

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: P194560

Luminaire Tested: **GLEON-AF-02-LED-E1-SL4-7060-1200-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P194560  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-AF-02-LED-E1-SL4-7060-1200-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 5700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10843 lumens  
Efficiency: N/A  
Efficacy: 84.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

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: 25 FT

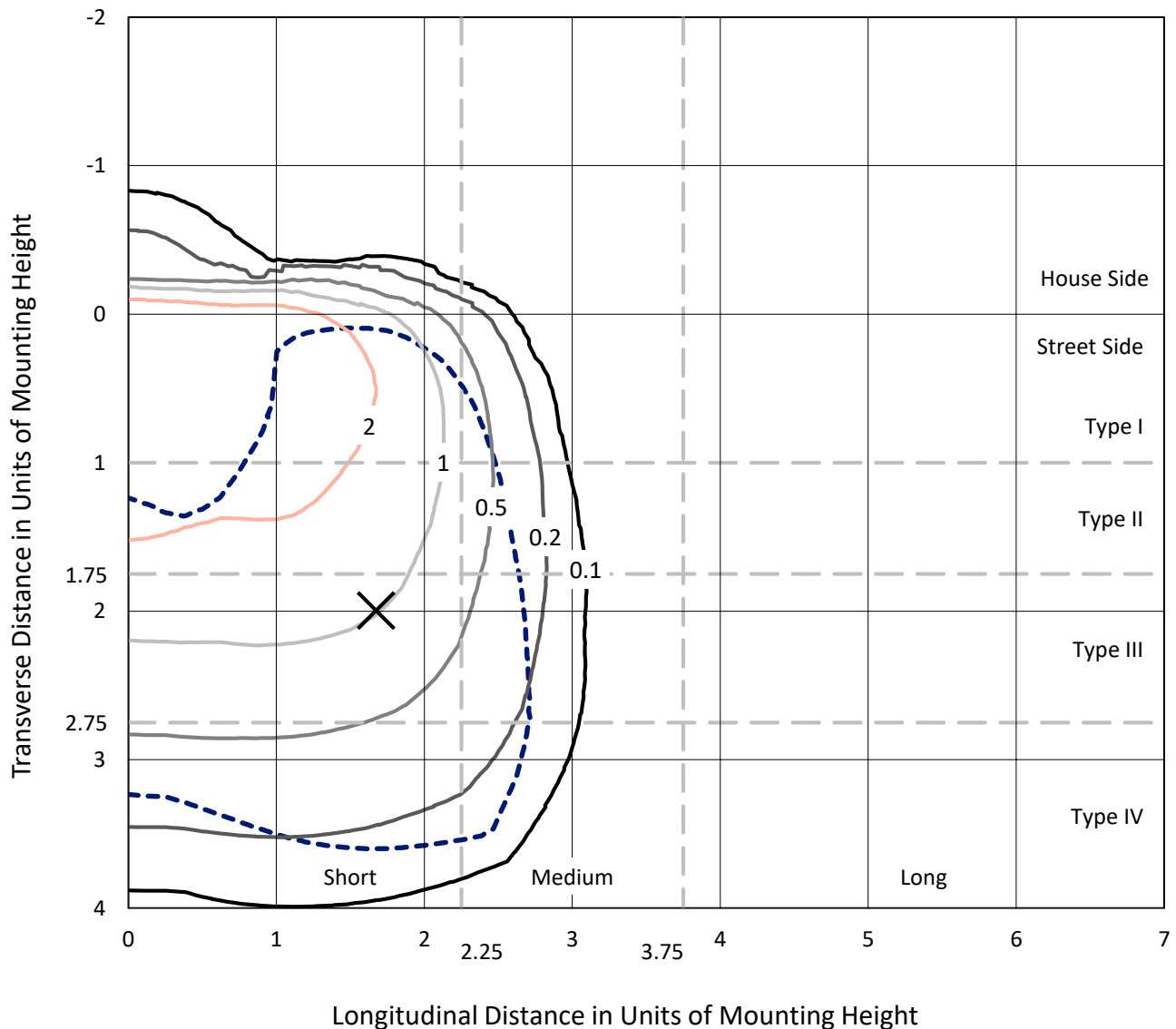


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

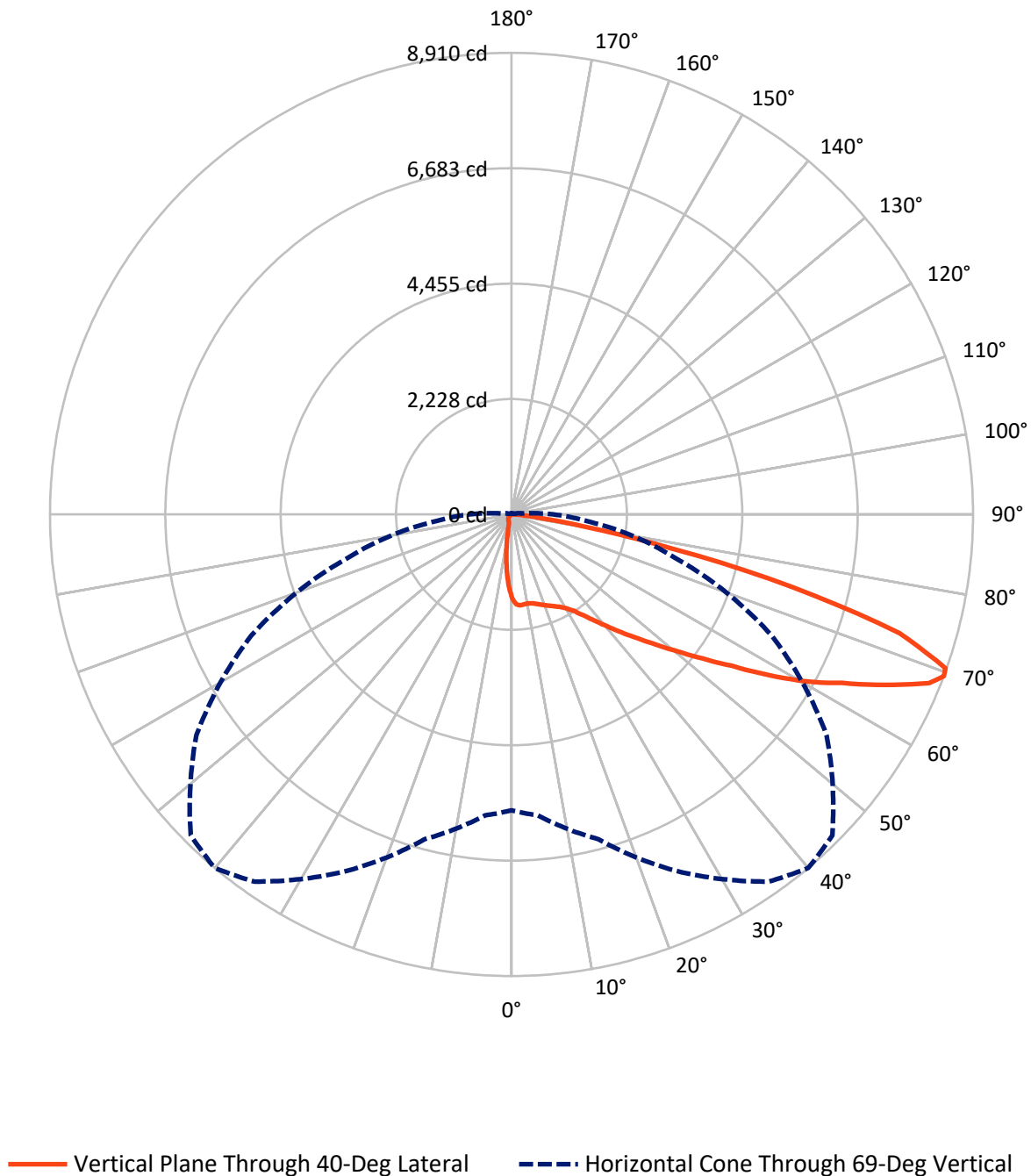


Based on 20 foot mounting height. Maximum calculated value = 4.4 fc  
Type IV - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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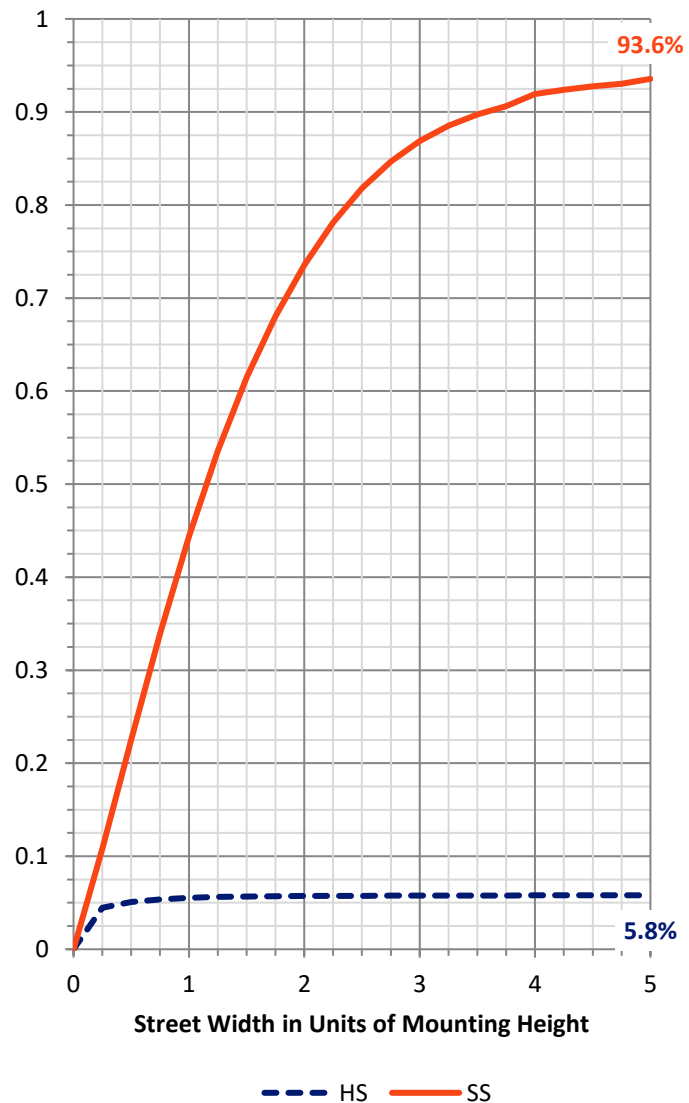
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 634.4    | 0.0    | 634.4   |
|                    | % Fixture | 5.9      | 0.0    | 5.9     |
| <b>Street Side</b> | Lumens    | 10208.6  | 0.0    | 10208.6 |
|                    | % Fixture | 94.1     | 0.0    | 94.1    |
| <b>Total</b>       | Lumens    | 10843.0  | 0.0    | 10843.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 131.3   | 1.2       |
| 10°-20°   | 323.0   | 3.0       |
| 20°-30°   | 544.1   | 5.0       |
| 30°-40°   | 890.7   | 8.2       |
| 40°-50°   | 1542.1  | 14.2      |
| 50°-60°   | 2429.0  | 22.4      |
| 60°-70°   | 3172.2  | 29.3      |
| 70°-80°   | 1633.8  | 15.1      |
| 80°-90°   | 176.7   | 1.6       |
| 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°    | 10843.0 | 100.0     |
| 0°-180°   | 10843.0 | 100.0     |

**Coefficient of Utilization**



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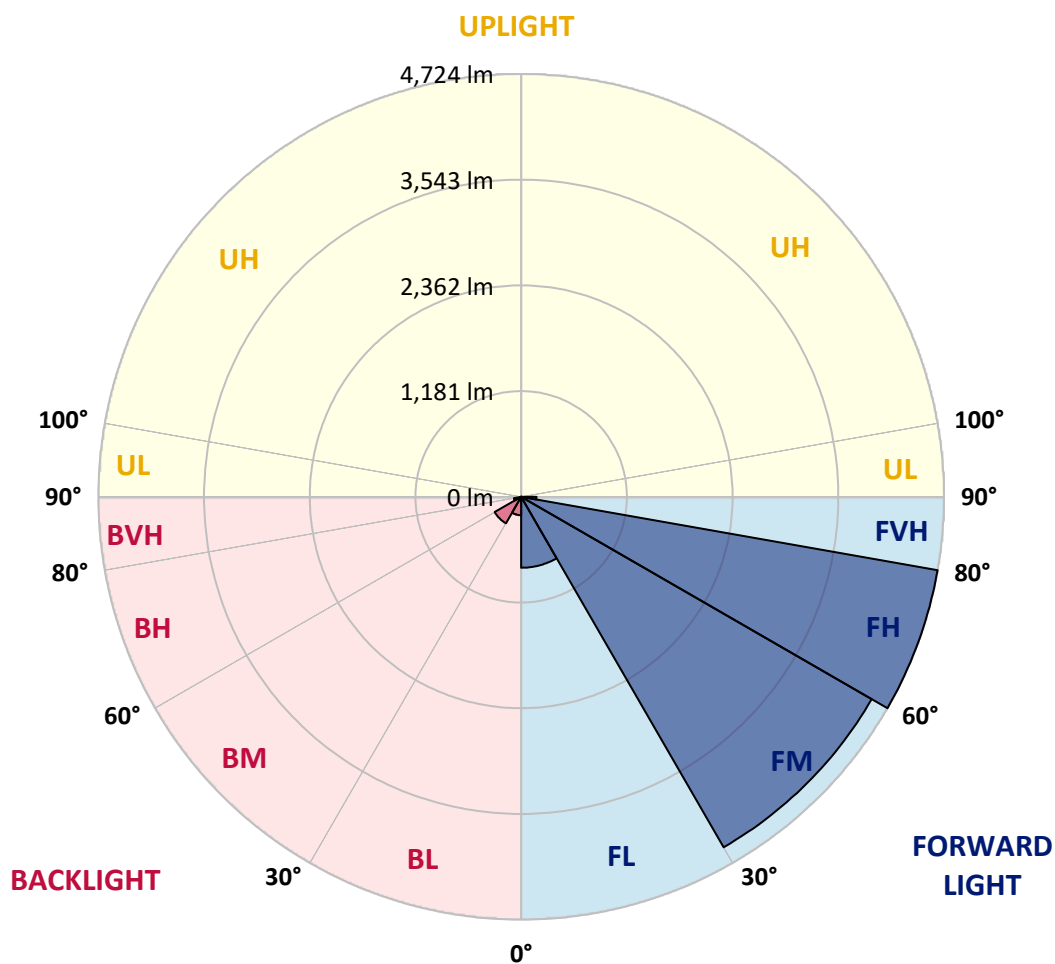
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 792.9  | 7.3       |                         |      |         |
| FM   | (30°-60°)   | 4520.9 | 41.7      |                         |      |         |
| FH   | (60°-80°)   | 4723.7 | 43.6      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 171.2  | 1.6       |                         |      | G2/225  |
| BL   | (0°-30°)    | 205.5  | 1.9       | B1/500                  |      |         |
| BM   | (30°-60°)   | 341.0  | 3.1       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 82.4   | 0.8       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 5.5    | 0.1       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 40°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1620.0 | 1620.0 | 1620.0 | 1620.0 | 1620.0 | 1620.0 | 1620.0 | 1620.0 | 1620.0 | 1620.0 | 1620.0 |
| 2.5°  | 1778.8 | 1769.1 | 1763.3 | 1755.5 | 1745.9 | 1737.5 | 1734.2 | 1710.4 | 1687.8 | 1656.8 | 1621.3 |
| 5°    | 1811.7 | 1808.5 | 1798.1 | 1787.8 | 1776.2 | 1763.3 | 1756.2 | 1727.8 | 1695.5 | 1650.3 | 1588.4 |
| 7.5°  | 1814.9 | 1811.0 | 1798.1 | 1783.9 | 1767.8 | 1752.3 | 1740.0 | 1711.6 | 1682.0 | 1636.1 | 1560.6 |
| 10°   | 1809.8 | 1805.2 | 1795.6 | 1780.1 | 1760.1 | 1745.2 | 1732.9 | 1705.8 | 1680.7 | 1639.4 | 1555.5 |
| 12.5° | 1803.9 | 1799.4 | 1794.9 | 1787.2 | 1769.7 | 1759.4 | 1749.1 | 1723.3 | 1700.7 | 1665.8 | 1574.2 |
| 15°   | 1809.8 | 1807.2 | 1812.3 | 1809.1 | 1799.4 | 1790.4 | 1780.1 | 1756.8 | 1736.2 | 1707.1 | 1608.4 |
| 17.5° | 1834.3 | 1834.3 | 1850.4 | 1852.4 | 1843.3 | 1830.4 | 1815.6 | 1792.3 | 1774.9 | 1750.4 | 1649.0 |
| 20°   | 1891.7 | 1889.8 | 1910.4 | 1914.3 | 1892.4 | 1872.4 | 1850.4 | 1822.0 | 1808.5 | 1793.0 | 1689.1 |
| 22.5° | 1990.5 | 1981.4 | 1993.7 | 1989.8 | 1946.6 | 1915.6 | 1888.5 | 1853.6 | 1846.5 | 1839.4 | 1733.6 |
| 25°   | 2118.9 | 2113.7 | 2122.1 | 2084.1 | 2007.9 | 1965.9 | 1933.7 | 1894.3 | 1894.3 | 1901.4 | 1783.9 |
| 27.5° | 2305.4 | 2286.1 | 2257.7 | 2190.5 | 2076.3 | 2022.7 | 1987.9 | 1945.9 | 1956.9 | 1983.4 | 1850.4 |
| 30°   | 2496.5 | 2475.2 | 2410.0 | 2306.7 | 2159.6 | 2103.4 | 2062.8 | 2018.9 | 2044.7 | 2093.1 | 1939.5 |
| 32.5° | 2684.9 | 2661.1 | 2568.8 | 2438.4 | 2279.0 | 2222.8 | 2183.5 | 2135.0 | 2178.3 | 2259.6 | 2069.9 |
| 35°   | 2867.6 | 2846.3 | 2739.8 | 2586.2 | 2437.7 | 2391.3 | 2355.1 | 2313.2 | 2368.7 | 2482.3 | 2253.8 |
| 37.5° | 3072.8 | 3049.6 | 2919.9 | 2753.4 | 2630.7 | 2597.2 | 2570.7 | 2528.7 | 2625.6 | 2792.1 | 2510.0 |
| 40°   | 3325.2 | 3285.8 | 3110.9 | 2945.0 | 2854.0 | 2837.9 | 2819.8 | 2814.0 | 2964.4 | 3194.8 | 2851.5 |
| 42.5° | 3614.3 | 3549.8 | 3311.0 | 3147.1 | 3099.3 | 3110.9 | 3106.4 | 3132.2 | 3388.4 | 3695.7 | 3267.1 |
| 45°   | 3903.5 | 3820.2 | 3533.7 | 3362.6 | 3369.1 | 3409.7 | 3434.9 | 3538.2 | 3919.6 | 4270.1 | 3714.4 |
| 47.5° | 4148.7 | 4066.8 | 3747.3 | 3595.6 | 3673.1 | 3753.1 | 3821.5 | 4017.1 | 4465.6 | 4835.5 | 4062.3 |
| 50°   | 4358.5 | 4281.1 | 3973.8 | 3851.9 | 4026.1 | 4155.2 | 4266.2 | 4556.0 | 5053.0 | 5266.0 | 4306.2 |
| 52.5° | 4530.2 | 4478.6 | 4208.8 | 4145.5 | 4429.5 | 4618.6 | 4781.3 | 5128.5 | 5573.2 | 5615.8 | 4496.0 |
| 55°   | 4697.4 | 4660.6 | 4461.1 | 4494.7 | 4903.2 | 5160.8 | 5366.7 | 5735.8 | 6021.1 | 5907.5 | 4678.0 |
| 57.5° | 4889.7 | 4856.1 | 4749.0 | 4937.5 | 5526.1 | 5850.1 | 6074.7 | 6274.1 | 6415.5 | 6205.7 | 4849.7 |
| 60°   | 5085.9 | 5066.5 | 5069.1 | 5429.3 | 6241.2 | 6552.3 | 6676.2 | 6727.8 | 6802.7 | 6486.5 | 4859.4 |
| 62.5° | 5273.1 | 5309.9 | 5435.1 | 5976.6 | 6926.0 | 7164.8 | 7227.4 | 7278.4 | 7190.6 | 6531.0 | 4489.5 |
| 65°   | 5590.0 | 5650.0 | 5948.8 | 6709.1 | 7679.2 | 7934.8 | 7999.3 | 7824.4 | 7251.9 | 5955.3 | 3651.8 |
| 67.5° | 5744.9 | 5854.6 | 6387.7 | 7392.0 | 8409.8 | 8693.8 | 8669.9 | 7859.9 | 6507.8 | 4541.2 | 2343.5 |
| 69°   | 5712.6 | 5829.4 | 6489.0 | 7601.1 | 8652.5 | 8910.0 | 8758.3 | 7425.5 | 5544.1 | 3289.7 | 1438.6 |
| 70°   | 5584.8 | 5702.9 | 6436.8 | 7593.3 | 8683.5 | 8887.4 | 8594.4 | 6889.2 | 4687.7 | 2405.5 | 899.7  |
| 72.5° | 4663.8 | 4765.8 | 5714.5 | 6863.4 | 7999.3 | 7833.4 | 7190.0 | 4772.9 | 2284.1 | 655.1  | 202.7  |
| 75°   | 2870.8 | 2927.6 | 4100.3 | 5170.4 | 6041.8 | 5615.8 | 4790.3 | 2374.5 | 680.9  | 185.2  | 112.3  |
| 77.5° | 1516.7 | 1542.5 | 2244.8 | 3047.7 | 3829.9 | 3169.0 | 2455.2 | 926.2  | 313.7  | 116.2  | 81.3   |
| 80°   | 896.5  | 915.8  | 1208.9 | 1393.5 | 1657.4 | 1384.4 | 981.7  | 568.6  | 224.6  | 72.9   | 72.3   |
| 82.5° | 513.1  | 525.4  | 876.5  | 774.5  | 653.2  | 557.6  | 488.6  | 538.9  | 134.9  | 49.1   | 74.9   |
| 85°   | 188.5  | 191.0  | 493.1  | 589.3  | 388.5  | 231.1  | 242.7  | 446.6  | 36.1   | 31.0   | 58.7   |
| 87.5° | 87.8   | 85.8   | 253.6  | 360.8  | 227.2  | 146.5  | 189.1  | 98.1   | 14.2   | 20.0   | 16.1   |
| 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°    | 1620.0 | 1620.0 | 1620.0 | 1620.0 | 1620.0 | 1620.0 | 1620.0 | 1620.0 | 1620.0 | 1620.0 | 1620.0 |
| 2.5°  | 1600.6 | 1576.8 | 1533.5 | 1489.0 | 1443.8 | 1408.9 | 1374.7 | 1347.6 | 1338.6 | 1321.8 | 1323.1 |
| 5°    | 1551.6 | 1507.7 | 1417.3 | 1325.7 | 1230.2 | 1151.4 | 1077.2 | 1017.2 | 988.1  | 958.4  | 958.4  |
| 7.5°  | 1509.0 | 1445.1 | 1303.7 | 1154.7 | 1000.4 | 870.7  | 753.8  | 666.1  | 617.7  | 578.9  | 578.3  |
| 10°   | 1492.9 | 1406.4 | 1208.9 | 995.2  | 780.3  | 603.5  | 464.7  | 375.6  | 329.8  | 300.1  | 298.8  |
| 12.5° | 1500.0 | 1392.8 | 1135.9 | 848.1  | 578.3  | 387.9  | 269.1  | 211.7  | 192.3  | 183.3  | 183.3  |
| 15°   | 1520.6 | 1388.9 | 1063.0 | 704.2  | 408.5  | 242.7  | 178.8  | 163.3  | 162.0  | 162.0  | 162.0  |
| 17.5° | 1545.8 | 1390.2 | 988.1  | 564.1  | 278.2  | 173.6  | 154.3  | 152.3  | 153.6  | 153.6  | 153.6  |
| 20°   | 1571.6 | 1390.9 | 907.5  | 434.4  | 196.2  | 151.0  | 145.2  | 144.6  | 145.9  | 145.9  | 146.5  |
| 22.5° | 1603.2 | 1394.1 | 826.8  | 324.6  | 162.0  | 142.6  | 138.1  | 138.1  | 138.8  | 138.8  | 138.1  |
| 25°   | 1639.4 | 1400.6 | 742.9  | 240.7  | 147.8  | 136.8  | 133.0  | 132.3  | 133.0  | 132.3  | 131.7  |
| 27.5° | 1684.5 | 1409.6 | 649.3  | 188.5  | 141.3  | 131.0  | 127.8  | 127.8  | 127.1  | 126.5  | 125.9  |
| 30°   | 1741.3 | 1419.9 | 544.1  | 160.1  | 134.9  | 125.9  | 122.6  | 122.0  | 121.3  | 120.0  | 120.0  |
| 32.5° | 1827.8 | 1442.5 | 440.2  | 145.2  | 127.8  | 118.8  | 116.2  | 116.2  | 114.9  | 113.6  | 112.9  |
| 35°   | 1960.8 | 1487.0 | 347.2  | 136.2  | 120.0  | 111.0  | 107.8  | 107.8  | 106.5  | 105.8  | 105.2  |
| 37.5° | 2144.7 | 1554.8 | 269.8  | 127.8  | 112.3  | 102.6  | 99.4   | 98.7   | 97.5   | 96.2   | 95.5   |
| 40°   | 2389.3 | 1638.7 | 212.3  | 120.0  | 104.6  | 94.2   | 91.6   | 90.4   | 87.8   | 85.8   | 85.8   |
| 42.5° | 2696.6 | 1734.2 | 172.3  | 111.7  | 95.5   | 86.5   | 84.5   | 82.6   | 78.1   | 76.2   | 75.5   |
| 45°   | 3018.0 | 1820.1 | 145.9  | 102.0  | 86.5   | 78.7   | 77.5   | 74.2   | 68.4   | 66.5   | 66.5   |
| 47.5° | 3249.7 | 1840.1 | 128.4  | 92.9   | 78.1   | 70.4   | 69.7   | 63.9   | 58.7   | 57.4   | 56.8   |
| 50°   | 3394.3 | 1800.7 | 114.2  | 83.9   | 70.4   | 62.6   | 60.7   | 53.6   | 50.3   | 49.1   | 48.4   |
| 52.5° | 3491.7 | 1730.4 | 102.6  | 76.2   | 63.3   | 55.5   | 51.0   | 45.8   | 43.2   | 42.0   | 42.0   |
| 55°   | 3569.8 | 1631.0 | 91.0   | 69.1   | 57.4   | 49.7   | 43.2   | 39.4   | 36.8   | 35.5   | 35.5   |
| 57.5° | 3591.8 | 1496.1 | 79.4   | 63.3   | 51.6   | 43.9   | 36.8   | 34.2   | 31.0   | 30.3   | 30.3   |
| 60°   | 3432.3 | 1252.8 | 70.4   | 56.2   | 46.5   | 38.1   | 32.3   | 29.0   | 25.8   | 25.2   | 24.5   |
| 62.5° | 3012.2 | 969.4  | 62.0   | 49.7   | 40.7   | 32.9   | 27.8   | 23.9   | 21.3   | 21.3   | 21.3   |
| 65°   | 2297.7 | 649.9  | 54.2   | 43.2   | 35.5   | 27.8   | 23.9   | 19.4   | 18.1   | 18.1   | 18.7   |
| 67.5° | 1375.4 | 353.7  | 46.5   | 36.8   | 30.3   | 23.2   | 20.0   | 16.8   | 16.1   | 16.8   | 16.8   |
| 69°   | 806.1  | 207.8  | 42.0   | 32.9   | 26.5   | 20.7   | 17.4   | 14.8   | 16.1   | 16.8   | 16.8   |
| 70°   | 497.6  | 140.1  | 38.7   | 29.7   | 23.9   | 18.7   | 16.1   | 14.2   | 15.5   | 16.1   | 16.1   |
| 72.5° | 138.8  | 72.3   | 31.0   | 23.2   | 19.4   | 15.5   | 12.9   | 12.9   | 14.8   | 15.5   | 15.5   |
| 75°   | 90.4   | 53.6   | 23.9   | 17.4   | 14.8   | 12.3   | 11.0   | 12.3   | 14.2   | 14.8   | 14.8   |
| 77.5° | 74.9   | 43.9   | 19.4   | 14.2   | 12.3   | 11.6   | 10.3   | 11.0   | 12.9   | 13.6   | 13.6   |
| 80°   | 68.4   | 31.0   | 15.5   | 12.9   | 11.0   | 10.3   | 9.7    | 9.0    | 11.6   | 12.3   | 12.3   |
| 82.5° | 65.2   | 24.5   | 13.6   | 11.6   | 10.3   | 9.0    | 8.4    | 9.0    | 10.3   | 11.0   | 11.6   |
| 85°   | 40.7   | 16.1   | 12.3   | 11.0   | 9.0    | 8.4    | 8.4    | 8.4    | 9.7    | 10.3   | 10.3   |
| 87.5° | 14.8   | 12.9   | 11.0   | 9.0    | 7.7    | 7.7    | 7.7    | 7.7    | 8.4    | 9.7    | 9.7    |
| 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)