

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: P510800

Luminaire Tested: **CST-CA8-330-750-U-T4-HSS**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510800  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-17)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-CA8-330-750-U-T4-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (8) 5000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 44109 lumens  
Efficiency: N/A  
Efficacy: 133.1 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

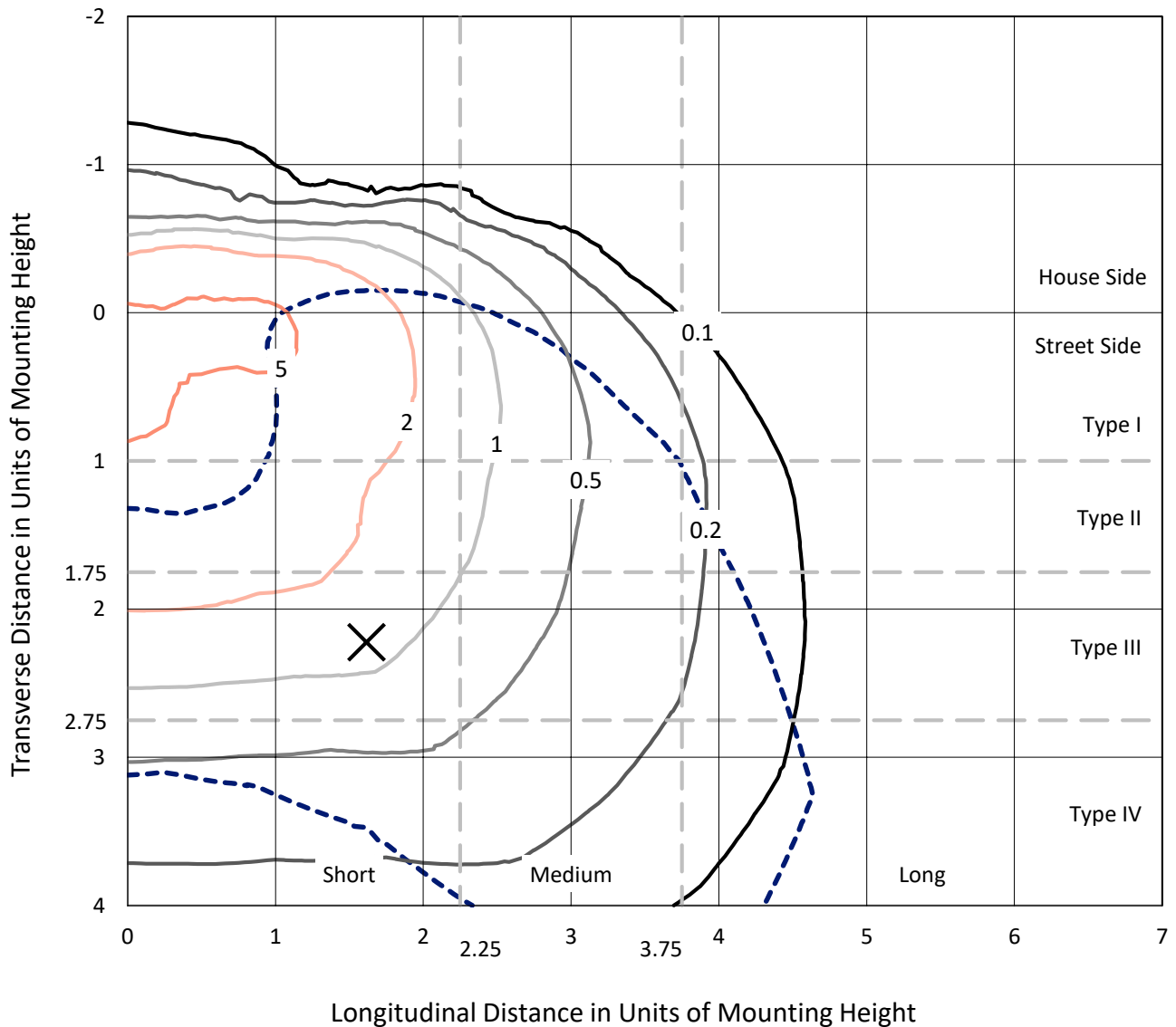
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

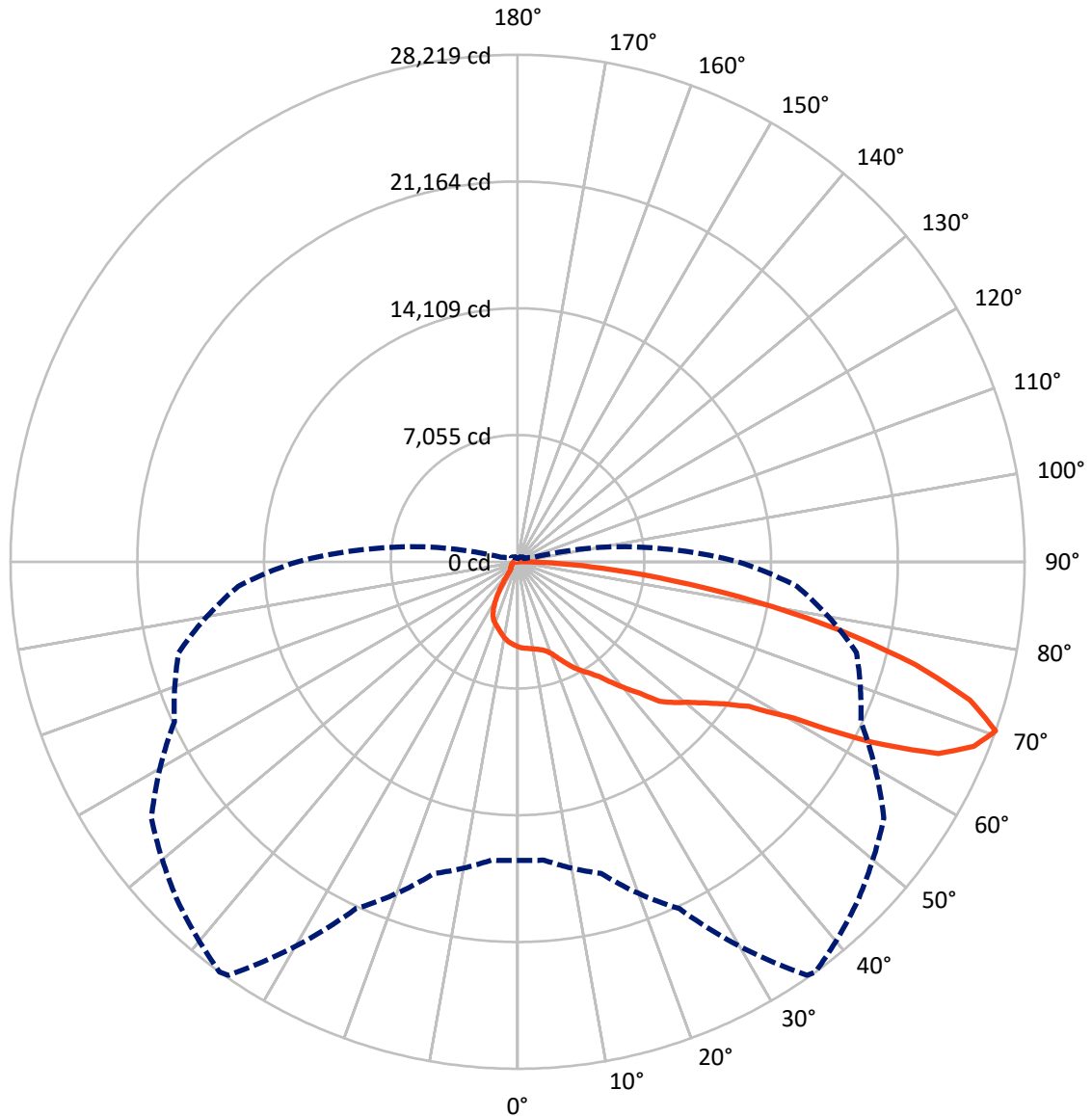
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical



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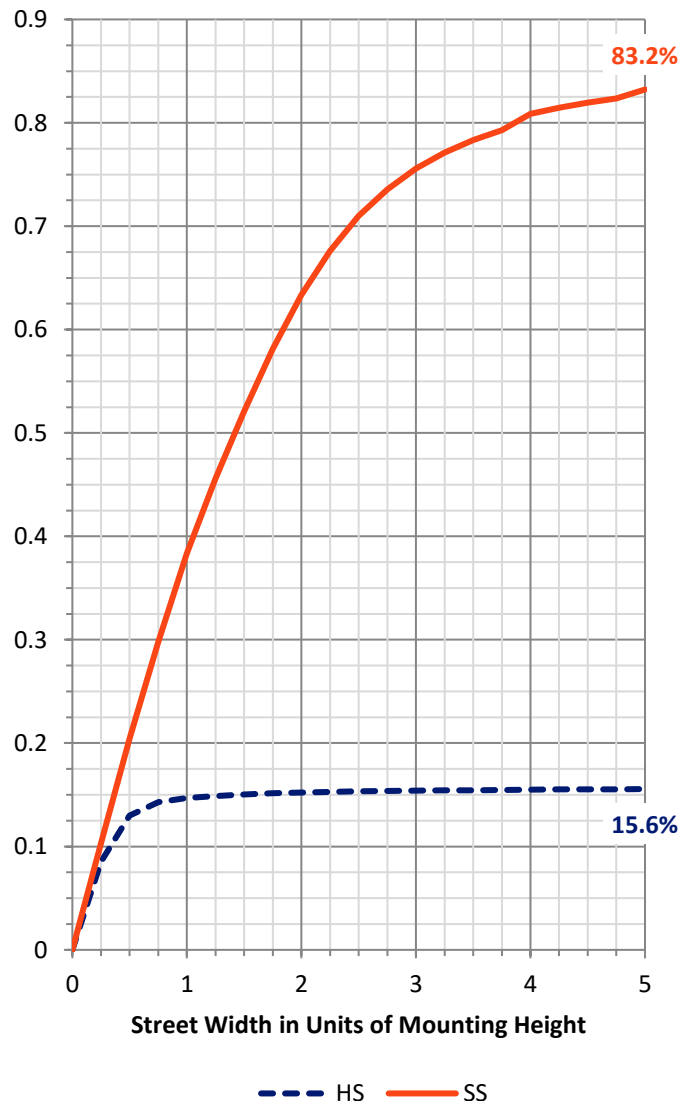
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6960.7   | 0.0    | 6960.7  |
|                    | % Fixture | 15.8     | 0.0    | 15.8    |
| <b>Street Side</b> | Lumens    | 37148.3  | 0.0    | 37148.3 |
|                    | % Fixture | 84.2     | 0.0    | 84.2    |
| <b>Total</b>       | Lumens    | 44109.0  | 0.0    | 44109.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 448.2   | 1.0       |
| 10°-20°   | 1332.9  | 3.0       |
| 20°-30°   | 2397.0  | 5.4       |
| 30°-40°   | 3793.2  | 8.6       |
| 40°-50°   | 5928.1  | 13.4      |
| 50°-60°   | 8512.6  | 19.3      |
| 60°-70°   | 11546.6 | 26.2      |
| 70°-80°   | 8545.7  | 19.4      |
| 80°-90°   | 1604.6  | 3.6       |
| 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°    | 44109.0 | 100.0     |
| 0°-180°   | 44109.0 | 100.0     |

**Coefficient of Utilization**

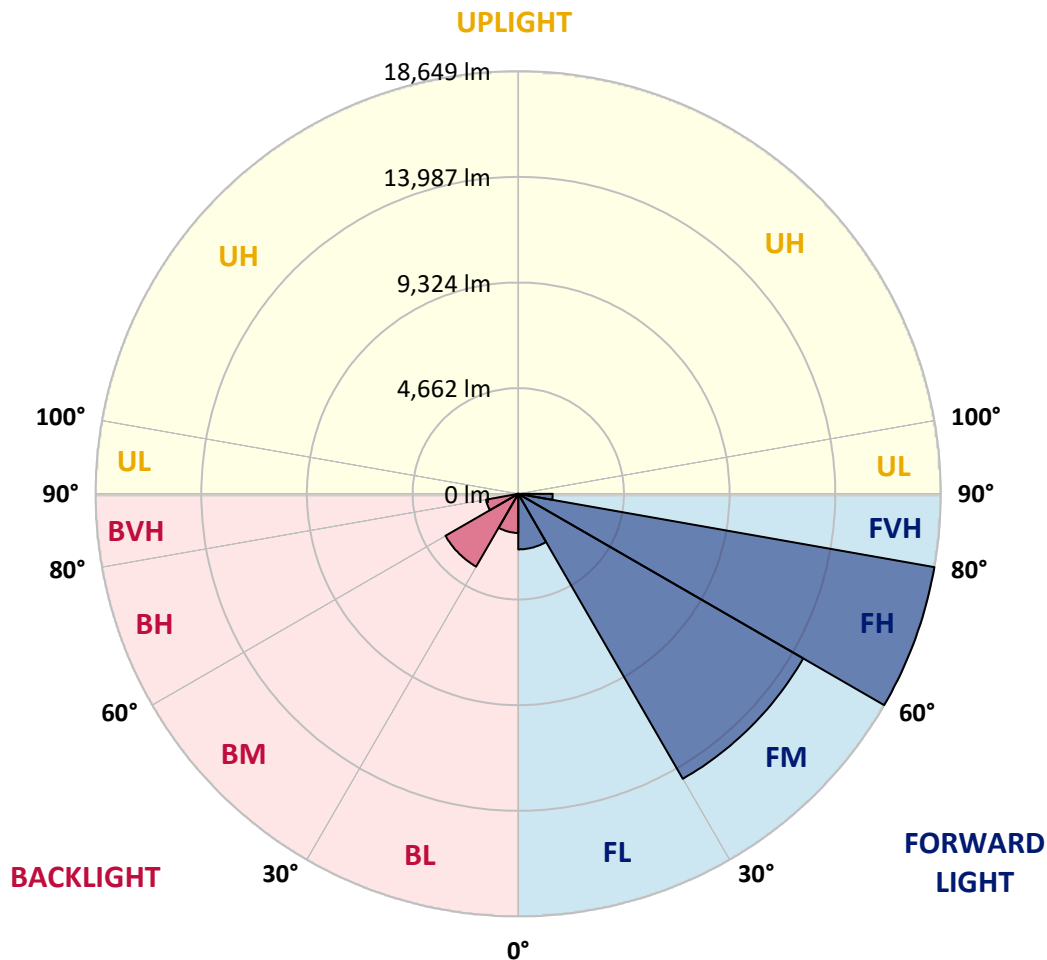


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 2453.3  | 5.6       |                         |      |         |
| FM (30°-60°)   | 14524.7 | 32.9      |                         |      |         |
| FH (60°-80°)   | 18648.8 | 42.3      |                         |      | G5      |
| FVH (80°-90°)  | 1521.4  | 3.4       |                         |      | G5      |
| BL (0°-30°)    | 1724.8  | 3.9       | B3/2500                 |      |         |
| BM (30°-60°)   | 3709.2  | 8.4       | B3/5000                 |      |         |
| BH (60°-80°)   | 1443.5  | 3.3       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 83.2    | 0.2       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

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





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 36°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4726.1  | 4726.1  | 4726.1  | 4726.1  | 4726.1  | 4726.1  | 4726.1  | 4726.1  | 4726.1  | 4726.1  | 4726.1  |
| 2.5°  | 4821.8  | 4811.6  | 4803.5  | 4806.5  | 4800.4  | 4804.5  | 4795.3  | 4784.1  | 4757.6  | 4746.4  | 4741.3  |
| 5°    | 4864.6  | 4861.5  | 4853.4  | 4847.2  | 4836.0  | 4832.0  | 4821.8  | 4830.9  | 4816.7  | 4780.0  | 4758.6  |
| 7.5°  | 4890.0  | 4889.0  | 4879.8  | 4866.6  | 4872.7  | 4877.8  | 4888.0  | 4873.7  | 4855.4  | 4838.1  | 4794.3  |
| 10°   | 4901.2  | 4901.2  | 4890.0  | 4897.1  | 4928.7  | 4931.8  | 4936.9  | 4946.0  | 4928.7  | 4903.2  | 4859.5  |
| 12.5° | 4929.7  | 4927.7  | 4931.8  | 4955.2  | 4987.8  | 4994.9  | 5020.4  | 5020.4  | 5022.4  | 5007.1  | 4956.2  |
| 15°   | 5001.0  | 5001.0  | 5010.2  | 5031.6  | 5087.6  | 5091.6  | 5129.3  | 5162.9  | 5167.0  | 5144.6  | 5105.9  |
| 17.5° | 5166.0  | 5161.9  | 5156.8  | 5170.1  | 5230.1  | 5232.2  | 5297.3  | 5340.1  | 5351.3  | 5375.8  | 5369.6  |
| 20°   | 5479.6  | 5475.5  | 5474.5  | 5475.5  | 5471.5  | 5465.4  | 5529.5  | 5575.3  | 5632.4  | 5675.1  | 5696.5  |
| 22.5° | 5928.7  | 5919.5  | 5919.5  | 5869.6  | 5830.9  | 5837.1  | 5847.2  | 5872.7  | 5948.1  | 6023.4  | 6103.9  |
| 25°   | 6412.4  | 6406.3  | 6411.4  | 6284.1  | 6232.2  | 6252.5  | 6239.3  | 6279.0  | 6377.8  | 6443.0  | 6528.5  |
| 27.5° | 6807.5  | 6816.7  | 6788.2  | 6689.4  | 6655.8  | 6671.1  | 6640.5  | 6754.6  | 6863.5  | 6977.6  | 7106.9  |
| 30°   | 7299.4  | 7250.5  | 7180.2  | 7060.1  | 7047.8  | 7049.9  | 7047.8  | 7231.1  | 7457.2  | 7620.1  | 7799.4  |
| 32.5° | 7941.9  | 7950.1  | 7792.2  | 7509.1  | 7405.3  | 7391.0  | 7431.8  | 7700.6  | 8006.1  | 8367.6  | 8603.9  |
| 35°   | 8591.6  | 8604.9  | 8489.8  | 8194.5  | 7898.2  | 7853.3  | 7793.3  | 8142.5  | 8583.5  | 9308.5  | 9664.9  |
| 37.5° | 9281.0  | 9327.9  | 9191.4  | 8927.7  | 8576.4  | 8534.6  | 8250.5  | 8593.7  | 9245.4  | 10422.6 | 10890.0 |
| 40°   | 10203.6 | 10153.7 | 9988.8  | 9653.7  | 9326.9  | 9259.7  | 8929.7  | 9110.0  | 10096.7 | 11817.7 | 12156.8 |
| 42.5° | 10883.9 | 10869.6 | 10730.1 | 10399.2 | 10070.2 | 10016.3 | 9750.5  | 9946.0  | 11169.0 | 13232.2 | 13383.9 |
| 45°   | 11423.6 | 11511.2 | 11508.1 | 11300.4 | 11115.0 | 11084.5 | 10927.7 | 11215.9 | 12465.4 | 14567.2 | 14492.8 |
| 47.5° | 11903.2 | 11957.2 | 11870.6 | 11780.0 | 11693.5 | 11703.6 | 11819.7 | 12412.4 | 13790.2 | 15733.2 | 15404.2 |
| 50°   | 12688.4 | 12619.1 | 12231.1 | 12161.9 | 12284.1 | 12289.2 | 12642.5 | 13555.0 | 15249.5 | 16741.3 | 16176.1 |
| 52.5° | 13735.2 | 13659.8 | 12862.5 | 12744.4 | 13033.6 | 13055.0 | 13642.5 | 14693.5 | 16754.5 | 17704.6 | 16944.0 |
| 55°   | 15293.2 | 15118.1 | 14263.7 | 13734.2 | 13866.6 | 13953.1 | 14664.9 | 15788.2 | 17932.8 | 18553.9 | 17525.4 |
| 57.5° | 17206.7 | 17334.0 | 16896.1 | 15699.6 | 15148.6 | 15181.2 | 15835.0 | 16836.0 | 18972.5 | 19297.3 | 17865.5 |
| 60°   | 19229.1 | 19198.5 | 19381.8 | 18877.8 | 17822.8 | 17647.6 | 17314.6 | 17905.3 | 19778.0 | 19923.6 | 18215.8 |
| 62.5° | 20337.0 | 20515.2 | 21126.2 | 21227.0 | 22179.2 | 22086.5 | 19816.7 | 19231.1 | 20708.7 | 20316.7 | 18311.6 |
| 65°   | 20330.9 | 20408.3 | 21545.8 | 22796.3 | 25770.8 | 25744.3 | 24689.4 | 21148.6 | 21402.2 | 20526.4 | 18120.1 |
| 67.5° | 19017.3 | 19137.4 | 20467.4 | 22910.3 | 27430.7 | 27399.1 | 26670.0 | 23844.1 | 21620.1 | 20273.9 | 17227.1 |
| 70°   | 16622.2 | 16662.9 | 17960.2 | 21304.4 | 28097.7 | 28218.9 | 26738.2 | 24878.8 | 21078.4 | 19523.4 | 15598.7 |
| 72.5° | 13712.8 | 13628.3 | 14897.1 | 18193.4 | 26399.1 | 26326.8 | 25607.9 | 23643.5 | 20165.9 | 18066.2 | 12722.0 |
| 75°   | 10096.7 | 10332.0 | 11470.4 | 14607.9 | 22602.8 | 22867.6 | 23186.3 | 21753.5 | 17910.4 | 14889.0 | 8797.3  |
| 77.5° | 6667.0  | 6966.4  | 8117.1  | 10953.1 | 17894.1 | 18305.5 | 19131.3 | 18502.0 | 14570.2 | 10680.2 | 4189.4  |
| 80°   | 3445.0  | 3671.1  | 4706.7  | 7267.8  | 12827.9 | 13421.6 | 14935.8 | 14013.2 | 10329.9 | 4828.9  | 937.9   |
| 82.5° | 1303.5  | 1273.9  | 2109.0  | 4159.9  | 8225.0  | 8764.7  | 9865.6  | 8403.2  | 3676.2  | 848.3   | 435.8   |
| 85°   | 572.3   | 605.9   | 873.7   | 1897.1  | 4702.6  | 4772.9  | 5588.6  | 3276.0  | 538.7   | 405.3   | 296.3   |
| 87.5° | 247.5   | 284.1   | 366.6   | 545.8   | 1586.6  | 1832.0  | 2266.8  | 1040.7  | 162.9   | 140.5   | 148.7   |
| 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°    | 4726.1  | 4726.1  | 4726.1 | 4726.1 | 4726.1 | 4726.1 | 4726.1 | 4726.1 | 4726.1 | 4726.1 | 4726.1 |
| 2.5°  | 4732.2  | 4726.1  | 4715.9 | 4690.4 | 4648.7 | 4643.6 | 4639.5 | 4635.4 | 4627.3 | 4631.4 | 4654.8 |
| 5°    | 4742.4  | 4731.2  | 4694.5 | 4657.8 | 4621.2 | 4588.6 | 4548.9 | 4533.6 | 4513.2 | 4500.0 | 4524.4 |
| 7.5°  | 4777.0  | 4753.6  | 4699.6 | 4649.7 | 4549.9 | 4502.0 | 4451.1 | 4391.0 | 4348.3 | 4320.8 | 4345.2 |
| 10°   | 4835.0  | 4805.5  | 4738.3 | 4635.4 | 4518.3 | 4387.0 | 4297.3 | 4197.5 | 4116.1 | 4093.7 | 4116.1 |
| 12.5° | 4929.7  | 4885.9  | 4807.5 | 4668.0 | 4460.3 | 4288.2 | 4118.1 | 3986.8 | 3855.4 | 3817.7 | 3828.9 |
| 15°   | 5083.5  | 5048.9  | 4928.7 | 4736.2 | 4461.3 | 4198.6 | 3946.0 | 3734.2 | 3562.1 | 3502.0 | 3498.0 |
| 17.5° | 5329.9  | 5293.3  | 5154.8 | 4871.7 | 4498.0 | 4128.3 | 3777.0 | 3454.2 | 3193.5 | 3061.1 | 3039.7 |
| 20°   | 5683.3  | 5632.4  | 5422.6 | 5071.3 | 4577.4 | 4097.8 | 3620.2 | 3186.3 | 2781.1 | 2532.6 | 2494.9 |
| 22.5° | 6076.4  | 6022.4  | 5712.8 | 5225.0 | 4634.4 | 4037.7 | 3470.5 | 2890.0 | 2356.4 | 2052.9 | 2010.2 |
| 25°   | 6565.2  | 6447.0  | 5990.8 | 5370.7 | 4621.2 | 3911.4 | 3227.1 | 2487.8 | 1909.4 | 1646.6 | 1618.1 |
| 27.5° | 7047.8  | 6898.2  | 6273.9 | 5447.0 | 4563.1 | 3710.8 | 2870.7 | 2017.3 | 1494.9 | 1308.6 | 1285.1 |
| 30°   | 7646.6  | 7357.4  | 6525.4 | 5482.7 | 4416.5 | 3410.4 | 2393.1 | 1533.6 | 1119.1 | 990.8  | 968.4  |
| 32.5° | 8358.4  | 7920.6  | 6761.7 | 5443.0 | 4172.1 | 2952.1 | 1860.5 | 1123.2 | 832.0  | 751.5  | 750.5  |
| 35°   | 9297.3  | 8611.0  | 7021.4 | 5312.6 | 3797.3 | 2458.2 | 1304.5 | 767.8  | 648.7  | 621.2  | 626.3  |
| 37.5° | 10395.1 | 9545.8  | 7285.1 | 5098.8 | 3373.7 | 1880.9 | 869.7  | 591.6  | 570.3  | 571.3  | 572.3  |
| 40°   | 11552.9 | 10578.4 | 7640.5 | 4798.4 | 2859.5 | 1361.5 | 626.3  | 531.6  | 530.5  | 540.7  | 543.8  |
| 42.5° | 12658.8 | 11581.4 | 8078.4 | 4398.2 | 2320.8 | 900.2  | 542.8  | 507.1  | 493.9  | 498.0  | 501.0  |
| 45°   | 13686.3 | 12441.9 | 8451.1 | 4008.1 | 1743.4 | 642.6  | 532.6  | 478.6  | 458.2  | 456.2  | 458.2  |
| 47.5° | 14514.2 | 13131.3 | 8678.2 | 3549.9 | 1242.4 | 533.6  | 511.2  | 452.1  | 423.6  | 417.5  | 414.5  |
| 50°   | 15144.6 | 13643.6 | 8760.7 | 3030.5 | 840.1  | 509.2  | 482.7  | 421.6  | 387.0  | 388.0  | 388.0  |
| 52.5° | 15759.6 | 14108.9 | 8665.0 | 2507.1 | 618.1  | 487.8  | 463.3  | 397.1  | 360.5  | 379.8  | 384.9  |
| 55°   | 16202.6 | 14304.5 | 8385.9 | 1940.9 | 515.3  | 461.3  | 442.0  | 368.6  | 343.2  | 374.7  | 384.9  |
| 57.5° | 16461.3 | 14458.2 | 7873.7 | 1401.2 | 472.5  | 435.8  | 414.5  | 342.2  | 318.7  | 326.9  | 332.0  |
| 60°   | 16622.2 | 14243.4 | 7196.5 | 958.2  | 450.1  | 415.5  | 387.0  | 324.8  | 293.3  | 273.9  | 270.9  |
| 62.5° | 16533.6 | 13705.7 | 6304.5 | 658.9  | 426.7  | 393.1  | 363.5  | 308.6  | 266.8  | 241.3  | 239.3  |
| 65°   | 15811.6 | 12710.8 | 4840.1 | 533.6  | 412.4  | 382.9  | 349.3  | 293.3  | 248.5  | 224.0  | 221.0  |
| 67.5° | 14472.5 | 10922.6 | 2826.9 | 474.5  | 406.3  | 372.7  | 338.1  | 279.0  | 238.3  | 211.8  | 207.7  |
| 70°   | 12271.9 | 8215.9  | 947.0  | 423.6  | 405.3  | 371.7  | 328.9  | 268.8  | 227.1  | 199.6  | 195.5  |
| 72.5° | 8853.3  | 4957.2  | 461.3  | 372.7  | 378.8  | 356.4  | 321.8  | 260.7  | 220.0  | 185.3  | 178.2  |
| 75°   | 5031.6  | 1614.0  | 416.5  | 321.8  | 352.3  | 340.1  | 317.7  | 261.7  | 223.0  | 168.0  | 159.9  |
| 77.5° | 1431.8  | 471.5   | 402.2  | 273.9  | 333.0  | 351.3  | 297.4  | 236.3  | 228.1  | 155.8  | 145.6  |
| 80°   | 483.7   | 419.6   | 388.0  | 212.8  | 268.8  | 290.2  | 257.6  | 207.7  | 230.1  | 141.5  | 131.4  |
| 82.5° | 388.0   | 421.6   | 325.9  | 170.1  | 204.7  | 220.0  | 204.7  | 186.4  | 186.4  | 126.3  | 118.1  |
| 85°   | 310.6   | 391.0   | 206.7  | 135.4  | 152.7  | 169.0  | 144.6  | 139.5  | 130.3  | 105.9  | 102.9  |
| 87.5° | 180.2   | 122.2   | 85.5   | 69.2   | 64.2   | 65.2   | 56.0   | 67.2   | 82.5   | 72.3   | 71.3   |
| 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)