

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: McGRAW-EDISON

Report Number: P300309

Luminaire Tested: **GLNA-AF-03-LED-E1-T4FT-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300309  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24295)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-03-LED-E1-T4FT-7030  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV Forward Throw OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17623.5 lumens  
Efficiency: N/A  
Efficacy: 106.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G3

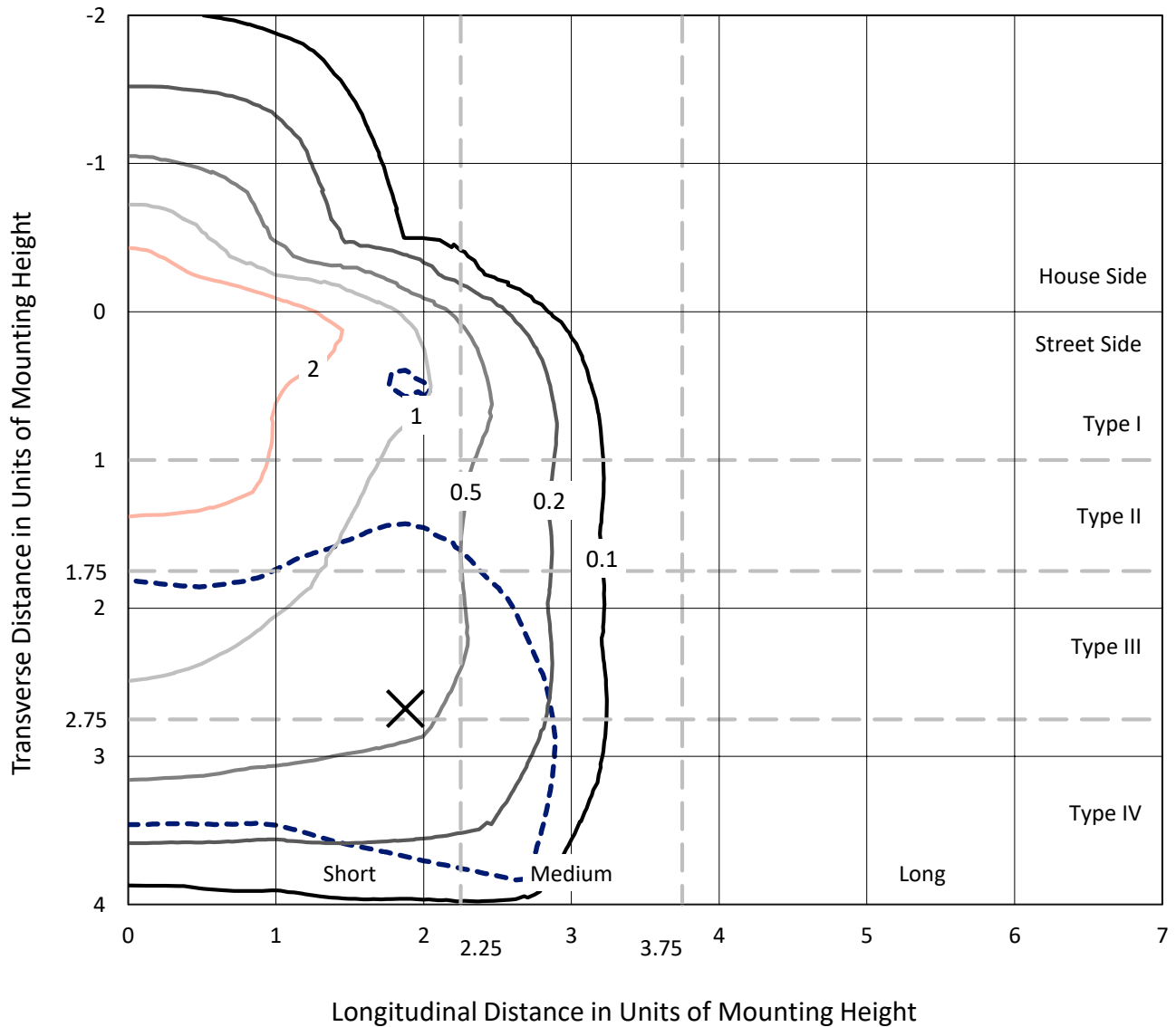
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

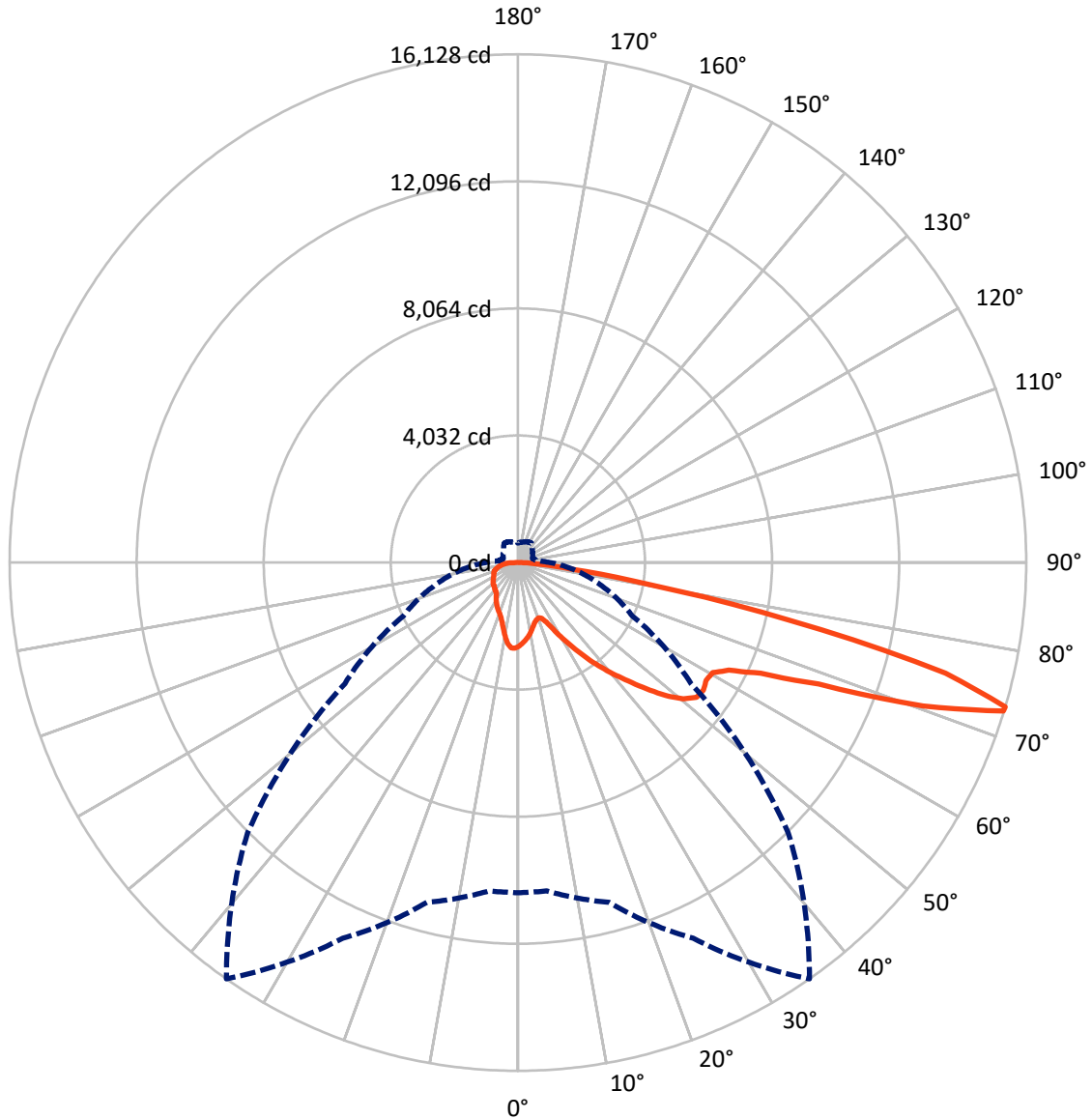
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral    - - - Horizontal Cone Through 73-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3361.3   | 0.0    | 3361.3  |
|                    | % Fixture | 19.1     | 0.0    | 19.1    |
| <b>Street Side</b> | Lumens    | 14262.2  | 0.0    | 14262.2 |
|                    | % Fixture | 80.9     | 0.0    | 80.9    |
| <b>Total</b>       | Lumens    | 17623.5  | 0.0    | 17623.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 240.8   | 1.4       |
| 10°-20°   | 601.0   | 3.4       |
| 20°-30°   | 971.6   | 5.5       |
| 30°-40°   | 1629.3  | 9.2       |
| 40°-50°   | 2511.4  | 14.3      |
| 50°-60°   | 3369.3  | 19.1      |
| 60°-70°   | 4488.6  | 25.5      |
| 70°-80°   | 3423.5  | 19.4      |
| 80°-90°   | 388.0   | 2.2       |
| 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°    | 17623.5 | 100.0     |
| 0°-180°   | 17623.5 | 100.0     |



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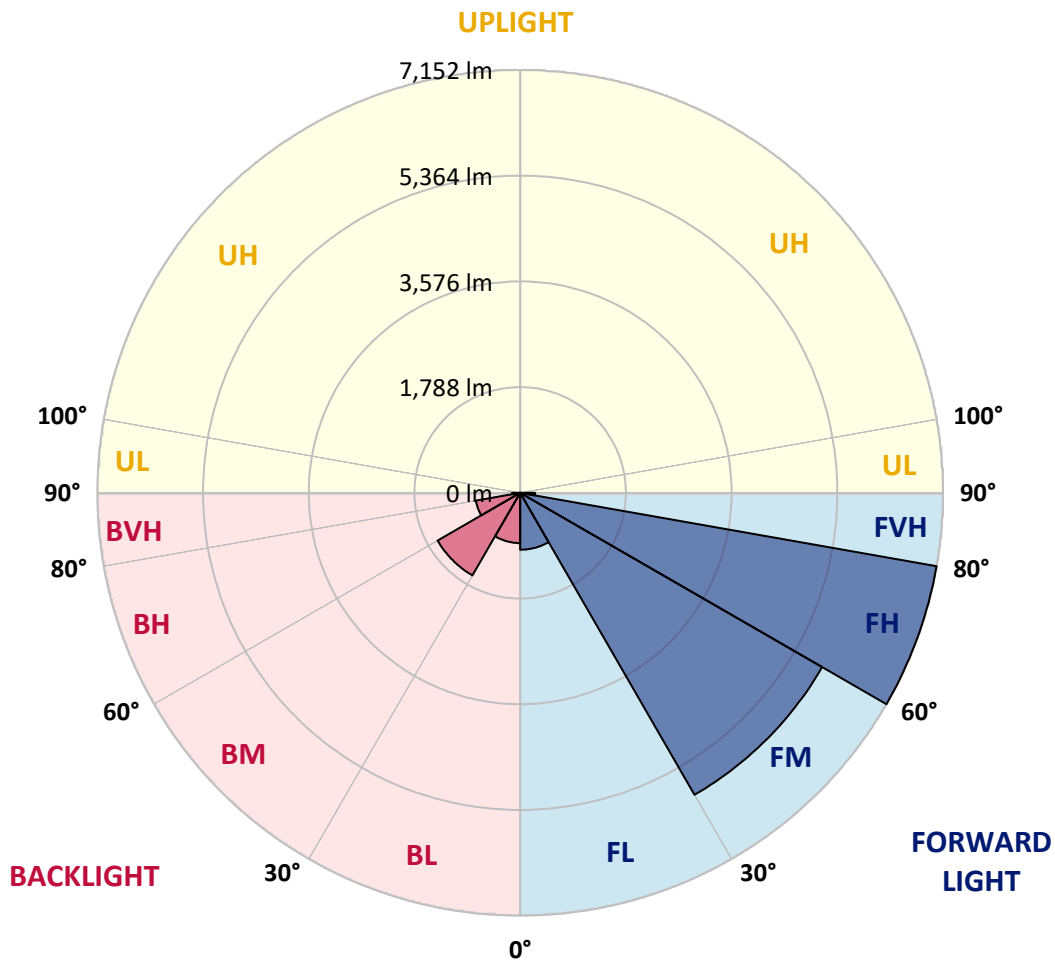
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 962.8  | 5.5       |                         |      |         |
| FM   | (30°-60°)   | 5896.9 | 33.5      |                         |      |         |
| FH   | (60°-80°)   | 7151.6 | 40.6      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 250.8  | 1.4       |                         |      | G3/500  |
| BL   | (0°-30°)    | 850.6  | 4.8       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1613.0 | 9.2       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 760.5  | 4.3       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 137.2  | 0.8       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|
| 0°    | 2659.9  | 2659.9  | 2659.9  | 2659.9  | 2659.9  | 2659.9  | 2659.9 | 2659.9 | 2659.9 | 2659.9 | 2659.9 |
| 2.5°  | 2555.0  | 2560.1  | 2554.1  | 2561.8  | 2574.5  | 2588.0  | 2597.3 | 2610.8 | 2626.1 | 2647.2 | 2652.3 |
| 5°    | 2434.8  | 2442.4  | 2442.4  | 2456.0  | 2480.5  | 2502.5  | 2522.8 | 2544.8 | 2577.0 | 2613.4 | 2627.8 |
| 7.5°  | 2302.8  | 2307.0  | 2314.6  | 2335.0  | 2370.5  | 2401.8  | 2430.6 | 2466.1 | 2510.1 | 2558.4 | 2583.8 |
| 10°   | 2143.7  | 2149.6  | 2161.5  | 2190.2  | 2238.5  | 2281.6  | 2323.1 | 2372.2 | 2428.0 | 2488.1 | 2520.3 |
| 12.5° | 2031.1  | 2029.4  | 2034.5  | 2055.7  | 2098.0  | 2150.5  | 2210.5 | 2273.2 | 2341.7 | 2412.0 | 2450.9 |
| 15°   | 1993.0  | 1983.7  | 1964.3  | 1959.2  | 1982.0  | 2034.5  | 2103.9 | 2180.9 | 2263.0 | 2347.6 | 2395.9 |
| 17.5° | 2016.7  | 2000.7  | 1947.3  | 1908.4  | 1905.0  | 1944.8  | 2018.4 | 2104.8 | 2199.5 | 2302.8 | 2362.9 |
| 20°   | 2165.7  | 2127.6  | 1996.4  | 1905.9  | 1874.6  | 1894.0  | 1958.3 | 2049.7 | 2161.5 | 2298.6 | 2375.6 |
| 22.5° | 2522.0  | 2466.1  | 2187.7  | 2019.3  | 1913.5  | 1889.8  | 1938.0 | 2035.4 | 2165.7 | 2351.0 | 2449.2 |
| 25°   | 3040.8  | 2961.2  | 2516.1  | 2301.9  | 2083.6  | 1957.5  | 1968.5 | 2068.4 | 2225.8 | 2472.9 | 2591.4 |
| 27.5° | 3450.4  | 3398.8  | 2945.1  | 2700.6  | 2393.3  | 2140.3  | 2067.5 | 2151.3 | 2348.5 | 2672.6 | 2793.7 |
| 30°   | 3694.1  | 3662.8  | 3403.8  | 3152.5  | 2788.6  | 2431.4  | 2257.1 | 2307.0 | 2540.6 | 2949.4 | 3049.2 |
| 32.5° | 3976.8  | 3958.2  | 3831.2  | 3600.2  | 3215.1  | 2814.0  | 2557.5 | 2539.8 | 2797.9 | 3282.0 | 3327.7 |
| 35°   | 4269.6  | 4263.7  | 4189.2  | 4023.3  | 3673.0  | 3318.4  | 2956.1 | 2836.0 | 3078.0 | 3627.3 | 3598.5 |
| 37.5° | 4542.1  | 4532.0  | 4488.8  | 4392.3  | 4152.0  | 3860.0  | 3362.4 | 3139.8 | 3380.1 | 3957.3 | 3829.5 |
| 40°   | 5044.0  | 4964.4  | 4816.3  | 4743.5  | 4636.1  | 4316.2  | 3684.8 | 3423.3 | 3693.3 | 4272.1 | 4029.3 |
| 42.5° | 5655.9  | 5526.4  | 5250.5  | 5150.6  | 5135.4  | 4675.8  | 3904.8 | 3698.4 | 4008.9 | 4584.4 | 4225.6 |
| 45°   | 6137.4  | 6015.5  | 5777.7  | 5651.6  | 5707.5  | 5001.7  | 4125.7 | 3992.0 | 4333.9 | 4912.0 | 4427.9 |
| 47.5° | 6651.1  | 6459.8  | 6145.0  | 6183.1  | 6305.0  | 5309.7  | 4350.9 | 4307.7 | 4690.2 | 5278.4 | 4679.2 |
| 50°   | 6669.7  | 6523.3  | 6385.4  | 6613.0  | 6802.6  | 5593.2  | 4632.7 | 4638.6 | 5126.1 | 5739.6 | 5013.5 |
| 52.5° | 6283.0  | 6251.7  | 6470.8  | 6828.8  | 7102.2  | 5817.5  | 4953.4 | 4980.5 | 5683.8 | 6269.4 | 5380.8 |
| 55°   | 6147.6  | 6112.0  | 6365.1  | 6753.5  | 7142.8  | 6002.8  | 5301.3 | 5350.3 | 6358.3 | 6828.0 | 5738.8 |
| 57.5° | 6477.6  | 6398.9  | 6415.8  | 6718.0  | 7043.8  | 6206.0  | 5680.4 | 5779.4 | 7091.2 | 7316.3 | 5969.0 |
| 60°   | 7400.1  | 7231.7  | 6911.8  | 6904.2  | 7097.1  | 6510.6  | 6118.8 | 6239.8 | 7852.9 | 7549.9 | 5879.3 |
| 62.5° | 8694.1  | 8525.7  | 7926.5  | 7536.3  | 7507.6  | 7013.3  | 6657.0 | 6689.2 | 8292.9 | 7233.4 | 5331.7 |
| 65°   | 10094.7 | 9944.1  | 9274.7  | 8723.7  | 8458.0  | 7846.1  | 7282.5 | 6889.8 | 8149.1 | 6362.5 | 4373.7 |
| 67.5° | 11794.9 | 11633.3 | 11057.8 | 10549.2 | 10293.6 | 9190.0  | 7721.7 | 6697.7 | 7235.9 | 4928.9 | 3144.0 |
| 70°   | 12984.0 | 12819.0 | 12592.2 | 13004.3 | 13629.7 | 11128.9 | 7778.4 | 5916.5 | 5404.5 | 3276.0 | 1892.3 |
| 72.5° | 11432.7 | 11355.7 | 11769.6 | 13505.3 | 16110.3 | 12305.3 | 7031.1 | 4307.7 | 3138.9 | 1739.2 | 1095.1 |
| 73°   | 10474.7 | 10457.8 | 11163.6 | 13154.1 | 16128.0 | 12124.2 | 6703.6 | 4003.9 | 2692.1 | 1538.6 | 1001.2 |
| 75°   | 4730.0  | 4866.3  | 6413.3  | 10047.3 | 14012.3 | 9990.6  | 4718.1 | 2296.9 | 1520.8 | 1063.0 | 755.8  |
| 77.5° | 1136.6  | 1184.0  | 2006.6  | 4771.5  | 8849.0  | 5953.8  | 2137.8 | 1135.7 | 972.4  | 750.7  | 551.8  |
| 80°   | 484.1   | 500.2   | 772.7   | 1762.9  | 4166.4  | 2397.6  | 985.1  | 760.8  | 672.8  | 523.9  | 386.8  |
| 82.5° | 269.1   | 286.1   | 438.4   | 799.8   | 1681.6  | 817.5   | 600.9  | 529.8  | 442.6  | 315.7  | 251.4  |
| 85°   | 152.3   | 161.6   | 256.4   | 446.8   | 712.6   | 328.4   | 359.7  | 352.1  | 249.7  | 162.5  | 123.6  |
| 87.5° | 71.9    | 77.9    | 123.6   | 207.3   | 279.3   | 128.6   | 182.8  | 201.4  | 156.6  | 99.0   | 64.3   |
| 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):**

|       | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2659.9 | 2659.9 | 2659.9 | 2659.9 | 2659.9 | 2659.9 | 2659.9 | 2659.9 | 2659.9 | 2659.9 |
| 2.5°  | 2658.2 | 2673.5 | 2691.2 | 2700.6 | 2709.0 | 2719.2 | 2729.3 | 2729.3 | 2731.0 | 2731.9 |
| 5°    | 2639.6 | 2670.9 | 2698.9 | 2710.7 | 2713.3 | 2713.3 | 2710.7 | 2697.2 | 2685.3 | 2690.4 |
| 7.5°  | 2600.7 | 2646.4 | 2670.1 | 2665.9 | 2633.7 | 2596.5 | 2565.1 | 2527.1 | 2507.6 | 2504.2 |
| 10°   | 2544.8 | 2597.3 | 2601.5 | 2559.2 | 2479.7 | 2400.1 | 2334.1 | 2269.8 | 2239.3 | 2231.7 |
| 12.5° | 2483.1 | 2531.3 | 2504.2 | 2417.0 | 2289.3 | 2173.3 | 2089.5 | 2024.4 | 1995.6 | 1988.0 |
| 15°   | 2433.1 | 2466.1 | 2397.6 | 2260.5 | 2099.7 | 1977.0 | 1907.6 | 1859.3 | 1839.0 | 1833.1 |
| 17.5° | 2406.9 | 2413.7 | 2288.4 | 2103.1 | 1932.1 | 1829.7 | 1786.5 | 1763.7 | 1756.1 | 1751.9 |
| 20°   | 2419.6 | 2372.2 | 2184.3 | 1956.7 | 1795.0 | 1723.1 | 1712.9 | 1707.0 | 1705.3 | 1702.8 |
| 22.5° | 2483.1 | 2359.5 | 2088.7 | 1817.9 | 1674.8 | 1643.5 | 1652.0 | 1651.1 | 1649.4 | 1647.8 |
| 25°   | 2596.5 | 2370.5 | 1995.6 | 1685.8 | 1574.1 | 1567.4 | 1582.6 | 1582.6 | 1575.8 | 1575.8 |
| 27.5° | 2746.3 | 2393.3 | 1891.5 | 1560.6 | 1482.7 | 1483.6 | 1495.4 | 1492.0 | 1484.4 | 1479.3 |
| 30°   | 2929.1 | 2407.7 | 1769.6 | 1448.0 | 1397.2 | 1393.9 | 1397.2 | 1382.9 | 1360.0 | 1358.3 |
| 32.5° | 3116.1 | 2390.0 | 1628.3 | 1348.2 | 1306.7 | 1299.1 | 1296.5 | 1276.2 | 1250.0 | 1242.4 |
| 35°   | 3285.4 | 2324.8 | 1484.4 | 1268.6 | 1220.4 | 1203.4 | 1215.3 | 1208.5 | 1184.8 | 1178.9 |
| 37.5° | 3408.9 | 2203.8 | 1354.9 | 1198.4 | 1158.6 | 1154.4 | 1162.0 | 1164.5 | 1136.6 | 1130.7 |
| 40°   | 3491.9 | 2039.6 | 1244.1 | 1139.1 | 1146.7 | 1130.7 | 1105.3 | 1087.5 | 1079.0 | 1076.5 |
| 42.5° | 3558.7 | 1868.6 | 1151.0 | 1111.2 | 1149.3 | 1102.7 | 1047.7 | 1019.0 | 1034.2 | 1041.0 |
| 45°   | 3635.7 | 1701.9 | 1073.1 | 1076.5 | 1136.6 | 1070.6 | 1007.9 | 980.0  | 985.9  | 987.6  |
| 47.5° | 3741.5 | 1498.8 | 989.3  | 1020.6 | 1094.3 | 1048.6 | 983.4  | 943.6  | 915.7  | 903.0  |
| 50°   | 3887.9 | 1258.5 | 902.2  | 958.0  | 1052.8 | 1032.5 | 945.3  | 903.0  | 851.4  | 839.5  |
| 52.5° | 3989.5 | 1034.2 | 830.2  | 905.5  | 1015.6 | 1000.3 | 914.9  | 859.8  | 805.7  | 795.5  |
| 55°   | 3934.5 | 859.0  | 767.6  | 847.2  | 966.5  | 960.6  | 889.5  | 815.8  | 773.5  | 765.1  |
| 57.5° | 3659.4 | 748.1  | 719.4  | 792.1  | 906.4  | 926.7  | 855.6  | 778.6  | 748.1  | 742.2  |
| 60°   | 3134.7 | 678.7  | 688.9  | 754.9  | 857.3  | 892.9  | 821.8  | 758.3  | 738.0  | 733.7  |
| 62.5° | 2432.3 | 632.2  | 666.0  | 727.8  | 819.2  | 869.2  | 803.1  | 755.8  | 748.1  | 743.1  |
| 65°   | 1742.5 | 595.0  | 641.5  | 700.7  | 784.5  | 847.2  | 796.4  | 752.4  | 754.1  | 749.8  |
| 67.5° | 1184.0 | 561.9  | 611.9  | 670.3  | 750.7  | 827.7  | 787.1  | 740.5  | 761.7  | 756.6  |
| 70°   | 828.5  | 529.8  | 577.2  | 631.3  | 708.4  | 800.6  | 770.1  | 722.7  | 721.1  | 700.7  |
| 72.5° | 646.6  | 487.5  | 529.8  | 577.2  | 654.2  | 762.5  | 736.3  | 683.0  | 655.0  | 633.9  |
| 73°   | 617.0  | 477.3  | 517.9  | 565.3  | 642.3  | 753.2  | 727.0  | 672.0  | 640.7  | 621.2  |
| 75°   | 510.3  | 433.3  | 470.5  | 512.9  | 591.6  | 709.2  | 681.3  | 622.0  | 582.3  | 570.4  |
| 77.5° | 401.1  | 370.7  | 406.2  | 444.3  | 521.3  | 644.9  | 613.6  | 556.9  | 534.9  | 524.7  |
| 80°   | 297.1  | 307.2  | 338.5  | 372.4  | 451.9  | 576.3  | 548.4  | 491.7  | 589.9  | 565.3  |
| 82.5° | 209.0  | 232.7  | 261.5  | 292.0  | 379.1  | 509.5  | 475.6  | 417.2  | 431.6  | 358.8  |
| 85°   | 123.6  | 152.3  | 179.4  | 205.7  | 273.4  | 422.3  | 392.7  | 332.6  | 272.5  | 259.8  |
| 87.5° | 71.9   | 84.6   | 92.2   | 119.3  | 187.9  | 318.2  | 276.7  | 246.3  | 141.3  | 95.6   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)