

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: P591281

Luminaire Tested: **CTN-CA8-480-727-U-T3-SSS-HM-EX120**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591281
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-8)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-480-727-U-T3-SSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35986 lumens
Efficiency: N/A
Efficacy: 74.8 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Medium
BUG Rating: B4 - U0 - G4

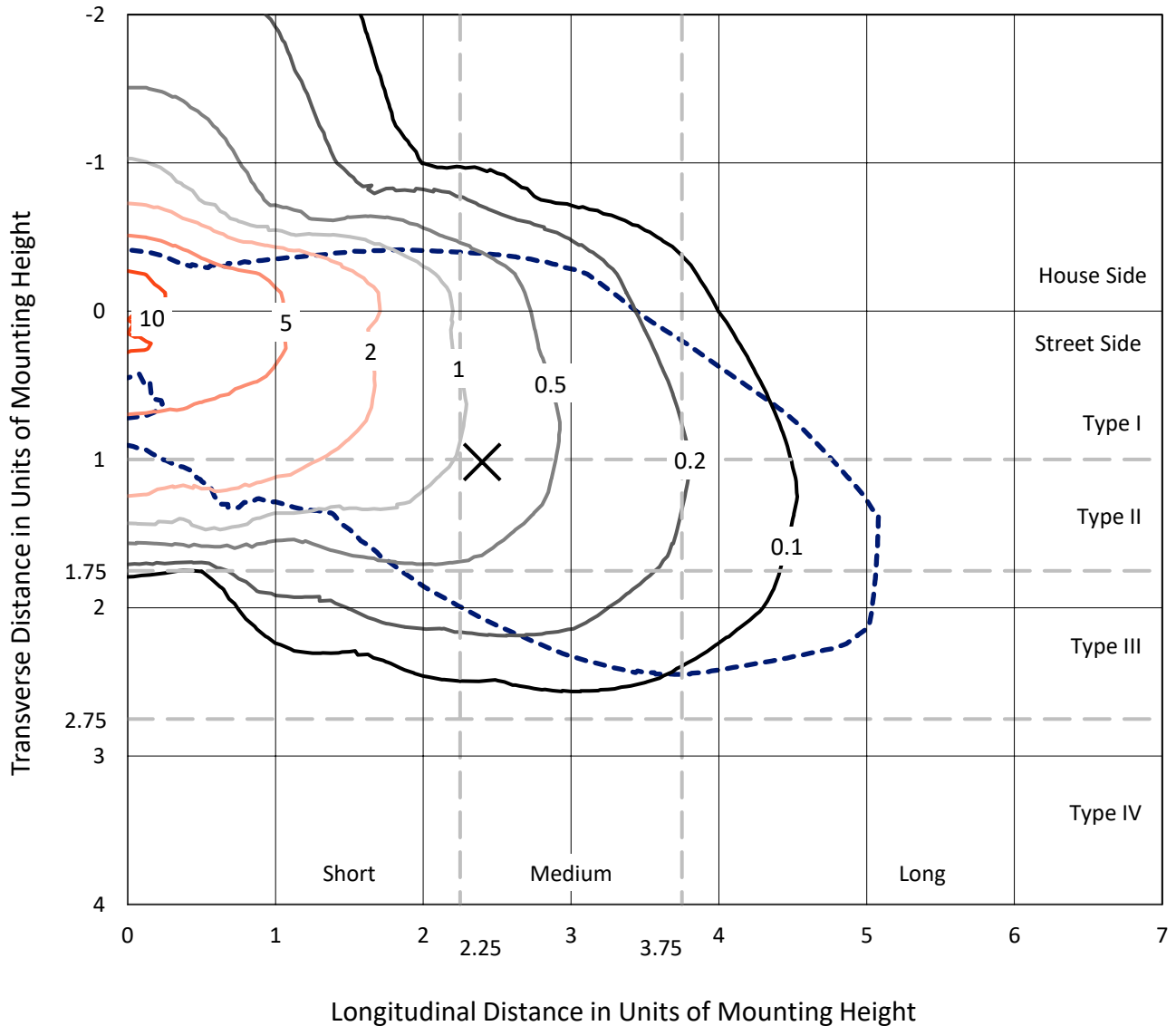
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

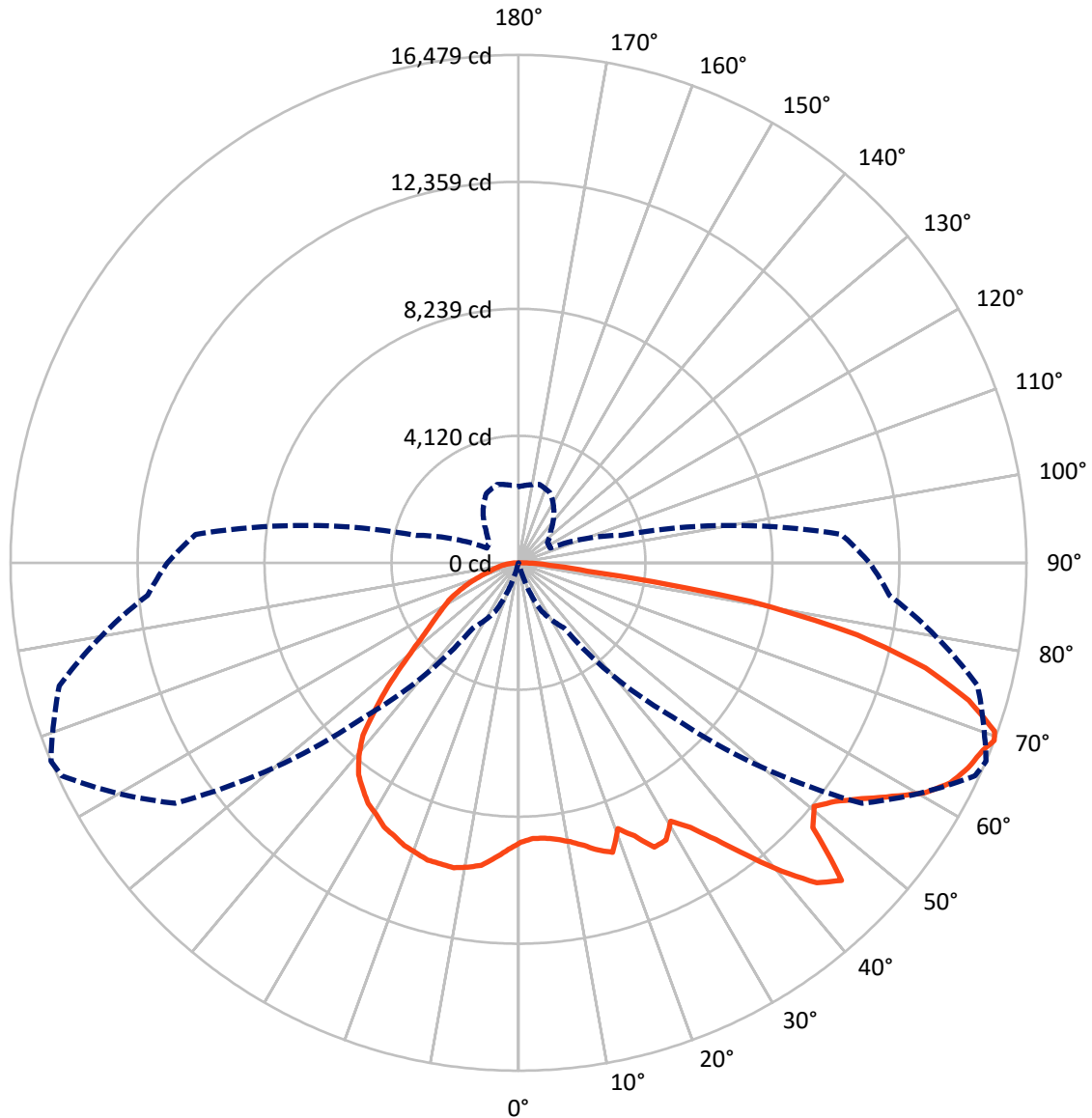
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.3 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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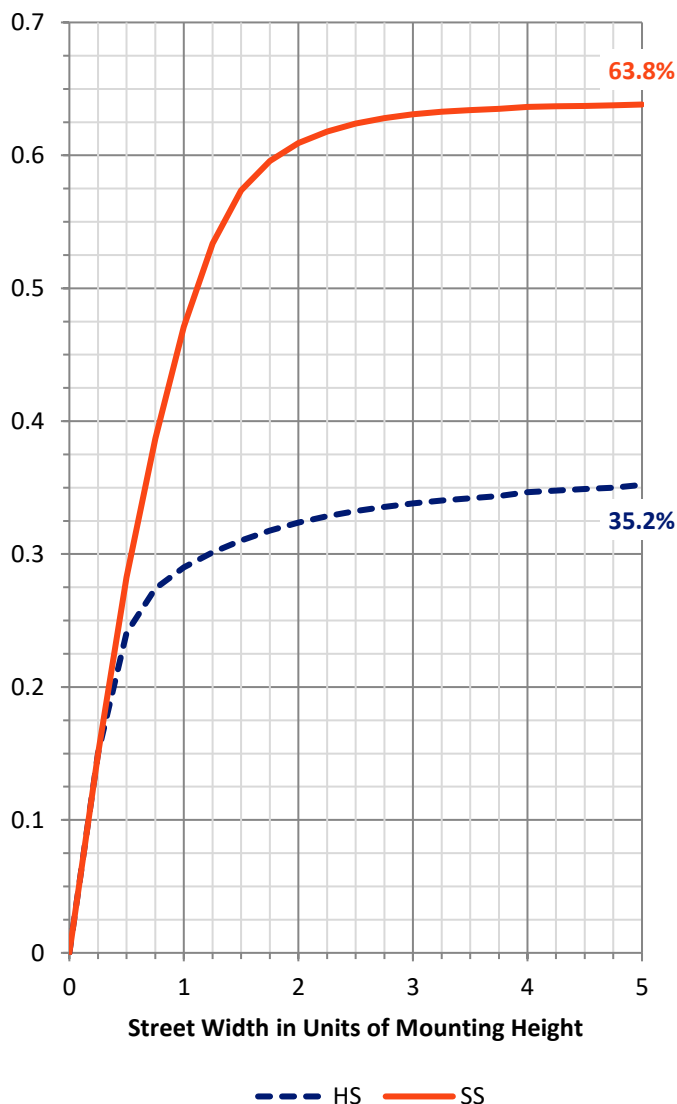
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 13018.7 | 0.0 | 13018.7 |
| | % Fixture | 36.2 | 0.0 | 36.2 |
| Street Side | Lumens | 22967.3 | 0.0 | 22967.3 |
| | % Fixture | 63.8 | 0.0 | 63.8 |
| Total | Lumens | 35986.0 | 0.0 | 35986.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 906.5 | 2.5 |
| 10°-20° | 2798.8 | 7.8 |
| 20°-30° | 4130.9 | 11.5 |
| 30°-40° | 5190.2 | 14.4 |
| 40°-50° | 6087.8 | 16.9 |
| 50°-60° | 6370.4 | 17.7 |
| 60°-70° | 5691.3 | 15.8 |
| 70°-80° | 4005.6 | 11.1 |
| 80°-90° | 804.6 | 2.2 |
| 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° | 35986.0 | 100.0 |
| 0°-180° | 35986.0 | 100.0 |

Coefficient of Utilization

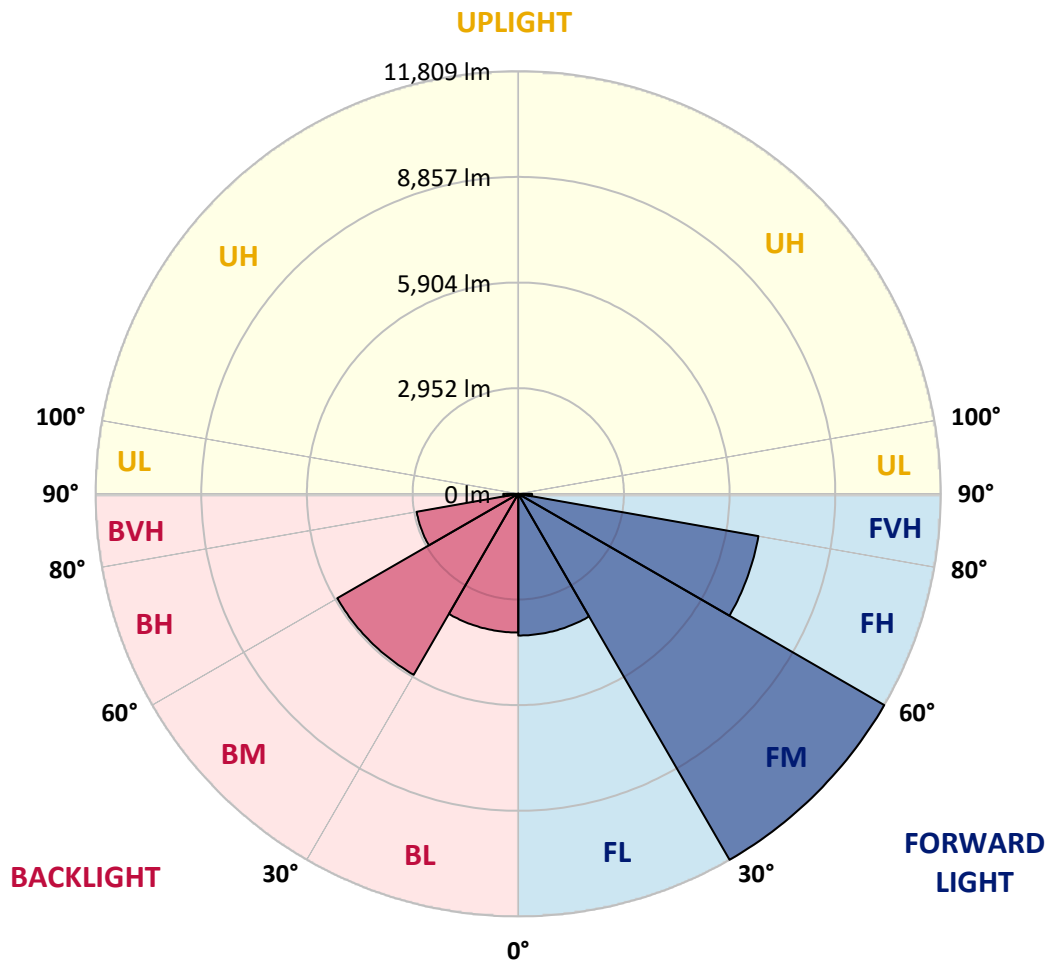


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 3960.1 | 11.0 | | | |
| FM | (30°-60°) | 11809.0 | 32.8 | | | |
| FH | (60°-80°) | 6813.7 | 18.9 | | | G3/7500 |
| FVH | (80°-90°) | 384.5 | 1.1 | | | G3/500 |
| BL | (0°-30°) | 3876.1 | 10.8 | B4/5000 | | |
| BM | (30°-60°) | 5839.4 | 16.2 | B4/8500 | | |
| BH | (60°-80°) | 2883.1 | 8.0 | B4/5000 | | G4/5000 |
| BVH | (80°-90°) | 420.1 | 1.2 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G4
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 67° | 75° | 85° |
|-------|---------|---------|---------|---------|--------|---------|---------|---------|---------|---------|---------|
| 0° | 9065.2 | 9065.2 | 9065.2 | 9065.2 | 9065.2 | 9065.2 | 9065.2 | 9065.2 | 9065.2 | 9065.2 | 9065.2 |
| 2.5° | 8849.4 | 8797.3 | 8821.5 | 8890.3 | 8747.1 | 8849.4 | 8812.2 | 8916.4 | 8955.4 | 8949.9 | 9098.7 |
| 5° | 8920.1 | 8862.4 | 8871.7 | 8923.8 | 8767.6 | 8847.6 | 8812.2 | 8927.5 | 8972.2 | 8959.2 | 9161.9 |
| 7.5° | 9171.2 | 9108.0 | 9087.5 | 9104.2 | 8935.0 | 8996.4 | 8920.1 | 9013.1 | 9061.5 | 9061.5 | 9292.1 |
| 10° | 9567.3 | 9491.1 | 9446.5 | 9444.6 | 9245.6 | 9217.7 | 9124.7 | 9167.5 | 9202.8 | 9232.6 | 9489.2 |
| 12.5° | 9982.1 | 9918.9 | 9861.2 | 9829.6 | 9567.3 | 9502.3 | 9366.5 | 9398.1 | 9409.3 | 9450.2 | 9705.0 |
| 15° | 10359.7 | 10296.4 | 10279.7 | 10229.5 | 9969.1 | 9861.2 | 9671.5 | 9656.6 | 9671.5 | 9695.7 | 9948.6 |
| 17.5° | 10214.6 | 10218.3 | 10311.3 | 10320.6 | 9982.1 | 9732.9 | 9600.8 | 9851.9 | 9876.1 | 10067.7 | 10231.3 |
| 20° | 9939.3 | 9803.6 | 9316.3 | 9050.3 | 9089.4 | 9413.0 | 9173.0 | 9161.9 | 9212.1 | 9552.5 | 10382.0 |
| 22.5° | 8278.4 | 8204.0 | 8471.9 | 8557.4 | 8866.2 | 8988.9 | 9559.9 | 9574.8 | 9625.0 | 9625.0 | 9866.8 |
| 25° | 7147.6 | 7532.6 | 8053.4 | 8983.3 | 8886.6 | 8910.8 | 9143.3 | 10130.9 | 10225.8 | 10223.9 | 10188.6 |
| 27.5° | 7389.4 | 7341.0 | 8120.3 | 8704.4 | 9394.4 | 9351.6 | 9098.7 | 9770.1 | 10190.4 | 10912.1 | 10744.7 |
| 30° | 7679.5 | 7644.2 | 7701.9 | 8689.5 | 9833.3 | 9891.0 | 9656.6 | 9587.8 | 9731.0 | 11246.8 | 11380.8 |
| 32.5° | 7949.2 | 7906.5 | 7971.5 | 8122.2 | 9217.7 | 10447.1 | 10266.7 | 10183.0 | 10235.1 | 10540.1 | 12199.1 |
| 35° | 8187.3 | 8183.6 | 8258.0 | 8436.5 | 9370.2 | 10640.5 | 10891.6 | 10886.0 | 11025.5 | 11287.8 | 12318.1 |
| 37.5° | 8356.5 | 8354.7 | 8414.2 | 8622.5 | 8832.7 | 9827.7 | 11477.5 | 11810.4 | 12033.6 | 12422.3 | 12033.6 |
| 40° | 8354.7 | 8384.4 | 8540.7 | 8808.5 | 9087.5 | 9386.9 | 11736.0 | 12896.6 | 13164.4 | 13441.5 | 12794.3 |
| 42.5° | 8179.9 | 8196.6 | 8471.9 | 8968.5 | 9314.4 | 9572.9 | 10709.3 | 13895.3 | 14194.8 | 14174.3 | 13393.2 |
| 45° | 8018.0 | 8025.5 | 8332.4 | 8942.4 | 9504.1 | 9970.9 | 10499.2 | 13891.6 | 14700.7 | 14827.2 | 13956.7 |
| 47.5° | 7807.9 | 7807.9 | 8111.0 | 8791.8 | 9675.2 | 10419.2 | 11060.9 | 12000.1 | 12844.5 | 15392.6 | 14423.6 |
| 50° | 7538.2 | 7571.7 | 7199.7 | 8635.5 | 9757.1 | 10845.1 | 11537.0 | 12310.7 | 12427.9 | 13765.2 | 14856.9 |
| 52.5° | 7108.6 | 7090.0 | 5626.2 | 8462.6 | 9790.5 | 11153.8 | 12031.7 | 12796.1 | 12859.4 | 12725.5 | 14432.9 |
| 55° | 4480.5 | 4995.7 | 4975.2 | 8259.8 | 9770.1 | 11352.9 | 12411.1 | 13329.9 | 13508.5 | 13344.8 | 12141.5 |
| 57.5° | 2706.2 | 2583.4 | 4251.7 | 7679.5 | 7846.9 | 11507.2 | 12926.3 | 14140.9 | 14297.1 | 13917.7 | 12346.0 |
| 60° | 1056.4 | 996.9 | 1076.9 | 3494.8 | 5629.9 | 10705.6 | 13627.5 | 15002.0 | 15150.8 | 14462.6 | 12519.0 |
| 62.5° | 132.1 | 113.5 | 96.7 | 2419.7 | 3578.5 | 7953.0 | 13999.5 | 15695.7 | 15723.6 | 14856.9 | 12552.5 |
| 65° | 18.6 | 20.5 | 37.2 | 2157.5 | 3251.1 | 7817.2 | 14129.7 | 15978.4 | 16036.1 | 15141.5 | 12439.0 |
| 67.5° | 7.4 | 9.3 | 29.8 | 1876.6 | 2853.1 | 7456.4 | 13807.9 | 16173.7 | 16240.7 | 15416.7 | 12329.3 |
| 69° | 7.4 | 9.3 | 29.8 | 1686.9 | 2581.5 | 7058.3 | 13601.5 | 16346.7 | 16478.8 | 15422.3 | 12078.2 |
| 70° | 7.4 | 9.3 | 27.9 | 1551.2 | 2369.5 | 6721.7 | 13402.5 | 16279.7 | 16385.8 | 15273.5 | 11799.2 |
| 72.5° | 7.4 | 9.3 | 27.9 | 1194.1 | 1802.2 | 5397.4 | 12143.3 | 15331.2 | 15277.3 | 14336.1 | 10713.0 |
| 75° | 9.3 | 9.3 | 27.9 | 838.8 | 1249.9 | 3838.8 | 10248.1 | 13614.5 | 13638.7 | 12762.7 | 9011.2 |
| 77.5° | 9.3 | 9.3 | 27.9 | 533.8 | 788.6 | 2220.7 | 7421.0 | 11165.0 | 11233.8 | 10633.1 | 6747.7 |
| 80° | 9.3 | 9.3 | 27.9 | 243.6 | 489.2 | 1160.6 | 3649.1 | 7275.9 | 7646.1 | 7138.3 | 3703.1 |
| 82.5° | 9.3 | 9.3 | 26.0 | 152.5 | 267.8 | 522.6 | 1439.6 | 2282.1 | 2259.8 | 2224.4 | 1177.3 |
| 85° | 7.4 | 7.4 | 20.5 | 107.9 | 178.6 | 303.2 | 799.8 | 1022.9 | 1009.9 | 894.6 | 608.2 |
| 87.5° | 3.7 | 3.7 | 11.2 | 44.6 | 74.4 | 137.6 | 399.9 | 465.0 | 442.7 | 379.4 | 260.4 |
| 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° | 9065.2 | 9065.2 | 9065.2 | 9065.2 | 9065.2 | 9065.2 | 9065.2 | 9065.2 | 9065.2 | 9065.2 | 9065.2 |
| 2.5° | 9167.5 | 9180.5 | 9241.9 | 9321.8 | 9346.0 | 9450.2 | 9466.9 | 9638.0 | 9664.1 | 9706.8 | 9725.4 |
| 5° | 9260.5 | 9310.7 | 9444.6 | 9632.4 | 9792.4 | 9956.1 | 9961.6 | 10170.0 | 10223.9 | 10212.7 | 10266.7 |
| 7.5° | 9392.5 | 9476.2 | 9680.8 | 9941.2 | 9998.8 | 10210.9 | 10196.0 | 10402.4 | 10406.2 | 10376.4 | 10458.2 |
| 10° | 9595.2 | 9699.4 | 9885.4 | 10045.3 | 10155.1 | 10292.7 | 10274.1 | 10469.4 | 10441.5 | 10409.9 | 10501.0 |
| 12.5° | 9803.6 | 9857.5 | 9970.9 | 10149.5 | 10173.7 | 10222.0 | 10197.9 | 10378.3 | 10348.5 | 10309.4 | 10398.7 |
| 15° | 9985.8 | 10011.9 | 10011.9 | 10108.6 | 10047.2 | 10086.3 | 10004.4 | 10149.5 | 10080.7 | 10062.1 | 10147.6 |
| 17.5° | 10222.0 | 10179.3 | 10091.8 | 10084.4 | 9924.4 | 9864.9 | 9742.2 | 9781.2 | 9651.0 | 9664.1 | 9708.7 |
| 20° | 10488.0 | 10393.1 | 10162.5 | 9931.9 | 9636.2 | 9494.8 | 9251.2 | 9232.6 | 9111.7 | 9089.4 | 9132.1 |
| 22.5° | 10586.6 | 10670.3 | 10248.1 | 9801.7 | 9292.1 | 8975.9 | 8687.6 | 8550.0 | 8373.3 | 8259.8 | 8274.7 |
| 25° | 10886.0 | 11036.7 | 10378.3 | 9569.2 | 8886.6 | 8365.8 | 7932.5 | 7618.2 | 7352.2 | 7216.4 | 7244.3 |
| 27.5° | 11291.5 | 11537.0 | 10452.7 | 9407.4 | 8354.7 | 7674.0 | 6948.6 | 6535.7 | 6260.4 | 6119.1 | 6115.4 |
| 30° | 11871.8 | 12180.5 | 10595.9 | 9068.9 | 7763.2 | 6764.5 | 5869.9 | 5382.6 | 5157.5 | 5064.5 | 5072.0 |
| 32.5° | 12597.1 | 12969.1 | 10893.5 | 8786.2 | 7119.7 | 5791.7 | 4772.5 | 4346.6 | 4244.3 | 4227.6 | 4218.3 |
| 35° | 13558.7 | 13927.0 | 11129.7 | 8351.0 | 6284.6 | 4688.8 | 3831.4 | 3530.1 | 3546.8 | 3543.1 | 3554.3 |
| 37.5° | 13402.5 | 14799.3 | 11399.4 | 7925.1 | 5285.8 | 3675.2 | 3096.7 | 2927.5 | 2933.1 | 2998.2 | 3011.2 |
| 40° | 12814.7 | 14036.7 | 11801.1 | 7220.1 | 4117.8 | 2823.3 | 2442.1 | 2403.0 | 2562.9 | 2706.2 | 2732.2 |
| 42.5° | 13276.0 | 13577.3 | 11855.0 | 6459.4 | 3013.0 | 2164.9 | 2042.2 | 2204.0 | 2462.5 | 2628.0 | 2657.8 |
| 45° | 13737.3 | 13980.9 | 11542.6 | 5321.2 | 2161.2 | 1852.5 | 1943.6 | 2176.1 | 2462.5 | 2639.2 | 2659.7 |
| 47.5° | 14205.9 | 14204.1 | 11178.0 | 4266.6 | 1766.9 | 1770.6 | 1919.4 | 2177.9 | 2477.4 | 2655.9 | 2667.1 |
| 50° | 14503.5 | 14384.5 | 10225.8 | 3342.2 | 1644.2 | 1722.3 | 1906.4 | 2189.1 | 2473.7 | 2603.9 | 2609.4 |
| 52.5° | 14652.3 | 14475.6 | 9385.1 | 2670.8 | 1586.5 | 1683.2 | 1908.3 | 2215.1 | 2453.2 | 2525.7 | 2522.0 |
| 55° | 14401.2 | 14425.4 | 8689.5 | 2220.7 | 1532.6 | 1651.6 | 1917.6 | 2233.7 | 2462.5 | 2536.9 | 2536.9 |
| 57.5° | 14088.8 | 14094.4 | 8135.2 | 1880.4 | 1478.6 | 1625.6 | 1928.7 | 2261.6 | 2633.6 | 2773.1 | 2752.7 |
| 60° | 13869.3 | 13618.2 | 7350.3 | 1666.5 | 1417.2 | 1601.4 | 1943.6 | 2382.5 | 3035.4 | 3176.7 | 3128.4 |
| 62.5° | 13508.5 | 13168.1 | 6543.1 | 1517.7 | 1348.4 | 1582.8 | 1952.9 | 2551.8 | 3089.3 | 3096.7 | 2977.7 |
| 65° | 12876.1 | 12388.8 | 5282.1 | 1370.7 | 1277.8 | 1556.7 | 1947.3 | 2615.0 | 2845.7 | 2734.1 | 2700.6 |
| 67.5° | 11961.0 | 11325.0 | 4140.1 | 1223.8 | 1199.6 | 1517.7 | 1984.5 | 2499.7 | 2687.6 | 2596.4 | 2551.8 |
| 69° | 11390.1 | 10517.8 | 3437.1 | 1136.4 | 1149.4 | 1487.9 | 2003.1 | 2477.4 | 2631.8 | 2520.2 | 2468.1 |
| 70° | 10956.7 | 9818.4 | 2910.8 | 1078.7 | 1106.6 | 1461.9 | 1965.9 | 2464.4 | 2605.7 | 2468.1 | 2406.7 |
| 72.5° | 9303.2 | 7893.4 | 1863.6 | 944.8 | 995.0 | 1396.8 | 1865.5 | 2382.5 | 2548.1 | 2455.1 | 2378.8 |
| 75° | 7192.2 | 5797.3 | 1188.5 | 822.1 | 881.6 | 1300.1 | 1761.3 | 2324.9 | 2574.1 | 2406.7 | 2239.3 |
| 77.5° | 4841.3 | 3238.1 | 907.6 | 690.0 | 747.7 | 1173.6 | 1595.8 | 2163.1 | 2484.8 | 2337.9 | 2131.5 |
| 80° | 2205.8 | 1235.0 | 701.2 | 559.8 | 604.5 | 944.8 | 1376.3 | 1913.8 | 2349.1 | 2347.2 | 2198.4 |
| 82.5° | 883.5 | 825.8 | 520.8 | 427.8 | 476.1 | 704.9 | 1089.9 | 1638.6 | 2071.9 | 2161.2 | 2308.1 |
| 85° | 515.2 | 520.8 | 345.9 | 297.6 | 355.2 | 518.9 | 777.4 | 1266.6 | 1685.1 | 1863.6 | 1988.2 |
| 87.5° | 210.2 | 234.3 | 161.8 | 156.2 | 195.3 | 277.1 | 357.1 | 613.8 | 907.6 | 1114.1 | 1190.3 |
| 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)