

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: P454389

Luminaire Tested: **GALN-SA5C-727-U-T3R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P454389
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA5C-727-U-T3R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23053 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G4

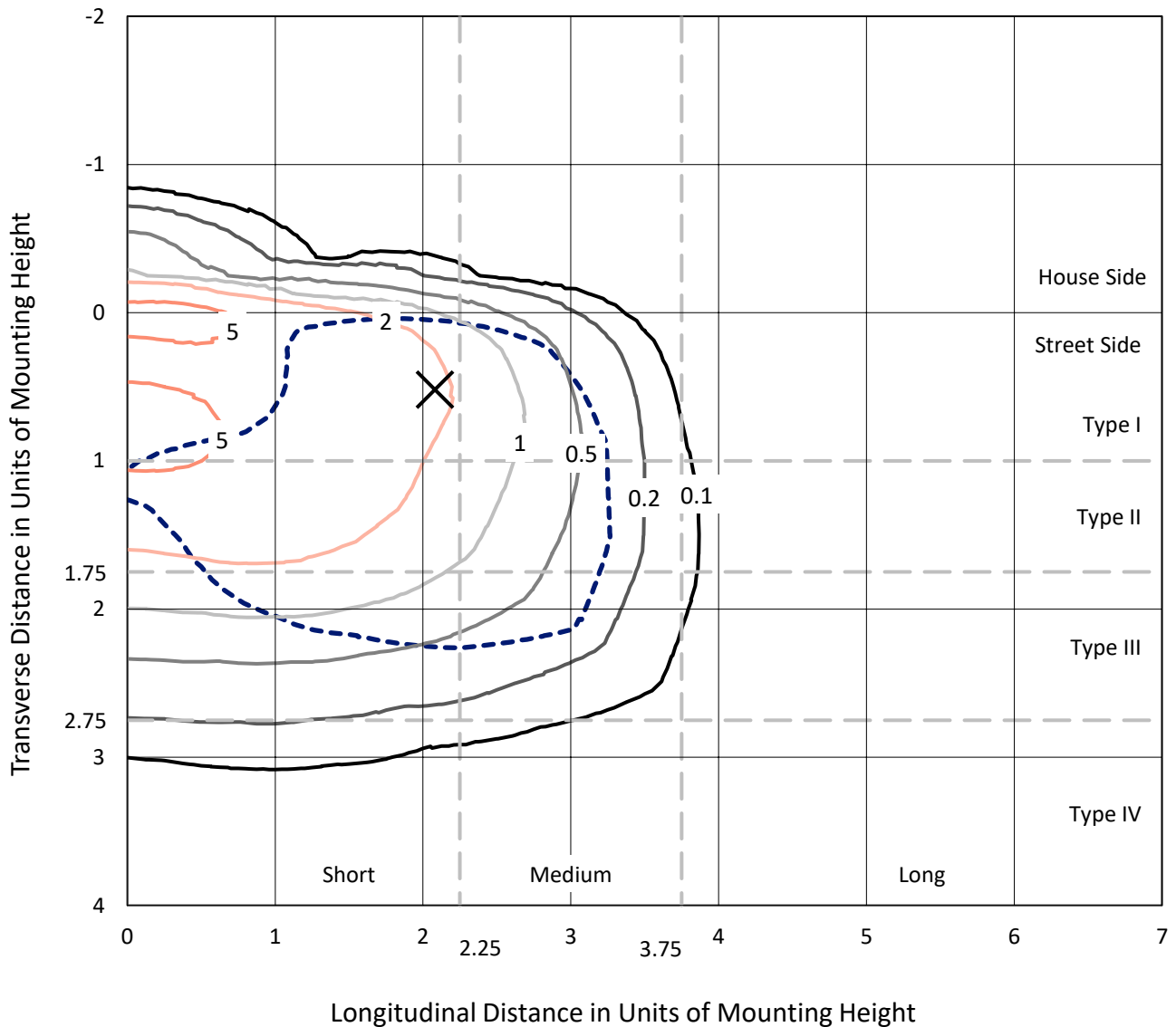
Input Watts (W): 269
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

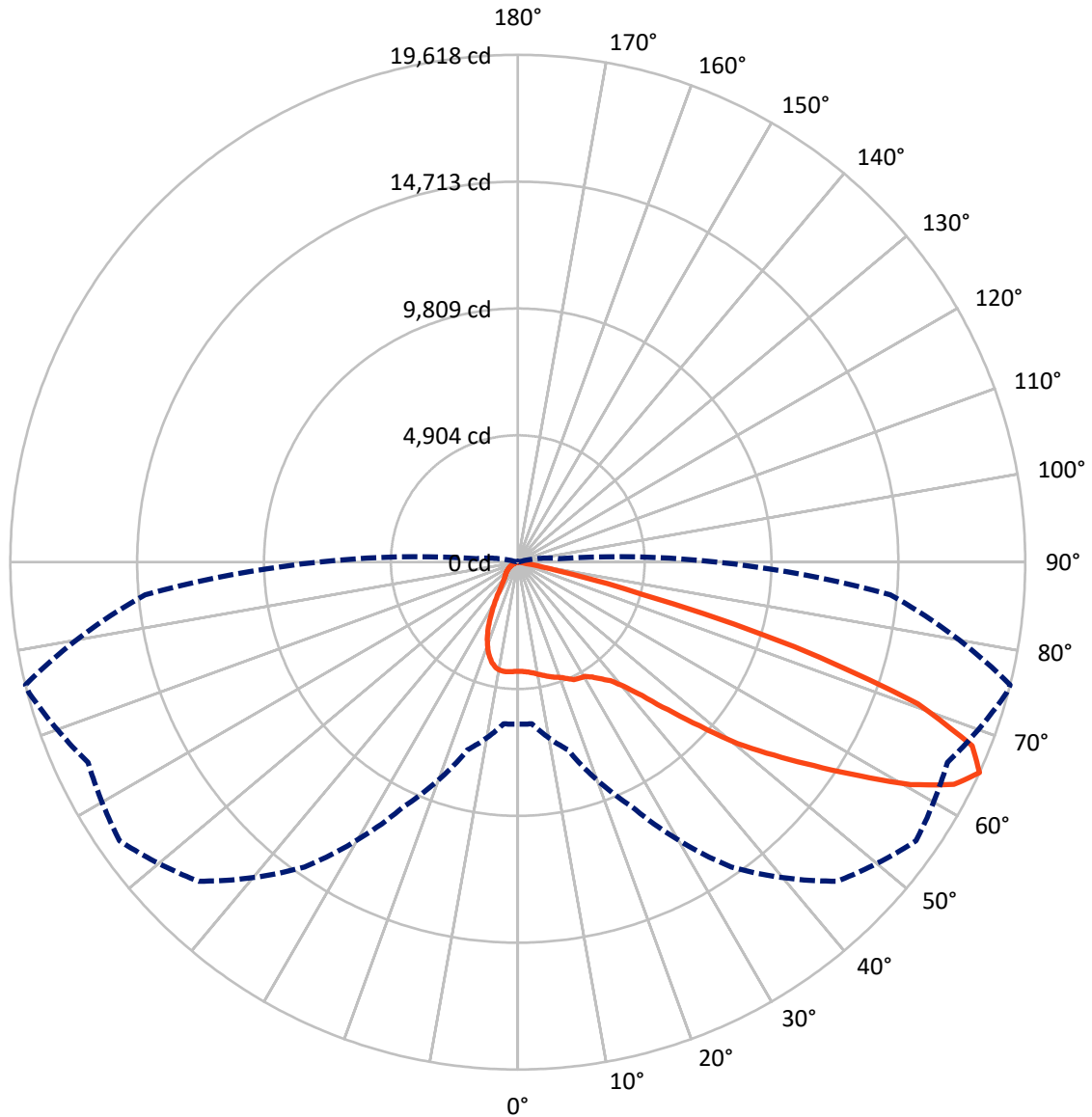
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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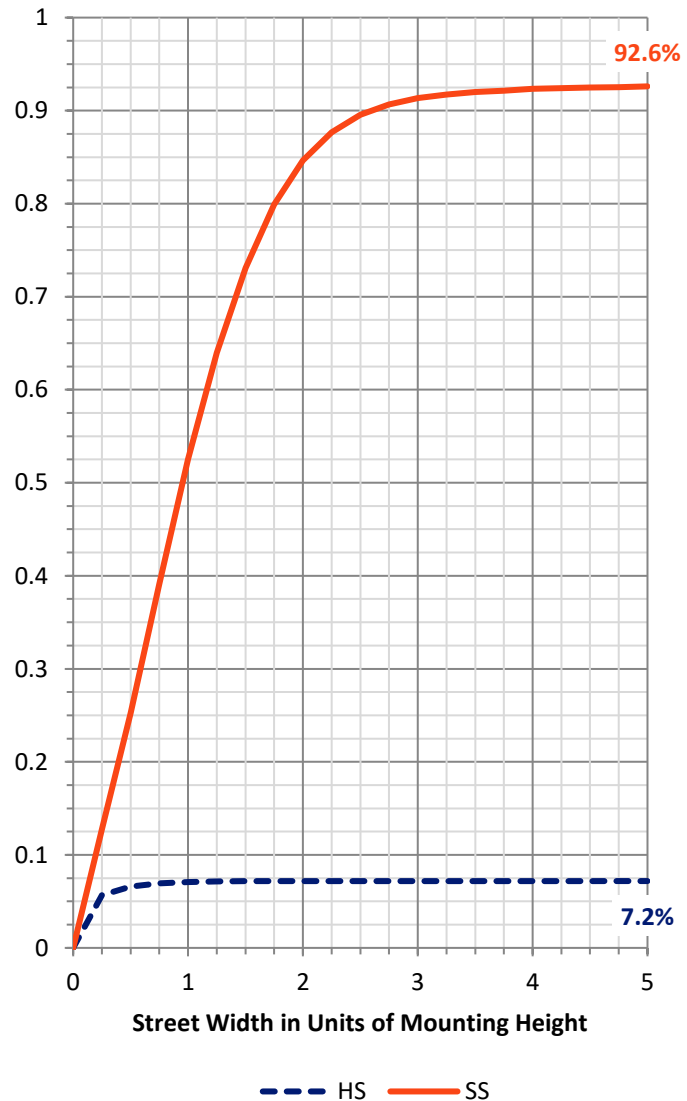
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1664.9 | 0.0 | 1664.9 |
| | % Fixture | 7.2 | 0.0 | 7.2 |
| Street Side | Lumens | 21388.1 | 0.0 | 21388.1 |
| | % Fixture | 92.8 | 0.0 | 92.8 |
| Total | Lumens | 23053.0 | 0.0 | 23053.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 347.4 | 1.5 |
| 10°-20° | 773.5 | 3.4 |
| 20°-30° | 1246.4 | 5.4 |
| 30°-40° | 2167.2 | 9.4 |
| 40°-50° | 3581.2 | 15.5 |
| 50°-60° | 5532.2 | 24.0 |
| 60°-70° | 6755.6 | 29.3 |
| 70°-80° | 2563.9 | 11.1 |
| 80°-90° | 85.6 | 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° | 23053.0 | 100.0 |
| 0°-180° | 23053.0 | 100.0 |



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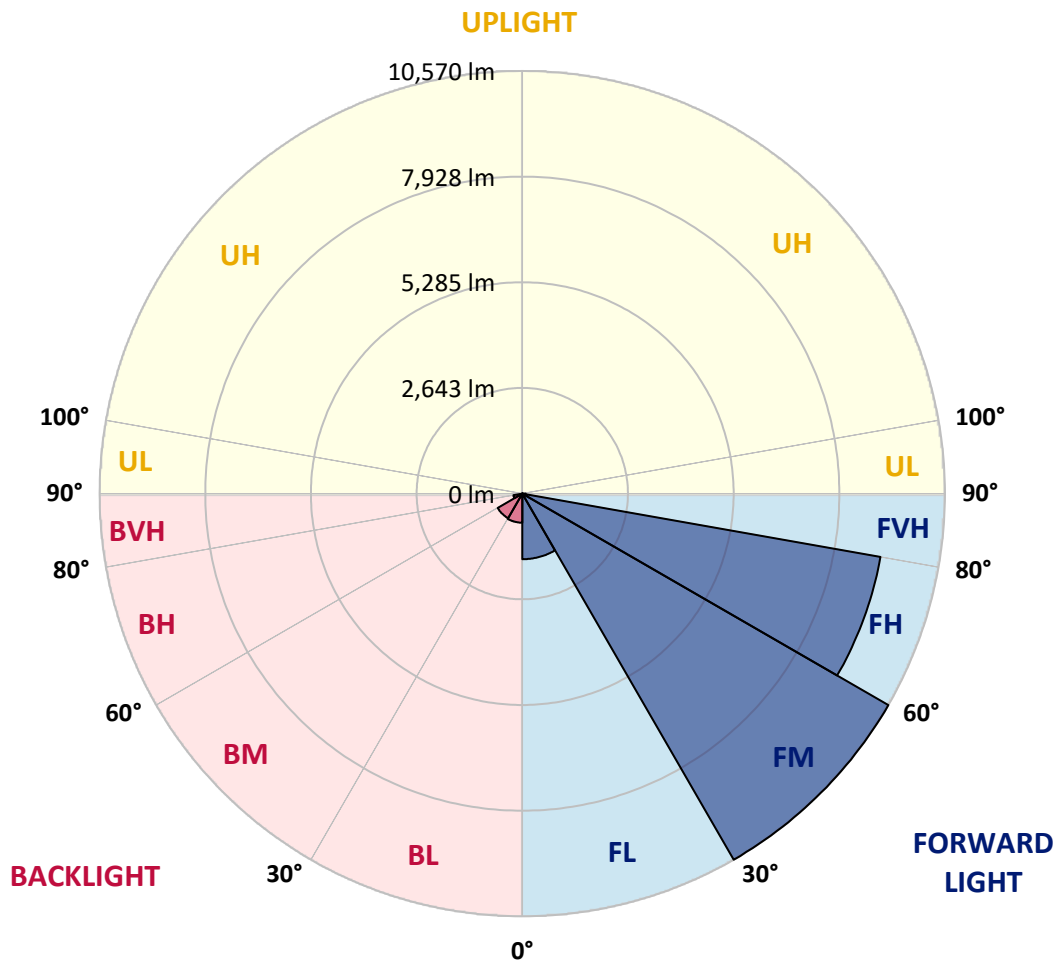
CATALOG NUMBER: GALN-SA5C-727-U-T3R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1639.9 | 7.1 | | | |
| FM (30°-60°) | 10570.1 | 45.9 | | | |
| FH (60°-80°) | 9093.6 | 39.4 | | | G4/12000 |
| FVH (80°-90°) | 84.4 | 0.4 | | | G1/100 |
| BL (0°-30°) | 727.4 | 3.2 | B2/1000 | | |
| BM (30°-60°) | 710.5 | 3.1 | B1/1000 | | |
| BH (60°-80°) | 225.9 | 1.0 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.2 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4217.1 | 4217.1 | 4217.1 | 4217.1 | 4217.1 | 4217.1 | 4217.1 | 4217.1 | 4217.1 | 4217.1 | 4217.1 |
| 2.5° | 4030.0 | 4031.6 | 4041.3 | 4065.8 | 4103.2 | 4134.1 | 4160.2 | 4202.5 | 4231.8 | 4235.0 | 4244.8 |
| 5° | 3751.6 | 3732.1 | 3751.6 | 3815.1 | 3872.1 | 3958.3 | 4064.1 | 4169.9 | 4264.3 | 4270.8 | 4316.4 |
| 7.5° | 3439.1 | 3455.4 | 3486.3 | 3551.4 | 3658.9 | 3790.7 | 3943.7 | 4132.5 | 4311.5 | 4327.8 | 4417.3 |
| 10° | 3121.7 | 3157.6 | 3208.0 | 3307.3 | 3457.0 | 3627.9 | 3836.3 | 4106.5 | 4386.4 | 4409.2 | 4563.8 |
| 12.5° | 2828.8 | 2845.1 | 2906.9 | 3040.4 | 3225.9 | 3466.8 | 3754.9 | 4091.8 | 4469.4 | 4497.1 | 4720.1 |
| 15° | 2604.2 | 2625.3 | 2679.0 | 2799.5 | 3006.2 | 3315.4 | 3688.2 | 4086.9 | 4550.8 | 4589.9 | 4876.3 |
| 17.5° | 2561.9 | 2574.9 | 2597.7 | 2679.0 | 2859.7 | 3195.0 | 3627.9 | 4085.3 | 4628.9 | 4676.1 | 5021.2 |
| 20° | 2736.0 | 2724.6 | 2701.8 | 2693.7 | 2793.0 | 3102.2 | 3584.0 | 4098.3 | 4703.8 | 4757.5 | 5174.2 |
| 22.5° | 3172.2 | 3186.9 | 3053.4 | 2895.5 | 2863.0 | 3087.6 | 3577.5 | 4160.2 | 4822.6 | 4886.1 | 5345.1 |
| 25° | 4098.3 | 3986.0 | 3777.7 | 3400.1 | 3115.2 | 3177.1 | 3650.7 | 4306.6 | 4960.9 | 5030.9 | 5499.7 |
| 27.5° | 5122.1 | 5087.9 | 4764.0 | 4142.3 | 3611.7 | 3365.9 | 3780.9 | 4419.0 | 5006.5 | 5078.1 | 5587.6 |
| 30° | 6127.9 | 6168.6 | 5797.5 | 5110.7 | 4332.7 | 3715.8 | 3903.0 | 4461.3 | 5047.2 | 5122.1 | 5699.9 |
| 32.5° | 7060.6 | 7109.4 | 6783.9 | 6103.5 | 5182.3 | 4321.3 | 4113.0 | 4625.7 | 5218.1 | 5294.6 | 5887.1 |
| 35° | 7794.6 | 7801.1 | 7555.4 | 7013.4 | 6110.0 | 5057.0 | 4567.1 | 4913.7 | 5449.2 | 5538.7 | 6085.6 |
| 37.5° | 8468.4 | 8458.7 | 8170.6 | 7703.5 | 6883.1 | 5787.8 | 5138.4 | 5245.8 | 5712.9 | 5805.7 | 6372.1 |
| 40° | 8968.1 | 8974.6 | 8881.9 | 8442.4 | 7604.2 | 6463.2 | 5590.8 | 5556.6 | 6155.6 | 6300.5 | 6788.7 |
| 42.5° | 9301.8 | 9362.0 | 9407.6 | 9184.6 | 8510.8 | 7294.9 | 6285.8 | 6222.3 | 6923.8 | 7044.3 | 7377.9 |
| 45° | 9572.0 | 9679.4 | 9907.2 | 9895.8 | 9381.5 | 8315.4 | 7239.6 | 7109.4 | 8012.7 | 8141.3 | 8128.3 |
| 47.5° | 9768.9 | 9877.9 | 10255.6 | 10483.4 | 10200.2 | 9305.0 | 8439.1 | 8326.8 | 9313.2 | 9453.1 | 8956.7 |
| 50° | 9869.8 | 10000.0 | 10481.8 | 10922.9 | 10839.9 | 10258.8 | 9806.3 | 9812.8 | 10883.8 | 11018.9 | 9917.0 |
| 52.5° | 9633.8 | 9803.1 | 10602.2 | 11396.5 | 11557.6 | 11171.9 | 11087.3 | 11302.1 | 12281.9 | 12397.5 | 10784.5 |
| 55° | 8880.2 | 9093.4 | 10437.8 | 11800.1 | 12389.3 | 12249.4 | 12542.3 | 12869.5 | 13810.2 | 13885.1 | 11674.8 |
| 57.5° | 8403.3 | 8629.6 | 9952.8 | 12143.6 | 13388.7 | 13603.5 | 14067.4 | 14306.7 | 15387.4 | 15577.8 | 12697.0 |
| 60° | 8001.3 | 8178.7 | 9554.1 | 12216.8 | 14404.3 | 15260.4 | 15711.3 | 15958.7 | 17334.0 | 17457.7 | 13821.6 |
| 62.5° | 7332.4 | 7535.8 | 8880.2 | 11705.7 | 14915.4 | 16586.9 | 17521.2 | 17410.5 | 18839.5 | 18925.8 | 14511.7 |
| 65° | 6256.5 | 6274.4 | 7513.0 | 10421.6 | 14388.0 | 17447.9 | 18792.3 | 18328.5 | 19559.0 | 19617.5 | 14458.0 |
| 67.5° | 4669.6 | 4842.1 | 5779.6 | 8191.7 | 12153.3 | 16712.3 | 19204.1 | 18352.9 | 19104.8 | 18942.1 | 13310.6 |
| 70° | 3007.8 | 3139.7 | 3917.6 | 5680.3 | 8763.0 | 13947.0 | 17838.6 | 17094.8 | 16767.6 | 16406.3 | 10895.2 |
| 72.5° | 1388.3 | 1557.6 | 2327.5 | 3245.4 | 5196.9 | 9934.9 | 14480.8 | 13888.4 | 12068.7 | 11176.8 | 6925.5 |
| 75° | 605.5 | 647.8 | 1149.1 | 1712.2 | 2436.5 | 5253.9 | 9547.5 | 8621.4 | 5450.9 | 4978.8 | 2771.8 |
| 77.5° | 369.5 | 397.1 | 602.2 | 918.0 | 957.0 | 2002.0 | 5143.2 | 3761.4 | 1684.6 | 1486.0 | 752.0 |
| 80° | 250.7 | 281.6 | 437.8 | 480.1 | 327.1 | 558.3 | 1930.3 | 1004.2 | 340.2 | 325.5 | 161.1 |
| 82.5° | 122.1 | 154.6 | 323.9 | 268.6 | 141.6 | 179.0 | 561.5 | 214.8 | 99.3 | 92.8 | 57.0 |
| 85° | 17.9 | 30.9 | 182.3 | 175.8 | 63.5 | 42.3 | 99.3 | 53.7 | 34.2 | 32.6 | 26.0 |
| 87.5° | 0.0 | 0.0 | 61.8 | 27.7 | 6.5 | 6.5 | 11.4 | 11.4 | 13.0 | 11.4 | 13.0 |
| 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° | 4217.1 | 4217.1 | 4217.1 | 4217.1 | 4217.1 | 4217.1 | 4217.1 | 4217.1 | 4217.1 | 4217.1 | 4217.1 |
| 2.5° | 4249.7 | 4257.8 | 4226.9 | 4182.9 | 4135.7 | 4088.5 | 4021.8 | 3961.6 | 3925.8 | 3946.9 | 3894.9 |
| 5° | 4326.2 | 4319.7 | 4238.3 | 4104.8 | 3927.4 | 3714.2 | 3502.6 | 3321.9 | 3263.4 | 3175.5 | 3165.7 |
| 7.5° | 4432.0 | 4414.1 | 4241.5 | 3935.6 | 3535.2 | 3134.8 | 2744.1 | 2485.4 | 2337.2 | 2211.9 | 2215.2 |
| 10° | 4580.1 | 4528.0 | 4204.1 | 3637.7 | 2978.5 | 2374.7 | 1876.6 | 1534.8 | 1386.7 | 1339.5 | 1302.1 |
| 12.5° | 4733.1 | 4632.2 | 4099.9 | 3235.7 | 2319.3 | 1622.7 | 1141.0 | 932.6 | 841.5 | 812.2 | 808.9 |
| 15° | 4869.8 | 4710.3 | 3917.6 | 2752.3 | 1686.2 | 1036.8 | 778.0 | 709.6 | 698.2 | 699.9 | 698.2 |
| 17.5° | 5004.9 | 4772.1 | 3665.4 | 2239.6 | 1145.8 | 743.8 | 668.9 | 652.7 | 657.6 | 664.1 | 662.4 |
| 20° | 5117.2 | 4785.2 | 3343.1 | 1709.0 | 810.5 | 652.7 | 628.3 | 625.0 | 629.9 | 634.8 | 634.8 |
| 22.5° | 5239.3 | 4794.9 | 2960.6 | 1183.3 | 662.4 | 607.1 | 594.1 | 594.1 | 600.6 | 607.1 | 608.7 |
| 25° | 5330.4 | 4741.2 | 2503.3 | 849.6 | 584.3 | 563.2 | 556.6 | 558.3 | 564.8 | 568.0 | 566.4 |
| 27.5° | 5345.1 | 4589.9 | 2018.2 | 651.0 | 530.6 | 509.4 | 502.9 | 509.4 | 501.3 | 506.2 | 502.9 |
| 30° | 5358.1 | 4397.8 | 1526.7 | 548.5 | 481.8 | 449.2 | 439.5 | 429.7 | 423.2 | 415.0 | 413.4 |
| 32.5° | 5398.8 | 4171.6 | 1114.9 | 493.2 | 436.2 | 400.4 | 377.6 | 349.9 | 328.8 | 322.3 | 320.6 |
| 35° | 5416.7 | 3899.7 | 818.7 | 449.2 | 395.5 | 356.4 | 315.8 | 276.7 | 245.8 | 234.4 | 242.5 |
| 37.5° | 5485.0 | 3636.1 | 634.8 | 416.7 | 359.7 | 310.9 | 258.8 | 210.0 | 180.7 | 174.2 | 177.4 |
| 40° | 5625.0 | 3349.6 | 532.2 | 389.0 | 328.8 | 268.6 | 205.1 | 157.9 | 138.3 | 131.8 | 130.2 |
| 42.5° | 5849.6 | 3064.8 | 473.6 | 363.0 | 297.9 | 226.2 | 161.1 | 123.7 | 107.4 | 102.5 | 102.5 |
| 45° | 6123.1 | 2791.3 | 432.9 | 335.3 | 265.3 | 182.3 | 127.0 | 99.3 | 89.5 | 86.3 | 86.3 |
| 47.5° | 6482.8 | 2552.1 | 398.8 | 307.6 | 229.5 | 144.9 | 102.5 | 86.3 | 79.8 | 81.4 | 83.0 |
| 50° | 6847.3 | 2374.7 | 361.3 | 276.7 | 188.8 | 118.8 | 87.9 | 76.5 | 74.9 | 76.5 | 76.5 |
| 52.5° | 7122.4 | 2270.5 | 310.9 | 234.4 | 148.1 | 99.3 | 78.1 | 71.6 | 70.0 | 66.7 | 66.7 |
| 55° | 7493.5 | 2247.7 | 247.4 | 190.4 | 117.2 | 83.0 | 70.0 | 65.1 | 60.2 | 57.0 | 55.3 |
| 57.5° | 7970.4 | 2273.8 | 190.4 | 148.1 | 91.1 | 68.4 | 61.8 | 53.7 | 47.2 | 40.7 | 40.7 |
| 60° | 8266.6 | 2215.2 | 148.1 | 113.9 | 66.7 | 55.3 | 47.2 | 39.1 | 30.9 | 26.0 | 24.4 |
| 62.5° | 8172.2 | 1967.8 | 117.2 | 84.6 | 47.2 | 40.7 | 30.9 | 26.0 | 17.9 | 13.0 | 11.4 |
| 65° | 7685.6 | 1588.5 | 94.4 | 58.6 | 34.2 | 24.4 | 16.3 | 16.3 | 8.1 | 1.6 | 0.0 |
| 67.5° | 6726.9 | 1176.8 | 74.9 | 39.1 | 19.5 | 11.4 | 8.1 | 4.9 | 0.0 | 0.0 | 0.0 |
| 70° | 5475.3 | 849.6 | 58.6 | 24.4 | 11.4 | 8.1 | 3.3 | 1.6 | 0.0 | 0.0 | 0.0 |
| 72.5° | 3476.6 | 486.7 | 45.6 | 14.6 | 8.1 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 1344.4 | 190.4 | 30.9 | 9.8 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 380.9 | 89.5 | 17.9 | 4.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 99.3 | 39.1 | 9.8 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 47.2 | 16.3 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 27.7 | 6.5 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 13.0 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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)