

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: P651614

Luminaire Tested: **GALN-SA9D-840-U-SL2-GRSBK**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P651614
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-057-17)
Test Lab: INNOVATION CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA9D-840-U-SL2-GRSBK
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
SPILL LIGHT ELIMINATOR OPTICS WITH BLACK GLARE REDUCTION SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34425.5 lumens
Efficiency: N/A
Efficacy: 62.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

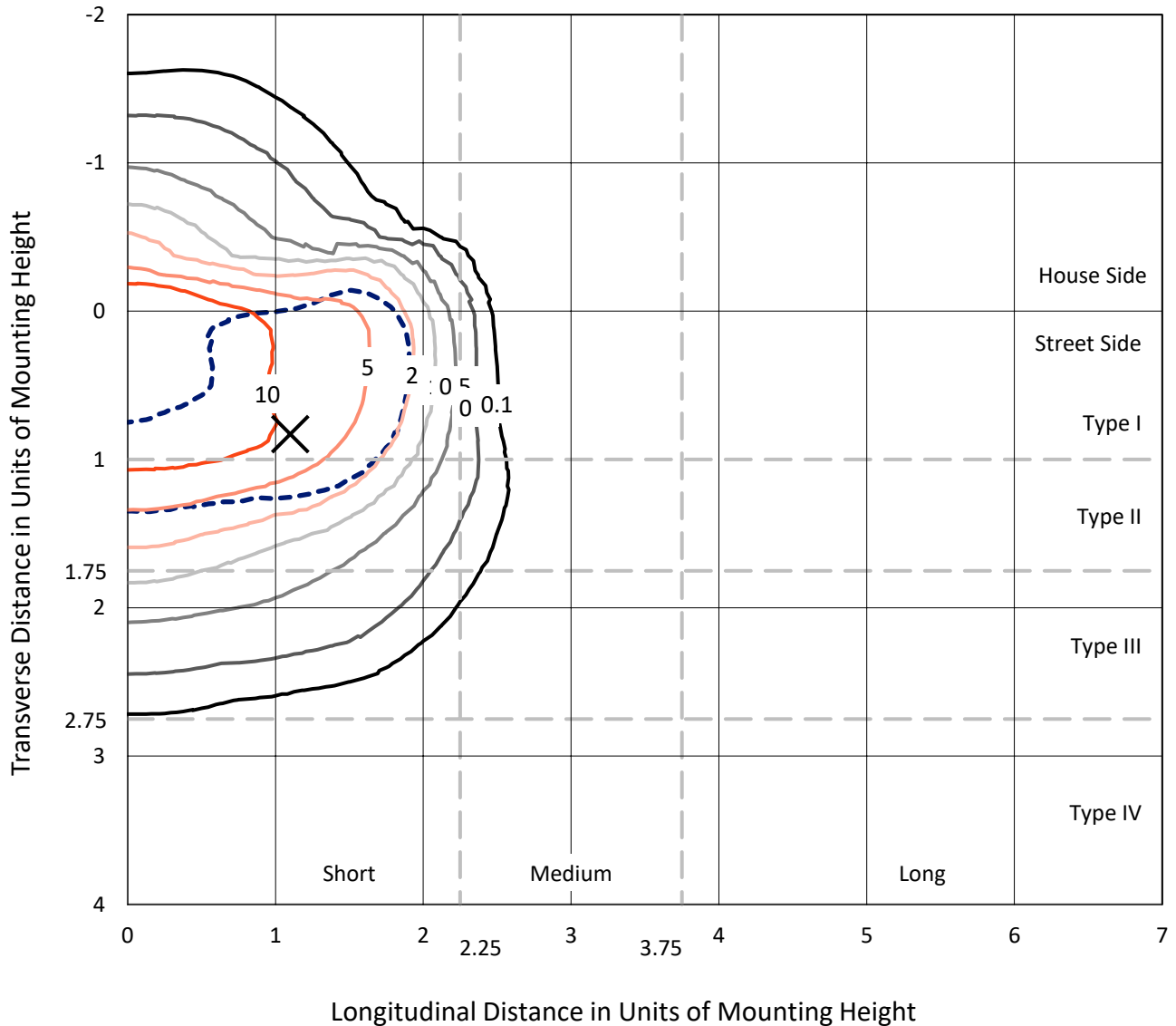
Input Watts (W): 552
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

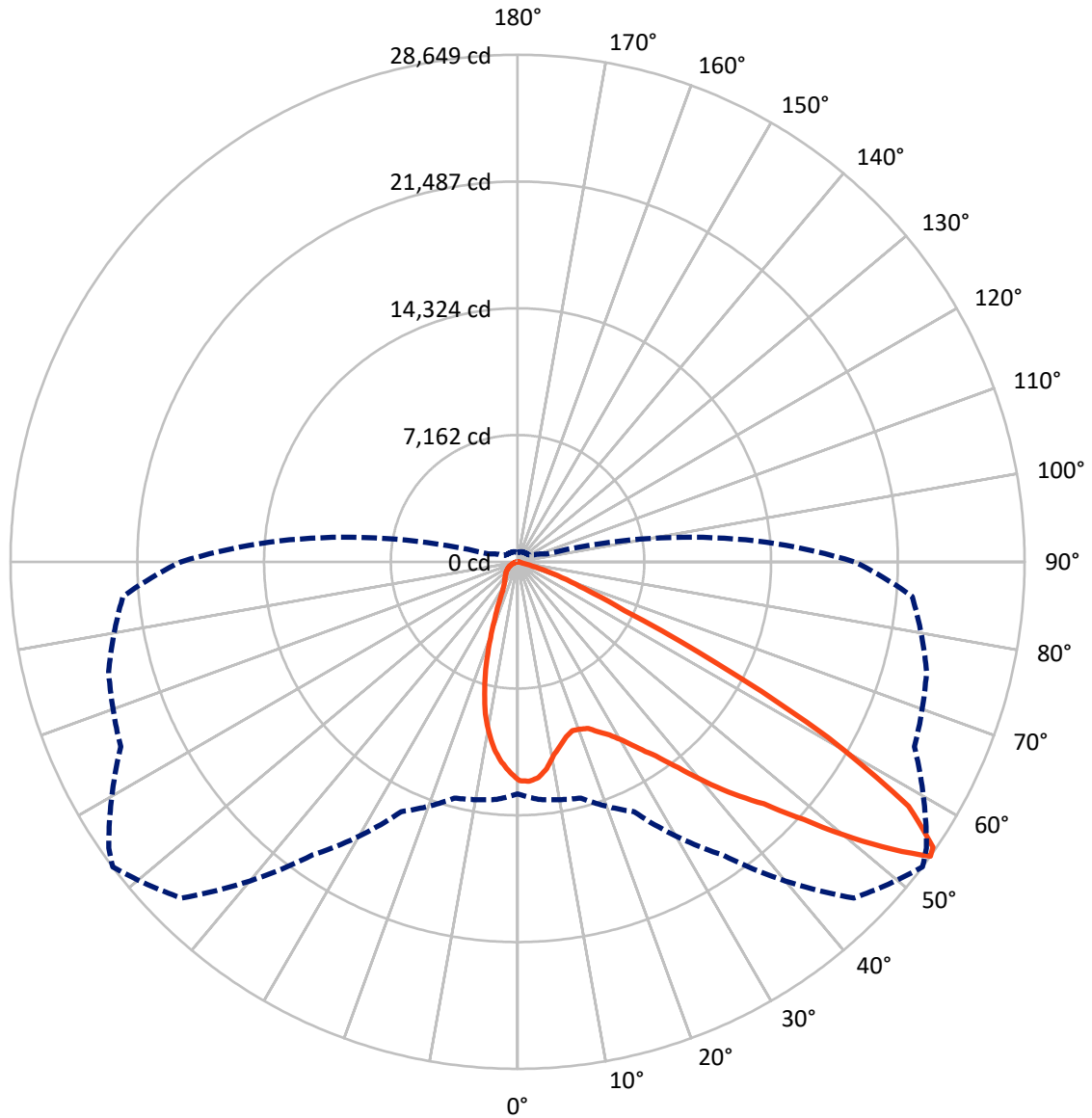
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 19.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 53-Deg Lateral - - - Horizontal Cone Through 54-Deg Vertical



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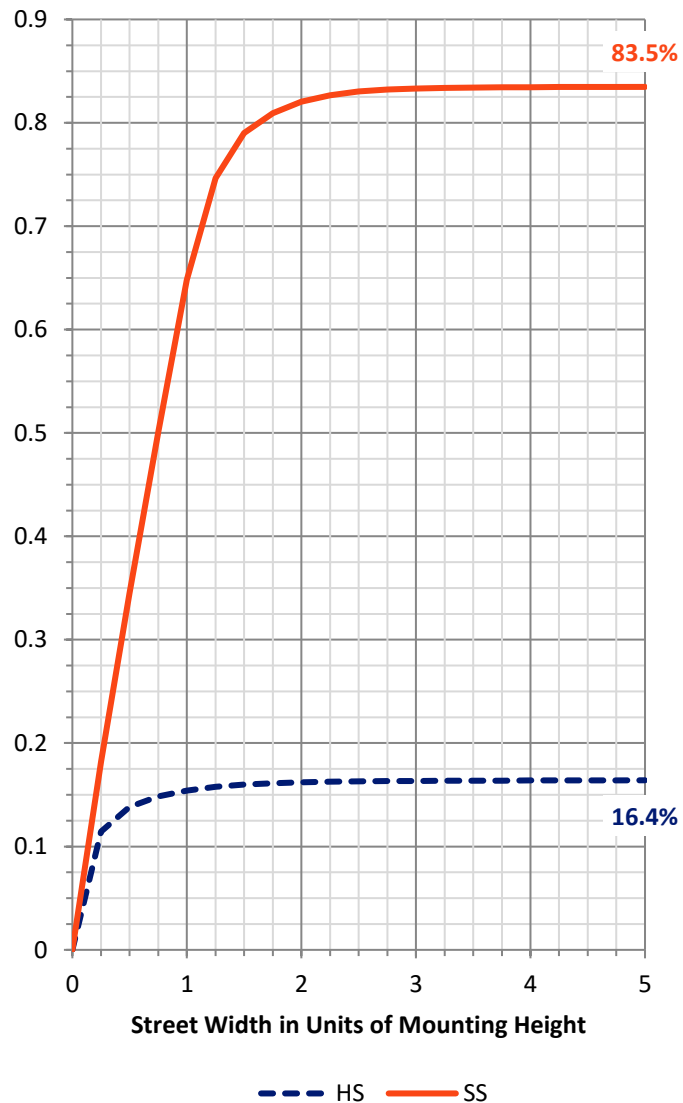
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5695.8 | 0.0 | 5695.8 |
| | % Fixture | 16.5 | 0.0 | 16.5 |
| Street Side | Lumens | 28729.7 | 0.0 | 28729.7 |
| | % Fixture | 83.5 | 0.0 | 83.5 |
| Total | Lumens | 34425.5 | 0.0 | 34425.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1060.9 | 3.1 |
| 10°-20° | 2432.3 | 7.1 |
| 20°-30° | 3456.8 | 10.0 |
| 30°-40° | 5334.8 | 15.5 |
| 40°-50° | 8364.4 | 24.3 |
| 50°-60° | 9716.4 | 28.2 |
| 60°-70° | 3671.5 | 10.7 |
| 70°-80° | 349.1 | 1.0 |
| 80°-90° | 39.3 | 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° | 34425.5 | 100.0 |
| 0°-180° | 34425.5 | 100.0 |

Coefficient of Utilization

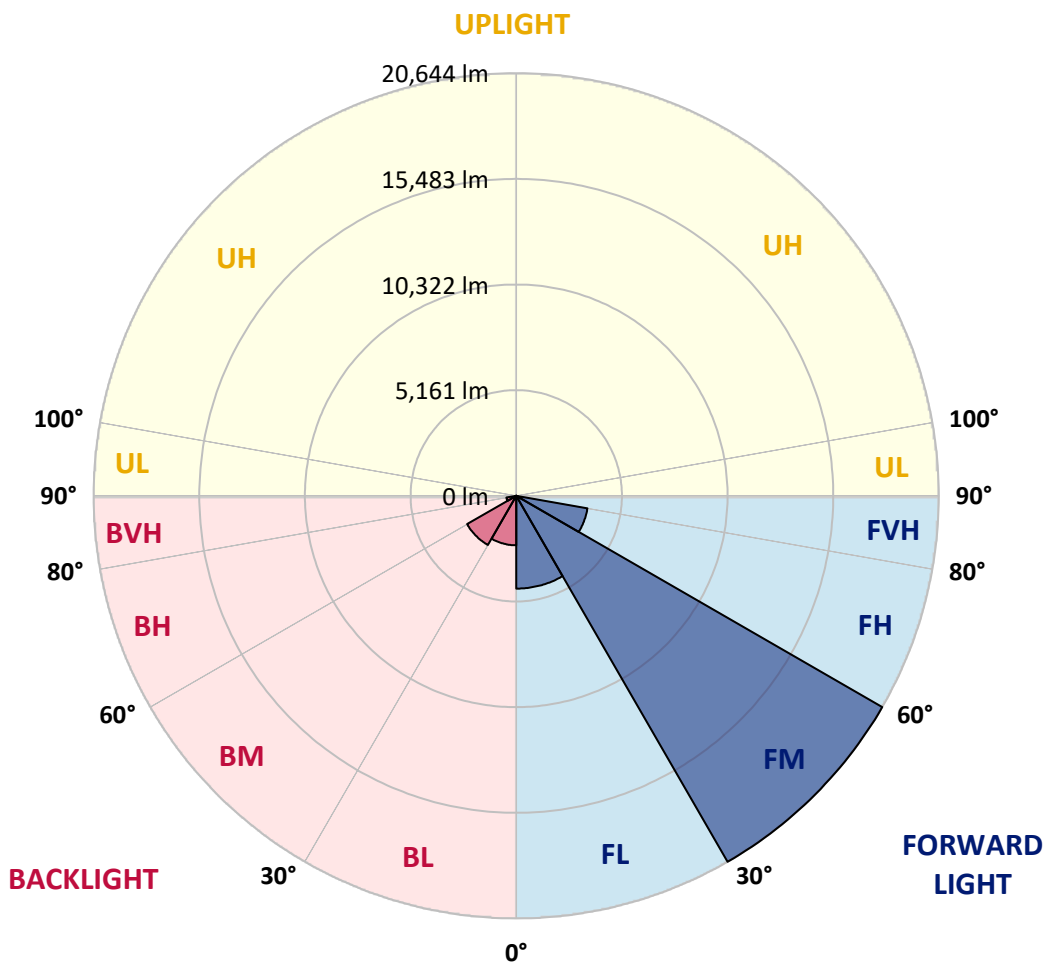


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 4532.9 | 13.2 | | | |
| FM (30°-60°) | 20643.9 | 60.0 | | | |
| FH (60°-80°) | 3532.6 | 10.3 | | | G2/5000 |
| FVH (80°-90°) | 20.3 | 0.1 | | | G1/100 |
| BL (0°-30°) | 2417.1 | 7.0 | B3/2500 | | |
| BM (30°-60°) | 2771.7 | 8.1 | B3/5000 | | |
| BH (60°-80°) | 488.0 | 1.4 | B1/500 | | G1/500 |
| BVH (80°-90°) | 19.0 | 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-G2
 Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 53° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 12365.1 | 12365.1 | 12365.1 | 12365.1 | 12365.1 | 12365.1 | 12365.1 | 12365.1 | 12365.1 | 12365.1 | 12365.1 |
| 2.5° | 12300.9 | 12191.9 | 12300.9 | 12313.8 | 12390.7 | 12461.3 | 12416.4 | 12519.0 | 12461.3 | 12397.1 | 12377.9 |
| 5° | 11306.8 | 11454.3 | 11460.7 | 11691.7 | 11640.4 | 12063.6 | 12249.6 | 12198.3 | 12512.6 | 12493.3 | 12448.4 |
| 7.5° | 10415.4 | 10357.7 | 10434.6 | 10704.0 | 11043.9 | 11531.3 | 11800.7 | 11794.3 | 12243.2 | 12563.9 | 12531.8 |
| 10° | 9588.1 | 9581.6 | 9742.0 | 9953.7 | 10242.2 | 10755.3 | 11127.3 | 11313.2 | 12012.3 | 12499.7 | 12570.3 |
| 12.5° | 9030.1 | 9004.4 | 9177.6 | 9350.7 | 9806.1 | 10203.8 | 10678.3 | 10768.1 | 11569.8 | 12275.2 | 12390.7 |
| 15° | 8664.5 | 8722.3 | 8735.0 | 9068.6 | 9357.1 | 9883.1 | 10255.1 | 10441.0 | 11364.6 | 12095.7 | 12538.2 |
| 17.5° | 8600.4 | 8677.4 | 8683.7 | 8959.5 | 9267.4 | 9709.9 | 10037.0 | 10287.1 | 11191.4 | 12185.5 | 12544.6 |
| 20° | 8728.7 | 8683.7 | 8722.3 | 8895.4 | 9196.8 | 9620.1 | 10094.7 | 10178.1 | 11133.7 | 12230.4 | 12615.2 |
| 22.5° | 9094.2 | 9081.4 | 8985.2 | 9126.3 | 9338.0 | 9780.5 | 10229.4 | 10357.7 | 11300.4 | 12461.3 | 12672.9 |
| 25° | 9498.3 | 9568.8 | 9479.0 | 9459.8 | 9607.3 | 10043.4 | 10639.8 | 10806.6 | 11858.4 | 12878.1 | 12852.5 |
| 27.5° | 10255.1 | 10184.5 | 10184.5 | 10094.7 | 10056.3 | 10267.9 | 11082.4 | 11358.1 | 12480.5 | 13416.9 | 13057.7 |
| 30° | 10979.8 | 11056.7 | 10999.0 | 11031.1 | 10774.6 | 10755.3 | 11710.9 | 12050.8 | 13583.6 | 14237.8 | 13493.8 |
| 32.5° | 12127.7 | 12025.1 | 12121.3 | 12038.0 | 11698.1 | 11351.7 | 12563.9 | 12916.6 | 14917.6 | 15180.6 | 14148.0 |
| 35° | 13083.4 | 13038.4 | 13448.9 | 13436.1 | 12884.5 | 12544.6 | 13468.2 | 13994.1 | 15847.6 | 16309.3 | 14917.6 |
| 37.5° | 14443.0 | 14359.7 | 14827.8 | 15052.3 | 14558.5 | 14051.8 | 14763.7 | 15373.0 | 16713.4 | 17213.6 | 15706.4 |
| 40° | 15841.2 | 16052.8 | 16681.3 | 17053.3 | 16527.3 | 15853.9 | 16347.8 | 16533.8 | 17290.5 | 17803.6 | 16245.2 |
| 42.5° | 17611.2 | 17919.1 | 18560.4 | 18881.1 | 18836.2 | 18105.0 | 17957.5 | 17951.1 | 17707.4 | 17636.9 | 16642.8 |
| 45° | 19310.8 | 19195.3 | 20183.0 | 20882.0 | 21446.4 | 21234.8 | 19509.6 | 19317.2 | 18368.0 | 17887.0 | 16745.4 |
| 47.5° | 20054.7 | 20016.2 | 20689.7 | 21933.9 | 23857.9 | 24120.8 | 21767.1 | 21023.1 | 19484.0 | 18938.8 | 17303.4 |
| 50° | 19092.7 | 19291.5 | 19958.5 | 21337.4 | 24287.6 | 26295.0 | 24537.7 | 23537.2 | 20785.9 | 20221.5 | 18624.5 |
| 52.5° | 15950.2 | 16084.8 | 16719.8 | 18470.6 | 22825.3 | 27577.7 | 27192.9 | 26615.6 | 23178.0 | 22241.7 | 20926.9 |
| 54° | 13115.4 | 13474.6 | 13820.9 | 15578.2 | 20221.5 | 26865.7 | 28648.7 | 28206.2 | 24736.5 | 23922.0 | 22376.4 |
| 55° | 11422.3 | 11633.9 | 11884.1 | 13634.9 | 18419.3 | 25660.1 | 28482.0 | 28520.4 | 25781.9 | 24448.0 | 23351.2 |
| 57.5° | 8343.8 | 8491.3 | 8234.8 | 9010.8 | 12647.2 | 20837.2 | 26051.2 | 27090.2 | 27192.9 | 25236.8 | 23947.6 |
| 60° | 6374.9 | 6439.0 | 6150.5 | 6272.3 | 7862.8 | 14301.9 | 20150.9 | 21401.5 | 24531.3 | 22055.7 | 20285.6 |
| 62.5° | 4944.7 | 4957.5 | 4951.1 | 5162.8 | 5419.3 | 8414.4 | 12602.4 | 13711.8 | 16912.2 | 15661.5 | 13776.0 |
| 65° | 3642.8 | 3585.1 | 3687.7 | 4329.0 | 4624.1 | 5291.1 | 6637.8 | 7446.0 | 9190.4 | 7760.2 | 5547.6 |
| 67.5° | 2360.1 | 2379.4 | 2482.0 | 3219.5 | 3963.5 | 4059.7 | 4085.3 | 4021.2 | 4027.6 | 2219.1 | 1391.7 |
| 70° | 1417.3 | 1449.5 | 1417.3 | 1821.4 | 2834.8 | 2911.7 | 2661.6 | 2597.4 | 2026.6 | 525.9 | 519.5 |
| 72.5° | 840.2 | 795.2 | 711.9 | 782.5 | 1180.1 | 1410.9 | 1269.8 | 1263.4 | 795.2 | 307.8 | 307.8 |
| 75° | 352.7 | 320.7 | 263.0 | 237.3 | 314.3 | 301.4 | 301.4 | 269.4 | 211.7 | 205.2 | 192.4 |
| 77.5° | 70.6 | 70.6 | 51.3 | 57.7 | 77.0 | 89.8 | 109.0 | 109.0 | 128.3 | 128.3 | 121.9 |
| 80° | 0.0 | 6.4 | 19.3 | 38.5 | 57.7 | 83.3 | 96.2 | 96.2 | 109.0 | 109.0 | 89.8 |
| 82.5° | 0.0 | 6.4 | 19.3 | 38.5 | 51.3 | 77.0 | 96.2 | 96.2 | 109.0 | 115.5 | 96.2 |
| 85° | 0.0 | 6.4 | 19.3 | 32.0 | 51.3 | 64.2 | 64.2 | 57.7 | 44.9 | 38.5 | 25.7 |
| 87.5° | 0.0 | 0.0 | 6.4 | 12.9 | 6.4 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 |
| 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° | 12365.1 | 12365.1 | 12365.1 | 12365.1 | 12365.1 | 12365.1 | 12365.1 | 12365.1 | 12365.1 | 12365.1 | 12365.1 |
| 2.5° | 12422.7 | 12416.4 | 12262.5 | 12012.3 | 11954.6 | 11743.0 | 11717.3 | 11589.1 | 11659.5 | 11422.3 | 11396.6 |
| 5° | 12320.1 | 12243.2 | 12057.2 | 11896.9 | 11428.7 | 11095.2 | 10832.2 | 10511.6 | 10325.6 | 10357.7 | 10235.8 |
| 7.5° | 12467.7 | 12268.8 | 11941.8 | 11383.8 | 10813.0 | 10229.4 | 9915.1 | 9261.0 | 9023.7 | 8671.0 | 8619.7 |
| 10° | 12313.8 | 12166.2 | 11659.5 | 10736.0 | 9947.2 | 9107.0 | 8369.5 | 7644.8 | 7093.2 | 6855.9 | 6804.6 |
| 12.5° | 12300.9 | 12044.4 | 11197.8 | 10171.6 | 9030.1 | 7824.3 | 6753.3 | 5849.1 | 5303.9 | 4996.0 | 4925.5 |
| 15° | 12102.1 | 11794.3 | 10678.3 | 9299.4 | 7721.7 | 6221.0 | 5053.7 | 4181.5 | 3764.7 | 3585.1 | 3636.4 |
| 17.5° | 12121.3 | 11659.5 | 10158.9 | 8375.9 | 6432.6 | 4566.4 | 3450.5 | 3001.4 | 2892.5 | 2937.4 | 2937.4 |
| 20° | 12102.1 | 11358.1 | 9530.3 | 7311.3 | 4925.5 | 3168.2 | 2533.3 | 2373.0 | 2443.5 | 2584.6 | 2552.5 |
| 22.5° | 11999.5 | 11217.1 | 8953.1 | 6188.9 | 3623.6 | 2347.3 | 2033.0 | 2039.4 | 2148.5 | 2321.7 | 2360.1 |
| 25° | 12076.4 | 10902.8 | 8222.0 | 5053.7 | 2642.3 | 1872.7 | 1763.7 | 1808.6 | 1924.0 | 2052.3 | 2077.9 |
| 27.5° | 12018.7 | 10678.3 | 7458.8 | 3925.0 | 1930.4 | 1609.8 | 1603.4 | 1654.7 | 1706.0 | 1802.2 | 1802.2 |
| 30° | 12082.9 | 10473.1 | 6708.4 | 2918.1 | 1590.5 | 1475.1 | 1449.5 | 1487.9 | 1539.2 | 1558.5 | 1552.1 |
| 32.5° | 12320.1 | 10319.2 | 5842.6 | 2180.5 | 1404.6 | 1346.8 | 1346.8 | 1346.8 | 1340.4 | 1366.0 | 1372.5 |
| 35° | 12839.6 | 10344.8 | 5079.4 | 1686.7 | 1282.7 | 1237.8 | 1218.5 | 1192.9 | 1180.1 | 1192.9 | 1199.3 |
| 37.5° | 13404.0 | 10332.0 | 4290.6 | 1436.6 | 1192.9 | 1154.4 | 1109.5 | 1071.0 | 1064.6 | 1077.5 | 1058.2 |
| 40° | 13654.1 | 10453.9 | 3559.4 | 1289.1 | 1109.5 | 1064.6 | 994.1 | 962.0 | 968.4 | 981.3 | 968.4 |
| 42.5° | 13994.1 | 10492.3 | 3084.9 | 1173.6 | 1032.6 | 962.0 | 917.1 | 878.7 | 872.2 | 891.5 | 885.1 |
| 45° | 13987.7 | 10274.2 | 2584.6 | 1109.5 | 962.0 | 885.1 | 827.3 | 795.2 | 795.2 | 808.1 | 814.5 |
| 47.5° | 14398.1 | 10242.2 | 2219.1 | 1051.8 | 910.7 | 833.8 | 763.2 | 737.6 | 731.2 | 731.2 | 718.3 |
| 50° | 15353.7 | 10691.1 | 1936.8 | 987.7 | 846.6 | 776.0 | 718.3 | 686.3 | 660.6 | 647.7 | 641.3 |
| 52.5° | 17220.0 | 12089.3 | 1718.8 | 910.7 | 776.0 | 718.3 | 667.0 | 641.3 | 609.3 | 577.2 | 570.8 |
| 54° | 19028.6 | 13532.3 | 1706.0 | 846.6 | 718.3 | 679.8 | 635.0 | 622.1 | 583.7 | 538.7 | 525.9 |
| 55° | 19843.1 | 14372.4 | 1750.9 | 795.2 | 679.8 | 654.1 | 615.7 | 602.8 | 564.4 | 513.1 | 506.6 |
| 57.5° | 20516.5 | 14699.5 | 1725.2 | 660.6 | 615.7 | 609.3 | 577.2 | 558.0 | 513.1 | 442.5 | 429.7 |
| 60° | 16514.5 | 11114.4 | 1237.8 | 583.7 | 564.4 | 551.5 | 525.9 | 513.1 | 455.3 | 378.4 | 372.0 |
| 62.5° | 10434.6 | 6394.2 | 788.9 | 513.1 | 493.8 | 474.6 | 442.5 | 429.7 | 378.4 | 301.4 | 282.2 |
| 65° | 4444.5 | 2648.7 | 532.4 | 455.3 | 423.3 | 391.2 | 365.6 | 346.3 | 301.4 | 224.5 | 218.1 |
| 67.5° | 1154.4 | 942.8 | 442.5 | 397.6 | 352.7 | 307.8 | 288.6 | 256.5 | 205.2 | 153.9 | 147.5 |
| 70° | 519.5 | 474.6 | 372.0 | 333.5 | 282.2 | 237.3 | 211.7 | 179.6 | 134.6 | 102.6 | 96.2 |
| 72.5° | 307.8 | 301.4 | 282.2 | 250.1 | 211.7 | 179.6 | 153.9 | 121.9 | 89.8 | 57.7 | 57.7 |
| 75° | 192.4 | 186.0 | 192.4 | 173.2 | 147.5 | 134.6 | 115.5 | 83.3 | 51.3 | 25.7 | 25.7 |
| 77.5° | 115.5 | 115.5 | 115.5 | 109.0 | 102.6 | 102.6 | 83.3 | 51.3 | 25.7 | 6.4 | 6.4 |
| 80° | 89.8 | 89.8 | 96.2 | 89.8 | 89.8 | 89.8 | 70.6 | 38.5 | 12.9 | 0.0 | 0.0 |
| 82.5° | 89.8 | 96.2 | 109.0 | 102.6 | 89.8 | 77.0 | 64.2 | 38.5 | 12.9 | 0.0 | 0.0 |
| 85° | 25.7 | 19.3 | 32.0 | 44.9 | 64.2 | 57.7 | 44.9 | 32.0 | 12.9 | 0.0 | 0.0 |
| 87.5° | 12.9 | 12.9 | 12.9 | 12.9 | 6.4 | 6.4 | 6.4 | 6.4 | 6.4 | 0.0 | 0.0 |
| 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)