

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: P510841

Luminaire Tested: **CTN-CA8-480-730-U-T4**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510841
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-480-730-U-T4
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 68852 lumens
Efficiency: N/A
Efficacy: 143.2 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

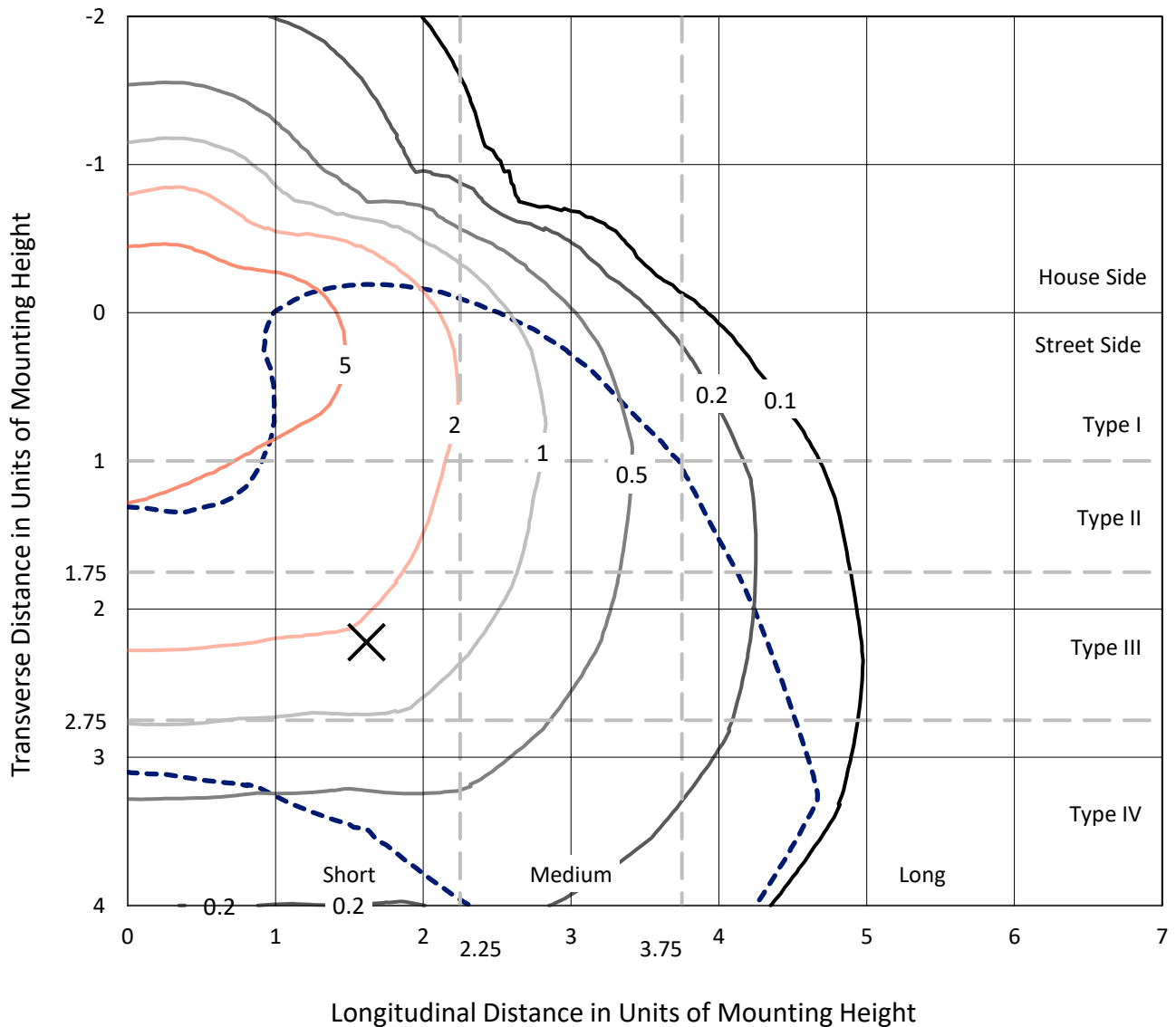
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

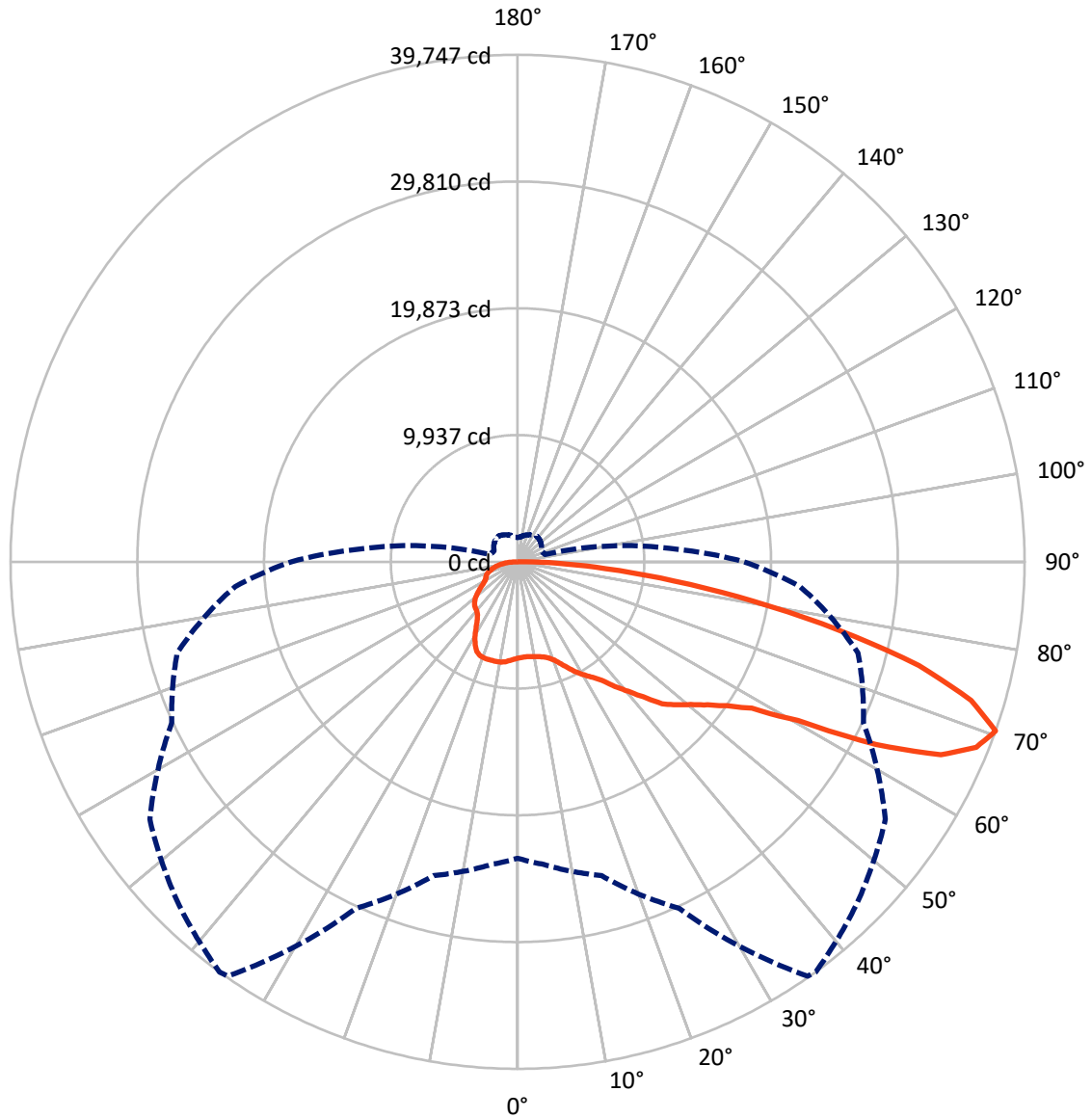
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical



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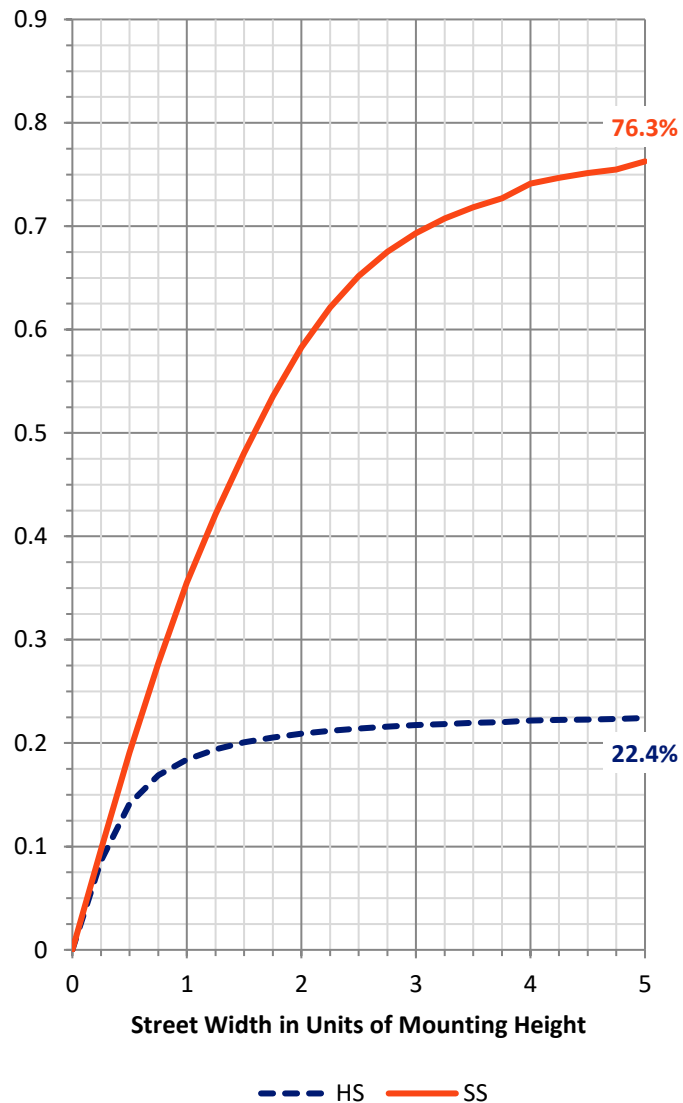
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 15687.5 | 0.0 | 15687.5 |
| | % Fixture | 22.8 | 0.0 | 22.8 |
| Street Side | Lumens | 53164.5 | 0.0 | 53164.5 |
| | % Fixture | 77.2 | 0.0 | 77.2 |
| Total | Lumens | 68852.0 | 0.0 | 68852.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 730.6 | 1.1 |
| 10°-20° | 2258.7 | 3.3 |
| 20°-30° | 4074.2 | 5.9 |
| 30°-40° | 6310.2 | 9.2 |
| 40°-50° | 9585.2 | 13.9 |
| 50°-60° | 13285.7 | 19.3 |
| 60°-70° | 17276.0 | 25.1 |
| 70°-80° | 12758.2 | 18.5 |
| 80°-90° | 2573.0 | 3.7 |
| 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° | 68852.0 | 100.0 |
| 0°-180° | 68852.0 | 100.0 |

Coefficient of Utilization

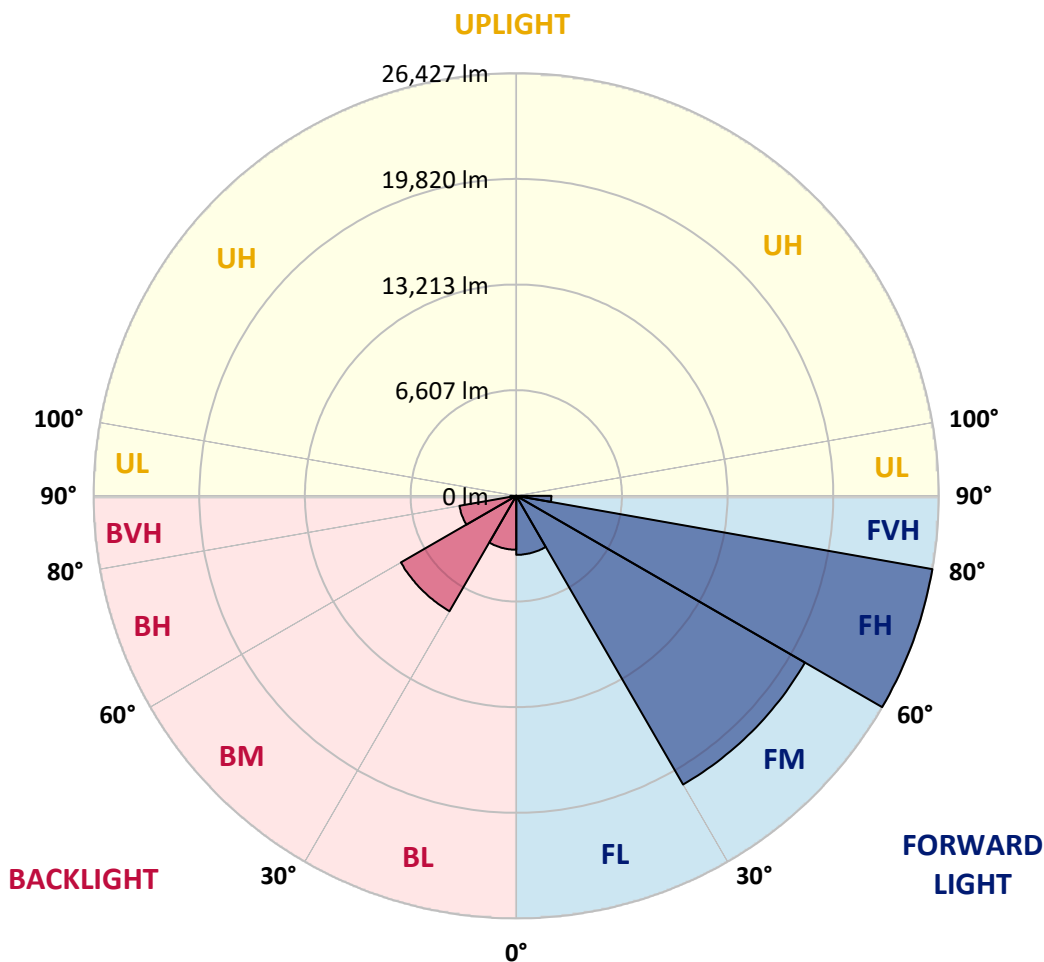


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 3691.2 | 5.4 | | | |
| FM (30°-60°) | 20848.2 | 30.3 | | | |
| FH (60°-80°) | 26426.9 | 38.4 | | | G5 |
| FVH (80°-90°) | 2198.2 | 3.2 | | | G5 |
| BL (0°-30°) | 3372.4 | 4.9 | B4/5000 | | |
| BM (30°-60°) | 8333.0 | 12.1 | B4/8500 | | |
| BH (60°-80°) | 3607.3 | 5.2 | B4/5000 | | G4/5000 |
| BVH (80°-90°) | 374.8 | 0.5 | | | G3/500 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 7541.3 | 7541.3 | 7541.3 | 7541.3 | 7541.3 | 7541.3 | 7541.3 | 7541.3 | 7541.3 | 7541.3 | 7541.3 |
| 2.5° | 7495.7 | 7485.7 | 7480.0 | 7491.5 | 7495.7 | 7497.2 | 7500.0 | 7497.2 | 7490.0 | 7515.7 | 7547.0 |
| 5° | 7497.2 | 7491.5 | 7480.0 | 7470.1 | 7470.1 | 7470.1 | 7471.5 | 7504.3 | 7518.5 | 7515.7 | 7554.2 |
| 7.5° | 7508.6 | 7504.3 | 7482.9 | 7475.8 | 7492.9 | 7498.6 | 7527.1 | 7517.1 | 7532.8 | 7558.5 | 7591.2 |
| 10° | 7510.0 | 7504.3 | 7485.7 | 7501.4 | 7549.9 | 7558.5 | 7571.3 | 7599.8 | 7605.5 | 7636.9 | 7669.6 |
| 12.5° | 7524.2 | 7524.2 | 7531.4 | 7565.6 | 7616.9 | 7626.9 | 7675.4 | 7698.2 | 7732.4 | 7748.1 | 7788.0 |
| 15° | 7599.8 | 7598.4 | 7615.5 | 7654.0 | 7736.7 | 7742.4 | 7802.2 | 7870.7 | 7896.3 | 7934.8 | 7999.0 |
| 17.5° | 7779.4 | 7788.0 | 7789.4 | 7817.9 | 7916.3 | 7919.1 | 8017.5 | 8081.6 | 8140.1 | 8208.5 | 8355.4 |
| 20° | 8205.7 | 8190.0 | 8172.9 | 8172.9 | 8211.4 | 8231.3 | 8306.9 | 8409.5 | 8529.3 | 8650.5 | 8822.9 |
| 22.5° | 8741.7 | 8773.1 | 8710.3 | 8677.5 | 8696.1 | 8673.3 | 8730.3 | 8813.0 | 8952.7 | 9133.7 | 9351.8 |
| 25° | 9381.8 | 9384.6 | 9380.4 | 9247.8 | 9206.4 | 9220.7 | 9267.7 | 9344.7 | 9530.0 | 9674.0 | 9990.5 |
| 27.5° | 10006.2 | 9993.4 | 9947.7 | 9808.0 | 9768.1 | 9788.1 | 9786.6 | 9999.1 | 10188.7 | 10372.6 | 10744.6 |
| 30° | 10573.6 | 10607.8 | 10526.5 | 10291.3 | 10295.6 | 10292.7 | 10358.3 | 10632.0 | 10978.4 | 11320.6 | 11702.6 |
| 32.5° | 11574.3 | 11470.3 | 11360.5 | 10895.7 | 10810.2 | 10800.2 | 10838.7 | 11246.4 | 11759.7 | 12337.0 | 12796.1 |
| 35° | 12516.6 | 12491.0 | 12382.6 | 11910.8 | 11416.1 | 11407.5 | 11354.8 | 11850.9 | 12572.2 | 13641.4 | 14214.5 |
| 37.5° | 13480.3 | 13443.3 | 13336.4 | 12934.3 | 12442.5 | 12395.5 | 11952.1 | 12495.3 | 13470.4 | 15166.8 | 15983.7 |
| 40° | 14629.4 | 14606.5 | 14441.2 | 13926.5 | 13421.9 | 13350.6 | 12890.1 | 13172.4 | 14603.7 | 17198.3 | 17774.2 |
| 42.5° | 15637.2 | 15633.0 | 15443.4 | 14965.8 | 14536.7 | 14465.4 | 14073.4 | 14367.0 | 16179.0 | 19188.4 | 19527.7 |
| 45° | 16377.1 | 16489.7 | 16498.3 | 16226.0 | 15929.5 | 15866.8 | 15762.7 | 16167.6 | 18000.9 | 20994.6 | 20944.7 |
| 47.5° | 17001.5 | 17098.5 | 16997.3 | 16857.5 | 16756.3 | 16760.6 | 16921.7 | 17725.7 | 19800.0 | 22568.4 | 22180.7 |
| 50° | 18045.1 | 17985.2 | 17459.1 | 17376.5 | 17504.8 | 17580.3 | 18047.9 | 19407.9 | 21859.9 | 24045.3 | 23289.8 |
| 52.5° | 19550.5 | 19321.0 | 18288.8 | 18120.6 | 18606.7 | 18635.3 | 19379.4 | 20911.9 | 23918.5 | 25312.7 | 24304.8 |
| 55° | 21610.4 | 21420.8 | 20254.7 | 19477.8 | 19723.0 | 19915.4 | 20963.2 | 22453.0 | 25599.2 | 26504.5 | 25086.0 |
| 57.5° | 24655.5 | 24669.8 | 23718.9 | 22270.5 | 21436.5 | 21641.8 | 22460.1 | 23951.3 | 26987.8 | 27502.4 | 25573.6 |
| 60° | 27096.1 | 27548.0 | 27264.3 | 26602.8 | 25405.4 | 25265.6 | 24642.7 | 25512.3 | 28173.8 | 28350.6 | 26039.7 |
| 62.5° | 28788.3 | 28993.6 | 29968.7 | 30108.4 | 31476.9 | 31535.4 | 28551.6 | 27341.3 | 29476.8 | 28906.6 | 26138.1 |
| 65° | 28702.7 | 28829.6 | 30370.7 | 32246.7 | 36289.7 | 36470.8 | 34724.4 | 30108.4 | 30369.2 | 29154.6 | 25851.6 |
| 67.5° | 26704.1 | 26895.1 | 28853.8 | 32360.8 | 38854.3 | 38785.9 | 37678.2 | 33960.3 | 30662.9 | 28756.9 | 24485.9 |
| 70° | 23232.8 | 23821.5 | 25466.7 | 29955.8 | 39655.5 | 39746.7 | 37705.3 | 35190.6 | 29905.9 | 27632.1 | 22209.2 |
| 72.5° | 19148.5 | 19333.8 | 20887.7 | 25911.4 | 37313.3 | 37179.3 | 36160.0 | 33566.8 | 28537.4 | 25597.8 | 18224.7 |
| 75° | 14562.4 | 14562.4 | 16444.1 | 20649.6 | 32042.9 | 32513.3 | 32909.6 | 30402.0 | 25281.3 | 20863.4 | 12409.7 |
| 77.5° | 9666.9 | 10013.3 | 11528.7 | 15517.5 | 25364.0 | 25711.9 | 27080.4 | 25914.3 | 20699.5 | 15299.4 | 5668.1 |
| 80° | 5127.8 | 5170.6 | 6795.8 | 10311.3 | 18142.0 | 18797.8 | 20679.5 | 19986.7 | 14888.8 | 7167.8 | 1432.7 |
| 82.5° | 1793.4 | 1957.3 | 2988.0 | 5976.1 | 11953.5 | 12362.7 | 13718.4 | 11876.6 | 5259.0 | 1586.7 | 792.6 |
| 85° | 891.0 | 922.4 | 1315.8 | 2845.5 | 6730.2 | 6928.3 | 8014.6 | 4626.0 | 846.8 | 692.8 | 538.9 |
| 87.5° | 429.1 | 439.1 | 504.7 | 1017.9 | 2925.3 | 3060.7 | 3240.4 | 1505.4 | 313.6 | 263.7 | 233.8 |
| 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° | 7541.3 | 7541.3 | 7541.3 | 7541.3 | 7541.3 | 7541.3 | 7541.3 | 7541.3 | 7541.3 | 7541.3 | 7541.3 |
| 2.5° | 7554.2 | 7567.0 | 7591.2 | 7598.4 | 7581.3 | 7612.6 | 7642.6 | 7669.6 | 7668.2 | 7678.2 | 7713.8 |
| 5° | 7571.3 | 7598.4 | 7624.0 | 7669.6 | 7713.8 | 7739.5 | 7763.7 | 7786.5 | 7793.7 | 7815.1 | 7836.4 |
| 7.5° | 7624.0 | 7651.1 | 7709.6 | 7789.4 | 7792.2 | 7856.4 | 7897.7 | 7904.9 | 7910.6 | 7910.6 | 7960.5 |
| 10° | 7705.3 | 7755.2 | 7849.3 | 7904.9 | 7954.8 | 7933.4 | 7976.2 | 7949.1 | 7929.1 | 7937.7 | 7971.9 |
| 12.5° | 7845.0 | 7889.2 | 8024.6 | 8085.9 | 8040.3 | 8031.7 | 7989.0 | 7927.7 | 7857.8 | 7850.7 | 7882.1 |
| 15° | 8064.5 | 8147.2 | 8268.4 | 8326.8 | 8212.8 | 8111.6 | 7967.6 | 7842.1 | 7706.7 | 7656.8 | 7676.8 |
| 17.5° | 8418.1 | 8517.9 | 8650.5 | 8610.5 | 8402.4 | 8202.8 | 7964.7 | 7699.6 | 7437.3 | 7254.8 | 7301.8 |
| 20° | 8935.6 | 9009.7 | 9118.0 | 8957.0 | 8653.3 | 8324.0 | 7933.4 | 7514.3 | 7070.9 | 6738.7 | 6700.3 |
| 22.5° | 9478.7 | 9591.3 | 9525.8 | 9227.8 | 8830.1 | 8371.0 | 7867.8 | 7244.8 | 6559.1 | 6142.8 | 6080.1 |
| 25° | 10133.1 | 10170.1 | 9943.5 | 9494.4 | 8880.0 | 8296.9 | 7655.4 | 6851.4 | 6035.9 | 5643.9 | 5625.4 |
| 27.5° | 10827.3 | 10743.2 | 10321.2 | 9617.0 | 8824.4 | 8077.4 | 7229.1 | 6229.8 | 5562.6 | 5216.2 | 5162.0 |
| 30° | 11611.4 | 11416.1 | 10633.4 | 9629.8 | 8614.8 | 7649.7 | 6690.3 | 5743.7 | 5177.7 | 4829.9 | 4774.3 |
| 32.5° | 12620.7 | 12160.2 | 10922.8 | 9497.2 | 8172.9 | 7022.4 | 6043.1 | 5328.8 | 4831.3 | 4482.0 | 4432.1 |
| 35° | 13910.9 | 13133.9 | 11229.3 | 9257.8 | 7628.3 | 6395.2 | 5507.0 | 4976.7 | 4550.5 | 4129.9 | 4062.9 |
| 37.5° | 15397.7 | 14492.5 | 11595.7 | 8955.5 | 7031.0 | 5843.5 | 5144.9 | 4752.9 | 4342.3 | 3866.2 | 3786.4 |
| 40° | 17125.6 | 15852.5 | 12160.2 | 8594.9 | 6495.0 | 5445.7 | 4969.6 | 4675.9 | 4226.9 | 3730.8 | 3639.5 |
| 42.5° | 18622.4 | 17290.9 | 12831.7 | 8207.1 | 5988.9 | 5115.0 | 4891.2 | 4624.6 | 4154.2 | 3629.5 | 3525.5 |
| 45° | 20006.7 | 18478.4 | 13487.5 | 7736.7 | 5455.7 | 4888.3 | 4797.1 | 4496.3 | 4025.9 | 3504.1 | 3395.7 |
| 47.5° | 21131.5 | 19437.9 | 14057.7 | 7304.7 | 5029.5 | 4680.2 | 4591.8 | 4252.5 | 3810.6 | 3353.0 | 3273.1 |
| 50° | 21995.4 | 20159.2 | 14369.9 | 6961.1 | 4579.0 | 4443.5 | 4326.7 | 3977.4 | 3552.6 | 3157.7 | 3089.2 |
| 52.5° | 22879.2 | 20882.0 | 14523.9 | 6978.2 | 4159.9 | 4091.4 | 3971.7 | 3672.3 | 3347.3 | 3043.6 | 2969.5 |
| 55° | 23393.9 | 21178.5 | 14361.3 | 6563.4 | 3775.0 | 3695.1 | 3591.0 | 3435.7 | 3241.8 | 2972.3 | 2902.5 |
| 57.5° | 23694.7 | 21362.4 | 13866.7 | 5353.1 | 3311.6 | 3236.1 | 3253.2 | 3240.4 | 3080.7 | 2797.0 | 2732.8 |
| 60° | 23911.3 | 20963.2 | 12853.1 | 3934.6 | 2916.7 | 2859.7 | 3000.9 | 2955.2 | 2817.0 | 2596.0 | 2541.8 |
| 62.5° | 23736.0 | 20203.4 | 11028.3 | 2958.1 | 2594.6 | 2715.7 | 2839.8 | 2755.7 | 2567.5 | 2366.5 | 2303.7 |
| 65° | 22666.8 | 18712.2 | 8382.4 | 2376.5 | 2490.5 | 2657.3 | 2757.1 | 2621.7 | 2430.6 | 2192.6 | 2164.0 |
| 67.5° | 20720.9 | 16009.3 | 4943.9 | 2178.3 | 2412.1 | 2588.9 | 2671.5 | 2491.9 | 2323.7 | 2095.6 | 2061.4 |
| 70° | 17751.4 | 11984.9 | 2208.2 | 2028.6 | 2275.2 | 2450.6 | 2504.8 | 2335.1 | 2152.6 | 1938.8 | 1904.6 |
| 72.5° | 13212.3 | 7226.3 | 1488.3 | 1873.2 | 2072.8 | 2228.2 | 2288.1 | 2108.4 | 1978.7 | 1881.8 | 1871.8 |
| 75° | 7337.5 | 2509.0 | 1372.8 | 1696.4 | 1851.8 | 1991.5 | 2065.7 | 1938.8 | 1836.2 | 1703.6 | 1649.4 |
| 77.5° | 2336.5 | 1066.3 | 1304.4 | 1516.8 | 1713.6 | 1829.0 | 1817.6 | 1626.6 | 1593.8 | 1432.7 | 1418.5 |
| 80° | 932.3 | 929.5 | 1206.0 | 1241.7 | 1462.7 | 1559.6 | 1533.9 | 1293.0 | 1335.8 | 1241.7 | 1204.6 |
| 82.5° | 731.3 | 851.1 | 966.5 | 948.0 | 1137.6 | 1251.7 | 1216.0 | 949.4 | 1073.5 | 986.5 | 902.4 |
| 85° | 556.0 | 745.6 | 620.1 | 617.3 | 794.1 | 929.5 | 952.3 | 729.9 | 731.3 | 665.7 | 593.0 |
| 87.5° | 286.5 | 275.1 | 238.1 | 236.6 | 265.2 | 377.8 | 463.3 | 414.8 | 327.9 | 246.6 | 236.6 |
| 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)