

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: P298967

Luminaire Tested: **GAA-AF-09-LED-U-T2-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298967
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-09-LED-U-T2-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42043.3 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G5

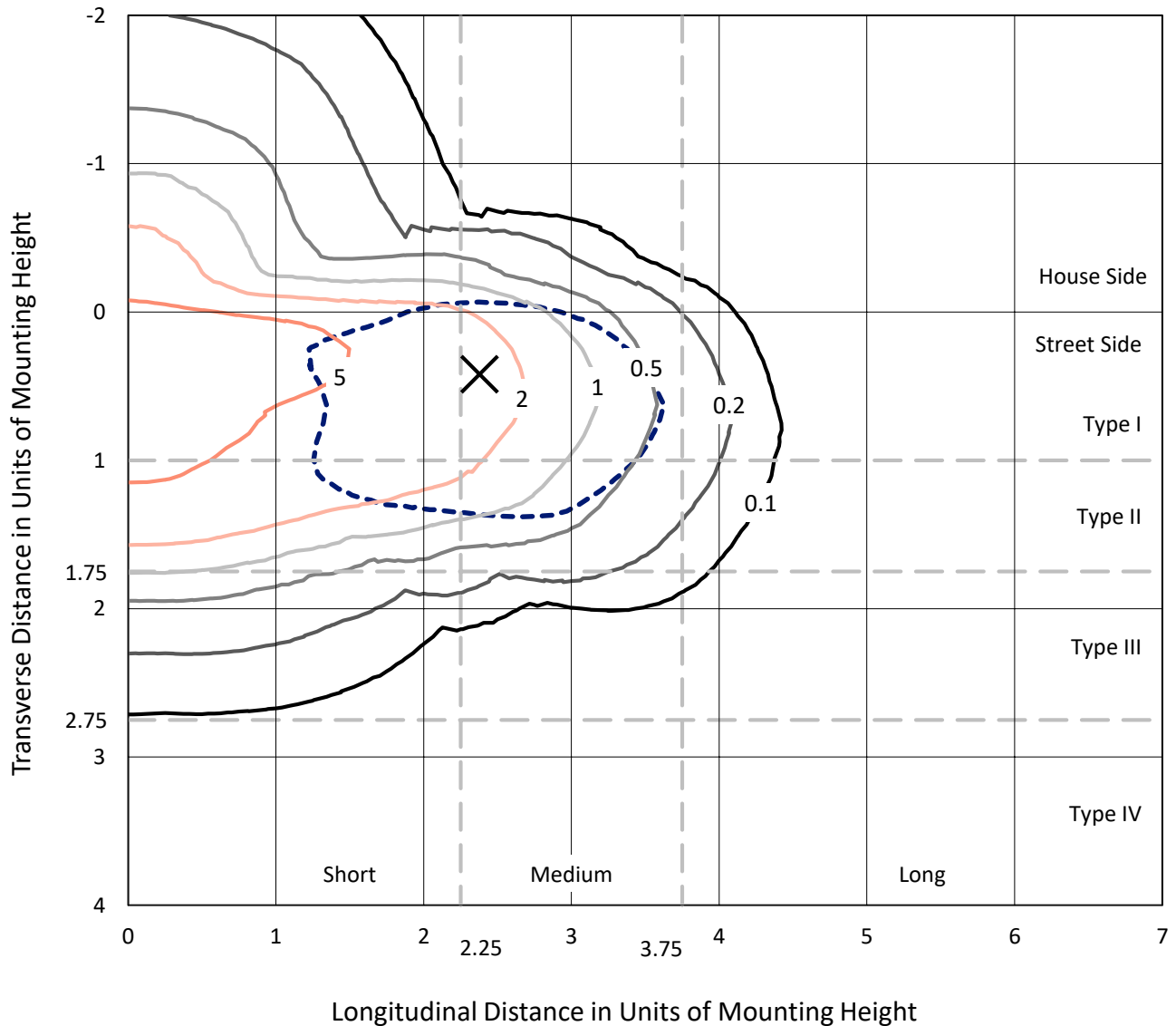
Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

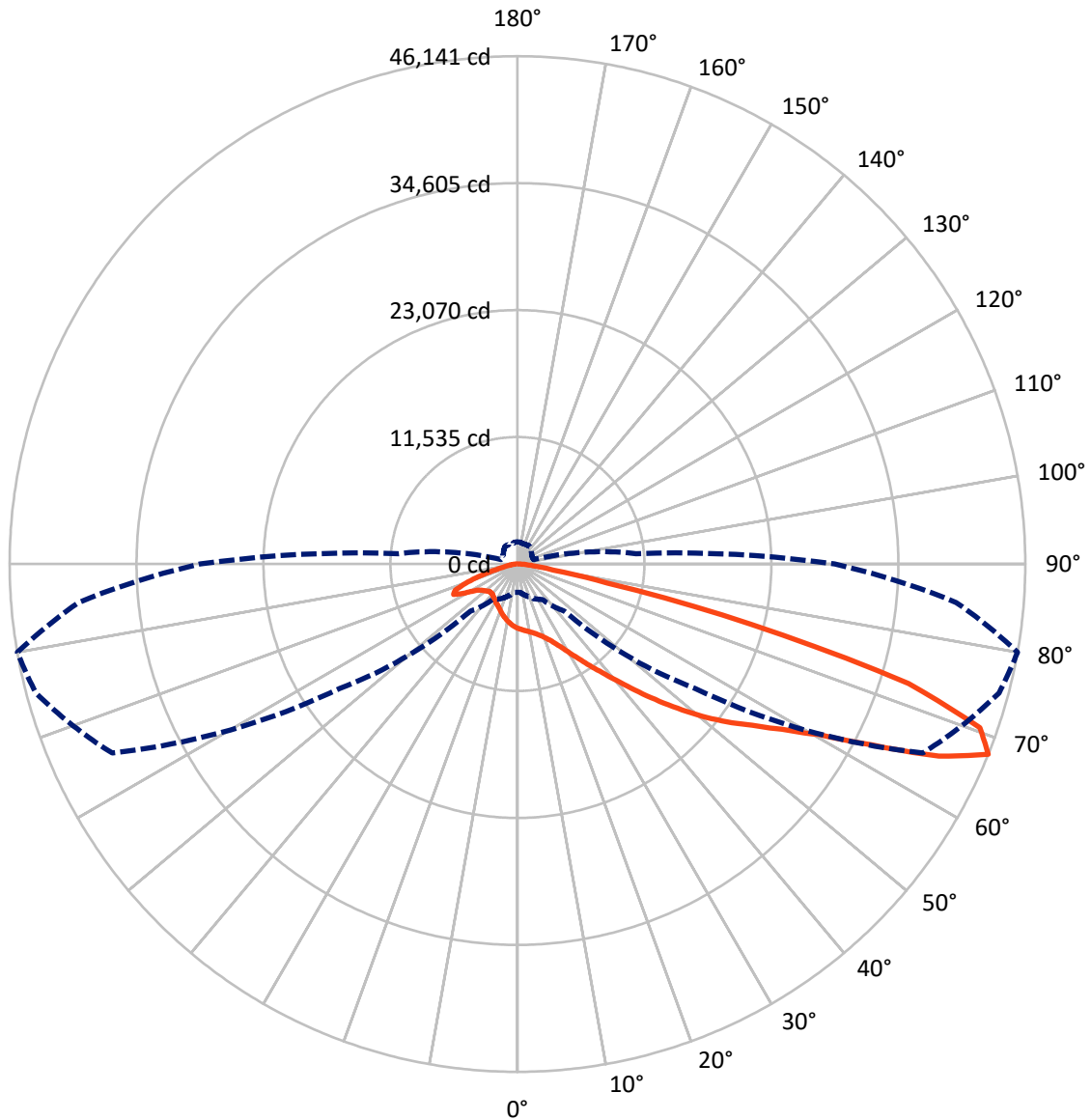
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.9 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 7742.8 | 0.0 | 7742.8 |
| | % Fixture | 18.4 | 0.0 | 18.4 |
| Street Side | Lumens | 34300.5 | 0.0 | 34300.5 |
| | % Fixture | 81.6 | 0.0 | 81.6 |
| Total | Lumens | 42043.3 | 0.0 | 42043.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 538.8 | 1.3 |
| 10°-20° | 1552.2 | 3.7 |
| 20°-30° | 2569.2 | 6.1 |
| 30°-40° | 4202.5 | 10.0 |
| 40°-50° | 6785.3 | 16.1 |
| 50°-60° | 9796.0 | 23.3 |
| 60°-70° | 10810.5 | 25.7 |
| 70°-80° | 4983.0 | 11.9 |
| 80°-90° | 806.0 | 1.9 |
| 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° | 42043.3 | 100.0 |
| 0°-180° | 42043.3 | 100.0 |



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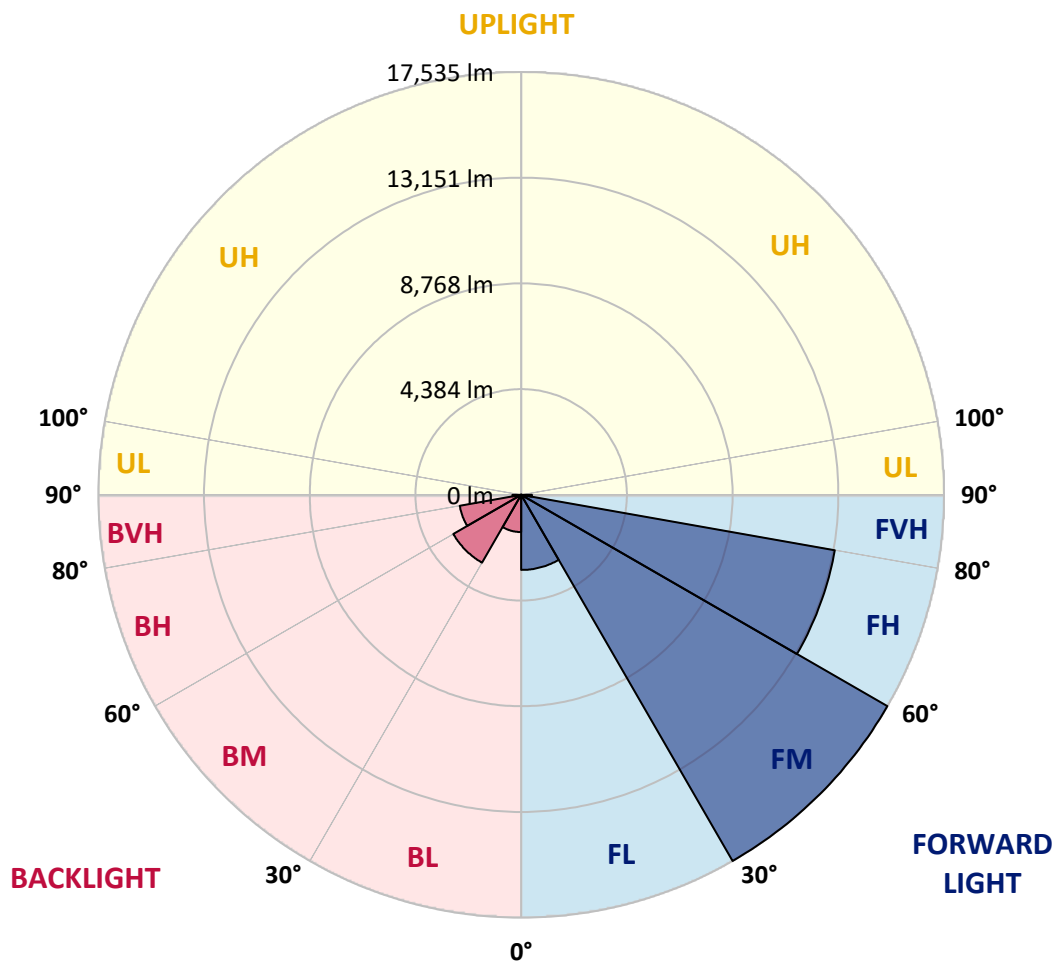
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 3115.3 | 7.4 | | | |
| FM | (30°-60°) | 17535.2 | 41.7 | | | |
| FH | (60°-80°) | 13206.9 | 31.4 | | | G5 |
| FVH | (80°-90°) | 443.1 | 1.1 | | | G3/500 |
| BL | (0°-30°) | 1544.8 | 3.7 | B3/2500 | | |
| BM | (30°-60°) | 3248.6 | 7.7 | B3/5000 | | |
| BH | (60°-80°) | 2586.6 | 6.2 | B4/5000 | | G4/5000 |
| BVH | (80°-90°) | 362.9 | 0.9 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5

Type II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 80° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 5841.0 | 5841.0 | 5841.0 | 5841.0 | 5841.0 | 5841.0 | 5841.0 | 5841.0 | 5841.0 | 5841.0 | 5841.0 |
| 2.5° | 6389.5 | 6352.3 | 6358.5 | 6348.1 | 6317.1 | 6263.3 | 6205.3 | 6099.8 | 5990.1 | 5932.1 | 5886.6 |
| 5° | 6923.6 | 6913.2 | 6898.7 | 6865.6 | 6786.9 | 6675.2 | 6536.5 | 6350.2 | 6149.4 | 6043.9 | 5942.5 |
| 7.5° | 7323.0 | 7316.8 | 7298.2 | 7277.5 | 7200.9 | 7066.4 | 6857.3 | 6592.4 | 6300.5 | 6155.7 | 5998.3 |
| 10° | 7356.1 | 7366.5 | 7381.0 | 7436.9 | 7447.2 | 7374.8 | 7161.6 | 6840.8 | 6457.8 | 6271.6 | 6070.8 |
| 12.5° | 7074.7 | 7097.4 | 7153.3 | 7296.1 | 7447.2 | 7536.2 | 7426.5 | 7101.6 | 6642.1 | 6416.4 | 6161.9 |
| 15° | 6702.1 | 6714.5 | 6782.8 | 6979.4 | 7250.6 | 7525.9 | 7629.4 | 7389.3 | 6880.1 | 6602.7 | 6298.5 |
| 17.5° | 6542.7 | 6548.9 | 6596.5 | 6726.9 | 6979.4 | 7372.7 | 7743.2 | 7701.8 | 7171.9 | 6834.6 | 6466.1 |
| 20° | 6462.0 | 6476.5 | 6544.8 | 6673.1 | 6832.5 | 7176.1 | 7759.8 | 8039.2 | 7519.7 | 7124.3 | 6677.2 |
| 22.5° | 6691.7 | 6685.5 | 6710.4 | 6774.5 | 6909.1 | 7116.0 | 7747.3 | 8386.9 | 7962.6 | 7496.9 | 6952.5 |
| 25° | 7227.8 | 7250.6 | 7207.1 | 7134.7 | 7178.1 | 7323.0 | 7813.6 | 8763.6 | 8517.3 | 7975.0 | 7312.7 |
| 27.5° | 7991.6 | 7968.8 | 7904.7 | 7734.9 | 7645.9 | 7708.0 | 8033.0 | 9169.3 | 9206.6 | 8604.3 | 7788.7 |
| 30° | 8753.3 | 8734.7 | 8672.6 | 8465.6 | 8283.4 | 8231.7 | 8459.4 | 9635.0 | 10028.3 | 9359.7 | 8372.4 |
| 32.5° | 9544.0 | 9523.3 | 9465.3 | 9258.3 | 9038.9 | 8918.9 | 9065.8 | 10173.2 | 10997.0 | 10262.2 | 9059.6 |
| 35° | 10518.8 | 10479.5 | 10357.4 | 10069.7 | 9854.4 | 9761.3 | 9829.6 | 10850.0 | 12114.7 | 11330.2 | 9893.8 |
| 37.5° | 11435.8 | 11495.8 | 11371.6 | 10974.2 | 10694.8 | 10661.7 | 10738.2 | 11675.9 | 13319.3 | 12524.5 | 10852.1 |
| 40° | 12356.8 | 12367.2 | 12255.4 | 11930.5 | 11642.8 | 11588.9 | 11781.4 | 12677.7 | 14741.3 | 13952.7 | 12017.4 |
| 42.5° | 13309.0 | 13329.7 | 13141.3 | 12841.2 | 12630.1 | 12640.4 | 12859.8 | 13851.3 | 16372.3 | 15635.4 | 13358.6 |
| 45° | 14437.0 | 14468.1 | 14261.1 | 13867.8 | 13675.3 | 14062.4 | 13971.3 | 15167.7 | 18160.6 | 17548.0 | 14898.6 |
| 47.5° | 15616.8 | 15664.4 | 15507.1 | 15138.7 | 14898.6 | 15430.5 | 15082.8 | 16626.9 | 20085.6 | 19599.1 | 16589.6 |
| 50° | 16260.5 | 16328.8 | 16482.0 | 16455.1 | 16403.3 | 16314.3 | 16322.6 | 18191.7 | 22070.5 | 21735.2 | 18328.3 |
| 52.5° | 15914.9 | 15912.8 | 16471.6 | 17150.5 | 17875.0 | 17928.8 | 17833.6 | 19841.3 | 23925.1 | 23823.7 | 19965.5 |
| 55° | 14333.5 | 14441.2 | 15287.7 | 16602.0 | 18580.8 | 19816.5 | 20098.0 | 21731.1 | 25746.5 | 25864.5 | 21627.6 |
| 57.5° | 11700.7 | 11789.7 | 12932.2 | 14764.0 | 17628.7 | 20938.3 | 23318.6 | 24477.7 | 27783.2 | 28333.8 | 23840.2 |
| 60° | 7935.7 | 8043.3 | 9254.2 | 11454.4 | 15066.2 | 20313.2 | 26384.0 | 29379.1 | 30221.5 | 31473.7 | 26944.9 |
| 62.5° | 4663.3 | 4760.6 | 5747.9 | 7225.7 | 10607.8 | 17409.3 | 27729.4 | 36352.3 | 34094.1 | 36211.5 | 31680.7 |
| 65° | 3210.3 | 3276.5 | 3756.7 | 4497.7 | 6095.6 | 11725.5 | 26061.1 | 41166.7 | 40053.1 | 42081.6 | 37171.9 |
| 67.5° | 2583.1 | 2574.9 | 2955.7 | 3460.7 | 3924.4 | 6046.0 | 19706.8 | 40622.3 | 45293.9 | 46140.5 | 40022.1 |
| 70° | 2127.8 | 2119.5 | 2378.2 | 2796.3 | 3135.8 | 3404.9 | 10734.1 | 34280.4 | 44225.9 | 44569.5 | 37397.5 |
| 72.5° | 1780.0 | 1788.3 | 1953.9 | 2264.4 | 2572.8 | 2564.5 | 4717.1 | 24115.5 | 34791.6 | 37167.8 | 29811.7 |
| 75° | 1502.7 | 1506.8 | 1616.5 | 1835.9 | 2088.5 | 2065.7 | 2558.3 | 13064.7 | 20224.2 | 21878.0 | 16525.5 |
| 77.5° | 1279.2 | 1283.3 | 1353.7 | 1475.8 | 1655.9 | 1647.6 | 1867.0 | 5644.4 | 8436.6 | 8333.1 | 5652.7 |
| 80° | 1140.5 | 1140.5 | 1173.6 | 1196.4 | 1295.7 | 1258.5 | 1384.7 | 2711.5 | 3566.3 | 3293.1 | 2256.1 |
| 82.5° | 894.2 | 898.3 | 1101.1 | 1092.9 | 1020.4 | 972.8 | 972.8 | 1597.9 | 1889.7 | 1746.9 | 1320.5 |
| 85° | 503.0 | 500.9 | 709.9 | 856.9 | 898.3 | 685.1 | 678.9 | 894.2 | 1028.7 | 906.6 | 639.6 |
| 87.5° | 215.3 | 219.4 | 329.1 | 380.8 | 509.2 | 426.4 | 420.2 | 461.6 | 523.7 | 453.3 | 296.0 |
| 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° | 5841.0 | 5841.0 | 5841.0 | 5841.0 | 5841.0 | 5841.0 | 5841.0 | 5841.0 | 5841.0 | 5841.0 | 5841.0 |
| 2.5° | 5843.1 | 5789.3 | 5671.3 | 5524.4 | 5391.9 | 5305.0 | 5226.3 | 5112.5 | 5118.7 | 5040.0 | 4982.1 |
| 5° | 5839.0 | 5727.2 | 5454.0 | 5129.0 | 4816.5 | 4590.9 | 4421.1 | 4268.0 | 4230.7 | 4158.3 | 4114.8 |
| 7.5° | 5843.1 | 5661.0 | 5201.5 | 4681.9 | 4294.9 | 4009.2 | 3864.4 | 3783.6 | 3765.0 | 3740.2 | 3742.2 |
| 10° | 5857.6 | 5600.9 | 4924.1 | 4263.8 | 3858.1 | 3669.8 | 3634.6 | 3659.4 | 3688.4 | 3696.7 | 3698.8 |
| 12.5° | 5890.7 | 5547.1 | 4619.8 | 3891.3 | 3584.9 | 3527.0 | 3587.0 | 3671.9 | 3727.7 | 3754.7 | 3752.6 |
| 15° | 5965.2 | 5505.7 | 4328.0 | 3599.4 | 3433.8 | 3464.9 | 3576.7 | 3696.7 | 3777.4 | 3814.7 | 3816.8 |
| 17.5° | 6046.0 | 5445.7 | 4027.9 | 3375.9 | 3322.1 | 3400.7 | 3539.4 | 3680.1 | 3779.5 | 3820.9 | 3829.2 |
| 20° | 6151.5 | 5371.2 | 3713.3 | 3208.2 | 3216.5 | 3305.5 | 3435.9 | 3576.7 | 3686.4 | 3721.5 | 3738.1 |
| 22.5° | 6290.2 | 5290.5 | 3438.0 | 3071.6 | 3096.5 | 3164.8 | 3266.2 | 3388.3 | 3483.5 | 3500.1 | 3514.6 |
| 25° | 6476.5 | 5203.5 | 3218.6 | 2947.4 | 2957.8 | 2997.1 | 3065.4 | 3137.9 | 3204.1 | 3185.5 | 3199.9 |
| 27.5° | 6726.9 | 5129.0 | 3055.1 | 2833.6 | 2815.0 | 2823.2 | 2858.4 | 2881.2 | 2916.4 | 2864.6 | 2870.8 |
| 30° | 7020.8 | 5048.3 | 2928.8 | 2734.2 | 2682.5 | 2668.0 | 2676.3 | 2688.7 | 2715.6 | 2645.2 | 2634.9 |
| 32.5° | 7362.4 | 4951.0 | 2810.8 | 2647.3 | 2574.9 | 2545.9 | 2550.0 | 2583.1 | 2686.6 | 2643.2 | 2620.4 |
| 35° | 7759.8 | 4841.3 | 2686.6 | 2552.1 | 2502.4 | 2461.0 | 2456.9 | 2560.4 | 2868.8 | 2841.9 | 2821.2 |
| 37.5° | 8225.5 | 4731.6 | 2562.4 | 2444.5 | 2448.6 | 2403.1 | 2388.6 | 2506.6 | 2904.0 | 2798.4 | 2783.9 |
| 40° | 8817.4 | 4673.7 | 2456.9 | 2330.6 | 2382.4 | 2376.2 | 2347.2 | 2407.2 | 2672.1 | 2479.6 | 2454.8 |
| 42.5° | 9550.2 | 4681.9 | 2378.2 | 2208.5 | 2303.7 | 2369.9 | 2324.4 | 2326.5 | 2421.7 | 2276.8 | 2254.0 |
| 45° | 10454.7 | 4779.2 | 2322.3 | 2111.2 | 2214.7 | 2363.7 | 2316.1 | 2283.0 | 2291.3 | 2214.7 | 2202.3 |
| 47.5° | 11510.3 | 4980.0 | 2283.0 | 2030.5 | 2129.8 | 2341.0 | 2314.1 | 2270.6 | 2252.0 | 2210.6 | 2200.2 |
| 50° | 12683.9 | 5271.8 | 2254.0 | 1953.9 | 2053.3 | 2303.7 | 2316.1 | 2258.2 | 2237.5 | 2220.9 | 2214.7 |
| 52.5° | 13836.8 | 5605.1 | 2210.6 | 1887.7 | 1993.2 | 2258.2 | 2322.3 | 2245.8 | 2223.0 | 2210.6 | 2204.4 |
| 55° | 15122.1 | 6021.1 | 2144.3 | 1831.8 | 1943.6 | 2200.2 | 2322.3 | 2227.1 | 2202.3 | 2204.4 | 2202.3 |
| 57.5° | 16858.7 | 6693.8 | 2065.7 | 1784.2 | 1883.5 | 2129.8 | 2283.0 | 2206.4 | 2175.4 | 2177.5 | 2179.5 |
| 60° | 19572.2 | 7879.8 | 1970.5 | 1736.6 | 1809.0 | 2047.1 | 2229.2 | 2160.9 | 2129.8 | 2138.1 | 2140.2 |
| 62.5° | 23562.9 | 9620.5 | 1846.3 | 1666.2 | 1730.4 | 1958.1 | 2154.7 | 2102.9 | 2071.9 | 2092.6 | 2092.6 |
| 65° | 27710.8 | 11156.3 | 1693.1 | 1577.2 | 1647.6 | 1860.8 | 2061.5 | 2030.5 | 1999.4 | 2047.1 | 2045.0 |
| 67.5° | 28826.4 | 10812.8 | 1539.9 | 1479.9 | 1564.8 | 1753.1 | 1949.8 | 1933.2 | 1916.7 | 1999.4 | 1995.3 |
| 70° | 25607.8 | 8680.8 | 1399.2 | 1380.6 | 1473.7 | 1637.2 | 1829.7 | 1829.7 | 1819.4 | 1881.5 | 1867.0 |
| 72.5° | 19510.1 | 6155.7 | 1264.7 | 1275.0 | 1370.2 | 1511.0 | 1699.3 | 1713.8 | 1697.3 | 1728.3 | 1715.9 |
| 75° | 10444.3 | 3522.8 | 1130.1 | 1159.1 | 1241.9 | 1382.6 | 1554.4 | 1568.9 | 1558.6 | 1556.5 | 1562.7 |
| 77.5° | 3471.1 | 1722.1 | 989.4 | 1034.9 | 1107.4 | 1250.2 | 1403.3 | 1426.1 | 1401.3 | 1397.1 | 1395.1 |
| 80° | 1546.2 | 1082.5 | 834.1 | 894.2 | 958.3 | 1099.1 | 1244.0 | 1262.6 | 1235.7 | 1272.9 | 1225.3 |
| 82.5° | 993.5 | 712.0 | 668.6 | 734.8 | 796.9 | 948.0 | 1084.6 | 1088.7 | 1063.9 | 1235.7 | 1053.5 |
| 85° | 482.3 | 440.9 | 503.0 | 563.0 | 616.8 | 745.1 | 898.3 | 900.4 | 838.3 | 763.8 | 736.9 |
| 87.5° | 240.1 | 256.7 | 335.3 | 389.1 | 416.0 | 511.2 | 654.1 | 641.6 | 614.7 | 558.9 | 515.4 |
| 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)