

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: P510697

Luminaire Tested: **CST-CA8-230-722-U-T2**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510697  
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-CA8-230-722-U-T2  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (8) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28999 lumens  
Efficiency: N/A  
Efficacy: 127.0 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

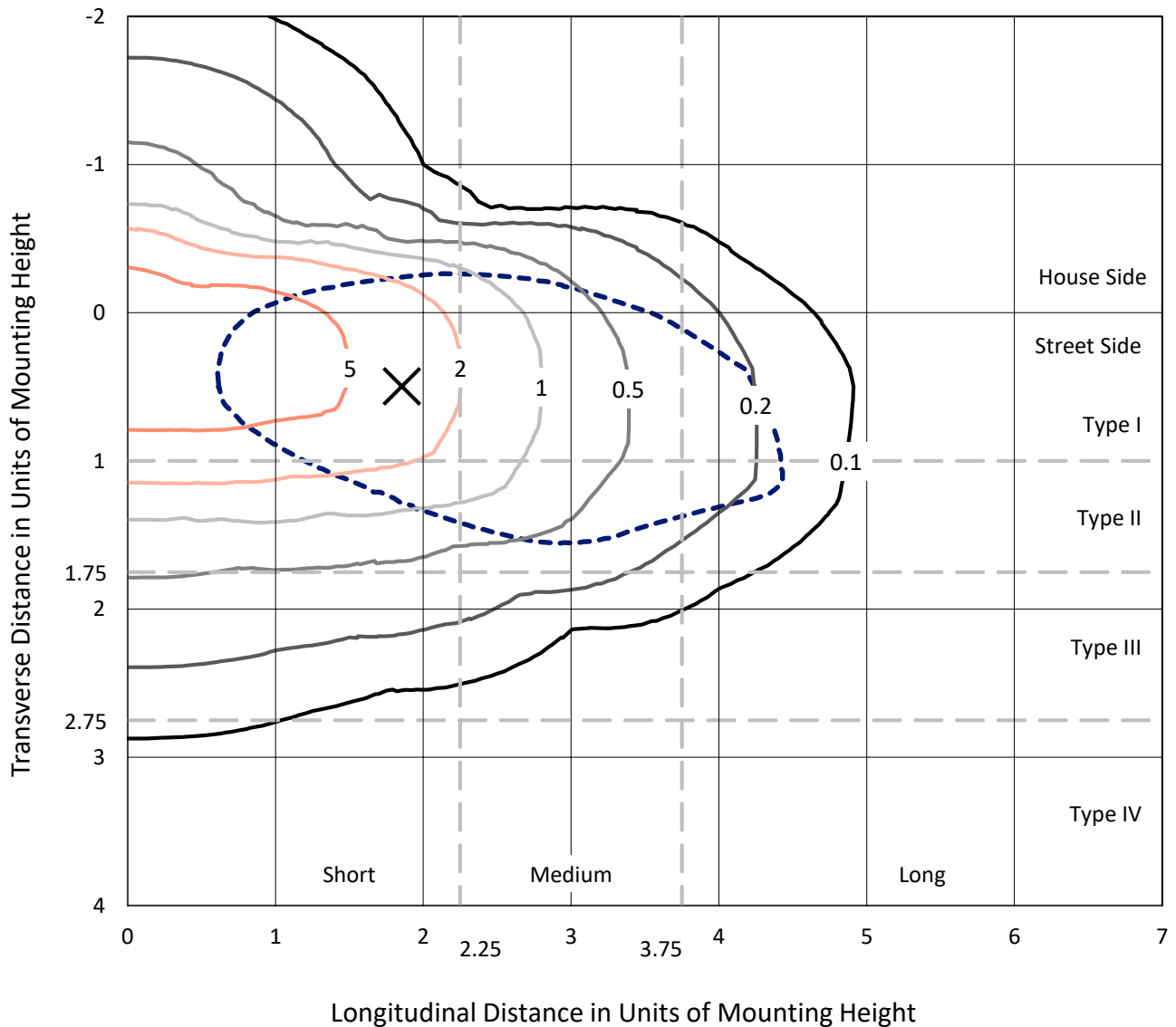
Input Watts (W): 228.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

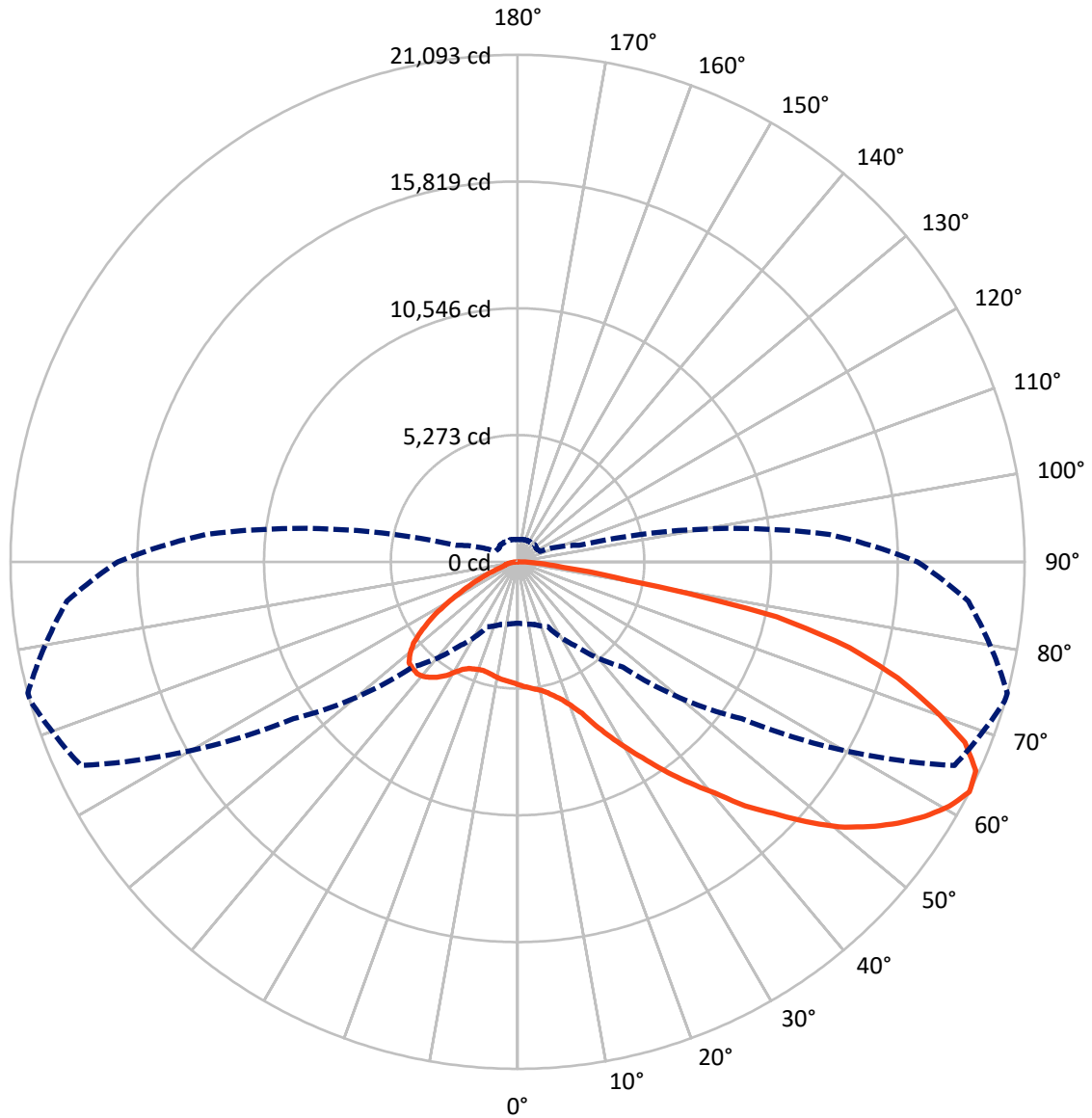
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.6 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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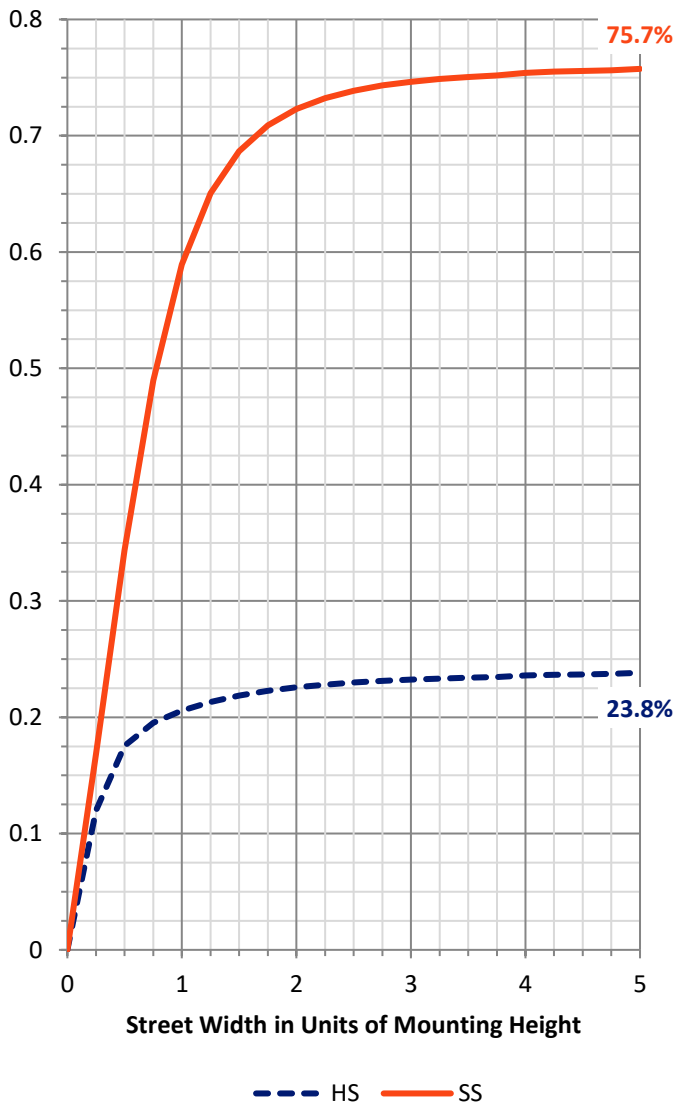
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7025.9   | 0.0    | 7025.9  |
|                    | % Fixture | 24.2     | 0.0    | 24.2    |
| <b>Street Side</b> | Lumens    | 21973.1  | 0.0    | 21973.1 |
|                    | % Fixture | 75.8     | 0.0    | 75.8    |
| <b>Total</b>       | Lumens    | 28999.0  | 0.0    | 28999.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 491.8   | 1.7       |
| 10°-20°   | 1492.5  | 5.1       |
| 20°-30°   | 2574.2  | 8.9       |
| 30°-40°   | 3795.7  | 13.1      |
| 40°-50°   | 5003.6  | 17.3      |
| 50°-60°   | 5888.8  | 20.3      |
| 60°-70°   | 5858.7  | 20.2      |
| 70°-80°   | 3416.6  | 11.8      |
| 80°-90°   | 477.1   | 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°    | 28999.0 | 100.0     |
| 0°-180°   | 28999.0 | 100.0     |



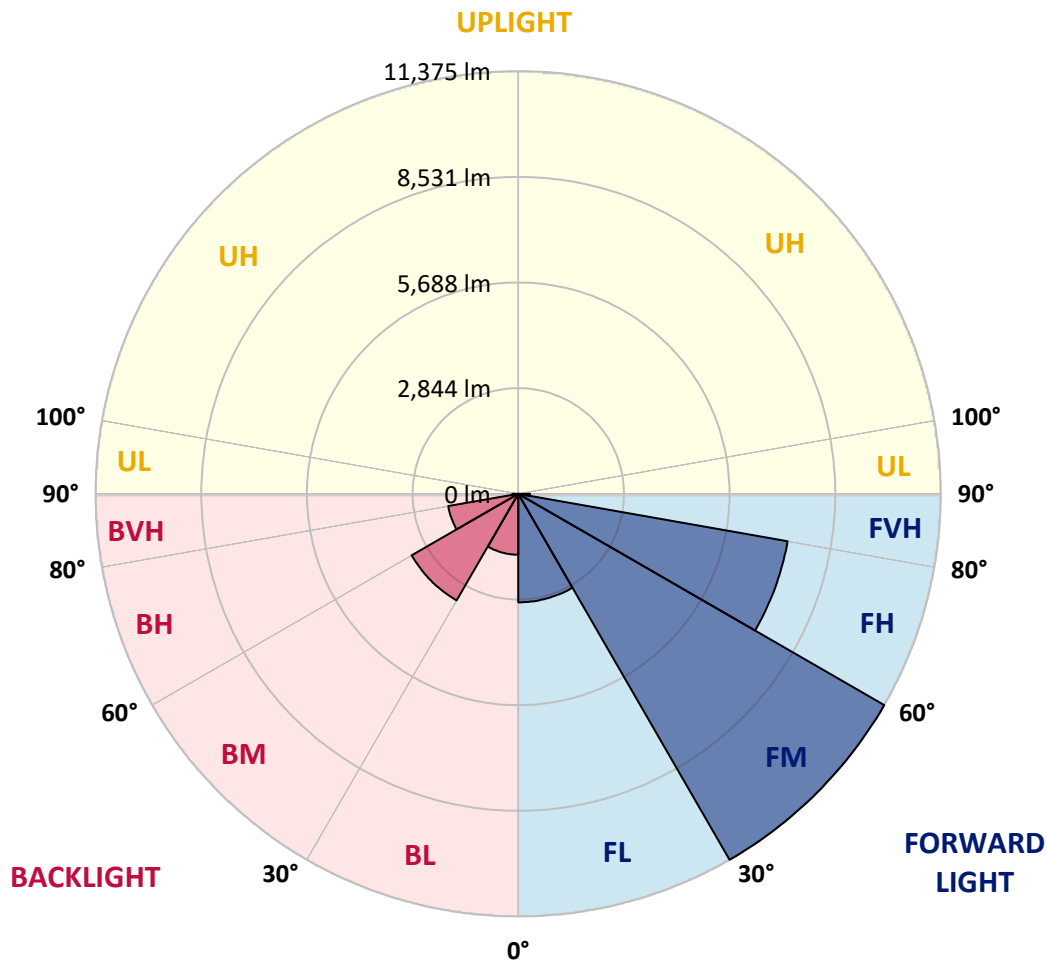
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 2920.1  | 10.1      |                         |      |         |
| FM (30°-60°)   | 11375.1 | 39.2      |                         |      |         |
| FH (60°-80°)   | 7361.3  | 25.4      |                         |      | G3/7500 |
| FVH (80°-90°)  | 316.6   | 1.1       |                         |      | G3/500  |
| BL (0°-30°)    | 1638.4  | 5.6       | B3/2500                 |      |         |
| BM (30°-60°)   | 3312.9  | 11.4      | B3/5000                 |      |         |
| BH (60°-80°)   | 1914.1  | 6.6       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 160.5   | 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-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 55°     | 65°     | 74°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| 0°    | 5111.9 | 5111.9 | 5111.9 | 5111.9 | 5111.9 | 5111.9  | 5111.9  | 5111.9  | 5111.9  | 5111.9  | 5111.9  |
| 2.5°  | 5391.8 | 5369.7 | 5372.7 | 5357.2 | 5333.9 | 5316.6  | 5271.2  | 5222.3  | 5193.0  | 5190.6  | 5148.9  |
| 5°    | 5662.7 | 5669.9 | 5671.7 | 5622.2 | 5573.2 | 5517.7  | 5448.5  | 5354.2  | 5277.2  | 5265.2  | 5184.1  |
| 7.5°  | 5909.8 | 5909.2 | 5905.6 | 5878.2 | 5855.5 | 5773.2  | 5634.7  | 5486.7  | 5361.3  | 5350.0  | 5218.1  |
| 10°   | 6162.9 | 6161.1 | 6125.3 | 6079.3 | 6028.0 | 5952.2  | 5833.4  | 5656.2  | 5453.2  | 5438.3  | 5249.7  |
| 12.5° | 6438.6 | 6418.9 | 6396.2 | 6340.7 | 6279.9 | 6148.6  | 6023.8  | 5831.0  | 5619.2  | 5592.3  | 5305.8  |
| 15°   | 6666.0 | 6645.7 | 6614.1 | 6576.5 | 6512.6 | 6412.4  | 6279.9  | 6051.3  | 5823.9  | 5797.6  | 5431.8  |
| 17.5° | 6891.0 | 6881.5 | 6858.8 | 6818.8 | 6769.9 | 6683.3  | 6561.6  | 6367.6  | 6069.8  | 6037.5  | 5641.3  |
| 20°   | 7075.4 | 7052.8 | 7036.0 | 7054.5 | 7058.7 | 6994.9  | 6928.0  | 6765.1  | 6436.8  | 6387.3  | 5898.5  |
| 22.5° | 7180.5 | 7175.7 | 7267.0 | 7335.1 | 7362.5 | 7376.8  | 7355.9  | 7224.6  | 6927.4  | 6840.9  | 6256.6  |
| 25°   | 7280.2 | 7272.4 | 7396.5 | 7566.6 | 7728.4 | 7810.7  | 7866.2  | 7883.5  | 7610.8  | 7532.6  | 6832.5  |
| 27.5° | 7283.1 | 7304.6 | 7484.9 | 7770.1 | 8016.6 | 8267.9  | 8534.1  | 8564.5  | 8325.2  | 8263.1  | 7487.8  |
| 30°   | 7299.2 | 7308.8 | 7487.3 | 7814.9 | 8328.2 | 8731.0  | 9077.8  | 9249.1  | 9042.6  | 9013.9  | 8209.4  |
| 32.5° | 7094.5 | 7107.1 | 7384.6 | 7893.1 | 8563.3 | 9210.3  | 9670.5  | 9924.7  | 9873.4  | 9837.0  | 8979.3  |
| 35°   | 6881.5 | 6892.2 | 7214.5 | 7782.1 | 8738.2 | 9645.4  | 10205.8 | 10705.4 | 10799.1 | 10771.6 | 9838.2  |
| 37.5° | 6547.2 | 6583.1 | 6920.9 | 7649.6 | 8768.6 | 9965.3  | 10716.7 | 11483.0 | 11765.9 | 11683.6 | 10746.5 |
| 40°   | 6184.4 | 6210.6 | 6603.9 | 7372.1 | 8734.6 | 10175.4 | 11218.6 | 12343.7 | 12686.2 | 12642.1 | 11648.4 |
| 42.5° | 5726.0 | 5796.4 | 6190.3 | 7017.5 | 8559.8 | 10306.1 | 11683.0 | 13319.5 | 13817.2 | 13876.3 | 12476.8 |
| 45°   | 5339.9 | 5338.1 | 5703.9 | 6504.3 | 8242.8 | 10337.1 | 12110.3 | 14306.1 | 15034.2 | 14923.2 | 13571.9 |
| 47.5° | 4885.7 | 4904.2 | 5286.1 | 5993.4 | 7775.5 | 10238.6 | 12443.3 | 15472.3 | 16209.3 | 16149.1 | 14470.2 |
| 50°   | 3834.6 | 3967.7 | 4691.1 | 5554.1 | 7143.5 | 9964.1  | 12720.9 | 16608.0 | 17311.7 | 17339.1 | 15286.6 |
| 52.5° | 3305.8 | 3357.2 | 3756.5 | 5111.9 | 6582.5 | 9503.3  | 13025.2 | 17885.8 | 18377.0 | 18307.2 | 16213.5 |
| 55°   | 3094.0 | 3121.4 | 3313.0 | 4317.5 | 6039.9 | 8790.1  | 13171.5 | 19052.7 | 19207.8 | 19196.5 | 16976.3 |
| 57.5° | 2940.6 | 2961.5 | 3097.6 | 3603.1 | 5444.3 | 7874.6  | 13047.9 | 19811.8 | 20052.9 | 19978.9 | 17696.1 |
| 60°   | 2719.2 | 2735.9 | 2938.8 | 3246.8 | 4831.4 | 6950.1  | 12288.2 | 20156.2 | 20665.9 | 20638.4 | 18332.3 |
| 62.5° | 2552.6 | 2581.3 | 2694.7 | 2983.6 | 4307.9 | 6188.5  | 11382.8 | 20048.8 | 21068.2 | 21092.6 | 18818.1 |
| 65°   | 2376.6 | 2402.2 | 2498.3 | 2750.8 | 3833.4 | 5687.8  | 10406.4 | 19510.4 | 20883.1 | 20948.2 | 18896.9 |
| 67.5° | 2159.3 | 2179.0 | 2293.0 | 2511.5 | 3279.0 | 5187.1  | 9305.2  | 18558.5 | 19856.6 | 20066.1 | 18112.6 |
| 70°   | 1886.0 | 1893.1 | 2032.8 | 2181.4 | 2722.7 | 4432.1  | 7398.9  | 17000.1 | 18371.1 | 18375.2 | 16631.9 |
| 72.5° | 1501.0 | 1507.0 | 1544.0 | 1656.8 | 2045.3 | 3507.6  | 5438.3  | 14204.6 | 16565.1 | 16534.6 | 14781.7 |
| 75°   | 1020.6 | 1073.1 | 1201.4 | 1308.9 | 1475.4 | 2463.1  | 3382.2  | 9570.2  | 14034.5 | 14273.2 | 12141.9 |
| 77.5° | 806.3  | 811.1  | 864.2  | 962.7  | 1106.5 | 1840.0  | 1895.5  | 5295.1  | 10463.1 | 11030.6 | 9543.9  |
| 80°   | 562.2  | 570.6  | 541.9  | 565.8  | 771.7  | 1259.3  | 1107.7  | 2304.4  | 4363.4  | 4658.9  | 5730.2  |
| 82.5° | 268.0  | 277.5  | 318.7  | 296.0  | 383.8  | 535.4   | 584.9   | 1190.7  | 1884.8  | 1934.3  | 2231.0  |
| 85°   | 176.7  | 176.7  | 177.3  | 167.7  | 223.8  | 233.4   | 265.6   | 507.9   | 920.3   | 951.3   | 946.0   |
| 87.5° | 56.7   | 62.7   | 60.9   | 71.0   | 85.9   | 77.6    | 81.2    | 159.4   | 315.7   | 312.7   | 261.4   |
| 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°    | 5111.9  | 5111.9  | 5111.9 | 5111.9 | 5111.9 | 5111.9 | 5111.9 | 5111.9 | 5111.9 | 5111.9 | 5111.9 |
| 2.5°  | 5119.0  | 5094.6  | 5037.3 | 4987.1 | 4937.6 | 4900.0 | 4867.8 | 4824.8 | 4804.5 | 4786.0 | 4824.8 |
| 5°    | 5133.9  | 5090.4  | 4987.7 | 4885.1 | 4790.8 | 4721.5 | 4679.2 | 4648.1 | 4620.1 | 4620.1 | 4633.2 |
| 7.5°  | 5151.3  | 5092.2  | 4945.3 | 4799.7 | 4658.3 | 4579.5 | 4519.2 | 4479.8 | 4457.1 | 4458.3 | 4486.4 |
| 10°   | 5162.6  | 5071.9  | 4897.0 | 4700.6 | 4546.7 | 4420.1 | 4361.0 | 4304.3 | 4261.4 | 4235.7 | 4264.4 |
| 12.5° | 5175.7  | 5065.3  | 4831.9 | 4610.5 | 4423.1 | 4279.9 | 4156.9 | 4114.6 | 4072.8 | 4040.5 | 4056.1 |
| 15°   | 5256.9  | 5090.4  | 4777.6 | 4495.9 | 4278.7 | 4100.2 | 3939.1 | 3861.5 | 3849.6 | 3827.5 | 3832.9 |
| 17.5° | 5389.4  | 5157.8  | 4742.4 | 4355.7 | 4105.0 | 3894.3 | 3690.2 | 3589.9 | 3566.1 | 3554.7 | 3560.7 |
| 20°   | 5586.9  | 5286.1  | 4753.2 | 4257.2 | 3909.2 | 3673.5 | 3409.7 | 3292.1 | 3212.7 | 3217.5 | 3240.8 |
| 22.5° | 5888.9  | 5493.2  | 4811.7 | 4149.2 | 3697.4 | 3388.2 | 3122.0 | 2962.1 | 2882.1 | 2864.8 | 2891.1 |
| 25°   | 6370.0  | 5826.9  | 4876.1 | 4045.9 | 3492.7 | 3080.2 | 2785.4 | 2612.3 | 2509.7 | 2503.1 | 2532.4 |
| 27.5° | 6986.5  | 6338.4  | 5016.4 | 3956.4 | 3238.4 | 2710.2 | 2417.2 | 2269.2 | 2159.9 | 2146.8 | 2137.3 |
| 30°   | 7617.4  | 6906.5  | 5270.0 | 3820.3 | 2941.8 | 2328.2 | 2073.4 | 1957.6 | 1835.3 | 1785.7 | 1796.5 |
| 32.5° | 8285.8  | 7435.9  | 5567.2 | 3724.8 | 2609.9 | 1992.2 | 1770.8 | 1660.4 | 1548.2 | 1476.6 | 1459.8 |
| 35°   | 8959.0  | 7962.3  | 5817.3 | 3582.2 | 2295.4 | 1725.4 | 1513.6 | 1399.6 | 1301.7 | 1243.2 | 1239.0 |
| 37.5° | 9746.9  | 8510.2  | 6017.9 | 3430.6 | 1968.9 | 1516.5 | 1261.7 | 1196.1 | 1148.9 | 1097.6 | 1102.9 |
| 40°   | 10535.9 | 9148.8  | 6178.4 | 3179.9 | 1698.0 | 1292.1 | 1073.7 | 1086.8 | 1097.0 | 1054.0 | 1050.4 |
| 42.5° | 11191.2 | 9685.4  | 6251.8 | 2855.2 | 1458.1 | 1097.0 | 990.7  | 1050.4 | 1094.6 | 1066.5 | 1063.0 |
| 45°   | 11856.7 | 10137.2 | 6223.2 | 2452.4 | 1258.7 | 1003.9 | 984.2  | 1045.1 | 1101.8 | 1095.2 | 1092.2 |
| 47.5° | 12580.0 | 10729.2 | 6173.6 | 1993.4 | 1116.1 | 994.9  | 998.5  | 1027.1 | 1098.8 | 1110.7 | 1105.9 |
| 50°   | 13464.5 | 11274.1 | 5880.6 | 1552.4 | 1046.8 | 1009.2 | 1030.7 | 1015.8 | 1076.7 | 1101.2 | 1105.3 |
| 52.5° | 14344.8 | 11693.7 | 5488.5 | 1345.3 | 1019.4 | 1023.0 | 1075.5 | 1024.8 | 1051.6 | 1073.1 | 1092.8 |
| 55°   | 15024.0 | 12121.1 | 4854.0 | 1220.5 | 1010.4 | 1029.5 | 1088.0 | 1043.9 | 1043.3 | 1043.3 | 1049.8 |
| 57.5° | 15719.3 | 12693.4 | 4219.6 | 1139.9 | 994.9  | 1036.7 | 1073.1 | 1047.4 | 1039.1 | 1027.1 | 1019.4 |
| 60°   | 16203.4 | 12905.3 | 3404.3 | 1086.8 | 978.8  | 1026.6 | 1031.3 | 1027.7 | 1002.1 | 990.7  | 981.8  |
| 62.5° | 16633.1 | 13020.5 | 2650.5 | 1026.0 | 956.7  | 1002.7 | 977.6  | 969.9  | 954.9  | 927.5  | 932.3  |
| 65°   | 16517.9 | 12773.4 | 2019.7 | 957.3  | 941.2  | 974.0  | 930.5  | 912.0  | 913.2  | 884.5  | 894.1  |
| 67.5° | 15776.6 | 11665.1 | 1450.3 | 852.3  | 898.8  | 917.3  | 876.7  | 863.0  | 842.7  | 828.4  | 841.5  |
| 70°   | 14279.2 | 10340.7 | 978.2  | 707.2  | 802.1  | 842.1  | 815.3  | 791.4  | 759.8  | 750.2  | 764.5  |
| 72.5° | 12018.4 | 8632.0  | 675.0  | 568.8  | 692.3  | 744.2  | 734.1  | 709.6  | 687.0  | 710.2  | 738.3  |
| 75°   | 9873.4  | 6386.1  | 550.9  | 466.1  | 532.4  | 620.1  | 649.9  | 657.1  | 725.2  | 951.9  | 975.2  |
| 77.5° | 7107.1  | 3958.8  | 495.4  | 379.0  | 424.9  | 496.0  | 555.7  | 580.1  | 885.7  | 848.1  | 846.3  |
| 80°   | 4143.8  | 2307.4  | 377.8  | 299.0  | 343.8  | 363.5  | 434.5  | 681.0  | 763.9  | 655.3  | 639.2  |
| 82.5° | 1890.8  | 1018.2  | 263.2  | 239.3  | 238.7  | 240.5  | 296.0  | 655.3  | 586.1  | 516.3  | 497.2  |
| 85°   | 695.3   | 358.1   | 160.0  | 138.5  | 158.8  | 137.9  | 194.0  | 480.4  | 339.6  | 334.2  | 278.7  |
| 87.5° | 171.3   | 73.4    | 54.3   | 45.4   | 37.0   | 35.2   | 59.1   | 158.2  | 83.0   | 75.8   | 72.8   |
| 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)