

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: P591344

Luminaire Tested: **CTN-CA6-230-730-U-T4-SSS-HM-EX120**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591344
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-CA6-230-730-U-T4-SSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (6) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18359 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

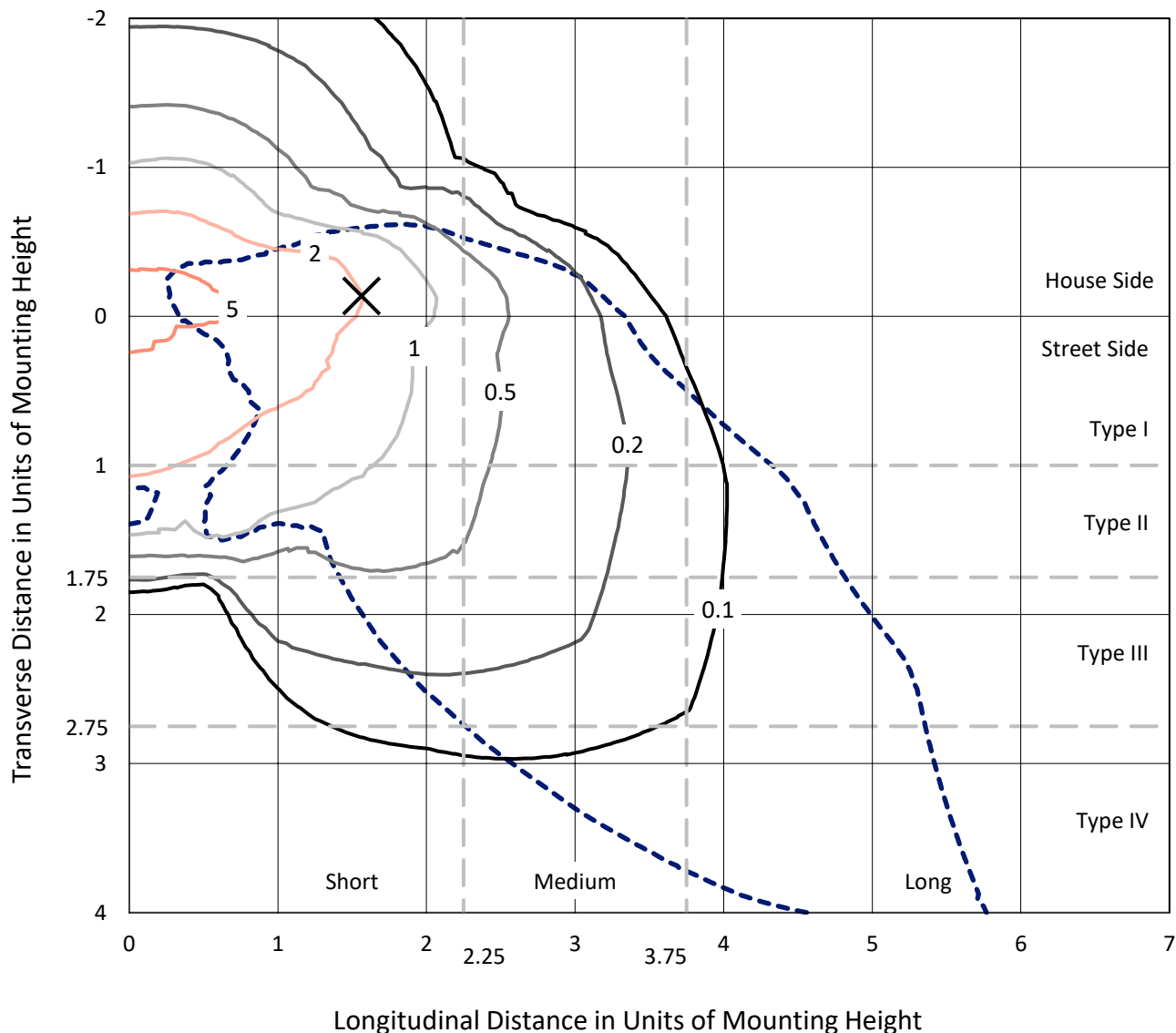
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

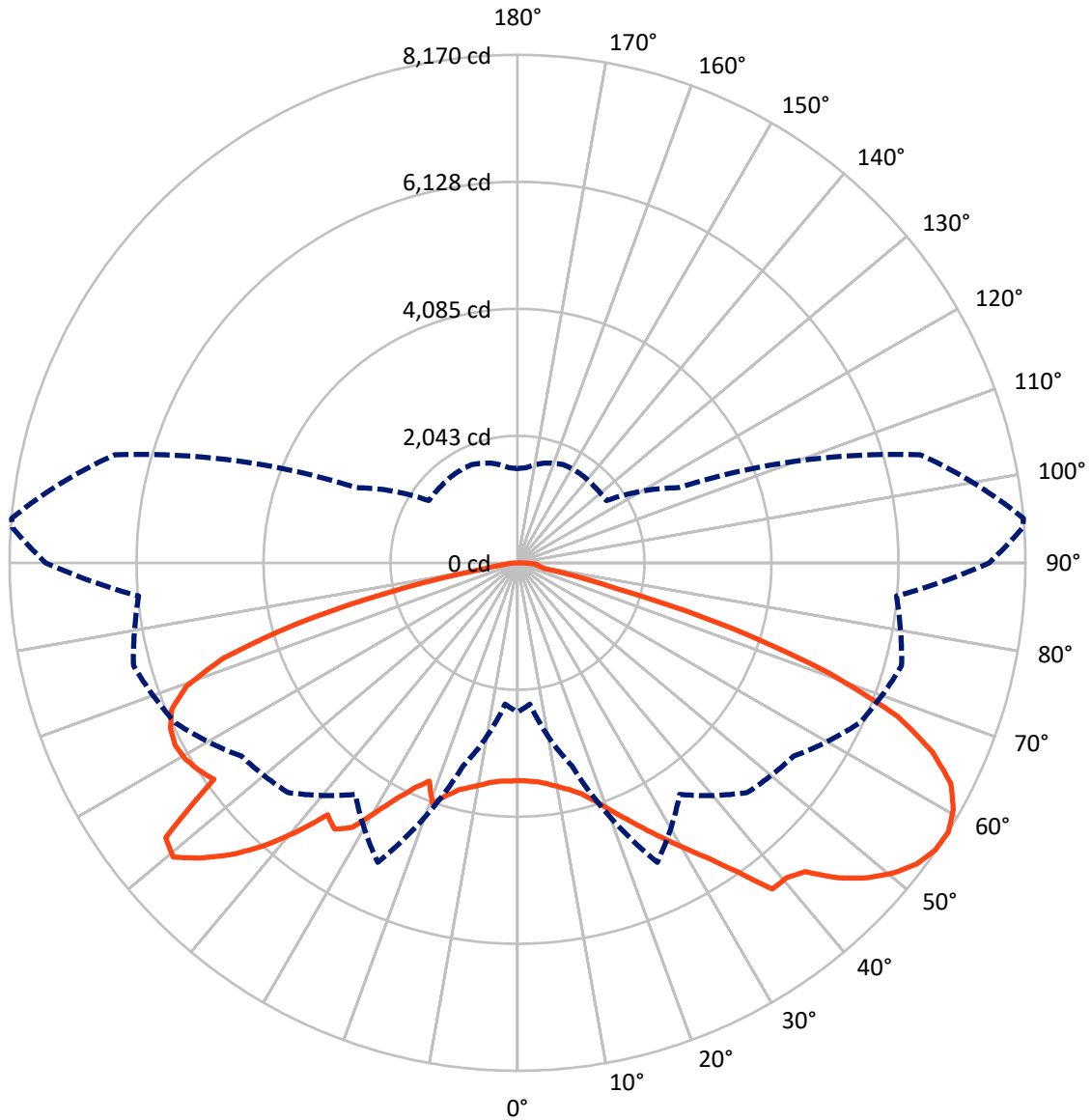
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 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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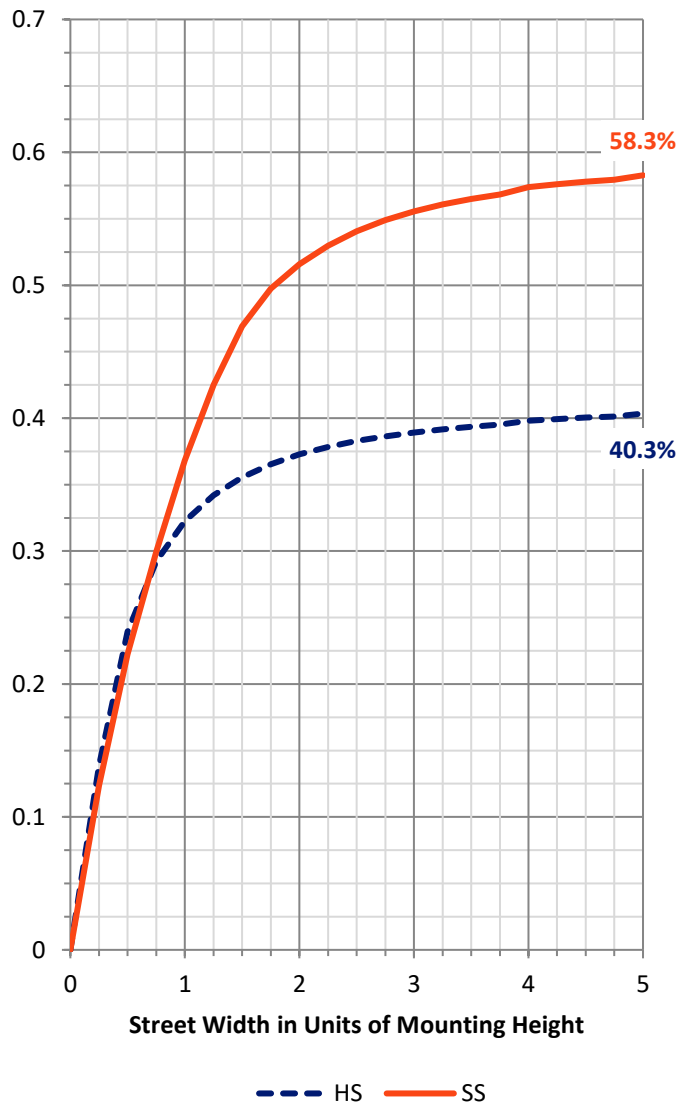
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 7561.5 | 0.0 | 7561.5 |
| | % Fixture | 41.2 | 0.0 | 41.2 |
| Street Side | Lumens | 10797.5 | 0.0 | 10797.5 |
| | % Fixture | 58.8 | 0.0 | 58.8 |
| Total | Lumens | 18359.0 | 0.0 | 18359.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 342.0 | 1.9 |
| 10°-20° | 1046.0 | 5.7 |
| 20°-30° | 1652.9 | 9.0 |
| 30°-40° | 2284.0 | 12.4 |
| 40°-50° | 3079.6 | 16.8 |
| 50°-60° | 3627.7 | 19.8 |
| 60°-70° | 3240.9 | 17.7 |
| 70°-80° | 2419.9 | 13.2 |
| 80°-90° | 666.1 | 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° | 18359.0 | 100.0 |
| 0°-180° | 18359.0 | 100.0 |

Coefficient of Utilization



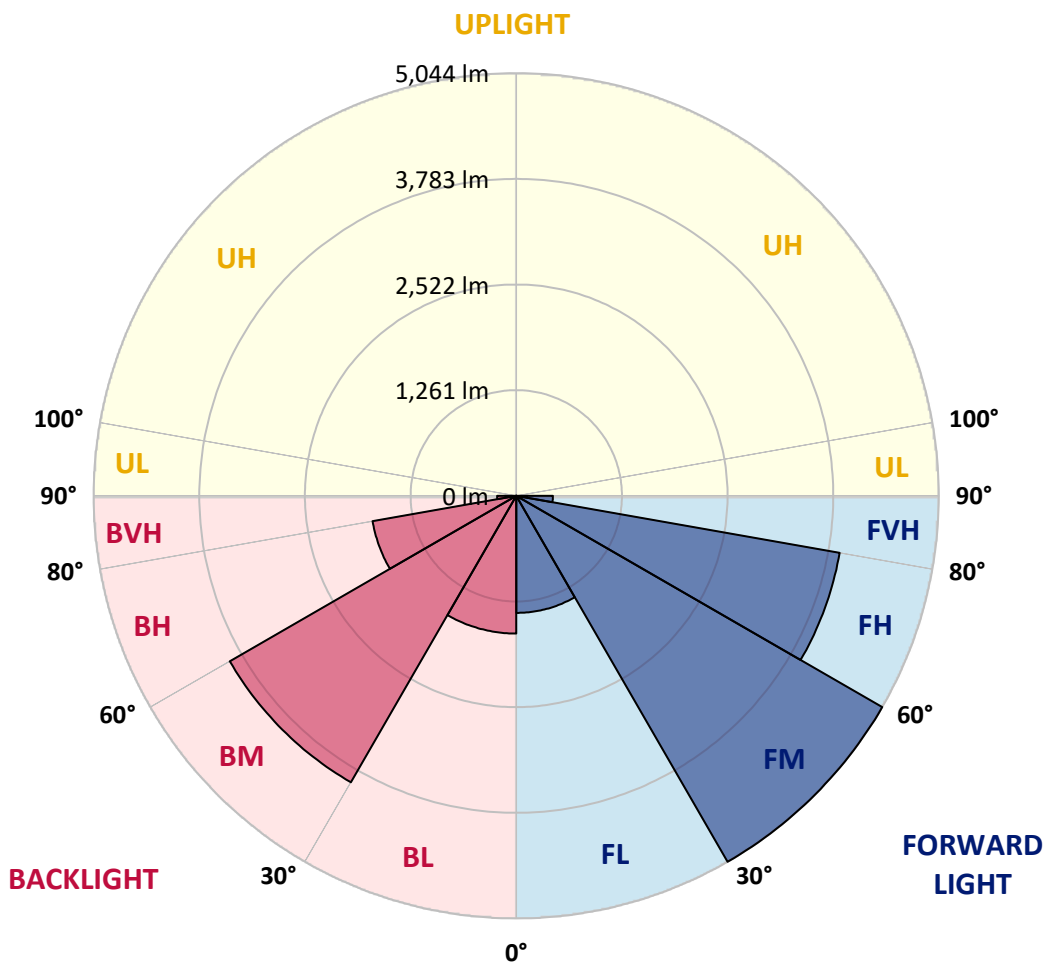
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1397.4 | 7.6 | | | |
| FM (30°-60°) | 5043.6 | 27.5 | | | |
| FH (60°-80°) | 3919.1 | 21.3 | | | G2/5000 |
| FVH (80°-90°) | 437.5 | 2.4 | | | G3/500 |
| BL (0°-30°) | 1643.6 | 9.0 | B3/2500 | | |
| BM (30°-60°) | 3947.7 | 21.5 | B3/5000 | | |
| BH (60°-80°) | 1741.7 | 9.5 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 228.6 | 1.2 | | | G3/500 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3502.8 | 3502.8 | 3502.8 | 3502.8 | 3502.8 | 3502.8 | 3502.8 | 3502.8 | 3502.8 | 3502.8 | 3502.8 |
| 2.5° | 3456.7 | 3434.8 | 3435.8 | 3466.2 | 3421.2 | 3453.6 | 3449.4 | 3499.6 | 3492.3 | 3512.2 | 3518.4 |
| 5° | 3428.5 | 3409.7 | 3410.7 | 3449.4 | 3419.1 | 3448.4 | 3428.5 | 3474.5 | 3491.3 | 3521.6 | 3527.8 |
| 7.5° | 3435.8 | 3419.1 | 3425.4 | 3462.0 | 3424.3 | 3453.6 | 3455.7 | 3498.6 | 3506.9 | 3559.2 | 3567.6 |
| 10° | 3454.7 | 3436.9 | 3441.1 | 3470.3 | 3446.3 | 3498.6 | 3492.3 | 3548.8 | 3550.9 | 3624.0 | 3634.5 |
| 12.5° | 3429.6 | 3417.0 | 3417.0 | 3453.6 | 3466.2 | 3518.4 | 3534.1 | 3592.7 | 3605.2 | 3689.9 | 3703.5 |
| 15° | 3384.6 | 3363.7 | 3394.0 | 3448.4 | 3473.5 | 3552.9 | 3582.2 | 3670.1 | 3684.7 | 3772.5 | 3801.8 |
| 17.5° | 3307.2 | 3295.7 | 3407.6 | 3424.3 | 3329.2 | 3389.8 | 3514.3 | 3760.0 | 3810.2 | 3913.7 | 3968.0 |
| 20° | 3076.2 | 2946.5 | 2647.5 | 2701.8 | 2994.6 | 3213.1 | 3251.8 | 3370.0 | 3585.4 | 4100.8 | 4185.5 |
| 22.5° | 2261.6 | 2373.5 | 2768.7 | 2801.2 | 2791.7 | 2972.6 | 3379.4 | 3493.3 | 3595.8 | 3785.1 | 4347.6 |
| 25° | 2342.1 | 2335.9 | 2529.3 | 2940.2 | 2925.6 | 2960.1 | 3130.5 | 3684.7 | 3787.2 | 3975.4 | 4560.9 |
| 27.5° | 2414.3 | 2419.5 | 2404.9 | 2791.7 | 3065.7 | 3101.2 | 3153.5 | 3532.0 | 4027.6 | 4243.0 | 4794.1 |
| 30° | 2557.5 | 2535.6 | 2495.8 | 2494.8 | 3188.0 | 3240.3 | 3329.2 | 3455.7 | 4249.3 | 4591.2 | 5085.8 |
| 32.5° | 2799.1 | 2774.0 | 2721.7 | 2639.1 | 2755.2 | 3384.6 | 3506.9 | 3668.0 | 3921.0 | 5018.9 | 5427.7 |
| 35° | 2977.9 | 2960.1 | 2924.5 | 2867.0 | 2774.0 | 3456.7 | 3680.5 | 3893.8 | 4228.4 | 5196.6 | 5876.3 |
| 37.5° | 3198.5 | 3173.4 | 3132.6 | 3061.5 | 2991.5 | 2963.2 | 3847.8 | 4150.0 | 4657.1 | 5076.4 | 5973.5 |
| 40° | 3448.4 | 3433.7 | 3359.5 | 3267.5 | 3190.1 | 3111.7 | 3962.8 | 4484.6 | 5208.1 | 5615.9 | 5884.6 |
| 42.5° | 3636.6 | 3625.1 | 3581.2 | 3506.9 | 3431.7 | 3381.5 | 3512.2 | 4895.5 | 5808.3 | 6137.7 | 6335.3 |
| 45° | 3800.8 | 3788.2 | 3788.2 | 3768.3 | 3747.4 | 3751.6 | 3808.1 | 5190.4 | 6378.2 | 6583.1 | 6761.9 |
| 47.5° | 3927.3 | 3905.3 | 3817.5 | 3835.3 | 3865.6 | 3956.5 | 4128.0 | 4512.8 | 6837.2 | 6961.6 | 7120.5 |
| 50° | 4235.7 | 4202.3 | 3917.9 | 3983.7 | 4082.0 | 4228.4 | 4449.0 | 4933.1 | 6384.4 | 7284.7 | 7409.1 |
| 52.5° | 4520.1 | 4365.4 | 3236.1 | 4202.3 | 4313.1 | 4529.5 | 4790.9 | 5388.0 | 5876.3 | 7180.1 | 7629.7 |
| 55° | 4032.9 | 3875.0 | 3252.9 | 4603.8 | 4584.9 | 4857.9 | 5113.0 | 5761.2 | 6152.3 | 5997.6 | 7574.3 |
| 57.5° | 2400.7 | 2281.5 | 3384.6 | 5316.9 | 4545.2 | 5224.9 | 5421.4 | 6080.2 | 6394.9 | 6117.8 | 7589.0 |
| 60° | 1243.2 | 1307.0 | 1256.8 | 3146.2 | 3913.7 | 5385.9 | 5740.3 | 6387.6 | 6559.0 | 6207.7 | 7598.4 |
| 62.5° | 167.3 | 120.2 | 50.2 | 2301.4 | 2781.3 | 4487.7 | 6140.8 | 6680.3 | 6679.3 | 6238.0 | 7532.5 |
| 65° | 10.5 | 11.5 | 23.0 | 2289.9 | 3067.8 | 5324.2 | 6803.7 | 6916.6 | 6738.9 | 6184.7 | 7312.9 |
| 67.5° | 4.2 | 5.2 | 20.9 | 2274.2 | 3310.4 | 5597.1 | 7583.7 | 6991.9 | 6745.2 | 6041.5 | 6830.9 |
| 70° | 4.2 | 5.2 | 20.9 | 2118.4 | 3475.6 | 5645.2 | 7715.5 | 6963.7 | 6667.8 | 5689.1 | 5934.8 |
| 72.5° | 5.2 | 6.3 | 18.8 | 1840.3 | 3375.2 | 5514.5 | 7500.1 | 6906.2 | 6390.7 | 4980.2 | 4608.0 |
| 75° | 5.2 | 6.3 | 18.8 | 1486.8 | 2986.2 | 5229.0 | 7329.6 | 6425.2 | 5602.3 | 3721.3 | 2988.3 |
| 77.5° | 4.2 | 5.2 | 18.8 | 1160.6 | 2489.6 | 4634.1 | 6649.0 | 5586.6 | 4430.2 | 2165.4 | 1180.5 |
| 80° | 4.2 | 5.2 | 18.8 | 808.2 | 1896.7 | 3798.7 | 5416.2 | 4350.7 | 2491.7 | 619.0 | 332.5 |
| 82.5° | 4.2 | 5.2 | 17.8 | 504.0 | 1341.5 | 2793.8 | 3701.4 | 2005.5 | 534.3 | 241.5 | 259.3 |
| 85° | 4.2 | 4.2 | 13.6 | 246.8 | 857.4 | 1855.9 | 1844.4 | 335.6 | 212.3 | 156.8 | 196.6 |
| 87.5° | 2.1 | 3.1 | 7.3 | 112.9 | 478.9 | 978.7 | 735.1 | 128.6 | 91.0 | 63.8 | 109.8 |
| 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° | 3502.8 | 3502.8 | 3502.8 | 3502.8 | 3502.8 | 3502.8 | 3502.8 | 3502.8 | 3502.8 | 3502.8 | 3502.8 |
| 2.5° | 3520.5 | 3515.3 | 3529.9 | 3567.6 | 3565.5 | 3593.7 | 3571.8 | 3614.6 | 3622.0 | 3612.5 | 3627.2 |
| 5° | 3539.4 | 3541.4 | 3581.2 | 3620.9 | 3606.3 | 3652.3 | 3661.7 | 3725.5 | 3727.6 | 3719.2 | 3738.0 |
| 7.5° | 3586.4 | 3593.7 | 3633.5 | 3680.5 | 3701.4 | 3740.1 | 3734.9 | 3817.5 | 3810.2 | 3806.0 | 3827.9 |
| 10° | 3652.3 | 3665.9 | 3708.7 | 3783.0 | 3773.6 | 3833.2 | 3806.0 | 3861.4 | 3859.3 | 3850.9 | 3875.0 |
| 12.5° | 3732.8 | 3746.4 | 3800.8 | 3871.9 | 3872.9 | 3877.1 | 3855.1 | 3883.4 | 3873.9 | 3854.1 | 3872.9 |
| 15° | 3841.5 | 3857.2 | 3931.5 | 3983.7 | 3938.8 | 3927.3 | 3885.4 | 3869.8 | 3834.2 | 3781.9 | 3797.6 |
| 17.5° | 4013.0 | 4025.6 | 4109.2 | 4138.5 | 4061.1 | 4015.1 | 3895.9 | 3807.0 | 3706.6 | 3633.5 | 3647.0 |
| 20° | 4229.4 | 4240.9 | 4308.9 | 4301.6 | 4198.1 | 4085.2 | 3900.1 | 3749.5 | 3562.4 | 3419.1 | 3414.9 |
| 22.5° | 4467.8 | 4475.2 | 4540.0 | 4475.2 | 4291.1 | 4127.0 | 3891.7 | 3660.6 | 3345.9 | 3160.8 | 3141.0 |
| 25° | 4730.3 | 4736.6 | 4735.5 | 4591.2 | 4344.5 | 4102.9 | 3814.3 | 3512.2 | 3108.6 | 2910.9 | 2890.0 |
| 27.5° | 5024.1 | 5025.1 | 4910.1 | 4681.1 | 4321.5 | 4014.1 | 3664.8 | 3245.5 | 2891.1 | 2719.6 | 2703.9 |
| 30° | 5336.7 | 5334.6 | 5070.1 | 4689.5 | 4232.6 | 3845.7 | 3433.7 | 2993.5 | 2695.6 | 2542.9 | 2520.9 |
| 32.5° | 5693.3 | 5675.5 | 5212.3 | 4660.2 | 4070.5 | 3604.2 | 3135.8 | 2782.3 | 2541.9 | 2367.2 | 2334.8 |
| 35° | 6150.2 | 6106.3 | 5333.6 | 4558.8 | 3830.0 | 3278.0 | 2859.7 | 2598.3 | 2393.4 | 2215.6 | 2183.2 |
| 37.5° | 6715.9 | 6659.4 | 5523.9 | 4415.6 | 3552.9 | 3008.2 | 2656.9 | 2473.9 | 2286.7 | 2083.9 | 2042.1 |
| 40° | 6552.8 | 6661.5 | 5750.8 | 4260.8 | 3285.3 | 2792.8 | 2537.7 | 2414.3 | 2221.9 | 1997.1 | 1957.4 |
| 42.5° | 6804.8 | 6791.2 | 6061.3 | 4077.8 | 3028.1 | 2624.5 | 2489.6 | 2396.5 | 2187.4 | 1959.5 | 1913.4 |
| 45° | 7233.5 | 7230.3 | 6395.9 | 3900.1 | 2777.1 | 2489.6 | 2453.0 | 2348.4 | 2138.2 | 1912.4 | 1862.2 |
| 47.5° | 7581.6 | 7571.2 | 6715.9 | 3704.6 | 2545.0 | 2384.0 | 2378.7 | 2251.2 | 2050.4 | 1840.3 | 1794.2 |
| 50° | 7824.2 | 7839.9 | 6893.6 | 3516.3 | 2325.4 | 2275.2 | 2255.4 | 2114.2 | 1927.0 | 1753.5 | 1717.9 |
| 52.5° | 8015.6 | 8044.8 | 6971.0 | 3498.6 | 2133.0 | 2135.1 | 2100.6 | 1972.0 | 1825.6 | 1685.5 | 1647.9 |
| 55° | 8109.7 | 8154.6 | 6891.5 | 3383.6 | 1944.8 | 1957.4 | 1923.9 | 1842.3 | 1755.6 | 1627.0 | 1599.8 |
| 57.5° | 8148.3 | 8170.3 | 6707.5 | 2861.8 | 1743.0 | 1740.9 | 1751.4 | 1743.0 | 1661.5 | 1534.9 | 1515.1 |
| 60° | 8082.5 | 8053.2 | 6307.1 | 2174.8 | 1538.1 | 1547.5 | 1614.4 | 1606.0 | 1533.9 | 1437.7 | 1410.5 |
| 62.5° | 7879.6 | 7822.1 | 5574.1 | 1608.1 | 1373.9 | 1450.2 | 1521.3 | 1497.3 | 1409.5 | 1321.6 | 1300.7 |
| 65° | 7492.8 | 7330.7 | 4441.7 | 1255.8 | 1295.5 | 1400.1 | 1465.9 | 1430.4 | 1330.0 | 1226.5 | 1213.9 |
| 67.5° | 6798.5 | 6595.6 | 2915.1 | 1126.1 | 1262.0 | 1357.2 | 1426.2 | 1366.6 | 1269.4 | 1157.5 | 1139.7 |
| 70° | 5547.9 | 5325.2 | 1380.2 | 1049.8 | 1186.8 | 1280.9 | 1331.0 | 1270.4 | 1171.1 | 1059.2 | 1046.6 |
| 72.5° | 3868.7 | 3615.7 | 743.4 | 967.2 | 1100.0 | 1181.5 | 1215.0 | 1140.7 | 1054.0 | 1004.8 | 1001.7 |
| 75° | 1928.1 | 1647.9 | 674.4 | 882.5 | 988.1 | 1059.2 | 1115.7 | 1064.4 | 988.1 | 898.2 | 875.2 |
| 77.5° | 513.4 | 441.2 | 634.7 | 788.4 | 899.2 | 979.7 | 1012.1 | 958.8 | 871.0 | 794.7 | 781.1 |
| 80° | 356.5 | 363.9 | 592.9 | 653.5 | 784.2 | 856.3 | 886.7 | 818.7 | 774.8 | 699.5 | 678.6 |
| 82.5° | 302.2 | 317.9 | 478.9 | 492.5 | 623.2 | 700.6 | 753.9 | 742.4 | 679.6 | 619.0 | 610.6 |
| 85° | 283.4 | 301.1 | 306.4 | 340.9 | 446.5 | 537.4 | 629.5 | 634.7 | 592.9 | 515.5 | 490.4 |
| 87.5° | 163.1 | 161.0 | 147.4 | 173.6 | 244.7 | 298.0 | 360.7 | 344.0 | 280.2 | 242.6 | 237.4 |
| 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)