

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: P510726

Luminaire Tested: **CST-CA8-230-740-U-T2-HSS**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510726  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-15)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-CA8-230-740-U-T2-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (8) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32625 lumens  
Efficiency: N/A  
Efficacy: 142.8 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G4

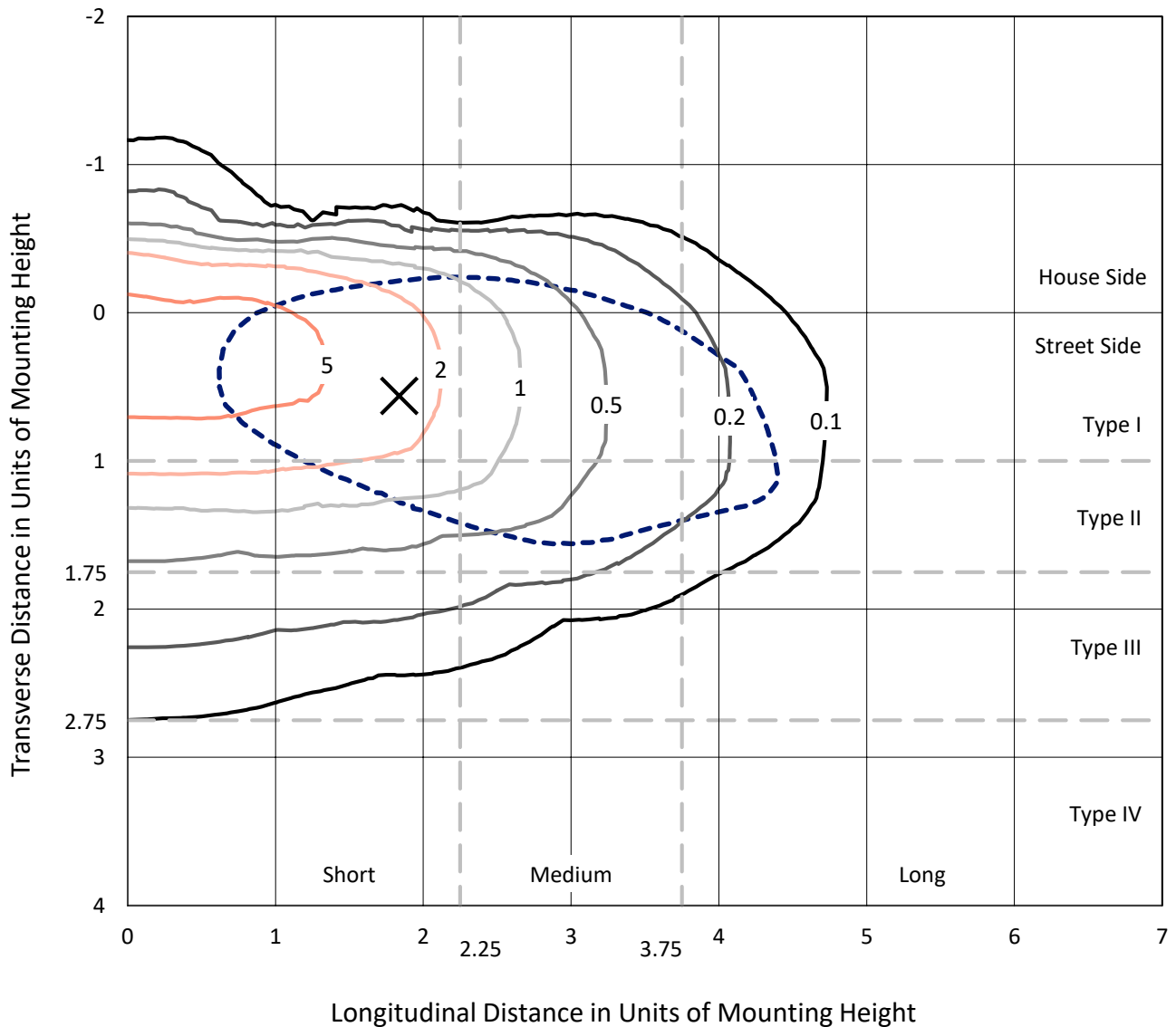
Input Watts (W): 228.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

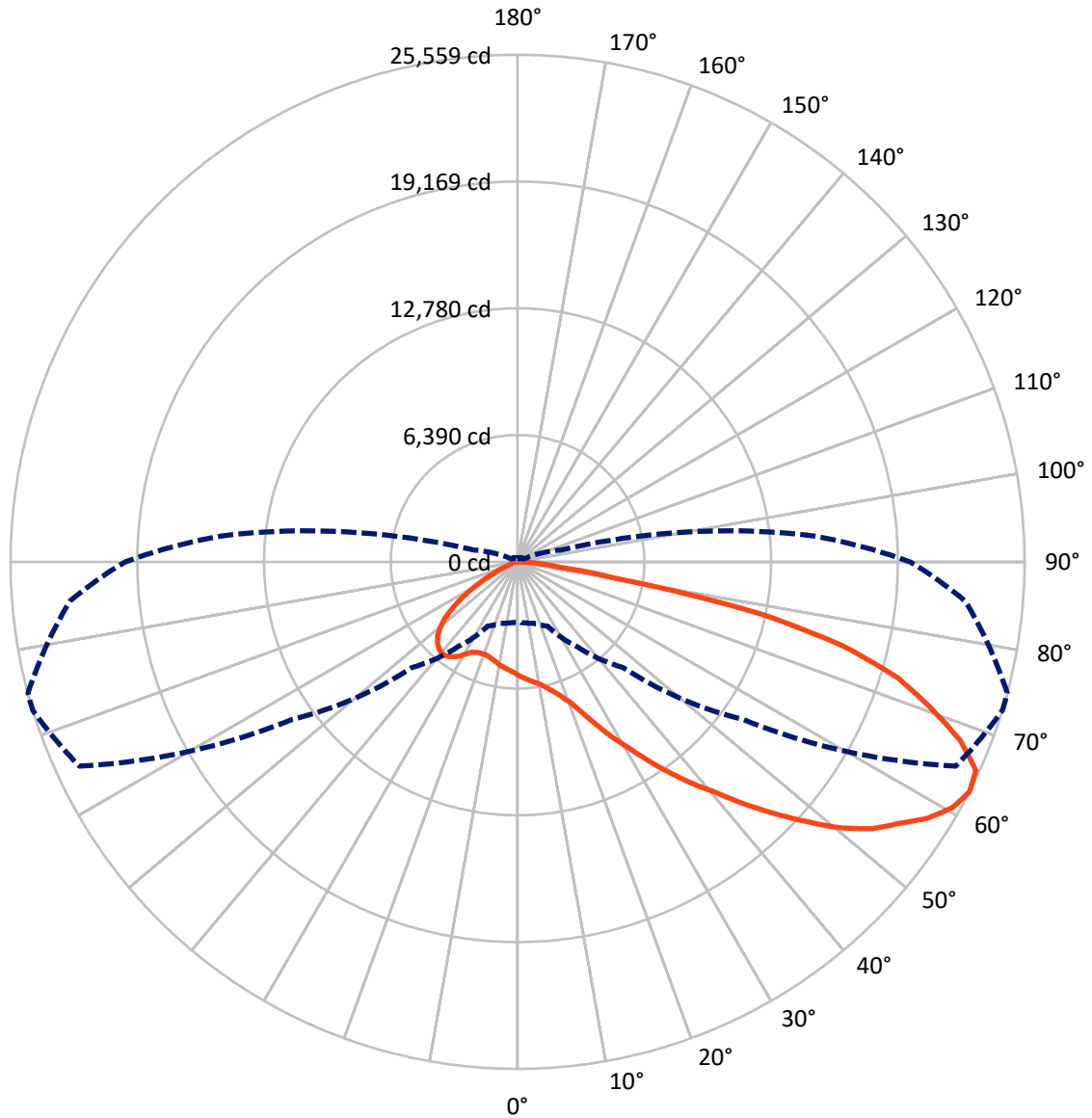
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.9 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 73-Deg Lateral      - - - Horizontal Cone Through 62.5-Deg Vertical

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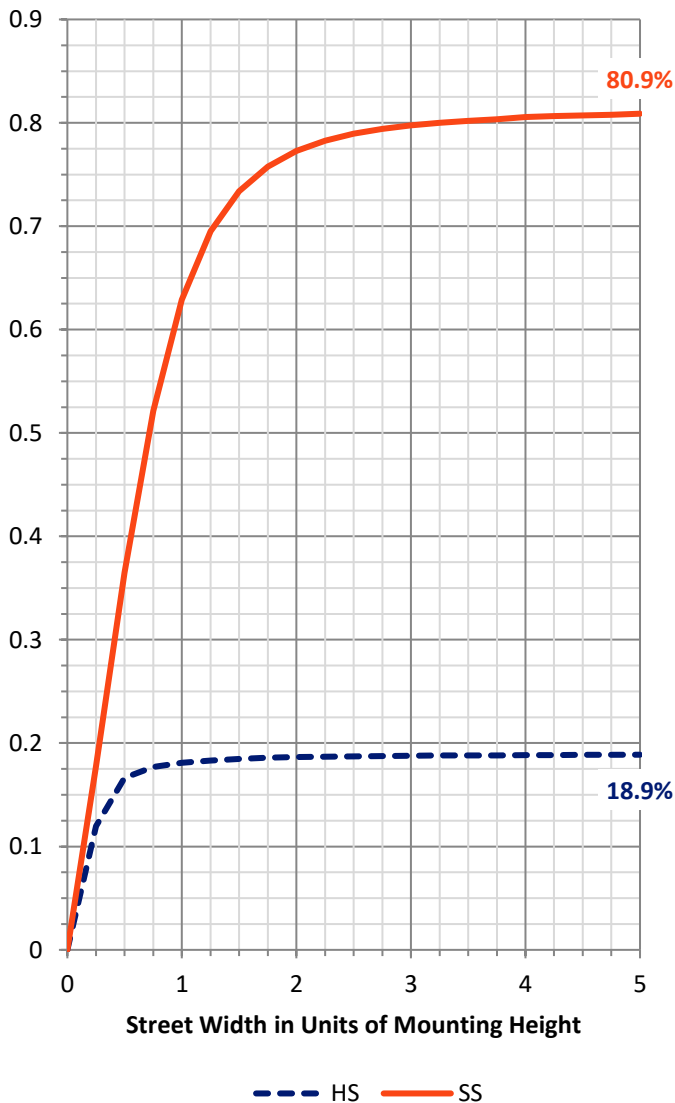
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6241.0   | 0.0    | 6241.0  |
|                    | % Fixture | 19.1     | 0.0    | 19.1    |
| <b>Street Side</b> | Lumens    | 26384.0  | 0.0    | 26384.0 |
|                    | % Fixture | 80.9     | 0.0    | 80.9    |
| <b>Total</b>       | Lumens    | 32625.0  | 0.0    | 32625.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 546.5   | 1.7       |
| 10°-20°   | 1643.7  | 5.0       |
| 20°-30°   | 2840.0  | 8.7       |
| 30°-40°   | 4270.7  | 13.1      |
| 40°-50°   | 5694.6  | 17.5      |
| 50°-60°   | 6706.5  | 20.6      |
| 60°-70°   | 6667.4  | 20.4      |
| 70°-80°   | 3827.9  | 11.7      |
| 80°-90°   | 427.6   | 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°    | 32625.0 | 100.0     |
| 0°-180°   | 32625.0 | 100.0     |

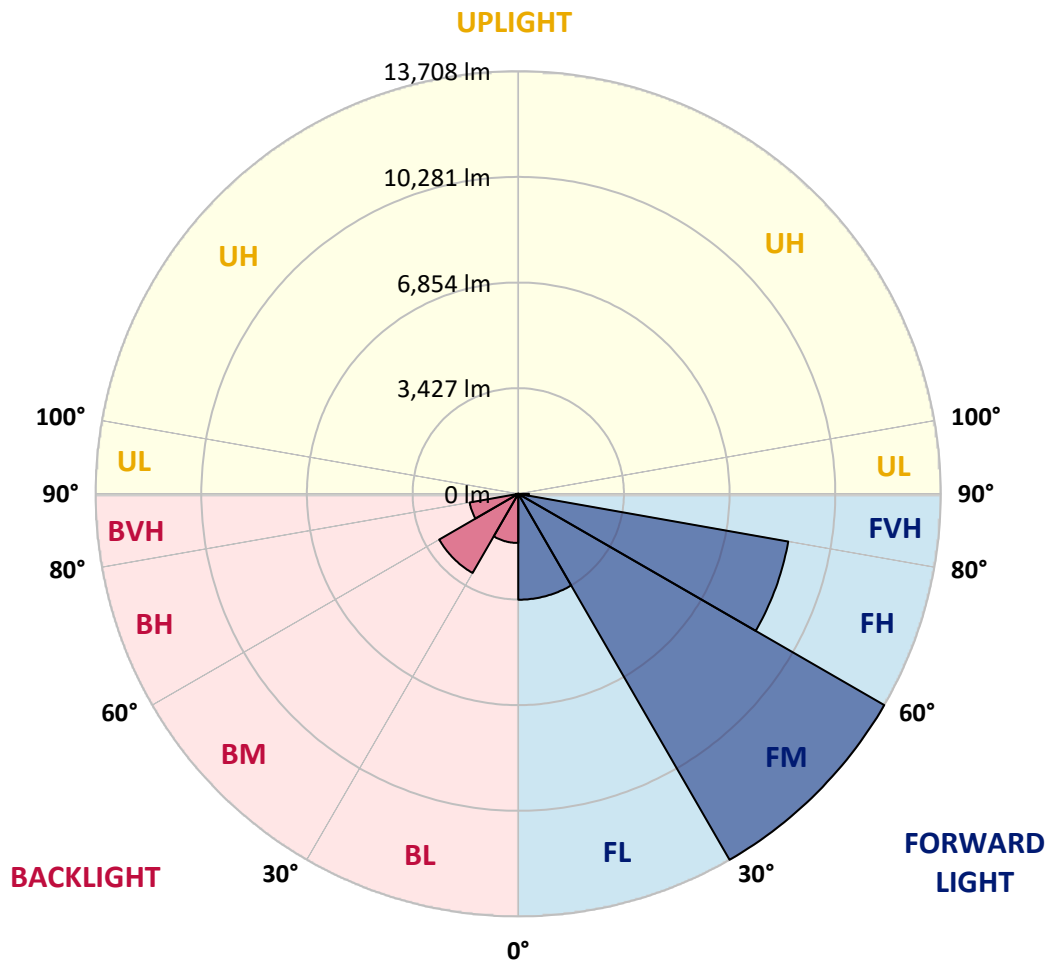


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|---------|-----------|-------------------------|------|----------|
|                |         |           | B                       | U    | G        |
| FL (0°-30°)    | 3435.4  | 10.5      |                         |      |          |
| FM (30°-60°)   | 13708.2 | 42.0      |                         |      |          |
| FH (60°-80°)   | 8893.1  | 27.3      |                         |      | G4/12000 |
| FVH (80°-90°)  | 347.3   | 1.1       |                         |      | G3/500   |
| BL (0°-30°)    | 1594.9  | 4.9       | B3/2500                 |      |          |
| BM (30°-60°)   | 2963.5  | 9.1       | B3/5000                 |      |          |
| BH (60°-80°)   | 1602.3  | 4.9       | B3/2500                 |      | G3/2500  |
| BVH (80°-90°)  | 80.3    | 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-G4**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°     | 45°     | 55°     | 65°     | 73°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5721.7 | 5721.7 | 5721.7 | 5721.7 | 5721.7  | 5721.7  | 5721.7  | 5721.7  | 5721.7  | 5721.7  | 5721.7  |
| 2.5°  | 6121.5 | 6136.9 | 6118.6 | 6110.5 | 6101.8  | 6044.6  | 5978.0  | 5909.9  | 5855.0  | 5846.2  | 5774.4  |
| 5°    | 6551.4 | 6559.5 | 6529.4 | 6495.0 | 6435.7  | 6341.2  | 6221.9  | 6104.0  | 5994.1  | 5964.8  | 5833.7  |
| 7.5°  | 6881.7 | 6866.3 | 6859.0 | 6829.7 | 6777.7  | 6673.7  | 6492.8  | 6299.5  | 6129.6  | 6088.6  | 5889.4  |
| 10°   | 7191.5 | 7184.9 | 7129.2 | 7092.6 | 7009.8  | 6913.9  | 6765.3  | 6519.9  | 6280.4  | 6214.5  | 5937.7  |
| 12.5° | 7526.9 | 7512.2 | 7489.5 | 7410.4 | 7343.1  | 7181.2  | 7001.8  | 6778.4  | 6511.9  | 6424.0  | 6020.5  |
| 15°   | 7828.6 | 7789.0 | 7776.6 | 7693.8 | 7625.7  | 7502.0  | 7321.8  | 7062.6  | 6777.7  | 6702.3  | 6177.9  |
| 17.5° | 8115.7 | 8097.4 | 8069.5 | 8013.1 | 7937.0  | 7841.8  | 7697.5  | 7420.0  | 7125.6  | 7015.7  | 6445.2  |
| 20°   | 8359.5 | 8336.8 | 8312.7 | 8328.0 | 8311.2  | 8250.4  | 8159.6  | 7923.1  | 7563.5  | 7457.3  | 6770.4  |
| 22.5° | 8529.4 | 8528.7 | 8625.4 | 8681.8 | 8714.0  | 8711.8  | 8689.8  | 8555.8  | 8194.0  | 8086.4  | 7256.6  |
| 25°   | 8670.8 | 8681.8 | 8804.1 | 9018.6 | 9210.5  | 9228.1  | 9383.3  | 9319.6  | 9012.0  | 8900.0  | 7988.2  |
| 27.5° | 8712.5 | 8734.5 | 8956.4 | 9294.0 | 9585.4  | 9865.2  | 10093.0 | 10209.4 | 9924.5  | 9790.5  | 8774.8  |
| 30°   | 8742.5 | 8751.3 | 8968.8 | 9373.1 | 9987.5  | 10430.6 | 10837.7 | 11034.7 | 10789.4 | 10691.3 | 9651.4  |
| 32.5° | 8530.9 | 8533.8 | 8867.0 | 9479.3 | 10282.6 | 11050.8 | 11532.7 | 11904.0 | 11839.6 | 11709.9 | 10610.0 |
| 35°   | 8239.4 | 8293.6 | 8675.9 | 9376.7 | 10525.8 | 11620.6 | 12276.8 | 12830.4 | 12959.3 | 12866.3 | 11567.9 |
| 37.5° | 7879.1 | 7921.6 | 8331.0 | 9224.4 | 10579.2 | 12012.4 | 12855.3 | 13772.2 | 14109.0 | 14093.7 | 12724.2 |
| 40°   | 7436.1 | 7488.1 | 7978.0 | 8896.3 | 10552.9 | 12297.3 | 13534.2 | 14815.0 | 15242.7 | 15194.4 | 13871.0 |
| 42.5° | 6912.4 | 6988.6 | 7463.9 | 8474.5 | 10360.3 | 12471.6 | 14090.0 | 15876.9 | 16646.6 | 16615.1 | 14886.0 |
| 45°   | 6394.7 | 6435.7 | 6869.2 | 7887.2 | 10005.8 | 12527.9 | 14612.9 | 17340.1 | 18086.3 | 18051.2 | 16109.0 |
| 47.5° | 5860.8 | 5896.7 | 6349.3 | 7268.4 | 9390.6  | 12414.4 | 15026.6 | 18596.7 | 19553.2 | 19518.0 | 17324.0 |
| 50°   | 4618.8 | 4754.3 | 5682.1 | 6724.2 | 8689.8  | 12092.9 | 15417.0 | 20162.5 | 21088.1 | 20938.7 | 18388.0 |
| 52.5° | 3951.6 | 4000.7 | 4481.9 | 6175.7 | 7990.4  | 11544.4 | 15677.7 | 21613.2 | 22350.7 | 22135.4 | 19476.3 |
| 55°   | 3693.9 | 3726.8 | 3962.6 | 5164.4 | 7333.5  | 10714.7 | 15984.5 | 23067.6 | 23297.6 | 23242.6 | 20363.9 |
| 57.5° | 3498.3 | 3534.9 | 3703.4 | 4313.4 | 6641.5  | 9551.8  | 15888.6 | 24090.7 | 24378.5 | 24202.7 | 21306.4 |
| 60°   | 3221.5 | 3266.2 | 3489.5 | 3872.6 | 5855.0  | 8371.2  | 15044.2 | 24509.6 | 25164.3 | 24966.5 | 22023.3 |
| 62.5° | 3047.2 | 3076.5 | 3204.7 | 3576.0 | 5203.2  | 7540.8  | 13842.5 | 24374.8 | 25559.0 | 25551.7 | 22645.1 |
| 65°   | 2810.7 | 2853.9 | 2990.8 | 3291.8 | 4623.2  | 6897.1  | 12708.8 | 23709.1 | 25389.1 | 25395.7 | 22773.2 |
| 67.5° | 2563.1 | 2580.7 | 2724.3 | 2965.9 | 3939.9  | 6307.5  | 11242.0 | 22570.4 | 24065.8 | 24216.6 | 21886.4 |
| 70°   | 2254.1 | 2245.3 | 2400.6 | 2577.1 | 3220.0  | 5355.5  | 9048.7  | 20544.7 | 22110.5 | 22172.7 | 20092.9 |
| 72.5° | 1773.7 | 1781.8 | 1825.0 | 1947.3 | 2444.5  | 4214.6  | 6566.1  | 17357.6 | 20066.5 | 20177.1 | 17800.7 |
| 75°   | 1192.2 | 1205.4 | 1406.8 | 1526.2 | 1758.3  | 3028.9  | 4128.9  | 11716.5 | 16963.7 | 17275.6 | 14568.9 |
| 77.5° | 909.6  | 917.6  | 976.2  | 1106.5 | 1272.1  | 2158.9  | 2238.0  | 6384.4  | 12350.0 | 13090.4 | 11397.2 |
| 80°   | 644.4  | 647.4  | 589.5  | 524.3  | 677.4   | 1464.7  | 1321.9  | 2719.1  | 4921.2  | 5815.4  | 6694.2  |
| 82.5° | 288.5  | 284.1  | 334.7  | 278.3  | 390.3   | 566.8   | 623.9   | 1319.7  | 2043.9  | 2197.0  | 2391.8  |
| 85°   | 134.0  | 150.1  | 172.1  | 144.3  | 232.1   | 219.0   | 243.1   | 562.4   | 957.9   | 1057.5  | 1051.6  |
| 87.5° | 33.0   | 35.9   | 45.4   | 57.9   | 84.2    | 74.7    | 73.2    | 165.5   | 213.8   | 213.1   | 327.4   |
| 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°    | 5721.7  | 5721.7  | 5721.7 | 5721.7 | 5721.7 | 5721.7 | 5721.7 | 5721.7 | 5721.7 | 5721.7 | 5721.7 |
| 2.5°  | 5725.3  | 5687.3  | 5597.2 | 5510.0 | 5427.3 | 5372.4 | 5310.8 | 5246.4 | 5207.6 | 5189.3 | 5228.8 |
| 5°    | 5753.9  | 5681.4  | 5509.3 | 5336.5 | 5190.0 | 5064.8 | 4976.9 | 4902.2 | 4861.9 | 4865.6 | 4867.8 |
| 7.5°  | 5778.1  | 5676.3  | 5435.3 | 5191.5 | 4963.0 | 4807.7 | 4692.8 | 4612.2 | 4566.1 | 4530.9 | 4557.3 |
| 10°   | 5799.3  | 5655.0  | 5348.9 | 5023.8 | 4775.5 | 4545.6 | 4389.6 | 4292.2 | 4207.2 | 4159.6 | 4197.0 |
| 12.5° | 5822.0  | 5647.0  | 5252.3 | 4873.6 | 4552.2 | 4295.1 | 4081.3 | 3984.6 | 3901.1 | 3865.2 | 3887.9 |
| 15°   | 5920.9  | 5677.7  | 5162.2 | 4697.2 | 4331.7 | 3999.2 | 3768.6 | 3649.9 | 3584.0 | 3540.8 | 3550.3 |
| 17.5° | 6090.8  | 5759.0  | 5104.3 | 4512.6 | 4085.7 | 3734.1 | 3435.4 | 3296.9 | 3187.8 | 3157.1 | 3149.0 |
| 20°   | 6332.4  | 5913.6  | 5104.3 | 4356.6 | 3806.6 | 3439.7 | 3095.6 | 2861.9 | 2692.0 | 2628.3 | 2677.4 |
| 22.5° | 6738.2  | 6176.5  | 5154.9 | 4215.3 | 3566.4 | 3134.4 | 2724.3 | 2367.6 | 2138.4 | 2045.4 | 2099.6 |
| 25°   | 7305.7  | 6582.9  | 5236.9 | 4091.5 | 3347.5 | 2782.8 | 2253.4 | 1843.3 | 1590.6 | 1480.0 | 1478.6 |
| 27.5° | 8046.8  | 7204.6  | 5402.4 | 3990.5 | 3085.3 | 2328.1 | 1762.0 | 1367.3 | 1130.0 | 1063.3 | 1072.9 |
| 30°   | 8868.5  | 7878.4  | 5715.1 | 3844.0 | 2766.7 | 1819.1 | 1283.0 | 1004.8 | 837.8  | 749.9  | 751.4  |
| 32.5° | 9660.9  | 8576.3  | 6086.4 | 3748.8 | 2353.0 | 1371.7 | 914.7  | 716.9  | 613.0  | 561.0  | 569.0  |
| 35°   | 10510.4 | 9178.3  | 6362.5 | 3589.1 | 1867.4 | 991.6  | 646.6  | 537.5  | 494.3  | 467.2  | 468.7  |
| 37.5° | 11428.0 | 9840.3  | 6589.5 | 3375.3 | 1411.9 | 681.1  | 477.5  | 460.6  | 442.3  | 407.9  | 405.0  |
| 40°   | 12386.6 | 10607.0 | 6725.0 | 3029.6 | 981.3  | 471.6  | 405.7  | 424.8  | 414.5  | 369.8  | 366.2  |
| 42.5° | 13199.5 | 11198.8 | 6758.7 | 2571.9 | 634.9  | 382.3  | 367.6  | 396.9  | 399.1  | 353.7  | 347.9  |
| 45°   | 13980.2 | 11726.0 | 6692.7 | 1969.2 | 440.1  | 359.6  | 344.2  | 384.5  | 387.4  | 346.4  | 336.9  |
| 47.5° | 14853.8 | 12447.4 | 6573.4 | 1313.8 | 364.0  | 339.8  | 336.1  | 364.0  | 374.2  | 340.5  | 328.8  |
| 50°   | 15915.0 | 13034.0 | 6219.7 | 807.0  | 343.5  | 327.4  | 327.4  | 344.2  | 358.1  | 328.8  | 323.0  |
| 52.5° | 17003.2 | 13545.1 | 5696.1 | 553.6  | 331.0  | 314.2  | 323.7  | 331.0  | 336.1  | 309.8  | 314.9  |
| 55°   | 17783.1 | 13998.5 | 4915.4 | 445.3  | 323.7  | 305.4  | 328.1  | 313.4  | 306.1  | 283.4  | 278.3  |
| 57.5° | 18648.7 | 14537.5 | 4117.2 | 394.7  | 314.2  | 310.5  | 313.4  | 285.6  | 265.1  | 241.7  | 236.5  |
| 60°   | 19252.9 | 14827.5 | 3140.2 | 371.3  | 303.2  | 305.4  | 289.3  | 251.9  | 214.6  | 197.7  | 194.1  |
| 62.5° | 19780.2 | 14993.0 | 2301.7 | 341.3  | 292.9  | 292.2  | 262.2  | 215.3  | 176.5  | 158.2  | 155.3  |
| 65°   | 19700.4 | 14734.4 | 1491.8 | 317.1  | 284.9  | 275.4  | 235.1  | 184.5  | 147.2  | 133.3  | 131.8  |
| 67.5° | 18822.3 | 13590.6 | 939.6  | 292.2  | 271.0  | 254.1  | 210.9  | 164.8  | 135.5  | 119.4  | 117.9  |
| 70°   | 16979.0 | 12010.9 | 574.9  | 260.0  | 240.9  | 224.8  | 186.7  | 154.5  | 128.2  | 109.1  | 105.5  |
| 72.5° | 14431.3 | 10287.0 | 406.4  | 229.2  | 210.2  | 191.1  | 158.2  | 147.2  | 122.3  | 98.1   | 95.2   |
| 75°   | 11856.4 | 7577.4  | 340.5  | 199.9  | 179.4  | 153.8  | 134.7  | 136.9  | 115.0  | 89.3   | 87.1   |
| 77.5° | 8349.3  | 4724.3  | 317.1  | 163.3  | 141.3  | 122.3  | 116.4  | 125.2  | 105.5  | 82.0   | 79.8   |
| 80°   | 4872.9  | 2653.2  | 262.2  | 128.9  | 106.2  | 94.5   | 97.4   | 106.2  | 92.3   | 74.0   | 71.0   |
| 82.5° | 1967.0  | 1050.2  | 184.5  | 100.3  | 77.6   | 75.4   | 79.8   | 86.4   | 76.2   | 62.2   | 60.8   |
| 85°   | 702.3   | 328.1   | 104.7  | 65.9   | 49.8   | 52.0   | 51.3   | 61.5   | 54.9   | 45.4   | 44.7   |
| 87.5° | 184.5   | 65.2    | 46.9   | 26.4   | 21.2   | 21.2   | 19.8   | 28.6   | 26.4   | 20.5   | 22.7   |
| 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)