

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: P510526

Luminaire Tested: **CTN-CA10-630-727-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510526
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-727-U-T2-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 71113 lumens
Efficiency: N/A
Efficacy: 112.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G5

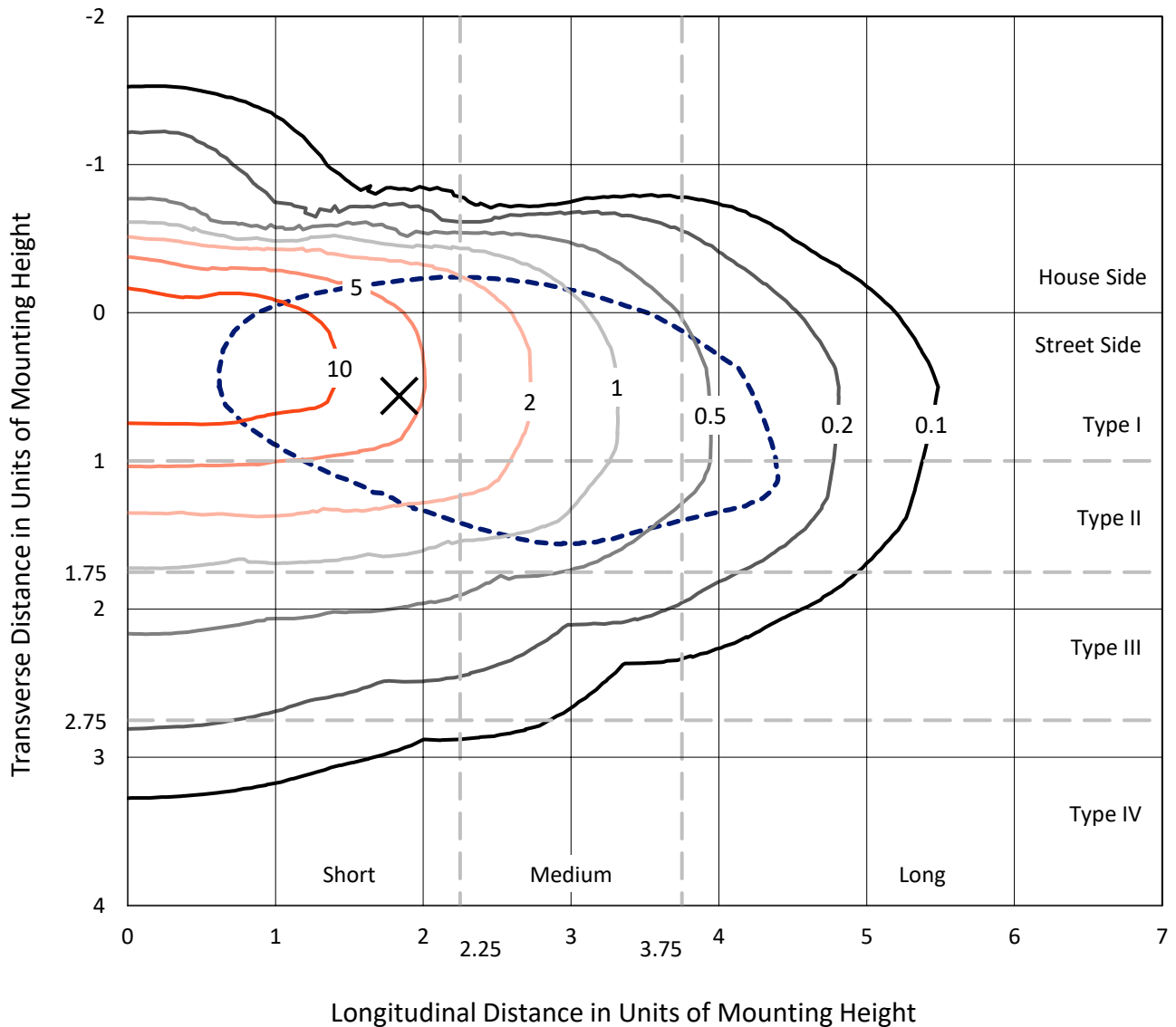
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

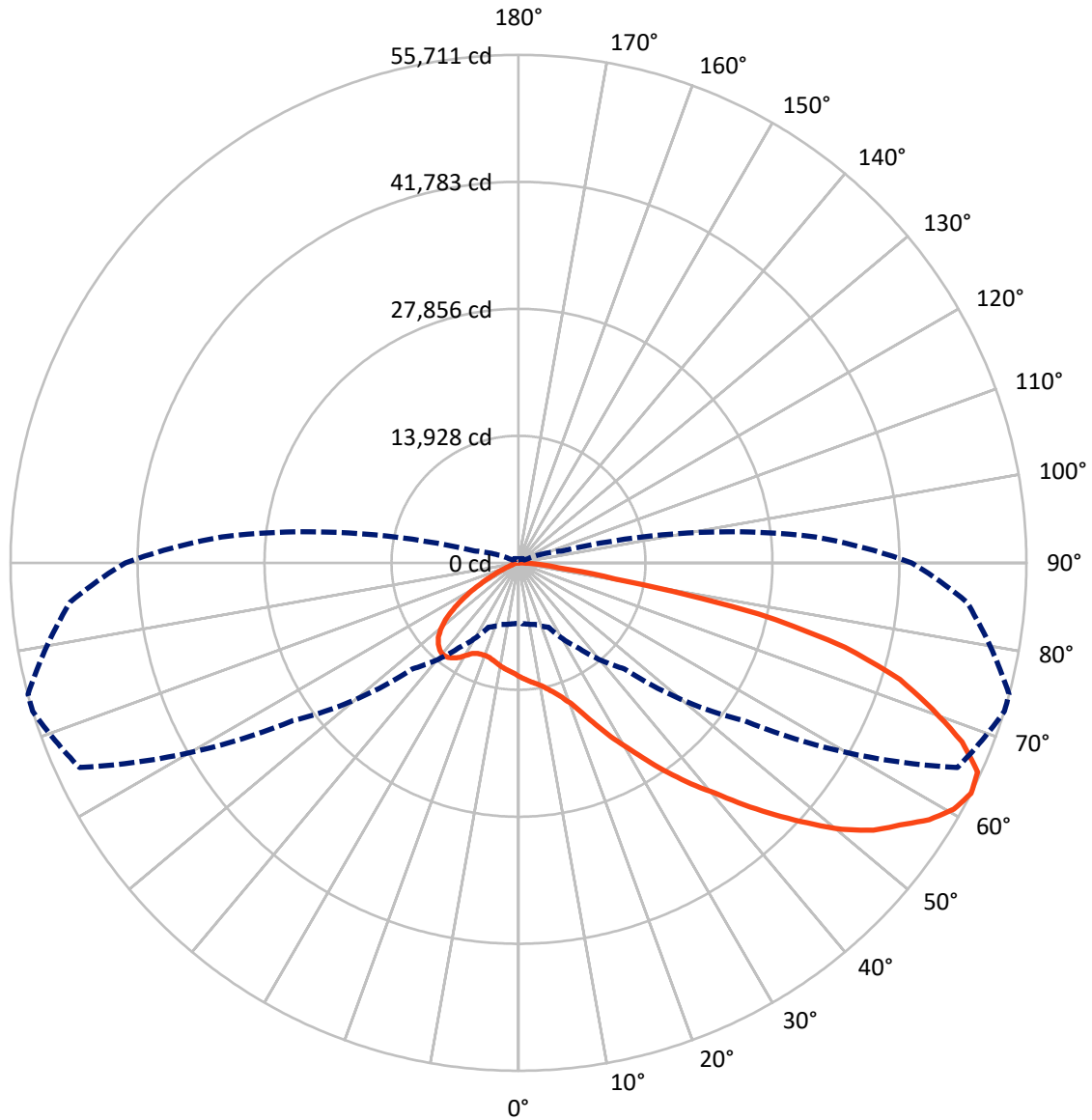
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 17.3 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 73-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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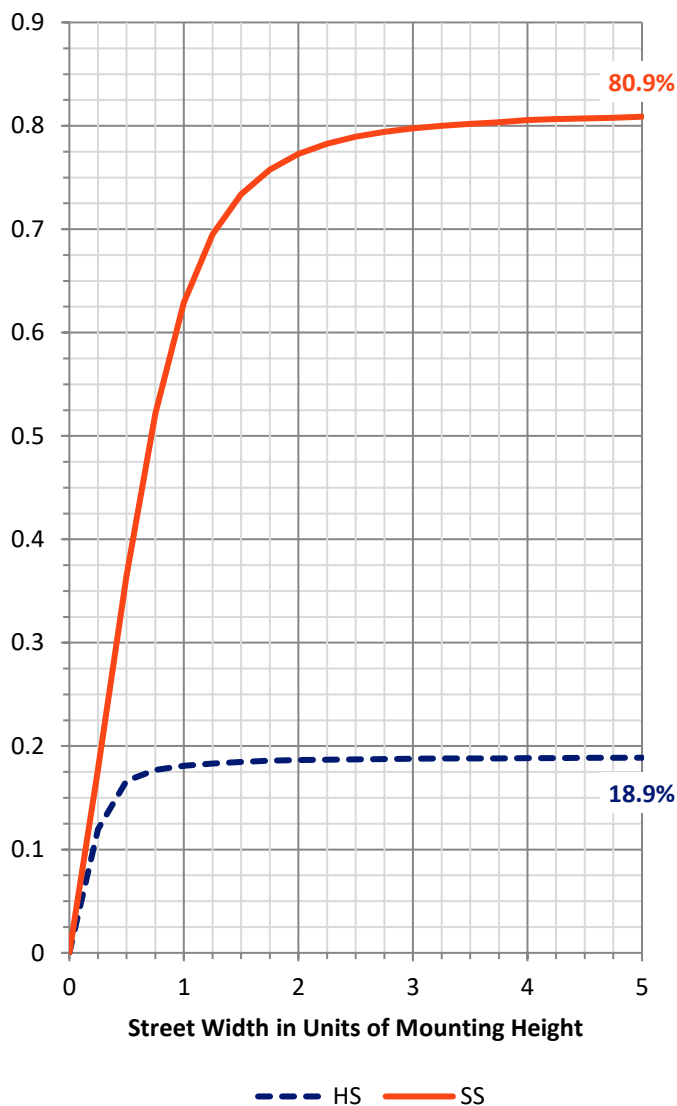
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 13603.6 | 0.0 | 13603.6 |
| | % Fixture | 19.1 | 0.0 | 19.1 |
| Street Side | Lumens | 57509.4 | 0.0 | 57509.4 |
| | % Fixture | 80.9 | 0.0 | 80.9 |
| Total | Lumens | 71113.0 | 0.0 | 71113.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1191.2 | 1.7 |
| 10°-20° | 3582.9 | 5.0 |
| 20°-30° | 6190.4 | 8.7 |
| 30°-40° | 9308.9 | 13.1 |
| 40°-50° | 12412.5 | 17.5 |
| 50°-60° | 14618.2 | 20.6 |
| 60°-70° | 14533.1 | 20.4 |
| 70°-80° | 8343.8 | 11.7 |
| 80°-90° | 932.1 | 1.3 |
| 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° | 71113.0 | 100.0 |
| 0°-180° | 71113.0 | 100.0 |

Coefficient of Utilization

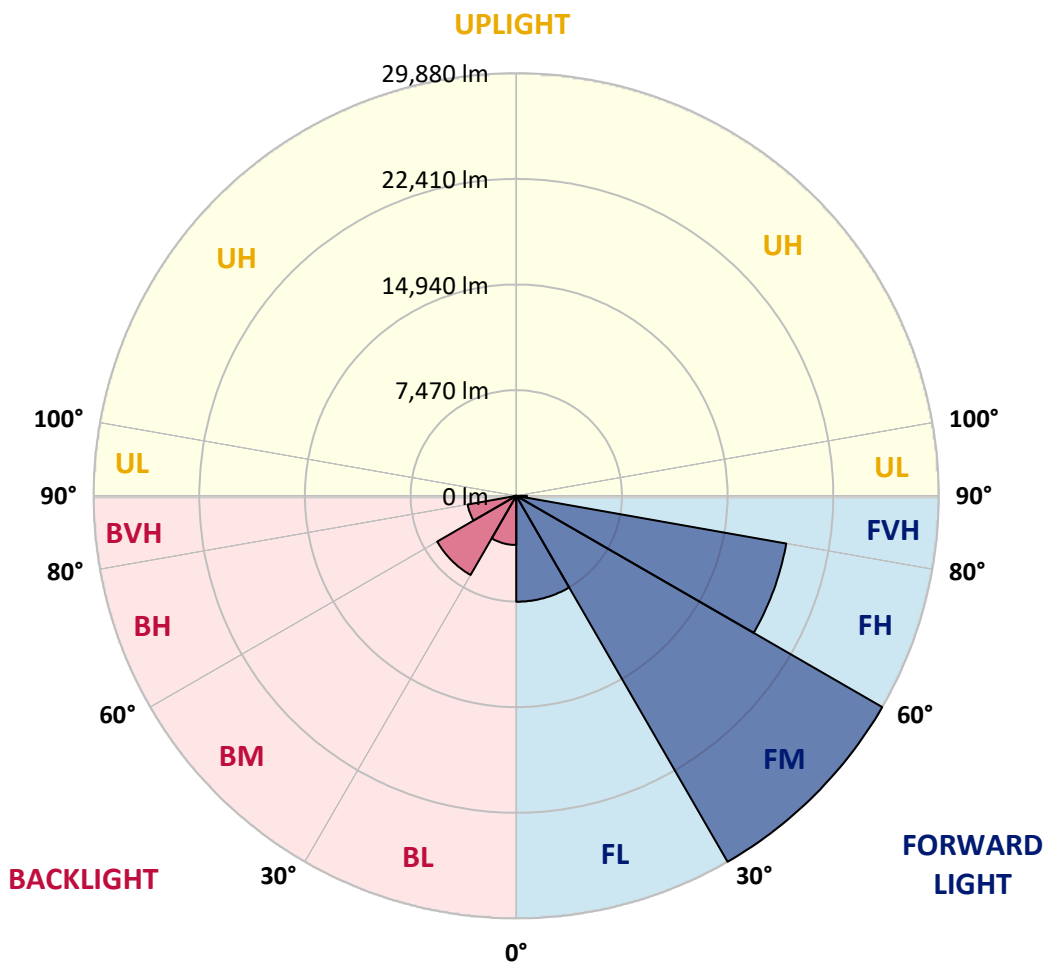


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 7488.1 | 10.5 | | | |
| FM (30°-60°) | 29880.0 | 42.0 | | | |
| FH (60°-80°) | 19384.3 | 27.3 | | | G5 |
| FVH (80°-90°) | 757.0 | 1.1 | | | G5 |
| BL (0°-30°) | 3476.4 | 4.9 | B4/5000 | | |
| BM (30°-60°) | 6459.6 | 9.1 | B4/8500 | | |
| BH (60°-80°) | 3492.6 | 4.9 | B4/5000 | | G4/5000 |
| BVH (80°-90°) | 175.1 | 0.2 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5
 Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 73° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 12471.6 | 12471.6 | 12471.6 | 12471.6 | 12471.6 | 12471.6 | 12471.6 | 12471.6 | 12471.6 | 12471.6 | 12471.6 |
| 2.5° | 13343.2 | 13376.7 | 13336.8 | 13319.2 | 13300.1 | 13175.6 | 13030.3 | 12881.8 | 12762.1 | 12743.0 | 12586.5 |
| 5° | 14280.2 | 14297.7 | 14232.3 | 14157.3 | 14028.0 | 13822.0 | 13561.8 | 13304.9 | 13065.4 | 13001.6 | 12715.8 |
| 7.5° | 15000.1 | 14966.6 | 14950.6 | 14886.7 | 14773.4 | 14546.7 | 14152.5 | 13731.1 | 13360.7 | 13271.3 | 12837.1 |
| 10° | 15675.3 | 15660.9 | 15539.6 | 15459.8 | 15279.4 | 15070.3 | 14746.3 | 14211.5 | 13689.5 | 13545.9 | 12942.5 |
| 12.5° | 16406.4 | 16374.5 | 16325.0 | 16152.6 | 16005.7 | 15653.0 | 15261.9 | 14775.0 | 14194.0 | 14002.4 | 13122.9 |
| 15° | 17064.0 | 16977.9 | 16950.7 | 16770.3 | 16621.9 | 16352.1 | 15959.4 | 15394.4 | 14773.4 | 14609.0 | 13466.1 |
| 17.5° | 17689.8 | 17649.9 | 17589.2 | 17466.3 | 17300.3 | 17092.8 | 16778.3 | 16173.3 | 15531.6 | 15292.2 | 14048.7 |
| 20° | 18221.3 | 18171.9 | 18119.2 | 18152.7 | 18116.0 | 17983.5 | 17785.6 | 17270.0 | 16486.2 | 16254.7 | 14757.4 |
| 22.5° | 18591.7 | 18590.1 | 18800.8 | 18923.7 | 18993.9 | 18989.1 | 18941.3 | 18649.1 | 17860.6 | 17625.9 | 15817.4 |
| 25° | 18899.8 | 18923.7 | 19190.3 | 19658.0 | 20076.2 | 20114.5 | 20452.9 | 20314.0 | 19643.6 | 19399.4 | 17412.0 |
| 27.5° | 18990.7 | 19038.6 | 19522.3 | 20258.2 | 20893.5 | 21503.3 | 21999.7 | 22253.5 | 21632.6 | 21340.4 | 19126.4 |
| 30° | 19056.2 | 19075.3 | 19549.4 | 20430.6 | 21769.8 | 22735.6 | 23623.1 | 24052.5 | 23517.7 | 23303.8 | 21037.1 |
| 32.5° | 18594.9 | 18601.2 | 19327.5 | 20662.0 | 22413.1 | 24087.6 | 25137.9 | 25947.3 | 25806.8 | 25524.2 | 23126.7 |
| 35° | 17959.6 | 18077.7 | 18910.9 | 20438.5 | 22943.1 | 25329.5 | 26759.7 | 27966.5 | 28247.5 | 28044.7 | 25214.6 |
| 37.5° | 17174.2 | 17266.8 | 18159.1 | 20106.5 | 23059.6 | 26183.5 | 28020.8 | 30019.3 | 30753.6 | 30720.1 | 27735.1 |
| 40° | 16208.5 | 16321.8 | 17389.7 | 19391.4 | 23002.1 | 26804.4 | 29500.5 | 32292.4 | 33224.6 | 33119.3 | 30234.8 |
| 42.5° | 15067.1 | 15233.1 | 16269.1 | 18472.0 | 22582.3 | 27184.4 | 30712.1 | 34607.0 | 36284.6 | 36216.0 | 32447.2 |
| 45° | 13938.6 | 14028.0 | 14972.9 | 17191.7 | 21809.7 | 27307.3 | 31851.8 | 37796.3 | 39422.9 | 39346.3 | 35113.0 |
| 47.5° | 12774.9 | 12853.1 | 13839.6 | 15842.9 | 20468.9 | 27059.8 | 32753.7 | 40535.5 | 42620.2 | 42543.6 | 37761.2 |
| 50° | 10067.6 | 10362.9 | 12385.4 | 14656.9 | 18941.3 | 26359.1 | 33604.5 | 43948.3 | 45966.0 | 45640.3 | 40080.6 |
| 52.5° | 8613.4 | 8720.4 | 9769.1 | 13461.3 | 17416.8 | 25163.5 | 34172.8 | 47110.5 | 48717.9 | 48248.6 | 42452.6 |
| 55° | 8051.5 | 8123.4 | 8637.4 | 11256.8 | 15985.0 | 23354.9 | 34841.6 | 50280.7 | 50781.9 | 50662.2 | 44387.3 |
| 57.5° | 7625.3 | 7705.2 | 8072.3 | 9402.0 | 14476.5 | 20820.1 | 34632.5 | 52510.7 | 53138.0 | 52754.9 | 46441.7 |
| 60° | 7022.0 | 7119.3 | 7606.2 | 8441.0 | 12762.1 | 18246.9 | 32792.0 | 53423.7 | 54850.8 | 54419.8 | 48004.4 |
| 62.5° | 6642.0 | 6705.9 | 6985.2 | 7794.6 | 11341.4 | 16436.7 | 30172.6 | 53130.0 | 55711.2 | 55695.2 | 49359.6 |
| 65° | 6126.5 | 6220.6 | 6519.1 | 7175.2 | 10077.2 | 15033.6 | 27701.5 | 51679.0 | 55340.8 | 55355.2 | 49639.0 |
| 67.5° | 5586.9 | 5625.2 | 5938.1 | 6464.9 | 8587.9 | 13748.6 | 24504.2 | 49196.8 | 52456.4 | 52785.2 | 47705.9 |
| 70° | 4913.3 | 4894.1 | 5232.5 | 5617.2 | 7018.8 | 11673.5 | 19723.4 | 44781.6 | 48194.4 | 48330.0 | 43796.7 |
| 72.5° | 3866.1 | 3883.7 | 3977.9 | 4244.5 | 5328.3 | 9186.5 | 14312.1 | 37834.6 | 43739.2 | 43980.2 | 38800.4 |
| 75° | 2598.7 | 2627.4 | 3066.4 | 3326.6 | 3832.6 | 6602.1 | 8999.7 | 25538.6 | 36975.8 | 37655.8 | 31756.1 |
| 77.5° | 1982.6 | 2000.1 | 2127.8 | 2412.0 | 2772.7 | 4705.8 | 4878.2 | 13916.2 | 26919.4 | 28533.2 | 24842.6 |
| 80° | 1404.7 | 1411.1 | 1285.0 | 1142.9 | 1476.5 | 3192.5 | 2881.3 | 5926.9 | 10726.9 | 12675.9 | 14591.4 |
| 82.5° | 628.9 | 619.3 | 729.5 | 606.6 | 850.8 | 1235.5 | 1360.0 | 2876.5 | 4455.2 | 4788.8 | 5213.4 |
| 85° | 292.1 | 327.2 | 375.1 | 314.5 | 506.0 | 477.3 | 530.0 | 1225.9 | 2087.9 | 2305.0 | 2292.2 |
| 87.5° | 71.8 | 78.2 | 99.0 | 126.1 | 183.6 | 162.8 | 159.6 | 360.8 | 466.1 | 464.5 | 713.5 |
| 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° | 12471.6 | 12471.6 | 12471.6 | 12471.6 | 12471.6 | 12471.6 | 12471.6 | 12471.6 | 12471.6 | 12471.6 | 12471.6 |
| 2.5° | 12479.6 | 12396.6 | 12200.2 | 12010.3 | 11829.9 | 11710.2 | 11576.1 | 11435.6 | 11351.0 | 11311.1 | 11397.3 |
| 5° | 12541.8 | 12383.8 | 12008.7 | 11632.0 | 11312.7 | 11039.8 | 10848.2 | 10685.4 | 10597.6 | 10605.6 | 10610.4 |
| 7.5° | 12594.5 | 12372.6 | 11847.5 | 11315.9 | 10817.9 | 10479.5 | 10228.9 | 10053.3 | 9952.7 | 9876.1 | 9933.5 |
| 10° | 12640.8 | 12326.3 | 11659.1 | 10950.4 | 10409.2 | 9908.0 | 9568.0 | 9355.7 | 9170.5 | 9066.8 | 9148.2 |
| 12.5° | 12690.3 | 12308.8 | 11448.4 | 10623.1 | 9922.4 | 9362.1 | 8896.0 | 8685.3 | 8503.3 | 8425.1 | 8474.6 |
| 15° | 12905.8 | 12375.8 | 11252.1 | 10238.4 | 9441.9 | 8717.2 | 8214.4 | 7955.8 | 7812.1 | 7717.9 | 7738.7 |
| 17.5° | 13276.1 | 12553.0 | 11126.0 | 9836.2 | 8905.5 | 8139.3 | 7488.1 | 7186.4 | 6948.5 | 6881.5 | 6863.9 |
| 20° | 13802.9 | 12889.8 | 11126.0 | 9496.2 | 8297.4 | 7497.6 | 6747.4 | 6238.2 | 5867.9 | 5729.0 | 5835.9 |
| 22.5° | 14687.2 | 13462.9 | 11236.1 | 9188.1 | 7773.8 | 6832.0 | 5938.1 | 5160.7 | 4661.1 | 4458.4 | 4576.5 |
| 25° | 15924.3 | 14348.8 | 11414.9 | 8918.3 | 7296.5 | 6065.8 | 4911.7 | 4017.8 | 3467.1 | 3226.0 | 3222.9 |
| 27.5° | 17539.7 | 15704.0 | 11775.6 | 8698.0 | 6725.1 | 5074.5 | 3840.6 | 2980.2 | 2463.0 | 2317.8 | 2338.5 |
| 30° | 19330.7 | 17172.6 | 12457.2 | 8378.8 | 6030.7 | 3965.1 | 2796.7 | 2190.1 | 1826.1 | 1634.6 | 1637.8 |
| 32.5° | 21057.9 | 18693.8 | 13266.5 | 8171.3 | 5128.8 | 2989.8 | 1993.7 | 1562.7 | 1336.1 | 1222.7 | 1240.3 |
| 35° | 22909.6 | 20006.0 | 13868.3 | 7823.3 | 4070.5 | 2161.3 | 1409.5 | 1171.7 | 1077.5 | 1018.4 | 1021.6 |
| 37.5° | 24909.7 | 21449.0 | 14363.2 | 7357.2 | 3077.6 | 1484.5 | 1040.8 | 1004.0 | 964.1 | 889.1 | 882.7 |
| 40° | 26999.2 | 23120.3 | 14658.5 | 6603.7 | 2139.0 | 1028.0 | 884.3 | 925.8 | 903.5 | 806.1 | 798.1 |
| 42.5° | 28771.0 | 24410.1 | 14731.9 | 5606.1 | 1384.0 | 833.2 | 801.3 | 865.2 | 870.0 | 771.0 | 758.2 |
| 45° | 30472.7 | 25559.4 | 14588.2 | 4292.4 | 959.4 | 783.8 | 750.2 | 838.0 | 844.4 | 755.0 | 734.3 |
| 47.5° | 32377.0 | 27131.7 | 14328.1 | 2863.7 | 793.3 | 740.7 | 732.7 | 793.3 | 815.7 | 742.3 | 716.7 |
| 50° | 34690.0 | 28410.3 | 13557.1 | 1759.1 | 748.6 | 713.5 | 713.5 | 750.2 | 780.6 | 716.7 | 704.0 |
| 52.5° | 37062.0 | 29524.5 | 12415.7 | 1206.8 | 721.5 | 684.8 | 705.5 | 721.5 | 732.7 | 675.2 | 686.4 |
| 55° | 38762.0 | 30512.6 | 10714.1 | 970.5 | 705.5 | 665.6 | 715.1 | 683.2 | 667.2 | 617.8 | 606.6 |
| 57.5° | 40648.8 | 31687.4 | 8974.2 | 860.4 | 684.8 | 676.8 | 683.2 | 622.5 | 577.8 | 526.8 | 515.6 |
| 60° | 41965.7 | 32319.5 | 6844.8 | 809.3 | 660.9 | 665.6 | 630.5 | 549.1 | 467.7 | 431.0 | 423.0 |
| 62.5° | 43115.1 | 32680.3 | 5017.1 | 743.9 | 638.5 | 636.9 | 571.5 | 469.3 | 384.7 | 344.8 | 338.4 |
| 65° | 42941.1 | 32116.8 | 3251.6 | 691.2 | 620.9 | 600.2 | 512.4 | 402.3 | 320.8 | 290.5 | 287.3 |
| 67.5° | 41027.1 | 29623.4 | 2048.0 | 636.9 | 590.6 | 553.9 | 459.7 | 359.2 | 295.3 | 260.2 | 257.0 |
| 70° | 37009.4 | 26180.3 | 1253.1 | 566.7 | 525.2 | 490.1 | 407.0 | 336.8 | 279.3 | 237.8 | 229.9 |
| 72.5° | 31456.0 | 22422.7 | 885.9 | 499.6 | 458.1 | 416.6 | 344.8 | 320.8 | 266.6 | 213.9 | 207.5 |
| 75° | 25843.5 | 16516.5 | 742.3 | 435.8 | 391.1 | 335.2 | 293.7 | 298.5 | 250.6 | 194.7 | 190.0 |
| 77.5° | 18199.0 | 10297.5 | 691.2 | 356.0 | 308.1 | 266.6 | 253.8 | 273.0 | 229.9 | 178.8 | 174.0 |
| 80° | 10621.5 | 5783.3 | 571.5 | 280.9 | 231.5 | 205.9 | 212.3 | 231.5 | 201.1 | 161.2 | 154.8 |
| 82.5° | 4287.6 | 2289.0 | 402.3 | 218.7 | 169.2 | 164.4 | 174.0 | 188.4 | 166.0 | 135.7 | 132.5 |
| 85° | 1530.8 | 715.1 | 228.3 | 143.7 | 108.5 | 113.3 | 111.7 | 134.1 | 119.7 | 99.0 | 97.4 |
| 87.5° | 402.3 | 142.1 | 102.2 | 57.5 | 46.3 | 46.3 | 43.1 | 62.3 | 57.5 | 44.7 | 49.5 |
| 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)