

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: P299729

Luminaire Tested: **GLNA-AF-06-LED-E1-SL2-7050-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299729
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-06-LED-E1-SL2-7050-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17645.7 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 193
Input Voltage (V): NR
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: 25 FT

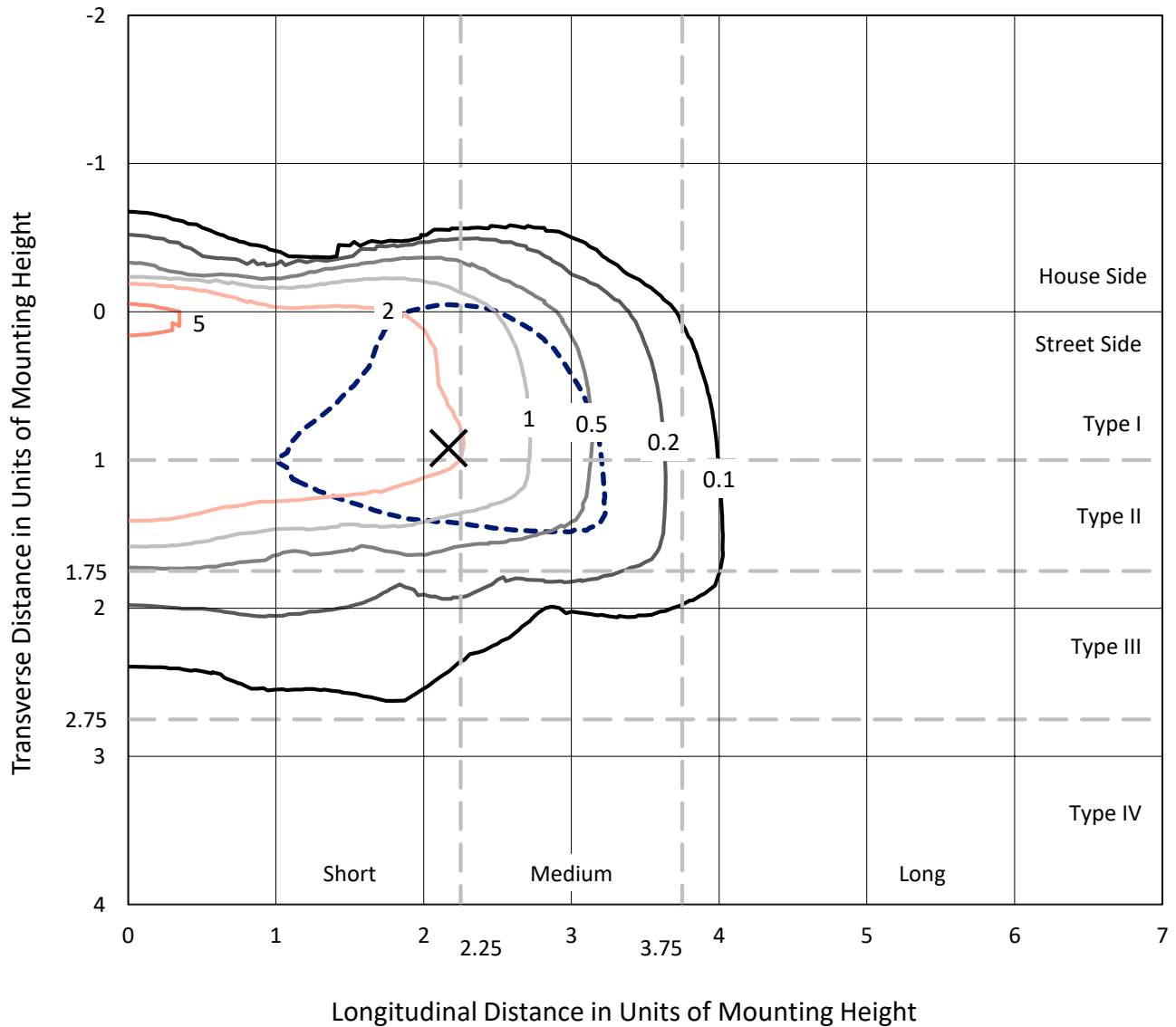


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

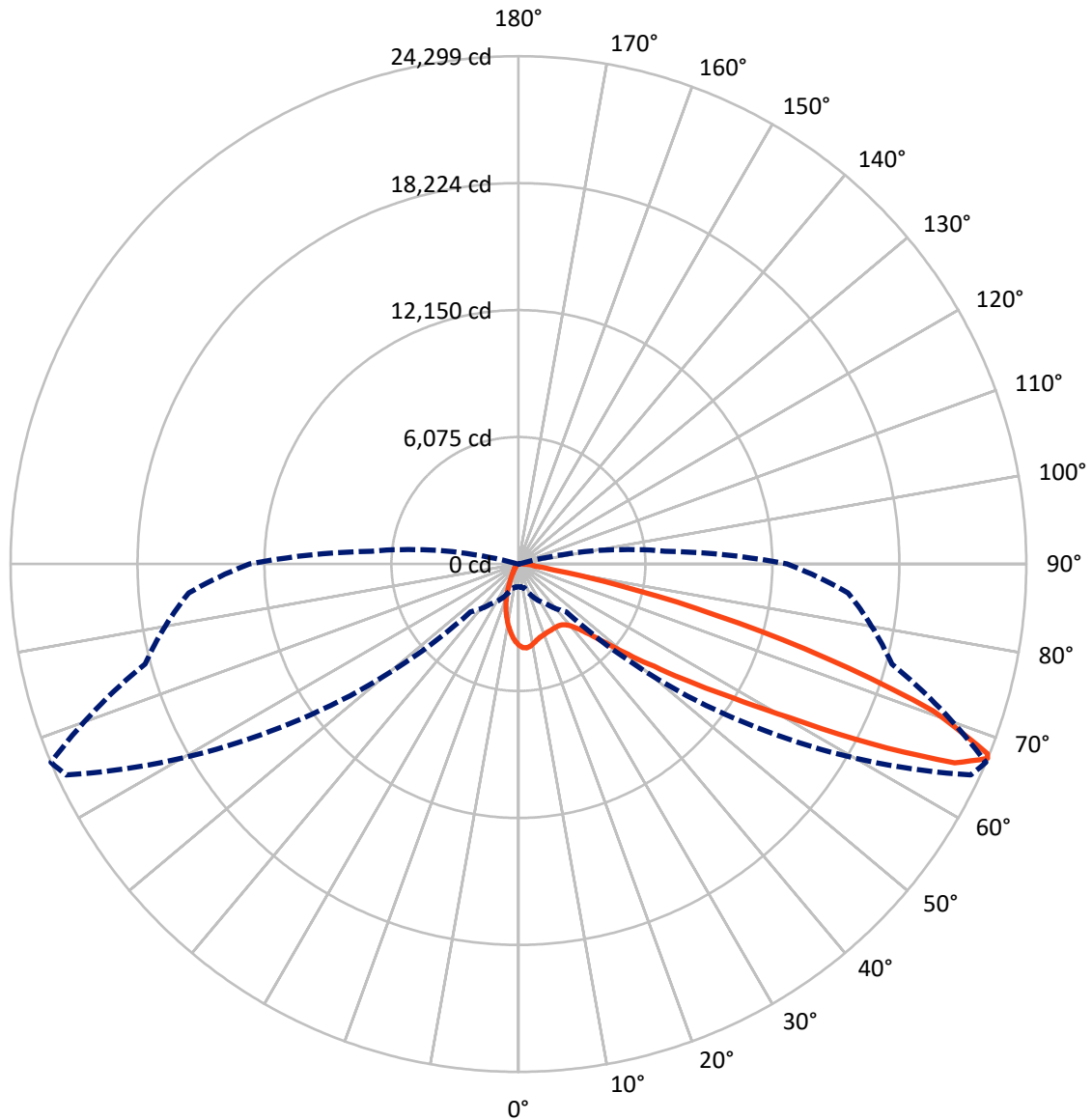


Based on 25 foot mounting height. Maximum calculated value = 6.2 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1832.2 | 0.0 | 1832.2 |
| | % Fixture | 10.4 | 0.0 | 10.4 |
| Street Side | Lumens | 15813.6 | 0.0 | 15813.6 |
| | % Fixture | 89.6 | 0.0 | 89.6 |
| Total | Lumens | 17645.7 | 0.0 | 17645.7 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 316.6 | 1.8 |
| 10°-20° | 673.9 | 3.8 |
| 20°-30° | 979.9 | 5.6 |
| 30°-40° | 1528.6 | 8.7 |
| 40°-50° | 2707.9 | 15.3 |
| 50°-60° | 4284.9 | 24.3 |
| 60°-70° | 4907.8 | 27.8 |
| 70°-80° | 2035.7 | 11.5 |
| 80°-90° | 210.3 | 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° | 17645.7 | 100.0 |
| 0°-180° | 17645.7 | 100.0 |



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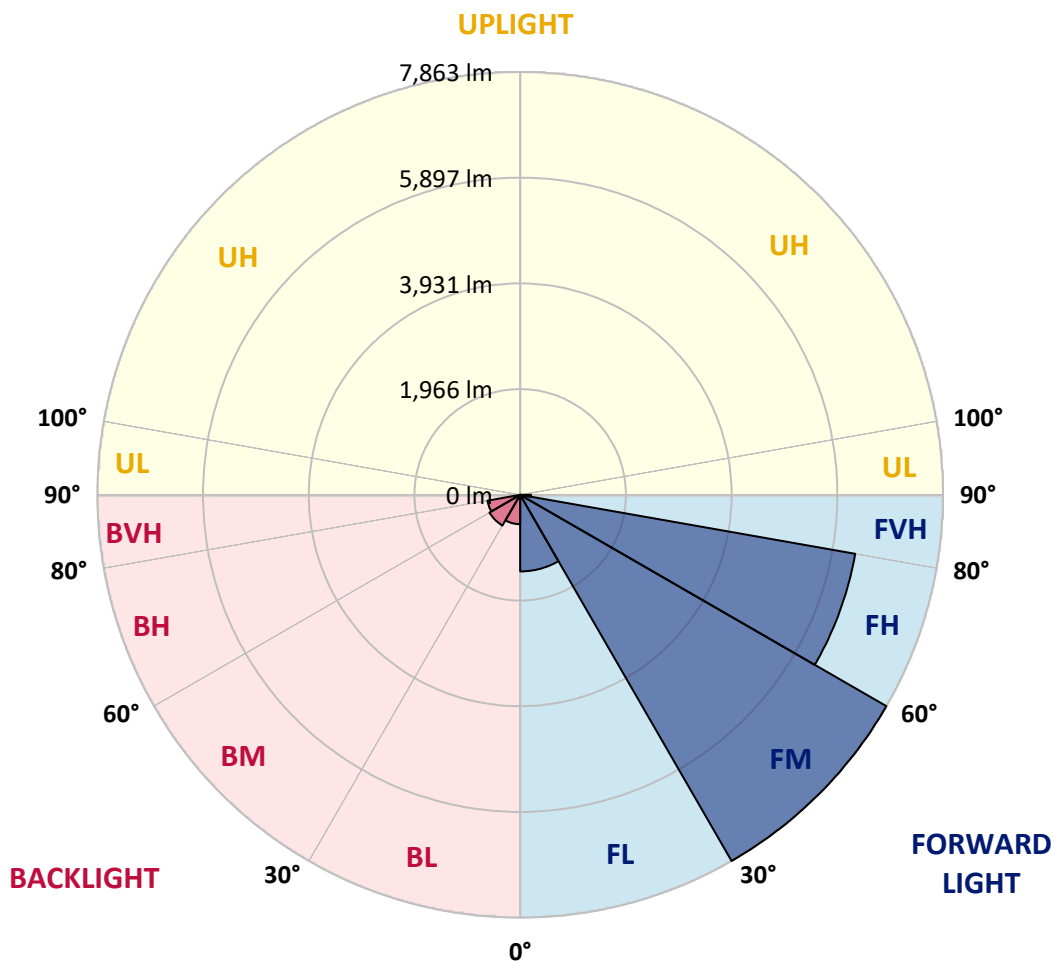
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1423.7 | 8.1 | | | |
| FM (30°-60°) | 7863.0 | 44.6 | | | |
| FH (60°-80°) | 6326.0 | 35.9 | | | G3/7500 |
| FVH (80°-90°) | 200.8 | 1.1 | | | G2/225 |
| BL (0°-30°) | 546.7 | 3.1 | B2/1000 | | |
| BM (30°-60°) | 658.5 | 3.7 | B1/1000 | | |
| BH (60°-80°) | 617.5 | 3.5 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 9.5 | 0.1 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 67° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| 0° | 3891.5 | 3891.5 | 3891.5 | 3891.5 | 3891.5 | 3891.5 | 3891.5 | 3891.5 | 3891.5 | 3891.5 | 3891.5 |
| 2.5° | 4023.3 | 4031.5 | 4030.5 | 4036.7 | 4051.1 | 4052.1 | 4037.7 | 4009.9 | 4003.7 | 3967.7 | 3904.9 |
| 5° | 3710.4 | 3734.1 | 3748.5 | 3807.1 | 3873.0 | 3952.3 | 4012.0 | 4033.6 | 4030.5 | 4004.8 | 3910.1 |
| 7.5° | 3353.2 | 3376.9 | 3393.4 | 3462.3 | 3549.8 | 3685.7 | 3841.1 | 3968.7 | 3980.0 | 4007.8 | 3905.9 |
| 10° | 3115.5 | 3119.6 | 3142.3 | 3208.1 | 3299.7 | 3438.7 | 3623.9 | 3847.3 | 3881.2 | 3983.1 | 3895.7 |
| 12.5° | 2919.9 | 2923.0 | 2952.9 | 3023.9 | 3121.7 | 3261.6 | 3456.2 | 3714.5 | 3767.0 | 3952.3 | 3893.6 |
| 15° | 2781.0 | 2792.3 | 2819.1 | 2893.2 | 2997.1 | 3136.1 | 3335.7 | 3616.7 | 3679.5 | 3940.9 | 3912.1 |
| 17.5° | 2734.7 | 2747.0 | 2755.3 | 2808.8 | 2903.5 | 3039.3 | 3244.1 | 3552.9 | 3623.9 | 3947.1 | 3948.1 |
| 20° | 2783.0 | 2792.3 | 2773.8 | 2787.2 | 2845.8 | 2967.3 | 3167.0 | 3498.4 | 3582.8 | 3954.3 | 3994.5 |
| 22.5° | 2963.2 | 2967.3 | 2916.9 | 2858.2 | 2847.9 | 2914.8 | 3106.2 | 3455.1 | 3545.7 | 3973.9 | 4049.0 |
| 25° | 3271.9 | 3264.7 | 3182.4 | 3055.8 | 2936.4 | 2905.5 | 3070.2 | 3428.4 | 3527.2 | 3994.5 | 4105.6 |
| 27.5° | 3644.5 | 3654.8 | 3541.6 | 3357.4 | 3129.9 | 2967.3 | 3065.1 | 3417.1 | 3519.0 | 4008.9 | 4155.0 |
| 30° | 4097.4 | 4111.8 | 3982.1 | 3750.5 | 3424.3 | 3119.6 | 3112.4 | 3415.0 | 3513.8 | 3999.6 | 4159.1 |
| 32.5° | 4559.5 | 4577.0 | 4475.1 | 4236.3 | 3817.4 | 3374.9 | 3219.4 | 3437.6 | 3524.1 | 3967.7 | 4135.5 |
| 35° | 5043.2 | 5068.0 | 5000.0 | 4795.2 | 4350.6 | 3743.3 | 3407.8 | 3506.6 | 3572.5 | 3964.6 | 4111.8 |
| 37.5° | 5711.2 | 5733.9 | 5606.2 | 5389.1 | 4995.9 | 4237.4 | 3710.4 | 3636.3 | 3686.7 | 4014.0 | 4118.0 |
| 40° | 6708.5 | 6705.5 | 6376.1 | 6043.7 | 5705.0 | 4865.2 | 4135.5 | 3871.0 | 3896.7 | 4163.3 | 4194.1 |
| 42.5° | 7795.4 | 7790.3 | 7303.4 | 6798.1 | 6492.4 | 5638.1 | 4694.3 | 4276.5 | 4259.0 | 4438.1 | 4391.7 |
| 45° | 8633.2 | 8632.2 | 8234.9 | 7665.7 | 7440.3 | 6525.3 | 5416.9 | 4840.5 | 4813.7 | 4884.7 | 4756.1 |
| 47.5° | 8990.4 | 8996.5 | 8796.9 | 8396.5 | 8491.2 | 7725.4 | 6327.7 | 5657.7 | 5617.6 | 5588.7 | 5393.2 |
| 50° | 8712.5 | 8724.8 | 8741.3 | 8663.1 | 9262.1 | 9338.2 | 7549.4 | 6809.4 | 6789.9 | 6661.2 | 6355.5 |
| 52.5° | 7804.7 | 7867.5 | 8061.0 | 8309.0 | 9529.7 | 10886.2 | 9464.8 | 8240.1 | 8135.1 | 7998.2 | 7661.6 |
| 55° | 6275.2 | 6344.2 | 6711.6 | 7313.7 | 9131.4 | 11903.1 | 12149.1 | 10084.4 | 9909.5 | 9500.9 | 9015.1 |
| 57.5° | 4153.0 | 4260.0 | 4793.1 | 5558.9 | 7974.5 | 12066.7 | 14827.2 | 12644.1 | 12034.8 | 10916.1 | 10368.5 |
| 60° | 2288.0 | 2390.9 | 2969.3 | 3663.0 | 5759.6 | 11257.8 | 16628.3 | 15976.8 | 14900.2 | 12498.0 | 12012.2 |
| 62.5° | 1409.0 | 1464.6 | 1891.7 | 2537.1 | 3454.1 | 8885.4 | 17000.9 | 20164.8 | 18918.4 | 14534.8 | 13997.6 |
| 65° | 1121.9 | 1145.5 | 1354.5 | 2073.9 | 2476.3 | 5285.1 | 15797.7 | 23357.4 | 22941.6 | 17000.9 | 15775.1 |
| 67° | 1088.9 | 1098.2 | 1197.0 | 1780.6 | 2334.3 | 3240.0 | 13234.9 | 23877.2 | 24299.2 | 18493.3 | 15830.7 |
| 67.5° | 1096.1 | 1106.4 | 1200.1 | 1699.3 | 2330.2 | 2977.6 | 12351.8 | 23672.4 | 24205.5 | 18611.6 | 15584.7 |
| 70° | 1057.0 | 1088.9 | 1374.0 | 1698.2 | 2215.9 | 2474.3 | 7397.1 | 20510.6 | 21065.3 | 17293.2 | 13223.6 |
| 72.5° | 374.6 | 376.7 | 593.9 | 1374.0 | 2409.4 | 2501.0 | 3714.5 | 15036.1 | 15446.8 | 13228.8 | 9533.8 |
| 75° | 222.3 | 189.4 | 197.6 | 391.1 | 2302.4 | 2429.0 | 2142.9 | 9607.9 | 9761.3 | 7580.3 | 4828.1 |
| 77.5° | 153.4 | 133.8 | 137.9 | 172.9 | 876.9 | 2395.0 | 1702.4 | 5010.3 | 4846.7 | 2658.5 | 1028.2 |
| 80° | 87.5 | 77.2 | 82.3 | 151.3 | 319.1 | 2234.5 | 1605.6 | 2031.7 | 1732.2 | 450.8 | 284.1 |
| 82.5° | 46.3 | 39.1 | 47.3 | 124.5 | 222.3 | 1392.6 | 1608.7 | 981.9 | 778.1 | 152.3 | 193.5 |
| 85° | 16.5 | 13.4 | 22.6 | 85.4 | 148.2 | 427.1 | 1491.4 | 825.4 | 648.4 | 74.1 | 147.2 |
| 87.5° | 3.1 | 3.1 | 9.3 | 35.0 | 59.7 | 130.7 | 882.1 | 489.9 | 328.3 | 44.3 | 100.9 |
| 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° | 3891.5 | 3891.5 | 3891.5 | 3891.5 | 3891.5 | 3891.5 | 3891.5 | 3891.5 | 3891.5 | 3891.5 | 3891.5 |
| 2.5° | 3879.2 | 3834.9 | 3775.2 | 3702.2 | 3615.7 | 3539.5 | 3482.9 | 3424.3 | 3411.9 | 3391.3 | 3388.2 |
| 5° | 3853.5 | 3777.3 | 3629.1 | 3459.3 | 3278.1 | 3114.5 | 2981.7 | 2863.3 | 2810.8 | 2765.6 | 2760.4 |
| 7.5° | 3815.4 | 3701.1 | 3449.0 | 3175.2 | 2892.1 | 2634.8 | 2416.6 | 2262.3 | 2120.2 | 2052.3 | 2042.0 |
| 10° | 3771.1 | 3607.5 | 3246.2 | 2866.4 | 2475.3 | 2112.0 | 1787.8 | 1516.1 | 1351.4 | 1253.6 | 1241.3 |
| 12.5° | 3729.9 | 3515.9 | 3039.3 | 2546.3 | 2026.6 | 1540.8 | 1123.9 | 864.6 | 691.6 | 621.7 | 613.4 |
| 15° | 3710.4 | 3441.8 | 2845.8 | 2219.0 | 1557.2 | 980.9 | 614.5 | 475.5 | 418.9 | 402.4 | 401.4 |
| 17.5° | 3708.3 | 3379.0 | 2656.5 | 1880.4 | 1091.0 | 570.2 | 400.4 | 365.4 | 354.1 | 349.9 | 349.9 |
| 20° | 3707.3 | 3319.3 | 2467.1 | 1529.4 | 692.7 | 379.8 | 333.5 | 325.2 | 317.0 | 311.9 | 311.9 |
| 22.5° | 3718.6 | 3265.8 | 2269.5 | 1171.3 | 436.4 | 307.7 | 293.3 | 285.1 | 274.8 | 267.6 | 266.6 |
| 25° | 3729.9 | 3224.6 | 2067.7 | 833.7 | 316.0 | 267.6 | 253.2 | 241.9 | 227.5 | 218.2 | 217.2 |
| 27.5° | 3732.0 | 3173.1 | 1851.6 | 557.8 | 264.5 | 233.6 | 215.1 | 197.6 | 181.1 | 171.9 | 170.9 |
| 30° | 3701.1 | 3086.7 | 1611.8 | 376.7 | 233.6 | 202.8 | 178.1 | 159.5 | 144.1 | 136.9 | 136.9 |
| 32.5° | 3640.4 | 2979.6 | 1348.3 | 284.1 | 207.9 | 173.9 | 147.2 | 129.7 | 119.4 | 116.3 | 115.3 |
| 35° | 3585.9 | 2864.4 | 1077.6 | 240.8 | 186.3 | 147.2 | 120.4 | 109.1 | 102.9 | 101.9 | 100.9 |
| 37.5° | 3553.9 | 2771.7 | 823.4 | 218.2 | 165.7 | 123.5 | 101.9 | 93.7 | 90.6 | 88.5 | 89.5 |
| 40° | 3578.6 | 2694.5 | 608.3 | 199.7 | 145.1 | 102.9 | 86.5 | 82.3 | 79.3 | 78.2 | 78.2 |
| 42.5° | 3686.7 | 2681.2 | 451.8 | 183.2 | 125.6 | 85.4 | 75.1 | 72.0 | 70.0 | 69.0 | 70.0 |
| 45° | 3970.8 | 2763.5 | 351.0 | 167.8 | 106.0 | 72.0 | 63.8 | 62.8 | 61.8 | 61.8 | 61.8 |
| 47.5° | 4397.9 | 2933.3 | 292.3 | 150.3 | 88.5 | 61.8 | 55.6 | 54.5 | 53.5 | 54.5 | 54.5 |
| 50° | 5121.5 | 3244.1 | 261.4 | 132.8 | 73.1 | 52.5 | 47.3 | 47.3 | 47.3 | 47.3 | 48.4 |
| 52.5° | 6221.7 | 3855.5 | 240.8 | 115.3 | 59.7 | 44.3 | 40.1 | 40.1 | 41.2 | 41.2 | 42.2 |
| 55° | 7447.5 | 4666.5 | 222.3 | 97.8 | 50.4 | 37.1 | 32.9 | 34.0 | 35.0 | 36.0 | 36.0 |
| 57.5° | 8777.3 | 5565.1 | 206.9 | 80.3 | 43.2 | 29.8 | 27.8 | 28.8 | 29.8 | 31.9 | 31.9 |
| 60° | 10381.9 | 6537.7 | 184.2 | 62.8 | 36.0 | 23.7 | 21.6 | 23.7 | 26.8 | 28.8 | 29.8 |
| 62.5° | 12143.9 | 7478.4 | 155.4 | 49.4 | 29.8 | 18.5 | 17.5 | 21.6 | 25.7 | 27.8 | 28.8 |
| 65° | 13348.1 | 7773.8 | 119.4 | 40.1 | 22.6 | 13.4 | 14.4 | 19.6 | 24.7 | 27.8 | 27.8 |
| 67° | 12860.3 | 7048.2 | 97.8 | 34.0 | 18.5 | 10.3 | 13.4 | 19.6 | 24.7 | 26.8 | 27.8 |
| 67.5° | 12521.7 | 6764.1 | 93.7 | 32.9 | 17.5 | 10.3 | 13.4 | 19.6 | 24.7 | 27.8 | 27.8 |
| 70° | 10188.4 | 5081.3 | 78.2 | 24.7 | 14.4 | 9.3 | 11.3 | 18.5 | 23.7 | 26.8 | 26.8 |
| 72.5° | 7079.1 | 3133.0 | 70.0 | 17.5 | 12.4 | 8.2 | 10.3 | 17.5 | 22.6 | 25.7 | 26.8 |
| 75° | 3365.6 | 1134.2 | 59.7 | 13.4 | 11.3 | 7.2 | 9.3 | 17.5 | 22.6 | 25.7 | 25.7 |
| 77.5° | 686.5 | 263.5 | 48.4 | 11.3 | 9.3 | 7.2 | 8.2 | 16.5 | 21.6 | 24.7 | 24.7 |
| 80° | 225.4 | 101.9 | 36.0 | 10.3 | 9.3 | 7.2 | 8.2 | 15.4 | 21.6 | 23.7 | 24.7 |
| 82.5° | 162.6 | 51.5 | 23.7 | 10.3 | 9.3 | 7.2 | 7.2 | 15.4 | 20.6 | 23.7 | 23.7 |
| 85° | 124.5 | 36.0 | 15.4 | 10.3 | 9.3 | 7.2 | 7.2 | 14.4 | 19.6 | 22.6 | 22.6 |
| 87.5° | 82.3 | 14.4 | 12.4 | 10.3 | 9.3 | 7.2 | 7.2 | 14.4 | 18.5 | 21.6 | 22.6 |
| 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)