

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: P510737

Luminaire Tested: **CST-CA8-230-750-U-T2**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510737  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-10)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-CA8-230-750-U-T2  
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: 36234 lumens  
Efficiency: N/A  
Efficacy: 158.6 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G4

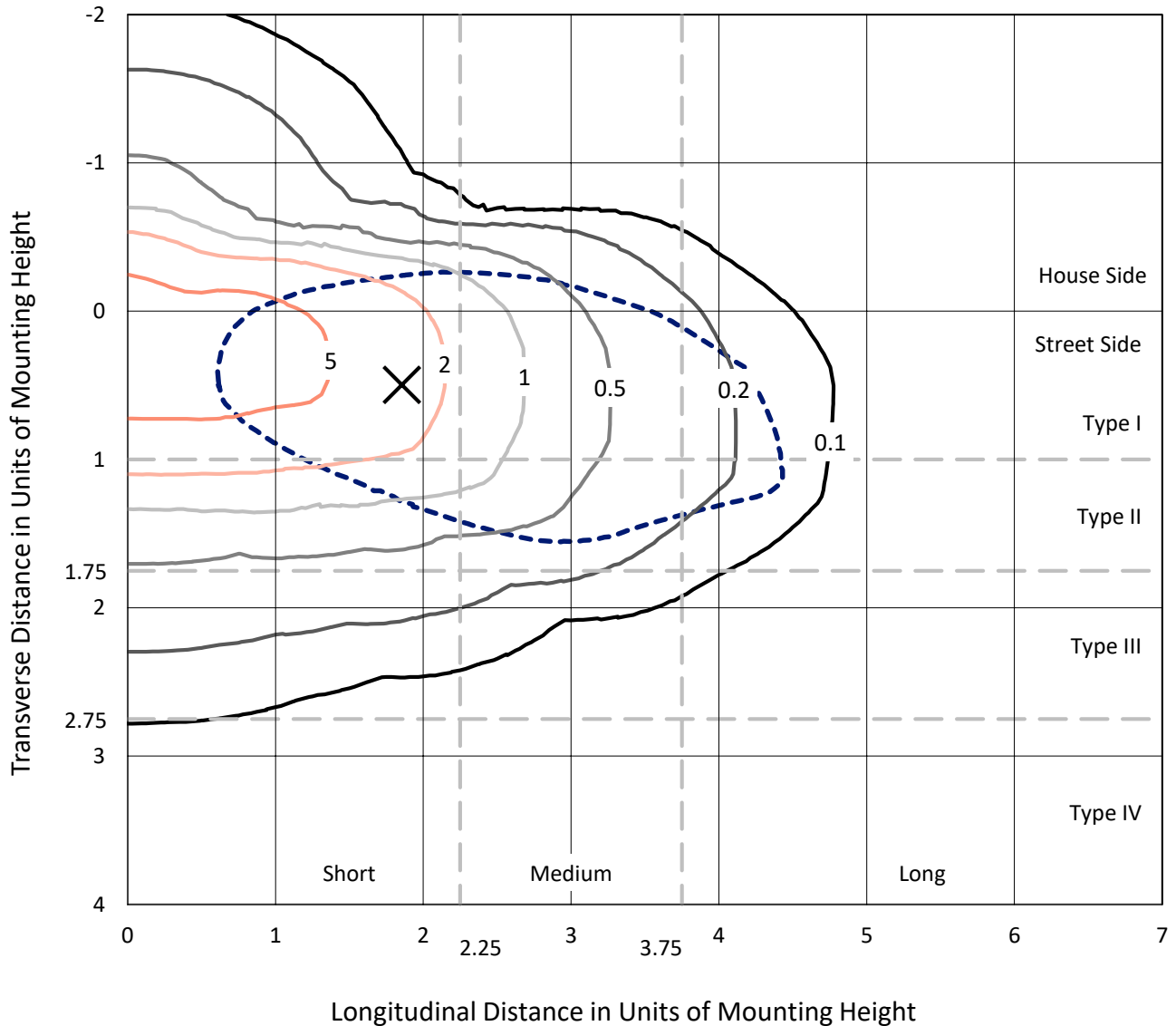
Input Watts (W): 228.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

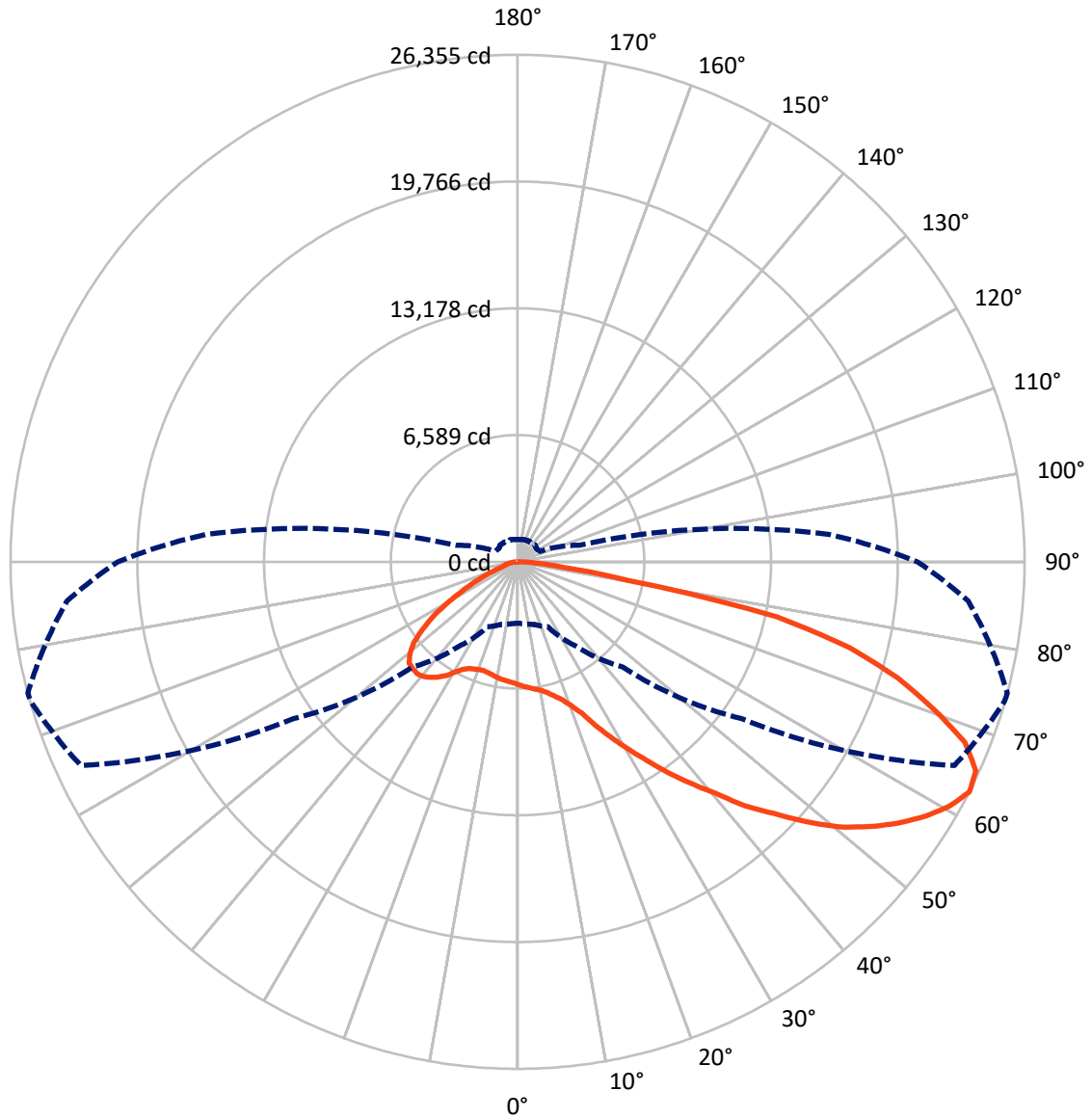
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.3 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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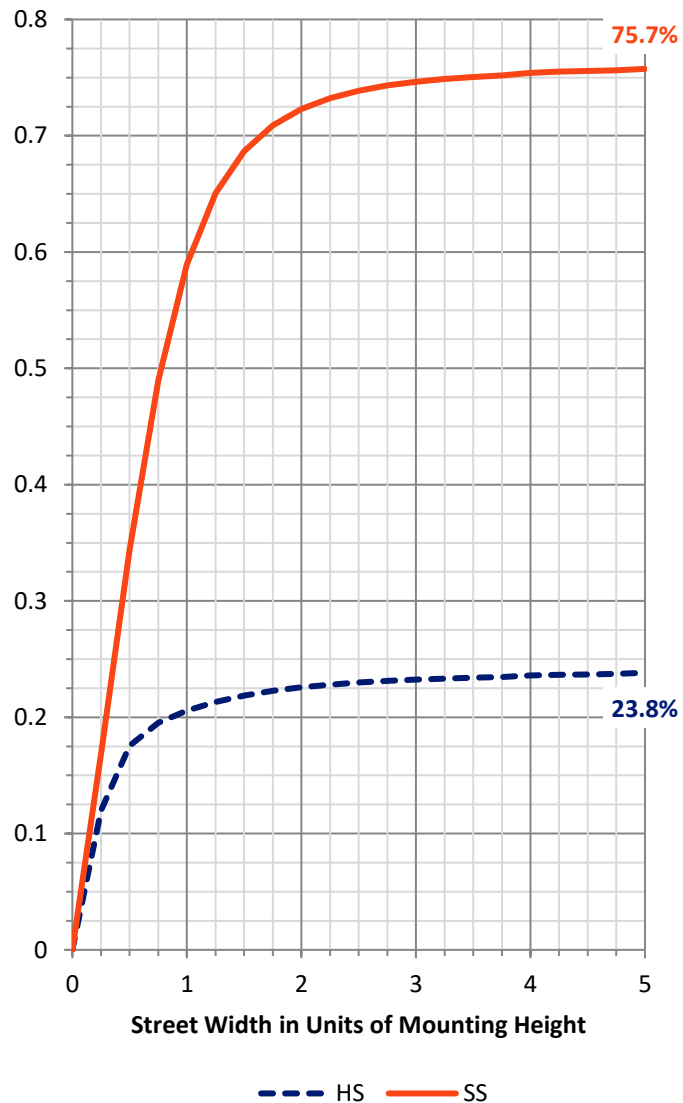
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 8778.9   | 0.0    | 8778.9  |
|                    | % Fixture | 24.2     | 0.0    | 24.2    |
| <b>Street Side</b> | Lumens    | 27455.1  | 0.0    | 27455.1 |
|                    | % Fixture | 75.8     | 0.0    | 75.8    |
| <b>Total</b>       | Lumens    | 36234.0  | 0.0    | 36234.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 614.5   | 1.7       |
| 10°-20°   | 1864.9  | 5.1       |
| 20°-30°   | 3216.4  | 8.9       |
| 30°-40°   | 4742.7  | 13.1      |
| 40°-50°   | 6251.9  | 17.3      |
| 50°-60°   | 7358.0  | 20.3      |
| 60°-70°   | 7320.4  | 20.2      |
| 70°-80°   | 4269.1  | 11.8      |
| 80°-90°   | 596.1   | 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°    | 36234.0 | 100.0     |
| 0°-180°   | 36234.0 | 100.0     |

**Coefficient of Utilization**

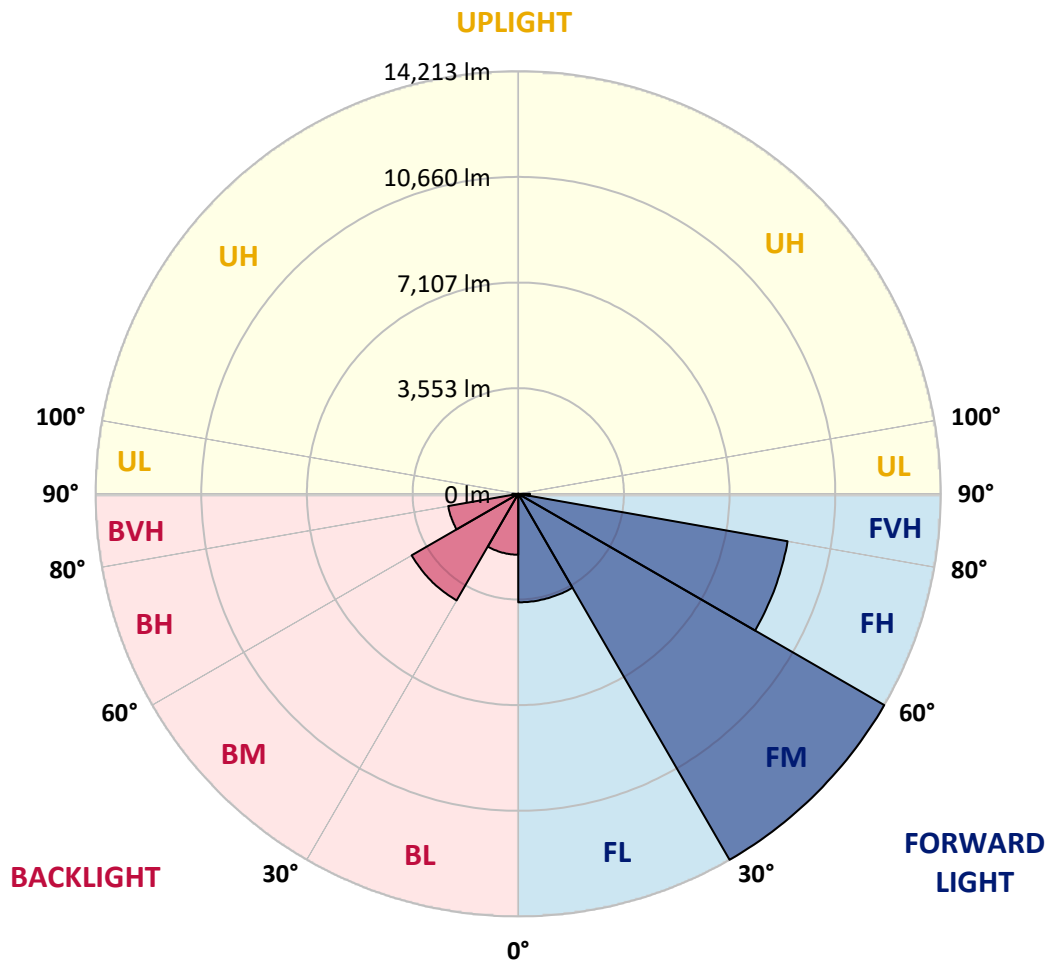


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|---------|-----------|-------------------------|------|----------|
|                |         |           | B                       | U    | G        |
| FL (0°-30°)    | 3648.6  | 10.1      |                         |      |          |
| FM (30°-60°)   | 14213.1 | 39.2      |                         |      |          |
| FH (60°-80°)   | 9197.9  | 25.4      |                         |      | G4/12000 |
| FVH (80°-90°)  | 395.6   | 1.1       |                         |      | G3/500   |
| BL (0°-30°)    | 2047.2  | 5.6       | B3/2500                 |      |          |
| BM (30°-60°)   | 4139.5  | 11.4      | B3/5000                 |      |          |
| BH (60°-80°)   | 2391.7  | 6.6       | B3/2500                 |      | G3/2500  |
| BVH (80°-90°)  | 200.5   | 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 II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°     | 45°     | 55°     | 65°     | 74°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6387.2 | 6387.2 | 6387.2 | 6387.2 | 6387.2  | 6387.2  | 6387.2  | 6387.2  | 6387.2  | 6387.2  | 6387.2  |
| 2.5°  | 6737.0 | 6709.4 | 6713.1 | 6693.7 | 6664.6  | 6643.0  | 6586.3  | 6525.2  | 6488.6  | 6485.7  | 6433.5  |
| 5°    | 7075.5 | 7084.5 | 7086.7 | 7024.8 | 6963.7  | 6894.3  | 6807.8  | 6690.0  | 6593.8  | 6578.9  | 6477.5  |
| 7.5°  | 7384.3 | 7383.5 | 7379.1 | 7344.8 | 7316.4  | 7213.5  | 7040.5  | 6855.5  | 6698.9  | 6684.8  | 6520.0  |
| 10°   | 7700.5 | 7698.2 | 7653.5 | 7596.1 | 7531.9  | 7437.2  | 7288.8  | 7067.3  | 6813.8  | 6795.1  | 6559.5  |
| 12.5° | 8045.0 | 8020.4 | 7992.1 | 7922.7 | 7846.6  | 7682.6  | 7526.7  | 7285.8  | 7021.1  | 6987.5  | 6629.6  |
| 15°   | 8329.1 | 8303.8 | 8264.2 | 8217.3 | 8137.5  | 8012.2  | 7846.6  | 7561.0  | 7276.9  | 7244.1  | 6786.9  |
| 17.5° | 8610.3 | 8598.3 | 8570.0 | 8520.0 | 8458.9  | 8350.7  | 8198.6  | 7956.3  | 7584.1  | 7543.9  | 7048.7  |
| 20°   | 8840.7 | 8812.4 | 8791.5 | 8814.6 | 8819.8  | 8740.0  | 8656.5  | 8452.9  | 8042.8  | 7980.9  | 7370.1  |
| 22.5° | 8971.9 | 8966.0 | 9080.1 | 9165.1 | 9199.4  | 9217.3  | 9191.2  | 9027.1  | 8655.8  | 8547.6  | 7817.5  |
| 25°   | 9096.5 | 9086.8 | 9241.9 | 9454.4 | 9656.5  | 9759.4  | 9828.8  | 9850.4  | 9509.6  | 9411.9  | 8537.2  |
| 27.5° | 9100.2 | 9127.1 | 9352.3 | 9708.7 | 10016.7 | 10330.7 | 10663.3 | 10701.3 | 10402.3 | 10324.7 | 9356.0  |
| 30°   | 9120.3 | 9132.3 | 9355.3 | 9764.7 | 10406.0 | 10909.4 | 11342.6 | 11556.7 | 11298.6 | 11262.8 | 10257.6 |
| 32.5° | 8864.6 | 8880.2 | 9227.0 | 9862.4 | 10699.8 | 11508.2 | 12083.2 | 12400.8 | 12336.7 | 12291.2 | 11219.6 |
| 35°   | 8598.3 | 8611.8 | 9014.5 | 9723.6 | 10918.3 | 12051.8 | 12752.1 | 13376.3 | 13493.3 | 13459.0 | 12292.7 |
| 37.5° | 8180.7 | 8225.5 | 8647.6 | 9558.1 | 10956.3 | 12451.5 | 13390.4 | 14348.0 | 14701.4 | 14598.5 | 13427.7 |
| 40°   | 7727.3 | 7760.1 | 8251.6 | 9211.3 | 10913.8 | 12714.0 | 14017.6 | 15423.3 | 15851.4 | 15796.2 | 14554.5 |
| 42.5° | 7154.6 | 7242.6 | 7734.8 | 8768.4 | 10695.3 | 12877.4 | 14597.8 | 16642.6 | 17264.5 | 17338.4 | 15589.6 |
| 45°   | 6672.1 | 6669.9 | 7127.0 | 8127.0 | 10299.4 | 12916.1 | 15131.7 | 17875.3 | 18785.1 | 18646.4 | 16958.0 |
| 47.5° | 6104.6 | 6127.7 | 6605.0 | 7488.7 | 9715.4  | 12793.1 | 15547.8 | 19332.5 | 20253.4 | 20178.1 | 18080.4 |
| 50°   | 4791.4 | 4957.7 | 5861.5 | 6939.8 | 8925.7  | 12450.1 | 15894.6 | 20751.6 | 21630.8 | 21665.1 | 19100.5 |
| 52.5° | 4130.6 | 4194.8 | 4693.7 | 6387.2 | 8224.7  | 11874.4 | 16274.9 | 22348.2 | 22961.9 | 22874.7 | 20258.7 |
| 55°   | 3865.9 | 3900.2 | 4139.6 | 5394.7 | 7546.8  | 10983.2 | 16457.6 | 23806.1 | 24000.0 | 23985.8 | 21211.7 |
| 57.5° | 3674.2 | 3700.3 | 3870.4 | 4502.0 | 6802.6  | 9839.2  | 16303.3 | 24754.7 | 25056.0 | 24963.5 | 22111.1 |
| 60°   | 3397.6 | 3418.5 | 3672.0 | 4056.8 | 6036.7  | 8684.1  | 15354.0 | 25185.0 | 25821.8 | 25787.5 | 22906.0 |
| 62.5° | 3189.5 | 3225.3 | 3367.0 | 3727.9 | 5382.7  | 7732.5  | 14222.7 | 25050.8 | 26324.5 | 26355.0 | 23513.0 |
| 65°   | 2969.5 | 3001.6 | 3121.6 | 3437.1 | 4789.9  | 7106.9  | 13002.6 | 24378.1 | 26093.3 | 26174.6 | 23611.5 |
| 67.5° | 2698.1 | 2722.7 | 2865.1 | 3138.1 | 4097.1  | 6481.2  | 11626.8 | 23188.7 | 24810.6 | 25072.4 | 22631.6 |
| 70°   | 2356.5 | 2365.5 | 2540.0 | 2725.7 | 3402.0  | 5537.8  | 9244.9  | 21241.5 | 22954.5 | 22959.7 | 20781.4 |
| 72.5° | 1875.5 | 1883.0 | 1929.2 | 2070.2 | 2555.6  | 4382.7  | 6795.1  | 17748.5 | 20697.9 | 20659.9 | 18469.6 |
| 75°   | 1275.2 | 1340.8 | 1501.2 | 1635.4 | 1843.5  | 3077.7  | 4226.1  | 11957.9 | 17536.0 | 17834.3 | 15171.2 |
| 77.5° | 1007.5 | 1013.5 | 1079.8 | 1202.9 | 1382.6  | 2299.1  | 2368.5  | 6616.2  | 13073.5 | 13782.7 | 11925.1 |
| 80°   | 702.5  | 712.9  | 677.1  | 707.0  | 964.2   | 1573.5  | 1384.1  | 2879.3  | 5452.1  | 5821.2  | 7159.8  |
| 82.5° | 334.8  | 346.8  | 398.2  | 369.9  | 479.5   | 668.9   | 730.8   | 1487.7  | 2355.0  | 2416.9  | 2787.6  |
| 85°   | 220.7  | 220.7  | 221.5  | 209.6  | 279.7   | 291.6   | 331.9   | 634.6   | 1149.9  | 1188.7  | 1182.0  |
| 87.5° | 70.8   | 78.3   | 76.1   | 88.7   | 107.4   | 96.9    | 101.4   | 199.1   | 394.5   | 390.8   | 326.6   |
| 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°    | 6387.2  | 6387.2  | 6387.2 | 6387.2 | 6387.2 | 6387.2 | 6387.2 | 6387.2 | 6387.2 | 6387.2 | 6387.2 |
| 2.5°  | 6396.2  | 6365.6  | 6294.0 | 6231.4 | 6169.5 | 6122.5 | 6082.2 | 6028.5 | 6003.2 | 5980.1 | 6028.5 |
| 5°    | 6414.8  | 6360.4  | 6232.1 | 6103.8 | 5986.0 | 5899.5 | 5846.6 | 5807.8 | 5772.7 | 5772.7 | 5789.1 |
| 7.5°  | 6436.4  | 6362.6  | 6179.2 | 5997.2 | 5820.5 | 5722.0 | 5646.7 | 5597.5 | 5569.2 | 5570.6 | 5605.7 |
| 10°   | 6450.6  | 6337.3  | 6118.8 | 5873.4 | 5681.0 | 5522.9 | 5449.1 | 5378.2 | 5324.6 | 5292.5 | 5328.3 |
| 12.5° | 6467.0  | 6329.1  | 6037.5 | 5760.8 | 5526.6 | 5347.7 | 5194.0 | 5141.1 | 5088.9 | 5048.6 | 5068.0 |
| 15°   | 6568.4  | 6360.4  | 5969.6 | 5617.6 | 5346.2 | 5123.2 | 4921.9 | 4824.9 | 4810.0 | 4782.4 | 4789.1 |
| 17.5° | 6734.0  | 6444.6  | 5925.6 | 5442.4 | 5129.2 | 4865.9 | 4610.9 | 4485.6 | 4455.8 | 4441.6 | 4449.1 |
| 20°   | 6980.8  | 6605.0  | 5939.0 | 5319.3 | 4884.6 | 4590.0 | 4260.4 | 4113.5 | 4014.3 | 4020.3 | 4049.3 |
| 22.5° | 7358.2  | 6863.8  | 6012.1 | 5184.4 | 4619.8 | 4233.5 | 3900.9 | 3701.1 | 3601.2 | 3579.5 | 3612.3 |
| 25°   | 7959.2  | 7280.6  | 6092.7 | 5055.3 | 4364.0 | 3848.7 | 3480.3 | 3264.1 | 3135.8 | 3127.6 | 3164.2 |
| 27.5° | 8729.6  | 7919.7  | 6267.9 | 4943.5 | 4046.4 | 3386.4 | 3020.2 | 2835.3 | 2698.8 | 2682.4 | 2670.5 |
| 30°   | 9517.8  | 8629.7  | 6584.8 | 4773.5 | 3675.7 | 2909.1 | 2590.7 | 2446.0 | 2293.1 | 2231.2 | 2244.7 |
| 32.5° | 10353.0 | 9291.1  | 6956.2 | 4654.1 | 3261.1 | 2489.3 | 2212.6 | 2074.6 | 1934.4 | 1845.0 | 1824.1 |
| 35°   | 11194.2 | 9948.9  | 7268.7 | 4475.9 | 2868.1 | 2155.9 | 1891.2 | 1748.8 | 1626.4 | 1553.4 | 1548.1 |
| 37.5° | 12178.6 | 10633.4 | 7519.3 | 4286.5 | 2460.2 | 1894.9 | 1576.5 | 1494.5 | 1435.5 | 1371.4 | 1378.1 |
| 40°   | 13164.5 | 11431.4 | 7719.9 | 3973.3 | 2121.6 | 1614.5 | 1341.6 | 1358.0 | 1370.7 | 1317.0 | 1312.5 |
| 42.5° | 13983.3 | 12101.8 | 7811.6 | 3567.6 | 1821.8 | 1370.7 | 1237.9 | 1312.5 | 1367.7 | 1332.6 | 1328.2 |
| 45°   | 14814.8 | 12666.3 | 7775.8 | 3064.2 | 1572.8 | 1254.3 | 1229.7 | 1305.8 | 1376.6 | 1368.4 | 1364.7 |
| 47.5° | 15718.6 | 13406.1 | 7713.9 | 2490.8 | 1394.5 | 1243.1 | 1247.6 | 1283.4 | 1372.9 | 1387.8 | 1381.8 |
| 50°   | 16823.8 | 14086.9 | 7347.7 | 1939.7 | 1308.0 | 1261.0 | 1287.9 | 1269.2 | 1345.3 | 1375.9 | 1381.1 |
| 52.5° | 17923.8 | 14611.2 | 6857.8 | 1680.9 | 1273.7 | 1278.2 | 1343.8 | 1280.4 | 1314.0 | 1340.8 | 1365.4 |
| 55°   | 18772.4 | 15145.1 | 6065.1 | 1525.0 | 1262.5 | 1286.4 | 1359.5 | 1304.3 | 1303.5 | 1303.5 | 1311.7 |
| 57.5° | 19641.2 | 15860.3 | 5272.4 | 1424.4 | 1243.1 | 1295.3 | 1340.8 | 1308.8 | 1298.3 | 1283.4 | 1273.7 |
| 60°   | 20246.0 | 16125.0 | 4253.7 | 1358.0 | 1223.0 | 1282.7 | 1288.6 | 1284.2 | 1252.1 | 1237.9 | 1226.7 |
| 62.5° | 20782.9 | 16269.0 | 3311.8 | 1281.9 | 1195.4 | 1252.8 | 1221.5 | 1211.8 | 1193.2 | 1158.9 | 1164.8 |
| 65°   | 20639.0 | 15960.2 | 2523.6 | 1196.2 | 1176.0 | 1217.0 | 1162.6 | 1139.5 | 1141.0 | 1105.2 | 1117.1 |
| 67.5° | 19712.8 | 14575.4 | 1812.1 | 1064.9 | 1123.1 | 1146.2 | 1095.5 | 1078.3 | 1053.0 | 1035.1 | 1051.5 |
| 70°   | 17841.7 | 12920.6 | 1222.3 | 883.7  | 1002.3 | 1052.2 | 1018.7 | 988.8  | 949.3  | 937.4  | 955.3  |
| 72.5° | 15016.9 | 10785.6 | 843.4  | 710.7  | 865.1  | 929.9  | 917.3  | 886.7  | 858.3  | 887.4  | 922.5  |
| 75°   | 12336.7 | 7979.4  | 688.3  | 582.4  | 665.2  | 774.8  | 812.1  | 821.1  | 906.1  | 1189.4 | 1218.5 |
| 77.5° | 8880.2  | 4946.5  | 619.0  | 473.5  | 531.0  | 619.7  | 694.3  | 724.9  | 1106.7 | 1059.7 | 1057.5 |
| 80°   | 5177.6  | 2883.0  | 472.1  | 373.6  | 429.5  | 454.2  | 542.9  | 850.9  | 954.5  | 818.8  | 798.7  |
| 82.5° | 2362.5  | 1272.2  | 328.9  | 299.0  | 298.3  | 300.5  | 369.9  | 818.8  | 732.3  | 645.1  | 621.2  |
| 85°   | 868.8   | 447.4   | 199.9  | 173.0  | 198.4  | 172.3  | 242.4  | 600.3  | 424.3  | 417.6  | 348.3  |
| 87.5° | 214.0   | 91.7    | 67.9   | 56.7   | 46.2   | 44.0   | 73.8   | 197.6  | 103.7  | 94.7   | 91.0   |
| 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)