

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: P299884

Luminaire Tested: **GAA-AF-02-LED-U-SL3-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299884  
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-02-LED-U-SL3-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Medium OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

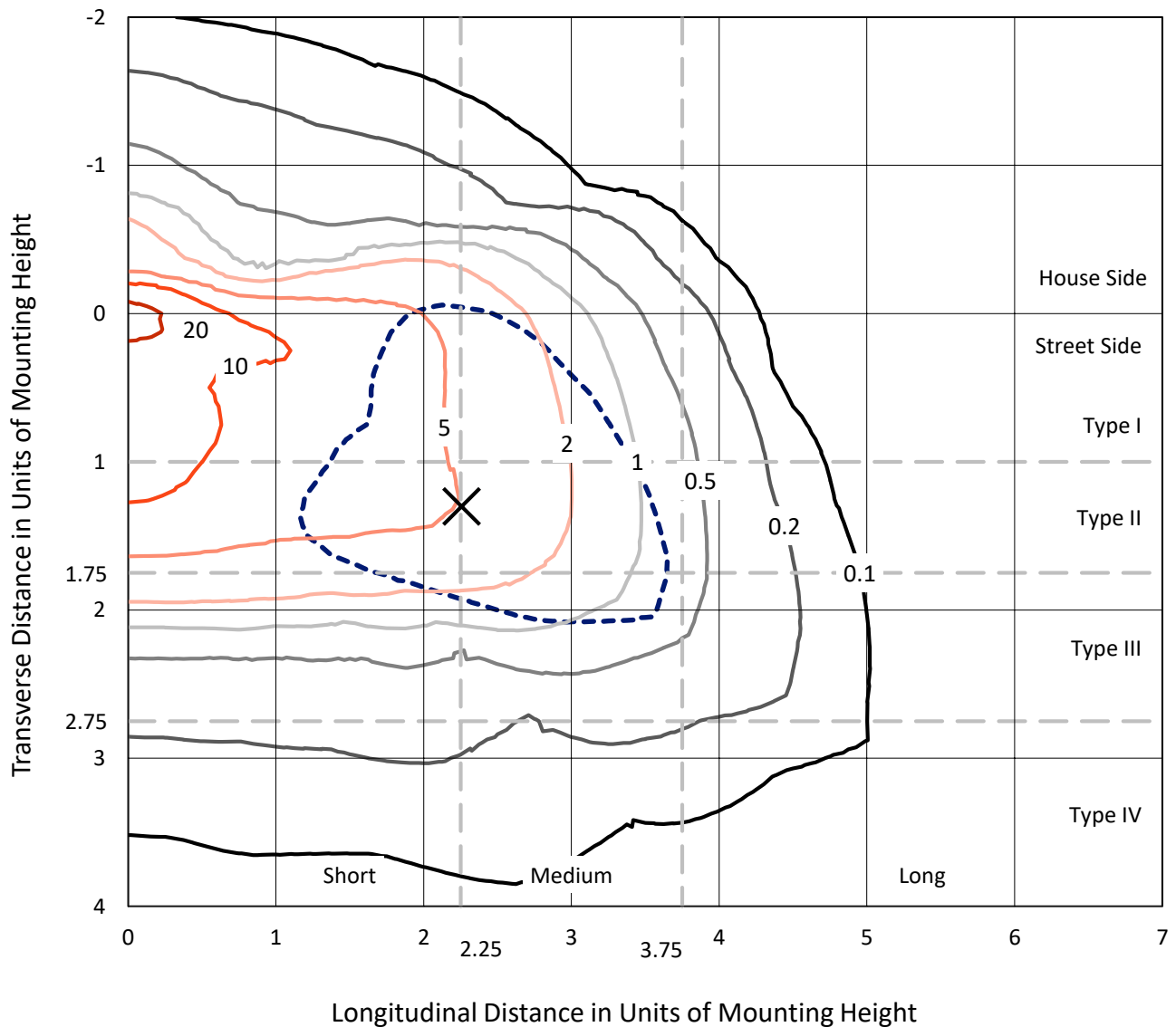
Lumens per Lamp: N/A  
Luminaire Lumens: 9805.5 lumens  
Efficiency: N/A  
Efficacy: 115.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 85  
Input Voltage (V): NR  
Input Current (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

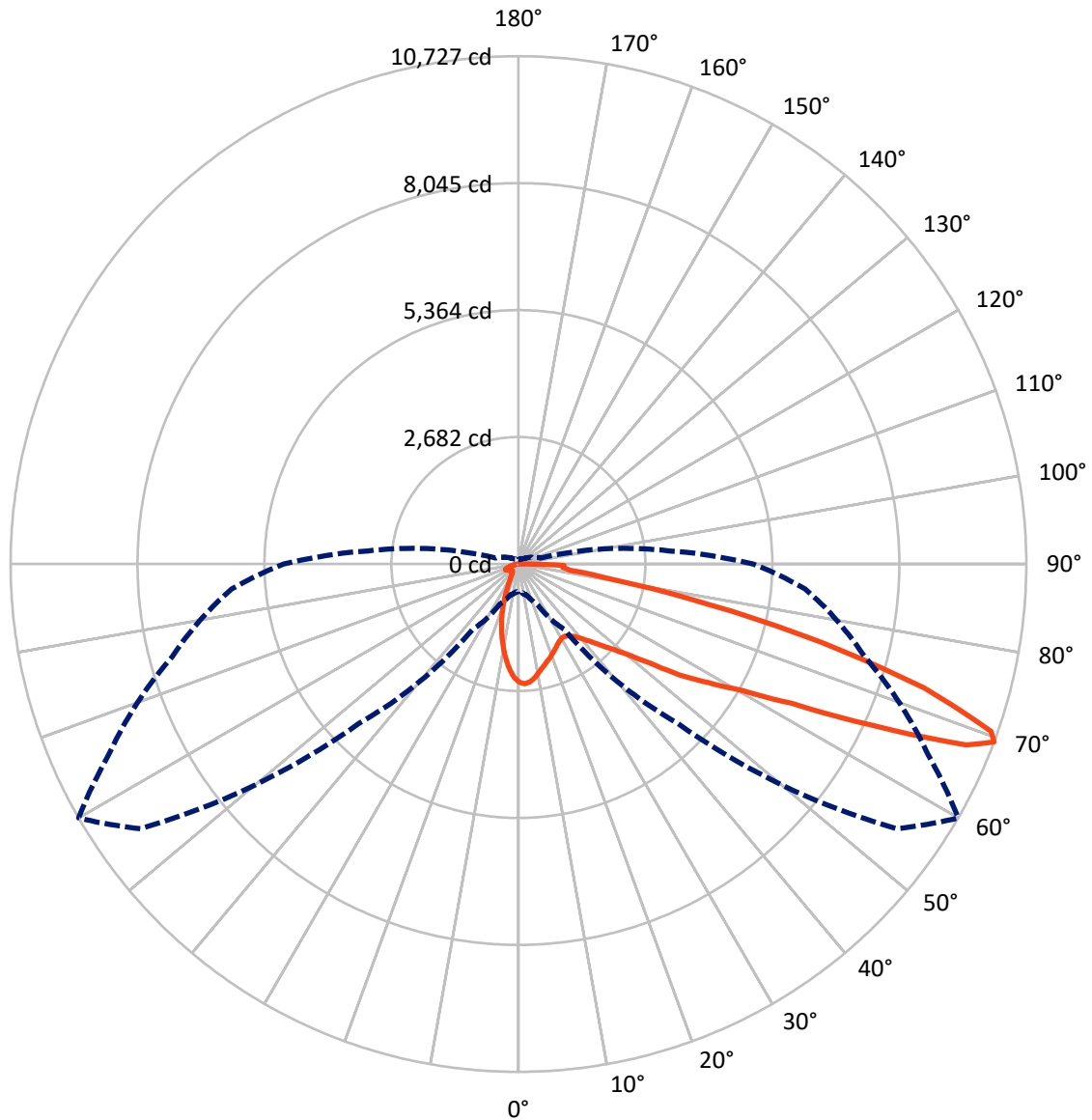


Based on 10 foot mounting height. Maximum calculated value = 25 fc  
 Type III - Medium - Non-Cutoff

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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  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1395.0   | 0.0    | 1395.0 |
|                    | % Fixture | 14.2     | 0.0    | 14.2   |
| <b>Street Side</b> | Lumens    | 8410.4   | 0.0    | 8410.4 |
|                    | % Fixture | 85.8     | 0.0    | 85.8   |
| <b>Total</b>       | Lumens    | 9805.5   | 0.0    | 9805.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 211.3  | 2.2       |
| 10°-20°   | 450.1  | 4.6       |
| 20°-30°   | 573.5  | 5.8       |
| 30°-40°   | 788.4  | 8.0       |
| 40°-50°   | 1279.3 | 13.0      |
| 50°-60°   | 2051.7 | 20.9      |
| 60°-70°   | 2730.7 | 27.8      |
| 70°-80°   | 1474.4 | 15.0      |
| 80°-90°   | 246.0  | 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°    | 9805.5 | 100.0     |
| 0°-180°   | 9805.5 | 100.0     |

**Coefficient of Utilization**



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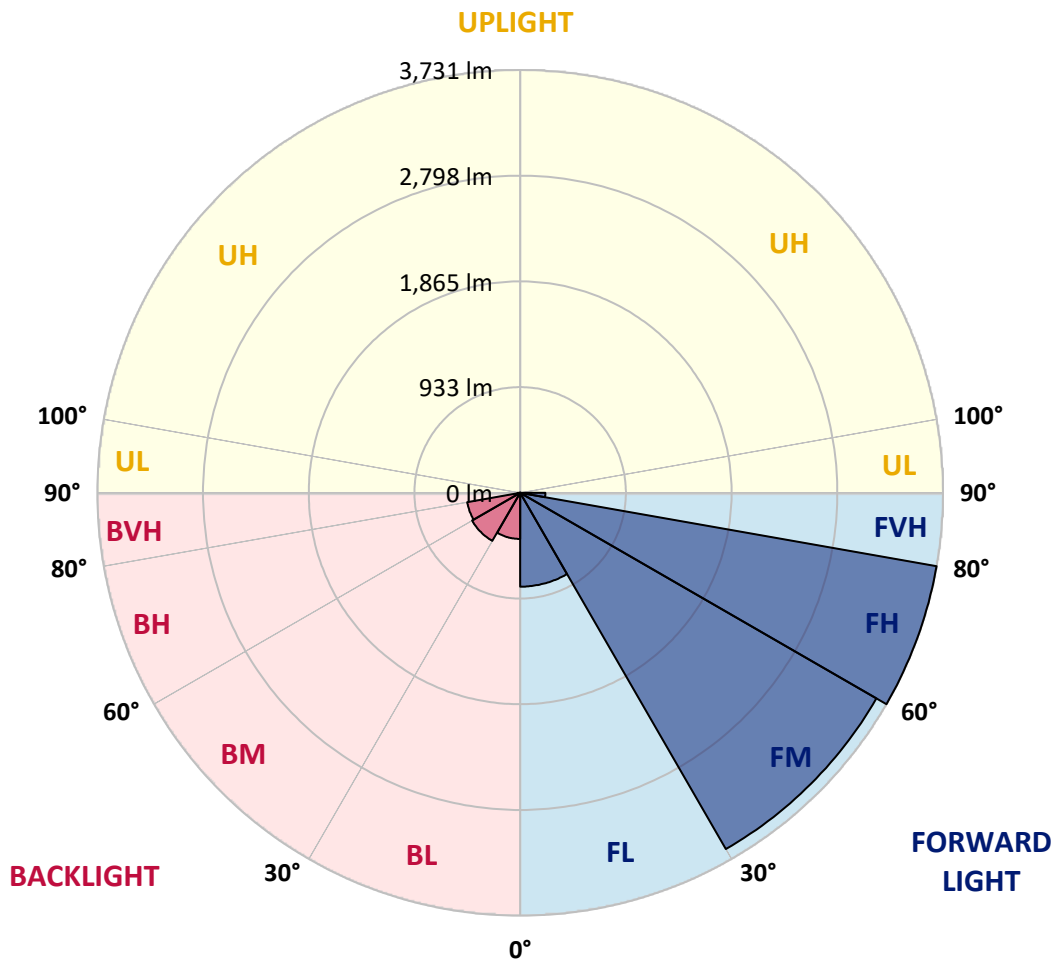
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 827.9  | 8.4       |                         |      |         |
| FM (30°-60°)   | 3629.4 | 37.0      |                         |      |         |
| FH (60°-80°)   | 3730.8 | 38.0      |                         |      | G2/5000 |
| FVH (80°-90°)  | 222.3  | 2.3       |                         |      | G2/225  |
| BL (0°-30°)    | 407.0  | 4.2       | B1/500                  |      |         |
| BM (30°-60°)   | 490.1  | 5.0       | B1/1000                 |      |         |
| BH (60°-80°)   | 474.3  | 4.8       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 23.7   | 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°    | 2498.6 | 2498.6 | 2498.6 | 2498.6 | 2498.6 | 2498.6 | 2498.6 | 2498.6  | 2498.6 | 2498.6 | 2498.6 |
| 2.5°  | 2549.7 | 2555.4 | 2553.0 | 2551.6 | 2555.9 | 2549.3 | 2535.5 | 2531.3  | 2524.6 | 2509.0 | 2482.5 |
| 5°    | 2454.1 | 2471.1 | 2470.2 | 2482.9 | 2504.3 | 2509.9 | 2503.8 | 2504.7  | 2492.4 | 2473.0 | 2428.9 |
| 7.5°  | 2288.7 | 2295.8 | 2299.6 | 2327.6 | 2366.4 | 2397.7 | 2424.2 | 2432.7  | 2427.1 | 2410.5 | 2353.6 |
| 10°   | 2118.2 | 2123.9 | 2132.9 | 2165.6 | 2214.9 | 2258.0 | 2308.2 | 2337.1  | 2349.4 | 2346.5 | 2283.1 |
| 12.5° | 1971.9 | 1977.5 | 1989.4 | 2026.3 | 2085.1 | 2138.1 | 2211.1 | 2247.1  | 2276.4 | 2294.0 | 2225.7 |
| 15°   | 1840.7 | 1853.0 | 1864.3 | 1907.0 | 1972.8 | 2042.4 | 2124.9 | 2170.3  | 2215.8 | 2255.1 | 2175.1 |
| 17.5° | 1738.3 | 1750.7 | 1757.3 | 1796.1 | 1866.2 | 1951.5 | 2048.1 | 2101.6  | 2158.5 | 2222.9 | 2124.9 |
| 20°   | 1679.1 | 1684.8 | 1682.0 | 1703.8 | 1766.8 | 1857.2 | 1971.9 | 2033.9  | 2102.6 | 2192.6 | 2074.6 |
| 22.5° | 1662.6 | 1663.0 | 1652.6 | 1650.2 | 1691.0 | 1767.2 | 1890.4 | 1965.7  | 2050.0 | 2172.7 | 2031.5 |
| 25°   | 1702.8 | 1701.4 | 1673.0 | 1649.8 | 1654.0 | 1698.6 | 1811.8 | 1899.4  | 2006.0 | 2168.4 | 1998.4 |
| 27.5° | 1792.3 | 1796.6 | 1754.5 | 1710.9 | 1667.8 | 1666.4 | 1752.1 | 1844.4  | 1970.0 | 2187.9 | 1984.2 |
| 30°   | 1917.9 | 1925.0 | 1880.0 | 1824.6 | 1743.6 | 1676.8 | 1728.9 | 1811.8  | 1947.7 | 2228.1 | 1981.8 |
| 32.5° | 2055.2 | 2062.8 | 2028.7 | 1970.4 | 1864.3 | 1741.2 | 1745.0 | 1814.6  | 1946.8 | 2284.5 | 1997.9 |
| 35°   | 2201.6 | 2210.1 | 2192.6 | 2143.3 | 2025.4 | 1860.1 | 1806.6 | 1860.6  | 1977.5 | 2370.7 | 2041.0 |
| 37.5° | 2365.0 | 2378.3 | 2383.0 | 2336.1 | 2210.1 | 2016.9 | 1907.4 | 1947.7  | 2047.2 | 2490.5 | 2120.1 |
| 40°   | 2600.4 | 2618.9 | 2617.5 | 2550.2 | 2421.8 | 2228.6 | 2063.3 | 2073.7  | 2155.6 | 2650.6 | 2246.6 |
| 42.5° | 3051.3 | 3055.1 | 2937.2 | 2790.8 | 2654.9 | 2451.2 | 2247.1 | 2238.5  | 2305.3 | 2853.4 | 2432.7 |
| 45°   | 3625.0 | 3609.3 | 3346.9 | 3064.1 | 2898.4 | 2707.0 | 2486.3 | 2444.6  | 2495.3 | 3100.6 | 2665.8 |
| 47.5° | 4101.0 | 4065.0 | 3733.4 | 3343.1 | 3156.0 | 2985.0 | 2767.1 | 2694.2  | 2722.1 | 3381.0 | 2967.0 |
| 50°   | 4266.3 | 4239.3 | 3964.6 | 3575.2 | 3400.0 | 3324.2 | 3112.9 | 3009.7  | 3017.2 | 3715.4 | 3319.9 |
| 52.5° | 4230.8 | 4227.0 | 4043.7 | 3728.2 | 3628.3 | 3680.4 | 3602.7 | 3463.0  | 3389.1 | 4086.8 | 3700.7 |
| 55°   | 4146.9 | 4155.0 | 4088.7 | 3906.3 | 3889.3 | 4024.2 | 4242.6 | 4139.4  | 3909.6 | 4461.4 | 4094.4 |
| 57.5° | 3855.6 | 3876.5 | 4022.4 | 4130.4 | 4309.4 | 4510.2 | 4758.0 | 4728.6  | 4470.0 | 4866.4 | 4562.3 |
| 60°   | 3106.3 | 3154.6 | 3545.8 | 4086.8 | 4741.9 | 5369.9 | 5480.8 | 5412.6  | 5047.8 | 5369.0 | 5180.5 |
| 62.5° | 2176.5 | 2226.7 | 2691.8 | 3538.3 | 4670.8 | 6340.9 | 6772.9 | 6478.8  | 5877.7 | 6109.3 | 5980.5 |
| 65°   | 1165.2 | 1189.4 | 1544.6 | 2455.0 | 3943.3 | 6541.3 | 8661.4 | 8213.8  | 7191.6 | 7022.1 | 6664.9 |
| 67.5° | 642.8  | 656.0  | 792.0  | 1239.6 | 2525.6 | 5760.2 | 9864.5 | 10202.7 | 8833.8 | 7629.8 | 6540.4 |
| 69°   | 581.2  | 593.5  | 682.5  | 938.8  | 1690.0 | 4762.7 | 9747.1 | 10727.1 | 9553.8 | 7569.6 | 6080.0 |
| 70°   | 568.4  | 579.8  | 659.8  | 865.4  | 1367.9 | 3925.7 | 9353.4 | 10593.0 | 9725.3 | 7354.1 | 5678.3 |
| 72.5° | 511.6  | 523.9  | 601.6  | 777.3  | 1169.0 | 1957.2 | 7409.1 | 8956.5  | 8829.6 | 6376.5 | 4307.0 |
| 75°   | 477.0  | 488.3  | 620.0  | 761.2  | 1119.3 | 1238.6 | 4884.4 | 6601.0  | 6490.6 | 4460.5 | 2322.4 |
| 77.5° | 204.1  | 203.2  | 287.5  | 644.2  | 1135.8 | 1199.3 | 2624.6 | 4123.7  | 3762.3 | 1906.5 | 666.9  |
| 80°   | 136.4  | 134.0  | 136.4  | 189.5  | 1041.6 | 1205.9 | 1375.0 | 2093.1  | 1581.1 | 486.0  | 328.7  |
| 82.5° | 117.5  | 115.6  | 119.8  | 115.6  | 366.1  | 1376.5 | 1169.0 | 1113.1  | 751.7  | 276.1  | 162.9  |
| 85°   | 79.1   | 75.8   | 103.3  | 103.7  | 172.9  | 1223.0 | 1316.8 | 940.2   | 608.2  | 163.9  | 80.5   |
| 87.5° | 37.9   | 36.9   | 60.2   | 73.4   | 101.4  | 496.9  | 1477.4 | 963.4   | 613.4  | 83.8   | 38.4   |
| 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°    | 2498.6 | 2498.6 | 2498.6 | 2498.6 | 2498.6 | 2498.6 | 2498.6 | 2498.6 | 2498.6 | 2498.6 | 2498.6 |
| 2.5°  | 2474.4 | 2455.0 | 2436.1 | 2413.3 | 2389.6 | 2363.1 | 2349.8 | 2336.6 | 2333.3 | 2329.5 | 2316.2 |
| 5°    | 2406.2 | 2378.7 | 2331.4 | 2279.3 | 2224.3 | 2170.8 | 2130.1 | 2104.5 | 2085.1 | 2075.1 | 2057.6 |
| 7.5°  | 2318.1 | 2277.9 | 2195.0 | 2105.0 | 2012.6 | 1928.3 | 1855.3 | 1809.4 | 1765.8 | 1745.5 | 1722.2 |
| 10°   | 2234.3 | 2174.1 | 2045.3 | 1912.7 | 1780.0 | 1652.6 | 1532.8 | 1448.0 | 1372.7 | 1330.5 | 1300.7 |
| 12.5° | 2162.3 | 2079.9 | 1901.3 | 1721.8 | 1539.9 | 1358.5 | 1178.9 | 1037.8 | 919.9  | 857.8  | 826.1  |
| 15°   | 2092.2 | 1992.7 | 1764.4 | 1536.6 | 1303.0 | 1056.3 | 820.4  | 660.3  | 562.7  | 523.9  | 510.6  |
| 17.5° | 2028.7 | 1901.3 | 1627.0 | 1349.9 | 1058.6 | 760.2  | 551.3  | 463.2  | 425.8  | 413.0  | 408.8  |
| 20°   | 1960.0 | 1808.9 | 1484.5 | 1154.8 | 803.8  | 531.5  | 430.6  | 391.7  | 376.6  | 372.8  | 370.9  |
| 22.5° | 1893.7 | 1718.0 | 1348.0 | 945.9  | 577.4  | 410.2  | 369.9  | 353.8  | 351.5  | 354.8  | 354.8  |
| 25°   | 1837.3 | 1636.5 | 1200.7 | 727.5  | 423.9  | 345.3  | 331.1  | 327.3  | 336.3  | 348.6  | 351.0  |
| 27.5° | 1795.2 | 1569.7 | 1044.0 | 537.1  | 337.7  | 300.3  | 299.8  | 306.0  | 328.2  | 351.9  | 356.7  |
| 30°   | 1766.3 | 1506.3 | 876.3  | 387.5  | 283.3  | 264.3  | 271.9  | 285.1  | 317.8  | 351.5  | 360.5  |
| 32.5° | 1751.6 | 1459.4 | 701.5  | 299.8  | 242.5  | 232.1  | 244.9  | 261.0  | 293.2  | 324.5  | 336.3  |
| 35°   | 1763.0 | 1424.8 | 536.7  | 250.1  | 214.1  | 206.0  | 219.3  | 234.9  | 253.9  | 267.1  | 276.1  |
| 37.5° | 1805.6 | 1411.0 | 405.0  | 224.0  | 194.7  | 187.1  | 197.5  | 206.5  | 214.1  | 217.9  | 222.1  |
| 40°   | 1897.5 | 1425.7 | 324.5  | 210.8  | 183.8  | 174.3  | 178.6  | 181.9  | 186.6  | 190.4  | 192.3  |
| 42.5° | 2033.0 | 1469.8 | 290.8  | 205.6  | 178.1  | 164.4  | 163.4  | 164.8  | 171.0  | 178.1  | 179.5  |
| 45°   | 2222.4 | 1547.5 | 288.5  | 208.9  | 175.3  | 156.3  | 152.0  | 153.9  | 163.4  | 174.3  | 176.2  |
| 47.5° | 2464.5 | 1665.9 | 307.4  | 218.8  | 177.6  | 152.0  | 144.9  | 147.3  | 159.2  | 173.8  | 176.2  |
| 50°   | 2757.7 | 1831.2 | 339.1  | 233.5  | 188.0  | 153.0  | 142.6  | 144.0  | 156.3  | 172.4  | 174.8  |
| 52.5° | 3103.9 | 2065.6 | 373.7  | 247.7  | 198.9  | 159.2  | 144.5  | 141.2  | 152.5  | 166.7  | 169.6  |
| 55°   | 3489.0 | 2366.4 | 409.2  | 260.5  | 204.6  | 166.7  | 148.3  | 137.4  | 145.4  | 157.3  | 159.6  |
| 57.5° | 3961.7 | 2787.0 | 470.8  | 272.8  | 208.4  | 171.9  | 152.0  | 133.6  | 136.4  | 144.9  | 146.8  |
| 60°   | 4601.6 | 3382.0 | 579.3  | 293.2  | 216.9  | 173.8  | 151.6  | 130.3  | 127.4  | 132.2  | 133.1  |
| 62.5° | 5368.5 | 4028.0 | 669.8  | 318.8  | 231.1  | 175.3  | 148.7  | 127.9  | 119.8  | 119.8  | 120.8  |
| 65°   | 5823.7 | 4200.9 | 619.6  | 340.1  | 243.0  | 173.8  | 145.4  | 125.5  | 114.2  | 108.9  | 109.4  |
| 67.5° | 5437.7 | 3694.6 | 531.0  | 344.4  | 242.5  | 167.2  | 140.2  | 121.3  | 108.5  | 100.4  | 99.9   |
| 69°   | 4954.1 | 3187.8 | 491.2  | 333.0  | 231.1  | 158.7  | 133.6  | 116.5  | 104.2  | 95.7   | 95.2   |
| 70°   | 4564.2 | 2878.5 | 465.1  | 320.7  | 218.8  | 152.5  | 128.4  | 112.3  | 100.9  | 92.8   | 91.9   |
| 72.5° | 3318.5 | 1886.1 | 397.4  | 275.7  | 180.5  | 127.9  | 110.8  | 98.5   | 90.0   | 85.3   | 84.3   |
| 75°   | 1658.3 | 899.5  | 322.6  | 223.6  | 138.3  | 102.3  | 90.9   | 82.4   | 78.2   | 77.2   | 76.7   |
| 77.5° | 544.7  | 412.1  | 230.7  | 166.7  | 102.8  | 80.0   | 73.4   | 67.3   | 66.3   | 69.2   | 68.2   |
| 80°   | 299.4  | 239.7  | 146.4  | 110.4  | 70.1   | 58.7   | 57.8   | 54.5   | 55.9   | 60.6   | 59.7   |
| 82.5° | 152.5  | 124.6  | 90.5   | 66.3   | 47.4   | 42.2   | 45.9   | 44.1   | 45.9   | 50.2   | 49.7   |
| 85°   | 75.3   | 68.2   | 57.3   | 40.3   | 31.3   | 27.0   | 32.7   | 34.1   | 35.1   | 38.4   | 38.4   |
| 87.5° | 43.6   | 40.3   | 30.3   | 18.9   | 15.6   | 14.2   | 18.9   | 18.5   | 21.8   | 23.7   | 23.2   |
| 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)