

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: P228758

Luminaire Tested: **ISS-AF-1200-LED-E1-RW-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P228758  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29765)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: ISS-AF-1200-LED-E1-RW-7050  
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE  
LIGHT SQUARE WITH ACCULED OPTICS-RECTANGULAR WIDE TYPE I  
Light Source: (16) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

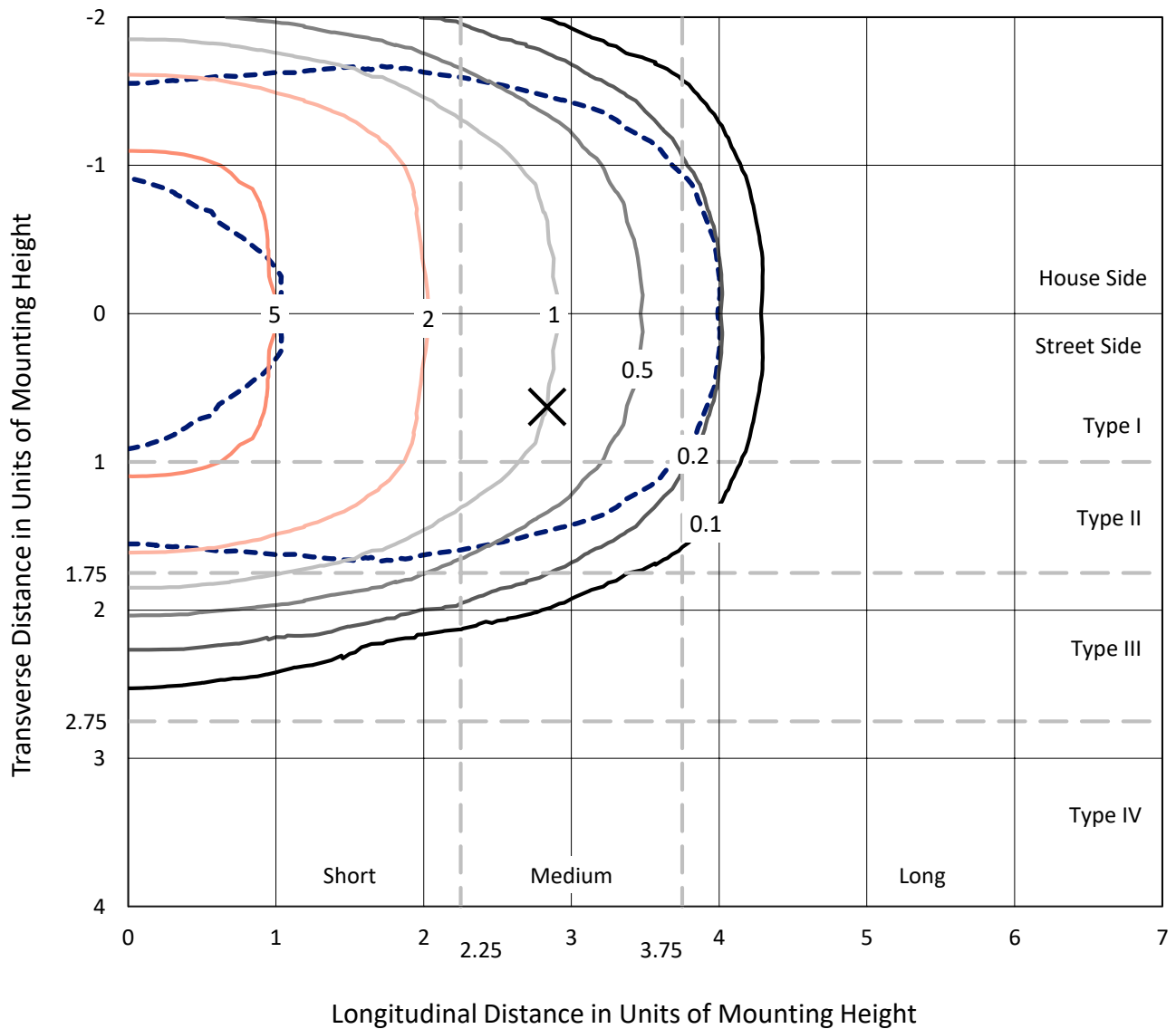
Lumens per Lamp: N/A  
Luminaire Lumens: 6564 lumens  
Efficiency: N/A  
Efficacy: 99.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 66  
Input Voltage (V): 120  
Input Current (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

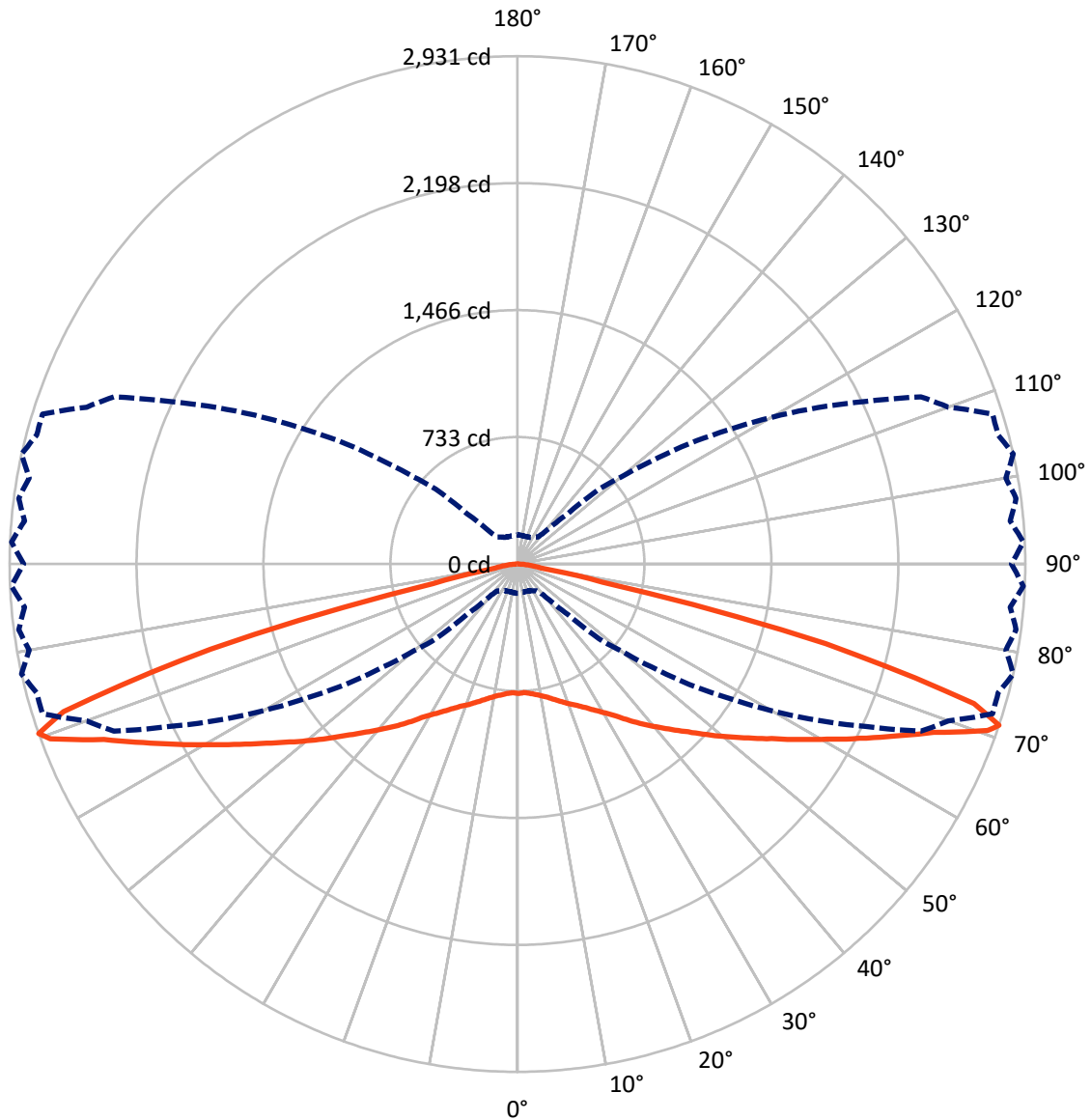
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.7 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 3282.0   | 0.0    | 3282.0 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 3282.0   | 0.0    | 3282.0 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 6564.0   | 0.0    | 6564.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 72.2   | 1.1       |
| 10°-20°   | 225.6  | 3.4       |
| 20°-30°   | 422.2  | 6.4       |
| 30°-40°   | 734.9  | 11.2      |
| 40°-50°   | 1199.1 | 18.3      |
| 50°-60°   | 1654.9 | 25.2      |
| 60°-70°   | 1569.8 | 23.9      |
| 70°-80°   | 646.2  | 9.8       |
| 80°-90°   | 39.0   | 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°    | 6564.0 | 100.0     |
| 0°-180°   | 6564.0 | 100.0     |



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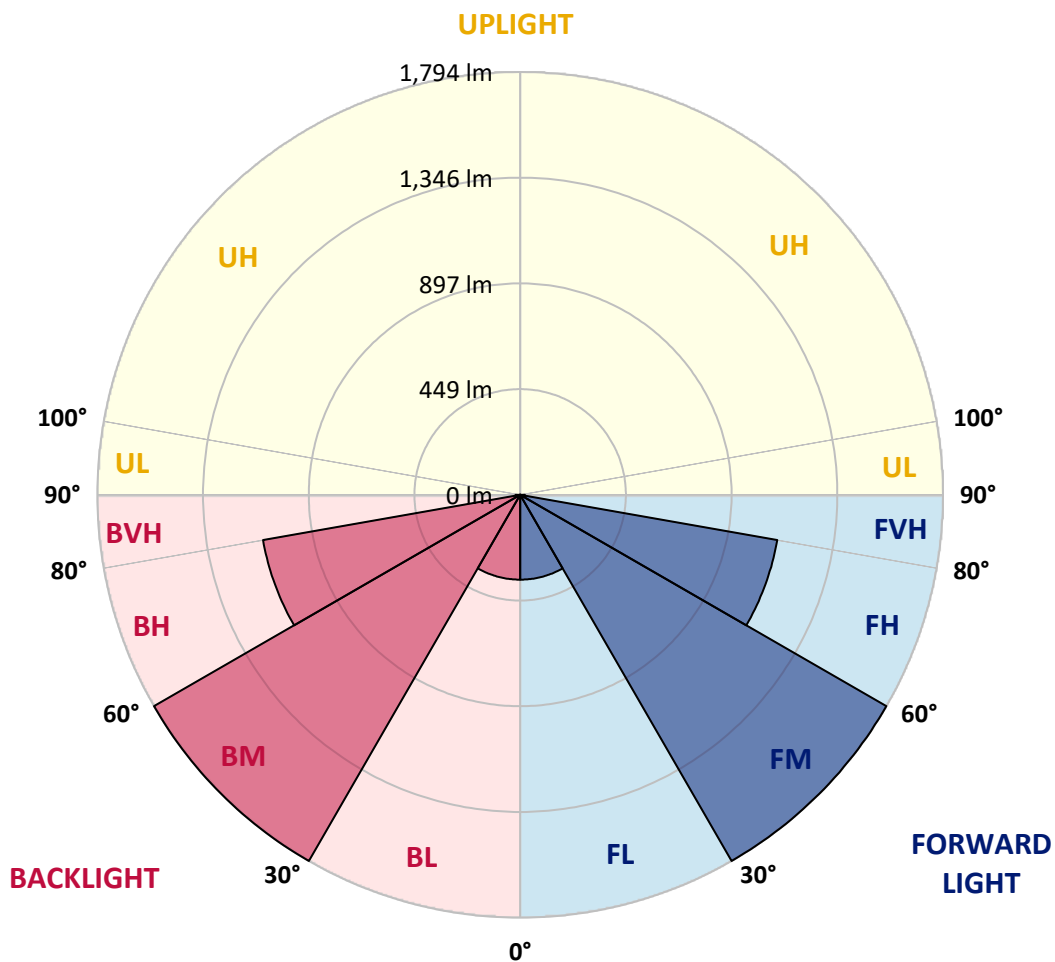
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 360.0  | 5.5       |                         |      |         |
| FM   | (30°-60°)   | 1794.5 | 27.3      |                         |      |         |
| FH   | (60°-80°)   | 1108.0 | 16.9      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 19.5   | 0.3       |                         |      | G1/100  |
| BL   | (0°-30°)    | 360.0  | 5.5       | B1/500                  |      |         |
| BM   | (30°-60°)   | 1794.5 | 27.3      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 1108.0 | 16.9      | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 19.5   | 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-G3**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 37.5°  | 40°    | 42.5°  | 45°    | 47.5°  | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 747.4  | 747.4  | 747.4  | 747.4  | 747.4  | 747.4  | 747.4  | 747.4  | 747.4  | 747.4  | 747.4  |
| 2.5°  | 745.3  | 743.1  | 745.3  | 745.3  | 747.4  | 747.4  | 747.4  | 747.4  | 745.3  | 749.6  | 749.6  |
| 5°    | 745.3  | 745.3  | 747.4  | 747.4  | 751.8  | 756.1  | 749.6  | 751.8  | 753.9  | 751.8  | 756.1  |
| 7.5°  | 745.3  | 745.3  | 745.3  | 749.6  | 756.1  | 760.5  | 756.1  | 758.3  | 762.6  | 762.6  | 767.0  |
| 10°   | 738.7  | 736.6  | 740.9  | 749.6  | 760.5  | 767.0  | 764.8  | 773.5  | 771.3  | 773.5  | 777.8  |
| 12.5° | 727.9  | 727.9  | 736.6  | 749.6  | 769.2  | 773.5  | 775.7  | 780.0  | 786.5  | 784.4  | 790.9  |
| 15°   | 730.0  | 732.2  | 740.9  | 758.3  | 782.2  | 786.5  | 788.7  | 788.7  | 799.6  | 795.2  | 808.3  |
| 17.5° | 745.3  | 747.4  | 756.1  | 773.5  | 801.7  | 801.7  | 803.9  | 808.3  | 823.5  | 814.8  | 832.2  |
| 20°   | 769.2  | 771.3  | 780.0  | 799.6  | 825.6  | 823.5  | 827.8  | 832.2  | 851.7  | 843.0  | 860.4  |
| 22.5° | 797.4  | 801.7  | 812.6  | 834.3  | 862.6  | 849.5  | 858.2  | 866.9  | 886.5  | 871.3  | 895.2  |
| 25°   | 836.5  | 843.0  | 853.9  | 877.8  | 908.2  | 893.0  | 901.7  | 908.2  | 929.9  | 908.2  | 932.1  |
| 27.5° | 893.0  | 897.3  | 906.0  | 932.1  | 958.2  | 947.3  | 951.7  | 956.0  | 982.1  | 958.2  | 984.3  |
| 30°   | 960.4  | 966.9  | 975.6  | 999.5  | 1025.5 | 1008.2 | 1016.8 | 1021.2 | 1042.9 | 1019.0 | 1040.7 |
| 32.5° | 1045.1 | 1051.6 | 1062.5 | 1084.2 | 1105.9 | 1079.9 | 1082.0 | 1088.6 | 1110.3 | 1086.4 | 1110.3 |
| 35°   | 1145.0 | 1149.4 | 1164.6 | 1190.7 | 1205.9 | 1164.6 | 1166.8 | 1166.8 | 1195.0 | 1162.4 | 1188.5 |
| 37.5° | 1249.3 | 1253.7 | 1271.1 | 1297.1 | 1314.5 | 1268.9 | 1268.9 | 1271.1 | 1297.1 | 1260.2 | 1284.1 |
| 40°   | 1358.0 | 1371.0 | 1390.6 | 1416.6 | 1429.7 | 1377.5 | 1381.9 | 1379.7 | 1410.1 | 1366.7 | 1390.6 |
| 42.5° | 1466.6 | 1477.5 | 1505.7 | 1536.1 | 1551.3 | 1499.2 | 1501.4 | 1494.9 | 1525.3 | 1479.6 | 1499.2 |
| 45°   | 1560.0 | 1568.7 | 1603.5 | 1646.9 | 1670.8 | 1616.5 | 1616.5 | 1616.5 | 1646.9 | 1590.5 | 1614.4 |
| 47.5° | 1636.1 | 1642.6 | 1679.5 | 1742.5 | 1781.7 | 1727.3 | 1731.7 | 1723.0 | 1768.6 | 1699.1 | 1731.7 |
| 50°   | 1690.4 | 1692.6 | 1740.4 | 1812.1 | 1879.4 | 1829.5 | 1836.0 | 1840.3 | 1883.8 | 1822.9 | 1851.2 |
| 52.5° | 1707.8 | 1712.1 | 1766.4 | 1853.4 | 1951.1 | 1918.5 | 1942.4 | 1951.1 | 1990.2 | 1925.1 | 1964.2 |
| 55°   | 1646.9 | 1657.8 | 1740.4 | 1868.6 | 2001.1 | 1990.2 | 2018.5 | 2035.9 | 2085.8 | 2031.5 | 2072.8 |
| 57.5° | 1442.7 | 1455.7 | 1570.9 | 1781.7 | 2012.0 | 2029.4 | 2068.5 | 2096.7 | 2168.4 | 2135.8 | 2181.4 |
| 60°   | 1151.6 | 1162.4 | 1279.8 | 1534.0 | 1875.1 | 1981.6 | 2070.6 | 2151.0 | 2224.9 | 2231.4 | 2290.1 |
| 62.5° | 790.9  | 806.1  | 919.1  | 1162.4 | 1577.4 | 1718.6 | 1846.8 | 1979.4 | 2103.2 | 2253.1 | 2329.2 |
| 65°   | 386.8  | 395.4  | 491.0  | 725.7  | 1158.1 | 1338.4 | 1488.3 | 1675.2 | 1790.3 | 2005.5 | 2129.3 |
| 67.5° | 212.9  | 212.9  | 228.1  | 302.0  | 619.2  | 797.4  | 958.2  | 1192.8 | 1310.2 | 1575.2 | 1733.9 |
| 70°   | 178.2  | 178.2  | 173.8  | 184.7  | 234.7  | 278.1  | 360.7  | 495.4  | 658.3  | 925.6  | 1069.0 |
| 71°   | 169.5  | 167.3  | 165.1  | 169.5  | 189.0  | 197.7  | 232.5  | 304.2  | 412.8  | 638.8  | 780.0  |
| 72.5° | 158.6  | 154.3  | 147.7  | 149.9  | 160.8  | 160.8  | 167.3  | 178.2  | 219.4  | 299.8  | 402.0  |
| 75°   | 136.9  | 132.5  | 126.0  | 126.0  | 128.2  | 130.4  | 132.5  | 136.9  | 139.1  | 143.4  | 160.8  |
| 77.5° | 113.0  | 108.6  | 102.1  | 102.1  | 99.9   | 102.1  | 106.5  | 108.6  | 104.3  | 113.0  | 115.2  |
| 80°   | 86.9   | 80.4   | 78.2   | 78.2   | 76.0   | 73.9   | 73.9   | 73.9   | 76.0   | 80.4   | 82.6   |
| 82.5° | 54.3   | 50.0   | 52.1   | 50.0   | 47.8   | 47.8   | 47.8   | 47.8   | 50.0   | 50.0   | 54.3   |
| 85°   | 26.1   | 26.1   | 28.2   | 26.1   | 21.7   | 21.7   | 19.6   | 17.4   | 19.6   | 17.4   | 21.7   |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 2.2    |
| 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):**

|       | 52.5°  | 55°    | 57.5°  | 60°    | 62.5°  | 65°    | 67.5°  | 70°    | 72.5°  | 75°    | 77.5°  |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 747.4  | 747.4  | 747.4  | 747.4  | 747.4  | 747.4  | 747.4  | 747.4  | 747.4  | 747.4  | 747.4  |
| 2.5°  | 743.1  | 747.4  | 745.3  | 747.4  | 743.1  | 747.4  | 740.9  | 747.4  | 745.3  | 747.4  | 743.1  |
| 5°    | 749.6  | 756.1  | 749.6  | 758.3  | 749.6  | 758.3  | 749.6  | 758.3  | 751.8  | 758.3  | 749.6  |
| 7.5°  | 756.1  | 769.2  | 760.5  | 771.3  | 760.5  | 773.5  | 760.5  | 773.5  | 764.8  | 775.7  | 760.5  |
| 10°   | 769.2  | 784.4  | 771.3  | 784.4  | 771.3  | 786.5  | 771.3  | 788.7  | 775.7  | 793.1  | 773.5  |
| 12.5° | 780.0  | 797.4  | 784.4  | 801.7  | 782.2  | 806.1  | 786.5  | 812.6  | 790.9  | 817.0  | 790.9  |
| 15°   | 795.2  | 817.0  | 803.9  | 823.5  | 803.9  | 830.0  | 806.1  | 836.5  | 812.6  | 840.9  | 812.6  |
| 17.5° | 817.0  | 840.9  | 823.5  | 847.4  | 825.6  | 853.9  | 827.8  | 860.4  | 836.5  | 864.8  | 836.5  |
| 20°   | 847.4  | 866.9  | 849.5  | 875.6  | 851.7  | 877.8  | 856.1  | 882.1  | 862.6  | 888.7  | 862.6  |
| 22.5° | 882.1  | 899.5  | 886.5  | 901.7  | 880.0  | 901.7  | 880.0  | 901.7  | 886.5  | 908.2  | 886.5  |
| 25°   | 921.2  | 934.3  | 919.1  | 934.3  | 914.7  | 932.1  | 912.6  | 929.9  | 914.7  | 934.3  | 919.1  |
| 27.5° | 973.4  | 979.9  | 962.5  | 975.6  | 951.7  | 969.0  | 947.3  | 964.7  | 949.5  | 966.9  | 956.0  |
| 30°   | 1029.9 | 1036.4 | 1019.0 | 1027.7 | 1001.6 | 1012.5 | 988.6  | 1003.8 | 990.8  | 1003.8 | 997.3  |
| 32.5° | 1092.9 | 1101.6 | 1082.0 | 1086.4 | 1064.6 | 1066.8 | 1047.3 | 1053.8 | 1042.9 | 1047.3 | 1045.1 |
| 35°   | 1164.6 | 1175.5 | 1153.7 | 1160.3 | 1136.4 | 1136.4 | 1119.0 | 1116.8 | 1112.5 | 1108.1 | 1108.1 |
| 37.5° | 1255.9 | 1260.2 | 1242.8 | 1242.8 | 1214.6 | 1214.6 | 1192.8 | 1192.8 | 1184.2 | 1175.5 | 1171.1 |
| 40°   | 1355.8 | 1358.0 | 1329.7 | 1327.6 | 1299.3 | 1299.3 | 1275.4 | 1268.9 | 1253.7 | 1242.8 | 1236.3 |
| 42.5° | 1462.3 | 1460.1 | 1418.8 | 1423.2 | 1381.9 | 1384.0 | 1353.6 | 1347.1 | 1331.9 | 1318.9 | 1305.8 |
| 45°   | 1570.9 | 1562.2 | 1520.9 | 1518.8 | 1471.0 | 1473.1 | 1436.2 | 1431.8 | 1410.1 | 1397.1 | 1381.9 |
| 47.5° | 1681.7 | 1677.4 | 1631.7 | 1620.9 | 1570.9 | 1568.7 | 1520.9 | 1520.9 | 1499.2 | 1486.2 | 1471.0 |
| 50°   | 1796.9 | 1794.7 | 1742.5 | 1736.0 | 1683.9 | 1675.2 | 1618.7 | 1618.7 | 1592.6 | 1588.3 | 1566.6 |
| 52.5° | 1922.9 | 1914.2 | 1857.7 | 1855.5 | 1805.6 | 1799.0 | 1738.2 | 1733.9 | 1694.7 | 1692.6 | 1668.7 |
| 55°   | 2046.7 | 2031.5 | 1994.6 | 1977.2 | 1927.2 | 1925.1 | 1870.7 | 1859.9 | 1809.9 | 1809.9 | 1779.5 |
| 57.5° | 2159.7 | 2146.7 | 2116.3 | 2101.1 | 2053.3 | 2046.7 | 1988.1 | 1988.1 | 1944.6 | 1942.4 | 1909.9 |
| 60°   | 2277.0 | 2281.4 | 2248.8 | 2242.3 | 2196.7 | 2194.5 | 2135.8 | 2135.8 | 2092.4 | 2090.2 | 2053.3 |
| 62.5° | 2377.0 | 2420.4 | 2407.4 | 2411.8 | 2372.6 | 2366.1 | 2307.5 | 2303.1 | 2253.1 | 2246.6 | 2216.2 |
| 65°   | 2279.2 | 2431.3 | 2529.1 | 2594.3 | 2589.9 | 2587.8 | 2531.3 | 2522.6 | 2459.6 | 2442.2 | 2392.2 |
| 67.5° | 1914.2 | 2111.9 | 2290.1 | 2485.6 | 2629.0 | 2737.7 | 2770.3 | 2757.2 | 2702.9 | 2652.9 | 2592.1 |
| 70°   | 1281.9 | 1510.1 | 1736.0 | 1979.4 | 2224.9 | 2463.9 | 2709.4 | 2815.9 | 2928.9 | 2889.8 | 2878.9 |
| 71°   | 975.6  | 1210.2 | 1436.2 | 1692.6 | 1953.3 | 2218.4 | 2520.4 | 2646.4 | 2874.6 | 2872.4 | 2931.0 |
| 72.5° | 549.7  | 758.3  | 999.5  | 1223.3 | 1468.8 | 1742.5 | 2053.3 | 2192.3 | 2520.4 | 2585.6 | 2755.1 |
| 75°   | 176.0  | 241.2  | 319.4  | 504.1  | 656.2  | 906.0  | 1136.4 | 1275.4 | 1492.7 | 1601.3 | 1838.2 |
| 77.5° | 117.3  | 130.4  | 134.7  | 156.4  | 176.0  | 249.9  | 338.9  | 415.0  | 456.3  | 478.0  | 501.9  |
| 80°   | 84.7   | 91.3   | 95.6   | 106.5  | 108.6  | 121.7  | 121.7  | 134.7  | 132.5  | 141.2  | 134.7  |
| 82.5° | 54.3   | 60.8   | 63.0   | 67.4   | 69.5   | 78.2   | 82.6   | 91.3   | 91.3   | 95.6   | 93.4   |
| 85°   | 26.1   | 30.4   | 30.4   | 34.8   | 34.8   | 41.3   | 41.3   | 47.8   | 47.8   | 54.3   | 52.1   |
| 87.5° | 2.2    | 2.2    | 2.2    | 4.3    | 4.3    | 4.3    | 6.5    | 8.7    | 8.7    | 8.7    | 8.7    |
| 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):**

|       | 80°    | 82.5°  | 85°    | 87.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 747.4  | 747.4  | 747.4  | 747.4  | 747.4  |
| 2.5°  | 749.6  | 747.4  | 749.6  | 745.3  | 749.6  |
| 5°    | 760.5  | 751.8  | 762.6  | 751.8  | 762.6  |
| 7.5°  | 777.8  | 767.0  | 780.0  | 762.6  | 777.8  |
| 10°   | 793.1  | 777.8  | 795.2  | 777.8  | 793.1  |
| 12.5° | 819.1  | 795.2  | 823.5  | 795.2  | 823.5  |
| 15°   | 845.2  | 817.0  | 851.7  | 821.3  | 849.5  |
| 17.5° | 869.1  | 843.0  | 875.6  | 845.2  | 873.4  |
| 20°   | 890.8  | 866.9  | 895.2  | 864.8  | 895.2  |
| 22.5° | 912.6  | 897.3  | 919.1  | 897.3  | 919.1  |
| 25°   | 940.8  | 929.9  | 945.1  | 929.9  | 945.1  |
| 27.5° | 973.4  | 969.0  | 977.7  | 966.9  | 979.9  |
| 30°   | 1010.3 | 1012.5 | 1014.7 | 1012.5 | 1016.8 |
| 32.5° | 1056.0 | 1066.8 | 1062.5 | 1062.5 | 1062.5 |
| 35°   | 1119.0 | 1138.5 | 1125.5 | 1129.8 | 1127.7 |
| 37.5° | 1177.6 | 1205.9 | 1188.5 | 1195.0 | 1190.7 |
| 40°   | 1242.8 | 1262.4 | 1258.0 | 1258.0 | 1253.7 |
| 42.5° | 1314.5 | 1338.4 | 1331.9 | 1334.1 | 1329.7 |
| 45°   | 1392.7 | 1414.5 | 1405.8 | 1403.6 | 1405.8 |
| 47.5° | 1481.8 | 1505.7 | 1494.9 | 1492.7 | 1494.9 |
| 50°   | 1575.2 | 1603.5 | 1594.8 | 1590.5 | 1594.8 |
| 52.5° | 1677.4 | 1712.1 | 1707.8 | 1703.4 | 1710.0 |
| 55°   | 1796.9 | 1829.5 | 1825.1 | 1829.5 | 1831.6 |
| 57.5° | 1916.4 | 1953.3 | 1944.6 | 1955.5 | 1959.8 |
| 60°   | 2066.3 | 2088.0 | 2090.2 | 2092.4 | 2094.5 |
| 62.5° | 2218.4 | 2227.1 | 2233.6 | 2240.1 | 2242.3 |
| 65°   | 2394.4 | 2396.5 | 2400.9 | 2394.4 | 2400.9 |
| 67.5° | 2563.9 | 2548.6 | 2546.5 | 2553.0 | 2557.3 |
| 70°   | 2826.8 | 2826.8 | 2805.0 | 2835.4 | 2809.4 |
| 71°   | 2861.5 | 2902.8 | 2855.0 | 2922.4 | 2850.7 |
| 72.5° | 2692.0 | 2768.1 | 2713.8 | 2774.6 | 2702.9 |
| 75°   | 1872.9 | 2048.9 | 2046.7 | 2133.6 | 2064.1 |
| 77.5° | 519.3  | 486.7  | 519.3  | 447.6  | 428.0  |
| 80°   | 141.2  | 128.2  | 139.1  | 117.3  | 132.5  |
| 82.5° | 93.4   | 80.4   | 78.2   | 63.0   | 67.4   |
| 85°   | 54.3   | 41.3   | 41.3   | 32.6   | 34.8   |
| 87.5° | 8.7    | 2.2    | 8.7    | 4.3    | 6.5    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)