

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: P591033

Luminaire Tested: **CTN-CA6-230-727-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

Test Information

Test Method: LM-79-08
Report Number: P591033
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2112-474-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 12/14/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-CA6-230-727-U-T3-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (6) 2700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26559 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

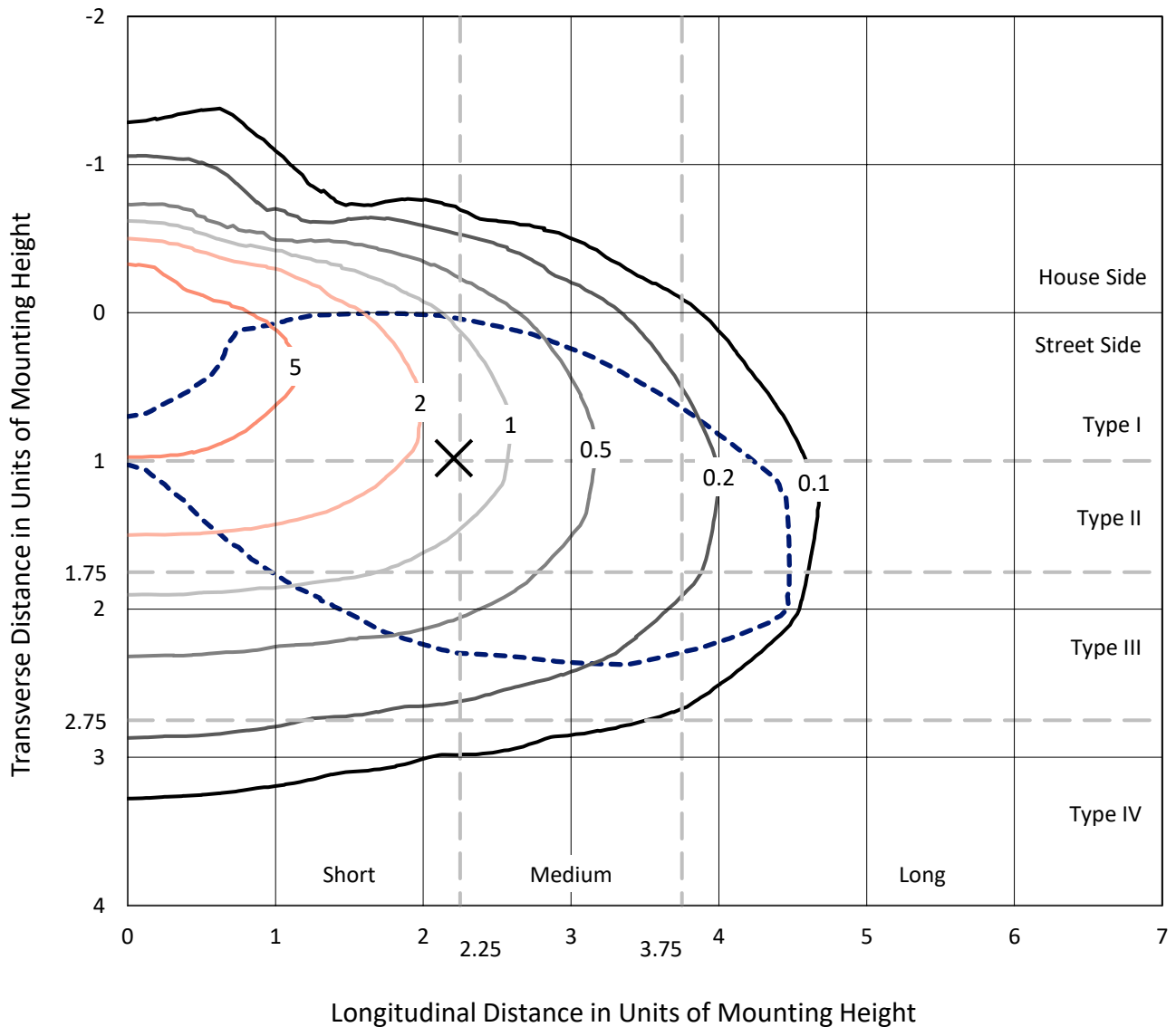
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

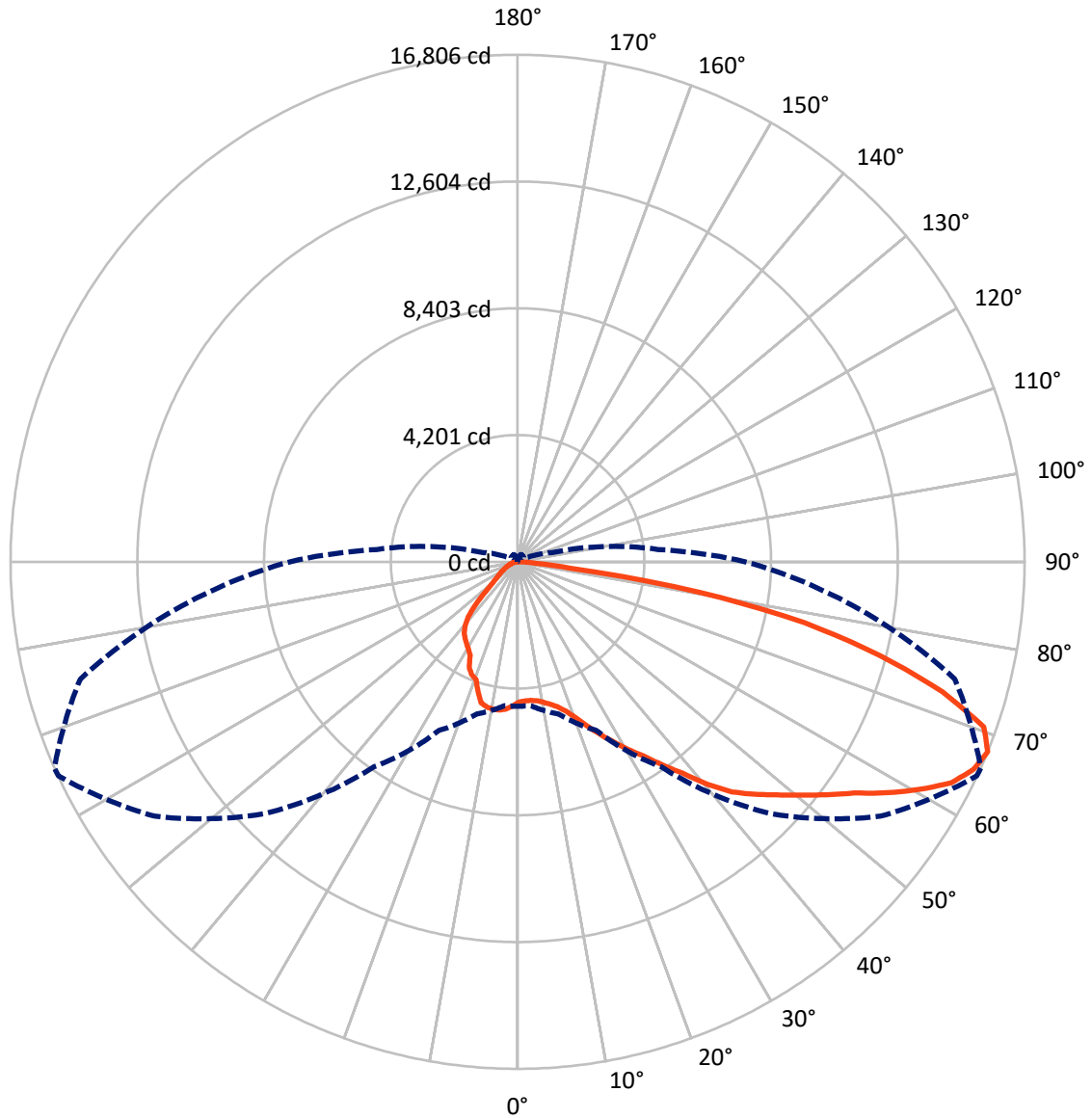
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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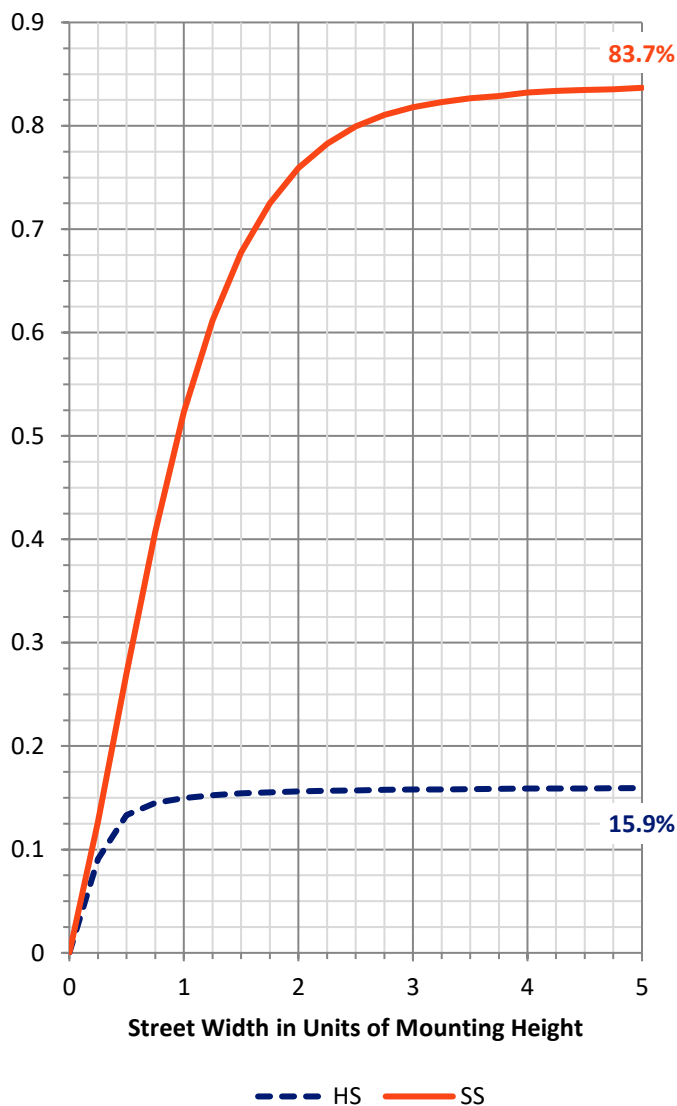
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4287.2 | 0.0 | 4287.2 |
| | % Fixture | 16.1 | 0.0 | 16.1 |
| Street Side | Lumens | 22271.8 | 0.0 | 22271.8 |
| | % Fixture | 83.9 | 0.0 | 83.9 |
| Total | Lumens | 26559.0 | 0.0 | 26559.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 460.8 | 1.7 |
| 10°-20° | 1389.4 | 5.2 |
| 20°-30° | 2258.6 | 8.5 |
| 30°-40° | 3299.2 | 12.4 |
| 40°-50° | 4394.2 | 16.5 |
| 50°-60° | 5315.6 | 20.0 |
| 60°-70° | 5690.9 | 21.4 |
| 70°-80° | 3377.3 | 12.7 |
| 80°-90° | 372.9 | 1.4 |
| 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° | 26559.0 | 100.0 |
| 0°-180° | 26559.0 | 100.0 |

Coefficient of Utilization

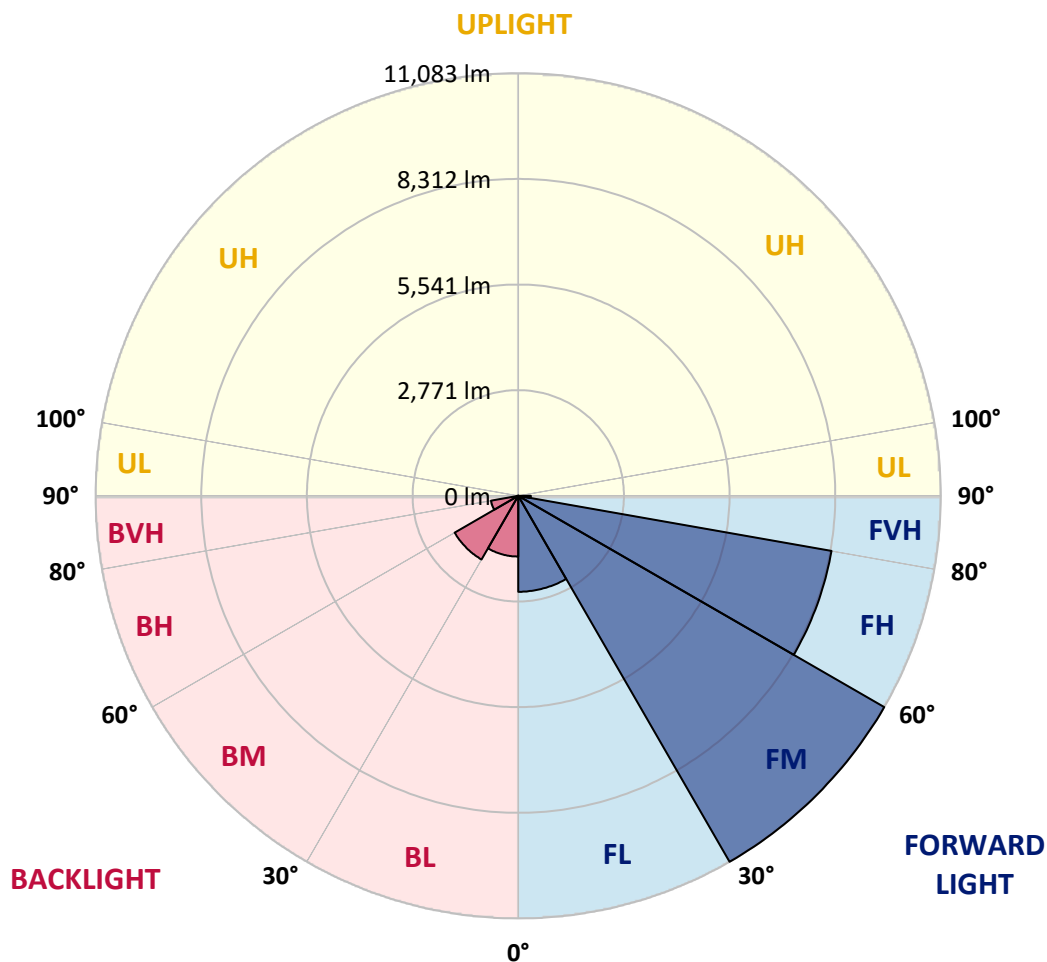


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 2516.6 | 9.5 | | | |
| FM | (30°-60°) | 11082.6 | 41.7 | | | |
| FH | (60°-80°) | 8342.0 | 31.4 | | | G4/12000 |
| FVH | (80°-90°) | 330.6 | 1.2 | | | G3/500 |
| BL | (0°-30°) | 1592.2 | 6.0 | B3/2500 | | |
| BM | (30°-60°) | 1926.4 | 7.3 | B2/2500 | | |
| BH | (60°-80°) | 726.2 | 2.7 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 42.3 | 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-G4
 Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4650.7 | 4650.7 | 4650.7 | 4650.7 | 4650.7 | 4650.7 | 4650.7 | 4650.7 | 4650.7 | 4650.7 | 4650.7 |
| 2.5° | 4590.9 | 4565.0 | 4576.7 | 4607.2 | 4548.6 | 4585.9 | 4559.5 | 4605.5 | 4618.1 | 4623.1 | 4641.5 |
| 5° | 4680.8 | 4646.5 | 4647.3 | 4666.6 | 4600.1 | 4616.4 | 4571.6 | 4603.8 | 4613.9 | 4627.3 | 4672.0 |
| 7.5° | 4838.5 | 4800.4 | 4797.1 | 4802.1 | 4719.3 | 4700.9 | 4637.7 | 4644.4 | 4651.9 | 4659.9 | 4718.0 |
| 10° | 5055.1 | 5016.2 | 5009.5 | 4996.6 | 4887.4 | 4839.3 | 4745.6 | 4731.0 | 4738.1 | 4725.1 | 4794.1 |
| 12.5° | 5315.3 | 5268.4 | 5243.7 | 5206.5 | 5080.2 | 5004.9 | 4881.1 | 4841.0 | 4847.3 | 4820.1 | 4868.2 |
| 15° | 5588.8 | 5539.0 | 5525.6 | 5468.3 | 5312.7 | 5209.9 | 5049.7 | 4988.6 | 4990.3 | 4958.9 | 4956.8 |
| 17.5° | 5880.7 | 5836.4 | 5825.5 | 5789.1 | 5616.8 | 5494.3 | 5296.4 | 5213.6 | 5207.4 | 5176.4 | 5084.4 |
| 20° | 6211.9 | 6183.9 | 6178.1 | 6157.1 | 6001.1 | 5857.7 | 5632.7 | 5521.4 | 5515.2 | 5466.2 | 5269.7 |
| 22.5° | 6619.3 | 6586.2 | 6568.7 | 6550.7 | 6434.0 | 6284.7 | 6043.0 | 5886.1 | 5910.8 | 5828.4 | 5510.1 |
| 25° | 7024.6 | 6998.2 | 6983.1 | 6971.4 | 6875.2 | 6733.9 | 6489.2 | 6305.2 | 6329.9 | 6241.6 | 5802.5 |
| 27.5° | 7426.9 | 7368.8 | 7393.0 | 7420.6 | 7324.4 | 7211.9 | 6945.9 | 6745.6 | 6753.1 | 6657.8 | 6152.5 |
| 30° | 7800.8 | 7770.3 | 7812.1 | 7838.0 | 7767.7 | 7679.9 | 7400.5 | 7206.9 | 7218.2 | 7104.9 | 6554.0 |
| 32.5° | 8132.9 | 8088.9 | 8182.2 | 8232.8 | 8191.0 | 8118.6 | 7848.9 | 7665.3 | 7668.6 | 7600.0 | 7033.3 |
| 35° | 8376.7 | 8379.6 | 8508.4 | 8644.3 | 8643.9 | 8541.9 | 8312.7 | 8227.4 | 8266.3 | 8235.7 | 7621.4 |
| 37.5° | 8625.1 | 8602.9 | 8751.8 | 8953.8 | 9019.9 | 8929.2 | 8793.2 | 8843.8 | 8896.1 | 8989.8 | 8176.8 |
| 40° | 8742.6 | 8743.5 | 8923.7 | 9157.1 | 9309.7 | 9292.6 | 9244.9 | 9583.3 | 9691.6 | 9719.6 | 7954.3 |
| 42.5° | 8600.9 | 8610.9 | 8932.5 | 9345.3 | 9582.4 | 9673.2 | 9777.7 | 10354.1 | 10427.3 | 10268.7 | 8216.5 |
| 45° | 8415.2 | 8429.0 | 8806.6 | 9410.1 | 9824.2 | 10079.7 | 10367.9 | 10930.0 | 10986.8 | 10776.1 | 8597.9 |
| 47.5° | 8240.8 | 8266.3 | 8659.4 | 9371.2 | 10015.7 | 10537.7 | 10895.7 | 11472.4 | 11541.8 | 11263.7 | 8953.4 |
| 50° | 8011.6 | 8068.4 | 8469.5 | 9267.9 | 10160.0 | 10936.2 | 11383.3 | 12125.3 | 12152.0 | 11739.6 | 9273.8 |
| 52.5° | 7789.9 | 7806.6 | 8254.6 | 9135.8 | 10268.7 | 11297.6 | 11965.1 | 12796.1 | 12827.0 | 12260.8 | 9569.5 |
| 55° | 7486.3 | 7511.4 | 8012.0 | 8970.1 | 10335.7 | 11600.4 | 12553.9 | 13495.4 | 13523.0 | 12886.8 | 9887.3 |
| 57.5° | 7152.1 | 7170.5 | 7697.5 | 8715.9 | 10285.5 | 11869.3 | 13181.7 | 14376.2 | 14443.9 | 13530.9 | 10173.0 |
| 60° | 6732.6 | 6756.9 | 7291.8 | 8363.3 | 10112.3 | 12183.0 | 13957.1 | 15317.6 | 15317.6 | 14122.3 | 10399.2 |
| 62.5° | 6141.7 | 6175.5 | 6717.2 | 7855.6 | 9752.6 | 12364.5 | 14576.1 | 16137.3 | 16131.9 | 14588.2 | 10475.8 |
| 65° | 5454.9 | 5460.4 | 5951.4 | 7141.2 | 9155.4 | 12267.9 | 14811.9 | 16616.2 | 16604.1 | 14925.3 | 10370.4 |
| 67.5° | 4788.7 | 4782.9 | 5218.6 | 6164.3 | 8294.3 | 11792.3 | 14699.4 | 16791.0 | 16805.6 | 15006.4 | 9977.7 |
| 70° | 3843.5 | 3836.0 | 4236.6 | 5009.5 | 6991.9 | 10768.1 | 14060.0 | 16347.3 | 16391.6 | 14543.0 | 9325.6 |
| 72.5° | 2750.3 | 2739.0 | 2930.9 | 3442.0 | 5134.6 | 8858.1 | 12465.7 | 14641.7 | 14722.9 | 13058.7 | 8134.9 |
| 75° | 1610.6 | 1622.7 | 1823.1 | 2117.1 | 3049.3 | 5827.2 | 10110.7 | 12296.3 | 12412.2 | 11109.0 | 6398.5 |
| 77.5° | 895.8 | 893.3 | 1040.6 | 1261.8 | 1499.8 | 2918.4 | 7058.4 | 9683.6 | 9723.0 | 8705.0 | 4302.7 |
| 80° | 432.4 | 430.4 | 470.1 | 593.0 | 855.3 | 1311.1 | 3466.7 | 6016.6 | 6135.8 | 5290.6 | 2103.7 |
| 82.5° | 311.2 | 312.8 | 335.0 | 325.4 | 319.1 | 578.4 | 1156.8 | 1895.0 | 1730.2 | 1335.4 | 650.3 |
| 85° | 233.8 | 233.8 | 253.9 | 234.2 | 228.8 | 294.4 | 562.5 | 677.1 | 649.9 | 594.3 | 386.4 |
| 87.5° | 110.0 | 104.6 | 111.2 | 105.4 | 97.9 | 130.5 | 246.8 | 286.1 | 264.7 | 230.9 | 169.0 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 4650.7 | 4650.7 | 4650.7 | 4650.7 | 4650.7 | 4650.7 | 4650.7 | 4650.7 | 4650.7 | 4650.7 | 4650.7 |
| 2.5° | 4672.9 | 4682.1 | 4730.2 | 4792.9 | 4798.7 | 4852.7 | 4869.4 | 4936.3 | 4933.8 | 4915.4 | 4934.7 |
| 5° | 4704.2 | 4732.2 | 4814.6 | 4902.9 | 4925.5 | 4993.2 | 5007.9 | 5073.5 | 5077.7 | 5055.1 | 5073.9 |
| 7.5° | 4754.4 | 4795.4 | 4873.2 | 4960.6 | 4970.6 | 5030.9 | 5028.4 | 5090.7 | 5079.8 | 5060.1 | 5085.2 |
| 10° | 4815.9 | 4847.7 | 4899.5 | 4957.3 | 4952.7 | 5000.7 | 4985.7 | 5030.4 | 5007.9 | 4992.0 | 5020.8 |
| 12.5° | 4877.8 | 4879.0 | 4883.2 | 4919.6 | 4891.2 | 4902.0 | 4872.4 | 4905.4 | 4870.7 | 4843.9 | 4861.5 |
| 15° | 4939.7 | 4904.6 | 4845.6 | 4823.0 | 4744.0 | 4703.4 | 4660.7 | 4700.5 | 4619.3 | 4576.7 | 4587.5 |
| 17.5° | 5027.1 | 4942.6 | 4744.4 | 4457.5 | 4214.1 | 4079.8 | 3979.0 | 3901.2 | 3902.9 | 3941.4 | 3964.4 |
| 20° | 5096.9 | 4775.7 | 4291.4 | 4114.1 | 3932.2 | 3686.7 | 3305.7 | 3201.1 | 3132.1 | 3130.9 | 3142.1 |
| 22.5° | 5072.3 | 4599.2 | 4291.9 | 4014.6 | 3618.9 | 3128.3 | 2963.6 | 2867.8 | 2706.8 | 2362.6 | 2334.5 |
| 25° | 5299.4 | 4755.7 | 4316.5 | 3808.8 | 3120.0 | 2871.1 | 2644.9 | 2458.8 | 2052.2 | 1988.3 | 1985.7 |
| 27.5° | 5571.6 | 4966.9 | 4350.0 | 3364.6 | 2920.5 | 2584.6 | 2296.9 | 1847.3 | 1652.4 | 1624.8 | 1615.2 |
| 30° | 5886.6 | 5215.7 | 4145.9 | 3222.4 | 2708.0 | 2251.3 | 1869.9 | 1418.6 | 1260.1 | 1250.5 | 1253.0 |
| 32.5° | 6281.4 | 5499.7 | 3933.0 | 3105.3 | 2450.8 | 1865.3 | 1275.2 | 1082.0 | 991.2 | 892.1 | 923.9 |
| 35° | 6702.1 | 5336.2 | 4060.2 | 2960.6 | 2128.8 | 1402.7 | 968.6 | 859.5 | 785.8 | 657.5 | 605.2 |
| 37.5° | 6536.5 | 5448.7 | 4207.8 | 2801.7 | 1726.4 | 951.0 | 749.5 | 654.9 | 585.9 | 478.9 | 476.8 |
| 40° | 6740.6 | 5770.7 | 4313.2 | 2545.8 | 1248.4 | 674.6 | 546.2 | 506.9 | 475.1 | 415.7 | 407.4 |
| 42.5° | 7101.1 | 6051.8 | 4384.7 | 2217.4 | 746.1 | 501.9 | 466.3 | 472.2 | 444.6 | 399.0 | 393.6 |
| 45° | 7456.2 | 6297.7 | 4317.4 | 1716.8 | 530.7 | 452.5 | 454.6 | 452.1 | 418.6 | 401.9 | 396.1 |
| 47.5° | 7779.5 | 6505.5 | 4127.9 | 1132.6 | 460.5 | 441.2 | 445.8 | 434.5 | 396.9 | 387.3 | 386.4 |
| 50° | 8057.2 | 6725.1 | 3268.4 | 867.8 | 442.9 | 426.2 | 436.2 | 417.8 | 353.0 | 342.5 | 331.7 |
| 52.5° | 8228.2 | 6360.0 | 2903.8 | 666.7 | 424.5 | 402.8 | 405.7 | 420.7 | 332.5 | 264.7 | 248.0 |
| 55° | 8202.3 | 5729.3 | 2699.7 | 555.0 | 395.2 | 370.1 | 376.0 | 400.2 | 300.7 | 207.0 | 187.4 |
| 57.5° | 8325.7 | 5677.4 | 2488.0 | 472.2 | 340.9 | 335.4 | 323.7 | 364.7 | 273.5 | 137.2 | 130.1 |
| 60° | 8305.6 | 5671.2 | 2220.4 | 371.4 | 301.1 | 281.9 | 267.2 | 296.9 | 196.1 | 51.0 | 46.4 |
| 62.5° | 8273.0 | 5510.1 | 1916.3 | 332.9 | 277.3 | 269.8 | 257.2 | 290.7 | 166.9 | 35.5 | 26.3 |
| 65° | 8109.4 | 5248.8 | 1571.7 | 291.5 | 258.9 | 243.4 | 242.6 | 275.2 | 137.6 | 19.7 | 8.8 |
| 67.5° | 7551.1 | 4679.5 | 1169.4 | 268.5 | 248.0 | 240.1 | 254.7 | 265.2 | 132.2 | 20.1 | 7.9 |
| 70° | 6856.8 | 3928.8 | 754.5 | 242.2 | 232.5 | 236.7 | 248.8 | 268.1 | 128.4 | 18.4 | 7.1 |
| 72.5° | 5733.5 | 3039.3 | 457.5 | 216.2 | 210.4 | 222.9 | 245.5 | 268.1 | 118.8 | 15.5 | 5.9 |
| 75° | 4361.7 | 2027.1 | 340.4 | 191.1 | 184.4 | 200.3 | 223.8 | 257.6 | 116.7 | 13.4 | 3.8 |
| 77.5° | 2708.0 | 957.3 | 268.5 | 160.6 | 153.5 | 169.8 | 187.8 | 212.5 | 118.4 | 13.0 | 2.1 |
| 80° | 1095.3 | 399.8 | 210.8 | 129.2 | 120.4 | 129.2 | 152.2 | 181.1 | 94.1 | 18.4 | 0.0 |
| 82.5° | 460.9 | 281.5 | 172.3 | 102.9 | 96.2 | 84.9 | 103.7 | 134.3 | 74.0 | 14.6 | 0.0 |
| 85° | 304.9 | 195.3 | 123.4 | 69.8 | 61.5 | 41.4 | 50.6 | 60.6 | 42.2 | 0.0 | 0.0 |
| 87.5° | 138.0 | 86.6 | 54.0 | 23.8 | 20.1 | 11.3 | 6.7 | 5.9 | 0.0 | 0.0 | 0.0 |
| 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)