

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: P190810

Luminaire Tested: **GAN-AF-02-LED-U-5MQ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P190810  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-AF-02-LED-U-5MQ  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V  
MEDIUM OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13087.6 lumens  
Efficiency: N/A  
Efficacy: 115.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B4 - U0 - G2

Input Watts (W): 113  
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

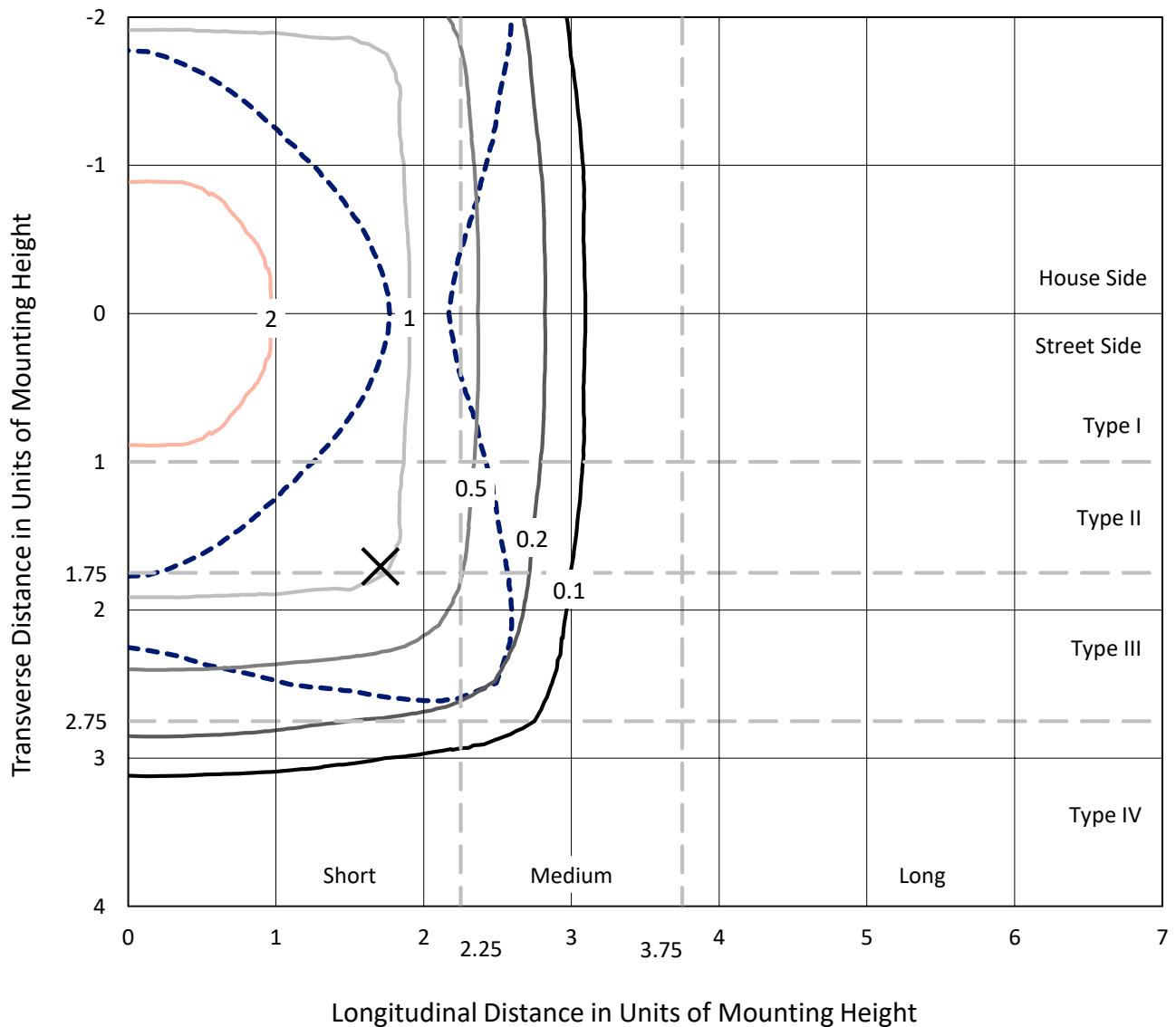


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

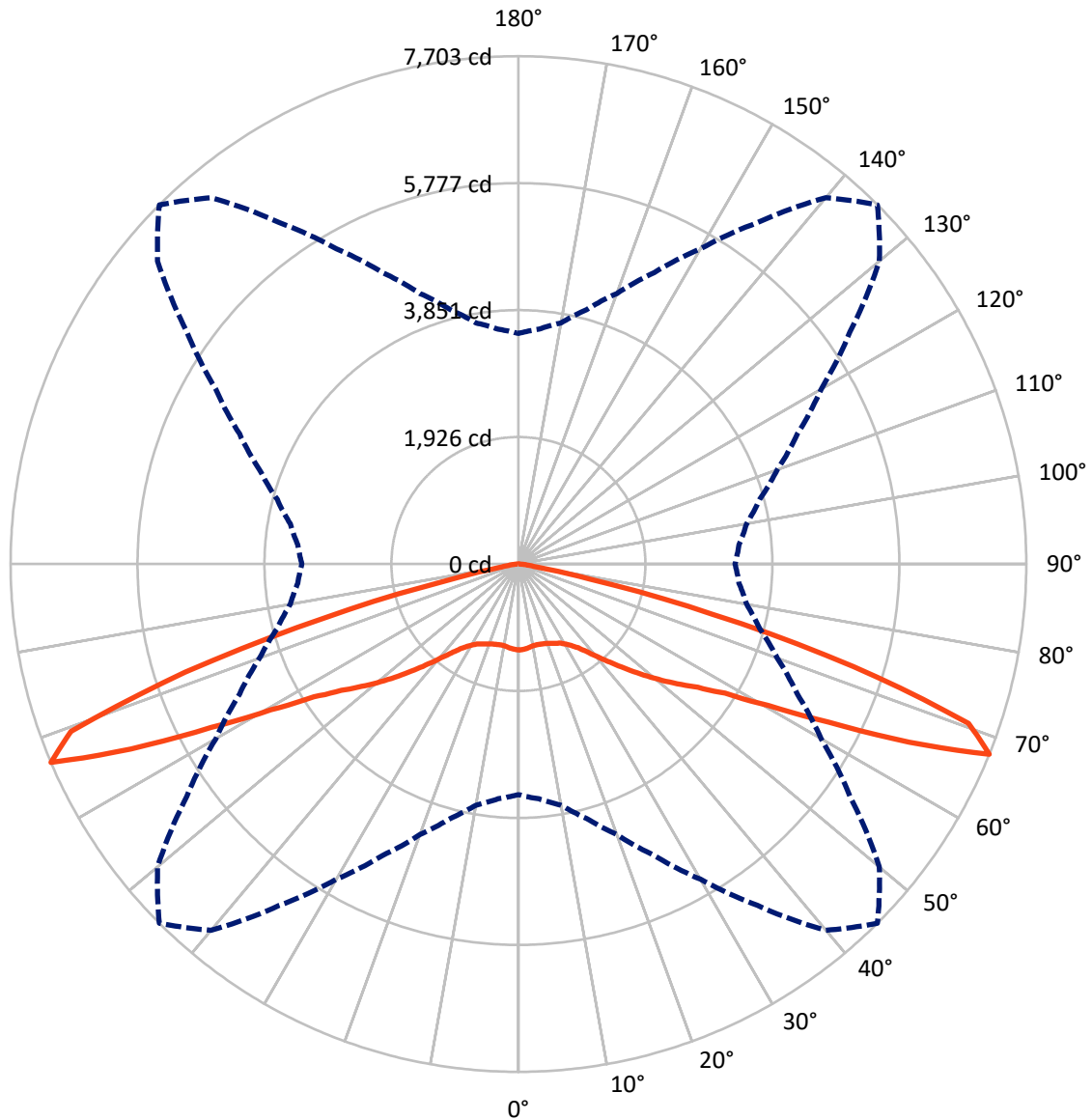


Based on 20 foot mounting height. Maximum calculated value = 3.3 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6543.8   | 0.0    | 6543.8  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 6543.8   | 0.0    | 6543.8  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 13087.6  | 0.0    | 13087.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 122.1   | 0.9       |
| 10°-20°   | 354.2   | 2.7       |
| 20°-30°   | 602.2   | 4.6       |
| 30°-40°   | 984.4   | 7.5       |
| 40°-50°   | 1757.3  | 13.4      |
| 50°-60°   | 2962.8  | 22.6      |
| 60°-70°   | 4597.9  | 35.1      |
| 70°-80°   | 1615.5  | 12.3      |
| 80°-90°   | 91.3    | 0.7       |
| 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°    | 13087.6 | 100.0     |
| 0°-180°   | 13087.6 | 100.0     |



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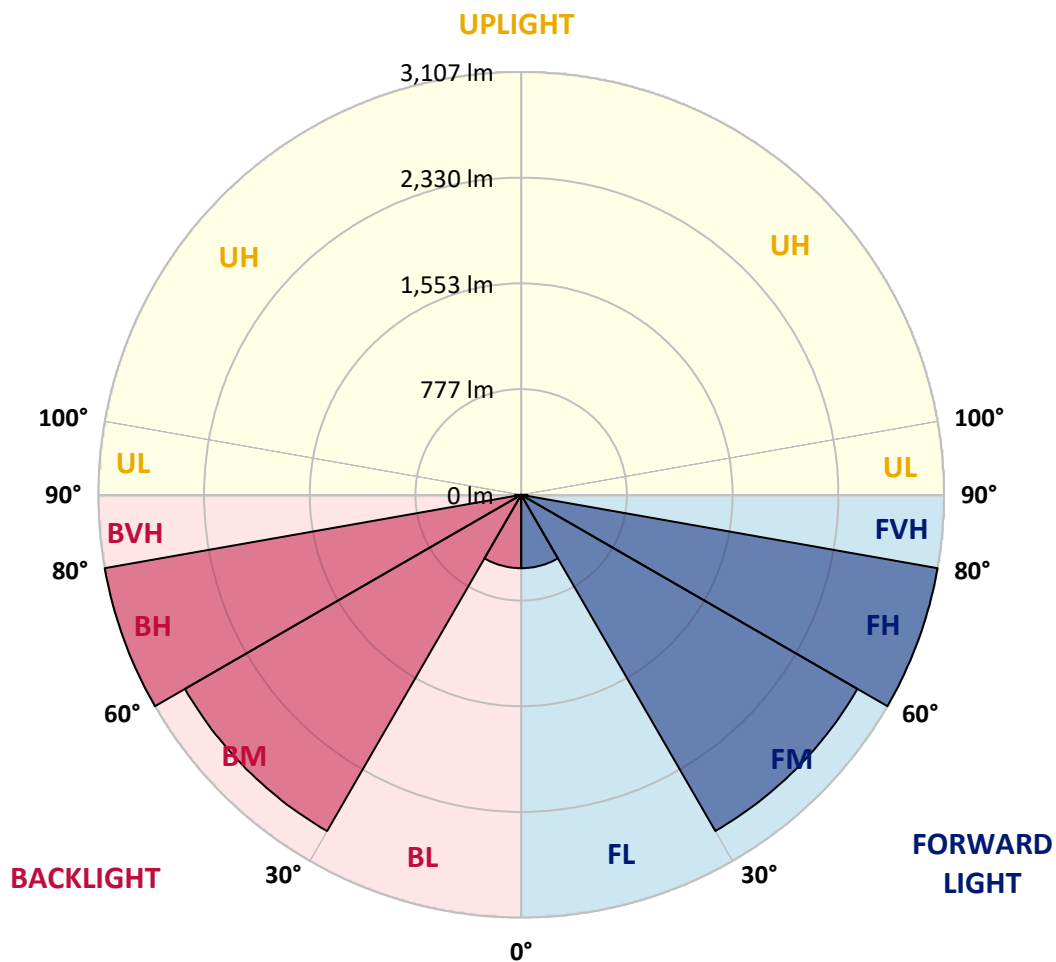
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 539.2  | 4.1       |                         |      |         |
| FM (30°-60°)   | 2852.3 | 21.8      |                         |      |         |
| FH (60°-80°)   | 3106.7 | 23.7      |                         |      | G2/5000 |
| FVH (80°-90°)  | 45.6   | 0.3       |                         |      | G1/100  |
| BL (0°-30°)    | 539.2  | 4.1       | B2/1000                 |      |         |
| BM (30°-60°)   | 2852.3 | 21.8      | B3/5000                 |      |         |
| BH (60°-80°)   | 3106.7 | 23.7      | B4/5000                 |      | G2/5000 |
| BVH (80°-90°)  | 45.6   | 0.3       |                         |      | G1/100  |
| 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°    | 1304.3 | 1304.3 | 1304.3 | 1304.3 | 1304.3 | 1304.3 | 1304.3 | 1304.3 | 1304.3 | 1304.3 | 1304.3 |
| 2.5°  | 1299.5 | 1300.6 | 1300.6 | 1300.6 | 1300.1 | 1300.1 | 1298.8 | 1300.1 | 1299.5 | 1297.6 | 1298.2 |
| 5°    | 1288.6 | 1289.8 | 1289.8 | 1289.2 | 1291.0 | 1290.4 | 1288.6 | 1289.8 | 1289.2 | 1288.0 | 1288.6 |
| 7.5°  | 1273.0 | 1274.7 | 1274.7 | 1274.2 | 1275.9 | 1275.3 | 1274.2 | 1274.7 | 1274.7 | 1273.0 | 1273.0 |
| 10°   | 1255.5 | 1256.7 | 1256.7 | 1256.1 | 1259.0 | 1259.0 | 1258.5 | 1260.3 | 1260.9 | 1259.0 | 1257.9 |
| 12.5° | 1239.2 | 1241.0 | 1241.0 | 1243.5 | 1246.5 | 1247.7 | 1250.7 | 1253.1 | 1255.5 | 1254.9 | 1252.5 |
| 15°   | 1229.6 | 1230.8 | 1233.2 | 1236.2 | 1241.0 | 1245.2 | 1250.0 | 1255.5 | 1260.3 | 1261.5 | 1257.9 |
| 17.5° | 1223.6 | 1225.4 | 1229.0 | 1233.2 | 1239.8 | 1247.1 | 1254.2 | 1261.5 | 1268.2 | 1270.5 | 1266.3 |
| 20°   | 1221.8 | 1222.9 | 1226.6 | 1233.8 | 1242.9 | 1253.7 | 1264.0 | 1272.3 | 1281.3 | 1284.4 | 1281.3 |
| 22.5° | 1225.4 | 1227.8 | 1232.0 | 1240.4 | 1252.5 | 1266.3 | 1278.4 | 1289.8 | 1301.2 | 1306.6 | 1302.4 |
| 25°   | 1241.7 | 1244.0 | 1249.4 | 1260.3 | 1273.6 | 1288.0 | 1301.8 | 1315.1 | 1325.3 | 1330.8 | 1327.7 |
| 27.5° | 1271.7 | 1274.7 | 1281.3 | 1292.2 | 1306.6 | 1322.3 | 1337.3 | 1348.1 | 1356.6 | 1358.4 | 1354.8 |
| 30°   | 1316.8 | 1323.5 | 1331.4 | 1343.3 | 1360.2 | 1373.4 | 1388.5 | 1398.2 | 1408.4 | 1408.4 | 1405.3 |
| 32.5° | 1387.3 | 1393.9 | 1402.4 | 1413.8 | 1427.0 | 1441.4 | 1454.7 | 1463.1 | 1474.0 | 1474.6 | 1467.3 |
| 35°   | 1492.6 | 1495.7 | 1502.8 | 1510.1 | 1522.2 | 1534.7 | 1546.2 | 1551.6 | 1560.6 | 1561.2 | 1554.6 |
| 37.5° | 1631.6 | 1632.2 | 1637.0 | 1639.5 | 1650.3 | 1664.1 | 1675.0 | 1678.6 | 1687.1 | 1685.8 | 1679.2 |
| 40°   | 1793.5 | 1796.6 | 1798.3 | 1801.9 | 1813.4 | 1826.7 | 1838.1 | 1839.9 | 1848.9 | 1847.1 | 1838.7 |
| 42.5° | 1980.7 | 1982.0 | 1992.2 | 1997.6 | 2008.5 | 2015.0 | 2029.4 | 2031.3 | 2042.1 | 2037.3 | 2027.7 |
| 45°   | 2190.8 | 2201.6 | 2211.2 | 2222.1 | 2233.5 | 2241.4 | 2252.7 | 2250.4 | 2257.6 | 2250.4 | 2245.0 |
| 47.5° | 2411.7 | 2419.5 | 2441.2 | 2458.0 | 2476.7 | 2483.3 | 2499.6 | 2492.3 | 2499.6 | 2489.4 | 2487.5 |
| 50°   | 2654.9 | 2668.7 | 2687.3 | 2706.6 | 2726.5 | 2737.3 | 2758.4 | 2749.3 | 2758.9 | 2749.3 | 2743.9 |
| 52.5° | 2894.3 | 2898.0 | 2938.9 | 2967.2 | 2994.9 | 3007.5 | 3020.2 | 3016.0 | 3016.6 | 3016.0 | 3010.5 |
| 55°   | 3121.8 | 3130.3 | 3171.2 | 3209.7 | 3257.9 | 3293.4 | 3315.1 | 3312.6 | 3307.2 | 3301.8 | 3292.8 |
| 57.5° | 3378.3 | 3386.7 | 3433.6 | 3481.2 | 3535.9 | 3586.5 | 3630.5 | 3675.6 | 3693.1 | 3697.9 | 3678.0 |
| 60°   | 3725.0 | 3724.4 | 3787.0 | 3844.7 | 3922.9 | 3998.2 | 4094.5 | 4192.6 | 4305.1 | 4357.5 | 4288.3 |
| 62.5° | 4077.6 | 4092.1 | 4182.3 | 4284.6 | 4445.9 | 4603.1 | 4780.6 | 4955.2 | 5133.3 | 5278.3 | 5124.3 |
| 65°   | 4035.5 | 4090.9 | 4225.1 | 4456.8 | 4754.7 | 5108.6 | 5491.4 | 5896.5 | 6262.4 | 6513.9 | 6231.7 |
| 67.5° | 3497.5 | 3576.2 | 3712.9 | 3994.5 | 4367.1 | 4877.5 | 5520.3 | 6321.3 | 7252.4 | 7702.6 | 7144.7 |
| 70°   | 2535.1 | 2624.1 | 2767.4 | 3042.5 | 3411.3 | 3896.4 | 4594.6 | 5556.4 | 6789.0 | 7242.8 | 6628.3 |
| 72.5° | 1261.5 | 1309.7 | 1398.2 | 1573.3 | 1852.6 | 2246.2 | 2879.3 | 3803.7 | 4894.3 | 5310.9 | 4749.3 |
| 75°   | 428.5  | 450.8  | 465.9  | 523.0  | 611.5  | 766.2  | 1081.0 | 1662.9 | 2536.8 | 3041.2 | 2500.7 |
| 77.5° | 247.3  | 248.0  | 258.2  | 268.4  | 283.5  | 300.3  | 342.5  | 449.6  | 777.6  | 1104.4 | 804.7  |
| 80°   | 160.1  | 159.5  | 168.0  | 175.7  | 186.0  | 194.4  | 196.8  | 208.3  | 240.2  | 284.7  | 254.6  |
| 82.5° | 83.1   | 93.3   | 111.9  | 122.1  | 141.5  | 145.1  | 140.2  | 136.1  | 143.8  | 149.2  | 152.8  |
| 85°   | 45.7   | 39.7   | 59.5   | 77.0   | 85.4   | 86.6   | 86.6   | 81.8   | 84.9   | 83.1   | 90.3   |
| 87.5° | 21.1   | 19.2   | 23.4   | 38.0   | 40.3   | 34.3   | 36.1   | 31.9   | 22.9   | 22.3   | 25.3   |
| 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):**

|       | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1304.3 | 1304.3 | 1304.3 | 1304.3 | 1304.3 | 1304.3 | 1304.3 | 1304.3 |
| 2.5°  | 1298.2 | 1298.8 | 1298.8 | 1300.6 | 1301.2 | 1302.4 | 1303.6 | 1304.3 |
| 5°    | 1288.0 | 1289.8 | 1288.6 | 1290.4 | 1290.4 | 1291.6 | 1291.6 | 1292.2 |
| 7.5°  | 1273.0 | 1274.7 | 1274.7 | 1274.7 | 1274.2 | 1275.9 | 1275.9 | 1275.9 |
| 10°   | 1257.3 | 1258.5 | 1257.9 | 1256.7 | 1255.5 | 1257.3 | 1256.7 | 1256.1 |
| 12.5° | 1252.5 | 1249.4 | 1247.1 | 1245.9 | 1243.5 | 1244.0 | 1242.3 | 1242.3 |
| 15°   | 1255.5 | 1250.0 | 1245.9 | 1244.0 | 1241.7 | 1240.4 | 1239.2 | 1239.8 |
| 17.5° | 1263.3 | 1256.7 | 1251.3 | 1248.3 | 1245.2 | 1243.5 | 1241.0 | 1241.7 |
| 20°   | 1277.2 | 1269.4 | 1261.5 | 1255.5 | 1250.0 | 1247.1 | 1245.2 | 1244.6 |
| 22.5° | 1297.6 | 1286.2 | 1274.7 | 1265.7 | 1258.5 | 1254.2 | 1252.5 | 1251.3 |
| 25°   | 1321.1 | 1308.5 | 1295.3 | 1284.9 | 1277.8 | 1272.3 | 1268.8 | 1268.8 |
| 27.5° | 1350.6 | 1340.4 | 1328.3 | 1316.2 | 1309.7 | 1304.3 | 1301.8 | 1300.6 |
| 30°   | 1399.9 | 1390.3 | 1380.7 | 1369.2 | 1360.8 | 1355.4 | 1351.2 | 1347.5 |
| 32.5° | 1463.1 | 1455.4 | 1447.5 | 1439.1 | 1431.2 | 1424.0 | 1417.4 | 1414.3 |
| 35°   | 1552.2 | 1546.2 | 1540.8 | 1531.2 | 1528.1 | 1523.9 | 1520.3 | 1517.3 |
| 37.5° | 1675.0 | 1672.6 | 1672.6 | 1662.4 | 1659.9 | 1658.1 | 1654.5 | 1655.1 |
| 40°   | 1836.3 | 1838.7 | 1835.7 | 1832.1 | 1830.3 | 1825.5 | 1825.5 | 1829.6 |
| 42.5° | 2027.1 | 2028.9 | 2035.5 | 2029.4 | 2036.1 | 2030.0 | 2026.5 | 2029.4 |
| 45°   | 2248.5 | 2255.2 | 2268.4 | 2262.4 | 2266.7 | 2256.4 | 2243.7 | 2244.4 |
| 47.5° | 2497.1 | 2503.2 | 2508.6 | 2504.4 | 2505.0 | 2488.1 | 2471.2 | 2467.1 |
| 50°   | 2755.3 | 2757.8 | 2760.7 | 2754.7 | 2755.9 | 2737.3 | 2718.0 | 2718.6 |
| 52.5° | 3010.5 | 3022.0 | 3034.0 | 3017.7 | 3014.1 | 2993.1 | 2965.9 | 2955.1 |
| 55°   | 3302.4 | 3318.7 | 3304.8 | 3276.5 | 3248.3 | 3219.9 | 3184.4 | 3178.4 |
| 57.5° | 3662.4 | 3634.6 | 3591.3 | 3537.8 | 3498.6 | 3458.9 | 3422.8 | 3407.8 |
| 60°   | 4163.1 | 4059.0 | 3980.7 | 3901.2 | 3851.3 | 3802.6 | 3755.0 | 3747.8 |
| 62.5° | 4870.9 | 4690.9 | 4535.0 | 4370.8 | 4236.6 | 4131.8 | 4048.1 | 4024.7 |
| 65°   | 5758.0 | 5332.5 | 4963.6 | 4619.3 | 4320.1 | 4094.5 | 3952.5 | 3889.9 |
| 67.5° | 6139.6 | 5299.4 | 4666.8 | 4178.1 | 3787.0 | 3513.6 | 3360.2 | 3283.8 |
| 70°   | 5395.1 | 4394.8 | 3706.9 | 3217.6 | 2861.3 | 2570.0 | 2430.9 | 2349.1 |
| 72.5° | 3711.7 | 2795.6 | 2210.6 | 1804.4 | 1519.7 | 1275.9 | 1179.7 | 1172.4 |
| 75°   | 1666.6 | 1103.9 | 760.8  | 586.3  | 493.6  | 429.1  | 409.3  | 394.2  |
| 77.5° | 466.5  | 344.8  | 307.6  | 287.7  | 268.4  | 246.1  | 237.7  | 239.6  |
| 80°   | 226.9  | 214.3  | 205.8  | 193.2  | 175.7  | 157.1  | 148.6  | 152.3  |
| 82.5° | 150.5  | 148.6  | 154.1  | 145.1  | 119.8  | 101.7  | 85.4   | 78.3   |
| 85°   | 91.5   | 92.7   | 94.5   | 95.1   | 80.6   | 56.6   | 38.6   | 43.4   |
| 87.5° | 36.1   | 41.5   | 45.1   | 47.0   | 44.0   | 27.1   | 21.7   | 22.3   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)