

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: P320139

Luminaire Tested: **GLEON-SA5D-827-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P320139
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-24)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA5D-827-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27089 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

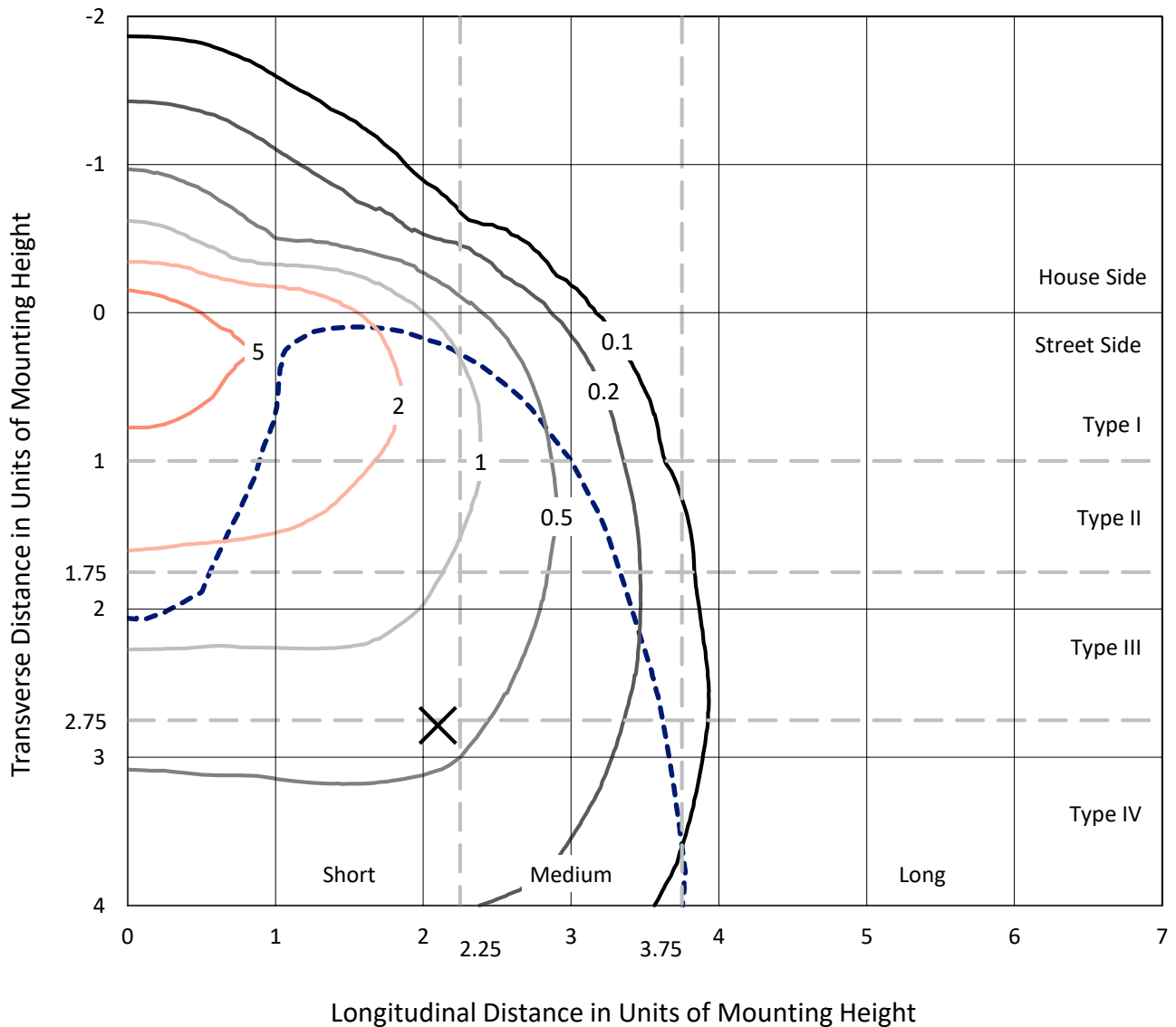
Input Watts (W): 320
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

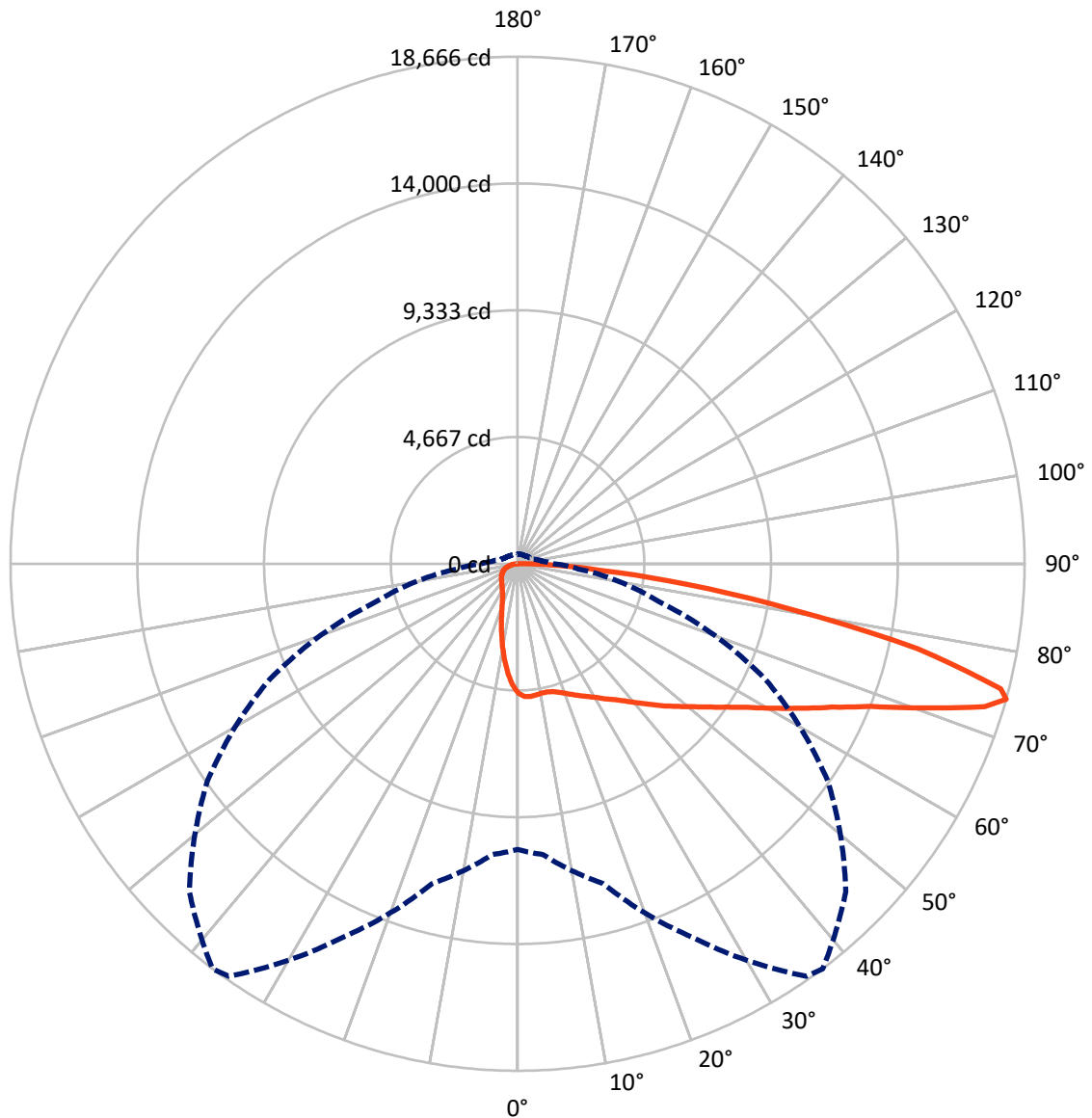
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 37-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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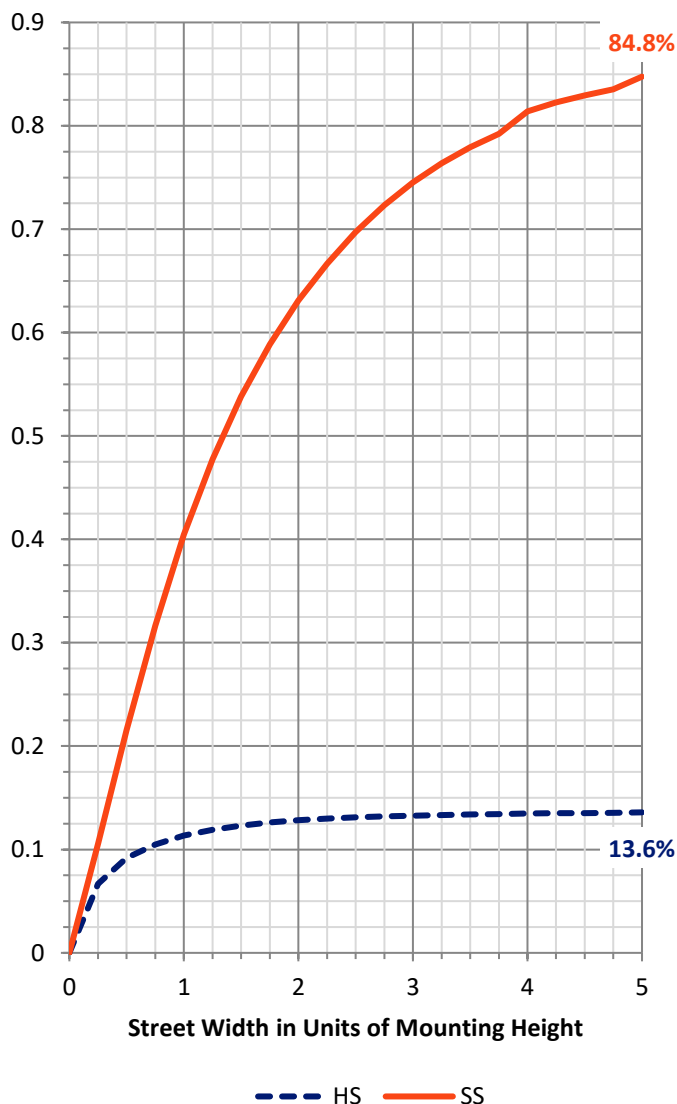
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3727.3 | 0.0 | 3727.3 |
| | % Fixture | 13.8 | 0.0 | 13.8 |
| Street Side | Lumens | 23361.7 | 0.0 | 23361.7 |
| | % Fixture | 86.2 | 0.0 | 86.2 |
| Total | Lumens | 27089.0 | 0.0 | 27089.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 420.3 | 1.6 |
| 10°-20° | 1077.4 | 4.0 |
| 20°-30° | 1660.0 | 6.1 |
| 30°-40° | 2413.9 | 8.9 |
| 40°-50° | 3552.9 | 13.1 |
| 50°-60° | 4989.4 | 18.4 |
| 60°-70° | 6315.0 | 23.3 |
| 70°-80° | 5560.6 | 20.5 |
| 80°-90° | 1099.4 | 4.1 |
| 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° | 27089.0 | 100.0 |
| 0°-180° | 27089.0 | 100.0 |

Coefficient of Utilization



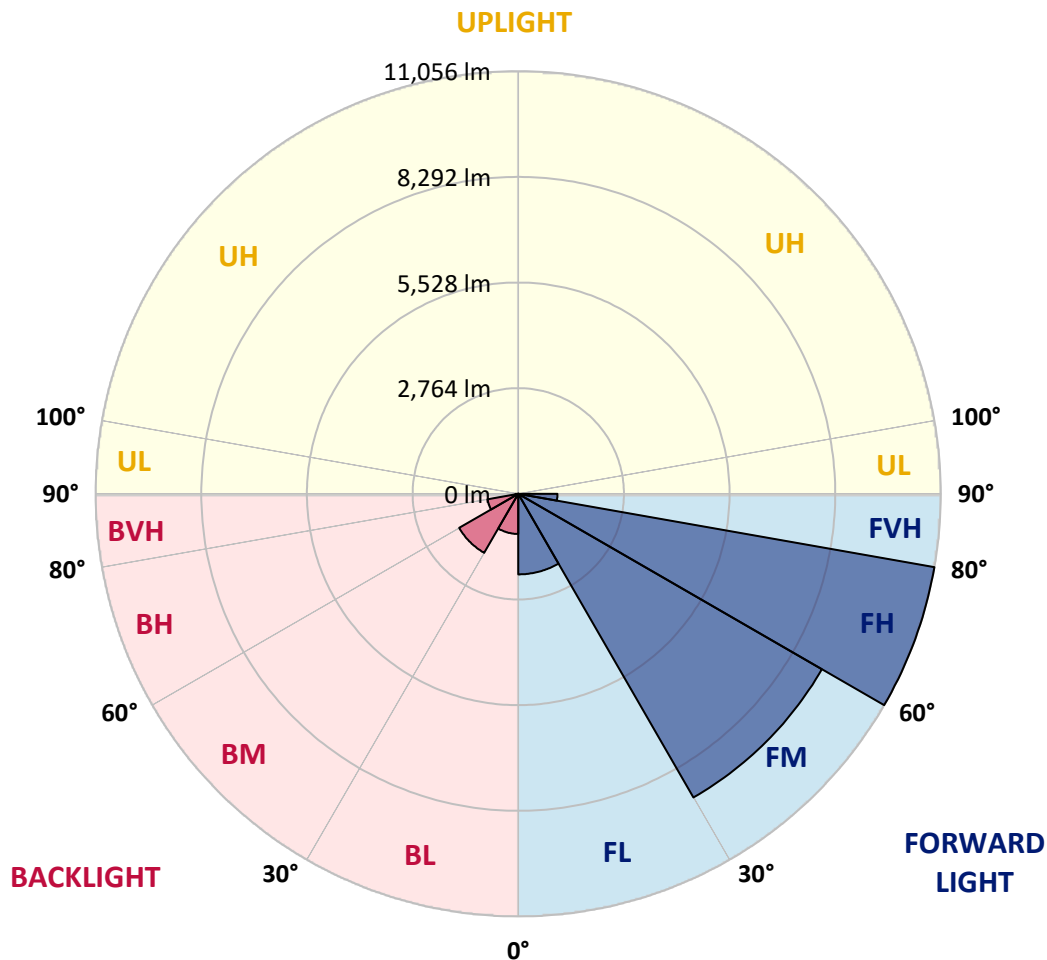
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 2107.8 | 7.8 | | | |
| FM (30°-60°) | 9172.5 | 33.9 | | | |
| FH (60°-80°) | 11056.3 | 40.8 | | | G4/12000 |
| FVH (80°-90°) | 1025.0 | 3.8 | | | G5 |
| BL (0°-30°) | 1049.9 | 3.9 | B3/2500 | | |
| BM (30°-60°) | 1783.6 | 6.6 | B2/2500 | | |
| BH (60°-80°) | 819.3 | 3.0 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 74.4 | 0.3 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 37° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0° | 4773.0 | 4773.0 | 4773.0 | 4773.0 | 4773.0 | 4773.0 | 4773.0 | 4773.0 | 4773.0 | 4773.0 | 4773.0 |
| 2.5° | 4936.1 | 4937.1 | 4936.1 | 4928.5 | 4910.4 | 4895.1 | 4882.7 | 4864.6 | 4824.5 | 4794.0 | 4748.2 |
| 5° | 4982.9 | 4977.2 | 4973.4 | 4959.0 | 4930.4 | 4913.2 | 4889.4 | 4855.0 | 4789.2 | 4728.1 | 4653.7 |
| 7.5° | 4961.0 | 4954.3 | 4945.7 | 4928.5 | 4896.1 | 4881.8 | 4848.4 | 4803.5 | 4724.3 | 4644.2 | 4537.3 |
| 10° | 4893.2 | 4891.3 | 4887.5 | 4883.7 | 4856.0 | 4844.5 | 4814.0 | 4766.3 | 4688.1 | 4590.7 | 4465.7 |
| 12.5° | 4817.8 | 4822.6 | 4837.9 | 4857.9 | 4845.5 | 4839.8 | 4820.7 | 4788.2 | 4708.1 | 4603.1 | 4452.4 |
| 15° | 4770.1 | 4783.5 | 4824.5 | 4877.0 | 4887.5 | 4885.6 | 4880.8 | 4859.8 | 4774.9 | 4658.5 | 4482.9 |
| 17.5° | 4753.9 | 4775.8 | 4854.1 | 4940.9 | 4971.5 | 4978.1 | 4980.0 | 4943.8 | 4849.3 | 4726.2 | 4514.4 |
| 20° | 4783.5 | 4811.1 | 4925.7 | 5044.9 | 5093.6 | 5097.4 | 5088.8 | 5025.8 | 4919.9 | 4784.4 | 4531.6 |
| 22.5° | 4873.2 | 4898.0 | 5041.1 | 5175.7 | 5231.0 | 5236.7 | 5211.0 | 5115.5 | 4994.4 | 4853.1 | 4555.4 |
| 25° | 5045.9 | 5076.4 | 5219.5 | 5354.1 | 5382.7 | 5383.7 | 5346.5 | 5228.1 | 5091.7 | 4949.5 | 4606.9 |
| 27.5° | 5271.1 | 5301.6 | 5430.4 | 5562.1 | 5546.8 | 5538.3 | 5487.7 | 5369.4 | 5218.6 | 5082.1 | 4698.5 |
| 30° | 5522.0 | 5555.4 | 5677.6 | 5771.1 | 5734.8 | 5717.6 | 5676.6 | 5523.9 | 5395.1 | 5263.4 | 4838.8 |
| 32.5° | 5781.6 | 5812.1 | 5919.0 | 5982.9 | 5937.1 | 5929.5 | 5867.5 | 5728.1 | 5625.1 | 5540.2 | 5065.9 |
| 35° | 6047.8 | 6069.8 | 6174.7 | 6211.0 | 6149.9 | 6148.0 | 6130.8 | 6003.0 | 5938.1 | 5978.1 | 5396.1 |
| 37.5° | 6319.8 | 6325.5 | 6415.2 | 6417.1 | 6399.0 | 6406.6 | 6424.7 | 6344.6 | 6362.7 | 6487.7 | 5825.5 |
| 40° | 6562.1 | 6577.4 | 6642.3 | 6662.3 | 6693.8 | 6720.5 | 6811.2 | 6758.7 | 6899.0 | 7120.3 | 6359.8 |
| 42.5° | 6741.5 | 6771.1 | 6875.1 | 6926.6 | 7028.7 | 7070.7 | 7198.6 | 7247.3 | 7529.7 | 7861.8 | 6995.3 |
| 45° | 6893.2 | 6939.0 | 7106.0 | 7211.9 | 7384.7 | 7458.1 | 7641.3 | 7804.5 | 8242.5 | 8666.2 | 7664.2 |
| 47.5° | 7057.4 | 7115.6 | 7324.5 | 7526.8 | 7761.6 | 7844.6 | 8177.6 | 8421.9 | 9003.0 | 9475.3 | 8295.0 |
| 50° | 7298.8 | 7343.6 | 7547.8 | 7865.6 | 8158.5 | 8265.4 | 8726.3 | 9076.5 | 9775.9 | 10246.3 | 8841.7 |
| 52.5° | 7635.6 | 7618.4 | 7791.2 | 8236.8 | 8629.9 | 8761.6 | 9312.2 | 9773.1 | 10559.3 | 10943.9 | 9303.6 |
| 55° | 7974.4 | 7945.7 | 8066.9 | 8625.1 | 9179.5 | 9317.9 | 9957.2 | 10472.5 | 11304.6 | 11571.7 | 9657.6 |
| 57.5° | 8351.3 | 8296.9 | 8399.0 | 9063.1 | 9805.5 | 9970.6 | 10679.6 | 11215.8 | 12037.4 | 12079.4 | 9882.8 |
| 60° | 8739.6 | 8666.2 | 8780.7 | 9606.1 | 10600.4 | 10795.0 | 11525.0 | 11941.0 | 12728.3 | 12485.9 | 9955.3 |
| 62.5° | 9079.3 | 9027.8 | 9204.3 | 10212.0 | 11496.4 | 11710.1 | 12355.2 | 12712.0 | 13409.6 | 12654.8 | 9693.9 |
| 65° | 9376.1 | 9384.7 | 9690.0 | 10893.3 | 12495.4 | 12723.5 | 13307.5 | 13662.4 | 13945.8 | 12554.6 | 9082.2 |
| 67.5° | 9730.1 | 9778.8 | 10299.8 | 11790.3 | 13753.1 | 14003.1 | 14693.0 | 14698.7 | 14245.5 | 11966.8 | 7878.0 |
| 70° | 10246.3 | 10346.5 | 11138.5 | 13034.6 | 15541.3 | 15884.8 | 16417.2 | 15307.5 | 13824.6 | 10373.3 | 6198.6 |
| 72.5° | 10704.4 | 10891.4 | 12030.7 | 14458.2 | 17720.7 | 17981.2 | 17425.9 | 14956.3 | 12066.0 | 7774.0 | 3861.7 |
| 74° | 10518.3 | 10750.2 | 12192.9 | 15159.6 | 18541.3 | 18666.3 | 17085.2 | 13931.5 | 10060.3 | 5383.7 | 2244.3 |
| 75° | 10117.5 | 10369.4 | 11956.3 | 15152.9 | 18437.3 | 18367.7 | 16262.7 | 12760.7 | 8285.4 | 3671.8 | 1493.3 |
| 77.5° | 8165.2 | 8431.4 | 10074.6 | 12986.8 | 15117.6 | 15051.8 | 12492.6 | 8560.3 | 3628.9 | 1204.2 | 758.6 |
| 80° | 4747.2 | 4950.5 | 6253.9 | 8247.3 | 10193.9 | 10313.1 | 8215.8 | 4235.8 | 1427.5 | 676.5 | 514.3 |
| 82.5° | 2108.8 | 2249.1 | 3021.0 | 4210.0 | 6151.8 | 6305.4 | 4302.5 | 2219.5 | 881.7 | 411.3 | 309.2 |
| 85° | 1383.6 | 1487.6 | 1834.0 | 2004.8 | 2929.4 | 3034.4 | 2105.9 | 1728.1 | 582.1 | 226.1 | 227.1 |
| 87.5° | 995.2 | 1095.4 | 1362.6 | 1189.9 | 1344.5 | 1272.9 | 1146.0 | 1599.3 | 233.8 | 128.8 | 76.3 |
| 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° | 4773.0 | 4773.0 | 4773.0 | 4773.0 | 4773.0 | 4773.0 | 4773.0 | 4773.0 | 4773.0 | 4773.0 | 4773.0 |
| 2.5° | 4728.1 | 4712.9 | 4678.5 | 4613.6 | 4577.4 | 4546.8 | 4496.3 | 4466.7 | 4453.3 | 4452.4 | 4458.1 |
| 5° | 4610.8 | 4575.5 | 4486.7 | 4377.9 | 4291.1 | 4211.9 | 4113.6 | 4054.5 | 4012.5 | 3987.7 | 3994.3 |
| 7.5° | 4474.3 | 4419.0 | 4279.6 | 4106.0 | 3966.7 | 3813.0 | 3661.3 | 3570.7 | 3500.1 | 3447.6 | 3457.1 |
| 10° | 4380.8 | 4304.5 | 4101.2 | 3851.2 | 3619.3 | 3396.0 | 3187.1 | 3062.1 | 2962.8 | 2886.5 | 2892.2 |
| 12.5° | 4349.3 | 4246.3 | 3964.8 | 3630.8 | 3305.4 | 3000.0 | 2727.1 | 2535.3 | 2433.2 | 2346.4 | 2353.1 |
| 15° | 4354.1 | 4215.7 | 3850.3 | 3432.3 | 3022.9 | 2638.4 | 2307.3 | 2083.0 | 1944.7 | 1884.6 | 1885.5 |
| 17.5° | 4357.9 | 4180.4 | 3730.0 | 3219.5 | 2743.4 | 2300.6 | 1940.9 | 1713.8 | 1583.0 | 1527.7 | 1528.7 |
| 20° | 4345.5 | 4123.2 | 3581.2 | 2975.2 | 2451.4 | 1990.5 | 1642.2 | 1449.5 | 1350.2 | 1307.3 | 1307.3 |
| 22.5° | 4329.3 | 4055.4 | 3413.2 | 2730.0 | 2163.2 | 1721.4 | 1428.5 | 1281.5 | 1224.3 | 1195.6 | 1194.7 |
| 25° | 4336.9 | 4004.8 | 3241.5 | 2478.1 | 1897.9 | 1506.7 | 1286.3 | 1189.0 | 1150.8 | 1132.7 | 1131.7 |
| 27.5° | 4377.9 | 3981.0 | 3083.1 | 2227.1 | 1666.1 | 1345.4 | 1190.9 | 1122.2 | 1097.3 | 1085.9 | 1085.9 |
| 30° | 4452.4 | 3981.0 | 2918.0 | 2013.4 | 1473.3 | 1226.2 | 1117.4 | 1070.6 | 1053.5 | 1045.8 | 1045.8 |
| 32.5° | 4582.1 | 4002.9 | 2758.6 | 1801.6 | 1319.7 | 1132.7 | 1056.3 | 1024.8 | 1011.5 | 1007.6 | 1007.6 |
| 35° | 4805.4 | 4077.4 | 2603.1 | 1601.2 | 1195.6 | 1056.3 | 998.1 | 980.0 | 970.4 | 969.5 | 972.3 |
| 37.5° | 5119.4 | 4229.1 | 2457.1 | 1453.3 | 1107.8 | 994.3 | 949.4 | 935.1 | 929.4 | 934.2 | 938.0 |
| 40° | 5514.4 | 4435.2 | 2324.5 | 1319.7 | 1041.0 | 944.7 | 904.6 | 895.1 | 892.2 | 898.9 | 904.6 |
| 42.5° | 5991.5 | 4713.8 | 2215.7 | 1223.3 | 989.5 | 902.7 | 866.4 | 855.0 | 852.1 | 859.7 | 867.4 |
| 45° | 6507.7 | 5013.4 | 2139.3 | 1151.7 | 949.4 | 871.2 | 833.0 | 820.6 | 814.9 | 818.7 | 827.3 |
| 47.5° | 6977.2 | 5296.8 | 2108.8 | 1101.2 | 911.3 | 844.5 | 803.4 | 788.2 | 778.6 | 776.7 | 783.4 |
| 50° | 7373.2 | 5507.7 | 2123.1 | 1070.6 | 880.7 | 814.9 | 774.8 | 757.6 | 743.3 | 734.7 | 739.5 |
| 52.5° | 7661.4 | 5640.4 | 2136.5 | 1057.3 | 856.9 | 782.5 | 743.3 | 727.1 | 708.0 | 693.7 | 693.7 |
| 55° | 7870.4 | 5670.9 | 2106.9 | 1046.8 | 838.8 | 747.1 | 708.0 | 692.8 | 673.7 | 657.5 | 655.5 |
| 57.5° | 7952.4 | 5585.0 | 1997.2 | 1031.5 | 826.3 | 713.8 | 670.8 | 659.4 | 643.1 | 624.1 | 623.1 |
| 60° | 7841.7 | 5319.7 | 1785.3 | 999.1 | 810.1 | 686.1 | 633.6 | 626.0 | 618.3 | 600.2 | 599.2 |
| 62.5° | 7397.1 | 4737.7 | 1511.5 | 933.2 | 777.7 | 656.5 | 599.2 | 603.1 | 604.0 | 591.6 | 589.7 |
| 65° | 6590.8 | 3938.0 | 1244.3 | 847.3 | 729.0 | 621.2 | 563.9 | 582.1 | 592.6 | 590.7 | 587.8 |
| 67.5° | 5419.0 | 3064.9 | 1054.4 | 756.7 | 665.1 | 572.5 | 525.8 | 546.8 | 555.4 | 562.0 | 560.1 |
| 70° | 4022.0 | 2161.3 | 872.2 | 661.3 | 587.8 | 515.3 | 476.2 | 486.6 | 480.9 | 488.6 | 491.4 |
| 72.5° | 2242.4 | 1296.8 | 710.9 | 565.8 | 507.6 | 448.5 | 420.8 | 418.9 | 406.5 | 406.5 | 406.5 |
| 74° | 1345.4 | 951.4 | 625.0 | 506.7 | 459.0 | 404.6 | 380.7 | 372.1 | 360.7 | 361.6 | 360.7 |
| 75° | 1082.1 | 817.8 | 573.5 | 467.6 | 424.6 | 378.8 | 355.0 | 343.5 | 334.9 | 334.9 | 334.0 |
| 77.5° | 683.2 | 621.2 | 461.8 | 372.1 | 339.7 | 312.0 | 295.8 | 280.5 | 280.5 | 279.6 | 278.6 |
| 80° | 516.2 | 494.3 | 359.7 | 281.5 | 260.5 | 239.5 | 229.0 | 222.3 | 222.3 | 225.2 | 224.2 |
| 82.5° | 354.0 | 372.1 | 252.9 | 196.6 | 186.1 | 170.8 | 168.9 | 169.9 | 167.0 | 163.2 | 162.2 |
| 85° | 258.6 | 279.6 | 170.8 | 124.0 | 113.6 | 104.0 | 111.6 | 115.5 | 110.7 | 102.1 | 98.3 |
| 87.5° | 99.2 | 183.2 | 91.6 | 51.5 | 47.7 | 41.0 | 47.7 | 49.6 | 53.4 | 42.0 | 42.9 |
| 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)