

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: P533702

Luminaire Tested: **GALN-SA9A-827-U-T2R-GRSWH**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P533702
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-SA9A-827-U-T2R-GRSWH
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 2700K, 615mA 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: 26781 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

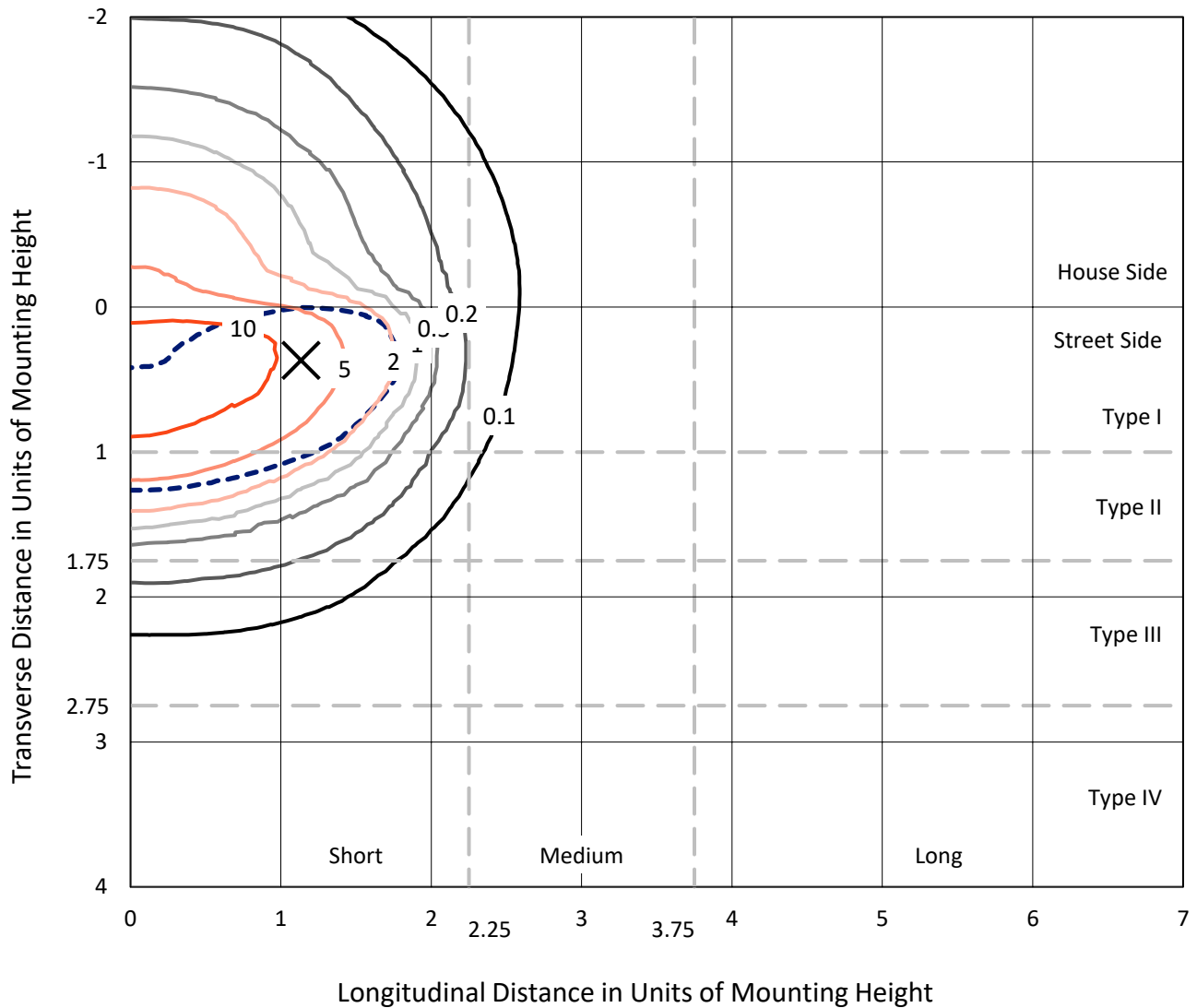
Input Watts (W): 274
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

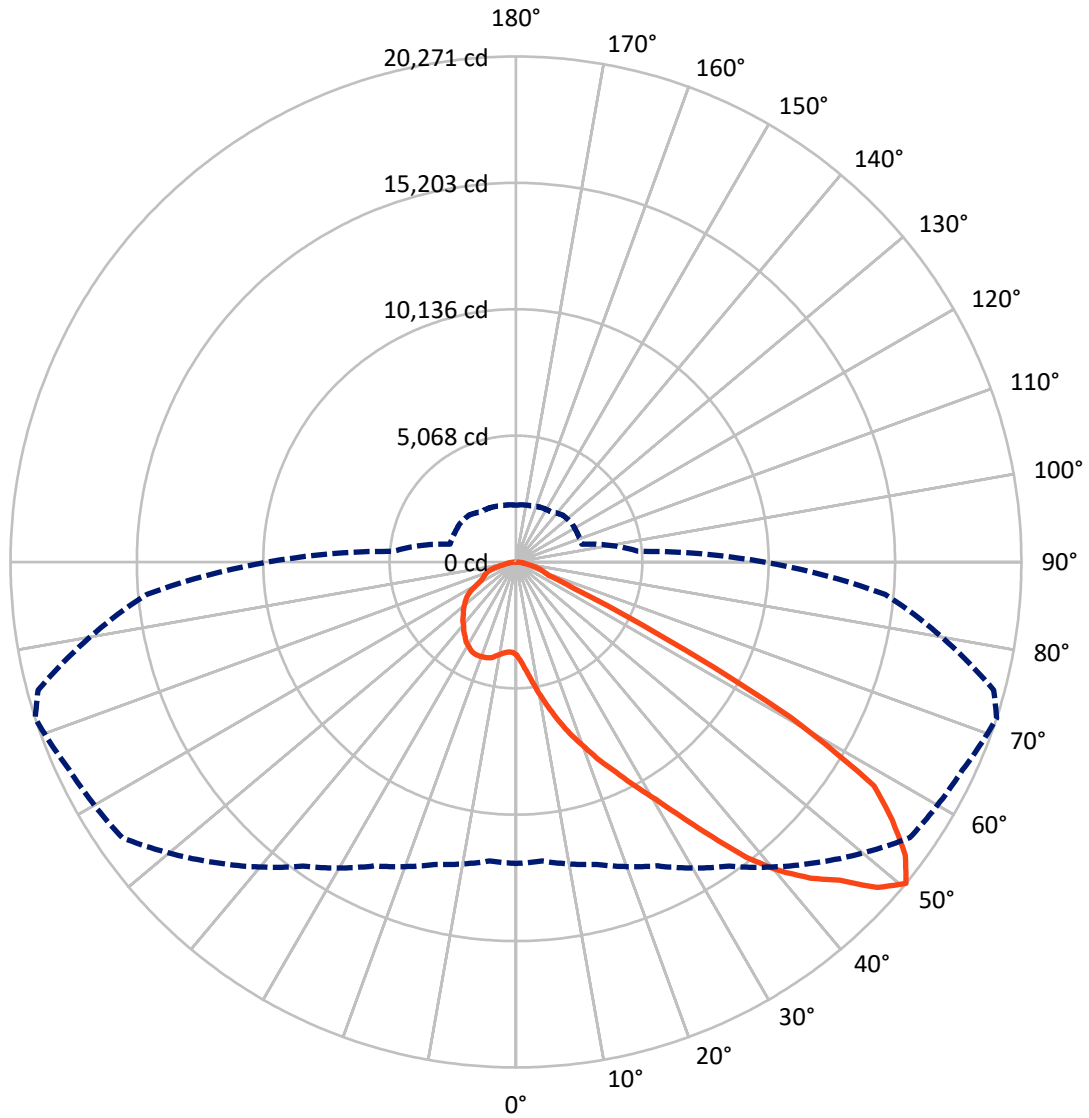
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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

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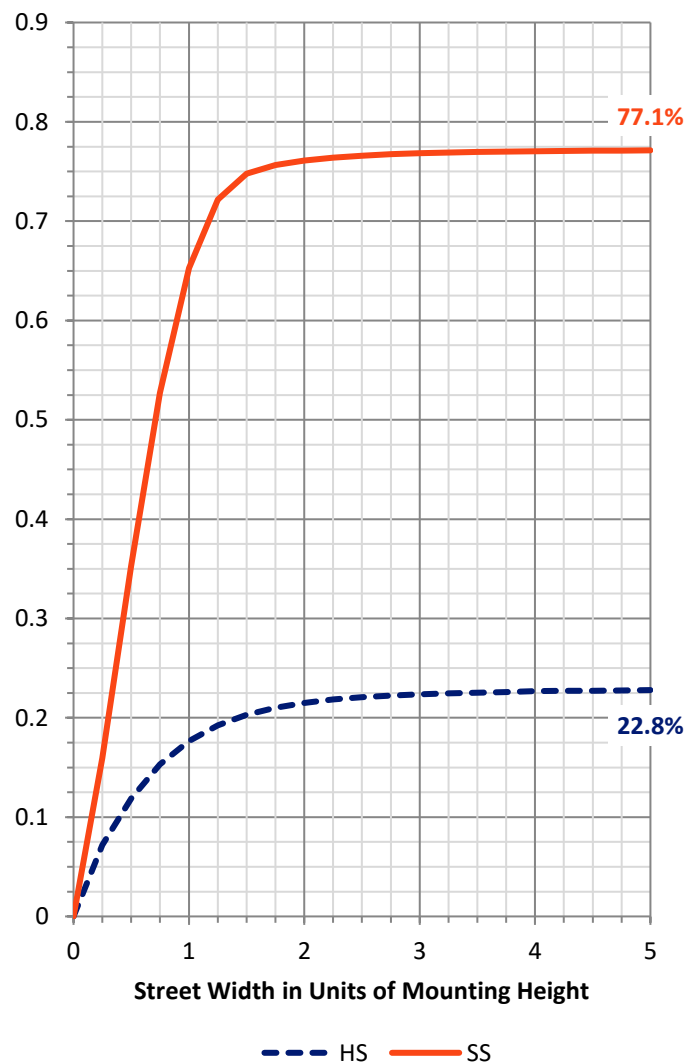
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6135.7 | 0.0 | 6135.7 |
| | % Fixture | 22.9 | 0.0 | 22.9 |
| Street Side | Lumens | 20645.3 | 0.0 | 20645.3 |
| | % Fixture | 77.1 | 0.0 | 77.1 |
| Total | Lumens | 26781.0 | 0.0 | 26781.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 438.5 | 1.6 |
| 10°-20° | 1639.4 | 6.1 |
| 20°-30° | 3178.6 | 11.9 |
| 30°-40° | 5265.8 | 19.7 |
| 40°-50° | 7368.0 | 27.5 |
| 50°-60° | 6215.9 | 23.2 |
| 60°-70° | 1894.6 | 7.1 |
| 70°-80° | 664.7 | 2.5 |
| 80°-90° | 115.6 | 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° | 26781.0 | 100.0 |
| 0°-180° | 26781.0 | 100.0 |



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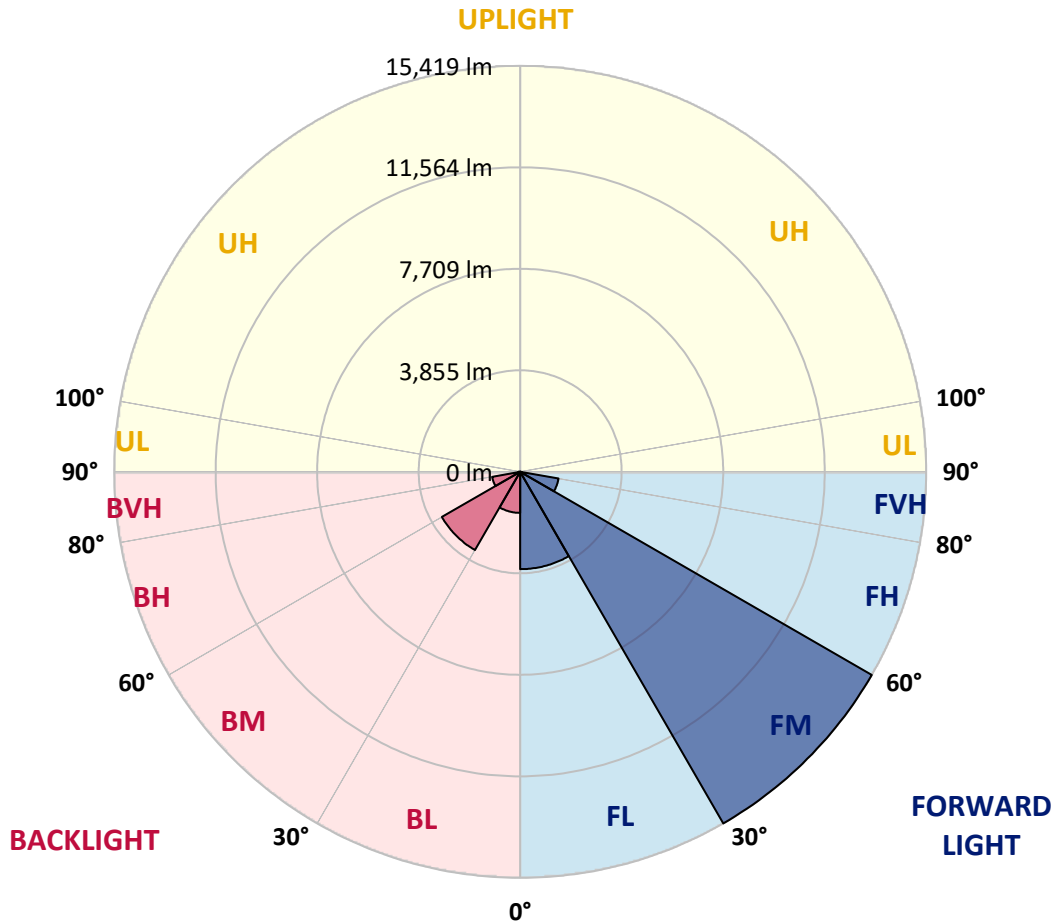
CATALOG NUMBER: GALN-SA9A-827-U-T2R-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 3696.7 | 13.8 | | | |
| FM (30°-60°) | 15418.5 | 57.6 | | | |
| FH (60°-80°) | 1478.3 | 5.5 | | | G1/1800 |
| FVH (80°-90°) | 51.8 | 0.2 | | | G1/100 |
| BL (0°-30°) | 1559.7 | 5.8 | B3/2500 | | |
| BM (30°-60°) | 3431.2 | 12.8 | B3/5000 | | |
| BH (60°-80°) | 1081.0 | 4.0 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 63.8 | 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° | 3728.1 | 3728.1 | 3728.1 | 3728.1 | 3728.1 | 3728.1 | 3728.1 | 3728.1 | 3728.1 | 3728.1 | 3728.1 |
| 2.5° | 4795.2 | 4765.4 | 4675.9 | 4646.1 | 4540.1 | 4347.8 | 4281.6 | 4086.0 | 4003.2 | 3927.0 | 3837.5 |
| 5° | 6064.4 | 5925.3 | 5915.3 | 5746.3 | 5501.1 | 5358.6 | 4934.4 | 4649.4 | 4387.6 | 4255.1 | 4009.8 |
| 7.5° | 6873.0 | 6876.4 | 6876.4 | 6737.2 | 6541.6 | 6180.4 | 5799.3 | 5285.7 | 4891.3 | 4695.8 | 4278.3 |
| 10° | 7641.9 | 7575.6 | 7539.1 | 7525.9 | 7393.3 | 7042.0 | 6634.4 | 5998.2 | 5458.0 | 5229.3 | 4480.4 |
| 12.5° | 8185.3 | 8129.0 | 8211.9 | 8168.8 | 8072.7 | 7844.0 | 7459.6 | 6733.9 | 6057.8 | 5749.6 | 4805.2 |
| 15° | 8443.8 | 8483.6 | 8549.9 | 8669.2 | 8626.1 | 8539.9 | 8115.8 | 7489.4 | 6704.0 | 6356.1 | 5093.5 |
| 17.5° | 8841.5 | 8732.1 | 8811.7 | 8960.8 | 9080.1 | 9040.3 | 8798.4 | 8036.2 | 7343.6 | 6916.1 | 5481.2 |
| 20° | 9119.9 | 9056.9 | 9096.7 | 9269.0 | 9358.5 | 9583.8 | 9457.9 | 8752.0 | 7956.7 | 7506.0 | 5938.5 |
| 22.5° | 9915.2 | 9822.4 | 9693.2 | 9719.7 | 9752.8 | 9911.9 | 9941.7 | 9537.4 | 8669.2 | 8192.0 | 6372.6 |
| 25° | 10896.1 | 10810.0 | 10657.5 | 10501.8 | 10405.7 | 10375.8 | 10478.6 | 10153.8 | 9351.8 | 8858.1 | 6839.9 |
| 27.5° | 11976.5 | 11830.6 | 11734.5 | 11413.1 | 11154.6 | 11114.8 | 11065.1 | 10889.5 | 10160.4 | 9626.9 | 7366.8 |
| 30° | 13027.0 | 12911.0 | 12781.7 | 12268.1 | 11999.7 | 11956.6 | 11711.3 | 11761.1 | 11038.6 | 10445.4 | 7963.3 |
| 32.5° | 13822.3 | 13832.2 | 13537.3 | 13149.6 | 12897.7 | 12669.1 | 12579.6 | 12722.1 | 12165.3 | 11688.1 | 8629.4 |
| 35° | 14465.2 | 14495.0 | 14213.3 | 13862.1 | 13590.3 | 13749.4 | 13709.6 | 13775.9 | 13510.8 | 12927.5 | 9404.9 |
| 37.5° | 15091.5 | 14942.4 | 14640.8 | 14471.8 | 14329.3 | 14591.1 | 14929.1 | 14985.5 | 15035.2 | 14349.2 | 10306.2 |
| 40° | 15194.3 | 15207.5 | 15031.9 | 15151.2 | 14972.2 | 15366.6 | 16152.0 | 16079.1 | 16281.2 | 15681.4 | 11283.8 |
| 42.5° | 15048.4 | 15078.3 | 15147.9 | 15316.9 | 15747.7 | 16221.6 | 17388.1 | 17089.8 | 17335.0 | 16801.5 | 12234.9 |
| 45° | 14809.8 | 14687.2 | 14773.4 | 15416.3 | 16161.9 | 17215.7 | 18518.1 | 18286.1 | 18206.6 | 17759.2 | 13368.3 |
| 47.5° | 13669.9 | 13795.8 | 14064.2 | 14856.2 | 15976.3 | 17388.1 | 19320.1 | 19267.0 | 19505.6 | 19190.8 | 14398.9 |
| 50° | 12089.1 | 12039.4 | 12556.4 | 13447.8 | 14892.7 | 17050.0 | 19277.0 | 19757.5 | 20271.2 | 19833.7 | 14859.6 |
| 52.5° | 9053.6 | 9318.7 | 9762.8 | 10869.6 | 12930.9 | 15207.5 | 18335.8 | 19137.8 | 19555.4 | 19462.6 | 14488.4 |
| 55° | 5723.1 | 5802.6 | 6071.1 | 7386.7 | 9242.5 | 12205.1 | 15717.9 | 17577.0 | 18322.6 | 18670.5 | 14147.1 |
| 57.5° | 2780.4 | 2631.2 | 2959.3 | 4016.5 | 5338.7 | 8208.5 | 12122.3 | 15310.2 | 16930.7 | 17560.4 | 13404.7 |
| 60° | 1451.5 | 1507.8 | 1637.1 | 2014.9 | 2760.5 | 4261.7 | 7555.7 | 10203.5 | 12679.0 | 13646.7 | 10160.4 |
| 62.5° | 1202.9 | 1222.8 | 1309.0 | 1497.9 | 1835.9 | 2452.3 | 3857.4 | 4974.2 | 6465.4 | 7337.0 | 5779.5 |
| 65° | 1020.7 | 1030.6 | 1123.4 | 1249.3 | 1464.7 | 1726.5 | 1985.0 | 2077.8 | 2515.3 | 2581.5 | 2054.6 |
| 67.5° | 851.7 | 861.6 | 961.0 | 1080.3 | 1219.5 | 1289.1 | 1355.4 | 1348.8 | 1398.5 | 1378.6 | 1375.3 |
| 70° | 656.2 | 666.1 | 768.8 | 894.8 | 964.3 | 924.6 | 1130.0 | 1176.4 | 1196.3 | 1212.9 | 1239.4 |
| 72.5° | 473.9 | 493.8 | 573.3 | 662.8 | 626.3 | 719.1 | 931.2 | 1000.8 | 1027.3 | 1037.3 | 1070.4 |
| 75° | 344.6 | 351.3 | 371.2 | 344.6 | 397.7 | 500.4 | 656.2 | 742.3 | 775.5 | 785.4 | 835.1 |
| 77.5° | 152.4 | 155.8 | 159.1 | 198.8 | 255.2 | 311.5 | 391.0 | 460.6 | 507.0 | 520.3 | 533.5 |
| 80° | 79.5 | 82.8 | 102.7 | 135.9 | 182.3 | 228.7 | 285.0 | 324.8 | 354.6 | 357.9 | 371.2 |
| 82.5° | 49.7 | 53.0 | 72.9 | 96.1 | 129.2 | 169.0 | 208.8 | 241.9 | 265.1 | 268.4 | 271.7 |
| 85° | 23.2 | 29.8 | 43.1 | 59.7 | 86.2 | 109.4 | 112.7 | 96.1 | 102.7 | 106.0 | 99.4 |
| 87.5° | 6.6 | 9.9 | 13.3 | 9.9 | 13.3 | 13.3 | 16.6 | 19.9 | 19.9 | 19.9 | 23.2 |
| 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° | 3728.1 | 3728.1 | 3728.1 | 3728.1 | 3728.1 | 3728.1 | 3728.1 | 3728.1 | 3728.1 | 3728.1 | 3728.1 |
| 2.5° | 3787.8 | 3758.0 | 3642.0 | 3598.9 | 3486.2 | 3506.1 | 3446.5 | 3443.1 | 3429.9 | 3426.6 | 3423.3 |
| 5° | 3880.6 | 3787.8 | 3648.6 | 3542.6 | 3479.6 | 3473.0 | 3429.9 | 3429.9 | 3443.1 | 3453.1 | 3429.9 |
| 7.5° | 4033.0 | 3927.0 | 3691.7 | 3592.3 | 3535.9 | 3526.0 | 3496.2 | 3473.0 | 3502.8 | 3492.9 | 3466.3 |
| 10° | 4208.7 | 4023.1 | 3774.5 | 3688.4 | 3595.6 | 3572.4 | 3572.4 | 3582.3 | 3532.6 | 3549.2 | 3522.7 |
| 12.5° | 4404.2 | 4155.6 | 3880.6 | 3781.2 | 3671.8 | 3658.6 | 3651.9 | 3579.0 | 3605.5 | 3592.3 | 3526.0 |
| 15° | 4652.7 | 4308.1 | 4016.5 | 3847.4 | 3754.7 | 3695.0 | 3608.8 | 3595.6 | 3579.0 | 3545.9 | 3516.1 |
| 17.5° | 4921.1 | 4473.8 | 4079.4 | 3867.3 | 3728.1 | 3685.1 | 3618.8 | 3549.2 | 3499.5 | 3506.1 | 3482.9 |
| 20° | 5149.8 | 4626.2 | 4102.6 | 3887.2 | 3708.3 | 3625.4 | 3522.7 | 3479.6 | 3426.6 | 3423.3 | 3420.0 |
| 22.5° | 5421.5 | 4831.7 | 4135.8 | 3834.2 | 3648.6 | 3562.4 | 3492.9 | 3416.6 | 3380.2 | 3333.8 | 3357.0 |
| 25° | 5746.3 | 4911.2 | 4142.4 | 3804.4 | 3605.5 | 3453.1 | 3416.6 | 3333.8 | 3320.5 | 3254.3 | 3267.5 |
| 27.5° | 5981.6 | 4954.3 | 4089.4 | 3711.6 | 3506.1 | 3390.1 | 3323.8 | 3264.2 | 3241.0 | 3191.3 | 3178.0 |
| 30° | 6296.4 | 5020.6 | 3976.7 | 3595.6 | 3406.7 | 3277.5 | 3237.7 | 3224.4 | 3158.2 | 3105.1 | 3098.5 |
| 32.5° | 6654.3 | 5063.6 | 3903.8 | 3476.3 | 3304.0 | 3204.5 | 3224.4 | 3161.5 | 3078.6 | 3032.2 | 3019.0 |
| 35° | 6939.3 | 5080.2 | 3721.5 | 3340.4 | 3234.4 | 3171.4 | 3148.2 | 3135.0 | 3015.7 | 2972.6 | 2939.4 |
| 37.5° | 7373.4 | 5043.8 | 3569.1 | 3244.3 | 3158.2 | 3135.0 | 3115.1 | 3025.6 | 2889.7 | 2826.8 | 2780.4 |
| 40° | 7880.5 | 5033.8 | 3373.6 | 3108.4 | 3085.2 | 3111.8 | 3052.1 | 2912.9 | 2724.0 | 2654.4 | 2621.3 |
| 42.5° | 8367.6 | 5103.4 | 3250.9 | 3035.5 | 3005.7 | 3015.7 | 2932.8 | 2724.0 | 2631.2 | 2591.5 | 2538.5 |
| 45° | 9182.8 | 5249.2 | 3048.8 | 2922.9 | 2909.6 | 2903.0 | 2803.6 | 2584.8 | 2531.8 | 2482.1 | 2472.2 |
| 47.5° | 9918.5 | 5153.1 | 2919.6 | 2806.9 | 2820.1 | 2783.7 | 2571.6 | 2502.0 | 2442.3 | 2392.6 | 2376.1 |
| 50° | 9961.6 | 4924.5 | 2737.3 | 2717.4 | 2720.7 | 2657.8 | 2455.6 | 2409.2 | 2333.0 | 2299.9 | 2276.7 |
| 52.5° | 9736.3 | 4550.0 | 2568.3 | 2574.9 | 2584.8 | 2482.1 | 2313.1 | 2280.0 | 2217.0 | 2170.6 | 2157.4 |
| 55° | 9103.3 | 3966.7 | 2402.6 | 2429.1 | 2455.6 | 2260.1 | 2207.1 | 2124.2 | 2074.5 | 2008.2 | 2011.5 |
| 57.5° | 8019.7 | 3194.6 | 2170.6 | 2213.7 | 2270.0 | 2054.6 | 2014.9 | 1912.1 | 1839.2 | 1786.2 | 1779.6 |
| 60° | 5375.2 | 2273.3 | 1822.6 | 1839.2 | 1965.1 | 1879.0 | 1875.7 | 1772.9 | 1673.5 | 1627.1 | 1600.6 |
| 62.5° | 3171.4 | 1736.5 | 1574.1 | 1557.5 | 1554.2 | 1603.9 | 1686.8 | 1650.3 | 1521.1 | 1431.6 | 1458.1 |
| 65° | 1660.3 | 1501.2 | 1464.7 | 1408.4 | 1375.3 | 1362.0 | 1425.0 | 1441.5 | 1355.4 | 1259.3 | 1252.7 |
| 67.5° | 1395.2 | 1395.2 | 1365.3 | 1345.4 | 1299.1 | 1242.7 | 1202.9 | 1149.9 | 1136.7 | 1110.2 | 1077.0 |
| 70° | 1269.2 | 1302.4 | 1292.4 | 1246.0 | 1206.3 | 1143.3 | 1040.6 | 954.4 | 871.6 | 841.7 | 861.6 |
| 72.5° | 1106.8 | 1140.0 | 1140.0 | 1116.8 | 1063.8 | 967.7 | 868.2 | 768.8 | 699.2 | 646.2 | 639.6 |
| 75° | 851.7 | 868.2 | 908.0 | 881.5 | 811.9 | 752.3 | 649.5 | 546.8 | 480.5 | 430.8 | 420.9 |
| 77.5° | 543.5 | 570.0 | 570.0 | 566.7 | 517.0 | 460.6 | 394.4 | 321.4 | 271.7 | 235.3 | 225.3 |
| 80° | 361.2 | 377.8 | 391.0 | 377.8 | 344.6 | 301.6 | 251.9 | 202.1 | 165.7 | 135.9 | 129.2 |
| 82.5° | 265.1 | 285.0 | 294.9 | 281.7 | 248.5 | 215.4 | 179.0 | 142.5 | 106.0 | 82.8 | 76.2 |
| 85° | 102.7 | 106.0 | 119.3 | 142.5 | 139.2 | 135.9 | 109.4 | 79.5 | 59.7 | 43.1 | 39.8 |
| 87.5° | 26.5 | 23.2 | 26.5 | 26.5 | 23.2 | 19.9 | 19.9 | 19.9 | 19.9 | 9.9 | 13.3 |
| 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)