

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: P648294

Luminaire Tested: **GALN-SA2B-835-U-T4FT-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P648294
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA2B-835-U-T4FT-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 80 CRI, 3500K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6451.9 lumens
Efficiency: N/A
Efficacy: 78.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

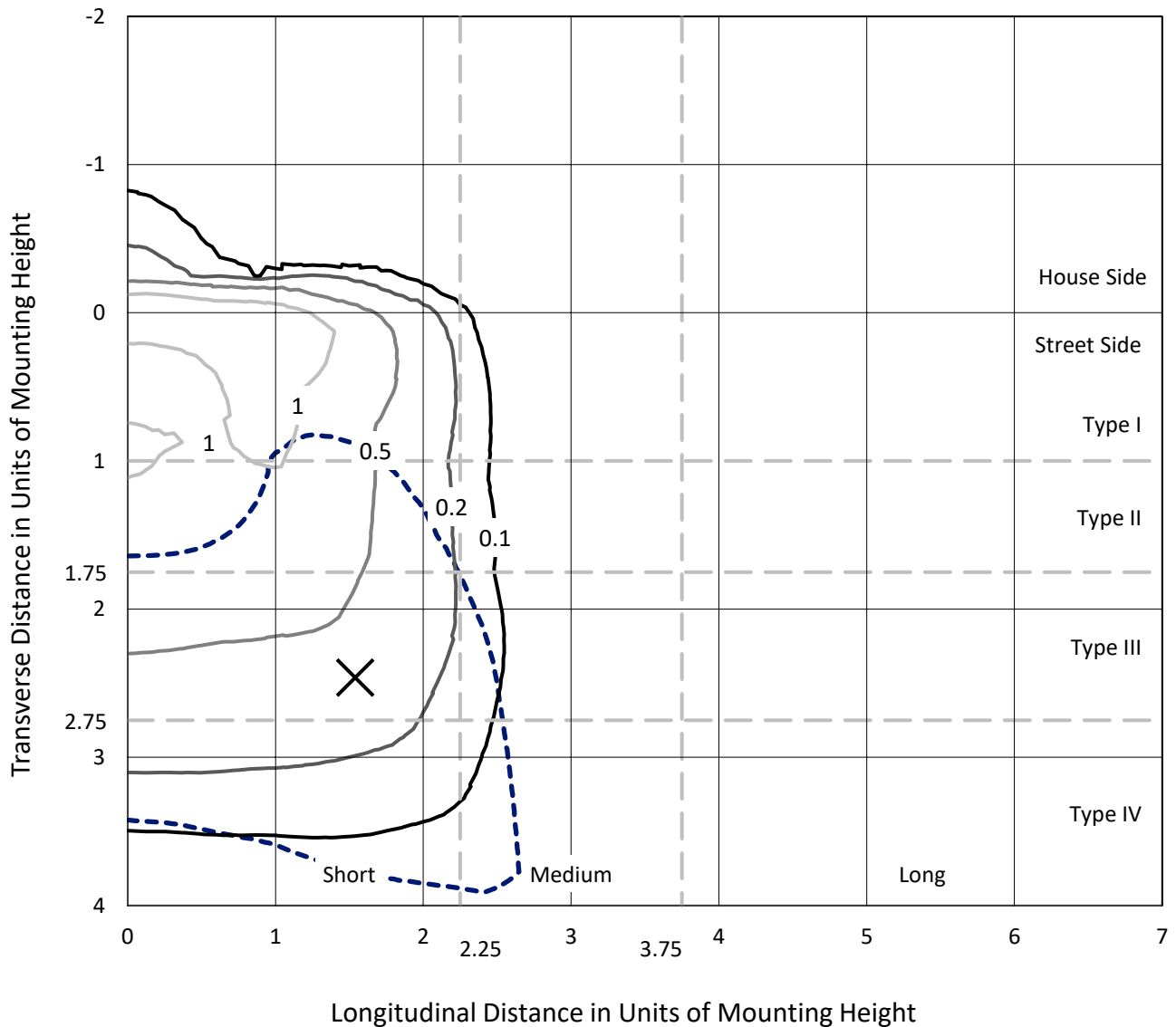
Input Watts (W): 82
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

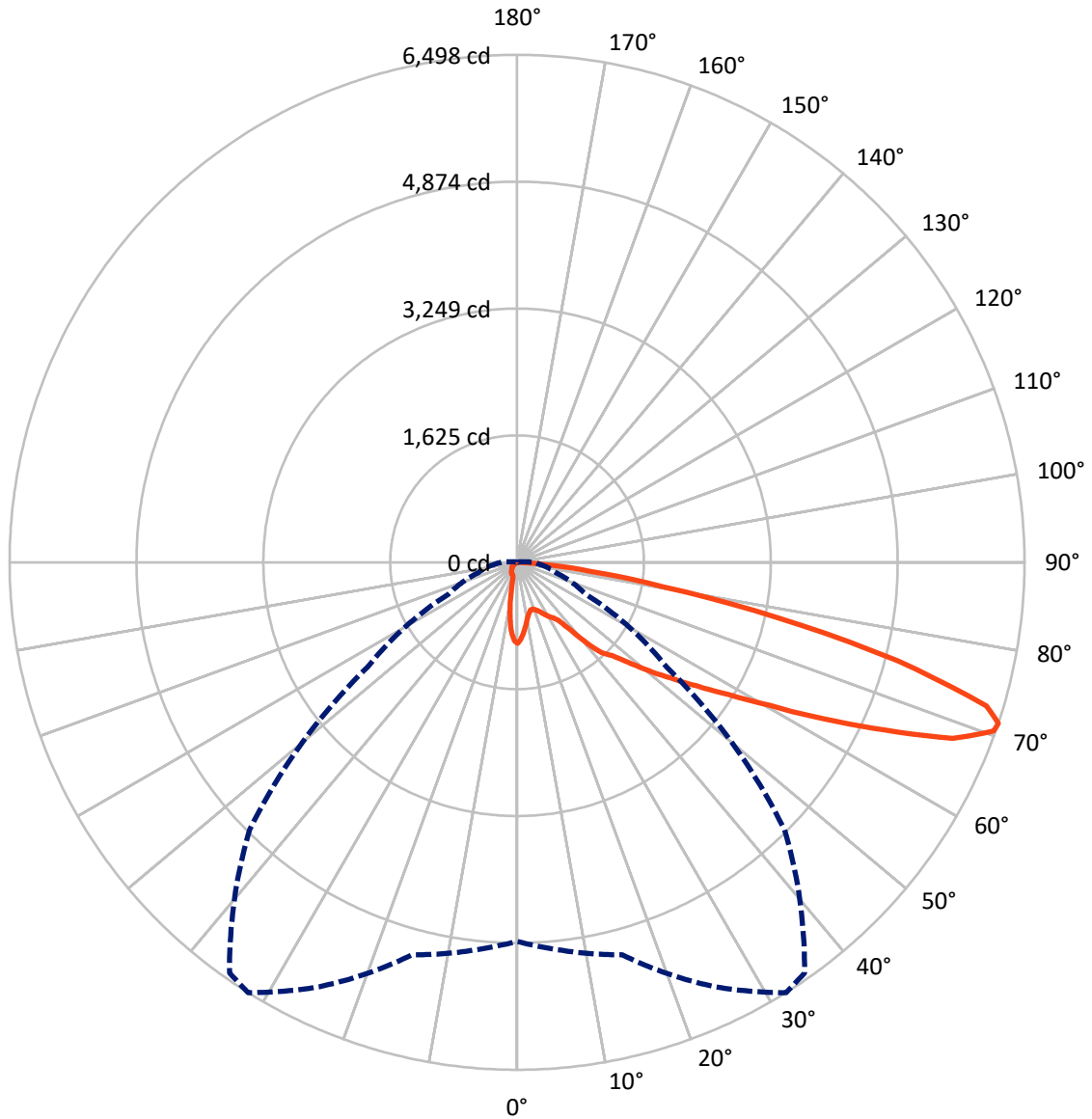
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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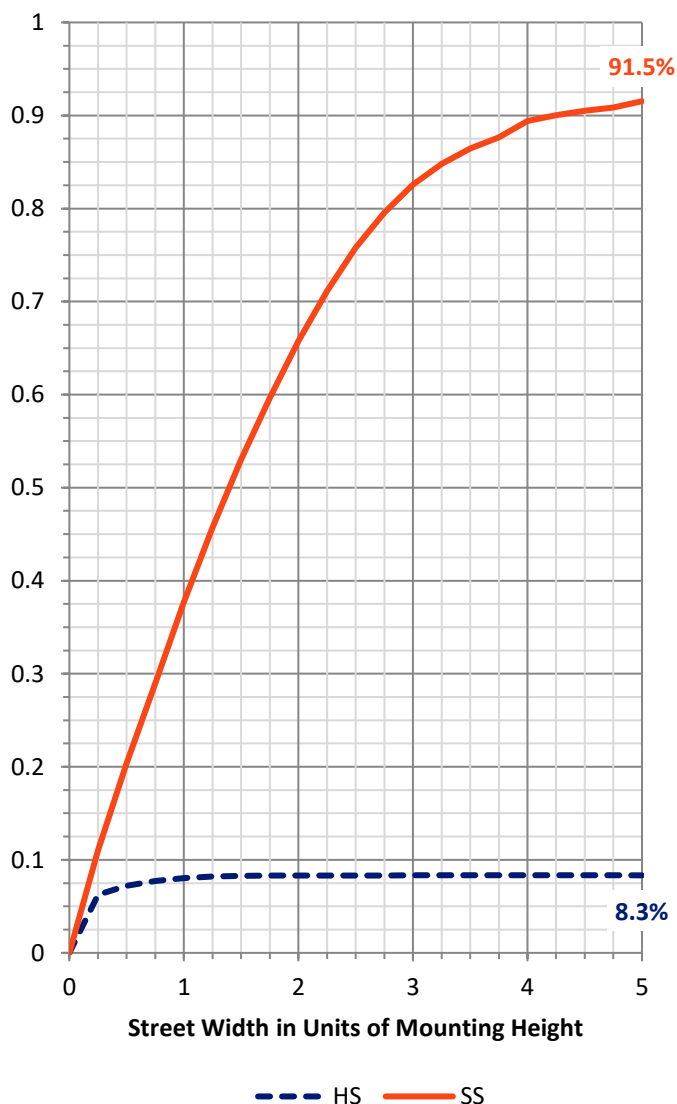
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 540.4 | 0.0 | 540.4 |
| | % Fixture | 8.4 | 0.0 | 8.4 |
| Street Side | Lumens | 5911.5 | 0.0 | 5911.5 |
| | % Fixture | 91.6 | 0.0 | 91.6 |
| Total | Lumens | 6451.9 | 0.0 | 6451.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 84.4 | 1.3 |
| 10°-20° | 183.1 | 2.8 |
| 20°-30° | 284.9 | 4.4 |
| 30°-40° | 474.6 | 7.4 |
| 40°-50° | 882.8 | 13.7 |
| 50°-60° | 1417.3 | 22.0 |
| 60°-70° | 1906.4 | 29.5 |
| 70°-80° | 1131.1 | 17.5 |
| 80°-90° | 87.4 | 1.4 |
| 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° | 6451.9 | 100.0 |
| 0°-180° | 6451.9 | 100.0 |

Coefficient of Utilization



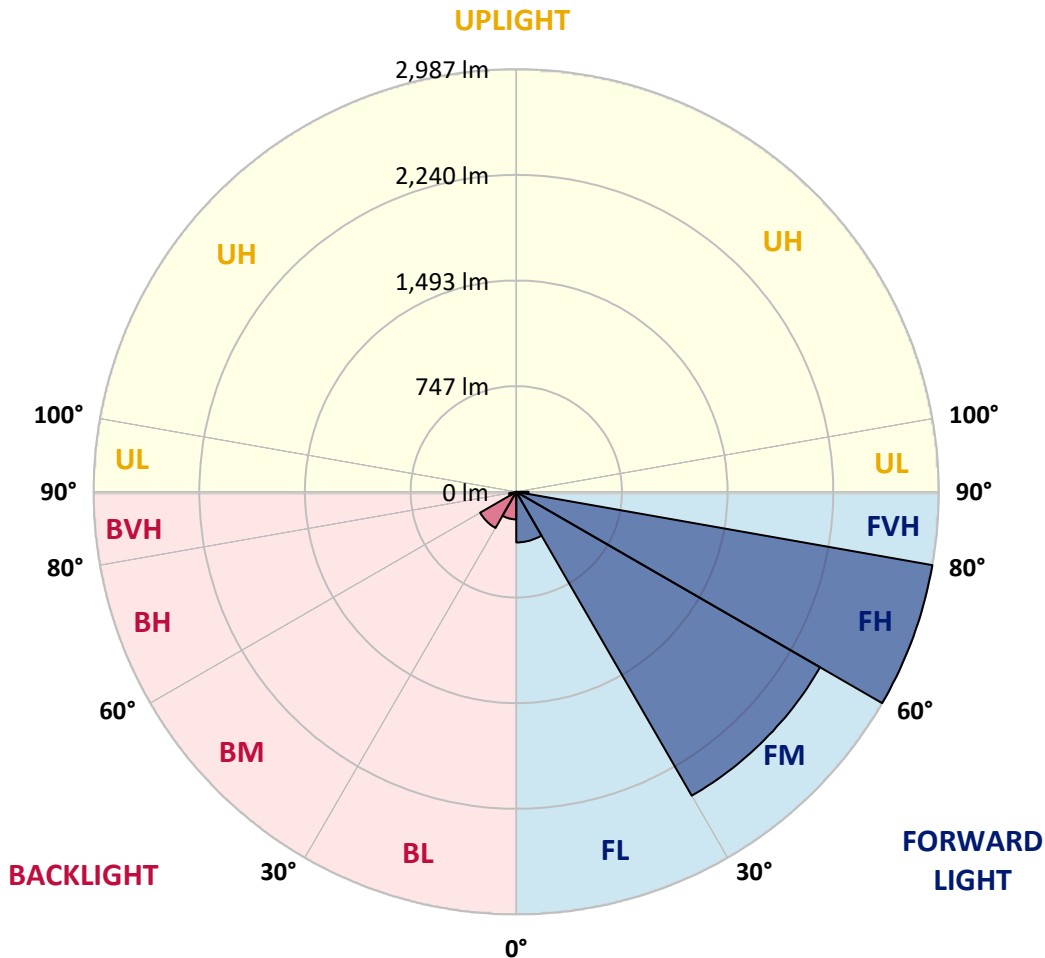
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 357.6 | 5.5 | | | |
| FM (30°-60°) | 2479.9 | 38.4 | | | |
| FH (60°-80°) | 2986.9 | 46.3 | | | G2/5000 |
| FVH (80°-90°) | 87.1 | 1.3 | | | G1/100 |
| BL (0°-30°) | 194.7 | 3.0 | B1/500 | | |
| BM (30°-60°) | 294.8 | 4.6 | B1/1000 | | |
| BH (60°-80°) | 50.5 | 0.8 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.3 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 32° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1037.6 | 1037.6 | 1037.6 | 1037.6 | 1037.6 | 1037.6 | 1037.6 | 1037.6 | 1037.6 | 1037.6 | 1037.6 |
| 2.5° | 962.3 | 972.2 | 970.7 | 974.2 | 982.6 | 986.0 | 995.5 | 1005.8 | 1020.2 | 1030.1 | 1036.6 |
| 5° | 861.8 | 869.2 | 870.1 | 887.5 | 895.9 | 905.3 | 933.1 | 963.2 | 997.0 | 1023.7 | 1041.5 |
| 7.5° | 754.3 | 758.3 | 766.2 | 789.0 | 810.2 | 819.6 | 861.8 | 914.2 | 967.2 | 1017.3 | 1049.5 |
| 10° | 665.6 | 670.1 | 684.4 | 708.7 | 728.5 | 740.9 | 799.4 | 865.2 | 939.5 | 1013.8 | 1060.8 |
| 12.5° | 615.1 | 617.6 | 623.0 | 644.8 | 670.1 | 683.5 | 746.4 | 821.6 | 917.2 | 1015.3 | 1080.1 |
| 15° | 611.7 | 610.7 | 604.2 | 613.2 | 636.0 | 649.8 | 711.2 | 791.9 | 897.4 | 1020.2 | 1102.9 |
| 17.5° | 630.0 | 627.5 | 612.1 | 612.1 | 630.9 | 642.4 | 696.3 | 776.1 | 887.5 | 1031.6 | 1135.1 |
| 20° | 658.2 | 654.3 | 629.0 | 627.0 | 645.3 | 657.2 | 705.2 | 777.0 | 889.5 | 1052.9 | 1178.3 |
| 22.5° | 693.9 | 689.4 | 651.3 | 652.2 | 672.0 | 684.0 | 731.0 | 794.9 | 901.9 | 1079.2 | 1224.3 |
| 25° | 740.4 | 735.5 | 690.4 | 688.4 | 709.2 | 719.6 | 769.1 | 826.6 | 919.2 | 1111.9 | 1284.7 |
| 27.5° | 802.3 | 791.9 | 737.9 | 735.0 | 757.2 | 770.6 | 815.2 | 869.2 | 949.9 | 1157.0 | 1365.9 |
| 30° | 853.3 | 842.0 | 790.4 | 782.5 | 806.3 | 816.7 | 862.7 | 926.6 | 1010.3 | 1235.7 | 1478.4 |
| 32.5° | 920.2 | 903.3 | 842.9 | 822.2 | 847.4 | 860.8 | 931.6 | 1033.6 | 1100.0 | 1318.9 | 1612.0 |
| 35° | 1070.8 | 1060.3 | 986.6 | 913.8 | 912.3 | 929.1 | 1033.1 | 1141.5 | 1192.1 | 1448.6 | 1794.3 |
| 37.5° | 1286.2 | 1278.8 | 1200.5 | 1102.9 | 1074.7 | 1066.8 | 1156.4 | 1260.5 | 1339.2 | 1626.9 | 2006.3 |
| 40° | 1536.3 | 1518.9 | 1447.1 | 1364.5 | 1327.8 | 1304.5 | 1302.1 | 1437.3 | 1531.3 | 1869.1 | 2227.2 |
| 42.5° | 1715.6 | 1683.9 | 1596.7 | 1590.7 | 1582.8 | 1558.6 | 1488.2 | 1695.7 | 1779.4 | 2129.6 | 2463.4 |
| 45° | 1903.8 | 1855.7 | 1726.0 | 1703.7 | 1700.8 | 1699.3 | 1769.6 | 2001.8 | 2049.9 | 2412.0 | 2706.1 |
| 47.5° | 2049.9 | 2011.8 | 1905.3 | 1895.3 | 1907.8 | 1941.4 | 2141.5 | 2326.8 | 2316.8 | 2663.5 | 2909.6 |
| 50° | 2244.5 | 2215.8 | 2097.4 | 2116.2 | 2180.1 | 2235.1 | 2561.0 | 2680.8 | 2536.2 | 2861.6 | 3057.8 |
| 52.5° | 2474.3 | 2421.3 | 2311.4 | 2362.4 | 2460.4 | 2552.1 | 3006.3 | 2990.9 | 2690.2 | 3010.7 | 3168.2 |
| 55° | 2673.4 | 2635.7 | 2598.2 | 2651.2 | 2797.7 | 2912.1 | 3408.4 | 3223.1 | 2802.2 | 3130.5 | 3216.7 |
| 57.5° | 3010.2 | 3001.2 | 2962.6 | 3016.7 | 3194.4 | 3313.3 | 3768.4 | 3403.4 | 2874.0 | 3192.9 | 3159.8 |
| 60° | 3508.4 | 3494.1 | 3422.3 | 3491.1 | 3722.9 | 3909.6 | 4100.3 | 3565.4 | 2890.4 | 3168.6 | 2995.8 |
| 62.5° | 4107.7 | 4058.7 | 3997.2 | 4098.8 | 4416.7 | 4499.0 | 4412.8 | 3661.5 | 2829.4 | 2975.6 | 2600.6 |
| 65° | 4667.3 | 4616.8 | 4618.3 | 4832.3 | 5178.4 | 5234.4 | 4777.2 | 3647.1 | 2651.2 | 2491.7 | 1918.1 |
| 67.5° | 5095.8 | 5087.3 | 5147.8 | 5565.3 | 6017.9 | 5979.3 | 5103.1 | 3432.1 | 2122.7 | 1615.0 | 1019.2 |
| 70° | 5117.5 | 5133.9 | 5307.2 | 6012.0 | 6471.6 | 6410.2 | 5075.4 | 2789.8 | 1323.3 | 742.9 | 401.7 |
| 71° | 4854.1 | 4964.0 | 5203.7 | 5998.1 | 6498.3 | 6418.6 | 4841.7 | 2336.6 | 970.7 | 518.0 | 289.7 |
| 72.5° | 4136.4 | 4194.4 | 4712.4 | 5645.0 | 6286.9 | 6116.5 | 4248.9 | 1637.8 | 621.5 | 317.0 | 166.4 |
| 75° | 2278.2 | 2420.8 | 3155.8 | 4428.6 | 5028.3 | 4878.8 | 2769.0 | 778.1 | 310.1 | 173.4 | 68.8 |
| 77.5° | 1084.6 | 1056.9 | 1539.8 | 2633.8 | 3409.3 | 3401.4 | 1395.1 | 345.7 | 180.8 | 117.4 | 34.7 |
| 80° | 310.1 | 348.7 | 589.4 | 1252.0 | 1892.9 | 1913.7 | 535.9 | 166.9 | 125.3 | 91.6 | 17.9 |
| 82.5° | 93.6 | 95.6 | 216.4 | 553.7 | 941.5 | 887.5 | 201.1 | 85.2 | 90.1 | 72.8 | 10.4 |
| 85° | 16.4 | 20.3 | 63.9 | 195.1 | 359.1 | 272.4 | 50.5 | 40.6 | 59.4 | 48.1 | 6.0 |
| 87.5° | 1.0 | 1.5 | 21.3 | 22.3 | 31.7 | 18.3 | 8.9 | 6.0 | 12.8 | 12.8 | 3.4 |
| 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° | 1037.6 | 1037.6 | 1037.6 | 1037.6 | 1037.6 | 1037.6 | 1037.6 | 1037.6 | 1037.6 | 1037.6 | 1037.6 |
| 2.5° | 1041.0 | 1044.0 | 1042.0 | 1037.6 | 1030.1 | 1021.2 | 1009.4 | 999.4 | 991.0 | 986.6 | 992.0 |
| 5° | 1047.5 | 1051.4 | 1041.5 | 1019.2 | 985.6 | 948.9 | 907.3 | 875.2 | 849.9 | 842.0 | 839.0 |
| 7.5° | 1057.4 | 1059.9 | 1033.1 | 983.6 | 912.3 | 825.6 | 749.8 | 685.9 | 636.4 | 621.5 | 599.8 |
| 10° | 1070.3 | 1068.8 | 1018.3 | 926.1 | 800.9 | 670.6 | 553.2 | 466.0 | 400.2 | 376.4 | 374.4 |
| 12.5° | 1090.1 | 1082.1 | 999.4 | 847.9 | 668.1 | 497.8 | 352.7 | 275.9 | 234.3 | 220.4 | 217.4 |
| 15° | 1114.8 | 1096.0 | 969.7 | 756.3 | 511.6 | 321.4 | 217.4 | 194.1 | 188.7 | 187.7 | 186.7 |
| 17.5° | 1144.0 | 1114.4 | 930.6 | 643.9 | 359.6 | 208.5 | 181.7 | 181.3 | 181.7 | 180.8 | 180.2 |
| 20° | 1183.7 | 1133.6 | 884.0 | 510.6 | 237.7 | 175.8 | 173.4 | 173.4 | 173.8 | 173.4 | 173.4 |
| 22.5° | 1225.8 | 1156.4 | 826.6 | 389.8 | 179.3 | 166.9 | 166.4 | 167.4 | 168.4 | 167.9 | 167.9 |
| 25° | 1277.8 | 1186.2 | 750.8 | 266.9 | 160.4 | 159.5 | 160.0 | 161.9 | 164.0 | 164.4 | 164.0 |
| 27.5° | 1353.0 | 1222.8 | 669.6 | 183.8 | 147.1 | 148.1 | 153.0 | 158.0 | 161.0 | 161.5 | 161.5 |
| 30° | 1437.7 | 1263.4 | 563.6 | 149.1 | 136.2 | 136.2 | 142.1 | 151.5 | 158.0 | 158.9 | 159.5 |
| 32.5° | 1546.7 | 1310.4 | 446.2 | 134.2 | 125.8 | 124.8 | 130.3 | 141.6 | 153.5 | 157.0 | 157.0 |
| 35° | 1681.4 | 1365.9 | 331.8 | 124.8 | 118.4 | 115.9 | 118.9 | 128.3 | 143.6 | 153.5 | 154.5 |
| 37.5° | 1839.4 | 1418.4 | 242.7 | 116.4 | 111.4 | 108.0 | 109.9 | 117.4 | 129.7 | 144.6 | 148.6 |
| 40° | 1985.5 | 1465.0 | 181.3 | 109.5 | 104.5 | 102.0 | 103.5 | 107.0 | 117.4 | 131.2 | 133.7 |
| 42.5° | 2145.0 | 1501.2 | 144.2 | 102.0 | 97.6 | 96.5 | 96.5 | 98.0 | 105.0 | 112.9 | 113.4 |
| 45° | 2304.0 | 1514.0 | 120.8 | 93.1 | 90.1 | 91.1 | 90.7 | 89.7 | 92.6 | 91.6 | 91.6 |
| 47.5° | 2417.4 | 1498.7 | 100.1 | 84.7 | 84.7 | 86.2 | 83.7 | 80.3 | 78.8 | 72.8 | 73.3 |
| 50° | 2495.1 | 1442.7 | 82.2 | 74.8 | 78.8 | 80.7 | 75.8 | 70.3 | 64.9 | 58.4 | 56.9 |
| 52.5° | 2527.3 | 1343.2 | 67.3 | 61.9 | 69.8 | 72.3 | 66.4 | 59.9 | 51.5 | 46.0 | 44.6 |
| 55° | 2506.5 | 1220.3 | 56.0 | 50.5 | 59.0 | 61.9 | 56.0 | 48.5 | 39.2 | 33.2 | 32.2 |
| 57.5° | 2414.9 | 1073.7 | 47.5 | 40.1 | 47.1 | 49.0 | 45.1 | 37.1 | 27.7 | 21.8 | 21.8 |
| 60° | 2256.4 | 922.1 | 38.6 | 31.7 | 35.2 | 38.1 | 34.1 | 26.8 | 18.8 | 13.4 | 12.4 |
| 62.5° | 1934.9 | 748.9 | 31.2 | 24.7 | 24.7 | 27.2 | 23.8 | 19.3 | 11.9 | 7.0 | 6.4 |
| 65° | 1397.1 | 513.6 | 24.7 | 18.3 | 17.9 | 17.9 | 14.9 | 12.8 | 7.0 | 3.0 | 2.0 |
| 67.5° | 759.2 | 289.7 | 19.8 | 13.9 | 12.4 | 11.9 | 9.4 | 7.4 | 3.0 | 0.5 | 0.0 |
| 70° | 298.6 | 111.4 | 15.3 | 9.4 | 7.9 | 7.4 | 4.9 | 3.4 | 2.0 | 0.0 | 0.0 |
| 71° | 202.6 | 76.7 | 13.4 | 7.9 | 6.4 | 5.5 | 4.0 | 3.0 | 1.5 | 0.0 | 0.0 |
| 72.5° | 115.9 | 47.5 | 10.4 | 6.0 | 4.9 | 4.0 | 3.0 | 2.0 | 1.5 | 0.0 | 0.0 |
| 75° | 50.5 | 24.3 | 6.4 | 4.5 | 3.4 | 2.5 | 2.0 | 1.5 | 0.5 | 0.0 | 0.0 |
| 77.5° | 25.8 | 13.4 | 4.5 | 3.4 | 2.0 | 1.5 | 1.0 | 0.5 | 0.0 | 0.0 | 0.0 |
| 80° | 14.3 | 7.0 | 3.0 | 2.0 | 1.5 | 1.0 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 |
| 82.5° | 7.9 | 4.0 | 1.5 | 1.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 4.9 | 2.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.5 | 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)