

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: P458609

Luminaire Tested: **GALN-SA1D-735-U-SL3**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P458609  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA1D-735-U-SL3  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(1) 70 CRI, 3500K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7227 lumens  
Efficiency: N/A  
Efficacy: 111.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2

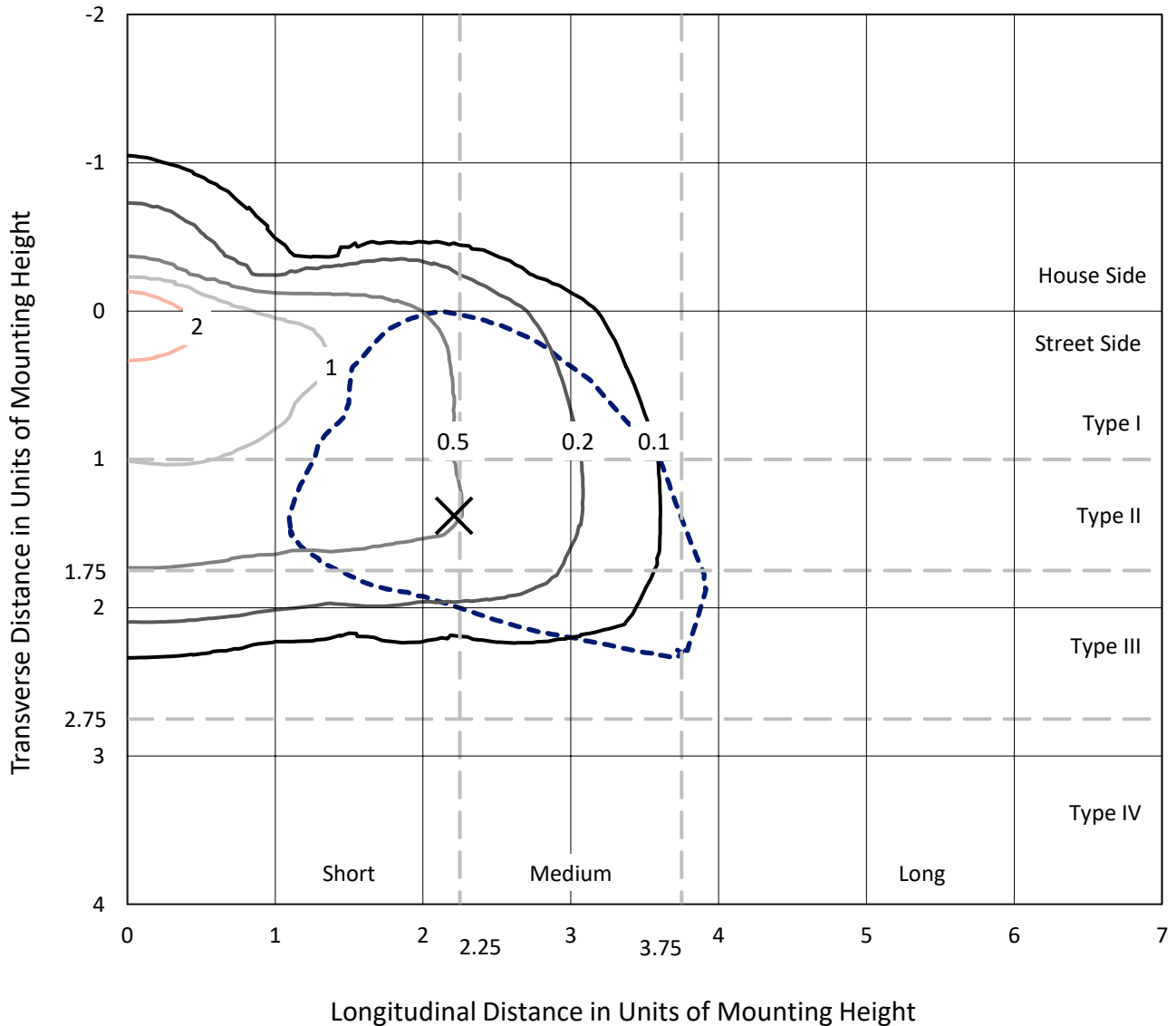
Input Watts (W): 65  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

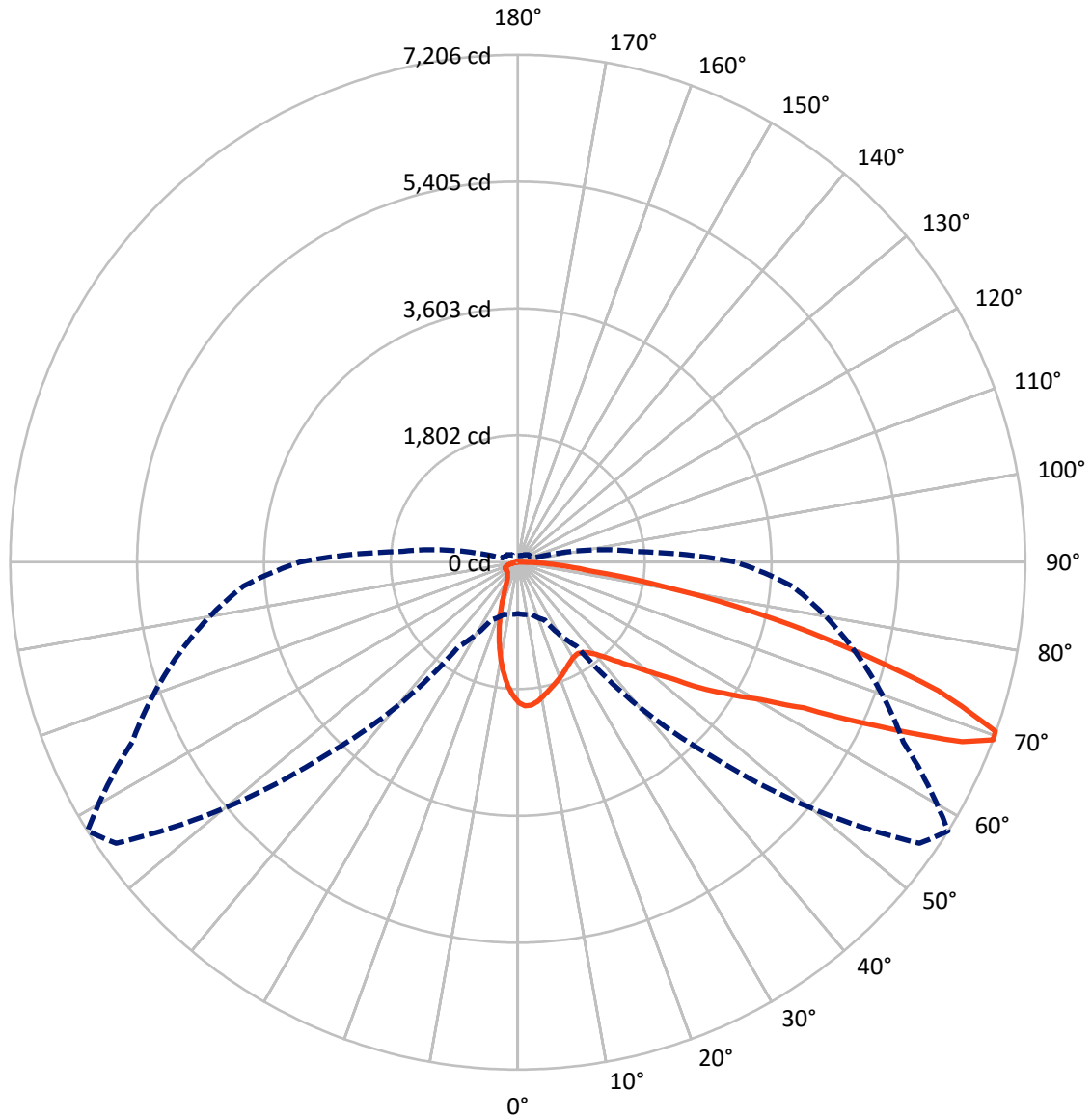
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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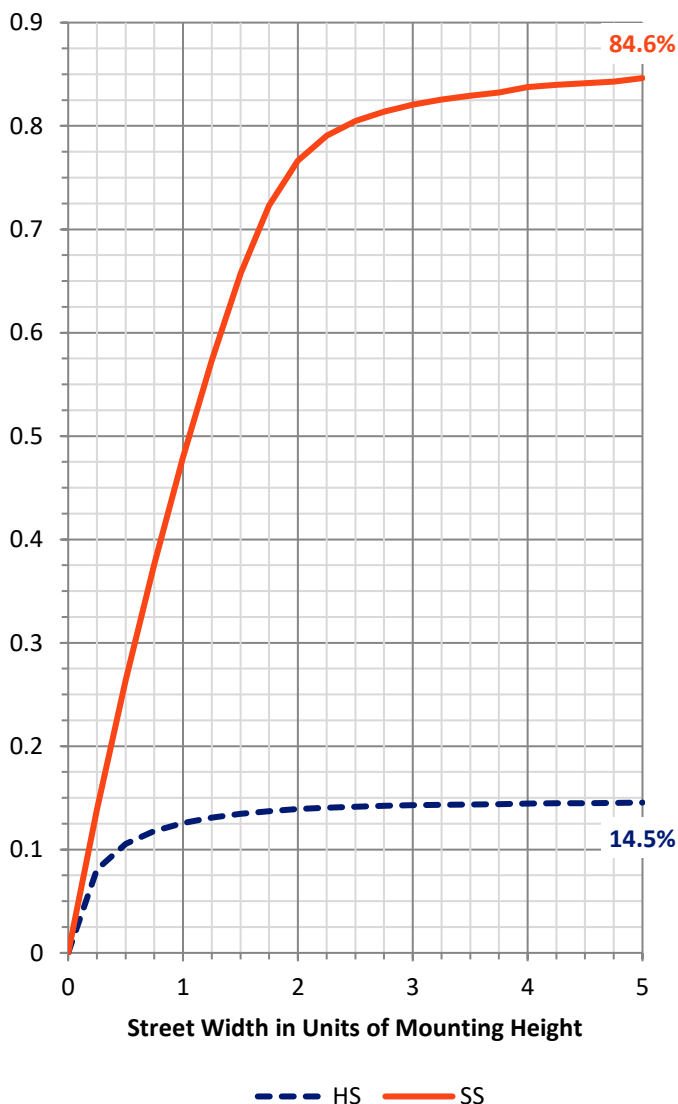
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1059.1   | 0.0    | 1059.1 |
|                    | % Fixture | 14.7     | 0.0    | 14.7   |
| <b>Street Side</b> | Lumens    | 6167.9   | 0.0    | 6167.9 |
|                    | % Fixture | 85.3     | 0.0    | 85.3   |
| <b>Total</b>       | Lumens    | 7227.0   | 0.0    | 7227.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 169.6  | 2.3       |
| 10°-20°   | 372.4  | 5.2       |
| 20°-30°   | 481.2  | 6.7       |
| 30°-40°   | 625.0  | 8.6       |
| 40°-50°   | 908.6  | 12.6      |
| 50°-60°   | 1449.8 | 20.1      |
| 60°-70°   | 1936.8 | 26.8      |
| 70°-80°   | 1116.5 | 15.4      |
| 80°-90°   | 167.2  | 2.3       |
| 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°    | 7227.0 | 100.0     |
| 0°-180°   | 7227.0 | 100.0     |



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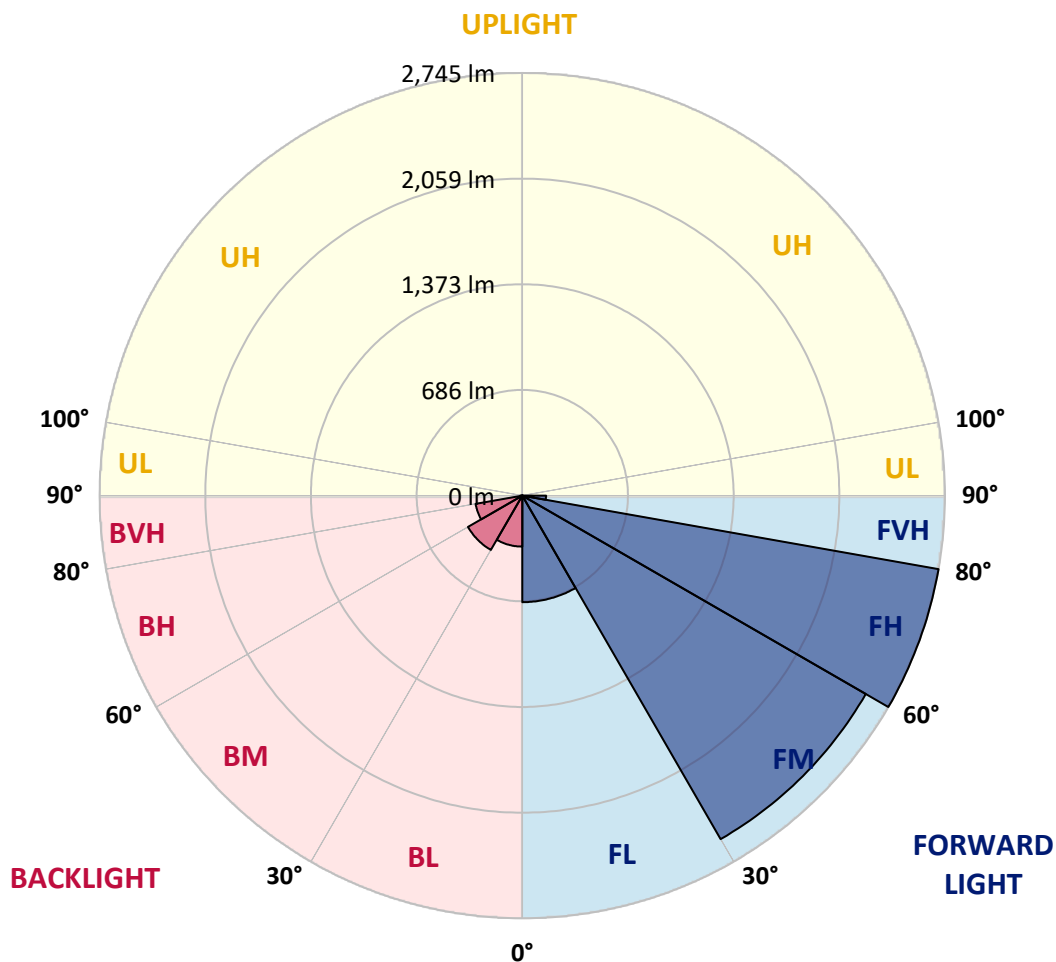
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 692.2  | 9.6       |                         |      |         |
| FM (30°-60°)   | 2576.0 | 35.6      |                         |      |         |
| FH (60°-80°)   | 2745.3 | 38.0      |                         |      | G2/5000 |
| FVH (80°-90°)  | 154.4  | 2.1       |                         |      | G2/225  |
| BL (0°-30°)    | 331.0  | 4.6       | B1/500                  |      |         |
| BM (30°-60°)   | 407.3  | 5.6       | B1/1000                 |      |         |
| BH (60°-80°)   | 308.0  | 4.3       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 12.8   | 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 Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 58°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1997.1 | 1997.1 | 1997.1 | 1997.1 | 1997.1 | 1997.1 | 1997.1 | 1997.1 | 1997.1 | 1997.1 | 1997.1 |
| 2.5°  | 2071.3 | 2076.9 | 2075.3 | 2073.3 | 2070.1 | 2061.2 | 2046.7 | 2044.3 | 2035.0 | 2015.3 | 1990.7 |
| 5°    | 2039.4 | 2044.3 | 2044.7 | 2047.5 | 2051.5 | 2049.9 | 2039.4 | 2038.2 | 2024.5 | 1997.9 | 1956.8 |
| 7.5°  | 1930.2 | 1936.7 | 1950.8 | 1966.5 | 1980.6 | 1993.9 | 1997.1 | 1999.1 | 1990.7 | 1960.0 | 1905.2 |
| 10°   | 1807.3 | 1813.7 | 1820.2 | 1843.6 | 1878.2 | 1911.3 | 1938.7 | 1942.3 | 1944.3 | 1916.1 | 1849.2 |
| 12.5° | 1671.1 | 1684.4 | 1698.1 | 1732.7 | 1779.1 | 1831.1 | 1879.4 | 1887.1 | 1900.8 | 1879.4 | 1800.8 |
| 15°   | 1555.4 | 1569.1 | 1588.8 | 1619.9 | 1675.9 | 1750.9 | 1819.0 | 1831.5 | 1858.5 | 1847.6 | 1755.7 |
| 17.5° | 1475.2 | 1480.0 | 1493.7 | 1529.2 | 1589.6 | 1668.6 | 1759.7 | 1784.7 | 1827.8 | 1825.0 | 1717.0 |
| 20°   | 1411.9 | 1417.9 | 1426.4 | 1448.2 | 1511.0 | 1594.5 | 1704.5 | 1736.7 | 1795.2 | 1804.9 | 1678.7 |
| 22.5° | 1385.3 | 1389.7 | 1388.5 | 1400.2 | 1442.9 | 1526.8 | 1648.5 | 1686.8 | 1766.2 | 1791.2 | 1643.2 |
| 25°   | 1386.9 | 1390.9 | 1384.9 | 1382.1 | 1407.5 | 1467.1 | 1590.0 | 1638.8 | 1742.8 | 1781.9 | 1611.0 |
| 27.5° | 1413.9 | 1416.7 | 1405.4 | 1394.2 | 1396.2 | 1430.0 | 1541.7 | 1595.7 | 1723.0 | 1785.9 | 1584.0 |
| 30°   | 1450.2 | 1455.4 | 1448.2 | 1434.5 | 1419.5 | 1421.2 | 1510.6 | 1563.8 | 1713.8 | 1800.0 | 1571.1 |
| 32.5° | 1496.9 | 1501.8 | 1498.5 | 1487.7 | 1468.3 | 1447.0 | 1503.0 | 1552.2 | 1714.6 | 1828.6 | 1568.3 |
| 35°   | 1546.1 | 1555.8 | 1561.0 | 1560.2 | 1544.5 | 1507.4 | 1533.2 | 1573.9 | 1733.9 | 1876.6 | 1584.8 |
| 37.5° | 1601.7 | 1609.8 | 1632.4 | 1646.9 | 1632.4 | 1589.2 | 1601.3 | 1629.5 | 1776.7 | 1945.9 | 1621.1 |
| 40°   | 1655.7 | 1667.8 | 1700.9 | 1746.0 | 1740.4 | 1702.5 | 1705.3 | 1723.9 | 1852.0 | 2049.1 | 1692.0 |
| 42.5° | 1712.2 | 1726.7 | 1784.3 | 1851.2 | 1864.5 | 1835.1 | 1842.8 | 1859.3 | 1959.2 | 2192.2 | 1813.7 |
| 45°   | 1784.7 | 1802.0 | 1873.0 | 1956.4 | 2008.8 | 1990.7 | 2012.4 | 2020.5 | 2102.7 | 2378.4 | 1974.1 |
| 47.5° | 1878.2 | 1898.4 | 1985.8 | 2089.8 | 2164.0 | 2180.5 | 2218.4 | 2213.6 | 2280.5 | 2598.9 | 2182.1 |
| 50°   | 2035.8 | 2047.1 | 2129.7 | 2235.7 | 2337.7 | 2412.3 | 2453.4 | 2461.0 | 2500.9 | 2813.3 | 2414.7 |
| 52.5° | 2223.2 | 2233.3 | 2293.0 | 2385.7 | 2513.4 | 2671.4 | 2773.0 | 2748.0 | 2757.7 | 3074.5 | 2686.7 |
| 55°   | 2434.0 | 2451.0 | 2488.8 | 2550.5 | 2716.2 | 2948.7 | 3152.7 | 3158.7 | 3051.5 | 3324.4 | 2947.5 |
| 57.5° | 2597.3 | 2625.9 | 2690.8 | 2778.6 | 2988.6 | 3257.1 | 3531.1 | 3535.2 | 3398.1 | 3591.2 | 3235.3 |
| 60°   | 2515.0 | 2548.9 | 2697.2 | 2911.2 | 3346.1 | 3795.1 | 3983.4 | 3960.4 | 3735.5 | 3895.1 | 3586.4 |
| 62.5° | 2160.4 | 2166.4 | 2382.0 | 2716.6 | 3456.2 | 4515.0 | 4656.5 | 4559.3 | 4185.7 | 4280.4 | 3943.1 |
| 65°   | 1398.2 | 1437.7 | 1608.6 | 2077.3 | 3094.6 | 4914.4 | 5835.8 | 5611.3 | 4816.9 | 4717.7 | 4241.7 |
| 67.5° | 882.7  | 872.6  | 943.5  | 1186.2 | 2128.5 | 4562.5 | 6842.2 | 6806.7 | 5642.3 | 4993.8 | 4170.4 |
| 69°   | 731.9  | 743.2  | 767.4  | 909.3  | 1464.7 | 3895.5 | 6961.1 | 7206.2 | 6042.5 | 4972.0 | 3911.2 |
| 70°   | 663.8  | 669.1  | 694.5  | 806.1  | 1130.2 | 3262.7 | 6766.0 | 7195.3 | 6199.7 | 4881.0 | 3723.4 |
| 72.5° | 526.8  | 526.4  | 569.9  | 670.7  | 844.8  | 1862.5 | 5555.7 | 6246.9 | 6024.0 | 4456.9 | 3076.5 |
| 75°   | 400.2  | 406.7  | 454.6  | 567.5  | 778.3  | 1017.7 | 3877.0 | 4810.8 | 4811.2 | 3520.3 | 1919.7 |
| 77.5° | 288.6  | 292.6  | 348.6  | 476.4  | 733.2  | 825.0  | 2582.4 | 3450.5 | 3243.8 | 1613.0 | 603.4  |
| 80°   | 189.0  | 191.4  | 234.2  | 377.3  | 661.0  | 778.3  | 1531.2 | 2112.0 | 1530.0 | 428.0  | 199.5  |
| 82.5° | 103.6  | 115.7  | 143.1  | 244.2  | 530.4  | 719.0  | 930.6  | 1068.9 | 573.9  | 190.6  | 104.0  |
| 85°   | 52.0   | 55.2   | 80.6   | 142.7  | 346.6  | 594.9  | 648.1  | 613.0  | 296.2  | 94.7   | 54.0   |
| 87.5° | 15.3   | 19.3   | 33.5   | 55.2   | 140.7  | 309.9  | 360.7  | 323.7  | 114.1  | 34.3   | 11.3   |
| 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):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1997.1 | 1997.1 | 1997.1 | 1997.1 | 1997.1 | 1997.1 | 1997.1 | 1997.1 | 1997.1 | 1997.1 | 1997.1 |
| 2.5°  | 1980.6 | 1973.3 | 1941.1 | 1912.1 | 1885.5 | 1857.3 | 1833.5 | 1812.5 | 1814.5 | 1814.9 | 1793.6 |
| 5°    | 1935.5 | 1918.9 | 1857.7 | 1800.4 | 1752.1 | 1690.8 | 1638.4 | 1604.5 | 1587.6 | 1565.0 | 1573.1 |
| 7.5°  | 1874.2 | 1842.3 | 1757.3 | 1662.2 | 1573.1 | 1493.7 | 1407.5 | 1348.2 | 1310.3 | 1273.6 | 1278.5 |
| 10°   | 1810.9 | 1759.7 | 1636.0 | 1510.2 | 1395.0 | 1268.0 | 1158.0 | 1063.7 | 993.5  | 967.3  | 950.0  |
| 12.5° | 1746.0 | 1678.7 | 1521.5 | 1354.3 | 1195.0 | 1043.1 | 887.1  | 786.0  | 708.6  | 667.5  | 672.7  |
| 15°   | 1686.8 | 1605.0 | 1402.2 | 1198.3 | 991.5  | 810.5  | 655.0  | 558.6  | 504.6  | 493.3  | 499.8  |
| 17.5° | 1632.0 | 1524.7 | 1290.6 | 1046.7 | 805.3  | 607.8  | 492.1  | 437.7  | 415.9  | 409.9  | 409.5  |
| 20°   | 1575.5 | 1456.6 | 1165.2 | 884.7  | 627.6  | 471.2  | 403.9  | 378.5  | 374.4  | 376.9  | 377.3  |
| 22.5° | 1518.3 | 1372.4 | 1036.2 | 723.9  | 499.8  | 385.3  | 353.1  | 346.2  | 349.4  | 355.1  | 355.9  |
| 25°   | 1465.5 | 1298.2 | 912.1  | 582.8  | 399.0  | 338.6  | 322.8  | 322.8  | 330.1  | 338.6  | 339.0  |
| 27.5° | 1422.0 | 1226.5 | 788.4  | 462.7  | 334.1  | 304.7  | 299.5  | 302.3  | 312.4  | 318.8  | 319.2  |
| 30°   | 1386.1 | 1159.6 | 671.5  | 370.8  | 293.8  | 277.7  | 276.5  | 281.3  | 288.6  | 294.6  | 295.0  |
| 32.5° | 1359.1 | 1100.7 | 562.3  | 311.6  | 266.0  | 257.1  | 256.7  | 260.4  | 264.4  | 266.0  | 267.6  |
| 35°   | 1348.6 | 1052.0 | 462.3  | 274.1  | 247.5  | 241.8  | 241.8  | 241.4  | 243.0  | 243.8  | 244.7  |
| 37.5° | 1357.1 | 1014.5 | 384.9  | 249.9  | 233.8  | 229.7  | 227.3  | 224.9  | 224.1  | 224.1  | 224.5  |
| 40°   | 1392.9 | 994.7  | 327.3  | 234.2  | 224.1  | 218.1  | 213.6  | 210.8  | 208.0  | 208.8  | 209.6  |
| 42.5° | 1469.1 | 998.4  | 288.2  | 223.7  | 215.6  | 207.2  | 200.7  | 197.5  | 195.5  | 197.9  | 197.5  |
| 45°   | 1590.4 | 1034.6 | 263.2  | 216.4  | 207.2  | 196.3  | 190.2  | 187.0  | 187.0  | 190.6  | 191.9  |
| 47.5° | 1760.1 | 1104.0 | 249.9  | 210.8  | 200.7  | 187.8  | 181.8  | 179.4  | 180.2  | 186.2  | 186.6  |
| 50°   | 1967.3 | 1224.5 | 247.5  | 208.0  | 197.5  | 181.8  | 174.9  | 172.5  | 174.5  | 181.0  | 181.8  |
| 52.5° | 2195.8 | 1379.6 | 259.2  | 208.4  | 194.7  | 178.1  | 169.3  | 165.7  | 167.7  | 172.9  | 174.5  |
| 55°   | 2466.7 | 1573.9 | 289.4  | 210.0  | 190.6  | 176.1  | 165.3  | 157.2  | 159.6  | 163.2  | 163.6  |
| 57.5° | 2743.2 | 1819.0 | 342.6  | 210.4  | 187.4  | 172.5  | 158.4  | 147.9  | 147.9  | 150.3  | 151.5  |
| 60°   | 3080.9 | 2085.8 | 412.7  | 210.8  | 187.8  | 167.3  | 149.1  | 137.4  | 135.8  | 137.0  | 137.4  |
| 62.5° | 3416.3 | 2309.1 | 424.4  | 209.6  | 191.9  | 162.0  | 139.1  | 127.0  | 124.1  | 123.7  | 122.9  |
| 65°   | 3564.2 | 2267.6 | 347.8  | 203.9  | 196.3  | 158.8  | 131.0  | 116.9  | 112.0  | 110.4  | 110.4  |
| 67.5° | 3323.2 | 1918.1 | 261.6  | 196.3  | 193.5  | 155.6  | 123.3  | 108.4  | 102.8  | 99.6   | 99.6   |
| 69°   | 3096.6 | 1706.1 | 235.0  | 191.0  | 186.2  | 150.3  | 118.5  | 104.0  | 97.1   | 93.5   | 92.3   |
| 70°   | 2921.7 | 1560.2 | 223.7  | 186.6  | 179.4  | 144.3  | 114.9  | 100.8  | 93.1   | 89.1   | 88.3   |
| 72.5° | 2331.7 | 1224.1 | 195.9  | 169.7  | 152.8  | 121.3  | 102.0  | 90.7   | 83.4   | 79.0   | 77.8   |
| 75°   | 1343.8 | 663.4  | 162.4  | 147.5  | 122.9  | 94.3   | 86.3   | 79.0   | 73.4   | 69.3   | 68.1   |
| 77.5° | 413.5  | 256.3  | 117.7  | 116.5  | 90.3   | 73.0   | 68.9   | 66.1   | 62.1   | 57.6   | 56.8   |
| 80°   | 174.1  | 130.6  | 79.8   | 78.6   | 60.1   | 50.8   | 49.6   | 49.2   | 47.6   | 43.9   | 42.7   |
| 82.5° | 95.5   | 73.8   | 55.6   | 48.4   | 36.3   | 29.4   | 30.6   | 31.0   | 29.8   | 26.2   | 23.8   |
| 85°   | 46.8   | 40.3   | 27.0   | 21.8   | 16.5   | 10.5   | 10.1   | 12.1   | 11.3   | 8.1    | 8.9    |
| 87.5° | 9.3    | 11.3   | 7.3    | 3.2    | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 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)