

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: P647867

Luminaire Tested: **GALN-SA4A-835-U-AFL-GRSBK**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P647867
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-057-27)
Test Lab: INNOVATION CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4A-835-U-AFL-GRSBK
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3500K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH BLACK GLARE REDUCTION SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10566.6 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G0

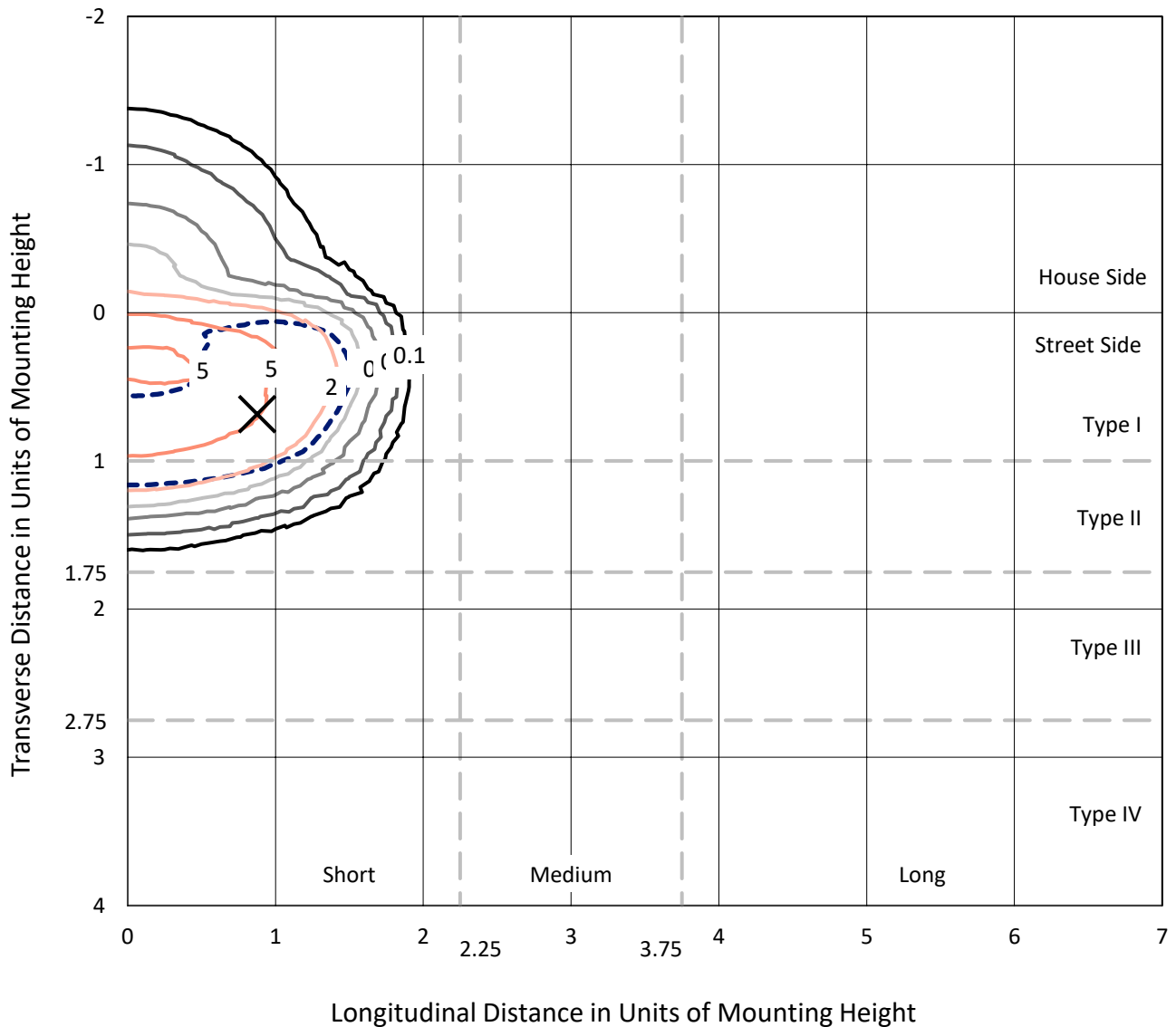
Input Watts (W): 121
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

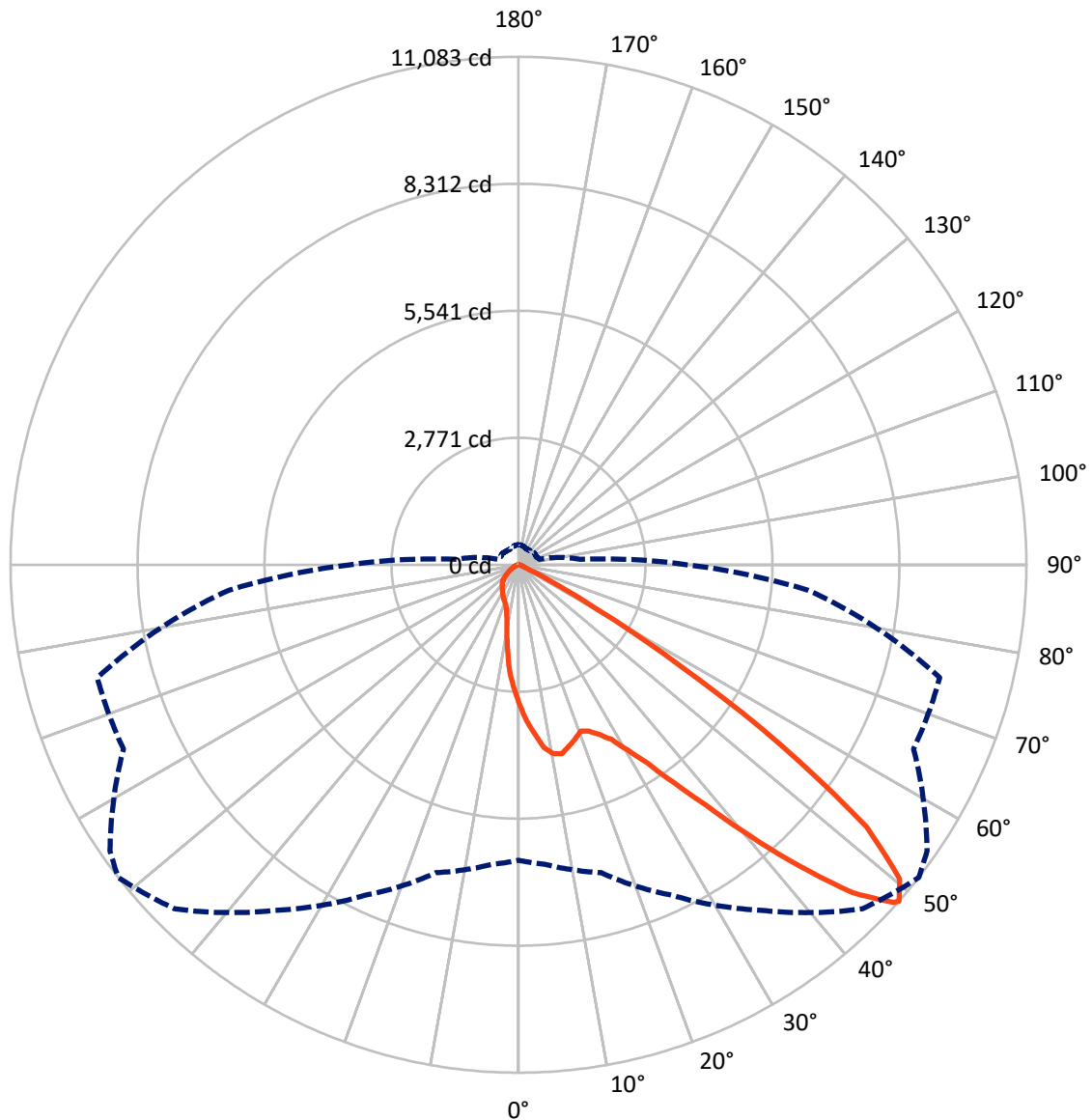
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 52-Deg Lateral - - - Horizontal Cone Through 48-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1286.6 | 0.0 | 1286.6 |
| | % Fixture | 12.2 | 0.0 | 12.2 |
| Street Side | Lumens | 9280.0 | 0.0 | 9280.0 |
| | % Fixture | 87.8 | 0.0 | 87.8 |
| Total | Lumens | 10566.6 | 0.0 | 10566.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 279.3 | 2.6 |
| 10°-20° | 729.9 | 6.9 |
| 20°-30° | 1246.2 | 11.8 |
| 30°-40° | 2294.9 | 21.7 |
| 40°-50° | 3564.0 | 33.7 |
| 50°-60° | 2145.0 | 20.3 |
| 60°-70° | 248.1 | 2.3 |
| 70°-80° | 48.0 | 0.5 |
| 80°-90° | 11.1 | 0.1 |
| 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° | 10566.6 | 100.0 |
| 0°-180° | 10566.6 | 100.0 |

Coefficient of Utilization

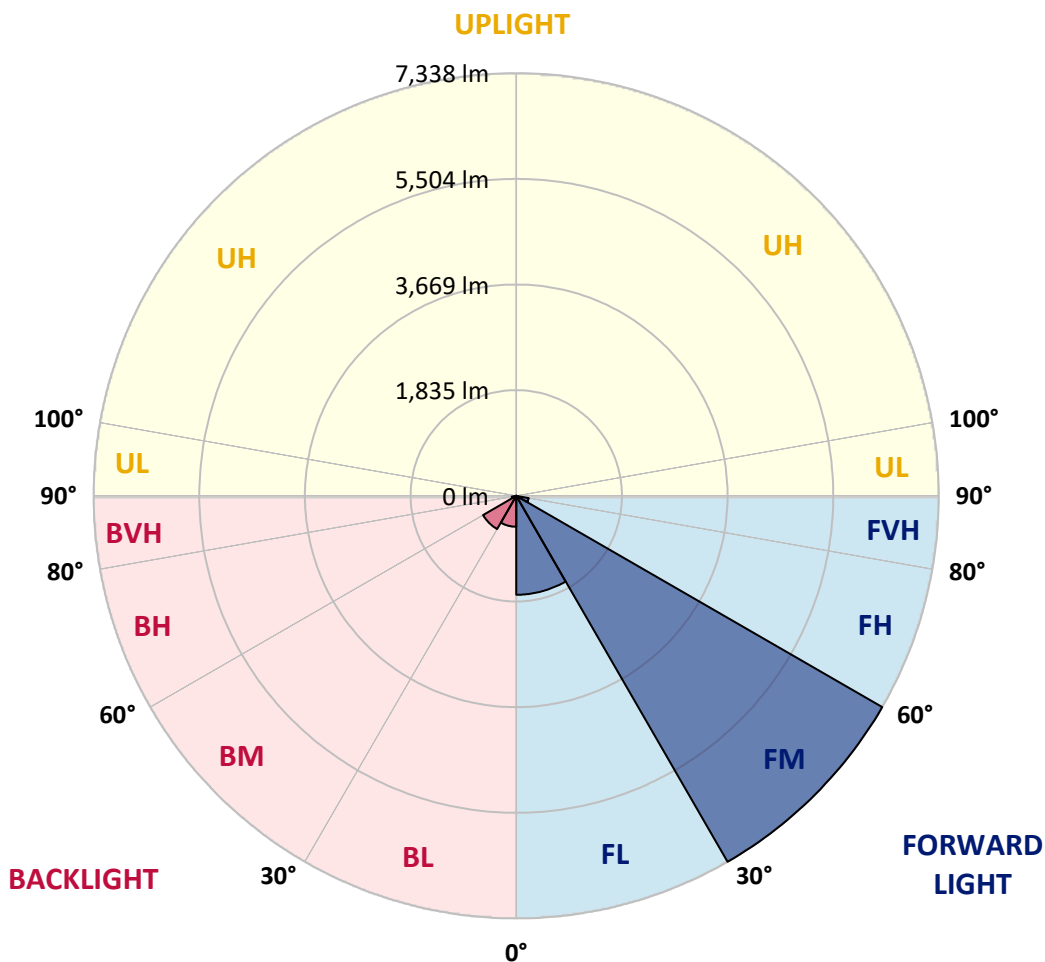


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|--------|
| | | | B | U | G |
| FL (0°-30°) | 1718.0 | 16.3 | | | |
| FM (30°-60°) | 7338.3 | 69.4 | | | |
| FH (60°-80°) | 218.5 | 2.1 | | | G0/660 |
| FVH (80°-90°) | 5.3 | 0.1 | | | G0/10 |
| BL (0°-30°) | 537.4 | 5.1 | B2/1000 | | |
| BM (30°-60°) | 665.7 | 6.3 | B1/1000 | | |
| BH (60°-80°) | 77.7 | 0.7 | B0/110 | | G0/110 |
| BVH (80°-90°) | 5.8 | 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-G0
 Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 52° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|--------|--------|--------|
| 0° | 3051.4 | 3051.4 | 3051.4 | 3051.4 | 3051.4 | 3051.4 | 3051.4 | 3051.4 | 3051.4 | 3051.4 | 3051.4 |
| 2.5° | 3698.4 | 3613.7 | 3621.4 | 3565.9 | 3533.6 | 3481.2 | 3410.4 | 3396.5 | 3319.5 | 3214.8 | 3108.4 |
| 5° | 4031.1 | 4011.1 | 4037.3 | 3957.2 | 3960.3 | 3874.0 | 3707.7 | 3710.7 | 3533.6 | 3362.6 | 3197.8 |
| 7.5° | 4052.7 | 4006.5 | 4032.7 | 4103.5 | 4145.1 | 4129.7 | 4035.7 | 3954.1 | 3786.2 | 3535.1 | 3294.9 |
| 10° | 3629.1 | 3716.9 | 3744.6 | 3861.7 | 4028.1 | 4203.6 | 4192.9 | 4197.5 | 4057.3 | 3729.2 | 3378.0 |
| 12.5° | 3375.0 | 3316.4 | 3410.4 | 3481.2 | 3732.3 | 4072.7 | 4228.3 | 4262.2 | 4273.0 | 3917.1 | 3461.2 |
| 15° | 3259.4 | 3259.4 | 3274.8 | 3294.9 | 3476.6 | 3790.8 | 4108.2 | 4206.7 | 4439.3 | 4163.6 | 3592.1 |
| 17.5° | 3331.8 | 3328.7 | 3350.3 | 3308.7 | 3376.5 | 3618.3 | 3997.2 | 4109.7 | 4625.7 | 4405.4 | 3695.3 |
| 20° | 3552.1 | 3562.9 | 3549.0 | 3428.8 | 3433.5 | 3615.2 | 3874.0 | 4051.2 | 4752.0 | 4614.9 | 3832.4 |
| 22.5° | 3858.6 | 3864.7 | 3786.2 | 3655.3 | 3616.8 | 3706.1 | 3944.8 | 4080.4 | 4853.7 | 4866.0 | 3874.0 |
| 25° | 4212.9 | 4188.3 | 4172.8 | 3988.0 | 3870.9 | 3948.0 | 4105.0 | 4183.6 | 4916.8 | 5081.7 | 3992.6 |
| 27.5° | 4704.3 | 4654.9 | 4561.0 | 4396.2 | 4309.9 | 4200.6 | 4313.0 | 4442.4 | 5097.0 | 5383.6 | 4122.0 |
| 30° | 5429.8 | 5386.6 | 5203.3 | 4990.8 | 4764.3 | 4656.5 | 4692.0 | 4762.8 | 5422.0 | 5733.2 | 4293.0 |
| 32.5° | 6521.9 | 6431.0 | 6166.0 | 5760.9 | 5452.9 | 5155.6 | 5146.3 | 5221.8 | 5713.2 | 6216.9 | 4496.3 |
| 35° | 7724.9 | 7697.2 | 7307.5 | 6890.0 | 6293.9 | 5834.9 | 5842.6 | 5882.6 | 6270.8 | 6851.5 | 4762.8 |
| 37.5° | 8524.4 | 8676.8 | 8428.8 | 7980.6 | 7480.0 | 6823.8 | 6657.5 | 6671.3 | 7036.4 | 7603.2 | 5243.4 |
| 40° | 9142.1 | 9012.6 | 9041.9 | 8937.2 | 8595.2 | 8148.5 | 7780.4 | 7707.9 | 7922.1 | 8435.0 | 5720.9 |
| 42.5° | 8872.5 | 8878.7 | 9058.8 | 9306.9 | 9391.6 | 9359.2 | 8983.4 | 8846.3 | 8679.9 | 9115.8 | 6175.3 |
| 45° | 8111.6 | 8270.2 | 8504.3 | 9160.6 | 9736.6 | 10277.3 | 10203.4 | 9975.3 | 9203.6 | 9655.0 | 6437.2 |
| 47.5° | 6897.8 | 6891.6 | 7275.1 | 8128.5 | 9408.5 | 10674.7 | 11010.5 | 10850.3 | 9574.9 | 9594.9 | 6383.3 |
| 48° | 6449.5 | 6560.4 | 6956.3 | 7960.6 | 9200.6 | 10616.1 | 11082.9 | 10881.1 | 9511.7 | 9514.8 | 6337.1 |
| 50° | 4767.5 | 4747.4 | 5240.3 | 6472.6 | 8217.8 | 9975.3 | 10777.9 | 10935.0 | 9510.2 | 9109.7 | 6013.6 |
| 52.5° | 2518.5 | 2604.7 | 2963.7 | 4069.6 | 5810.3 | 8163.9 | 9507.1 | 9752.0 | 9174.4 | 8447.3 | 5548.4 |
| 55° | 1070.5 | 967.3 | 1243.1 | 1837.6 | 3268.6 | 5454.4 | 6974.7 | 7520.0 | 7757.3 | 7475.4 | 4853.7 |
| 57.5° | 382.0 | 417.4 | 480.6 | 691.6 | 1374.0 | 2985.2 | 4159.0 | 4582.6 | 5374.4 | 5485.2 | 3307.2 |
| 60° | 244.9 | 249.5 | 269.6 | 317.3 | 516.0 | 1150.6 | 1973.2 | 2310.6 | 2669.5 | 2755.7 | 1543.4 |
| 62.5° | 189.5 | 191.0 | 200.2 | 208.0 | 244.9 | 446.7 | 740.9 | 878.0 | 911.9 | 784.0 | 405.1 |
| 65° | 158.6 | 160.2 | 163.3 | 163.3 | 174.1 | 209.5 | 258.8 | 284.9 | 277.3 | 274.2 | 229.5 |
| 67.5° | 121.7 | 124.7 | 130.9 | 130.9 | 137.1 | 127.9 | 143.3 | 152.5 | 172.5 | 209.5 | 195.6 |
| 70° | 95.5 | 97.0 | 101.6 | 104.8 | 104.8 | 92.4 | 103.2 | 112.4 | 126.3 | 155.6 | 154.0 |
| 72.5° | 73.9 | 77.0 | 80.1 | 80.1 | 75.5 | 63.2 | 73.9 | 81.7 | 90.9 | 107.8 | 104.8 |
| 75° | 57.0 | 57.0 | 58.6 | 47.8 | 37.0 | 32.3 | 44.7 | 53.9 | 67.8 | 70.9 | 58.6 |
| 77.5° | 15.4 | 16.9 | 15.4 | 13.9 | 15.4 | 23.1 | 29.3 | 33.9 | 43.1 | 43.1 | 38.5 |
| 80° | 0.0 | 1.6 | 4.6 | 9.2 | 15.4 | 21.5 | 26.2 | 29.3 | 33.9 | 37.0 | 35.4 |
| 82.5° | 0.0 | 1.6 | 4.6 | 9.2 | 13.9 | 16.9 | 23.1 | 24.7 | 27.7 | 32.3 | 32.3 |
| 85° | 0.0 | 1.6 | 3.1 | 6.2 | 9.2 | 10.8 | 10.8 | 9.2 | 9.2 | 7.7 | 6.2 |
| 87.5° | 0.0 | 0.0 | 1.6 | 3.1 | 3.1 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| 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° | 3051.4 | 3051.4 | 3051.4 | 3051.4 | 3051.4 | 3051.4 | 3051.4 | 3051.4 | 3051.4 | 3051.4 | 3051.4 |
| 2.5° | 3066.9 | 3019.1 | 2946.7 | 2832.7 | 2723.4 | 2652.5 | 2584.8 | 2509.3 | 2467.6 | 2464.6 | 2441.5 |
| 5° | 3103.8 | 2996.0 | 2823.5 | 2627.8 | 2418.4 | 2238.1 | 2056.4 | 1937.8 | 1831.5 | 1772.9 | 1762.1 |
| 7.5° | 3123.9 | 2983.7 | 2704.9 | 2376.8 | 2019.4 | 1725.2 | 1521.8 | 1372.4 | 1314.0 | 1270.8 | 1269.2 |
| 10° | 3165.4 | 2962.1 | 2527.8 | 2044.0 | 1601.9 | 1304.7 | 1164.5 | 1096.7 | 1064.4 | 1052.0 | 1033.6 |
| 12.5° | 3196.3 | 2922.1 | 2345.9 | 1702.1 | 1266.2 | 1081.3 | 1019.7 | 1004.4 | 1005.8 | 1012.0 | 1004.4 |
| 15° | 3239.3 | 2886.6 | 2101.0 | 1397.1 | 1062.8 | 973.5 | 973.5 | 976.6 | 998.2 | 1001.2 | 999.7 |
| 17.5° | 3236.3 | 2817.3 | 1848.4 | 1150.6 | 939.6 | 927.3 | 931.9 | 961.2 | 975.1 | 979.7 | 968.9 |
| 20° | 3273.3 | 2752.6 | 1588.1 | 982.7 | 870.3 | 888.8 | 919.6 | 927.3 | 944.2 | 947.4 | 935.0 |
| 22.5° | 3262.4 | 2590.9 | 1346.3 | 850.3 | 817.9 | 853.4 | 884.2 | 893.4 | 888.8 | 879.5 | 878.0 |
| 25° | 3242.5 | 2452.3 | 1124.5 | 762.5 | 779.4 | 817.9 | 847.2 | 830.3 | 821.0 | 822.5 | 824.1 |
| 27.5° | 3207.0 | 2276.7 | 941.2 | 700.9 | 727.0 | 784.0 | 782.5 | 776.3 | 785.6 | 777.9 | 785.6 |
| 30° | 3200.9 | 2101.0 | 790.2 | 645.4 | 688.6 | 730.1 | 733.2 | 744.0 | 754.8 | 740.9 | 754.8 |
| 32.5° | 3210.1 | 1908.5 | 682.4 | 611.5 | 665.5 | 667.0 | 700.9 | 711.7 | 703.9 | 673.1 | 676.2 |
| 35° | 3281.0 | 1760.7 | 603.8 | 593.0 | 628.4 | 630.0 | 662.3 | 648.5 | 614.6 | 596.1 | 606.9 |
| 37.5° | 3430.4 | 1637.4 | 566.8 | 576.1 | 579.2 | 599.2 | 600.7 | 573.0 | 576.1 | 574.6 | 580.8 |
| 40° | 3621.4 | 1543.4 | 540.7 | 560.7 | 557.6 | 571.5 | 516.0 | 531.4 | 545.3 | 549.9 | 553.0 |
| 42.5° | 3752.3 | 1475.6 | 523.7 | 536.0 | 529.9 | 505.3 | 474.4 | 489.8 | 500.7 | 517.6 | 520.6 |
| 45° | 3810.9 | 1421.8 | 503.7 | 492.9 | 492.9 | 448.3 | 435.9 | 439.0 | 463.6 | 482.2 | 479.0 |
| 47.5° | 3715.3 | 1369.4 | 468.2 | 435.9 | 446.7 | 409.7 | 395.9 | 395.9 | 422.0 | 445.1 | 440.5 |
| 48° | 3678.4 | 1347.8 | 469.8 | 423.6 | 431.3 | 403.6 | 389.7 | 386.6 | 415.9 | 437.5 | 437.5 |
| 50° | 3495.1 | 1267.8 | 429.8 | 389.7 | 374.3 | 371.2 | 362.0 | 365.0 | 383.5 | 403.6 | 403.6 |
| 52.5° | 3137.7 | 1095.2 | 363.5 | 334.3 | 306.5 | 325.0 | 329.6 | 323.5 | 332.7 | 351.2 | 349.7 |
| 55° | 2618.6 | 841.0 | 291.1 | 277.3 | 255.7 | 275.7 | 284.9 | 277.3 | 268.0 | 281.9 | 281.9 |
| 57.5° | 1677.4 | 452.9 | 232.6 | 235.7 | 214.1 | 234.1 | 241.9 | 223.4 | 206.4 | 217.2 | 215.6 |
| 60° | 756.3 | 271.1 | 191.0 | 186.4 | 172.5 | 195.6 | 208.0 | 186.4 | 163.3 | 171.0 | 178.7 |
| 62.5° | 283.4 | 192.5 | 144.8 | 141.7 | 138.7 | 160.2 | 166.4 | 149.4 | 126.3 | 130.9 | 132.5 |
| 65° | 208.0 | 169.4 | 115.5 | 104.8 | 110.9 | 126.3 | 123.2 | 106.3 | 90.9 | 90.9 | 94.0 |
| 67.5° | 177.1 | 147.9 | 94.0 | 81.7 | 81.7 | 83.2 | 77.0 | 67.8 | 63.2 | 66.2 | 69.3 |
| 70° | 138.7 | 117.1 | 73.9 | 63.2 | 57.0 | 50.8 | 44.7 | 43.1 | 38.5 | 43.1 | 41.6 |
| 72.5° | 89.3 | 78.5 | 57.0 | 47.8 | 43.1 | 35.4 | 29.3 | 27.7 | 23.1 | 21.5 | 21.5 |
| 75° | 47.8 | 47.8 | 44.7 | 38.5 | 33.9 | 27.7 | 23.1 | 18.5 | 12.3 | 9.2 | 9.2 |
| 77.5° | 33.9 | 37.0 | 40.0 | 37.0 | 30.8 | 23.1 | 18.5 | 12.3 | 6.2 | 3.1 | 3.1 |
| 80° | 32.3 | 37.0 | 40.0 | 35.4 | 30.8 | 23.1 | 16.9 | 9.2 | 4.6 | 1.6 | 1.6 |
| 82.5° | 29.3 | 33.9 | 37.0 | 32.3 | 27.7 | 20.0 | 15.4 | 9.2 | 4.6 | 1.6 | 1.6 |
| 85° | 6.2 | 7.7 | 9.2 | 9.2 | 10.8 | 13.9 | 10.8 | 7.7 | 3.1 | 1.6 | 1.6 |
| 87.5° | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 3.1 | 3.1 | 1.6 | 1.6 | 1.6 |
| 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)