

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: STREETWORKS

Report Number: P299154

Luminaire Tested: **GAA-AF-10-LED-U-SL2-7060**

Issue Date: 3/3/2020

#### Test Information

Test Method: LM-79-08  
Report Number: P299154  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAA-AF-10-LED-U-SL2-7060  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 5700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Narrow OPTICS  
Light Source: -  
Ballast/Driver: -

#### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 57517.5 lumens  
Efficiency: N/A  
Efficacy: 103.1 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B4 - U0 - G5  
  
Input Watts (W): 558  
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: 28.75 FT

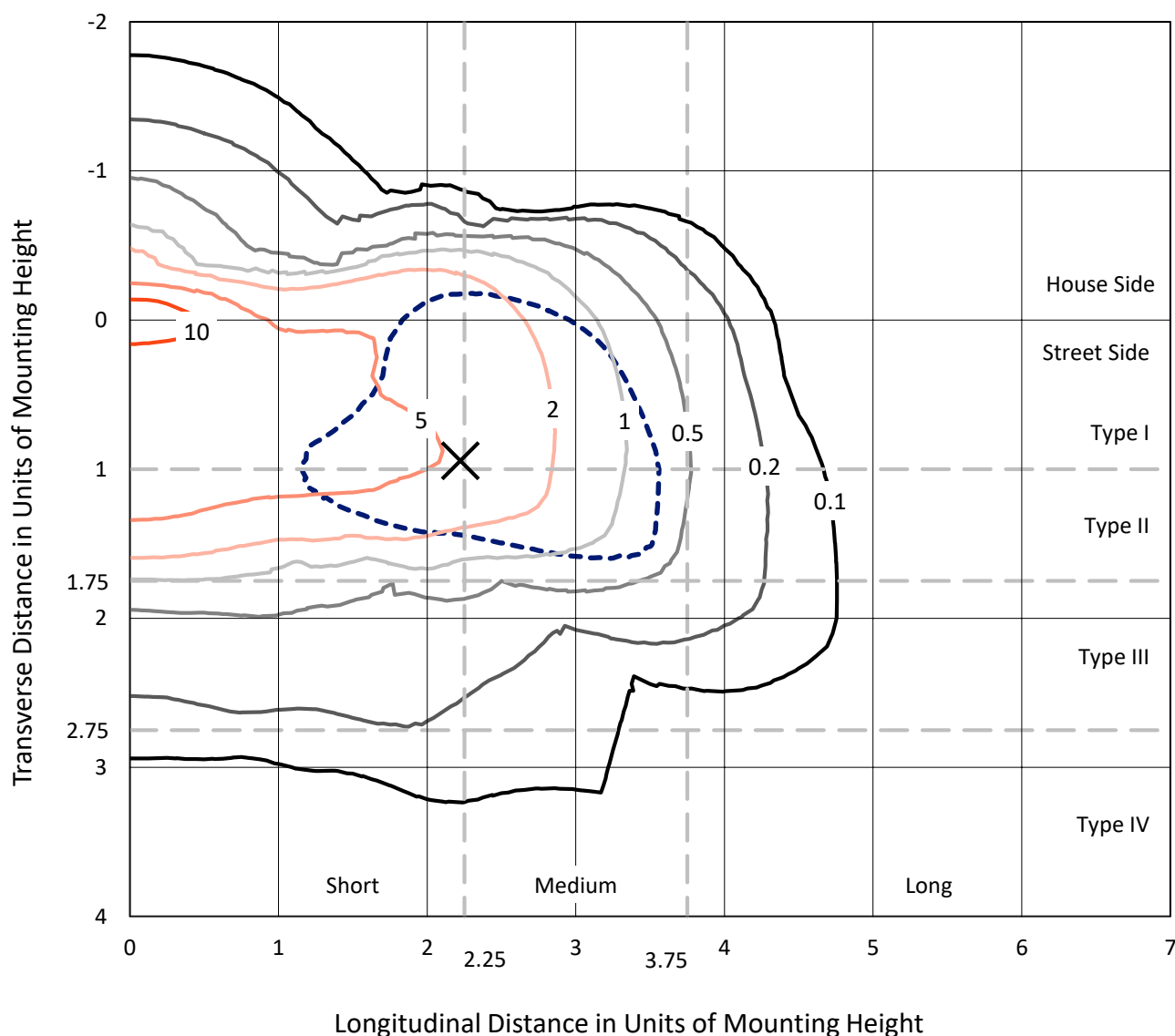


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

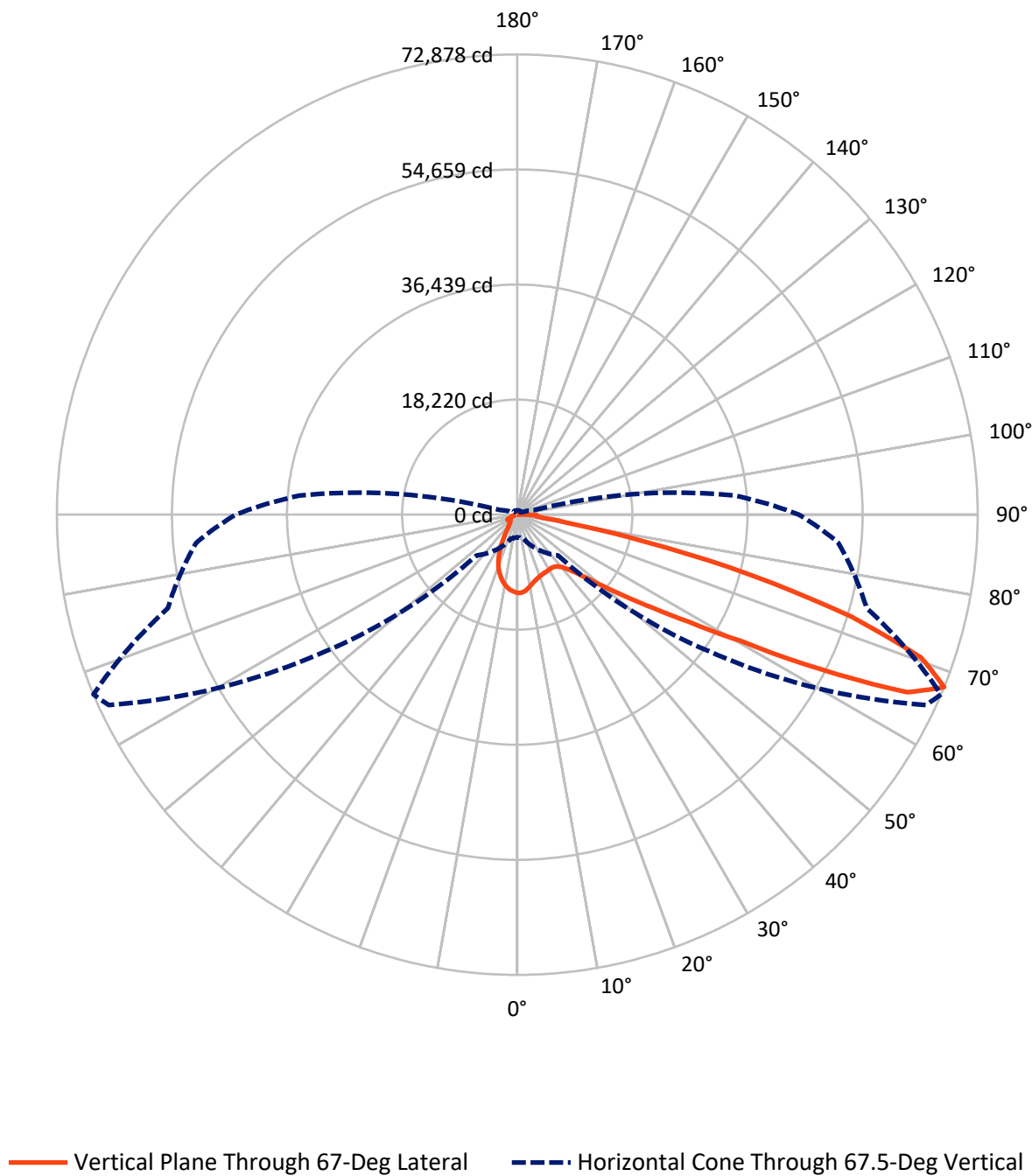


Based on 30 foot mounting height. Maximum calculated value = 13.8 fc  
 Type II - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 9530.0   | 0.0    | 9530.0  |
|                    | % Fixture | 16.6     | 0.0    | 16.6    |
| <b>Street Side</b> | Lumens    | 47987.5  | 0.0    | 47987.5 |
|                    | % Fixture | 83.4     | 0.0    | 83.4    |
| <b>Total</b>       | Lumens    | 57517.5  | 0.0    | 57517.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 1058.5  | 1.8       |
| 10°-20°   | 2449.1  | 4.3       |
| 20°-30°   | 3319.8  | 5.8       |
| 30°-40°   | 4719.4  | 8.2       |
| 40°-50°   | 7895.8  | 13.7      |
| 50°-60°   | 12491.0 | 21.7      |
| 60°-70°   | 15912.3 | 27.7      |
| 70°-80°   | 8334.9  | 14.5      |
| 80°-90°   | 1336.8  | 2.3       |
| 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°    | 57517.5 | 100.0     |
| 0°-180°   | 57517.5 | 100.0     |

**Coefficient of Utilization**



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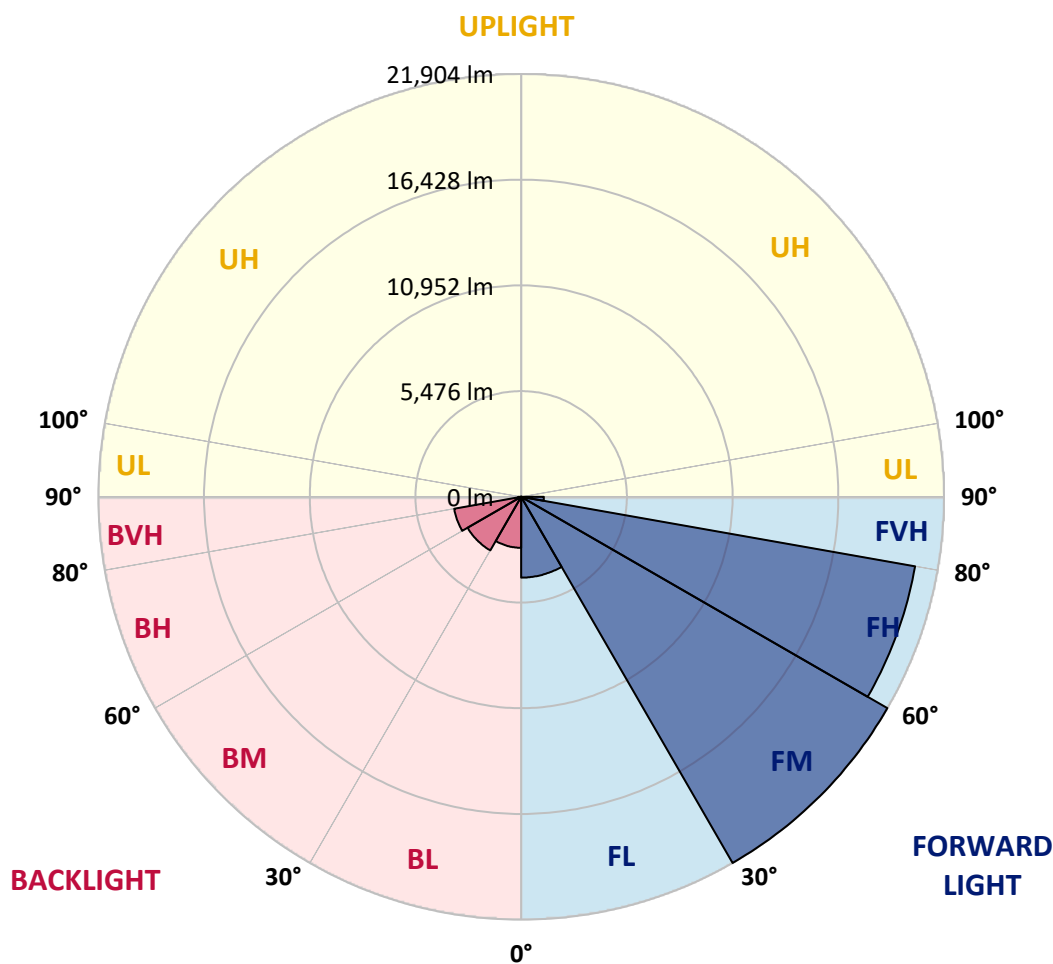
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 4185.9  | 7.3       |                         |      |         |
| FM   | (30°-60°)   | 21903.8 | 38.1      |                         |      |         |
| FH   | (60°-80°)   | 20722.3 | 36.0      |                         |      | G5      |
| FVH  | (80°-90°)   | 1175.4  | 2.0       |                         |      | G5      |
| BL   | (0°-30°)    | 2641.5  | 4.6       | B4/5000                 |      |         |
| BM   | (30°-60°)   | 3202.4  | 5.6       | B3/5000                 |      |         |
| BH   | (60°-80°)   | 3524.8  | 6.1       | B4/5000                 |      | G4/5000 |
| BVH  | (80°-90°)   | 161.3   | 0.3       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B4-U0-G5**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 67°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 12406.4 | 12406.4 | 12406.4 | 12406.4 | 12406.4 | 12406.4 | 12406.4 | 12406.4 | 12406.4 | 12406.4 | 12406.4 |
| 2.5°  | 11895.8 | 11915.7 | 11978.1 | 12017.8 | 12196.5 | 12273.1 | 12327.0 | 12380.9 | 12389.4 | 12414.9 | 12389.4 |
| 5°    | 10647.8 | 10690.4 | 10806.7 | 10937.1 | 11283.2 | 11555.5 | 11841.9 | 12139.8 | 12193.7 | 12386.5 | 12440.4 |
| 7.5°  | 9680.6  | 9669.3  | 9765.7  | 9921.7  | 10276.2 | 10653.5 | 11155.5 | 11748.3 | 11864.6 | 12298.6 | 12508.5 |
| 10°   | 8974.3  | 8965.8  | 9067.9  | 9229.6  | 9567.2  | 9924.5  | 10491.8 | 11303.0 | 11467.5 | 12159.6 | 12573.7 |
| 12.5° | 8452.4  | 8455.3  | 8557.4  | 8736.1  | 9079.3  | 9439.5  | 10015.3 | 10871.9 | 11081.8 | 11997.9 | 12641.8 |
| 15°   | 8106.4  | 8129.1  | 8211.4  | 8401.4  | 8736.1  | 9096.3  | 9660.8  | 10548.5 | 10784.0 | 11870.3 | 12718.4 |
| 17.5° | 7990.1  | 8027.0  | 8055.4  | 8194.3  | 8480.8  | 8841.0  | 9394.1  | 10310.3 | 10559.9 | 11782.4 | 12786.5 |
| 20°   | 8097.9  | 8140.4  | 8086.6  | 8134.8  | 8316.3  | 8634.0  | 9184.2  | 10123.1 | 10378.4 | 11683.1 | 12795.0 |
| 22.5° | 8560.2  | 8599.9  | 8441.1  | 8302.1  | 8290.8  | 8483.6  | 9011.2  | 9975.6  | 10239.4 | 11609.4 | 12797.8 |
| 25°   | 9374.3  | 9399.8  | 9133.2  | 8809.8  | 8495.0  | 8429.8  | 8889.3  | 9873.5  | 10154.3 | 11544.1 | 12743.9 |
| 27.5° | 10372.7 | 10392.5 | 10086.2 | 9609.7  | 8977.2  | 8557.4  | 8846.7  | 9813.9  | 10106.1 | 11487.4 | 12653.1 |
| 30°   | 11586.7 | 11680.3 | 11269.0 | 10667.7 | 9745.8  | 8934.6  | 8931.8  | 9782.7  | 10052.2 | 11391.0 | 12474.5 |
| 32.5° | 12829.0 | 12868.7 | 12585.1 | 11975.2 | 10781.1 | 9598.4  | 9170.1  | 9805.4  | 10038.0 | 11274.7 | 12247.5 |
| 35°   | 14088.4 | 14139.4 | 13955.0 | 13464.4 | 12196.5 | 10571.2 | 9635.2  | 9938.7  | 10125.9 | 11234.9 | 12088.7 |
| 37.5° | 15719.3 | 15787.4 | 15532.1 | 14964.8 | 13918.2 | 11890.2 | 10409.6 | 10273.4 | 10395.4 | 11348.4 | 12040.5 |
| 40°   | 18297.6 | 18266.4 | 17520.4 | 16675.1 | 15801.5 | 13577.8 | 11515.8 | 10840.7 | 10911.6 | 11714.3 | 12188.0 |
| 42.5° | 21298.5 | 21221.9 | 19937.0 | 18609.6 | 17872.1 | 15620.0 | 12979.3 | 11824.9 | 11810.7 | 12434.7 | 12707.0 |
| 45°   | 23692.4 | 23630.0 | 22472.7 | 20836.1 | 20246.2 | 17945.9 | 14871.2 | 13291.3 | 13186.4 | 13577.8 | 13665.7 |
| 47.5° | 24988.6 | 24991.5 | 24324.9 | 22989.0 | 22974.8 | 20901.4 | 17302.0 | 15413.0 | 15231.4 | 15415.8 | 15322.2 |
| 50°   | 24534.8 | 24594.4 | 24523.4 | 24098.0 | 25465.1 | 24775.9 | 20475.9 | 18371.3 | 18005.4 | 18186.9 | 17826.7 |
| 52.5° | 22339.4 | 22416.0 | 22835.8 | 23488.2 | 26511.8 | 29458.8 | 25138.9 | 22047.3 | 21621.8 | 21556.6 | 21156.6 |
| 55°   | 18447.9 | 18541.5 | 19398.1 | 21170.8 | 25641.0 | 32604.3 | 32496.5 | 26733.0 | 26055.1 | 25439.6 | 25269.4 |
| 57.5° | 12715.5 | 12871.5 | 14250.0 | 16882.2 | 22824.4 | 33554.5 | 41258.2 | 33412.7 | 32034.2 | 29884.2 | 29923.9 |
| 60°   | 7167.6  | 7349.1  | 8974.3  | 11365.4 | 17140.3 | 32522.1 | 47923.7 | 43530.1 | 40620.0 | 35089.0 | 35384.0 |
| 62.5° | 4558.1  | 4753.8  | 5987.6  | 7896.5  | 10284.8 | 26962.7 | 50655.1 | 57595.8 | 53900.0 | 41504.9 | 41794.2 |
| 65°   | 3690.1  | 3775.2  | 4356.7  | 6518.0  | 7468.2  | 16244.0 | 48581.7 | 69182.4 | 67804.0 | 49648.2 | 48298.1 |
| 67.5° | 3602.2  | 3630.6  | 3931.2  | 5471.4  | 7161.9  | 9130.3  | 38750.8 | 71349.4 | 72878.3 | 57252.6 | 51006.8 |
| 70°   | 3559.7  | 3658.9  | 4430.4  | 5221.8  | 6858.4  | 7700.8  | 23286.8 | 65410.0 | 67823.8 | 59240.9 | 47401.8 |
| 72.5° | 1727.4  | 1721.7  | 2229.4  | 4722.6  | 7726.3  | 7987.3  | 11963.9 | 52924.2 | 55346.5 | 51324.5 | 38952.2 |
| 75°   | 1392.7  | 1273.5  | 1216.8  | 1730.2  | 7428.5  | 8248.2  | 7624.2  | 36416.4 | 38169.3 | 34411.1 | 23944.8 |
| 77.5° | 1321.8  | 1179.9  | 1080.7  | 1083.5  | 3139.9  | 8747.4  | 6458.5  | 20155.4 | 20666.0 | 15543.4 | 6560.6  |
| 80°   | 1094.8  | 964.4   | 893.5   | 1006.9  | 1520.3  | 8330.5  | 6983.2  | 9121.8  | 8370.2  | 3817.8  | 2184.0  |
| 82.5° | 760.2   | 692.1   | 672.2   | 845.2   | 1216.8  | 5936.6  | 8120.6  | 4901.3  | 4109.9  | 1911.7  | 1347.3  |
| 85°   | 485.0   | 414.1   | 459.5   | 615.5   | 947.4   | 2740.0  | 8364.5  | 3820.6  | 3037.8  | 1214.0  | 760.2   |
| 87.5° | 224.1   | 181.5   | 226.9   | 340.4   | 618.3   | 944.5   | 7958.9  | 4291.5  | 3128.5  | 641.0   | 479.4   |
| 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°    | 12406.4 | 12406.4 | 12406.4 | 12406.4 | 12406.4 | 12406.4 | 12406.4 | 12406.4 | 12406.4 | 12406.4 | 12406.4 |
| 2.5°  | 12412.1 | 12358.2 | 12315.6 | 12236.2 | 12148.3 | 12063.2 | 11986.6 | 11890.2 | 11861.8 | 11836.3 | 11876.0 |
| 5°    | 12451.8 | 12397.9 | 12241.9 | 11997.9 | 11728.5 | 11476.0 | 11223.6 | 11008.0 | 10874.7 | 10801.0 | 10843.5 |
| 7.5°  | 12511.3 | 12434.7 | 12111.4 | 11663.2 | 11178.2 | 10735.7 | 10279.1 | 9913.2  | 9643.7  | 9516.1  | 9553.0  |
| 10°   | 12565.2 | 12417.7 | 11890.2 | 11217.9 | 10508.8 | 9850.8  | 9130.3  | 8534.7  | 8092.2  | 7859.6  | 7916.4  |
| 12.5° | 12587.9 | 12352.5 | 11581.0 | 10662.0 | 9689.1  | 8724.7  | 7663.9  | 6773.3  | 6138.0  | 5905.4  | 5857.1  |
| 15°   | 12610.6 | 12278.7 | 11240.6 | 10029.5 | 8699.2  | 7334.9  | 5848.6  | 4782.2  | 4254.6  | 4138.3  | 4112.8  |
| 17.5° | 12616.3 | 12151.1 | 10854.9 | 9343.1  | 7539.1  | 5681.3  | 3999.3  | 3321.4  | 3324.3  | 3511.5  | 3534.1  |
| 20°   | 12556.7 | 11961.1 | 10386.9 | 8489.3  | 6149.3  | 3928.4  | 2745.6  | 2629.3  | 3057.6  | 3525.6  | 3582.4  |
| 22.5° | 12420.6 | 11708.6 | 9856.5  | 7493.7  | 4558.1  | 2586.8  | 2124.5  | 2252.1  | 2805.2  | 3378.1  | 3443.4  |
| 25°   | 12247.5 | 11402.3 | 9229.6  | 6339.3  | 3017.9  | 1849.3  | 1781.3  | 1937.3  | 2311.7  | 2694.6  | 2731.4  |
| 27.5° | 12012.1 | 11039.2 | 8526.2  | 5017.6  | 1959.9  | 1523.1  | 1568.5  | 1673.5  | 1826.6  | 1996.8  | 2013.8  |
| 30°   | 11708.6 | 10605.3 | 7774.6  | 3658.9  | 1480.6  | 1370.0  | 1435.2  | 1491.9  | 1557.2  | 1653.6  | 1662.1  |
| 32.5° | 11359.8 | 10188.3 | 7003.1  | 2527.2  | 1313.2  | 1290.6  | 1341.6  | 1370.0  | 1421.0  | 1480.6  | 1486.3  |
| 35°   | 11067.6 | 9791.2  | 6203.2  | 1786.9  | 1242.3  | 1231.0  | 1265.0  | 1276.4  | 1324.6  | 1389.8  | 1395.5  |
| 37.5° | 10900.3 | 9467.9  | 5377.8  | 1440.9  | 1194.1  | 1177.1  | 1197.0  | 1197.0  | 1265.0  | 1361.5  | 1375.7  |
| 40°   | 10911.6 | 9289.2  | 4552.4  | 1301.9  | 1154.4  | 1131.7  | 1134.6  | 1134.6  | 1222.5  | 1327.4  | 1335.9  |
| 42.5° | 11220.8 | 9334.6  | 3820.6  | 1248.0  | 1123.2  | 1097.7  | 1083.5  | 1092.0  | 1165.8  | 1233.8  | 1239.5  |
| 45°   | 11946.9 | 9655.1  | 3134.2  | 1214.0  | 1092.0  | 1083.5  | 1052.3  | 1049.5  | 1077.8  | 1109.0  | 1109.0  |
| 47.5° | 13138.2 | 10287.6 | 2669.0  | 1191.3  | 1066.5  | 1063.6  | 1026.8  | 989.9   | 987.1   | 998.4   | 998.4   |
| 50°   | 15075.4 | 11376.8 | 2357.0  | 1165.8  | 1049.5  | 1026.8  | 984.2   | 927.5   | 907.6   | 916.2   | 916.2   |
| 52.5° | 17979.9 | 13319.7 | 2237.9  | 1131.7  | 1012.6  | 975.7   | 927.5   | 870.8   | 853.8   | 856.6   | 856.6   |
| 55°   | 21789.2 | 16303.6 | 2220.9  | 1092.0  | 972.9   | 913.3   | 873.6   | 831.1   | 811.2   | 816.9   | 816.9   |
| 57.5° | 26443.7 | 20430.5 | 2524.4  | 1029.6  | 919.0   | 850.9   | 828.2   | 799.9   | 785.7   | 794.2   | 791.4   |
| 60°   | 32102.3 | 25831.0 | 3744.0  | 964.4   | 865.1   | 794.2   | 794.2   | 771.5   | 760.2   | 768.7   | 765.8   |
| 62.5° | 38620.3 | 32034.2 | 5264.3  | 916.2   | 808.4   | 748.8   | 760.2   | 748.8   | 737.5   | 743.1   | 740.3   |
| 65°   | 44400.9 | 36076.1 | 4929.6  | 879.3   | 751.6   | 706.3   | 726.1   | 720.4   | 711.9   | 717.6   | 714.8   |
| 67.5° | 44568.2 | 34578.5 | 2768.3  | 839.6   | 697.8   | 663.7   | 692.1   | 689.2   | 683.6   | 689.2   | 686.4   |
| 70°   | 39774.7 | 29197.8 | 1560.0  | 765.8   | 641.0   | 612.7   | 652.4   | 649.5   | 643.9   | 655.2   | 652.4   |
| 72.5° | 31866.9 | 21187.9 | 1140.2  | 675.1   | 584.3   | 558.8   | 604.2   | 601.3   | 601.3   | 618.3   | 609.8   |
| 75°   | 18337.3 | 10903.1 | 910.5   | 578.6   | 524.7   | 504.9   | 544.6   | 547.4   | 553.1   | 575.8   | 558.8   |
| 77.5° | 5227.5  | 3398.0  | 743.1   | 490.7   | 451.0   | 442.5   | 482.2   | 487.9   | 490.7   | 516.2   | 493.5   |
| 80°   | 1942.9  | 1565.7  | 612.7   | 411.3   | 368.7   | 371.6   | 408.4   | 416.9   | 419.8   | 445.3   | 416.9   |
| 82.5° | 1239.5  | 1032.4  | 496.4   | 317.7   | 289.3   | 286.5   | 331.9   | 343.2   | 343.2   | 346.0   | 329.0   |
| 85°   | 723.3   | 618.3   | 374.4   | 229.7   | 204.2   | 195.7   | 246.8   | 266.6   | 258.1   | 252.4   | 241.1   |
| 87.5° | 485.0   | 425.5   | 229.7   | 127.6   | 110.6   | 104.9   | 144.7   | 158.8   | 153.2   | 144.7   | 136.1   |
| 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)