

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: P481027

Luminaire Tested: **IFLD-M-SA4E-827-U-SL4**

Issue Date: 02/26/2021



Test Information

Test Method: LM-79-08
Report Number: P481027
Test Lab: INNOVATION CENTER(G2)
Issue Date: 02/26/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: IFLD-M-SA4E-827-U-SL4
Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/ SL4 distribution lens
Light Source: (64) 2700K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

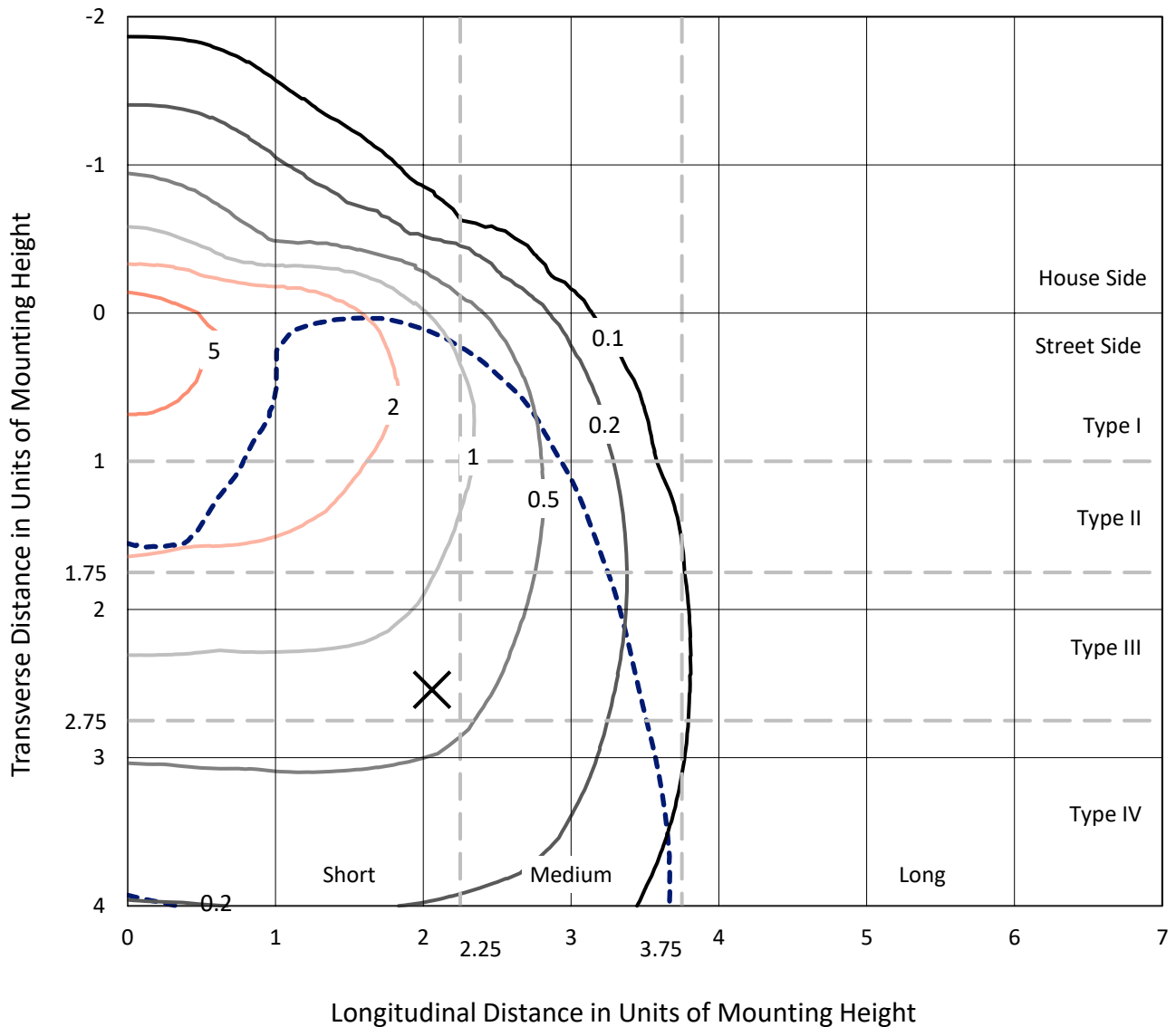
Lumens per Lamp: N/A
Luminaire Lumens: 25743.2 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

Input Watts (W): 314.8
Input Voltage (V): 120
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

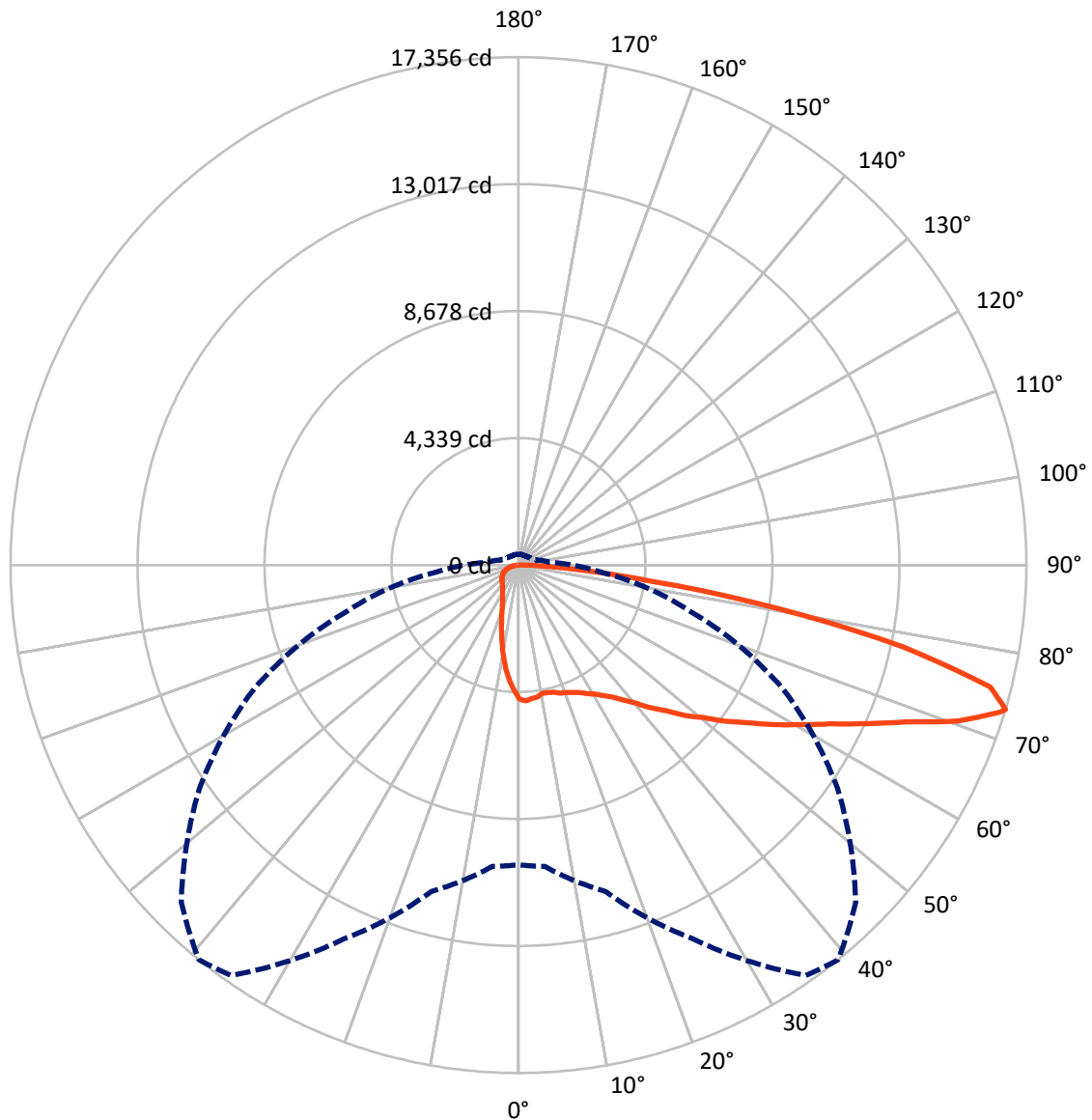
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3618.8 | 0.0 | 3618.8 |
| | % Fixture | 14.1 | 0.0 | 14.1 |
| Street Side | Lumens | 22124.4 | 0.0 | 22124.4 |
| | % Fixture | 85.9 | 0.0 | 85.9 |
| Total | Lumens | 25743.2 | 0.0 | 25743.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 397.8 | 1.5 |
| 10°-20° | 1011.2 | 3.9 |
| 20°-30° | 1545.3 | 6.0 |
| 30°-40° | 2253.1 | 8.8 |
| 40°-50° | 3404.6 | 13.2 |
| 50°-60° | 4930.1 | 19.2 |
| 60°-70° | 6264.0 | 24.3 |
| 70°-80° | 5077.9 | 19.7 |
| 80°-90° | 859.2 | 3.3 |
| 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° | 25743.2 | 100.0 |
| 0°-180° | 25743.2 | 100.0 |

Coefficient of Utilization



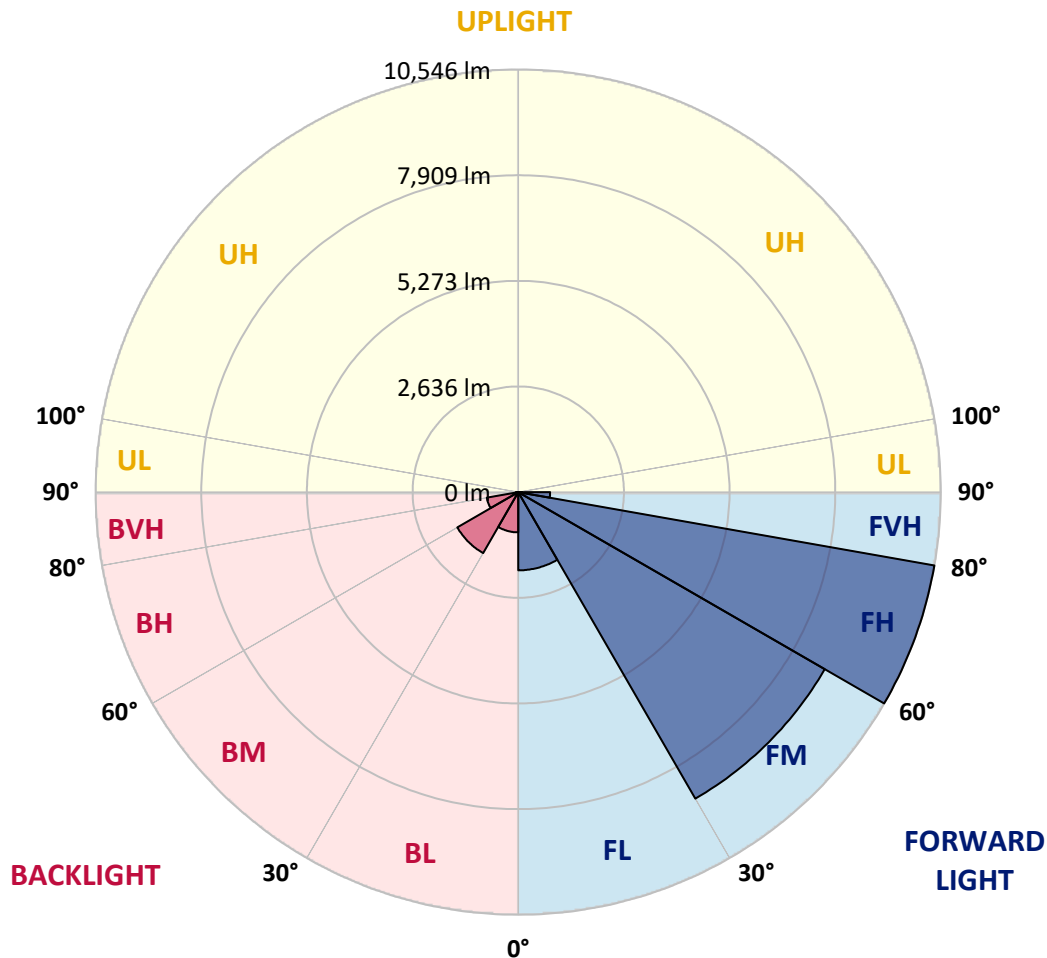
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1950.8 | 7.6 | | | |
| FM (30°-60°) | 8831.6 | 34.3 | | | |
| FH (60°-80°) | 10546.0 | 41.0 | | | G4/12000 |
| FVH (80°-90°) | 796.1 | 3.1 | | | G5 |
| BL (0°-30°) | 1003.6 | 3.9 | B3/2500 | | |
| BM (30°-60°) | 1756.3 | 6.8 | B2/2500 | | |
| BH (60°-80°) | 795.9 | 3.1 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 63.0 | 0.2 | | | 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° | 39° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0° | 4582.4 | 4582.4 | 4582.4 | 4582.4 | 4582.4 | 4582.4 | 4582.4 | 4582.4 | 4582.4 | 4582.4 | 4582.4 |
| 2.5° | 4691.9 | 4642.9 | 4651.6 | 4634.3 | 4651.6 | 4645.8 | 4637.2 | 4594.0 | 4637.2 | 4594.0 | 4582.4 |
| 5° | 4628.5 | 4628.5 | 4657.3 | 4614.1 | 4619.9 | 4591.1 | 4619.9 | 4588.2 | 4559.4 | 4487.4 | 4467.2 |
| 7.5° | 4608.4 | 4605.5 | 4608.4 | 4547.9 | 4576.7 | 4559.4 | 4530.6 | 4496.0 | 4438.4 | 4392.3 | 4326.1 |
| 10° | 4470.1 | 4498.9 | 4467.2 | 4484.5 | 4507.6 | 4455.7 | 4452.8 | 4444.2 | 4418.3 | 4357.8 | 4317.5 |
| 12.5° | 4395.2 | 4444.2 | 4461.5 | 4447.1 | 4467.2 | 4473.0 | 4455.7 | 4444.2 | 4412.5 | 4372.2 | 4257.0 |
| 15° | 4426.9 | 4369.3 | 4418.3 | 4513.3 | 4493.2 | 4507.6 | 4510.4 | 4498.9 | 4484.5 | 4409.6 | 4334.7 |
| 17.5° | 4435.6 | 4401.0 | 4504.7 | 4524.8 | 4550.8 | 4602.6 | 4568.0 | 4565.2 | 4510.4 | 4458.6 | 4349.1 |
| 20° | 4455.7 | 4441.3 | 4524.8 | 4631.4 | 4634.3 | 4642.9 | 4660.2 | 4617.0 | 4588.2 | 4498.9 | 4331.9 |
| 22.5° | 4530.6 | 4579.6 | 4657.3 | 4703.4 | 4729.3 | 4735.1 | 4735.1 | 4648.7 | 4617.0 | 4545.0 | 4412.5 |
| 25° | 4755.3 | 4703.4 | 4812.9 | 4867.6 | 4830.1 | 4821.5 | 4801.3 | 4723.6 | 4689.0 | 4625.6 | 4450.0 |
| 27.5° | 4919.4 | 4916.5 | 4979.9 | 5054.8 | 4954.0 | 4974.2 | 4902.1 | 4879.1 | 4801.3 | 4766.8 | 4516.2 |
| 30° | 5144.1 | 5207.5 | 5204.6 | 5227.6 | 5095.1 | 5118.2 | 5026.0 | 4982.8 | 4939.6 | 4959.8 | 4712.1 |
| 32.5° | 5432.1 | 5409.1 | 5446.5 | 5429.2 | 5296.7 | 5316.9 | 5207.5 | 5141.2 | 5155.6 | 5216.1 | 4979.9 |
| 35° | 5616.4 | 5593.4 | 5607.8 | 5607.8 | 5567.5 | 5544.4 | 5498.4 | 5411.9 | 5481.1 | 5593.4 | 5279.5 |
| 37.5° | 5815.2 | 5844.0 | 5927.5 | 5910.2 | 5858.4 | 5858.4 | 5852.6 | 5792.1 | 5881.4 | 6157.9 | 5757.6 |
| 40° | 5990.9 | 6068.6 | 6120.5 | 6155.0 | 6215.5 | 6215.5 | 6264.5 | 6229.9 | 6391.2 | 6834.8 | 6342.3 |
| 42.5° | 6175.2 | 6178.1 | 6460.4 | 6486.3 | 6621.6 | 6679.2 | 6716.7 | 6745.5 | 7047.9 | 7543.3 | 6967.3 |
| 45° | 6411.4 | 6425.8 | 6673.5 | 6872.2 | 7082.5 | 7102.6 | 7243.8 | 7338.8 | 7710.4 | 8318.1 | 7647.0 |
| 47.5° | 6722.5 | 6705.2 | 6970.2 | 7287.0 | 7549.1 | 7687.3 | 7857.3 | 7961.0 | 8418.9 | 9159.1 | 8390.1 |
| 50° | 7131.4 | 7079.6 | 7232.3 | 7730.5 | 8038.7 | 8191.4 | 8493.8 | 8666.6 | 9202.3 | 9962.7 | 8899.9 |
| 52.5° | 7629.7 | 7543.3 | 7664.3 | 8208.7 | 8554.3 | 8862.5 | 9150.5 | 9343.5 | 9902.2 | 10584.8 | 9277.2 |
| 55° | 8156.8 | 7978.2 | 8012.8 | 8715.6 | 9213.9 | 9504.8 | 9899.3 | 10101.0 | 10671.2 | 11143.6 | 9654.5 |
| 57.5° | 8678.1 | 8565.8 | 8496.7 | 9202.3 | 10000.2 | 10279.5 | 10642.4 | 10904.5 | 11388.4 | 11639.0 | 9974.2 |
| 60° | 9115.9 | 9087.1 | 8974.8 | 9956.9 | 10832.5 | 11071.6 | 11451.8 | 11613.1 | 11978.9 | 12097.0 | 9980.0 |
| 62.5° | 9476.0 | 9378.0 | 9556.6 | 10564.7 | 11679.3 | 11950.1 | 12367.7 | 12382.1 | 12641.3 | 12382.1 | 9686.2 |
| 65° | 9758.2 | 9764.0 | 10049.1 | 11299.1 | 12658.6 | 13059.0 | 13395.9 | 13358.5 | 13191.4 | 12212.2 | 8992.1 |
| 67.5° | 10014.6 | 10124.0 | 10541.6 | 12105.6 | 13917.3 | 14294.6 | 14669.0 | 14173.6 | 13341.2 | 11417.2 | 7635.5 |
| 70° | 10216.2 | 10325.6 | 11207.0 | 13087.8 | 15400.6 | 15953.6 | 16037.1 | 14496.2 | 12652.8 | 9671.8 | 5760.5 |
| 72.5° | 10193.1 | 10391.9 | 11584.3 | 13871.2 | 16716.8 | 17195.0 | 16521.0 | 13588.9 | 10541.6 | 6742.6 | 3361.2 |
| 73° | 10242.1 | 10340.0 | 11552.6 | 14090.1 | 17117.2 | 17356.3 | 16296.3 | 13303.8 | 9942.5 | 6048.5 | 2842.8 |
| 75° | 9297.4 | 9628.6 | 10979.4 | 13732.9 | 16688.0 | 16644.8 | 15006.0 | 11086.0 | 7068.1 | 3176.9 | 1376.7 |
| 77.5° | 6878.0 | 7088.2 | 8652.2 | 11293.4 | 13698.4 | 13421.9 | 11319.3 | 7085.4 | 3355.5 | 1178.0 | 743.1 |
| 80° | 3361.2 | 3525.4 | 4585.3 | 6520.8 | 8957.5 | 8980.6 | 7024.9 | 3686.7 | 1437.2 | 665.3 | 506.9 |
| 82.5° | 1679.2 | 1777.1 | 2203.4 | 2865.8 | 4406.7 | 4617.0 | 3562.8 | 2096.8 | 890.0 | 377.3 | 288.0 |
| 85° | 1097.4 | 1166.5 | 1356.6 | 1402.7 | 1869.3 | 1973.0 | 1659.0 | 1636.0 | 578.9 | 204.5 | 233.3 |
| 87.5° | 728.7 | 740.2 | 832.4 | 708.5 | 748.9 | 720.1 | 800.7 | 1031.1 | 169.9 | 86.4 | 63.4 |
| 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° | 4582.4 | 4582.4 | 4582.4 | 4582.4 | 4582.4 | 4582.4 | 4582.4 | 4582.4 | 4582.4 | 4582.4 | 4582.4 |
| 2.5° | 4568.0 | 4527.7 | 4484.5 | 4424.0 | 4380.8 | 4314.6 | 4254.1 | 4228.2 | 4222.4 | 4225.3 | 4196.5 |
| 5° | 4450.0 | 4392.3 | 4305.9 | 4182.1 | 4110.1 | 4000.6 | 3908.5 | 3859.5 | 3807.7 | 3816.3 | 3793.3 |
| 7.5° | 4285.8 | 4222.4 | 4089.9 | 3945.9 | 3767.3 | 3611.8 | 3525.4 | 3404.4 | 3335.3 | 3283.5 | 3312.3 |
| 10° | 4233.9 | 4124.5 | 3925.8 | 3727.0 | 3450.5 | 3246.0 | 3047.3 | 2909.0 | 2814.0 | 2721.8 | 2762.1 |
| 12.5° | 4208.0 | 4098.6 | 3822.1 | 3528.3 | 3171.1 | 2860.1 | 2580.7 | 2410.8 | 2275.4 | 2194.7 | 2226.4 |
| 15° | 4185.0 | 4049.6 | 3724.1 | 3309.4 | 2909.0 | 2500.0 | 2186.1 | 1961.4 | 1831.8 | 1754.1 | 1762.7 |
| 17.5° | 4216.7 | 4023.7 | 3580.1 | 3096.2 | 2621.0 | 2183.2 | 1834.7 | 1601.4 | 1468.9 | 1420.0 | 1408.4 |
| 20° | 4185.0 | 3994.9 | 3439.0 | 2883.1 | 2333.0 | 1880.8 | 1546.7 | 1353.7 | 1261.5 | 1221.2 | 1212.6 |
| 22.5° | 4196.5 | 3925.8 | 3292.1 | 2646.9 | 2065.1 | 1627.3 | 1353.7 | 1206.8 | 1134.8 | 1114.6 | 1120.4 |
| 25° | 4251.2 | 3885.4 | 3145.2 | 2387.7 | 1800.1 | 1440.1 | 1229.9 | 1117.5 | 1065.7 | 1045.5 | 1051.3 |
| 27.5° | 4291.5 | 3920.0 | 3012.7 | 2142.9 | 1575.5 | 1273.1 | 1126.2 | 1051.3 | 1016.7 | 1002.3 | 999.4 |
| 30° | 4392.3 | 3940.2 | 2883.1 | 1924.0 | 1391.2 | 1163.6 | 1054.2 | 993.7 | 970.6 | 962.0 | 959.1 |
| 32.5° | 4542.1 | 3977.6 | 2733.3 | 1722.4 | 1255.8 | 1059.9 | 996.6 | 944.7 | 939.0 | 930.3 | 933.2 |
| 35° | 4786.9 | 4107.2 | 2566.3 | 1549.6 | 1126.2 | 990.8 | 936.1 | 901.5 | 901.5 | 901.5 | 910.2 |
| 37.5° | 5138.3 | 4288.7 | 2416.5 | 1385.4 | 1042.6 | 930.3 | 884.2 | 872.7 | 866.9 | 875.6 | 881.3 |
| 40° | 5590.5 | 4507.6 | 2295.5 | 1255.8 | 970.6 | 890.0 | 849.7 | 843.9 | 841.0 | 838.1 | 843.9 |
| 42.5° | 6085.9 | 4786.9 | 2191.9 | 1155.0 | 918.8 | 846.8 | 818.0 | 812.2 | 800.7 | 806.5 | 815.1 |
| 45° | 6578.4 | 5132.6 | 2099.7 | 1074.3 | 884.2 | 823.7 | 783.4 | 780.5 | 774.8 | 771.9 | 786.3 |
| 47.5° | 7125.7 | 5472.4 | 2070.9 | 1025.4 | 858.3 | 789.2 | 760.4 | 757.5 | 740.2 | 737.3 | 748.9 |
| 50° | 7552.0 | 5723.0 | 2102.6 | 1002.3 | 820.9 | 763.3 | 743.1 | 728.7 | 714.3 | 699.9 | 699.9 |
| 52.5° | 7845.7 | 5895.8 | 2125.6 | 985.0 | 800.7 | 728.7 | 702.8 | 697.0 | 682.6 | 668.2 | 662.5 |
| 55° | 8110.7 | 5999.5 | 2131.4 | 987.9 | 780.5 | 688.4 | 671.1 | 668.2 | 659.6 | 636.5 | 630.8 |
| 57.5° | 8200.0 | 5956.3 | 2016.2 | 962.0 | 769.0 | 662.5 | 639.4 | 645.2 | 633.7 | 613.5 | 610.6 |
| 60° | 8191.4 | 5656.8 | 1754.1 | 927.4 | 743.1 | 633.7 | 604.8 | 622.1 | 622.1 | 599.1 | 596.2 |
| 62.5° | 7693.1 | 4965.5 | 1434.4 | 861.2 | 714.3 | 604.8 | 573.2 | 599.1 | 607.7 | 593.3 | 590.4 |
| 65° | 6659.1 | 4043.8 | 1198.2 | 794.9 | 671.1 | 573.2 | 541.5 | 570.3 | 584.7 | 578.9 | 576.0 |
| 67.5° | 5509.9 | 3093.4 | 996.6 | 708.5 | 616.4 | 530.0 | 504.0 | 524.2 | 532.8 | 535.7 | 538.6 |
| 70° | 3894.1 | 2059.4 | 832.4 | 613.5 | 541.5 | 483.9 | 455.1 | 458.0 | 455.1 | 463.7 | 463.7 |
| 72.5° | 2117.0 | 1186.7 | 676.9 | 521.3 | 466.6 | 420.5 | 400.4 | 386.0 | 386.0 | 383.1 | 383.1 |
| 73° | 1811.7 | 1065.7 | 645.2 | 506.9 | 446.4 | 409.0 | 386.0 | 374.4 | 374.4 | 371.5 | 368.7 |
| 75° | 1016.7 | 780.5 | 553.0 | 434.9 | 386.0 | 357.1 | 339.9 | 322.6 | 319.7 | 319.7 | 319.7 |
| 77.5° | 668.2 | 607.7 | 440.7 | 348.5 | 311.1 | 285.1 | 279.4 | 262.1 | 262.1 | 262.1 | 259.2 |
| 80° | 501.2 | 478.1 | 339.9 | 265.0 | 239.1 | 218.9 | 213.1 | 201.6 | 198.7 | 187.2 | 190.1 |
| 82.5° | 334.1 | 377.3 | 247.7 | 187.2 | 161.3 | 149.8 | 149.8 | 146.9 | 138.3 | 123.8 | 123.8 |
| 85° | 265.0 | 308.2 | 178.6 | 115.2 | 95.0 | 80.6 | 83.5 | 80.6 | 77.8 | 63.4 | 60.5 |
| 87.5° | 49.0 | 123.8 | 51.8 | 31.7 | 23.0 | 14.4 | 14.4 | 8.6 | 5.8 | 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)