

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: P510751

Luminaire Tested: **CTN-CA8-230-760-U-T4**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510751
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-CA8-230-760-U-T4
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 5700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35254 lumens
Efficiency: N/A
Efficacy: 154.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

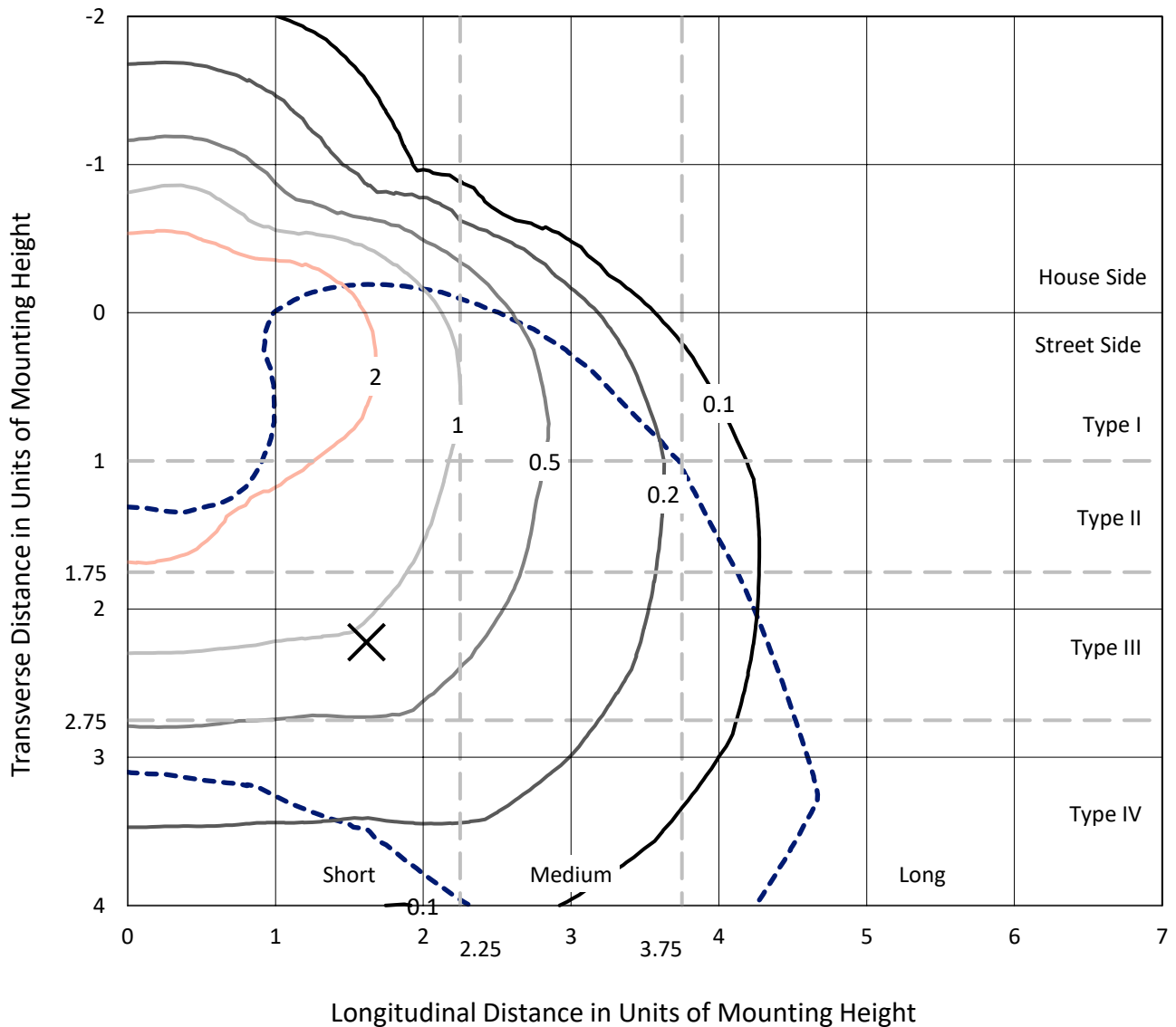
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

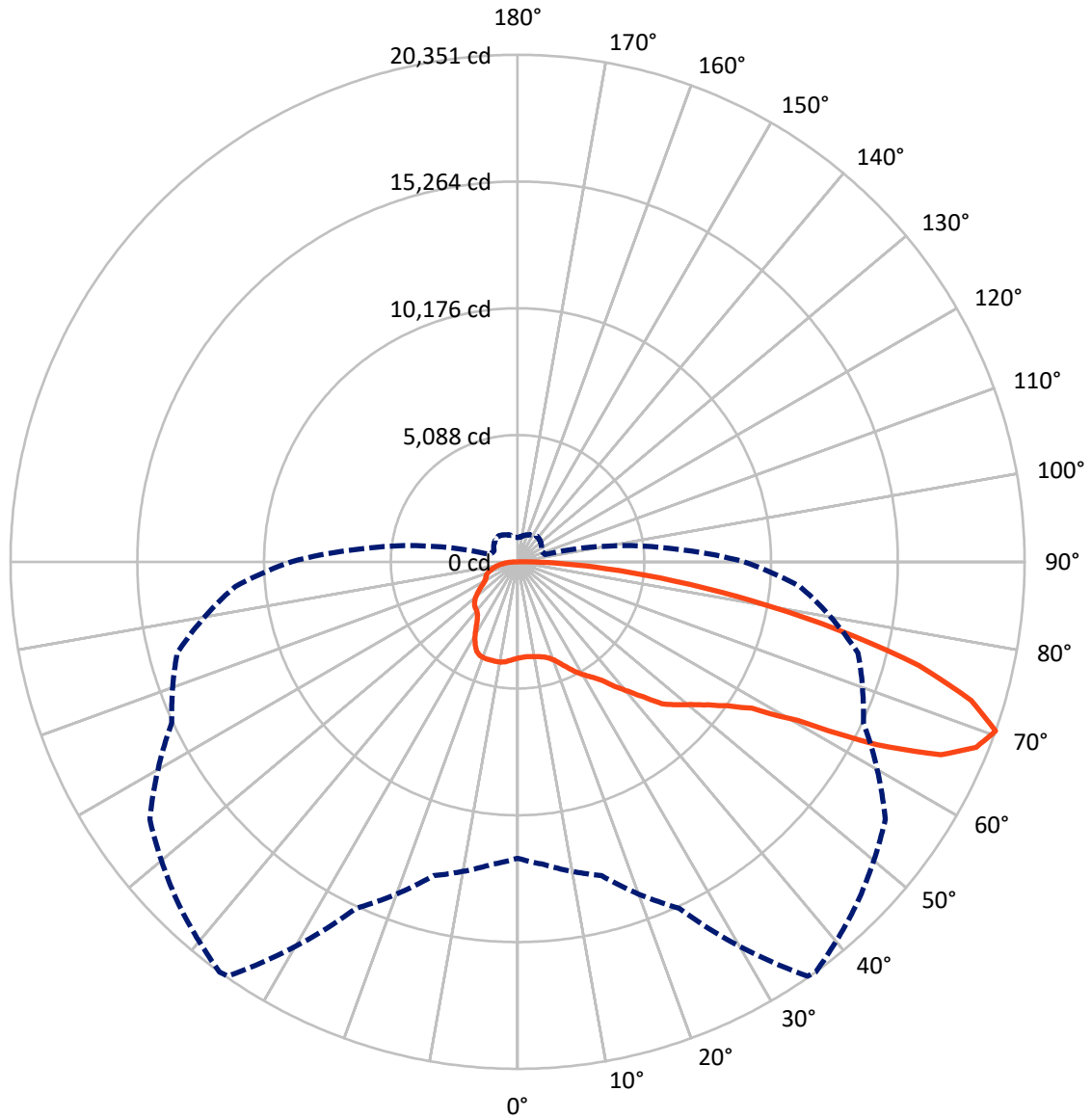
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.5 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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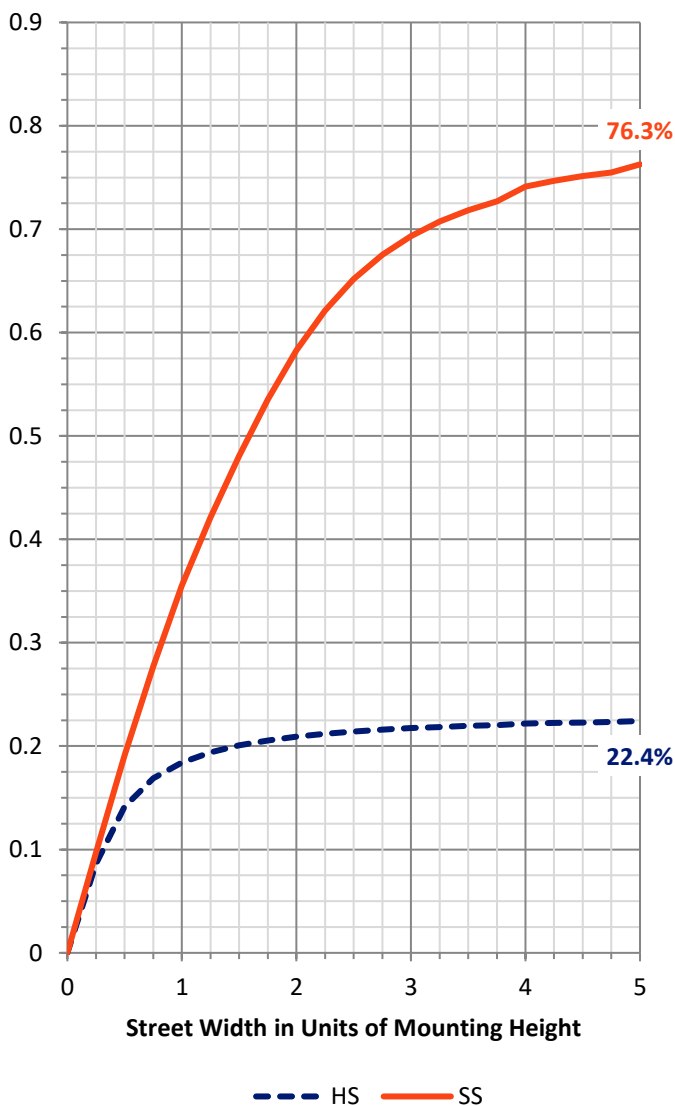
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 8032.4 | 0.0 | 8032.4 |
| | % Fixture | 22.8 | 0.0 | 22.8 |
| Street Side | Lumens | 27221.6 | 0.0 | 27221.6 |
| | % Fixture | 77.2 | 0.0 | 77.2 |
| Total | Lumens | 35254.0 | 0.0 | 35254.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 374.1 | 1.1 |
| 10°-20° | 1156.5 | 3.3 |
| 20°-30° | 2086.1 | 5.9 |
| 30°-40° | 3231.0 | 9.2 |
| 40°-50° | 4907.9 | 13.9 |
| 50°-60° | 6802.6 | 19.3 |
| 60°-70° | 8845.8 | 25.1 |
| 70°-80° | 6532.5 | 18.5 |
| 80°-90° | 1317.5 | 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° | 35254.0 | 100.0 |
| 0°-180° | 35254.0 | 100.0 |

Coefficient of Utilization

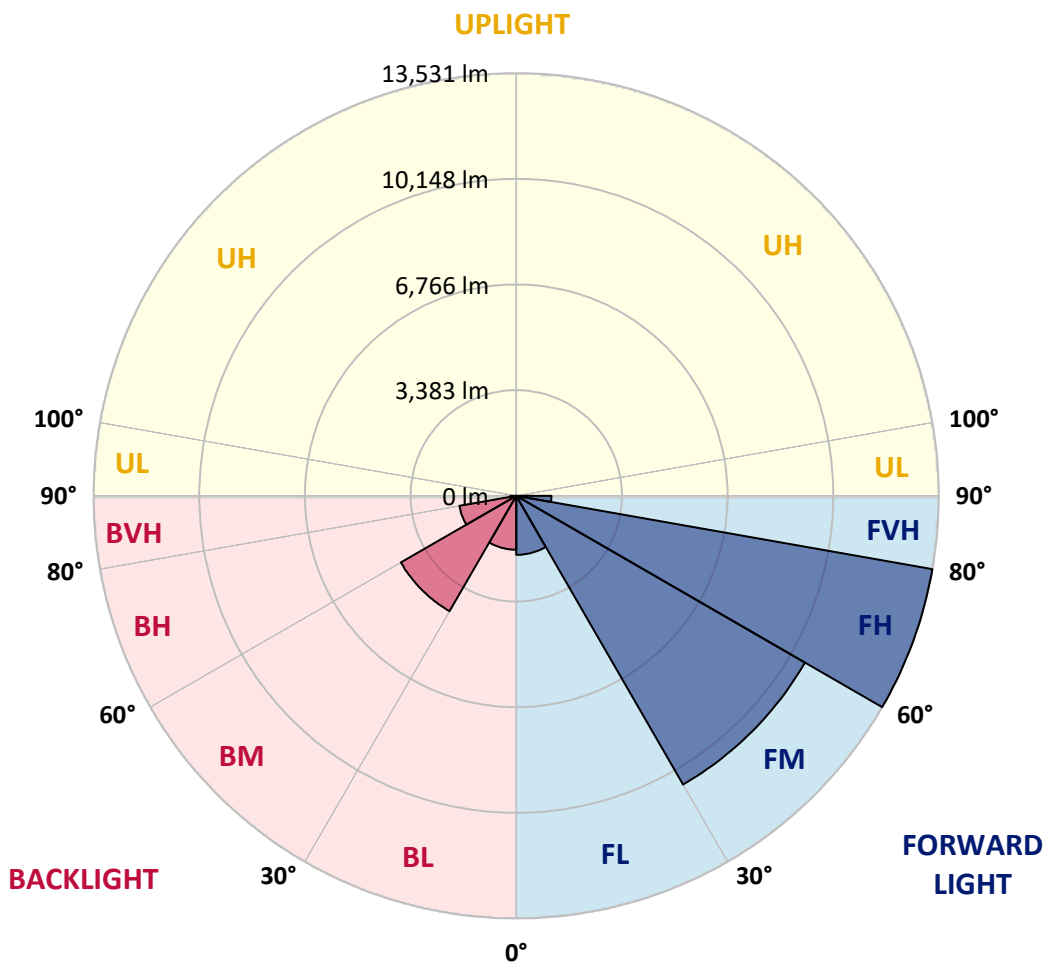


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1890.0 | 5.4 | | | |
| FM (30°-60°) | 10674.8 | 30.3 | | | |
| FH (60°-80°) | 13531.3 | 38.4 | | | G5 |
| FVH (80°-90°) | 1125.5 | 3.2 | | | G5 |
| BL (0°-30°) | 1726.8 | 4.9 | B3/2500 | | |
| BM (30°-60°) | 4266.7 | 12.1 | B3/5000 | | |
| BH (60°-80°) | 1847.0 | 5.2 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 191.9 | 0.5 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3861.4 | 3861.4 | 3861.4 | 3861.4 | 3861.4 | 3861.4 | 3861.4 | 3861.4 | 3861.4 | 3861.4 | 3861.4 |
| 2.5° | 3838.0 | 3832.9 | 3830.0 | 3835.8 | 3838.0 | 3838.7 | 3840.2 | 3838.7 | 3835.1 | 3848.2 | 3864.3 |
| 5° | 3838.7 | 3835.8 | 3830.0 | 3824.9 | 3824.9 | 3824.9 | 3825.6 | 3842.4 | 3849.7 | 3848.2 | 3867.9 |
| 7.5° | 3844.6 | 3842.4 | 3831.4 | 3827.8 | 3836.5 | 3839.5 | 3854.1 | 3849.0 | 3857.0 | 3870.1 | 3886.9 |
| 10° | 3845.3 | 3842.4 | 3832.9 | 3840.9 | 3865.7 | 3870.1 | 3876.7 | 3891.3 | 3894.2 | 3910.3 | 3927.1 |
| 12.5° | 3852.6 | 3852.6 | 3856.3 | 3873.8 | 3900.1 | 3905.2 | 3930.0 | 3941.7 | 3959.2 | 3967.2 | 3987.6 |
| 15° | 3891.3 | 3890.6 | 3899.3 | 3919.0 | 3961.4 | 3964.3 | 3994.9 | 4030.0 | 4043.1 | 4062.8 | 4095.7 |
| 17.5° | 3983.3 | 3987.6 | 3988.4 | 4003.0 | 4053.3 | 4054.8 | 4105.2 | 4138.0 | 4167.9 | 4203.0 | 4278.2 |
| 20° | 4201.5 | 4193.5 | 4184.7 | 4184.7 | 4204.4 | 4214.7 | 4253.3 | 4305.9 | 4367.2 | 4429.3 | 4517.6 |
| 22.5° | 4476.0 | 4492.0 | 4459.9 | 4443.1 | 4452.6 | 4440.9 | 4470.1 | 4512.5 | 4584.0 | 4676.7 | 4788.4 |
| 25° | 4803.7 | 4805.2 | 4803.0 | 4735.1 | 4713.9 | 4721.2 | 4745.3 | 4784.7 | 4879.6 | 4953.3 | 5115.4 |
| 27.5° | 5123.4 | 5116.9 | 5093.5 | 5022.0 | 5001.5 | 5011.7 | 5011.0 | 5119.8 | 5216.9 | 5311.0 | 5501.5 |
| 30° | 5413.9 | 5431.5 | 5389.9 | 5269.4 | 5271.6 | 5270.1 | 5303.7 | 5443.9 | 5621.2 | 5796.4 | 5992.0 |
| 32.5° | 5926.4 | 5873.1 | 5816.9 | 5578.9 | 5535.1 | 5530.0 | 5549.7 | 5758.5 | 6021.2 | 6316.9 | 6551.9 |
| 35° | 6408.8 | 6395.7 | 6340.2 | 6098.6 | 5845.3 | 5841.0 | 5813.9 | 6068.0 | 6437.3 | 6984.8 | 7278.2 |
| 37.5° | 6902.3 | 6883.3 | 6828.6 | 6622.7 | 6370.9 | 6346.8 | 6119.8 | 6397.9 | 6897.2 | 7765.8 | 8184.0 |
| 40° | 7490.6 | 7478.9 | 7394.3 | 7130.7 | 6872.4 | 6835.9 | 6600.1 | 6744.6 | 7477.5 | 8806.0 | 9100.8 |
| 42.5° | 8006.7 | 8004.5 | 7907.4 | 7662.9 | 7443.2 | 7406.7 | 7205.9 | 7356.3 | 8284.0 | 9824.9 | 9998.7 |
| 45° | 8385.5 | 8443.2 | 8447.6 | 8308.1 | 8156.3 | 8124.2 | 8070.9 | 8278.2 | 9216.9 | 10749.8 | 10724.2 |
| 47.5° | 8705.2 | 8754.9 | 8703.0 | 8631.5 | 8579.7 | 8581.9 | 8664.3 | 9076.0 | 10138.1 | 11555.6 | 11357.1 |
| 50° | 9239.5 | 9208.9 | 8939.5 | 8897.2 | 8962.9 | 9001.6 | 9241.0 | 9937.4 | 11192.8 | 12311.8 | 11925.0 |
| 52.5° | 10010.3 | 9892.8 | 9364.4 | 9278.2 | 9527.1 | 9541.7 | 9922.8 | 10707.4 | 12246.9 | 12960.8 | 12444.7 |
| 55° | 11065.1 | 10968.0 | 10370.9 | 9973.1 | 10098.7 | 10197.2 | 10733.7 | 11496.5 | 13107.5 | 13571.0 | 12844.7 |
| 57.5° | 12624.3 | 12631.6 | 12144.7 | 11403.1 | 10976.1 | 11081.2 | 11500.1 | 12263.7 | 13818.4 | 14081.9 | 13094.3 |
| 60° | 13873.9 | 14105.3 | 13960.0 | 13621.3 | 13008.2 | 12936.7 | 12617.7 | 13062.9 | 14425.7 | 14516.2 | 13333.0 |
| 62.5° | 14740.3 | 14845.4 | 15344.7 | 15416.3 | 16117.0 | 16146.9 | 14619.2 | 13999.5 | 15092.9 | 14800.9 | 13383.4 |
| 65° | 14696.5 | 14761.5 | 15550.6 | 16511.2 | 18581.3 | 18674.0 | 17779.8 | 15416.3 | 15549.8 | 14927.9 | 13236.7 |
| 67.5° | 13673.2 | 13771.0 | 14773.9 | 16569.6 | 19894.4 | 19859.4 | 19292.2 | 17388.5 | 15700.2 | 14724.3 | 12537.4 |
| 70° | 11895.8 | 12197.2 | 13039.6 | 15338.2 | 20304.6 | 20351.4 | 19306.1 | 18018.5 | 15312.6 | 14148.4 | 11371.7 |
| 72.5° | 9804.5 | 9899.4 | 10695.0 | 13267.3 | 19105.4 | 19036.7 | 18514.8 | 17187.1 | 14611.9 | 13106.7 | 9331.5 |
| 75° | 7456.3 | 7456.3 | 8419.8 | 10573.1 | 16406.8 | 16647.7 | 16850.6 | 15566.6 | 12944.7 | 10682.6 | 6354.1 |
| 77.5° | 4949.7 | 5127.1 | 5903.0 | 7945.4 | 12987.0 | 13165.1 | 13865.9 | 13268.8 | 10598.7 | 7833.7 | 2902.2 |
| 80° | 2625.6 | 2647.5 | 3479.6 | 5279.6 | 9289.2 | 9624.9 | 10588.5 | 10233.7 | 7623.5 | 3670.1 | 733.6 |
| 82.5° | 918.3 | 1002.2 | 1529.9 | 3059.9 | 6120.5 | 6330.0 | 7024.2 | 6081.1 | 2692.7 | 812.4 | 405.8 |
| 85° | 456.2 | 472.3 | 673.7 | 1457.0 | 3446.0 | 3547.5 | 4103.7 | 2368.6 | 433.6 | 354.7 | 275.9 |
| 87.5° | 219.7 | 224.8 | 258.4 | 521.2 | 1497.8 | 1567.2 | 1659.1 | 770.8 | 160.6 | 135.0 | 119.7 |
| 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° | 3861.4 | 3861.4 | 3861.4 | 3861.4 | 3861.4 | 3861.4 | 3861.4 | 3861.4 | 3861.4 | 3861.4 | 3861.4 |
| 2.5° | 3867.9 | 3874.5 | 3886.9 | 3890.6 | 3881.8 | 3897.9 | 3913.2 | 3927.1 | 3926.3 | 3931.4 | 3949.7 |
| 5° | 3876.7 | 3890.6 | 3903.7 | 3927.1 | 3949.7 | 3962.8 | 3975.2 | 3986.9 | 3990.6 | 4001.5 | 4012.5 |
| 7.5° | 3903.7 | 3917.6 | 3947.5 | 3988.4 | 3989.8 | 4022.7 | 4043.8 | 4047.5 | 4050.4 | 4050.4 | 4076.0 |
| 10° | 3945.3 | 3970.9 | 4019.0 | 4047.5 | 4073.0 | 4062.1 | 4084.0 | 4070.1 | 4059.9 | 4064.3 | 4081.8 |
| 12.5° | 4016.8 | 4039.5 | 4108.8 | 4140.2 | 4116.8 | 4112.5 | 4090.6 | 4059.2 | 4023.4 | 4019.8 | 4035.8 |
| 15° | 4129.3 | 4171.6 | 4233.6 | 4263.6 | 4205.2 | 4153.3 | 4079.6 | 4015.4 | 3946.0 | 3920.5 | 3930.7 |
| 17.5° | 4310.3 | 4361.4 | 4429.3 | 4408.8 | 4302.2 | 4200.1 | 4078.2 | 3942.4 | 3808.1 | 3714.6 | 3738.7 |
| 20° | 4575.2 | 4613.2 | 4668.7 | 4586.2 | 4430.7 | 4262.1 | 4062.1 | 3847.5 | 3620.5 | 3450.4 | 3430.7 |
| 22.5° | 4853.3 | 4911.0 | 4877.4 | 4724.9 | 4521.2 | 4286.2 | 4028.5 | 3709.5 | 3358.4 | 3145.3 | 3113.2 |
| 25° | 5188.4 | 5207.4 | 5091.3 | 4861.4 | 4546.8 | 4248.2 | 3919.8 | 3508.1 | 3090.6 | 2889.8 | 2880.3 |
| 27.5° | 5543.9 | 5500.8 | 5284.7 | 4924.2 | 4518.3 | 4135.8 | 3701.5 | 3189.8 | 2848.2 | 2670.8 | 2643.1 |
| 30° | 5945.3 | 5845.3 | 5444.6 | 4930.7 | 4411.0 | 3916.8 | 3425.6 | 2940.9 | 2651.1 | 2473.0 | 2444.6 |
| 32.5° | 6462.1 | 6226.4 | 5592.8 | 4862.8 | 4184.7 | 3595.7 | 3094.2 | 2728.5 | 2473.8 | 2294.9 | 2269.4 |
| 35° | 7122.7 | 6724.9 | 5749.7 | 4740.2 | 3905.9 | 3274.5 | 2819.7 | 2548.2 | 2330.0 | 2114.6 | 2080.3 |
| 37.5° | 7884.0 | 7420.5 | 5937.3 | 4585.5 | 3600.0 | 2992.0 | 2634.3 | 2433.6 | 2223.4 | 1979.6 | 1938.7 |
| 40° | 8768.7 | 8116.9 | 6226.4 | 4400.8 | 3325.6 | 2788.4 | 2544.6 | 2394.2 | 2164.3 | 1910.2 | 1863.5 |
| 42.5° | 9535.2 | 8853.4 | 6570.2 | 4202.2 | 3066.5 | 2619.0 | 2504.4 | 2367.9 | 2127.0 | 1858.4 | 1805.1 |
| 45° | 10243.9 | 9461.4 | 6905.9 | 3961.4 | 2793.5 | 2503.0 | 2456.2 | 2302.2 | 2061.3 | 1794.2 | 1738.7 |
| 47.5° | 10819.8 | 9952.7 | 7197.9 | 3740.2 | 2575.2 | 2396.4 | 2351.1 | 2177.4 | 1951.1 | 1716.8 | 1675.9 |
| 50° | 11262.2 | 10322.0 | 7357.8 | 3564.3 | 2344.6 | 2275.2 | 2215.4 | 2036.5 | 1819.0 | 1616.8 | 1581.8 |
| 52.5° | 11714.8 | 10692.1 | 7436.6 | 3573.0 | 2130.0 | 2094.9 | 2033.6 | 1880.3 | 1713.9 | 1558.4 | 1520.5 |
| 55° | 11978.3 | 10843.9 | 7353.4 | 3360.6 | 1932.9 | 1892.0 | 1838.7 | 1759.1 | 1659.9 | 1521.9 | 1486.2 |
| 57.5° | 12132.3 | 10938.1 | 7100.1 | 2740.9 | 1695.6 | 1657.0 | 1665.7 | 1659.1 | 1577.4 | 1432.1 | 1399.3 |
| 60° | 12243.2 | 10733.7 | 6581.1 | 2014.6 | 1493.5 | 1464.3 | 1536.5 | 1513.2 | 1442.4 | 1329.2 | 1301.5 |
| 62.5° | 12153.4 | 10344.7 | 5646.8 | 1514.6 | 1328.5 | 1390.5 | 1454.0 | 1411.0 | 1314.6 | 1211.7 | 1179.6 |
| 65° | 11606.0 | 9581.1 | 4292.0 | 1216.8 | 1275.2 | 1360.6 | 1411.7 | 1342.4 | 1244.5 | 1122.6 | 1108.0 |
| 67.5° | 10609.6 | 8197.2 | 2531.4 | 1115.3 | 1235.1 | 1325.6 | 1367.9 | 1275.9 | 1189.8 | 1073.0 | 1055.5 |
| 70° | 9089.2 | 6136.6 | 1130.7 | 1038.7 | 1165.0 | 1254.8 | 1282.5 | 1195.6 | 1102.2 | 992.7 | 975.2 |
| 72.5° | 6765.1 | 3700.0 | 762.1 | 959.1 | 1061.3 | 1140.9 | 1171.5 | 1079.6 | 1013.2 | 963.5 | 958.4 |
| 75° | 3757.0 | 1284.7 | 702.9 | 868.6 | 948.2 | 1019.7 | 1057.7 | 992.7 | 940.2 | 872.3 | 844.5 |
| 77.5° | 1196.4 | 546.0 | 667.9 | 776.7 | 877.4 | 936.5 | 930.7 | 832.9 | 816.1 | 733.6 | 726.3 |
| 80° | 477.4 | 475.9 | 617.5 | 635.8 | 748.9 | 798.6 | 785.4 | 662.1 | 684.0 | 635.8 | 616.8 |
| 82.5° | 374.5 | 435.8 | 494.9 | 485.4 | 582.5 | 640.9 | 622.6 | 486.1 | 549.6 | 505.1 | 462.0 |
| 85° | 284.7 | 381.8 | 317.5 | 316.1 | 406.6 | 475.9 | 487.6 | 373.7 | 374.5 | 340.9 | 303.7 |
| 87.5° | 146.7 | 140.9 | 121.9 | 121.2 | 135.8 | 193.4 | 237.2 | 212.4 | 167.9 | 126.3 | 121.2 |
| 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)