

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: McGRAW-EDISON

Report Number: P456378

Luminaire Tested: **GALN-SA7C-827-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P456378
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA7C-827-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 80 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35236 lumens
Efficiency: N/A
Efficacy: 93.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

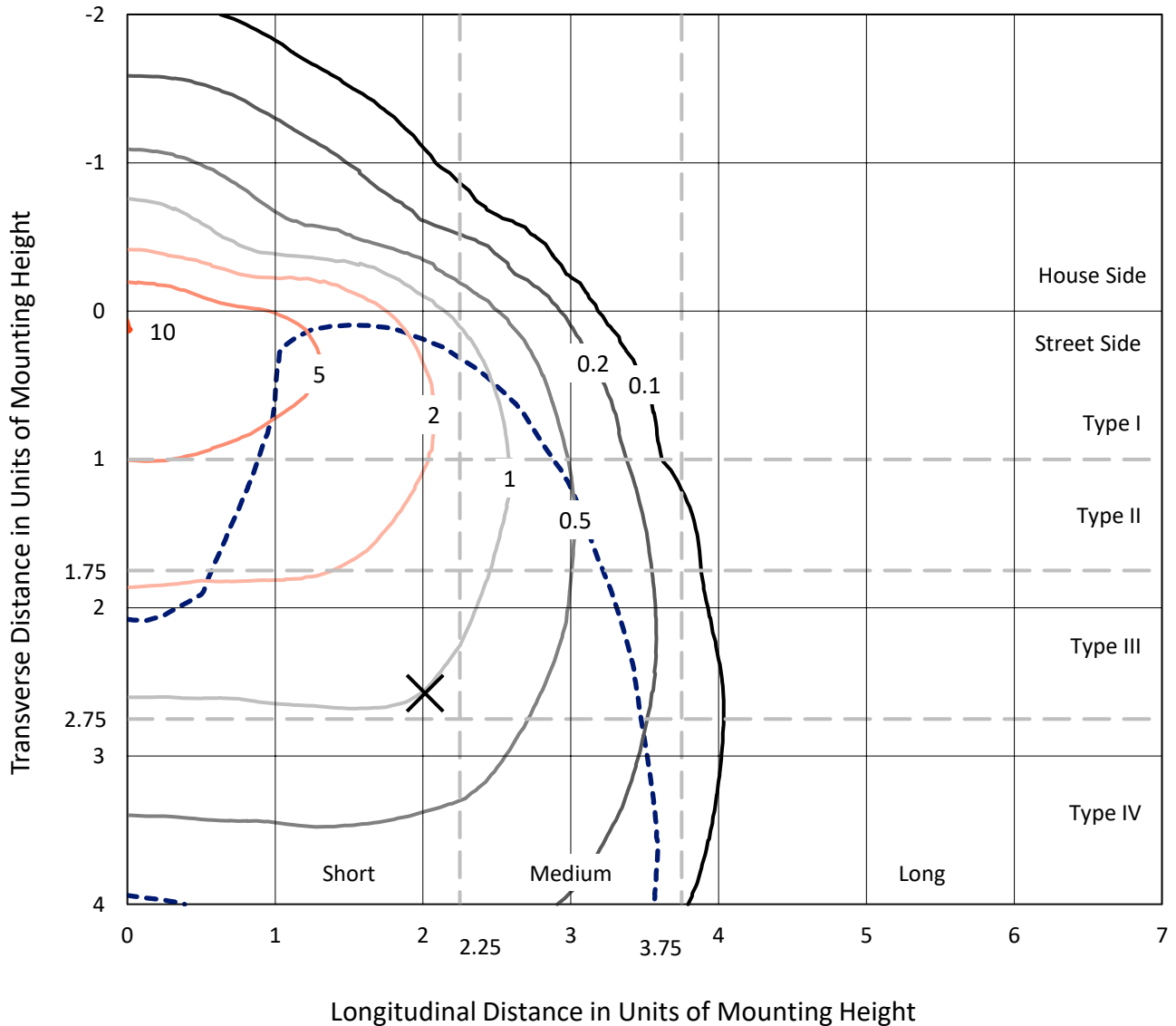
Input Watts (W): 377
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

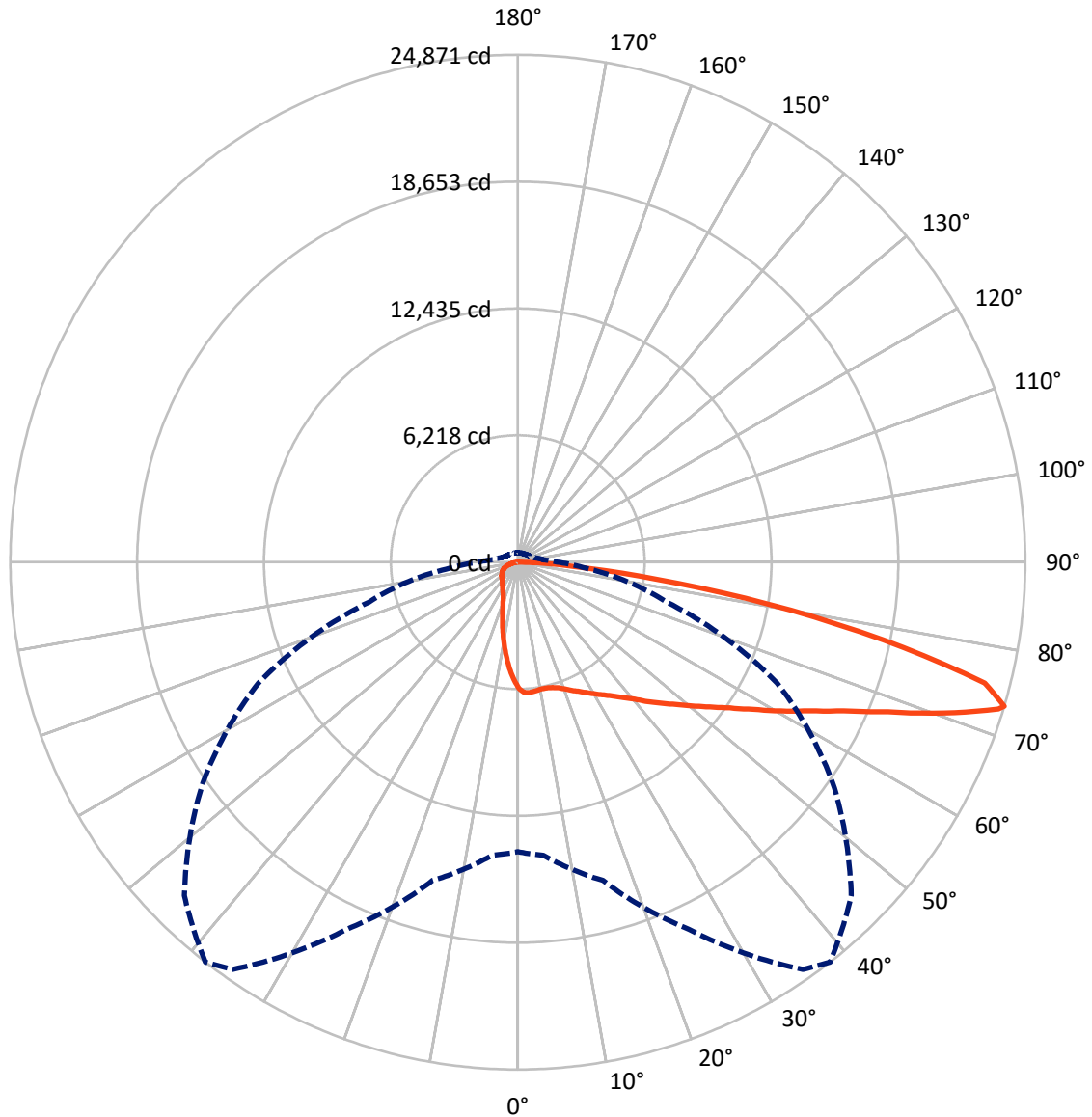
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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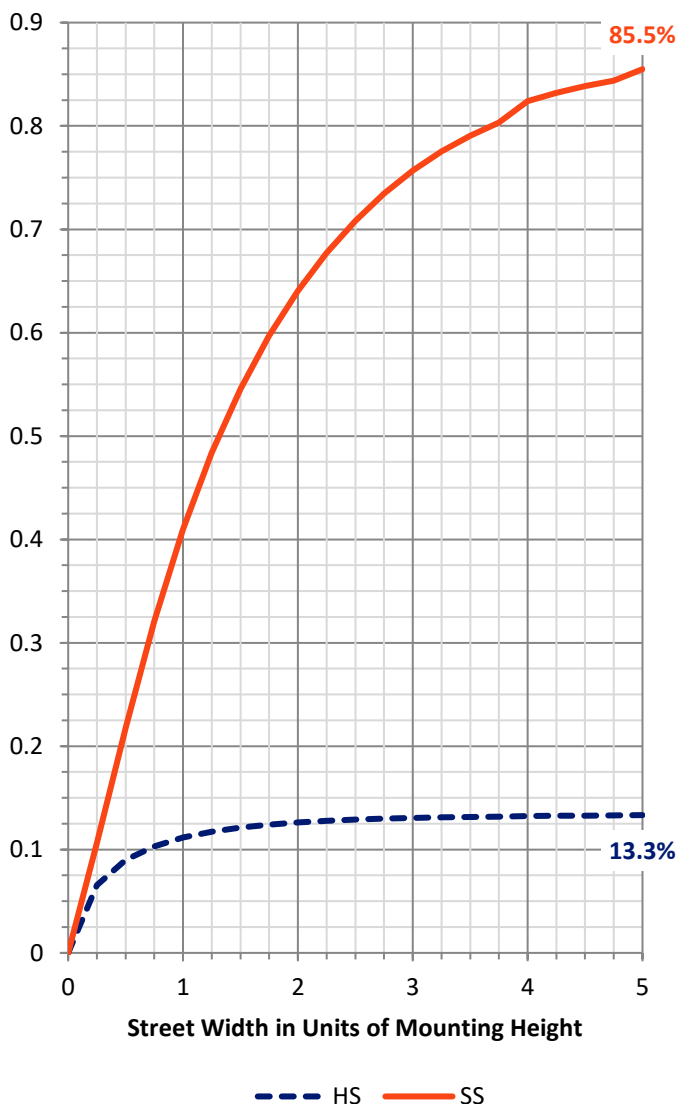
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4736.8 | 0.0 | 4736.8 |
| | % Fixture | 13.4 | 0.0 | 13.4 |
| Street Side | Lumens | 30499.2 | 0.0 | 30499.2 |
| | % Fixture | 86.6 | 0.0 | 86.6 |
| Total | Lumens | 35236.0 | 0.0 | 35236.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 540.3 | 1.5 |
| 10°-20° | 1385.6 | 3.9 |
| 20°-30° | 2157.7 | 6.1 |
| 30°-40° | 3164.9 | 9.0 |
| 40°-50° | 4694.7 | 13.3 |
| 50°-60° | 6651.5 | 18.9 |
| 60°-70° | 8437.6 | 23.9 |
| 70°-80° | 7023.6 | 19.9 |
| 80°-90° | 1180.1 | 3.3 |
| 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° | 35236.0 | 100.0 |
| 0°-180° | 35236.0 | 100.0 |

Coefficient of Utilization



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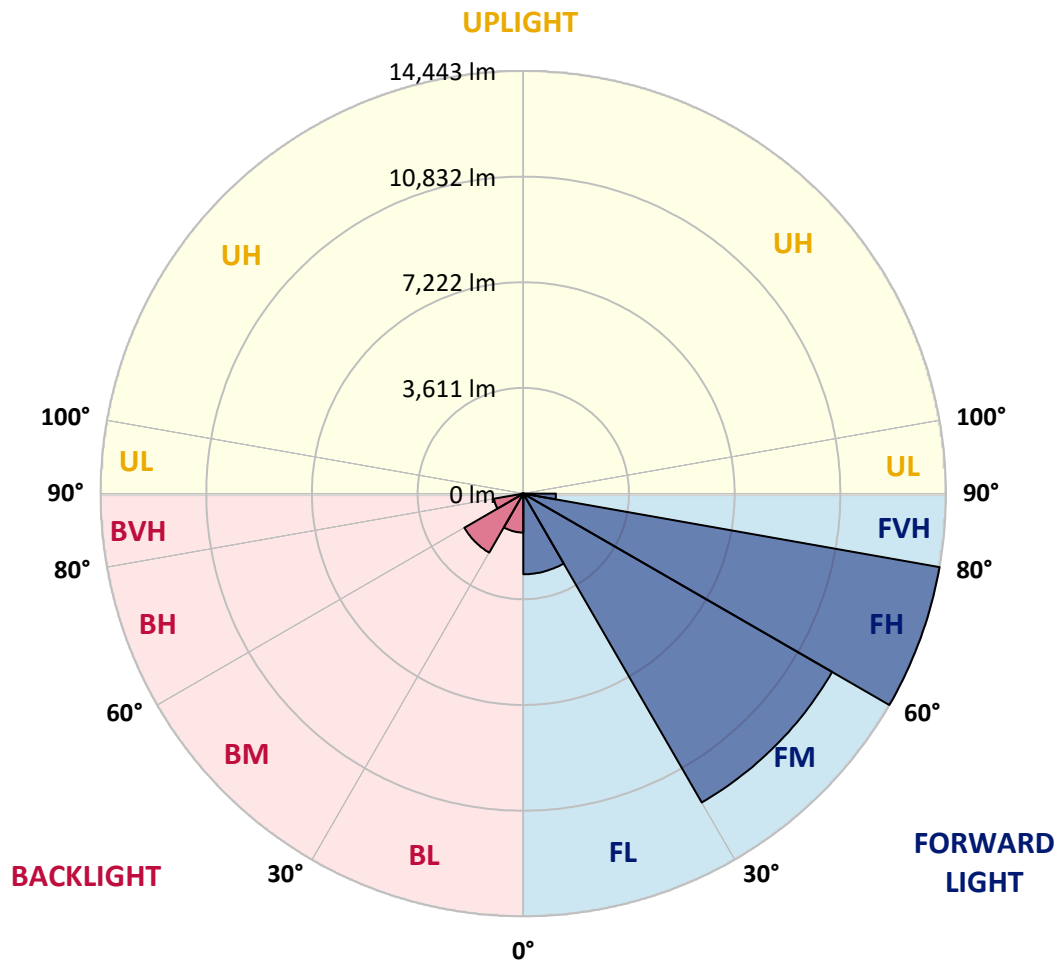
CATALOG NUMBER: GALN-SA7C-827-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2754.5 | 7.8 | | | |
| FM (30°-60°) | 12185.6 | 34.6 | | | |
| FH (60°-80°) | 14443.1 | 41.0 | | | G5 |
| FVH (80°-90°) | 1116.1 | 3.2 | | | G5 |
| BL (0°-30°) | 1329.2 | 3.8 | B3/2500 | | |
| BM (30°-60°) | 2325.5 | 6.6 | B2/2500 | | |
| BH (60°-80°) | 1018.1 | 2.9 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 64.0 | 0.2 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 38° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6190.4 | 6190.4 | 6190.4 | 6190.4 | 6190.4 | 6190.4 | 6190.4 | 6190.4 | 6190.4 | 6190.4 | 6190.4 |
| 2.5° | 6439.1 | 6470.9 | 6455.0 | 6433.1 | 6419.2 | 6405.3 | 6385.4 | 6327.7 | 6281.9 | 6232.2 | 6154.6 |
| 5° | 6486.9 | 6506.8 | 6492.8 | 6465.0 | 6433.1 | 6419.2 | 6381.4 | 6305.8 | 6232.2 | 6148.6 | 6033.2 |
| 7.5° | 6459.0 | 6467.0 | 6451.0 | 6417.2 | 6389.4 | 6363.5 | 6319.7 | 6236.1 | 6146.6 | 6045.1 | 5893.9 |
| 10° | 6359.5 | 6389.4 | 6389.4 | 6361.5 | 6333.6 | 6319.7 | 6275.9 | 6196.3 | 6114.8 | 5999.3 | 5820.3 |
| 12.5° | 6277.9 | 6309.8 | 6335.6 | 6327.7 | 6325.7 | 6325.7 | 6291.8 | 6232.2 | 6136.6 | 6027.2 | 5814.3 |
| 15° | 6222.2 | 6260.0 | 6315.7 | 6347.6 | 6367.5 | 6373.4 | 6359.5 | 6307.8 | 6210.3 | 6082.9 | 5838.2 |
| 17.5° | 6210.3 | 6256.0 | 6357.5 | 6427.2 | 6478.9 | 6476.9 | 6472.9 | 6401.3 | 6293.8 | 6162.5 | 5868.0 |
| 20° | 6264.0 | 6323.7 | 6465.0 | 6574.4 | 6650.0 | 6636.1 | 6614.2 | 6520.7 | 6395.3 | 6248.1 | 5895.9 |
| 22.5° | 6425.2 | 6486.9 | 6642.1 | 6761.4 | 6835.1 | 6835.1 | 6769.4 | 6646.0 | 6512.7 | 6347.6 | 5933.7 |
| 25° | 6656.0 | 6723.6 | 6888.8 | 7010.2 | 7044.0 | 7018.1 | 6952.5 | 6803.2 | 6650.0 | 6490.8 | 6013.3 |
| 27.5° | 6938.5 | 7020.1 | 7173.3 | 7274.8 | 7264.9 | 7245.0 | 7177.3 | 6986.3 | 6833.1 | 6687.8 | 6148.6 |
| 30° | 7290.7 | 7350.4 | 7509.6 | 7533.5 | 7497.7 | 7493.7 | 7398.2 | 7207.2 | 7063.9 | 6952.5 | 6341.6 |
| 32.5° | 7623.0 | 7676.8 | 7804.1 | 7814.1 | 7750.4 | 7758.4 | 7668.8 | 7493.7 | 7412.1 | 7372.3 | 6665.9 |
| 35° | 7975.2 | 8003.1 | 8112.5 | 8100.6 | 8058.8 | 8052.9 | 8017.0 | 7849.9 | 7875.8 | 7947.4 | 7125.6 |
| 37.5° | 8269.7 | 8325.5 | 8387.1 | 8397.1 | 8395.1 | 8415.0 | 8438.9 | 8359.3 | 8508.5 | 8733.4 | 7728.5 |
| 40° | 8540.4 | 8588.1 | 8679.6 | 8711.5 | 8789.1 | 8828.9 | 8910.5 | 8912.5 | 9256.7 | 9626.8 | 8470.7 |
| 42.5° | 8723.4 | 8805.0 | 8976.1 | 9033.8 | 9222.9 | 9342.3 | 9463.6 | 9593.0 | 10092.4 | 10568.0 | 9346.2 |
| 45° | 8882.6 | 8990.1 | 9274.6 | 9453.7 | 9710.4 | 9855.6 | 10112.3 | 10382.9 | 11101.3 | 11724.1 | 10235.7 |
| 47.5° | 9123.4 | 9218.9 | 9545.2 | 9861.6 | 10249.6 | 10416.8 | 10800.8 | 11204.7 | 12143.9 | 12826.5 | 11087.3 |
| 50° | 9457.7 | 9515.4 | 9847.7 | 10363.0 | 10858.5 | 11073.4 | 11580.8 | 12163.8 | 13258.3 | 13914.9 | 11835.5 |
| 52.5° | 9885.5 | 9909.4 | 10174.0 | 10860.5 | 11513.2 | 11779.8 | 12452.4 | 13132.9 | 14233.3 | 14860.1 | 12428.5 |
| 55° | 10390.9 | 10351.1 | 10558.0 | 11387.8 | 12261.3 | 12609.6 | 13331.9 | 14113.9 | 15329.7 | 15624.2 | 12860.3 |
| 57.5° | 10890.4 | 10828.7 | 10993.8 | 12028.5 | 13184.6 | 13604.5 | 14446.2 | 15124.7 | 16308.7 | 16338.5 | 13162.7 |
| 60° | 11419.6 | 11373.9 | 11570.9 | 12780.7 | 14316.8 | 14814.3 | 15592.3 | 16173.4 | 17255.8 | 16836.0 | 13210.5 |
| 62.5° | 11962.9 | 11889.2 | 12169.8 | 13626.4 | 15592.3 | 16044.0 | 16798.2 | 17287.7 | 18185.1 | 17021.0 | 12750.8 |
| 65° | 12490.2 | 12456.3 | 12890.1 | 14631.2 | 17044.9 | 17558.3 | 18290.5 | 18622.8 | 18929.3 | 16742.4 | 11610.7 |
| 67.5° | 13051.3 | 13119.0 | 13811.4 | 15972.4 | 18939.2 | 19583.9 | 20373.9 | 20061.5 | 19142.2 | 15423.2 | 9778.0 |
| 70° | 13906.9 | 13950.7 | 15021.2 | 17729.4 | 21380.7 | 22158.8 | 22540.8 | 20572.9 | 18115.4 | 12918.0 | 7350.4 |
| 72.5° | 14275.1 | 14468.1 | 16101.7 | 19574.0 | 24154.6 | 24630.1 | 23269.1 | 19432.7 | 15090.9 | 8775.2 | 3862.3 |
| 73° | 14193.5 | 14424.3 | 16151.5 | 19854.5 | 24371.5 | 24870.9 | 23113.9 | 18845.7 | 14028.3 | 7557.4 | 3311.1 |
| 75° | 13176.7 | 13461.2 | 15504.8 | 19619.7 | 23949.6 | 23651.1 | 20618.6 | 16061.9 | 9479.6 | 3436.4 | 1508.3 |
| 77.5° | 10396.9 | 10478.5 | 12285.2 | 15843.0 | 18859.6 | 18306.5 | 15431.1 | 10038.7 | 3872.2 | 1277.5 | 855.6 |
| 80° | 5215.4 | 5515.8 | 6924.6 | 9075.6 | 12611.6 | 12430.5 | 9740.2 | 4747.7 | 1613.8 | 750.2 | 567.1 |
| 82.5° | 2509.2 | 2722.1 | 3372.8 | 4425.4 | 6968.4 | 6803.2 | 4823.4 | 2594.7 | 1024.8 | 437.8 | 334.3 |
| 85° | 1615.7 | 1774.9 | 2147.0 | 2111.2 | 2865.4 | 2736.0 | 2166.9 | 1964.0 | 606.9 | 228.8 | 232.8 |
| 87.5° | 1066.6 | 1168.0 | 1400.8 | 1120.3 | 1042.7 | 943.2 | 957.1 | 1106.3 | 119.4 | 87.6 | 31.8 |
| 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° | 6190.4 | 6190.4 | 6190.4 | 6190.4 | 6190.4 | 6190.4 | 6190.4 | 6190.4 | 6190.4 | 6190.4 | 6190.4 |
| 2.5° | 6122.7 | 6096.8 | 6011.3 | 5927.7 | 5848.1 | 5772.5 | 5722.8 | 5657.1 | 5613.3 | 5625.3 | 5643.2 |
| 5° | 5969.5 | 5911.8 | 5760.6 | 5613.3 | 5474.0 | 5308.9 | 5175.6 | 5068.1 | 4986.5 | 4956.7 | 4950.7 |
| 7.5° | 5808.3 | 5710.8 | 5493.9 | 5241.2 | 5004.4 | 4799.5 | 4562.7 | 4445.3 | 4308.0 | 4260.2 | 4244.3 |
| 10° | 5710.8 | 5579.5 | 5275.0 | 4922.8 | 4566.7 | 4226.4 | 3969.7 | 3760.8 | 3571.7 | 3535.9 | 3518.0 |
| 12.5° | 5683.0 | 5509.8 | 5099.9 | 4646.3 | 4172.7 | 3754.8 | 3374.8 | 3100.2 | 2917.1 | 2875.3 | 2813.6 |
| 15° | 5667.0 | 5452.1 | 4936.8 | 4367.7 | 3766.8 | 3257.4 | 2857.4 | 2537.0 | 2369.9 | 2258.5 | 2260.4 |
| 17.5° | 5653.1 | 5386.5 | 4753.7 | 4063.2 | 3416.5 | 2829.5 | 2387.8 | 2099.3 | 1946.1 | 1886.4 | 1880.4 |
| 20° | 5633.2 | 5308.9 | 4542.8 | 3742.9 | 3016.6 | 2439.5 | 2039.6 | 1824.7 | 1721.2 | 1671.5 | 1669.5 |
| 22.5° | 5625.3 | 5233.3 | 4335.8 | 3416.5 | 2662.4 | 2139.1 | 1808.8 | 1657.5 | 1591.9 | 1558.0 | 1558.0 |
| 25° | 5645.2 | 5179.5 | 4119.0 | 3106.1 | 2348.0 | 1882.4 | 1649.6 | 1546.1 | 1508.3 | 1490.4 | 1484.4 |
| 27.5° | 5706.8 | 5155.7 | 3904.1 | 2795.7 | 2059.5 | 1707.3 | 1542.1 | 1470.5 | 1442.6 | 1428.7 | 1430.7 |
| 30° | 5824.2 | 5153.7 | 3693.1 | 2489.3 | 1844.6 | 1574.0 | 1456.6 | 1406.8 | 1384.9 | 1377.0 | 1375.0 |
| 32.5° | 6013.3 | 5197.4 | 3486.2 | 2236.6 | 1663.5 | 1462.5 | 1377.0 | 1341.1 | 1331.2 | 1325.2 | 1323.2 |
| 35° | 6333.6 | 5320.8 | 3281.2 | 2005.8 | 1524.2 | 1363.0 | 1301.4 | 1283.4 | 1269.5 | 1275.5 | 1277.5 |
| 37.5° | 6765.4 | 5533.7 | 3086.2 | 1824.7 | 1418.8 | 1289.4 | 1237.7 | 1221.8 | 1213.8 | 1219.8 | 1225.7 |
| 40° | 7344.5 | 5840.2 | 2923.1 | 1679.4 | 1343.1 | 1227.7 | 1182.0 | 1168.0 | 1160.1 | 1170.0 | 1172.0 |
| 42.5° | 7983.2 | 6194.3 | 2787.8 | 1566.0 | 1281.5 | 1176.0 | 1132.2 | 1116.3 | 1110.3 | 1116.3 | 1118.3 |
| 45° | 8639.9 | 6606.2 | 2718.1 | 1484.4 | 1229.7 | 1138.2 | 1092.4 | 1074.5 | 1060.6 | 1056.6 | 1062.6 |
| 47.5° | 9286.5 | 6964.4 | 2716.1 | 1434.7 | 1187.9 | 1104.4 | 1054.6 | 1034.7 | 1016.8 | 1006.9 | 1004.9 |
| 50° | 9813.9 | 7249.0 | 2763.9 | 1412.8 | 1152.1 | 1066.6 | 1016.8 | 996.9 | 973.0 | 953.1 | 957.1 |
| 52.5° | 10211.8 | 7434.0 | 2785.8 | 1402.8 | 1132.2 | 1026.8 | 977.0 | 959.1 | 931.2 | 905.4 | 905.4 |
| 55° | 10468.5 | 7477.8 | 2732.0 | 1392.9 | 1116.3 | 985.0 | 931.2 | 915.3 | 887.5 | 861.6 | 861.6 |
| 57.5° | 10556.1 | 7342.5 | 2539.0 | 1369.0 | 1100.4 | 949.1 | 885.5 | 871.5 | 849.7 | 823.8 | 819.8 |
| 60° | 10353.1 | 6884.8 | 2200.8 | 1297.4 | 1068.5 | 911.3 | 835.7 | 829.8 | 821.8 | 799.9 | 797.9 |
| 62.5° | 9571.1 | 5913.8 | 1832.6 | 1203.8 | 1014.8 | 871.5 | 790.0 | 799.9 | 805.9 | 793.9 | 792.0 |
| 65° | 8269.7 | 4801.5 | 1566.0 | 1074.5 | 943.2 | 815.8 | 740.2 | 766.1 | 782.0 | 782.0 | 778.0 |
| 67.5° | 6707.7 | 3687.2 | 1319.3 | 963.1 | 853.6 | 740.2 | 684.5 | 704.4 | 716.3 | 712.4 | 722.3 |
| 70° | 4767.6 | 2497.2 | 1074.5 | 835.7 | 740.2 | 654.7 | 612.9 | 612.9 | 604.9 | 600.9 | 600.9 |
| 72.5° | 2312.2 | 1426.7 | 871.5 | 698.4 | 630.8 | 559.1 | 525.3 | 511.4 | 495.5 | 493.5 | 483.5 |
| 73° | 1932.1 | 1279.5 | 831.7 | 672.6 | 604.9 | 545.2 | 507.4 | 485.5 | 475.6 | 467.6 | 465.6 |
| 75° | 1176.0 | 971.0 | 694.5 | 567.1 | 515.4 | 469.6 | 435.8 | 415.9 | 405.9 | 400.0 | 398.0 |
| 77.5° | 774.0 | 724.3 | 539.2 | 433.8 | 394.0 | 366.1 | 352.2 | 332.3 | 326.3 | 318.4 | 318.4 |
| 80° | 577.1 | 553.2 | 386.0 | 306.4 | 282.6 | 258.7 | 254.7 | 250.7 | 234.8 | 224.9 | 220.9 |
| 82.5° | 372.1 | 394.0 | 262.7 | 205.0 | 179.1 | 159.2 | 161.2 | 167.1 | 151.2 | 137.3 | 133.3 |
| 85° | 264.6 | 284.5 | 159.2 | 93.5 | 75.6 | 65.7 | 73.6 | 65.7 | 67.7 | 53.7 | 43.8 |
| 87.5° | 43.8 | 75.6 | 27.9 | 11.9 | 6.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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)