

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: STREETWORKS

Report Number: P510690

Luminaire Tested: **CST-CA6-230-760-U-T4-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510690
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: STREETWORKS
Catalog Number: CST-CA6-230-760-U-T4-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (6) 5700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30390 lumens
Efficiency: N/A
Efficacy: 133.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

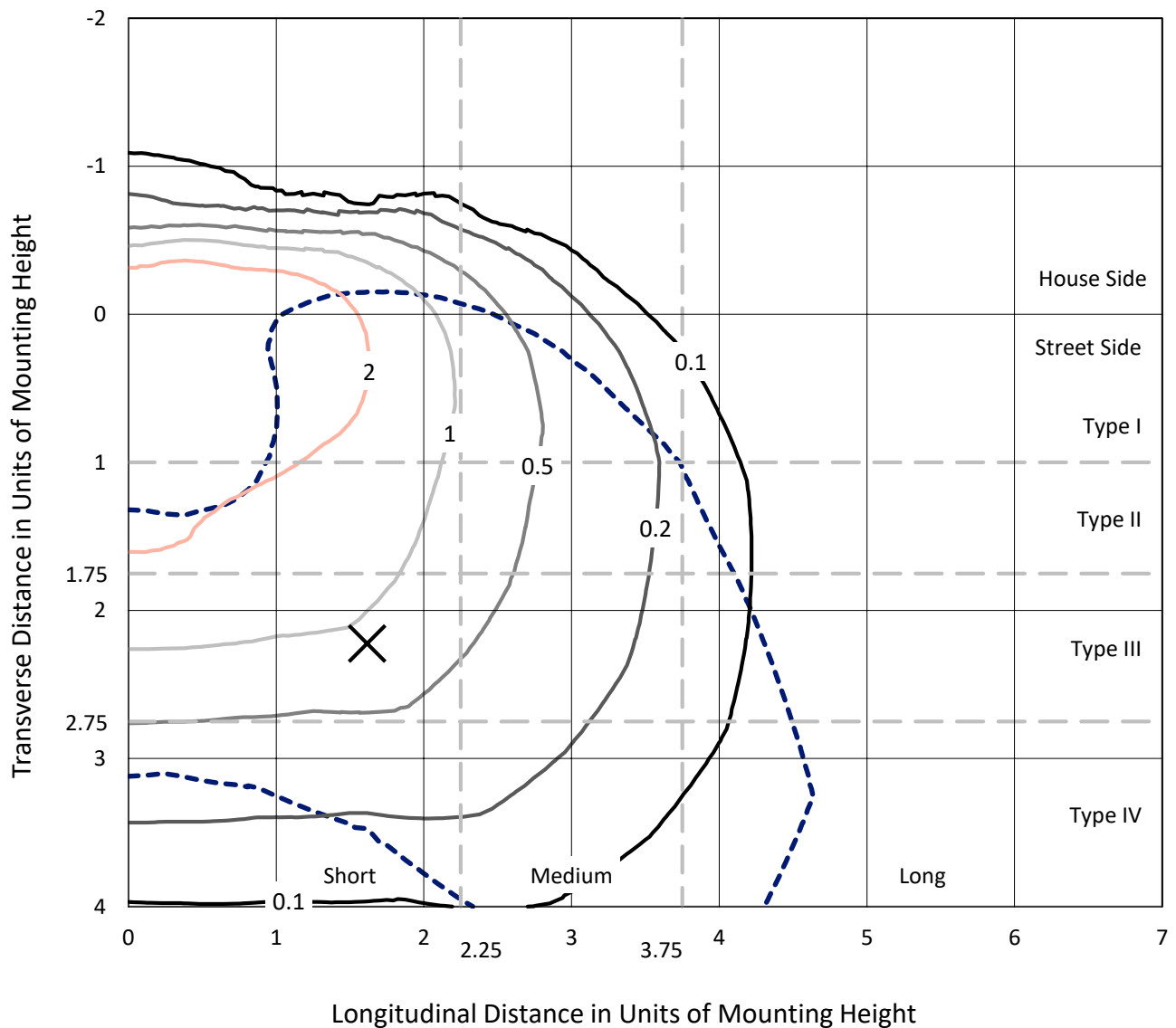
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

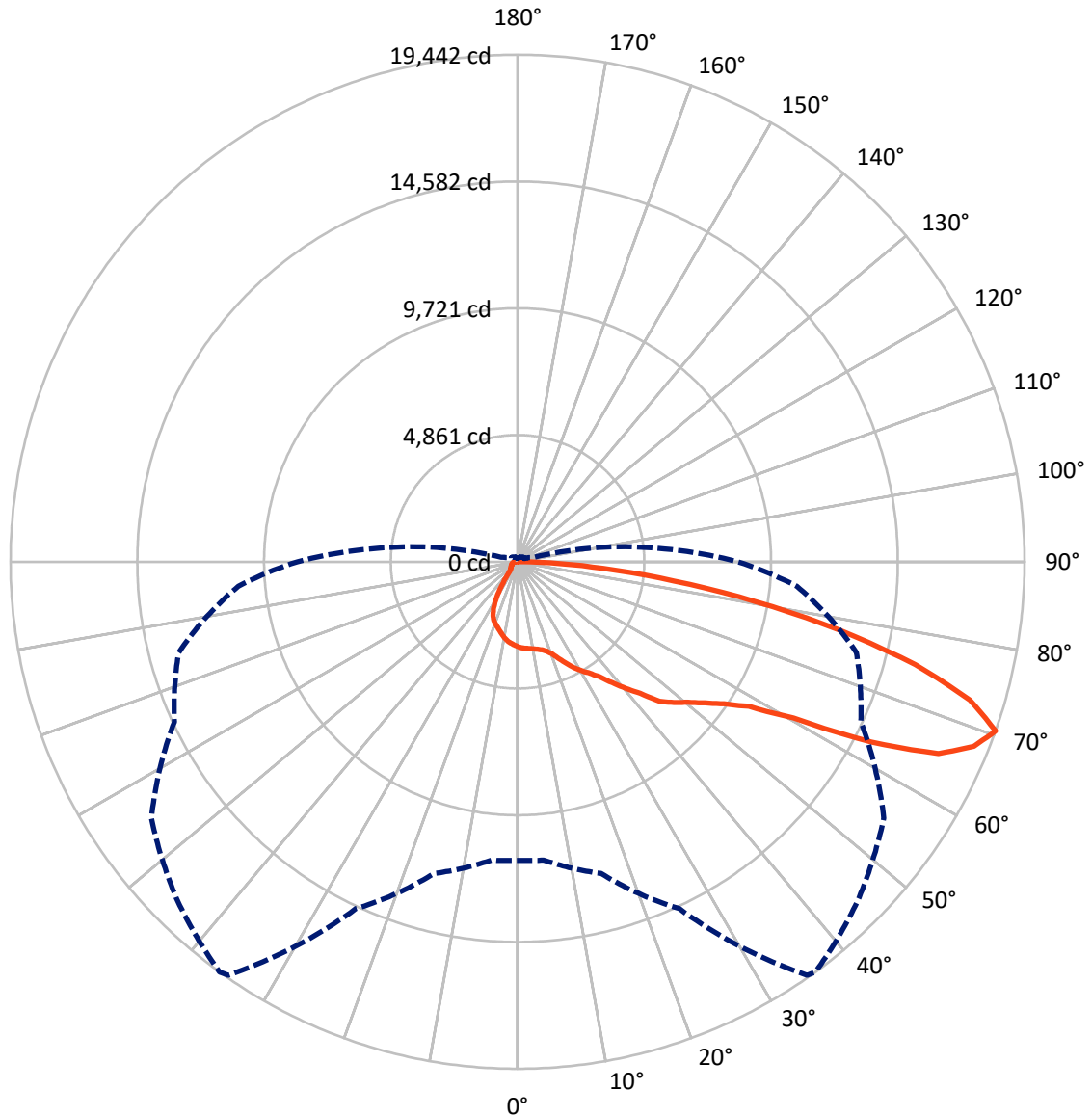
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.1 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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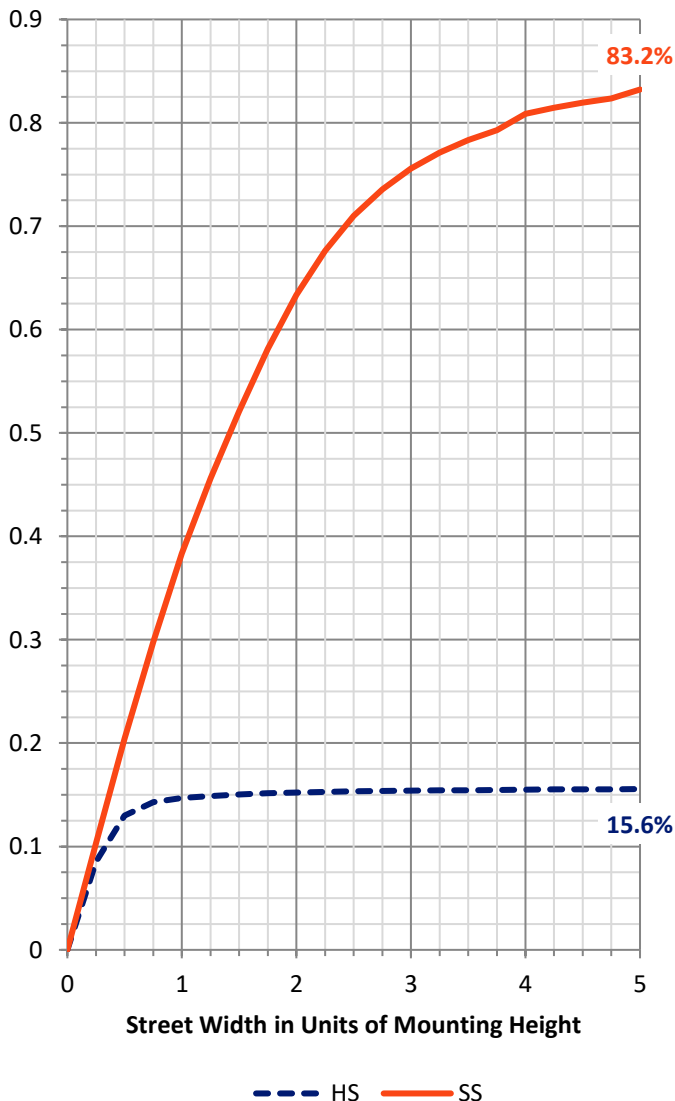
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4795.8 | 0.0 | 4795.8 |
| | % Fixture | 15.8 | 0.0 | 15.8 |
| Street Side | Lumens | 25594.2 | 0.0 | 25594.2 |
| | % Fixture | 84.2 | 0.0 | 84.2 |
| Total | Lumens | 30390.0 | 0.0 | 30390.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 308.8 | 1.0 |
| 10°-20° | 918.4 | 3.0 |
| 20°-30° | 1651.5 | 5.4 |
| 30°-40° | 2613.4 | 8.6 |
| 40°-50° | 4084.3 | 13.4 |
| 50°-60° | 5865.0 | 19.3 |
| 60°-70° | 7955.3 | 26.2 |
| 70°-80° | 5887.8 | 19.4 |
| 80°-90° | 1105.5 | 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° | 30390.0 | 100.0 |
| 0°-180° | 30390.0 | 100.0 |

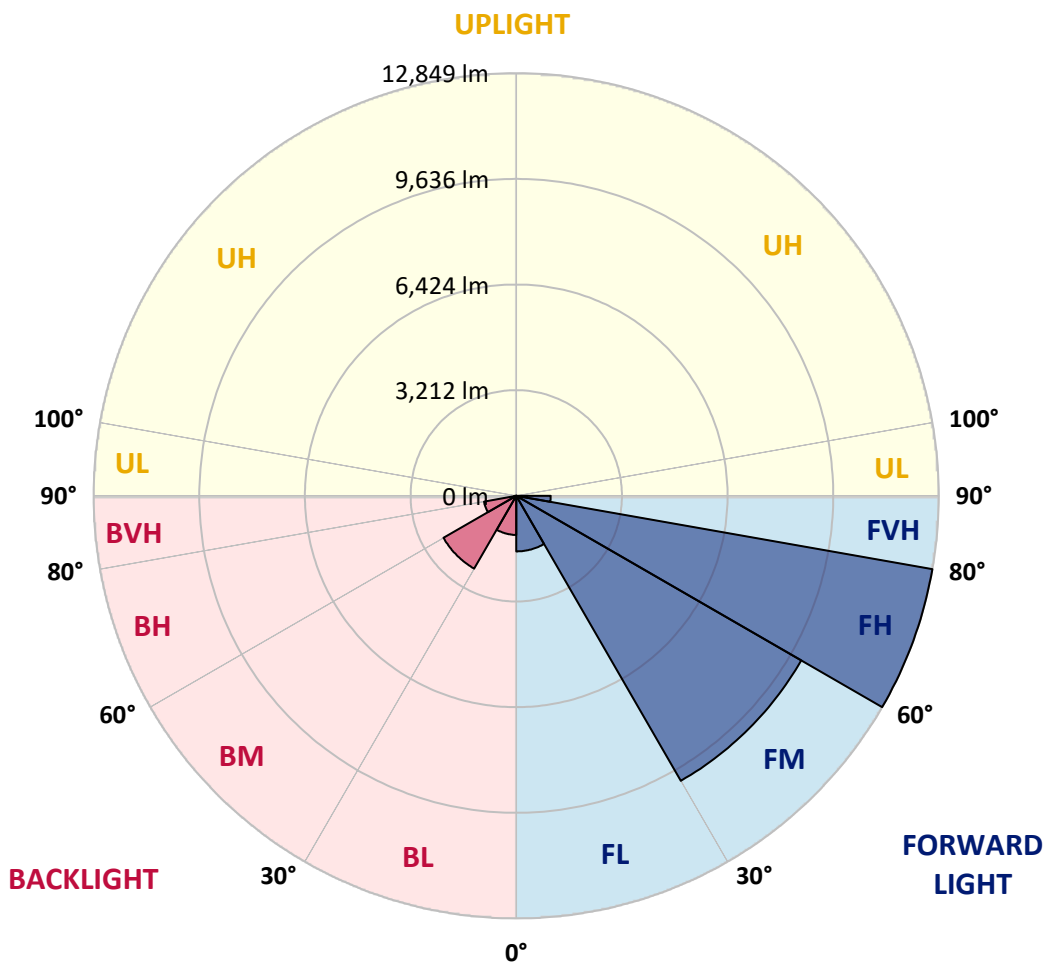


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1690.3 | 5.6 | | | |
| FM (30°-60°) | 10007.2 | 32.9 | | | |
| FH (60°-80°) | 12848.6 | 42.3 | | | G5 |
| FVH (80°-90°) | 1048.2 | 3.4 | | | G5 |
| BL (0°-30°) | 1188.4 | 3.9 | B3/2500 | | |
| BM (30°-60°) | 2555.6 | 8.4 | B3/5000 | | |
| BH (60°-80°) | 994.5 | 3.3 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 57.3 | 0.2 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3256.1 | 3256.1 | 3256.1 | 3256.1 | 3256.1 | 3256.1 | 3256.1 | 3256.1 | 3256.1 | 3256.1 | 3256.1 |
| 2.5° | 3322.1 | 3315.1 | 3309.5 | 3311.6 | 3307.4 | 3310.2 | 3303.8 | 3296.1 | 3277.9 | 3270.2 | 3266.7 |
| 5° | 3351.6 | 3349.5 | 3343.8 | 3339.6 | 3331.9 | 3329.1 | 3322.1 | 3328.4 | 3318.6 | 3293.3 | 3278.6 |
| 7.5° | 3369.1 | 3368.4 | 3362.1 | 3353.0 | 3357.2 | 3360.7 | 3367.7 | 3357.9 | 3345.2 | 3333.3 | 3303.1 |
| 10° | 3376.8 | 3376.8 | 3369.1 | 3374.0 | 3395.8 | 3397.9 | 3401.4 | 3407.7 | 3395.8 | 3378.2 | 3348.0 |
| 12.5° | 3396.5 | 3395.1 | 3397.9 | 3414.0 | 3436.4 | 3441.4 | 3458.9 | 3458.9 | 3460.3 | 3449.8 | 3414.7 |
| 15° | 3445.6 | 3445.6 | 3451.9 | 3466.6 | 3505.2 | 3508.0 | 3534.0 | 3557.1 | 3559.9 | 3544.5 | 3517.8 |
| 17.5° | 3559.2 | 3556.4 | 3552.9 | 3562.0 | 3603.4 | 3604.8 | 3649.7 | 3679.2 | 3686.9 | 3703.8 | 3699.5 |
| 20° | 3775.3 | 3772.5 | 3771.8 | 3772.5 | 3769.7 | 3765.5 | 3809.7 | 3841.3 | 3880.6 | 3910.0 | 3924.8 |
| 22.5° | 4084.7 | 4078.4 | 4078.4 | 4044.0 | 4017.4 | 4021.6 | 4028.6 | 4046.1 | 4098.1 | 4150.0 | 4205.4 |
| 25° | 4418.0 | 4413.8 | 4417.3 | 4329.6 | 4293.8 | 4307.8 | 4298.7 | 4326.1 | 4394.1 | 4439.0 | 4498.0 |
| 27.5° | 4690.2 | 4696.5 | 4676.9 | 4608.8 | 4585.7 | 4596.2 | 4575.1 | 4653.7 | 4728.8 | 4807.4 | 4896.5 |
| 30° | 5029.1 | 4995.4 | 4947.0 | 4864.2 | 4855.8 | 4857.2 | 4855.8 | 4982.1 | 5137.8 | 5250.1 | 5373.6 |
| 32.5° | 5471.8 | 5477.4 | 5368.7 | 5173.6 | 5102.1 | 5092.2 | 5120.3 | 5305.5 | 5516.0 | 5765.1 | 5927.8 |
| 35° | 5919.4 | 5928.5 | 5849.3 | 5645.8 | 5441.6 | 5410.8 | 5369.4 | 5610.0 | 5913.8 | 6413.3 | 6658.9 |
| 37.5° | 6394.4 | 6426.7 | 6332.7 | 6150.9 | 5908.9 | 5880.1 | 5684.4 | 5920.8 | 6369.8 | 7180.9 | 7502.9 |
| 40° | 7030.1 | 6995.7 | 6882.0 | 6651.2 | 6426.0 | 6379.7 | 6152.4 | 6276.5 | 6956.4 | 8142.1 | 8375.7 |
| 42.5° | 7498.7 | 7488.9 | 7392.8 | 7164.8 | 6938.1 | 6901.0 | 6717.8 | 6852.6 | 7695.2 | 9116.6 | 9221.2 |
| 45° | 7870.6 | 7930.9 | 7928.8 | 7785.7 | 7658.0 | 7636.9 | 7528.9 | 7727.4 | 8588.3 | 10036.4 | 9985.2 |
| 47.5° | 8201.0 | 8238.2 | 8178.6 | 8116.1 | 8056.5 | 8063.5 | 8143.5 | 8551.8 | 9501.1 | 10839.8 | 10613.1 |
| 50° | 8742.0 | 8694.3 | 8426.9 | 8379.2 | 8463.4 | 8466.9 | 8710.4 | 9339.0 | 10506.5 | 11534.3 | 11145.0 |
| 52.5° | 9463.2 | 9411.3 | 8861.9 | 8780.6 | 8979.8 | 8994.5 | 9399.4 | 10123.4 | 11543.5 | 12198.1 | 11674.0 |
| 55° | 10536.7 | 10416.0 | 9827.3 | 9462.5 | 9553.7 | 9613.4 | 10103.8 | 10877.6 | 12355.2 | 12783.2 | 12074.6 |
| 57.5° | 11855.0 | 11942.7 | 11641.0 | 10816.6 | 10437.0 | 10459.5 | 10909.9 | 11599.6 | 13071.6 | 13295.4 | 12308.9 |
| 60° | 13248.4 | 13227.3 | 13353.6 | 13006.3 | 12279.4 | 12158.8 | 11929.3 | 12336.3 | 13626.5 | 13726.9 | 12550.3 |
| 62.5° | 14011.7 | 14134.5 | 14555.4 | 14624.9 | 15280.9 | 15217.1 | 13653.2 | 13249.8 | 14267.8 | 13997.7 | 12616.2 |
| 65° | 14007.5 | 14060.8 | 14844.5 | 15706.1 | 17755.5 | 17737.2 | 17010.4 | 14570.9 | 14745.6 | 14142.2 | 12484.3 |
| 67.5° | 13102.4 | 13185.2 | 14101.5 | 15784.7 | 18899.1 | 18877.3 | 18375.0 | 16428.0 | 14895.7 | 13968.2 | 11869.0 |
| 70° | 11452.3 | 11480.3 | 12374.2 | 14678.2 | 19358.6 | 19442.1 | 18422.0 | 17140.8 | 14522.5 | 13451.1 | 10747.1 |
| 72.5° | 9447.8 | 9389.5 | 10263.7 | 12534.8 | 18188.3 | 18138.5 | 17643.2 | 16289.8 | 13893.8 | 12447.1 | 8765.1 |
| 75° | 6956.4 | 7118.5 | 7902.9 | 10064.5 | 15572.8 | 15755.2 | 15974.8 | 14987.6 | 12339.8 | 10258.1 | 6061.1 |
| 77.5° | 4593.4 | 4799.7 | 5592.5 | 7546.4 | 12328.6 | 12612.0 | 13181.0 | 12747.4 | 10038.5 | 7358.4 | 2886.4 |
| 80° | 2373.5 | 2529.3 | 3242.8 | 5007.3 | 8838.1 | 9247.1 | 10290.4 | 9654.8 | 7117.1 | 3327.0 | 646.2 |
| 82.5° | 898.1 | 877.7 | 1453.0 | 2866.0 | 5666.8 | 6038.7 | 6797.1 | 5789.6 | 2532.8 | 584.4 | 300.3 |
| 85° | 394.3 | 417.5 | 602.0 | 1307.1 | 3240.0 | 3288.4 | 3850.4 | 2257.1 | 371.1 | 279.2 | 204.2 |
| 87.5° | 170.5 | 195.7 | 252.6 | 376.1 | 1093.1 | 1262.2 | 1561.8 | 717.0 | 112.3 | 96.8 | 102.4 |
| 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° | 3256.1 | 3256.1 | 3256.1 | 3256.1 | 3256.1 | 3256.1 | 3256.1 | 3256.1 | 3256.1 | 3256.1 | 3256.1 |
| 2.5° | 3260.3 | 3256.1 | 3249.1 | 3231.6 | 3202.8 | 3199.3 | 3196.5 | 3193.7 | 3188.1 | 3190.9 | 3207.0 |
| 5° | 3267.4 | 3259.6 | 3234.4 | 3209.1 | 3183.9 | 3161.4 | 3134.1 | 3123.5 | 3109.5 | 3100.4 | 3117.2 |
| 7.5° | 3291.2 | 3275.1 | 3237.9 | 3203.5 | 3134.8 | 3101.8 | 3066.7 | 3025.3 | 2995.8 | 2976.9 | 2993.7 |
| 10° | 3331.2 | 3310.9 | 3264.6 | 3193.7 | 3113.0 | 3022.5 | 2960.8 | 2892.0 | 2835.9 | 2820.4 | 2835.9 |
| 12.5° | 3396.5 | 3366.3 | 3312.3 | 3216.1 | 3073.0 | 2954.4 | 2837.3 | 2746.8 | 2656.3 | 2630.3 | 2638.0 |
| 15° | 3502.4 | 3478.5 | 3395.8 | 3263.2 | 3073.7 | 2892.7 | 2718.7 | 2572.8 | 2454.2 | 2412.8 | 2410.0 |
| 17.5° | 3672.2 | 3646.9 | 3551.5 | 3356.5 | 3099.0 | 2844.3 | 2602.2 | 2379.8 | 2200.2 | 2109.0 | 2094.3 |
| 20° | 3915.6 | 3880.6 | 3736.0 | 3494.0 | 3153.7 | 2823.2 | 2494.2 | 2195.3 | 1916.1 | 1744.9 | 1718.9 |
| 22.5° | 4186.5 | 4149.3 | 3936.0 | 3599.9 | 3193.0 | 2781.9 | 2391.1 | 1991.1 | 1623.5 | 1414.4 | 1385.0 |
| 25° | 4523.2 | 4441.8 | 4127.5 | 3700.3 | 3183.9 | 2694.9 | 2223.4 | 1714.0 | 1315.5 | 1134.5 | 1114.8 |
| 27.5° | 4855.8 | 4752.7 | 4322.6 | 3752.9 | 3143.9 | 2556.6 | 1977.8 | 1389.9 | 1030.0 | 901.6 | 885.4 |
| 30° | 5268.3 | 5069.1 | 4495.9 | 3777.4 | 3042.8 | 2349.7 | 1648.8 | 1056.6 | 771.1 | 682.7 | 667.2 |
| 32.5° | 5758.8 | 5457.1 | 4658.6 | 3750.1 | 2874.5 | 2033.9 | 1281.8 | 773.9 | 573.2 | 517.8 | 517.1 |
| 35° | 6405.6 | 5932.8 | 4837.5 | 3660.3 | 2616.3 | 1693.7 | 898.8 | 529.0 | 446.9 | 428.0 | 431.5 |
| 37.5° | 7162.0 | 6576.8 | 5019.3 | 3512.9 | 2324.4 | 1295.9 | 599.2 | 407.6 | 392.9 | 393.6 | 394.3 |
| 40° | 7959.7 | 7288.2 | 5264.1 | 3306.0 | 1970.1 | 938.0 | 431.5 | 366.2 | 365.5 | 372.6 | 374.7 |
| 42.5° | 8721.6 | 7979.3 | 5565.8 | 3030.2 | 1599.0 | 620.2 | 374.0 | 349.4 | 340.3 | 343.1 | 345.2 |
| 45° | 9429.5 | 8572.2 | 5822.6 | 2761.5 | 1201.1 | 442.7 | 366.9 | 329.8 | 315.7 | 314.3 | 315.7 |
| 47.5° | 9999.9 | 9047.2 | 5979.1 | 2445.8 | 856.0 | 367.6 | 352.2 | 311.5 | 291.9 | 287.7 | 285.6 |
| 50° | 10434.2 | 9400.1 | 6035.9 | 2088.0 | 578.8 | 350.8 | 332.6 | 290.5 | 266.6 | 267.3 | 267.3 |
| 52.5° | 10858.0 | 9720.7 | 5969.9 | 1727.3 | 425.9 | 336.1 | 319.2 | 273.6 | 248.4 | 261.7 | 265.2 |
| 55° | 11163.2 | 9855.4 | 5777.7 | 1337.3 | 355.0 | 317.8 | 304.5 | 254.0 | 236.4 | 258.2 | 265.2 |
| 57.5° | 11341.4 | 9961.4 | 5424.8 | 965.4 | 325.5 | 300.3 | 285.6 | 235.7 | 219.6 | 225.2 | 228.7 |
| 60° | 11452.3 | 9813.3 | 4958.2 | 660.2 | 310.1 | 286.3 | 266.6 | 223.8 | 202.1 | 188.7 | 186.6 |
| 62.5° | 11391.2 | 9442.9 | 4343.6 | 453.9 | 294.0 | 270.8 | 250.5 | 212.6 | 183.8 | 166.3 | 164.9 |
| 65° | 10893.8 | 8757.4 | 3334.7 | 367.6 | 284.1 | 263.8 | 240.6 | 202.1 | 171.2 | 154.4 | 152.2 |
| 67.5° | 9971.2 | 7525.4 | 1947.6 | 326.9 | 279.9 | 256.8 | 232.9 | 192.2 | 164.2 | 145.9 | 143.1 |
| 70° | 8455.0 | 5660.5 | 652.5 | 291.9 | 279.2 | 256.1 | 226.6 | 185.2 | 156.5 | 137.5 | 134.7 |
| 72.5° | 6099.7 | 3415.4 | 317.8 | 256.8 | 261.0 | 245.6 | 221.7 | 179.6 | 151.5 | 127.7 | 122.8 |
| 75° | 3466.6 | 1112.0 | 287.0 | 221.7 | 242.8 | 234.3 | 218.9 | 180.3 | 153.7 | 115.8 | 110.2 |
| 77.5° | 986.5 | 324.8 | 277.1 | 188.7 | 229.4 | 242.1 | 204.9 | 162.8 | 157.2 | 107.3 | 100.3 |
| 80° | 333.3 | 289.1 | 267.3 | 146.6 | 185.2 | 200.0 | 177.5 | 143.1 | 158.6 | 97.5 | 90.5 |
| 82.5° | 267.3 | 290.5 | 224.5 | 117.2 | 141.0 | 151.5 | 141.0 | 128.4 | 128.4 | 87.0 | 81.4 |
| 85° | 214.0 | 269.4 | 142.4 | 93.3 | 105.2 | 116.5 | 99.6 | 96.1 | 89.8 | 73.0 | 70.9 |
| 87.5° | 124.2 | 84.2 | 58.9 | 47.7 | 44.2 | 44.9 | 38.6 | 46.3 | 56.8 | 49.8 | 49.1 |
| 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)