

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: P299951

Luminaire Tested: **GAA-AF-03-LED-U-5WQ-7050-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299951  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAA-AF-03-LED-U-5WQ-7050-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12565.4 lumens  
Efficiency: N/A  
Efficacy: 130.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B4 - U0 - G2  
  
Input Watts (W): 96  
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

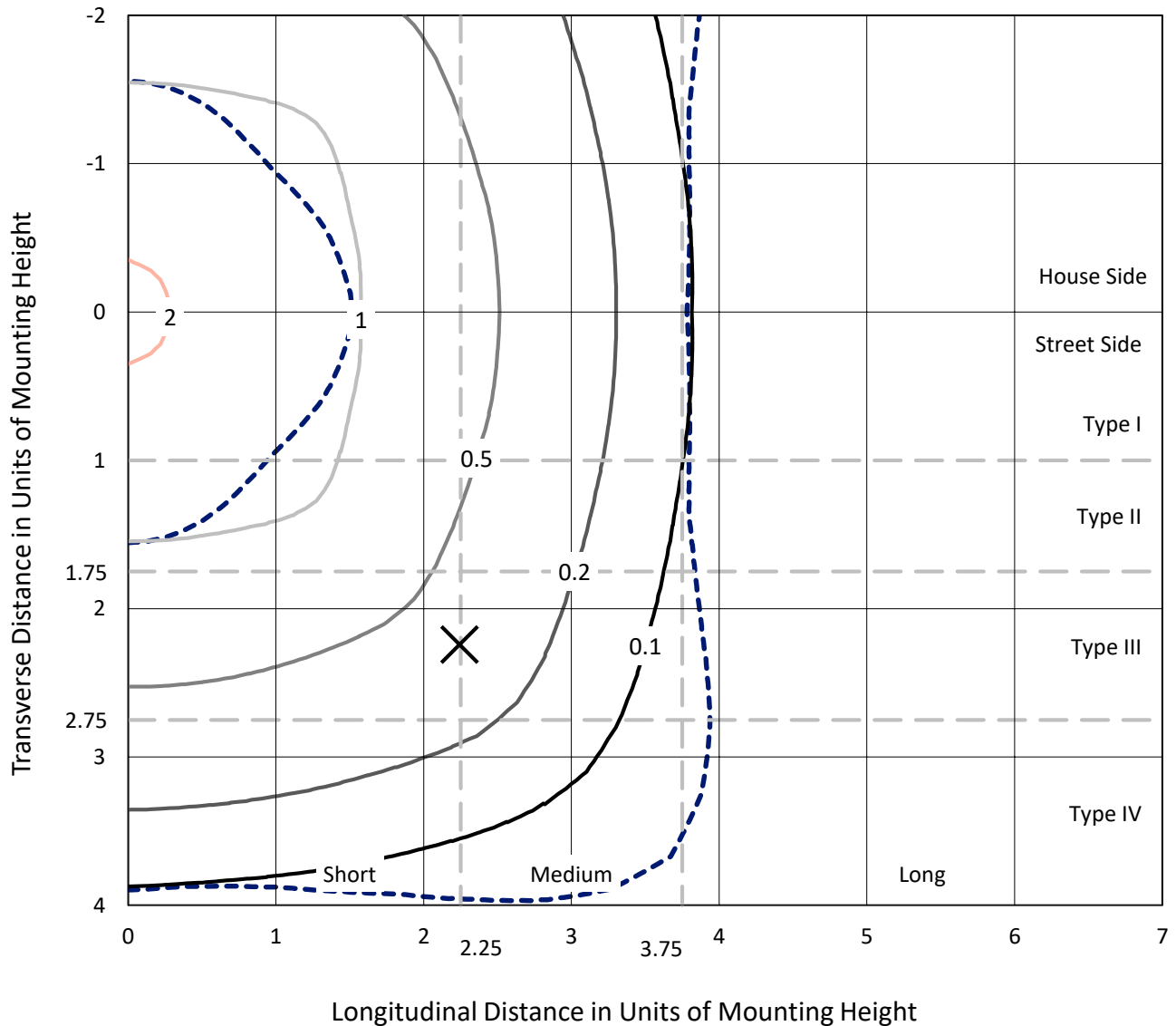


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

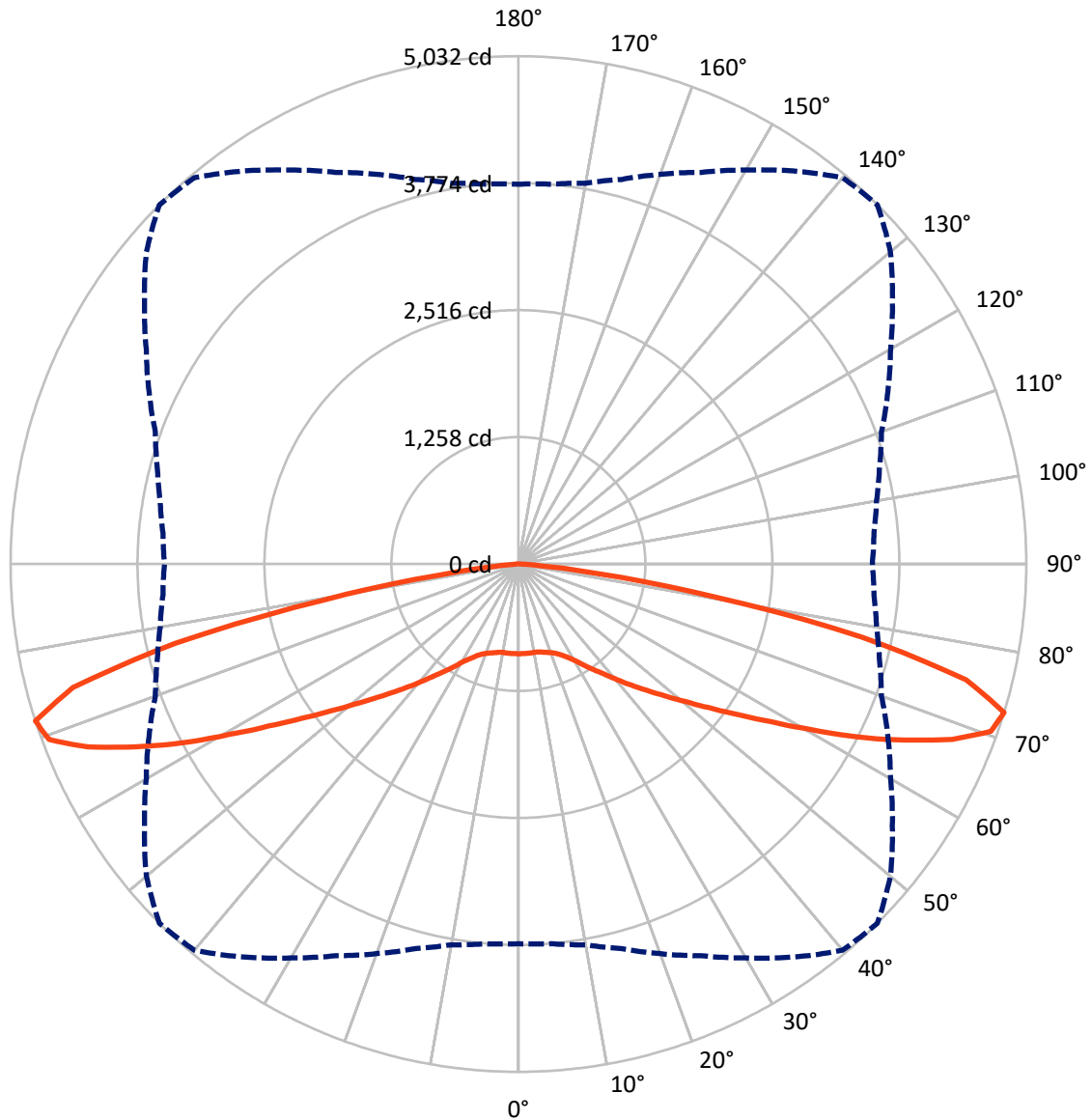


Based on 20 foot mounting height. Maximum calculated value = 2.2 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6282.7   | 0.0    | 6282.7  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 6282.7   | 0.0    | 6282.7  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 12565.4  | 0.0    | 12565.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 85.0    | 0.7       |
| 10°-20°   | 258.1   | 2.1       |
| 20°-30°   | 471.6   | 3.8       |
| 30°-40°   | 813.1   | 6.5       |
| 40°-50°   | 1390.0  | 11.1      |
| 50°-60°   | 2252.9  | 17.9      |
| 60°-70°   | 3737.5  | 29.7      |
| 70°-80°   | 3291.9  | 26.2      |
| 80°-90°   | 265.4   | 2.1       |
| 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°    | 12565.4 | 100.0     |
| 0°-180°   | 12565.4 | 100.0     |



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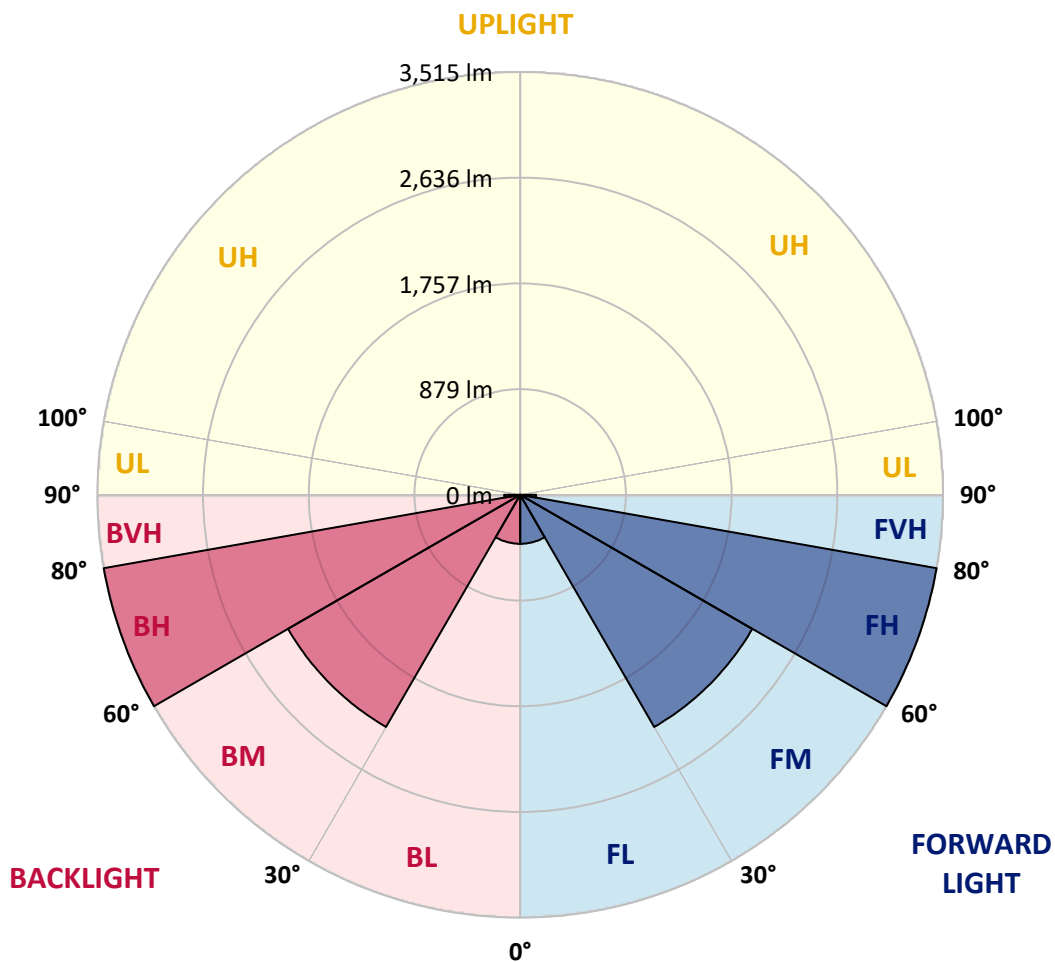
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 407.3  | 3.2       |                         |      |         |
| FM   | (30°-60°)   | 2228.0 | 17.7      |                         |      |         |
| FH   | (60°-80°)   | 3514.7 | 28.0      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 132.7  | 1.1       |                         |      | G2/225  |
| BL   | (0°-30°)    | 407.3  | 3.2       | B1/500                  |      |         |
| BM   | (30°-60°)   | 2228.0 | 17.7      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 3514.7 | 28.0      | B4/5000                 |      | G2/5000 |
| BVH  | (80°-90°)   | 132.7  | 1.1       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B4-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 889.8  | 889.8  | 889.8  | 889.8  | 889.8  | 889.8  | 889.8  | 889.8  | 889.8  | 889.8  | 889.8  |
| 2.5°  | 889.8  | 890.4  | 891.0  | 890.4  | 890.4  | 889.8  | 889.2  | 889.8  | 889.2  | 888.1  | 888.7  |
| 5°    | 892.7  | 893.9  | 893.9  | 892.7  | 893.3  | 892.7  | 891.6  | 892.1  | 891.0  | 889.2  | 889.2  |
| 7.5°  | 896.2  | 896.7  | 896.7  | 895.6  | 896.2  | 895.0  | 893.9  | 893.3  | 892.1  | 889.8  | 888.1  |
| 10°   | 901.4  | 901.9  | 901.4  | 900.2  | 900.2  | 898.5  | 895.6  | 894.4  | 892.1  | 888.7  | 886.9  |
| 12.5° | 907.1  | 907.7  | 907.1  | 906.0  | 905.4  | 902.5  | 900.2  | 898.5  | 896.7  | 893.9  | 891.0  |
| 15°   | 915.2  | 916.3  | 915.2  | 912.9  | 911.1  | 908.8  | 907.7  | 908.3  | 908.8  | 906.5  | 903.7  |
| 17.5° | 930.2  | 930.7  | 929.0  | 923.8  | 921.5  | 919.2  | 919.2  | 920.4  | 922.1  | 920.9  | 918.1  |
| 20°   | 957.8  | 956.1  | 952.1  | 945.7  | 942.8  | 938.8  | 938.2  | 938.8  | 938.8  | 938.2  | 935.9  |
| 22.5° | 992.4  | 991.3  | 986.1  | 978.0  | 974.0  | 971.7  | 968.2  | 965.3  | 964.7  | 963.0  | 960.7  |
| 25°   | 1033.9 | 1033.3 | 1027.0 | 1020.1 | 1017.2 | 1014.3 | 1011.4 | 1007.4 | 1003.9 | 999.9  | 997.6  |
| 27.5° | 1086.9 | 1084.6 | 1075.4 | 1071.9 | 1067.9 | 1066.2 | 1062.1 | 1057.5 | 1054.7 | 1049.5 | 1046.6 |
| 30°   | 1145.1 | 1145.1 | 1137.6 | 1136.5 | 1136.5 | 1132.5 | 1127.8 | 1119.8 | 1114.6 | 1109.4 | 1107.7 |
| 32.5° | 1203.3 | 1203.9 | 1196.4 | 1198.7 | 1200.5 | 1203.3 | 1204.5 | 1201.6 | 1198.2 | 1197.6 | 1194.1 |
| 35°   | 1287.5 | 1285.2 | 1277.7 | 1279.4 | 1278.8 | 1278.3 | 1278.3 | 1284.6 | 1285.8 | 1286.9 | 1280.0 |
| 37.5° | 1391.8 | 1391.8 | 1384.3 | 1384.3 | 1380.8 | 1377.4 | 1372.8 | 1376.8 | 1383.1 | 1384.9 | 1380.3 |
| 40°   | 1511.1 | 1515.1 | 1505.9 | 1505.3 | 1506.5 | 1495.5 | 1490.3 | 1496.7 | 1500.7 | 1507.6 | 1502.4 |
| 42.5° | 1651.7 | 1648.8 | 1639.6 | 1638.5 | 1632.1 | 1628.7 | 1624.0 | 1629.2 | 1635.6 | 1640.2 | 1641.9 |
| 45°   | 1786.6 | 1784.3 | 1773.9 | 1773.9 | 1767.5 | 1764.7 | 1767.0 | 1775.6 | 1778.5 | 1784.8 | 1791.2 |
| 47.5° | 1919.7 | 1916.8 | 1909.9 | 1912.8 | 1913.4 | 1918.5 | 1926.0 | 1934.1 | 1942.2 | 1950.8 | 1953.7 |
| 50°   | 2055.7 | 2056.3 | 2048.8 | 2055.7 | 2064.3 | 2078.8 | 2098.9 | 2112.2 | 2128.9 | 2139.8 | 2143.3 |
| 52.5° | 2179.6 | 2181.9 | 2190.0 | 2206.1 | 2223.4 | 2251.7 | 2286.2 | 2318.5 | 2346.2 | 2364.6 | 2363.5 |
| 55°   | 2328.3 | 2331.8 | 2351.4 | 2379.0 | 2407.3 | 2449.9 | 2501.2 | 2558.2 | 2604.4 | 2630.9 | 2614.2 |
| 57.5° | 2518.5 | 2526.0 | 2547.9 | 2585.3 | 2627.4 | 2682.7 | 2753.0 | 2838.9 | 2910.4 | 2946.1 | 2919.0 |
| 60°   | 2779.6 | 2784.2 | 2810.7 | 2852.2 | 2902.9 | 2971.5 | 3065.4 | 3180.7 | 3281.5 | 3328.8 | 3297.7 |
| 62.5° | 3123.6 | 3132.3 | 3153.6 | 3195.6 | 3247.5 | 3325.3 | 3440.0 | 3584.1 | 3709.7 | 3775.4 | 3705.1 |
| 65°   | 3534.5 | 3562.2 | 3580.0 | 3622.7 | 3671.1 | 3753.5 | 3873.4 | 4027.8 | 4162.7 | 4205.9 | 4124.7 |
| 67.5° | 3941.4 | 3965.6 | 3996.7 | 4045.7 | 4094.7 | 4187.5 | 4298.7 | 4448.6 | 4596.7 | 4635.9 | 4509.6 |
| 70°   | 4119.5 | 4133.3 | 4181.7 | 4248.6 | 4342.5 | 4452.0 | 4580.5 | 4748.8 | 4932.1 | 4964.3 | 4804.1 |
| 72.5° | 3762.7 | 3776.6 | 3830.7 | 3944.3 | 4108.0 | 4282.0 | 4506.2 | 4753.4 | 4995.5 | 5031.8 | 4811.1 |
| 75°   | 2845.8 | 2823.4 | 2903.5 | 3053.9 | 3274.6 | 3517.2 | 3830.7 | 4185.2 | 4535.0 | 4580.5 | 4317.2 |
| 77.5° | 1470.7 | 1467.9 | 1528.4 | 1715.1 | 1978.5 | 2254.5 | 2599.7 | 3000.3 | 3342.6 | 3480.9 | 3266.5 |
| 80°   | 414.4  | 419.0  | 447.8  | 540.6  | 694.5  | 893.9  | 1163.6 | 1538.8 | 1818.8 | 1961.8 | 1841.9 |
| 82.5° | 162.5  | 175.2  | 186.1  | 203.4  | 223.6  | 253.0  | 337.7  | 502.5  | 674.3  | 805.7  | 659.9  |
| 85°   | 58.2   | 62.2   | 88.2   | 104.3  | 106.0  | 111.8  | 127.4  | 148.7  | 179.2  | 213.8  | 175.8  |
| 87.5° | 21.9   | 24.2   | 28.2   | 46.7   | 46.1   | 42.1   | 51.3   | 53.6   | 40.3   | 36.9   | 45.5   |
| 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):**

|       | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 889.8  | 889.8  | 889.8  | 889.8  | 889.8  | 889.8  | 889.8  | 889.8  |
| 2.5°  | 887.5  | 888.1  | 888.1  | 888.7  | 889.2  | 889.2  | 890.4  | 890.4  |
| 5°    | 888.1  | 888.1  | 886.9  | 887.5  | 886.9  | 886.9  | 887.5  | 887.5  |
| 7.5°  | 886.9  | 886.4  | 885.2  | 884.6  | 883.5  | 883.5  | 883.5  | 883.5  |
| 10°   | 885.2  | 884.6  | 883.5  | 882.9  | 882.3  | 882.3  | 882.3  | 882.3  |
| 12.5° | 889.8  | 888.1  | 886.9  | 886.4  | 886.4  | 886.4  | 886.4  | 886.4  |
| 15°   | 901.9  | 897.9  | 895.0  | 895.0  | 895.6  | 896.7  | 896.7  | 897.9  |
| 17.5° | 916.9  | 912.3  | 909.4  | 907.1  | 908.3  | 910.0  | 911.1  | 912.3  |
| 20°   | 934.8  | 932.5  | 928.4  | 926.1  | 926.1  | 928.4  | 929.6  | 930.2  |
| 22.5° | 959.6  | 957.8  | 956.1  | 953.2  | 953.2  | 954.4  | 956.7  | 956.7  |
| 25°   | 996.4  | 995.3  | 994.1  | 991.8  | 991.3  | 991.3  | 992.4  | 993.6  |
| 27.5° | 1042.5 | 1043.1 | 1042.0 | 1041.4 | 1039.7 | 1039.1 | 1040.8 | 1040.2 |
| 30°   | 1104.2 | 1107.1 | 1110.0 | 1107.7 | 1104.8 | 1103.1 | 1101.3 | 1099.0 |
| 32.5° | 1187.8 | 1184.3 | 1182.0 | 1178.0 | 1172.8 | 1168.2 | 1164.7 | 1160.7 |
| 35°   | 1266.7 | 1261.0 | 1258.7 | 1262.1 | 1261.5 | 1258.7 | 1254.6 | 1251.2 |
| 37.5° | 1363.6 | 1362.4 | 1363.6 | 1369.9 | 1368.7 | 1371.6 | 1363.6 | 1363.0 |
| 40°   | 1485.7 | 1486.9 | 1495.0 | 1502.4 | 1506.5 | 1510.5 | 1505.9 | 1501.3 |
| 42.5° | 1627.5 | 1626.9 | 1629.8 | 1640.2 | 1647.1 | 1651.7 | 1641.9 | 1640.8 |
| 45°   | 1777.3 | 1773.3 | 1775.6 | 1784.3 | 1791.2 | 1796.4 | 1785.4 | 1785.4 |
| 47.5° | 1942.2 | 1935.3 | 1927.8 | 1937.6 | 1941.6 | 1945.1 | 1936.4 | 1933.5 |
| 50°   | 2126.0 | 2111.6 | 2095.5 | 2099.5 | 2099.5 | 2098.4 | 2087.4 | 2086.8 |
| 52.5° | 2336.9 | 2310.4 | 2281.0 | 2270.1 | 2263.8 | 2256.8 | 2237.8 | 2228.6 |
| 55°   | 2579.6 | 2539.8 | 2493.7 | 2465.5 | 2450.5 | 2431.5 | 2399.8 | 2391.1 |
| 57.5° | 2863.1 | 2800.9 | 2721.3 | 2686.8 | 2653.3 | 2622.2 | 2587.1 | 2577.3 |
| 60°   | 3199.1 | 3107.5 | 3002.0 | 2938.0 | 2901.7 | 2871.8 | 2835.5 | 2833.7 |
| 62.5° | 3573.7 | 3429.1 | 3309.8 | 3252.1 | 3225.6 | 3199.1 | 3164.5 | 3169.1 |
| 65°   | 3954.7 | 3803.7 | 3691.9 | 3645.2 | 3620.4 | 3598.5 | 3563.9 | 3569.1 |
| 67.5° | 4330.4 | 4191.5 | 4068.8 | 4020.9 | 3993.3 | 3965.6 | 3934.5 | 3939.7 |
| 70°   | 4600.1 | 4427.8 | 4289.5 | 4183.4 | 4117.2 | 4042.3 | 3993.8 | 3981.7 |
| 72.5° | 4522.9 | 4257.2 | 4037.6 | 3827.3 | 3704.0 | 3603.7 | 3535.7 | 3506.3 |
| 75°   | 3914.3 | 3551.2 | 3268.8 | 3010.7 | 2865.4 | 2747.3 | 2661.4 | 2607.8 |
| 77.5° | 2906.9 | 2498.9 | 2165.2 | 1867.8 | 1632.7 | 1474.8 | 1363.6 | 1291.5 |
| 80°   | 1591.2 | 1210.3 | 884.6  | 621.8  | 457.0  | 379.8  | 335.4  | 314.1  |
| 82.5° | 495.6  | 319.9  | 235.7  | 203.4  | 189.0  | 181.0  | 167.7  | 146.4  |
| 85°   | 157.9  | 138.3  | 128.5  | 122.8  | 117.0  | 102.0  | 70.3   | 64.0   |
| 87.5° | 61.1   | 62.8   | 62.2   | 58.8   | 59.9   | 43.2   | 34.6   | 30.5   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)