

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: P301159

Luminaire Tested: **GAA-AF-04-LED-U-T3R-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301159
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-04-LED-U-T3R-7030-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19117.3 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G3

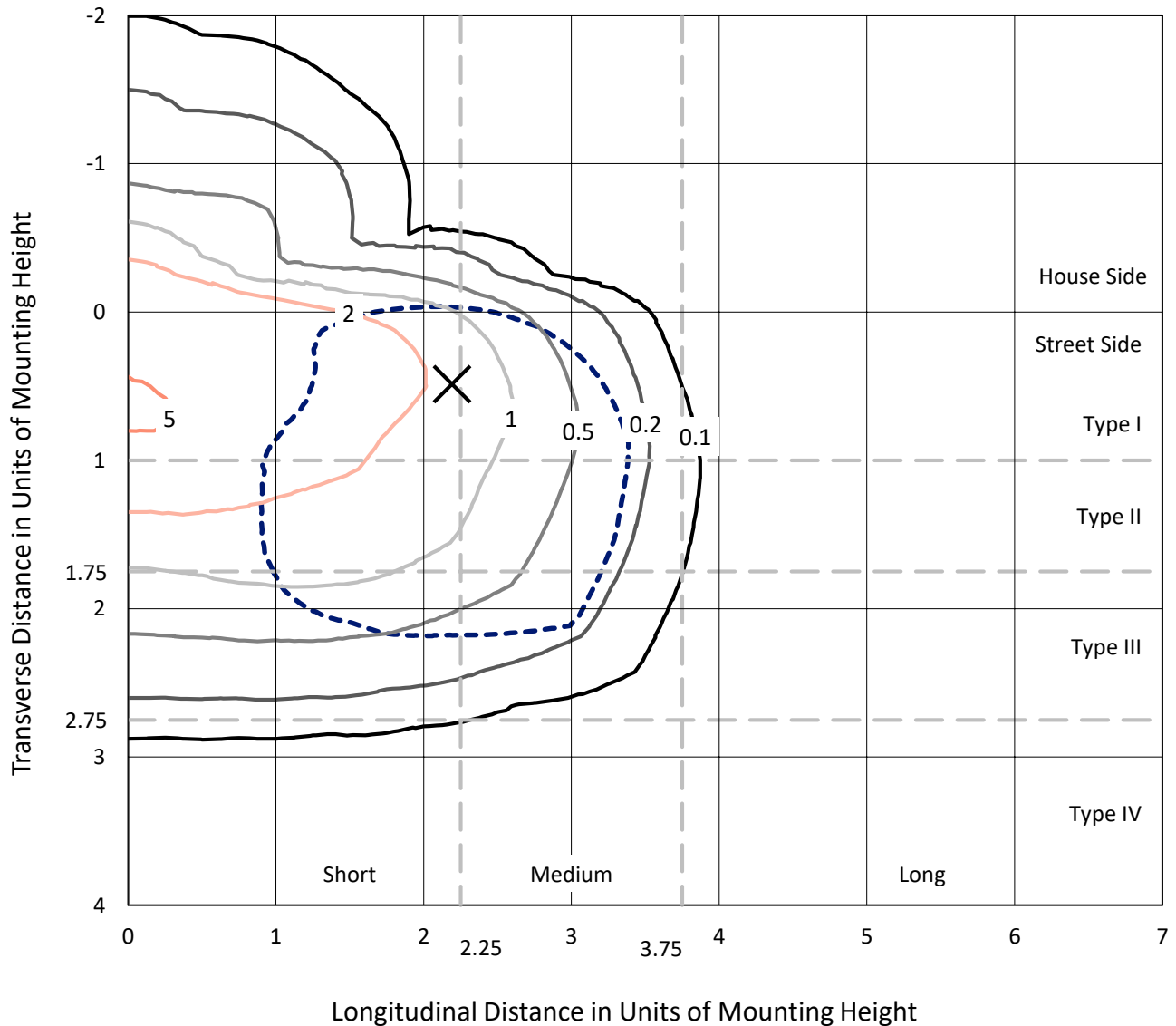
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

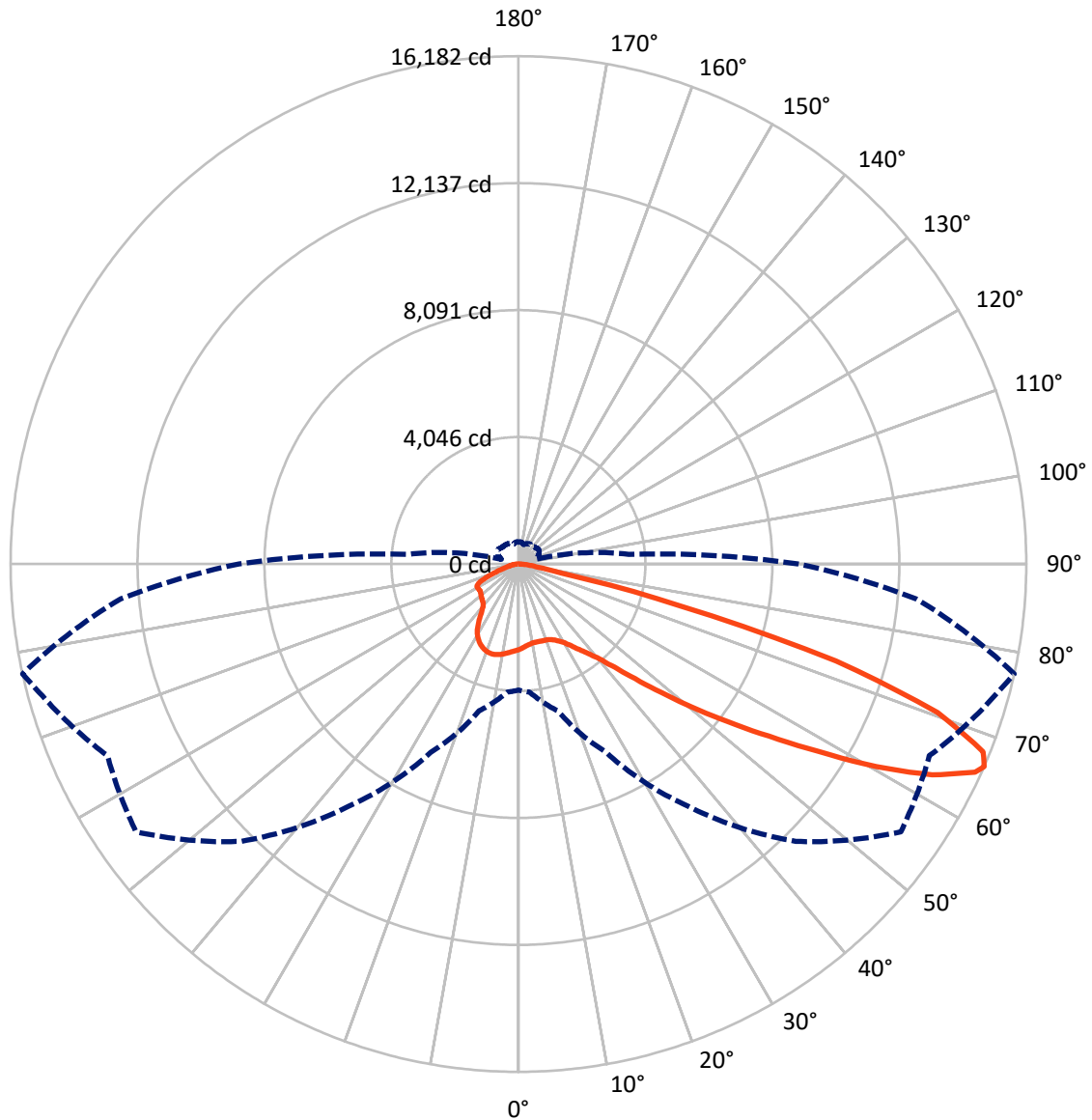
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3266.1 | 0.0 | 3266.1 |
| | % Fixture | 17.1 | 0.0 | 17.1 |
| Street Side | Lumens | 15851.2 | 0.0 | 15851.2 |
| | % Fixture | 82.9 | 0.0 | 82.9 |
| Total | Lumens | 19117.3 | 0.0 | 19117.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 243.4 | 1.3 |
| 10°-20° | 686.7 | 3.6 |
| 20°-30° | 1171.9 | 6.1 |
| 30°-40° | 1876.0 | 9.8 |
| 40°-50° | 2898.2 | 15.2 |
| 50°-60° | 4110.6 | 21.5 |
| 60°-70° | 5498.9 | 28.8 |
| 70°-80° | 2388.1 | 12.5 |
| 80°-90° | 243.5 | 1.3 |
| 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° | 19117.3 | 100.0 |
| 0°-180° | 19117.3 | 100.0 |

Coefficient of Utilization



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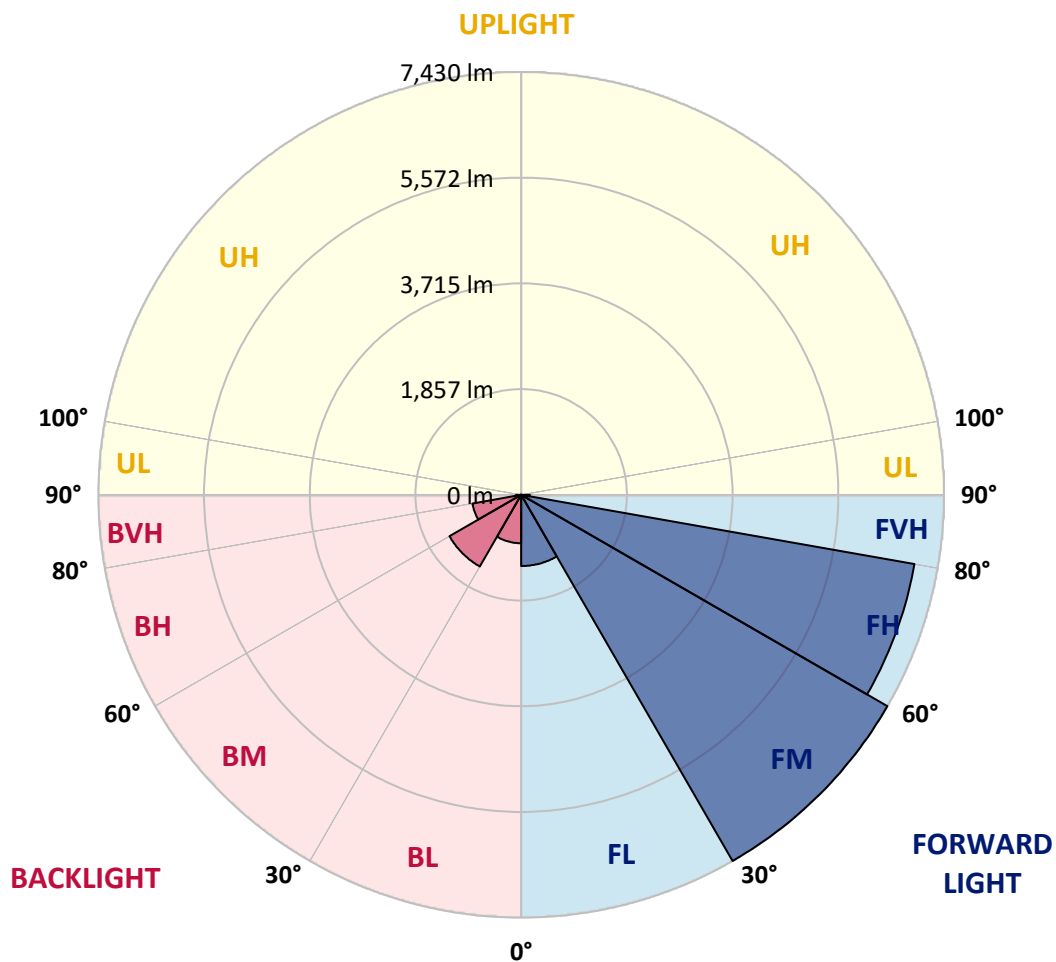
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1251.3 | 6.5 | | | |
| FM | (30°-60°) | 7430.0 | 38.9 | | | |
| FH | (60°-80°) | 7017.2 | 36.7 | | | G3/7500 |
| FVH | (80°-90°) | 152.7 | 0.8 | | | G2/225 |
| BL | (0°-30°) | 850.6 | 4.4 | B2/1000 | | |
| BM | (30°-60°) | 1454.8 | 7.6 | B2/2500 | | |
| BH | (60°-80°) | 869.8 | 4.5 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 90.8 | 0.5 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77.5° | 85° |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| 0° | 2724.3 | 2724.3 | 2724.3 | 2724.3 | 2724.3 | 2724.3 | 2724.3 | 2724.3 | 2724.3 | 2724.3 | 2724.3 |
| 2.5° | 2410.0 | 2426.2 | 2439.8 | 2452.4 | 2477.6 | 2519.2 | 2567.0 | 2605.9 | 2661.9 | 2672.9 | 2702.7 |
| 5° | 2188.8 | 2188.8 | 2199.4 | 2218.6 | 2252.8 | 2315.1 | 2380.2 | 2466.9 | 2588.9 | 2617.6 | 2697.2 |
| 7.5° | 2081.3 | 2082.1 | 2088.4 | 2104.5 | 2134.3 | 2191.2 | 2262.6 | 2364.9 | 2530.1 | 2578.0 | 2713.3 |
| 10° | 2120.9 | 2111.9 | 2098.2 | 2090.3 | 2094.7 | 2128.1 | 2195.9 | 2309.7 | 2494.0 | 2555.3 | 2749.7 |
| 12.5° | 2343.0 | 2326.1 | 2279.0 | 2216.7 | 2157.0 | 2132.7 | 2172.4 | 2283.4 | 2478.7 | 2550.1 | 2797.6 |
| 15° | 2706.2 | 2699.1 | 2611.3 | 2482.2 | 2337.8 | 2216.7 | 2189.6 | 2273.6 | 2480.3 | 2556.4 | 2854.5 |
| 17.5° | 3161.6 | 3151.5 | 3036.1 | 2848.2 | 2612.4 | 2376.7 | 2250.0 | 2281.8 | 2486.6 | 2567.0 | 2909.4 |
| 20° | 3621.3 | 3590.4 | 3466.0 | 3242.0 | 2939.2 | 2594.1 | 2350.4 | 2302.5 | 2494.8 | 2578.8 | 2967.4 |
| 22.5° | 3964.6 | 3939.1 | 3827.3 | 3609.6 | 3260.9 | 2846.3 | 2485.0 | 2338.6 | 2521.1 | 2613.2 | 3038.5 |
| 25° | 4266.2 | 4267.9 | 4156.8 | 3946.5 | 3586.1 | 3113.7 | 2658.4 | 2435.2 | 2587.8 | 2683.5 | 3136.2 |
| 27.5° | 4639.3 | 4617.7 | 4513.7 | 4305.1 | 3907.7 | 3383.7 | 2867.9 | 2568.1 | 2687.4 | 2783.9 | 3264.4 |
| 30° | 5085.4 | 5070.0 | 4950.0 | 4713.4 | 4264.3 | 3673.6 | 3107.2 | 2722.4 | 2815.6 | 2915.7 | 3432.4 |
| 32.5° | 5610.2 | 5603.1 | 5478.4 | 5174.0 | 4676.2 | 4015.2 | 3388.3 | 2926.7 | 3007.1 | 3111.0 | 3673.6 |
| 35° | 6226.4 | 6227.2 | 6080.1 | 5714.1 | 5126.9 | 4412.6 | 3706.9 | 3189.5 | 3240.1 | 3348.4 | 3961.0 |
| 37.5° | 6605.7 | 6651.7 | 6596.7 | 6223.6 | 5637.3 | 4857.0 | 4120.7 | 3538.2 | 3505.6 | 3615.0 | 4269.0 |
| 40° | 6686.9 | 6743.0 | 6917.2 | 6727.7 | 6208.3 | 5346.5 | 4487.5 | 3873.2 | 3832.7 | 3966.2 | 4665.5 |
| 42.5° | 6573.2 | 6650.8 | 7019.5 | 7153.0 | 6814.4 | 5949.9 | 4980.6 | 4371.0 | 4319.6 | 4499.3 | 5158.6 |
| 45° | 6505.3 | 6563.3 | 6989.7 | 7374.5 | 7340.0 | 6632.0 | 5608.5 | 4995.9 | 4977.0 | 5212.8 | 5727.8 |
| 47.5° | 6388.0 | 6440.5 | 6850.5 | 7425.9 | 7649.1 | 7256.9 | 6362.8 | 5760.3 | 5797.3 | 6106.3 | 6370.0 |
| 50° | 6451.2 | 6472.8 | 6695.1 | 7294.9 | 7738.5 | 7715.0 | 7205.5 | 6645.4 | 6772.0 | 7157.6 | 7097.2 |
| 52.5° | 6442.2 | 6498.2 | 6677.1 | 7079.9 | 7750.3 | 7997.8 | 8035.5 | 7632.7 | 7899.3 | 8341.8 | 7903.7 |
| 55° | 5208.4 | 5311.3 | 6464.9 | 7025.8 | 7791.6 | 8274.8 | 8774.5 | 8673.3 | 9170.0 | 9685.8 | 8814.2 |
| 57.5° | 4973.5 | 5038.6 | 5678.0 | 7139.6 | 8012.0 | 8804.3 | 9596.4 | 9818.7 | 10649.6 | 11248.5 | 9923.5 |
| 60° | 4927.3 | 5007.7 | 5669.8 | 7278.8 | 8459.2 | 9666.9 | 10815.1 | 11205.3 | 12450.0 | 13105.8 | 11209.7 |
| 62.5° | 4783.7 | 4870.4 | 5616.5 | 7260.5 | 9094.2 | 10860.2 | 12375.1 | 12679.5 | 14157.2 | 14794.9 | 12285.6 |
| 65° | 4328.6 | 4409.8 | 5182.2 | 6968.9 | 9522.5 | 12133.8 | 14221.2 | 14030.8 | 15504.9 | 15984.4 | 12822.0 |
| 66° | 4016.8 | 4096.4 | 4839.8 | 6625.7 | 9423.0 | 12495.1 | 14875.4 | 14449.0 | 15806.6 | 16182.4 | 12717.2 |
| 67.5° | 3446.8 | 3509.2 | 4174.9 | 5856.9 | 8894.6 | 12596.3 | 15425.4 | 14763.2 | 15838.1 | 15971.0 | 12118.5 |
| 70° | 2177.8 | 2195.9 | 2713.3 | 4043.1 | 6733.2 | 10924.2 | 14587.9 | 13982.9 | 14532.1 | 14172.5 | 10159.2 |
| 72.5° | 944.9 | 938.6 | 1302.7 | 2056.7 | 3812.0 | 7330.2 | 11800.5 | 11537.6 | 11399.5 | 10579.3 | 7111.7 |
| 75° | 525.7 | 533.0 | 676.6 | 954.8 | 1549.1 | 3600.6 | 7719.4 | 7387.1 | 6237.0 | 5322.2 | 3224.8 |
| 77.5° | 421.7 | 431.8 | 560.9 | 677.4 | 695.5 | 1255.6 | 3612.3 | 2939.2 | 1769.5 | 1420.0 | 896.0 |
| 80° | 333.4 | 351.4 | 489.6 | 527.6 | 468.8 | 517.5 | 1167.0 | 933.2 | 700.1 | 642.2 | 464.4 |
| 82.5° | 263.6 | 276.5 | 420.1 | 399.3 | 327.9 | 348.7 | 559.0 | 544.8 | 455.4 | 414.6 | 268.3 |
| 85° | 189.8 | 213.1 | 345.1 | 300.8 | 215.0 | 234.9 | 371.1 | 355.8 | 260.9 | 213.1 | 118.4 |
| 87.5° | 77.7 | 101.2 | 244.0 | 199.7 | 120.1 | 109.4 | 185.2 | 174.2 | 123.6 | 90.3 | 58.8 |
| 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° | 2724.3 | 2724.3 | 2724.3 | 2724.3 | 2724.3 | 2724.3 | 2724.3 | 2724.3 | 2724.3 | 2724.3 | 2724.3 |
| 2.5° | 2721.5 | 2743.1 | 2771.3 | 2788.5 | 2797.6 | 2803.9 | 2813.7 | 2812.9 | 2815.6 | 2816.4 | 2820.0 |
| 5° | 2739.6 | 2775.7 | 2816.4 | 2827.4 | 2827.4 | 2817.3 | 2807.4 | 2791.0 | 2784.7 | 2783.1 | 2784.7 |
| 7.5° | 2786.6 | 2826.3 | 2861.6 | 2849.0 | 2821.9 | 2782.0 | 2730.6 | 2685.4 | 2661.1 | 2652.9 | 2651.3 |
| 10° | 2846.3 | 2894.1 | 2908.6 | 2860.8 | 2781.2 | 2685.4 | 2583.4 | 2509.3 | 2466.9 | 2455.2 | 2451.6 |
| 12.5° | 2918.5 | 2963.6 | 2943.9 | 2842.7 | 2695.3 | 2541.0 | 2399.9 | 2281.8 | 2193.2 | 2165.3 | 2163.3 |
| 15° | 2998.0 | 3033.3 | 2963.6 | 2786.6 | 2567.0 | 2339.5 | 2088.4 | 1884.4 | 1774.2 | 1738.9 | 1736.1 |
| 17.5° | 3072.2 | 3090.2 | 2951.8 | 2689.0 | 2378.3 | 2009.9 | 1676.5 | 1519.3 | 1481.5 | 1490.5 | 1492.2 |
| 20° | 3135.3 | 3135.3 | 2912.2 | 2549.0 | 2081.3 | 1575.3 | 1364.7 | 1362.3 | 1389.4 | 1416.4 | 1421.9 |
| 22.5° | 3204.8 | 3163.2 | 2842.7 | 2351.2 | 1660.1 | 1289.0 | 1258.3 | 1283.5 | 1314.1 | 1344.0 | 1348.6 |
| 25° | 3290.7 | 3185.9 | 2745.9 | 2051.5 | 1305.1 | 1170.6 | 1182.3 | 1203.1 | 1218.4 | 1237.6 | 1240.3 |
| 27.5° | 3386.4 | 3214.7 | 2618.7 | 1638.5 | 1132.8 | 1096.7 | 1105.7 | 1112.8 | 1110.9 | 1118.3 | 1120.0 |
| 30° | 3501.0 | 3248.3 | 2444.2 | 1280.8 | 1061.4 | 1033.3 | 1017.1 | 1010.8 | 1010.8 | 1022.6 | 1027.0 |
| 32.5° | 3654.7 | 3297.8 | 2194.0 | 1097.5 | 1027.0 | 988.1 | 935.9 | 912.4 | 921.4 | 961.1 | 970.1 |
| 35° | 3823.7 | 3351.1 | 1855.4 | 1035.2 | 1019.9 | 967.3 | 886.1 | 842.6 | 843.7 | 880.7 | 892.4 |
| 37.5° | 4007.8 | 3419.0 | 1484.0 | 1023.4 | 1036.0 | 968.4 | 859.9 | 800.2 | 775.9 | 775.9 | 780.6 |
| 40° | 4243.5 | 3488.4 | 1201.5 | 1031.6 | 1070.5 | 979.1 | 846.5 | 766.9 | 698.2 | 700.1 | 703.7 |
| 42.5° | 4550.7 | 3548.0 | 1049.7 | 1048.6 | 1112.0 | 993.6 | 845.4 | 722.6 | 663.0 | 703.7 | 740.6 |
| 45° | 4892.3 | 3577.9 | 982.7 | 1064.2 | 1145.4 | 1002.6 | 831.1 | 715.5 | 667.6 | 788.5 | 859.0 |
| 47.5° | 5285.0 | 3560.6 | 945.7 | 1069.4 | 1153.6 | 1002.6 | 814.7 | 732.7 | 699.1 | 913.2 | 995.5 |
| 50° | 5716.0 | 3511.1 | 909.6 | 1058.7 | 1150.9 | 1000.7 | 830.1 | 749.6 | 710.8 | 934.8 | 991.7 |
| 52.5° | 6222.8 | 3469.5 | 871.6 | 1035.2 | 1131.7 | 990.9 | 848.1 | 742.5 | 673.9 | 850.0 | 889.7 |
| 55° | 6800.7 | 3481.3 | 829.2 | 1001.8 | 1101.9 | 972.0 | 841.8 | 713.5 | 635.1 | 748.8 | 773.2 |
| 57.5° | 7539.7 | 3621.3 | 778.6 | 959.4 | 1061.4 | 940.3 | 819.4 | 700.1 | 623.3 | 679.4 | 693.9 |
| 60° | 8364.3 | 3865.0 | 715.5 | 916.8 | 1010.8 | 889.7 | 802.2 | 706.4 | 628.8 | 673.9 | 681.0 |
| 62.5° | 8969.5 | 4007.0 | 661.3 | 854.4 | 942.2 | 833.6 | 780.6 | 714.4 | 643.3 | 692.8 | 691.1 |
| 65° | 9133.9 | 3773.9 | 593.5 | 763.3 | 849.2 | 775.1 | 753.2 | 723.4 | 649.5 | 708.1 | 700.1 |
| 66° | 8903.6 | 3522.9 | 563.7 | 720.9 | 802.2 | 746.1 | 739.8 | 722.6 | 646.8 | 710.0 | 696.3 |
| 67.5° | 8344.6 | 3007.9 | 512.3 | 658.6 | 727.2 | 702.9 | 718.2 | 714.4 | 639.4 | 708.1 | 689.2 |
| 70° | 6805.4 | 2052.3 | 438.1 | 548.4 | 605.2 | 618.6 | 676.6 | 685.7 | 615.9 | 676.6 | 635.1 |
| 72.5° | 4755.0 | 1250.1 | 387.5 | 425.6 | 489.6 | 527.6 | 619.7 | 645.7 | 584.5 | 590.7 | 551.1 |
| 75° | 2297.9 | 664.0 | 351.4 | 329.8 | 380.2 | 440.9 | 551.1 | 591.6 | 534.7 | 494.2 | 479.7 |
| 77.5° | 716.3 | 405.6 | 298.1 | 265.6 | 298.1 | 355.8 | 460.6 | 518.5 | 476.2 | 413.8 | 408.3 |
| 80° | 384.8 | 298.1 | 229.5 | 213.1 | 235.8 | 279.2 | 362.1 | 432.7 | 409.1 | 371.1 | 331.5 |
| 82.5° | 253.8 | 193.4 | 169.8 | 165.2 | 179.7 | 213.1 | 269.1 | 358.6 | 358.6 | 318.1 | 231.4 |
| 85° | 131.0 | 118.4 | 116.5 | 116.5 | 125.5 | 141.9 | 183.2 | 276.5 | 294.6 | 167.9 | 139.2 |
| 87.5° | 65.1 | 67.8 | 63.2 | 65.9 | 70.6 | 69.5 | 87.5 | 139.2 | 166.3 | 102.0 | 84.8 |
| 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)