

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: P510768

Luminaire Tested: **CTN-CA8-330-727-U-T3-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510768
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-330-727-U-T3-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38657 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 - G5

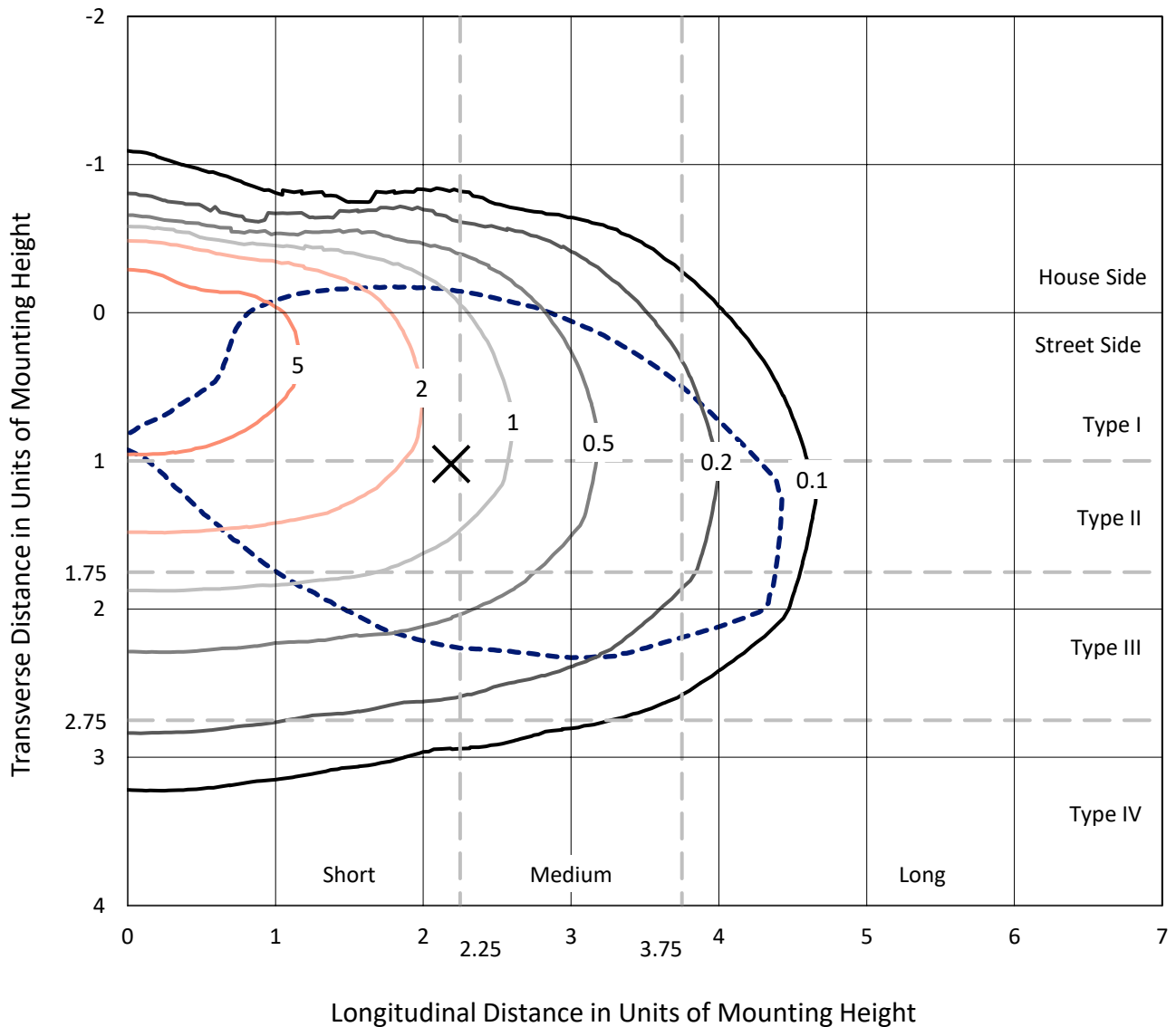
Input Watts (W): 331.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

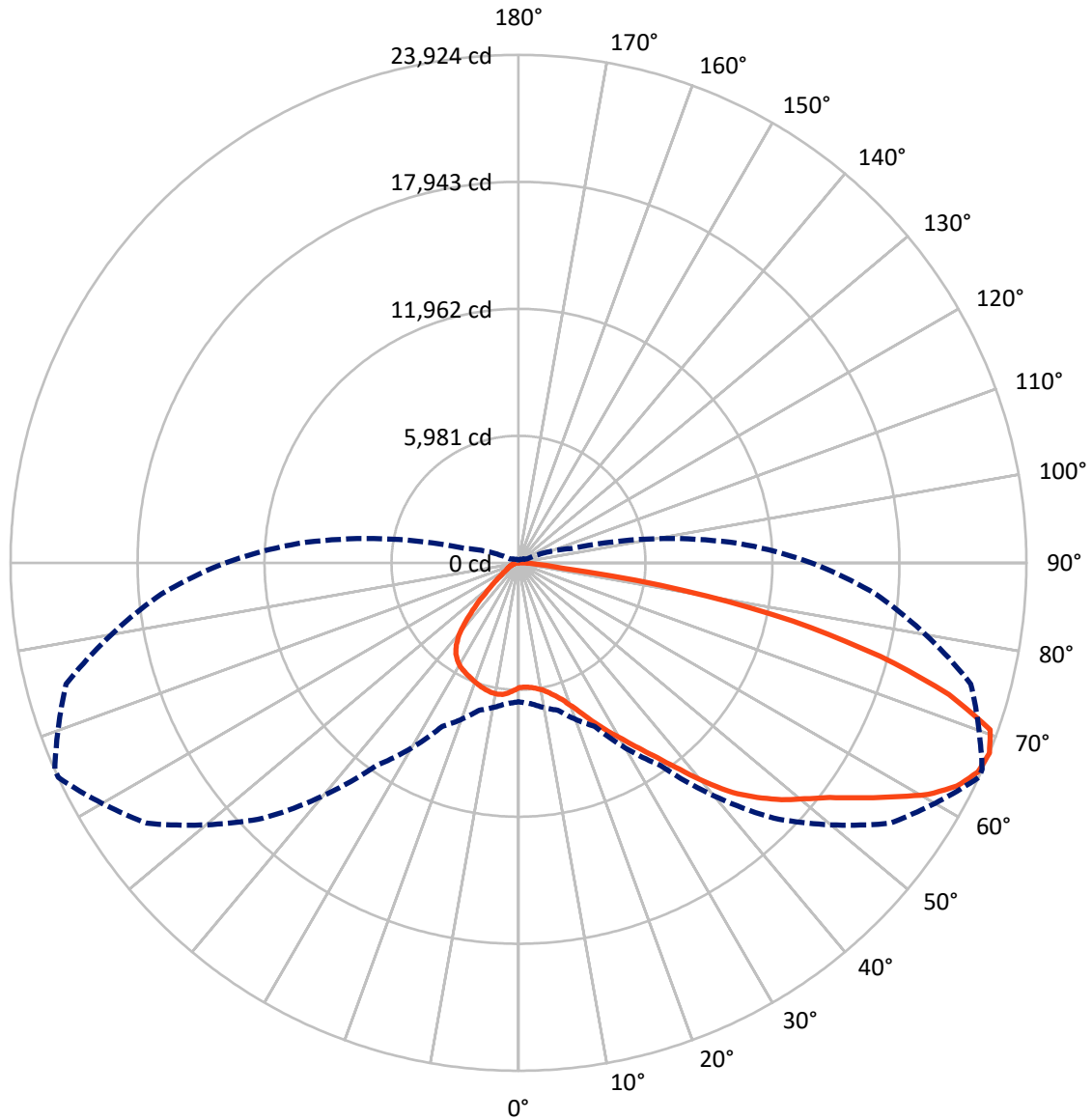
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.7 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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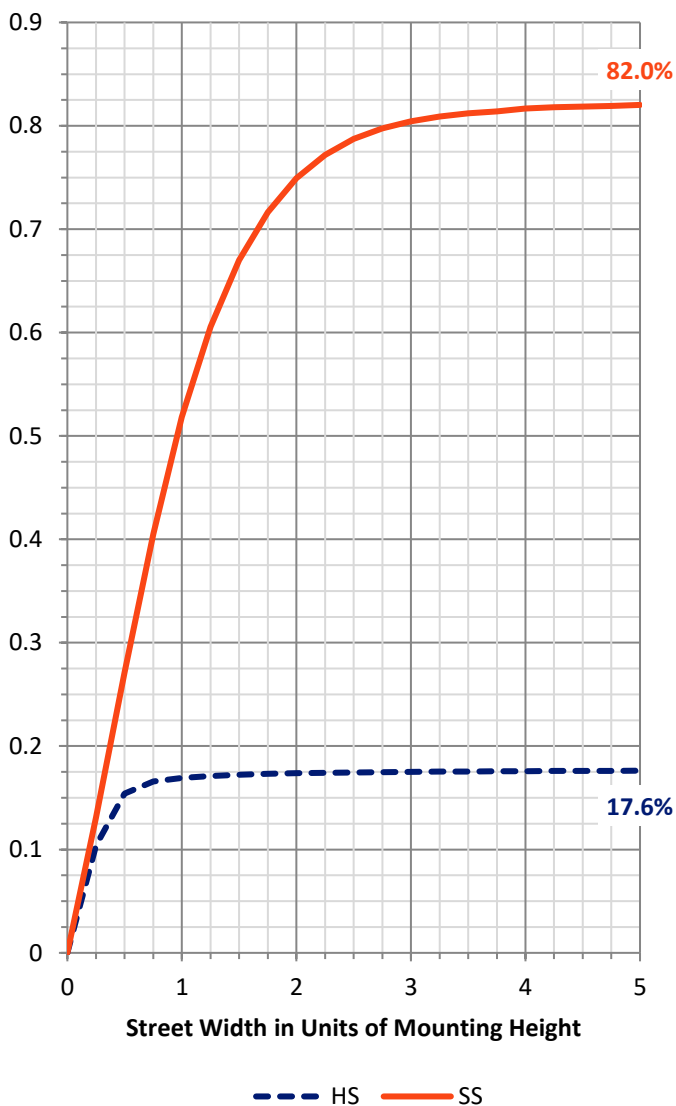
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6909.0 | 0.0 | 6909.0 |
| | % Fixture | 17.9 | 0.0 | 17.9 |
| Street Side | Lumens | 31748.0 | 0.0 | 31748.0 |
| | % Fixture | 82.1 | 0.0 | 82.1 |
| Total | Lumens | 38657.0 | 0.0 | 38657.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 581.2 | 1.5 |
| 10°-20° | 1794.2 | 4.6 |
| 20°-30° | 3112.6 | 8.1 |
| 30°-40° | 4695.3 | 12.1 |
| 40°-50° | 6510.4 | 16.8 |
| 50°-60° | 8036.3 | 20.8 |
| 60°-70° | 8562.5 | 22.1 |
| 70°-80° | 4899.6 | 12.7 |
| 80°-90° | 464.9 | 1.2 |
| 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° | 38657.0 | 100.0 |
| 0°-180° | 38657.0 | 100.0 |

Coefficient of Utilization



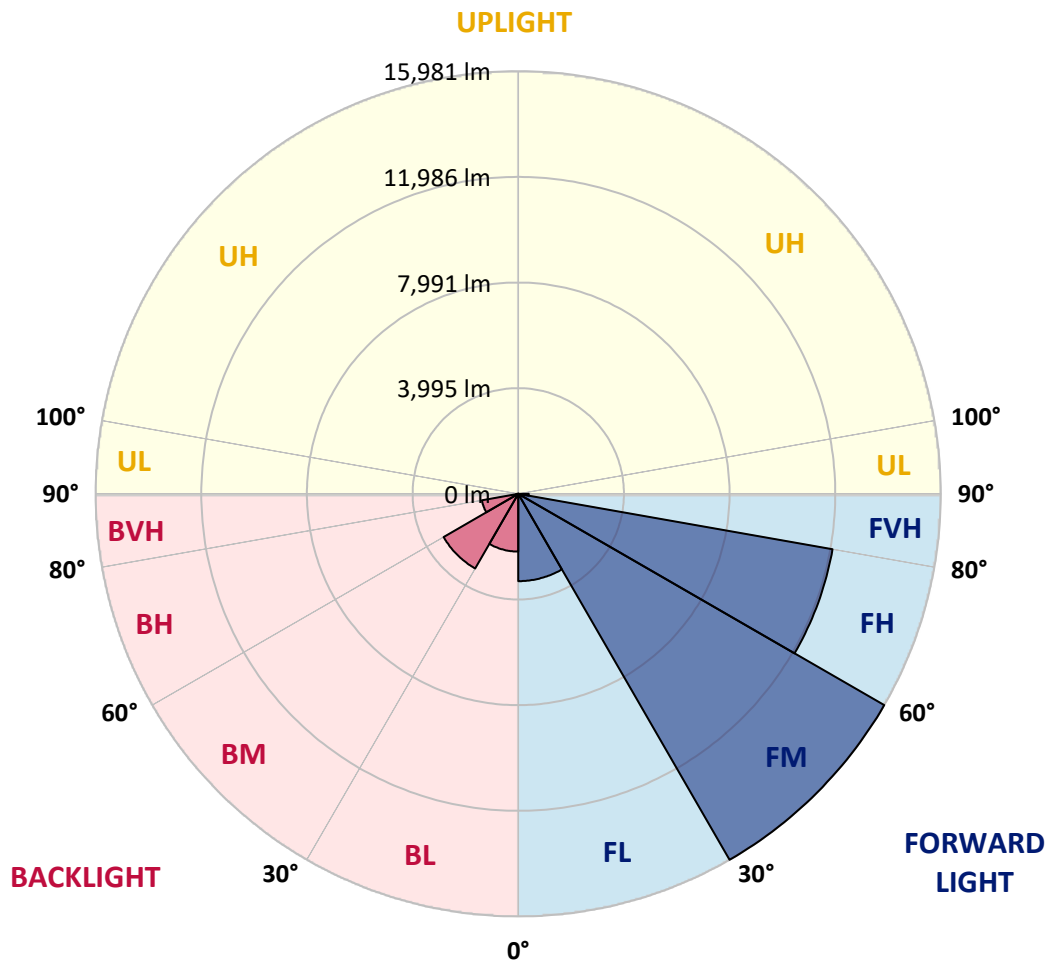
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 3301.8 | 8.5 | | | |
| FM (30°-60°) | 15981.4 | 41.3 | | | |
| FH (60°-80°) | 12067.7 | 31.2 | | | G5 |
| FVH (80°-90°) | 397.2 | 1.0 | | | G3/500 |
| BL (0°-30°) | 2186.2 | 5.7 | B3/2500 | | |
| BM (30°-60°) | 3260.7 | 8.4 | B3/5000 | | |
| BH (60°-80°) | 1394.5 | 3.6 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 67.7 | 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 III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 5874.2 | 5874.2 | 5874.2 | 5874.2 | 5874.2 | 5874.2 | 5874.2 | 5874.2 | 5874.2 | 5874.2 | 5874.2 |
| 2.5° | 5817.4 | 5809.8 | 5803.1 | 5814.9 | 5821.7 | 5832.7 | 5848.8 | 5859.8 | 5863.2 | 5873.3 | 5886.0 |
| 5° | 5910.6 | 5909.7 | 5900.4 | 5895.4 | 5881.0 | 5875.9 | 5879.3 | 5892.8 | 5893.7 | 5906.4 | 5946.2 |
| 7.5° | 6093.5 | 6091.8 | 6068.9 | 6058.8 | 6028.3 | 5994.4 | 5969.0 | 5971.6 | 5970.7 | 5983.4 | 6036.8 |
| 10° | 6369.6 | 6356.0 | 6323.8 | 6292.5 | 6233.2 | 6169.7 | 6123.1 | 6080.8 | 6080.8 | 6099.4 | 6158.7 |
| 12.5° | 6681.2 | 6699.8 | 6655.8 | 6608.4 | 6509.3 | 6395.0 | 6313.7 | 6266.2 | 6261.2 | 6270.5 | 6312.8 |
| 15° | 7068.2 | 7068.2 | 7038.5 | 6970.8 | 6883.6 | 6724.4 | 6556.7 | 6496.6 | 6488.1 | 6507.6 | 6505.0 |
| 17.5° | 7504.3 | 7517.0 | 7461.1 | 7427.2 | 7293.4 | 7117.3 | 6907.3 | 6803.1 | 6803.1 | 6790.4 | 6732.0 |
| 20° | 8060.6 | 7991.2 | 7997.1 | 7941.2 | 7843.0 | 7587.2 | 7373.8 | 7222.3 | 7220.6 | 7195.2 | 7030.9 |
| 22.5° | 8665.2 | 8627.1 | 8594.1 | 8545.0 | 8409.5 | 8180.8 | 7884.5 | 7734.6 | 7731.2 | 7668.5 | 7424.7 |
| 25° | 9261.3 | 9290.1 | 9253.7 | 9164.0 | 9064.9 | 8815.9 | 8489.1 | 8341.7 | 8340.9 | 8236.7 | 7891.2 |
| 27.5° | 9874.4 | 9905.8 | 9893.9 | 9812.6 | 9680.5 | 9485.7 | 9176.7 | 8984.4 | 8972.6 | 8904.8 | 8470.4 |
| 30° | 10551.9 | 10523.9 | 10560.3 | 10525.6 | 10459.6 | 10142.0 | 9862.6 | 9639.0 | 9667.8 | 9647.5 | 9128.4 |
| 32.5° | 11044.7 | 11062.5 | 11181.9 | 11185.3 | 11115.8 | 10880.4 | 10539.2 | 10402.0 | 10447.7 | 10420.6 | 9937.1 |
| 35° | 11490.1 | 11518.9 | 11673.0 | 11824.6 | 11875.4 | 11618.0 | 11270.8 | 11262.3 | 11321.6 | 11486.7 | 11051.5 |
| 37.5° | 11872.8 | 11893.2 | 12109.1 | 12306.4 | 12470.7 | 12294.5 | 12042.2 | 12342.8 | 12430.0 | 12767.9 | 12201.4 |
| 40° | 12102.3 | 12128.6 | 12408.0 | 12685.8 | 12978.8 | 12916.1 | 12892.4 | 13603.7 | 13685.8 | 13983.0 | 13040.6 |
| 42.5° | 11972.8 | 12024.4 | 12490.2 | 12998.2 | 13429.2 | 13554.6 | 13878.9 | 14793.4 | 14887.4 | 14912.8 | 13865.3 |
| 45° | 11741.6 | 11805.9 | 12326.7 | 13149.0 | 13851.8 | 14254.0 | 14871.3 | 15763.0 | 15814.7 | 15742.7 | 14548.7 |
| 47.5° | 11492.6 | 11561.2 | 12143.0 | 13104.1 | 14191.4 | 15067.8 | 15757.9 | 16675.8 | 16712.3 | 16491.2 | 15237.1 |
| 50° | 11209.8 | 11273.3 | 11899.1 | 12999.1 | 14447.1 | 15835.8 | 16669.1 | 17465.0 | 17601.4 | 17164.4 | 15772.3 |
| 52.5° | 10866.0 | 10933.8 | 11597.6 | 12834.8 | 14671.5 | 16405.7 | 17472.7 | 18356.7 | 18366.0 | 18006.1 | 16375.2 |
| 55° | 10420.6 | 10538.3 | 11219.1 | 12550.3 | 14789.2 | 16895.2 | 18173.0 | 19536.3 | 19596.4 | 19248.4 | 16879.9 |
| 57.5° | 9925.2 | 10027.7 | 10763.5 | 12170.9 | 14683.3 | 17266.9 | 19299.2 | 20801.4 | 20793.8 | 20095.2 | 17321.1 |
| 60° | 9270.7 | 9343.5 | 10169.9 | 11674.7 | 14342.1 | 17716.5 | 20472.0 | 22157.1 | 22143.6 | 20925.0 | 17604.8 |
| 62.5° | 8430.6 | 8503.5 | 9280.8 | 10896.5 | 13840.8 | 18018.0 | 21268.0 | 23172.4 | 23133.5 | 21528.8 | 17692.0 |
| 65° | 7456.8 | 7587.2 | 8262.1 | 9886.3 | 12954.2 | 17819.9 | 21652.4 | 23770.2 | 23707.6 | 21989.4 | 17483.7 |
| 67.5° | 6544.0 | 6654.9 | 7189.2 | 8495.8 | 11645.9 | 17016.2 | 21381.5 | 23924.4 | 23905.7 | 22056.3 | 16895.2 |
| 70° | 5251.8 | 5292.4 | 5781.9 | 6900.5 | 9689.8 | 15295.6 | 20444.9 | 23568.7 | 23577.2 | 21439.9 | 15713.0 |
| 72.5° | 3594.6 | 3693.7 | 3911.3 | 4794.5 | 7051.2 | 12164.1 | 17621.7 | 21211.2 | 21212.9 | 19224.7 | 13690.1 |
| 75° | 1933.2 | 2086.5 | 2340.5 | 2778.3 | 3941.8 | 7805.7 | 14151.6 | 17600.5 | 17633.6 | 16028.9 | 10881.3 |
| 77.5° | 958.6 | 1013.6 | 1160.9 | 1486.1 | 1807.1 | 3682.7 | 9101.3 | 13211.6 | 13290.4 | 12303.9 | 7421.3 |
| 80° | 438.6 | 448.0 | 459.0 | 456.4 | 691.8 | 1615.7 | 3907.1 | 7934.4 | 7958.1 | 7318.0 | 3388.0 |
| 82.5° | 343.0 | 341.3 | 346.3 | 315.0 | 316.7 | 623.2 | 1352.3 | 2078.0 | 2216.0 | 1744.4 | 1074.6 |
| 85° | 207.5 | 206.6 | 222.7 | 172.7 | 212.5 | 337.0 | 682.5 | 829.0 | 839.2 | 682.5 | 556.3 |
| 87.5° | 78.8 | 76.2 | 70.3 | 61.8 | 71.1 | 94.8 | 236.3 | 304.8 | 298.1 | 211.7 | 192.2 |
| 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° | 5874.2 | 5874.2 | 5874.2 | 5874.2 | 5874.2 | 5874.2 | 5874.2 | 5874.2 | 5874.2 | 5874.2 | 5874.2 |
| 2.5° | 5897.0 | 5924.1 | 5974.1 | 6012.2 | 6024.9 | 6065.6 | 6104.5 | 6111.3 | 6139.2 | 6150.2 | 6186.6 |
| 5° | 5970.7 | 6016.4 | 6094.3 | 6146.0 | 6168.9 | 6236.6 | 6280.6 | 6302.7 | 6295.0 | 6299.3 | 6339.9 |
| 7.5° | 6078.3 | 6121.4 | 6184.1 | 6246.8 | 6257.8 | 6269.6 | 6265.4 | 6262.0 | 6232.4 | 6207.0 | 6245.1 |
| 10° | 6176.5 | 6217.1 | 6256.1 | 6265.4 | 6209.5 | 6178.2 | 6122.3 | 6079.1 | 6021.5 | 5995.3 | 6025.8 |
| 12.5° | 6314.5 | 6323.0 | 6284.9 | 6234.1 | 6113.8 | 6002.0 | 5911.4 | 5832.7 | 5761.6 | 5712.4 | 5753.1 |
| 15° | 6460.2 | 6427.1 | 6316.2 | 6168.0 | 5981.7 | 5821.7 | 5673.5 | 5542.2 | 5424.5 | 5395.7 | 5406.8 |
| 17.5° | 6653.2 | 6563.5 | 6339.9 | 6091.0 | 5801.4 | 5552.4 | 5361.9 | 5195.9 | 5041.8 | 4977.4 | 4971.5 |
| 20° | 6888.6 | 6743.8 | 6388.2 | 5993.6 | 5588.0 | 5256.9 | 4962.2 | 4714.1 | 4501.5 | 4327.1 | 4331.3 |
| 22.5° | 7195.2 | 6985.2 | 6461.0 | 5892.0 | 5351.7 | 4910.5 | 4482.1 | 4060.4 | 3710.6 | 3559.9 | 3522.6 |
| 25° | 7599.9 | 7286.6 | 6564.3 | 5799.7 | 5087.5 | 4470.2 | 3864.8 | 3269.5 | 2899.4 | 2752.9 | 2736.8 |
| 27.5° | 8103.8 | 7691.4 | 6721.8 | 5697.2 | 4804.7 | 3947.7 | 3077.2 | 2493.8 | 2154.2 | 2000.1 | 1948.5 |
| 30° | 8676.2 | 8190.2 | 6883.6 | 5590.5 | 4462.6 | 3276.2 | 2346.5 | 1774.9 | 1426.8 | 1288.8 | 1271.0 |
| 32.5° | 9417.2 | 8821.9 | 7124.0 | 5422.8 | 3963.0 | 2575.1 | 1636.8 | 1107.6 | 871.3 | 812.1 | 795.1 |
| 35° | 10469.7 | 9676.3 | 7421.3 | 5211.1 | 3321.1 | 1798.6 | 1014.5 | 648.6 | 522.5 | 492.8 | 486.9 |
| 37.5° | 11451.1 | 10514.6 | 7721.0 | 4859.7 | 2521.7 | 1122.8 | 580.1 | 415.8 | 387.8 | 388.7 | 390.4 |
| 40° | 12229.3 | 11087.9 | 7963.2 | 4397.4 | 1658.9 | 637.6 | 403.1 | 345.5 | 346.3 | 343.8 | 342.1 |
| 42.5° | 12922.0 | 11545.1 | 8072.5 | 3714.0 | 961.1 | 426.8 | 349.7 | 318.4 | 310.8 | 313.3 | 311.6 |
| 45° | 13495.3 | 12011.7 | 7860.8 | 2946.0 | 566.5 | 382.7 | 330.2 | 295.5 | 287.1 | 300.6 | 302.3 |
| 47.5° | 14098.2 | 12454.6 | 7536.4 | 2219.4 | 459.8 | 364.1 | 312.5 | 278.6 | 274.4 | 291.3 | 293.0 |
| 50° | 14605.4 | 12775.5 | 6983.5 | 1672.4 | 438.6 | 343.8 | 296.4 | 261.7 | 260.8 | 276.1 | 276.1 |
| 52.5° | 15029.7 | 12969.4 | 6327.2 | 1291.4 | 424.2 | 326.0 | 280.3 | 245.6 | 245.6 | 250.6 | 251.5 |
| 55° | 15328.6 | 12930.5 | 5936.0 | 1016.1 | 409.0 | 309.1 | 263.4 | 230.3 | 220.2 | 216.8 | 218.5 |
| 57.5° | 15382.8 | 12827.2 | 5482.1 | 792.6 | 391.2 | 293.0 | 248.1 | 212.5 | 193.9 | 191.4 | 190.5 |
| 60° | 15348.1 | 12600.2 | 4963.9 | 662.2 | 370.9 | 277.7 | 232.9 | 193.9 | 175.3 | 169.4 | 171.1 |
| 62.5° | 15203.3 | 12198.0 | 4365.2 | 580.9 | 350.6 | 265.9 | 215.9 | 181.2 | 164.3 | 156.7 | 156.7 |
| 65° | 14766.3 | 11622.2 | 3476.1 | 508.9 | 325.2 | 253.2 | 202.4 | 176.1 | 157.5 | 149.0 | 147.3 |
| 67.5° | 13806.1 | 10427.4 | 2612.3 | 446.3 | 300.6 | 239.6 | 200.7 | 175.3 | 154.1 | 142.3 | 140.6 |
| 70° | 12518.1 | 8957.3 | 1783.3 | 392.1 | 273.5 | 226.9 | 199.8 | 176.1 | 150.7 | 135.5 | 133.8 |
| 72.5° | 10450.2 | 7061.4 | 1027.2 | 341.3 | 246.4 | 215.1 | 196.5 | 177.0 | 144.8 | 126.2 | 123.6 |
| 75° | 7852.3 | 4952.9 | 602.9 | 293.0 | 220.2 | 197.3 | 187.1 | 171.9 | 135.5 | 115.2 | 112.6 |
| 77.5° | 4722.5 | 2312.6 | 453.9 | 243.0 | 188.8 | 173.6 | 166.8 | 157.5 | 123.6 | 106.7 | 104.2 |
| 80° | 1732.5 | 878.1 | 356.5 | 194.8 | 149.9 | 150.7 | 144.0 | 138.0 | 112.6 | 98.2 | 96.5 |
| 82.5° | 755.3 | 536.9 | 263.4 | 148.2 | 117.7 | 134.6 | 118.6 | 113.5 | 96.5 | 88.1 | 84.7 |
| 85° | 458.1 | 320.1 | 169.4 | 100.8 | 81.3 | 91.5 | 83.0 | 87.2 | 74.5 | 69.4 | 66.9 |
| 87.5° | 151.6 | 95.7 | 75.4 | 49.1 | 40.6 | 38.1 | 37.3 | 44.9 | 42.3 | 39.0 | 39.0 |
| 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)