

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: P140855

Luminaire Tested: **CEM-F04-LED-E-U-RW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P140855  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33689)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CEM-F04-LED-E-U-RW  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE  
Light Source: (28) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

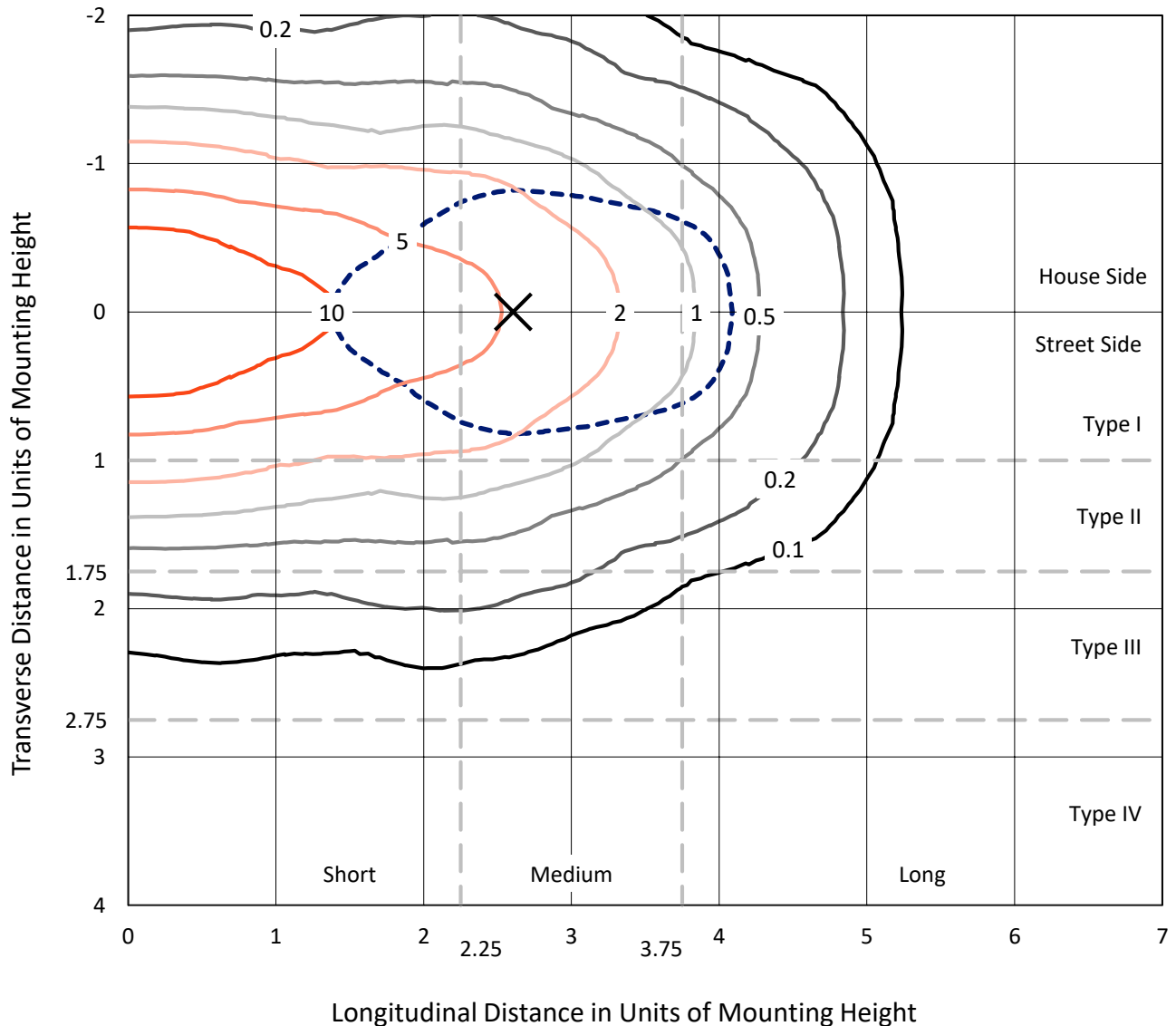
Lumens per Lamp: N/A  
Luminaire Lumens: 9765.3 lumens  
Efficiency: N/A  
Efficacy: 95.6 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
IES Classification: Type V - Medium - Full Cutoff  
BUG Rating: B3 - U0 - G2  
  
Input Watts (W): 102.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

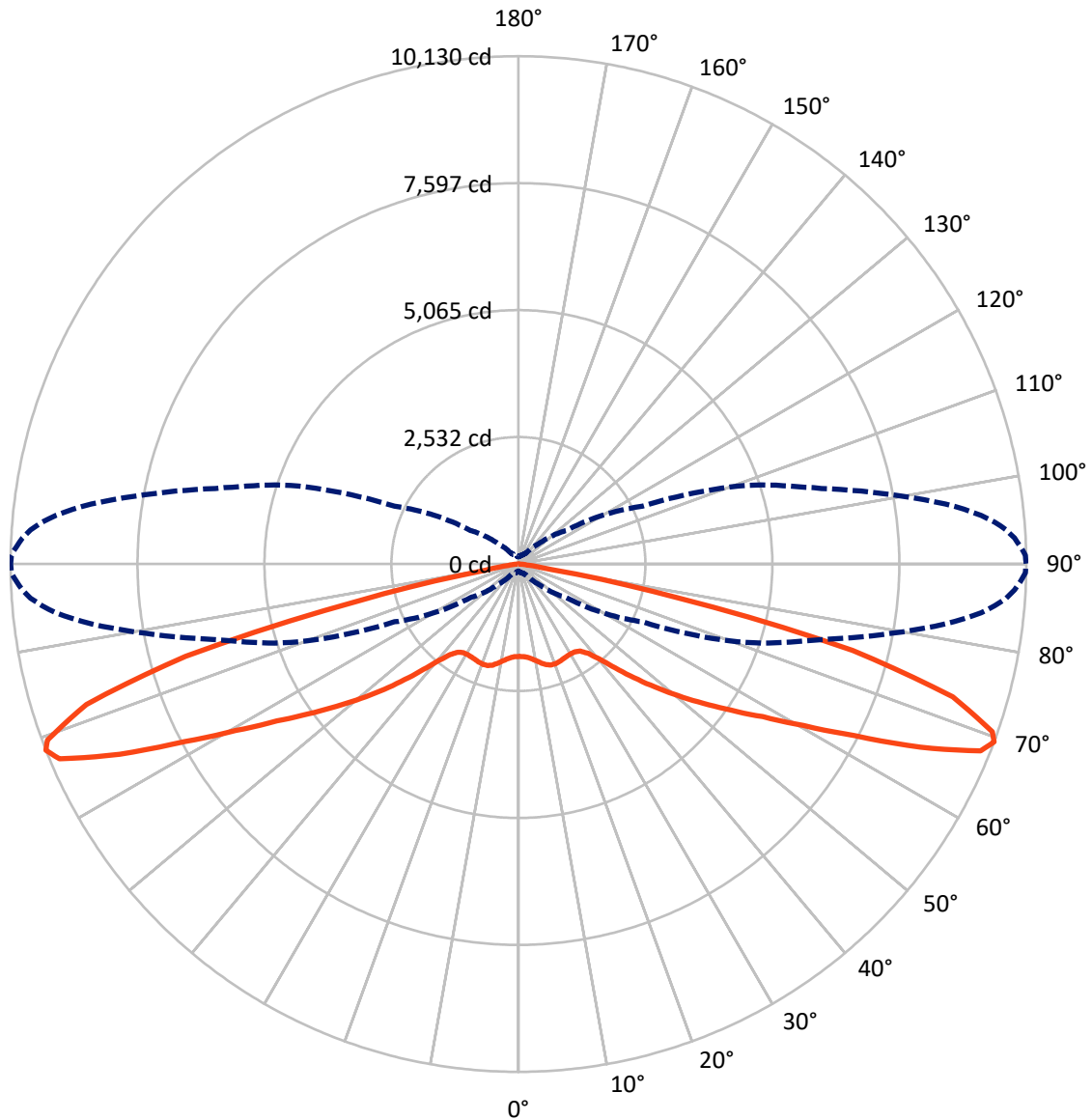


Based on 10 foot mounting height. Maximum calculated value = 18.8 fc  
 Type V - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 4882.7   | 0.0    | 4882.7 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 4882.7   | 0.0    | 4882.7 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 9765.3   | 0.0    | 9765.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 180.5  | 1.8       |
| 10°-20°   | 567.5  | 5.8       |
| 20°-30°   | 917.7  | 9.4       |
| 30°-40°   | 1146.3 | 11.7      |
| 40°-50°   | 1433.8 | 14.7      |
| 50°-60°   | 1766.8 | 18.1      |
| 60°-70°   | 2187.3 | 22.4      |
| 70°-80°   | 1429.6 | 14.6      |
| 80°-90°   | 135.9  | 1.4       |
| 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°    | 9765.3 | 100.0     |
| 0°-180°   | 9765.3 | 100.0     |



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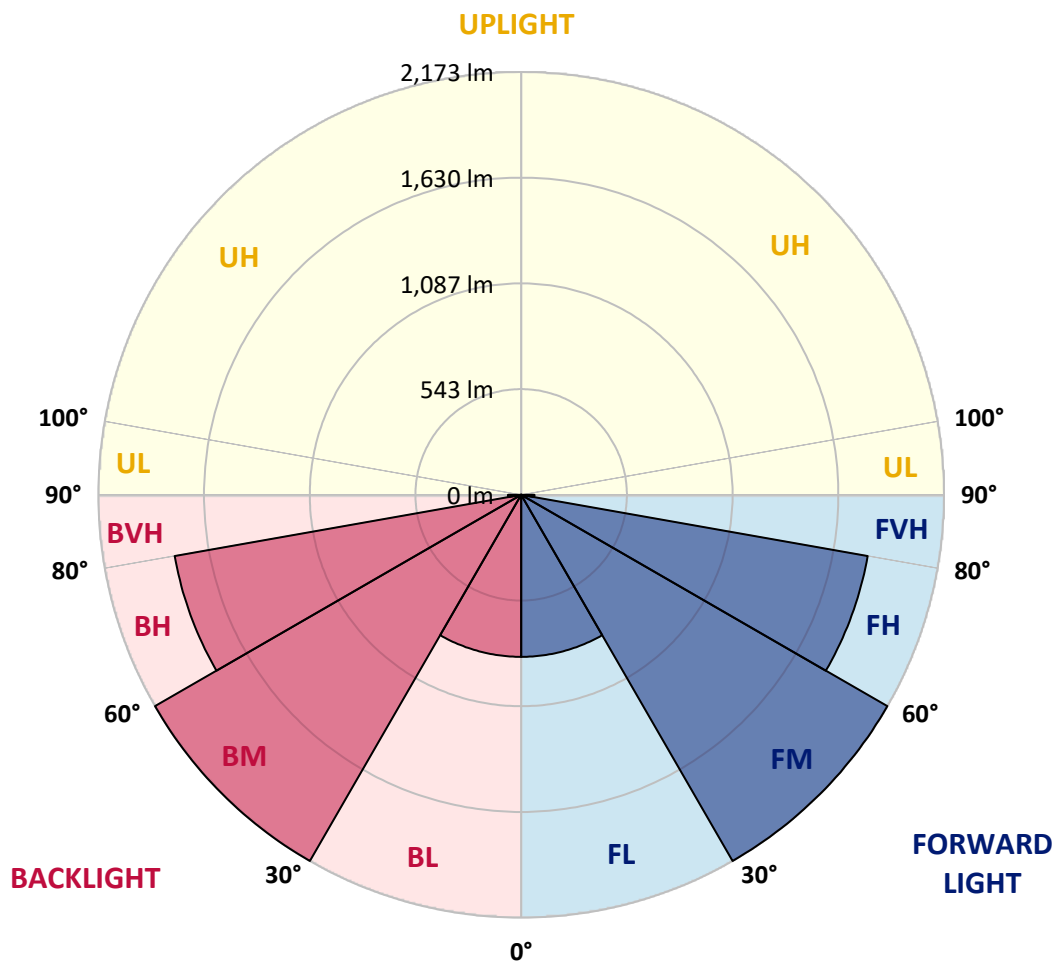
CATALOG NUMBER: CEM-F04-LED-E-U-RW

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

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 832.9  | 8.5       |                         |      |         |
| FM (30°-60°)   | 2173.4 | 22.3      |                         |      |         |
| FH (60°-80°)   | 1808.4 | 18.5      |                         |      | G2/5000 |
| FVH (80°-90°)  | 67.9   | 0.7       |                         |      | G1/100  |
| BL (0°-30°)    | 832.9  | 8.5       | B2/1000                 |      |         |
| BM (30°-60°)   | 2173.4 | 22.3      | B2/2500                 |      |         |
| BH (60°-80°)   | 1808.4 | 18.5      | B3/2500                 |      | G2/5000 |
| BVH (80°-90°)  | 67.9   | 0.7       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G2**

Type V Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 66°    | 67°    | 68°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 |
| 2.5°  | 1855.8 | 1856.9 | 1853.6 | 1854.7 | 1855.8 | 1854.7 | 1853.0 | 1853.0 | 1852.5 | 1852.0 | 1851.4 |
| 5°    | 1867.9 | 1868.4 | 1866.8 | 1869.6 | 1870.1 | 1871.8 | 1871.8 | 1872.3 | 1872.0 | 1871.6 | 1871.3 |
| 7.5°  | 1885.0 | 1887.2 | 1885.5 | 1889.4 | 1893.2 | 1898.7 | 1901.4 | 1908.0 | 1907.9 | 1907.8 | 1907.7 |
| 10°   | 1900.9 | 1903.1 | 1903.1 | 1911.9 | 1921.3 | 1931.8 | 1942.8 | 1953.2 | 1953.9 | 1954.5 | 1955.2 |
| 12.5° | 1913.0 | 1914.6 | 1917.4 | 1933.4 | 1954.3 | 1971.9 | 1991.2 | 2007.7 | 2008.4 | 2009.0 | 2009.7 |
| 15°   | 1908.0 | 1911.9 | 1924.6 | 1949.9 | 1986.8 | 2016.0 | 2039.6 | 2059.4 | 2060.7 | 2062.0 | 2063.4 |
| 17.5° | 1891.0 | 1897.0 | 1915.2 | 1958.2 | 2014.8 | 2061.6 | 2089.7 | 2095.2 | 2096.1 | 2096.9 | 2097.8 |
| 20°   | 1854.2 | 1863.0 | 1891.6 | 1952.6 | 2036.3 | 2099.6 | 2127.6 | 2117.8 | 2116.9 | 2116.0 | 2115.1 |
| 22.5° | 1792.5 | 1804.0 | 1839.8 | 1926.8 | 2038.0 | 2127.1 | 2154.6 | 2127.1 | 2124.0 | 2120.9 | 2117.9 |
| 25°   | 1709.9 | 1719.3 | 1760.0 | 1862.9 | 2012.6 | 2132.0 | 2171.7 | 2133.2 | 2128.2 | 2123.2 | 2118.3 |
| 27.5° | 1609.8 | 1617.5 | 1668.1 | 1777.6 | 1949.9 | 2106.8 | 2182.7 | 2143.6 | 2137.2 | 2130.8 | 2124.5 |
| 30°   | 1497.0 | 1503.6 | 1559.1 | 1675.8 | 1861.8 | 2051.2 | 2181.6 | 2167.2 | 2159.7 | 2152.1 | 2144.5 |
| 32.5° | 1384.6 | 1387.4 | 1437.0 | 1565.2 | 1763.9 | 1969.2 | 2163.4 | 2203.6 | 2196.2 | 2188.9 | 2181.5 |
| 35°   | 1261.4 | 1270.2 | 1323.0 | 1462.8 | 1653.2 | 1878.9 | 2139.2 | 2254.2 | 2250.1 | 2245.9 | 2241.7 |
| 37.5° | 1162.4 | 1165.1 | 1221.8 | 1367.0 | 1563.5 | 1796.9 | 2108.4 | 2319.2 | 2322.2 | 2325.1 | 2328.1 |
| 40°   | 1063.2 | 1063.2 | 1119.4 | 1270.2 | 1473.8 | 1723.1 | 2082.6 | 2399.0 | 2414.0 | 2429.1 | 2444.2 |
| 42.5° | 954.9  | 962.6  | 1017.6 | 1167.8 | 1386.8 | 1660.4 | 2069.4 | 2494.8 | 2523.2 | 2551.6 | 2580.0 |
| 45°   | 853.6  | 858.6  | 914.6  | 1061.6 | 1278.4 | 1588.9 | 2065.5 | 2601.5 | 2644.6 | 2687.8 | 2731.0 |
| 47.5° | 754.0  | 761.1  | 814.6  | 949.4  | 1160.2 | 1493.6 | 2060.5 | 2723.2 | 2778.3 | 2833.4 | 2888.6 |
| 50°   | 661.6  | 666.0  | 725.3  | 848.1  | 1043.4 | 1370.4 | 2028.0 | 2859.1 | 2926.5 | 2993.8 | 3061.2 |
| 52.5° | 563.6  | 572.4  | 621.4  | 747.9  | 925.6  | 1237.8 | 1942.8 | 3007.1 | 3088.6 | 3170.0 | 3251.4 |
| 55°   | 461.2  | 459.0  | 517.9  | 636.8  | 822.8  | 1110.6 | 1785.3 | 3135.4 | 3233.6 | 3331.9 | 3430.2 |
| 57.5° | 337.9  | 345.0  | 399.0  | 519.6  | 703.3  | 1003.8 | 1599.8 | 3201.9 | 3324.5 | 3447.1 | 3569.8 |
| 60°   | 242.2  | 252.0  | 298.8  | 394.0  | 584.4  | 899.2  | 1410.6 | 3155.7 | 3318.2 | 3480.6 | 3643.1 |
| 62.5° | 189.3  | 193.7  | 233.9  | 295.5  | 455.6  | 789.8  | 1283.4 | 3035.7 | 3259.7 | 3483.7 | 3707.7 |
| 65°   | 165.1  | 170.0  | 205.8  | 237.8  | 346.2  | 685.8  | 1206.9 | 2940.0 | 3235.6 | 3531.2 | 3826.9 |
| 67.5° | 150.2  | 156.3  | 187.1  | 209.1  | 284.0  | 597.1  | 1188.8 | 2861.8 | 3208.6 | 3555.5 | 3902.3 |
| 69°   | 143.1  | 149.2  | 177.8  | 198.1  | 263.6  | 569.0  | 1167.8 | 2730.3 | 3082.3 | 3434.3 | 3786.3 |
| 70°   | 139.8  | 144.8  | 172.2  | 191.5  | 257.0  | 552.6  | 1120.5 | 2580.0 | 2920.3 | 3260.5 | 3600.7 |
| 72.5° | 128.8  | 131.6  | 156.8  | 175.6  | 243.2  | 462.3  | 887.7  | 1931.2 | 2215.5 | 2499.8 | 2784.1 |
| 75°   | 114.0  | 118.4  | 141.4  | 160.7  | 195.4  | 296.1  | 582.2  | 1167.2 | 1377.8 | 1588.4 | 1799.0 |
| 77.5° | 98.0   | 101.8  | 121.6  | 153.6  | 150.2  | 179.4  | 334.6  | 652.2  | 766.0  | 879.8  | 993.6  |
| 80°   | 84.8   | 88.6   | 106.8  | 142.6  | 122.2  | 132.6  | 225.6  | 425.4  | 468.7  | 511.9  | 555.2  |
| 82.5° | 66.6   | 69.3   | 89.8   | 116.2  | 94.7   | 98.6   | 169.0  | 371.5  | 397.6  | 423.7  | 449.8  |
| 85°   | 42.3   | 44.0   | 65.4   | 79.2   | 66.0   | 58.3   | 106.2  | 272.4  | 293.0  | 313.6  | 334.2  |
| 87.5° | 14.8   | 20.9   | 29.2   | 27.5   | 27.5   | 20.9   | 37.4   | 100.7  | 108.7  | 116.8  | 124.8  |
| 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):**

|       | 69°    | 70°    | 71°    | 72°    | 73°    | 74°    | 75°    | 76°    | 77°    | 78°    | 79°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 |
| 2.5°  | 1850.8 | 1850.3 | 1850.8 | 1850.8 | 1850.3 | 1849.8 | 1849.8 | 1849.2 | 1848.1 | 1848.1 | 1847.6 |
| 5°    | 1871.0 | 1870.6 | 1871.8 | 1871.2 | 1871.8 | 1871.2 | 1871.2 | 1870.6 | 1871.2 | 1869.0 | 1868.4 |
| 7.5°  | 1907.6 | 1907.5 | 1907.5 | 1909.2 | 1908.0 | 1907.5 | 1908.6 | 1908.6 | 1908.6 | 1907.5 | 1907.5 |
| 10°   | 1955.8 | 1956.5 | 1957.6 | 1958.7 | 1958.7 | 1958.7 | 1960.9 | 1959.2 | 1962.6 | 1959.2 | 1960.9 |
| 12.5° | 2010.3 | 2011.0 | 2013.8 | 2014.8 | 2016.0 | 2016.0 | 2016.0 | 2019.2 | 2021.4 | 2020.9 | 2021.4 |
| 15°   | 2064.7 | 2066.0 | 2066.6 | 2068.2 | 2068.2 | 2068.8 | 2071.0 | 2074.8 | 2073.7 | 2075.9 | 2075.9 |
| 17.5° | 2098.7 | 2099.6 | 2099.0 | 2099.0 | 2100.1 | 2101.8 | 2104.0 | 2106.1 | 2105.6 | 2107.2 | 2108.4 |
| 20°   | 2114.2 | 2113.4 | 2111.7 | 2110.6 | 2110.0 | 2111.2 | 2111.1 | 2111.6 | 2112.8 | 2112.8 | 2112.8 |
| 22.5° | 2114.8 | 2111.7 | 2107.9 | 2105.6 | 2102.9 | 2101.2 | 2102.3 | 2101.2 | 2101.2 | 2101.2 | 2100.1 |
| 25°   | 2113.4 | 2108.4 | 2102.4 | 2098.0 | 2093.6 | 2090.8 | 2088.0 | 2086.9 | 2084.7 | 2084.7 | 2084.7 |
| 27.5° | 2118.1 | 2111.7 | 2105.6 | 2097.4 | 2091.4 | 2088.0 | 2084.2 | 2080.4 | 2078.1 | 2075.9 | 2075.9 |
| 30°   | 2136.9 | 2129.3 | 2121.6 | 2111.7 | 2103.4 | 2100.7 | 2093.6 | 2089.7 | 2084.2 | 2081.4 | 2080.3 |
| 32.5° | 2174.1 | 2166.8 | 2156.3 | 2145.2 | 2138.6 | 2130.4 | 2124.4 | 2116.1 | 2110.0 | 2106.2 | 2101.2 |
| 35°   | 2237.5 | 2233.3 | 2224.5 | 2217.4 | 2207.4 | 2198.1 | 2186.0 | 2181.6 | 2169.0 | 2166.8 | 2160.6 |
| 37.5° | 2331.0 | 2334.0 | 2332.4 | 2326.9 | 2320.3 | 2312.0 | 2307.1 | 2297.8 | 2292.8 | 2287.9 | 2282.3 |
| 40°   | 2459.3 | 2474.4 | 2479.3 | 2485.4 | 2487.0 | 2494.2 | 2486.0 | 2484.8 | 2478.2 | 2483.8 | 2480.4 |
| 42.5° | 2608.4 | 2636.8 | 2652.1 | 2670.3 | 2690.2 | 2708.3 | 2722.6 | 2746.8 | 2744.0 | 2762.8 | 2776.0 |
| 45°   | 2774.1 | 2817.2 | 2856.9 | 2887.1 | 2925.1 | 2967.0 | 3003.8 | 3037.9 | 3076.4 | 3098.4 | 3130.9 |
| 47.5° | 2943.7 | 2998.8 | 3055.6 | 3111.6 | 3165.6 | 3219.6 | 3285.6 | 3345.6 | 3403.9 | 3443.6 | 3493.6 |
| 50°   | 3128.5 | 3195.9 | 3264.1 | 3333.0 | 3409.4 | 3494.2 | 3567.9 | 3646.0 | 3726.4 | 3807.8 | 3865.1 |
| 52.5° | 3332.9 | 3414.4 | 3488.7 | 3561.3 | 3656.0 | 3745.7 | 3841.4 | 3939.4 | 4061.0 | 4149.6 | 4228.4 |
| 55°   | 3528.5 | 3626.8 | 3708.2 | 3795.2 | 3894.3 | 3993.8 | 4111.1 | 4233.8 | 4362.6 | 4490.3 | 4605.9 |
| 57.5° | 3692.4 | 3815.0 | 3911.9 | 3998.2 | 4104.5 | 4219.6 | 4345.6 | 4497.4 | 4644.4 | 4802.9 | 4952.0 |
| 60°   | 3805.6 | 3968.0 | 4084.7 | 4188.7 | 4312.0 | 4439.7 | 4604.2 | 4783.6 | 4976.8 | 5173.8 | 5365.4 |
| 62.5° | 3931.7 | 4155.7 | 4315.3 | 4463.9 | 4609.7 | 4751.7 | 4937.2 | 5160.1 | 5422.0 | 5660.4 | 5914.0 |
| 65°   | 4122.5 | 4418.2 | 4653.8 | 4843.0 | 5050.0 | 5257.0 | 5473.2 | 5733.6 | 6031.3 | 6379.1 | 6674.6 |
| 67.5° | 4249.1 | 4596.0 | 4895.4 | 5166.7 | 5408.2 | 5659.8 | 5932.8 | 6244.3 | 6603.6 | 6958.6 | 7326.2 |
| 69°   | 4138.3 | 4490.3 | 4806.8 | 5105.6 | 5370.3 | 5641.1 | 5918.5 | 6232.2 | 6599.2 | 6991.6 | 7379.6 |
| 70°   | 3941.0 | 4281.2 | 4608.1 | 4922.8 | 5181.5 | 5464.4 | 5737.4 | 6036.2 | 6408.3 | 6800.6 | 7222.8 |
| 72.5° | 3068.4 | 3352.8 | 3688.4 | 3992.2 | 4301.0 | 4559.1 | 4805.6 | 5105.6 | 5480.9 | 5854.6 | 6265.8 |
| 75°   | 2009.5 | 2220.1 | 2527.2 | 2777.1 | 3044.0 | 3286.2 | 3465.0 | 3762.7 | 3990.6 | 4342.2 | 4724.2 |
| 77.5° | 1107.4 | 1221.2 | 1380.8 | 1584.4 | 1699.4 | 1836.0 | 2014.8 | 2123.2 | 2285.0 | 2531.0 | 2645.6 |
| 80°   | 598.4  | 641.7  | 708.8  | 751.2  | 785.4  | 751.8  | 733.6  | 766.1  | 752.3  | 748.4  | 711.6  |
| 82.5° | 475.9  | 502.0  | 536.6  | 561.4  | 545.4  | 473.4  | 396.8  | 341.2  | 305.4  | 257.0  | 220.2  |
| 85°   | 354.8  | 375.4  | 388.5  | 405.0  | 402.3  | 363.8  | 291.2  | 225.1  | 176.6  | 140.9  | 122.8  |
| 87.5° | 132.9  | 140.9  | 144.8  | 176.1  | 161.8  | 153.6  | 119.4  | 87.0   | 66.6   | 48.4   | 39.0   |
| 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):**

|       | 80°    | 81°    | 82°    | 83°    | 84°    | 85°    | 86°    | 87°    | 88°     | 89°     | 90°     |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 0°    | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7 | 1843.7  | 1843.7  | 1843.7  |
| 2.5°  | 1848.6 | 1848.1 | 1848.1 | 1848.1 | 1848.6 | 1847.6 | 1846.4 | 1847.6 | 1847.0  | 1847.0  | 1847.0  |
| 5°    | 1870.6 | 1870.1 | 1870.1 | 1870.6 | 1870.1 | 1870.6 | 1870.1 | 1867.9 | 1869.0  | 1869.6  | 1870.1  |
| 7.5°  | 1908.6 | 1908.0 | 1908.0 | 1910.8 | 1910.2 | 1909.7 | 1909.2 | 1910.2 | 1908.6  | 1908.6  | 1909.7  |
| 10°   | 1960.9 | 1963.1 | 1962.6 | 1964.2 | 1963.6 | 1962.6 | 1961.4 | 1962.5 | 1964.2  | 1964.8  | 1962.5  |
| 12.5° | 2024.8 | 2025.3 | 2024.2 | 2027.0 | 2025.3 | 2029.2 | 2024.8 | 2027.0 | 2029.2  | 2025.8  | 2027.5  |
| 15°   | 2076.4 | 2076.4 | 2078.6 | 2079.2 | 2078.6 | 2079.8 | 2083.0 | 2081.4 | 2079.8  | 2082.5  | 2083.6  |
| 17.5° | 2107.8 | 2109.4 | 2110.0 | 2110.6 | 2111.6 | 2112.8 | 2113.3 | 2112.8 | 2113.3  | 2114.4  | 2116.6  |
| 20°   | 2115.0 | 2114.4 | 2115.5 | 2116.1 | 2117.8 | 2117.8 | 2118.9 | 2118.2 | 2119.9  | 2120.4  | 2121.0  |
| 22.5° | 2102.3 | 2102.8 | 2103.4 | 2105.0 | 2104.5 | 2105.6 | 2106.1 | 2107.8 | 2107.2  | 2108.4  | 2108.9  |
| 25°   | 2085.2 | 2086.4 | 2086.9 | 2086.4 | 2086.4 | 2086.9 | 2087.4 | 2086.9 | 2089.1  | 2090.2  | 2090.2  |
| 27.5° | 2074.2 | 2074.2 | 2075.9 | 2075.4 | 2074.2 | 2075.4 | 2074.8 | 2074.8 | 2074.8  | 2075.4  | 2077.0  |
| 30°   | 2078.6 | 2077.0 | 2075.9 | 2075.9 | 2075.4 | 2074.2 | 2073.2 | 2071.5 | 2071.5  | 2072.0  | 2071.5  |
| 32.5° | 2102.4 | 2099.0 | 2097.4 | 2095.7 | 2094.6 | 2091.9 | 2088.6 | 2087.4 | 2084.7  | 2084.7  | 2083.6  |
| 35°   | 2162.8 | 2159.0 | 2159.0 | 2153.0 | 2149.6 | 2148.0 | 2145.3 | 2137.0 | 2137.6  | 2134.3  | 2133.2  |
| 37.5° | 2283.4 | 2276.8 | 2274.0 | 2279.6 | 2269.1 | 2273.5 | 2264.2 | 2260.3 | 2262.4  | 2256.4  | 2259.7  |
| 40°   | 2486.0 | 2496.4 | 2492.0 | 2498.0 | 2500.8 | 2501.8 | 2501.9 | 2492.6 | 2501.9  | 2487.0  | 2492.0  |
| 42.5° | 2778.2 | 2805.7 | 2815.6 | 2818.9 | 2836.0 | 2831.6 | 2826.6 | 2826.0 | 2825.5  | 2832.6  | 2828.8  |
| 45°   | 3145.8 | 3149.6 | 3196.4 | 3205.2 | 3214.6 | 3225.0 | 3222.3 | 3234.4 | 3243.2  | 3231.1  | 3232.8  |
| 47.5° | 3521.7 | 3560.8 | 3594.9 | 3613.6 | 3634.0 | 3623.5 | 3631.8 | 3636.7 | 3668.1  | 3664.8  | 3662.0  |
| 50°   | 3935.6 | 4001.0 | 4019.2 | 4039.6 | 4055.6 | 4087.4 | 4084.7 | 4104.0 | 4100.6  | 4126.6  | 4129.8  |
| 52.5° | 4328.0 | 4400.0 | 4473.2 | 4505.2 | 4529.4 | 4566.2 | 4580.6 | 4601.5 | 4593.8  | 4591.6  | 4610.8  |
| 55°   | 4718.2 | 4838.7 | 4922.4 | 5004.3 | 5050.0 | 5099.0 | 5119.9 | 5149.6 | 5162.8  | 5168.9  | 5144.7  |
| 57.5° | 5105.0 | 5249.8 | 5391.2 | 5492.5 | 5563.0 | 5636.7 | 5675.8 | 5708.2 | 5746.2  | 5758.9  | 5746.8  |
| 60°   | 5557.5 | 5769.4 | 5954.8 | 6090.2 | 6220.0 | 6300.4 | 6384.6 | 6446.2 | 6457.8  | 6510.1  | 6543.7  |
| 62.5° | 6160.0 | 6418.2 | 6653.2 | 6850.2 | 7051.6 | 7201.8 | 7353.8 | 7414.3 | 7474.3  | 7515.0  | 7539.8  |
| 65°   | 6981.8 | 7321.8 | 7646.6 | 7926.7 | 8173.8 | 8423.6 | 8600.8 | 8693.9 | 8813.3  | 8837.0  | 8811.1  |
| 67.5° | 7702.2 | 8103.4 | 8506.8 | 8863.4 | 9130.3 | 9389.5 | 9599.8 | 9753.8 | 9865.6  | 9920.6  | 9943.7  |
| 69°   | 7781.4 | 8189.2 | 8601.4 | 8957.0 | 9280.0 | 9538.6 | 9753.8 | 9906.8 | 10018.0 | 10113.2 | 10129.7 |
| 70°   | 7619.0 | 8076.9 | 8477.6 | 8836.4 | 9169.4 | 9433.0 | 9625.6 | 9800.7 | 9927.2  | 10000.4 | 10026.3 |
| 72.5° | 6688.4 | 7100.0 | 7504.6 | 7917.9 | 8203.5 | 8520.0 | 8678.4 | 8818.8 | 8987.2  | 9083.0  | 9062.1  |
| 75°   | 5068.8 | 5424.8 | 5777.6 | 6086.9 | 6307.0 | 6423.7 | 6609.2 | 6745.0 | 6720.3  | 6881.6  | 6886.0  |
| 77.5° | 2859.0 | 2905.3 | 3144.7 | 3112.8 | 3218.5 | 3221.2 | 3248.7 | 3296.6 | 3204.7  | 3393.4  | 3258.1  |
| 80°   | 693.4  | 684.1  | 733.6  | 675.2  | 670.3  | 665.3  | 648.8  | 681.4  | 685.8   | 652.2   | 658.2   |
| 82.5° | 203.6  | 194.8  | 191.0  | 186.0  | 194.2  | 191.5  | 193.2  | 194.2  | 199.8   | 192.6   | 200.3   |
| 85°   | 111.8  | 105.2  | 104.6  | 101.9  | 101.3  | 95.2   | 94.7   | 94.7   | 90.8    | 92.0    | 91.4    |
| 87.5° | 42.9   | 40.2   | 38.0   | 36.3   | 35.8   | 34.1   | 32.4   | 29.7   | 26.4    | 23.7    | 22.0    |
| 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)