

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: P322656

Luminaire Tested: **GAN-SA2D-760-U-T4FT-HSS**

Issue Date: 3/3/2020

#### Test Information

Test Method: LM-79-08  
Report Number: P322656  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA2D-760-U-T4FT-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 5700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

#### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 11273 lumens  
Efficiency: N/A  
Efficacy: 87.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3

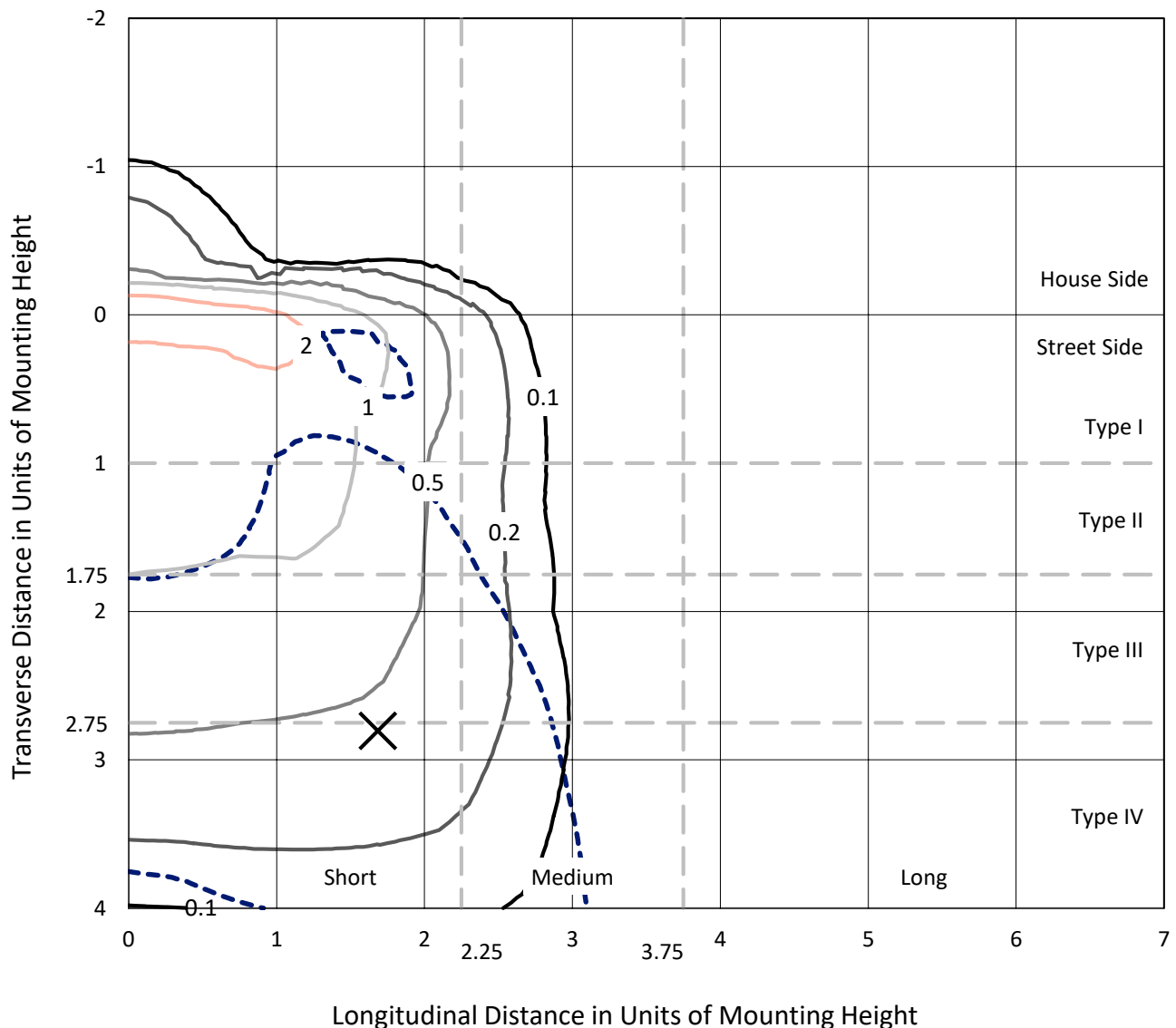
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

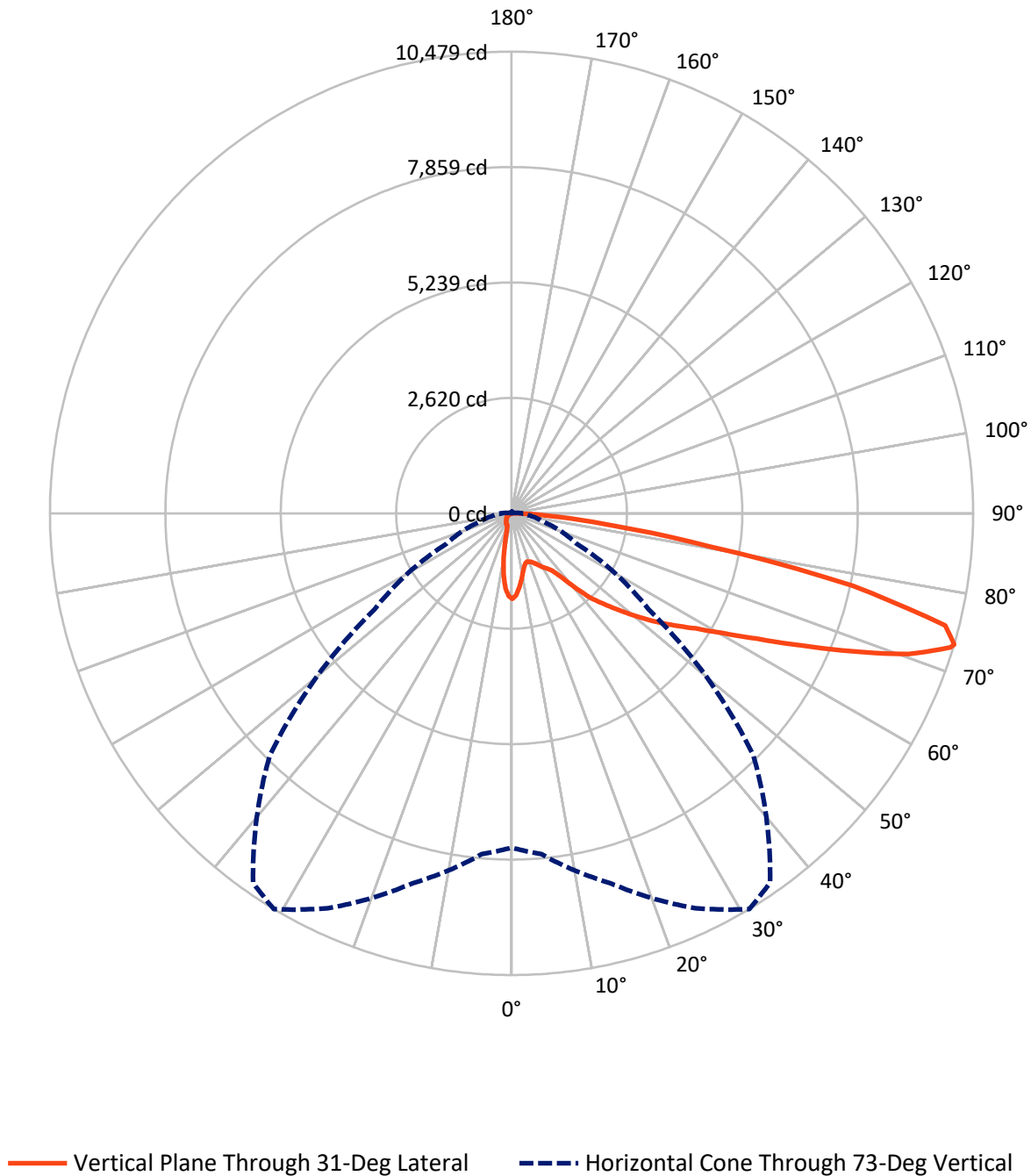
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 fc  
 Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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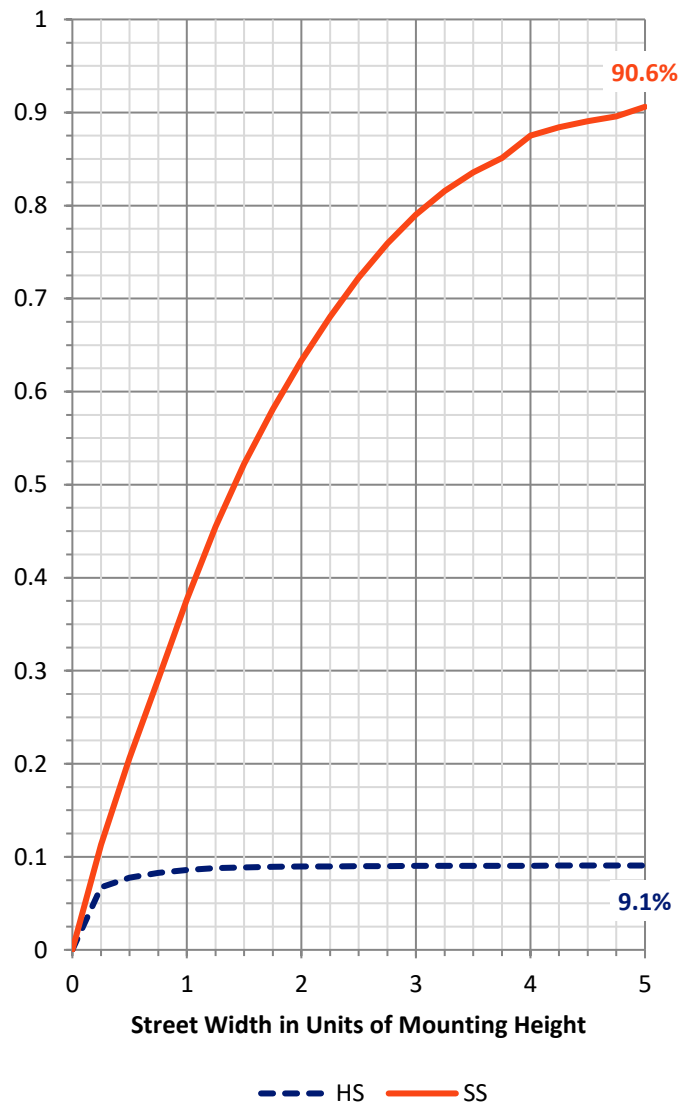
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1027.6   | 0.0    | 1027.6  |
|                    | % Fixture | 9.1      | 0.0    | 9.1     |
| <b>Street Side</b> | Lumens    | 10245.4  | 0.0    | 10245.4 |
|                    | % Fixture | 90.9     | 0.0    | 90.9    |
| <b>Total</b>       | Lumens    | 11273.0  | 0.0    | 11273.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 160.8   | 1.4       |
| 10°-20°   | 349.2   | 3.1       |
| 20°-30°   | 523.2   | 4.6       |
| 30°-40°   | 832.4   | 7.4       |
| 40°-50°   | 1486.4  | 13.2      |
| 50°-60°   | 2306.4  | 20.5      |
| 60°-70°   | 3066.1  | 27.2      |
| 70°-80°   | 2306.3  | 20.5      |
| 80°-90°   | 242.3   | 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°    | 11273.0 | 100.0     |
| 0°-180°   | 11273.0 | 100.0     |

**Coefficient of Utilization**



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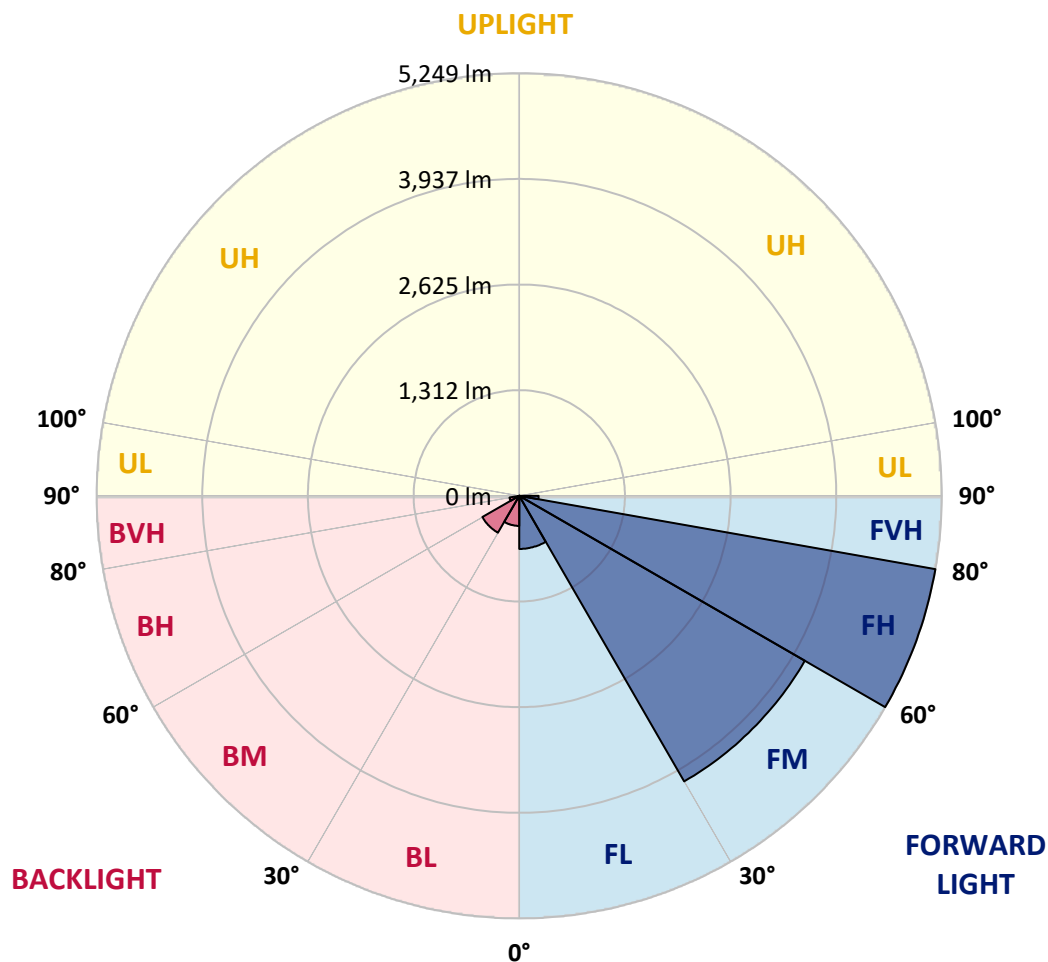
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 659.5  | 5.9       |                         |      |         |
| FM   | (30°-60°)   | 4096.2 | 36.3      |                         |      |         |
| FH   | (60°-80°)   | 5249.4 | 46.6      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 240.3  | 2.1       |                         |      | G3/500  |
| BL   | (0°-30°)    | 373.7  | 3.3       | B1/500                  |      |         |
| BM   | (30°-60°)   | 528.9  | 4.7       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 122.9  | 1.1       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 2.0    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 31°     | 35°     | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|--------|
| 0°    | 1939.5 | 1939.5 | 1939.5 | 1939.5 | 1939.5  | 1939.5  | 1939.5 | 1939.5 | 1939.5 | 1939.5 | 1939.5 |
| 2.5°  | 1838.0 | 1845.8 | 1854.0 | 1855.7 | 1869.5  | 1870.0  | 1889.9 | 1904.8 | 1919.7 | 1934.0 | 1939.0 |
| 5°    | 1649.4 | 1662.1 | 1677.0 | 1691.9 | 1721.1  | 1732.7  | 1781.2 | 1830.9 | 1878.3 | 1923.5 | 1945.6 |
| 7.5°  | 1448.0 | 1462.4 | 1483.3 | 1520.3 | 1552.8  | 1575.5  | 1652.1 | 1740.4 | 1828.7 | 1912.0 | 1960.0 |
| 10°   | 1264.3 | 1277.6 | 1299.6 | 1338.8 | 1389.0  | 1419.9  | 1523.1 | 1645.5 | 1775.2 | 1901.5 | 1981.5 |
| 12.5° | 1147.4 | 1154.6 | 1166.7 | 1208.6 | 1253.9  | 1288.6  | 1410.0 | 1561.7 | 1731.0 | 1900.9 | 2016.2 |
| 15°   | 1125.9 | 1128.1 | 1118.2 | 1136.9 | 1172.2  | 1205.9  | 1328.9 | 1493.8 | 1697.4 | 1909.8 | 2061.5 |
| 17.5° | 1160.1 | 1159.0 | 1125.9 | 1123.7 | 1151.8  | 1179.4  | 1289.2 | 1446.9 | 1673.7 | 1930.2 | 2119.9 |
| 20°   | 1211.9 | 1208.1 | 1150.7 | 1140.2 | 1170.0  | 1195.9  | 1286.4 | 1429.3 | 1664.8 | 1964.4 | 2191.1 |
| 22.5° | 1280.9 | 1274.3 | 1184.4 | 1173.3 | 1205.3  | 1232.3  | 1320.6 | 1446.4 | 1672.6 | 2010.2 | 2273.8 |
| 25°   | 1366.4 | 1356.5 | 1242.3 | 1230.1 | 1262.7  | 1289.7  | 1381.8 | 1495.5 | 1695.7 | 2065.9 | 2378.6 |
| 27.5° | 1462.9 | 1448.6 | 1335.0 | 1303.5 | 1340.5  | 1368.6  | 1463.5 | 1570.5 | 1732.1 | 2124.9 | 2507.2 |
| 30°   | 1554.0 | 1535.2 | 1432.6 | 1380.7 | 1426.0  | 1457.4  | 1551.7 | 1659.9 | 1790.6 | 2215.9 | 2683.1 |
| 32.5° | 1645.5 | 1624.6 | 1519.7 | 1458.0 | 1498.8  | 1533.0  | 1642.8 | 1782.9 | 1900.4 | 2354.9 | 2917.0 |
| 35°   | 1856.2 | 1834.2 | 1705.7 | 1603.6 | 1603.0  | 1622.4  | 1770.2 | 1951.1 | 2045.5 | 2548.5 | 3196.2 |
| 37.5° | 2210.9 | 2198.3 | 2075.8 | 1882.2 | 1830.3  | 1808.8  | 1944.0 | 2151.9 | 2254.0 | 2815.0 | 3511.1 |
| 40°   | 2599.3 | 2588.3 | 2450.9 | 2275.5 | 2196.6  | 2143.6  | 2193.3 | 2431.6 | 2548.5 | 3140.4 | 3832.7 |
| 42.5° | 3037.8 | 2985.4 | 2740.5 | 2688.1 | 2617.5  | 2577.2  | 2532.5 | 2776.4 | 2910.4 | 3494.6 | 4151.6 |
| 45°   | 3436.1 | 3347.9 | 3030.1 | 2950.7 | 2934.7  | 2944.6  | 2969.4 | 3239.7 | 3317.5 | 3915.5 | 4469.3 |
| 47.5° | 3673.3 | 3603.8 | 3360.0 | 3283.9 | 3279.5  | 3345.1  | 3532.7 | 3763.2 | 3723.0 | 4282.3 | 4749.0 |
| 50°   | 3898.9 | 3836.1 | 3633.6 | 3652.4 | 3672.8  | 3762.1  | 4172.0 | 4301.6 | 4093.1 | 4615.0 | 5005.5 |
| 52.5° | 4081.5 | 3985.6 | 3879.6 | 3985.0 | 4085.4  | 4229.4  | 4831.8 | 4784.9 | 4355.7 | 4879.7 | 5225.1 |
| 55°   | 4186.9 | 4143.3 | 4194.6 | 4300.5 | 4489.2  | 4723.1  | 5454.6 | 5187.0 | 4547.7 | 5121.4 | 5371.3 |
| 57.5° | 4573.0 | 4487.5 | 4589.6 | 4681.2 | 4927.2  | 5254.3  | 5988.0 | 5486.5 | 4686.1 | 5270.9 | 5404.9 |
| 60°   | 5040.3 | 4971.3 | 5031.4 | 5183.7 | 5515.8  | 5900.3  | 6486.7 | 5730.9 | 4758.4 | 5366.8 | 5317.7 |
| 62.5° | 5783.9 | 5692.9 | 5655.3 | 5825.8 | 6266.0  | 6685.8  | 6865.1 | 5900.3 | 4742.4 | 5324.4 | 5018.8 |
| 65°   | 6780.1 | 6685.8 | 6518.1 | 6672.6 | 7232.5  | 7528.7  | 7288.2 | 5936.1 | 4632.1 | 4980.7 | 4263.0 |
| 67.5° | 7800.6 | 7732.2 | 7588.8 | 7849.2 | 8354.5  | 8449.9  | 7735.6 | 5849.0 | 4276.8 | 4038.5 | 3011.9 |
| 70°   | 8474.7 | 8445.5 | 8538.7 | 9114.6 | 9565.3  | 9537.7  | 8146.0 | 5380.6 | 3333.5 | 2483.5 | 1490.0 |
| 72.5° | 7988.8 | 8128.9 | 8817.3 | 9861.5 | 10412.1 | 10187.0 | 7935.2 | 4131.7 | 1905.3 | 955.4  | 430.8  |
| 73°   | 7586.1 | 7765.3 | 8692.1 | 9889.7 | 10478.8 | 10232.2 | 7758.2 | 3792.5 | 1624.0 | 754.1  | 326.6  |
| 75°   | 5277.5 | 5497.6 | 7196.1 | 9210.6 | 10166.6 | 9749.0  | 6466.8 | 2321.3 | 752.4  | 334.3  | 131.8  |
| 77.5° | 2562.3 | 2725.1 | 3962.4 | 6654.9 | 7906.6  | 7617.0  | 4025.8 | 865.0  | 339.8  | 209.1  | 60.7   |
| 80°   | 956.5  | 1063.5 | 1720.0 | 3387.0 | 4569.2  | 4688.9  | 1770.7 | 327.1  | 226.2  | 168.2  | 30.9   |
| 82.5° | 250.4  | 279.1  | 634.4  | 1510.4 | 2341.7  | 2450.9  | 558.3  | 164.9  | 165.5  | 138.5  | 18.8   |
| 85°   | 80.0   | 91.6   | 198.0  | 678.0  | 1103.3  | 968.7   | 145.6  | 80.0   | 120.3  | 103.2  | 10.5   |
| 87.5° | 9.9    | 12.7   | 62.9   | 159.4  | 243.3   | 135.2   | 22.6   | 23.7   | 51.3   | 57.4   | 6.1    |
| 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°    | 1939.5 | 1939.5 | 1939.5 | 1939.5 | 1939.5 | 1939.5 | 1939.5 | 1939.5 | 1939.5 | 1939.5 | 1939.5 |
| 2.5°  | 1944.0 | 1941.2 | 1941.7 | 1927.4 | 1918.0 | 1899.3 | 1880.0 | 1871.1 | 1861.8 | 1857.9 | 1861.8 |
| 5°    | 1953.9 | 1948.9 | 1934.6 | 1890.4 | 1843.6 | 1782.9 | 1726.1 | 1683.0 | 1629.0 | 1614.1 | 1629.5 |
| 7.5°  | 1969.3 | 1959.4 | 1917.5 | 1827.6 | 1723.3 | 1607.5 | 1477.3 | 1382.4 | 1304.6 | 1254.4 | 1272.6 |
| 10°   | 1991.9 | 1973.2 | 1888.8 | 1736.0 | 1549.5 | 1344.3 | 1159.5 | 1015.6 | 913.5  | 871.6  | 869.9  |
| 12.5° | 2030.0 | 1994.7 | 1853.5 | 1616.8 | 1337.2 | 1063.5 | 821.4  | 665.3  | 582.5  | 529.0  | 527.9  |
| 15°   | 2071.9 | 2020.1 | 1808.8 | 1474.0 | 1090.0 | 761.8  | 529.0  | 410.4  | 356.9  | 339.8  | 337.6  |
| 17.5° | 2123.2 | 2049.3 | 1750.9 | 1298.0 | 831.3  | 504.7  | 345.3  | 311.1  | 308.9  | 307.3  | 307.3  |
| 20°   | 2187.8 | 2084.1 | 1676.4 | 1096.6 | 589.7  | 337.0  | 293.5  | 295.7  | 296.8  | 294.6  | 295.1  |
| 22.5° | 2262.8 | 2119.4 | 1587.6 | 880.4  | 398.8  | 281.9  | 280.8  | 283.5  | 284.6  | 283.5  | 284.1  |
| 25°   | 2350.0 | 2160.2 | 1479.5 | 653.7  | 288.0  | 267.5  | 270.3  | 274.2  | 276.9  | 276.9  | 276.9  |
| 27.5° | 2458.1 | 2209.8 | 1349.3 | 456.2  | 248.8  | 252.6  | 260.4  | 267.5  | 271.4  | 272.5  | 272.5  |
| 30°   | 2598.7 | 2271.6 | 1193.2 | 312.8  | 226.2  | 232.8  | 247.1  | 260.9  | 268.1  | 269.2  | 269.7  |
| 32.5° | 2776.4 | 2341.1 | 1012.2 | 231.1  | 206.9  | 211.8  | 227.3  | 250.4  | 264.2  | 266.4  | 266.4  |
| 35°   | 2979.9 | 2421.7 | 817.5  | 201.3  | 193.1  | 194.7  | 206.9  | 233.3  | 257.6  | 263.7  | 264.2  |
| 37.5° | 3202.8 | 2501.1 | 621.7  | 188.1  | 181.5  | 181.5  | 190.3  | 212.9  | 241.6  | 260.4  | 262.6  |
| 40°   | 3410.7 | 2549.1 | 435.8  | 177.6  | 171.0  | 171.0  | 178.7  | 195.3  | 222.3  | 250.4  | 256.5  |
| 42.5° | 3602.7 | 2565.6 | 303.4  | 167.7  | 161.1  | 162.7  | 169.4  | 182.6  | 203.0  | 231.1  | 236.7  |
| 45°   | 3800.2 | 2562.9 | 221.2  | 156.1  | 151.1  | 156.1  | 161.1  | 171.0  | 185.9  | 201.9  | 203.0  |
| 47.5° | 3949.1 | 2539.7 | 175.4  | 145.1  | 141.8  | 148.4  | 152.8  | 159.4  | 167.7  | 166.6  | 166.6  |
| 50°   | 4088.7 | 2483.5 | 141.2  | 130.2  | 132.4  | 140.1  | 142.3  | 144.5  | 145.1  | 134.6  | 133.5  |
| 52.5° | 4194.6 | 2395.7 | 113.1  | 114.2  | 123.0  | 130.7  | 128.5  | 125.2  | 119.7  | 107.0  | 104.8  |
| 55°   | 4229.9 | 2226.9 | 88.8   | 94.3   | 109.2  | 119.2  | 110.9  | 103.7  | 93.2   | 82.7   | 80.5   |
| 57.5° | 4165.9 | 2009.0 | 72.3   | 73.4   | 92.1   | 100.4  | 91.0   | 82.7   | 71.2   | 62.3   | 60.7   |
| 60°   | 4030.2 | 1766.9 | 59.6   | 55.2   | 71.2   | 78.3   | 72.3   | 64.0   | 53.5   | 46.9   | 46.3   |
| 62.5° | 3761.0 | 1508.7 | 49.1   | 43.0   | 54.1   | 60.1   | 56.3   | 50.2   | 41.4   | 37.0   | 36.4   |
| 65°   | 3195.1 | 1207.0 | 39.7   | 34.8   | 41.9   | 46.9   | 43.6   | 39.2   | 32.5   | 29.2   | 28.7   |
| 67.5° | 2230.3 | 815.9  | 32.5   | 28.7   | 33.1   | 37.0   | 34.2   | 32.0   | 25.9   | 25.4   | 25.9   |
| 70°   | 1075.7 | 393.3  | 27.0   | 23.2   | 25.9   | 28.7   | 27.6   | 25.9   | 24.8   | 28.7   | 33.1   |
| 72.5° | 308.4  | 131.8  | 21.5   | 19.3   | 21.0   | 22.6   | 23.7   | 23.2   | 27.0   | 34.8   | 40.3   |
| 73°   | 237.2  | 106.5  | 20.4   | 18.2   | 19.9   | 22.1   | 23.2   | 22.6   | 27.6   | 35.3   | 40.3   |
| 75°   | 101.5  | 51.3   | 15.4   | 14.9   | 16.5   | 19.3   | 20.4   | 20.4   | 27.6   | 35.9   | 38.6   |
| 77.5° | 45.8   | 27.6   | 9.9    | 11.6   | 14.3   | 15.4   | 17.1   | 17.1   | 22.1   | 27.6   | 27.6   |
| 80°   | 25.9   | 14.9   | 7.7    | 8.8    | 10.5   | 10.5   | 10.5   | 9.4    | 9.9    | 11.0   | 12.1   |
| 82.5° | 16.5   | 9.9    | 6.1    | 7.2    | 6.6    | 5.5    | 4.4    | 4.4    | 3.9    | 4.4    | 5.5    |
| 85°   | 9.4    | 5.5    | 5.5    | 4.4    | 2.8    | 2.2    | 2.8    | 2.2    | 0.6    | 0.0    | 0.6    |
| 87.5° | 5.5    | 3.3    | 1.7    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 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)