

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: P510719

Luminaire Tested: **CST-CA8-230-730-U-T3**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510719  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-11)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-CA8-230-730-U-T3  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (8) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 35268 lumens  
Efficiency: N/A  
Efficacy: 154.4 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4

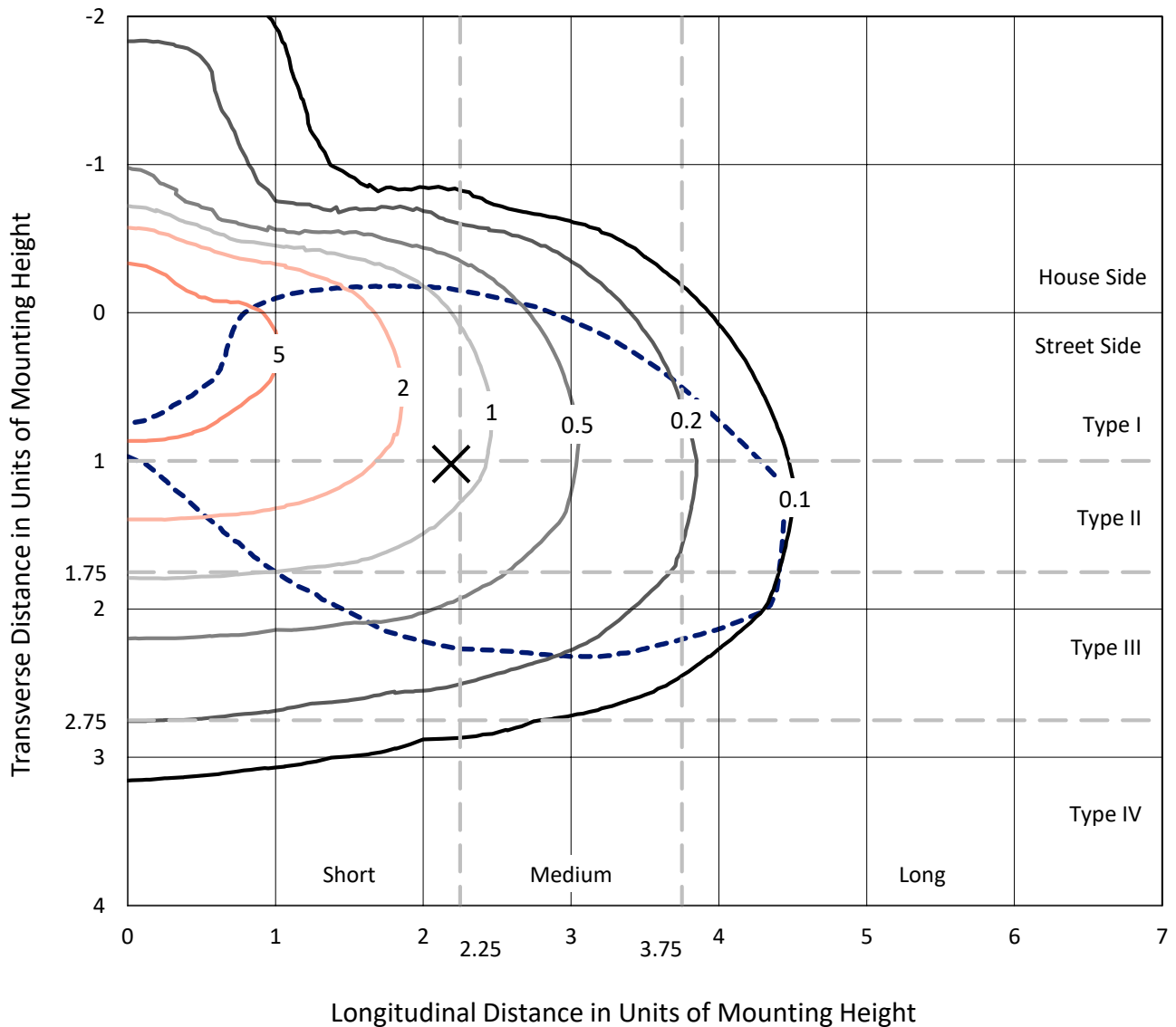
Input Watts (W): 228.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

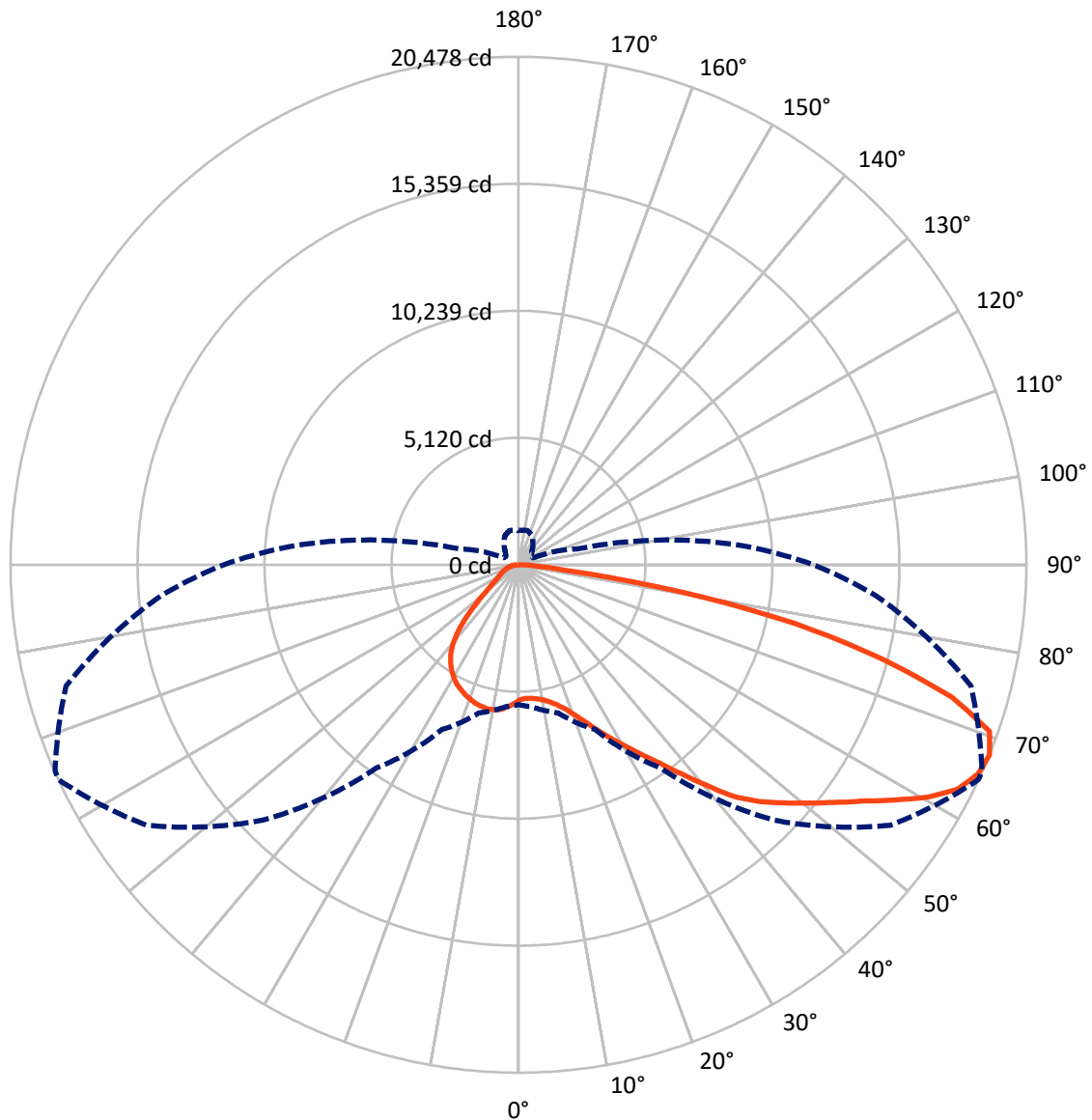
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.7 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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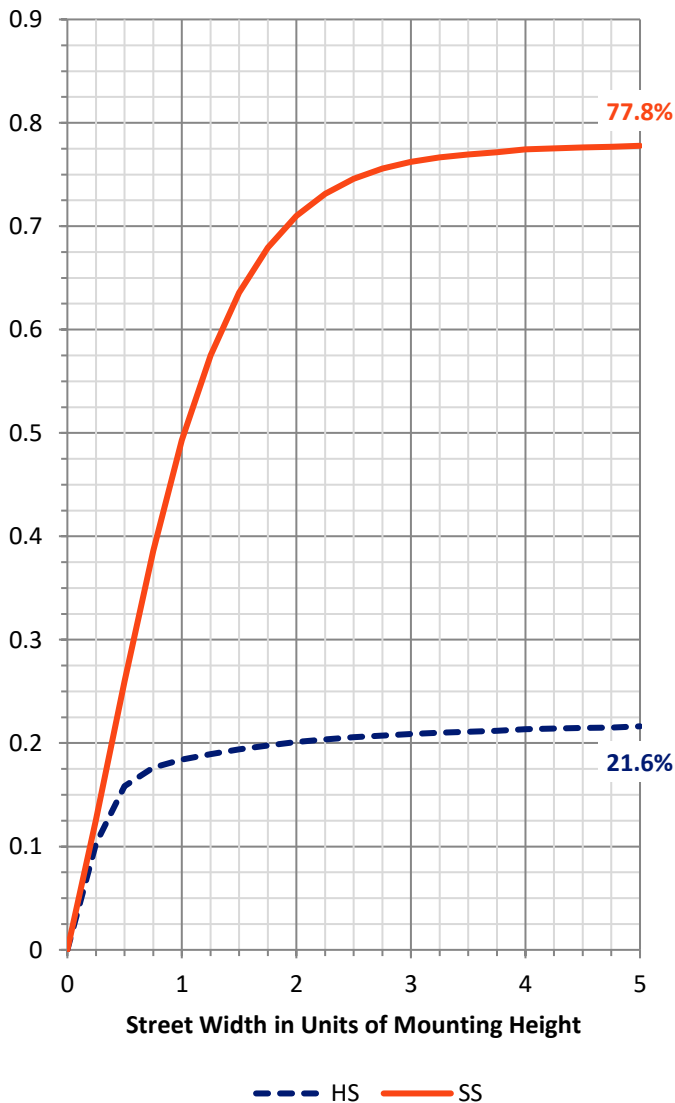
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7790.3   | 0.0    | 7790.3  |
|                    | % Fixture | 22.1     | 0.0    | 22.1    |
| <b>Street Side</b> | Lumens    | 27477.7  | 0.0    | 27477.7 |
|                    | % Fixture | 77.9     | 0.0    | 77.9    |
| <b>Total</b>       | Lumens    | 35268.0  | 0.0    | 35268.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 542.8   | 1.5       |
| 10°-20°   | 1695.8  | 4.8       |
| 20°-30°   | 2935.6  | 8.3       |
| 30°-40°   | 4313.6  | 12.2      |
| 40°-50°   | 5830.4  | 16.5      |
| 50°-60°   | 7169.6  | 20.3      |
| 60°-70°   | 7682.7  | 21.8      |
| 70°-80°   | 4531.2  | 12.8      |
| 80°-90°   | 566.4   | 1.6       |
| 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°    | 35268.0 | 100.0     |
| 0°-180°   | 35268.0 | 100.0     |

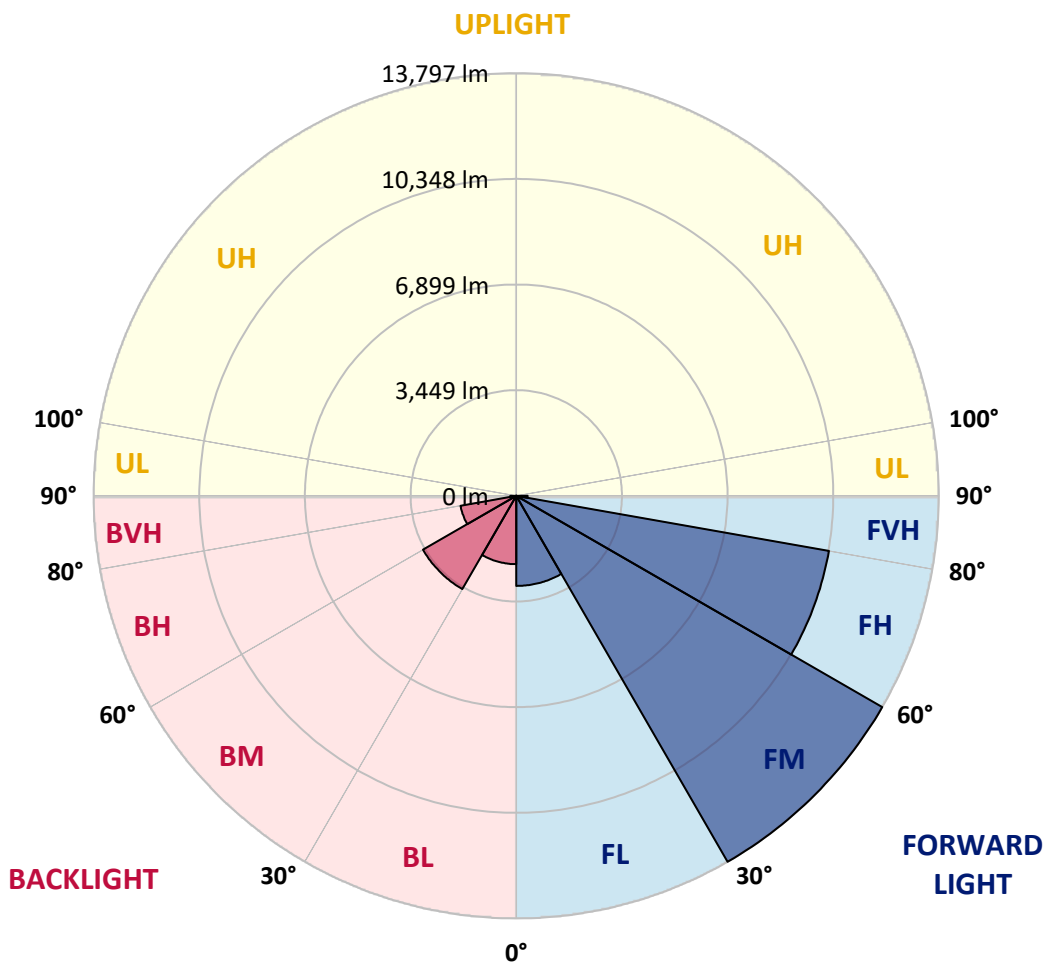


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|---------|-----------|-------------------------|------|----------|
|                |         |           | B                       | U    | G        |
| FL (0°-30°)    | 2942.8  | 8.3       |                         |      |          |
| FM (30°-60°)   | 13797.1 | 39.1      |                         |      |          |
| FH (60°-80°)   | 10366.4 | 29.4      |                         |      | G4/12000 |
| FVH (80°-90°)  | 371.4   | 1.1       |                         |      | G3/500   |
| BL (0°-30°)    | 2231.3  | 6.3       | B3/2500                 |      |          |
| BM (30°-60°)   | 3516.5  | 10.0      | B3/5000                 |      |          |
| BH (60°-80°)   | 1847.4  | 5.2       | B3/2500                 |      | G3/2500  |
| BVH (80°-90°)  | 195.0   | 0.6       |                         |      | G2/225   |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**  
 Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 66°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5447.6  | 5447.6  | 5447.6  | 5447.6  | 5447.6  | 5447.6  | 5447.6  | 5447.6  | 5447.6  | 5447.6  | 5447.6  |
| 2.5°  | 5344.7  | 5334.7  | 5330.4  | 5344.0  | 5354.1  | 5365.6  | 5382.1  | 5398.0  | 5400.1  | 5421.0  | 5448.3  |
| 5°    | 5409.5  | 5400.8  | 5391.5  | 5389.3  | 5385.7  | 5385.0  | 5389.3  | 5407.3  | 5411.6  | 5431.7  | 5490.7  |
| 7.5°  | 5553.3  | 5544.6  | 5527.4  | 5520.9  | 5501.5  | 5467.0  | 5450.4  | 5459.8  | 5462.0  | 5486.4  | 5559.7  |
| 10°   | 5787.7  | 5761.1  | 5740.2  | 5718.7  | 5657.5  | 5602.9  | 5562.6  | 5545.4  | 5541.8  | 5565.5  | 5650.3  |
| 12.5° | 6067.4  | 6045.1  | 6022.1  | 5965.3  | 5887.6  | 5789.1  | 5717.9  | 5678.4  | 5675.5  | 5695.6  | 5759.6  |
| 15°   | 6362.9  | 6362.9  | 6347.1  | 6279.5  | 6203.3  | 6040.1  | 5930.1  | 5863.9  | 5868.2  | 5884.0  | 5913.5  |
| 17.5° | 6744.7  | 6713.1  | 6705.9  | 6629.0  | 6544.1  | 6395.3  | 6220.6  | 6114.9  | 6119.9  | 6127.1  | 6104.8  |
| 20°   | 7133.0  | 7123.7  | 7112.9  | 7061.8  | 6984.9  | 6793.6  | 6597.3  | 6458.6  | 6459.3  | 6433.4  | 6334.2  |
| 22.5° | 7646.4  | 7615.5  | 7623.4  | 7565.9  | 7461.6  | 7265.3  | 7039.6  | 6874.9  | 6885.7  | 6848.3  | 6668.5  |
| 25°   | 8156.3  | 8125.3  | 8108.8  | 8070.0  | 7980.1  | 7793.8  | 7525.6  | 7374.6  | 7361.7  | 7294.1  | 7033.1  |
| 27.5° | 8665.3  | 8647.4  | 8661.0  | 8614.3  | 8540.9  | 8333.1  | 8087.2  | 7919.7  | 7928.3  | 7881.6  | 7492.6  |
| 30°   | 9192.4  | 9172.3  | 9232.0  | 9156.5  | 9111.2  | 8909.1  | 8673.3  | 8476.2  | 8483.4  | 8500.7  | 8064.2  |
| 32.5° | 9590.1  | 9613.8  | 9718.0  | 9709.4  | 9700.8  | 9475.7  | 9227.6  | 9118.4  | 9129.1  | 9189.5  | 8743.0  |
| 35°   | 9974.0  | 9976.2  | 10122.9 | 10233.6 | 10280.3 | 10092.0 | 9834.5  | 9830.9  | 9901.4  | 10085.5 | 9689.3  |
| 37.5° | 10292.6 | 10285.4 | 10481.0 | 10652.8 | 10780.8 | 10634.8 | 10493.2 | 10713.9 | 10777.9 | 11159.8 | 10642.0 |
| 40°   | 10466.6 | 10481.7 | 10733.4 | 10947.6 | 11199.3 | 11130.3 | 11145.4 | 11709.8 | 11867.3 | 12201.7 | 11354.6 |
| 42.5° | 10344.3 | 10390.4 | 10782.2 | 11219.4 | 11599.1 | 11691.1 | 11994.6 | 12785.5 | 12852.4 | 12912.8 | 12055.7 |
| 45°   | 10139.4 | 10187.6 | 10621.9 | 11328.0 | 11929.1 | 12318.2 | 12839.5 | 13613.2 | 13686.5 | 13618.9 | 12638.8 |
| 47.5° | 9925.9  | 9975.5  | 10459.4 | 11284.1 | 12202.4 | 12948.0 | 13590.9 | 14345.2 | 14438.6 | 14229.4 | 13199.7 |
| 50°   | 9654.8  | 9731.7  | 10260.9 | 11191.4 | 12423.9 | 13627.6 | 14302.0 | 15098.7 | 15141.9 | 14839.9 | 13624.7 |
| 52.5° | 9321.1  | 9406.0  | 9978.3  | 11032.5 | 12597.1 | 14102.1 | 15021.8 | 15916.3 | 15912.0 | 15553.2 | 14110.8 |
| 55°   | 8970.2  | 9047.2  | 9636.8  | 10782.2 | 12694.2 | 14467.4 | 15597.0 | 16817.3 | 16869.1 | 16568.5 | 14550.8 |
| 57.5° | 8520.8  | 8590.6  | 9233.4  | 10445.7 | 12593.5 | 14777.3 | 16528.9 | 17888.0 | 17913.8 | 17275.3 | 14901.0 |
| 60°   | 7925.4  | 8028.3  | 8674.0  | 10017.9 | 12304.5 | 15136.1 | 17555.8 | 19014.0 | 19045.6 | 17970.7 | 15126.1 |
| 62.5° | 7271.8  | 7312.8  | 7970.7  | 9359.2  | 11883.8 | 15413.0 | 18267.6 | 19894.8 | 19848.8 | 18514.3 | 15193.7 |
| 65°   | 6475.1  | 6507.5  | 7077.0  | 8512.2  | 11102.2 | 15261.2 | 18522.9 | 20347.8 | 20291.0 | 18855.8 | 14985.8 |
| 67.5° | 5641.0  | 5740.9  | 6188.2  | 7337.2  | 10011.4 | 14560.9 | 18307.2 | 20478.0 | 20449.2 | 18881.7 | 14489.7 |
| 70°   | 4558.1  | 4593.3  | 4997.4  | 5977.5  | 8353.3  | 13158.7 | 17588.1 | 20144.4 | 20122.1 | 18303.6 | 13476.5 |
| 72.5° | 3214.2  | 3179.7  | 3376.0  | 4144.6  | 6033.6  | 10467.3 | 15016.8 | 18269.8 | 18307.2 | 16373.6 | 11735.7 |
| 75°   | 1706.3  | 1772.5  | 2078.1  | 2537.5  | 3420.5  | 6728.9  | 11972.3 | 15120.3 | 15107.4 | 13691.5 | 9276.5  |
| 77.5° | 908.9   | 907.4   | 1117.4  | 1313.7  | 1674.7  | 3091.9  | 7896.7  | 11402.8 | 11466.1 | 10608.2 | 6369.4  |
| 80°   | 436.5   | 453.0   | 465.9   | 534.3   | 834.8   | 1428.8  | 3303.3  | 6612.4  | 7043.9  | 6327.0  | 3025.8  |
| 82.5° | 349.5   | 350.9   | 352.3   | 337.2   | 345.1   | 581.7   | 1272.7  | 1913.4  | 1982.4  | 1593.4  | 975.8   |
| 85°   | 258.9   | 243.0   | 240.9   | 204.2   | 230.8   | 349.5   | 642.1   | 816.8   | 776.6   | 755.7   | 550.8   |
| 87.5° | 104.3   | 97.8    | 94.9    | 89.2    | 89.2    | 131.6   | 226.5   | 295.5   | 294.8   | 268.9   | 184.8   |
| 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°    | 5447.6  | 5447.6  | 5447.6 | 5447.6 | 5447.6 | 5447.6 | 5447.6 | 5447.6 | 5447.6 | 5447.6 | 5447.6 |
| 2.5°  | 5469.9  | 5495.7  | 5556.1 | 5607.9 | 5627.3 | 5674.8 | 5719.4 | 5745.3 | 5763.2 | 5774.0 | 5822.9 |
| 5°    | 5526.7  | 5578.4  | 5674.8 | 5747.4 | 5817.9 | 5905.6 | 5962.4 | 5998.4 | 6018.5 | 6030.0 | 6065.2 |
| 7.5°  | 5613.7  | 5666.2  | 5768.3 | 5879.7 | 5944.4 | 6016.3 | 6053.0 | 6078.9 | 6091.8 | 6088.2 | 6116.3 |
| 10°   | 5691.3  | 5743.1  | 5845.2 | 5930.8 | 5967.4 | 6008.4 | 6027.8 | 6033.6 | 6034.3 | 6037.2 | 6065.2 |
| 12.5° | 5797.0  | 5828.7  | 5883.3 | 5939.4 | 5931.5 | 5932.9 | 5949.5 | 5942.3 | 5925.7 | 5922.9 | 5941.6 |
| 15°   | 5910.6  | 5911.4  | 5915.7 | 5903.5 | 5853.8 | 5832.3 | 5809.3 | 5789.8 | 5744.5 | 5741.7 | 5771.1 |
| 17.5° | 6053.0  | 6019.2  | 5940.8 | 5857.4 | 5739.5 | 5658.3 | 5576.3 | 5542.5 | 5487.1 | 5476.3 | 5490.7 |
| 20°   | 6236.4  | 6165.9  | 5975.4 | 5768.3 | 5547.5 | 5402.3 | 5303.0 | 5203.1 | 5126.2 | 5107.5 | 5121.1 |
| 22.5° | 6499.5  | 6360.8  | 6019.2 | 5673.4 | 5331.8 | 5083.7 | 4891.0 | 4770.9 | 4641.5 | 4575.4 | 4581.8 |
| 25°   | 6817.4  | 6600.2  | 6095.4 | 5553.3 | 5078.0 | 4719.9 | 4407.1 | 4166.2 | 4020.2 | 3923.2 | 3949.1 |
| 27.5° | 7233.7  | 6935.3  | 6186.8 | 5434.6 | 4762.3 | 4254.7 | 3800.9 | 3474.5 | 3325.6 | 3279.6 | 3249.4 |
| 30°   | 7716.2  | 7340.1  | 6283.1 | 5259.2 | 4421.5 | 3678.7 | 3097.7 | 2825.9 | 2655.5 | 2628.2 | 2605.1 |
| 32.5° | 8361.9  | 7849.9  | 6463.6 | 5068.6 | 4014.5 | 3102.7 | 2472.1 | 2159.3 | 2120.5 | 2098.2 | 2093.2 |
| 35°   | 9194.6  | 8517.9  | 6652.7 | 4821.3 | 3483.8 | 2427.5 | 1870.3 | 1701.3 | 1682.6 | 1707.0 | 1709.2 |
| 37.5° | 10078.3 | 9242.7  | 6879.2 | 4542.3 | 2873.3 | 1811.3 | 1430.9 | 1313.7 | 1334.6 | 1410.8 | 1428.0 |
| 40°   | 10676.5 | 9720.2  | 7084.9 | 4163.3 | 2119.1 | 1315.9 | 1041.2 | 1016.0 | 1131.1 | 1228.9 | 1249.0 |
| 42.5° | 11250.4 | 10081.9 | 7168.3 | 3662.2 | 1511.5 | 936.9  | 840.6  | 926.9  | 1087.9 | 1195.1 | 1209.5 |
| 45°   | 11740.0 | 10502.5 | 6958.3 | 3061.0 | 1024.7 | 783.1  | 805.3  | 924.7  | 1103.8 | 1222.4 | 1233.2 |
| 47.5° | 12206.0 | 10846.2 | 6671.4 | 2411.7 | 808.2  | 753.6  | 804.6  | 944.1  | 1139.0 | 1251.2 | 1257.6 |
| 50°   | 12651.1 | 11108.0 | 6181.7 | 1835.0 | 757.2  | 739.9  | 811.1  | 974.3  | 1158.4 | 1228.9 | 1226.0 |
| 52.5° | 12981.1 | 11243.2 | 5660.4 | 1481.3 | 737.0  | 729.1  | 828.4  | 1012.4 | 1162.0 | 1204.4 | 1201.5 |
| 55°   | 13223.4 | 11217.3 | 5318.1 | 1213.0 | 720.5  | 724.8  | 856.4  | 1041.2 | 1196.5 | 1260.5 | 1258.3 |
| 57.5° | 13245.7 | 11100.1 | 4929.1 | 1024.7 | 700.4  | 724.1  | 886.6  | 1081.5 | 1369.1 | 1487.0 | 1451.1 |
| 60°   | 13219.1 | 10905.9 | 4540.8 | 899.5  | 678.1  | 728.4  | 918.2  | 1202.3 | 1617.9 | 1710.6 | 1685.5 |
| 62.5° | 13088.3 | 10544.2 | 3959.1 | 816.8  | 658.7  | 744.2  | 942.0  | 1297.9 | 1605.7 | 1616.4 | 1580.5 |
| 65°   | 12684.1 | 10060.3 | 3195.5 | 733.4  | 639.2  | 755.0  | 961.4  | 1323.1 | 1474.8 | 1440.3 | 1422.3 |
| 67.5° | 11884.6 | 8979.6  | 2464.9 | 657.2  | 614.1  | 752.9  | 1018.9 | 1287.1 | 1425.2 | 1400.0 | 1377.0 |
| 70°   | 10748.5 | 7751.4  | 1711.4 | 578.8  | 571.6  | 739.2  | 1004.5 | 1299.3 | 1401.4 | 1362.6 | 1331.7 |
| 72.5° | 8979.6  | 6081.1  | 1088.7 | 514.8  | 508.4  | 706.8  | 968.6  | 1291.4 | 1385.6 | 1368.4 | 1325.9 |
| 75°   | 6761.3  | 4244.6  | 691.7  | 445.1  | 452.3  | 647.9  | 911.0  | 1249.0 | 1377.7 | 1323.8 | 1242.5 |
| 77.5° | 4256.8  | 2095.3  | 537.9  | 378.2  | 389.0  | 558.7  | 787.4  | 1090.8 | 1322.3 | 1290.0 | 1185.7 |
| 80°   | 1610.0  | 850.6   | 420.6  | 307.0  | 316.4  | 434.3  | 645.7  | 897.4  | 1217.4 | 1270.6 | 1226.0 |
| 82.5° | 741.3   | 532.1   | 315.7  | 246.6  | 250.2  | 316.4  | 481.8  | 664.4  | 1030.4 | 1166.3 | 1277.8 |
| 85°   | 432.9   | 348.7   | 210.7  | 164.7  | 171.1  | 187.0  | 271.1  | 405.5  | 668.0  | 889.5  | 995.2  |
| 87.5° | 147.4   | 121.5   | 82.0   | 69.7   | 67.6   | 76.9   | 65.4   | 133.0  | 198.5  | 349.5  | 399.1  |
| 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)