

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: P591128

Luminaire Tested: **CTN-CA10-630-722-U-T4-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591128  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-11)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-630-722-U-T4-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 40808 lumens  
Efficiency: N/A  
Efficacy: 64.6 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Short  
BUG Rating: B5 - U0 - G5

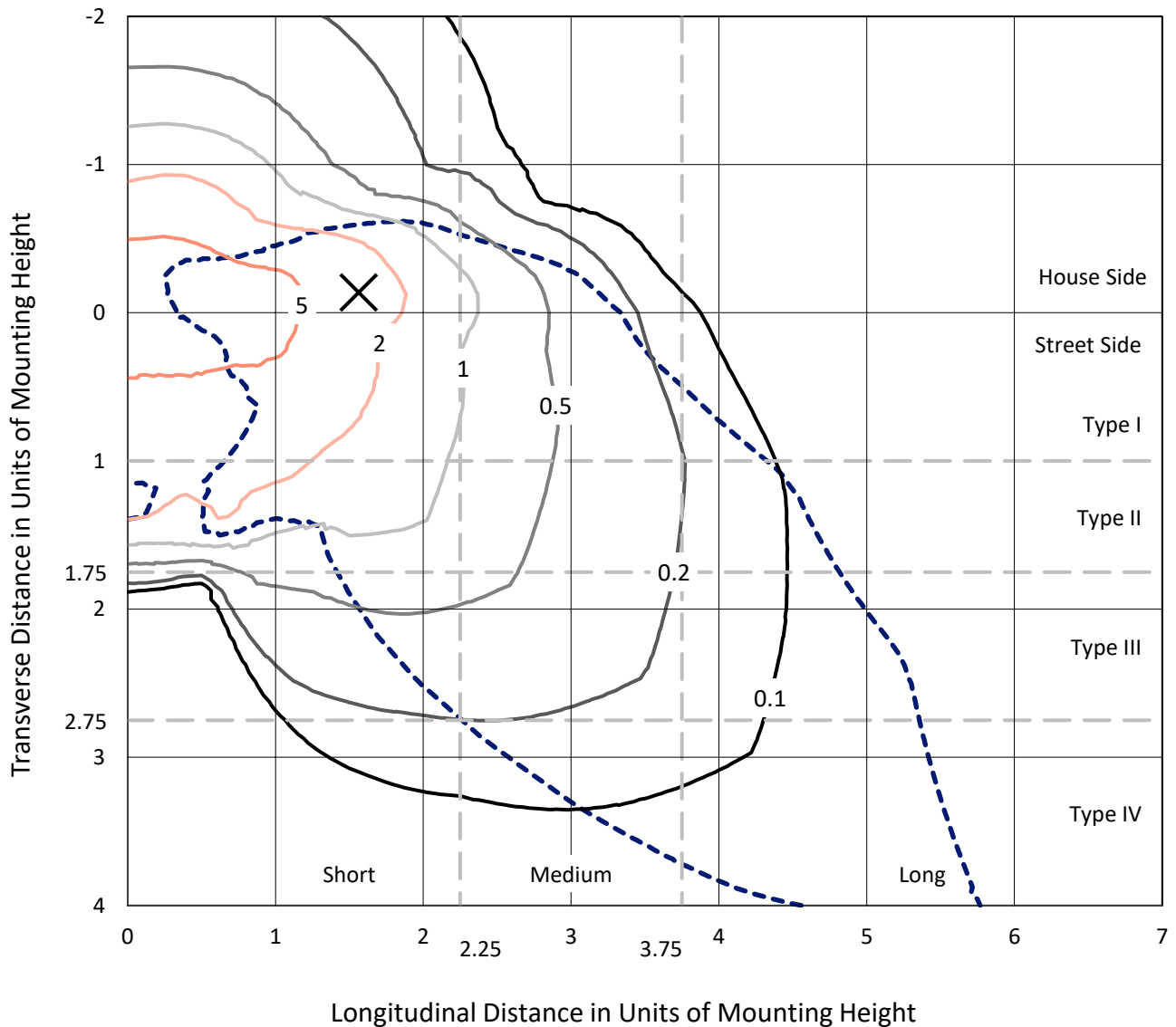
Input Watts (W): 631.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

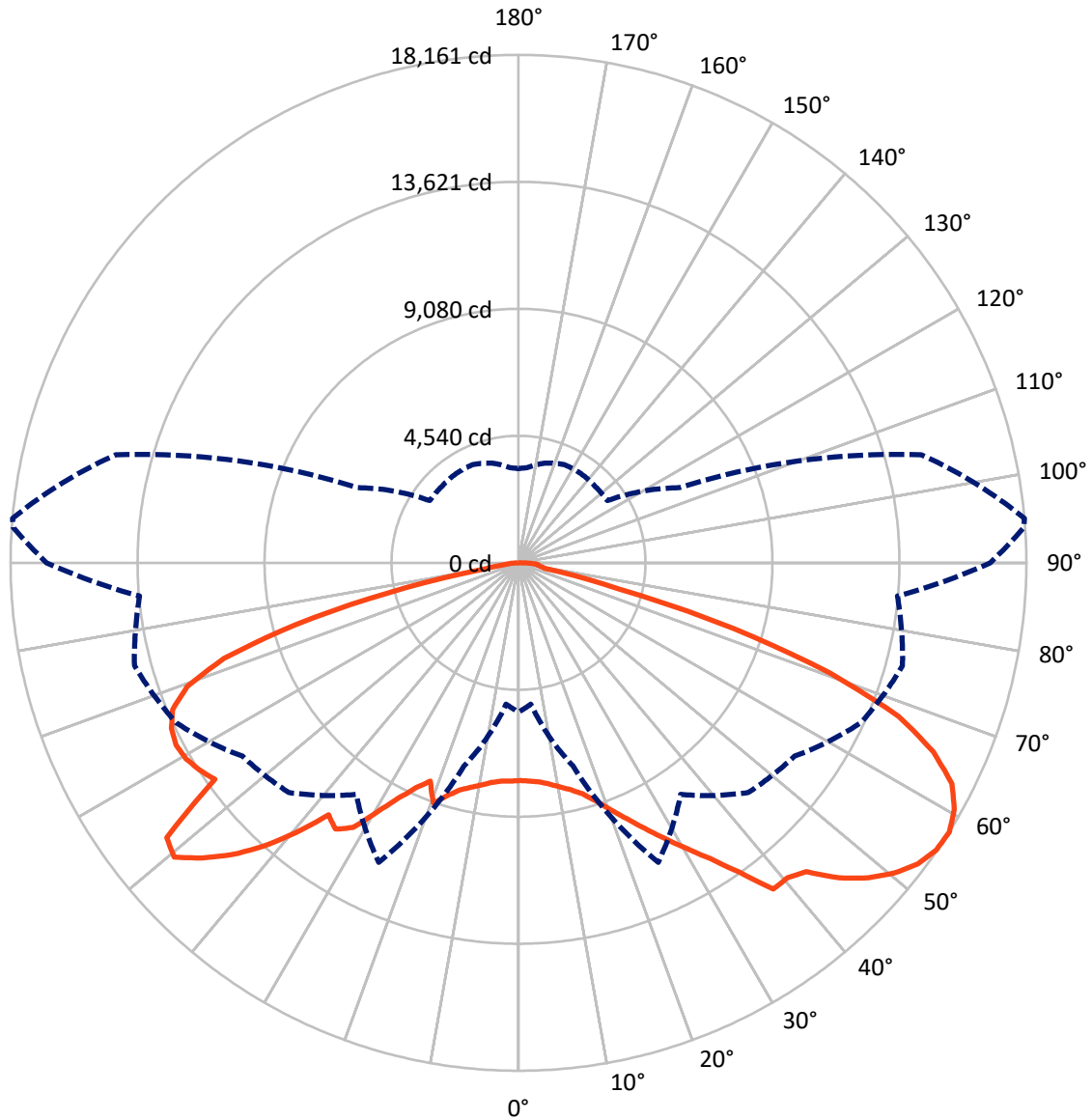
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.2 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 95-Deg Lateral      - - - Horizontal Cone Through 57.5-Deg Vertical

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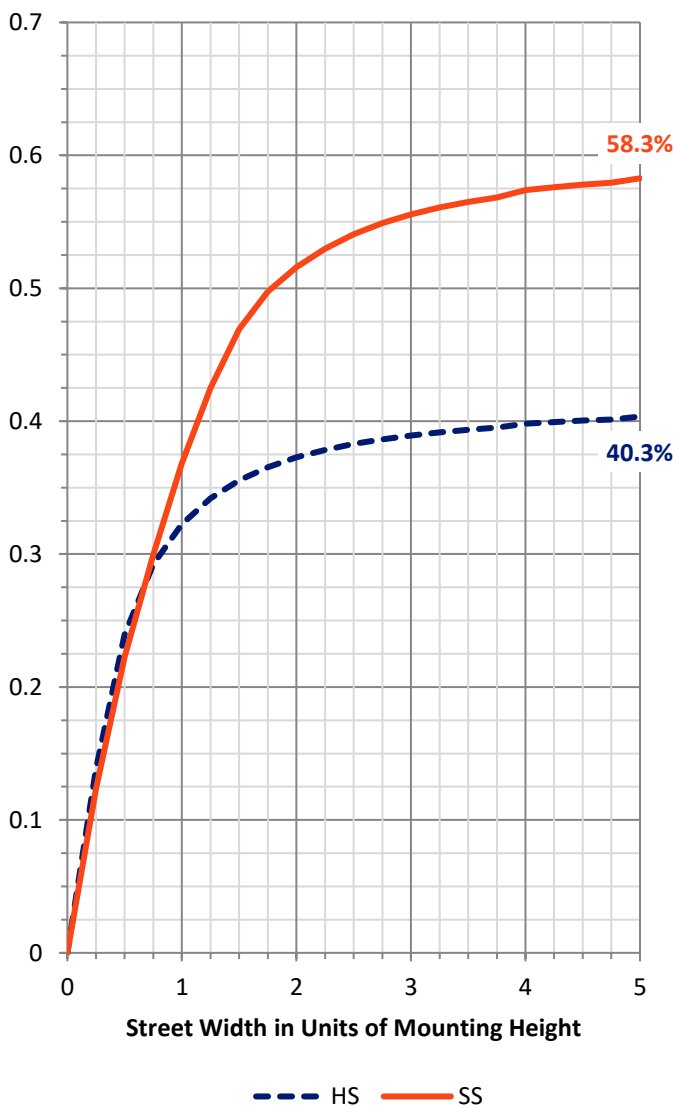
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 16807.5  | 0.0    | 16807.5 |
|                    | % Fixture | 41.2     | 0.0    | 41.2    |
| <b>Street Side</b> | Lumens    | 24000.5  | 0.0    | 24000.5 |
|                    | % Fixture | 58.8     | 0.0    | 58.8    |
| <b>Total</b>       | Lumens    | 40808.0  | 0.0    | 40808.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 760.3   | 1.9       |
| 10°-20°   | 2325.0  | 5.7       |
| 20°-30°   | 3674.0  | 9.0       |
| 30°-40°   | 5076.8  | 12.4      |
| 40°-50°   | 6845.2  | 16.8      |
| 50°-60°   | 8063.6  | 19.8      |
| 60°-70°   | 7203.7  | 17.7      |
| 70°-80°   | 5378.8  | 13.2      |
| 80°-90°   | 1480.6  | 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°    | 40808.0 | 100.0     |
| 0°-180°   | 40808.0 | 100.0     |

**Coefficient of Utilization**

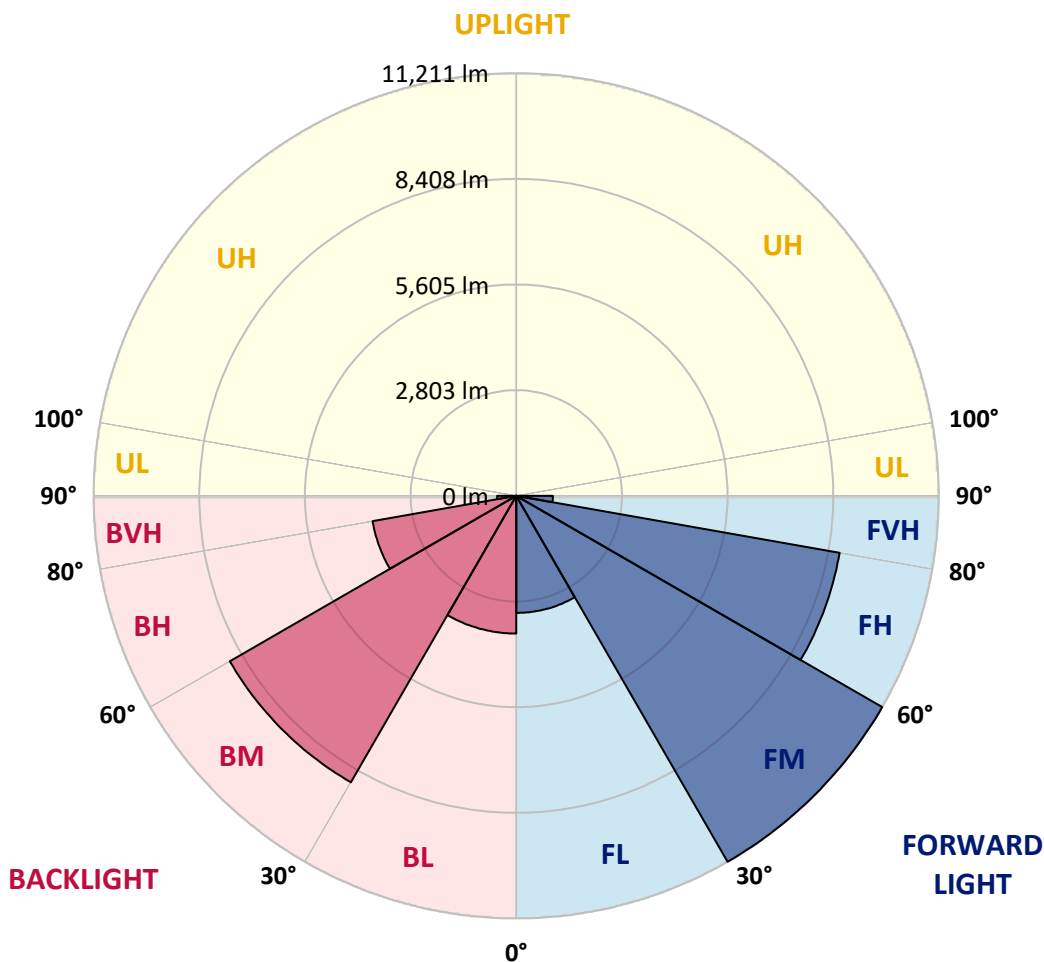


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|---------|-----------|-------------------------|------|----------|
|                |         |           | B                       | U    | G        |
| FL (0°-30°)    | 3106.0  | 7.6       |                         |      |          |
| FM (30°-60°)   | 11210.7 | 27.5      |                         |      |          |
| FH (60°-80°)   | 8711.2  | 21.3      |                         |      | G4/12000 |
| FVH (80°-90°)  | 972.5   | 2.4       |                         |      | G5       |
| BL (0°-30°)    | 3653.3  | 9.0       | B4/5000                 |      |          |
| BM (30°-60°)   | 8774.9  | 21.5      | B5                      |      |          |
| BH (60°-80°)   | 3871.3  | 9.5       | B4/5000                 |      | G4/5000  |
| BVH (80°-90°)  | 508.1   | 1.2       |                         |      | G4/750   |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B5-U0-G5**  
 Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°     | 15°    | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     | 90°     |
|-------|---------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 7785.9  | 7785.9 | 7785.9 | 7785.9  | 7785.9  | 7785.9  | 7785.9  | 7785.9  | 7785.9  | 7785.9  | 7785.9  |
| 2.5°  | 7683.6  | 7634.8 | 7637.1 | 7704.5  | 7604.6  | 7676.6  | 7667.3  | 7778.9  | 7762.6  | 7806.8  | 7820.7  |
| 5°    | 7620.8  | 7579.0 | 7581.3 | 7667.3  | 7599.9  | 7665.0  | 7620.8  | 7723.1  | 7760.3  | 7827.7  | 7841.6  |
| 7.5°  | 7637.1  | 7599.9 | 7613.9 | 7695.2  | 7611.5  | 7676.6  | 7681.3  | 7776.6  | 7795.1  | 7911.4  | 7929.9  |
| 10°   | 7678.9  | 7639.4 | 7648.7 | 7713.8  | 7660.3  | 7776.6  | 7762.6  | 7888.1  | 7892.8  | 8055.5  | 8078.7  |
| 12.5° | 7623.2  | 7595.3 | 7595.3 | 7676.6  | 7704.5  | 7820.7  | 7855.6  | 7985.7  | 8013.6  | 8201.9  | 8232.1  |
| 15°   | 7523.2  | 7476.7 | 7544.1 | 7665.0  | 7720.8  | 7897.4  | 7962.5  | 8157.7  | 8190.3  | 8385.5  | 8450.6  |
| 17.5° | 7351.2  | 7325.7 | 7574.4 | 7611.5  | 7400.0  | 7534.8  | 7811.4  | 8357.6  | 8469.1  | 8699.2  | 8820.1  |
| 20°   | 6837.6  | 6549.4 | 5884.7 | 6005.6  | 6656.3  | 7142.1  | 7228.1  | 7490.7  | 7969.5  | 9115.3  | 9303.5  |
| 22.5° | 5027.1  | 5275.8 | 6154.3 | 6226.4  | 6205.4  | 6607.5  | 7511.6  | 7764.9  | 7992.7  | 8413.4  | 9663.8  |
| 25°   | 5206.1  | 5192.1 | 5622.1 | 6535.5  | 6502.9  | 6579.6  | 6958.5  | 8190.3  | 8418.0  | 8836.4  | 10137.9 |
| 27.5° | 5366.4  | 5378.0 | 5345.5 | 6205.4  | 6814.4  | 6893.4  | 7009.6  | 7850.9  | 8952.6  | 9431.3  | 10656.2 |
| 30°   | 5684.8  | 5636.0 | 5547.7 | 5545.4  | 7086.3  | 7202.5  | 7400.0  | 7681.3  | 9445.3  | 10205.3 | 11304.6 |
| 32.5° | 6221.7  | 6165.9 | 6049.7 | 5866.1  | 6124.1  | 7523.2  | 7795.1  | 8153.1  | 8715.5  | 11155.8 | 12064.6 |
| 35°   | 6619.1  | 6579.6 | 6500.6 | 6372.8  | 6165.9  | 7683.6  | 8181.0  | 8655.1  | 9398.8  | 11550.9 | 13061.6 |
| 37.5° | 7109.5  | 7053.7 | 6963.1 | 6805.1  | 6649.3  | 6586.6  | 8552.8  | 9224.5  | 10351.7 | 11283.7 | 13277.8 |
| 40°   | 7665.0  | 7632.5 | 7467.4 | 7262.9  | 7090.9  | 6916.6  | 8808.5  | 9968.2  | 11576.5 | 12482.9 | 13080.2 |
| 42.5° | 8083.3  | 8057.8 | 7960.2 | 7795.1  | 7627.8  | 7516.3  | 7806.8  | 10881.6 | 12910.6 | 13642.7 | 14081.9 |
| 45°   | 8448.2  | 8420.3 | 8420.3 | 8376.2  | 8329.7  | 8339.0  | 8464.5  | 11537.0 | 14177.2 | 14632.8 | 15030.2 |
| 47.5° | 8729.4  | 8680.6 | 8485.4 | 8524.9  | 8592.3  | 8794.5  | 9175.7  | 10031.0 | 15197.5 | 15474.1 | 15827.4 |
| 50°   | 9415.1  | 9340.7 | 8708.5 | 8855.0  | 9073.4  | 9398.8  | 9889.2  | 10965.3 | 14191.2 | 16192.2 | 16468.8 |
| 52.5° | 10047.2 | 9703.3 | 7193.2 | 9340.7  | 9587.1  | 10068.2 | 10649.2 | 11976.3 | 13061.6 | 15959.8 | 16959.2 |
| 55°   | 8964.2  | 8613.2 | 7230.4 | 10233.2 | 10191.3 | 10797.9 | 11365.0 | 12806.0 | 13675.2 | 13331.2 | 16836.0 |
| 57.5° | 5336.2  | 5071.3 | 7523.2 | 11818.2 | 10103.0 | 11613.7 | 12050.6 | 13514.8 | 14214.4 | 13598.5 | 16868.6 |
| 60°   | 2763.4  | 2905.2 | 2793.6 | 6993.3  | 8699.2  | 11971.6 | 12759.5 | 14198.1 | 14579.3 | 13798.4 | 16889.5 |
| 62.5° | 371.9   | 267.3  | 111.6  | 5115.4  | 6182.2  | 9975.2  | 13649.6 | 14848.9 | 14846.6 | 13865.8 | 16743.1 |
| 65°   | 23.2    | 25.6   | 51.1   | 5089.9  | 6819.0  | 11834.5 | 15123.1 | 15374.2 | 14979.0 | 13747.3 | 16255.0 |
| 67.5° | 9.3     | 11.6   | 46.5   | 5055.0  | 7358.2  | 12441.1 | 16856.9 | 15541.5 | 14993.0 | 13428.8 | 15183.6 |
| 70°   | 9.3     | 11.6   | 46.5   | 4708.7  | 7725.4  | 12548.0 | 17149.8 | 15478.7 | 14821.0 | 12645.6 | 13191.8 |
| 72.5° | 11.6    | 13.9   | 41.8   | 4090.5  | 7502.3  | 12257.5 | 16671.0 | 15350.9 | 14205.1 | 11069.9 | 10242.5 |
| 75°   | 11.6    | 13.9   | 41.8   | 3304.9  | 6637.7  | 11623.0 | 16292.2 | 14281.8 | 12452.7 | 8271.6  | 6642.4  |
| 77.5° | 9.3     | 11.6   | 41.8   | 2579.8  | 5533.8  | 10300.6 | 14779.2 | 12417.9 | 9847.4  | 4813.3  | 2623.9  |
| 80°   | 9.3     | 11.6   | 41.8   | 1796.6  | 4216.0  | 8443.6  | 12039.0 | 9670.7  | 5538.4  | 1375.9  | 739.1   |
| 82.5° | 9.3     | 11.6   | 39.5   | 1120.2  | 2981.9  | 6210.1  | 8227.4  | 4457.7  | 1187.6  | 536.9   | 576.4   |
| 85°   | 9.3     | 9.3    | 30.2   | 548.5   | 1905.8  | 4125.3  | 4099.8  | 746.0   | 471.8   | 348.6   | 436.9   |
| 87.5° | 4.6     | 7.0    | 16.3   | 251.0   | 1064.5  | 2175.4  | 1633.9  | 285.9   | 202.2   | 141.8   | 244.0   |
| 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):**

|       | 94°     | 95°     | 105°    | 115°    | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 7785.9  | 7785.9  | 7785.9  | 7785.9  | 7785.9 | 7785.9 | 7785.9 | 7785.9 | 7785.9 | 7785.9 | 7785.9 |
| 2.5°  | 7825.4  | 7813.7  | 7846.3  | 7929.9  | 7925.3 | 7988.1 | 7939.2 | 8034.5 | 8050.8 | 8029.9 | 8062.4 |
| 5°    | 7867.2  | 7871.8  | 7960.2  | 8048.5  | 8015.9 | 8118.2 | 8139.1 | 8280.9 | 8285.5 | 8266.9 | 8308.8 |
| 7.5°  | 7971.8  | 7988.1  | 8076.4  | 8181.0  | 8227.4 | 8313.4 | 8301.8 | 8485.4 | 8469.1 | 8459.9 | 8508.7 |
| 10°   | 8118.2  | 8148.4  | 8243.7  | 8408.7  | 8387.8 | 8520.3 | 8459.9 | 8583.0 | 8578.4 | 8559.8 | 8613.2 |
| 12.5° | 8297.2  | 8327.4  | 8448.2  | 8606.3  | 8608.6 | 8617.9 | 8569.1 | 8631.8 | 8610.9 | 8566.8 | 8608.6 |
| 15°   | 8538.9  | 8573.7  | 8738.7  | 8855.0  | 8755.0 | 8729.4 | 8636.5 | 8601.6 | 8522.6 | 8406.4 | 8441.3 |
| 17.5° | 8920.0  | 8947.9  | 9133.8  | 9198.9  | 9026.9 | 8924.7 | 8659.7 | 8462.2 | 8239.1 | 8076.4 | 8106.6 |
| 20°   | 9401.1  | 9426.7  | 9577.8  | 9561.5  | 9331.4 | 9080.4 | 8669.0 | 8334.3 | 7918.3 | 7599.9 | 7590.6 |
| 22.5° | 9931.0  | 9947.3  | 10091.4 | 9947.3  | 9538.2 | 9173.4 | 8650.4 | 8136.8 | 7437.2 | 7025.9 | 6981.7 |
| 25°   | 10514.4 | 10528.3 | 10526.0 | 10205.3 | 9656.8 | 9119.9 | 8478.4 | 7806.8 | 6909.7 | 6470.4 | 6423.9 |
| 27.5° | 11167.5 | 11169.8 | 10914.1 | 10405.2 | 9605.6 | 8922.4 | 8146.1 | 7214.1 | 6426.2 | 6045.1 | 6010.2 |
| 30°   | 11862.4 | 11857.7 | 11269.7 | 10423.7 | 9408.1 | 8548.2 | 7632.5 | 6654.0 | 5991.6 | 5652.3 | 5603.5 |
| 32.5° | 12654.9 | 12615.4 | 11585.8 | 10358.7 | 9047.9 | 8011.3 | 6970.1 | 6184.5 | 5650.0 | 5261.8 | 5189.8 |
| 35°   | 13670.6 | 13572.9 | 11855.4 | 10133.2 | 8513.3 | 7286.2 | 6356.5 | 5775.5 | 5319.9 | 4924.8 | 4852.8 |
| 37.5° | 14927.9 | 14802.4 | 12278.4 | 9814.8  | 7897.4 | 6686.5 | 5905.6 | 5498.9 | 5082.9 | 4632.0 | 4539.0 |
| 40°   | 14565.4 | 14807.1 | 12782.7 | 9470.8  | 7302.4 | 6207.8 | 5640.7 | 5366.4 | 4938.8 | 4439.1 | 4350.8 |
| 42.5° | 15125.5 | 15095.3 | 13473.0 | 9064.1  | 6730.7 | 5833.6 | 5533.8 | 5326.9 | 4862.1 | 4355.4 | 4253.2 |
| 45°   | 16078.4 | 16071.4 | 14216.7 | 8669.0  | 6172.9 | 5533.8 | 5452.4 | 5220.0 | 4752.9 | 4250.8 | 4139.3 |
| 47.5° | 16852.3 | 16829.1 | 14927.9 | 8234.4  | 5656.9 | 5299.0 | 5287.4 | 5003.9 | 4557.6 | 4090.5 | 3988.2 |
| 50°   | 17391.5 | 17426.4 | 15323.0 | 7816.1  | 5168.9 | 5057.3 | 5013.2 | 4699.4 | 4283.4 | 3897.6 | 3818.6 |
| 52.5° | 17816.8 | 17881.9 | 15495.0 | 7776.6  | 4741.2 | 4745.9 | 4669.2 | 4383.3 | 4057.9 | 3746.5 | 3662.8 |
| 55°   | 18026.0 | 18125.9 | 15318.4 | 7520.9  | 4322.9 | 4350.8 | 4276.4 | 4095.1 | 3902.2 | 3616.4 | 3555.9 |
| 57.5° | 18112.0 | 18160.8 | 14909.3 | 6361.2  | 3874.3 | 3869.7 | 3892.9 | 3874.3 | 3693.0 | 3411.8 | 3367.7 |
| 60°   | 17965.6 | 17900.5 | 14019.2 | 4834.2  | 3418.8 | 3439.7 | 3588.5 | 3569.9 | 3409.5 | 3195.7 | 3135.3 |
| 62.5° | 17514.7 | 17386.9 | 12390.0 | 3574.5  | 3053.9 | 3223.6 | 3381.6 | 3328.2 | 3132.9 | 2937.7 | 2891.2 |
| 65°   | 16654.7 | 16294.5 | 9872.9  | 2791.3  | 2879.6 | 3112.0 | 3258.4 | 3179.4 | 2956.3 | 2726.2 | 2698.3 |
| 67.5° | 15111.5 | 14660.6 | 6479.7  | 2503.1  | 2805.2 | 3016.7 | 3170.1 | 3037.6 | 2821.5 | 2572.8 | 2533.3 |
| 70°   | 12331.9 | 11836.8 | 3067.9  | 2333.4  | 2637.9 | 2847.1 | 2958.6 | 2823.8 | 2603.0 | 2354.3 | 2326.5 |
| 72.5° | 8599.3  | 8036.9  | 1652.5  | 2149.8  | 2445.0 | 2626.3 | 2700.6 | 2535.6 | 2342.7 | 2233.5 | 2226.5 |
| 75°   | 4285.7  | 3662.8  | 1499.1  | 1961.6  | 2196.3 | 2354.3 | 2479.9 | 2366.0 | 2196.3 | 1996.4 | 1945.3 |
| 77.5° | 1141.2  | 980.8   | 1410.7  | 1752.4  | 1998.8 | 2177.7 | 2249.8 | 2131.2 | 1936.0 | 1766.3 | 1736.1 |
| 80°   | 792.5   | 808.8   | 1317.8  | 1452.6  | 1743.1 | 1903.5 | 1970.9 | 1819.8 | 1722.2 | 1554.8 | 1508.4 |
| 82.5° | 671.7   | 706.5   | 1064.5  | 1094.7  | 1385.2 | 1557.2 | 1675.7 | 1650.1 | 1510.7 | 1375.9 | 1357.3 |
| 85°   | 629.8   | 669.4   | 681.0   | 757.7   | 992.4  | 1194.6 | 1399.1 | 1410.7 | 1317.8 | 1145.8 | 1090.0 |
| 87.5° | 362.6   | 357.9   | 327.7   | 385.8   | 543.8  | 662.4  | 801.8  | 764.6  | 622.9  | 539.2  | 527.6  |
| 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)