

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: P299021

Luminaire Tested: **GAA-AF-08-LED-U-T2-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299021
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-T2-7050-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30733.4 lumens
Efficiency: N/A
Efficacy: 119.6 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G4

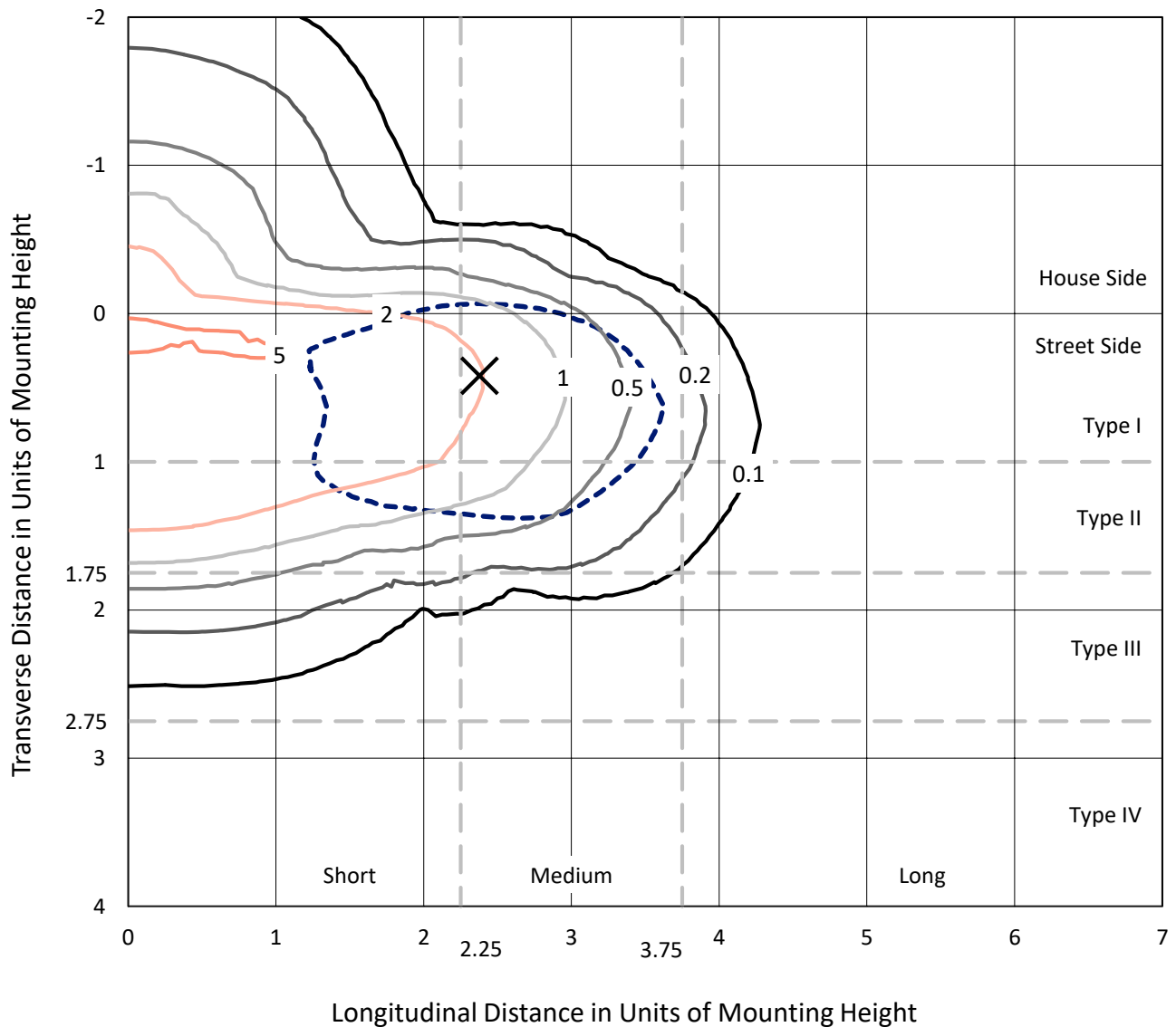
Input Watts (W): 257
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

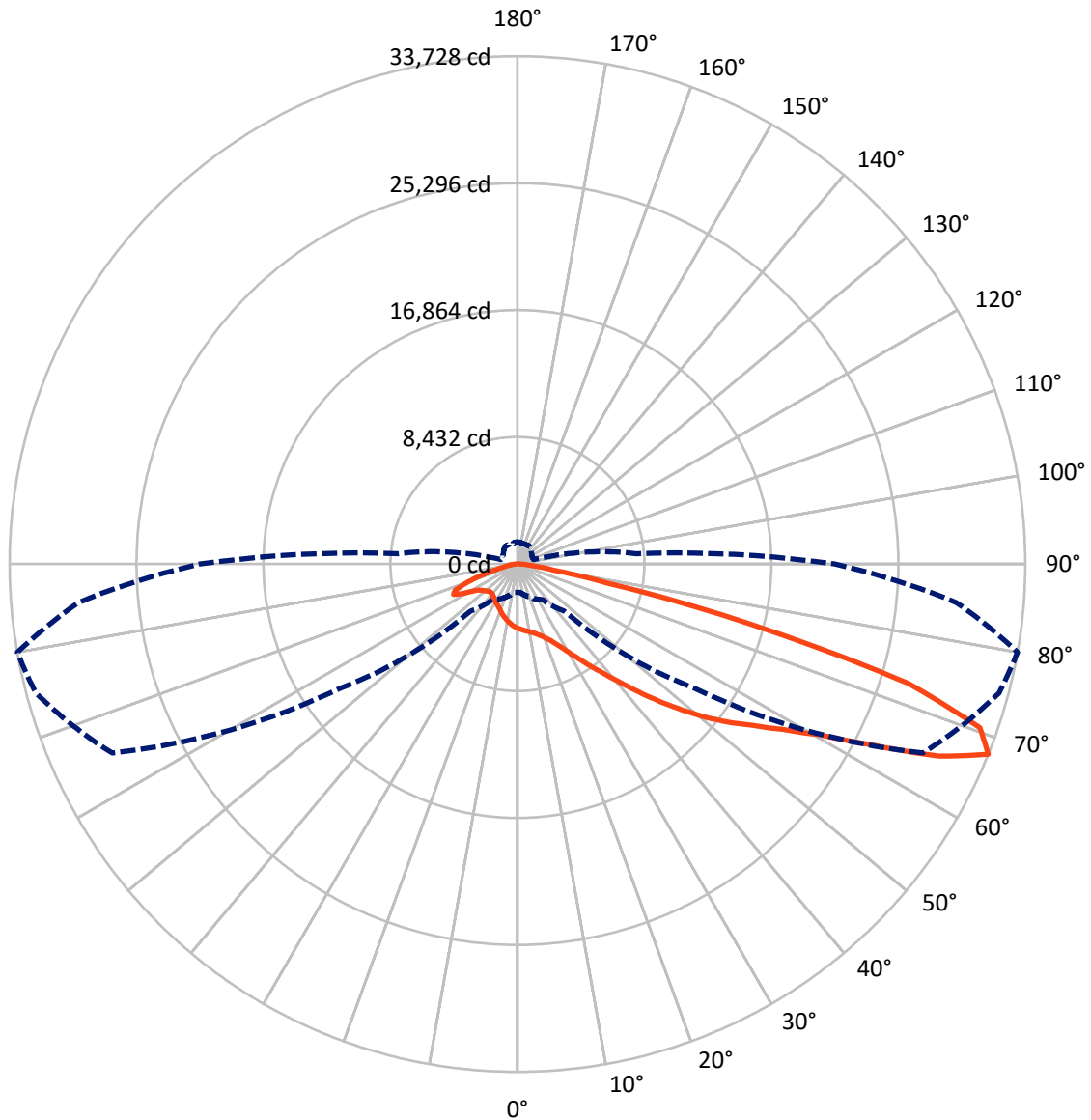
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.8 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 | 5659.9 | 0.0 | 5659.9 |
| | % Fixture | 18.4 | 0.0 | 18.4 |
| Street Side | Lumens | 25073.4 | 0.0 | 25073.4 |
| | % Fixture | 81.6 | 0.0 | 81.6 |
| Total | Lumens | 30733.4 | 0.0 | 30733.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 393.9 | 1.3 |
| 10°-20° | 1134.6 | 3.7 |
| 20°-30° | 1878.0 | 6.1 |
| 30°-40° | 3072.0 | 10.0 |
| 40°-50° | 4960.0 | 16.1 |
| 50°-60° | 7160.8 | 23.3 |
| 60°-70° | 7902.4 | 25.7 |
| 70°-80° | 3642.5 | 11.9 |
| 80°-90° | 589.2 | 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° | 30733.4 | 100.0 |
| 0°-180° | 30733.4 | 100.0 |



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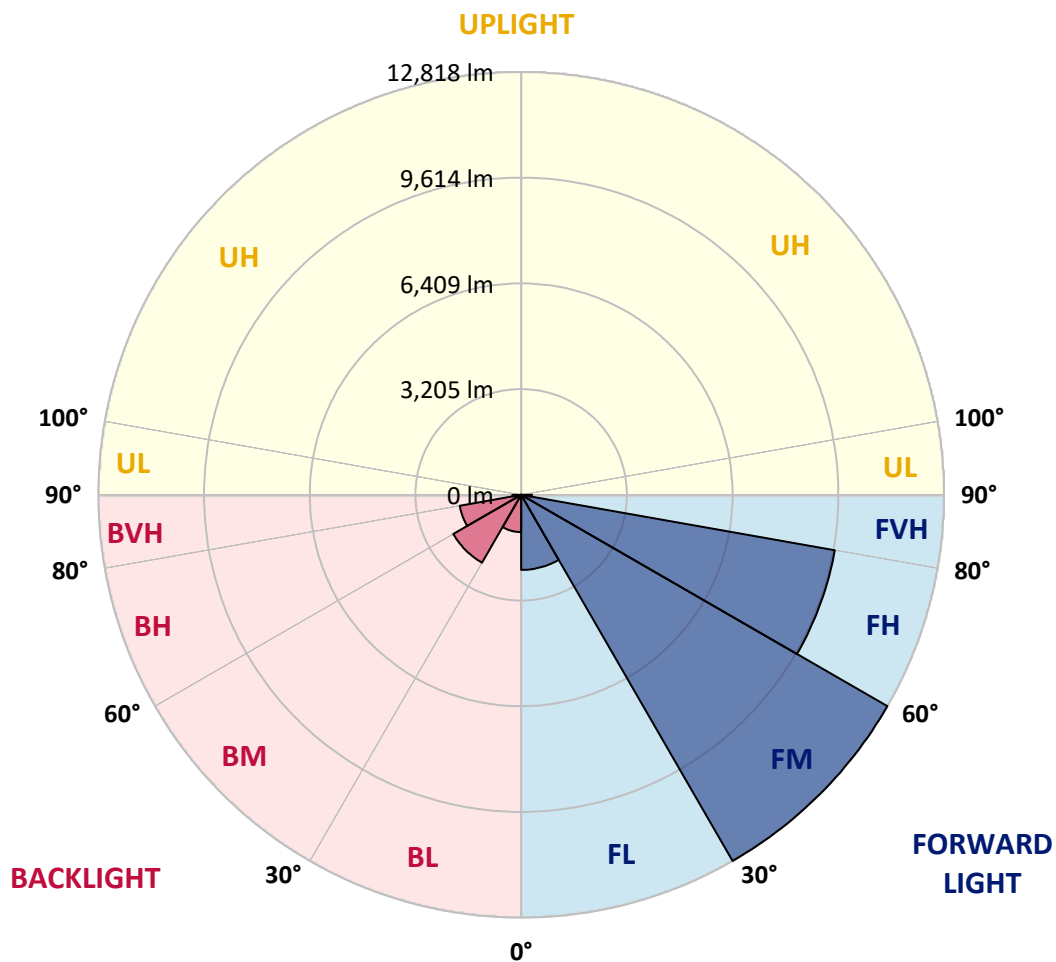
CATALOG NUMBER: GAA-AF-08-LED-U-T2-7050-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 2277.3 | 7.4 | | | |
| FM (30°-60°) | 12818.1 | 41.7 | | | |
| FH (60°-80°) | 9654.1 | 31.4 | | | G4/12000 |
| FVH (80°-90°) | 323.9 | 1.1 | | | G3/500 |
| BL (0°-30°) | 1129.2 | 3.7 | B3/2500 | | |
| BM (30°-60°) | 2374.7 | 7.7 | B2/2500 | | |
| BH (60°-80°) | 1890.7 | 6.2 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 265.2 | 0.9 | | | 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 II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 80° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4269.8 | 4269.8 | 4269.8 | 4269.8 | 4269.8 | 4269.8 | 4269.8 | 4269.8 | 4269.8 | 4269.8 | 4269.8 |
| 2.5° | 4670.7 | 4643.5 | 4648.0 | 4640.4 | 4617.8 | 4578.4 | 4536.0 | 4458.9 | 4378.7 | 4336.3 | 4303.0 |
| 5° | 5061.1 | 5053.5 | 5042.9 | 5018.7 | 4961.2 | 4879.5 | 4778.1 | 4642.0 | 4495.2 | 4418.0 | 4343.9 |
| 7.5° | 5353.1 | 5348.5 | 5334.9 | 5319.8 | 5263.8 | 5165.5 | 5012.7 | 4819.0 | 4605.6 | 4499.7 | 4384.7 |
| 10° | 5377.3 | 5384.9 | 5395.4 | 5436.3 | 5443.9 | 5390.9 | 5235.1 | 5000.5 | 4720.6 | 4584.5 | 4437.7 |
| 12.5° | 5171.5 | 5188.2 | 5229.0 | 5333.4 | 5443.9 | 5508.9 | 5428.7 | 5191.2 | 4855.3 | 4690.4 | 4504.3 |
| 15° | 4899.2 | 4908.3 | 4958.2 | 5101.9 | 5300.1 | 5501.4 | 5577.0 | 5401.5 | 5029.3 | 4826.5 | 4604.1 |
| 17.5° | 4782.7 | 4787.2 | 4822.0 | 4917.3 | 5101.9 | 5389.4 | 5660.2 | 5630.0 | 5242.6 | 4996.0 | 4726.7 |
| 20° | 4723.7 | 4734.3 | 4784.2 | 4878.0 | 4994.5 | 5245.7 | 5672.3 | 5876.6 | 5496.8 | 5207.8 | 4881.0 |
| 22.5° | 4891.6 | 4887.1 | 4905.2 | 4952.1 | 5050.5 | 5201.8 | 5663.3 | 6130.8 | 5820.6 | 5480.2 | 5082.3 |
| 25° | 5283.5 | 5300.1 | 5268.4 | 5215.4 | 5247.2 | 5353.1 | 5711.7 | 6406.1 | 6226.1 | 5829.7 | 5345.5 |
| 27.5° | 5841.8 | 5825.1 | 5778.2 | 5654.2 | 5589.1 | 5634.5 | 5872.0 | 6702.7 | 6729.9 | 6289.6 | 5693.5 |
| 30° | 6398.6 | 6385.0 | 6339.6 | 6188.3 | 6055.1 | 6017.3 | 6183.7 | 7043.1 | 7330.6 | 6841.9 | 6120.2 |
| 32.5° | 6976.6 | 6961.4 | 6919.1 | 6767.8 | 6607.4 | 6519.6 | 6627.0 | 7436.5 | 8038.7 | 7501.6 | 6622.5 |
| 35° | 7689.2 | 7660.4 | 7571.2 | 7360.9 | 7203.5 | 7135.4 | 7185.4 | 7931.3 | 8855.7 | 8282.3 | 7232.3 |
| 37.5° | 8359.5 | 8403.3 | 8312.6 | 8022.1 | 7817.8 | 7793.6 | 7849.6 | 8535.0 | 9736.3 | 9155.3 | 7932.8 |
| 40° | 9032.8 | 9040.3 | 8958.6 | 8721.1 | 8510.8 | 8471.4 | 8612.1 | 9267.3 | 10775.8 | 10199.3 | 8784.6 |
| 42.5° | 9728.7 | 9743.9 | 9606.2 | 9386.8 | 9232.5 | 9240.0 | 9400.4 | 10125.2 | 11968.0 | 11429.4 | 9765.1 |
| 45° | 10553.3 | 10576.0 | 10424.7 | 10137.3 | 9996.6 | 10279.5 | 10212.9 | 11087.4 | 13275.3 | 12827.4 | 10890.8 |
| 47.5° | 11415.8 | 11450.6 | 11335.6 | 11066.3 | 10890.8 | 11279.6 | 11025.4 | 12154.1 | 14682.4 | 14326.8 | 12126.9 |
| 50° | 11886.3 | 11936.3 | 12048.2 | 12028.5 | 11990.7 | 11925.7 | 11931.7 | 13298.0 | 16133.4 | 15888.3 | 13397.8 |
| 52.5° | 11633.6 | 11632.1 | 12040.7 | 12536.9 | 13066.5 | 13105.8 | 13036.2 | 14503.9 | 17489.1 | 17414.9 | 14594.6 |
| 55° | 10477.7 | 10556.4 | 11175.2 | 12136.0 | 13582.4 | 14485.7 | 14691.5 | 15885.2 | 18820.5 | 18906.8 | 15809.6 |
| 57.5° | 8553.1 | 8618.2 | 9453.4 | 10792.4 | 12886.4 | 15305.8 | 17045.7 | 17893.0 | 20309.3 | 20711.8 | 17427.0 |
| 60° | 5800.9 | 5879.6 | 6764.7 | 8373.1 | 11013.3 | 14848.8 | 19286.5 | 21475.9 | 22091.7 | 23007.1 | 19696.6 |
| 62.5° | 3408.8 | 3480.0 | 4201.7 | 5282.0 | 7754.3 | 12726.1 | 20270.0 | 26573.3 | 24922.5 | 26470.4 | 23158.4 |
| 65° | 2346.7 | 2395.1 | 2746.1 | 3287.8 | 4455.9 | 8571.3 | 19050.5 | 30092.5 | 29278.5 | 30761.3 | 27172.4 |
| 67.5° | 1888.3 | 1882.2 | 2160.6 | 2529.8 | 2868.7 | 4419.5 | 14405.5 | 29694.6 | 33109.5 | 33728.3 | 29255.8 |
| 70° | 1555.4 | 1549.3 | 1738.5 | 2044.1 | 2292.2 | 2488.9 | 7846.5 | 25058.7 | 32328.8 | 32580.0 | 27337.3 |
| 72.5° | 1301.2 | 1307.3 | 1428.3 | 1655.2 | 1880.7 | 1874.6 | 3448.2 | 17628.3 | 25432.4 | 27169.4 | 21792.1 |
| 75° | 1098.5 | 1101.5 | 1181.7 | 1342.1 | 1526.6 | 1510.0 | 1870.1 | 9550.2 | 14783.8 | 15992.7 | 12080.0 |
| 77.5° | 935.0 | 938.1 | 989.5 | 1078.8 | 1210.4 | 1204.4 | 1364.7 | 4126.0 | 6167.1 | 6091.4 | 4132.1 |
| 80° | 833.7 | 833.7 | 857.9 | 874.5 | 947.2 | 919.9 | 1012.2 | 1982.1 | 2606.9 | 2407.2 | 1649.2 |
| 82.5° | 653.6 | 656.7 | 804.9 | 798.9 | 745.9 | 711.1 | 711.1 | 1168.1 | 1381.4 | 1277.0 | 965.3 |
| 85° | 367.7 | 366.2 | 519.0 | 626.4 | 656.7 | 500.8 | 496.3 | 653.6 | 752.0 | 662.7 | 467.5 |
| 87.5° | 157.4 | 160.4 | 240.6 | 278.4 | 372.2 | 311.7 | 307.1 | 337.4 | 382.8 | 331.4 | 216.4 |
| 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° | 4269.8 | 4269.8 | 4269.8 | 4269.8 | 4269.8 | 4269.8 | 4269.8 | 4269.8 | 4269.8 | 4269.8 | 4269.8 |
| 2.5° | 4271.3 | 4231.9 | 4145.7 | 4038.3 | 3941.4 | 3877.9 | 3820.4 | 3737.2 | 3741.7 | 3684.2 | 3641.9 |
| 5° | 4268.2 | 4186.5 | 3986.8 | 3749.3 | 3520.8 | 3355.9 | 3231.8 | 3119.9 | 3092.6 | 3039.7 | 3007.9 |
| 7.5° | 4271.3 | 4138.1 | 3802.2 | 3422.5 | 3139.5 | 2930.7 | 2824.8 | 2765.8 | 2752.2 | 2734.0 | 2735.5 |
| 10° | 4281.9 | 4094.2 | 3599.5 | 3116.8 | 2820.3 | 2682.6 | 2656.9 | 2675.0 | 2696.2 | 2702.3 | 2703.8 |
| 12.5° | 4306.1 | 4054.9 | 3377.1 | 2844.5 | 2620.6 | 2578.2 | 2622.1 | 2684.1 | 2725.0 | 2744.6 | 2743.1 |
| 15° | 4360.5 | 4024.6 | 3163.7 | 2631.2 | 2510.1 | 2532.8 | 2614.5 | 2702.3 | 2761.3 | 2788.5 | 2790.0 |
| 17.5° | 4419.5 | 3980.8 | 2944.3 | 2467.7 | 2428.4 | 2485.9 | 2587.3 | 2690.2 | 2762.8 | 2793.0 | 2799.1 |
| 20° | 4496.7 | 3926.3 | 2714.4 | 2345.2 | 2351.2 | 2416.3 | 2511.6 | 2614.5 | 2694.7 | 2720.4 | 2732.5 |
| 22.5° | 4598.1 | 3867.3 | 2513.1 | 2245.3 | 2263.5 | 2313.4 | 2387.6 | 2476.8 | 2546.4 | 2558.5 | 2569.1 |
| 25° | 4734.3 | 3803.7 | 2352.8 | 2154.5 | 2162.1 | 2190.9 | 2240.8 | 2293.7 | 2342.2 | 2328.5 | 2339.1 |
| 27.5° | 4917.3 | 3749.3 | 2233.2 | 2071.3 | 2057.7 | 2063.8 | 2089.5 | 2106.1 | 2131.9 | 2094.0 | 2098.6 |
| 30° | 5132.2 | 3690.3 | 2140.9 | 1998.7 | 1960.9 | 1950.3 | 1956.3 | 1965.4 | 1985.1 | 1933.6 | 1926.1 |
| 32.5° | 5381.8 | 3619.2 | 2054.7 | 1935.2 | 1882.2 | 1861.0 | 1864.0 | 1888.3 | 1963.9 | 1932.1 | 1915.5 |
| 35° | 5672.3 | 3539.0 | 1963.9 | 1865.6 | 1829.2 | 1799.0 | 1796.0 | 1871.6 | 2097.1 | 2077.4 | 2062.3 |
| 37.5° | 6012.8 | 3458.8 | 1873.1 | 1786.9 | 1789.9 | 1756.6 | 1746.0 | 1832.3 | 2122.8 | 2045.6 | 2035.0 |
| 40° | 6445.5 | 3416.4 | 1796.0 | 1703.7 | 1741.5 | 1737.0 | 1715.8 | 1759.6 | 1953.3 | 1812.6 | 1794.4 |
| 42.5° | 6981.1 | 3422.5 | 1738.5 | 1614.4 | 1684.0 | 1732.4 | 1699.1 | 1700.6 | 1770.2 | 1664.3 | 1647.7 |
| 45° | 7642.3 | 3493.6 | 1697.6 | 1543.3 | 1618.9 | 1727.9 | 1693.1 | 1668.9 | 1674.9 | 1618.9 | 1609.9 |
| 47.5° | 8413.9 | 3640.3 | 1668.9 | 1484.3 | 1556.9 | 1711.2 | 1691.6 | 1659.8 | 1646.2 | 1615.9 | 1608.3 |
| 50° | 9271.8 | 3853.7 | 1647.7 | 1428.3 | 1500.9 | 1684.0 | 1693.1 | 1650.7 | 1635.6 | 1623.5 | 1618.9 |
| 52.5° | 10114.6 | 4097.3 | 1615.9 | 1379.9 | 1457.0 | 1650.7 | 1697.6 | 1641.6 | 1625.0 | 1615.9 | 1611.4 |
| 55° | 11054.2 | 4401.4 | 1567.5 | 1339.0 | 1420.7 | 1608.3 | 1697.6 | 1628.0 | 1609.9 | 1611.4 | 1609.9 |
| 57.5° | 12323.6 | 4893.1 | 1510.0 | 1304.2 | 1376.9 | 1556.9 | 1668.9 | 1612.9 | 1590.2 | 1591.7 | 1593.2 |
| 60° | 14307.2 | 5760.1 | 1440.4 | 1269.4 | 1322.4 | 1496.4 | 1629.5 | 1579.6 | 1556.9 | 1563.0 | 1564.5 |
| 62.5° | 17224.3 | 7032.5 | 1349.6 | 1218.0 | 1264.9 | 1431.3 | 1575.1 | 1537.2 | 1514.5 | 1529.7 | 1529.7 |
| 65° | 20256.4 | 8155.2 | 1237.7 | 1152.9 | 1204.4 | 1360.2 | 1507.0 | 1484.3 | 1461.6 | 1496.4 | 1494.9 |
| 67.5° | 21071.9 | 7904.0 | 1125.7 | 1081.8 | 1143.8 | 1281.5 | 1425.3 | 1413.2 | 1401.1 | 1461.6 | 1458.6 |
| 70° | 18719.1 | 6345.6 | 1022.8 | 1009.2 | 1077.3 | 1196.8 | 1337.5 | 1337.5 | 1329.9 | 1375.3 | 1364.7 |
| 72.5° | 14261.8 | 4499.7 | 924.5 | 932.0 | 1001.6 | 1104.5 | 1242.2 | 1252.8 | 1240.7 | 1263.4 | 1254.3 |
| 75° | 7634.7 | 2575.2 | 826.1 | 847.3 | 907.8 | 1010.7 | 1136.3 | 1146.9 | 1139.3 | 1137.8 | 1142.3 |
| 77.5° | 2537.3 | 1258.8 | 723.2 | 756.5 | 809.5 | 913.9 | 1025.8 | 1042.5 | 1024.3 | 1021.3 | 1019.8 |
| 80° | 1130.2 | 791.3 | 609.7 | 653.6 | 700.5 | 803.4 | 909.3 | 922.9 | 903.3 | 930.5 | 895.7 |
| 82.5° | 726.3 | 520.5 | 488.7 | 537.1 | 582.5 | 693.0 | 792.8 | 795.9 | 777.7 | 903.3 | 770.1 |
| 85° | 352.5 | 322.3 | 367.7 | 411.5 | 450.9 | 544.7 | 656.7 | 658.2 | 612.8 | 558.3 | 538.6 |
| 87.5° | 175.5 | 187.6 | 245.1 | 284.4 | 304.1 | 373.7 | 478.1 | 469.0 | 449.4 | 408.5 | 376.7 |
| 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)