

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: P510699

Luminaire Tested: **CTN-CA8-230-722-U-T3**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510699  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-11)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-230-722-U-T3  
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: 29273 lumens  
Efficiency: N/A  
Efficacy: 128.2 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4

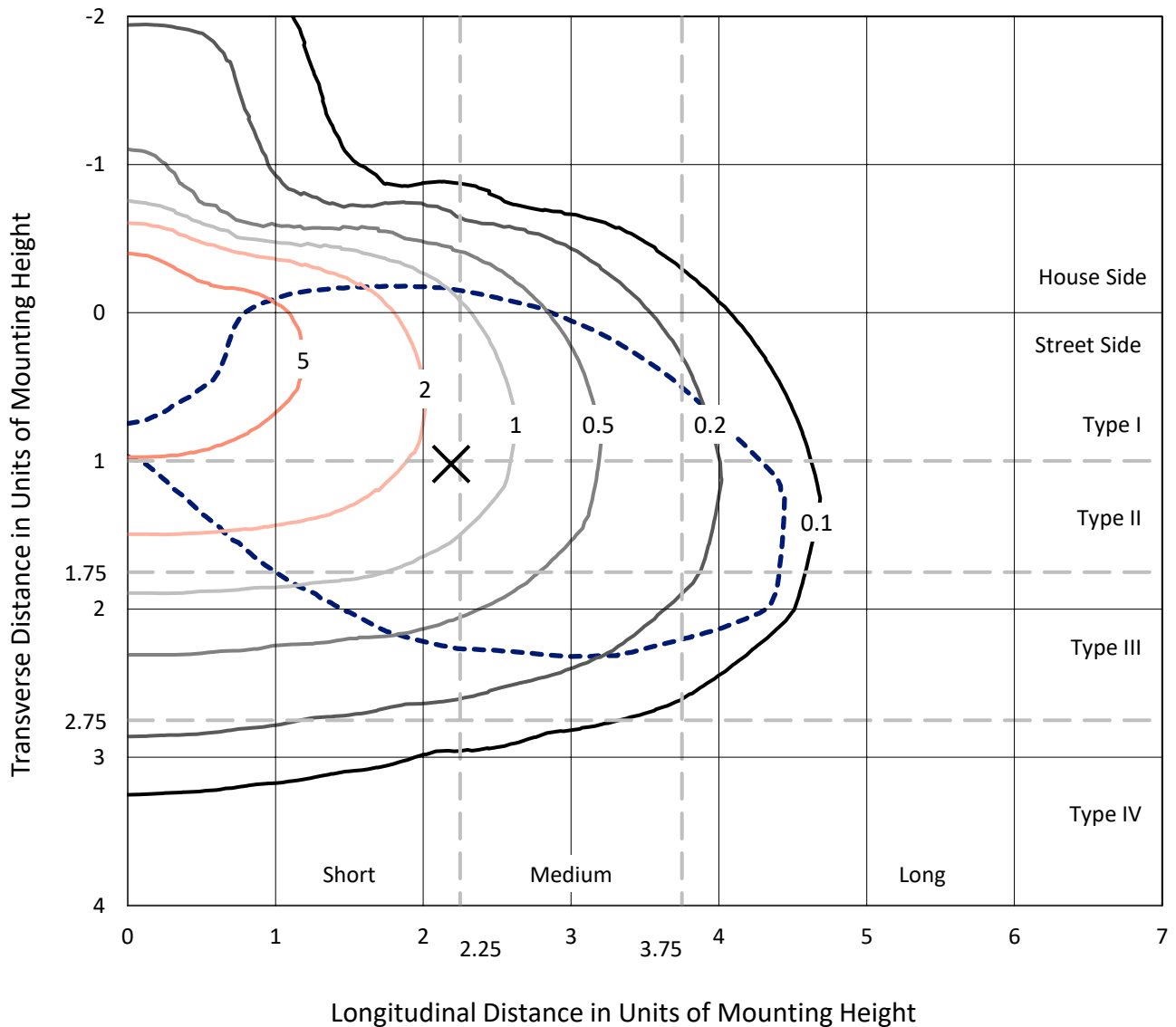
Input Watts (W): 228.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

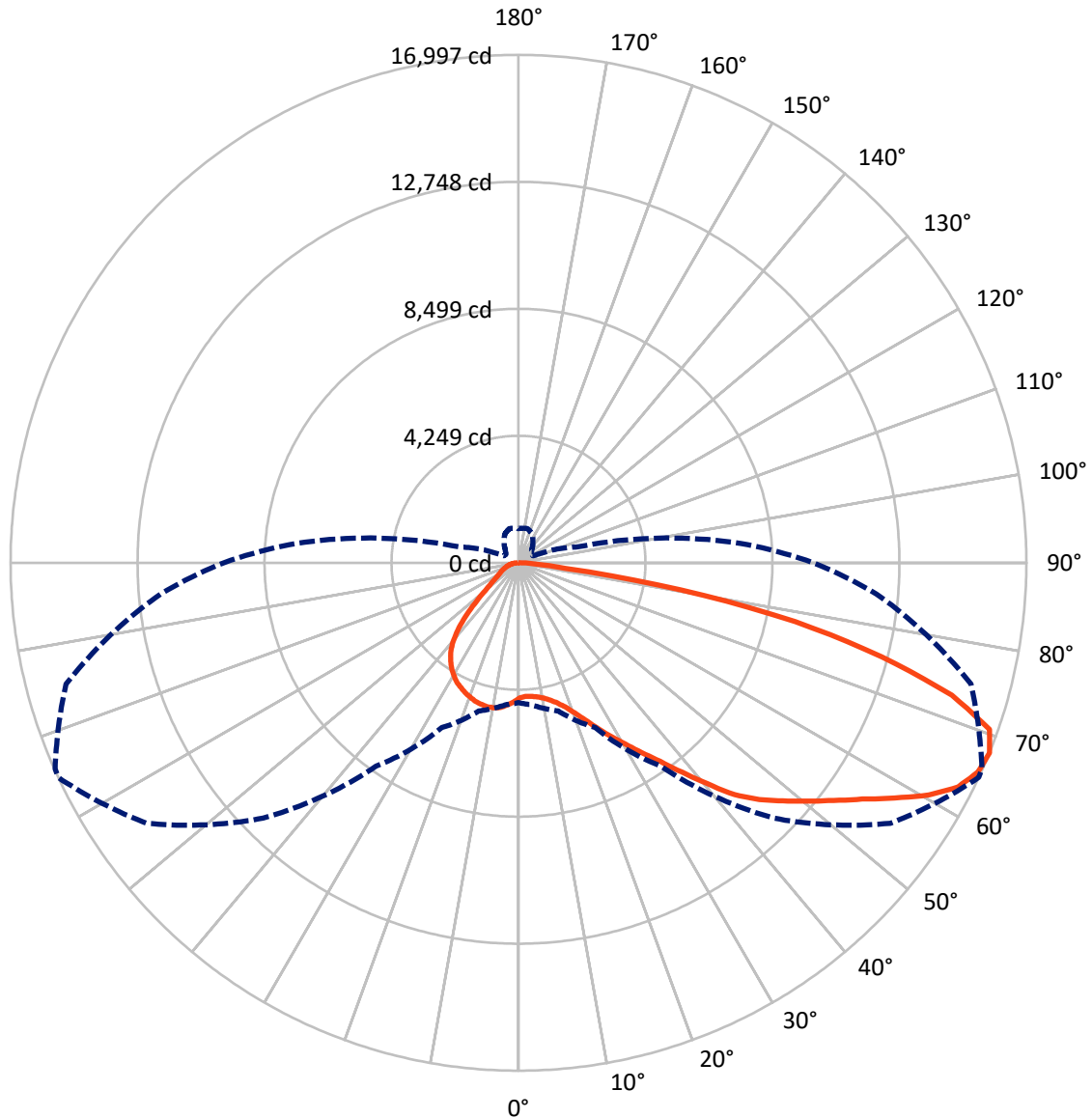
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.1 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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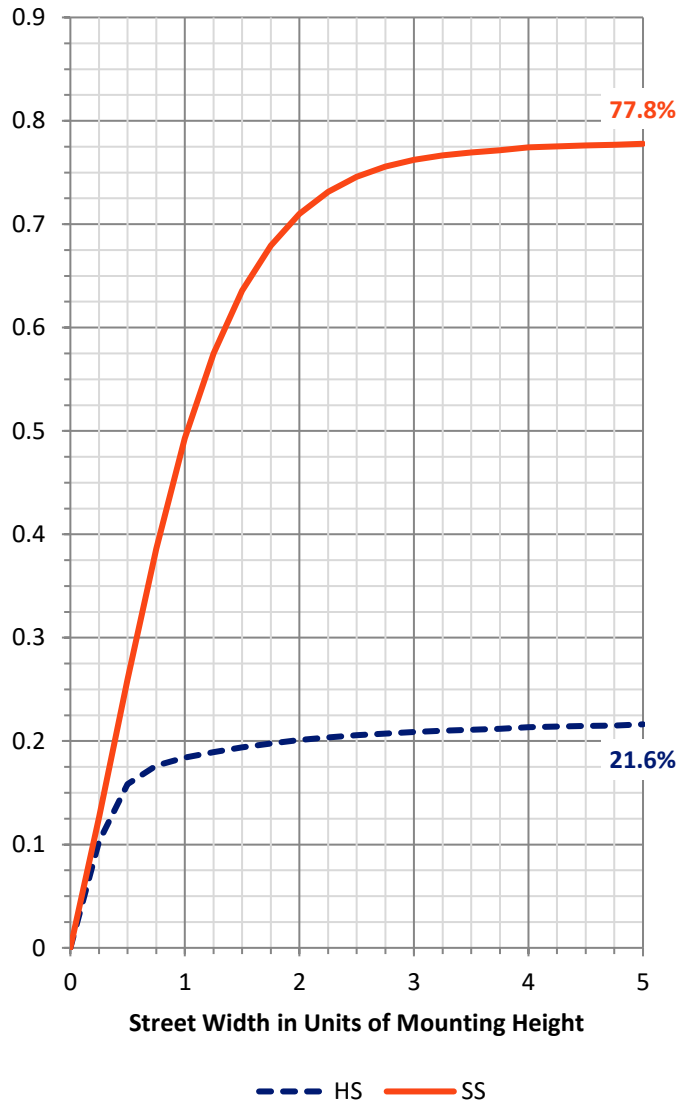
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6466.0   | 0.0    | 6466.0  |
|                    | % Fixture | 22.1     | 0.0    | 22.1    |
| <b>Street Side</b> | Lumens    | 22807.0  | 0.0    | 22807.0 |
|                    | % Fixture | 77.9     | 0.0    | 77.9    |
| <b>Total</b>       | Lumens    | 29273.0  | 0.0    | 29273.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 450.5   | 1.5       |
| 10°-20°   | 1407.5  | 4.8       |
| 20°-30°   | 2436.6  | 8.3       |
| 30°-40°   | 3580.4  | 12.2      |
| 40°-50°   | 4839.3  | 16.5      |
| 50°-60°   | 5950.9  | 20.3      |
| 60°-70°   | 6376.8  | 21.8      |
| 70°-80°   | 3760.9  | 12.8      |
| 80°-90°   | 470.1   | 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°    | 29273.0 | 100.0     |
| 0°-180°   | 29273.0 | 100.0     |

**Coefficient of Utilization**

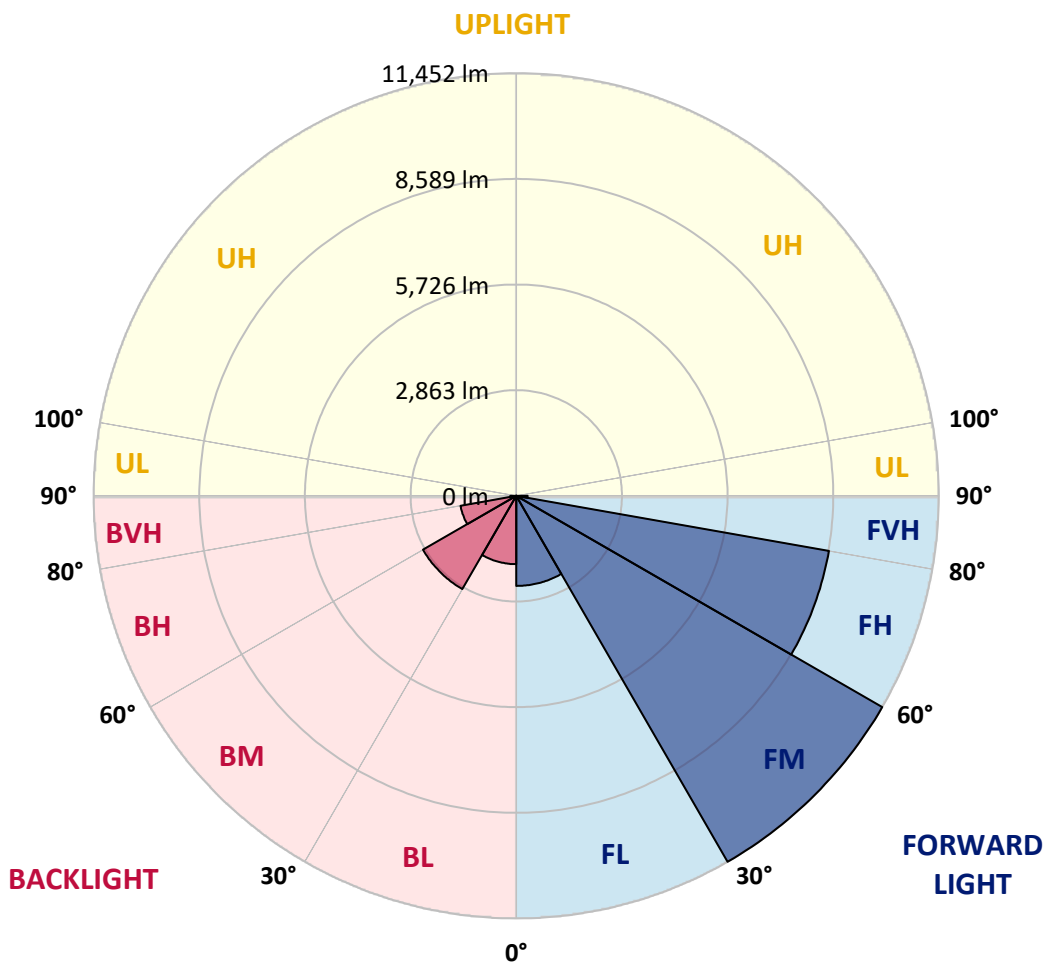


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|---------|-----------|-------------------------|------|----------|
|                |         |           | B                       | U    | G        |
| FL (0°-30°)    | 2442.6  | 8.3       |                         |      |          |
| FM (30°-60°)   | 11451.8 | 39.1      |                         |      |          |
| FH (60°-80°)   | 8604.3  | 29.4      |                         |      | G4/12000 |
| FVH (80°-90°)  | 308.3   | 1.1       |                         |      | G3/500   |
| BL (0°-30°)    | 1852.1  | 6.3       | B3/2500                 |      |          |
| BM (30°-60°)   | 2918.7  | 10.0      | B3/5000                 |      |          |
| BH (60°-80°)   | 1533.4  | 5.2       | B3/2500                 |      | G3/2500  |
| BVH (80°-90°)  | 161.8   | 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 III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°     | 45°     | 55°     | 65°     | 66°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4521.6 | 4521.6 | 4521.6 | 4521.6 | 4521.6  | 4521.6  | 4521.6  | 4521.6  | 4521.6  | 4521.6  | 4521.6  |
| 2.5°  | 4436.2 | 4427.9 | 4424.3 | 4435.6 | 4444.0  | 4453.5  | 4467.3  | 4480.4  | 4482.2  | 4499.5  | 4522.2  |
| 5°    | 4489.9 | 4482.8 | 4475.0 | 4473.2 | 4470.2  | 4469.6  | 4473.2  | 4488.1  | 4491.7  | 4508.4  | 4557.4  |
| 7.5°  | 4609.3 | 4602.1 | 4587.8 | 4582.4 | 4566.3  | 4537.7  | 4524.0  | 4531.7  | 4533.5  | 4553.8  | 4614.7  |
| 10°   | 4803.9 | 4781.8 | 4764.5 | 4746.6 | 4695.8  | 4650.5  | 4617.1  | 4602.7  | 4599.8  | 4619.4  | 4689.9  |
| 12.5° | 5036.0 | 5017.5 | 4998.4 | 4951.3 | 4886.8  | 4805.1  | 4746.0  | 4713.2  | 4710.8  | 4727.5  | 4780.6  |
| 15°   | 5281.3 | 5281.3 | 5268.2 | 5212.1 | 5148.8  | 5013.4  | 4922.0  | 4867.1  | 4870.7  | 4883.8  | 4908.3  |
| 17.5° | 5598.2 | 5572.0 | 5566.0 | 5502.2 | 5431.7  | 5308.2  | 5163.2  | 5075.4  | 5079.6  | 5085.6  | 5067.1  |
| 20°   | 5920.5 | 5912.8 | 5903.8 | 5861.4 | 5797.6  | 5638.8  | 5475.9  | 5360.7  | 5361.3  | 5339.8  | 5257.5  |
| 22.5° | 6346.7 | 6321.0 | 6327.6 | 6279.8 | 6193.3  | 6030.3  | 5842.9  | 5706.3  | 5715.2  | 5684.2  | 5535.0  |
| 25°   | 6769.8 | 6744.2 | 6730.4 | 6698.2 | 6623.6  | 6469.0  | 6246.4  | 6121.1  | 6110.3  | 6054.2  | 5837.6  |
| 27.5° | 7192.4 | 7177.5 | 7188.8 | 7150.0 | 7089.1  | 6916.6  | 6712.5  | 6573.5  | 6580.6  | 6541.8  | 6218.9  |
| 30°   | 7629.8 | 7613.1 | 7662.7 | 7600.0 | 7562.4  | 7394.7  | 7198.9  | 7035.4  | 7041.4  | 7055.7  | 6693.4  |
| 32.5° | 7959.9 | 7979.6 | 8066.1 | 8059.0 | 8051.8  | 7865.0  | 7659.1  | 7568.4  | 7577.3  | 7627.5  | 7256.8  |
| 35°   | 8278.6 | 8280.4 | 8402.1 | 8494.1 | 8532.8  | 8376.5  | 8162.8  | 8159.8  | 8218.3  | 8371.1  | 8042.3  |
| 37.5° | 8543.0 | 8537.0 | 8699.4 | 8842.0 | 8948.2  | 8827.1  | 8709.5  | 8892.7  | 8945.9  | 9262.8  | 8833.1  |
| 40°   | 8687.4 | 8700.0 | 8908.9 | 9086.7 | 9295.6  | 9238.3  | 9250.8  | 9719.3  | 9850.0  | 10127.6 | 9424.5  |
| 42.5° | 8586.0 | 8624.2 | 8949.4 | 9312.3 | 9627.4  | 9703.8  | 9955.7  | 10612.2 | 10667.7 | 10717.8 | 10006.4 |
| 45°   | 8415.9 | 8455.9 | 8816.3 | 9402.4 | 9901.4  | 10224.3 | 10657.0 | 11299.1 | 11360.0 | 11303.9 | 10490.4 |
| 47.5° | 8238.6 | 8279.8 | 8681.5 | 9366.0 | 10128.2 | 10747.1 | 11280.6 | 11906.7 | 11984.3 | 11810.6 | 10956.0 |
| 50°   | 8013.6 | 8077.5 | 8516.7 | 9289.0 | 10312.0 | 11311.1 | 11870.9 | 12532.2 | 12568.0 | 12317.3 | 11308.7 |
| 52.5° | 7736.7 | 7807.1 | 8282.2 | 9157.1 | 10455.8 | 11705.0 | 12468.3 | 13210.8 | 13207.2 | 12909.4 | 11712.2 |
| 55°   | 7445.4 | 7509.3 | 7998.7 | 8949.4 | 10536.4 | 12008.2 | 12945.8 | 13958.6 | 14001.6 | 13752.1 | 12077.4 |
| 57.5° | 7072.4 | 7130.3 | 7663.9 | 8670.1 | 10452.8 | 12265.4 | 13719.3 | 14847.3 | 14868.8 | 14338.8 | 12368.1 |
| 60°   | 6578.2 | 6663.6 | 7199.5 | 8315.0 | 10212.9 | 12563.2 | 14571.6 | 15781.9 | 15808.2 | 14915.9 | 12554.9 |
| 62.5° | 6035.7 | 6069.7 | 6615.8 | 7768.3 | 9863.8  | 12793.0 | 15162.4 | 16513.0 | 16474.8 | 15367.1 | 12611.0 |
| 65°   | 5374.4 | 5401.3 | 5874.0 | 7065.2 | 9215.0  | 12667.1 | 15374.3 | 16889.0 | 16841.9 | 15650.6 | 12438.5 |
| 67.5° | 4682.1 | 4765.1 | 5136.3 | 6090.0 | 8309.6  | 12085.8 | 15195.2 | 16997.1 | 16973.2 | 15672.1 | 12026.7 |
| 70°   | 3783.3 | 3812.5 | 4148.0 | 4961.4 | 6933.4  | 10922.0 | 14598.4 | 16720.1 | 16701.6 | 15192.3 | 11185.8 |
| 72.5° | 2667.8 | 2639.2 | 2802.1 | 3440.1 | 5008.0  | 8688.0  | 12464.2 | 15164.2 | 15195.2 | 13590.4 | 9740.8  |
| 75°   | 1416.3 | 1471.2 | 1724.8 | 2106.2 | 2839.1  | 5585.1  | 9937.2  | 12550.1 | 12539.4 | 11364.2 | 7699.7  |
| 77.5° | 754.4  | 753.2  | 927.5  | 1090.4 | 1390.0  | 2566.4  | 6554.4  | 9464.5  | 9517.0  | 8805.0  | 5286.7  |
| 80°   | 362.3  | 376.0  | 386.7  | 443.4  | 692.9   | 1185.9  | 2741.8  | 5488.4  | 5846.5  | 5251.5  | 2511.5  |
| 82.5° | 290.1  | 291.3  | 292.4  | 279.9  | 286.5   | 482.8   | 1056.4  | 1588.2  | 1645.5  | 1322.6  | 809.9   |
| 85°   | 214.9  | 201.7  | 199.9  | 169.5  | 191.6   | 290.1   | 533.0   | 678.0   | 644.6   | 627.3   | 457.2   |
| 87.5° | 86.5   | 81.2   | 78.8   | 74.0   | 74.0    | 109.2   | 188.0   | 245.3   | 244.7   | 223.2   | 153.4   |
| 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°    | 4521.6  | 4521.6 | 4521.6 | 4521.6 | 4521.6 | 4521.6 | 4521.6 | 4521.6 | 4521.6 | 4521.6 | 4521.6 |
| 2.5°  | 4540.1  | 4561.6 | 4611.7 | 4654.7 | 4670.8 | 4710.2 | 4747.2 | 4768.7 | 4783.6 | 4792.5 | 4833.1 |
| 5°    | 4587.2  | 4630.2 | 4710.2 | 4770.4 | 4828.9 | 4901.7 | 4948.9 | 4978.7 | 4995.5 | 5005.0 | 5034.2 |
| 7.5°  | 4659.4  | 4703.0 | 4787.8 | 4880.3 | 4934.0 | 4993.7 | 5024.1 | 5045.6 | 5056.3 | 5053.3 | 5076.6 |
| 10°   | 4723.9  | 4766.9 | 4851.6 | 4922.6 | 4953.1 | 4987.1 | 5003.2 | 5008.0 | 5008.6 | 5011.0 | 5034.2 |
| 12.5° | 4811.6  | 4837.9 | 4883.2 | 4929.8 | 4923.2 | 4924.4 | 4938.2 | 4932.2 | 4918.5 | 4916.1 | 4931.6 |
| 15°   | 4905.9  | 4906.5 | 4910.1 | 4900.0 | 4858.8 | 4840.9 | 4821.8 | 4805.7 | 4768.1 | 4765.7 | 4790.1 |
| 17.5° | 5024.1  | 4996.0 | 4931.0 | 4861.8 | 4763.9 | 4696.4 | 4628.4 | 4600.4 | 4554.4 | 4545.4 | 4557.4 |
| 20°   | 5176.3  | 5117.8 | 4959.6 | 4787.8 | 4604.5 | 4484.0 | 4401.6 | 4318.6 | 4254.8 | 4239.3 | 4250.6 |
| 22.5° | 5394.7  | 5279.5 | 4996.0 | 4709.0 | 4425.5 | 4219.6 | 4059.6 | 3960.0 | 3852.5 | 3797.6 | 3803.0 |
| 25°   | 5658.5  | 5478.3 | 5059.3 | 4609.3 | 4214.8 | 3917.6 | 3658.0 | 3458.0 | 3336.9 | 3256.3 | 3277.8 |
| 27.5° | 6004.1  | 5756.4 | 5135.1 | 4510.8 | 3952.8 | 3531.4 | 3154.8 | 2883.9 | 2760.3 | 2722.1 | 2697.1 |
| 30°   | 6404.6  | 6092.4 | 5215.1 | 4365.2 | 3669.9 | 3053.4 | 2571.1 | 2345.5 | 2204.1 | 2181.4 | 2162.3 |
| 32.5° | 6940.5  | 6515.6 | 5364.9 | 4207.0 | 3332.1 | 2575.3 | 2051.9 | 1792.3 | 1760.0 | 1741.5 | 1737.4 |
| 35°   | 7631.6  | 7070.0 | 5521.9 | 4001.7 | 2891.6 | 2014.9 | 1552.3 | 1412.1 | 1396.6 | 1416.9 | 1418.7 |
| 37.5° | 8365.1  | 7671.6 | 5709.9 | 3770.2 | 2384.9 | 1503.4 | 1187.7 | 1090.4 | 1107.7 | 1171.0 | 1185.3 |
| 40°   | 8861.7  | 8067.9 | 5880.5 | 3455.6 | 1758.9 | 1092.2 | 864.2  | 843.3  | 938.8  | 1020.0 | 1036.7 |
| 42.5° | 9338.0  | 8368.1 | 5949.8 | 3039.6 | 1254.5 | 777.7  | 697.7  | 769.3  | 903.0  | 991.9  | 1003.9 |
| 45°   | 9744.4  | 8717.3 | 5775.5 | 2540.7 | 850.5  | 649.9  | 668.4  | 767.5  | 916.1  | 1014.6 | 1023.6 |
| 47.5° | 10131.2 | 9002.6 | 5537.4 | 2001.8 | 670.8  | 625.5  | 667.9  | 783.6  | 945.4  | 1038.5 | 1043.9 |
| 50°   | 10500.6 | 9219.8 | 5130.9 | 1523.1 | 628.5  | 614.1  | 673.2  | 808.7  | 961.5  | 1020.0 | 1017.6 |
| 52.5° | 10774.5 | 9332.0 | 4698.2 | 1229.5 | 611.7  | 605.2  | 687.5  | 840.3  | 964.5  | 999.7  | 997.3  |
| 55°   | 10975.7 | 9310.5 | 4414.1 | 1006.8 | 598.0  | 601.6  | 710.8  | 864.2  | 993.1  | 1046.2 | 1044.4 |
| 57.5° | 10994.2 | 9213.2 | 4091.3 | 850.5  | 581.3  | 601.0  | 735.9  | 897.6  | 1136.4 | 1234.2 | 1204.4 |
| 60°   | 10972.1 | 9052.1 | 3769.0 | 746.6  | 562.8  | 604.6  | 762.1  | 997.9  | 1342.9 | 1419.9 | 1399.0 |
| 62.5° | 10863.5 | 8751.9 | 3286.1 | 678.0  | 546.7  | 617.7  | 781.8  | 1077.3 | 1332.7 | 1341.7 | 1311.8 |
| 65°   | 10528.0 | 8350.2 | 2652.3 | 608.8  | 530.6  | 626.7  | 798.0  | 1098.2 | 1224.1 | 1195.4 | 1180.5 |
| 67.5° | 9864.4  | 7453.2 | 2045.9 | 545.5  | 509.7  | 624.9  | 845.7  | 1068.3 | 1182.9 | 1162.0 | 1142.9 |
| 70°   | 8921.4  | 6433.8 | 1420.5 | 480.4  | 474.5  | 613.5  | 833.8  | 1078.5 | 1163.2 | 1131.0 | 1105.3 |
| 72.5° | 7453.2  | 5047.4 | 903.6  | 427.3  | 422.0  | 586.7  | 803.9  | 1071.9 | 1150.1 | 1135.8 | 1100.6 |
| 75°   | 5612.0  | 3523.1 | 574.1  | 369.4  | 375.4  | 537.7  | 756.2  | 1036.7 | 1143.5 | 1098.8 | 1031.3 |
| 77.5° | 3533.2  | 1739.2 | 446.4  | 313.9  | 322.9  | 463.7  | 653.5  | 905.4  | 1097.6 | 1070.7 | 984.2  |
| 80°   | 1336.3  | 706.0  | 349.1  | 254.8  | 262.6  | 360.5  | 536.0  | 744.8  | 1010.4 | 1054.6 | 1017.6 |
| 82.5° | 615.3   | 441.7  | 262.0  | 204.7  | 207.7  | 262.6  | 399.9  | 551.5  | 855.3  | 968.1  | 1060.6 |
| 85°   | 359.3   | 289.5  | 174.9  | 136.7  | 142.0  | 155.2  | 225.0  | 336.6  | 554.5  | 738.3  | 826.0  |
| 87.5° | 122.3   | 100.9  | 68.0   | 57.9   | 56.1   | 63.9   | 54.3   | 110.4  | 164.7  | 290.1  | 331.2  |
| 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)