

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: P299183

Luminaire Tested: **GAA-AF-05-LED-U-T3-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299183
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-05-LED-U-T3-7050-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23957.1 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

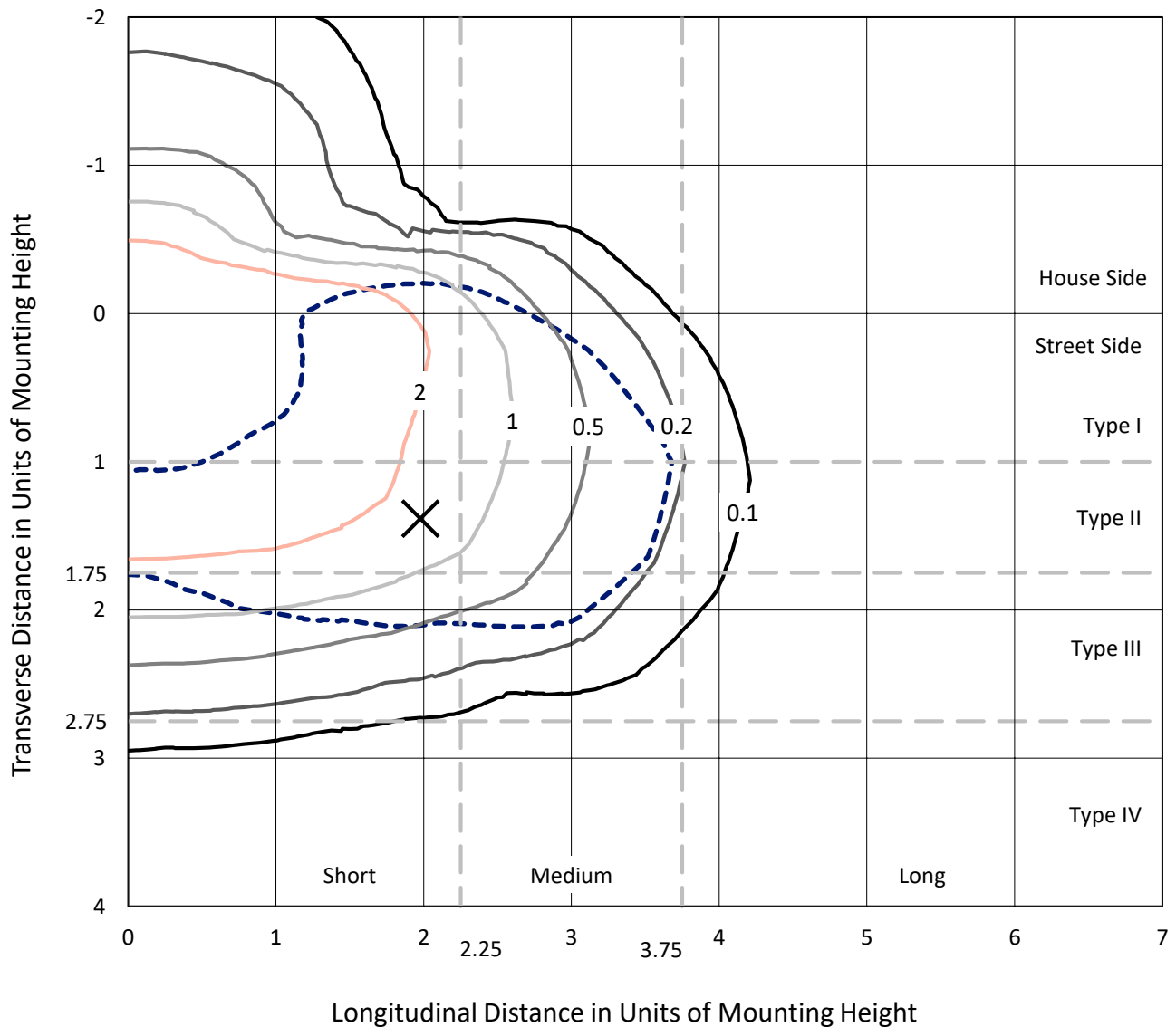
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

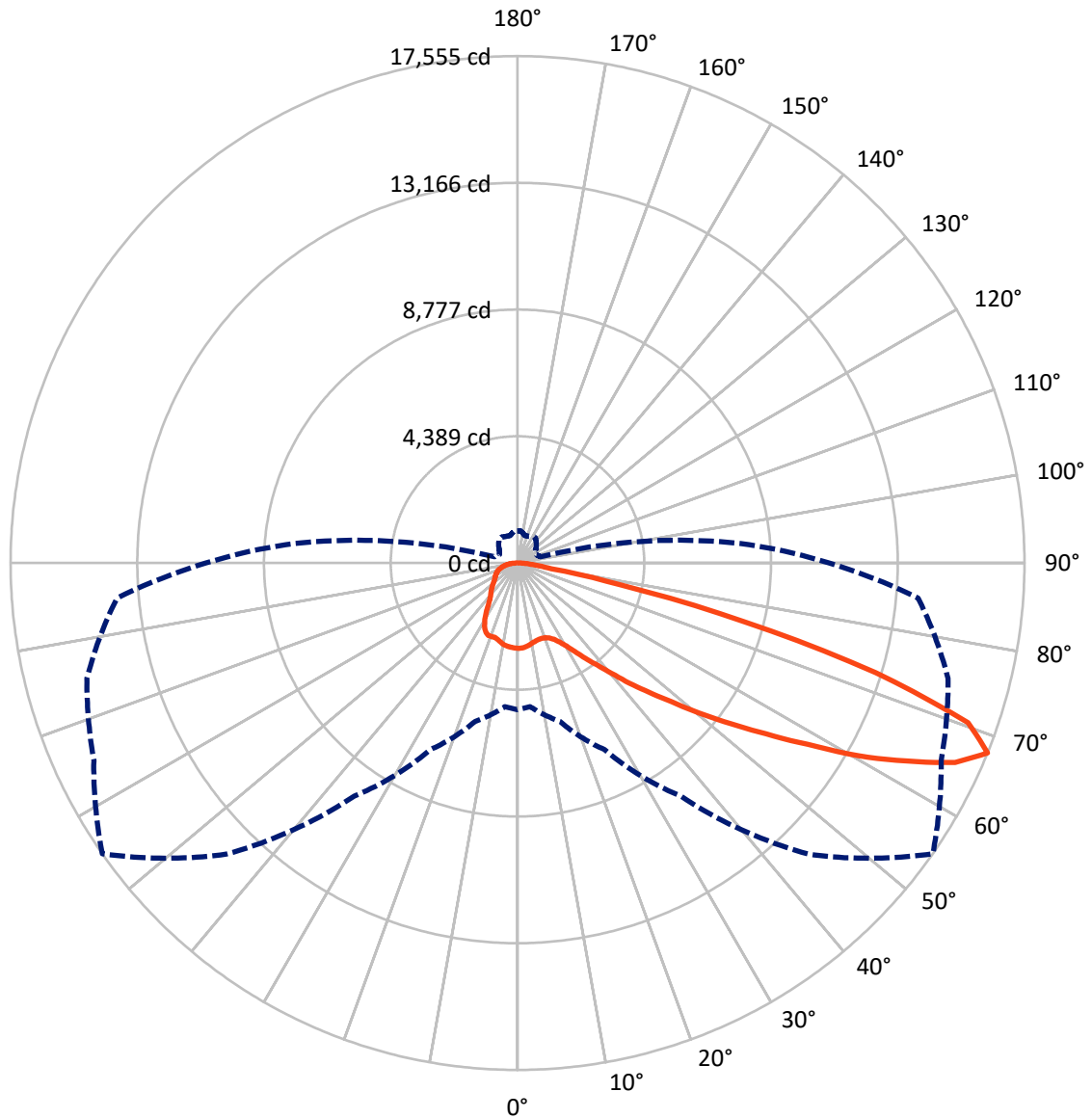
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5175.3 | 0.0 | 5175.3 |
| | % Fixture | 21.6 | 0.0 | 21.6 |
| Street Side | Lumens | 18781.8 | 0.0 | 18781.8 |
| | % Fixture | 78.4 | 0.0 | 78.4 |
| Total | Lumens | 23957.1 | 0.0 | 23957.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 275.7 | 1.2 |
| 10°-20° | 780.9 | 3.3 |
| 20°-30° | 1308.2 | 5.5 |
| 30°-40° | 2151.2 | 9.0 |
| 40°-50° | 3621.1 | 15.1 |
| 50°-60° | 5699.4 | 23.8 |
| 60°-70° | 6801.6 | 28.4 |
| 70°-80° | 2920.7 | 12.2 |
| 80°-90° | 398.2 | 1.7 |
| 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° | 23957.1 | 100.0 |
| 0°-180° | 23957.1 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P299183

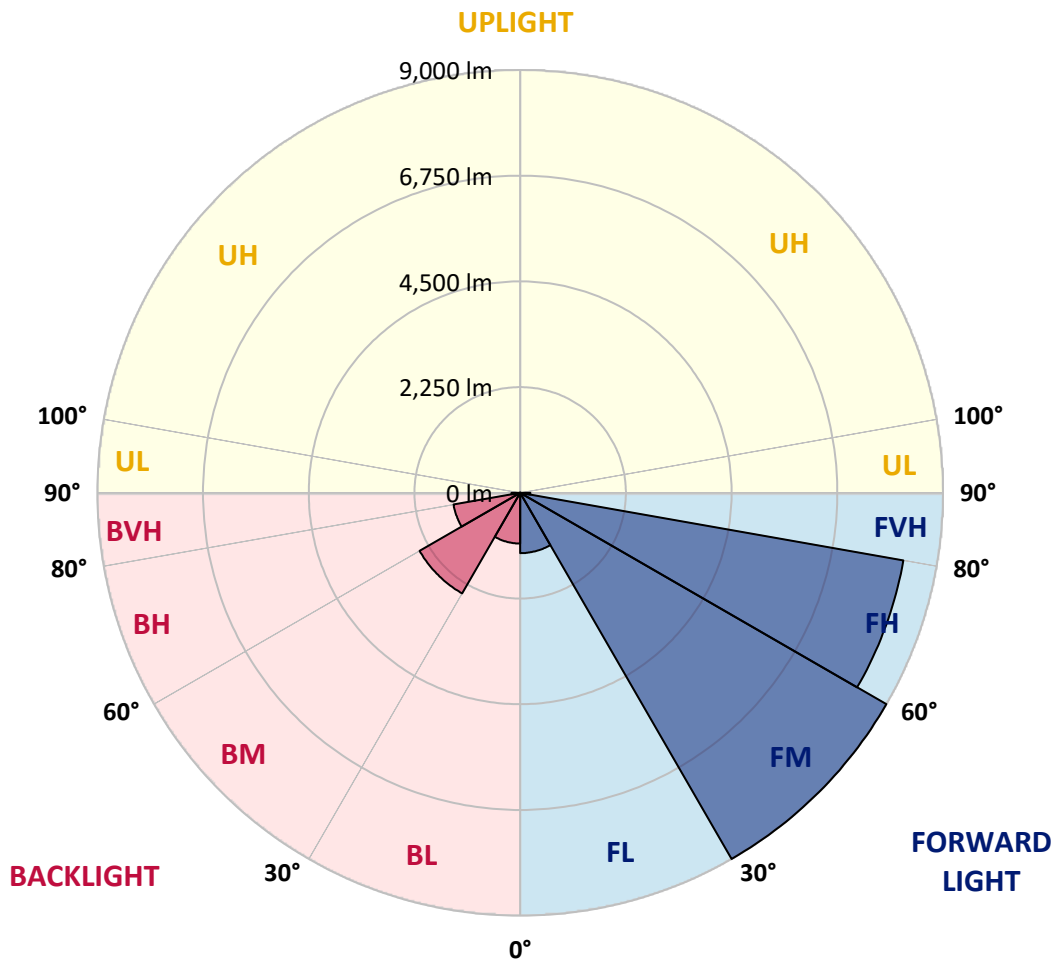
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1284.2 | 5.4 | | | |
| FM | (30°-60°) | 9000.1 | 37.6 | | | |
| FH | (60°-80°) | 8282.1 | 34.6 | | | G4/12000 |
| FVH | (80°-90°) | 215.6 | 0.9 | | | G2/225 |
| BL | (0°-30°) | 1080.7 | 4.5 | B3/2500 | | |
| BM | (30°-60°) | 2471.6 | 10.3 | B2/2500 | | |
| BH | (60°-80°) | 1440.3 | 6.0 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 182.7 | 0.8 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 2954.2 | 2954.2 | 2954.2 | 2954.2 | 2954.2 | 2954.2 | 2954.2 | 2954.2 | 2954.2 | 2954.2 | 2954.2 |
| 2.5° | 2928.7 | 2929.9 | 2932.2 | 2941.4 | 2949.5 | 2947.2 | 2948.4 | 2943.8 | 2942.6 | 2935.7 | 2942.6 |
| 5° | 2891.7 | 2895.2 | 2896.3 | 2911.4 | 2920.6 | 2922.9 | 2919.5 | 2913.7 | 2906.7 | 2899.8 | 2903.3 |
| 7.5° | 2807.2 | 2816.5 | 2817.6 | 2838.5 | 2853.5 | 2873.2 | 2874.3 | 2875.5 | 2872.0 | 2867.4 | 2874.3 |
| 10° | 2754.0 | 2756.3 | 2755.1 | 2770.2 | 2781.8 | 2803.7 | 2816.5 | 2838.5 | 2847.7 | 2850.0 | 2854.7 |
| 12.5° | 2750.5 | 2748.2 | 2744.7 | 2744.7 | 2741.3 | 2750.5 | 2773.7 | 2804.9 | 2826.9 | 2833.8 | 2839.6 |
| 15° | 2787.5 | 2786.4 | 2774.8 | 2757.5 | 2735.5 | 2728.5 | 2748.2 | 2782.9 | 2811.8 | 2826.9 | 2832.7 |
| 17.5° | 2870.9 | 2863.9 | 2845.4 | 2806.1 | 2758.6 | 2740.1 | 2742.4 | 2771.3 | 2804.9 | 2824.6 | 2830.4 |
| 20° | 3023.6 | 3023.6 | 2984.3 | 2910.2 | 2825.7 | 2781.8 | 2760.9 | 2778.3 | 2810.7 | 2837.3 | 2845.4 |
| 22.5° | 3287.4 | 3289.7 | 3223.8 | 3102.3 | 2960.0 | 2866.2 | 2814.2 | 2810.7 | 2848.9 | 2879.0 | 2888.2 |
| 25° | 3661.2 | 3651.9 | 3559.4 | 3385.8 | 3169.4 | 3014.3 | 2924.1 | 2903.3 | 2935.7 | 2969.2 | 2980.8 |
| 27.5° | 4096.3 | 4062.7 | 3952.8 | 3743.3 | 3463.3 | 3236.5 | 3097.7 | 3064.1 | 3095.3 | 3133.5 | 3145.1 |
| 30° | 4526.7 | 4492.0 | 4361.2 | 4132.1 | 3820.9 | 3533.9 | 3334.9 | 3280.5 | 3324.5 | 3378.8 | 3385.8 |
| 32.5° | 4957.2 | 4957.2 | 4811.4 | 4544.1 | 4205.0 | 3889.1 | 3650.8 | 3586.0 | 3658.9 | 3724.8 | 3739.9 |
| 35° | 5472.1 | 5474.4 | 5333.2 | 5011.6 | 4647.1 | 4312.6 | 4050.0 | 4002.5 | 4112.5 | 4158.7 | 4194.6 |
| 37.5° | 6105.1 | 6117.8 | 5936.1 | 5547.3 | 5148.1 | 4796.3 | 4483.9 | 4419.1 | 4529.0 | 4655.2 | 4770.9 |
| 40° | 6788.9 | 6805.1 | 6604.9 | 6125.9 | 5726.7 | 5358.7 | 5020.8 | 4903.9 | 5086.8 | 5327.5 | 5476.7 |
| 42.5° | 7441.5 | 7524.9 | 7331.6 | 6838.7 | 6409.4 | 6028.7 | 5686.2 | 5516.1 | 5745.2 | 6108.5 | 6238.1 |
| 45° | 8384.6 | 8444.8 | 8108.1 | 7661.4 | 7257.6 | 6831.7 | 6378.1 | 6198.8 | 6519.3 | 6977.5 | 7004.1 |
| 47.5° | 9012.9 | 8967.8 | 8796.6 | 8518.8 | 8263.1 | 7865.1 | 7182.3 | 6985.6 | 7411.5 | 7950.7 | 7801.4 |
| 50° | 9347.3 | 9361.2 | 9338.1 | 9354.3 | 9363.5 | 9113.6 | 8168.2 | 7898.6 | 8406.6 | 9058.1 | 8714.4 |
| 52.5° | 9659.8 | 9567.2 | 9643.6 | 10023.1 | 10481.3 | 10388.8 | 9240.9 | 8959.7 | 9473.5 | 10286.9 | 9679.4 |
| 55° | 9652.8 | 9511.7 | 9760.4 | 10430.4 | 11424.4 | 11530.9 | 10445.5 | 10121.5 | 10601.7 | 11604.9 | 10702.4 |
| 57.5° | 9311.5 | 9318.4 | 9701.4 | 10578.5 | 12081.7 | 12604.7 | 11843.3 | 11357.3 | 11798.2 | 12940.3 | 11636.2 |
| 60° | 8841.7 | 8905.3 | 9457.3 | 10554.2 | 12608.2 | 13485.3 | 13558.2 | 12689.2 | 12970.3 | 14154.1 | 12409.1 |
| 62.5° | 8083.8 | 8150.9 | 8912.3 | 10302.0 | 12528.3 | 14333.5 | 15108.7 | 14200.4 | 14195.8 | 14890.0 | 12635.9 |
| 65° | 6888.4 | 6868.8 | 7668.3 | 9358.9 | 11858.3 | 14960.6 | 16648.9 | 15506.8 | 15119.1 | 14901.6 | 12180.0 |
| 67.5° | 5079.8 | 4991.9 | 5678.1 | 7128.0 | 9856.5 | 14258.2 | 17554.9 | 16187.2 | 15433.9 | 13921.5 | 10786.8 |
| 70° | 2636.0 | 2548.0 | 3103.4 | 4162.2 | 6482.3 | 11128.2 | 16551.7 | 15835.4 | 14738.4 | 11669.7 | 8450.6 |
| 72.5° | 1127.1 | 1112.0 | 1337.6 | 1826.0 | 3135.8 | 6418.6 | 12978.4 | 13706.3 | 12646.3 | 8694.7 | 5810.0 |
| 75° | 757.9 | 753.3 | 837.8 | 995.1 | 1410.5 | 2604.7 | 8121.9 | 9729.2 | 9252.5 | 5391.1 | 3267.8 |
| 77.5° | 594.8 | 589.0 | 638.7 | 715.1 | 914.1 | 1027.5 | 3604.5 | 5223.3 | 4834.5 | 2346.7 | 1430.2 |
| 80° | 465.2 | 460.5 | 491.8 | 533.4 | 657.3 | 648.0 | 1186.1 | 2078.2 | 1608.4 | 899.1 | 695.4 |
| 82.5° | 366.8 | 366.8 | 392.3 | 393.4 | 466.3 | 442.0 | 619.1 | 915.3 | 803.1 | 524.2 | 425.8 |
| 85° | 335.6 | 335.6 | 362.2 | 293.9 | 304.3 | 278.9 | 384.2 | 542.7 | 509.1 | 215.2 | 185.1 |
| 87.5° | 168.9 | 164.3 | 304.3 | 260.4 | 165.5 | 148.1 | 187.5 | 262.7 | 282.3 | 119.2 | 92.6 |
| 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):

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2954.2 | 2954.2 | 2954.2 | 2954.2 | 2954.2 | 2954.2 | 2954.2 | 2954.2 | 2954.2 | 2954.2 |
| 2.5° | 2940.3 | 2939.1 | 2941.4 | 2942.6 | 2951.9 | 2964.6 | 2970.4 | 2978.5 | 2983.1 | 2980.8 |
| 5° | 2905.6 | 2907.9 | 2917.1 | 2924.1 | 2940.3 | 2961.1 | 2972.7 | 2981.9 | 2990.0 | 2986.6 |
| 7.5° | 2876.6 | 2882.4 | 2896.3 | 2902.1 | 2911.4 | 2917.1 | 2916.0 | 2919.5 | 2926.4 | 2918.3 |
| 10° | 2860.4 | 2867.4 | 2877.8 | 2869.7 | 2847.7 | 2816.5 | 2787.5 | 2772.5 | 2777.1 | 2771.3 |
| 12.5° | 2844.2 | 2853.5 | 2845.4 | 2807.2 | 2745.9 | 2705.4 | 2683.4 | 2685.7 | 2696.1 | 2698.4 |
| 15° | 2835.0 | 2838.5 | 2803.7 | 2732.0 | 2669.5 | 2663.7 | 2675.3 | 2673.0 | 2674.1 | 2674.1 |
| 17.5° | 2835.0 | 2825.7 | 2760.9 | 2689.2 | 2662.6 | 2652.2 | 2616.3 | 2571.2 | 2551.5 | 2544.5 |
| 20° | 2850.0 | 2825.7 | 2747.0 | 2699.6 | 2641.7 | 2552.6 | 2457.8 | 2374.4 | 2337.4 | 2327.0 |
| 22.5° | 2895.2 | 2853.5 | 2786.4 | 2704.2 | 2539.9 | 2390.6 | 2240.2 | 2140.7 | 2073.6 | 2062.0 |
| 25° | 2986.6 | 2940.3 | 2863.9 | 2642.9 | 2377.9 | 2165.0 | 1993.7 | 1882.7 | 1815.5 | 1806.3 |
| 27.5° | 3146.3 | 3116.2 | 2905.6 | 2507.5 | 2162.7 | 1934.7 | 1776.2 | 1690.6 | 1640.8 | 1637.3 |
| 30° | 3386.9 | 3371.9 | 2884.7 | 2307.3 | 1897.7 | 1711.4 | 1635.0 | 1585.3 | 1548.2 | 1547.1 |
| 32.5° | 3771.1 | 3649.6 | 2816.5 | 2063.2 | 1655.9 | 1552.9 | 1521.6 | 1491.5 | 1462.6 | 1462.6 |
| 35° | 4265.2 | 3874.1 | 2686.9 | 1801.7 | 1508.9 | 1464.9 | 1425.6 | 1378.1 | 1340.0 | 1337.6 |
| 37.5° | 4846.1 | 4012.9 | 2454.3 | 1591.1 | 1439.5 | 1405.9 | 1348.1 | 1277.5 | 1210.4 | 1198.8 |
| 40° | 5432.8 | 4054.6 | 2126.8 | 1461.5 | 1395.5 | 1346.9 | 1276.3 | 1193.0 | 1128.2 | 1124.7 |
| 42.5° | 5970.8 | 3974.8 | 1779.7 | 1372.4 | 1351.5 | 1286.7 | 1212.7 | 1138.6 | 1087.7 | 1086.6 |
| 45° | 6422.1 | 3767.6 | 1488.1 | 1287.9 | 1305.3 | 1232.4 | 1166.4 | 1106.2 | 1066.9 | 1058.8 |
| 47.5° | 6846.8 | 3474.9 | 1283.3 | 1198.8 | 1259.0 | 1202.3 | 1146.7 | 1090.0 | 1051.8 | 1046.1 |
| 50° | 7339.7 | 3159.0 | 1139.8 | 1112.0 | 1218.5 | 1191.9 | 1162.9 | 1103.9 | 1040.3 | 1033.3 |
| 52.5° | 7936.8 | 2885.9 | 1027.5 | 1035.6 | 1187.2 | 1205.7 | 1204.6 | 1143.3 | 1032.2 | 1022.9 |
| 55° | 8603.3 | 2582.7 | 943.1 | 973.2 | 1174.5 | 1231.2 | 1215.0 | 1180.3 | 1039.1 | 1025.2 |
| 57.5° | 9259.4 | 2228.6 | 884.1 | 925.7 | 1156.0 | 1228.9 | 1165.2 | 1115.5 | 1055.3 | 1035.6 |
| 60° | 9751.2 | 1753.1 | 838.9 | 884.1 | 1115.5 | 1190.7 | 1110.9 | 1044.9 | 1051.8 | 1036.8 |
| 62.5° | 9783.6 | 1355.0 | 784.5 | 848.2 | 1054.2 | 1152.5 | 1075.0 | 1013.7 | 1066.9 | 1053.0 |
| 65° | 9208.5 | 1024.1 | 732.5 | 805.4 | 988.2 | 1128.2 | 1040.3 | 996.3 | 1098.1 | 1083.1 |
| 67.5° | 7752.8 | 823.9 | 688.5 | 761.4 | 922.2 | 1077.3 | 1009.0 | 980.1 | 1125.9 | 1099.3 |
| 70° | 5597.1 | 702.4 | 645.7 | 708.2 | 863.2 | 1019.4 | 981.3 | 951.2 | 1050.7 | 1009.0 |
| 72.5° | 3446.0 | 608.7 | 597.1 | 637.6 | 818.1 | 959.3 | 939.6 | 896.8 | 946.5 | 913.0 |
| 75° | 1720.7 | 527.7 | 542.7 | 568.2 | 754.5 | 891.0 | 870.2 | 827.4 | 834.3 | 827.4 |
| 77.5° | 823.9 | 451.3 | 479.1 | 498.7 | 672.3 | 813.5 | 791.5 | 747.5 | 739.4 | 740.6 |
| 80° | 521.9 | 377.2 | 403.8 | 417.7 | 600.6 | 723.2 | 701.2 | 657.3 | 749.8 | 695.4 |
| 82.5° | 326.3 | 306.6 | 313.6 | 339.0 | 523.0 | 629.5 | 600.6 | 561.2 | 675.8 | 534.6 |
| 85° | 180.5 | 214.1 | 223.3 | 245.3 | 402.7 | 526.5 | 497.6 | 447.8 | 401.5 | 394.6 |
| 87.5° | 107.6 | 127.3 | 130.8 | 147.0 | 270.8 | 380.7 | 336.7 | 319.4 | 265.0 | 263.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)