

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: P522677

Luminaire Tested: **GALN-SA2D-727-U-T4W**

Issue Date: 5/13/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522677  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2011-042-41)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/13/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA2D-727-U-T4W  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13020 lumens  
Efficiency: N/A  
Efficacy: 104.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3

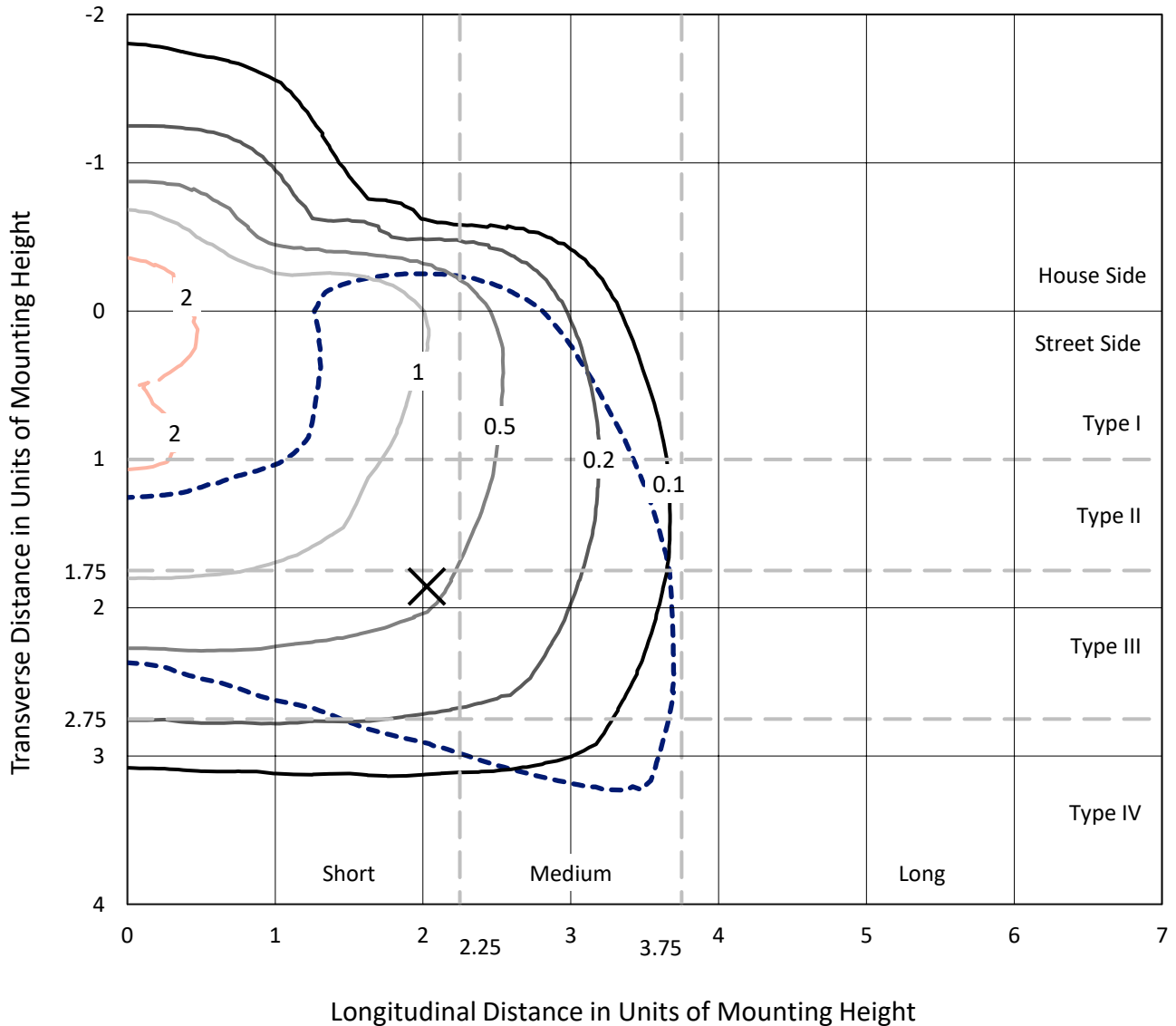
Input Watts (W): 125  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

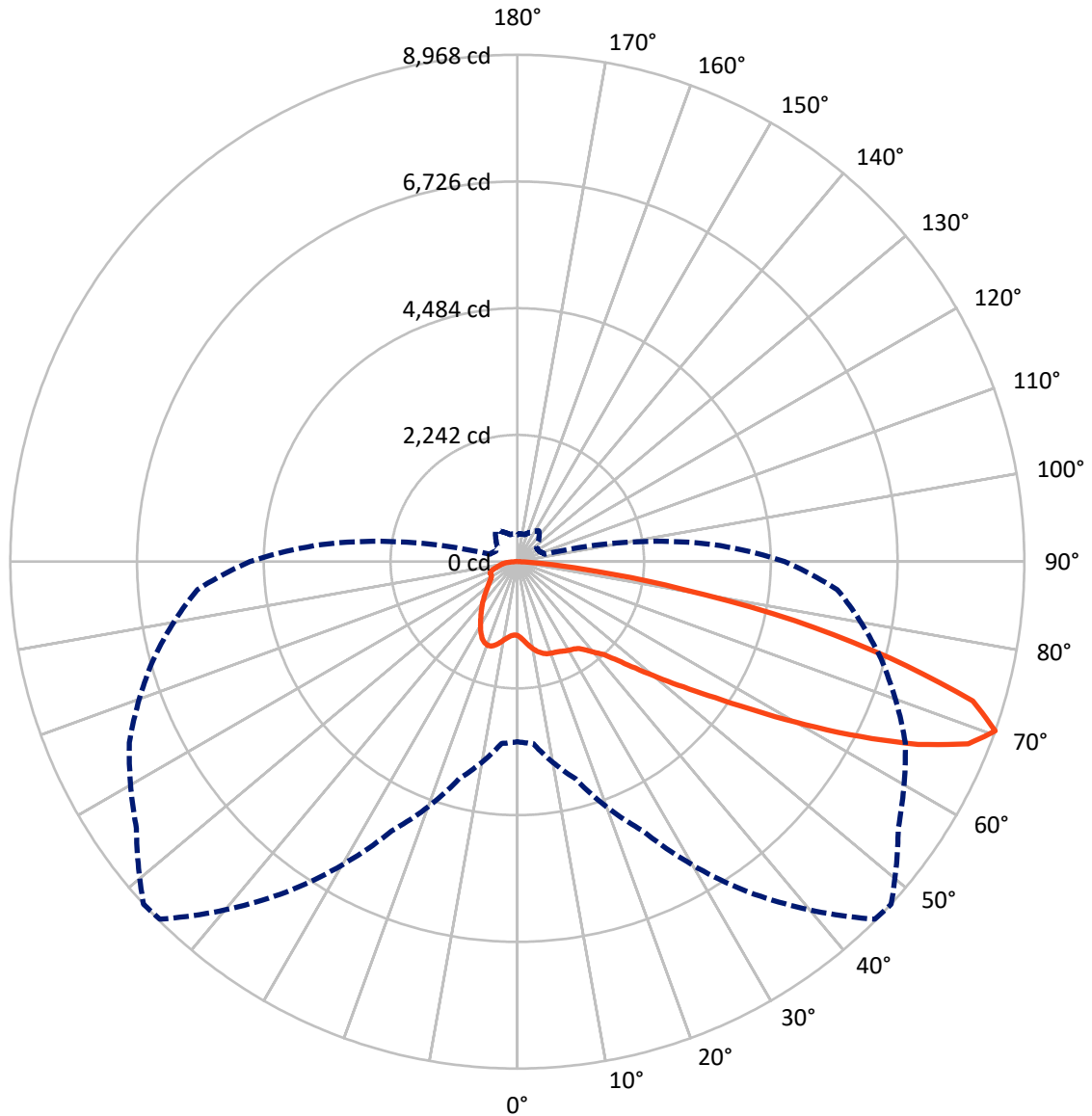
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2948.0   | 0.0    | 2948.0  |
|                    | % Fixture | 22.6     | 0.0    | 22.6    |
| <b>Street Side</b> | Lumens    | 10072.0  | 0.0    | 10072.0 |
|                    | % Fixture | 77.4     | 0.0    | 77.4    |
| <b>Total</b>       | Lumens    | 13020.0  | 0.0    | 13020.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 134.7   | 1.0       |
| 10°-20°   | 450.4   | 3.5       |
| 20°-30°   | 749.0   | 5.8       |
| 30°-40°   | 1061.6  | 8.2       |
| 40°-50°   | 1567.2  | 12.0      |
| 50°-60°   | 2714.5  | 20.8      |
| 60°-70°   | 3834.3  | 29.4      |
| 70°-80°   | 2204.1  | 16.9      |
| 80°-90°   | 304.1   | 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°    | 13020.0 | 100.0     |
| 0°-180°   | 13020.0 | 100.0     |

**Coefficient of Utilization**



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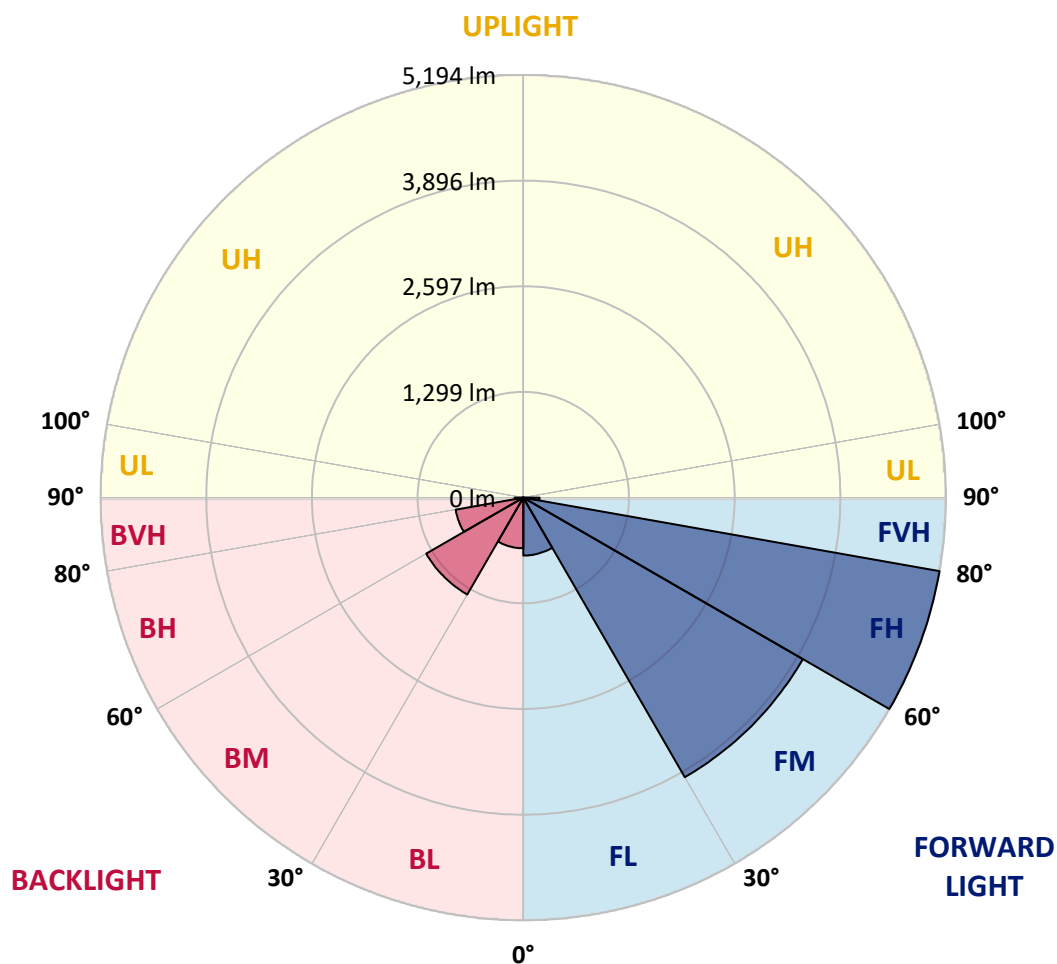
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 712.0  | 5.5       |                         |      |         |
| FM   | (30°-60°)   | 3966.9 | 30.5      |                         |      |         |
| FH   | (60°-80°)   | 5194.4 | 39.9      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 198.7  | 1.5       |                         |      | G2/225  |
| BL   | (0°-30°)    | 622.2  | 4.8       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1376.4 | 10.6      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 844.0  | 6.5       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 105.5  | 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°    | 47.5°  | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1307.1 | 1307.1 | 1307.1 | 1307.1 | 1307.1 | 1307.1 | 1307.1 | 1307.1 | 1307.1 | 1307.1 | 1307.1 |
| 2.5°  | 1391.4 | 1386.5 | 1385.8 | 1375.3 | 1369.8 | 1359.3 | 1355.1 | 1345.4 | 1333.5 | 1321.7 | 1310.5 |
| 5°    | 1500.7 | 1500.7 | 1495.9 | 1481.2 | 1458.2 | 1434.6 | 1424.1 | 1405.3 | 1371.8 | 1344.7 | 1321.7 |
| 7.5°  | 1612.9 | 1614.3 | 1604.6 | 1583.0 | 1550.2 | 1511.9 | 1502.1 | 1474.3 | 1426.9 | 1387.2 | 1353.0 |
| 10°   | 1709.8 | 1709.8 | 1696.5 | 1667.3 | 1626.2 | 1584.3 | 1574.6 | 1543.2 | 1490.3 | 1440.8 | 1396.2 |
| 12.5° | 1783.6 | 1783.6 | 1766.2 | 1727.9 | 1683.3 | 1645.7 | 1634.5 | 1604.6 | 1555.1 | 1500.0 | 1443.6 |
| 15°   | 1831.7 | 1828.2 | 1808.7 | 1765.5 | 1722.3 | 1689.6 | 1681.9 | 1656.8 | 1611.5 | 1555.8 | 1492.4 |
| 17.5° | 1833.8 | 1832.4 | 1813.6 | 1777.3 | 1739.7 | 1717.4 | 1712.5 | 1695.8 | 1660.3 | 1607.3 | 1540.5 |
| 20°   | 1793.4 | 1796.2 | 1783.6 | 1757.8 | 1739.7 | 1730.0 | 1727.9 | 1722.3 | 1697.2 | 1647.7 | 1580.9 |
| 22.5° | 1750.2 | 1755.0 | 1743.2 | 1729.3 | 1727.9 | 1737.6 | 1739.0 | 1740.4 | 1724.4 | 1676.3 | 1615.0 |
| 25°   | 1739.7 | 1743.2 | 1731.4 | 1718.8 | 1726.5 | 1752.3 | 1757.8 | 1763.4 | 1750.9 | 1710.5 | 1655.4 |
| 27.5° | 1792.7 | 1789.9 | 1766.9 | 1739.7 | 1744.6 | 1779.4 | 1787.1 | 1793.4 | 1787.1 | 1752.3 | 1705.6 |
| 30°   | 1942.5 | 1933.4 | 1887.4 | 1808.0 | 1782.9 | 1807.3 | 1815.0 | 1832.4 | 1832.4 | 1806.6 | 1759.9 |
| 32.5° | 2193.3 | 2175.9 | 2091.6 | 1935.5 | 1848.4 | 1833.8 | 1841.4 | 1870.0 | 1884.6 | 1864.4 | 1813.6 |
| 35°   | 2497.8 | 2479.6 | 2359.1 | 2149.4 | 1968.2 | 1886.7 | 1884.6 | 1916.7 | 1955.7 | 1910.4 | 1844.2 |
| 37.5° | 2803.6 | 2784.8 | 2639.9 | 2404.4 | 2143.1 | 1998.2 | 1985.7 | 1996.8 | 2013.5 | 1930.6 | 1886.7 |
| 40°   | 3109.5 | 3087.2 | 2960.4 | 2689.3 | 2357.0 | 2145.9 | 2113.2 | 2063.0 | 2056.0 | 1996.8 | 1968.9 |
| 42.5° | 3412.5 | 3392.3 | 3328.2 | 3009.1 | 2613.4 | 2290.1 | 2240.0 | 2153.6 | 2180.0 | 2144.5 | 2120.1 |
| 45°   | 3718.4 | 3719.8 | 3651.5 | 3368.0 | 2922.8 | 2556.3 | 2488.7 | 2353.5 | 2416.2 | 2403.0 | 2416.9 |
| 47.5° | 3989.4 | 3985.9 | 3961.6 | 3716.3 | 3306.6 | 2899.1 | 2812.0 | 2655.2 | 2762.5 | 2811.3 | 2917.9 |
| 50°   | 4252.1 | 4250.0 | 4251.4 | 4111.4 | 3752.5 | 3306.6 | 3210.5 | 3046.1 | 3287.8 | 3457.1 | 3648.0 |
| 52.5° | 4628.3 | 4640.2 | 4555.9 | 4518.9 | 4294.6 | 3788.1 | 3682.2 | 3512.2 | 3908.6 | 4175.5 | 4548.2 |
| 55°   | 5006.0 | 4996.2 | 4930.0 | 4968.3 | 4861.7 | 4358.0 | 4247.2 | 4112.1 | 4599.8 | 4891.7 | 5451.9 |
| 57.5° | 5228.2 | 5231.7 | 5299.3 | 5486.7 | 5561.9 | 5068.7 | 4968.3 | 4863.8 | 5376.6 | 5583.5 | 6255.9 |
| 60°   | 5428.2 | 5444.2 | 5638.6 | 5992.5 | 6196.6 | 5941.6 | 5852.5 | 5750.7 | 6089.4 | 6171.6 | 6954.0 |
| 62.5° | 5490.9 | 5540.3 | 5879.6 | 6409.1 | 6815.3 | 6926.8 | 6816.0 | 6591.7 | 6768.0 | 6735.9 | 7427.1 |
| 65°   | 5178.0 | 5245.6 | 5853.9 | 6565.2 | 7367.8 | 7861.8 | 7791.4 | 7374.8 | 7346.2 | 7153.2 | 7504.4 |
| 67.5° | 4354.5 | 4422.1 | 5203.1 | 6237.8 | 7596.4 | 8671.4 | 8601.0 | 7946.1 | 7697.4 | 7192.3 | 6919.2 |
| 70°   | 3186.1 | 3228.6 | 3975.5 | 5251.9 | 7137.2 | 8943.1 | 8967.5 | 8224.8 | 7572.0 | 6662.1 | 5681.1 |
| 72.5° | 1835.9 | 1929.9 | 2453.2 | 3694.7 | 5830.9 | 8256.2 | 8425.5 | 7645.1 | 6779.1 | 5557.8 | 3972.0 |
| 75°   | 789.4  | 791.5  | 1134.3 | 2037.9 | 3949.0 | 6636.3 | 6800.0 | 6337.4 | 5323.7 | 3843.1 | 2120.8 |
| 77.5° | 375.5  | 382.5  | 498.9  | 909.9  | 2173.8 | 4585.1 | 5026.9 | 4477.1 | 3404.9 | 1846.3 | 801.2  |
| 80°   | 243.9  | 248.7  | 305.2  | 451.5  | 1066.0 | 2658.7 | 2966.6 | 2582.8 | 1502.1 | 659.8  | 345.6  |
| 82.5° | 147.7  | 149.1  | 204.1  | 275.9  | 586.6  | 1203.9 | 1419.2 | 1121.0 | 641.0  | 395.0  | 203.4  |
| 85°   | 89.9   | 90.6   | 124.0  | 170.7  | 356.0  | 415.9  | 427.1  | 423.6  | 376.2  | 258.5  | 108.7  |
| 87.5° | 43.2   | 44.6   | 64.1   | 80.8   | 140.0  | 128.9  | 121.9  | 141.4  | 177.7  | 139.3  | 46.7   |
| 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):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1307.1 | 1307.1 | 1307.1 | 1307.1 | 1307.1 | 1307.1 | 1307.1 | 1307.1 | 1307.1 | 1307.1 | 1307.1 |
| 2.5°  | 1305.7 | 1303.6 | 1298.7 | 1296.6 | 1295.2 | 1295.9 | 1295.2 | 1295.2 | 1295.9 | 1295.9 | 1295.9 |
| 5°    | 1311.9 | 1308.4 | 1300.8 | 1300.8 | 1305.0 | 1314.7 | 1323.8 | 1330.7 | 1338.4 | 1337.7 | 1337.7 |
| 7.5°  | 1339.1 | 1332.8 | 1323.8 | 1326.6 | 1337.0 | 1352.3 | 1368.4 | 1383.7 | 1399.0 | 1400.4 | 1399.7 |
| 10°   | 1378.8 | 1372.5 | 1362.8 | 1366.3 | 1383.0 | 1406.0 | 1426.2 | 1448.5 | 1465.2 | 1470.1 | 1468.7 |
| 12.5° | 1424.1 | 1411.6 | 1403.2 | 1413.0 | 1439.4 | 1470.1 | 1489.6 | 1506.3 | 1518.2 | 1525.1 | 1522.3 |
| 15°   | 1470.1 | 1458.2 | 1448.5 | 1468.7 | 1500.7 | 1529.3 | 1539.1 | 1541.8 | 1543.9 | 1550.9 | 1549.5 |
| 17.5° | 1514.7 | 1498.7 | 1495.2 | 1521.6 | 1552.3 | 1564.8 | 1559.3 | 1547.4 | 1538.4 | 1543.9 | 1543.2 |
| 20°   | 1554.4 | 1541.8 | 1540.5 | 1566.9 | 1578.8 | 1566.9 | 1543.2 | 1522.3 | 1506.3 | 1507.7 | 1507.0 |
| 22.5° | 1592.0 | 1582.3 | 1583.7 | 1594.8 | 1576.0 | 1535.6 | 1496.6 | 1468.0 | 1450.6 | 1454.1 | 1456.1 |
| 25°   | 1633.8 | 1624.1 | 1627.5 | 1609.4 | 1547.4 | 1477.1 | 1420.6 | 1396.2 | 1389.3 | 1396.2 | 1401.1 |
| 27.5° | 1688.2 | 1681.9 | 1679.8 | 1610.1 | 1496.6 | 1390.7 | 1326.6 | 1317.5 | 1323.8 | 1339.1 | 1346.8 |
| 30°   | 1746.7 | 1746.7 | 1735.5 | 1598.3 | 1426.9 | 1286.8 | 1231.1 | 1232.5 | 1254.1 | 1275.7 | 1283.4 |
| 32.5° | 1803.1 | 1815.0 | 1780.1 | 1566.2 | 1337.0 | 1185.8 | 1143.3 | 1144.7 | 1163.5 | 1190.0 | 1197.0 |
| 35°   | 1849.8 | 1883.9 | 1818.4 | 1507.7 | 1231.1 | 1100.8 | 1068.8 | 1050.0 | 1050.7 | 1070.9 | 1076.4 |
| 37.5° | 1913.9 | 1977.3 | 1840.7 | 1420.6 | 1118.2 | 1028.4 | 992.1  | 959.4  | 937.8  | 929.4  | 929.4  |
| 40°   | 2025.4 | 2118.7 | 1846.3 | 1291.7 | 1011.6 | 959.4  | 907.8  | 868.8  | 827.0  | 789.4  | 782.4  |
| 42.5° | 2214.2 | 2331.9 | 1835.2 | 1143.3 | 915.5  | 883.4  | 833.3  | 785.2  | 727.4  | 674.4  | 670.2  |
| 45°   | 2548.6 | 2609.2 | 1805.2 | 989.3  | 829.8  | 810.3  | 761.5  | 709.3  | 648.0  | 600.6  | 597.1  |
| 47.5° | 3084.4 | 2998.7 | 1765.5 | 852.8  | 751.8  | 746.2  | 708.6  | 648.0  | 586.6  | 553.9  | 550.4  |
| 50°   | 3866.8 | 3611.8 | 1759.9 | 753.9  | 689.1  | 691.8  | 661.2  | 605.5  | 551.8  | 524.6  | 520.5  |
| 52.5° | 4808.8 | 4352.4 | 1796.8 | 684.2  | 634.0  | 644.5  | 629.1  | 577.6  | 530.2  | 507.2  | 503.0  |
| 55°   | 5722.9 | 5018.5 | 1819.1 | 629.8  | 582.5  | 602.0  | 604.1  | 560.9  | 517.7  | 494.7  | 491.9  |
| 57.5° | 6464.9 | 5520.1 | 1720.2 | 580.4  | 537.9  | 567.8  | 583.2  | 551.1  | 511.4  | 494.0  | 491.2  |
| 60°   | 6981.2 | 5757.0 | 1438.7 | 536.5  | 505.1  | 540.7  | 575.5  | 551.8  | 526.7  | 528.8  | 530.2  |
| 62.5° | 7145.6 | 5651.8 | 1079.2 | 503.7  | 482.8  | 531.6  | 588.0  | 580.4  | 554.6  | 570.6  | 573.4  |
| 65°   | 6873.2 | 5217.1 | 782.4  | 478.0  | 463.3  | 537.9  | 625.7  | 601.3  | 544.8  | 556.7  | 556.7  |
| 67.5° | 5961.2 | 4494.6 | 608.9  | 454.3  | 441.0  | 549.7  | 663.3  | 599.2  | 521.8  | 535.8  | 523.2  |
| 70°   | 4728.7 | 3476.6 | 507.2  | 427.8  | 417.3  | 532.3  | 666.8  | 577.6  | 494.7  | 497.5  | 473.8  |
| 72.5° | 3138.0 | 2285.9 | 436.1  | 402.7  | 381.1  | 478.6  | 638.2  | 549.7  | 468.2  | 452.2  | 428.5  |
| 75°   | 1537.7 | 1139.8 | 380.4  | 371.4  | 333.7  | 416.6  | 599.2  | 523.2  | 439.6  | 414.5  | 401.3  |
| 77.5° | 595.7  | 484.9  | 324.7  | 331.6  | 290.5  | 367.2  | 547.6  | 485.6  | 402.0  | 367.9  | 357.4  |
| 80°   | 289.1  | 275.2  | 266.1  | 276.6  | 239.0  | 312.8  | 500.2  | 452.9  | 367.2  | 329.5  | 314.2  |
| 82.5° | 179.8  | 170.0  | 204.1  | 215.3  | 183.9  | 285.7  | 474.5  | 425.0  | 323.3  | 273.1  | 260.6  |
| 85°   | 91.3   | 97.5   | 136.6  | 147.0  | 131.7  | 227.1  | 390.9  | 319.1  | 233.4  | 193.7  | 195.1  |
| 87.5° | 34.8   | 46.7   | 71.8   | 77.3   | 70.4   | 119.8  | 215.3  | 186.0  | 149.8  | 101.7  | 94.1   |
| 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)