

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: P237532

Luminaire Tested: **CST-10-8-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237532  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-26)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-10-8-D-U-T3-7030-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
(10) 70 CRI, 3000K LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 72621 lumens  
Efficiency: N/A  
Efficacy: 115.1 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B4 - U0 - G5

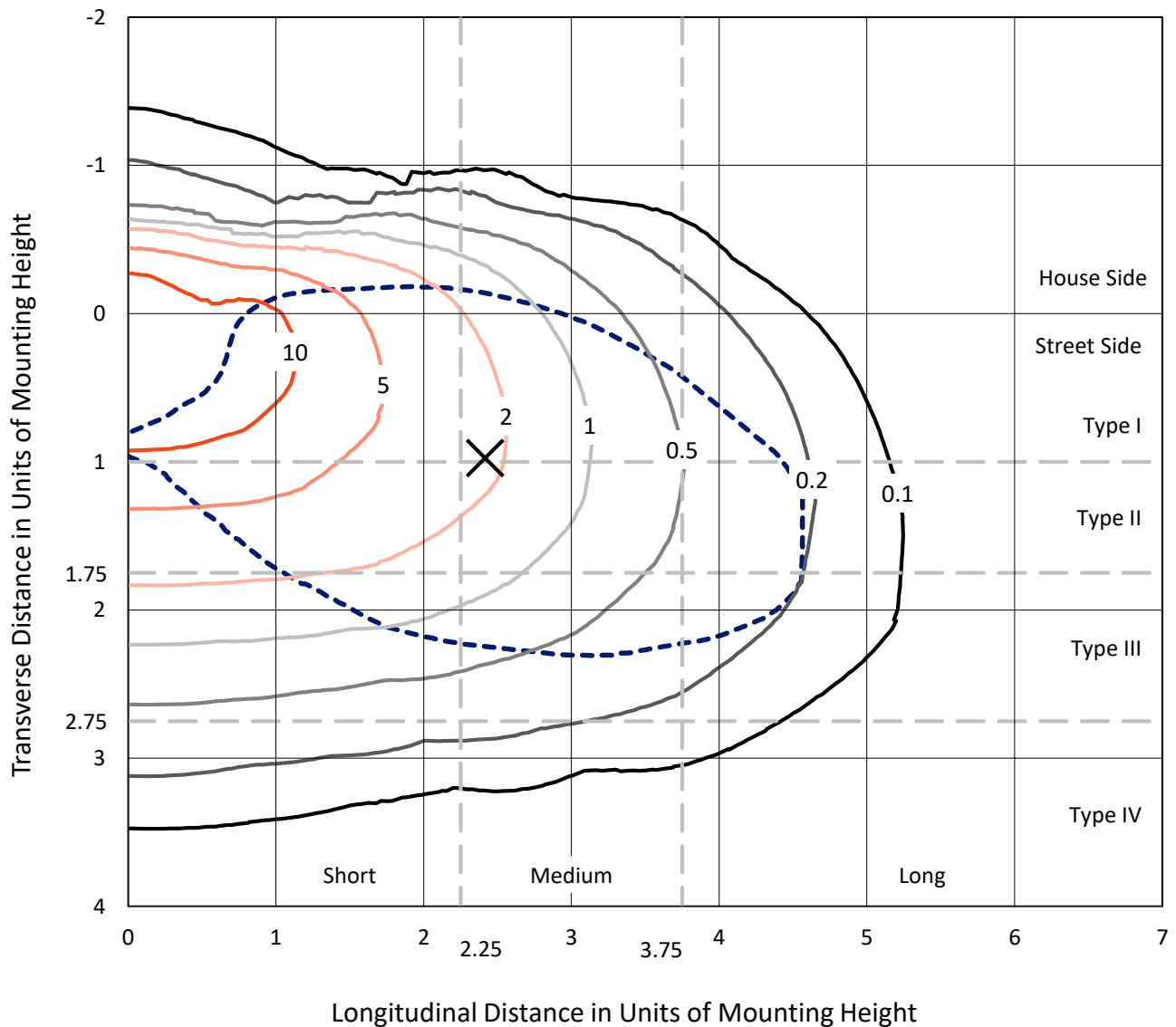
Input Watts (W): 631  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

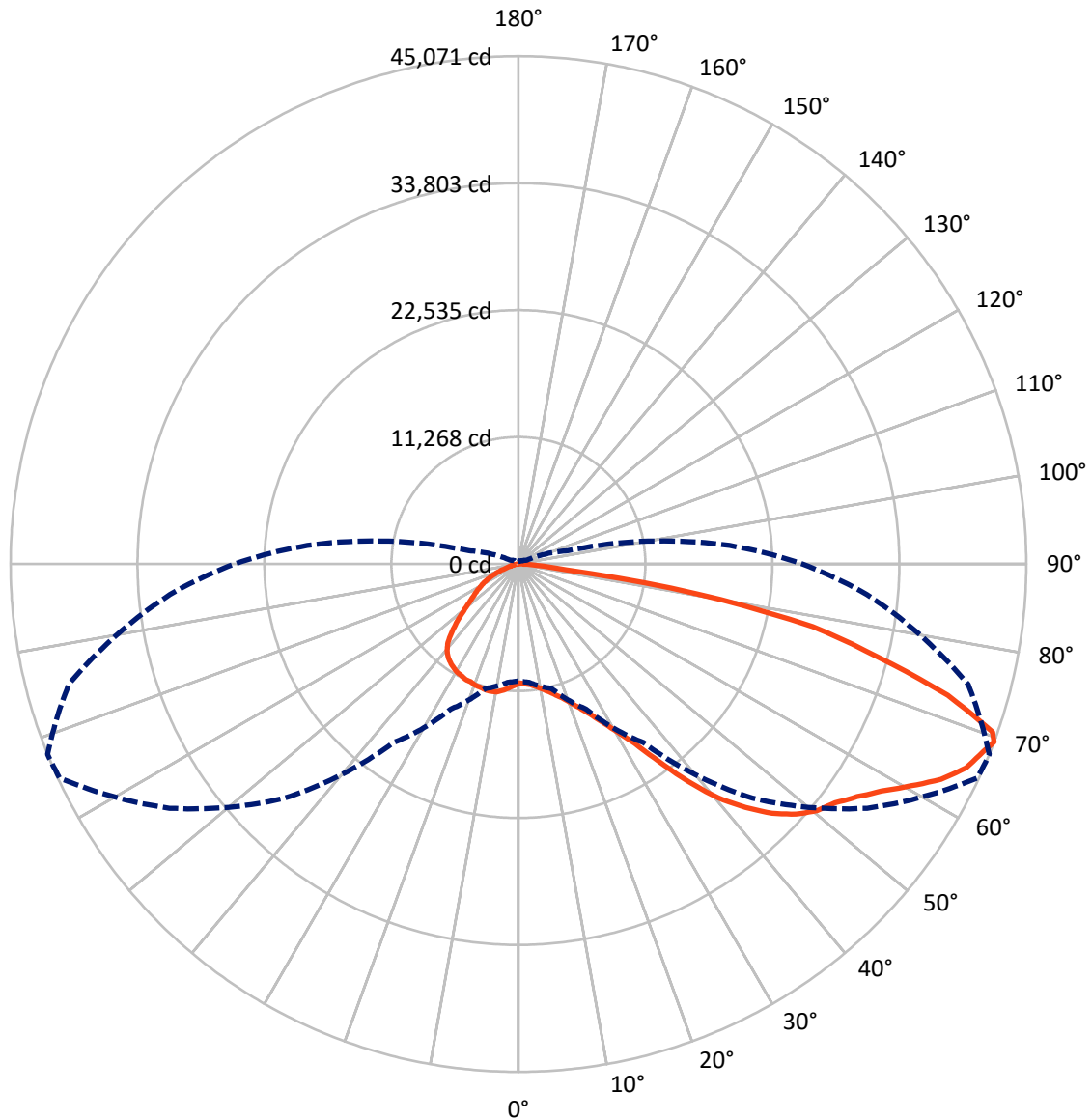


Based on 30 foot mounting height. Maximum calculated value = 14.3 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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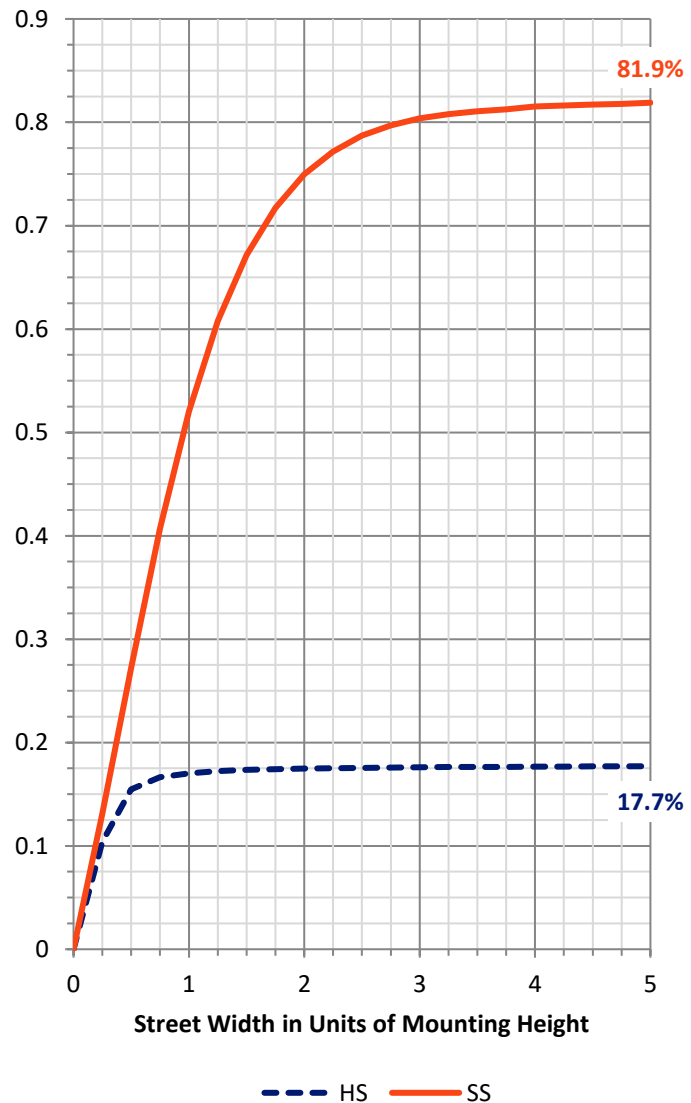
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 13032.9  | 0.0    | 13032.9 |
|                    | % Fixture | 17.9     | 0.0    | 17.9    |
| <b>Street Side</b> | Lumens    | 59588.1  | 0.0    | 59588.1 |
|                    | % Fixture | 82.1     | 0.0    | 82.1    |
| <b>Total</b>       | Lumens    | 72621.0  | 0.0    | 72621.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 1060.8  | 1.5       |
| 10°-20°   | 3328.9  | 4.6       |
| 20°-30°   | 5690.3  | 7.8       |
| 30°-40°   | 8768.2  | 12.1      |
| 40°-50°   | 12582.7 | 17.3      |
| 50°-60°   | 15143.9 | 20.9      |
| 60°-70°   | 15892.1 | 21.9      |
| 70°-80°   | 9206.8  | 12.7      |
| 80°-90°   | 947.3   | 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°    | 72621.0 | 100.0     |
| 0°-180°   | 72621.0 | 100.0     |

**Coefficient of Utilization**



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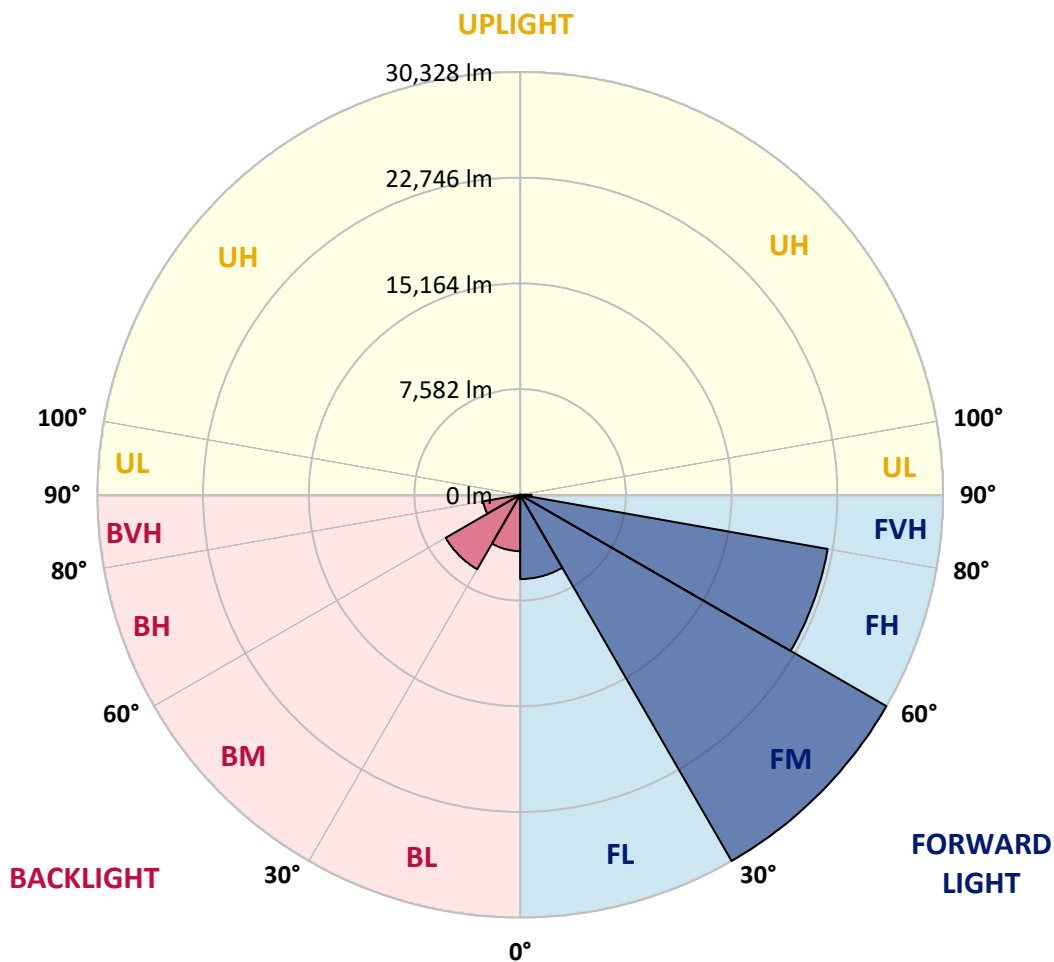
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 6041.7  | 8.3       |                         |      |         |
| FM   | (30°-60°)   | 30327.6 | 41.8      |                         |      |         |
| FH   | (60°-80°)   | 22395.5 | 30.8      |                         |      | G5      |
| FVH  | (80°-90°)   | 823.3   | 1.1       |                         |      | G5      |
| BL   | (0°-30°)    | 4038.3  | 5.6       | B4/5000                 |      |         |
| BM   | (30°-60°)   | 6167.2  | 8.5       | B4/8500                 |      |         |
| BH   | (60°-80°)   | 2703.4  | 3.7       | B4/5000                 |      | G4/5000 |
| BVH  | (80°-90°)   | 124.0   | 0.2       |                         |      | 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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 68°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 10563.1 | 10563.1 | 10563.1 | 10563.1 | 10563.1 | 10563.1 | 10563.1 | 10563.1 | 10563.1 | 10563.1 | 10563.1 |
| 2.5°  | 10681.4 | 10595.8 | 10605.9 | 10673.8 | 10472.5 | 10558.1 | 10505.2 | 10615.9 | 10633.6 | 10580.7 | 10628.5 |
| 5°    | 10892.7 | 10819.8 | 10817.2 | 10885.2 | 10661.2 | 10726.7 | 10643.6 | 10719.1 | 10741.8 | 10686.4 | 10769.4 |
| 7.5°  | 11302.9 | 11224.9 | 11209.8 | 11277.7 | 10993.4 | 11013.5 | 10900.3 | 10938.0 | 10958.1 | 10882.7 | 10965.7 |
| 10°   | 11891.7 | 11806.1 | 11750.8 | 11788.5 | 11468.9 | 11418.6 | 11224.9 | 11219.8 | 11250.0 | 11146.9 | 11280.2 |
| 12.5° | 12550.9 | 12450.3 | 12369.7 | 12377.3 | 12012.4 | 11926.9 | 11670.2 | 11579.7 | 11599.8 | 11461.4 | 11622.4 |
| 15°   | 13268.0 | 13122.1 | 13046.6 | 13049.1 | 12639.0 | 12495.6 | 12165.9 | 12017.5 | 12004.9 | 11871.5 | 11964.6 |
| 17.5° | 14131.1 | 14012.8 | 13917.2 | 13866.9 | 13431.6 | 13147.3 | 12754.7 | 12561.0 | 12490.5 | 12402.5 | 12354.7 |
| 20°   | 15145.1 | 14996.7 | 14896.0 | 14878.4 | 14345.0 | 13967.5 | 13446.7 | 13190.0 | 13107.0 | 13034.0 | 12820.2 |
| 22.5° | 16274.9 | 16124.0 | 15985.6 | 15962.9 | 15396.8 | 14941.3 | 14241.8 | 13924.8 | 13851.8 | 13768.8 | 13341.0 |
| 25°   | 17316.6 | 17299.0 | 17145.5 | 17120.4 | 16574.4 | 15983.0 | 15162.8 | 14757.6 | 14757.6 | 14659.5 | 14002.8 |
| 27.5° | 18479.1 | 18504.3 | 18365.9 | 18335.7 | 17822.4 | 17168.2 | 16191.9 | 15804.4 | 15884.9 | 15708.8 | 14835.6 |
| 30°   | 19704.5 | 19651.7 | 19614.0 | 19646.7 | 19171.1 | 18479.1 | 17462.6 | 17135.5 | 17261.3 | 17060.0 | 15952.8 |
| 32.5° | 20801.6 | 20761.3 | 20786.5 | 20912.3 | 20570.1 | 19931.0 | 19057.9 | 18854.1 | 18974.8 | 19100.6 | 17955.8 |
| 35°   | 21669.7 | 21584.2 | 21901.2 | 22178.0 | 22079.8 | 21473.4 | 20771.4 | 21201.7 | 21533.8 | 22107.5 | 20907.3 |
| 37.5° | 22434.6 | 22371.7 | 22756.7 | 23322.9 | 23446.2 | 23109.0 | 22892.6 | 24092.8 | 24472.8 | 25245.3 | 23496.5 |
| 40°   | 22817.1 | 22804.5 | 23277.6 | 24014.8 | 24515.6 | 24734.5 | 25114.4 | 26750.0 | 27303.5 | 27514.9 | 25466.7 |
| 42.5° | 22693.8 | 22734.1 | 23569.5 | 24706.8 | 25517.0 | 26455.6 | 27220.5 | 29019.6 | 29527.9 | 29354.2 | 27192.8 |
| 45°   | 22349.1 | 22369.2 | 23217.2 | 24991.1 | 26385.1 | 28224.5 | 29246.1 | 31123.2 | 31573.6 | 30962.1 | 28566.7 |
| 47.5° | 21871.0 | 21878.6 | 22774.3 | 24794.9 | 27094.7 | 29824.8 | 30992.3 | 32804.0 | 33168.8 | 32305.8 | 29555.5 |
| 50°   | 21224.3 | 21236.9 | 22306.3 | 24548.3 | 27706.1 | 31135.7 | 32358.6 | 34107.4 | 34389.2 | 33259.4 | 30411.1 |
| 52.5° | 20406.6 | 20517.3 | 21687.3 | 24153.2 | 28088.6 | 32066.7 | 33392.8 | 35063.6 | 35201.9 | 34399.3 | 31168.4 |
| 55°   | 19463.0 | 19578.7 | 20899.7 | 23617.3 | 28237.0 | 32595.1 | 34117.5 | 36241.1 | 36462.6 | 35672.5 | 31784.9 |
| 57.5° | 18345.8 | 18504.3 | 19895.8 | 22746.6 | 27889.8 | 32816.6 | 34854.7 | 37695.5 | 37995.0 | 37003.6 | 32419.0 |
| 60°   | 17049.9 | 17246.2 | 18710.6 | 21659.6 | 27087.1 | 33050.6 | 36233.6 | 39645.6 | 39992.8 | 38435.3 | 32972.6 |
| 62.5° | 15696.2 | 15822.0 | 17145.5 | 20177.6 | 25801.3 | 33231.7 | 37718.2 | 42048.6 | 42078.8 | 39690.9 | 33279.6 |
| 65°   | 13884.5 | 14017.9 | 15203.0 | 18305.5 | 23871.4 | 32655.5 | 38468.0 | 43734.5 | 43643.9 | 40674.7 | 33176.4 |
| 67.5° | 11811.1 | 11937.0 | 12905.7 | 15978.0 | 21221.8 | 31040.1 | 38211.3 | 44406.3 | 44466.7 | 41389.3 | 32187.5 |
| 69°   | 10371.9 | 10537.9 | 11451.3 | 14209.1 | 19349.7 | 29387.0 | 37781.1 | 44929.7 | 45070.6 | 41323.9 | 31042.6 |
| 70°   | 9141.4  | 9355.3  | 10223.4 | 12646.5 | 17764.5 | 27884.8 | 36950.7 | 44632.7 | 44642.8 | 40662.2 | 29988.3 |
| 72.5° | 5971.0  | 6101.8  | 6252.8  | 8205.4  | 12779.9 | 22097.5 | 32698.3 | 39582.7 | 39844.4 | 36283.9 | 26219.0 |
| 75°   | 2954.0  | 3069.8  | 3633.4  | 4340.5  | 6572.4  | 14802.9 | 25924.6 | 32429.1 | 32924.8 | 30813.7 | 21481.0 |
| 77.5° | 1630.5  | 1653.2  | 1851.9  | 2843.3  | 3407.0  | 6693.2  | 17719.2 | 25851.7 | 26719.8 | 25111.9 | 15427.0 |
| 80°   | 1016.6  | 1011.5  | 1056.8  | 1323.5  | 1909.8  | 3173.0  | 7483.2  | 14508.5 | 16068.6 | 13112.0 | 6096.8  |
| 82.5° | 792.6   | 777.5   | 780.0   | 855.5   | 807.7   | 1494.6  | 3115.1  | 4224.7  | 4262.5  | 3784.4  | 2372.8  |
| 85°   | 405.1   | 458.0   | 543.5   | 568.7   | 478.1   | 812.7   | 1434.2  | 1668.3  | 1708.5  | 1497.2  | 1235.5  |
| 87.5° | 135.9   | 138.4   | 145.9   | 143.4   | 128.3   | 279.3   | 530.9   | 619.0   | 551.1   | 312.0   | 422.7   |
| 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°    | 10563.1 | 10563.1 | 10563.1 | 10563.1 | 10563.1 | 10563.1 | 10563.1 | 10563.1 | 10563.1 | 10563.1 | 10563.1 |
| 2.5°  | 10701.5 | 10678.8 | 10724.1 | 10827.3 | 10741.8 | 10819.8 | 10741.8 | 11003.4 | 10973.2 | 10955.6 | 11006.0 |
| 5°    | 10849.9 | 10847.4 | 10920.4 | 11086.5 | 11078.9 | 11217.3 | 11141.8 | 11401.0 | 11363.3 | 11358.2 | 11403.5 |
| 7.5°  | 11051.2 | 11099.1 | 11177.1 | 11348.2 | 11350.7 | 11463.9 | 11378.4 | 11582.2 | 11499.1 | 11479.0 | 11541.9 |
| 10°   | 11358.2 | 11370.8 | 11431.2 | 11549.5 | 11383.4 | 11433.7 | 11292.8 | 11453.8 | 11338.1 | 11325.5 | 11418.6 |
| 12.5° | 11652.6 | 11670.2 | 11579.7 | 11541.9 | 11328.0 | 11262.6 | 11016.0 | 11101.6 | 10968.2 | 10955.6 | 11000.9 |
| 15°   | 11967.2 | 11848.9 | 11632.5 | 11509.2 | 11139.3 | 10902.8 | 10626.0 | 10457.4 | 10228.4 | 10122.8 | 10163.0 |
| 17.5° | 12294.3 | 12065.3 | 11660.2 | 11360.7 | 10865.0 | 10520.3 | 9969.3  | 9682.4  | 9342.7  | 9169.1  | 9136.4  |
| 20°   | 12651.6 | 12329.5 | 11728.1 | 11285.3 | 10588.3 | 9908.9  | 9237.1  | 8580.3  | 8192.8  | 8014.2  | 7966.4  |
| 22.5° | 13054.2 | 12661.6 | 11823.7 | 11033.6 | 10155.5 | 9330.2  | 8195.3  | 7367.5  | 6803.9  | 6630.2  | 6582.4  |
| 25°   | 13557.4 | 13034.0 | 11954.6 | 10970.7 | 9740.3  | 8384.1  | 6972.5  | 6033.9  | 5377.2  | 5113.0  | 5057.6  |
| 27.5° | 14168.8 | 13547.3 | 12168.5 | 10671.3 | 9010.6  | 7329.8  | 5757.1  | 4677.7  | 3995.8  | 3683.7  | 3615.8  |
| 30°   | 15059.6 | 14204.1 | 12311.9 | 10495.2 | 8361.4  | 6235.2  | 4473.8  | 3268.6  | 2621.9  | 2392.9  | 2332.5  |
| 32.5° | 16815.9 | 15331.3 | 12603.8 | 10090.1 | 7402.7  | 4962.0  | 3079.9  | 2005.4  | 1552.5  | 1421.7  | 1371.3  |
| 35°   | 19425.2 | 17455.0 | 13024.0 | 9609.5  | 6325.8  | 3530.3  | 1829.3  | 1162.5  | 933.5   | 885.7   | 870.6   |
| 37.5° | 21803.1 | 19551.0 | 13836.7 | 8869.7  | 4911.7  | 2171.5  | 1059.3  | 744.8   | 686.9   | 694.5   | 694.5   |
| 40°   | 23597.1 | 21108.6 | 14785.3 | 7893.4  | 3331.5  | 1217.9  | 727.2   | 619.0   | 631.6   | 634.1   | 631.6   |
| 42.5° | 25278.0 | 22535.3 | 15243.3 | 6816.4  | 1929.9  | 807.7   | 631.6   | 576.2   | 586.3   | 578.7   | 573.7   |
| 45°   | 26599.0 | 23556.9 | 15379.1 | 5367.1  | 1056.8  | 722.2   | 593.8   | 536.0   | 530.9   | 536.0   | 541.0   |
| 47.5° | 27457.0 | 24180.9 | 15069.7 | 4109.0  | 797.6   | 671.8   | 571.2   | 508.3   | 495.7   | 530.9   | 528.4   |
| 50°   | 28093.6 | 24608.7 | 13869.4 | 3125.1  | 777.5   | 629.1   | 543.5   | 475.6   | 480.6   | 523.4   | 518.3   |
| 52.5° | 28556.6 | 24719.4 | 12553.4 | 2506.2  | 742.3   | 598.9   | 518.3   | 460.5   | 455.4   | 488.1   | 490.7   |
| 55°   | 28924.0 | 24422.5 | 11733.1 | 1972.7  | 712.1   | 568.7   | 498.2   | 445.4   | 420.2   | 430.3   | 427.8   |
| 57.5° | 29153.0 | 24082.8 | 10797.1 | 1645.6  | 684.4   | 536.0   | 470.5   | 405.1   | 367.4   | 369.9   | 367.4   |
| 60°   | 29102.6 | 23856.3 | 9722.7  | 1348.7  | 649.2   | 505.8   | 432.8   | 362.3   | 324.6   | 314.5   | 314.5   |
| 62.5° | 29002.0 | 23390.8 | 8613.0  | 1175.1  | 619.0   | 495.7   | 387.5   | 329.6   | 301.9   | 291.9   | 291.9   |
| 65°   | 28317.6 | 22281.1 | 7128.5  | 1006.5  | 588.8   | 468.0   | 362.3   | 317.0   | 284.3   | 274.3   | 274.3   |
| 67.5° | 26619.1 | 20446.8 | 5520.6  | 875.6   | 566.1   | 422.7   | 354.8   | 309.5   | 274.3   | 261.7   | 261.7   |
| 69°   | 25184.9 | 18816.3 | 4534.2  | 805.2   | 543.5   | 402.6   | 354.8   | 312.0   | 269.2   | 254.1   | 254.1   |
| 70°   | 24065.1 | 17535.6 | 3751.7  | 762.4   | 520.9   | 390.0   | 354.8   | 314.5   | 266.7   | 249.1   | 246.6   |
| 72.5° | 20650.6 | 13690.8 | 2083.4  | 646.7   | 432.8   | 354.8   | 347.2   | 317.0   | 254.1   | 229.0   | 226.5   |
| 75°   | 15844.7 | 9624.5  | 1240.5  | 546.0   | 364.9   | 324.6   | 329.6   | 304.5   | 234.0   | 206.3   | 206.3   |
| 77.5° | 9901.3  | 4421.0  | 923.5   | 427.8   | 296.9   | 281.8   | 286.8   | 269.2   | 211.4   | 188.7   | 188.7   |
| 80°   | 3381.8  | 1995.4  | 697.0   | 329.6   | 213.9   | 218.9   | 236.5   | 226.5   | 188.7   | 171.1   | 168.6   |
| 82.5° | 1851.9  | 1298.4  | 493.2   | 229.0   | 148.5   | 181.2   | 181.2   | 183.7   | 163.6   | 151.0   | 148.5   |
| 85°   | 1006.5  | 676.9   | 304.5   | 138.4   | 105.7   | 133.4   | 128.3   | 138.4   | 133.4   | 123.3   | 120.8   |
| 87.5° | 349.8   | 231.5   | 100.6   | 50.3    | 42.8    | 45.3    | 52.8    | 70.5    | 67.9    | 70.5    | 73.0    |
| 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)