

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: P451112

Luminaire Tested: **GALN-SA2A-722-U-T3R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P451112
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA2A-722-U-T3R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2200K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5293 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

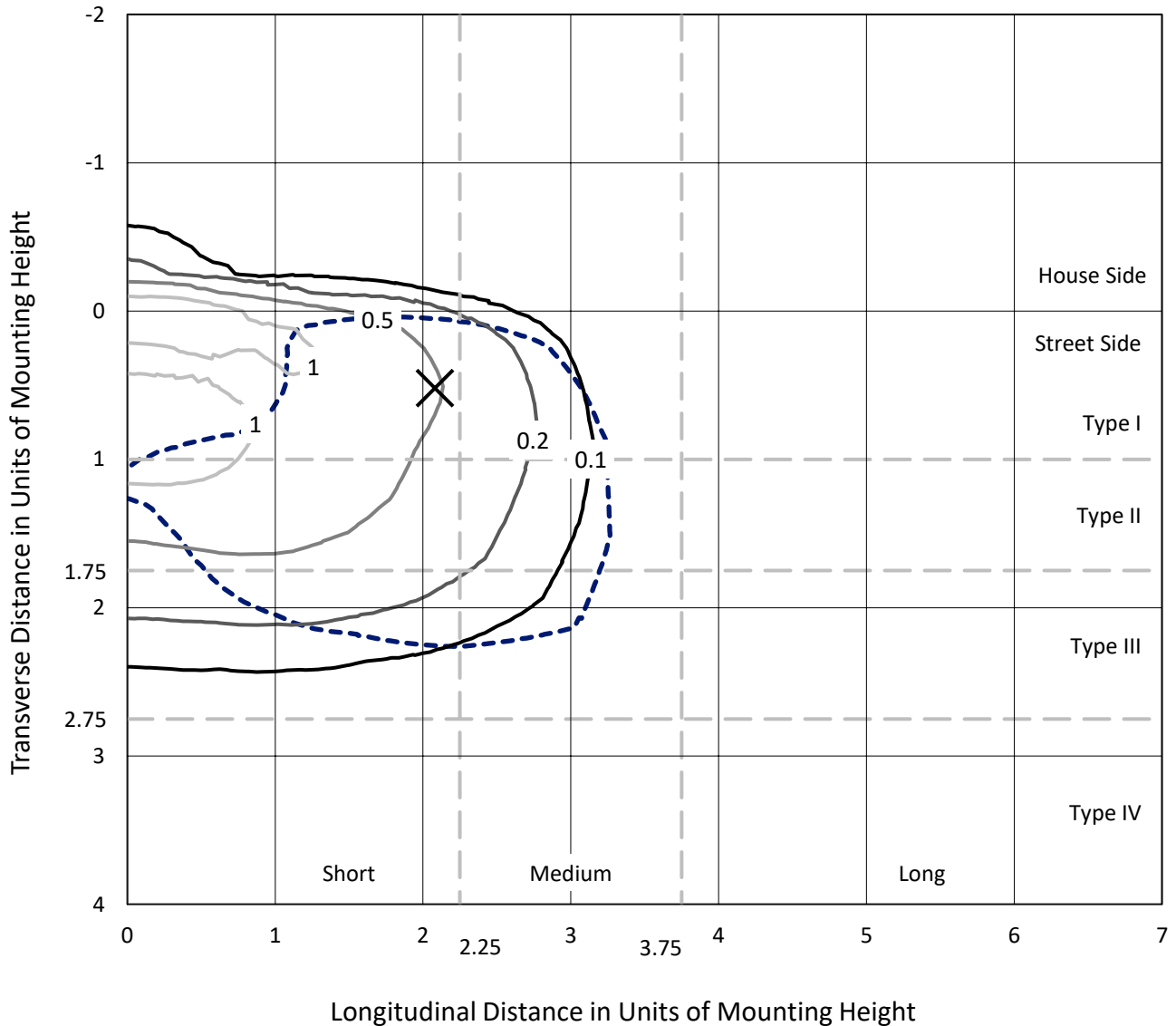
Input Watts (W): 63
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

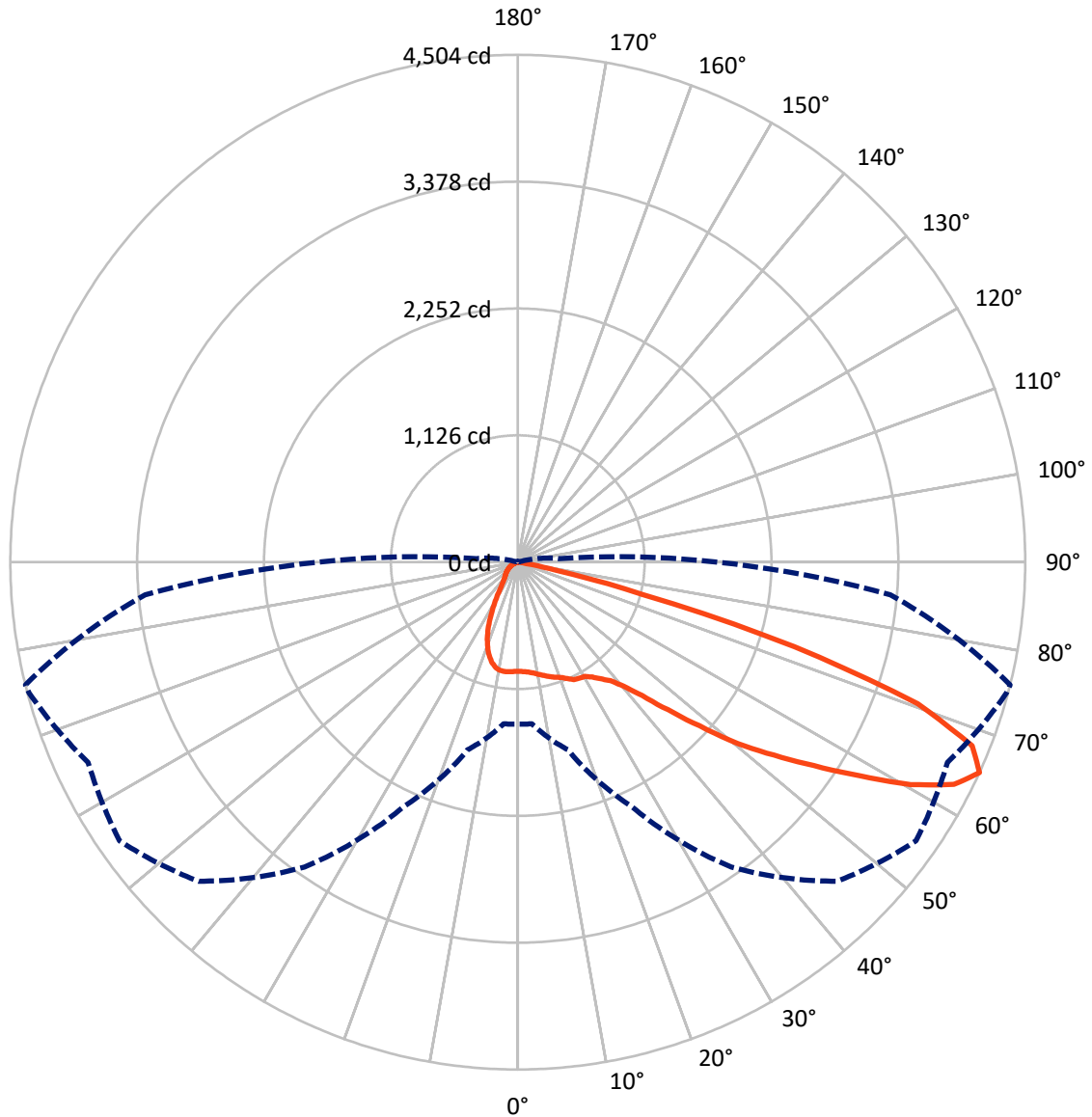
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical



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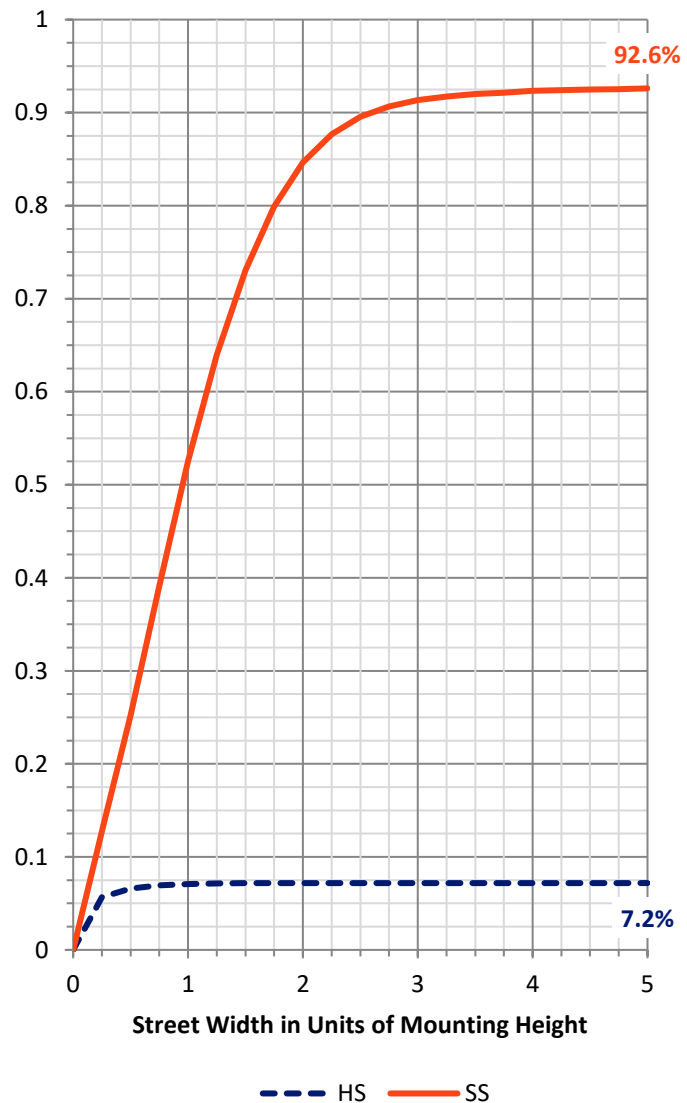
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 382.3 | 0.0 | 382.3 |
| | % Fixture | 7.2 | 0.0 | 7.2 |
| Street Side | Lumens | 4910.7 | 0.0 | 4910.7 |
| | % Fixture | 92.8 | 0.0 | 92.8 |
| Total | Lumens | 5293.0 | 0.0 | 5293.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 79.8 | 1.5 |
| 10°-20° | 177.6 | 3.4 |
| 20°-30° | 286.2 | 5.4 |
| 30°-40° | 497.6 | 9.4 |
| 40°-50° | 822.2 | 15.5 |
| 50°-60° | 1270.2 | 24.0 |
| 60°-70° | 1551.1 | 29.3 |
| 70°-80° | 588.7 | 11.1 |
| 80°-90° | 19.6 | 0.4 |
| 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° | 5293.0 | 100.0 |
| 0°-180° | 5293.0 | 100.0 |



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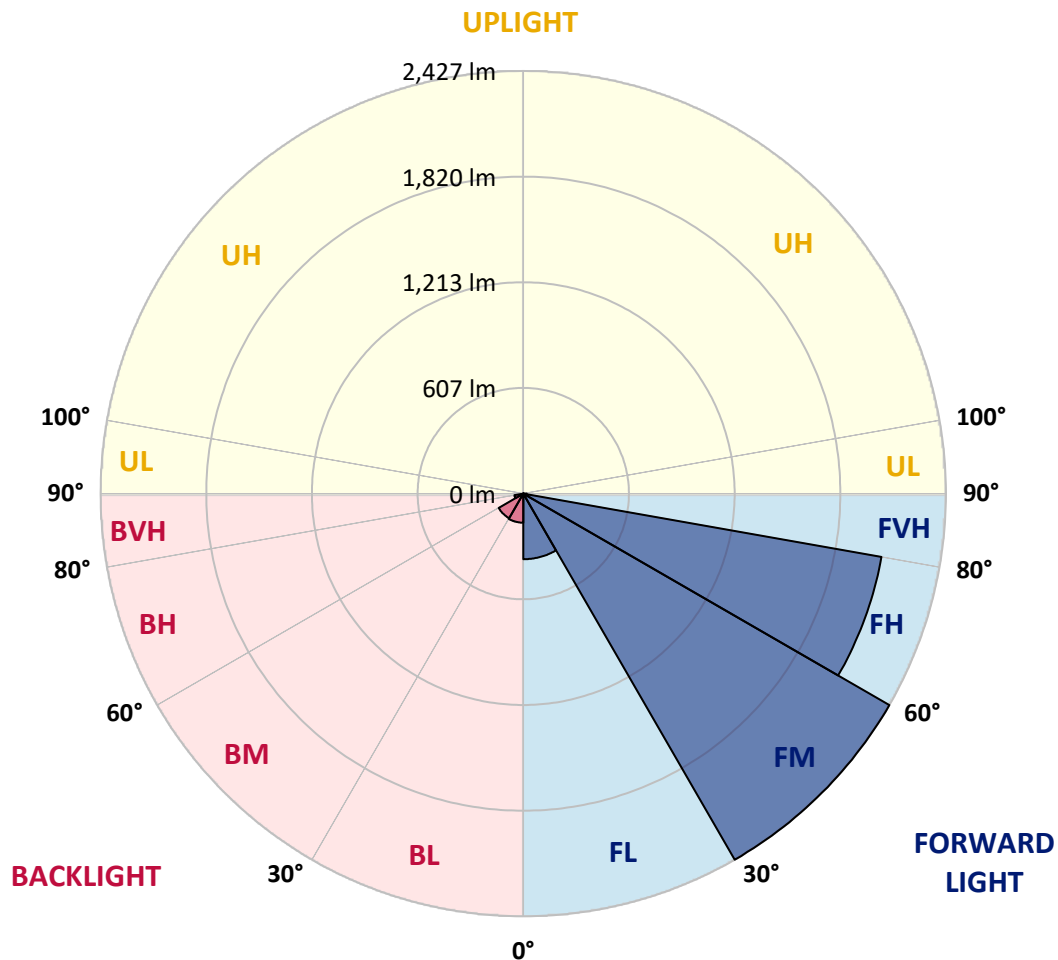
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 376.5 | 7.1 | | | |
| FM (30°-60°) | 2426.9 | 45.9 | | | |
| FH (60°-80°) | 2087.9 | 39.4 | | | G2/5000 |
| FVH (80°-90°) | 19.4 | 0.4 | | | G1/100 |
| BL (0°-30°) | 167.0 | 3.2 | B1/500 | | |
| BM (30°-60°) | 163.1 | 3.1 | B0/220 | | |
| BH (60°-80°) | 51.9 | 1.0 | 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 III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 968.3 | 968.3 | 968.3 | 968.3 | 968.3 | 968.3 | 968.3 | 968.3 | 968.3 | 968.3 | 968.3 |
| 2.5° | 925.3 | 925.7 | 927.9 | 933.5 | 942.1 | 949.2 | 955.2 | 964.9 | 971.6 | 972.4 | 974.6 |
| 5° | 861.4 | 856.9 | 861.4 | 876.0 | 889.0 | 908.8 | 933.1 | 957.4 | 979.1 | 980.6 | 991.1 |
| 7.5° | 789.6 | 793.4 | 800.5 | 815.4 | 840.1 | 870.3 | 905.5 | 948.8 | 989.9 | 993.7 | 1014.2 |
| 10° | 716.8 | 725.0 | 736.6 | 759.4 | 793.7 | 833.0 | 880.8 | 942.8 | 1007.1 | 1012.4 | 1047.9 |
| 12.5° | 649.5 | 653.2 | 667.4 | 698.1 | 740.7 | 796.0 | 862.1 | 939.5 | 1026.2 | 1032.5 | 1083.7 |
| 15° | 597.9 | 602.8 | 615.1 | 642.8 | 690.2 | 761.2 | 846.8 | 938.4 | 1044.9 | 1053.8 | 1119.6 |
| 17.5° | 588.2 | 591.2 | 596.4 | 615.1 | 656.6 | 733.6 | 833.0 | 938.0 | 1062.8 | 1073.6 | 1152.9 |
| 20° | 628.2 | 625.6 | 620.3 | 618.5 | 641.3 | 712.3 | 822.9 | 941.0 | 1080.0 | 1092.3 | 1188.0 |
| 22.5° | 728.3 | 731.7 | 701.1 | 664.8 | 657.3 | 708.9 | 821.4 | 955.2 | 1107.3 | 1121.8 | 1227.2 |
| 25° | 941.0 | 915.2 | 867.4 | 780.7 | 715.3 | 729.5 | 838.2 | 988.8 | 1139.0 | 1155.1 | 1262.7 |
| 27.5° | 1176.0 | 1168.2 | 1093.8 | 951.1 | 829.2 | 772.8 | 868.1 | 1014.6 | 1149.5 | 1165.9 | 1282.9 |
| 30° | 1407.0 | 1416.3 | 1331.1 | 1173.4 | 994.8 | 853.2 | 896.1 | 1024.3 | 1158.8 | 1176.0 | 1308.7 |
| 32.5° | 1621.1 | 1632.3 | 1557.6 | 1401.4 | 1189.9 | 992.2 | 944.3 | 1062.1 | 1198.1 | 1215.6 | 1351.7 |
| 35° | 1789.7 | 1791.1 | 1734.7 | 1610.3 | 1402.9 | 1161.1 | 1048.6 | 1128.2 | 1251.2 | 1271.7 | 1397.3 |
| 37.5° | 1944.4 | 1942.1 | 1876.0 | 1768.7 | 1580.4 | 1328.9 | 1179.8 | 1204.4 | 1311.7 | 1333.0 | 1463.0 |
| 40° | 2059.1 | 2060.6 | 2039.3 | 1938.4 | 1745.9 | 1484.0 | 1283.7 | 1275.8 | 1413.3 | 1446.6 | 1558.7 |
| 42.5° | 2135.7 | 2149.5 | 2160.0 | 2108.8 | 1954.1 | 1674.9 | 1443.2 | 1428.7 | 1589.7 | 1617.4 | 1694.0 |
| 45° | 2197.7 | 2222.4 | 2274.7 | 2272.1 | 2154.0 | 1909.2 | 1662.2 | 1632.3 | 1839.7 | 1869.3 | 1866.3 |
| 47.5° | 2243.0 | 2268.0 | 2354.7 | 2407.0 | 2342.0 | 2136.4 | 1937.6 | 1911.9 | 2138.3 | 2170.5 | 2056.5 |
| 50° | 2266.1 | 2296.0 | 2406.6 | 2507.9 | 2488.8 | 2355.4 | 2251.5 | 2253.0 | 2498.9 | 2530.0 | 2277.0 |
| 52.5° | 2211.9 | 2250.8 | 2434.3 | 2616.7 | 2653.6 | 2565.1 | 2545.6 | 2595.0 | 2819.9 | 2846.5 | 2476.1 |
| 55° | 2038.9 | 2087.9 | 2396.5 | 2709.3 | 2844.6 | 2812.5 | 2879.7 | 2954.9 | 3170.9 | 3188.0 | 2680.6 |
| 57.5° | 1929.4 | 1981.4 | 2285.2 | 2788.2 | 3074.1 | 3123.4 | 3229.9 | 3284.8 | 3533.0 | 3576.7 | 2915.2 |
| 60° | 1837.1 | 1877.8 | 2193.6 | 2805.0 | 3307.3 | 3503.8 | 3607.3 | 3664.1 | 3979.9 | 4008.3 | 3173.5 |
| 62.5° | 1683.5 | 1730.2 | 2038.9 | 2687.7 | 3424.6 | 3808.4 | 4022.9 | 3997.5 | 4325.6 | 4345.4 | 3331.9 |
| 65° | 1436.5 | 1440.6 | 1725.0 | 2392.8 | 3303.5 | 4006.1 | 4314.7 | 4208.2 | 4490.8 | 4504.2 | 3319.6 |
| 67.5° | 1072.1 | 1111.8 | 1327.0 | 1880.8 | 2790.4 | 3837.2 | 4409.3 | 4213.8 | 4386.5 | 4349.1 | 3056.1 |
| 70° | 690.6 | 720.9 | 899.5 | 1304.2 | 2012.0 | 3202.2 | 4095.8 | 3925.0 | 3849.9 | 3766.9 | 2501.6 |
| 72.5° | 318.8 | 357.6 | 534.4 | 745.2 | 1193.2 | 2281.1 | 3324.8 | 3188.8 | 2771.0 | 2566.2 | 1590.1 |
| 75° | 139.0 | 148.7 | 263.8 | 393.1 | 559.4 | 1206.3 | 2192.1 | 1979.5 | 1251.5 | 1143.2 | 636.4 |
| 77.5° | 84.8 | 91.2 | 138.3 | 210.8 | 219.7 | 459.7 | 1180.9 | 863.6 | 386.8 | 341.2 | 172.6 |
| 80° | 57.5 | 64.7 | 100.5 | 110.2 | 75.1 | 128.2 | 443.2 | 230.6 | 78.1 | 74.7 | 37.0 |
| 82.5° | 28.0 | 35.5 | 74.4 | 61.7 | 32.5 | 41.1 | 128.9 | 49.3 | 22.8 | 21.3 | 13.1 |
| 85° | 4.1 | 7.1 | 41.9 | 40.4 | 14.6 | 9.7 | 22.8 | 12.3 | 7.8 | 7.5 | 6.0 |
| 87.5° | 0.0 | 0.0 | 14.2 | 6.4 | 1.5 | 1.5 | 2.6 | 2.6 | 3.0 | 2.6 | 3.0 |
| 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° | 968.3 | 968.3 | 968.3 | 968.3 | 968.3 | 968.3 | 968.3 | 968.3 | 968.3 | 968.3 | 968.3 |
| 2.5° | 975.7 | 977.6 | 970.5 | 960.4 | 949.6 | 938.7 | 923.4 | 909.6 | 901.4 | 906.2 | 894.3 |
| 5° | 993.3 | 991.8 | 973.1 | 942.5 | 901.7 | 852.8 | 804.2 | 762.7 | 749.3 | 729.1 | 726.8 |
| 7.5° | 1017.6 | 1013.5 | 973.9 | 903.6 | 811.7 | 719.7 | 630.1 | 570.6 | 536.6 | 507.9 | 508.6 |
| 10° | 1051.6 | 1039.6 | 965.3 | 835.2 | 683.9 | 545.2 | 430.9 | 352.4 | 318.4 | 307.6 | 299.0 |
| 12.5° | 1086.7 | 1063.6 | 941.4 | 742.9 | 532.5 | 372.6 | 262.0 | 214.1 | 193.2 | 186.5 | 185.7 |
| 15° | 1118.1 | 1081.5 | 899.5 | 631.9 | 387.2 | 238.0 | 178.6 | 162.9 | 160.3 | 160.7 | 160.3 |
| 17.5° | 1149.1 | 1095.7 | 841.6 | 514.2 | 263.1 | 170.8 | 153.6 | 149.9 | 151.0 | 152.5 | 152.1 |
| 20° | 1174.9 | 1098.7 | 767.6 | 392.4 | 186.1 | 149.9 | 144.2 | 143.5 | 144.6 | 145.7 | 145.7 |
| 22.5° | 1202.9 | 1100.9 | 679.8 | 271.7 | 152.1 | 139.4 | 136.4 | 136.4 | 137.9 | 139.4 | 139.8 |
| 25° | 1223.9 | 1088.6 | 574.8 | 195.1 | 134.2 | 129.3 | 127.8 | 128.2 | 129.7 | 130.4 | 130.0 |
| 27.5° | 1227.2 | 1053.8 | 463.4 | 149.5 | 121.8 | 117.0 | 115.5 | 117.0 | 115.1 | 116.2 | 115.5 |
| 30° | 1230.2 | 1009.7 | 350.5 | 125.9 | 110.6 | 103.1 | 100.9 | 98.7 | 97.2 | 95.3 | 94.9 |
| 32.5° | 1239.6 | 957.8 | 256.0 | 113.2 | 100.2 | 91.9 | 86.7 | 80.3 | 75.5 | 74.0 | 73.6 |
| 35° | 1243.7 | 895.4 | 188.0 | 103.1 | 90.8 | 81.8 | 72.5 | 63.5 | 56.4 | 53.8 | 55.7 |
| 37.5° | 1259.4 | 834.8 | 145.7 | 95.7 | 82.6 | 71.4 | 59.4 | 48.2 | 41.5 | 40.0 | 40.7 |
| 40° | 1291.5 | 769.1 | 122.2 | 89.3 | 75.5 | 61.7 | 47.1 | 36.2 | 31.8 | 30.3 | 29.9 |
| 42.5° | 1343.1 | 703.7 | 108.7 | 83.3 | 68.4 | 51.9 | 37.0 | 28.4 | 24.7 | 23.5 | 23.5 |
| 45° | 1405.9 | 640.9 | 99.4 | 77.0 | 60.9 | 41.9 | 29.1 | 22.8 | 20.6 | 19.8 | 19.8 |
| 47.5° | 1488.5 | 586.0 | 91.6 | 70.6 | 52.7 | 33.3 | 23.5 | 19.8 | 18.3 | 18.7 | 19.1 |
| 50° | 1572.2 | 545.2 | 83.0 | 63.5 | 43.3 | 27.3 | 20.2 | 17.6 | 17.2 | 17.6 | 17.6 |
| 52.5° | 1635.3 | 521.3 | 71.4 | 53.8 | 34.0 | 22.8 | 17.9 | 16.4 | 16.1 | 15.3 | 15.3 |
| 55° | 1720.5 | 516.1 | 56.8 | 43.7 | 26.9 | 19.1 | 16.1 | 14.9 | 13.8 | 13.1 | 12.7 |
| 57.5° | 1830.0 | 522.1 | 43.7 | 34.0 | 20.9 | 15.7 | 14.2 | 12.3 | 10.8 | 9.3 | 9.3 |
| 60° | 1898.0 | 508.6 | 34.0 | 26.2 | 15.3 | 12.7 | 10.8 | 9.0 | 7.1 | 6.0 | 5.6 |
| 62.5° | 1876.4 | 451.8 | 26.9 | 19.4 | 10.8 | 9.3 | 7.1 | 6.0 | 4.1 | 3.0 | 2.6 |
| 65° | 1764.6 | 364.7 | 21.7 | 13.5 | 7.8 | 5.6 | 3.7 | 3.7 | 1.9 | 0.4 | 0.0 |
| 67.5° | 1544.5 | 270.2 | 17.2 | 9.0 | 4.5 | 2.6 | 1.9 | 1.1 | 0.0 | 0.0 | 0.0 |
| 70° | 1257.1 | 195.1 | 13.5 | 5.6 | 2.6 | 1.9 | 0.7 | 0.4 | 0.0 | 0.0 | 0.0 |
| 72.5° | 798.2 | 111.7 | 10.5 | 3.4 | 1.9 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 308.7 | 43.7 | 7.1 | 2.2 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 87.4 | 20.6 | 4.1 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 22.8 | 9.0 | 2.2 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 10.8 | 3.7 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 6.4 | 1.5 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 3.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 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)