

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: P647152

Luminaire Tested: **GALN-SA9C-835-U-AFL-GRSBK**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P647152
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-SA9C-835-U-AFL-GRSBK
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3500K, 1050mA 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: 37227.8 lumens
Efficiency: N/A
Efficacy: 77.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G1

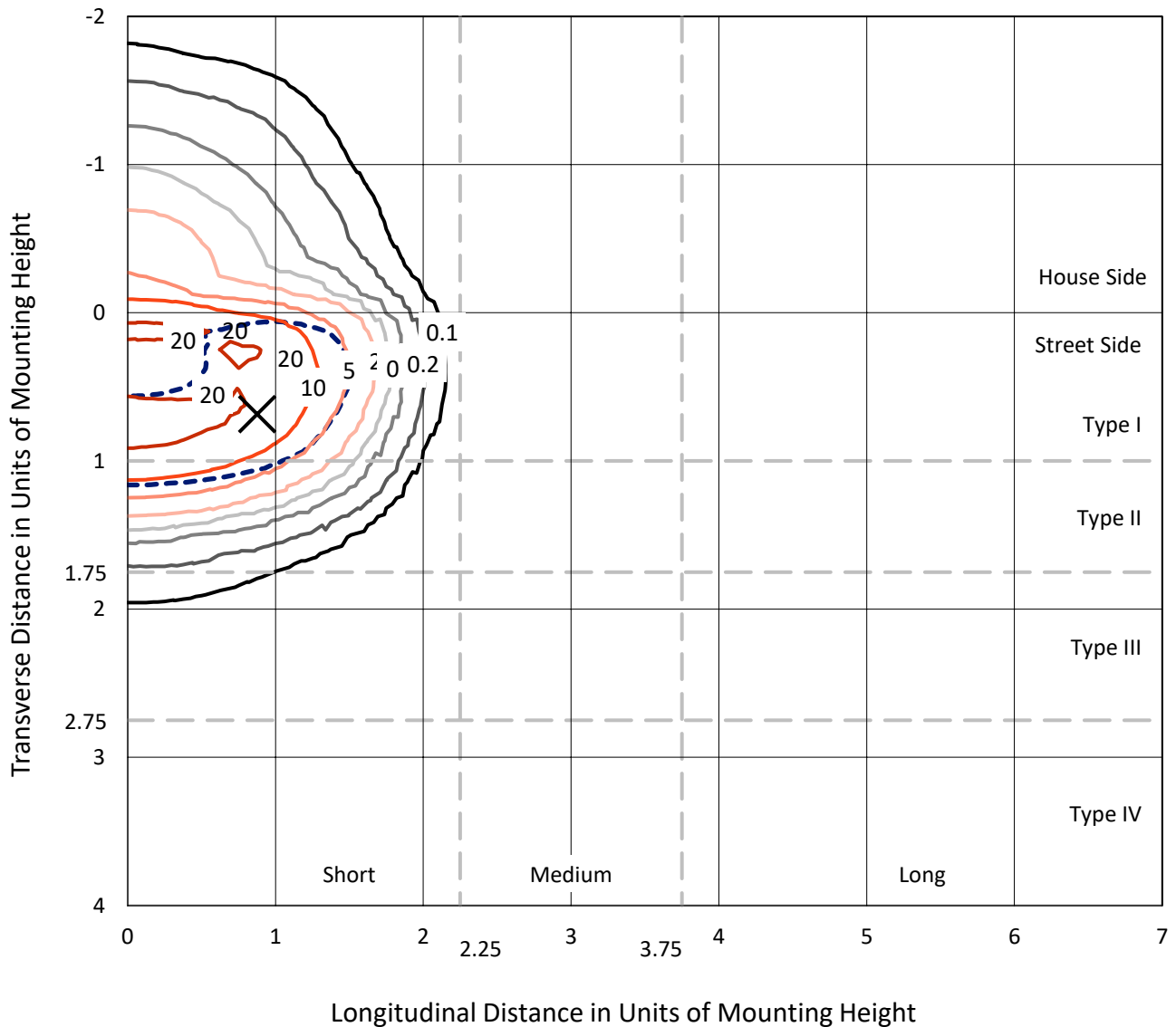
Input Watts (W): 481
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

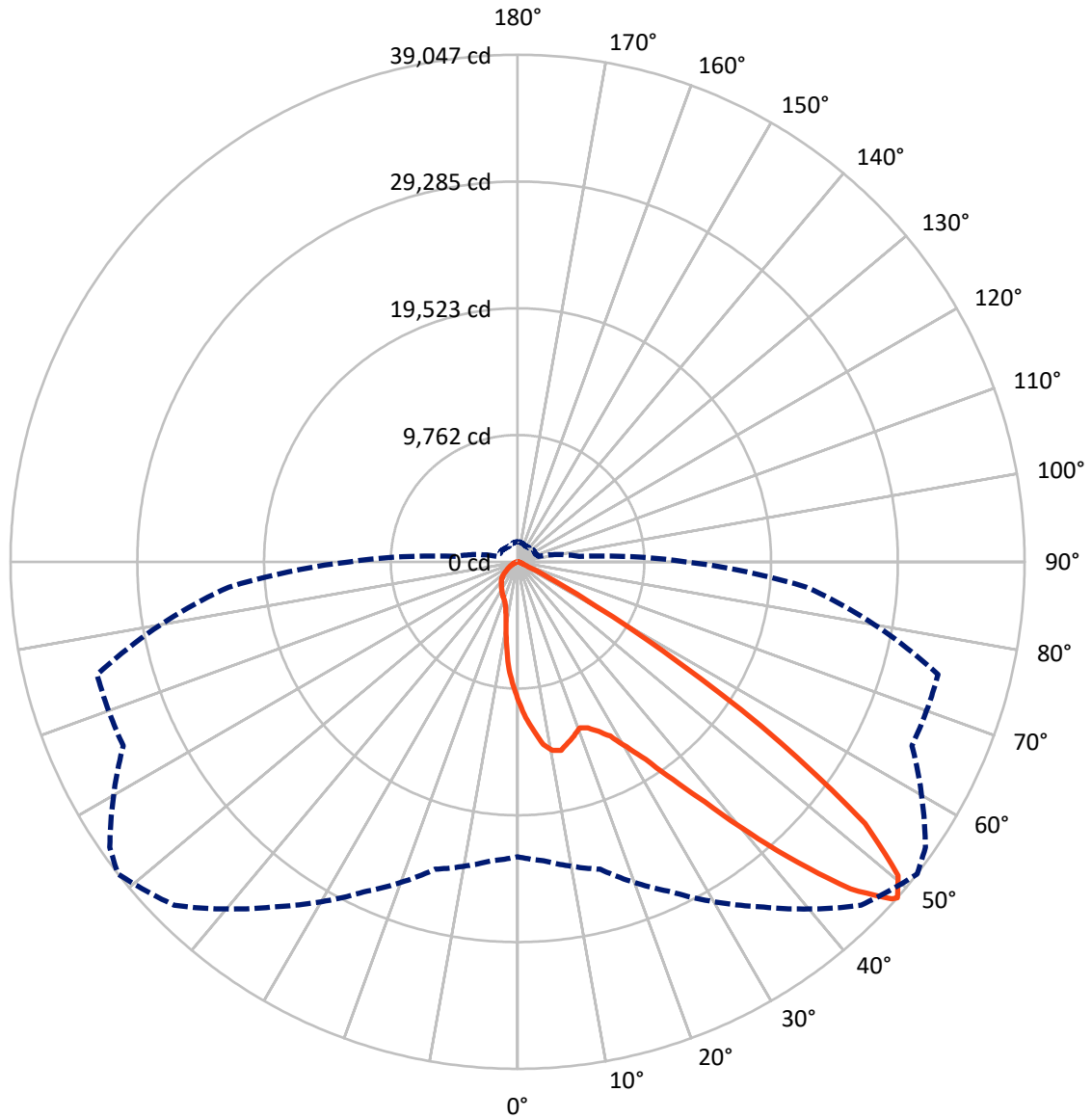
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 24.1 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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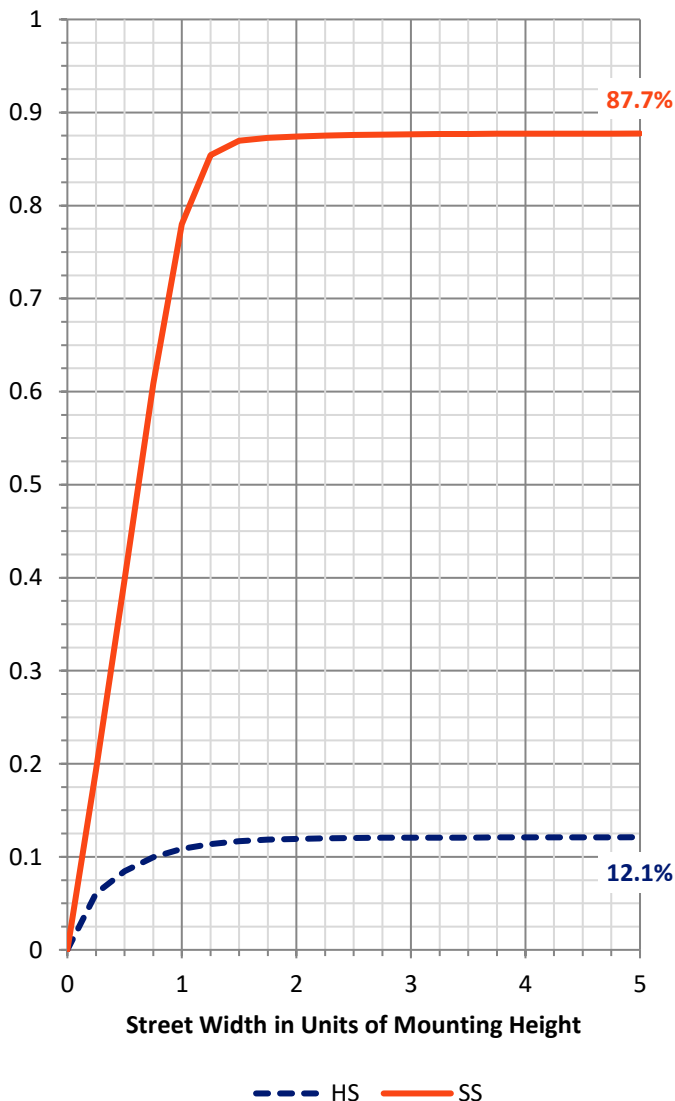
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4532.8 | 0.0 | 4532.8 |
| | % Fixture | 12.2 | 0.0 | 12.2 |
| Street Side | Lumens | 32695.0 | 0.0 | 32695.0 |
| | % Fixture | 87.8 | 0.0 | 87.8 |
| Total | Lumens | 37227.8 | 0.0 | 37227.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 984.0 | 2.6 |
| 10°-20° | 2571.5 | 6.9 |
| 20°-30° | 4390.7 | 11.8 |
| 30°-40° | 8085.4 | 21.7 |
| 40°-50° | 12556.7 | 33.7 |
| 50°-60° | 7557.0 | 20.3 |
| 60°-70° | 874.0 | 2.3 |
| 70°-80° | 169.2 | 0.5 |
| 80°-90° | 39.1 | 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° | 37227.8 | 100.0 |
| 0°-180° | 37227.8 | 100.0 |

Coefficient of Utilization

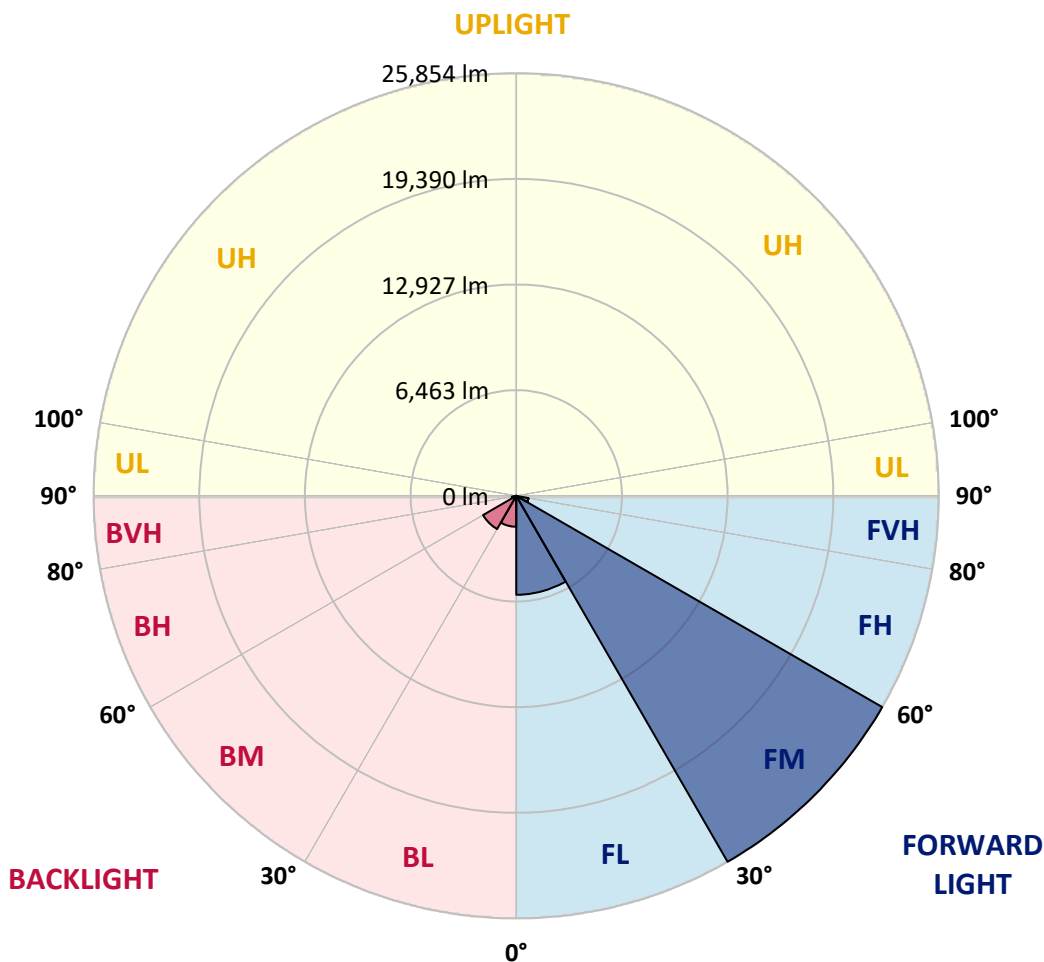


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 6052.7 | 16.3 | | | |
| FM (30°-60°) | 25853.9 | 69.4 | | | |
| FH (60°-80°) | 769.7 | 2.1 | | | G1/1800 |
| FVH (80°-90°) | 18.6 | 0.1 | | | G1/100 |
| BL (0°-30°) | 1893.5 | 5.1 | B3/2500 | | |
| BM (30°-60°) | 2345.2 | 6.3 | B2/2500 | | |
| BH (60°-80°) | 273.6 | 0.7 | B1/500 | | G1/500 |
| BVH (80°-90°) | 20.5 | 0.1 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G1
 Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 52° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 10750.7 | 10750.7 | 10750.7 | 10750.7 | 10750.7 | 10750.7 | 10750.7 | 10750.7 | 10750.7 | 10750.7 | 10750.7 |
| 2.5° | 13030.1 | 12731.6 | 12758.8 | 12563.3 | 12449.4 | 12264.8 | 12015.2 | 11966.4 | 11695.0 | 11326.0 | 10951.6 |
| 5° | 14202.3 | 14131.7 | 14224.0 | 13941.8 | 13952.7 | 13648.7 | 13062.6 | 13073.5 | 12449.4 | 11847.0 | 11266.3 |
| 7.5° | 14278.2 | 14115.5 | 14207.7 | 14457.3 | 14603.9 | 14549.6 | 14218.6 | 13930.9 | 13339.4 | 12454.8 | 11608.2 |
| 10° | 12785.8 | 13095.2 | 13192.8 | 13605.3 | 14191.4 | 14810.1 | 14772.1 | 14788.4 | 14294.5 | 13138.6 | 11901.3 |
| 12.5° | 11890.4 | 11684.2 | 12015.2 | 12264.8 | 13149.5 | 14348.8 | 14896.9 | 15016.3 | 15054.3 | 13800.7 | 12194.3 |
| 15° | 11483.4 | 11483.4 | 11537.7 | 11608.2 | 12248.5 | 13355.7 | 14473.6 | 14820.9 | 15640.4 | 14669.0 | 12655.6 |
| 17.5° | 11738.4 | 11727.6 | 11803.6 | 11657.1 | 11895.8 | 12747.9 | 14082.9 | 14479.1 | 16297.0 | 15521.0 | 13019.2 |
| 20° | 12514.5 | 12552.5 | 12503.6 | 12080.4 | 12096.6 | 12737.0 | 13648.7 | 14272.8 | 16742.1 | 16259.1 | 13502.2 |
| 22.5° | 13594.4 | 13616.1 | 13339.4 | 12878.1 | 12742.5 | 13057.2 | 13898.4 | 14376.0 | 17100.3 | 17143.7 | 13648.7 |
| 25° | 14842.6 | 14755.8 | 14701.5 | 14050.3 | 13637.9 | 13909.2 | 14462.8 | 14739.6 | 17322.8 | 17903.5 | 14066.6 |
| 27.5° | 16573.8 | 16400.2 | 16069.1 | 15488.4 | 15184.6 | 14799.2 | 15195.4 | 15651.3 | 17957.7 | 18967.2 | 14522.5 |
| 30° | 19129.9 | 18978.0 | 18332.1 | 17583.3 | 16785.5 | 16405.7 | 16530.5 | 16780.1 | 19102.8 | 20199.1 | 15124.8 |
| 32.5° | 22977.6 | 22657.4 | 21724.0 | 20296.7 | 19211.4 | 18164.0 | 18131.4 | 18397.3 | 20128.5 | 21903.1 | 15841.2 |
| 35° | 27216.1 | 27118.3 | 25745.4 | 24274.6 | 22174.5 | 20557.2 | 20584.4 | 20725.5 | 22093.0 | 24139.0 | 16780.1 |
| 37.5° | 30032.7 | 30569.9 | 29696.1 | 28116.9 | 26353.2 | 24041.3 | 23455.2 | 23504.0 | 24790.2 | 26787.4 | 18473.2 |
| 40° | 32208.9 | 31753.0 | 31856.1 | 31487.1 | 30282.3 | 28708.5 | 27411.4 | 27156.4 | 27910.7 | 29717.9 | 20155.6 |
| 42.5° | 31259.2 | 31280.8 | 31915.8 | 32789.5 | 33088.0 | 32974.0 | 31649.9 | 31166.8 | 30580.8 | 32116.5 | 21756.6 |
| 45° | 28578.2 | 29137.2 | 29962.1 | 32273.9 | 34303.6 | 36208.5 | 35948.0 | 35144.8 | 32425.9 | 34016.0 | 22679.1 |
| 47.5° | 24301.8 | 24280.1 | 25631.4 | 28637.9 | 33147.7 | 37608.7 | 38791.7 | 38227.3 | 33733.8 | 33804.4 | 22489.2 |
| 48° | 22722.6 | 23113.3 | 24508.1 | 28046.4 | 32415.0 | 37402.4 | 39046.8 | 38335.8 | 33511.3 | 33522.2 | 22326.4 |
| 50° | 16796.4 | 16725.8 | 18462.4 | 22803.9 | 28952.7 | 35144.8 | 37972.2 | 38525.8 | 33505.9 | 32094.9 | 21186.7 |
| 52.5° | 8873.0 | 9176.9 | 10441.4 | 14338.0 | 20470.4 | 28762.7 | 33495.0 | 34357.9 | 32322.8 | 29761.3 | 19547.8 |
| 55° | 3771.7 | 3408.1 | 4379.6 | 6474.3 | 11516.0 | 19216.8 | 24573.1 | 26494.3 | 27330.0 | 26336.9 | 17100.3 |
| 57.5° | 1345.9 | 1470.7 | 1693.2 | 2436.7 | 4840.8 | 10517.4 | 14652.7 | 16145.1 | 18934.6 | 19325.3 | 11651.6 |
| 60° | 862.9 | 879.2 | 949.7 | 1118.0 | 1818.0 | 4053.9 | 6951.9 | 8140.4 | 9404.8 | 9708.8 | 5437.8 |
| 62.5° | 667.5 | 672.9 | 705.5 | 732.7 | 862.9 | 1573.8 | 2610.4 | 3093.3 | 3212.7 | 2762.3 | 1427.3 |
| 65° | 559.0 | 564.4 | 575.3 | 575.3 | 613.2 | 738.1 | 911.7 | 1004.0 | 976.9 | 966.0 | 808.6 |
| 67.5° | 428.7 | 439.6 | 461.3 | 461.3 | 483.0 | 450.5 | 504.7 | 537.3 | 607.8 | 738.1 | 689.2 |
| 70° | 336.5 | 341.9 | 358.1 | 369.0 | 369.0 | 325.6 | 363.6 | 396.2 | 445.0 | 548.1 | 542.7 |
| 72.5° | 260.5 | 271.3 | 282.2 | 282.2 | 265.9 | 222.5 | 260.5 | 287.6 | 320.2 | 379.9 | 369.0 |
| 75° | 200.8 | 200.8 | 206.2 | 168.3 | 130.2 | 113.9 | 157.4 | 190.0 | 238.8 | 249.6 | 206.2 |
| 77.5° | 54.3 | 59.7 | 54.3 | 48.9 | 54.3 | 81.4 | 103.1 | 119.4 | 152.0 | 152.0 | 135.7 |
| 80° | 0.0 | 5.4 | 16.3 | 32.6 | 54.3 | 76.0 | 92.2 | 103.1 | 119.4 | 130.2 | 124.8 |
| 82.5° | 0.0 | 5.4 | 16.3 | 32.6 | 48.9 | 59.7 | 81.4 | 86.8 | 97.7 | 113.9 | 113.9 |
| 85° | 0.0 | 5.4 | 10.9 | 21.7 | 32.6 | 38.0 | 38.0 | 32.6 | 32.6 | 27.2 | 21.7 |
| 87.5° | 0.0 | 0.0 | 5.4 | 10.9 | 10.9 | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 |
| 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° | 10750.7 | 10750.7 | 10750.7 | 10750.7 | 10750.7 | 10750.7 | 10750.7 | 10750.7 | 10750.7 | 10750.7 | 10750.7 |
| 2.5° | 10805.0 | 10636.8 | 10381.7 | 9980.1 | 9594.8 | 9345.2 | 9106.4 | 8840.5 | 8694.0 | 8683.1 | 8601.7 |
| 5° | 10935.3 | 10555.4 | 9947.5 | 9258.3 | 8520.3 | 7885.4 | 7244.9 | 6827.1 | 6452.6 | 6246.4 | 6208.4 |
| 7.5° | 11005.8 | 10511.9 | 9529.7 | 8373.8 | 7114.7 | 6078.2 | 5361.8 | 4835.4 | 4629.2 | 4477.2 | 4471.8 |
| 10° | 11152.3 | 10436.0 | 8905.6 | 7201.6 | 5644.0 | 4596.6 | 4102.8 | 3863.9 | 3750.0 | 3706.6 | 3641.5 |
| 12.5° | 11260.9 | 10294.9 | 8265.2 | 5996.8 | 4460.9 | 3809.7 | 3592.6 | 3538.4 | 3543.8 | 3565.5 | 3538.4 |
| 15° | 11412.9 | 10170.1 | 7402.3 | 4922.3 | 3744.6 | 3429.9 | 3429.9 | 3440.7 | 3516.7 | 3527.5 | 3522.1 |
| 17.5° | 11402.0 | 9925.9 | 6512.3 | 4053.9 | 3310.4 | 3267.0 | 3283.3 | 3386.4 | 3435.3 | 3451.5 | 3413.6 |
| 20° | 11532.3 | 9697.9 | 5595.2 | 3462.3 | 3066.2 | 3131.4 | 3239.9 | 3267.0 | 3326.7 | 3337.5 | 3294.2 |
| 22.5° | 11494.2 | 9128.1 | 4743.1 | 2995.7 | 2881.7 | 3006.5 | 3115.1 | 3147.6 | 3131.4 | 3098.8 | 3093.3 |
| 25° | 11423.7 | 8639.7 | 3961.7 | 2686.3 | 2746.1 | 2881.7 | 2984.8 | 2925.1 | 2892.6 | 2898.0 | 2903.4 |
| 27.5° | 11298.8 | 8021.0 | 3315.8 | 2469.3 | 2561.5 | 2762.3 | 2756.9 | 2735.2 | 2767.7 | 2740.6 | 2767.7 |
| 30° | 11277.2 | 7402.3 | 2784.0 | 2273.9 | 2425.8 | 2572.4 | 2583.2 | 2621.2 | 2659.2 | 2610.4 | 2659.2 |
| 32.5° | 11309.7 | 6723.9 | 2404.1 | 2154.5 | 2344.5 | 2349.9 | 2469.3 | 2507.2 | 2480.1 | 2371.6 | 2382.4 |
| 35° | 11559.4 | 6203.0 | 2127.3 | 2089.4 | 2214.2 | 2219.6 | 2333.6 | 2284.7 | 2165.3 | 2100.2 | 2138.2 |
| 37.5° | 12085.8 | 5768.8 | 1997.1 | 2029.7 | 2040.5 | 2111.0 | 2116.5 | 2018.8 | 2029.7 | 2024.2 | 2046.0 |
| 40° | 12758.8 | 5437.8 | 1904.9 | 1975.4 | 1964.5 | 2013.4 | 1818.0 | 1872.3 | 1921.2 | 1937.4 | 1948.3 |
| 42.5° | 13220.0 | 5199.0 | 1845.1 | 1888.6 | 1866.8 | 1780.1 | 1671.5 | 1725.7 | 1763.8 | 1823.5 | 1834.3 |
| 45° | 13426.3 | 5009.1 | 1774.6 | 1736.6 | 1736.6 | 1579.2 | 1535.9 | 1546.7 | 1633.5 | 1698.6 | 1687.8 |
| 47.5° | 13089.7 | 4824.5 | 1649.8 | 1535.9 | 1573.8 | 1443.5 | 1394.8 | 1394.8 | 1487.0 | 1568.3 | 1552.1 |
| 48° | 12959.5 | 4748.6 | 1655.2 | 1492.4 | 1519.6 | 1421.8 | 1373.0 | 1362.2 | 1465.3 | 1541.3 | 1541.3 |
| 50° | 12313.7 | 4466.4 | 1514.1 | 1373.0 | 1318.7 | 1307.9 | 1275.4 | 1286.2 | 1351.3 | 1421.8 | 1421.8 |
| 52.5° | 11054.6 | 3858.5 | 1280.8 | 1177.6 | 1080.0 | 1145.1 | 1161.3 | 1139.7 | 1172.2 | 1237.4 | 1231.9 |
| 55° | 9225.8 | 2963.1 | 1025.7 | 976.9 | 900.8 | 971.4 | 1004.0 | 976.9 | 944.3 | 993.2 | 993.2 |
| 57.5° | 5909.9 | 1595.5 | 819.5 | 830.3 | 754.3 | 824.9 | 852.1 | 786.9 | 727.2 | 765.2 | 759.7 |
| 60° | 2664.6 | 955.1 | 672.9 | 656.6 | 607.8 | 689.2 | 732.7 | 656.6 | 575.3 | 602.4 | 629.5 |
| 62.5° | 998.6 | 678.4 | 510.1 | 499.2 | 488.4 | 564.4 | 586.1 | 526.4 | 445.0 | 461.3 | 466.7 |
| 65° | 732.7 | 597.0 | 407.0 | 369.0 | 390.7 | 445.0 | 434.2 | 374.4 | 320.2 | 320.2 | 331.1 |
| 67.5° | 624.1 | 521.0 | 331.1 | 287.6 | 287.6 | 293.1 | 271.3 | 238.8 | 222.5 | 233.3 | 244.2 |
| 70° | 488.4 | 412.5 | 260.5 | 222.5 | 200.8 | 179.1 | 157.4 | 152.0 | 135.7 | 152.0 | 146.5 |
| 72.5° | 314.8 | 276.8 | 200.8 | 168.3 | 152.0 | 124.8 | 103.1 | 97.7 | 81.4 | 76.0 | 76.0 |
| 75° | 168.3 | 168.3 | 157.4 | 135.7 | 119.4 | 97.7 | 81.4 | 65.1 | 43.4 | 32.6 | 32.6 |
| 77.5° | 119.4 | 130.2 | 141.1 | 130.2 | 108.5 | 81.4 | 65.1 | 43.4 | 21.7 | 10.9 | 10.9 |
| 80° | 113.9 | 130.2 | 141.1 | 124.8 | 108.5 | 81.4 | 59.7 | 32.6 | 16.3 | 5.4 | 5.4 |
| 82.5° | 103.1 | 119.4 | 130.2 | 113.9 | 97.7 | 70.5 | 54.3 | 32.6 | 16.3 | 5.4 | 5.4 |
| 85° | 21.7 | 27.2 | 32.6 | 32.6 | 38.0 | 48.9 | 38.0 | 27.2 | 10.9 | 5.4 | 5.4 |
| 87.5° | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 | 10.9 | 10.9 | 5.4 | 5.4 | 5.4 |
| 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)