

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: P231143

Luminaire Tested: **ARCH-M-AF48-70-D-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231143
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-70-D-U-T3-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 470mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8803 lumens
Efficiency: N/A
Efficacy: 120.6 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

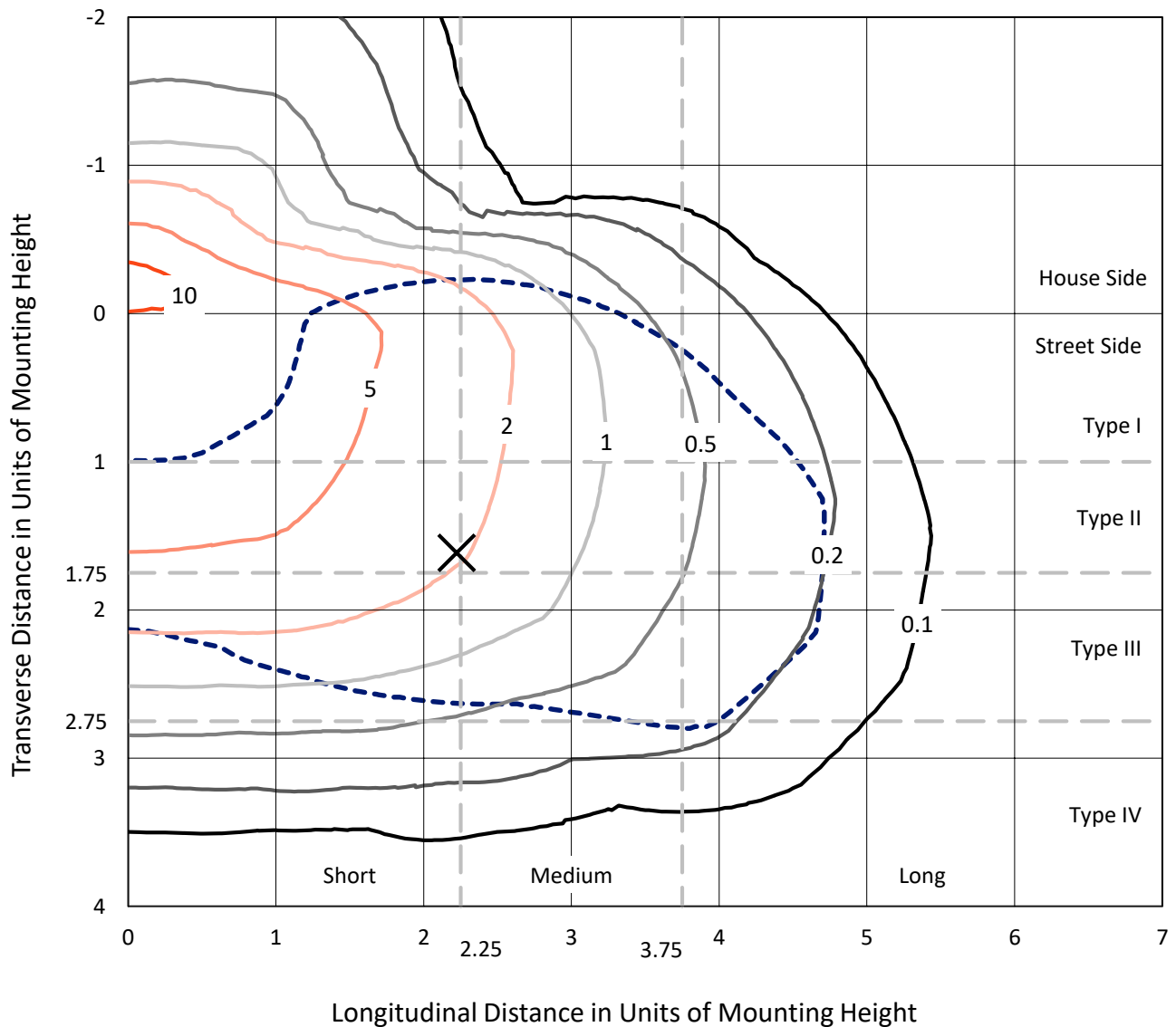
Input Watts (W): 73
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

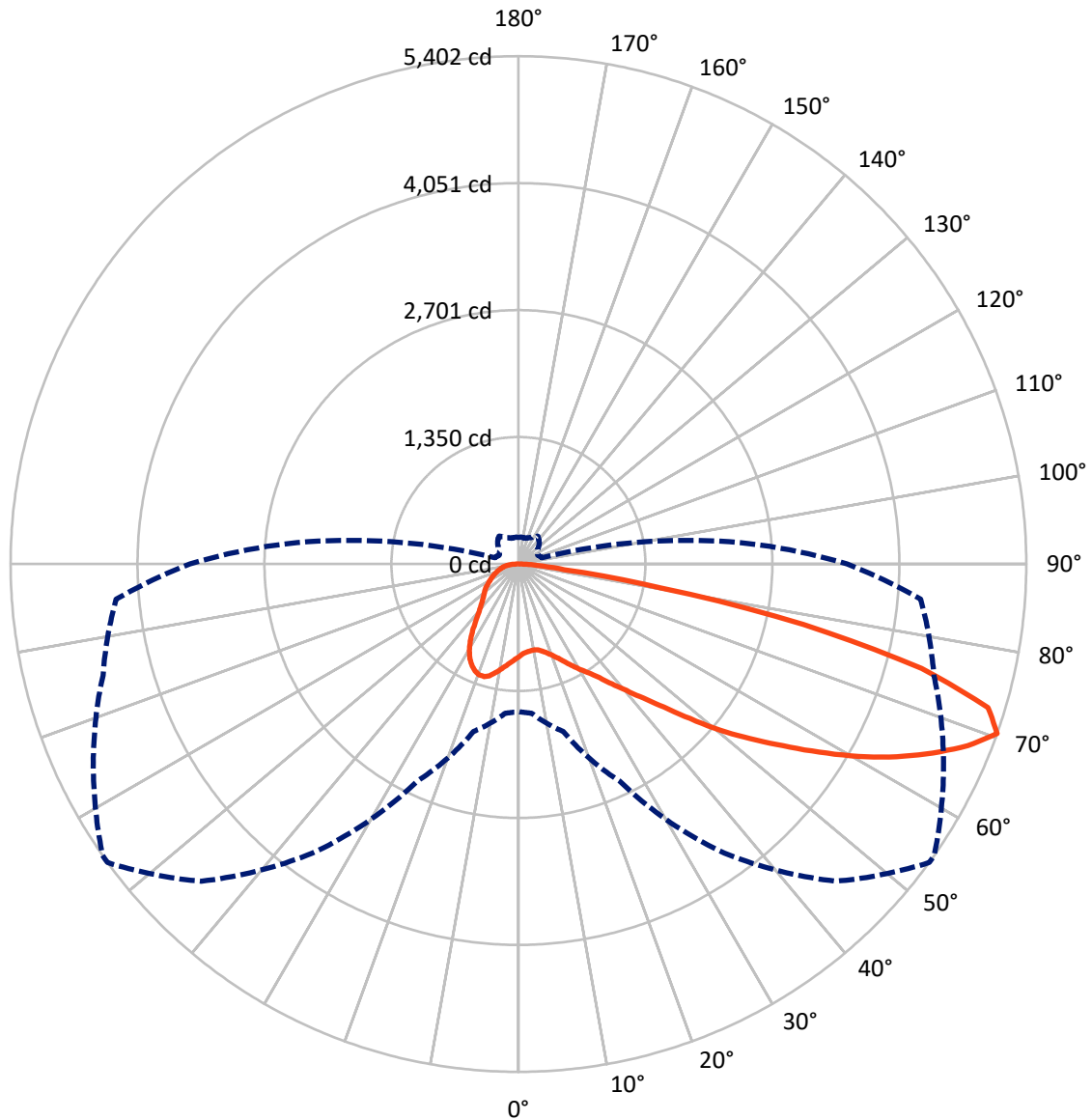
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.4 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical



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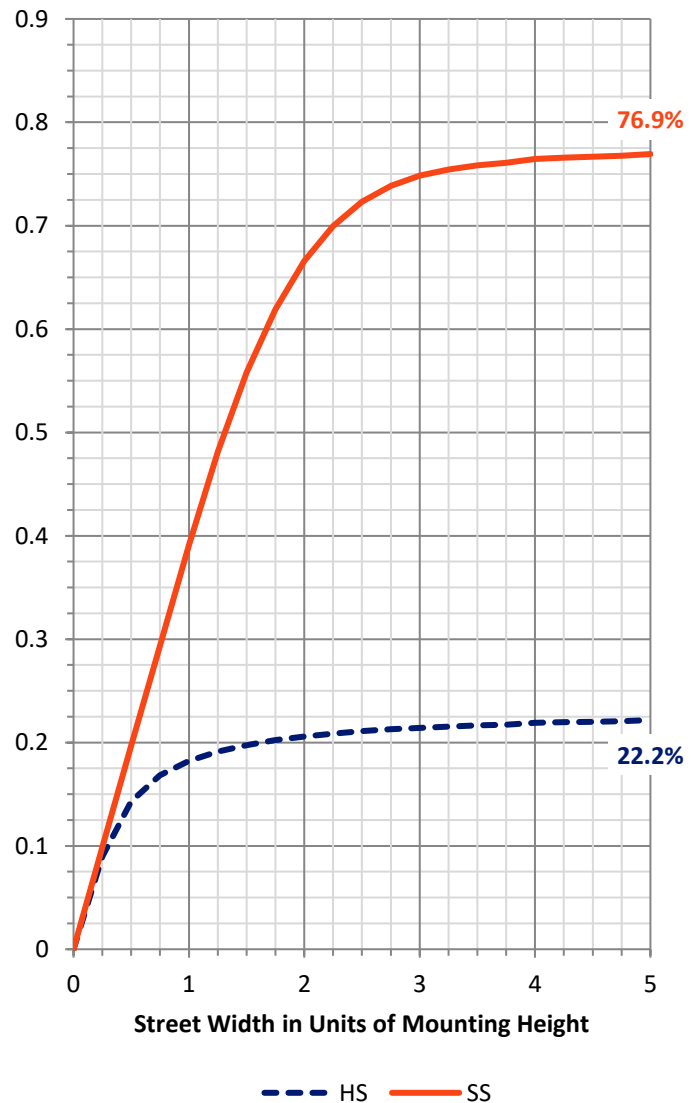
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1996.5 | 0.0 | 1996.5 |
| | % Fixture | 22.7 | 0.0 | 22.7 |
| Street Side | Lumens | 6806.5 | 0.0 | 6806.5 |
| | % Fixture | 77.3 | 0.0 | 77.3 |
| Total | Lumens | 8803.0 | 0.0 | 8803.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 96.7 | 1.1 |
| 10°-20° | 308.8 | 3.5 |
| 20°-30° | 536.6 | 6.1 |
| 30°-40° | 784.1 | 8.9 |
| 40°-50° | 1230.6 | 14.0 |
| 50°-60° | 1892.4 | 21.5 |
| 60°-70° | 2312.1 | 26.3 |
| 70°-80° | 1433.5 | 16.3 |
| 80°-90° | 208.2 | 2.4 |
| 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° | 8803.0 | 100.0 |
| 0°-180° | 8803.0 | 100.0 |

Coefficient of Utilization



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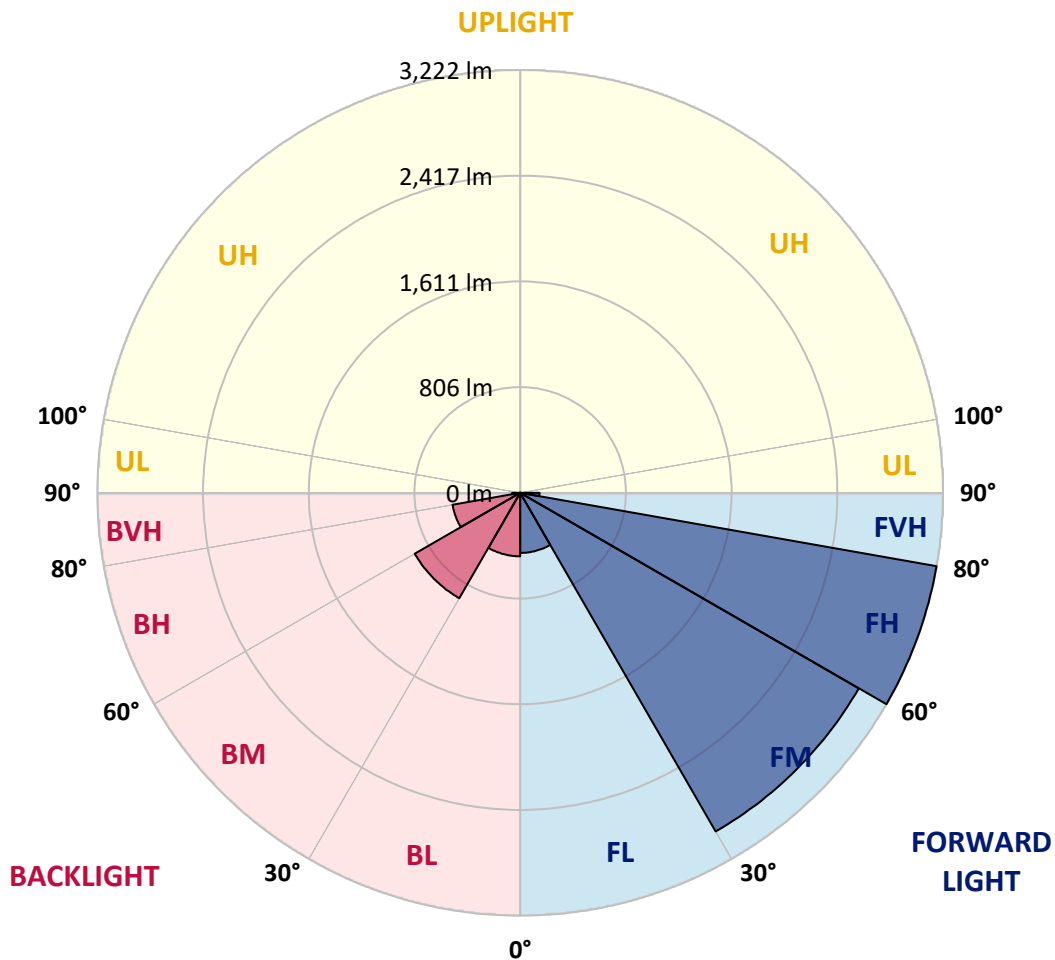
CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 458.0 | 5.2 | | | |
| FM | (30°-60°) | 2979.4 | 33.8 | | | |
| FH | (60°-80°) | 3222.0 | 36.6 | | | G2/5000 |
| FVH | (80°-90°) | 147.0 | 1.7 | | | G2/225 |
| BL | (0°-30°) | 484.0 | 5.5 | B1/500 | | |
| BM | (30°-60°) | 927.7 | 10.5 | B1/1000 | | |
| BH | (60°-80°) | 523.5 | 5.9 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 61.2 | 0.7 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 54° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 984.9 | 984.9 | 984.9 | 984.9 | 984.9 | 984.9 | 984.9 | 984.9 | 984.9 | 984.9 | 984.9 |
| 2.5° | 946.2 | 943.0 | 943.0 | 947.8 | 949.4 | 954.3 | 954.3 | 955.9 | 960.7 | 968.8 | 978.4 |
| 5° | 917.2 | 915.6 | 917.2 | 923.6 | 926.8 | 936.5 | 939.7 | 941.4 | 951.0 | 963.9 | 978.4 |
| 7.5° | 888.2 | 886.6 | 889.8 | 899.4 | 909.1 | 923.6 | 931.7 | 933.3 | 947.8 | 965.5 | 984.9 |
| 10° | 878.5 | 876.9 | 881.7 | 889.8 | 899.4 | 915.6 | 928.5 | 930.1 | 951.0 | 972.0 | 999.4 |
| 12.5° | 891.4 | 889.8 | 894.6 | 902.7 | 912.3 | 923.6 | 938.1 | 939.7 | 967.1 | 994.5 | 1023.6 |
| 15° | 923.6 | 923.6 | 925.2 | 930.1 | 939.7 | 949.4 | 962.3 | 963.9 | 992.9 | 1025.2 | 1054.2 |
| 17.5° | 973.6 | 970.4 | 970.4 | 968.8 | 975.2 | 980.0 | 996.2 | 997.8 | 1028.4 | 1057.4 | 1086.4 |
| 20° | 1034.8 | 1033.2 | 1026.8 | 1018.7 | 1017.1 | 1020.3 | 1036.5 | 1038.1 | 1068.7 | 1092.9 | 1120.3 |
| 22.5° | 1109.0 | 1110.6 | 1096.1 | 1078.4 | 1070.3 | 1075.1 | 1089.7 | 1091.3 | 1113.8 | 1134.8 | 1159.0 |
| 25° | 1207.3 | 1202.5 | 1181.5 | 1155.7 | 1139.6 | 1139.6 | 1154.1 | 1154.1 | 1175.1 | 1188.0 | 1204.1 |
| 27.5° | 1300.8 | 1291.1 | 1271.8 | 1234.7 | 1208.9 | 1213.8 | 1228.3 | 1228.3 | 1247.6 | 1252.5 | 1260.5 |
| 30° | 1402.4 | 1392.7 | 1368.5 | 1321.8 | 1287.9 | 1284.7 | 1302.4 | 1300.8 | 1326.6 | 1325.0 | 1318.5 |
| 32.5° | 1526.5 | 1521.6 | 1481.3 | 1421.7 | 1376.6 | 1365.3 | 1381.4 | 1383.0 | 1399.1 | 1394.3 | 1373.3 |
| 35° | 1700.6 | 1699.0 | 1661.9 | 1557.1 | 1497.5 | 1476.5 | 1486.2 | 1486.2 | 1497.5 | 1484.6 | 1449.1 |
| 37.5° | 1919.8 | 1923.0 | 1890.8 | 1736.0 | 1652.2 | 1616.7 | 1618.4 | 1616.7 | 1620.0 | 1605.5 | 1568.4 |
| 40° | 2139.0 | 2147.1 | 2145.5 | 1958.5 | 1852.1 | 1790.8 | 1768.3 | 1765.0 | 1773.1 | 1766.7 | 1731.2 |
| 42.5° | 2427.5 | 2446.9 | 2401.7 | 2232.5 | 2113.2 | 2010.1 | 1948.8 | 1940.7 | 1958.5 | 1966.5 | 1932.7 |
| 45° | 2727.4 | 2720.9 | 2650.0 | 2527.5 | 2419.5 | 2287.3 | 2171.2 | 2158.3 | 2171.2 | 2195.4 | 2160.0 |
| 47.5° | 2883.7 | 2878.9 | 2861.1 | 2799.9 | 2783.8 | 2632.3 | 2456.6 | 2445.3 | 2421.1 | 2454.9 | 2413.0 |
| 50° | 3141.6 | 3146.5 | 3073.9 | 3067.5 | 3135.2 | 3051.3 | 2778.9 | 2753.1 | 2709.6 | 2737.0 | 2701.6 |
| 52.5° | 3328.6 | 3307.6 | 3262.5 | 3318.9 | 3530.1 | 3485.0 | 3082.0 | 3070.7 | 3030.4 | 3023.9 | 3007.8 |
| 55° | 3404.4 | 3404.4 | 3412.4 | 3543.0 | 3844.4 | 3784.8 | 3410.8 | 3422.1 | 3367.3 | 3322.1 | 3343.1 |
| 57.5° | 3426.9 | 3436.6 | 3505.9 | 3721.9 | 4213.5 | 4018.5 | 3773.5 | 3789.6 | 3710.6 | 3620.4 | 3686.4 |
| 60° | 3315.7 | 3344.7 | 3510.7 | 3823.5 | 4421.5 | 4266.7 | 4155.5 | 4160.3 | 4045.9 | 3913.7 | 4029.8 |
| 62.5° | 3030.4 | 3065.9 | 3362.4 | 3865.4 | 4387.6 | 4521.4 | 4516.6 | 4527.9 | 4371.5 | 4207.1 | 4352.2 |
| 65° | 2680.6 | 2716.1 | 3032.0 | 3747.7 | 4361.8 | 4703.6 | 4847.0 | 4877.6 | 4676.2 | 4455.3 | 4553.6 |
| 67.5° | 2166.4 | 2213.2 | 2513.0 | 3351.2 | 4236.1 | 4853.5 | 5156.5 | 5188.7 | 4911.5 | 4584.3 | 4535.9 |
| 70° | 1570.0 | 1592.6 | 1844.0 | 2546.8 | 3723.5 | 4771.3 | 5401.5 | 5399.9 | 4988.9 | 4574.6 | 4294.1 |
| 72.5° | 756.0 | 773.7 | 991.3 | 1581.3 | 2662.9 | 4049.1 | 5224.2 | 5254.8 | 4882.5 | 4434.4 | 3741.2 |
| 75° | 311.1 | 328.8 | 401.4 | 667.3 | 1397.5 | 2675.8 | 4427.9 | 4500.5 | 4434.4 | 3979.8 | 2927.2 |
| 77.5° | 193.4 | 199.9 | 235.3 | 344.9 | 638.3 | 1249.2 | 3099.7 | 3198.0 | 3514.0 | 3188.4 | 1932.7 |
| 80° | 145.1 | 149.9 | 175.7 | 241.8 | 403.0 | 461.0 | 1539.4 | 1663.5 | 2129.3 | 1829.5 | 875.3 |
| 82.5° | 120.9 | 122.5 | 140.2 | 175.7 | 274.0 | 264.4 | 493.2 | 549.7 | 992.9 | 698.0 | 301.4 |
| 85° | 112.8 | 116.1 | 125.7 | 125.7 | 174.1 | 166.0 | 204.7 | 214.4 | 288.5 | 238.6 | 104.8 |
| 87.5° | 58.0 | 54.8 | 111.2 | 98.3 | 90.3 | 80.6 | 87.0 | 93.5 | 108.0 | 114.4 | 46.7 |
| 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° | 984.9 | 984.9 | 984.9 | 984.9 | 984.9 | 984.9 | 984.9 | 984.9 | 984.9 | 984.9 | 984.9 |
| 2.5° | 981.7 | 986.5 | 994.5 | 1002.6 | 1012.3 | 1023.6 | 1030.0 | 1038.1 | 1044.5 | 1041.3 | 1039.7 |
| 5° | 986.5 | 994.5 | 1012.3 | 1028.4 | 1047.7 | 1070.3 | 1084.8 | 1100.9 | 1113.8 | 1117.1 | 1112.2 |
| 7.5° | 994.5 | 1009.1 | 1033.2 | 1062.2 | 1088.0 | 1117.1 | 1139.6 | 1162.2 | 1178.3 | 1181.5 | 1181.5 |
| 10° | 1013.9 | 1030.0 | 1062.2 | 1100.9 | 1131.6 | 1162.2 | 1188.0 | 1205.7 | 1220.2 | 1226.7 | 1226.7 |
| 12.5° | 1041.3 | 1060.6 | 1099.3 | 1146.1 | 1179.9 | 1208.9 | 1223.4 | 1231.5 | 1237.9 | 1244.4 | 1246.0 |
| 15° | 1073.5 | 1094.5 | 1141.2 | 1191.2 | 1226.7 | 1241.2 | 1241.2 | 1239.6 | 1239.6 | 1242.8 | 1246.0 |
| 17.5° | 1105.8 | 1128.3 | 1176.7 | 1229.9 | 1252.5 | 1244.4 | 1233.1 | 1228.3 | 1225.1 | 1223.4 | 1228.3 |
| 20° | 1139.6 | 1162.2 | 1210.5 | 1260.5 | 1254.1 | 1220.2 | 1204.1 | 1192.8 | 1183.1 | 1178.3 | 1184.8 |
| 22.5° | 1176.7 | 1197.7 | 1247.6 | 1281.5 | 1233.1 | 1181.5 | 1150.9 | 1133.2 | 1117.1 | 1107.4 | 1113.8 |
| 25° | 1220.2 | 1241.2 | 1289.5 | 1287.9 | 1196.0 | 1123.5 | 1075.1 | 1046.1 | 1028.4 | 1018.7 | 1018.7 |
| 27.5° | 1271.8 | 1289.5 | 1336.3 | 1271.8 | 1144.5 | 1046.1 | 975.2 | 947.8 | 943.0 | 934.9 | 934.9 |
| 30° | 1325.0 | 1339.5 | 1379.8 | 1234.7 | 1073.5 | 944.6 | 867.2 | 854.3 | 855.9 | 847.9 | 849.5 |
| 32.5° | 1379.8 | 1394.3 | 1405.6 | 1179.9 | 981.7 | 830.1 | 778.6 | 768.9 | 767.3 | 760.8 | 754.4 |
| 35° | 1457.2 | 1478.1 | 1408.8 | 1105.8 | 870.4 | 735.0 | 698.0 | 688.3 | 678.6 | 656.0 | 656.0 |
| 37.5° | 1574.8 | 1597.4 | 1400.8 | 1013.9 | 756.0 | 660.9 | 627.0 | 614.1 | 598.0 | 575.5 | 567.4 |
| 40° | 1736.0 | 1736.0 | 1383.0 | 910.7 | 664.1 | 601.2 | 569.0 | 552.9 | 535.2 | 512.6 | 507.8 |
| 42.5° | 1926.2 | 1881.1 | 1355.6 | 806.0 | 596.4 | 560.9 | 531.9 | 514.2 | 493.2 | 467.5 | 464.2 |
| 45° | 2148.7 | 2026.2 | 1316.9 | 712.5 | 546.4 | 536.8 | 519.0 | 488.4 | 452.9 | 425.5 | 420.7 |
| 47.5° | 2364.7 | 2156.7 | 1279.9 | 646.4 | 504.5 | 527.1 | 512.6 | 461.0 | 412.6 | 374.0 | 369.1 |
| 50° | 2601.6 | 2272.8 | 1236.3 | 591.6 | 472.3 | 520.6 | 504.5 | 420.7 | 367.5 | 340.1 | 336.9 |
| 52.5° | 2838.6 | 2390.5 | 1189.6 | 533.5 | 444.9 | 507.8 | 485.2 | 391.7 | 365.9 | 328.8 | 324.0 |
| 55° | 3088.4 | 2527.5 | 1134.8 | 469.1 | 412.6 | 482.0 | 459.4 | 390.1 | 377.2 | 328.8 | 317.5 |
| 57.5° | 3331.8 | 2679.0 | 1046.1 | 406.2 | 377.2 | 443.3 | 449.7 | 380.4 | 353.0 | 325.6 | 312.7 |
| 60° | 3601.0 | 2840.2 | 899.4 | 353.0 | 346.6 | 411.0 | 436.8 | 359.5 | 325.6 | 315.9 | 309.5 |
| 62.5° | 3817.0 | 2985.3 | 702.8 | 315.9 | 320.8 | 385.2 | 420.7 | 346.6 | 314.3 | 306.3 | 304.7 |
| 65° | 3910.5 | 2988.5 | 504.5 | 283.7 | 295.0 | 361.1 | 404.6 | 335.3 | 304.7 | 301.4 | 299.8 |
| 67.5° | 3812.2 | 2824.1 | 354.6 | 253.1 | 267.6 | 338.5 | 383.6 | 324.0 | 295.0 | 296.6 | 293.4 |
| 70° | 3494.6 | 2477.5 | 259.5 | 224.1 | 241.8 | 314.3 | 361.1 | 309.5 | 283.7 | 286.9 | 282.1 |
| 72.5° | 2924.0 | 1931.1 | 207.9 | 199.9 | 220.8 | 288.5 | 338.5 | 293.4 | 266.0 | 267.6 | 257.9 |
| 75° | 2160.0 | 1279.9 | 174.1 | 178.9 | 196.7 | 264.4 | 309.5 | 272.4 | 246.6 | 240.2 | 233.7 |
| 77.5° | 1284.7 | 657.7 | 143.5 | 156.4 | 175.7 | 235.3 | 277.2 | 246.6 | 225.7 | 214.4 | 209.5 |
| 80° | 530.3 | 266.0 | 117.7 | 132.2 | 153.1 | 209.5 | 245.0 | 216.0 | 201.5 | 190.2 | 183.8 |
| 82.5° | 211.2 | 130.6 | 93.5 | 108.0 | 129.0 | 182.1 | 214.4 | 190.2 | 175.7 | 167.6 | 149.9 |
| 85° | 80.6 | 64.5 | 62.9 | 75.8 | 96.7 | 140.2 | 177.3 | 159.6 | 148.3 | 127.3 | 122.5 |
| 87.5° | 32.2 | 29.0 | 29.0 | 37.1 | 54.8 | 88.7 | 127.3 | 111.2 | 116.1 | 91.9 | 93.5 |
| 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)