

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: P301866

Luminaire Tested: **GAA-AF-02-LED-U-SL4-7027-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301866
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-02-LED-U-SL4-7027-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6303.6 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 85
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

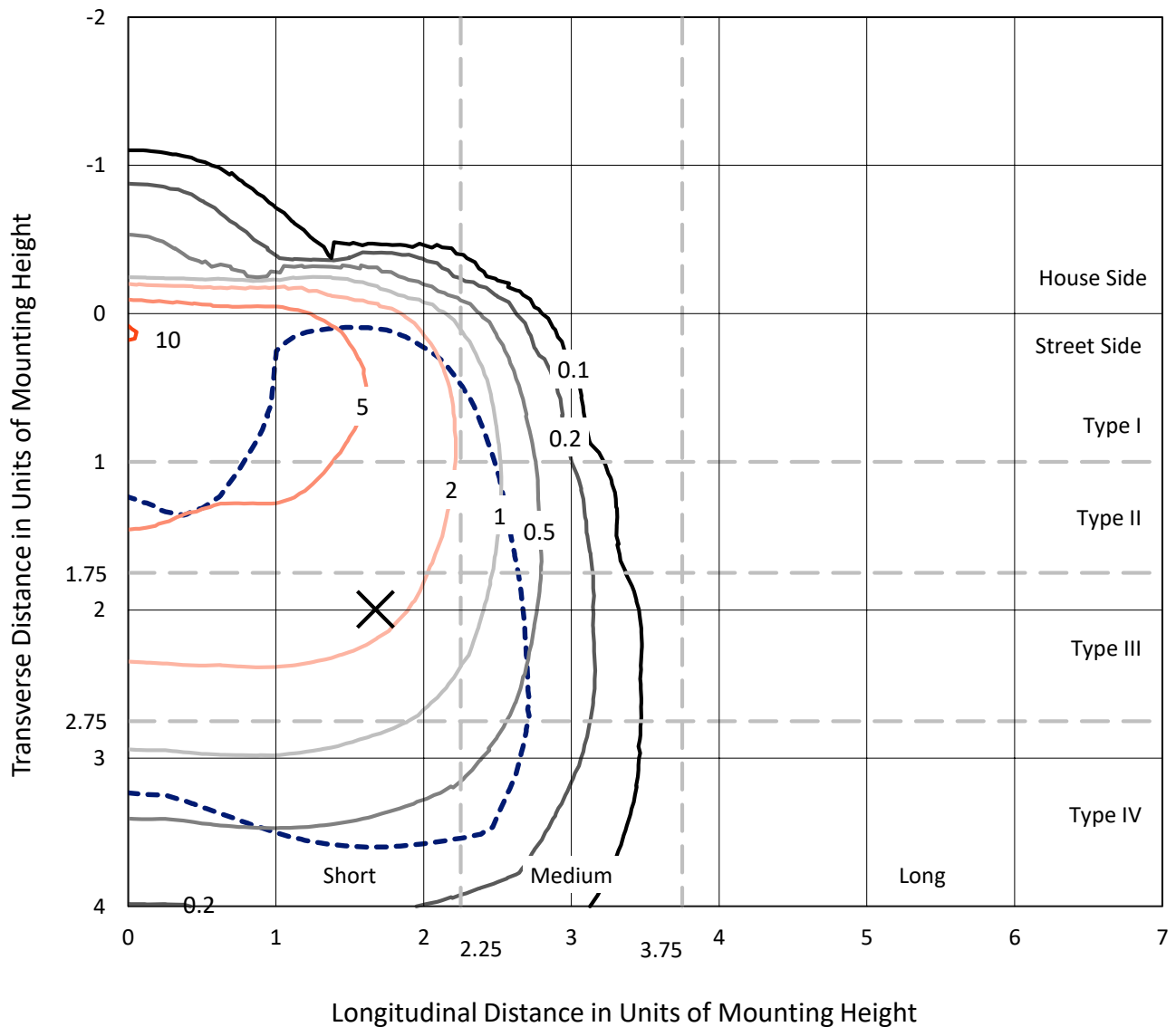


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

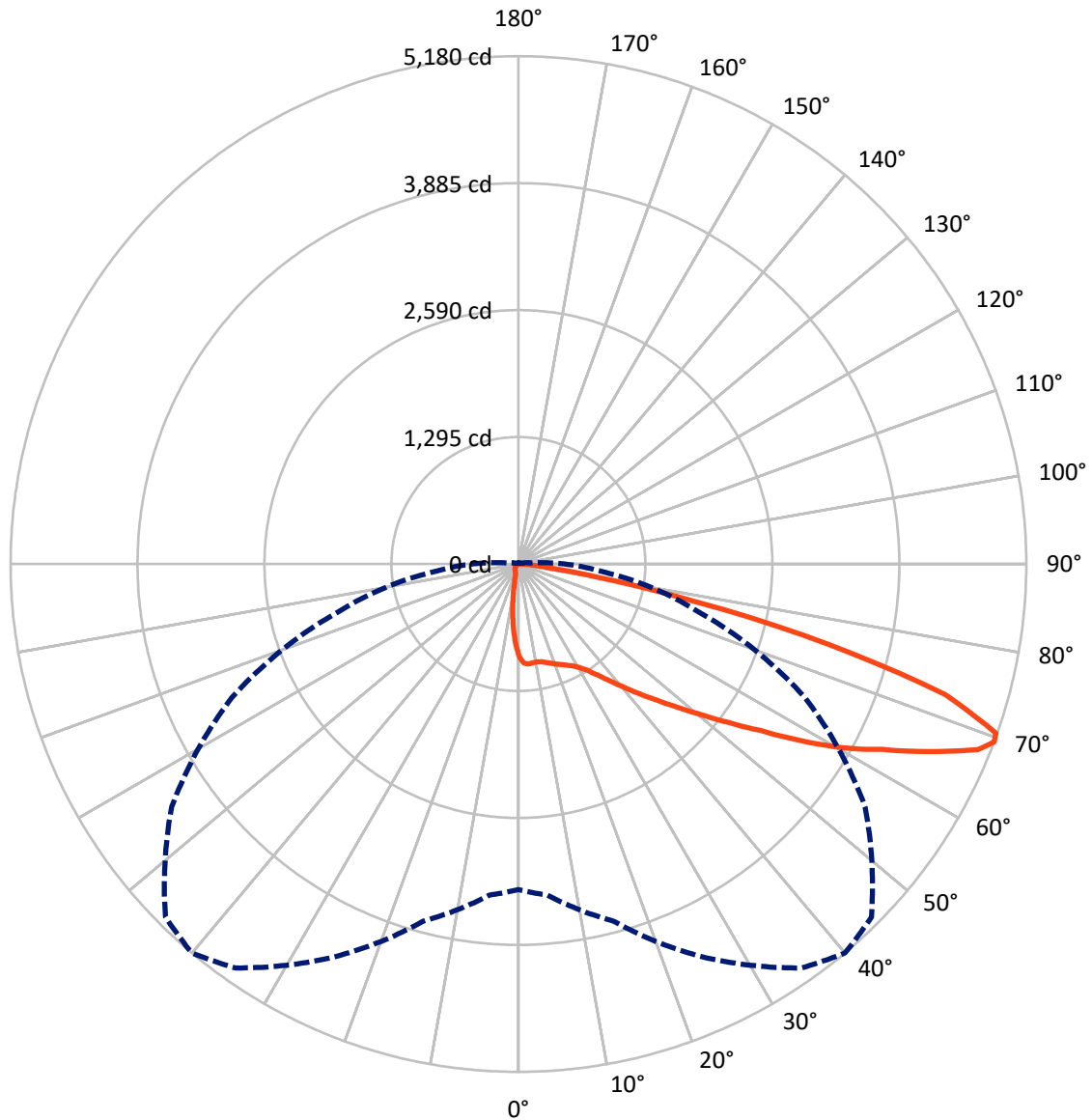


Based on 10 foot mounting height. Maximum calculated value = 10.3 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 368.8 | 0.0 | 368.8 |
| | % Fixture | 5.9 | 0.0 | 5.9 |
| Street Side | Lumens | 5934.8 | 0.0 | 5934.8 |
| | % Fixture | 94.1 | 0.0 | 94.1 |
| Total | Lumens | 6303.6 | 0.0 | 6303.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 76.4 | 1.2 |
| 10°-20° | 187.8 | 3.0 |
| 20°-30° | 316.3 | 5.0 |
| 30°-40° | 517.8 | 8.2 |
| 40°-50° | 896.5 | 14.2 |
| 50°-60° | 1412.1 | 22.4 |
| 60°-70° | 1844.2 | 29.3 |
| 70°-80° | 949.8 | 15.1 |
| 80°-90° | 102.7 | 1.6 |
| 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° | 6303.6 | 100.0 |
| 0°-180° | 6303.6 | 100.0 |

Coefficient of Utilization



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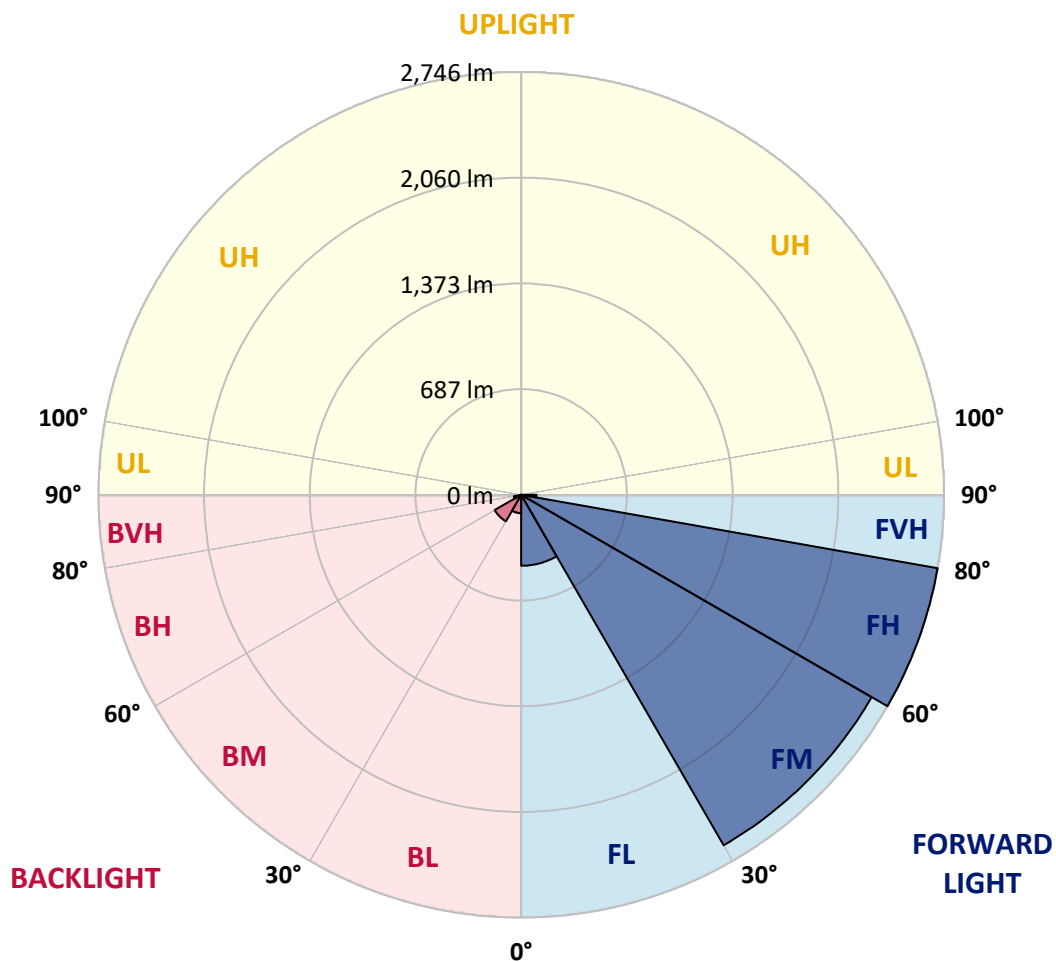
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 461.0 | 7.3 | | | |
| FM | (30°-60°) | 2628.2 | 41.7 | | | |
| FH | (60°-80°) | 2746.1 | 43.6 | | | G2/5000 |
| FVH | (80°-90°) | 99.5 | 1.6 | | | G1/100 |
| BL | (0°-30°) | 119.5 | 1.9 | B1/500 | | |
| BM | (30°-60°) | 198.2 | 3.1 | B0/220 | | |
| BH | (60°-80°) | 47.9 | 0.8 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 3.2 | 0.1 | | | 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° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 941.8 | 941.8 | 941.8 | 941.8 | 941.8 | 941.8 | 941.8 | 941.8 | 941.8 | 941.8 | 941.8 |
| 2.5° | 1034.1 | 1028.5 | 1025.1 | 1020.6 | 1015.0 | 1010.1 | 1008.2 | 994.3 | 981.2 | 963.2 | 942.5 |
| 5° | 1053.2 | 1051.4 | 1045.4 | 1039.4 | 1032.6 | 1025.1 | 1021.0 | 1004.5 | 985.7 | 959.4 | 923.4 |
| 7.5° | 1055.1 | 1052.9 | 1045.4 | 1037.1 | 1027.7 | 1018.7 | 1011.6 | 995.1 | 977.8 | 951.2 | 907.3 |
| 10° | 1052.1 | 1049.5 | 1043.9 | 1034.9 | 1023.2 | 1014.6 | 1007.5 | 991.7 | 977.1 | 953.1 | 904.3 |
| 12.5° | 1048.7 | 1046.1 | 1043.5 | 1039.0 | 1028.8 | 1022.8 | 1016.8 | 1001.8 | 988.7 | 968.4 | 915.2 |
| 15° | 1052.1 | 1050.6 | 1053.6 | 1051.7 | 1046.1 | 1040.9 | 1034.9 | 1021.3 | 1009.3 | 992.5 | 935.0 |
| 17.5° | 1066.4 | 1066.4 | 1075.7 | 1076.9 | 1071.6 | 1064.1 | 1055.5 | 1042.0 | 1031.8 | 1017.6 | 958.7 |
| 20° | 1099.8 | 1098.6 | 1110.6 | 1112.9 | 1100.1 | 1088.5 | 1075.7 | 1059.2 | 1051.4 | 1042.4 | 981.9 |
| 22.5° | 1157.2 | 1151.9 | 1159.0 | 1156.8 | 1131.7 | 1113.6 | 1097.9 | 1077.6 | 1073.5 | 1069.4 | 1007.8 |
| 25° | 1231.8 | 1228.8 | 1233.7 | 1211.6 | 1167.3 | 1142.9 | 1124.2 | 1101.3 | 1101.3 | 1105.4 | 1037.1 |
| 27.5° | 1340.3 | 1329.0 | 1312.5 | 1273.5 | 1207.1 | 1175.9 | 1155.7 | 1131.3 | 1137.7 | 1153.0 | 1075.7 |
| 30° | 1451.3 | 1439.0 | 1401.1 | 1341.0 | 1255.5 | 1222.8 | 1199.2 | 1173.7 | 1188.7 | 1216.8 | 1127.5 |
| 32.5° | 1560.9 | 1547.0 | 1493.4 | 1417.6 | 1324.9 | 1292.2 | 1269.4 | 1241.2 | 1266.4 | 1313.6 | 1203.3 |
| 35° | 1667.1 | 1654.7 | 1592.8 | 1503.5 | 1417.2 | 1390.2 | 1369.2 | 1344.8 | 1377.0 | 1443.1 | 1310.3 |
| 37.5° | 1786.4 | 1772.9 | 1697.5 | 1600.7 | 1529.4 | 1509.9 | 1494.5 | 1470.1 | 1526.4 | 1623.2 | 1459.2 |
| 40° | 1933.1 | 1910.2 | 1808.5 | 1712.1 | 1659.2 | 1649.8 | 1639.3 | 1635.9 | 1723.4 | 1857.3 | 1657.7 |
| 42.5° | 2101.2 | 2063.7 | 1924.9 | 1829.6 | 1801.8 | 1808.5 | 1805.9 | 1820.9 | 1969.9 | 2148.5 | 1899.4 |
| 45° | 2269.3 | 2220.9 | 2054.3 | 1954.9 | 1958.6 | 1982.3 | 1996.9 | 2056.9 | 2278.7 | 2482.4 | 2159.4 |
| 47.5° | 2411.9 | 2364.2 | 2178.5 | 2090.3 | 2135.4 | 2181.9 | 2221.7 | 2335.4 | 2596.1 | 2811.1 | 2361.6 |
| 50° | 2533.8 | 2488.8 | 2310.2 | 2239.3 | 2340.6 | 2415.7 | 2480.2 | 2648.7 | 2937.6 | 3061.4 | 2503.5 |
| 52.5° | 2633.7 | 2603.6 | 2446.8 | 2410.0 | 2575.1 | 2685.1 | 2779.6 | 2981.5 | 3240.0 | 3264.8 | 2613.8 |
| 55° | 2730.8 | 2709.4 | 2593.5 | 2613.0 | 2850.5 | 3000.2 | 3119.9 | 3334.6 | 3500.4 | 3434.4 | 2719.6 |
| 57.5° | 2842.6 | 2823.1 | 2760.9 | 2870.4 | 3212.6 | 3401.0 | 3531.5 | 3647.5 | 3729.7 | 3607.7 | 2819.4 |
| 60° | 2956.7 | 2945.5 | 2947.0 | 3156.3 | 3628.4 | 3809.2 | 3881.3 | 3911.3 | 3954.8 | 3770.9 | 2825.0 |
| 62.5° | 3065.5 | 3086.9 | 3159.7 | 3474.5 | 4026.5 | 4165.3 | 4201.7 | 4231.3 | 4180.3 | 3796.8 | 2610.0 |
| 65° | 3249.8 | 3284.7 | 3458.4 | 3900.4 | 4464.3 | 4612.9 | 4650.4 | 4548.8 | 4215.9 | 3462.1 | 2123.0 |
| 67.5° | 3339.8 | 3403.6 | 3713.5 | 4297.4 | 4889.1 | 5054.2 | 5040.3 | 4569.4 | 3783.3 | 2640.0 | 1362.4 |
| 69° | 3321.1 | 3389.0 | 3772.4 | 4418.9 | 5030.2 | 5179.9 | 5091.7 | 4316.9 | 3223.1 | 1912.5 | 836.4 |
| 70° | 3246.8 | 3315.4 | 3742.0 | 4414.4 | 5048.2 | 5166.7 | 4996.4 | 4005.1 | 2725.2 | 1398.4 | 523.1 |
| 72.5° | 2711.3 | 2770.6 | 3322.2 | 3990.1 | 4650.4 | 4554.0 | 4179.9 | 2774.7 | 1327.9 | 380.8 | 117.8 |
| 75° | 1669.0 | 1702.0 | 2383.8 | 3005.9 | 3512.4 | 3264.8 | 2784.9 | 1380.4 | 395.9 | 107.7 | 65.3 |
| 77.5° | 881.8 | 896.8 | 1305.0 | 1771.8 | 2226.5 | 1842.3 | 1427.3 | 538.4 | 182.4 | 67.5 | 47.3 |
| 80° | 521.2 | 532.4 | 702.8 | 810.1 | 963.6 | 804.8 | 570.7 | 330.6 | 130.6 | 42.4 | 42.0 |
| 82.5° | 298.3 | 305.4 | 509.5 | 450.3 | 379.7 | 324.2 | 284.0 | 313.3 | 78.4 | 28.5 | 43.5 |
| 85° | 109.6 | 111.1 | 286.7 | 342.6 | 225.9 | 134.3 | 141.1 | 259.7 | 21.0 | 18.0 | 34.1 |
| 87.5° | 51.0 | 49.9 | 147.5 | 209.7 | 132.1 | 85.2 | 109.9 | 57.0 | 8.3 | 11.6 | 9.4 |
| 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° | 941.8 | 941.8 | 941.8 | 941.8 | 941.8 | 941.8 | 941.8 | 941.8 | 941.8 | 941.8 | 941.8 |
| 2.5° | 930.5 | 916.7 | 891.5 | 865.6 | 839.4 | 819.1 | 799.2 | 783.5 | 778.2 | 768.4 | 769.2 |
| 5° | 902.0 | 876.5 | 824.0 | 770.7 | 715.2 | 669.4 | 626.2 | 591.3 | 574.5 | 557.2 | 557.2 |
| 7.5° | 877.3 | 840.1 | 757.9 | 671.3 | 581.6 | 506.2 | 438.3 | 387.2 | 359.1 | 336.6 | 336.2 |
| 10° | 867.9 | 817.6 | 702.8 | 578.6 | 453.6 | 350.8 | 270.2 | 218.4 | 191.7 | 174.5 | 173.7 |
| 12.5° | 872.0 | 809.7 | 660.4 | 493.0 | 336.2 | 225.5 | 156.5 | 123.1 | 111.8 | 106.6 | 106.6 |
| 15° | 884.0 | 807.5 | 618.0 | 409.4 | 237.5 | 141.1 | 103.9 | 94.9 | 94.2 | 94.2 | 94.2 |
| 17.5° | 898.6 | 808.2 | 574.5 | 327.9 | 161.7 | 100.9 | 89.7 | 88.6 | 89.3 | 89.3 | 89.3 |
| 20° | 913.7 | 808.6 | 527.6 | 252.5 | 114.1 | 87.8 | 84.4 | 84.0 | 84.8 | 84.8 | 85.2 |
| 22.5° | 932.0 | 810.5 | 480.7 | 188.7 | 94.2 | 82.9 | 80.3 | 80.3 | 80.7 | 80.7 | 80.3 |
| 25° | 953.1 | 814.2 | 431.9 | 140.0 | 85.9 | 79.5 | 77.3 | 76.9 | 77.3 | 76.9 | 76.5 |
| 27.5° | 979.3 | 819.5 | 377.5 | 109.6 | 82.2 | 76.2 | 74.3 | 74.3 | 73.9 | 73.5 | 73.2 |
| 30° | 1012.3 | 825.5 | 316.3 | 93.1 | 78.4 | 73.2 | 71.3 | 70.9 | 70.5 | 69.8 | 69.8 |
| 32.5° | 1062.6 | 838.6 | 255.9 | 84.4 | 74.3 | 69.0 | 67.5 | 67.5 | 66.8 | 66.0 | 65.7 |
| 35° | 1139.9 | 864.5 | 201.9 | 79.2 | 69.8 | 64.5 | 62.7 | 62.7 | 61.9 | 61.5 | 61.2 |
| 37.5° | 1246.8 | 903.9 | 156.8 | 74.3 | 65.3 | 59.7 | 57.8 | 57.4 | 56.7 | 55.9 | 55.5 |
| 40° | 1389.1 | 952.7 | 123.4 | 69.8 | 60.8 | 54.8 | 53.3 | 52.5 | 51.0 | 49.9 | 49.9 |
| 42.5° | 1567.7 | 1008.2 | 100.2 | 64.9 | 55.5 | 50.3 | 49.2 | 48.0 | 45.4 | 44.3 | 43.9 |
| 45° | 1754.5 | 1058.1 | 84.8 | 59.3 | 50.3 | 45.8 | 45.0 | 43.2 | 39.8 | 38.6 | 38.6 |
| 47.5° | 1889.2 | 1069.7 | 74.7 | 54.0 | 45.4 | 40.9 | 40.5 | 37.1 | 34.1 | 33.4 | 33.0 |
| 50° | 1973.3 | 1046.9 | 66.4 | 48.8 | 40.9 | 36.4 | 35.3 | 31.1 | 29.3 | 28.5 | 28.1 |
| 52.5° | 2029.9 | 1006.0 | 59.7 | 44.3 | 36.8 | 32.3 | 29.6 | 26.6 | 25.1 | 24.4 | 24.4 |
| 55° | 2075.3 | 948.2 | 52.9 | 40.1 | 33.4 | 28.9 | 25.1 | 22.9 | 21.4 | 20.6 | 20.6 |
| 57.5° | 2088.1 | 869.8 | 46.2 | 36.8 | 30.0 | 25.5 | 21.4 | 19.9 | 18.0 | 17.6 | 17.6 |
| 60° | 1995.4 | 728.3 | 40.9 | 32.6 | 27.0 | 22.1 | 18.8 | 16.9 | 15.0 | 14.6 | 14.3 |
| 62.5° | 1751.1 | 563.6 | 36.0 | 28.9 | 23.6 | 19.1 | 16.1 | 13.9 | 12.4 | 12.4 | 12.4 |
| 65° | 1335.8 | 377.8 | 31.5 | 25.1 | 20.6 | 16.1 | 13.9 | 11.3 | 10.5 | 10.5 | 10.9 |
| 67.5° | 799.6 | 205.6 | 27.0 | 21.4 | 17.6 | 13.5 | 11.6 | 9.8 | 9.4 | 9.8 | 9.8 |
| 69° | 468.6 | 120.8 | 24.4 | 19.1 | 15.4 | 12.0 | 10.1 | 8.6 | 9.4 | 9.8 | 9.8 |
| 70° | 289.3 | 81.4 | 22.5 | 17.3 | 13.9 | 10.9 | 9.4 | 8.3 | 9.0 | 9.4 | 9.4 |
| 72.5° | 80.7 | 42.0 | 18.0 | 13.5 | 11.3 | 9.0 | 7.5 | 7.5 | 8.6 | 9.0 | 9.0 |
| 75° | 52.5 | 31.1 | 13.9 | 10.1 | 8.6 | 7.1 | 6.4 | 7.1 | 8.3 | 8.6 | 8.6 |
| 77.5° | 43.5 | 25.5 | 11.3 | 8.3 | 7.1 | 6.8 | 6.0 | 6.4 | 7.5 | 7.9 | 7.9 |
| 80° | 39.8 | 18.0 | 9.0 | 7.5 | 6.4 | 6.0 | 5.6 | 5.3 | 6.8 | 7.1 | 7.1 |
| 82.5° | 37.9 | 14.3 | 7.9 | 6.8 | 6.0 | 5.3 | 4.9 | 5.3 | 6.0 | 6.4 | 6.8 |
| 85° | 23.6 | 9.4 | 7.1 | 6.4 | 5.3 | 4.9 | 4.9 | 4.9 | 5.6 | 6.0 | 6.0 |
| 87.5° | 8.6 | 7.5 | 6.4 | 5.3 | 4.5 | 4.5 | 4.5 | 4.5 | 4.9 | 5.6 | 5.6 |
| 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)