

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: P298901

Luminaire Tested: **GAA-AF-08-LED-U-T2-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298901
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-08-LED-U-T2-7050
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46653.1 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G5

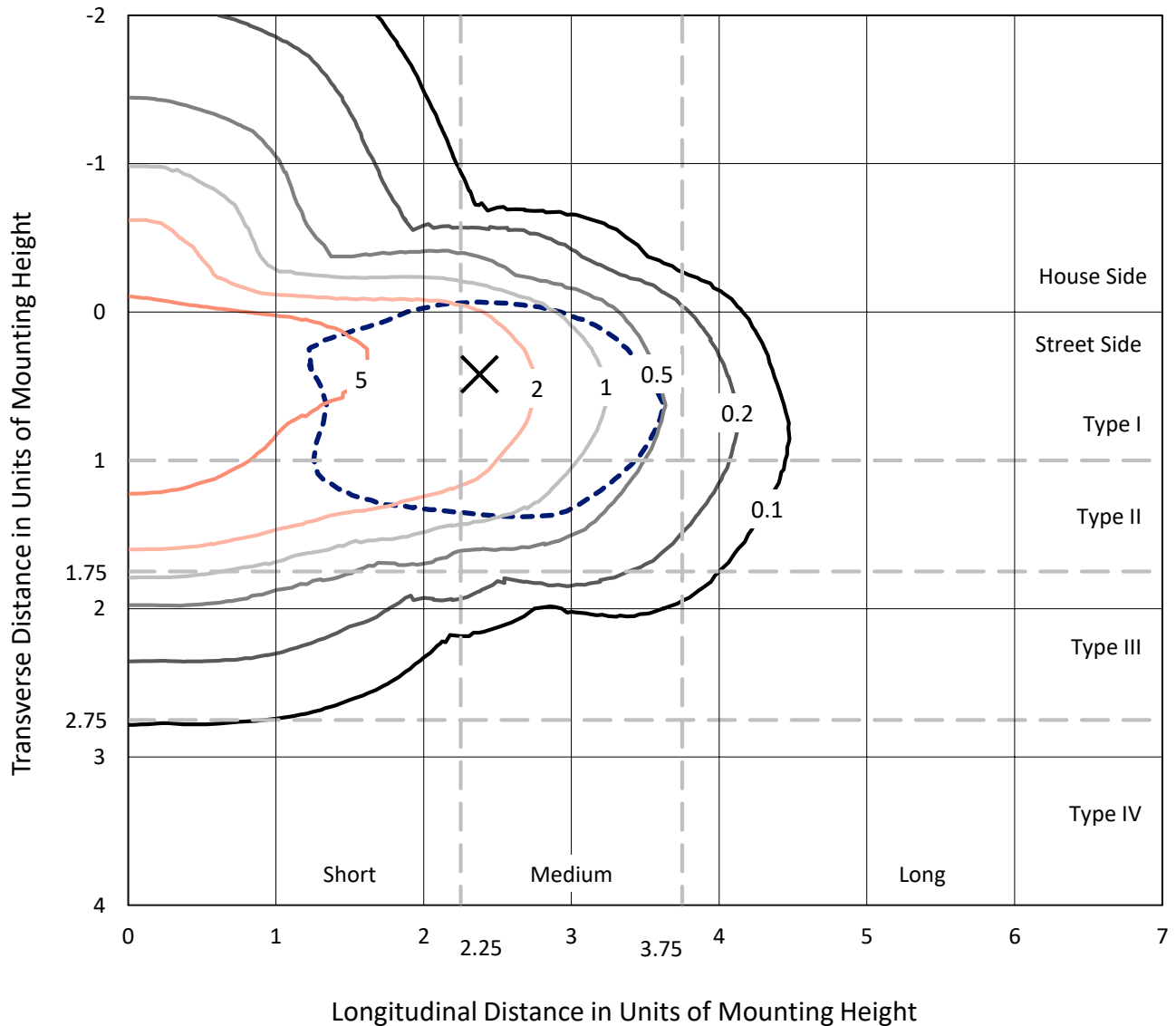
Input Watts (W): 445
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

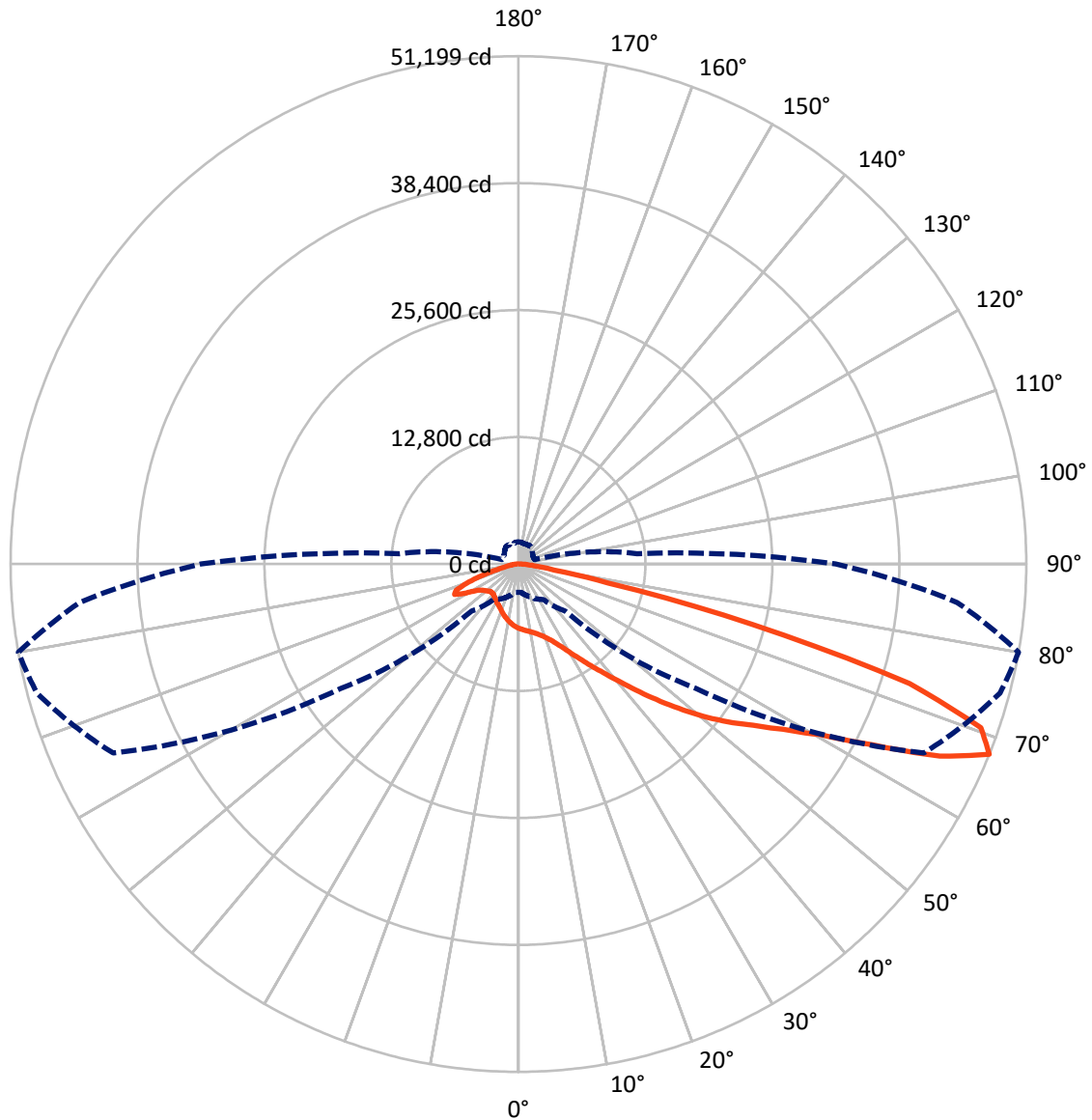
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.7 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 | 8591.7 | 0.0 | 8591.7 |
| | % Fixture | 18.4 | 0.0 | 18.4 |
| Street Side | Lumens | 38061.3 | 0.0 | 38061.3 |
| | % Fixture | 81.6 | 0.0 | 81.6 |
| Total | Lumens | 46653.1 | 0.0 | 46653.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 597.9 | 1.3 |
| 10°-20° | 1722.3 | 3.7 |
| 20°-30° | 2850.8 | 6.1 |
| 30°-40° | 4663.2 | 10.0 |
| 40°-50° | 7529.3 | 16.1 |
| 50°-60° | 10870.1 | 23.3 |
| 60°-70° | 11995.8 | 25.7 |
| 70°-80° | 5529.3 | 11.9 |
| 80°-90° | 894.3 | 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° | 46653.1 | 100.0 |
| 0°-180° | 46653.1 | 100.0 |



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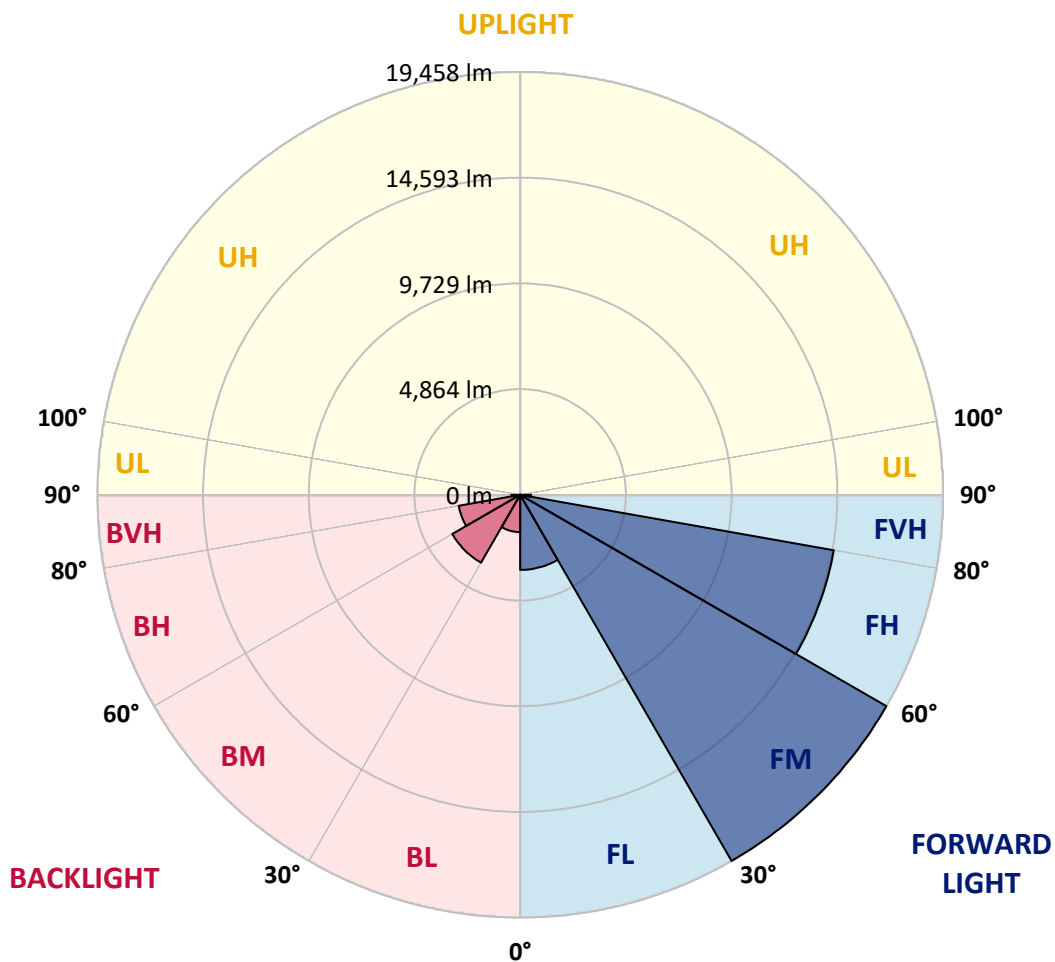
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 3456.9 | 7.4 | | | |
| FM | (30°-60°) | 19457.8 | 41.7 | | | |
| FH | (60°-80°) | 14654.9 | 31.4 | | | G5 |
| FVH | (80°-90°) | 491.7 | 1.1 | | | G3/500 |
| BL | (0°-30°) | 1714.2 | 3.7 | B3/2500 | | |
| BM | (30°-60°) | 3604.8 | 7.7 | B3/5000 | | |
| BH | (60°-80°) | 2870.2 | 6.2 | B4/5000 | | G4/5000 |
| BVH | (80°-90°) | 402.6 | 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° | 6481.5 | 6481.5 | 6481.5 | 6481.5 | 6481.5 | 6481.5 | 6481.5 | 6481.5 | 6481.5 | 6481.5 | 6481.5 |
| 2.5° | 7090.1 | 7048.8 | 7055.7 | 7044.2 | 7009.7 | 6950.0 | 6885.7 | 6768.6 | 6646.8 | 6582.5 | 6532.0 |
| 5° | 7682.7 | 7671.2 | 7655.1 | 7618.4 | 7531.1 | 7407.1 | 7253.2 | 7046.5 | 6823.7 | 6706.5 | 6594.0 |
| 7.5° | 8125.9 | 8119.1 | 8098.4 | 8075.4 | 7990.4 | 7841.2 | 7609.2 | 7315.2 | 6991.3 | 6830.6 | 6656.0 |
| 10° | 8162.7 | 8174.2 | 8190.3 | 8252.3 | 8263.8 | 8183.4 | 7946.8 | 7590.8 | 7165.9 | 6959.2 | 6736.4 |
| 12.5° | 7850.3 | 7875.6 | 7937.6 | 8096.1 | 8263.8 | 8362.5 | 8240.8 | 7880.2 | 7370.3 | 7120.0 | 6837.5 |
| 15° | 7436.9 | 7450.7 | 7526.5 | 7744.7 | 8045.6 | 8351.0 | 8465.9 | 8199.4 | 7634.4 | 7326.7 | 6989.1 |
| 17.5° | 7260.1 | 7267.0 | 7319.8 | 7464.5 | 7744.7 | 8181.1 | 8592.2 | 8546.3 | 7958.3 | 7583.9 | 7175.1 |
| 20° | 7170.5 | 7186.6 | 7262.4 | 7404.8 | 7581.6 | 7962.9 | 8610.6 | 8920.6 | 8344.1 | 7905.5 | 7409.4 |
| 22.5° | 7425.4 | 7418.5 | 7446.1 | 7517.3 | 7666.6 | 7896.3 | 8596.8 | 9306.5 | 8835.6 | 8318.9 | 7714.8 |
| 25° | 8020.3 | 8045.6 | 7997.3 | 7916.9 | 7965.2 | 8125.9 | 8670.3 | 9724.5 | 9451.2 | 8849.4 | 8114.5 |
| 27.5° | 8867.8 | 8842.5 | 8771.3 | 8583.0 | 8484.2 | 8553.1 | 8913.7 | 10174.7 | 10216.0 | 9547.6 | 8642.7 |
| 30° | 9713.0 | 9692.3 | 9623.4 | 9393.8 | 9191.6 | 9134.2 | 9386.9 | 10691.4 | 11127.8 | 10386.0 | 9290.4 |
| 32.5° | 10590.4 | 10567.4 | 10503.1 | 10273.4 | 10030.0 | 9896.8 | 10059.8 | 11288.6 | 12202.7 | 11387.4 | 10052.9 |
| 35° | 11672.2 | 11628.5 | 11493.0 | 11173.8 | 10934.9 | 10831.5 | 10907.3 | 12039.6 | 13443.0 | 12572.5 | 10978.5 |
| 37.5° | 12689.6 | 12756.2 | 12618.4 | 12177.4 | 11867.4 | 11830.6 | 11915.6 | 12956.0 | 14779.7 | 13897.7 | 12041.9 |
| 40° | 13711.7 | 13723.2 | 13599.1 | 13238.5 | 12919.3 | 12859.6 | 13073.2 | 14067.7 | 16357.5 | 15482.5 | 13335.0 |
| 42.5° | 14768.2 | 14791.2 | 14582.2 | 14249.1 | 14014.8 | 14026.3 | 14269.8 | 15369.9 | 18167.4 | 17349.8 | 14823.3 |
| 45° | 16019.9 | 16054.4 | 15824.7 | 15388.3 | 15174.7 | 15604.2 | 15503.2 | 16830.7 | 20151.8 | 19472.0 | 16532.1 |
| 47.5° | 17329.1 | 17381.9 | 17207.4 | 16798.5 | 16532.1 | 17122.4 | 16736.5 | 18449.9 | 22287.8 | 21748.1 | 18408.6 |
| 50° | 18043.4 | 18119.2 | 18289.1 | 18259.3 | 18201.8 | 18103.1 | 18112.3 | 20186.3 | 24490.4 | 24118.3 | 20337.8 |
| 52.5° | 17659.8 | 17657.5 | 18277.6 | 19031.0 | 19834.8 | 19894.6 | 19788.9 | 22016.8 | 26548.3 | 26435.7 | 22154.6 |
| 55° | 15905.1 | 16024.5 | 16963.9 | 18422.3 | 20618.0 | 21989.2 | 22301.6 | 24113.7 | 28569.4 | 28700.4 | 23998.9 |
| 57.5° | 12983.6 | 13082.4 | 14350.2 | 16382.8 | 19561.5 | 23234.1 | 25875.3 | 27161.5 | 30829.5 | 31440.4 | 26454.1 |
| 60° | 8805.8 | 8925.2 | 10268.8 | 12710.3 | 16718.1 | 22540.4 | 29276.8 | 32600.3 | 33535.0 | 34924.6 | 29899.3 |
| 62.5° | 5174.6 | 5282.6 | 6378.1 | 8018.0 | 11770.9 | 19318.1 | 30769.7 | 40338.1 | 37832.3 | 40181.9 | 35154.3 |
| 65° | 3562.3 | 3635.8 | 4168.6 | 4990.9 | 6764.0 | 13011.2 | 28918.5 | 45680.3 | 44444.7 | 46695.5 | 41247.6 |
| 67.5° | 2866.4 | 2857.2 | 3279.8 | 3840.2 | 4354.7 | 6708.8 | 21867.5 | 45076.3 | 50260.1 | 51199.4 | 44410.2 |
| 70° | 2361.1 | 2351.9 | 2639.0 | 3102.9 | 3479.6 | 3778.2 | 11911.0 | 38039.0 | 49074.9 | 49456.2 | 41497.9 |
| 72.5° | 1975.2 | 1984.4 | 2168.1 | 2512.7 | 2854.9 | 2845.7 | 5234.3 | 26759.6 | 38606.3 | 41243.0 | 33080.3 |
| 75° | 1667.5 | 1672.0 | 1793.8 | 2037.2 | 2317.4 | 2292.2 | 2838.8 | 14497.2 | 22441.7 | 24276.8 | 18337.4 |
| 77.5° | 1419.4 | 1424.0 | 1502.1 | 1637.6 | 1837.4 | 1828.2 | 2071.7 | 6263.3 | 9361.6 | 9246.8 | 6272.5 |
| 80° | 1265.5 | 1265.5 | 1302.3 | 1327.5 | 1437.8 | 1396.4 | 1536.5 | 3008.8 | 3957.3 | 3654.2 | 2503.5 |
| 82.5° | 992.2 | 996.8 | 1221.9 | 1212.7 | 1132.3 | 1079.5 | 1079.5 | 1773.1 | 2096.9 | 1938.5 | 1465.3 |
| 85° | 558.1 | 555.8 | 787.8 | 950.9 | 996.8 | 760.2 | 753.3 | 992.2 | 1141.5 | 1006.0 | 709.7 |
| 87.5° | 238.9 | 243.5 | 365.2 | 422.6 | 565.0 | 473.1 | 466.2 | 512.2 | 581.1 | 503.0 | 328.4 |
| 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° | 6481.5 | 6481.5 | 6481.5 | 6481.5 | 6481.5 | 6481.5 | 6481.5 | 6481.5 | 6481.5 | 6481.5 | 6481.5 |
| 2.5° | 6483.8 | 6424.0 | 6293.1 | 6130.1 | 5983.1 | 5886.6 | 5799.3 | 5673.0 | 5679.9 | 5592.6 | 5528.3 |
| 5° | 6479.2 | 6355.1 | 6052.0 | 5691.4 | 5344.6 | 5094.2 | 4905.9 | 4735.9 | 4694.6 | 4614.2 | 4566.0 |
| 7.5° | 6483.8 | 6281.6 | 5771.8 | 5195.3 | 4765.8 | 4448.8 | 4288.1 | 4198.5 | 4177.8 | 4150.3 | 4152.5 |
| 10° | 6499.8 | 6215.0 | 5464.0 | 4731.3 | 4281.2 | 4072.2 | 4033.1 | 4060.7 | 4092.8 | 4102.0 | 4104.3 |
| 12.5° | 6536.6 | 6155.3 | 5126.4 | 4317.9 | 3978.0 | 3913.7 | 3980.3 | 4074.5 | 4136.5 | 4166.3 | 4164.0 |
| 15° | 6619.3 | 6109.4 | 4802.5 | 3994.1 | 3810.3 | 3844.8 | 3968.8 | 4102.0 | 4191.6 | 4232.9 | 4235.2 |
| 17.5° | 6708.8 | 6042.8 | 4469.5 | 3746.0 | 3686.3 | 3773.6 | 3927.5 | 4083.6 | 4193.9 | 4239.8 | 4249.0 |
| 20° | 6826.0 | 5960.1 | 4120.4 | 3560.0 | 3569.2 | 3667.9 | 3812.6 | 3968.8 | 4090.5 | 4129.6 | 4148.0 |
| 22.5° | 6979.9 | 5870.5 | 3814.9 | 3408.4 | 3436.0 | 3511.8 | 3624.3 | 3759.8 | 3865.5 | 3883.8 | 3899.9 |
| 25° | 7186.6 | 5774.1 | 3571.5 | 3270.6 | 3282.1 | 3325.7 | 3401.5 | 3481.9 | 3555.4 | 3534.7 | 3550.8 |
| 27.5° | 7464.5 | 5691.4 | 3390.0 | 3144.3 | 3123.6 | 3132.8 | 3171.8 | 3197.1 | 3236.1 | 3178.7 | 3185.6 |
| 30° | 7790.6 | 5601.8 | 3249.9 | 3034.0 | 2976.6 | 2960.5 | 2969.7 | 2983.5 | 3013.4 | 2935.3 | 2923.8 |
| 32.5° | 8169.6 | 5493.9 | 3119.0 | 2937.6 | 2857.2 | 2825.0 | 2829.6 | 2866.4 | 2981.2 | 2933.0 | 2907.7 |
| 35° | 8610.6 | 5372.1 | 2981.2 | 2831.9 | 2776.8 | 2730.9 | 2726.3 | 2841.1 | 3183.3 | 3153.5 | 3130.5 |
| 37.5° | 9127.3 | 5250.4 | 2843.4 | 2712.5 | 2717.1 | 2666.5 | 2650.5 | 2781.4 | 3222.4 | 3105.2 | 3089.1 |
| 40° | 9784.2 | 5186.1 | 2726.3 | 2586.2 | 2643.6 | 2636.7 | 2604.5 | 2671.1 | 2965.1 | 2751.5 | 2724.0 |
| 42.5° | 10597.3 | 5195.3 | 2639.0 | 2450.6 | 2556.3 | 2629.8 | 2579.3 | 2581.6 | 2687.2 | 2526.4 | 2501.2 |
| 45° | 11601.0 | 5303.2 | 2577.0 | 2342.7 | 2457.5 | 2622.9 | 2570.1 | 2533.3 | 2542.5 | 2457.5 | 2443.8 |
| 47.5° | 12772.3 | 5526.0 | 2533.3 | 2253.1 | 2363.4 | 2597.6 | 2567.8 | 2519.5 | 2498.9 | 2452.9 | 2441.5 |
| 50° | 14074.6 | 5849.9 | 2501.2 | 2168.1 | 2278.4 | 2556.3 | 2570.1 | 2505.8 | 2482.8 | 2464.4 | 2457.5 |
| 52.5° | 15353.9 | 6219.6 | 2452.9 | 2094.6 | 2211.8 | 2505.8 | 2577.0 | 2492.0 | 2466.7 | 2452.9 | 2446.1 |
| 55° | 16780.2 | 6681.3 | 2379.4 | 2032.6 | 2156.7 | 2441.5 | 2577.0 | 2471.3 | 2443.8 | 2446.1 | 2443.8 |
| 57.5° | 18707.1 | 7427.7 | 2292.2 | 1979.8 | 2090.1 | 2363.4 | 2533.3 | 2448.3 | 2413.9 | 2416.2 | 2418.5 |
| 60° | 21718.2 | 8743.8 | 2186.5 | 1927.0 | 2007.4 | 2271.5 | 2473.6 | 2397.8 | 2363.4 | 2372.6 | 2374.9 |
| 62.5° | 26146.4 | 10675.4 | 2048.7 | 1848.9 | 1920.1 | 2172.7 | 2390.9 | 2333.5 | 2299.1 | 2322.0 | 2322.0 |
| 65° | 30749.1 | 12379.6 | 1878.8 | 1750.1 | 1828.2 | 2064.8 | 2287.6 | 2253.1 | 2218.7 | 2271.5 | 2269.2 |
| 67.5° | 31987.0 | 11998.3 | 1708.8 | 1642.2 | 1736.4 | 1945.4 | 2163.6 | 2145.2 | 2126.8 | 2218.7 | 2214.1 |
| 70° | 28415.6 | 9632.6 | 1552.6 | 1531.9 | 1635.3 | 1816.7 | 2030.3 | 2030.3 | 2018.9 | 2087.8 | 2071.7 |
| 72.5° | 21649.3 | 6830.6 | 1403.3 | 1414.8 | 1520.5 | 1676.6 | 1885.6 | 1901.7 | 1883.3 | 1917.8 | 1904.0 |
| 75° | 11589.5 | 3909.1 | 1254.0 | 1286.2 | 1378.1 | 1534.2 | 1724.9 | 1740.9 | 1729.5 | 1727.2 | 1734.1 |
| 77.5° | 3851.7 | 1910.9 | 1097.9 | 1148.4 | 1228.8 | 1387.2 | 1557.2 | 1582.5 | 1554.9 | 1550.3 | 1548.0 |
| 80° | 1715.7 | 1201.2 | 925.6 | 992.2 | 1063.4 | 1219.6 | 1380.4 | 1401.0 | 1371.2 | 1412.5 | 1359.7 |
| 82.5° | 1102.4 | 790.1 | 741.9 | 815.4 | 884.3 | 1051.9 | 1203.5 | 1208.1 | 1180.5 | 1371.2 | 1169.1 |
| 85° | 535.1 | 489.2 | 558.1 | 624.7 | 684.4 | 826.8 | 996.8 | 999.1 | 930.2 | 847.5 | 817.6 |
| 87.5° | 266.4 | 284.8 | 372.1 | 431.8 | 461.6 | 567.3 | 725.8 | 712.0 | 682.1 | 620.1 | 571.9 |
| 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)