

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: P299818

Luminaire Tested: **GAA-AF-01-LED-U-SL3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299818
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-01-LED-U-SL3
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6211.3 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

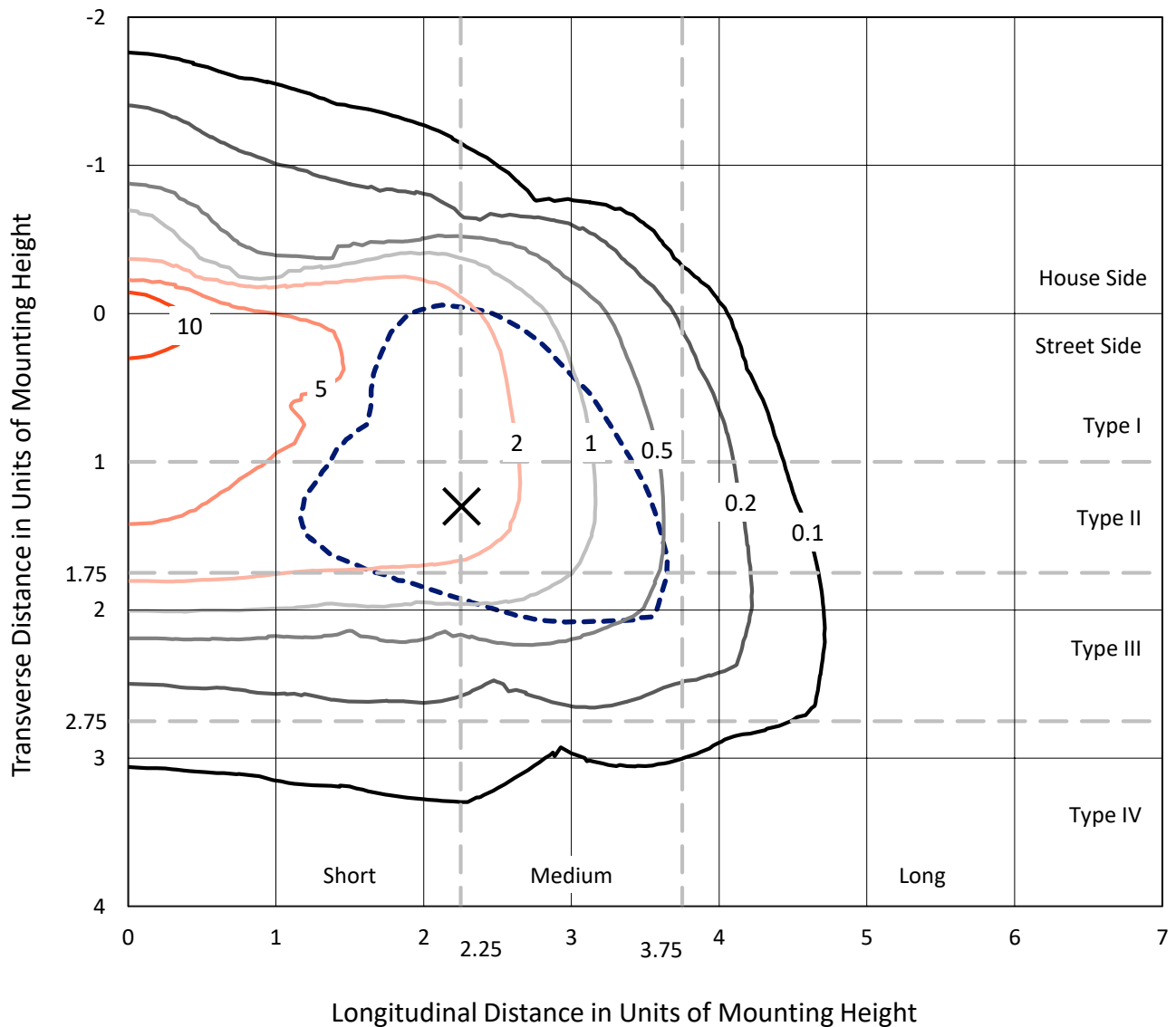
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

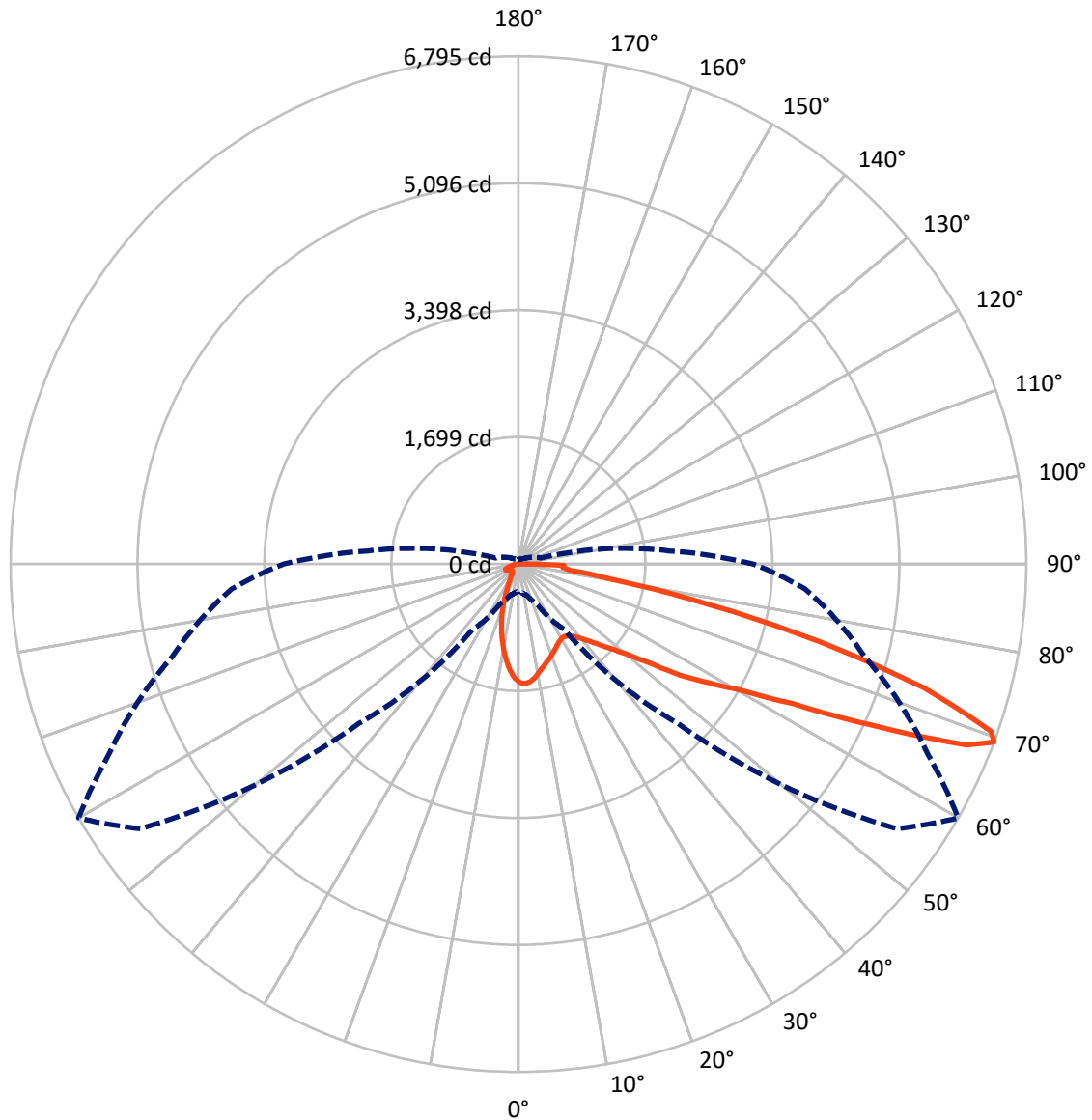


Based on 10 foot mounting height. Maximum calculated value = 15.8 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical



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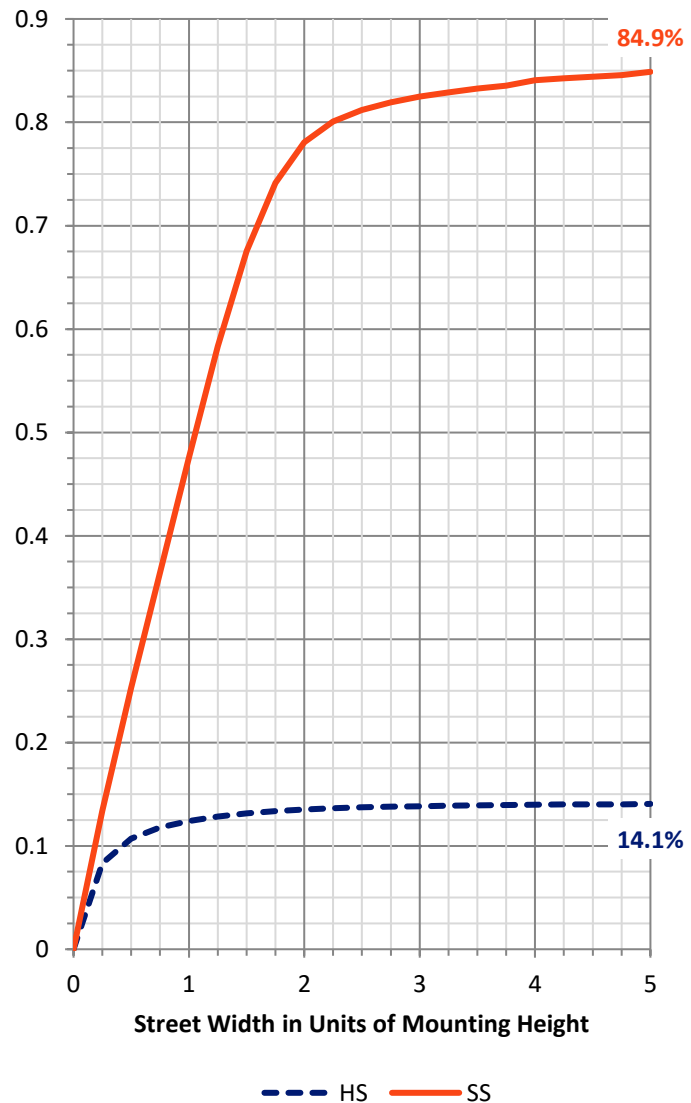
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 883.6 | 0.0 | 883.6 |
| | % Fixture | 14.2 | 0.0 | 14.2 |
| Street Side | Lumens | 5327.6 | 0.0 | 5327.6 |
| | % Fixture | 85.8 | 0.0 | 85.8 |
| Total | Lumens | 6211.3 | 0.0 | 6211.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 133.8 | 2.2 |
| 10°-20° | 285.1 | 4.6 |
| 20°-30° | 363.3 | 5.8 |
| 30°-40° | 499.4 | 8.0 |
| 40°-50° | 810.4 | 13.0 |
| 50°-60° | 1299.7 | 20.9 |
| 60°-70° | 1729.8 | 27.8 |
| 70°-80° | 933.9 | 15.0 |
| 80°-90° | 155.8 | 2.5 |
| 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° | 6211.3 | 100.0 |
| 0°-180° | 6211.3 | 100.0 |

Coefficient of Utilization



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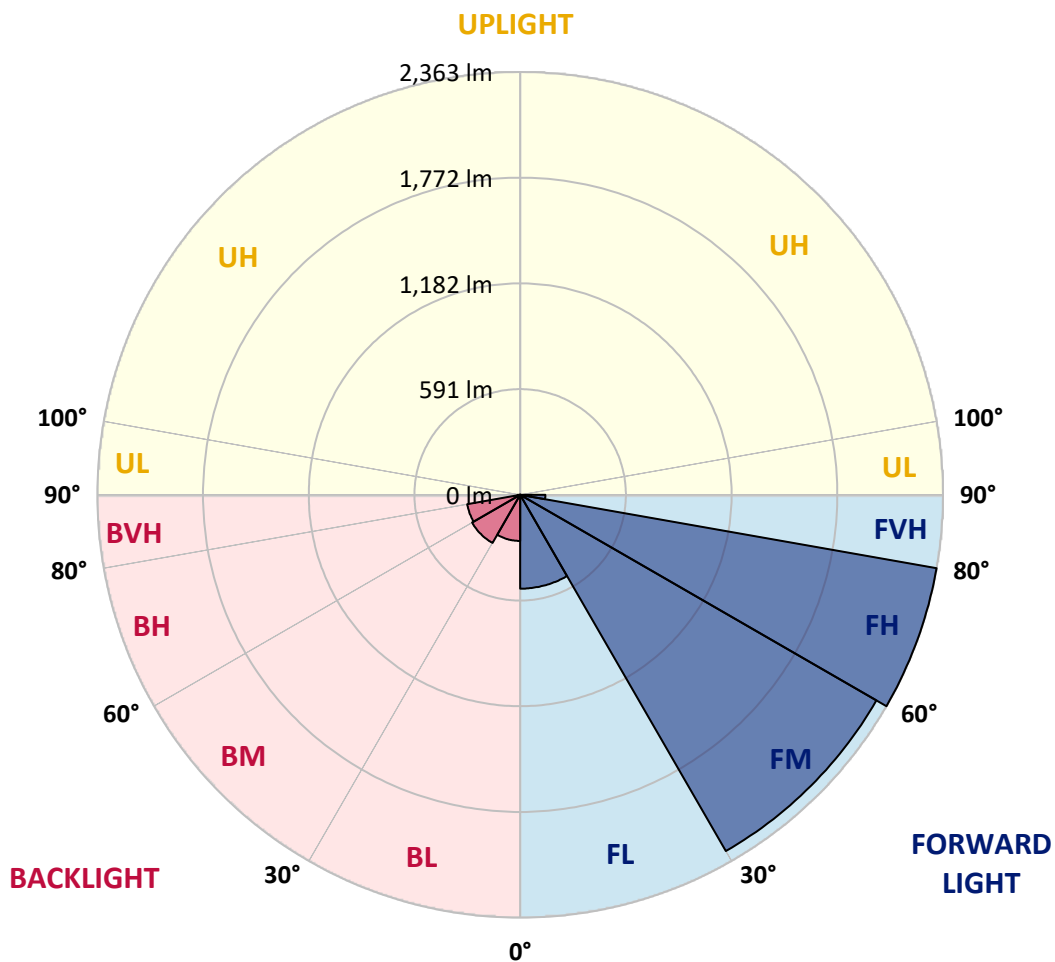
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 524.5 | 8.4 | | | |
| FM (30°-60°) | 2299.1 | 37.0 | | | |
| FH (60°-80°) | 2363.3 | 38.0 | | | G2/5000 |
| FVH (80°-90°) | 140.8 | 2.3 | | | G2/225 |
| BL (0°-30°) | 257.8 | 4.2 | B1/500 | | |
| BM (30°-60°) | 310.4 | 5.0 | B1/1000 | | |
| BH (60°-80°) | 300.4 | 4.8 | B1/500 | | G1/500 |
| BVH (80°-90°) | 15.0 | 0.2 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 60° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1582.7 | 1582.7 | 1582.7 | 1582.7 | 1582.7 | 1582.7 | 1582.7 | 1582.7 | 1582.7 | 1582.7 | 1582.7 |
| 2.5° | 1615.1 | 1618.7 | 1617.2 | 1616.3 | 1619.0 | 1614.8 | 1606.1 | 1603.4 | 1599.2 | 1589.3 | 1572.5 |
| 5° | 1554.5 | 1565.3 | 1564.7 | 1572.8 | 1586.3 | 1589.9 | 1586.0 | 1586.6 | 1578.8 | 1566.5 | 1538.6 |
| 7.5° | 1449.8 | 1454.3 | 1456.7 | 1474.4 | 1499.0 | 1518.8 | 1535.6 | 1541.0 | 1537.4 | 1526.9 | 1490.9 |
| 10° | 1341.8 | 1345.4 | 1351.1 | 1371.8 | 1403.0 | 1430.3 | 1462.1 | 1480.4 | 1488.2 | 1486.4 | 1446.2 |
| 12.5° | 1249.1 | 1252.7 | 1260.2 | 1283.6 | 1320.8 | 1354.4 | 1400.6 | 1423.4 | 1442.0 | 1453.1 | 1409.9 |
| 15° | 1166.0 | 1173.8 | 1181.0 | 1208.0 | 1249.7 | 1293.8 | 1346.0 | 1374.8 | 1403.6 | 1428.5 | 1377.8 |
| 17.5° | 1101.2 | 1109.0 | 1113.2 | 1137.8 | 1182.2 | 1236.2 | 1297.4 | 1331.3 | 1367.3 | 1408.1 | 1346.0 |
| 20° | 1063.7 | 1067.3 | 1065.5 | 1079.3 | 1119.2 | 1176.5 | 1249.1 | 1288.4 | 1331.9 | 1388.9 | 1314.2 |
| 22.5° | 1053.2 | 1053.5 | 1046.9 | 1045.4 | 1071.2 | 1119.5 | 1197.5 | 1245.2 | 1298.6 | 1376.3 | 1286.9 |
| 25° | 1078.7 | 1077.8 | 1059.8 | 1045.1 | 1047.8 | 1076.0 | 1147.7 | 1203.2 | 1270.7 | 1373.6 | 1265.9 |
| 27.5° | 1135.4 | 1138.1 | 1111.4 | 1083.8 | 1056.5 | 1055.6 | 1109.9 | 1168.4 | 1247.9 | 1385.9 | 1256.9 |
| 30° | 1214.9 | 1219.4 | 1190.9 | 1155.8 | 1104.5 | 1062.2 | 1095.2 | 1147.7 | 1233.8 | 1411.4 | 1255.4 |
| 32.5° | 1301.9 | 1306.7 | 1285.1 | 1248.2 | 1181.0 | 1103.0 | 1105.4 | 1149.5 | 1233.2 | 1447.1 | 1265.6 |
| 35° | 1394.6 | 1400.0 | 1388.9 | 1357.7 | 1283.0 | 1178.3 | 1144.4 | 1178.6 | 1252.7 | 1501.7 | 1292.9 |
| 37.5° | 1498.1 | 1506.5 | 1509.5 | 1479.8 | 1400.0 | 1277.6 | 1208.3 | 1233.8 | 1296.8 | 1577.6 | 1343.0 |
| 40° | 1647.2 | 1658.9 | 1658.0 | 1615.4 | 1534.1 | 1411.7 | 1307.0 | 1313.6 | 1365.5 | 1679.1 | 1423.1 |
| 42.5° | 1932.9 | 1935.3 | 1860.6 | 1767.9 | 1681.8 | 1552.7 | 1423.4 | 1418.0 | 1460.3 | 1807.5 | 1541.0 |
| 45° | 2296.2 | 2286.3 | 2120.1 | 1941.0 | 1836.0 | 1714.8 | 1574.9 | 1548.5 | 1580.6 | 1964.1 | 1688.7 |
| 47.5° | 2597.8 | 2575.0 | 2365.0 | 2117.7 | 1999.2 | 1890.9 | 1752.9 | 1706.7 | 1724.4 | 2141.7 | 1879.5 |
| 50° | 2702.5 | 2685.4 | 2511.4 | 2264.7 | 2153.7 | 2105.7 | 1971.9 | 1906.5 | 1911.3 | 2353.6 | 2103.0 |
| 52.5° | 2680.0 | 2677.6 | 2561.5 | 2361.7 | 2298.3 | 2331.3 | 2282.1 | 2193.6 | 2146.8 | 2588.8 | 2344.3 |
| 55° | 2626.9 | 2632.0 | 2590.0 | 2474.5 | 2463.7 | 2549.2 | 2687.5 | 2622.1 | 2476.6 | 2826.1 | 2593.6 |
| 57.5° | 2442.4 | 2455.6 | 2548.0 | 2616.4 | 2729.8 | 2857.0 | 3014.0 | 2995.3 | 2831.5 | 3082.7 | 2890.0 |
| 60° | 1967.7 | 1998.3 | 2246.1 | 2588.8 | 3003.7 | 3401.6 | 3471.8 | 3428.6 | 3197.6 | 3401.0 | 3281.6 |
| 62.5° | 1378.7 | 1410.5 | 1705.2 | 2241.3 | 2958.7 | 4016.7 | 4290.3 | 4104.0 | 3723.3 | 3870.0 | 3788.4 |
| 65° | 738.1 | 753.4 | 978.4 | 1555.1 | 2497.9 | 4143.6 | 5486.6 | 5203.1 | 4555.6 | 4448.2 | 4221.9 |
| 67.5° | 407.2 | 415.6 | 501.7 | 785.2 | 1599.8 | 3648.8 | 6248.7 | 6463.0 | 5595.8 | 4833.1 | 4143.0 |
| 69° | 368.2 | 376.0 | 432.4 | 594.7 | 1070.6 | 3017.0 | 6174.3 | 6795.1 | 6051.9 | 4795.0 | 3851.4 |
| 70° | 360.1 | 367.3 | 418.0 | 548.2 | 866.5 | 2486.8 | 5925.0 | 6710.2 | 6160.5 | 4658.5 | 3596.9 |
| 72.5° | 324.0 | 331.8 | 381.1 | 492.4 | 740.5 | 1239.8 | 4693.3 | 5673.5 | 5593.1 | 4039.2 | 2728.3 |
| 75° | 302.1 | 309.3 | 392.8 | 482.2 | 709.0 | 784.6 | 3094.1 | 4181.4 | 4111.5 | 2825.5 | 1471.1 |
| 77.5° | 129.3 | 128.7 | 182.1 | 408.1 | 719.5 | 759.7 | 1662.5 | 2612.2 | 2383.3 | 1207.7 | 422.5 |
| 80° | 86.4 | 84.9 | 86.4 | 120.0 | 659.8 | 763.9 | 871.0 | 1325.9 | 1001.5 | 307.8 | 208.2 |
| 82.5° | 74.4 | 73.2 | 75.9 | 73.2 | 231.9 | 871.9 | 740.5 | 705.1 | 476.2 | 174.9 | 103.2 |
| 85° | 50.1 | 48.0 | 65.4 | 65.7 | 109.5 | 774.7 | 834.1 | 595.6 | 385.3 | 103.8 | 51.0 |
| 87.5° | 24.0 | 23.4 | 38.1 | 46.5 | 64.2 | 314.7 | 935.8 | 610.3 | 388.6 | 53.1 | 24.3 |
| 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° | 1582.7 | 1582.7 | 1582.7 | 1582.7 | 1582.7 | 1582.7 | 1582.7 | 1582.7 | 1582.7 | 1582.7 | 1582.7 |
| 2.5° | 1567.4 | 1555.1 | 1543.1 | 1528.7 | 1513.7 | 1496.9 | 1488.5 | 1480.1 | 1478.0 | 1475.6 | 1467.2 |
| 5° | 1524.2 | 1506.8 | 1476.8 | 1443.8 | 1409.0 | 1375.1 | 1349.3 | 1333.1 | 1320.8 | 1314.5 | 1303.4 |
| 7.5° | 1468.4 | 1442.9 | 1390.4 | 1333.4 | 1274.9 | 1221.5 | 1175.3 | 1146.2 | 1118.6 | 1105.7 | 1091.0 |
| 10° | 1415.3 | 1377.2 | 1295.6 | 1211.6 | 1127.6 | 1046.9 | 970.9 | 917.2 | 869.5 | 842.8 | 823.9 |
| 12.5° | 1369.7 | 1317.5 | 1204.4 | 1090.7 | 975.4 | 860.5 | 746.8 | 657.4 | 582.7 | 543.4 | 523.3 |
| 15° | 1325.3 | 1262.3 | 1117.7 | 973.3 | 825.4 | 669.1 | 519.7 | 418.3 | 356.5 | 331.8 | 323.4 |
| 17.5° | 1285.1 | 1204.4 | 1030.7 | 855.1 | 670.6 | 481.6 | 349.3 | 293.4 | 269.7 | 261.6 | 258.9 |
| 20° | 1241.6 | 1145.9 | 940.3 | 731.5 | 509.2 | 336.7 | 272.7 | 248.1 | 238.5 | 236.1 | 234.9 |
| 22.5° | 1199.6 | 1088.3 | 853.9 | 599.2 | 365.8 | 259.8 | 234.3 | 224.1 | 222.6 | 224.7 | 224.7 |
| 25° | 1163.9 | 1036.7 | 760.6 | 460.9 | 268.5 | 218.7 | 209.7 | 207.3 | 213.0 | 220.8 | 222.3 |
| 27.5° | 1137.2 | 994.3 | 661.3 | 340.3 | 213.9 | 190.2 | 189.9 | 193.8 | 207.9 | 222.9 | 225.9 |
| 30° | 1118.9 | 954.1 | 555.1 | 245.4 | 179.4 | 167.4 | 172.2 | 180.6 | 201.3 | 222.6 | 228.3 |
| 32.5° | 1109.6 | 924.4 | 444.4 | 189.9 | 153.6 | 147.0 | 155.1 | 165.3 | 185.7 | 205.5 | 213.0 |
| 35° | 1116.8 | 902.5 | 340.0 | 158.4 | 135.6 | 130.5 | 138.9 | 148.8 | 160.8 | 169.2 | 174.9 |
| 37.5° | 1143.8 | 893.8 | 256.5 | 141.9 | 123.3 | 118.5 | 125.1 | 130.8 | 135.6 | 138.0 | 140.7 |
| 40° | 1202.0 | 903.1 | 205.5 | 133.5 | 116.4 | 110.4 | 113.1 | 115.2 | 118.2 | 120.6 | 121.8 |
| 42.5° | 1287.8 | 931.0 | 184.2 | 130.2 | 112.8 | 104.1 | 103.5 | 104.4 | 108.3 | 112.8 | 113.7 |
| 45° | 1407.8 | 980.2 | 182.7 | 132.3 | 111.0 | 99.0 | 96.3 | 97.5 | 103.5 | 110.4 | 111.6 |
| 47.5° | 1561.1 | 1055.3 | 194.7 | 138.6 | 112.5 | 96.3 | 91.8 | 93.3 | 100.8 | 110.1 | 111.6 |
| 50° | 1746.9 | 1160.0 | 214.8 | 147.9 | 119.1 | 96.9 | 90.3 | 91.2 | 99.0 | 109.2 | 110.7 |
| 52.5° | 1966.2 | 1308.5 | 236.7 | 156.9 | 126.0 | 100.8 | 91.5 | 89.4 | 96.6 | 105.6 | 107.4 |
| 55° | 2210.1 | 1499.0 | 259.2 | 165.0 | 129.6 | 105.6 | 93.9 | 87.0 | 92.1 | 99.6 | 101.1 |
| 57.5° | 2509.6 | 1765.5 | 298.2 | 172.8 | 132.0 | 108.9 | 96.3 | 84.6 | 86.4 | 91.8 | 93.0 |
| 60° | 2914.9 | 2142.3 | 367.0 | 185.7 | 137.4 | 110.1 | 96.0 | 82.5 | 80.7 | 83.7 | 84.3 |
| 62.5° | 3400.7 | 2551.6 | 424.3 | 201.9 | 146.4 | 111.0 | 94.2 | 81.0 | 75.9 | 75.9 | 76.5 |
| 65° | 3689.1 | 2661.1 | 392.5 | 215.4 | 153.9 | 110.1 | 92.1 | 79.5 | 72.3 | 69.0 | 69.3 |
| 67.5° | 3444.5 | 2340.4 | 336.4 | 218.1 | 153.6 | 105.9 | 88.8 | 76.8 | 68.7 | 63.6 | 63.3 |
| 69° | 3138.2 | 2019.3 | 311.1 | 210.9 | 146.4 | 100.5 | 84.6 | 73.8 | 66.0 | 60.6 | 60.3 |
| 70° | 2891.2 | 1823.4 | 294.6 | 203.1 | 138.6 | 96.6 | 81.3 | 71.1 | 63.9 | 58.8 | 58.2 |
| 72.5° | 2102.1 | 1194.8 | 251.7 | 174.6 | 114.3 | 81.0 | 70.2 | 62.4 | 57.0 | 54.0 | 53.4 |
| 75° | 1050.5 | 569.8 | 204.3 | 141.6 | 87.6 | 64.8 | 57.6 | 52.2 | 49.5 | 48.9 | 48.6 |
| 77.5° | 345.1 | 261.0 | 146.1 | 105.6 | 65.1 | 50.7 | 46.5 | 42.6 | 42.0 | 43.8 | 43.2 |
| 80° | 189.6 | 151.8 | 92.7 | 69.9 | 44.4 | 37.2 | 36.6 | 34.5 | 35.4 | 38.4 | 37.8 |
| 82.5° | 96.6 | 78.9 | 57.3 | 42.0 | 30.0 | 26.7 | 29.1 | 27.9 | 29.1 | 31.8 | 31.5 |
| 85° | 47.7 | 43.2 | 36.3 | 25.5 | 19.8 | 17.1 | 20.7 | 21.6 | 22.2 | 24.3 | 24.3 |
| 87.5° | 27.6 | 25.5 | 19.2 | 12.0 | 9.9 | 9.0 | 12.0 | 11.7 | 13.8 | 15.0 | 14.7 |
| 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)