

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: P457620

Luminaire Tested: **GALN-SA9A-727-U-SL2-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P457620
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-727-U-SL2-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K, 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: 28376 lumens
Efficiency: N/A
Efficacy: 103.6 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

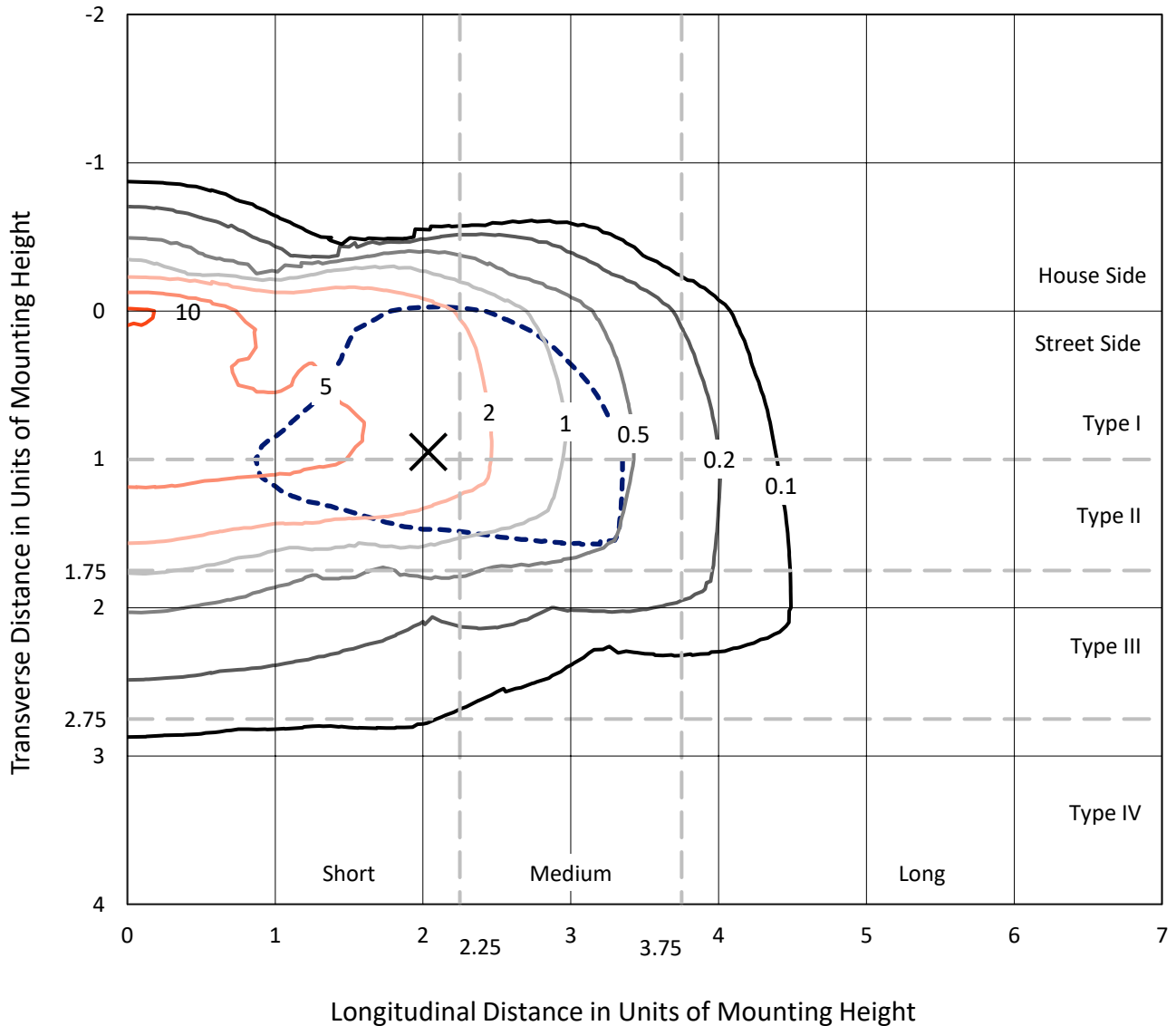
Input Watts (W): 274
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

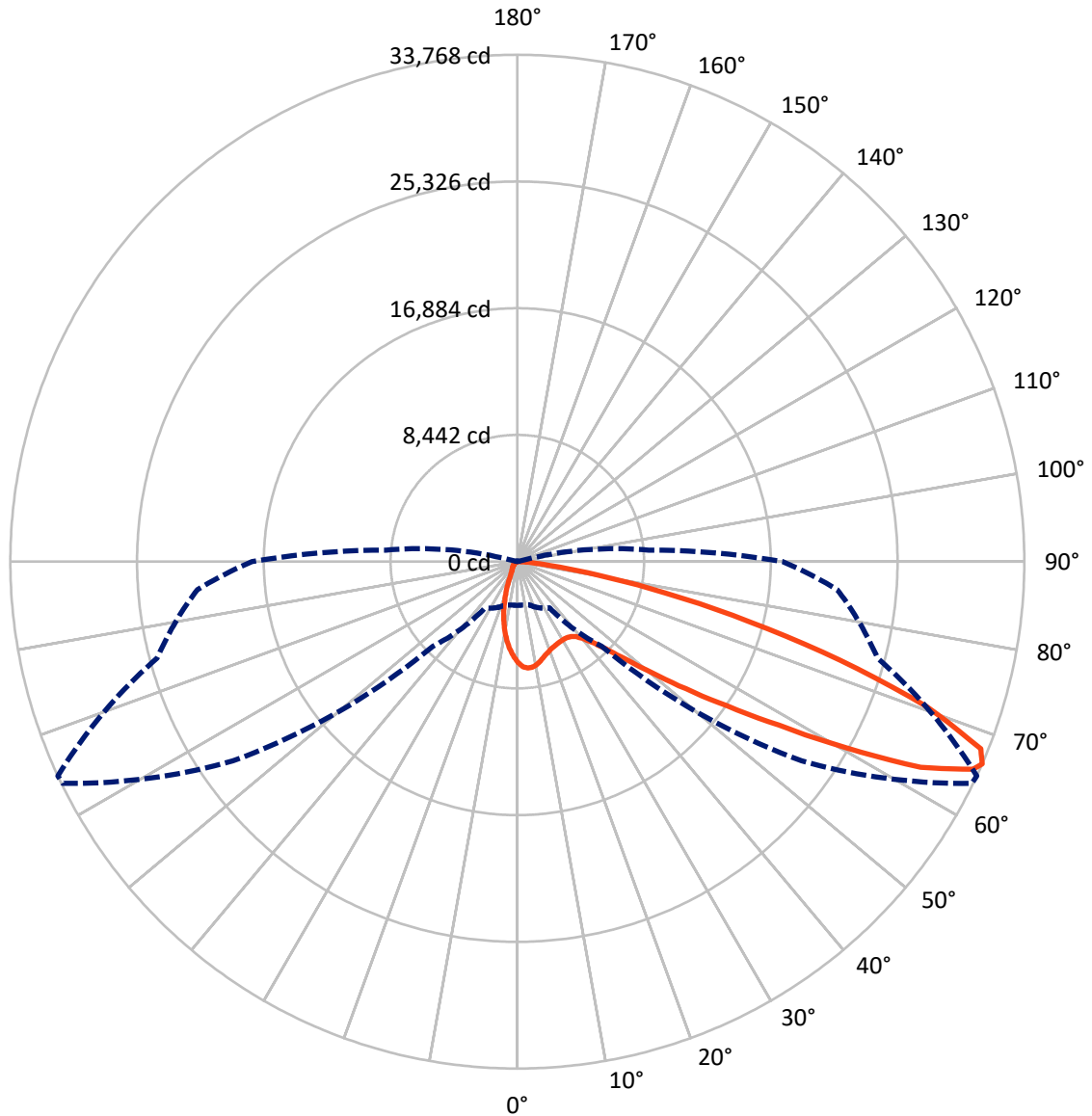
✕ Max cd
 - - - 1/2 Max cd



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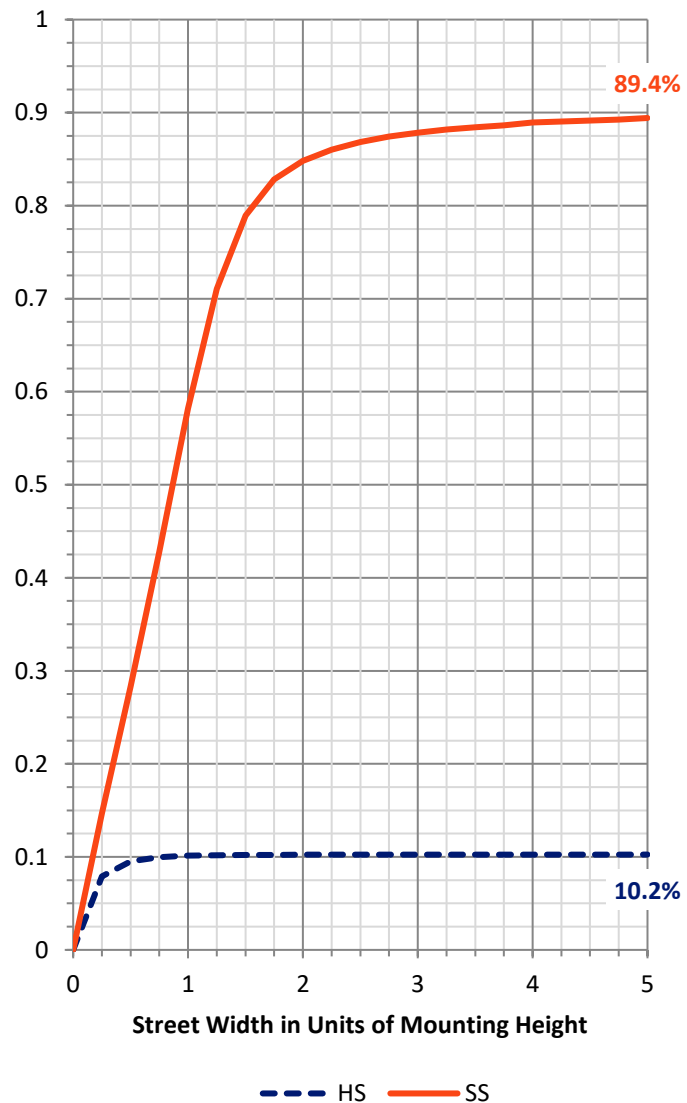
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2934.5 | 0.0 | 2934.5 |
| | % Fixture | 10.3 | 0.0 | 10.3 |
| Street Side | Lumens | 25441.5 | 0.0 | 25441.5 |
| | % Fixture | 89.7 | 0.0 | 89.7 |
| Total | Lumens | 28376.0 | 0.0 | 28376.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 550.3 | 1.9 |
| 10°-20° | 1199.1 | 4.2 |
| 20°-30° | 1717.7 | 6.1 |
| 30°-40° | 2508.8 | 8.8 |
| 40°-50° | 4206.9 | 14.8 |
| 50°-60° | 7020.6 | 24.7 |
| 60°-70° | 7452.2 | 26.3 |
| 70°-80° | 3375.1 | 11.9 |
| 80°-90° | 345.3 | 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° | 28376.0 | 100.0 |
| 0°-180° | 28376.0 | 100.0 |



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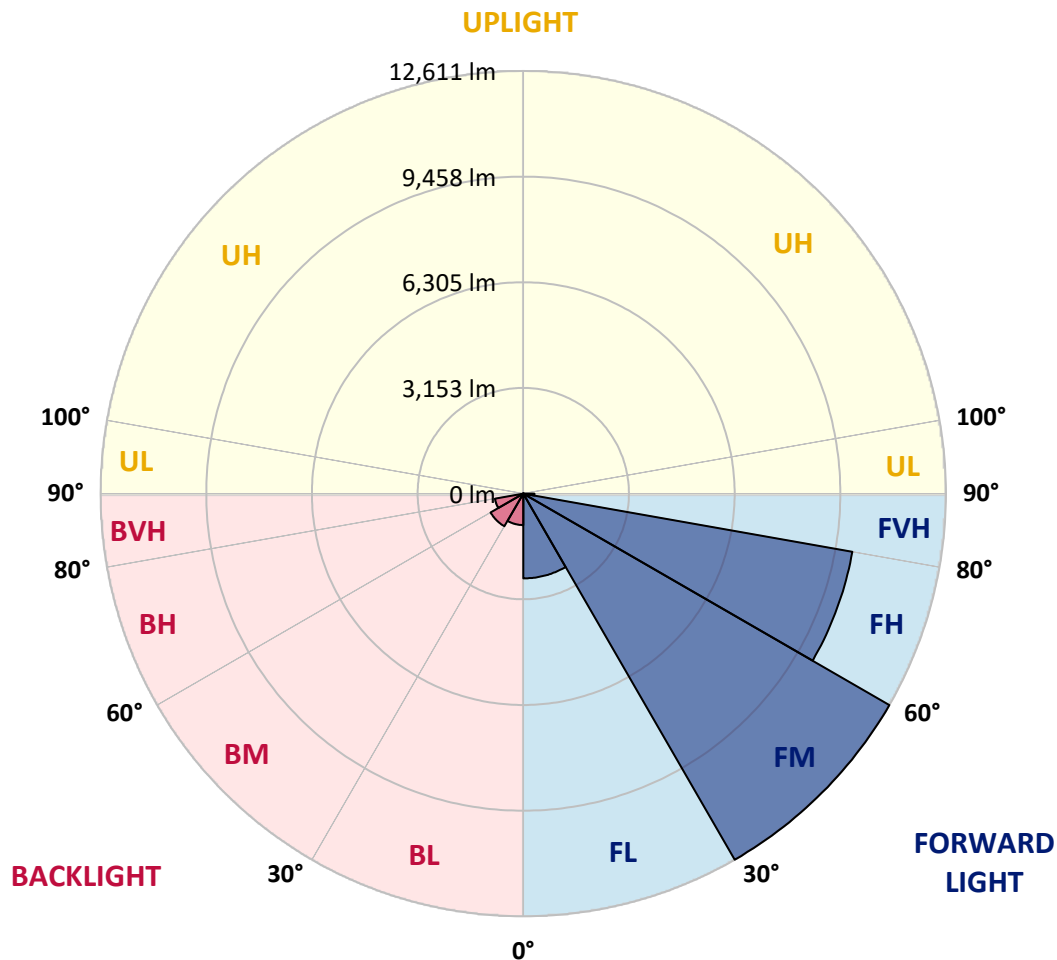
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 2528.4 | 8.9 | | | |
| FM (30°-60°) | 12610.9 | 44.4 | | | |
| FH (60°-80°) | 9967.8 | 35.1 | | | G4/12000 |
| FVH (80°-90°) | 334.3 | 1.2 | | | G3/500 |
| BL (0°-30°) | 938.7 | 3.3 | B2/1000 | | |
| BM (30°-60°) | 1125.4 | 4.0 | B2/2500 | | |
| BH (60°-80°) | 859.4 | 3.0 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 11.0 | 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° | 6729.0 | 6729.0 | 6729.0 | 6729.0 | 6729.0 | 6729.0 | 6729.0 | 6729.0 | 6729.0 | 6729.0 | 6729.0 |
| 2.5° | 7091.2 | 7098.9 | 7108.5 | 7121.9 | 7131.5 | 7102.7 | 7062.5 | 7016.5 | 7006.9 | 6909.2 | 6790.3 |
| 5° | 6711.7 | 6723.2 | 6807.6 | 6853.6 | 6957.1 | 7051.0 | 7110.4 | 7118.1 | 7114.2 | 7022.2 | 6832.5 |
| 7.5° | 6171.3 | 6203.9 | 6286.3 | 6366.8 | 6560.3 | 6738.6 | 6949.4 | 7097.0 | 7106.6 | 7081.6 | 6845.9 |
| 10° | 5732.4 | 5753.5 | 5795.6 | 5954.7 | 6115.7 | 6387.9 | 6683.0 | 6960.9 | 6983.9 | 7083.6 | 6834.4 |
| 12.5° | 5389.3 | 5420.0 | 5471.7 | 5594.4 | 5788.0 | 6044.8 | 6380.2 | 6753.9 | 6801.8 | 7047.1 | 6801.8 |
| 15° | 5149.8 | 5165.1 | 5216.8 | 5337.6 | 5525.4 | 5763.1 | 6102.3 | 6537.3 | 6579.5 | 6999.2 | 6796.1 |
| 17.5° | 5036.7 | 5053.9 | 5090.3 | 5186.2 | 5341.4 | 5561.8 | 5893.4 | 6362.9 | 6416.6 | 6968.6 | 6817.2 |
| 20° | 5067.3 | 5082.7 | 5084.6 | 5134.4 | 5239.8 | 5425.7 | 5740.1 | 6200.0 | 6269.0 | 6949.4 | 6851.7 |
| 22.5° | 5241.8 | 5243.7 | 5220.7 | 5197.7 | 5234.1 | 5368.2 | 5646.1 | 6096.5 | 6167.4 | 6945.6 | 6891.9 |
| 25° | 5502.4 | 5508.2 | 5469.8 | 5389.3 | 5316.5 | 5385.5 | 5625.1 | 6029.5 | 6092.7 | 6936.0 | 6916.8 |
| 27.5° | 5862.7 | 5860.8 | 5849.3 | 5715.1 | 5508.2 | 5462.2 | 5642.3 | 5993.0 | 6046.7 | 6909.2 | 6926.4 |
| 30° | 6366.8 | 6351.4 | 6326.5 | 6175.1 | 5858.9 | 5648.1 | 5715.1 | 5970.0 | 6019.9 | 6870.8 | 6901.5 |
| 32.5° | 6863.2 | 6920.7 | 6916.8 | 6773.1 | 6378.3 | 5979.6 | 5866.6 | 6000.7 | 6037.1 | 6845.9 | 6865.1 |
| 35° | 7442.0 | 7440.0 | 7587.6 | 7533.9 | 7072.1 | 6403.2 | 6125.3 | 6102.3 | 6131.0 | 6863.2 | 6847.8 |
| 37.5° | 7978.6 | 8028.4 | 8258.4 | 8314.0 | 7892.3 | 7001.1 | 6491.3 | 6320.8 | 6330.4 | 6980.1 | 6890.0 |
| 40° | 8647.5 | 8743.3 | 9086.3 | 9272.3 | 8900.4 | 7888.5 | 7031.8 | 6721.3 | 6723.2 | 7267.5 | 7049.1 |
| 42.5° | 9509.9 | 9661.3 | 9981.4 | 10291.9 | 10092.5 | 8938.8 | 7842.5 | 7355.7 | 7351.9 | 7773.5 | 7413.2 |
| 45° | 10558.3 | 10663.7 | 11027.8 | 11520.4 | 11393.9 | 10404.9 | 9023.1 | 8338.9 | 8289.1 | 8603.4 | 8059.1 |
| 47.5° | 11462.9 | 11606.6 | 11976.5 | 12538.0 | 13113.0 | 12195.0 | 10433.7 | 9690.1 | 9657.5 | 9923.9 | 9166.8 |
| 50° | 11857.7 | 11984.2 | 12373.2 | 13160.9 | 14554.3 | 14544.7 | 12534.2 | 11662.2 | 11606.6 | 11750.3 | 10880.2 |
| 52.5° | 11424.5 | 11543.4 | 11936.3 | 12917.5 | 15232.7 | 17408.0 | 15577.7 | 14136.4 | 14069.4 | 13885.4 | 12927.1 |
| 55° | 9941.1 | 10038.9 | 10619.6 | 11746.5 | 14972.1 | 19316.9 | 19771.1 | 17193.3 | 16932.7 | 16217.8 | 15244.2 |
| 57.5° | 7915.3 | 7865.5 | 8225.8 | 9534.8 | 13442.7 | 19957.0 | 24075.7 | 21001.5 | 20535.8 | 18234.0 | 17204.8 |
| 60° | 5485.2 | 5638.5 | 5784.1 | 6646.6 | 10107.9 | 18847.3 | 26753.1 | 25789.1 | 25175.8 | 20217.7 | 19083.1 |
| 62.5° | 4032.4 | 4134.0 | 4229.8 | 4628.5 | 6355.3 | 15048.7 | 27226.5 | 30706.9 | 30162.6 | 22323.9 | 20875.0 |
| 65° | 3189.1 | 3196.8 | 3235.1 | 3628.0 | 4187.7 | 9785.9 | 24951.5 | 33480.2 | 33340.2 | 24351.6 | 21601.4 |
| 66° | 2905.5 | 2907.4 | 2966.8 | 3388.5 | 3758.3 | 7969.0 | 23128.9 | 33691.0 | 33767.6 | 24838.4 | 21388.7 |
| 67.5° | 2539.4 | 2531.8 | 2618.0 | 3045.4 | 3423.0 | 5745.8 | 19866.9 | 32836.2 | 33290.4 | 25212.2 | 20624.0 |
| 70° | 1968.3 | 1958.7 | 2064.1 | 2554.8 | 3152.7 | 3833.1 | 13205.0 | 28194.3 | 28926.4 | 24447.5 | 18247.4 |
| 72.5° | 1310.9 | 1318.6 | 1498.7 | 2016.2 | 3009.0 | 3375.0 | 7944.1 | 21448.1 | 22483.0 | 20188.9 | 14354.9 |
| 75° | 764.7 | 778.1 | 983.2 | 1498.7 | 2612.3 | 3217.9 | 4496.2 | 15294.0 | 15955.3 | 13941.0 | 8942.6 |
| 77.5° | 400.6 | 406.3 | 550.0 | 988.9 | 2002.8 | 2987.9 | 2995.6 | 9770.6 | 10081.0 | 6775.0 | 3539.9 |
| 80° | 212.7 | 207.0 | 295.1 | 596.0 | 1378.0 | 2623.8 | 2430.2 | 5172.8 | 5377.8 | 2012.4 | 895.0 |
| 82.5° | 80.5 | 88.2 | 157.2 | 391.0 | 814.5 | 1884.0 | 2092.9 | 2286.4 | 2215.5 | 442.7 | 375.6 |
| 85° | 15.3 | 19.2 | 67.1 | 231.9 | 410.1 | 787.7 | 1542.8 | 1121.2 | 1038.8 | 166.7 | 216.6 |
| 87.5° | 1.9 | 3.8 | 19.2 | 55.6 | 59.4 | 266.4 | 456.1 | 310.5 | 268.3 | 61.3 | 90.1 |
| 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° | 6729.0 | 6729.0 | 6729.0 | 6729.0 | 6729.0 | 6729.0 | 6729.0 | 6729.0 | 6729.0 | 6729.0 | 6729.0 |
| 2.5° | 6732.8 | 6681.1 | 6508.6 | 6338.0 | 6163.6 | 6006.5 | 5899.1 | 5724.7 | 5680.6 | 5617.4 | 5581.0 |
| 5° | 6719.4 | 6598.7 | 6267.1 | 5904.9 | 5567.6 | 5203.4 | 4925.5 | 4657.2 | 4513.5 | 4440.6 | 4413.8 |
| 7.5° | 6681.1 | 6489.4 | 5972.0 | 5404.7 | 4864.2 | 4319.9 | 3846.5 | 3486.2 | 3254.3 | 3095.2 | 2987.9 |
| 10° | 6604.4 | 6339.9 | 5628.9 | 4848.9 | 4032.4 | 3313.7 | 2713.8 | 2257.7 | 1905.0 | 1793.9 | 1797.7 |
| 12.5° | 6525.8 | 6173.2 | 5245.6 | 4231.7 | 3219.8 | 2313.3 | 1677.0 | 1316.7 | 1148.0 | 1092.4 | 1080.9 |
| 15° | 6453.0 | 6014.1 | 4869.9 | 3633.8 | 2397.6 | 1498.7 | 1080.9 | 954.4 | 908.4 | 898.9 | 896.9 |
| 17.5° | 6414.7 | 5866.6 | 4469.4 | 2949.6 | 1673.1 | 1017.7 | 866.3 | 831.8 | 818.4 | 808.8 | 804.9 |
| 20° | 6382.1 | 5738.1 | 4086.1 | 2309.4 | 1144.2 | 833.7 | 776.2 | 743.6 | 720.6 | 711.0 | 705.3 |
| 22.5° | 6359.1 | 5605.9 | 3689.4 | 1788.1 | 875.9 | 739.8 | 688.0 | 645.9 | 613.3 | 601.8 | 594.1 |
| 25° | 6324.6 | 5460.2 | 3288.8 | 1307.1 | 737.9 | 657.4 | 598.0 | 548.1 | 506.0 | 484.9 | 481.1 |
| 27.5° | 6274.8 | 5295.4 | 2849.9 | 967.9 | 659.3 | 584.5 | 511.7 | 450.4 | 408.2 | 385.2 | 387.1 |
| 30° | 6194.3 | 5122.9 | 2411.0 | 768.5 | 596.0 | 509.8 | 431.2 | 371.8 | 331.6 | 314.3 | 312.4 |
| 32.5° | 6098.5 | 4914.0 | 2008.5 | 659.3 | 538.5 | 442.7 | 360.3 | 308.6 | 277.9 | 264.5 | 262.6 |
| 35° | 6008.4 | 4703.2 | 1598.4 | 592.2 | 479.1 | 381.4 | 302.8 | 258.7 | 235.7 | 224.2 | 226.2 |
| 37.5° | 5958.5 | 4515.4 | 1245.8 | 538.5 | 431.2 | 327.7 | 260.7 | 222.3 | 201.2 | 191.7 | 189.7 |
| 40° | 5991.1 | 4362.1 | 990.9 | 490.6 | 377.6 | 281.7 | 224.2 | 191.7 | 170.6 | 157.2 | 157.2 |
| 42.5° | 6144.4 | 4295.0 | 799.2 | 444.6 | 327.7 | 243.4 | 195.5 | 164.8 | 141.8 | 128.4 | 130.3 |
| 45° | 6612.1 | 4365.9 | 668.9 | 402.5 | 281.7 | 210.8 | 168.7 | 136.1 | 115.0 | 105.4 | 103.5 |
| 47.5° | 7388.3 | 4632.3 | 578.8 | 358.4 | 241.5 | 180.2 | 141.8 | 113.1 | 92.0 | 84.3 | 82.4 |
| 50° | 8745.2 | 5182.3 | 511.7 | 314.3 | 205.1 | 153.3 | 116.9 | 90.1 | 72.8 | 65.2 | 65.2 |
| 52.5° | 10611.9 | 6382.1 | 463.8 | 264.5 | 172.5 | 130.3 | 95.8 | 72.8 | 57.5 | 51.7 | 49.8 |
| 55° | 12563.0 | 7647.0 | 438.9 | 222.3 | 143.7 | 107.3 | 76.7 | 57.5 | 44.1 | 38.3 | 36.4 |
| 57.5° | 14439.3 | 8639.8 | 410.1 | 180.2 | 115.0 | 82.4 | 59.4 | 44.1 | 30.7 | 26.8 | 24.9 |
| 60° | 16238.9 | 9442.8 | 348.8 | 143.7 | 90.1 | 59.4 | 44.1 | 30.7 | 21.1 | 17.2 | 17.2 |
| 62.5° | 17848.8 | 9910.5 | 274.1 | 115.0 | 69.0 | 42.2 | 28.7 | 23.0 | 15.3 | 11.5 | 11.5 |
| 65° | 18036.6 | 9302.9 | 207.0 | 88.2 | 49.8 | 26.8 | 17.2 | 17.2 | 11.5 | 7.7 | 7.7 |
| 66° | 17659.1 | 8787.4 | 182.1 | 80.5 | 44.1 | 23.0 | 15.3 | 13.4 | 9.6 | 5.7 | 5.7 |
| 67.5° | 16815.8 | 7907.7 | 157.2 | 69.0 | 36.4 | 17.2 | 11.5 | 11.5 | 7.7 | 3.8 | 3.8 |
| 70° | 14529.3 | 6458.8 | 124.6 | 51.7 | 26.8 | 13.4 | 7.7 | 7.7 | 5.7 | 3.8 | 3.8 |
| 72.5° | 11073.8 | 4822.0 | 101.6 | 38.3 | 19.2 | 9.6 | 5.7 | 5.7 | 5.7 | 3.8 | 3.8 |
| 75° | 6679.2 | 2596.9 | 78.6 | 28.7 | 17.2 | 7.7 | 3.8 | 5.7 | 7.7 | 5.7 | 3.8 |
| 77.5° | 2460.8 | 883.5 | 61.3 | 23.0 | 13.4 | 7.7 | 3.8 | 3.8 | 7.7 | 5.7 | 5.7 |
| 80° | 603.7 | 230.0 | 44.1 | 19.2 | 13.4 | 7.7 | 3.8 | 3.8 | 7.7 | 7.7 | 7.7 |
| 82.5° | 279.8 | 97.7 | 30.7 | 17.2 | 13.4 | 7.7 | 3.8 | 3.8 | 5.7 | 7.7 | 7.7 |
| 85° | 161.0 | 46.0 | 24.9 | 19.2 | 13.4 | 7.7 | 3.8 | 3.8 | 5.7 | 7.7 | 7.7 |
| 87.5° | 65.2 | 23.0 | 23.0 | 19.2 | 15.3 | 9.6 | 3.8 | 3.8 | 3.8 | 5.7 | 5.7 |
| 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)