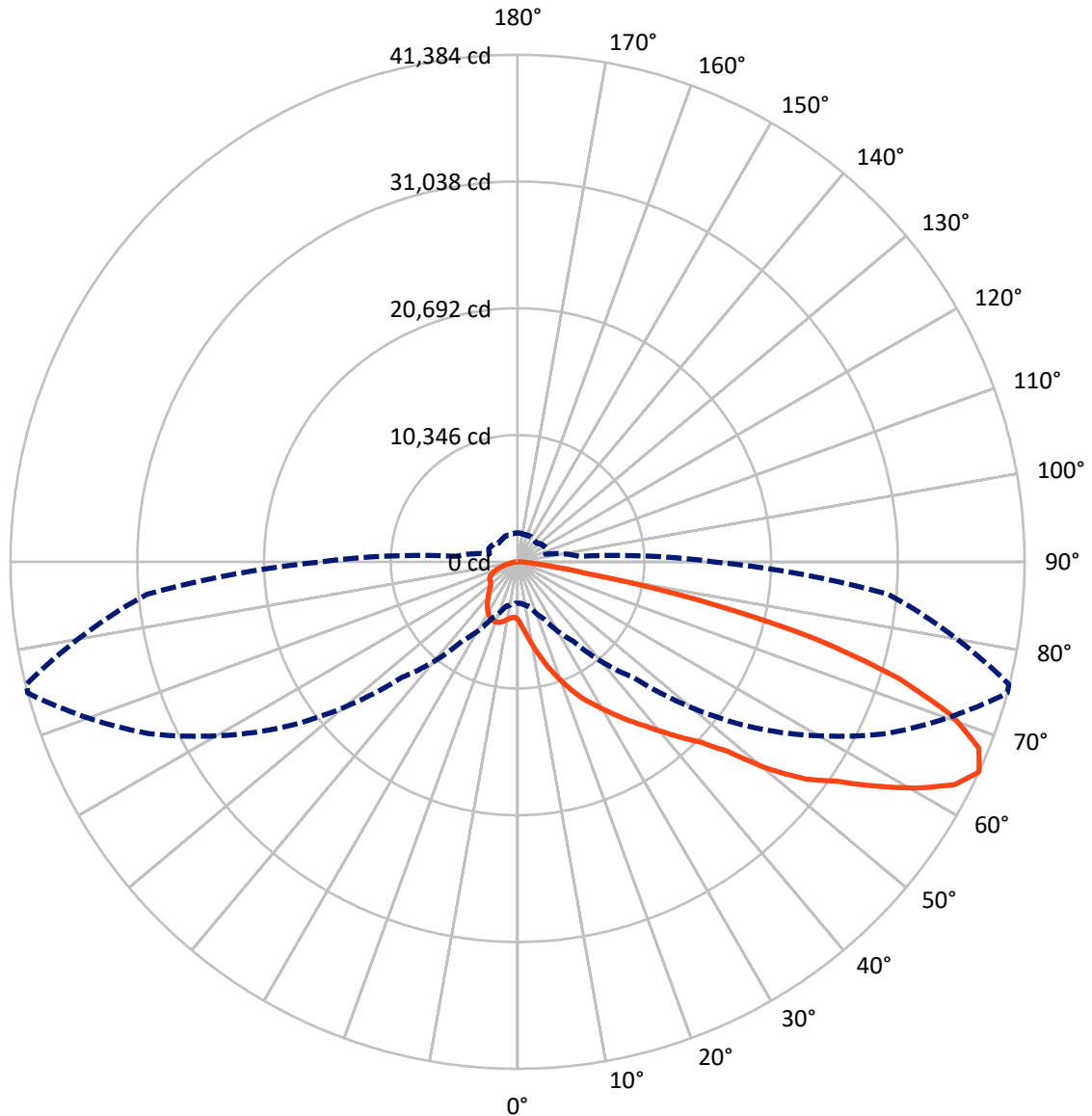
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 19.6 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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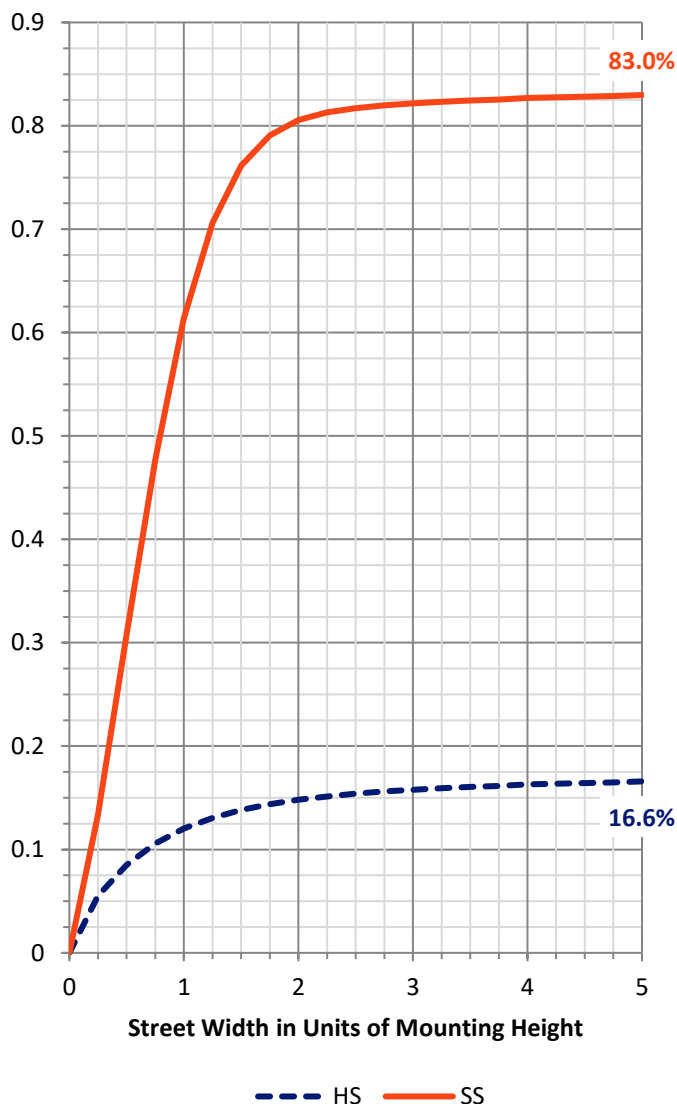
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 8550.1   | 0.0    | 8550.1  |
|                    | % Fixture | 16.8     | 0.0    | 16.8    |
| <b>Street Side</b> | Lumens    | 42308.9  | 0.0    | 42308.9 |
|                    | % Fixture | 83.2     | 0.0    | 83.2    |
| <b>Total</b>       | Lumens    | 50859.0  | 0.0    | 50859.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 574.1   | 1.1       |
| 10°-20°   | 2248.8  | 4.4       |
| 20°-30°   | 4343.9  | 8.5       |
| 30°-40°   | 7055.8  | 13.9      |
| 40°-50°   | 9705.8  | 19.1      |
| 50°-60°   | 11459.3 | 22.5      |
| 60°-70°   | 10040.2 | 19.7      |
| 70°-80°   | 4793.3  | 9.4       |
| 80°-90°   | 637.8   | 1.3       |
| 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°    | 50859.0 | 100.0     |
| 0°-180°   | 50859.0 | 100.0     |

**Coefficient of Utilization**

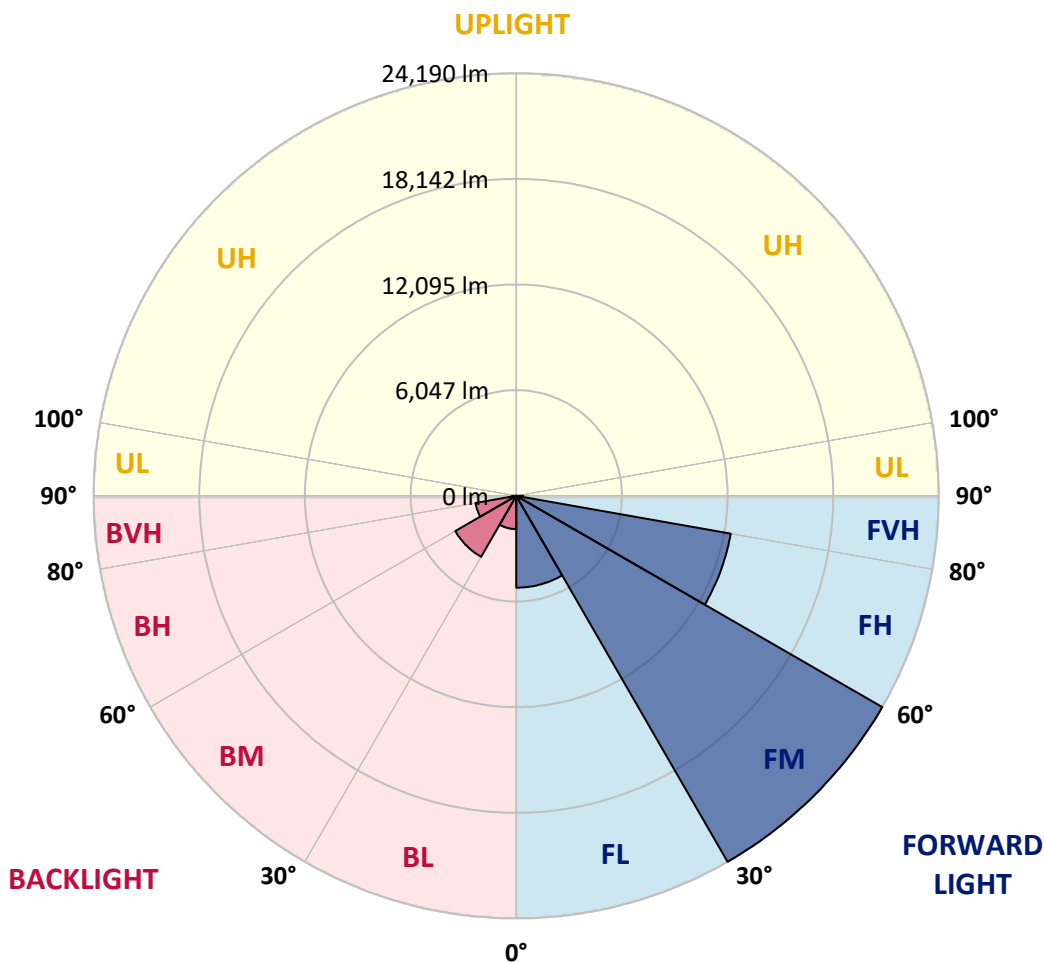


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 5258.0  | 10.3      |                         |      |         |
| FM (30°-60°)   | 24189.6 | 47.6      |                         |      |         |
| FH (60°-80°)   | 12462.7 | 24.5      |                         |      | G5      |
| FVH (80°-90°)  | 398.6   | 0.8       |                         |      | G3/500  |
| BL (0°-30°)    | 1908.8  | 3.8       | B3/2500                 |      |         |
| BM (30°-60°)   | 4031.3  | 7.9       | B3/5000                 |      |         |
| BH (60°-80°)   | 2370.8  | 4.7       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 239.2   | 0.5       |                         |      | G3/500  |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G5**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 76°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4725.4  | 4725.4  | 4725.4  | 4725.4  | 4725.4  | 4725.4  | 4725.4  | 4725.4  | 4725.4  | 4725.4  | 4725.4  |
| 2.5°  | 6278.5  | 6237.1  | 6193.0  | 6071.6  | 5942.0  | 5795.8  | 5586.1  | 5384.8  | 5117.1  | 5108.9  | 4910.3  |
| 5°    | 8019.2  | 7991.6  | 7795.7  | 7682.6  | 7382.0  | 6981.9  | 6642.7  | 6115.8  | 5627.5  | 5569.6  | 5183.4  |
| 7.5°  | 9619.2  | 9511.6  | 9437.1  | 9233.0  | 8935.0  | 8421.9  | 7765.4  | 7053.7  | 6237.1  | 6159.9  | 5519.9  |
| 10°   | 10824.7 | 10813.6 | 10775.0 | 10598.5 | 10375.0 | 9864.7  | 9136.4  | 8115.7  | 7009.6  | 6857.8  | 5928.2  |
| 12.5° | 11726.7 | 11735.0 | 11729.5 | 11726.7 | 11566.7 | 11133.6 | 10344.7 | 9268.8  | 7790.2  | 7682.6  | 6399.9  |
| 15°   | 12319.8 | 12402.6 | 12435.7 | 12573.6 | 12587.4 | 12297.7 | 11619.1 | 10383.3 | 8670.2  | 8510.2  | 6907.5  |
| 17.5° | 12711.5 | 12752.9 | 12907.4 | 13141.9 | 13332.2 | 13279.8 | 12675.7 | 11415.0 | 9569.5  | 9301.9  | 7434.4  |
| 20°   | 13086.7 | 13158.4 | 13277.0 | 13597.0 | 13933.6 | 14088.0 | 13663.2 | 12471.5 | 10460.5 | 10289.5 | 8016.4  |
| 22.5° | 13867.4 | 13969.4 | 14010.8 | 14173.6 | 14460.4 | 14733.6 | 14540.5 | 13483.9 | 11437.0 | 11205.4 | 8634.4  |
| 25°   | 15188.7 | 15296.3 | 15180.4 | 15141.8 | 15235.6 | 15370.8 | 15329.4 | 14438.4 | 12358.4 | 12027.4 | 9219.2  |
| 27.5° | 16910.1 | 16923.8 | 16697.6 | 16482.5 | 16250.8 | 16181.8 | 16054.9 | 15285.3 | 13158.4 | 12882.5 | 9806.8  |
| 30°   | 18758.3 | 18692.1 | 18317.0 | 17928.0 | 17536.3 | 17150.0 | 16786.0 | 16101.8 | 14049.4 | 13732.2 | 10383.3 |
| 32.5° | 20474.1 | 20438.3 | 20021.8 | 19417.6 | 18755.6 | 18391.4 | 17654.9 | 16926.7 | 15003.9 | 14697.7 | 10976.4 |
| 35°   | 21759.6 | 21812.0 | 21354.1 | 20694.8 | 19972.1 | 19649.3 | 18719.7 | 17792.8 | 15991.4 | 15657.7 | 11621.9 |
| 37.5° | 22672.7 | 22645.1 | 22239.6 | 21668.6 | 21034.1 | 20752.8 | 19963.8 | 18739.0 | 17053.5 | 16733.5 | 12328.1 |
| 40°   | 22998.3 | 22981.7 | 22681.0 | 22264.4 | 21861.8 | 21762.4 | 21265.9 | 19759.7 | 18270.1 | 17894.9 | 13177.7 |
| 42.5° | 22791.3 | 22827.2 | 22628.6 | 22515.5 | 22441.0 | 22512.7 | 22559.6 | 21097.6 | 19596.9 | 19252.1 | 14099.1 |
| 45°   | 22156.9 | 22137.6 | 22110.0 | 22294.8 | 22714.1 | 23185.8 | 23839.6 | 22361.0 | 21039.7 | 20763.8 | 15334.9 |
| 47.5° | 21023.1 | 21161.0 | 21230.0 | 21740.3 | 22656.2 | 23773.4 | 25312.7 | 24054.8 | 23133.4 | 22893.4 | 17219.0 |
| 50°   | 19437.0 | 19547.3 | 19955.5 | 20863.1 | 22228.6 | 23994.1 | 26752.7 | 26824.4 | 26625.8 | 26176.2 | 19265.9 |
| 52.5° | 16959.7 | 17130.8 | 17972.1 | 19635.5 | 21351.4 | 23903.0 | 27624.4 | 29199.6 | 29461.6 | 29125.0 | 21282.4 |
| 55°   | 14187.3 | 14427.3 | 15315.6 | 17497.6 | 20143.1 | 23406.5 | 28225.7 | 30576.1 | 31621.5 | 31309.8 | 23224.5 |
| 57.5° | 11472.9 | 11726.7 | 12639.8 | 14752.9 | 18035.5 | 22308.6 | 28620.2 | 32109.8 | 34562.2 | 34156.7 | 25641.0 |
| 60°   | 8598.5  | 8863.3  | 9646.7  | 11823.2 | 15034.2 | 20162.4 | 28352.7 | 33439.5 | 37500.1 | 37326.3 | 28060.2 |
| 62.5° | 5547.5  | 5839.9  | 6521.3  | 8322.7  | 11555.7 | 17230.1 | 26920.9 | 34173.3 | 40043.5 | 39833.9 | 29825.7 |
| 65°   | 3379.3  | 3412.4  | 3787.5  | 5166.8  | 7908.8  | 13340.4 | 23646.5 | 33199.4 | 41384.1 | 41320.7 | 30363.6 |
| 67.5° | 2184.8  | 2237.2  | 2408.3  | 3095.1  | 4742.0  | 9266.0  | 18907.3 | 29985.7 | 40600.7 | 40578.7 | 29251.9 |
| 70°   | 1845.5  | 1862.1  | 1939.3  | 2088.3  | 2755.8  | 5619.2  | 13277.0 | 24863.1 | 37624.2 | 37624.2 | 26578.9 |
| 72.5° | 1649.6  | 1671.7  | 1699.3  | 1746.2  | 1966.9  | 3183.4  | 7922.6  | 19354.2 | 32485.0 | 32700.2 | 22623.1 |
| 75°   | 1497.9  | 1492.4  | 1508.9  | 1517.2  | 1677.2  | 2080.0  | 4096.5  | 14314.3 | 25130.6 | 24700.3 | 16383.2 |
| 77.5° | 1282.7  | 1291.0  | 1282.7  | 1318.6  | 1481.4  | 1583.5  | 2080.0  | 9605.4  | 15230.1 | 14672.9 | 8223.3  |
| 80°   | 1053.8  | 1067.5  | 1081.3  | 1103.4  | 1266.2  | 1202.8  | 1249.7  | 4377.8  | 5633.0  | 5514.4  | 2540.7  |
| 82.5° | 791.7   | 811.0   | 833.1   | 885.5   | 995.8   | 794.4   | 789.0   | 1870.4  | 2033.1  | 1862.1  | 935.1   |
| 85°   | 320.0   | 378.0   | 571.0   | 623.4   | 626.2   | 435.8   | 485.5   | 780.7   | 830.3   | 811.0   | 366.9   |
| 87.5° | 74.5    | 88.2    | 184.8   | 278.6   | 256.5   | 162.8   | 179.3   | 253.8   | 289.6   | 267.6   | 124.1   |
| 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°    | 4725.4  | 4725.4 | 4725.4 | 4725.4 | 4725.4 | 4725.4 | 4725.4 | 4725.4 | 4725.4 | 4725.4 | 4725.4 |
| 2.5°  | 4819.2  | 4722.7 | 4557.1 | 4430.3 | 4339.2 | 4259.2 | 4209.6 | 4179.3 | 4168.2 | 4165.5 | 4168.2 |
| 5°    | 4982.0  | 4811.0 | 4548.9 | 4383.4 | 4292.3 | 4239.9 | 4209.6 | 4206.8 | 4209.6 | 4212.4 | 4204.1 |
| 7.5°  | 5205.5  | 4959.9 | 4617.8 | 4463.4 | 4394.4 | 4355.8 | 4342.0 | 4336.5 | 4339.2 | 4336.5 | 4336.5 |
| 10°   | 5503.4  | 5166.8 | 4753.0 | 4593.0 | 4535.1 | 4491.0 | 4468.9 | 4455.1 | 4444.1 | 4433.0 | 4427.6 |
| 12.5° | 5831.6  | 5395.8 | 4899.2 | 4744.7 | 4662.0 | 4593.0 | 4543.4 | 4507.5 | 4482.7 | 4457.9 | 4452.4 |
| 15°   | 6198.5  | 5638.5 | 5062.0 | 4846.8 | 4728.2 | 4626.1 | 4540.6 | 4482.7 | 4438.5 | 4402.7 | 4399.9 |
| 17.5° | 6548.9  | 5867.5 | 5172.3 | 4893.8 | 4719.9 | 4576.5 | 4463.4 | 4383.4 | 4328.2 | 4281.3 | 4275.8 |
| 20°   | 6924.0  | 6085.4 | 5222.0 | 4863.4 | 4637.2 | 4463.4 | 4314.4 | 4217.9 | 4154.4 | 4102.0 | 4093.8 |
| 22.5° | 7301.9  | 6270.3 | 5216.5 | 4766.8 | 4493.7 | 4289.6 | 4132.4 | 4030.3 | 3955.8 | 3903.4 | 3884.1 |
| 25°   | 7663.3  | 6419.2 | 5147.5 | 4612.3 | 4295.1 | 4082.7 | 3922.7 | 3828.9 | 3762.7 | 3699.3 | 3699.3 |
| 27.5° | 7988.9  | 6507.5 | 5017.9 | 4424.7 | 4090.9 | 3867.6 | 3740.6 | 3655.1 | 3594.4 | 3553.0 | 3528.2 |
| 30°   | 8308.8  | 6548.9 | 4841.3 | 4187.5 | 3875.8 | 3685.4 | 3583.4 | 3533.8 | 3478.6 | 3431.7 | 3426.2 |
| 32.5° | 8595.7  | 6540.6 | 4620.6 | 3955.8 | 3671.6 | 3536.5 | 3495.2 | 3456.5 | 3398.5 | 3332.4 | 3315.8 |
| 35°   | 8874.4  | 6485.4 | 4358.6 | 3702.0 | 3500.6 | 3448.3 | 3459.3 | 3404.1 | 3299.2 | 3216.5 | 3202.7 |
| 37.5° | 9177.8  | 6386.1 | 4071.7 | 3495.2 | 3357.2 | 3406.8 | 3434.4 | 3313.0 | 3142.0 | 3012.4 | 2982.1 |
| 40°   | 9528.1  | 6273.0 | 3773.7 | 3288.2 | 3244.0 | 3368.2 | 3368.2 | 3144.8 | 2910.3 | 2830.3 | 2808.2 |
| 42.5° | 9939.2  | 6179.2 | 3525.5 | 3114.5 | 3150.3 | 3274.4 | 3260.6 | 2921.3 | 2824.8 | 2783.4 | 2772.4 |
| 45°   | 10590.2 | 6146.1 | 3268.9 | 2962.7 | 3073.0 | 3164.1 | 3051.0 | 2844.1 | 2788.9 | 2755.8 | 2744.8 |
| 47.5° | 11619.1 | 6184.8 | 3042.7 | 2849.6 | 2984.8 | 3053.8 | 2816.5 | 2791.7 | 2753.0 | 2706.1 | 2700.6 |
| 50°   | 12573.6 | 6148.9 | 2882.7 | 2786.1 | 2907.5 | 2921.3 | 2720.0 | 2728.2 | 2706.1 | 2653.7 | 2642.7 |
| 52.5° | 13354.3 | 6035.8 | 2780.7 | 2753.0 | 2841.4 | 2689.6 | 2628.9 | 2659.3 | 2651.0 | 2584.8 | 2573.7 |
| 55°   | 14212.2 | 5966.8 | 2731.0 | 2753.0 | 2797.2 | 2488.2 | 2543.4 | 2587.6 | 2576.5 | 2529.6 | 2526.8 |
| 57.5° | 15252.1 | 5980.6 | 2695.2 | 2761.3 | 2753.0 | 2386.2 | 2457.9 | 2510.3 | 2507.6 | 2493.8 | 2493.8 |
| 60°   | 16317.0 | 5986.1 | 2640.0 | 2758.6 | 2700.6 | 2306.2 | 2369.6 | 2444.1 | 2449.6 | 2457.9 | 2457.9 |
| 62.5° | 16670.1 | 5746.1 | 2532.4 | 2708.9 | 2584.8 | 2229.0 | 2286.8 | 2388.9 | 2383.4 | 2405.5 | 2408.3 |
| 65°   | 16010.8 | 5081.3 | 2372.4 | 2595.8 | 2435.8 | 2173.8 | 2223.4 | 2317.2 | 2286.8 | 2344.8 | 2355.8 |
| 67.5° | 14573.6 | 4204.1 | 2124.1 | 2391.7 | 2270.3 | 2115.8 | 2182.1 | 2217.9 | 2162.7 | 2275.8 | 2278.6 |
| 70°   | 12595.7 | 3282.7 | 1809.6 | 2102.0 | 2082.7 | 2055.1 | 2148.9 | 2093.7 | 2016.5 | 2154.4 | 2126.9 |
| 72.5° | 10532.2 | 2507.6 | 1445.5 | 1718.6 | 1831.7 | 1964.1 | 2091.0 | 1933.8 | 1826.2 | 1867.5 | 1817.9 |
| 75°   | 7911.6  | 1853.8 | 1161.3 | 1346.2 | 1525.5 | 1834.5 | 2038.6 | 1740.7 | 1575.2 | 1536.6 | 1525.5 |
| 77.5° | 4033.1  | 1211.0 | 869.0  | 1006.9 | 1144.8 | 1657.9 | 1966.9 | 1514.5 | 1304.8 | 1244.1 | 1216.5 |
| 80°   | 1440.0  | 753.1  | 612.4  | 695.1  | 772.4  | 1426.2 | 1718.6 | 1252.4 | 1012.4 | 1001.4 | 1012.4 |
| 82.5° | 667.6   | 485.5  | 411.0  | 455.2  | 457.9  | 951.7  | 1310.4 | 935.1  | 769.6  | 1169.6 | 987.6  |
| 85°   | 286.9   | 242.7  | 231.7  | 226.2  | 209.7  | 424.9  | 736.6  | 502.1  | 783.5  | 350.3  | 322.8  |
| 87.5° | 85.5    | 96.5   | 85.5   | 63.4   | 46.9   | 46.9   | 74.5   | 27.6   | 19.3   | 13.8   | 13.8   |
| 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)