

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: P652111

Luminaire Tested: **GALN-SA9A-840-U-SL2-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P652111
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA9A-840-U-SL2-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28535.2 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G4

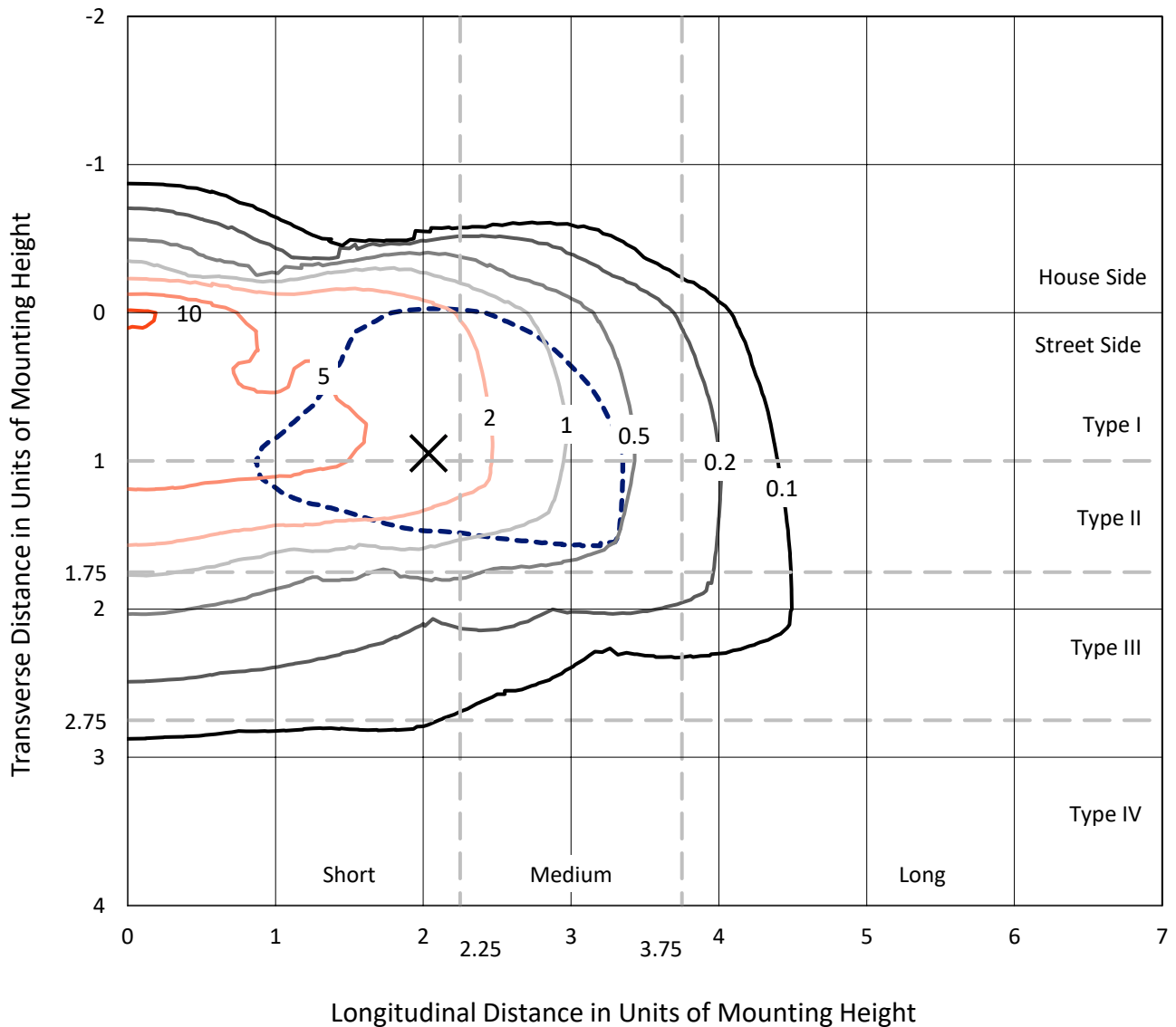
Input Watts (W): 274
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

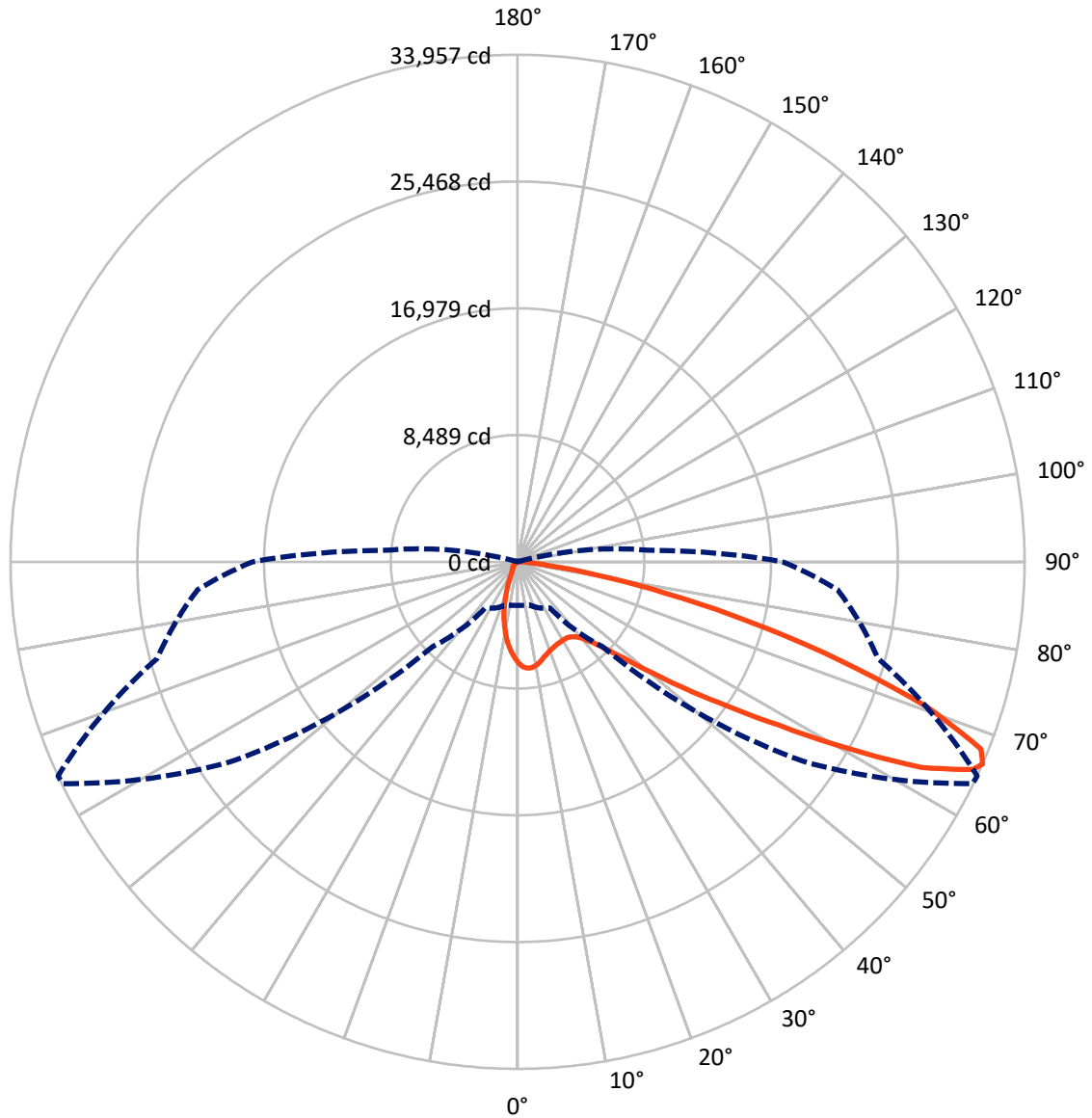
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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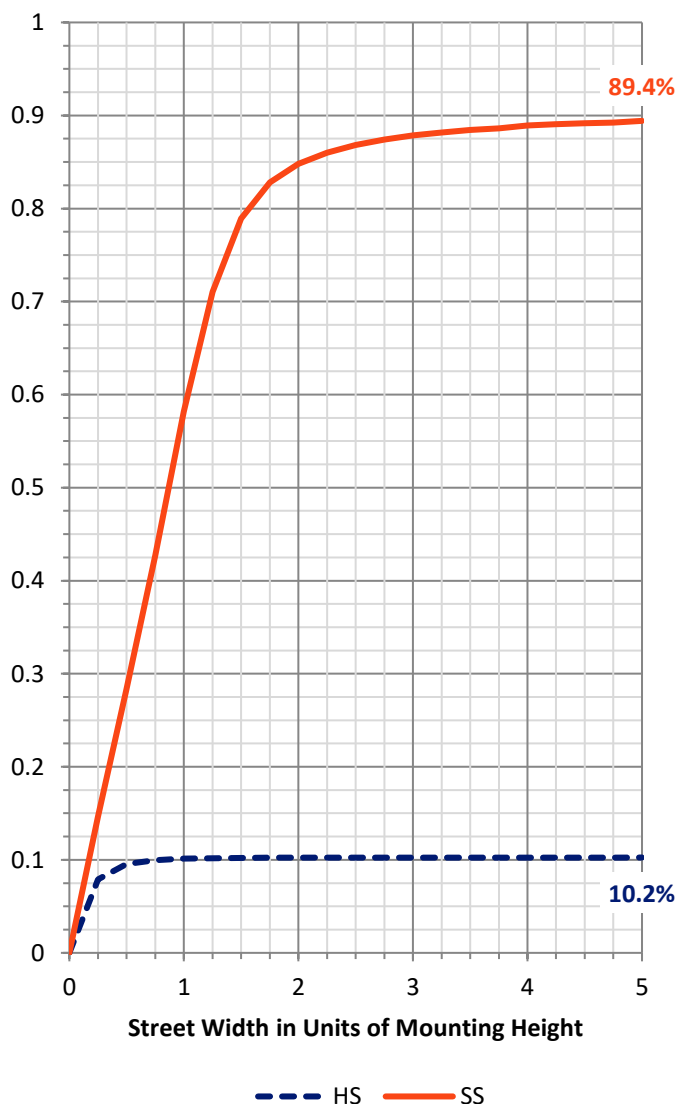
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2951.0 | 0.0 | 2951.0 |
| | % Fixture | 10.3 | 0.0 | 10.3 |
| Street Side | Lumens | 25584.2 | 0.0 | 25584.2 |
| | % Fixture | 89.7 | 0.0 | 89.7 |
| Total | Lumens | 28535.2 | 0.0 | 28535.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 553.4 | 1.9 |
| 10°-20° | 1205.8 | 4.2 |
| 20°-30° | 1727.3 | 6.1 |
| 30°-40° | 2522.9 | 8.8 |
| 40°-50° | 4230.5 | 14.8 |
| 50°-60° | 7060.0 | 24.7 |
| 60°-70° | 7493.9 | 26.3 |
| 70°-80° | 3394.0 | 11.9 |
| 80°-90° | 347.3 | 1.2 |
| 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° | 28535.2 | 100.0 |
| 0°-180° | 28535.2 | 100.0 |

Coefficient of Utilization



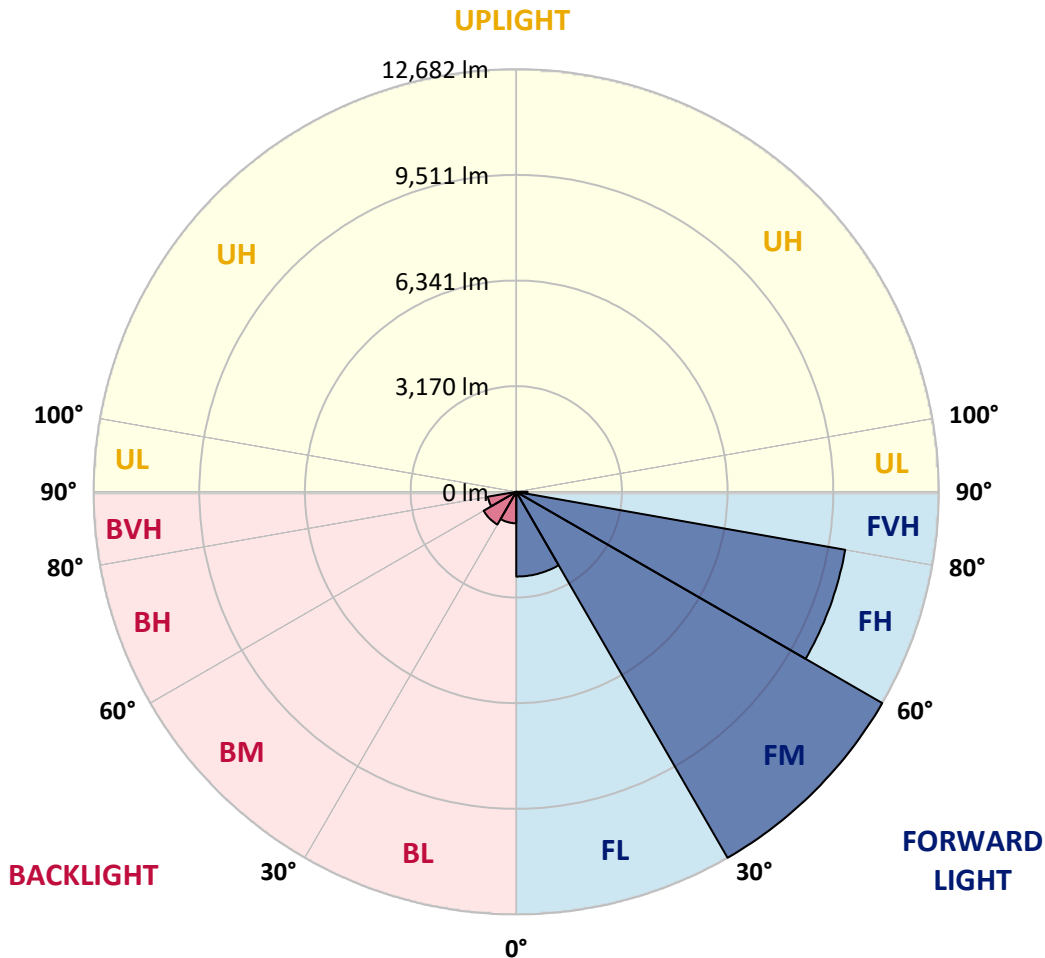
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 2542.6 | 8.9 | | | |
| FM (30°-60°) | 12681.7 | 44.4 | | | |
| FH (60°-80°) | 10023.7 | 35.1 | | | G4/12000 |
| FVH (80°-90°) | 336.2 | 1.2 | | | G3/500 |
| BL (0°-30°) | 944.0 | 3.3 | B2/1000 | | |
| BM (30°-60°) | 1131.7 | 4.0 | B2/2500 | | |
| BH (60°-80°) | 864.2 | 3.0 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 11.1 | 0.0 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6766.8 | 6766.8 | 6766.8 | 6766.8 | 6766.8 | 6766.8 | 6766.8 | 6766.8 | 6766.8 | 6766.8 | 6766.8 |
| 2.5° | 7131.0 | 7138.7 | 7148.3 | 7161.8 | 7171.5 | 7142.5 | 7102.1 | 7055.8 | 7046.2 | 6947.9 | 6828.4 |
| 5° | 6749.4 | 6761.0 | 6845.7 | 6892.0 | 6996.1 | 7090.6 | 7150.3 | 7158.0 | 7154.1 | 7061.6 | 6870.8 |
| 7.5° | 6205.9 | 6238.6 | 6321.5 | 6402.4 | 6597.1 | 6776.4 | 6988.4 | 7136.8 | 7146.4 | 7121.3 | 6884.3 |
| 10° | 5764.6 | 5785.7 | 5828.1 | 5988.1 | 6150.0 | 6423.6 | 6720.5 | 6999.9 | 7023.0 | 7123.3 | 6872.7 |
| 12.5° | 5419.6 | 5450.4 | 5502.4 | 5625.8 | 5820.4 | 6078.7 | 6416.0 | 6791.7 | 6839.9 | 7086.7 | 6839.9 |
| 15° | 5178.6 | 5194.1 | 5246.1 | 5367.5 | 5556.4 | 5795.4 | 6136.5 | 6574.0 | 6616.4 | 7038.5 | 6834.2 |
| 17.5° | 5064.9 | 5082.2 | 5118.9 | 5215.3 | 5371.4 | 5593.0 | 5926.4 | 6398.6 | 6452.6 | 7007.6 | 6855.4 |
| 20° | 5095.8 | 5111.2 | 5113.1 | 5163.2 | 5269.2 | 5456.2 | 5772.3 | 6234.8 | 6304.2 | 6988.4 | 6890.1 |
| 22.5° | 5271.1 | 5273.1 | 5249.9 | 5226.8 | 5263.5 | 5398.4 | 5677.8 | 6130.7 | 6202.0 | 6984.5 | 6930.5 |
| 25° | 5533.3 | 5539.1 | 5500.5 | 5419.6 | 5346.3 | 5415.7 | 5656.7 | 6063.3 | 6126.9 | 6974.9 | 6955.6 |
| 27.5° | 5895.6 | 5893.6 | 5882.1 | 5747.2 | 5539.1 | 5492.8 | 5674.0 | 6026.7 | 6080.6 | 6947.9 | 6965.2 |
| 30° | 6402.4 | 6387.1 | 6362.0 | 6209.8 | 5891.7 | 5679.8 | 5747.2 | 6003.6 | 6053.6 | 6909.3 | 6940.2 |
| 32.5° | 6901.7 | 6959.4 | 6955.6 | 6811.1 | 6414.1 | 6013.2 | 5899.4 | 6034.3 | 6071.0 | 6884.3 | 6903.6 |
| 35° | 7483.7 | 7481.8 | 7630.1 | 7576.2 | 7111.7 | 6439.1 | 6159.7 | 6136.5 | 6165.5 | 6901.7 | 6886.2 |
| 37.5° | 8023.3 | 8073.4 | 8304.7 | 8360.6 | 7936.6 | 7040.4 | 6527.8 | 6356.2 | 6365.9 | 7019.2 | 6928.7 |
| 40° | 8695.9 | 8792.3 | 9137.3 | 9324.3 | 8950.3 | 7932.7 | 7071.2 | 6759.0 | 6761.0 | 7308.3 | 7088.6 |
| 42.5° | 9563.3 | 9715.5 | 10037.3 | 10349.6 | 10149.1 | 8988.9 | 7886.5 | 7396.9 | 7393.1 | 7817.1 | 7454.8 |
| 45° | 10617.5 | 10723.5 | 11089.7 | 11584.9 | 11457.8 | 10463.3 | 9073.7 | 8385.7 | 8335.6 | 8651.6 | 8104.3 |
| 47.5° | 11527.2 | 11671.7 | 12043.6 | 12608.4 | 13186.5 | 12263.4 | 10492.2 | 9744.4 | 9711.6 | 9979.6 | 9218.3 |
| 50° | 11924.2 | 12051.4 | 12442.6 | 13234.7 | 14635.8 | 14626.3 | 12604.5 | 11727.6 | 11671.7 | 11816.2 | 10941.2 |
| 52.5° | 11488.6 | 11608.1 | 12003.2 | 12990.0 | 15318.1 | 17505.6 | 15665.1 | 14215.8 | 14148.3 | 13963.3 | 12999.6 |
| 55° | 9996.9 | 10095.2 | 10679.1 | 11812.3 | 15056.0 | 19425.2 | 19882.0 | 17289.8 | 17027.6 | 16308.8 | 15329.7 |
| 57.5° | 7959.7 | 7909.6 | 8271.9 | 9588.3 | 13518.1 | 20069.0 | 24210.7 | 21119.3 | 20650.9 | 18336.3 | 17301.3 |
| 60° | 5516.0 | 5670.1 | 5816.6 | 6683.8 | 10164.6 | 18953.0 | 26903.1 | 25933.7 | 25317.0 | 20331.0 | 19190.1 |
| 62.5° | 4055.0 | 4157.1 | 4253.5 | 4654.4 | 6390.9 | 15133.1 | 27379.2 | 30879.1 | 30331.8 | 22449.1 | 20992.1 |
| 65° | 3207.0 | 3214.7 | 3253.2 | 3648.3 | 4211.1 | 9840.8 | 25091.5 | 33667.9 | 33527.2 | 24488.2 | 21722.5 |
| 66° | 2921.8 | 2923.7 | 2983.4 | 3407.5 | 3779.5 | 8013.7 | 23258.6 | 33879.9 | 33957.0 | 24977.7 | 21508.6 |
| 67.5° | 2553.7 | 2546.0 | 2632.7 | 3062.5 | 3442.1 | 5778.0 | 19978.4 | 33020.4 | 33477.1 | 25353.5 | 20739.6 |
| 70° | 1979.3 | 1969.7 | 2075.7 | 2569.1 | 3170.4 | 3854.6 | 13279.1 | 28352.5 | 29088.7 | 24584.5 | 18349.8 |
| 72.5° | 1318.3 | 1326.0 | 1507.2 | 2027.5 | 3025.8 | 3393.9 | 7988.7 | 21568.4 | 22609.1 | 20302.2 | 14435.4 |
| 75° | 769.0 | 782.5 | 988.7 | 1507.2 | 2626.9 | 3235.9 | 4521.5 | 15379.8 | 16044.8 | 14019.1 | 8992.7 |
| 77.5° | 402.8 | 408.6 | 553.1 | 994.5 | 2014.0 | 3004.6 | 3012.4 | 9825.3 | 10137.6 | 6813.0 | 3559.7 |
| 80° | 214.0 | 208.1 | 296.8 | 599.4 | 1385.7 | 2638.5 | 2443.8 | 5201.8 | 5408.0 | 2023.7 | 900.0 |
| 82.5° | 81.0 | 88.6 | 158.0 | 393.2 | 819.1 | 1894.5 | 2104.6 | 2299.3 | 2228.0 | 445.2 | 377.8 |
| 85° | 15.4 | 19.3 | 67.4 | 233.2 | 412.4 | 792.1 | 1551.5 | 1127.4 | 1044.6 | 167.7 | 217.8 |
| 87.5° | 1.9 | 3.9 | 19.3 | 55.9 | 59.7 | 267.9 | 458.7 | 312.3 | 269.8 | 61.6 | 90.6 |
| 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° | 6766.8 | 6766.8 | 6766.8 | 6766.8 | 6766.8 | 6766.8 | 6766.8 | 6766.8 | 6766.8 | 6766.8 | 6766.8 |
| 2.5° | 6770.6 | 6718.6 | 6545.1 | 6373.6 | 6198.2 | 6040.1 | 5932.2 | 5756.8 | 5712.5 | 5648.9 | 5612.2 |
| 5° | 6757.1 | 6635.7 | 6302.3 | 5938.0 | 5598.8 | 5232.6 | 4953.2 | 4683.4 | 4538.8 | 4465.5 | 4438.5 |
| 7.5° | 6718.6 | 6525.8 | 6005.4 | 5435.0 | 4891.5 | 4344.1 | 3868.1 | 3505.7 | 3272.6 | 3112.5 | 3004.6 |
| 10° | 6641.5 | 6375.5 | 5660.4 | 4876.0 | 4055.0 | 3332.3 | 2729.0 | 2270.4 | 1915.7 | 1803.9 | 1807.8 |
| 12.5° | 6562.4 | 6207.8 | 5275.0 | 4255.5 | 3237.8 | 2326.2 | 1686.4 | 1324.1 | 1154.4 | 1098.6 | 1087.0 |
| 15° | 6489.2 | 6047.9 | 4897.2 | 3654.1 | 2411.1 | 1507.2 | 1087.0 | 959.8 | 913.6 | 903.9 | 902.0 |
| 17.5° | 6450.6 | 5899.4 | 4494.5 | 2966.1 | 1682.5 | 1023.4 | 871.1 | 836.5 | 822.9 | 813.3 | 809.5 |
| 20° | 6417.9 | 5770.4 | 4109.0 | 2322.4 | 1150.6 | 838.4 | 780.5 | 747.8 | 724.7 | 715.0 | 709.2 |
| 22.5° | 6394.8 | 5637.3 | 3710.1 | 1798.1 | 880.8 | 743.9 | 691.9 | 649.5 | 616.7 | 605.2 | 597.4 |
| 25° | 6360.1 | 5490.9 | 3307.2 | 1314.4 | 742.0 | 661.0 | 601.3 | 551.2 | 508.8 | 487.6 | 483.7 |
| 27.5° | 6309.9 | 5325.1 | 2865.9 | 973.3 | 663.0 | 587.9 | 514.6 | 452.9 | 410.5 | 387.4 | 389.3 |
| 30° | 6229.0 | 5151.6 | 2424.5 | 772.9 | 599.4 | 512.7 | 433.6 | 373.9 | 333.5 | 316.0 | 314.1 |
| 32.5° | 6132.7 | 4941.5 | 2019.8 | 663.0 | 541.6 | 445.2 | 362.3 | 310.3 | 279.5 | 266.0 | 264.1 |
| 35° | 6042.1 | 4729.6 | 1607.4 | 595.5 | 481.8 | 383.5 | 304.5 | 260.2 | 237.1 | 225.5 | 227.4 |
| 37.5° | 5992.0 | 4540.7 | 1252.8 | 541.6 | 433.6 | 329.6 | 262.1 | 223.5 | 202.3 | 192.8 | 190.8 |
| 40° | 6024.8 | 4386.5 | 996.4 | 493.4 | 379.7 | 283.3 | 225.5 | 192.8 | 171.6 | 158.0 | 158.0 |
| 42.5° | 6178.9 | 4319.0 | 803.7 | 447.2 | 329.6 | 244.7 | 196.6 | 165.8 | 142.6 | 129.1 | 131.0 |
| 45° | 6649.2 | 4390.4 | 672.6 | 404.8 | 283.3 | 212.0 | 169.6 | 136.8 | 115.6 | 106.0 | 104.1 |
| 47.5° | 7429.7 | 4658.3 | 582.1 | 360.4 | 242.9 | 181.2 | 142.6 | 113.7 | 92.5 | 84.8 | 82.8 |
| 50° | 8794.3 | 5211.4 | 514.6 | 316.0 | 206.2 | 154.2 | 117.6 | 90.6 | 73.3 | 65.5 | 65.5 |
| 52.5° | 10671.4 | 6417.9 | 466.4 | 266.0 | 173.5 | 131.0 | 96.4 | 73.3 | 57.9 | 52.1 | 50.1 |
| 55° | 12633.4 | 7689.9 | 441.4 | 223.5 | 144.6 | 107.9 | 77.1 | 57.9 | 44.3 | 38.5 | 36.6 |
| 57.5° | 14520.2 | 8688.2 | 412.4 | 181.2 | 115.6 | 82.8 | 59.7 | 44.3 | 30.9 | 27.0 | 25.1 |
| 60° | 16329.9 | 9495.8 | 350.8 | 144.6 | 90.6 | 59.7 | 44.3 | 30.9 | 21.2 | 17.3 | 17.3 |
| 62.5° | 17948.9 | 9966.0 | 275.6 | 115.6 | 69.4 | 42.4 | 28.9 | 23.1 | 15.4 | 11.6 | 11.6 |
| 65° | 18137.8 | 9355.1 | 208.1 | 88.6 | 50.1 | 27.0 | 17.3 | 17.3 | 11.6 | 7.7 | 7.7 |
| 66° | 17758.1 | 8836.6 | 183.1 | 81.0 | 44.3 | 23.1 | 15.4 | 13.5 | 9.7 | 5.8 | 5.8 |
| 67.5° | 16910.1 | 7952.0 | 158.0 | 69.4 | 36.6 | 17.3 | 11.6 | 11.6 | 7.7 | 3.9 | 3.9 |
| 70° | 14610.9 | 6495.0 | 125.3 | 52.1 | 27.0 | 13.5 | 7.7 | 7.7 | 5.8 | 3.9 | 3.9 |
| 72.5° | 11135.9 | 4849.0 | 102.2 | 38.5 | 19.3 | 9.7 | 5.8 | 5.8 | 5.8 | 3.9 | 3.9 |
| 75° | 6716.6 | 2611.5 | 79.1 | 28.9 | 17.3 | 7.7 | 3.9 | 5.8 | 7.7 | 5.8 | 3.9 |
| 77.5° | 2474.6 | 888.5 | 61.6 | 23.1 | 13.5 | 7.7 | 3.9 | 3.9 | 7.7 | 5.8 | 5.8 |
| 80° | 607.1 | 231.3 | 44.3 | 19.3 | 13.5 | 7.7 | 3.9 | 3.9 | 7.7 | 7.7 | 7.7 |
| 82.5° | 281.4 | 98.3 | 30.9 | 17.3 | 13.5 | 7.7 | 3.9 | 3.9 | 5.8 | 7.7 | 7.7 |
| 85° | 161.9 | 46.3 | 25.1 | 19.3 | 13.5 | 7.7 | 3.9 | 3.9 | 5.8 | 7.7 | 7.7 |
| 87.5° | 65.5 | 23.1 | 23.1 | 19.3 | 15.4 | 9.7 | 3.9 | 3.9 | 3.9 | 5.8 | 5.8 |
| 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)