

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: P302881

Luminaire Tested: **GAA-AF-10-LED-U-T4W-7060-800**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P302881  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)  
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-T4W-7060-800  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 5700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Wide OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 47104.8 lumens  
Efficiency: N/A  
Efficacy: 112.4 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B4 - U0 - G5  
  
Input Watts (W): 419  
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

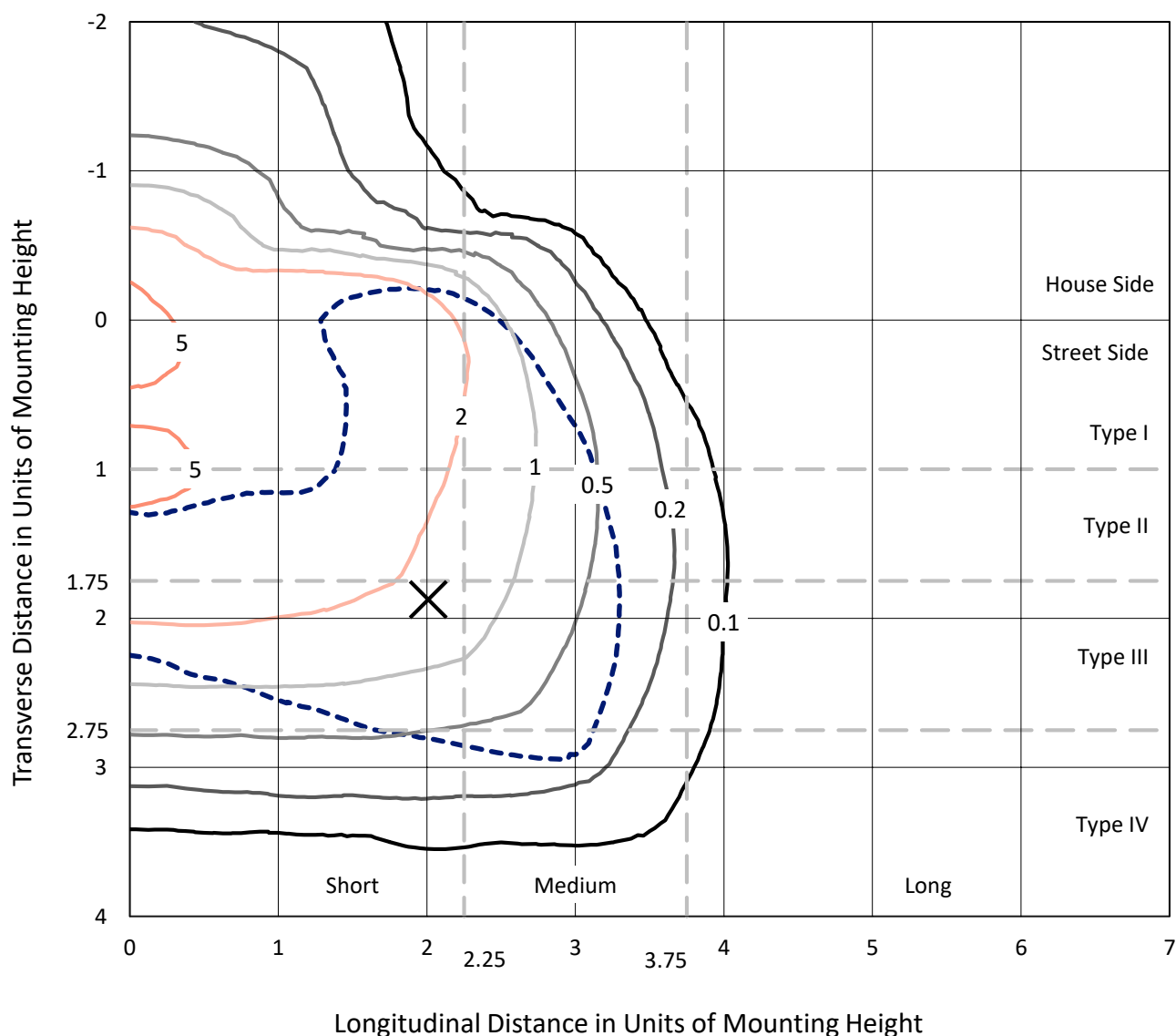


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## Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 --- 1/2 Max cd

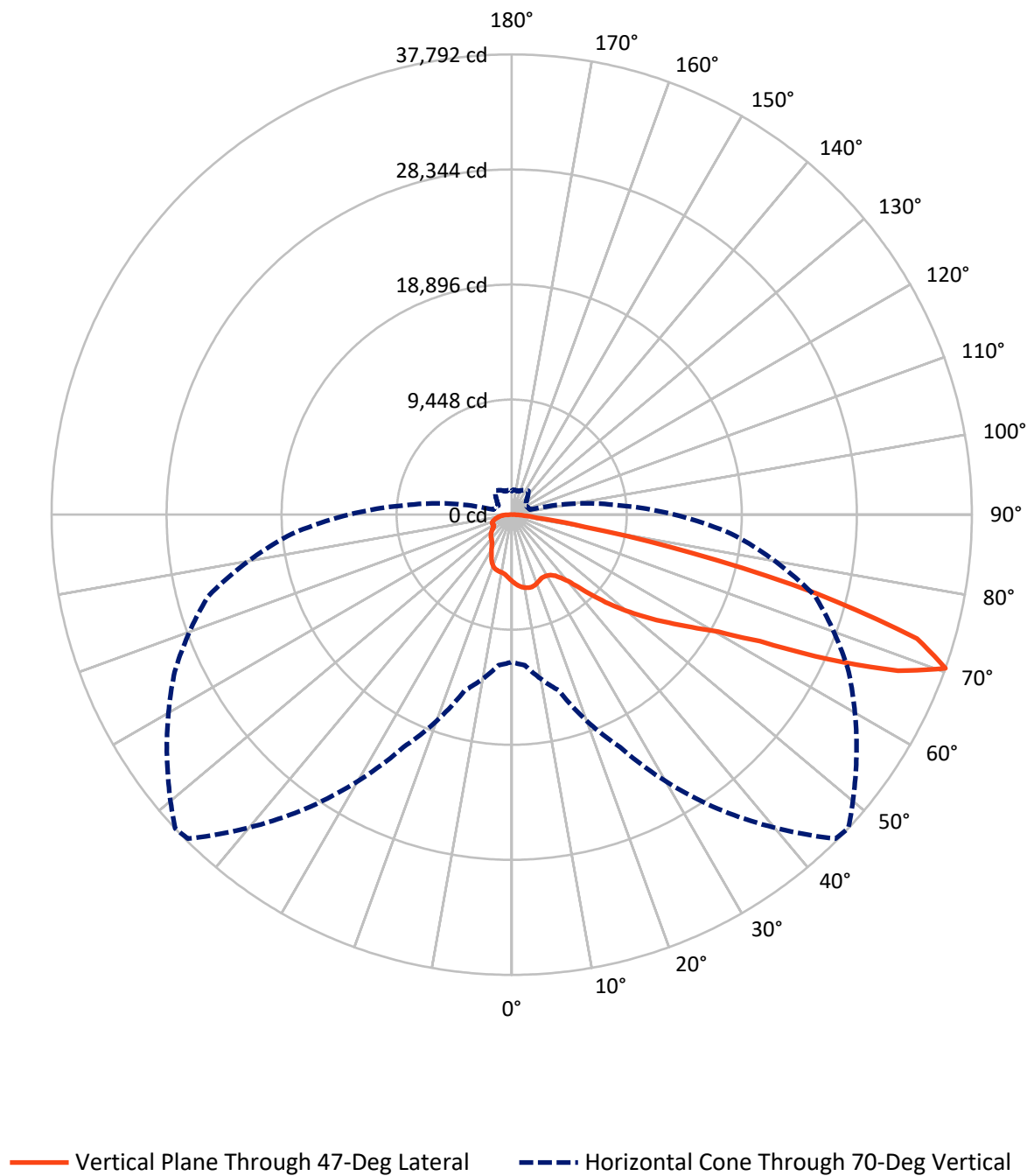


Based on 30 foot mounting height. Maximum calculated value = 7 fc  
 Type IV - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 9827.0   | 0.0    | 9827.0  |
|                    | % Fixture | 20.9     | 0.0    | 20.9    |
| <b>Street Side</b> | Lumens    | 37277.8  | 0.0    | 37277.8 |
|                    | % Fixture | 79.1     | 0.0    | 79.1    |
| <b>Total</b>       | Lumens    | 47104.8  | 0.0    | 47104.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 523.7   | 1.1       |
| 10°-20°   | 1536.4  | 3.3       |
| 20°-30°   | 2268.9  | 4.8       |
| 30°-40°   | 3297.7  | 7.0       |
| 40°-50°   | 5934.7  | 12.6      |
| 50°-60°   | 10281.3 | 21.8      |
| 60°-70°   | 14674.4 | 31.2      |
| 70°-80°   | 7533.0  | 16.0      |
| 80°-90°   | 1054.6  | 2.2       |
| 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°    | 47104.8 | 100.0     |
| 0°-180°   | 47104.8 | 100.0     |

**Coefficient of Utilization**



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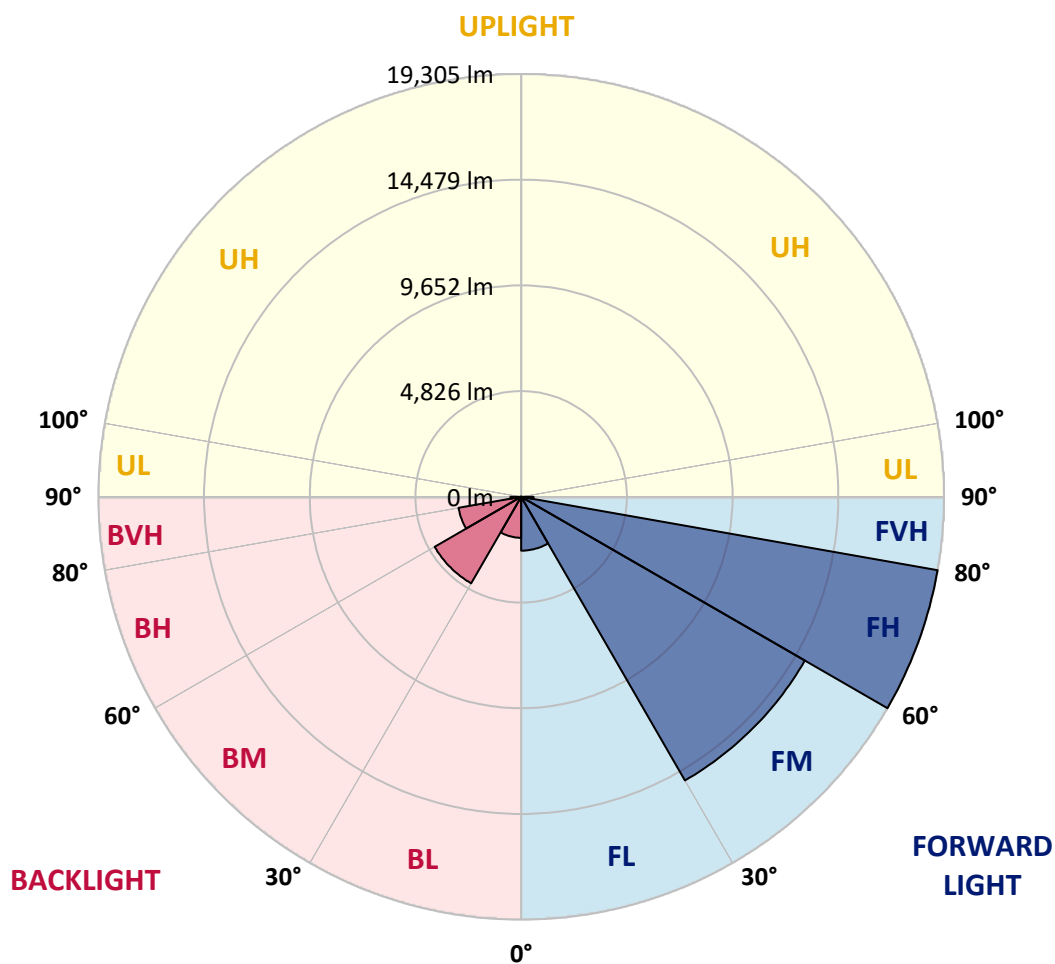
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2457.8  | 5.2       |                         |      |         |
| FM   | (30°-60°)   | 14952.4 | 31.7      |                         |      |         |
| FH   | (60°-80°)   | 19304.8 | 41.0      |                         |      | G5      |
| FVH  | (80°-90°)   | 562.8   | 1.2       |                         |      | G4/750  |
| BL   | (0°-30°)    | 1871.1  | 4.0       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 4561.4  | 9.7       | B3/5000                 |      |         |
| BH   | (60°-80°)   | 2902.6  | 6.2       | B4/5000                 |      | G4/5000 |
| BVH  | (80°-90°)   | 491.9   | 1.0       |                         |      | G3/500  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

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

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 47°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5465.5  | 5465.5  | 5465.5  | 5465.5  | 5465.5  | 5465.5  | 5465.5  | 5465.5  | 5465.5  | 5465.5  | 5465.5  |
| 2.5°  | 5786.7  | 5775.3  | 5770.7  | 5761.6  | 5750.2  | 5692.3  | 5680.9  | 5639.8  | 5582.7  | 5522.6  | 5460.9  |
| 5°    | 6167.2  | 6165.0  | 6139.1  | 6093.4  | 6020.4  | 5894.0  | 5864.3  | 5763.9  | 5628.4  | 5497.5  | 5367.3  |
| 7.5°  | 6501.4  | 6480.8  | 6432.9  | 6340.8  | 6212.9  | 6040.9  | 5999.8  | 5859.8  | 5674.0  | 5495.2  | 5318.6  |
| 10°   | 6746.4  | 6735.0  | 6630.0  | 6503.7  | 6336.2  | 6145.9  | 6098.0  | 5942.0  | 5738.0  | 5511.2  | 5291.2  |
| 12.5° | 6886.5  | 6863.7  | 6741.9  | 6591.2  | 6391.8  | 6206.1  | 6157.4  | 5999.8  | 5770.7  | 5511.2  | 5252.4  |
| 15°   | 6877.4  | 6861.4  | 6739.6  | 6574.4  | 6373.5  | 6210.6  | 6167.2  | 6008.9  | 5763.9  | 5488.3  | 5202.2  |
| 17.5° | 6693.9  | 6700.8  | 6598.0  | 6435.2  | 6270.0  | 6145.9  | 6107.1  | 5961.0  | 5717.4  | 5442.7  | 5142.8  |
| 20°   | 6373.5  | 6405.5  | 6336.2  | 6192.4  | 6100.3  | 6015.8  | 5990.7  | 5866.6  | 5646.6  | 5376.5  | 5078.1  |
| 22.5° | 6052.3  | 6082.0  | 6054.6  | 5932.8  | 5919.1  | 5868.9  | 5855.2  | 5766.1  | 5585.0  | 5335.4  | 5039.3  |
| 25°   | 5816.4  | 5843.8  | 5839.2  | 5733.4  | 5775.3  | 5773.0  | 5761.6  | 5717.4  | 5571.3  | 5335.4  | 5046.1  |
| 27.5° | 5752.4  | 5761.6  | 5752.4  | 5655.8  | 5712.9  | 5759.3  | 5750.2  | 5742.5  | 5612.4  | 5401.6  | 5133.7  |
| 30°   | 5972.4  | 5958.7  | 5887.2  | 5692.3  | 5745.6  | 5809.5  | 5800.4  | 5805.0  | 5735.7  | 5575.9  | 5328.5  |
| 32.5° | 6850.0  | 6787.5  | 6563.0  | 6015.8  | 5875.7  | 5910.0  | 5914.6  | 5990.7  | 6002.1  | 5843.8  | 5630.7  |
| 35°   | 8162.9  | 8094.4  | 7802.9  | 6881.9  | 6281.4  | 6162.7  | 6162.7  | 6276.8  | 6345.3  | 6228.9  | 6100.3  |
| 37.5° | 9554.2  | 9478.1  | 9322.8  | 8082.9  | 7133.8  | 6600.3  | 6588.9  | 6668.8  | 6767.0  | 6795.2  | 6827.1  |
| 40°   | 11135.0 | 11055.1 | 11098.5 | 9430.1  | 8323.5  | 7358.4  | 7195.5  | 7138.4  | 7404.0  | 7580.6  | 7837.9  |
| 42.5° | 12865.7 | 12828.4 | 12844.4 | 10931.0 | 9677.5  | 8493.2  | 8261.8  | 7965.7  | 8286.9  | 8600.5  | 9139.4  |
| 45°   | 14467.1 | 14499.1 | 14483.1 | 12537.7 | 11186.0 | 9876.9  | 9631.8  | 9058.7  | 9373.0  | 9911.1  | 10789.4 |
| 47.5° | 15869.8 | 15736.6 | 15942.9 | 14292.8 | 12874.9 | 11426.5 | 11123.6 | 10356.4 | 10674.5 | 11339.0 | 12823.9 |
| 50°   | 17572.4 | 17554.2 | 17252.0 | 16635.5 | 14916.2 | 12982.2 | 12585.7 | 11696.7 | 12191.4 | 13115.4 | 15388.8 |
| 52.5° | 19362.5 | 19029.9 | 18752.9 | 18456.8 | 17082.3 | 14577.5 | 14091.1 | 13032.4 | 13974.7 | 15136.1 | 18514.7 |
| 55°   | 19728.6 | 19580.2 | 19923.5 | 20421.2 | 19170.0 | 16234.4 | 15668.1 | 14707.6 | 15982.5 | 17446.8 | 22119.3 |
| 57.5° | 20512.6 | 20510.3 | 21221.2 | 22107.9 | 21319.3 | 17991.8 | 17421.0 | 16731.4 | 18239.2 | 20093.2 | 25946.1 |
| 60°   | 21042.3 | 21190.7 | 22511.2 | 24232.1 | 23429.9 | 20022.4 | 19497.3 | 19066.5 | 20806.4 | 23051.6 | 29511.9 |
| 62.5° | 21319.3 | 21521.0 | 23322.6 | 25093.7 | 26413.4 | 23402.5 | 22878.1 | 22257.0 | 24202.4 | 26297.0 | 31597.3 |
| 65°   | 20167.0 | 20562.8 | 23196.2 | 25838.8 | 29026.3 | 28881.7 | 28645.8 | 27555.1 | 28448.6 | 28861.2 | 30843.8 |
| 67.5° | 16976.5 | 17382.1 | 20448.6 | 25143.9 | 30891.8 | 34166.8 | 34217.1 | 32353.9 | 31061.5 | 29081.1 | 25932.4 |
| 70°   | 12095.5 | 12413.6 | 14951.2 | 21081.1 | 29470.8 | 37620.0 | 37792.0 | 34564.9 | 30540.9 | 25790.1 | 18118.1 |
| 72.5° | 5742.5  | 5937.4  | 8339.4  | 13720.5 | 23386.5 | 34469.0 | 34801.6 | 31741.9 | 25968.9 | 19093.9 | 9883.7  |
| 75°   | 2110.5  | 2169.9  | 2818.4  | 5836.9  | 13564.4 | 25419.4 | 25811.4 | 22754.0 | 17214.7 | 9506.2  | 3765.2  |
| 77.5° | 1265.0  | 1303.8  | 1581.6  | 2463.7  | 5335.4  | 14529.5 | 15108.7 | 12374.8 | 7523.5  | 3538.4  | 1851.8  |
| 80°   | 884.4   | 911.8   | 1134.0  | 1532.9  | 2520.8  | 5537.0  | 6052.3  | 5050.7  | 2997.2  | 2239.2  | 1347.2  |
| 82.5° | 598.2   | 611.9   | 797.6   | 1035.9  | 1675.2  | 1977.4  | 2133.4  | 2246.0  | 2021.5  | 1666.1  | 854.7   |
| 85°   | 392.0   | 405.7   | 541.1   | 682.7   | 1065.5  | 1022.2  | 1045.0  | 1322.0  | 1475.8  | 1131.8  | 474.2   |
| 87.5° | 224.5   | 233.7   | 325.8   | 364.6   | 522.9   | 433.1   | 437.6   | 696.4   | 944.5   | 763.4   | 288.5   |
| 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°    | 5465.5  | 5465.5  | 5465.5 | 5465.5 | 5465.5 | 5465.5 | 5465.5 | 5465.5 | 5465.5 | 5465.5 | 5465.5 |
| 2.5°  | 5445.0  | 5415.3  | 5349.1 | 5307.2 | 5268.4 | 5259.2 | 5243.3 | 5241.0 | 5238.7 | 5238.7 | 5231.8 |
| 5°    | 5323.2  | 5272.9  | 5170.2 | 5112.4 | 5064.4 | 5059.8 | 5057.6 | 5069.0 | 5073.5 | 5078.1 | 5071.3 |
| 7.5°  | 5245.5  | 5177.0  | 5048.4 | 4966.2 | 4909.1 | 4894.7 | 4918.3 | 4970.8 | 5005.0 | 5018.7 | 5011.9 |
| 10°   | 5197.6  | 5112.4  | 4963.9 | 4874.1 | 4826.2 | 4819.3 | 4849.0 | 4911.4 | 4982.2 | 5009.6 | 5007.3 |
| 12.5° | 5142.8  | 5046.1  | 4887.8 | 4794.2 | 4766.8 | 4780.5 | 4819.3 | 4876.4 | 4950.2 | 4993.6 | 4995.9 |
| 15°   | 5087.2  | 4975.4  | 4812.5 | 4730.3 | 4718.9 | 4737.1 | 4773.7 | 4817.0 | 4874.1 | 4918.3 | 4922.8 |
| 17.5° | 5021.0  | 4903.8  | 4741.7 | 4656.4 | 4647.3 | 4656.4 | 4658.7 | 4681.6 | 4718.9 | 4760.0 | 4771.4 |
| 20°   | 4950.2  | 4830.7  | 4661.0 | 4576.5 | 4535.4 | 4498.9 | 4457.0 | 4461.6 | 4473.0 | 4514.9 | 4524.0 |
| 22.5° | 4899.2  | 4780.5  | 4599.4 | 4482.2 | 4372.6 | 4262.2 | 4180.0 | 4168.6 | 4173.1 | 4207.4 | 4218.8 |
| 25°   | 4903.8  | 4778.2  | 4583.4 | 4381.7 | 4141.2 | 3964.6 | 3854.2 | 3836.0 | 3833.7 | 3858.8 | 3875.6 |
| 27.5° | 4993.6  | 4867.3  | 4642.7 | 4278.2 | 3889.3 | 3627.4 | 3511.0 | 3497.3 | 3479.0 | 3485.9 | 3504.1 |
| 30°   | 5193.0  | 5075.8  | 4787.4 | 4173.1 | 3616.0 | 3297.9 | 3176.1 | 3162.4 | 3137.3 | 3125.9 | 3139.6 |
| 32.5° | 5518.0  | 5422.1  | 4998.2 | 4071.9 | 3343.5 | 3015.5 | 2892.2 | 2862.5 | 2846.5 | 2832.8 | 2844.3 |
| 35°   | 6059.2  | 6018.1  | 5279.8 | 3962.3 | 3103.0 | 2797.8 | 2685.9 | 2640.3 | 2617.4 | 2642.6 | 2660.8 |
| 37.5° | 6907.0  | 6929.9  | 5648.9 | 3790.3 | 2917.3 | 2654.0 | 2559.6 | 2507.1 | 2472.8 | 2493.4 | 2513.9 |
| 40°   | 8108.1  | 8124.0  | 6056.9 | 3547.5 | 2756.7 | 2568.7 | 2468.3 | 2420.3 | 2371.6 | 2335.1 | 2332.8 |
| 42.5° | 9684.3  | 9522.2  | 6458.0 | 3284.2 | 2571.0 | 2516.2 | 2404.3 | 2344.2 | 2271.1 | 2169.9 | 2149.4 |
| 45°   | 11554.4 | 10984.3 | 6762.4 | 2981.3 | 2362.5 | 2452.3 | 2332.8 | 2250.6 | 2135.7 | 2026.1 | 2014.6 |
| 47.5° | 13709.0 | 12553.7 | 6911.6 | 2667.7 | 2167.6 | 2357.9 | 2246.0 | 2115.1 | 1970.5 | 1915.7 | 1908.9 |
| 50°   | 16339.4 | 14416.9 | 6982.4 | 2362.5 | 1998.7 | 2234.6 | 2119.7 | 1965.9 | 1844.9 | 1833.5 | 1826.7 |
| 52.5° | 19335.1 | 16658.3 | 7006.0 | 2112.8 | 1858.6 | 2074.0 | 2016.9 | 1867.8 | 1771.1 | 1781.0 | 1781.0 |
| 55°   | 22470.1 | 18972.9 | 6693.9 | 1931.7 | 1730.0 | 1908.9 | 1947.7 | 1828.9 | 1748.3 | 1785.6 | 1799.3 |
| 57.5° | 25347.9 | 21024.0 | 5712.9 | 1792.4 | 1609.0 | 1783.3 | 1922.6 | 1865.5 | 1810.7 | 1959.1 | 1968.2 |
| 60°   | 27557.4 | 22235.7 | 4266.8 | 1666.1 | 1519.2 | 1739.1 | 1989.5 | 2005.5 | 2019.2 | 2373.9 | 2422.6 |
| 62.5° | 28020.1 | 21833.1 | 2933.3 | 1567.9 | 1478.1 | 1776.4 | 2110.5 | 2112.8 | 2096.8 | 2344.2 | 2373.9 |
| 65°   | 25895.9 | 19281.9 | 2133.4 | 1512.3 | 1443.8 | 1842.6 | 2214.1 | 2165.3 | 2060.3 | 2248.3 | 2192.7 |
| 67.5° | 20565.1 | 14527.2 | 1776.4 | 1471.2 | 1393.6 | 1838.1 | 2323.7 | 2214.1 | 2039.8 | 2202.6 | 2112.8 |
| 70°   | 13349.0 | 8783.9  | 1581.6 | 1437.0 | 1333.5 | 1750.5 | 2387.6 | 2209.5 | 1979.6 | 2048.9 | 1943.1 |
| 72.5° | 6512.8  | 3928.1  | 1450.7 | 1386.7 | 1271.8 | 1629.5 | 2385.3 | 2167.6 | 1918.0 | 1913.4 | 1856.3 |
| 75°   | 2548.2  | 1799.3  | 1331.2 | 1310.6 | 1166.8 | 1491.8 | 2321.4 | 2108.3 | 1844.9 | 1771.1 | 1750.5 |
| 77.5° | 1491.8  | 1283.2  | 1180.5 | 1198.7 | 1040.4 | 1354.0 | 2227.8 | 2005.5 | 1743.7 | 1656.9 | 1634.1 |
| 80°   | 1086.1  | 960.5   | 1006.2 | 1035.9 | 889.0  | 1217.0 | 2101.4 | 1879.2 | 1631.8 | 1675.2 | 1643.2 |
| 82.5° | 696.4   | 618.8   | 815.9  | 845.6  | 740.6  | 1077.0 | 1963.7 | 1746.0 | 1473.5 | 1338.0 | 1306.1 |
| 85°   | 355.4   | 392.0   | 607.4  | 643.9  | 570.8  | 884.4  | 1797.0 | 1570.2 | 1294.6 | 1113.5 | 1131.8 |
| 87.5° | 199.4   | 267.9   | 387.4  | 433.1  | 403.4  | 680.4  | 1457.5 | 1294.6 | 1056.4 | 859.3  | 756.5  |
| 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)