

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: P237356

Luminaire Tested: **ARCH-L-AF72-230-D-U-T4W-7050**

Issue Date: 2/14/2018

Test Information

Test Method: LM-79-08
Report Number: P237356
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 2/14/2018
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-L-AF72-230-D-U-T4W-7050
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 5000K, 980mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26592 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

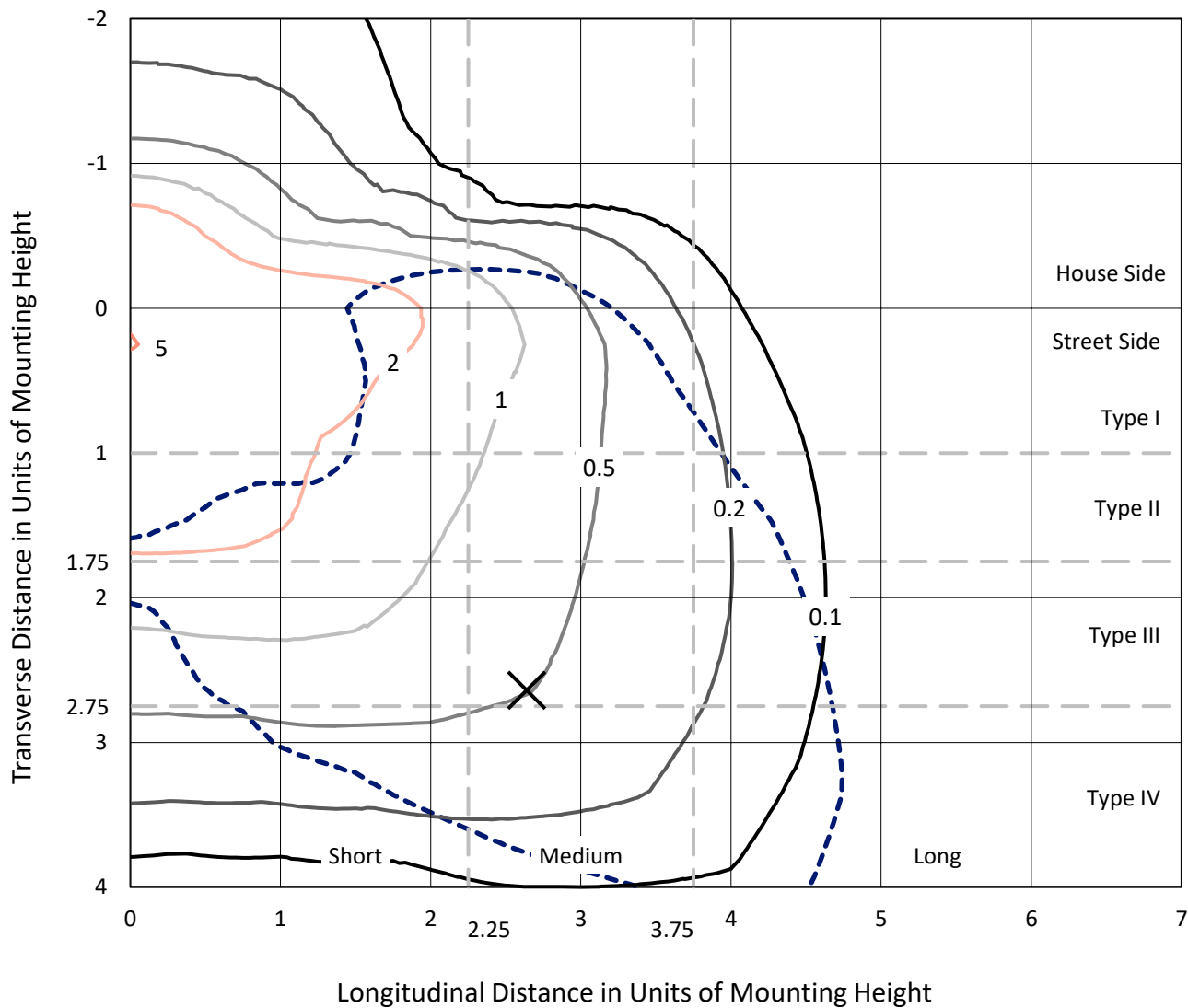
Input Watts (W): 229
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

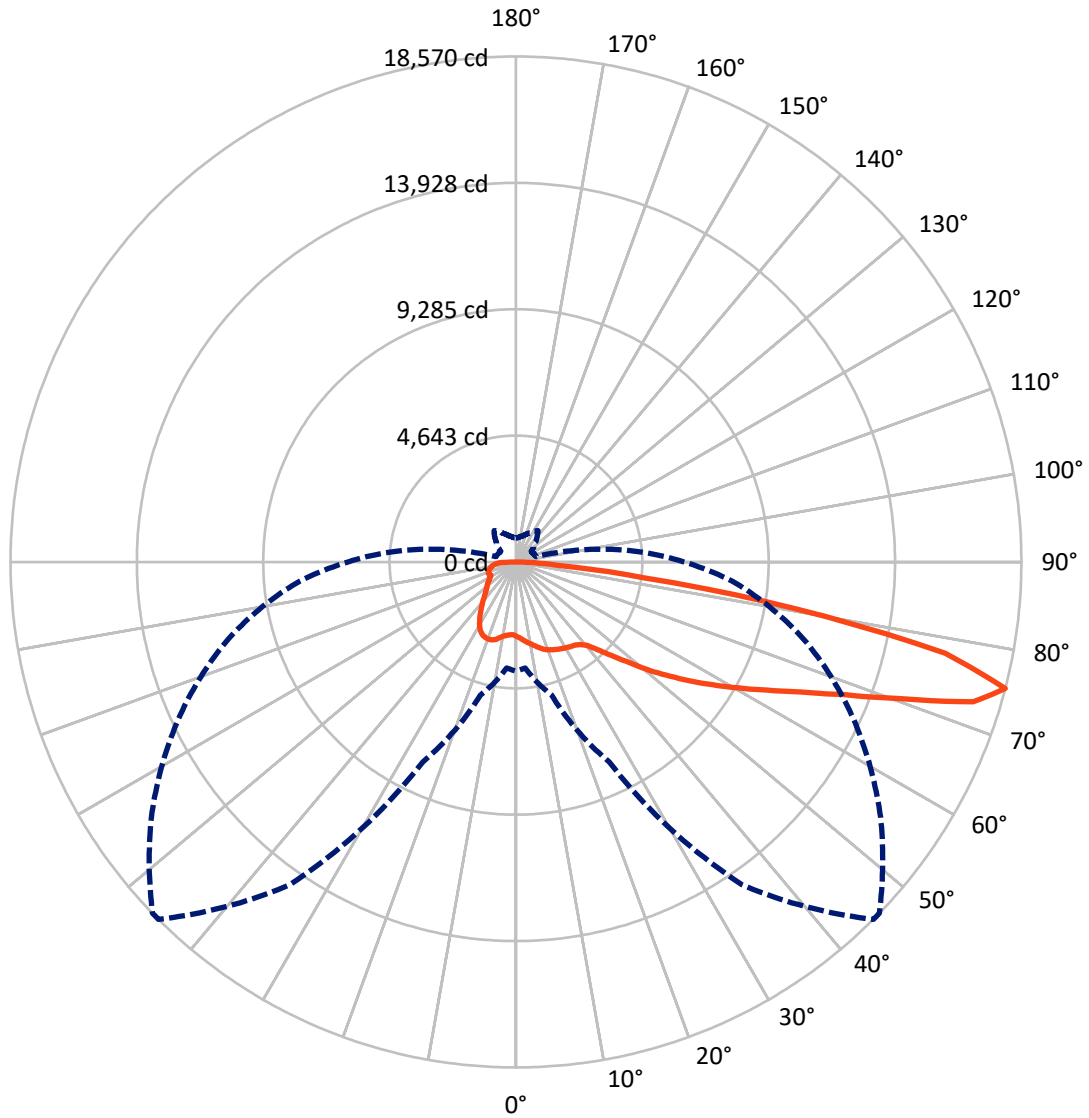
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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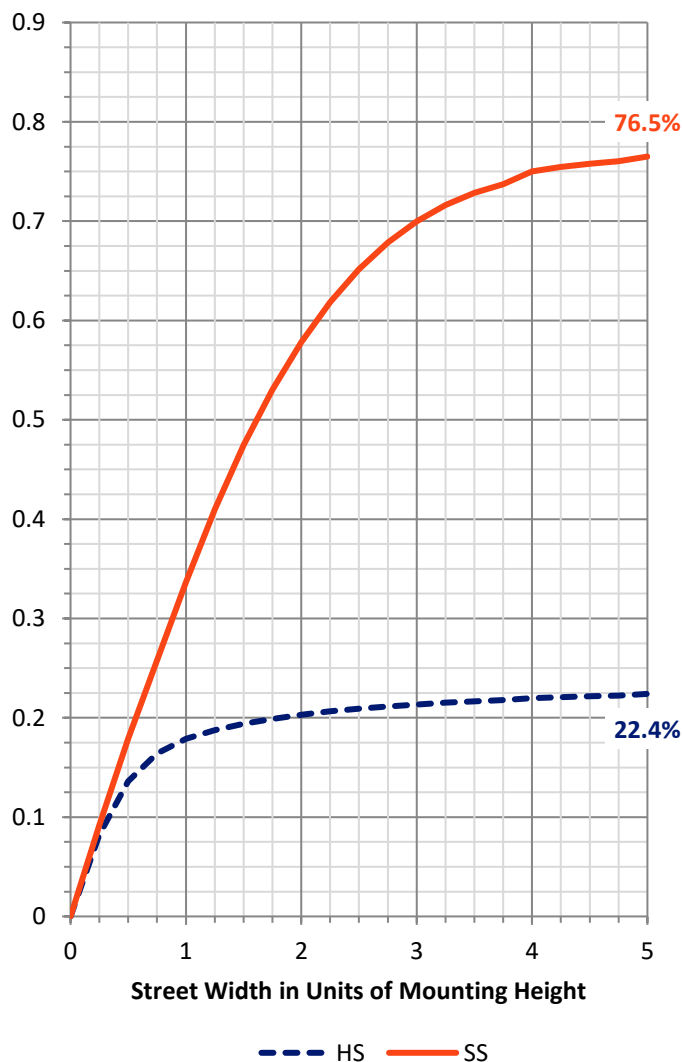
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6160.3 | 0.0 | 6160.3 |
| | % Fixture | 23.2 | 0.0 | 23.2 |
| Street Side | Lumens | 20431.7 | 0.0 | 20431.7 |
| | % Fixture | 76.8 | 0.0 | 76.8 |
| Total | Lumens | 26592.0 | 0.0 | 26592.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 270.2 | 1.0 |
| 10°-20° | 875.4 | 3.3 |
| 20°-30° | 1502.3 | 5.6 |
| 30°-40° | 2101.1 | 7.9 |
| 40°-50° | 3082.1 | 11.6 |
| 50°-60° | 4801.1 | 18.1 |
| 60°-70° | 6908.4 | 26.0 |
| 70°-80° | 6018.0 | 22.6 |
| 80°-90° | 1033.5 | 3.9 |
| 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° | 26592.0 | 100.0 |
| 0°-180° | 26592.0 | 100.0 |

Coefficient of Utilization



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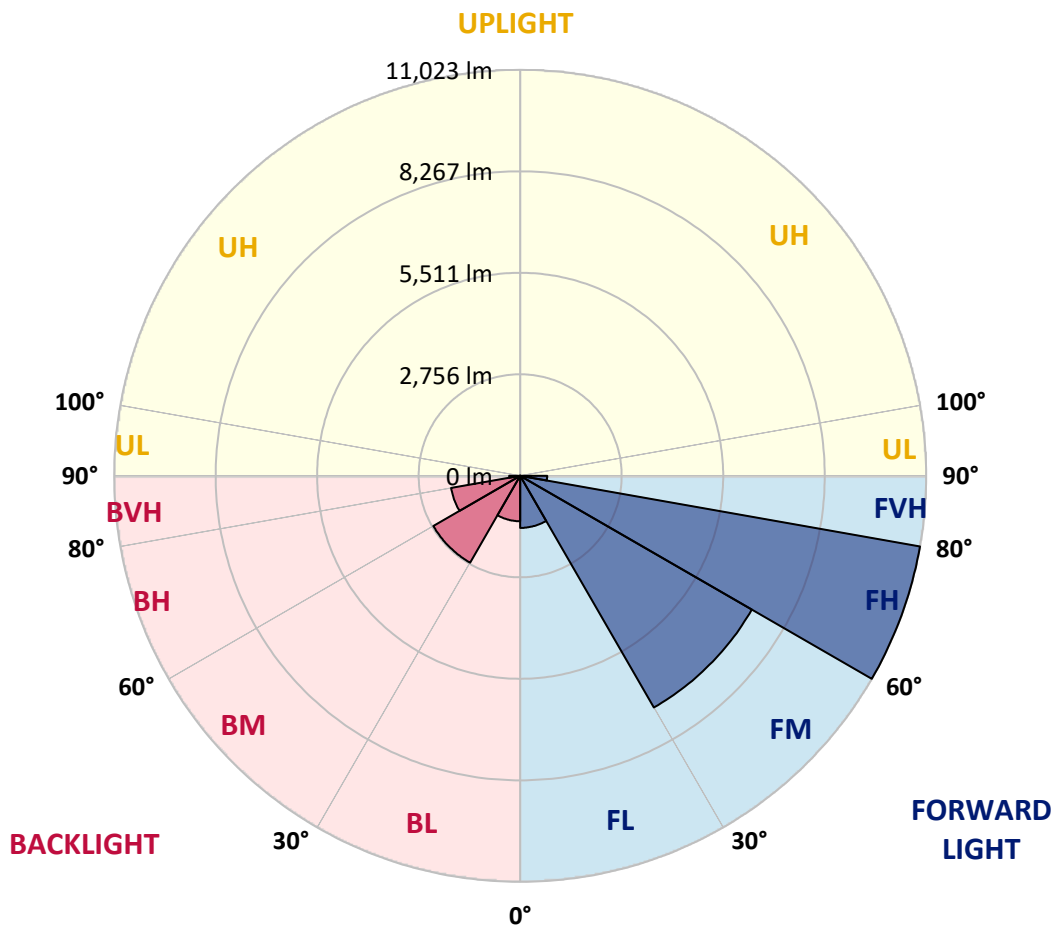
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1414.1 | 5.3 | | | |
| FM (30°-60°) | 7261.8 | 27.3 | | | |
| FH (60°-80°) | 11022.6 | 41.5 | | | G4/12000 |
| FVH (80°-90°) | 733.3 | 2.8 | | | G4/750 |
| BL (0°-30°) | 1233.8 | 4.6 | B3/2500 | | |
| BM (30°-60°) | 2722.5 | 10.2 | B3/5000 | | |
| BH (60°-80°) | 1903.7 | 7.2 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 300.2 | 1.1 | | | G3/500 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 2726.1 | 2726.1 | 2726.1 | 2726.1 | 2726.1 | 2726.1 | 2726.1 | 2726.1 | 2726.1 | 2726.1 | 2726.1 |
| 2.5° | 2860.5 | 2839.9 | 2839.9 | 2824.3 | 2824.3 | 2798.5 | 2788.1 | 2783.0 | 2757.1 | 2741.6 | 2726.1 |
| 5° | 3026.1 | 3000.2 | 2995.0 | 2958.8 | 2943.3 | 2886.4 | 2881.2 | 2845.0 | 2798.5 | 2751.9 | 2715.7 |
| 7.5° | 3176.1 | 3160.6 | 3134.7 | 3098.5 | 3051.9 | 2979.5 | 2974.4 | 2917.5 | 2839.9 | 2777.8 | 2726.1 |
| 10° | 3284.7 | 3274.4 | 3238.2 | 3191.6 | 3139.9 | 3067.5 | 3062.3 | 3000.2 | 2907.1 | 2834.7 | 2762.3 |
| 12.5° | 3414.0 | 3398.5 | 3352.0 | 3289.9 | 3233.0 | 3165.7 | 3160.6 | 3108.8 | 3005.4 | 2912.3 | 2819.2 |
| 15° | 3538.2 | 3517.5 | 3460.6 | 3398.5 | 3336.4 | 3279.5 | 3279.5 | 3222.6 | 3114.0 | 3005.4 | 2896.8 |
| 17.5° | 3600.3 | 3589.9 | 3533.0 | 3465.8 | 3414.0 | 3372.7 | 3367.5 | 3315.8 | 3207.1 | 3093.3 | 2974.4 |
| 20° | 3620.9 | 3626.1 | 3574.4 | 3502.0 | 3465.8 | 3445.1 | 3439.9 | 3403.7 | 3284.7 | 3176.1 | 3062.3 |
| 22.5° | 3615.8 | 3631.3 | 3589.9 | 3512.3 | 3502.0 | 3502.0 | 3502.0 | 3460.6 | 3367.5 | 3258.9 | 3145.1 |
| 25° | 3636.5 | 3657.2 | 3626.1 | 3533.0 | 3533.0 | 3553.7 | 3553.7 | 3533.0 | 3450.2 | 3357.1 | 3243.3 |
| 27.5° | 3708.9 | 3724.4 | 3698.5 | 3569.2 | 3574.4 | 3605.4 | 3600.3 | 3605.4 | 3553.7 | 3465.8 | 3352.0 |
| 30° | 3796.8 | 3817.5 | 3786.5 | 3626.1 | 3620.9 | 3652.0 | 3652.0 | 3677.8 | 3641.6 | 3548.5 | 3455.4 |
| 32.5° | 4034.8 | 4029.6 | 3931.3 | 3688.2 | 3672.7 | 3703.7 | 3703.7 | 3729.6 | 3708.9 | 3636.5 | 3548.5 |
| 35° | 4743.4 | 4665.9 | 4448.6 | 3889.9 | 3734.8 | 3750.3 | 3750.3 | 3796.8 | 3807.2 | 3750.3 | 3672.7 |
| 37.5° | 5467.6 | 5441.8 | 5276.2 | 4427.9 | 3962.4 | 3848.6 | 3843.4 | 3910.6 | 3957.2 | 3910.6 | 3858.9 |
| 40° | 6197.0 | 6176.3 | 6140.1 | 5146.9 | 4438.2 | 4024.4 | 4008.9 | 4065.8 | 4148.6 | 4117.5 | 4086.5 |
| 42.5° | 6874.6 | 6864.3 | 6900.5 | 5855.6 | 5043.5 | 4402.0 | 4355.5 | 4288.2 | 4407.2 | 4396.9 | 4396.9 |
| 45° | 7407.4 | 7433.3 | 7454.0 | 6517.7 | 5700.4 | 4888.3 | 4831.4 | 4603.8 | 4764.1 | 4805.5 | 4836.6 |
| 47.5° | 7707.4 | 7728.1 | 7800.6 | 7164.3 | 6357.4 | 5452.1 | 5410.7 | 5038.3 | 5250.4 | 5374.5 | 5462.5 |
| 50° | 8136.8 | 8079.9 | 8142.0 | 7795.4 | 7148.8 | 6186.7 | 6072.8 | 5622.8 | 5891.8 | 6109.1 | 6316.0 |
| 52.5° | 8550.6 | 8457.5 | 8509.2 | 8524.7 | 8048.9 | 6905.7 | 6786.7 | 6310.8 | 6647.0 | 6988.4 | 7355.7 |
| 55° | 8923.1 | 8917.9 | 8969.6 | 9233.4 | 8917.9 | 7676.4 | 7541.9 | 7071.2 | 7557.4 | 7924.7 | 8545.4 |
| 57.5° | 9223.1 | 9274.8 | 9502.4 | 10055.9 | 9921.4 | 8514.4 | 8364.4 | 7955.7 | 8529.9 | 8897.2 | 9926.6 |
| 60° | 9574.8 | 9657.6 | 10035.2 | 10754.2 | 10837.0 | 9393.8 | 9238.6 | 8943.7 | 9528.3 | 9900.7 | 11525.0 |
| 62.5° | 9693.8 | 9812.8 | 10588.7 | 11488.8 | 11793.9 | 10355.9 | 10216.2 | 10019.7 | 10578.3 | 10914.6 | 13118.2 |
| 65° | 8902.4 | 9130.0 | 10893.9 | 11866.4 | 12823.3 | 11514.6 | 11395.6 | 11224.9 | 11623.2 | 11845.7 | 14199.3 |
| 67.5° | 8685.1 | 8788.6 | 10299.0 | 12409.5 | 13790.6 | 13004.4 | 12885.4 | 12590.6 | 12600.9 | 12507.8 | 14551.0 |
| 70° | 8379.9 | 8493.7 | 9688.6 | 12818.2 | 15176.9 | 15042.5 | 14897.6 | 14028.6 | 13495.8 | 12932.0 | 13857.9 |
| 72.5° | 7138.4 | 7102.2 | 8348.9 | 11716.4 | 15844.2 | 17566.8 | 17396.1 | 15575.3 | 14157.9 | 12564.7 | 11695.7 |
| 75° | 4008.9 | 3905.5 | 5064.2 | 8105.8 | 14468.3 | 18570.3 | 18565.1 | 16356.3 | 13692.4 | 10945.6 | 7960.9 |
| 77.5° | 1163.9 | 1132.8 | 1670.8 | 3398.5 | 9740.4 | 16133.9 | 16330.5 | 14752.8 | 11426.7 | 7862.6 | 4371.0 |
| 80° | 548.3 | 558.7 | 719.0 | 1122.5 | 4158.9 | 10412.8 | 10976.6 | 9714.5 | 6828.1 | 3626.1 | 1805.3 |
| 82.5° | 346.6 | 351.7 | 491.4 | 724.2 | 1758.7 | 4727.9 | 5193.5 | 4371.0 | 2705.4 | 1567.4 | 796.6 |
| 85° | 217.3 | 217.3 | 325.9 | 475.9 | 1050.1 | 1510.5 | 1639.8 | 1489.8 | 1158.7 | 853.5 | 434.5 |
| 87.5° | 119.0 | 119.0 | 196.6 | 274.2 | 574.2 | 486.2 | 501.8 | 594.9 | 724.2 | 522.5 | 217.3 |
| 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° | 2726.1 | 2726.1 | 2726.1 | 2726.1 | 2726.1 | 2726.1 | 2726.1 | 2726.1 | 2726.1 | 2726.1 | 2726.1 |
| 2.5° | 2720.9 | 2710.5 | 2695.0 | 2689.8 | 2684.7 | 2679.5 | 2684.7 | 2695.0 | 2684.7 | 2684.7 | 2689.8 |
| 5° | 2705.4 | 2695.0 | 2674.3 | 2674.3 | 2679.5 | 2684.7 | 2710.5 | 2726.1 | 2731.2 | 2731.2 | 2731.2 |
| 7.5° | 2705.4 | 2689.8 | 2674.3 | 2679.5 | 2689.8 | 2710.5 | 2751.9 | 2777.8 | 2798.5 | 2803.6 | 2803.6 |
| 10° | 2731.2 | 2710.5 | 2700.2 | 2710.5 | 2741.6 | 2757.1 | 2798.5 | 2839.9 | 2865.7 | 2876.1 | 2876.1 |
| 12.5° | 2777.8 | 2757.1 | 2757.1 | 2777.8 | 2819.2 | 2839.9 | 2876.1 | 2907.1 | 2938.1 | 2953.7 | 2953.7 |
| 15° | 2855.4 | 2829.5 | 2834.7 | 2870.9 | 2917.5 | 2938.1 | 2964.0 | 2974.4 | 3000.2 | 3020.9 | 3020.9 |
| 17.5° | 2927.8 | 2901.9 | 2912.3 | 2953.7 | 2984.7 | 2995.0 | 3010.6 | 3005.4 | 3015.7 | 3031.3 | 3036.4 |
| 20° | 3010.6 | 2984.7 | 2989.9 | 3015.7 | 3020.9 | 3010.6 | 3010.6 | 2995.0 | 2989.9 | 3015.7 | 3026.1 |
| 22.5° | 3093.3 | 3067.5 | 3062.3 | 3046.8 | 3020.9 | 2995.0 | 2979.5 | 2964.0 | 2953.7 | 2979.5 | 2989.9 |
| 25° | 3191.6 | 3155.4 | 3129.5 | 3062.3 | 2995.0 | 2948.5 | 2927.8 | 2917.5 | 2912.3 | 2938.1 | 2948.5 |
| 27.5° | 3300.2 | 3264.0 | 3186.4 | 3041.6 | 2933.0 | 2855.4 | 2839.9 | 2839.9 | 2850.2 | 2865.7 | 2876.1 |
| 30° | 3403.7 | 3367.5 | 3227.8 | 2995.0 | 2824.3 | 2710.5 | 2695.0 | 2710.5 | 2736.4 | 2751.9 | 2767.4 |
| 32.5° | 3507.1 | 3470.9 | 3253.7 | 2922.6 | 2664.0 | 2519.1 | 2508.8 | 2534.7 | 2576.0 | 2586.4 | 2596.7 |
| 35° | 3646.8 | 3610.6 | 3284.7 | 2819.2 | 2462.2 | 2307.1 | 2296.7 | 2312.2 | 2348.4 | 2364.0 | 2379.5 |
| 37.5° | 3843.4 | 3822.7 | 3331.3 | 2705.4 | 2276.0 | 2105.3 | 2074.3 | 2063.9 | 2084.6 | 2079.5 | 2100.2 |
| 40° | 4102.0 | 4117.5 | 3414.0 | 2555.4 | 2095.0 | 1919.1 | 1851.9 | 1820.8 | 1800.1 | 1758.7 | 1779.4 |
| 42.5° | 4479.6 | 4490.0 | 3507.1 | 2384.7 | 1939.8 | 1743.2 | 1655.3 | 1598.4 | 1557.0 | 1489.8 | 1500.1 |
| 45° | 5033.1 | 4945.2 | 3615.8 | 2203.6 | 1800.1 | 1603.6 | 1500.1 | 1432.9 | 1376.0 | 1319.1 | 1324.2 |
| 47.5° | 5767.7 | 5498.7 | 3734.8 | 2053.6 | 1660.5 | 1489.8 | 1396.7 | 1319.1 | 1251.8 | 1205.3 | 1210.4 |
| 50° | 6672.9 | 6186.7 | 3853.7 | 1913.9 | 1520.8 | 1401.8 | 1319.1 | 1236.3 | 1169.0 | 1122.5 | 1117.3 |
| 52.5° | 7867.8 | 7014.3 | 3931.3 | 1758.7 | 1381.1 | 1324.2 | 1251.8 | 1174.2 | 1091.5 | 1034.6 | 1029.4 |
| 55° | 9109.3 | 7976.4 | 3998.6 | 1572.5 | 1246.6 | 1236.3 | 1200.1 | 1112.1 | 1013.9 | 941.4 | 931.1 |
| 57.5° | 10474.9 | 9005.8 | 4050.3 | 1391.5 | 1143.2 | 1163.9 | 1153.5 | 1050.1 | 941.4 | 874.2 | 869.0 |
| 60° | 11716.4 | 10071.4 | 3884.8 | 1231.1 | 1050.1 | 1091.5 | 1101.8 | 1013.9 | 957.0 | 972.5 | 977.7 |
| 62.5° | 12968.2 | 10893.9 | 3253.7 | 1112.1 | 988.0 | 1044.9 | 1132.8 | 1127.7 | 1101.8 | 1127.7 | 1132.8 |
| 65° | 13418.2 | 11064.6 | 2307.1 | 1013.9 | 925.9 | 1065.6 | 1231.1 | 1220.8 | 1101.8 | 1055.2 | 1044.9 |
| 67.5° | 13164.7 | 10557.7 | 1551.8 | 936.3 | 879.4 | 1091.5 | 1334.6 | 1220.8 | 1060.4 | 998.3 | 977.7 |
| 70° | 11959.5 | 9311.0 | 1138.0 | 858.7 | 838.0 | 1086.3 | 1391.5 | 1215.6 | 1039.7 | 972.5 | 946.6 |
| 72.5° | 9538.6 | 7185.0 | 915.6 | 786.3 | 775.9 | 1060.4 | 1422.5 | 1205.3 | 1019.0 | 946.6 | 915.6 |
| 75° | 6176.3 | 4469.3 | 770.7 | 713.8 | 682.8 | 1019.0 | 1407.0 | 1174.2 | 993.2 | 900.1 | 879.4 |
| 77.5° | 2865.7 | 1924.3 | 656.9 | 631.1 | 594.9 | 957.0 | 1360.4 | 1112.1 | 936.3 | 848.3 | 822.5 |
| 80° | 1334.6 | 910.4 | 553.5 | 548.3 | 532.8 | 905.2 | 1298.4 | 1039.7 | 869.0 | 796.6 | 755.2 |
| 82.5° | 713.8 | 548.3 | 450.0 | 450.0 | 465.6 | 843.2 | 1220.8 | 951.8 | 781.1 | 744.9 | 636.3 |
| 85° | 377.6 | 315.5 | 325.9 | 351.7 | 398.3 | 744.9 | 1117.3 | 858.7 | 682.8 | 569.0 | 553.5 |
| 87.5° | 191.4 | 201.7 | 201.7 | 237.9 | 305.2 | 605.2 | 920.8 | 708.7 | 579.4 | 465.6 | 455.2 |
| 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)