

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: STREETWORKS

Report Number: P191087

Luminaire Tested: **GAN-AF-09-LED-U-SL2-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191087
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-09-LED-U-SL2-800
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43084.6 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G5

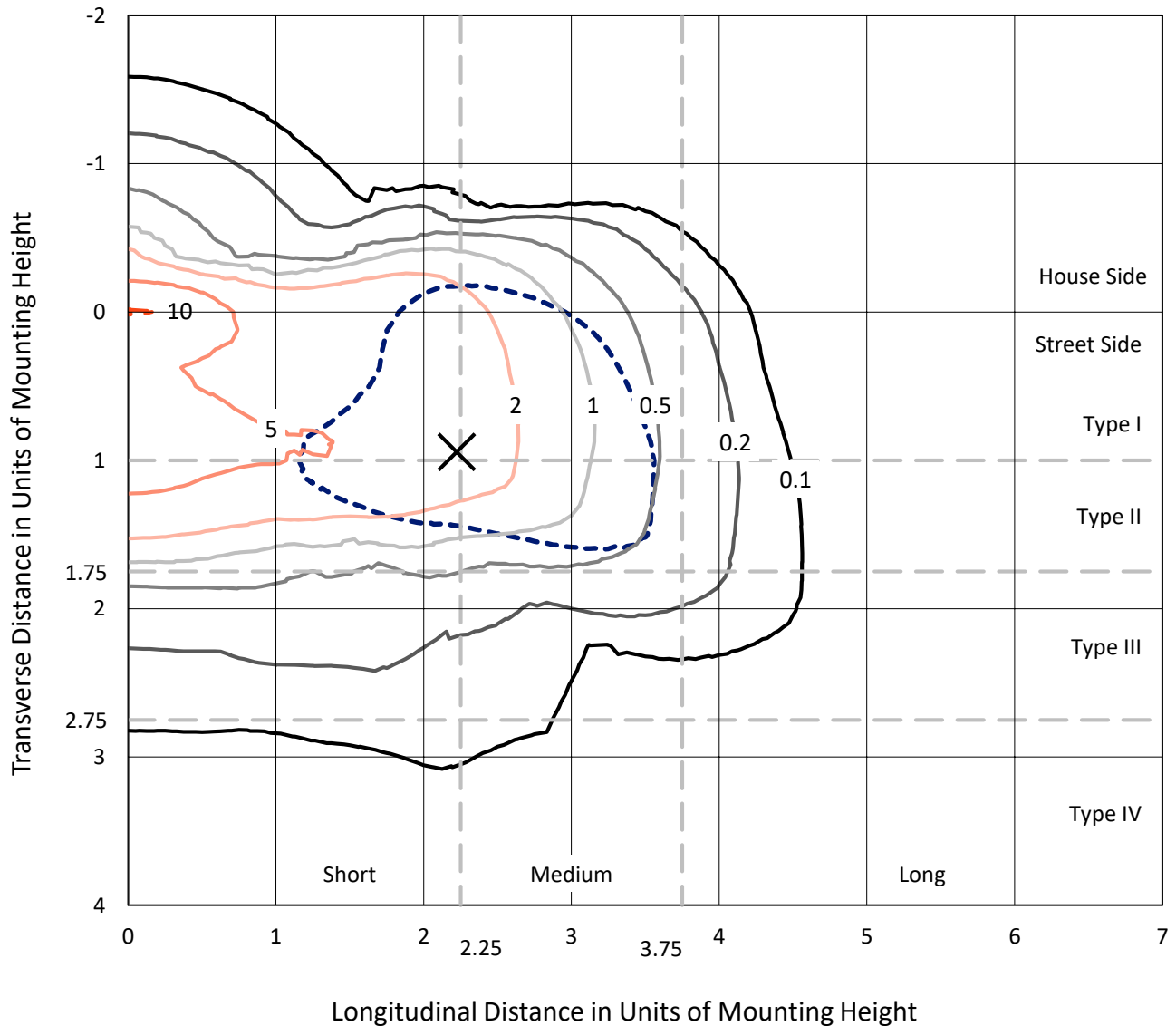
Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

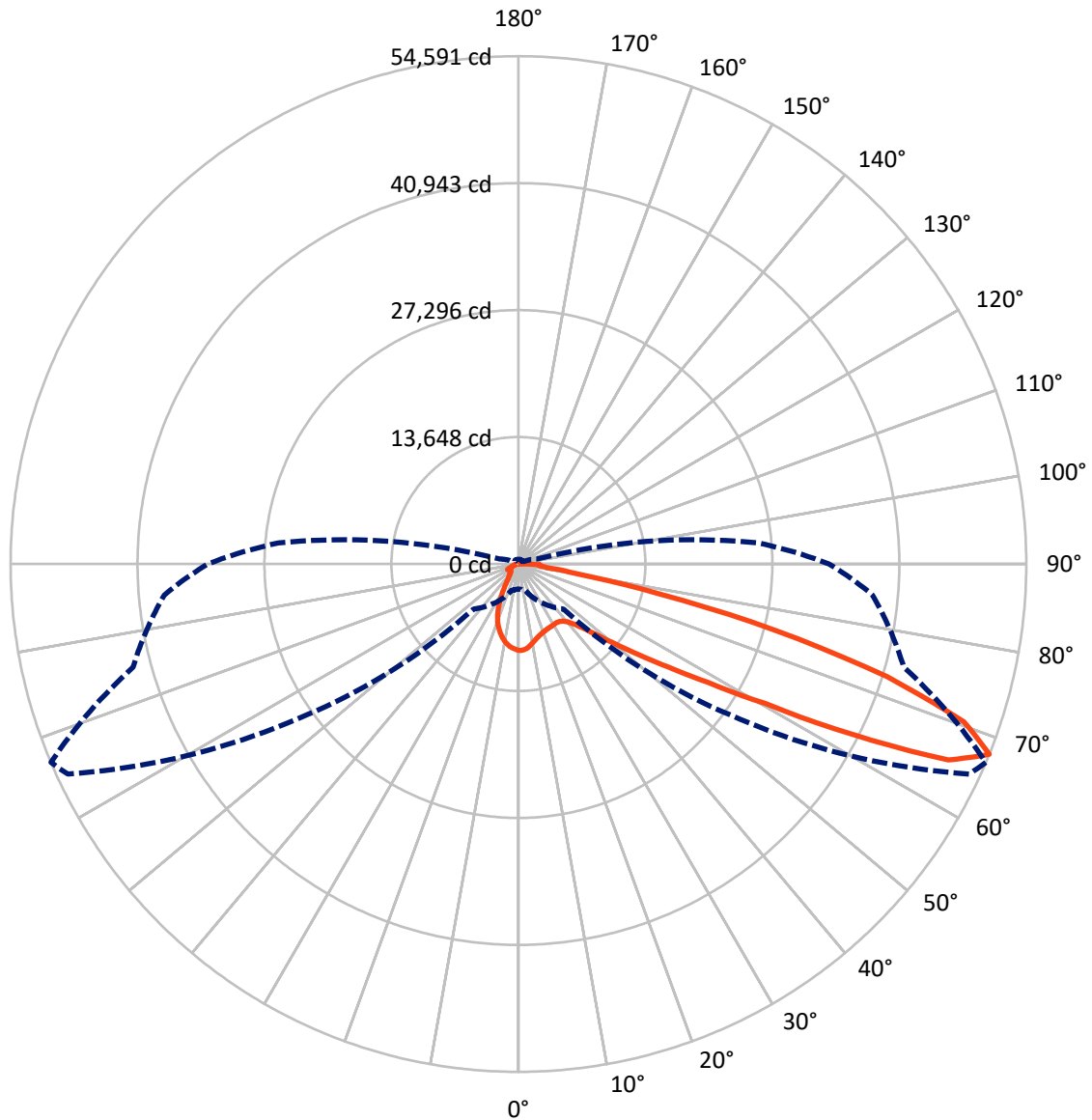


Based on 30 foot mounting height. Maximum calculated value = 10.3 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 7138.6 | 0.0 | 7138.6 |
| | % Fixture | 16.6 | 0.0 | 16.6 |
| Street Side | Lumens | 35946.0 | 0.0 | 35946.0 |
| | % Fixture | 83.4 | 0.0 | 83.4 |
| Total | Lumens | 43084.6 | 0.0 | 43084.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 792.9 | 1.8 |
| 10°-20° | 1834.5 | 4.3 |
| 20°-30° | 2486.7 | 5.8 |
| 30°-40° | 3535.2 | 8.2 |
| 40°-50° | 5914.5 | 13.7 |
| 50°-60° | 9356.7 | 21.7 |
| 60°-70° | 11919.4 | 27.7 |
| 70°-80° | 6243.4 | 14.5 |
| 80°-90° | 1001.3 | 2.3 |
| 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° | 43084.6 | 100.0 |
| 0°-180° | 43084.6 | 100.0 |



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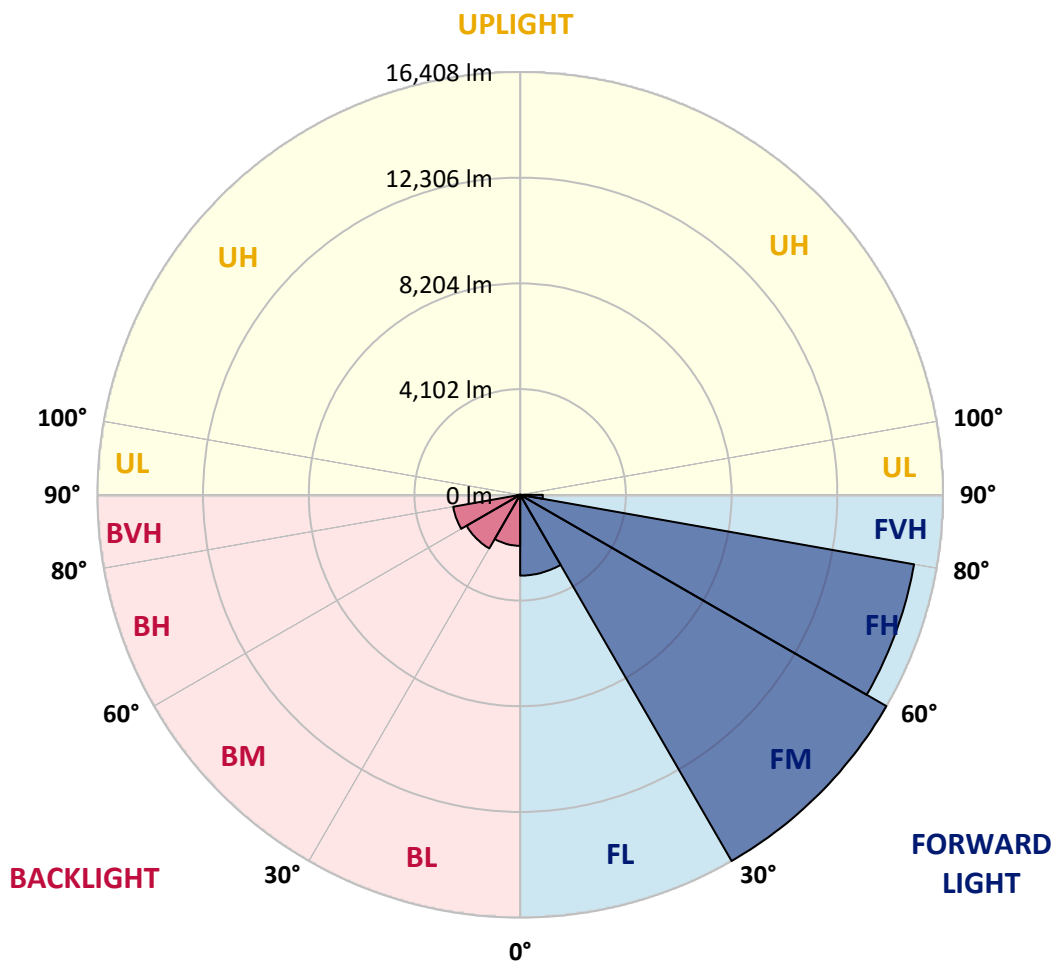
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 3135.5 | 7.3 | | | |
| FM | (30°-60°) | 16407.5 | 38.1 | | | |
| FH | (60°-80°) | 15522.5 | 36.0 | | | G5 |
| FVH | (80°-90°) | 880.5 | 2.0 | | | G5 |
| BL | (0°-30°) | 1978.6 | 4.6 | B3/2500 | | |
| BM | (30°-60°) | 2398.8 | 5.6 | B2/2500 | | |
| BH | (60°-80°) | 2640.3 | 6.1 | B4/5000 | | G4/5000 |
| BVH | (80°-90°) | 120.9 | 0.3 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 67° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 9293.2 | 9293.2 | 9293.2 | 9293.2 | 9293.2 | 9293.2 | 9293.2 | 9293.2 | 9293.2 | 9293.2 | 9293.2 |
| 2.5° | 8910.8 | 8925.7 | 8972.4 | 9002.2 | 9136.1 | 9193.4 | 9233.8 | 9274.2 | 9280.5 | 9299.6 | 9280.5 |
| 5° | 7975.9 | 8007.9 | 8094.9 | 8192.7 | 8451.9 | 8655.9 | 8870.4 | 9093.5 | 9133.9 | 9278.4 | 9318.8 |
| 7.5° | 7251.5 | 7243.0 | 7315.2 | 7432.0 | 7697.6 | 7980.2 | 8356.3 | 8800.3 | 8887.4 | 9212.5 | 9369.7 |
| 10° | 6722.4 | 6716.1 | 6792.5 | 6913.6 | 7166.5 | 7434.2 | 7859.1 | 8466.8 | 8590.0 | 9108.5 | 9418.6 |
| 12.5° | 6331.5 | 6333.6 | 6410.1 | 6543.9 | 6801.0 | 7070.8 | 7502.1 | 8143.8 | 8301.0 | 8987.3 | 9469.6 |
| 15° | 6072.2 | 6089.3 | 6150.9 | 6293.2 | 6543.9 | 6813.8 | 7236.6 | 7901.6 | 8077.9 | 8891.7 | 9526.9 |
| 17.5° | 5985.2 | 6012.8 | 6034.0 | 6138.1 | 6352.7 | 6622.6 | 7036.9 | 7723.2 | 7910.1 | 8825.8 | 9578.0 |
| 20° | 6065.9 | 6097.8 | 6057.4 | 6093.5 | 6229.5 | 6467.5 | 6879.7 | 7582.9 | 7774.1 | 8751.4 | 9584.3 |
| 22.5° | 6412.3 | 6441.9 | 6323.0 | 6218.8 | 6210.3 | 6354.9 | 6750.0 | 7472.5 | 7670.0 | 8696.2 | 9586.5 |
| 25° | 7021.9 | 7041.1 | 6841.4 | 6599.2 | 6363.4 | 6314.5 | 6658.7 | 7395.9 | 7606.3 | 8647.3 | 9546.1 |
| 27.5° | 7769.8 | 7784.8 | 7555.3 | 7198.3 | 6724.6 | 6410.1 | 6626.8 | 7351.3 | 7570.1 | 8604.9 | 9478.0 |
| 30° | 8679.2 | 8749.3 | 8441.3 | 7990.9 | 7300.3 | 6692.7 | 6690.5 | 7327.9 | 7529.7 | 8532.6 | 9344.2 |
| 32.5° | 9609.8 | 9639.6 | 9427.1 | 8970.3 | 8075.8 | 7189.8 | 6869.0 | 7345.0 | 7519.2 | 8445.5 | 9174.2 |
| 35° | 10553.2 | 10591.4 | 10453.3 | 10085.8 | 9136.1 | 7918.6 | 7217.4 | 7444.8 | 7585.1 | 8415.8 | 9055.3 |
| 37.5° | 11774.9 | 11825.8 | 11634.6 | 11209.7 | 10425.7 | 8906.5 | 7797.4 | 7695.6 | 7786.9 | 8500.7 | 9019.2 |
| 40° | 13706.2 | 13682.8 | 13124.0 | 12490.8 | 11836.5 | 10170.7 | 8626.1 | 8120.5 | 8173.6 | 8774.9 | 9129.6 |
| 42.5° | 15954.0 | 15896.7 | 14934.3 | 13939.9 | 13387.5 | 11700.5 | 9722.4 | 8857.7 | 8847.1 | 9314.5 | 9518.5 |
| 45° | 17747.3 | 17700.5 | 16833.7 | 15607.8 | 15165.8 | 13442.7 | 11139.6 | 9956.2 | 9877.5 | 10170.7 | 10236.6 |
| 47.5° | 18718.3 | 18720.3 | 18221.1 | 17220.4 | 17209.7 | 15656.6 | 12960.4 | 11545.4 | 11409.4 | 11547.5 | 11477.4 |
| 50° | 18378.3 | 18422.9 | 18369.7 | 18051.1 | 19075.2 | 18558.9 | 15337.9 | 13761.5 | 13487.3 | 13623.4 | 13353.5 |
| 52.5° | 16733.8 | 16791.1 | 17105.6 | 17594.2 | 19859.2 | 22066.7 | 18830.9 | 16514.9 | 16196.3 | 16147.4 | 15847.9 |
| 55° | 13818.7 | 13888.9 | 14530.5 | 15858.4 | 19206.9 | 24423.0 | 24342.2 | 20024.9 | 19517.1 | 19056.0 | 18928.6 |
| 57.5° | 9524.8 | 9641.7 | 10674.3 | 12645.9 | 17097.1 | 25134.7 | 30905.3 | 25028.4 | 23995.9 | 22385.4 | 22415.1 |
| 60° | 5369.1 | 5505.0 | 6722.4 | 8513.5 | 12839.3 | 24361.4 | 35898.2 | 32607.1 | 30427.3 | 26284.1 | 26505.1 |
| 62.5° | 3414.3 | 3560.9 | 4485.1 | 5915.0 | 7704.0 | 20197.0 | 37944.2 | 43143.3 | 40374.8 | 31090.1 | 31306.8 |
| 65° | 2764.2 | 2827.9 | 3263.5 | 4882.4 | 5594.2 | 12167.9 | 36391.2 | 51822.5 | 50789.9 | 37190.0 | 36178.7 |
| 67.5° | 2698.3 | 2719.5 | 2944.8 | 4098.5 | 5364.8 | 6839.2 | 29027.0 | 53445.8 | 54591.0 | 42886.2 | 38207.7 |
| 70° | 2666.4 | 2740.8 | 3318.8 | 3911.5 | 5137.5 | 5768.4 | 17443.5 | 48996.7 | 50804.9 | 44375.6 | 35507.2 |
| 72.5° | 1293.9 | 1289.6 | 1670.0 | 3537.6 | 5787.5 | 5983.0 | 8961.8 | 39643.9 | 41458.5 | 38445.7 | 29177.9 |
| 75° | 1043.2 | 954.0 | 911.4 | 1296.1 | 5564.4 | 6178.5 | 5711.0 | 27278.5 | 28591.5 | 25776.3 | 17936.3 |
| 77.5° | 990.1 | 883.8 | 809.5 | 811.6 | 2352.0 | 6552.4 | 4837.8 | 15097.8 | 15480.2 | 11643.1 | 4914.4 |
| 80° | 820.1 | 722.4 | 669.3 | 754.2 | 1138.9 | 6240.1 | 5230.9 | 6832.9 | 6269.9 | 2859.8 | 1636.0 |
| 82.5° | 569.4 | 518.4 | 503.5 | 633.1 | 911.4 | 4446.9 | 6082.9 | 3671.4 | 3078.7 | 1432.0 | 1009.2 |
| 85° | 363.4 | 310.2 | 344.2 | 461.0 | 709.6 | 2052.4 | 6265.6 | 2861.9 | 2275.6 | 909.4 | 569.4 |
| 87.5° | 167.9 | 136.0 | 170.0 | 254.9 | 463.2 | 707.5 | 5961.8 | 3214.6 | 2343.5 | 480.2 | 359.1 |
| 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° | 9293.2 | 9293.2 | 9293.2 | 9293.2 | 9293.2 | 9293.2 | 9293.2 | 9293.2 | 9293.2 | 9293.2 | 9293.2 |
| 2.5° | 9297.5 | 9257.1 | 9225.3 | 9165.7 | 9099.9 | 9036.1 | 8978.8 | 8906.5 | 8885.4 | 8866.2 | 8896.0 |
| 5° | 9327.3 | 9286.9 | 9170.0 | 8987.3 | 8785.4 | 8596.4 | 8407.2 | 8245.8 | 8146.0 | 8090.7 | 8122.5 |
| 7.5° | 9371.9 | 9314.5 | 9072.2 | 8736.6 | 8373.3 | 8041.8 | 7699.8 | 7425.7 | 7223.9 | 7128.2 | 7155.8 |
| 10° | 9412.3 | 9301.8 | 8906.5 | 8403.0 | 7871.8 | 7379.0 | 6839.2 | 6393.1 | 6061.6 | 5887.4 | 5929.9 |
| 12.5° | 9429.3 | 9252.9 | 8674.9 | 7986.6 | 7257.8 | 6535.4 | 5740.8 | 5073.6 | 4597.8 | 4423.5 | 4387.4 |
| 15° | 9446.2 | 9197.7 | 8420.0 | 7512.8 | 6516.3 | 5494.4 | 4381.1 | 3582.2 | 3187.0 | 3099.8 | 3080.7 |
| 17.5° | 9450.4 | 9102.0 | 8131.0 | 6998.6 | 5647.3 | 4255.7 | 2995.8 | 2488.0 | 2490.1 | 2630.3 | 2647.3 |
| 20° | 9405.8 | 8959.7 | 7780.5 | 6359.1 | 4606.2 | 2942.6 | 2056.6 | 1969.6 | 2290.4 | 2641.0 | 2683.4 |
| 22.5° | 9303.8 | 8770.6 | 7383.1 | 5613.3 | 3414.3 | 1937.7 | 1591.4 | 1686.9 | 2101.2 | 2530.5 | 2579.4 |
| 25° | 9174.2 | 8541.1 | 6913.6 | 4748.6 | 2260.6 | 1385.3 | 1334.2 | 1451.2 | 1731.5 | 2018.4 | 2046.0 |
| 27.5° | 8997.9 | 8269.1 | 6386.7 | 3758.5 | 1468.1 | 1140.9 | 1175.0 | 1253.5 | 1368.3 | 1495.8 | 1508.5 |
| 30° | 8770.6 | 7944.1 | 5823.7 | 2740.8 | 1109.1 | 1026.2 | 1075.1 | 1117.6 | 1166.5 | 1238.7 | 1245.0 |
| 32.5° | 8509.2 | 7631.7 | 5245.8 | 1893.1 | 983.7 | 966.7 | 1004.9 | 1026.2 | 1064.5 | 1109.1 | 1113.3 |
| 35° | 8290.4 | 7334.4 | 4646.7 | 1338.5 | 930.6 | 922.1 | 947.6 | 956.0 | 992.3 | 1041.1 | 1045.4 |
| 37.5° | 8165.1 | 7092.1 | 4028.4 | 1079.3 | 894.5 | 881.8 | 896.6 | 896.6 | 947.6 | 1019.9 | 1030.4 |
| 40° | 8173.6 | 6958.2 | 3410.1 | 975.2 | 864.7 | 847.7 | 849.9 | 849.9 | 915.7 | 994.3 | 1000.8 |
| 42.5° | 8405.2 | 6992.3 | 2861.9 | 934.9 | 841.4 | 822.2 | 811.6 | 818.0 | 873.2 | 924.2 | 928.4 |
| 45° | 8949.1 | 7232.4 | 2347.8 | 909.4 | 818.0 | 811.6 | 788.3 | 786.1 | 807.4 | 830.7 | 830.7 |
| 47.5° | 9841.4 | 7706.1 | 1999.3 | 892.3 | 798.8 | 796.8 | 769.2 | 741.5 | 739.4 | 747.9 | 747.9 |
| 50° | 11292.6 | 8522.0 | 1765.6 | 873.2 | 786.1 | 769.2 | 737.2 | 694.8 | 679.9 | 686.3 | 686.3 |
| 52.5° | 13468.2 | 9977.4 | 1676.3 | 847.7 | 758.5 | 730.9 | 694.8 | 652.2 | 639.5 | 641.7 | 641.7 |
| 55° | 16321.6 | 12212.5 | 1663.6 | 818.0 | 728.8 | 684.1 | 654.4 | 622.6 | 607.6 | 611.9 | 611.9 |
| 57.5° | 19808.2 | 15304.0 | 1890.9 | 771.2 | 688.3 | 637.4 | 620.4 | 599.1 | 588.5 | 594.9 | 592.8 |
| 60° | 24046.9 | 19349.2 | 2804.5 | 722.4 | 648.0 | 594.9 | 594.9 | 577.9 | 569.4 | 575.8 | 573.7 |
| 62.5° | 28929.4 | 23995.9 | 3943.4 | 686.3 | 605.5 | 560.9 | 569.4 | 560.9 | 552.4 | 556.7 | 554.5 |
| 65° | 33259.4 | 27023.5 | 3692.6 | 658.7 | 563.0 | 529.1 | 543.9 | 539.7 | 533.3 | 537.6 | 535.4 |
| 67.5° | 33384.7 | 25901.7 | 2073.6 | 628.9 | 522.6 | 497.2 | 518.4 | 516.3 | 512.1 | 516.3 | 514.1 |
| 70° | 29794.1 | 21871.2 | 1168.5 | 573.7 | 480.2 | 458.9 | 488.7 | 486.5 | 482.3 | 490.8 | 488.7 |
| 72.5° | 23870.6 | 15871.2 | 854.1 | 505.6 | 437.7 | 418.6 | 452.6 | 450.4 | 450.4 | 463.2 | 456.8 |
| 75° | 13735.9 | 8167.1 | 682.0 | 433.4 | 393.0 | 378.2 | 408.0 | 410.1 | 414.3 | 431.3 | 418.6 |
| 77.5° | 3915.8 | 2545.3 | 556.7 | 367.5 | 337.8 | 331.4 | 361.2 | 365.4 | 367.5 | 386.7 | 369.7 |
| 80° | 1455.4 | 1172.8 | 458.9 | 308.1 | 276.2 | 278.3 | 306.0 | 312.3 | 314.5 | 333.6 | 312.3 |
| 82.5° | 928.4 | 773.4 | 371.8 | 237.9 | 216.8 | 214.6 | 248.6 | 257.1 | 257.1 | 259.2 | 246.4 |
| 85° | 541.8 | 463.2 | 280.5 | 172.1 | 152.9 | 146.6 | 184.8 | 199.7 | 193.3 | 189.1 | 180.6 |
| 87.5° | 363.4 | 318.6 | 172.1 | 95.6 | 82.9 | 78.6 | 108.3 | 119.0 | 114.8 | 108.3 | 102.0 |
| 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)