

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: P510439

Luminaire Tested: **CTN-CA10-210-750-U-T3**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510439
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-11)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-210-750-U-T3
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35614 lumens
Efficiency: N/A
Efficacy: 167.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

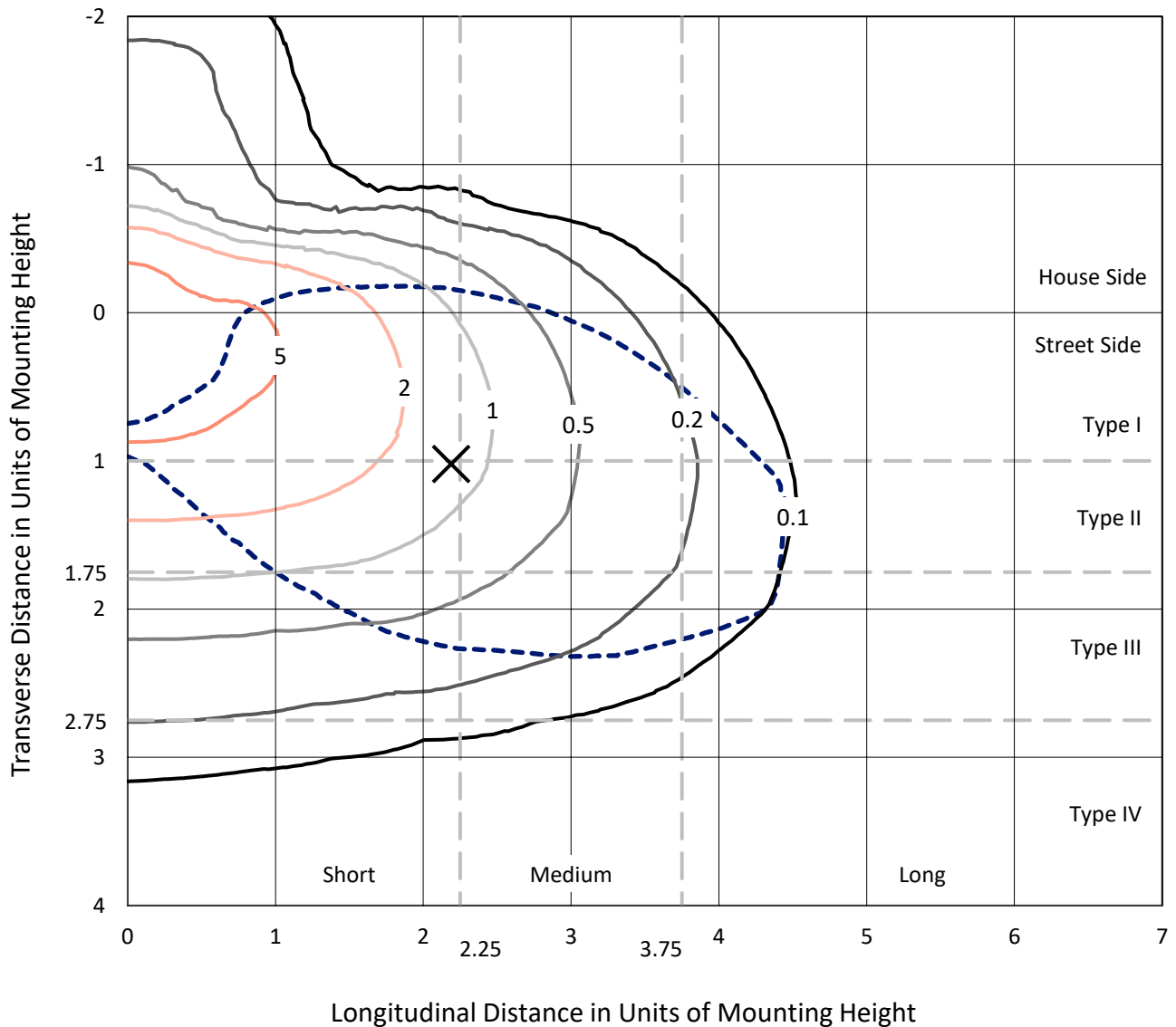
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

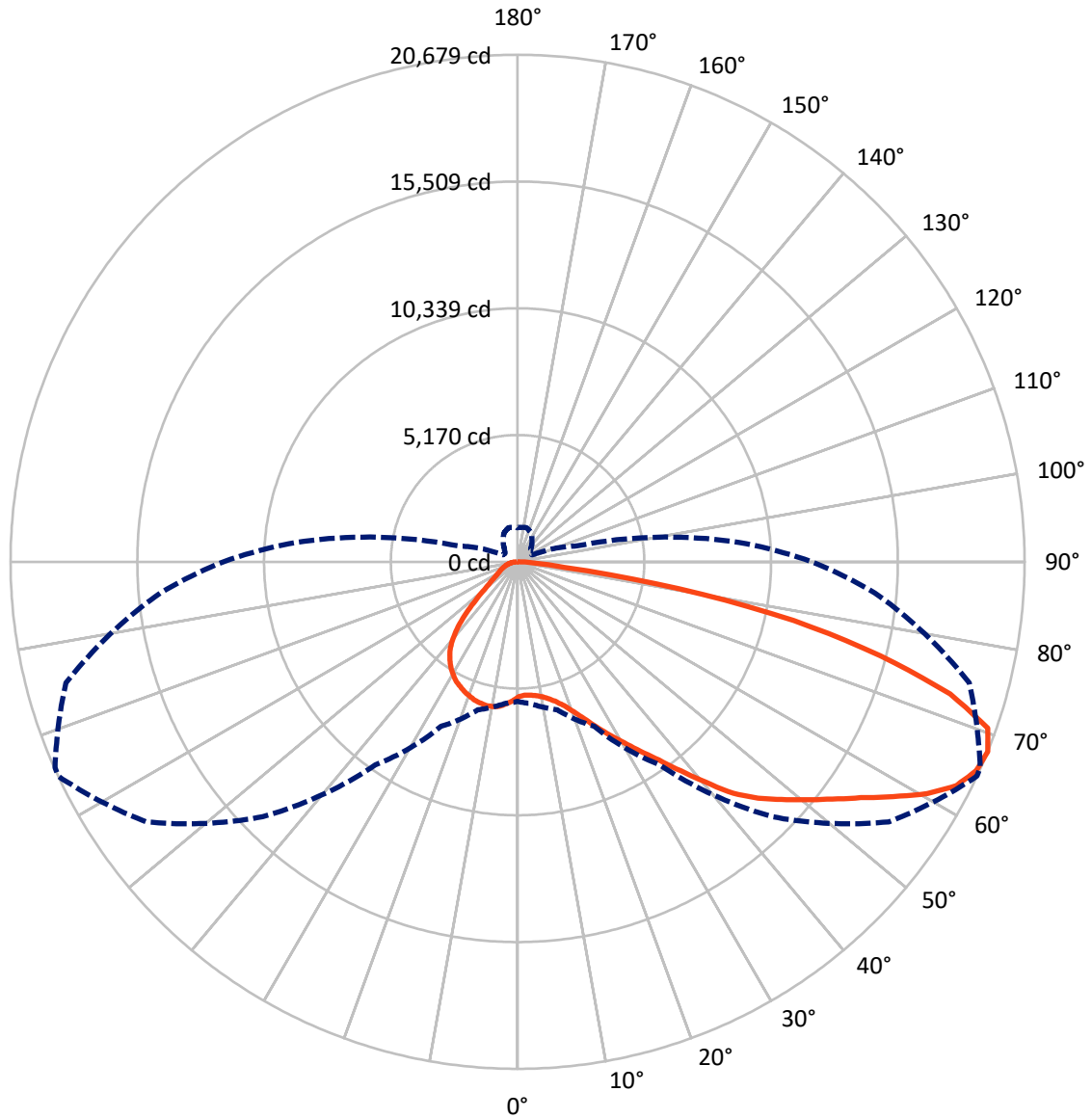
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.8 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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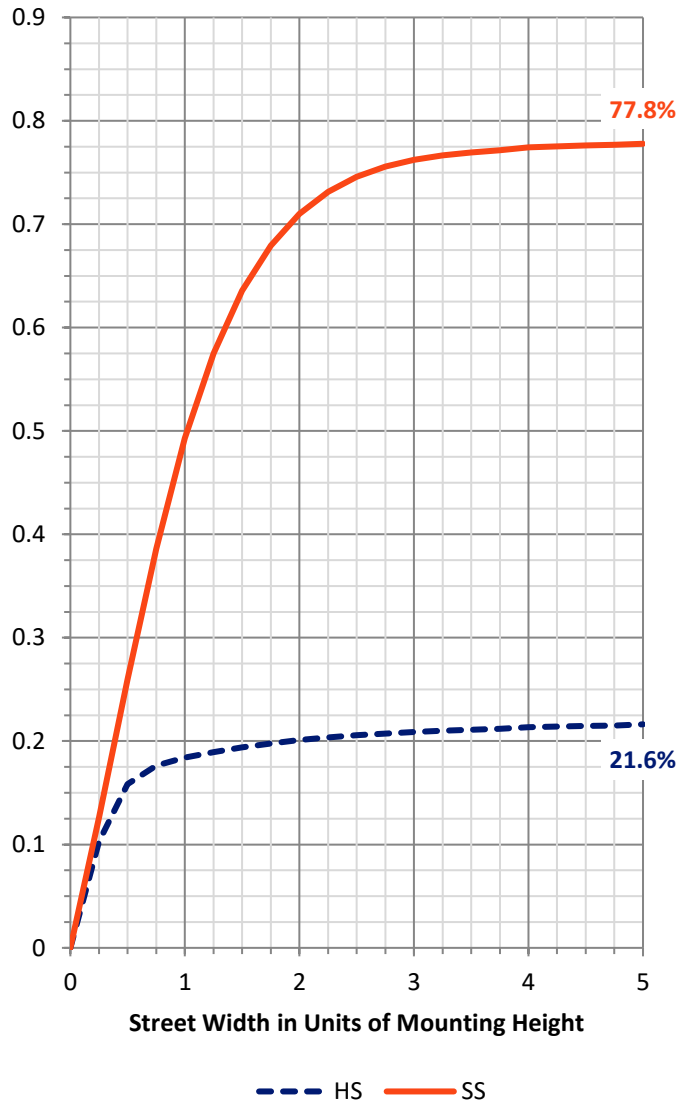
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 7866.7 | 0.0 | 7866.7 |
| | % Fixture | 22.1 | 0.0 | 22.1 |
| Street Side | Lumens | 27747.3 | 0.0 | 27747.3 |
| | % Fixture | 77.9 | 0.0 | 77.9 |
| Total | Lumens | 35614.0 | 0.0 | 35614.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 548.1 | 1.5 |
| 10°-20° | 1712.4 | 4.8 |
| 20°-30° | 2964.4 | 8.3 |
| 30°-40° | 4355.9 | 12.2 |
| 40°-50° | 5887.6 | 16.5 |
| 50°-60° | 7240.0 | 20.3 |
| 60°-70° | 7758.1 | 21.8 |
| 70°-80° | 4575.6 | 12.8 |
| 80°-90° | 571.9 | 1.6 |
| 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° | 35614.0 | 100.0 |
| 0°-180° | 35614.0 | 100.0 |

Coefficient of Utilization



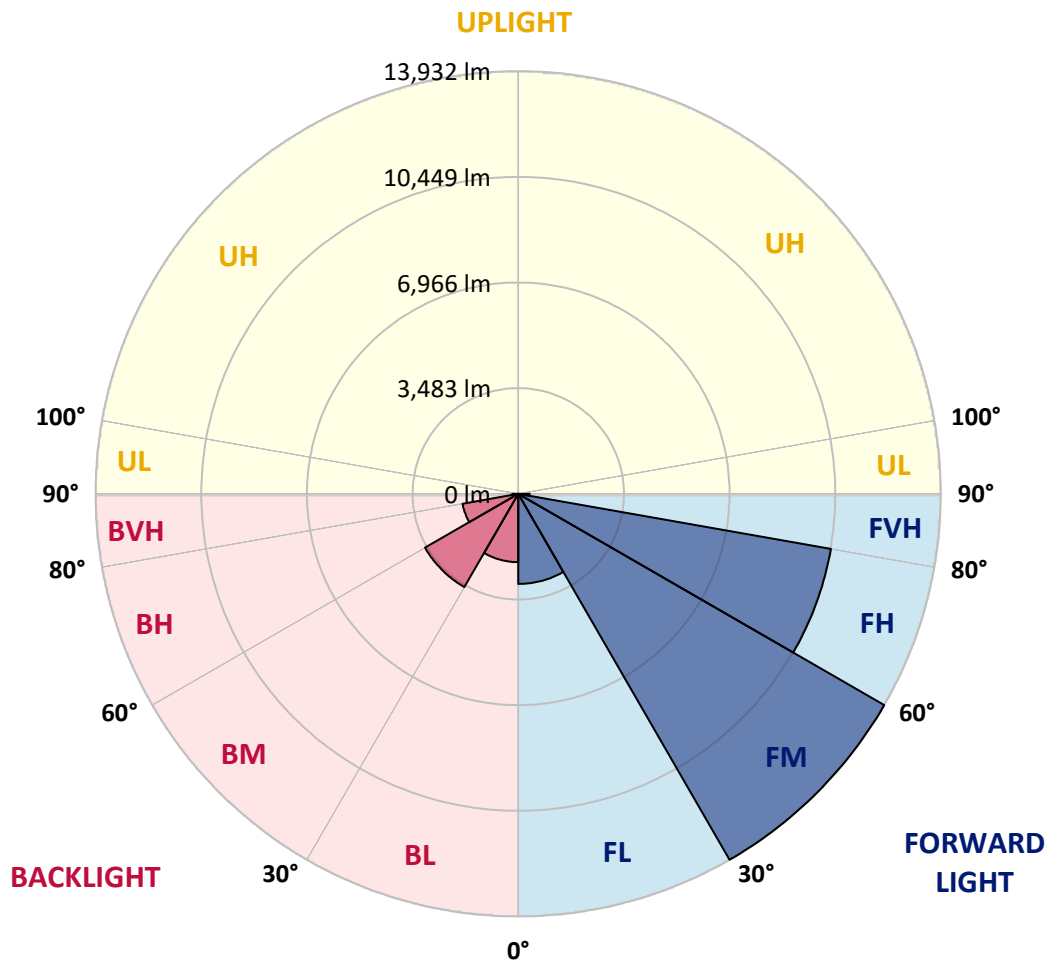
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 2971.7 | 8.3 | | | |
| FM (30°-60°) | 13932.4 | 39.1 | | | |
| FH (60°-80°) | 10468.1 | 29.4 | | | G4/12000 |
| FVH (80°-90°) | 375.0 | 1.1 | | | G3/500 |
| BL (0°-30°) | 2253.2 | 6.3 | B3/2500 | | |
| BM (30°-60°) | 3551.0 | 10.0 | B3/5000 | | |
| BH (60°-80°) | 1865.6 | 5.2 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 196.9 | 0.6 | | | G2/225 |
| 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° | 5501.0 | 5501.0 | 5501.0 | 5501.0 | 5501.0 | 5501.0 | 5501.0 | 5501.0 | 5501.0 | 5501.0 | 5501.0 |
| 2.5° | 5397.2 | 5387.0 | 5382.7 | 5396.5 | 5406.6 | 5418.2 | 5434.9 | 5450.9 | 5453.1 | 5474.1 | 5501.7 |
| 5° | 5462.5 | 5453.8 | 5444.4 | 5442.2 | 5438.6 | 5437.8 | 5442.2 | 5460.4 | 5464.7 | 5485.0 | 5544.6 |
| 7.5° | 5607.8 | 5599.0 | 5581.6 | 5575.1 | 5555.5 | 5520.6 | 5503.9 | 5513.4 | 5515.5 | 5540.2 | 5614.3 |
| 10° | 5844.5 | 5817.6 | 5796.5 | 5774.8 | 5713.0 | 5657.9 | 5617.2 | 5599.8 | 5596.1 | 5620.1 | 5705.8 |
| 12.5° | 6126.9 | 6104.4 | 6081.2 | 6023.8 | 5945.4 | 5845.9 | 5774.0 | 5734.1 | 5731.2 | 5751.5 | 5816.1 |
| 15° | 6425.4 | 6425.4 | 6409.4 | 6341.1 | 6264.2 | 6099.3 | 5988.2 | 5921.4 | 5925.8 | 5941.8 | 5971.5 |
| 17.5° | 6810.9 | 6779.0 | 6771.7 | 6694.0 | 6608.3 | 6458.0 | 6281.6 | 6174.8 | 6179.9 | 6187.2 | 6164.7 |
| 20° | 7203.0 | 7193.6 | 7182.7 | 7131.1 | 7053.4 | 6860.3 | 6662.1 | 6521.9 | 6522.7 | 6496.5 | 6396.3 |
| 22.5° | 7721.5 | 7690.2 | 7698.2 | 7640.1 | 7534.8 | 7336.6 | 7108.6 | 6942.3 | 6953.2 | 6915.5 | 6733.9 |
| 25° | 8236.3 | 8205.0 | 8188.3 | 8149.1 | 8058.4 | 7870.3 | 7599.5 | 7447.0 | 7433.9 | 7365.7 | 7102.1 |
| 27.5° | 8750.4 | 8732.2 | 8746.0 | 8698.8 | 8624.7 | 8414.9 | 8166.6 | 7997.4 | 8006.1 | 7958.9 | 7566.1 |
| 30° | 9282.6 | 9262.3 | 9322.5 | 9246.3 | 9200.5 | 8996.5 | 8758.3 | 8559.4 | 8566.7 | 8584.1 | 8143.3 |
| 32.5° | 9684.1 | 9708.1 | 9813.4 | 9804.7 | 9796.0 | 9568.7 | 9318.2 | 9207.8 | 9218.7 | 9279.7 | 8828.8 |
| 35° | 10071.9 | 10074.1 | 10222.2 | 10334.0 | 10381.2 | 10191.0 | 9931.0 | 9927.4 | 9998.5 | 10184.4 | 9784.3 |
| 37.5° | 10393.5 | 10386.3 | 10583.8 | 10757.3 | 10886.6 | 10739.2 | 10596.1 | 10819.0 | 10883.7 | 11269.2 | 10746.4 |
| 40° | 10569.3 | 10584.5 | 10838.7 | 11055.0 | 11309.2 | 11239.5 | 11254.7 | 11824.7 | 11983.7 | 12321.4 | 11466.0 |
| 42.5° | 10445.8 | 10492.3 | 10888.0 | 11329.5 | 11712.9 | 11805.8 | 12112.2 | 12911.0 | 12978.5 | 13039.5 | 12174.0 |
| 45° | 10238.9 | 10287.5 | 10726.1 | 11439.1 | 12046.2 | 12439.0 | 12965.4 | 13746.7 | 13820.8 | 13752.5 | 12762.8 |
| 47.5° | 10023.2 | 10073.3 | 10562.0 | 11394.9 | 12322.1 | 13075.1 | 13724.2 | 14485.9 | 14580.3 | 14369.0 | 13329.2 |
| 50° | 9749.5 | 9827.2 | 10361.6 | 11301.2 | 12545.7 | 13761.2 | 14442.3 | 15246.9 | 15290.4 | 14985.5 | 13758.3 |
| 52.5° | 9412.6 | 9498.3 | 10076.2 | 11140.7 | 12720.7 | 14240.5 | 15169.2 | 16072.5 | 16068.1 | 15705.8 | 14249.2 |
| 55° | 9058.2 | 9135.9 | 9731.3 | 10888.0 | 12818.8 | 14609.3 | 15750.1 | 16982.3 | 17034.6 | 16731.0 | 14693.6 |
| 57.5° | 8604.4 | 8674.8 | 9324.0 | 10548.2 | 12717.1 | 14922.3 | 16691.1 | 18063.5 | 18089.6 | 17444.8 | 15047.2 |
| 60° | 8003.2 | 8107.0 | 8759.1 | 10116.2 | 12425.2 | 15284.6 | 17728.0 | 19200.5 | 19232.5 | 18147.0 | 15274.5 |
| 62.5° | 7343.2 | 7384.5 | 8048.9 | 9451.1 | 12000.4 | 15564.2 | 18446.8 | 20090.0 | 20043.6 | 18695.9 | 15342.7 |
| 65° | 6538.6 | 6571.3 | 7146.4 | 8595.7 | 11211.1 | 15411.0 | 18704.6 | 20547.5 | 20490.1 | 19040.8 | 15132.9 |
| 67.5° | 5696.3 | 5797.3 | 6248.9 | 7409.2 | 10109.6 | 14703.7 | 18486.8 | 20678.9 | 20649.9 | 19066.9 | 14631.9 |
| 70° | 4602.8 | 4638.4 | 5046.5 | 6036.2 | 8435.2 | 13287.8 | 17760.7 | 20342.0 | 20319.5 | 18483.1 | 13608.8 |
| 72.5° | 3245.7 | 3210.9 | 3409.1 | 4185.3 | 6092.8 | 10570.0 | 15164.1 | 18449.0 | 18486.8 | 16534.3 | 11850.8 |
| 75° | 1723.1 | 1789.9 | 2098.5 | 2562.4 | 3454.1 | 6794.9 | 12089.7 | 15268.7 | 15255.6 | 13825.9 | 9367.6 |
| 77.5° | 917.8 | 916.4 | 1128.4 | 1326.6 | 1691.1 | 3122.3 | 7974.1 | 11514.7 | 11578.6 | 10712.3 | 6431.9 |
| 80° | 440.7 | 457.4 | 470.5 | 539.5 | 843.0 | 1442.8 | 3335.8 | 6677.3 | 7113.0 | 6389.0 | 3055.5 |
| 82.5° | 352.9 | 354.3 | 355.8 | 340.5 | 348.5 | 587.4 | 1285.2 | 1932.2 | 2001.9 | 1609.1 | 985.3 |
| 85° | 261.4 | 245.4 | 243.2 | 206.2 | 233.1 | 352.9 | 648.4 | 824.9 | 784.2 | 763.1 | 556.2 |
| 87.5° | 105.3 | 98.8 | 95.8 | 90.0 | 90.0 | 132.9 | 228.7 | 298.4 | 297.7 | 271.6 | 186.6 |
| 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° | 5501.0 | 5501.0 | 5501.0 | 5501.0 | 5501.0 | 5501.0 | 5501.0 | 5501.0 | 5501.0 | 5501.0 | 5501.0 |
| 2.5° | 5523.5 | 5549.7 | 5610.7 | 5662.9 | 5682.5 | 5730.5 | 5775.5 | 5801.6 | 5819.8 | 5830.7 | 5880.0 |
| 5° | 5580.9 | 5633.2 | 5730.5 | 5803.8 | 5875.0 | 5963.5 | 6020.9 | 6057.2 | 6077.5 | 6089.2 | 6124.7 |
| 7.5° | 5668.7 | 5721.8 | 5824.9 | 5937.4 | 6002.8 | 6075.4 | 6112.4 | 6138.5 | 6151.6 | 6148.0 | 6176.3 |
| 10° | 5747.2 | 5799.4 | 5902.6 | 5989.0 | 6026.0 | 6067.4 | 6087.0 | 6092.8 | 6093.5 | 6096.4 | 6124.7 |
| 12.5° | 5853.9 | 5885.9 | 5941.0 | 5997.7 | 5989.7 | 5991.1 | 6007.8 | 6000.6 | 5983.9 | 5981.0 | 5999.9 |
| 15° | 5968.6 | 5969.4 | 5973.7 | 5961.4 | 5911.3 | 5889.5 | 5866.2 | 5846.6 | 5800.9 | 5798.0 | 5827.8 |
| 17.5° | 6112.4 | 6078.3 | 5999.1 | 5914.9 | 5795.8 | 5713.8 | 5631.0 | 5596.9 | 5540.9 | 5530.1 | 5544.6 |
| 20° | 6297.6 | 6226.4 | 6034.0 | 5824.9 | 5601.9 | 5455.3 | 5355.1 | 5254.1 | 5176.4 | 5157.6 | 5171.4 |
| 22.5° | 6563.3 | 6423.2 | 6078.3 | 5729.0 | 5384.1 | 5133.6 | 4939.0 | 4817.7 | 4687.0 | 4620.2 | 4626.8 |
| 25° | 6884.3 | 6665.0 | 6155.2 | 5607.8 | 5127.8 | 4766.2 | 4450.3 | 4207.1 | 4059.7 | 3961.7 | 3987.8 |
| 27.5° | 7304.7 | 7003.3 | 6247.5 | 5487.9 | 4809.0 | 4296.4 | 3838.2 | 3508.6 | 3358.3 | 3311.8 | 3281.3 |
| 30° | 7791.9 | 7412.1 | 6344.8 | 5310.8 | 4464.9 | 3714.8 | 3128.1 | 2853.6 | 2681.5 | 2653.9 | 2630.7 |
| 32.5° | 8443.9 | 7926.9 | 6527.0 | 5118.4 | 4053.9 | 3133.2 | 2496.4 | 2180.5 | 2141.3 | 2118.8 | 2113.7 |
| 35° | 9284.8 | 8601.5 | 6718.0 | 4868.6 | 3518.0 | 2451.3 | 1888.6 | 1718.0 | 1699.1 | 1723.8 | 1726.0 |
| 37.5° | 10177.2 | 9333.4 | 6946.7 | 4586.8 | 2901.5 | 1829.1 | 1445.0 | 1326.6 | 1347.7 | 1424.6 | 1442.1 |
| 40° | 10781.3 | 9815.6 | 7154.4 | 4204.2 | 2139.8 | 1328.8 | 1051.4 | 1026.0 | 1142.2 | 1240.9 | 1261.3 |
| 42.5° | 11360.7 | 10180.8 | 7238.6 | 3698.1 | 1526.3 | 946.1 | 848.8 | 936.0 | 1098.6 | 1206.8 | 1221.3 |
| 45° | 11855.2 | 10605.6 | 7026.6 | 3091.1 | 1034.7 | 790.7 | 813.2 | 933.8 | 1114.6 | 1234.4 | 1245.3 |
| 47.5° | 12325.7 | 10952.7 | 6736.9 | 2435.4 | 816.1 | 761.0 | 812.5 | 953.4 | 1150.2 | 1263.4 | 1270.0 |
| 50° | 12775.2 | 11217.0 | 6242.4 | 1853.0 | 764.6 | 747.2 | 819.1 | 983.9 | 1169.8 | 1240.9 | 1238.0 |
| 52.5° | 13108.5 | 11353.5 | 5715.9 | 1495.8 | 744.3 | 736.3 | 836.5 | 1022.4 | 1173.4 | 1216.2 | 1213.3 |
| 55° | 13353.2 | 11327.3 | 5370.3 | 1224.9 | 727.6 | 731.9 | 864.8 | 1051.4 | 1208.2 | 1272.9 | 1270.7 |
| 57.5° | 13375.7 | 11209.0 | 4977.5 | 1034.7 | 707.2 | 731.2 | 895.3 | 1092.1 | 1382.5 | 1501.6 | 1465.3 |
| 60° | 13348.8 | 11012.9 | 4585.4 | 908.4 | 684.7 | 735.5 | 927.2 | 1214.1 | 1633.7 | 1727.4 | 1702.0 |
| 62.5° | 13216.7 | 10647.7 | 3998.0 | 824.9 | 665.1 | 751.5 | 951.2 | 1310.6 | 1621.4 | 1632.3 | 1596.0 |
| 65° | 12808.6 | 10159.0 | 3226.8 | 740.6 | 645.5 | 762.4 | 970.8 | 1336.0 | 1489.3 | 1454.4 | 1436.2 |
| 67.5° | 12001.2 | 9067.7 | 2489.1 | 663.7 | 620.1 | 760.2 | 1028.9 | 1299.7 | 1439.2 | 1413.7 | 1390.5 |
| 70° | 10853.9 | 7827.5 | 1728.1 | 584.5 | 577.3 | 746.4 | 1014.4 | 1312.1 | 1415.2 | 1376.0 | 1344.8 |
| 72.5° | 9067.7 | 6140.7 | 1099.3 | 519.9 | 513.4 | 713.8 | 978.1 | 1304.1 | 1399.2 | 1381.8 | 1338.9 |
| 75° | 6827.6 | 4286.2 | 698.5 | 449.5 | 456.7 | 654.2 | 920.0 | 1261.3 | 1391.2 | 1336.8 | 1254.7 |
| 77.5° | 4298.6 | 2115.9 | 543.1 | 381.9 | 392.8 | 564.2 | 795.1 | 1101.5 | 1335.3 | 1302.6 | 1197.4 |
| 80° | 1625.8 | 859.0 | 424.8 | 310.0 | 319.5 | 438.6 | 652.0 | 906.2 | 1229.3 | 1283.0 | 1238.0 |
| 82.5° | 748.6 | 537.3 | 318.8 | 249.1 | 252.7 | 319.5 | 486.5 | 670.9 | 1040.5 | 1177.8 | 1290.3 |
| 85° | 437.1 | 352.2 | 212.8 | 166.3 | 172.8 | 188.8 | 273.7 | 409.5 | 674.6 | 898.2 | 1004.9 |
| 87.5° | 148.9 | 122.7 | 82.8 | 70.4 | 68.3 | 77.7 | 66.1 | 134.3 | 200.4 | 352.9 | 403.0 |
| 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)