

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: McGRAW-EDISON

Report Number: P510666

Luminaire Tested: **CTN-CA6-230-740-U-T2-HSS**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510666  
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: MCGRAW-EDISON  
Catalog Number: CTN-CA6-230-740-U-T2-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (6) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31359 lumens  
Efficiency: N/A  
Efficacy: 137.7 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G4

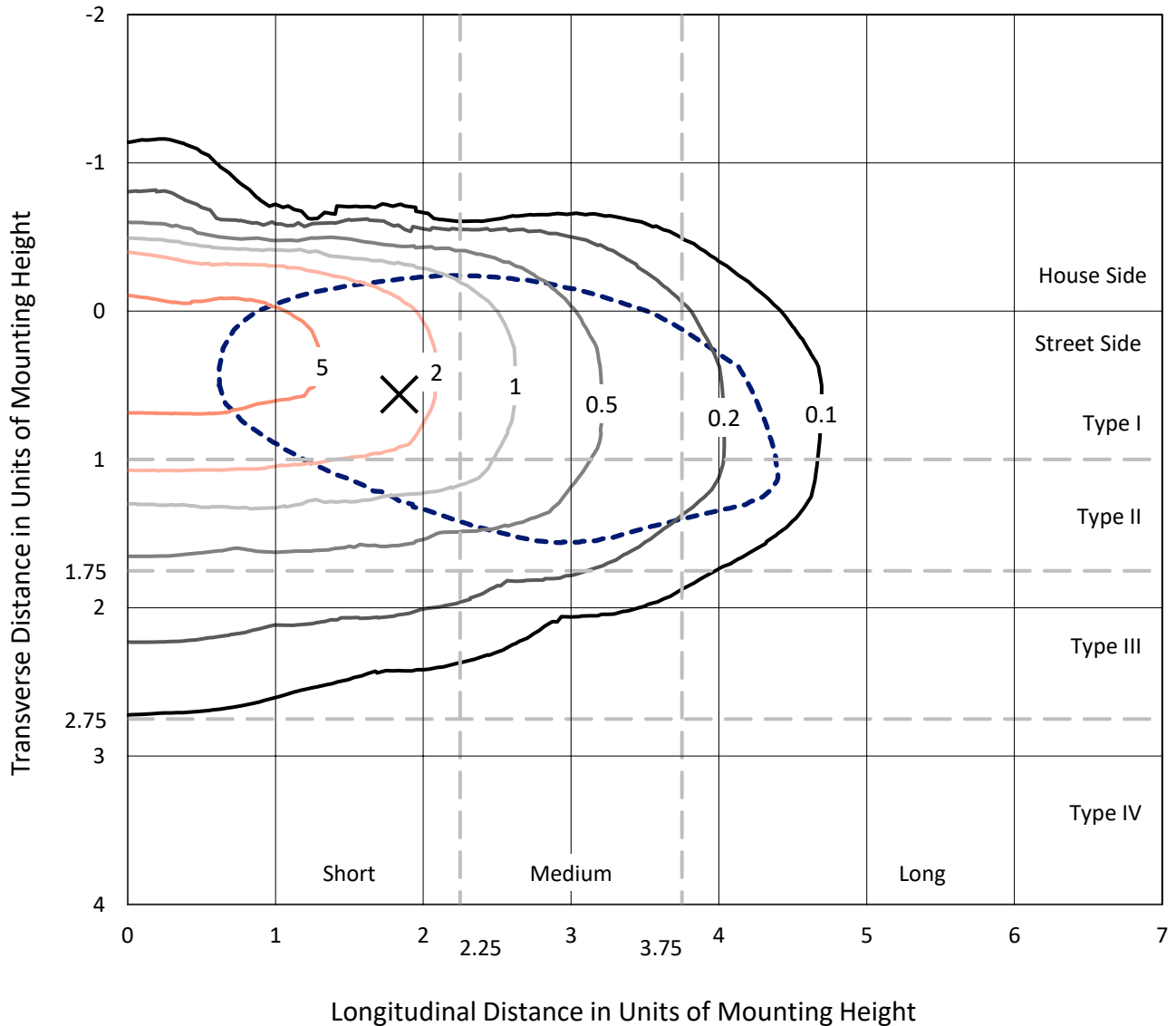
Input Watts (W): 227.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

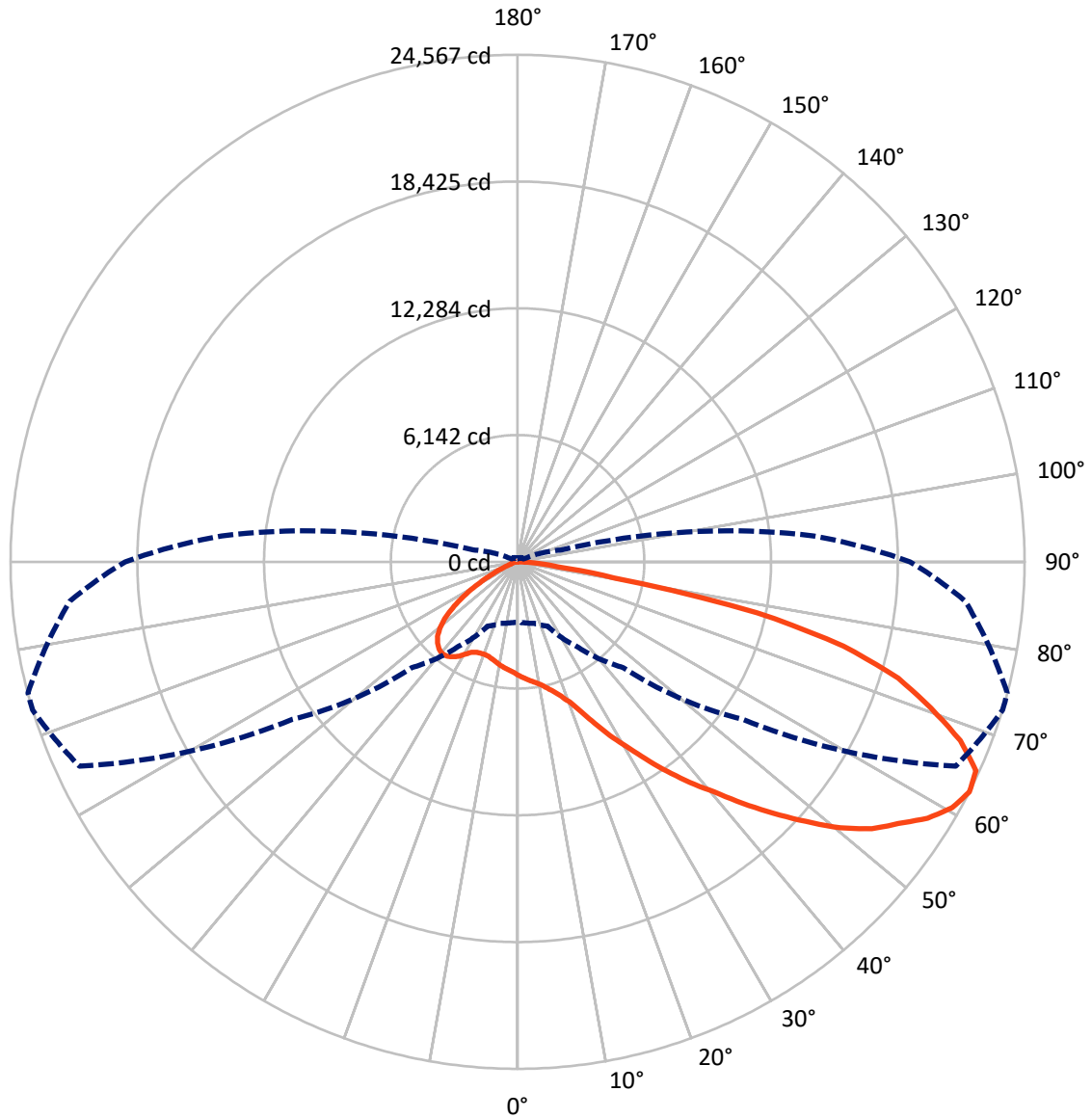
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.6 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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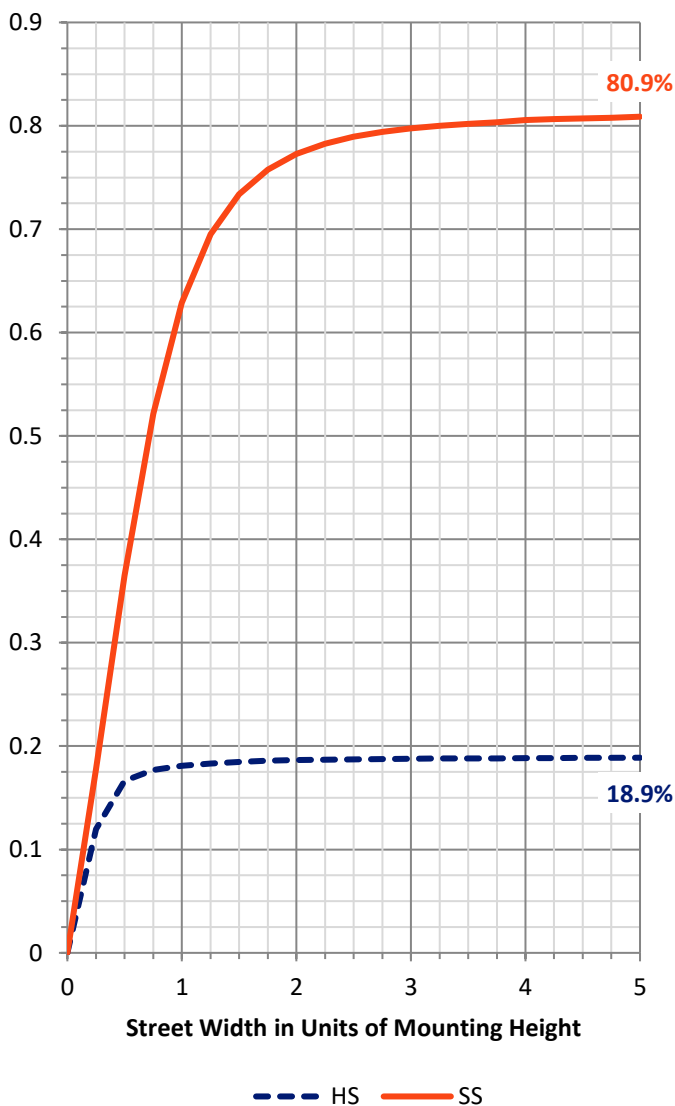
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 5998.8   | 0.0    | 5998.8  |
|                    | % Fixture | 19.1     | 0.0    | 19.1    |
| <b>Street Side</b> | Lumens    | 25360.2  | 0.0    | 25360.2 |
|                    | % Fixture | 80.9     | 0.0    | 80.9    |
| <b>Total</b>       | Lumens    | 31359.0  | 0.0    | 31359.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 525.3   | 1.7       |
| 10°-20°   | 1579.9  | 5.0       |
| 20°-30°   | 2729.8  | 8.7       |
| 30°-40°   | 4105.0  | 13.1      |
| 40°-50°   | 5473.6  | 17.5      |
| 50°-60°   | 6446.2  | 20.6      |
| 60°-70°   | 6408.7  | 20.4      |
| 70°-80°   | 3679.4  | 11.7      |
| 80°-90°   | 411.0   | 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°    | 31359.0 | 100.0     |
| 0°-180°   | 31359.0 | 100.0     |

**Coefficient of Utilization**



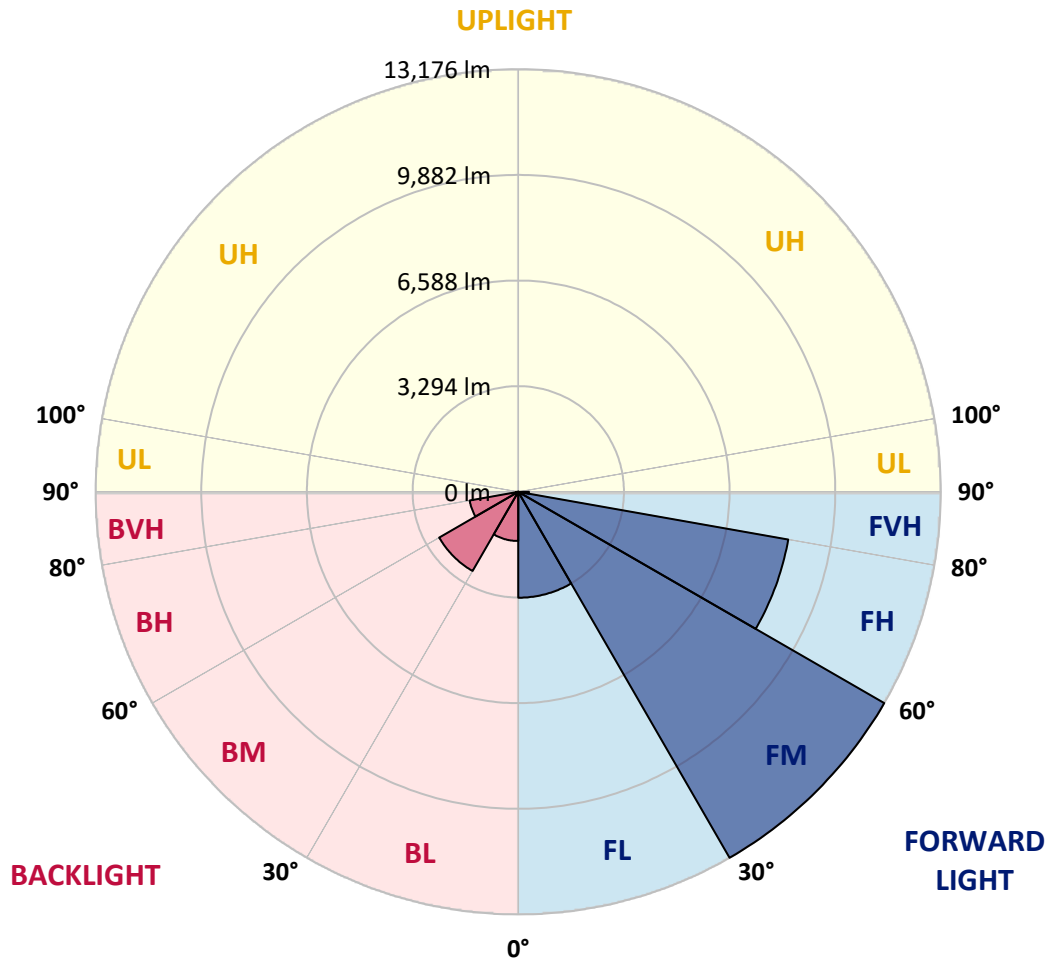
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|---------|-----------|-------------------------|------|----------|
|                |         |           | B                       | U    | G        |
| FL (0°-30°)    | 3302.1  | 10.5      |                         |      |          |
| FM (30°-60°)   | 13176.3 | 42.0      |                         |      |          |
| FH (60°-80°)   | 8548.0  | 27.3      |                         |      | G4/12000 |
| FVH (80°-90°)  | 333.8   | 1.1       |                         |      | G3/500   |
| BL (0°-30°)    | 1533.0  | 4.9       | B3/2500                 |      |          |
| BM (30°-60°)   | 2848.5  | 9.1       | B3/5000                 |      |          |
| BH (60°-80°)   | 1540.1  | 4.9       | B3/2500                 |      | G3/2500  |
| BVH (80°-90°)  | 77.2    | 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-G4**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°     | 45°     | 55°     | 65°     | 73°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5499.7 | 5499.7 | 5499.7 | 5499.7 | 5499.7  | 5499.7  | 5499.7  | 5499.7  | 5499.7  | 5499.7  | 5499.7  |
| 2.5°  | 5884.0 | 5898.8 | 5881.2 | 5873.4 | 5865.0  | 5810.1  | 5746.0  | 5680.6  | 5627.8  | 5619.3  | 5550.3  |
| 5°    | 6297.2 | 6304.9 | 6276.1 | 6243.0 | 6186.0  | 6095.2  | 5980.4  | 5867.1  | 5761.5  | 5733.4  | 5607.4  |
| 7.5°  | 6614.6 | 6599.9 | 6592.8 | 6564.7 | 6514.7  | 6414.7  | 6240.9  | 6055.0  | 5891.7  | 5852.3  | 5660.9  |
| 10°   | 6912.4 | 6906.1 | 6852.6 | 6817.4 | 6737.8  | 6645.6  | 6502.7  | 6266.9  | 6036.7  | 5973.4  | 5707.3  |
| 12.5° | 7234.8 | 7220.7 | 7198.9 | 7122.9 | 7058.1  | 6902.5  | 6730.1  | 6515.4  | 6259.2  | 6174.7  | 5786.9  |
| 15°   | 7524.8 | 7486.8 | 7474.8 | 7395.3 | 7329.8  | 7210.9  | 7037.7  | 6788.5  | 6514.7  | 6442.2  | 5938.2  |
| 17.5° | 7800.7 | 7783.1 | 7756.4 | 7702.2 | 7629.0  | 7537.5  | 7398.8  | 7132.0  | 6849.1  | 6743.5  | 6195.1  |
| 20°   | 8035.1 | 8013.3 | 7990.1 | 8004.9 | 7988.7  | 7930.3  | 7843.0  | 7615.6  | 7270.0  | 7167.9  | 6507.7  |
| 22.5° | 8198.4 | 8197.7 | 8290.7 | 8344.9 | 8375.8  | 8373.7  | 8352.6  | 8223.8  | 7876.1  | 7772.6  | 6975.1  |
| 25°   | 8334.3 | 8344.9 | 8462.4 | 8668.7 | 8853.1  | 8870.0  | 9019.2  | 8958.0  | 8662.3  | 8554.6  | 7678.3  |
| 27.5° | 8374.4 | 8395.5 | 8608.8 | 8933.3 | 9213.5  | 9482.4  | 9701.3  | 9813.2  | 9539.4  | 9410.6  | 8434.3  |
| 30°   | 8403.3 | 8411.7 | 8620.8 | 9009.4 | 9599.9  | 10025.8 | 10417.2 | 10606.5 | 10370.7 | 10276.4 | 9276.8  |
| 32.5° | 8199.9 | 8202.7 | 8523.0 | 9111.4 | 9883.6  | 10622.0 | 11085.2 | 11442.1 | 11380.1 | 11255.5 | 10198.3 |
| 35°   | 7919.7 | 7971.8 | 8339.2 | 9012.9 | 10117.3 | 11169.7 | 11800.4 | 12332.5 | 12456.4 | 12367.0 | 11119.0 |
| 37.5° | 7573.4 | 7614.2 | 8007.7 | 8866.5 | 10168.7 | 11546.2 | 12356.4 | 13237.7 | 13561.5 | 13546.8 | 12230.4 |
| 40°   | 7147.5 | 7197.5 | 7668.4 | 8551.1 | 10143.4 | 11820.1 | 13009.0 | 14240.1 | 14651.2 | 14604.7 | 13332.8 |
| 42.5° | 6644.2 | 6717.4 | 7174.3 | 8145.7 | 9958.2  | 11987.6 | 13543.2 | 15260.8 | 16000.6 | 15970.3 | 14308.4 |
| 45°   | 6146.5 | 6186.0 | 6602.7 | 7581.1 | 9617.5  | 12041.8 | 14045.8 | 16667.2 | 17384.5 | 17350.7 | 15483.9 |
| 47.5° | 5633.4 | 5667.9 | 6102.9 | 6986.3 | 9026.2  | 11932.7 | 14443.5 | 17875.1 | 18794.4 | 18760.6 | 16651.7 |
| 50°   | 4439.6 | 4569.8 | 5461.6 | 6463.3 | 8352.6  | 11623.7 | 14818.7 | 19380.1 | 20269.8 | 20126.2 | 17674.5 |
| 52.5° | 3798.3 | 3845.5 | 4307.9 | 5936.1 | 7680.4  | 11096.4 | 15069.3 | 20774.5 | 21483.4 | 21276.4 | 18720.5 |
| 55°   | 3550.5 | 3582.2 | 3808.9 | 4964.0 | 7049.0  | 10298.9 | 15364.3 | 22172.5 | 22393.5 | 22340.7 | 19573.6 |
| 57.5° | 3362.6 | 3397.8 | 3559.7 | 4146.0 | 6383.8  | 9181.1  | 15272.0 | 23155.8 | 23432.5 | 23263.5 | 20479.6 |
| 60°   | 3096.5 | 3139.4 | 3354.1 | 3722.3 | 5627.8  | 8046.4  | 14460.4 | 23558.5 | 24187.8 | 23997.7 | 21168.7 |
| 62.5° | 2929.0 | 2957.1 | 3080.3 | 3437.2 | 5001.3  | 7248.2  | 13305.3 | 23429.0 | 24567.2 | 24560.1 | 21766.3 |
| 65°   | 2701.6 | 2743.1 | 2874.8 | 3164.1 | 4443.8  | 6629.4  | 12215.7 | 22789.1 | 24403.9 | 24410.2 | 21889.5 |
| 67.5° | 2463.7 | 2480.6 | 2618.5 | 2850.8 | 3787.0  | 6062.8  | 10805.7 | 21694.5 | 23131.9 | 23276.9 | 21037.1 |
| 70°   | 2166.6 | 2158.2 | 2307.4 | 2477.1 | 3095.1  | 5147.7  | 8697.5  | 19747.5 | 21252.5 | 21312.3 | 19313.2 |
| 72.5° | 1704.9 | 1712.6 | 1754.1 | 1871.7 | 2349.7  | 4051.0  | 6311.3  | 16684.1 | 19287.9 | 19394.1 | 17110.0 |
| 75°   | 1146.0 | 1158.6 | 1352.2 | 1466.9 | 1690.1  | 2911.4  | 3968.6  | 11261.9 | 16305.4 | 16605.3 | 14003.6 |
| 77.5° | 874.3  | 882.0  | 938.3  | 1063.6 | 1222.7  | 2075.1  | 2151.2  | 6136.7  | 11870.8 | 12582.4 | 10955.0 |
| 80°   | 619.4  | 622.3  | 566.6  | 504.0  | 651.1   | 1407.8  | 1270.6  | 2613.6  | 4730.3  | 5589.8  | 6434.4  |
| 82.5° | 277.3  | 273.1  | 321.7  | 267.5  | 375.2   | 544.8   | 599.7   | 1268.4  | 1964.6  | 2111.7  | 2299.0  |
| 85°   | 128.8  | 144.3  | 165.4  | 138.7  | 223.1   | 210.5   | 233.7   | 540.6   | 920.7   | 1016.4  | 1010.8  |
| 87.5° | 31.7   | 34.5   | 43.6   | 55.6   | 80.9    | 71.8    | 70.4    | 159.1   | 205.5   | 204.8   | 314.6   |
| 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°    | 5499.7  | 5499.7  | 5499.7 | 5499.7 | 5499.7 | 5499.7 | 5499.7 | 5499.7 | 5499.7 | 5499.7 | 5499.7 |
| 2.5°  | 5503.2  | 5466.6  | 5380.0 | 5296.2 | 5216.7 | 5163.9 | 5104.8 | 5042.8 | 5005.5 | 4987.9 | 5025.9 |
| 5°    | 5530.6  | 5460.9  | 5295.5 | 5129.4 | 4988.6 | 4868.2 | 4783.8 | 4712.0 | 4673.3 | 4676.8 | 4678.9 |
| 7.5°  | 5553.9  | 5456.0  | 5224.4 | 4990.0 | 4770.4 | 4621.2 | 4510.7 | 4433.2 | 4388.9 | 4355.1 | 4380.4 |
| 10°   | 5574.3  | 5435.6  | 5141.4 | 4828.8 | 4590.2 | 4369.2 | 4219.2 | 4125.6 | 4044.0 | 3998.2 | 4034.1 |
| 12.5° | 5596.1  | 5427.9  | 5048.4 | 4684.5 | 4375.5 | 4128.4 | 3922.9 | 3830.0 | 3749.7 | 3715.2 | 3737.1 |
| 15°   | 5691.1  | 5457.4  | 4961.9 | 4514.9 | 4163.6 | 3844.1 | 3622.3 | 3508.3 | 3444.9 | 3403.4 | 3412.6 |
| 17.5° | 5854.4  | 5535.6  | 4906.3 | 4337.5 | 3927.1 | 3589.2 | 3302.0 | 3169.0 | 3064.1 | 3034.6 | 3026.8 |
| 20°   | 6086.7  | 5684.1  | 4906.3 | 4187.6 | 3658.9 | 3306.3 | 2975.4 | 2750.9 | 2587.6 | 2526.3 | 2573.5 |
| 22.5° | 6476.7  | 5936.8  | 4954.8 | 4051.7 | 3428.0 | 3012.7 | 2618.5 | 2275.7 | 2055.4 | 1966.0 | 2018.1 |
| 25°   | 7022.2  | 6327.5  | 5033.7 | 3932.7 | 3217.6 | 2674.9 | 2165.9 | 1771.7 | 1528.9 | 1422.6 | 1421.2 |
| 27.5° | 7734.6  | 6925.1  | 5192.7 | 3835.6 | 2965.6 | 2237.7 | 1693.6 | 1314.2 | 1086.1 | 1022.1 | 1031.2 |
| 30°   | 8524.4  | 7572.7  | 5493.3 | 3694.8 | 2659.4 | 1748.5 | 1233.3 | 965.8  | 805.3  | 720.8  | 722.2  |
| 32.5° | 9286.0  | 8243.5  | 5850.2 | 3603.3 | 2261.7 | 1318.4 | 879.2  | 689.1  | 589.2  | 539.2  | 546.9  |
| 35°   | 10102.5 | 8822.1  | 6115.6 | 3449.9 | 1795.0 | 953.1  | 621.6  | 516.7  | 475.1  | 449.1  | 450.5  |
| 37.5° | 10984.5 | 9458.4  | 6333.8 | 3244.3 | 1357.1 | 654.6  | 458.9  | 442.8  | 425.2  | 392.1  | 389.3  |
| 40°   | 11905.9 | 10195.4 | 6464.0 | 2912.1 | 943.2  | 453.3  | 390.0  | 408.3  | 398.4  | 355.5  | 352.0  |
| 42.5° | 12687.3 | 10764.2 | 6496.4 | 2472.1 | 610.3  | 367.4  | 353.4  | 381.5  | 383.6  | 340.0  | 334.4  |
| 45°   | 13437.7 | 11271.0 | 6433.0 | 1892.8 | 423.1  | 345.6  | 330.8  | 369.6  | 372.4  | 332.9  | 323.8  |
| 47.5° | 14277.4 | 11964.4 | 6318.3 | 1262.8 | 349.8  | 326.6  | 323.1  | 349.8  | 359.7  | 327.3  | 316.1  |
| 50°   | 15297.4 | 12528.2 | 5978.3 | 775.7  | 330.1  | 314.6  | 314.6  | 330.8  | 344.2  | 316.1  | 310.4  |
| 52.5° | 16343.4 | 13019.5 | 5475.0 | 532.2  | 318.2  | 302.0  | 311.1  | 318.2  | 323.1  | 297.8  | 302.7  |
| 55°   | 17093.1 | 13455.3 | 4724.6 | 428.0  | 311.1  | 293.5  | 315.4  | 301.3  | 294.2  | 272.4  | 267.5  |
| 57.5° | 17925.1 | 13973.3 | 3957.4 | 379.4  | 302.0  | 298.5  | 301.3  | 274.5  | 254.8  | 232.3  | 227.4  |
| 60°   | 18505.8 | 14252.1 | 3018.4 | 356.9  | 291.4  | 293.5  | 278.0  | 242.1  | 206.2  | 190.1  | 186.5  |
| 62.5° | 19012.6 | 14411.2 | 2212.4 | 328.0  | 281.6  | 280.9  | 252.0  | 206.9  | 169.6  | 152.0  | 149.2  |
| 65°   | 18935.9 | 14162.7 | 1433.9 | 304.8  | 273.8  | 264.7  | 226.0  | 177.4  | 141.5  | 128.1  | 126.7  |
| 67.5° | 18091.9 | 13063.2 | 903.1  | 280.9  | 260.4  | 244.3  | 202.7  | 158.4  | 130.2  | 114.7  | 113.3  |
| 70°   | 16320.2 | 11544.8 | 552.6  | 249.9  | 231.6  | 216.1  | 179.5  | 148.5  | 123.2  | 104.9  | 101.4  |
| 72.5° | 13871.3 | 9887.8  | 390.7  | 220.3  | 202.0  | 183.7  | 152.0  | 141.5  | 117.6  | 94.3   | 91.5   |
| 75°   | 11396.3 | 7283.4  | 327.3  | 192.2  | 172.5  | 147.8  | 129.5  | 131.6  | 110.5  | 85.9   | 83.8   |
| 77.5° | 8025.3  | 4540.9  | 304.8  | 157.0  | 135.9  | 117.6  | 111.9  | 120.4  | 101.4  | 78.8   | 76.7   |
| 80°   | 4683.8  | 2550.3  | 252.0  | 123.9  | 102.1  | 90.8   | 93.6   | 102.1  | 88.7   | 71.1   | 68.3   |
| 82.5° | 1890.7  | 1009.4  | 177.4  | 96.4   | 74.6   | 72.5   | 76.7   | 83.1   | 73.2   | 59.8   | 58.4   |
| 85°   | 675.1   | 315.4   | 100.7  | 63.4   | 47.9   | 50.0   | 49.3   | 59.1   | 52.8   | 43.6   | 42.9   |
| 87.5° | 177.4   | 62.6    | 45.1   | 25.3   | 20.4   | 20.4   | 19.0   | 27.5   | 25.3   | 19.7   | 21.8   |
| 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)