

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: P510530

Luminaire Tested: **CTN-CA10-630-727-U-T4-HSS**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510530  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-17)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-630-727-U-T4-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (10) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 69141 lumens  
Efficiency: N/A  
Efficacy: 109.5 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U0 - G5

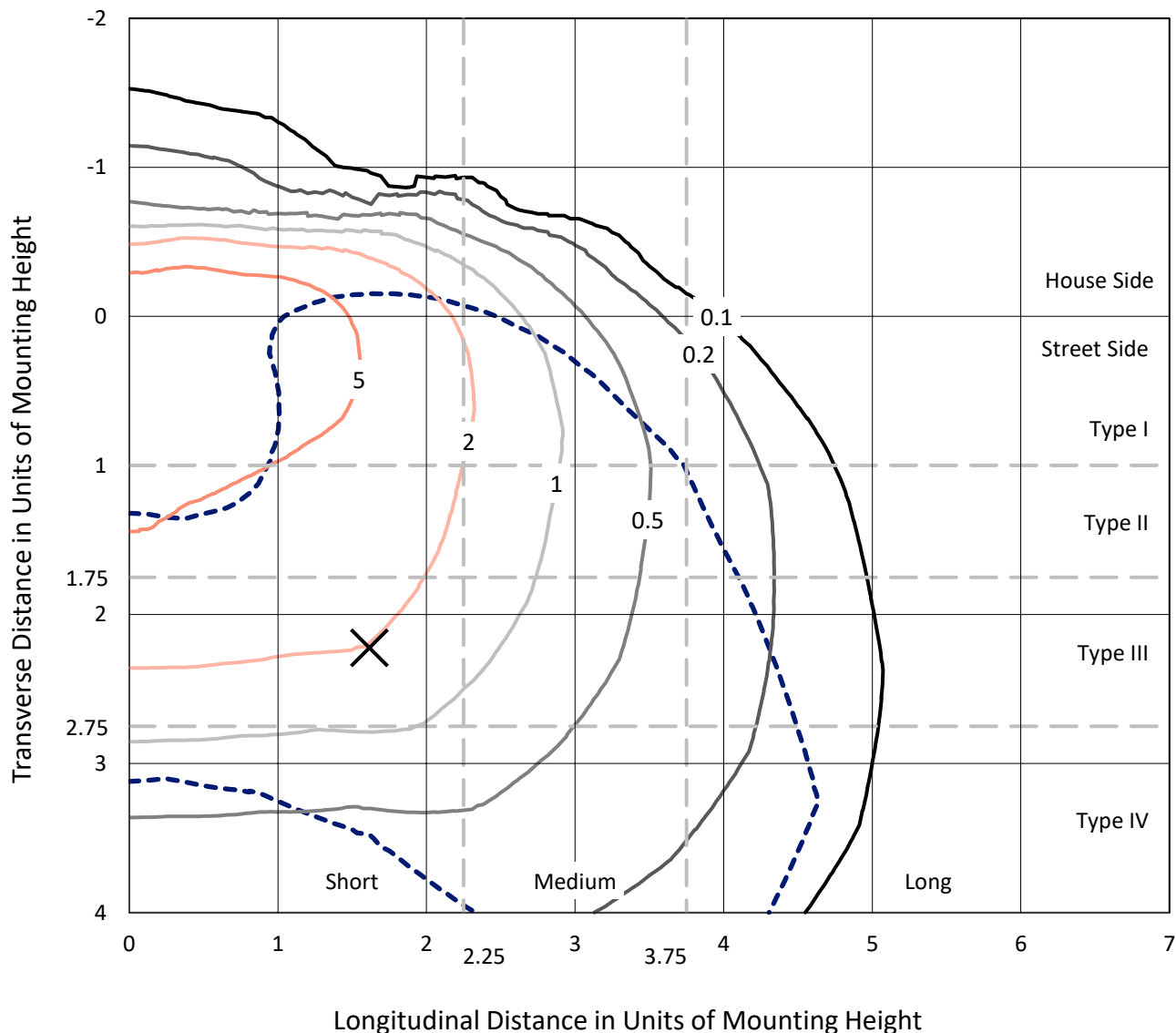
Input Watts (W): 631.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

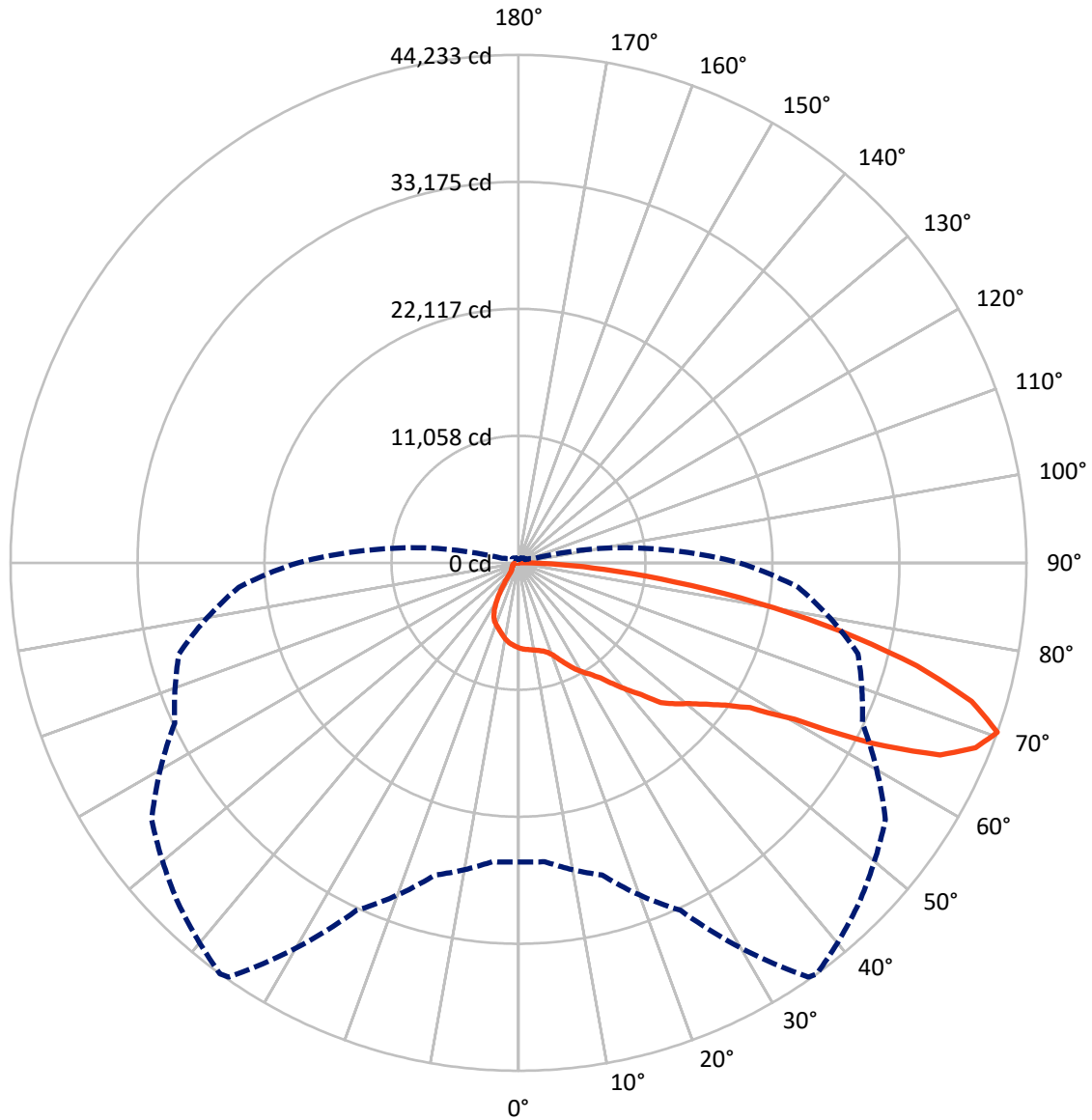
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.4 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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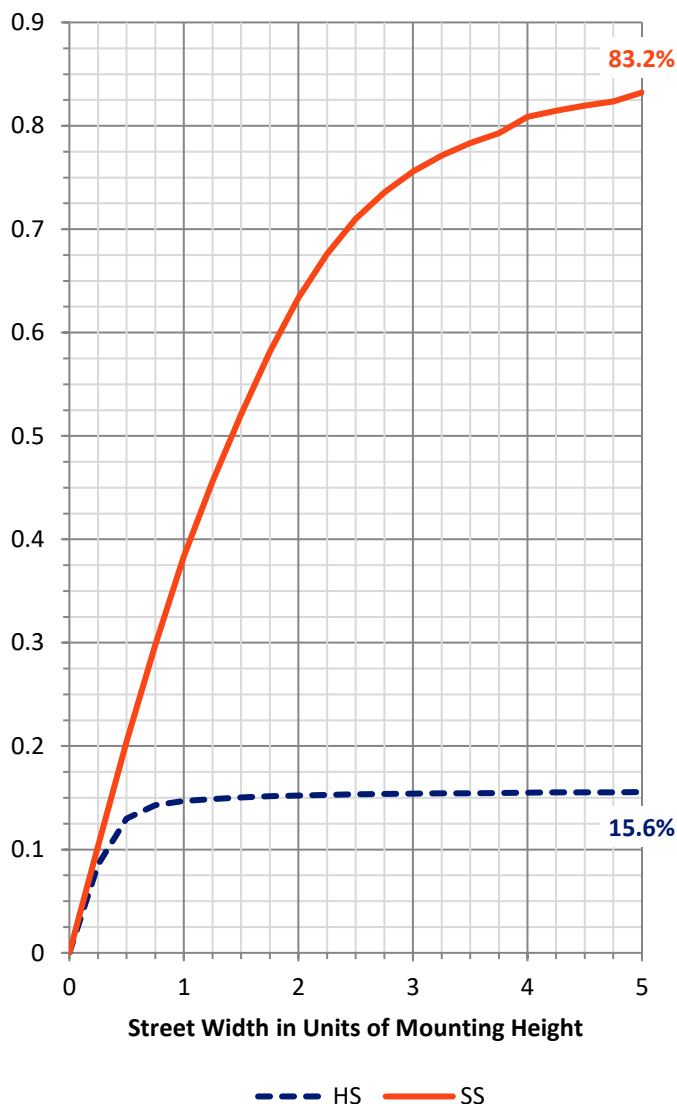
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 10911.0  | 0.0    | 10911.0 |
|                    | % Fixture | 15.8     | 0.0    | 15.8    |
| <b>Street Side</b> | Lumens    | 58230.0  | 0.0    | 58230.0 |
|                    | % Fixture | 84.2     | 0.0    | 84.2    |
| <b>Total</b>       | Lumens    | 69141.0  | 0.0    | 69141.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 702.6   | 1.0       |
| 10°-20°   | 2089.4  | 3.0       |
| 20°-30°   | 3757.3  | 5.4       |
| 30°-40°   | 5945.9  | 8.6       |
| 40°-50°   | 9292.3  | 13.4      |
| 50°-60°   | 13343.6 | 19.3      |
| 60°-70°   | 18099.3 | 26.2      |
| 70°-80°   | 13395.4 | 19.4      |
| 80°-90°   | 2515.2  | 3.6       |
| 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°    | 69141.0 | 100.0     |
| 0°-180°   | 69141.0 | 100.0     |

**Coefficient of Utilization**



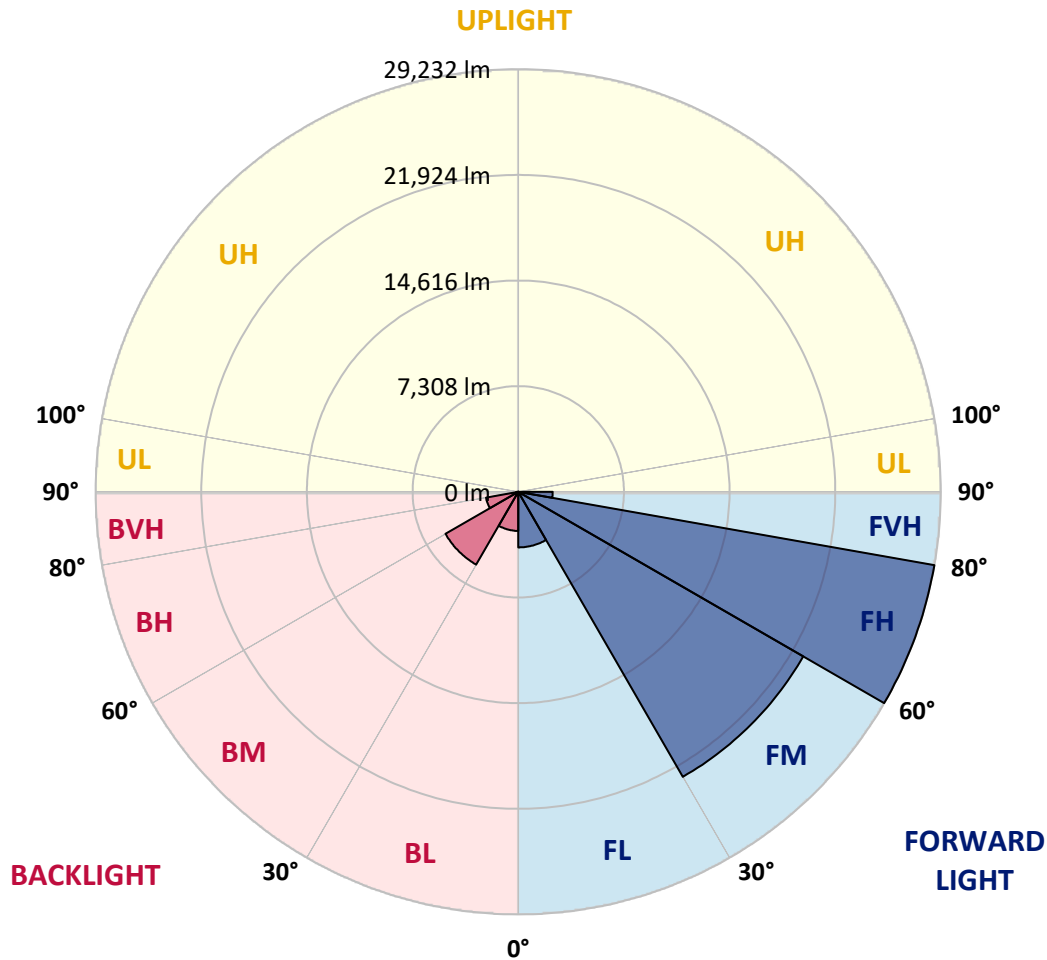
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 3845.6  | 5.6       |                         |      |         |
| FM (30°-60°)   | 22767.5 | 32.9      |                         |      |         |
| FH (60°-80°)   | 29232.1 | 42.3      |                         |      | G5      |
| FVH (80°-90°)  | 2384.8  | 3.4       |                         |      | G5      |
| BL (0°-30°)    | 2703.7  | 3.9       | B4/5000                 |      |         |
| BM (30°-60°)   | 5814.2  | 8.4       | B4/8500                 |      |         |
| BH (60°-80°)   | 2262.6  | 3.3       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 130.4   | 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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 36°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 7408.1  | 7408.1  | 7408.1  | 7408.1  | 7408.1  | 7408.1  | 7408.1  | 7408.1  | 7408.1  | 7408.1  | 7408.1  |
| 2.5°  | 7558.2  | 7542.2  | 7529.4  | 7534.2  | 7524.6  | 7531.0  | 7516.7  | 7499.1  | 7457.6  | 7440.0  | 7432.1  |
| 5°    | 7625.2  | 7620.4  | 7607.6  | 7598.1  | 7580.5  | 7574.1  | 7558.2  | 7572.5  | 7550.2  | 7492.7  | 7459.2  |
| 7.5°  | 7665.1  | 7663.5  | 7649.1  | 7628.4  | 7638.0  | 7646.0  | 7661.9  | 7639.6  | 7610.8  | 7583.7  | 7515.1  |
| 10°   | 7682.7  | 7682.7  | 7665.1  | 7676.3  | 7725.8  | 7730.6  | 7738.5  | 7752.9  | 7725.8  | 7685.9  | 7617.2  |
| 12.5° | 7727.4  | 7724.2  | 7730.6  | 7767.3  | 7818.3  | 7829.5  | 7869.4  | 7869.4  | 7872.6  | 7848.7  | 7768.9  |
| 15°   | 7839.1  | 7839.1  | 7853.5  | 7887.0  | 7974.8  | 7981.2  | 8040.2  | 8092.9  | 8099.3  | 8064.2  | 8003.5  |
| 17.5° | 8097.7  | 8091.3  | 8083.3  | 8104.1  | 8198.2  | 8201.4  | 8303.6  | 8370.6  | 8388.2  | 8426.5  | 8416.9  |
| 20°   | 8589.3  | 8582.9  | 8581.3  | 8582.9  | 8576.6  | 8567.0  | 8667.5  | 8739.4  | 8828.8  | 8895.8  | 8929.3  |
| 22.5° | 9293.3  | 9278.9  | 9278.9  | 9200.7  | 9140.0  | 9149.6  | 9165.6  | 9205.5  | 9323.6  | 9441.7  | 9567.8  |
| 25°   | 10051.5 | 10041.9 | 10049.9 | 9850.3  | 9768.9  | 9800.9  | 9780.1  | 9842.4  | 9997.2  | 10099.4 | 10233.4 |
| 27.5° | 10670.8 | 10685.2 | 10640.5 | 10485.6 | 10433.0 | 10456.9 | 10409.0 | 10587.8 | 10758.6 | 10937.4 | 11140.1 |
| 30°   | 11441.8 | 11365.2 | 11255.0 | 11066.7 | 11047.5 | 11050.7 | 11047.5 | 11334.8 | 11689.2 | 11944.6 | 12225.5 |
| 32.5° | 12449.0 | 12461.8 | 12214.4 | 11770.6 | 11607.8 | 11585.5 | 11649.3 | 12070.7 | 12549.6 | 13116.2 | 13486.6 |
| 35°   | 13467.4 | 13488.2 | 13307.8 | 12844.9 | 12380.4 | 12310.1 | 12216.0 | 12763.5 | 13454.6 | 14591.2 | 15149.8 |
| 37.5° | 14548.1 | 14621.5 | 14407.6 | 13994.2 | 13443.5 | 13378.0 | 12932.7 | 13470.6 | 14492.2 | 16337.4 | 17070.1 |
| 40°   | 15994.2 | 15916.0 | 15657.4 | 15132.3 | 14619.9 | 14514.5 | 13997.4 | 14279.9 | 15826.6 | 18524.3 | 19055.8 |
| 42.5° | 17060.5 | 17038.2 | 16819.5 | 16300.7 | 15785.1 | 15700.5 | 15283.9 | 15590.4 | 17507.5 | 20741.4 | 20979.3 |
| 45°   | 17906.5 | 18043.8 | 18039.0 | 17713.4 | 17422.9 | 17375.0 | 17129.2 | 17580.9 | 19539.5 | 22834.1 | 22717.6 |
| 47.5° | 18658.4 | 18743.0 | 18607.3 | 18465.2 | 18329.5 | 18345.5 | 18527.5 | 19456.5 | 21616.2 | 24661.8 | 24146.2 |
| 50°   | 19889.1 | 19780.5 | 19172.3 | 19063.8 | 19255.3 | 19263.3 | 19817.2 | 21247.4 | 23903.6 | 26242.1 | 25356.1 |
| 52.5° | 21530.0 | 21411.9 | 20162.0 | 19976.8 | 20430.2 | 20463.7 | 21384.7 | 23032.0 | 26262.8 | 27752.1 | 26559.7 |
| 55°   | 23972.2 | 23697.7 | 22358.4 | 21528.4 | 21735.9 | 21871.6 | 22987.3 | 24748.0 | 28109.6 | 29083.4 | 27471.2 |
| 57.5° | 26971.5 | 27171.1 | 26484.7 | 24609.1 | 23745.6 | 23796.6 | 24821.4 | 26390.5 | 29739.4 | 30248.6 | 28004.3 |
| 60°   | 30141.7 | 30093.8 | 30381.1 | 29591.0 | 27937.3 | 27662.7 | 27140.7 | 28066.6 | 31002.0 | 31230.3 | 28553.4 |
| 62.5° | 31878.4 | 32157.7 | 33115.4 | 33273.5 | 34765.9 | 34620.7 | 31062.7 | 30144.8 | 32461.0 | 31846.4 | 28703.4 |
| 65°   | 31868.8 | 31990.1 | 33773.1 | 35733.3 | 40395.8 | 40354.3 | 38700.6 | 33150.6 | 33548.0 | 32175.3 | 28403.4 |
| 67.5° | 29809.6 | 29998.0 | 32082.7 | 35912.0 | 42997.7 | 42948.2 | 41805.3 | 37375.8 | 33889.6 | 31779.4 | 27003.5 |
| 70°   | 26055.3 | 26119.1 | 28152.7 | 33394.8 | 44043.2 | 44233.2 | 41912.3 | 38997.5 | 33040.4 | 30603.0 | 24451.1 |
| 72.5° | 21494.9 | 21362.4 | 23351.3 | 28518.3 | 41380.7 | 41267.4 | 40140.5 | 37061.3 | 31610.2 | 28318.8 | 19941.7 |
| 75°   | 15826.6 | 16195.4 | 17980.0 | 22898.0 | 35430.0 | 35845.0 | 36344.6 | 34098.7 | 28074.5 | 23338.5 | 13789.8 |
| 77.5° | 10450.5 | 10919.8 | 12723.6 | 17169.1 | 28049.0 | 28693.9 | 29988.4 | 29001.9 | 22838.9 | 16741.3 | 6566.9  |
| 80°   | 5400.1  | 5754.4  | 7377.8  | 11392.3 | 20107.7 | 21038.3 | 23411.9 | 21965.8 | 16192.2 | 7569.3  | 1470.1  |
| 82.5° | 2043.2  | 1996.9  | 3305.8  | 6520.6  | 12892.8 | 13738.8 | 15464.3 | 13172.1 | 5762.4  | 1329.7  | 683.2   |
| 85°   | 897.1   | 949.8   | 1369.6  | 2973.8  | 7371.4  | 7481.5  | 8760.1  | 5135.1  | 844.4   | 635.3   | 464.5   |
| 87.5° | 387.9   | 445.3   | 574.6   | 855.6   | 2486.9  | 2871.6  | 3553.2  | 1631.3  | 255.4   | 220.3   | 233.0   |
| 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°    | 7408.1  | 7408.1  | 7408.1  | 7408.1 | 7408.1 | 7408.1 | 7408.1 | 7408.1 | 7408.1 | 7408.1 | 7408.1 |
| 2.5°  | 7417.7  | 7408.1  | 7392.2  | 7352.2 | 7286.8 | 7278.8 | 7272.4 | 7266.0 | 7253.3 | 7259.7 | 7296.4 |
| 5°    | 7433.7  | 7416.1  | 7358.6  | 7301.2 | 7243.7 | 7192.6 | 7130.4 | 7106.4 | 7074.5 | 7053.8 | 7092.1 |
| 7.5°  | 7487.9  | 7451.2  | 7366.6  | 7288.4 | 7132.0 | 7056.9 | 6977.1 | 6883.0 | 6815.9 | 6772.8 | 6811.1 |
| 10°   | 7578.9  | 7532.6  | 7427.3  | 7266.0 | 7082.5 | 6876.6 | 6736.1 | 6579.7 | 6452.0 | 6416.9 | 6452.0 |
| 12.5° | 7727.4  | 7658.7  | 7535.8  | 7317.1 | 6991.5 | 6721.7 | 6455.2 | 6249.2 | 6043.3 | 5984.3 | 6001.8 |
| 15°   | 7968.4  | 7914.1  | 7725.8  | 7424.1 | 6993.1 | 6581.3 | 6185.4 | 5853.4 | 5583.6 | 5489.4 | 5483.1 |
| 17.5° | 8354.7  | 8297.2  | 8080.1  | 7636.4 | 7050.6 | 6471.1 | 5920.4 | 5414.4 | 5005.8 | 4798.3 | 4764.8 |
| 20°   | 8908.6  | 8828.8  | 8499.9  | 7949.2 | 7175.1 | 6423.2 | 5674.6 | 4994.6 | 4359.3 | 3969.8 | 3910.8 |
| 22.5° | 9524.7  | 9440.1  | 8954.9  | 8190.3 | 7264.5 | 6329.1 | 5440.0 | 4530.1 | 3693.7 | 3218.0 | 3151.0 |
| 25°   | 10290.9 | 10105.7 | 9390.6  | 8418.5 | 7243.7 | 6131.1 | 5058.5 | 3899.6 | 2992.9 | 2581.1 | 2536.4 |
| 27.5° | 11047.5 | 10812.9 | 9834.4  | 8538.2 | 7152.7 | 5816.7 | 4499.8 | 3162.1 | 2343.3 | 2051.2 | 2014.4 |
| 30°   | 11986.1 | 11532.8 | 10228.7 | 8594.1 | 6922.9 | 5345.8 | 3751.1 | 2403.9 | 1754.3 | 1553.1 | 1518.0 |
| 32.5° | 13101.9 | 12415.5 | 10599.0 | 8531.9 | 6539.8 | 4627.5 | 2916.3 | 1760.6 | 1304.1 | 1178.0 | 1176.4 |
| 35°   | 14573.6 | 13497.7 | 11006.0 | 8327.5 | 5952.3 | 3853.3 | 2044.8 | 1203.6 | 1016.8 | 973.7  | 981.7  |
| 37.5° | 16294.3 | 14963.1 | 11419.4 | 7992.3 | 5288.3 | 2948.2 | 1363.2 | 927.4  | 893.9  | 895.5  | 897.1  |
| 40°   | 18109.3 | 16581.7 | 11976.5 | 7521.4 | 4482.2 | 2134.2 | 981.7  | 833.2  | 831.6  | 847.6  | 852.4  |
| 42.5° | 19842.8 | 18153.9 | 12662.9 | 6894.1 | 3637.8 | 1411.1 | 850.8  | 794.9  | 774.2  | 780.6  | 785.3  |
| 45°   | 21453.4 | 19502.8 | 13247.1 | 6282.8 | 2732.7 | 1007.2 | 834.8  | 750.2  | 718.3  | 715.1  | 718.3  |
| 47.5° | 22751.1 | 20583.4 | 13603.1 | 5564.5 | 1947.4 | 836.4  | 801.3  | 708.7  | 664.0  | 654.5  | 649.7  |
| 50°   | 23739.2 | 21386.3 | 13732.4 | 4750.4 | 1316.9 | 798.1  | 756.6  | 660.8  | 606.6  | 608.2  | 608.2  |
| 52.5° | 24703.3 | 22115.8 | 13582.3 | 3929.9 | 968.9  | 764.6  | 726.3  | 622.5  | 565.1  | 595.4  | 603.4  |
| 55°   | 25397.7 | 22422.3 | 13145.0 | 3042.4 | 807.7  | 723.1  | 692.8  | 577.8  | 537.9  | 587.4  | 603.4  |
| 57.5° | 25803.1 | 22663.3 | 12342.1 | 2196.4 | 740.7  | 683.2  | 649.7  | 536.3  | 499.6  | 512.4  | 520.4  |
| 60°   | 26055.3 | 22326.5 | 11280.6 | 1502.1 | 705.5  | 651.3  | 606.6  | 509.2  | 459.7  | 429.4  | 424.6  |
| 62.5° | 25916.4 | 21483.7 | 9882.3  | 1032.8 | 668.8  | 616.1  | 569.9  | 483.7  | 418.2  | 378.3  | 375.1  |
| 65°   | 24784.7 | 19924.2 | 7586.9  | 836.4  | 646.5  | 600.2  | 547.5  | 459.7  | 389.5  | 351.2  | 346.4  |
| 67.5° | 22685.7 | 17121.2 | 4431.1  | 743.8  | 636.9  | 584.2  | 529.9  | 437.4  | 373.5  | 332.0  | 325.6  |
| 70°   | 19236.2 | 12878.4 | 1484.5  | 664.0  | 635.3  | 582.6  | 515.6  | 421.4  | 356.0  | 312.9  | 306.5  |
| 72.5° | 13877.6 | 7770.5  | 723.1   | 584.2  | 593.8  | 558.7  | 504.4  | 408.6  | 344.8  | 290.5  | 279.3  |
| 75°   | 7887.0  | 2530.0  | 652.9   | 504.4  | 552.3  | 533.1  | 498.0  | 410.2  | 349.6  | 263.4  | 250.6  |
| 77.5° | 2244.3  | 739.1   | 630.5   | 429.4  | 522.0  | 550.7  | 466.1  | 370.3  | 357.6  | 244.2  | 228.3  |
| 80°   | 758.2   | 657.6   | 608.2   | 333.6  | 421.4  | 454.9  | 403.8  | 325.6  | 360.7  | 221.9  | 205.9  |
| 82.5° | 608.2   | 660.8   | 510.8   | 266.6  | 320.8  | 344.8  | 320.8  | 292.1  | 292.1  | 197.9  | 185.2  |
| 85°   | 486.9   | 613.0   | 324.0   | 212.3  | 239.4  | 265.0  | 226.7  | 218.7  | 204.3  | 166.0  | 161.2  |
| 87.5° | 282.5   | 191.5   | 134.1   | 108.5  | 100.6  | 102.2  | 87.8   | 105.4  | 129.3  | 113.3  | 111.7  |
| 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)