

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: P647457

Luminaire Tested: **GALN-SA5D-835-U-T2R-GRSWH**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P647457
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-057-10)
Test Lab: INNOVATION CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA5D-835-U-T2R-GRSWH
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 3500K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH WHITE GLARE REDUCTION SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26655.7 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

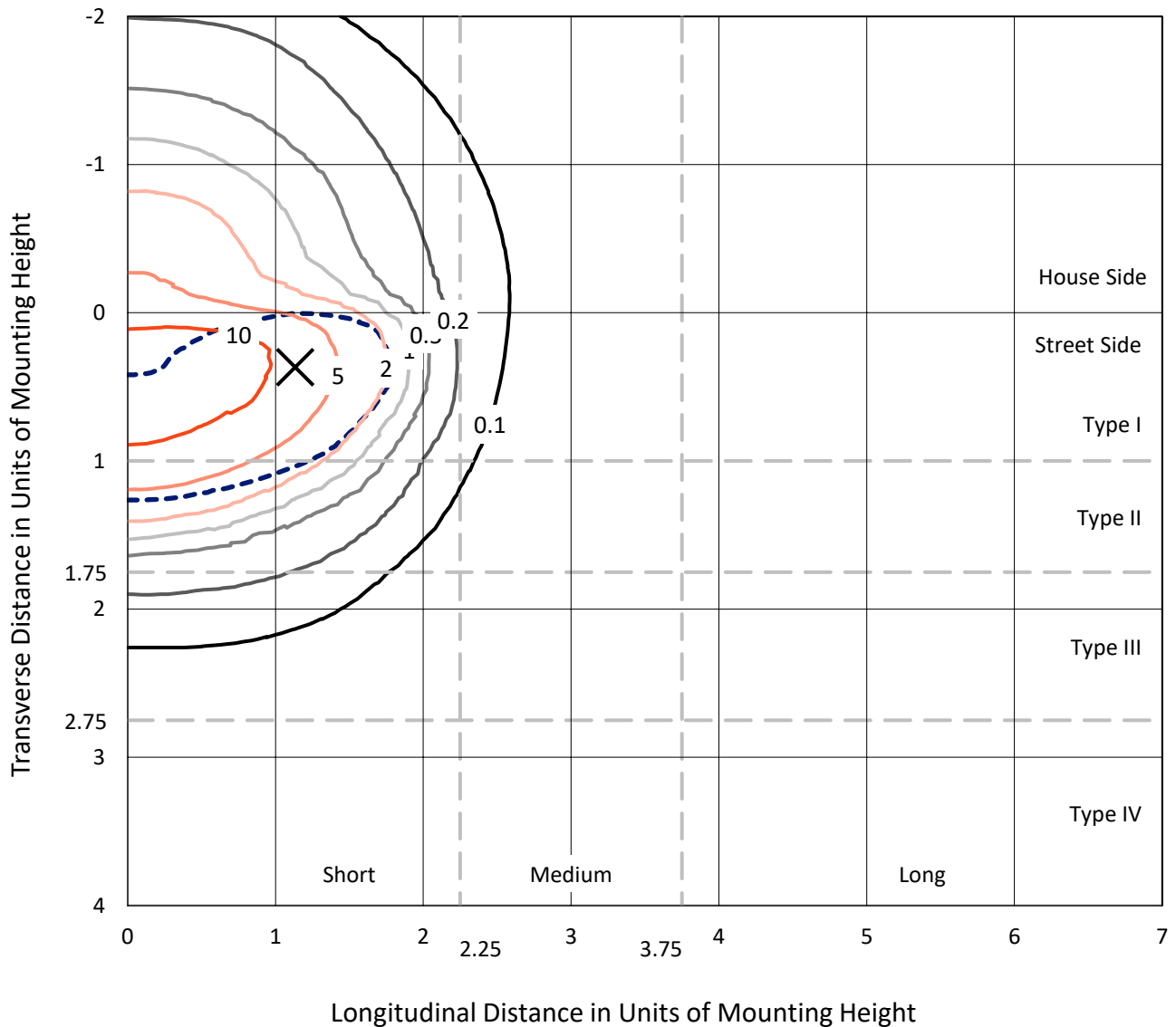
Input Watts (W): 309
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

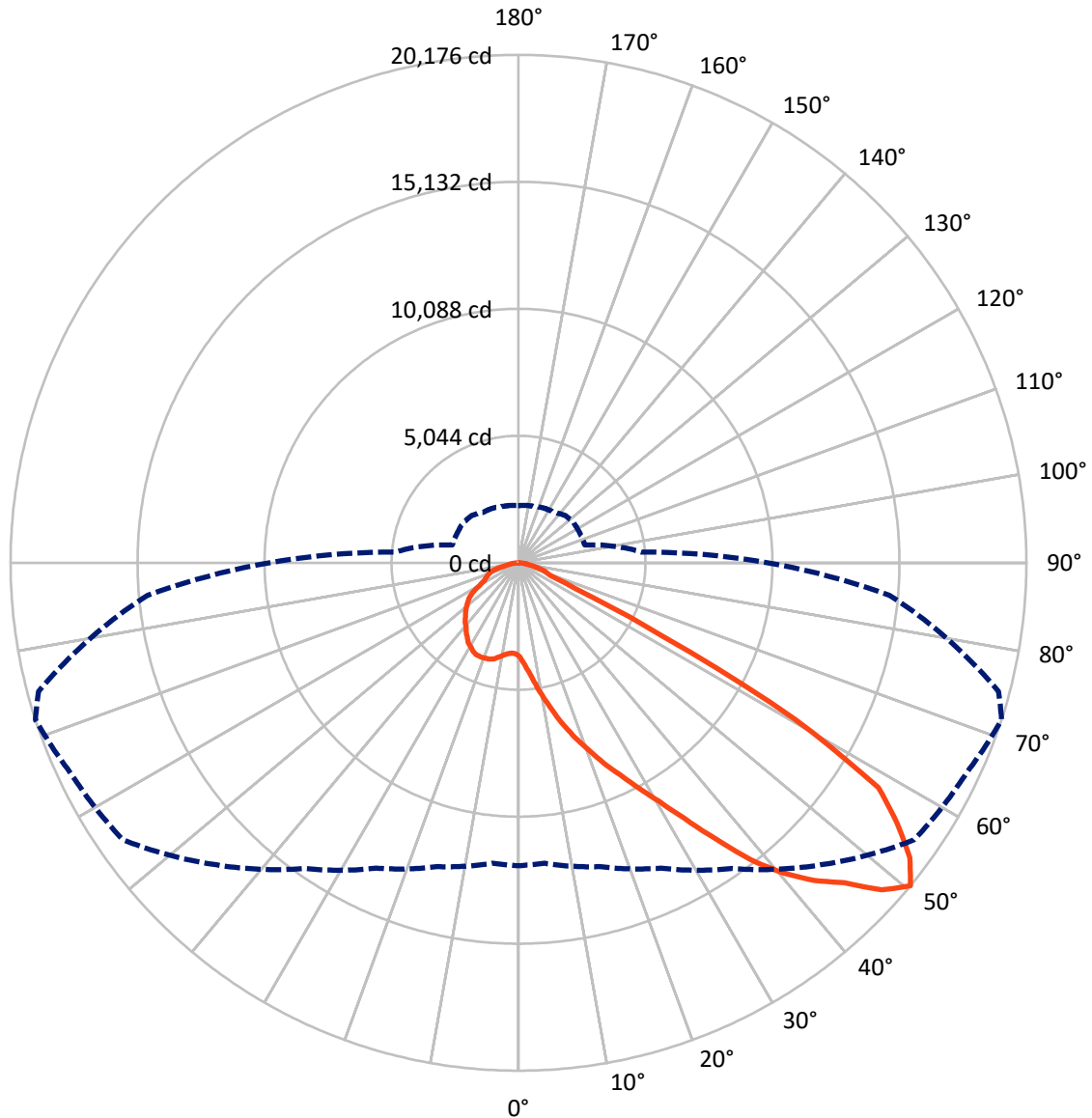
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.3 fc
 Type II - Short - N/A

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CATALOG NUMBER: GALN-SA5D-835-U-T2R-GRSWH

Luminous Intensity Polar Plot



— Vertical Plane Through 72-Deg Lateral - - - Horizontal Cone Through 50-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6107.0 | 0.0 | 6107.0 |
| | % Fixture | 22.9 | 0.0 | 22.9 |
| Street Side | Lumens | 20548.7 | 0.0 | 20548.7 |
| | % Fixture | 77.1 | 0.0 | 77.1 |
| Total | Lumens | 26655.7 | 0.0 | 26655.7 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 436.5 | 1.6 |
| 10°-20° | 1631.7 | 6.1 |
| 20°-30° | 3163.7 | 11.9 |
| 30°-40° | 5241.2 | 19.7 |
| 40°-50° | 7333.5 | 27.5 |
| 50°-60° | 6186.8 | 23.2 |
| 60°-70° | 1885.7 | 7.1 |
| 70°-80° | 661.6 | 2.5 |
| 80°-90° | 115.0 | 0.4 |
| 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° | 26655.7 | 100.0 |
| 0°-180° | 26655.7 | 100.0 |

Coefficient of Utilization



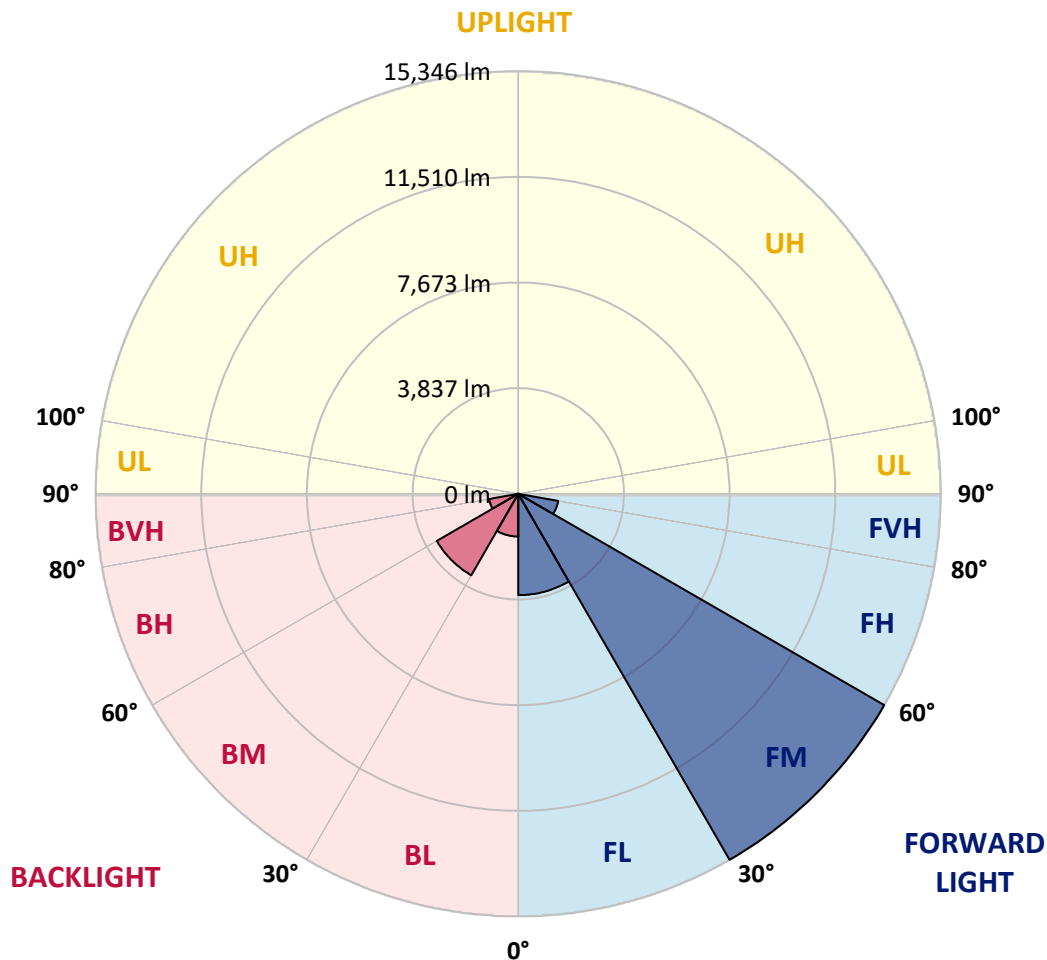
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 CATALOG NUMBER: GALN-SA5D-835-U-T2R-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 3679.4 | 13.8 | | | |
| FM (30°-60°) | 15346.4 | 57.6 | | | |
| FH (60°-80°) | 1471.3 | 5.5 | | | G1/1800 |
| FVH (80°-90°) | 51.5 | 0.2 | | | G1/100 |
| BL (0°-30°) | 1552.4 | 5.8 | B3/2500 | | |
| BM (30°-60°) | 3415.1 | 12.8 | B3/5000 | | |
| BH (60°-80°) | 1075.9 | 4.0 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 63.5 | 0.2 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 72° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3710.7 | 3710.7 | 3710.7 | 3710.7 | 3710.7 | 3710.7 | 3710.7 | 3710.7 | 3710.7 | 3710.7 | 3710.7 |
| 2.5° | 4772.8 | 4743.1 | 4654.1 | 4624.3 | 4518.8 | 4327.5 | 4261.6 | 4066.9 | 3984.5 | 3908.6 | 3819.6 |
| 5° | 6036.1 | 5897.6 | 5887.6 | 5719.4 | 5475.4 | 5333.5 | 4911.3 | 4627.7 | 4367.1 | 4235.2 | 3991.0 |
| 7.5° | 6840.8 | 6844.2 | 6844.2 | 6705.6 | 6511.0 | 6151.5 | 5772.2 | 5261.0 | 4868.5 | 4673.8 | 4258.3 |
| 10° | 7606.1 | 7540.1 | 7503.9 | 7490.6 | 7358.7 | 7009.1 | 6603.4 | 5970.1 | 5432.5 | 5204.8 | 4459.4 |
| 12.5° | 8147.0 | 8091.0 | 8173.4 | 8130.5 | 8034.9 | 7807.3 | 7424.7 | 6702.3 | 6029.5 | 5722.7 | 4782.6 |
| 15° | 8404.3 | 8443.9 | 8509.9 | 8628.6 | 8585.8 | 8499.9 | 8077.7 | 7454.4 | 6672.6 | 6326.3 | 5069.6 |
| 17.5° | 8800.1 | 8691.3 | 8770.5 | 8918.8 | 9037.6 | 8998.0 | 8757.2 | 7998.6 | 7309.2 | 6883.7 | 5455.6 |
| 20° | 9077.2 | 9014.5 | 9054.1 | 9225.6 | 9314.6 | 9539.0 | 9413.6 | 8711.0 | 7919.4 | 7470.8 | 5910.7 |
| 22.5° | 9868.8 | 9776.5 | 9647.8 | 9674.2 | 9707.2 | 9865.5 | 9895.2 | 9492.8 | 8628.6 | 8153.6 | 6342.8 |
| 25° | 10845.1 | 10759.4 | 10607.6 | 10452.7 | 10357.0 | 10327.3 | 10429.6 | 10106.3 | 9308.1 | 8816.6 | 6807.9 |
| 27.5° | 11920.4 | 11775.3 | 11679.6 | 11359.7 | 11102.4 | 11062.9 | 11013.4 | 10838.5 | 10112.9 | 9581.8 | 7332.3 |
| 30° | 12966.0 | 12850.5 | 12721.9 | 12210.7 | 11943.5 | 11900.6 | 11656.5 | 11706.0 | 10987.0 | 10396.5 | 7926.1 |
| 32.5° | 13757.6 | 13767.5 | 13473.9 | 13088.0 | 12837.4 | 12609.7 | 12520.7 | 12662.5 | 12108.4 | 11633.4 | 8589.0 |
| 35° | 14397.5 | 14427.2 | 14146.9 | 13797.2 | 13526.7 | 13685.0 | 13645.5 | 13711.4 | 13447.6 | 12867.0 | 9360.8 |
| 37.5° | 15020.9 | 14872.5 | 14572.3 | 14404.1 | 14262.3 | 14522.8 | 14859.3 | 14915.4 | 14964.9 | 14282.1 | 10258.0 |
| 40° | 15123.2 | 15136.3 | 14961.6 | 15080.3 | 14902.1 | 15294.7 | 16076.4 | 16003.8 | 16205.0 | 15608.0 | 11231.0 |
| 42.5° | 14978.0 | 15007.7 | 15077.0 | 15245.2 | 15674.0 | 16145.6 | 17306.7 | 17009.8 | 17253.9 | 16722.8 | 12177.7 |
| 45° | 14740.5 | 14618.5 | 14704.3 | 15344.1 | 16086.3 | 17135.2 | 18431.4 | 18200.5 | 18121.4 | 17676.1 | 13305.8 |
| 47.5° | 13605.9 | 13731.2 | 13998.4 | 14786.7 | 15901.6 | 17306.7 | 19229.6 | 19176.8 | 19414.3 | 19101.1 | 14331.6 |
| 50° | 12032.5 | 11983.1 | 12497.6 | 13384.9 | 14823.0 | 16970.3 | 19186.8 | 19665.0 | 20176.3 | 19740.9 | 14790.0 |
| 52.5° | 9011.2 | 9275.1 | 9717.1 | 10818.7 | 12870.3 | 15136.3 | 18250.0 | 19048.3 | 19463.8 | 19371.5 | 14420.6 |
| 55° | 5696.3 | 5775.5 | 6042.6 | 7352.1 | 9199.2 | 12148.0 | 15644.3 | 17494.7 | 18236.9 | 18583.2 | 14080.8 |
| 57.5° | 2767.4 | 2618.9 | 2945.5 | 3997.7 | 5313.8 | 8170.1 | 12065.6 | 15238.6 | 16851.5 | 17478.2 | 13342.0 |
| 60° | 1444.7 | 1500.8 | 1629.4 | 2005.4 | 2747.5 | 4241.7 | 7520.3 | 10155.7 | 12619.7 | 13582.8 | 10112.9 |
| 62.5° | 1197.3 | 1217.1 | 1302.8 | 1490.9 | 1827.3 | 2440.8 | 3839.4 | 4950.9 | 6435.2 | 7302.6 | 5752.4 |
| 65° | 1015.9 | 1025.8 | 1118.1 | 1243.5 | 1457.9 | 1718.5 | 1975.7 | 2068.1 | 2503.5 | 2569.4 | 2045.0 |
| 67.5° | 847.7 | 857.6 | 956.5 | 1075.3 | 1213.8 | 1283.1 | 1349.0 | 1342.5 | 1391.9 | 1372.1 | 1368.8 |
| 70° | 653.1 | 663.0 | 765.2 | 890.6 | 959.8 | 920.3 | 1124.8 | 1170.9 | 1190.7 | 1207.2 | 1233.6 |
| 72.5° | 471.7 | 491.5 | 570.7 | 659.7 | 623.4 | 715.7 | 926.8 | 996.1 | 1022.5 | 1032.4 | 1065.3 |
| 75° | 343.0 | 349.6 | 369.4 | 343.0 | 395.8 | 498.1 | 653.1 | 738.8 | 771.8 | 781.7 | 831.2 |
| 77.5° | 151.7 | 155.0 | 158.3 | 197.9 | 254.0 | 310.1 | 389.2 | 458.4 | 504.6 | 517.9 | 531.0 |
| 80° | 79.2 | 82.4 | 102.3 | 135.2 | 181.4 | 227.6 | 283.7 | 323.2 | 352.9 | 356.3 | 369.4 |
| 82.5° | 49.5 | 52.8 | 72.6 | 95.7 | 128.6 | 168.2 | 207.8 | 240.8 | 263.9 | 267.2 | 270.4 |
| 85° | 23.1 | 29.7 | 42.9 | 59.4 | 85.7 | 108.8 | 112.1 | 95.7 | 102.3 | 105.5 | 99.0 |
| 87.5° | 6.6 | 9.9 | 13.2 | 9.9 | 13.2 | 13.2 | 16.5 | 19.8 | 19.8 | 19.8 | 23.1 |
| 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° | 3710.7 | 3710.7 | 3710.7 | 3710.7 | 3710.7 | 3710.7 | 3710.7 | 3710.7 | 3710.7 | 3710.7 | 3710.7 |
| 2.5° | 3770.1 | 3740.4 | 3625.0 | 3582.1 | 3469.9 | 3489.7 | 3430.3 | 3427.0 | 3413.8 | 3410.5 | 3407.2 |
| 5° | 3862.5 | 3770.1 | 3631.6 | 3526.0 | 3463.3 | 3456.7 | 3413.8 | 3413.8 | 3427.0 | 3436.9 | 3413.8 |
| 7.5° | 4014.1 | 3908.6 | 3674.4 | 3575.5 | 3519.4 | 3509.5 | 3479.8 | 3456.7 | 3486.4 | 3476.5 | 3450.1 |
| 10° | 4189.0 | 4004.3 | 3756.9 | 3671.1 | 3578.8 | 3555.7 | 3555.7 | 3565.5 | 3516.1 | 3532.6 | 3506.2 |
| 12.5° | 4383.5 | 4136.2 | 3862.5 | 3763.5 | 3654.7 | 3641.4 | 3634.8 | 3562.3 | 3588.6 | 3575.5 | 3509.5 |
| 15° | 4631.0 | 4287.9 | 3997.7 | 3829.4 | 3737.1 | 3677.8 | 3591.9 | 3578.8 | 3562.3 | 3529.3 | 3499.6 |
| 17.5° | 4898.1 | 4452.8 | 4060.3 | 3849.2 | 3710.7 | 3667.8 | 3601.9 | 3532.6 | 3483.1 | 3489.7 | 3466.7 |
| 20° | 5125.7 | 4604.6 | 4083.4 | 3869.0 | 3690.9 | 3608.5 | 3506.2 | 3463.3 | 3410.5 | 3407.2 | 3403.9 |
| 22.5° | 5396.2 | 4809.0 | 4116.4 | 3816.3 | 3631.6 | 3545.8 | 3476.5 | 3400.6 | 3364.4 | 3318.2 | 3341.3 |
| 25° | 5719.4 | 4888.2 | 4123.0 | 3786.6 | 3588.6 | 3436.9 | 3400.6 | 3318.2 | 3305.0 | 3239.0 | 3252.2 |
| 27.5° | 5953.6 | 4931.1 | 4070.2 | 3694.2 | 3489.7 | 3374.3 | 3308.3 | 3248.9 | 3225.8 | 3176.3 | 3163.2 |
| 30° | 6267.0 | 4997.1 | 3958.1 | 3578.8 | 3390.8 | 3262.1 | 3222.5 | 3209.4 | 3143.4 | 3090.6 | 3084.0 |
| 32.5° | 6623.2 | 5039.9 | 3885.5 | 3460.0 | 3288.5 | 3189.6 | 3209.4 | 3146.6 | 3064.2 | 3018.0 | 3004.8 |
| 35° | 6906.8 | 5056.5 | 3704.1 | 3324.8 | 3219.2 | 3156.6 | 3133.5 | 3120.3 | 3001.6 | 2958.6 | 2925.7 |
| 37.5° | 7338.9 | 5020.1 | 3552.4 | 3229.1 | 3143.4 | 3120.3 | 3100.5 | 3011.4 | 2876.2 | 2813.6 | 2767.4 |
| 40° | 7843.6 | 5010.3 | 3357.7 | 3093.9 | 3070.8 | 3097.2 | 3037.8 | 2899.3 | 2711.3 | 2642.0 | 2609.0 |
| 42.5° | 8328.5 | 5079.6 | 3235.7 | 3021.4 | 2991.6 | 3001.6 | 2919.1 | 2711.3 | 2618.9 | 2579.4 | 2526.6 |
| 45° | 9139.9 | 5224.6 | 3034.5 | 2909.2 | 2896.0 | 2889.4 | 2790.5 | 2572.8 | 2520.0 | 2470.5 | 2460.6 |
| 47.5° | 9872.1 | 5129.0 | 2905.9 | 2793.7 | 2806.9 | 2770.6 | 2559.5 | 2490.3 | 2430.9 | 2381.4 | 2365.0 |
| 50° | 9915.0 | 4901.4 | 2724.4 | 2704.7 | 2708.0 | 2645.3 | 2444.1 | 2397.9 | 2322.1 | 2289.1 | 2266.0 |
| 52.5° | 9690.7 | 4528.7 | 2556.3 | 2562.8 | 2572.8 | 2470.5 | 2302.3 | 2269.3 | 2206.7 | 2160.5 | 2147.2 |
| 55° | 9060.7 | 3948.2 | 2391.4 | 2417.7 | 2444.1 | 2249.5 | 2196.7 | 2114.3 | 2064.8 | 1998.8 | 2002.1 |
| 57.5° | 7982.1 | 3179.7 | 2160.5 | 2203.4 | 2259.4 | 2045.0 | 2005.4 | 1903.2 | 1830.6 | 1777.8 | 1771.2 |
| 60° | 5350.0 | 2262.7 | 1814.1 | 1830.6 | 1955.9 | 1870.2 | 1866.9 | 1764.6 | 1665.7 | 1619.5 | 1593.1 |
| 62.5° | 3156.6 | 1728.4 | 1566.7 | 1550.3 | 1547.0 | 1596.5 | 1678.9 | 1642.6 | 1513.9 | 1424.9 | 1451.3 |
| 65° | 1652.5 | 1494.2 | 1457.9 | 1401.8 | 1368.8 | 1355.6 | 1418.3 | 1434.8 | 1349.0 | 1253.4 | 1246.8 |
| 67.5° | 1388.7 | 1388.7 | 1359.0 | 1339.2 | 1293.0 | 1236.9 | 1197.3 | 1144.5 | 1131.4 | 1105.0 | 1072.0 |
| 70° | 1263.3 | 1296.3 | 1286.4 | 1240.2 | 1200.7 | 1137.9 | 1035.7 | 949.9 | 867.5 | 837.8 | 857.6 |
| 72.5° | 1101.7 | 1134.6 | 1134.6 | 1111.5 | 1058.8 | 963.2 | 864.2 | 765.2 | 695.9 | 643.2 | 636.6 |
| 75° | 847.7 | 864.2 | 903.7 | 877.4 | 808.1 | 748.7 | 646.5 | 544.3 | 478.3 | 428.8 | 418.9 |
| 77.5° | 541.0 | 567.4 | 567.4 | 564.0 | 514.6 | 458.4 | 392.5 | 319.9 | 270.4 | 234.2 | 224.3 |
| 80° | 359.6 | 376.0 | 389.2 | 376.0 | 343.0 | 300.1 | 250.7 | 201.2 | 164.9 | 135.2 | 128.6 |
| 82.5° | 263.9 | 283.7 | 293.5 | 280.4 | 247.3 | 214.4 | 178.1 | 141.8 | 105.5 | 82.4 | 75.9 |
| 85° | 102.3 | 105.5 | 118.8 | 141.8 | 138.5 | 135.2 | 108.8 | 79.2 | 59.4 | 42.9 | 39.6 |
| 87.5° | 26.4 | 23.1 | 26.4 | 26.4 | 23.1 | 19.8 | 19.8 | 19.8 | 19.8 | 9.9 | 13.2 |
| 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)