

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: P237551

Luminaire Tested: **CST-8-3-D-U-T2-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237551
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-25)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-8-3-D-U-T2-7030-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27635 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 226
Input Voltage (V): NR
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

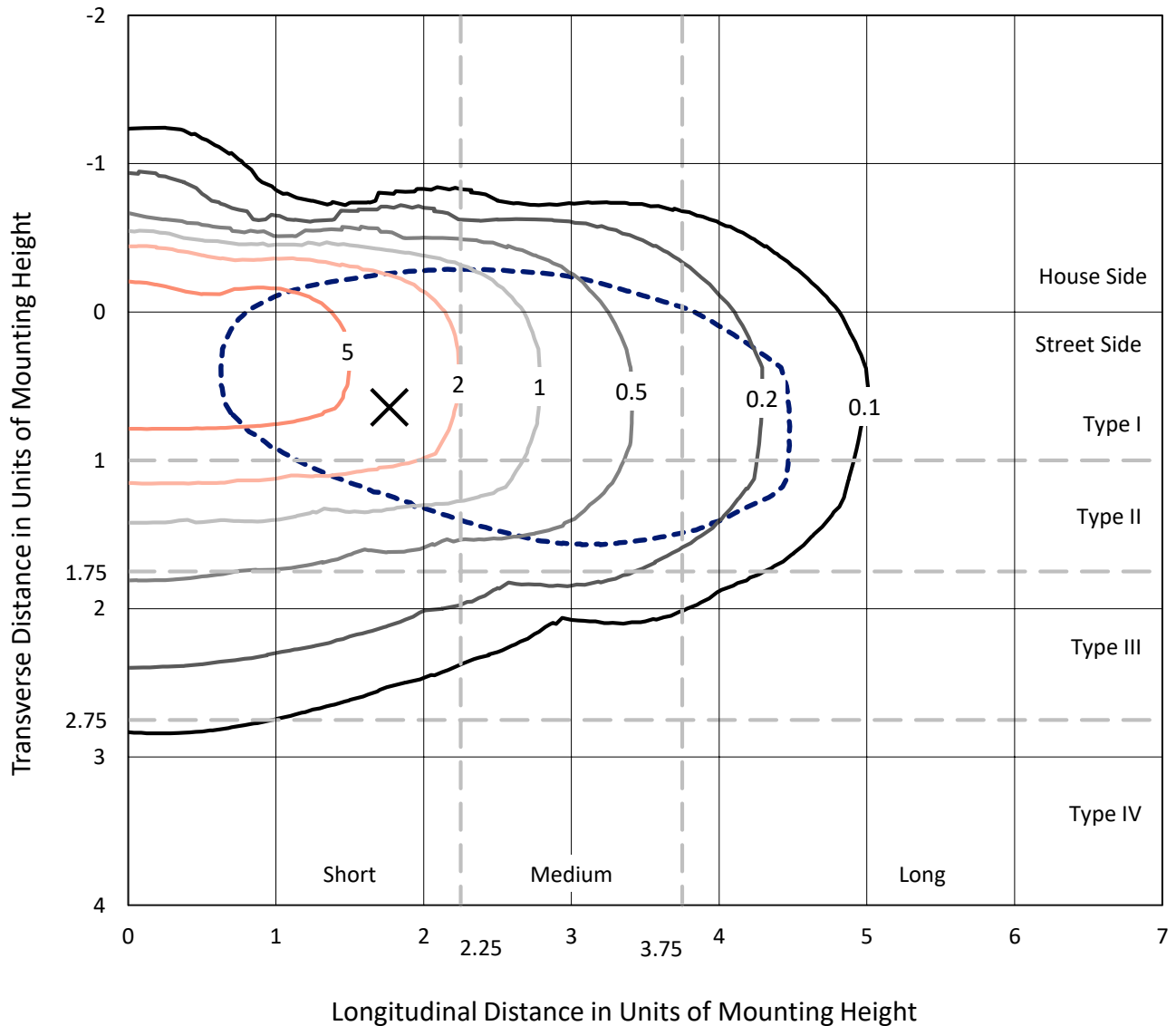


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

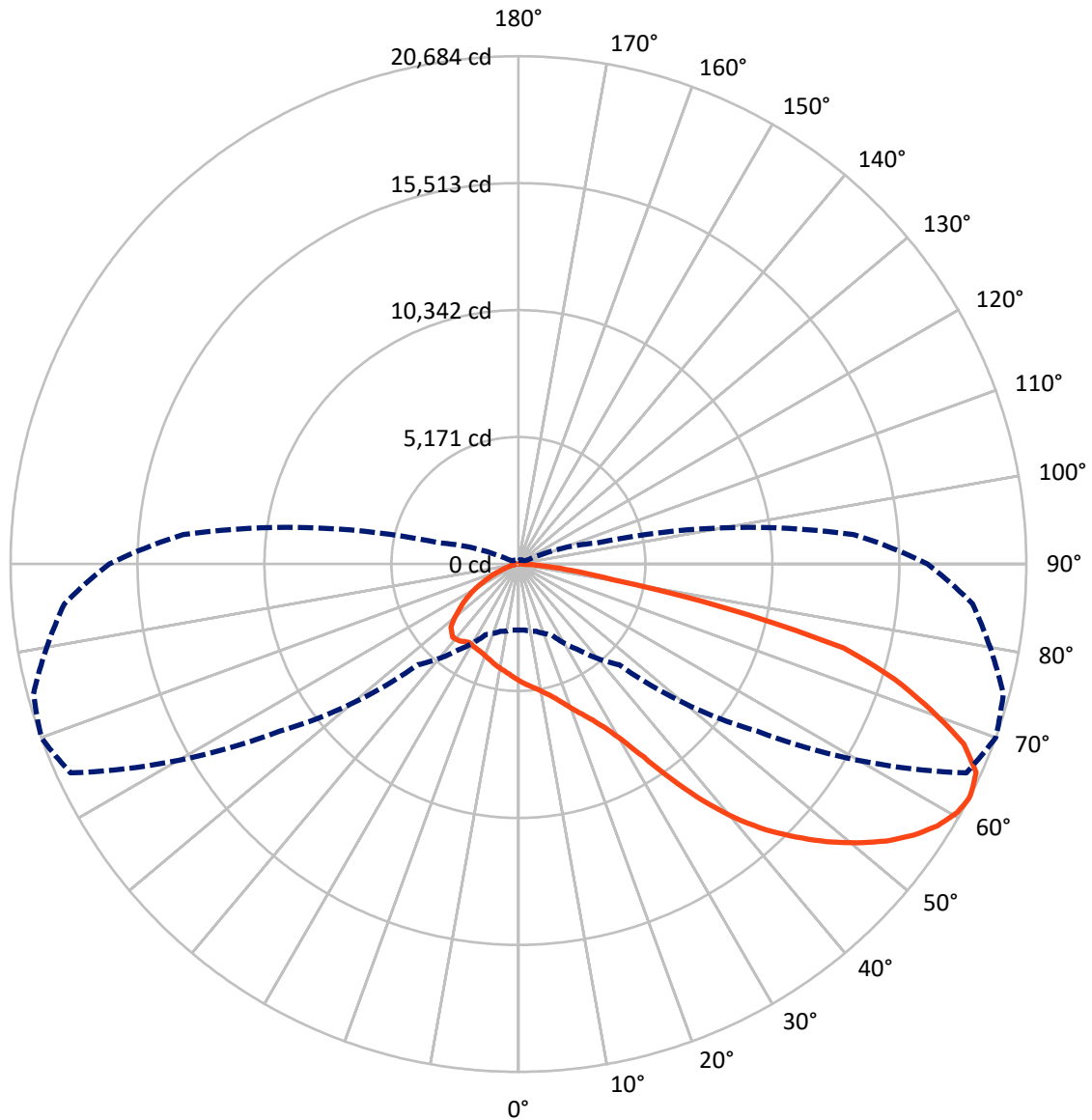


Based on 25 foot mounting height. Maximum calculated value = 9.8 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 62-Deg Vertical

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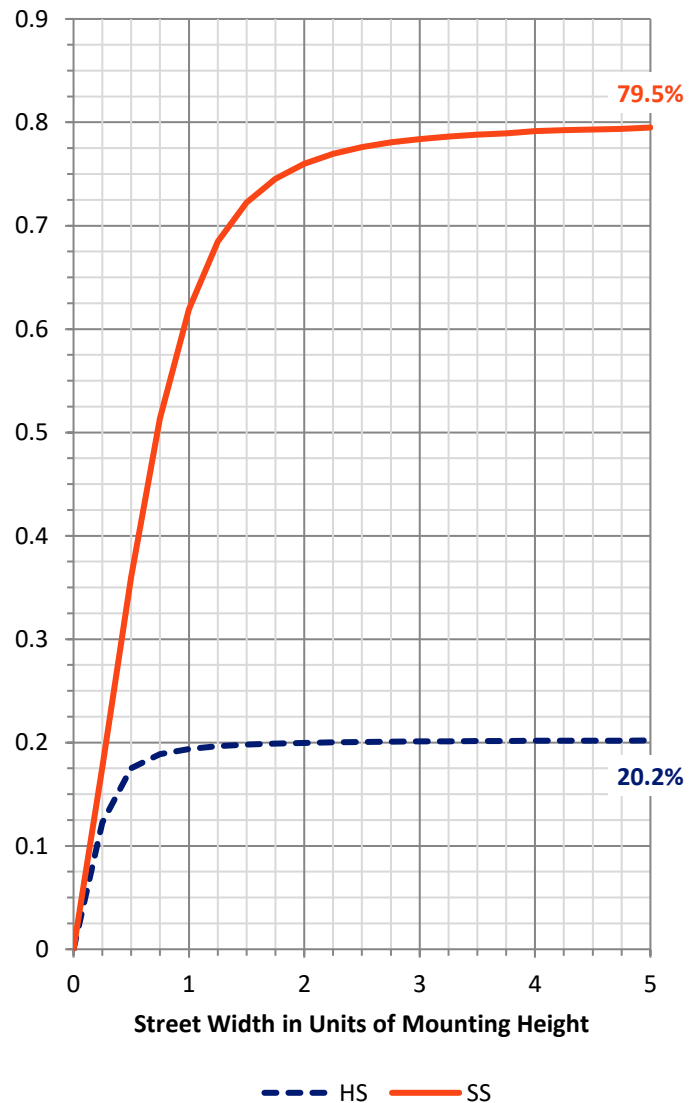
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5653.0 | 0.0 | 5653.0 |
| | % Fixture | 20.5 | 0.0 | 20.5 |
| Street Side | Lumens | 21982.0 | 0.0 | 21982.0 |
| | % Fixture | 79.5 | 0.0 | 79.5 |
| Total | Lumens | 27635.0 | 0.0 | 27635.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 452.9 | 1.6 |
| 10°-20° | 1377.8 | 5.0 |
| 20°-30° | 2319.7 | 8.4 |
| 30°-40° | 3502.7 | 12.7 |
| 40°-50° | 4911.9 | 17.8 |
| 50°-60° | 5740.8 | 20.8 |
| 60°-70° | 5569.6 | 20.2 |
| 70°-80° | 3256.0 | 11.8 |
| 80°-90° | 503.6 | 1.8 |
| 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° | 27635.0 | 100.0 |
| 0°-180° | 27635.0 | 100.0 |



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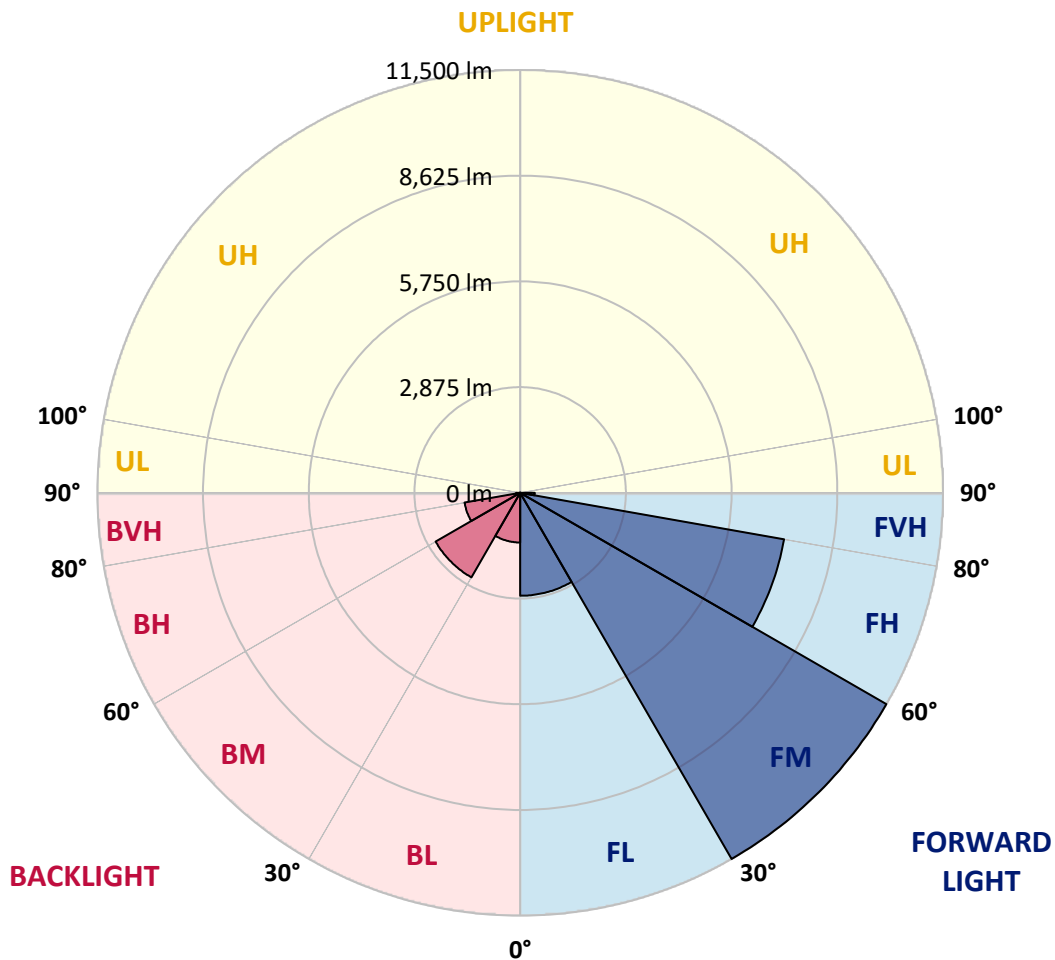
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2798.8 | 10.1 | | | |
| FM (30°-60°) | 11500.0 | 41.6 | | | |
| FH (60°-80°) | 7288.6 | 26.4 | | | G3/7500 |
| FVH (80°-90°) | 394.7 | 1.4 | | | G3/500 |
| BL (0°-30°) | 1351.6 | 4.9 | B3/2500 | | |
| BM (30°-60°) | 2655.4 | 9.6 | B3/5000 | | |
| BH (60°-80°) | 1537.1 | 5.6 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 109.0 | 0.4 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 70° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| 0° | 4754.3 | 4754.3 | 4754.3 | 4754.3 | 4754.3 | 4754.3 | 4754.3 | 4754.3 | 4754.3 | 4754.3 | 4754.3 |
| 2.5° | 5159.4 | 5125.2 | 5110.6 | 5132.1 | 4988.6 | 4991.5 | 4922.2 | 4911.5 | 4878.3 | 4831.4 | 4779.7 |
| 5° | 5454.2 | 5414.2 | 5393.7 | 5406.4 | 5255.1 | 5228.7 | 5115.5 | 5059.8 | 4994.4 | 4935.9 | 4823.6 |
| 7.5° | 5737.4 | 5696.3 | 5680.7 | 5673.9 | 5491.3 | 5451.3 | 5306.8 | 5208.2 | 5119.4 | 5044.2 | 4891.9 |
| 10° | 6022.4 | 5980.4 | 5948.2 | 5957.0 | 5765.7 | 5694.4 | 5527.5 | 5391.8 | 5277.5 | 5179.9 | 4970.0 |
| 12.5° | 6305.5 | 6254.8 | 6219.6 | 6219.6 | 6031.2 | 5961.9 | 5774.4 | 5600.7 | 5455.2 | 5332.2 | 5068.6 |
| 15° | 6595.5 | 6529.1 | 6521.3 | 6521.3 | 6321.1 | 6237.2 | 6052.7 | 5860.4 | 5681.7 | 5523.6 | 5187.7 |
| 17.5° | 6895.2 | 6811.2 | 6809.3 | 6822.0 | 6638.4 | 6543.7 | 6370.0 | 6190.3 | 5962.9 | 5762.7 | 5333.2 |
| 20° | 7092.4 | 7017.2 | 6999.6 | 7037.7 | 6893.2 | 6831.7 | 6645.3 | 6519.3 | 6300.6 | 6062.4 | 5520.6 |
| 22.5° | 7242.7 | 7196.8 | 7213.4 | 7275.9 | 7205.6 | 7152.9 | 6956.7 | 6843.4 | 6646.2 | 6402.2 | 5773.5 |
| 25° | 7394.0 | 7363.8 | 7401.8 | 7512.2 | 7518.0 | 7532.7 | 7368.6 | 7224.2 | 7040.6 | 6822.9 | 6102.5 |
| 27.5° | 7347.2 | 7338.4 | 7453.6 | 7681.0 | 7806.0 | 7872.4 | 7780.6 | 7729.9 | 7561.9 | 7332.5 | 6516.4 |
| 30° | 7381.3 | 7359.9 | 7498.5 | 7786.5 | 8064.7 | 8257.0 | 8257.0 | 8372.2 | 8299.0 | 8068.6 | 7148.0 |
| 32.5° | 7279.8 | 7239.8 | 7398.9 | 7811.9 | 8290.2 | 8664.1 | 8830.1 | 9238.1 | 9366.0 | 9283.0 | 8400.5 |
| 35° | 6812.2 | 6842.5 | 7153.9 | 7710.3 | 8445.4 | 9062.4 | 9501.7 | 10376.4 | 10769.9 | 10863.6 | 9842.4 |
| 37.5° | 6520.3 | 6533.0 | 6850.3 | 7544.4 | 8500.1 | 9453.9 | 10236.8 | 11690.5 | 12247.9 | 12305.5 | 11107.6 |
| 40° | 6118.1 | 6165.9 | 6521.3 | 7321.8 | 8468.9 | 9784.8 | 11028.6 | 12985.9 | 13605.8 | 13558.0 | 12214.7 |
| 42.5° | 5800.8 | 5814.5 | 6124.9 | 6968.4 | 8332.2 | 10048.4 | 11827.1 | 14162.3 | 14811.5 | 14677.7 | 13309.1 |
| 45° | 5405.4 | 5430.8 | 5724.7 | 6529.1 | 8089.1 | 10182.2 | 12516.3 | 15265.4 | 15860.0 | 15693.0 | 14257.0 |
| 47.5° | 4927.1 | 5038.4 | 5345.9 | 6055.6 | 7677.1 | 10168.5 | 13100.1 | 16220.2 | 16898.7 | 16641.9 | 15143.4 |
| 50° | 3968.4 | 4104.1 | 4719.1 | 5629.0 | 7137.3 | 9977.2 | 13564.8 | 17271.6 | 17852.5 | 17593.8 | 15952.7 |
| 52.5° | 3466.6 | 3493.0 | 3806.4 | 5149.7 | 6504.7 | 9549.6 | 13881.1 | 18140.5 | 18745.7 | 18473.4 | 16730.8 |
| 55° | 3240.1 | 3267.5 | 3425.6 | 4373.5 | 5923.8 | 8792.0 | 13997.3 | 18969.3 | 19506.2 | 19193.8 | 17372.2 |
| 57.5° | 3042.0 | 3050.7 | 3237.2 | 3699.0 | 5370.3 | 7794.3 | 13752.3 | 19660.5 | 20120.3 | 19695.6 | 17817.3 |
| 60° | 2815.5 | 2850.6 | 3034.1 | 3376.8 | 4746.5 | 6635.5 | 12912.7 | 20102.7 | 20537.1 | 20159.3 | 18279.1 |
| 62° | 2688.6 | 2697.3 | 2840.9 | 3176.7 | 4263.2 | 5797.9 | 11867.1 | 20128.1 | 20683.6 | 20444.4 | 18563.2 |
| 62.5° | 2651.5 | 2657.3 | 2793.0 | 3125.9 | 4163.7 | 5631.9 | 11582.1 | 20107.6 | 20674.8 | 20494.2 | 18625.6 |
| 65° | 2438.6 | 2452.3 | 2574.3 | 2885.8 | 3727.3 | 4984.7 | 10246.6 | 19772.7 | 20486.4 | 20410.2 | 18619.8 |
| 67.5° | 2179.9 | 2183.8 | 2313.7 | 2593.9 | 3277.2 | 4376.5 | 8606.5 | 19132.3 | 19563.8 | 19465.2 | 17804.6 |
| 70° | 1782.6 | 1853.9 | 1995.4 | 2242.4 | 2711.0 | 3630.6 | 6546.7 | 17137.9 | 17845.6 | 17943.3 | 16344.2 |
| 72.5° | 1355.0 | 1350.1 | 1399.9 | 1571.7 | 1974.9 | 2789.1 | 4419.4 | 14359.5 | 15999.6 | 16527.7 | 14732.4 |
| 75° | 836.6 | 868.9 | 1077.8 | 1215.4 | 1415.5 | 1967.1 | 2770.6 | 9995.7 | 13681.0 | 14593.8 | 13022.0 |
| 77.5° | 650.2 | 656.0 | 764.4 | 1002.6 | 1159.8 | 1394.1 | 1727.9 | 5446.4 | 8576.3 | 10846.0 | 10142.1 |
| 80° | 495.0 | 505.7 | 577.0 | 628.7 | 816.1 | 849.3 | 1152.9 | 2817.4 | 3905.9 | 5470.8 | 6813.2 |
| 82.5° | 298.7 | 315.3 | 381.7 | 412.0 | 450.0 | 425.6 | 619.9 | 1520.0 | 2165.3 | 2799.9 | 3469.5 |
| 85° | 150.3 | 180.6 | 253.8 | 240.2 | 204.0 | 188.4 | 265.5 | 735.1 | 1034.8 | 1369.7 | 1592.2 |
| 87.5° | 38.1 | 45.9 | 59.6 | 71.3 | 60.5 | 49.8 | 72.2 | 199.2 | 205.0 | 196.2 | 549.6 |
| 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° | 4754.3 | 4754.3 | 4754.3 | 4754.3 | 4754.3 | 4754.3 | 4754.3 | 4754.3 | 4754.3 | 4754.3 | 4754.3 |
| 2.5° | 4762.1 | 4722.1 | 4648.8 | 4606.9 | 4502.4 | 4462.4 | 4387.2 | 4414.5 | 4398.0 | 4381.4 | 4382.3 |
| 5° | 4769.9 | 4697.7 | 4558.1 | 4457.5 | 4306.2 | 4229.1 | 4130.5 | 4114.8 | 4071.9 | 4045.5 | 4048.5 |
| 7.5° | 4786.5 | 4683.0 | 4485.8 | 4325.7 | 4112.9 | 3991.8 | 3860.0 | 3837.6 | 3773.2 | 3743.9 | 3747.8 |
| 10° | 4828.5 | 4706.4 | 4439.0 | 4203.7 | 3963.5 | 3795.6 | 3641.4 | 3591.6 | 3530.1 | 3496.9 | 3494.9 |
| 12.5° | 4892.9 | 4741.6 | 4372.6 | 4110.9 | 3819.0 | 3601.3 | 3423.7 | 3343.6 | 3255.8 | 3226.5 | 3229.4 |
| 15° | 4995.4 | 4786.5 | 4316.9 | 3983.1 | 3644.3 | 3417.8 | 3198.2 | 3101.5 | 3008.8 | 2974.6 | 2971.7 |
| 17.5° | 5120.4 | 4827.5 | 4277.9 | 3832.7 | 3493.0 | 3221.6 | 3028.3 | 2896.5 | 2740.3 | 2717.8 | 2693.4 |
| 20° | 5244.4 | 4909.5 | 4242.7 | 3723.4 | 3313.4 | 3024.4 | 2771.5 | 2636.8 | 2413.3 | 2329.3 | 2299.0 |
| 22.5° | 5425.0 | 5039.3 | 4237.8 | 3593.5 | 3132.7 | 2808.6 | 2467.9 | 2250.2 | 2004.2 | 1861.7 | 1830.4 |
| 25° | 5666.1 | 5181.9 | 4250.5 | 3494.9 | 2930.7 | 2534.3 | 2074.5 | 1760.2 | 1525.9 | 1364.8 | 1331.6 |
| 27.5° | 5979.5 | 5376.1 | 4288.6 | 3386.6 | 2747.1 | 2205.3 | 1633.2 | 1310.1 | 1111.9 | 977.2 | 946.0 |
| 30° | 6441.2 | 5702.2 | 4348.2 | 3286.0 | 2479.6 | 1776.8 | 1200.8 | 944.0 | 789.8 | 706.8 | 705.8 |
| 32.5° | 7519.0 | 6430.5 | 4382.3 | 3161.1 | 2230.7 | 1343.3 | 864.0 | 683.4 | 560.4 | 529.1 | 555.5 |
| 35° | 8754.9 | 7462.4 | 4645.9 | 3026.3 | 1841.2 | 988.0 | 617.0 | 486.2 | 435.4 | 443.2 | 457.9 |
| 37.5° | 9895.1 | 8454.2 | 5048.1 | 2807.7 | 1474.1 | 696.1 | 443.2 | 386.6 | 375.9 | 404.2 | 430.5 |
| 40° | 10904.6 | 9311.4 | 5392.7 | 2567.5 | 1042.6 | 486.2 | 355.4 | 357.3 | 346.6 | 359.3 | 368.0 |
| 42.5° | 11894.5 | 10106.0 | 5756.9 | 2244.4 | 695.1 | 359.3 | 321.2 | 338.8 | 326.1 | 328.0 | 315.3 |
| 45° | 12878.5 | 10944.6 | 5914.0 | 1845.1 | 465.7 | 311.4 | 300.7 | 321.2 | 320.2 | 312.4 | 293.8 |
| 47.5° | 13727.9 | 11522.5 | 6113.2 | 1392.1 | 346.6 | 283.1 | 286.0 | 300.7 | 310.4 | 296.8 | 288.0 |
| 50° | 14458.1 | 12135.6 | 5959.9 | 921.6 | 309.5 | 264.6 | 275.3 | 275.3 | 290.9 | 267.5 | 256.8 |
| 52.5° | 15156.1 | 12745.8 | 5566.5 | 607.2 | 284.1 | 251.9 | 262.6 | 255.8 | 262.6 | 239.2 | 236.2 |
| 55° | 15574.9 | 13061.1 | 5091.1 | 473.5 | 268.5 | 241.1 | 246.0 | 244.1 | 238.2 | 213.8 | 218.7 |
| 57.5° | 16035.7 | 13424.2 | 4499.5 | 397.3 | 261.6 | 228.4 | 229.4 | 226.5 | 208.9 | 192.3 | 193.3 |
| 60° | 16403.7 | 13695.6 | 3866.9 | 350.5 | 253.8 | 221.6 | 207.9 | 203.1 | 178.7 | 168.9 | 169.9 |
| 62° | 16661.5 | 13708.3 | 3315.3 | 326.1 | 244.1 | 216.7 | 195.2 | 184.5 | 157.2 | 149.4 | 148.4 |
| 62.5° | 16689.8 | 13660.5 | 3180.6 | 320.2 | 240.2 | 214.8 | 194.3 | 178.7 | 151.3 | 145.5 | 143.5 |
| 65° | 16584.3 | 13128.4 | 2537.2 | 288.0 | 223.6 | 203.1 | 180.6 | 155.2 | 129.8 | 122.0 | 119.1 |
| 67.5° | 15799.4 | 12175.6 | 1937.8 | 261.6 | 203.1 | 195.2 | 166.9 | 136.7 | 115.2 | 105.4 | 103.5 |
| 70° | 14268.7 | 10886.0 | 1383.3 | 228.4 | 182.6 | 177.7 | 167.9 | 125.0 | 106.4 | 92.7 | 90.8 |
| 72.5° | 12568.1 | 9513.4 | 941.1 | 203.1 | 162.1 | 146.4 | 124.0 | 118.1 | 99.6 | 82.0 | 80.1 |
| 75° | 10695.7 | 7576.6 | 669.7 | 174.7 | 139.6 | 124.0 | 104.5 | 109.3 | 93.7 | 73.2 | 71.3 |
| 77.5° | 8206.3 | 5572.4 | 496.9 | 143.5 | 108.4 | 100.6 | 87.9 | 96.6 | 84.9 | 66.4 | 65.4 |
| 80° | 5603.6 | 3848.3 | 353.4 | 108.4 | 71.3 | 71.3 | 74.2 | 83.0 | 75.2 | 59.6 | 58.6 |
| 82.5° | 3150.3 | 2025.7 | 208.9 | 78.1 | 48.8 | 48.8 | 57.6 | 67.4 | 62.5 | 51.7 | 50.8 |
| 85° | 1305.2 | 733.2 | 110.3 | 48.8 | 32.2 | 33.2 | 41.0 | 49.8 | 48.8 | 41.0 | 40.0 |
| 87.5° | 454.0 | 184.5 | 32.2 | 16.6 | 13.7 | 14.6 | 16.6 | 23.4 | 23.4 | 20.5 | 21.5 |
| 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)