

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: P299412

Luminaire Tested: **GLNA-AF-03-LED-E1-5NQ-7060-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299412  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)  
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-E1-5NQ-7060-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 5700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15091.7 lumens  
Efficiency: N/A  
Efficacy: 121.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G2

Input Watts (W): 124  
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

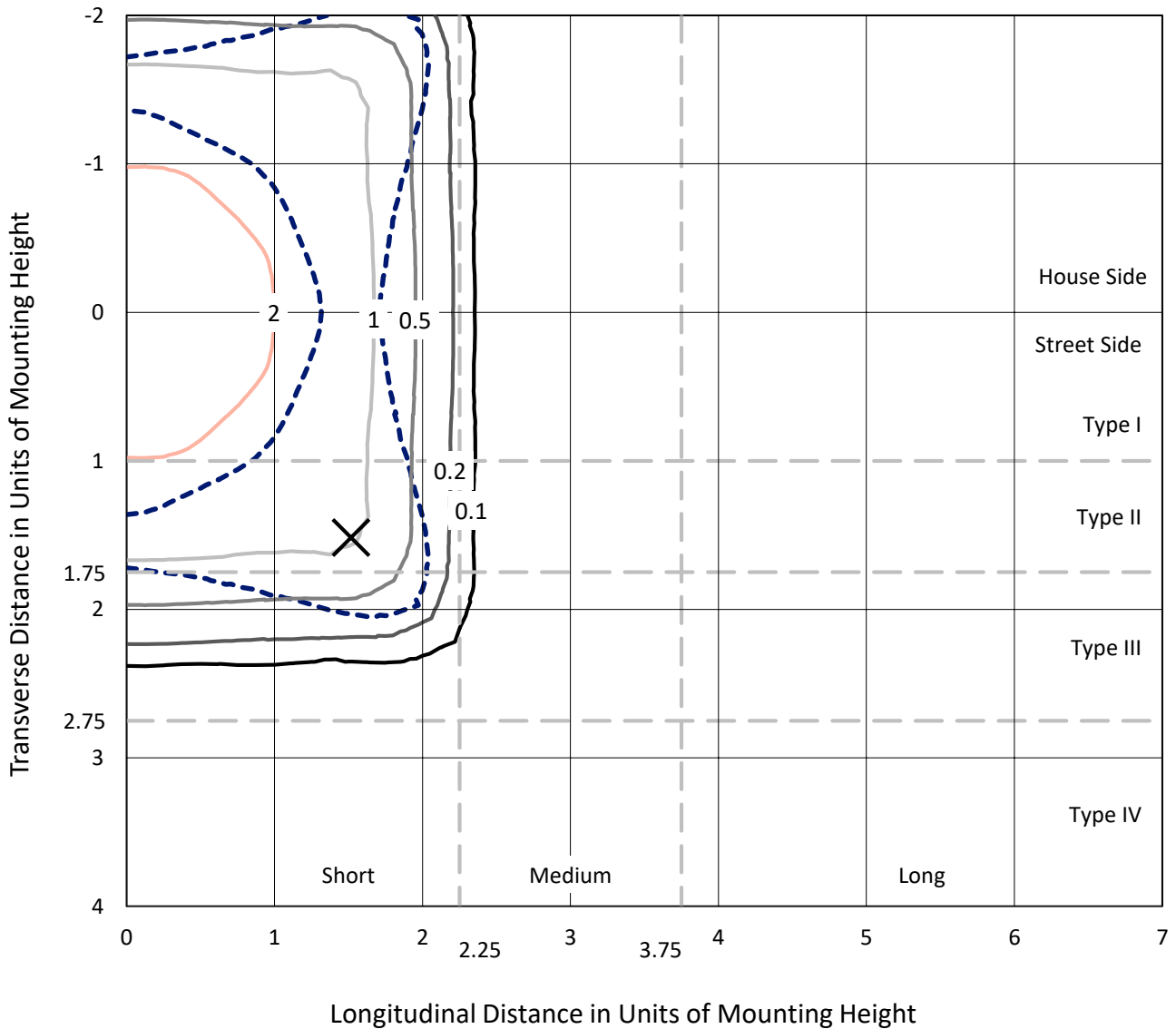


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### Iso-Footcandle Lines of Horizontal Illumination

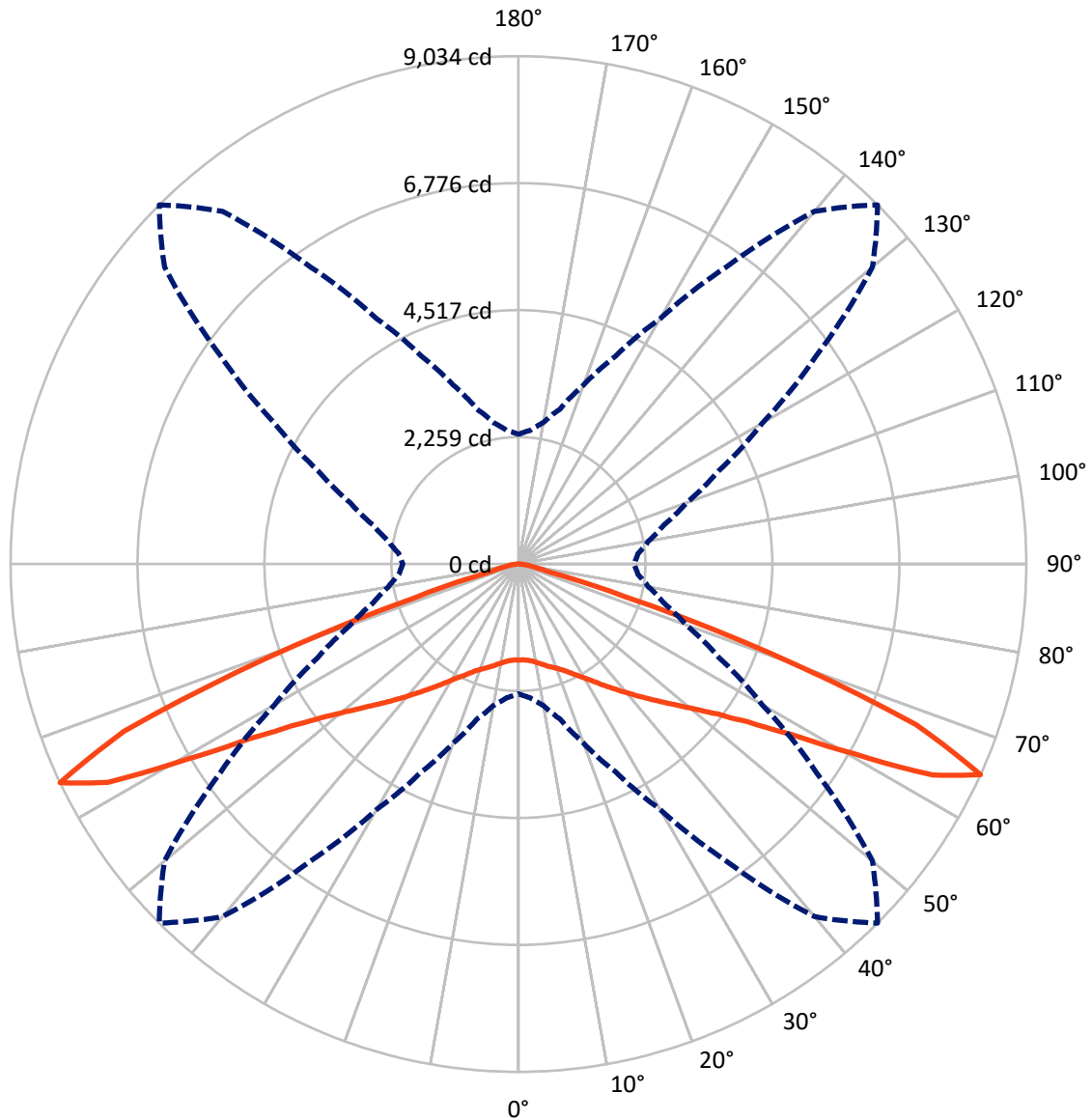
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7545.8   | 0.0    | 7545.8  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 7545.8   | 0.0    | 7545.8  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 15091.7  | 0.0    | 15091.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 166.4   | 1.1       |
| 10°-20°   | 533.8   | 3.5       |
| 20°-30°   | 998.1   | 6.6       |
| 30°-40°   | 1688.1  | 11.2      |
| 40°-50°   | 2760.2  | 18.3      |
| 50°-60°   | 4389.1  | 29.1      |
| 60°-70°   | 3967.5  | 26.3      |
| 70°-80°   | 502.1   | 3.3       |
| 80°-90°   | 86.4    | 0.6       |
| 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°    | 15091.7 | 100.0     |
| 0°-180°   | 15091.7 | 100.0     |



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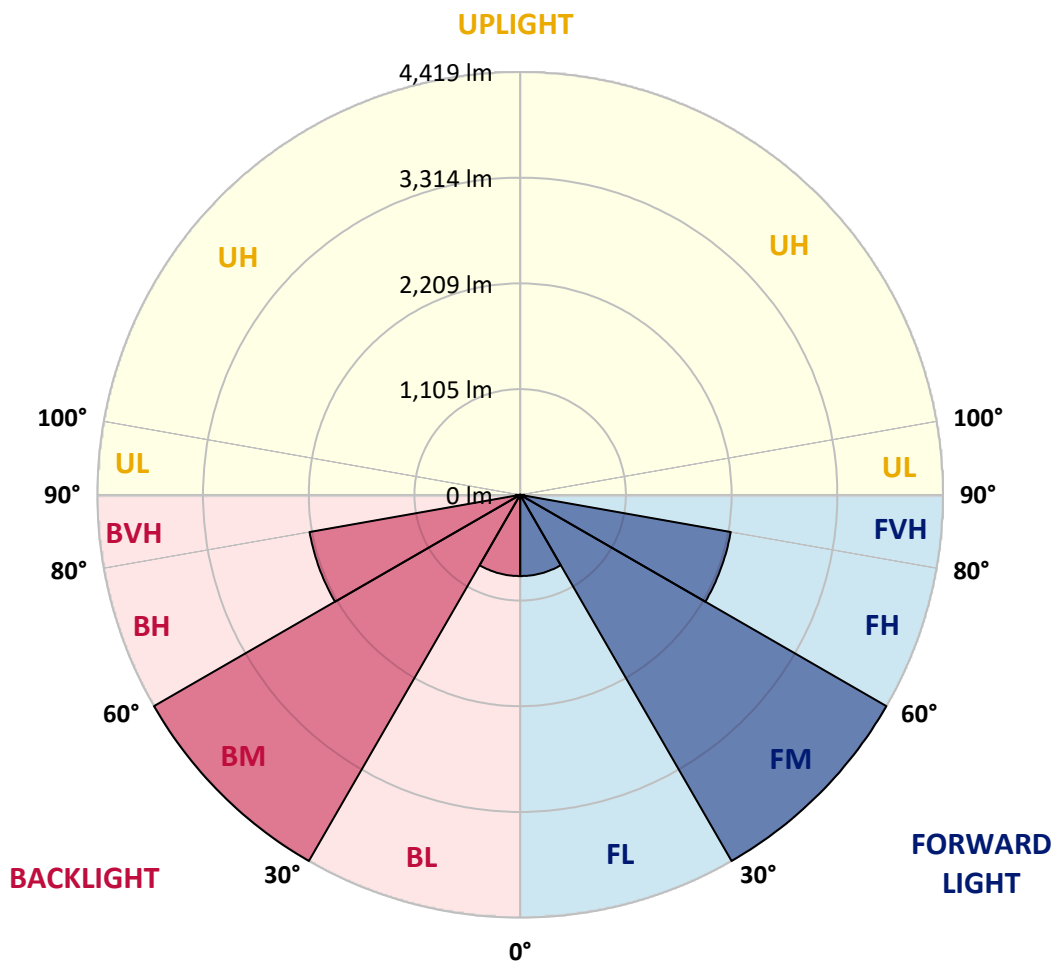
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 849.2  | 5.6       |                         |      |         |
| FM   | (30°-60°)   | 4418.7 | 29.3      |                         |      |         |
| FH   | (60°-80°)   | 2234.8 | 14.8      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 43.2   | 0.3       |                         |      | G1/100  |
| BL   | (0°-30°)    | 849.2  | 5.6       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 4418.7 | 29.3      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 2234.8 | 14.8      | B3/2500                 |      | G2/5000 |
| BVH  | (80°-90°)   | 43.2   | 0.3       |                         |      | 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 Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1707.6 | 1707.6 | 1707.6 | 1707.6 | 1707.6 | 1707.6 | 1707.6 | 1707.6 | 1707.6 | 1707.6 | 1707.6 |
| 2.5°  | 1709.0 | 1710.5 | 1711.9 | 1710.5 | 1711.9 | 1709.8 | 1708.3 | 1710.5 | 1708.3 | 1706.2 | 1707.6 |
| 5°    | 1723.9 | 1724.6 | 1724.6 | 1722.5 | 1724.6 | 1723.2 | 1721.1 | 1723.9 | 1721.8 | 1719.6 | 1721.1 |
| 7.5°  | 1748.6 | 1751.5 | 1749.3 | 1747.2 | 1748.6 | 1747.2 | 1745.8 | 1746.5 | 1745.8 | 1743.7 | 1744.4 |
| 10°   | 1781.8 | 1784.0 | 1782.6 | 1781.8 | 1783.3 | 1782.6 | 1781.1 | 1780.4 | 1781.1 | 1779.0 | 1779.0 |
| 12.5° | 1822.1 | 1821.4 | 1820.7 | 1821.4 | 1823.5 | 1823.5 | 1822.8 | 1823.5 | 1825.0 | 1825.7 | 1824.3 |
| 15°   | 1861.7 | 1863.1 | 1863.1 | 1863.1 | 1867.4 | 1870.9 | 1873.0 | 1874.4 | 1877.3 | 1878.0 | 1875.1 |
| 17.5° | 1911.2 | 1911.2 | 1910.5 | 1911.2 | 1915.4 | 1921.1 | 1923.2 | 1926.0 | 1928.9 | 1931.0 | 1927.4 |
| 20°   | 1966.3 | 1967.7 | 1967.7 | 1969.2 | 1974.8 | 1981.2 | 1981.2 | 1982.6 | 1981.2 | 1982.6 | 1980.5 |
| 22.5° | 2033.5 | 2037.7 | 2037.7 | 2038.4 | 2044.1 | 2051.8 | 2049.7 | 2051.8 | 2048.3 | 2051.1 | 2048.3 |
| 25°   | 2121.1 | 2127.5 | 2126.1 | 2126.1 | 2130.3 | 2135.2 | 2136.0 | 2140.2 | 2139.5 | 2143.0 | 2140.9 |
| 27.5° | 2220.1 | 2230.0 | 2232.8 | 2232.1 | 2234.9 | 2239.9 | 2241.3 | 2246.2 | 2243.4 | 2246.2 | 2244.8 |
| 30°   | 2338.8 | 2343.0 | 2348.7 | 2350.8 | 2354.4 | 2359.3 | 2359.3 | 2360.0 | 2356.5 | 2360.7 | 2362.8 |
| 32.5° | 2461.8 | 2469.6 | 2475.2 | 2487.9 | 2494.3 | 2497.8 | 2497.1 | 2498.5 | 2495.0 | 2500.7 | 2504.9 |
| 35°   | 2624.4 | 2630.0 | 2639.2 | 2649.1 | 2657.6 | 2656.9 | 2654.7 | 2655.5 | 2655.5 | 2660.4 | 2664.6 |
| 37.5° | 2820.1 | 2821.6 | 2833.6 | 2847.7 | 2851.9 | 2847.7 | 2835.0 | 2832.2 | 2825.8 | 2832.2 | 2839.2 |
| 40°   | 3027.2 | 3032.2 | 3056.2 | 3065.4 | 3067.5 | 3059.7 | 3041.4 | 3030.8 | 3016.6 | 3024.4 | 3034.3 |
| 42.5° | 3244.2 | 3254.1 | 3276.0 | 3292.3 | 3299.4 | 3294.4 | 3269.0 | 3252.7 | 3234.3 | 3238.6 | 3248.5 |
| 45°   | 3484.5 | 3496.6 | 3527.7 | 3543.2 | 3556.6 | 3548.9 | 3524.1 | 3499.4 | 3470.4 | 3472.5 | 3488.1 |
| 47.5° | 3753.1 | 3765.1 | 3805.4 | 3831.6 | 3838.6 | 3837.2 | 3809.7 | 3775.7 | 3736.2 | 3734.7 | 3748.2 |
| 50°   | 4054.2 | 4066.2 | 4116.4 | 4156.7 | 4177.2 | 4175.1 | 4142.6 | 4094.5 | 4046.4 | 4047.1 | 4064.1 |
| 52.5° | 4348.2 | 4363.1 | 4415.4 | 4484.7 | 4524.9 | 4553.9 | 4534.1 | 4488.9 | 4430.2 | 4431.7 | 4447.2 |
| 55°   | 4623.9 | 4648.6 | 4708.7 | 4802.7 | 4877.6 | 4958.9 | 4982.2 | 4980.8 | 4945.5 | 4955.4 | 4970.9 |
| 57.5° | 4757.5 | 4794.2 | 4886.8 | 5035.3 | 5187.9 | 5353.3 | 5493.3 | 5597.9 | 5642.4 | 5709.5 | 5694.0 |
| 60°   | 4504.5 | 4563.1 | 4699.5 | 4917.9 | 5219.7 | 5564.7 | 5934.3 | 6295.5 | 6603.7 | 6836.2 | 6702.6 |
| 62.5° | 3688.1 | 3764.4 | 3929.8 | 4209.7 | 4666.3 | 5218.3 | 5925.8 | 6779.6 | 7709.8 | 8271.0 | 7870.2 |
| 65°   | 2307.7 | 2386.9 | 2555.1 | 2854.8 | 3389.1 | 4075.4 | 5035.3 | 6450.3 | 8188.3 | 9034.3 | 8218.7 |
| 67.5° | 899.8  | 942.9  | 1034.1 | 1225.6 | 1627.1 | 2237.7 | 3201.1 | 4807.0 | 6885.7 | 7627.1 | 6757.7 |
| 70°   | 450.9  | 455.2  | 472.1  | 507.5  | 593.7  | 771.1  | 1173.3 | 2228.5 | 3948.9 | 4769.5 | 3806.8 |
| 72.5° | 325.8  | 326.5  | 335.0  | 350.6  | 378.1  | 417.7  | 494.1  | 682.1  | 1284.3 | 1962.8 | 1203.7 |
| 75°   | 249.5  | 252.3  | 257.3  | 265.8  | 280.6  | 300.4  | 328.0  | 393.0  | 487.0  | 564.7  | 475.0  |
| 77.5° | 192.3  | 197.9  | 201.4  | 209.2  | 218.4  | 231.8  | 239.6  | 264.3  | 307.5  | 323.7  | 318.8  |
| 80°   | 146.3  | 151.3  | 159.0  | 165.4  | 171.8  | 178.1  | 175.3  | 186.6  | 209.2  | 222.6  | 215.6  |
| 82.5° | 93.3   | 99.0   | 121.6  | 127.2  | 130.1  | 134.3  | 129.3  | 130.1  | 139.9  | 148.4  | 139.9  |
| 85°   | 60.1   | 63.6   | 77.0   | 84.1   | 84.8   | 87.6   | 85.5   | 80.6   | 80.6   | 73.5   | 82.7   |
| 87.5° | 27.6   | 28.3   | 34.6   | 41.0   | 42.4   | 38.2   | 37.5   | 36.0   | 29.0   | 27.6   | 29.7   |
| 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°    | 1707.6 | 1707.6 | 1707.6 | 1707.6 | 1707.6 | 1707.6 | 1707.6 | 1707.6 |
| 2.5°  | 1706.9 | 1708.3 | 1709.0 | 1711.2 | 1711.9 | 1711.9 | 1712.6 | 1714.0 |
| 5°    | 1720.4 | 1722.5 | 1723.2 | 1726.0 | 1726.7 | 1726.0 | 1727.4 | 1728.1 |
| 7.5°  | 1744.4 | 1747.9 | 1749.3 | 1752.2 | 1750.0 | 1752.9 | 1753.6 | 1753.6 |
| 10°   | 1779.7 | 1783.3 | 1784.0 | 1786.8 | 1785.4 | 1786.8 | 1786.8 | 1785.4 |
| 12.5° | 1826.4 | 1827.1 | 1825.0 | 1827.1 | 1824.3 | 1825.7 | 1823.5 | 1822.1 |
| 15°   | 1878.0 | 1875.9 | 1870.9 | 1870.9 | 1866.7 | 1867.4 | 1866.7 | 1866.0 |
| 17.5° | 1928.2 | 1923.9 | 1920.4 | 1919.0 | 1915.4 | 1914.7 | 1912.6 | 1912.6 |
| 20°   | 1983.3 | 1981.2 | 1979.0 | 1976.2 | 1972.7 | 1969.2 | 1968.4 | 1969.9 |
| 22.5° | 2049.7 | 2049.0 | 2049.0 | 2047.6 | 2042.7 | 2039.1 | 2037.0 | 2037.0 |
| 25°   | 2138.8 | 2132.4 | 2132.4 | 2131.7 | 2129.6 | 2127.5 | 2123.2 | 2125.4 |
| 27.5° | 2239.1 | 2235.6 | 2238.4 | 2237.7 | 2235.6 | 2235.6 | 2232.8 | 2232.8 |
| 30°   | 2362.8 | 2361.4 | 2365.7 | 2362.1 | 2355.1 | 2354.4 | 2351.5 | 2348.0 |
| 32.5° | 2505.6 | 2504.2 | 2510.6 | 2506.3 | 2495.0 | 2488.7 | 2483.0 | 2480.2 |
| 35°   | 2664.6 | 2665.4 | 2673.1 | 2670.3 | 2657.6 | 2653.3 | 2643.4 | 2642.0 |
| 37.5° | 2838.5 | 2849.8 | 2863.3 | 2866.1 | 2855.5 | 2852.7 | 2842.1 | 2836.4 |
| 40°   | 3042.8 | 3057.6 | 3078.1 | 3083.1 | 3071.8 | 3069.6 | 3054.8 | 3047.0 |
| 42.5° | 3260.5 | 3285.9 | 3311.4 | 3315.6 | 3304.3 | 3293.0 | 3278.9 | 3273.2 |
| 45°   | 3503.6 | 3534.0 | 3567.2 | 3575.7 | 3558.7 | 3545.3 | 3526.9 | 3526.9 |
| 47.5° | 3776.4 | 3814.6 | 3852.1 | 3875.4 | 3859.8 | 3845.7 | 3823.8 | 3809.7 |
| 50°   | 4098.7 | 4151.0 | 4199.8 | 4223.9 | 4199.1 | 4172.3 | 4134.1 | 4121.4 |
| 52.5° | 4503.0 | 4559.6 | 4602.0 | 4589.3 | 4551.1 | 4513.6 | 4471.9 | 4455.0 |
| 55°   | 5019.0 | 5038.1 | 5038.1 | 4990.0 | 4913.7 | 4850.8 | 4785.1 | 4763.1 |
| 57.5° | 5664.3 | 5590.8 | 5477.7 | 5334.2 | 5154.0 | 4997.1 | 4891.1 | 4840.9 |
| 60°   | 6422.7 | 6069.3 | 5670.0 | 5277.7 | 4955.4 | 4689.6 | 4532.0 | 4459.9 |
| 62.5° | 6928.1 | 6003.6 | 5203.5 | 4573.7 | 4110.1 | 3789.9 | 3572.2 | 3487.4 |
| 65°   | 6475.0 | 5007.0 | 3935.5 | 3182.0 | 2676.7 | 2350.8 | 2135.2 | 2056.1 |
| 67.5° | 4742.6 | 3137.5 | 2095.7 | 1502.0 | 1100.5 | 877.8  | 789.5  | 752.7  |
| 70°   | 2128.9 | 1104.7 | 677.1  | 528.7  | 455.9  | 418.4  | 402.2  | 396.5  |
| 72.5° | 641.8  | 464.4  | 391.6  | 353.4  | 324.4  | 306.0  | 292.6  | 291.2  |
| 75°   | 387.3  | 322.3  | 286.3  | 263.6  | 245.3  | 230.4  | 223.3  | 221.2  |
| 77.5° | 270.7  | 236.8  | 219.8  | 203.6  | 189.4  | 178.1  | 171.8  | 166.8  |
| 80°   | 190.1  | 173.9  | 166.1  | 156.9  | 147.7  | 137.1  | 127.9  | 123.7  |
| 82.5° | 127.2  | 123.7  | 123.7  | 118.0  | 110.3  | 100.4  | 82.0   | 77.7   |
| 85°   | 82.0   | 81.3   | 82.7   | 80.6   | 74.9   | 64.3   | 53.0   | 50.2   |
| 87.5° | 38.2   | 38.9   | 43.1   | 42.4   | 41.0   | 33.9   | 26.9   | 25.4   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)