

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: P453313

Luminaire Tested: **GALN-SA4B-750-U-T2R**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453313  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4B-750-U-T2R  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 5000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22941 lumens  
Efficiency: N/A  
Efficacy: 139.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

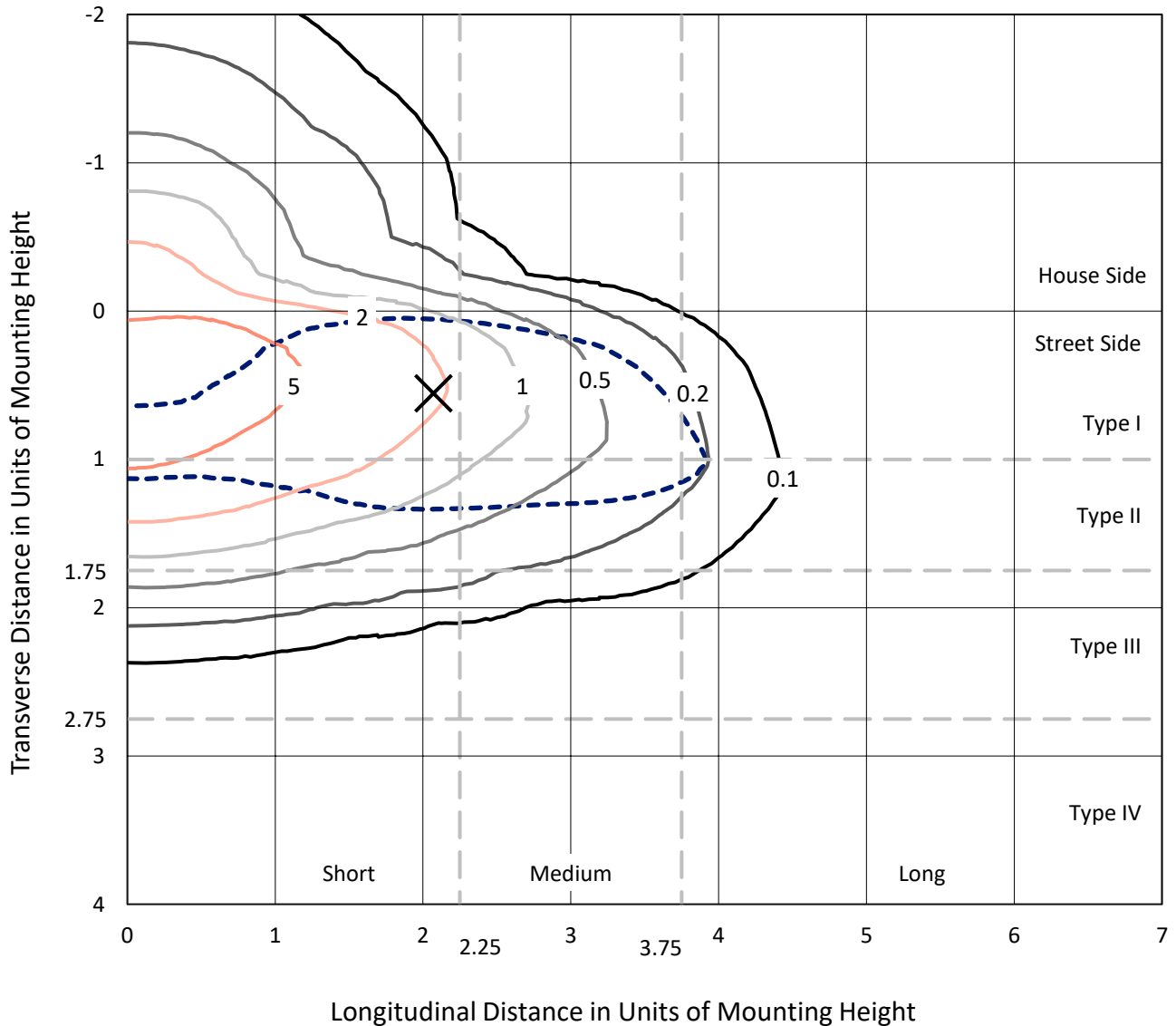
Input Watts (W): 164  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

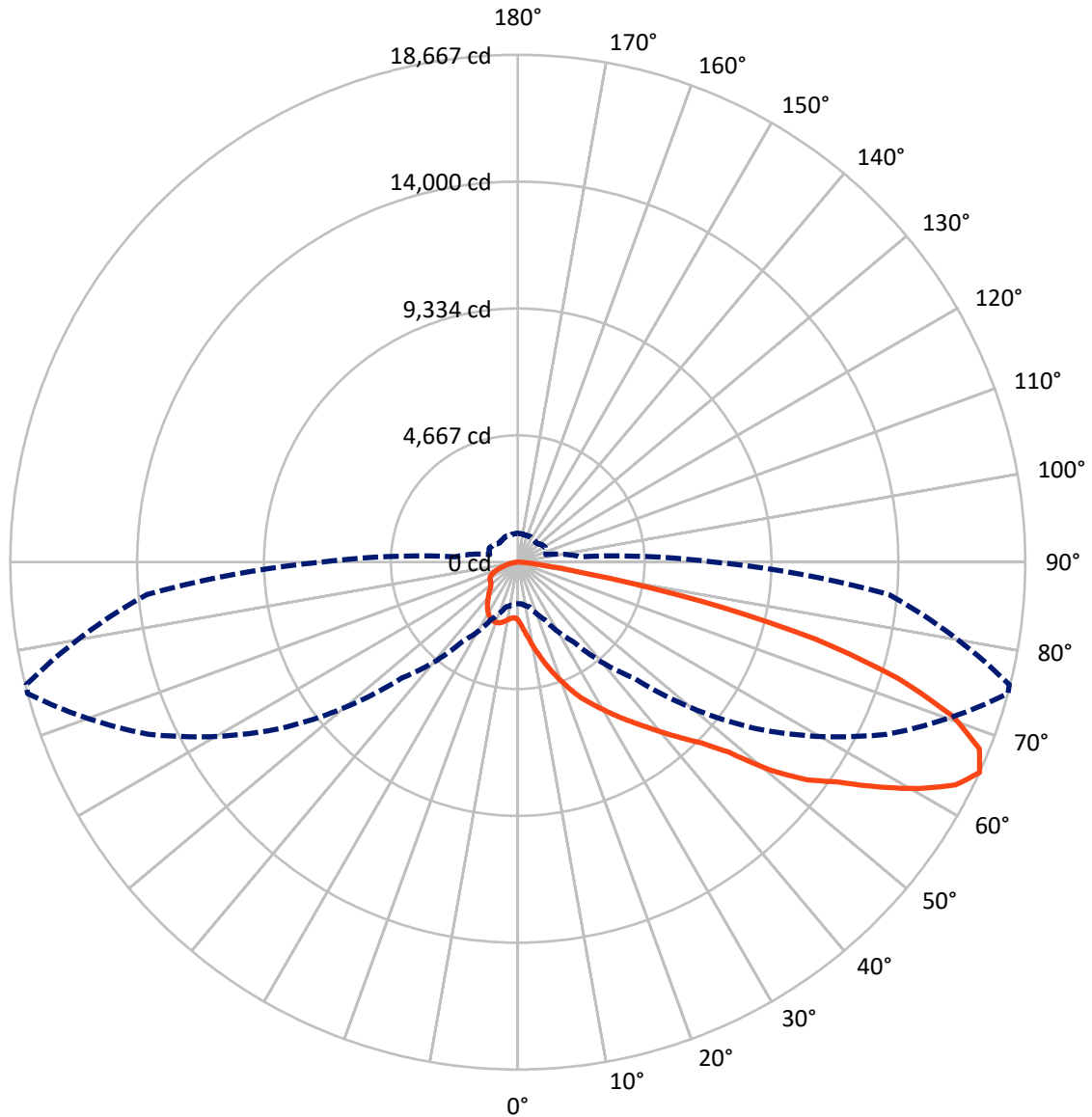
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.9 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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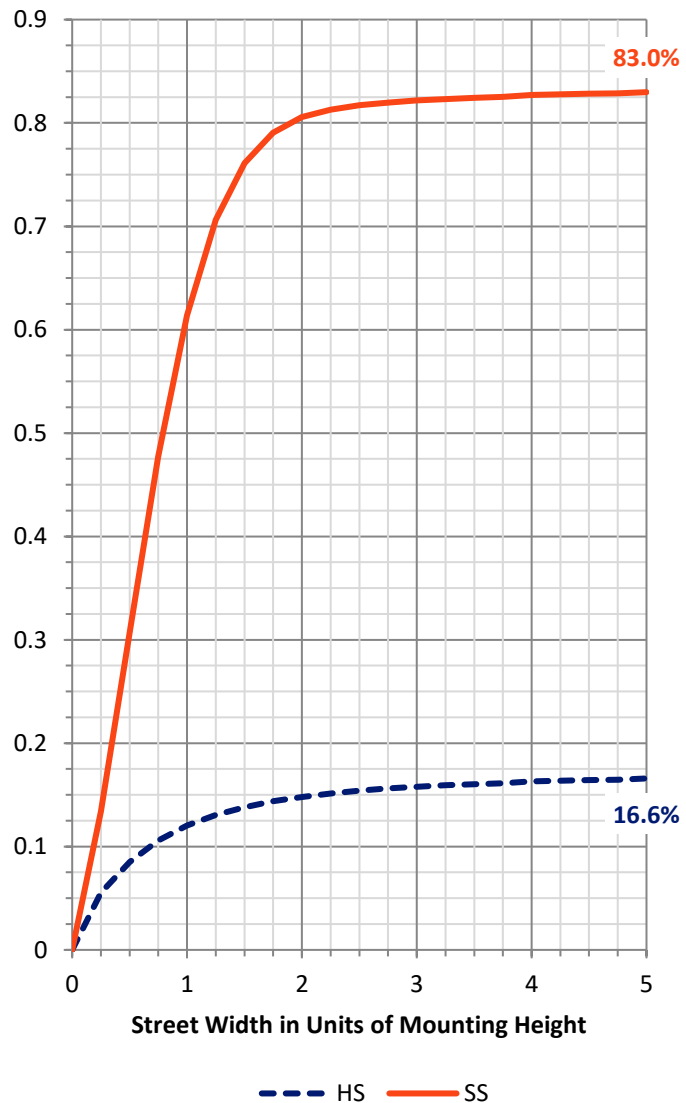
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3856.7   | 0.0    | 3856.7  |
|                    | % Fixture | 16.8     | 0.0    | 16.8    |
| <b>Street Side</b> | Lumens    | 19084.3  | 0.0    | 19084.3 |
|                    | % Fixture | 83.2     | 0.0    | 83.2    |
| <b>Total</b>       | Lumens    | 22941.0  | 0.0    | 22941.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 259.0   | 1.1       |
| 10°-20°   | 1014.4  | 4.4       |
| 20°-30°   | 1959.4  | 8.5       |
| 30°-40°   | 3182.7  | 13.9      |
| 40°-50°   | 4378.0  | 19.1      |
| 50°-60°   | 5169.0  | 22.5      |
| 60°-70°   | 4528.9  | 19.7      |
| 70°-80°   | 2162.1  | 9.4       |
| 80°-90°   | 287.7   | 1.3       |
| 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°    | 22941.0 | 100.0     |
| 0°-180°   | 22941.0 | 100.0     |



REPORT NUMBER: P453313

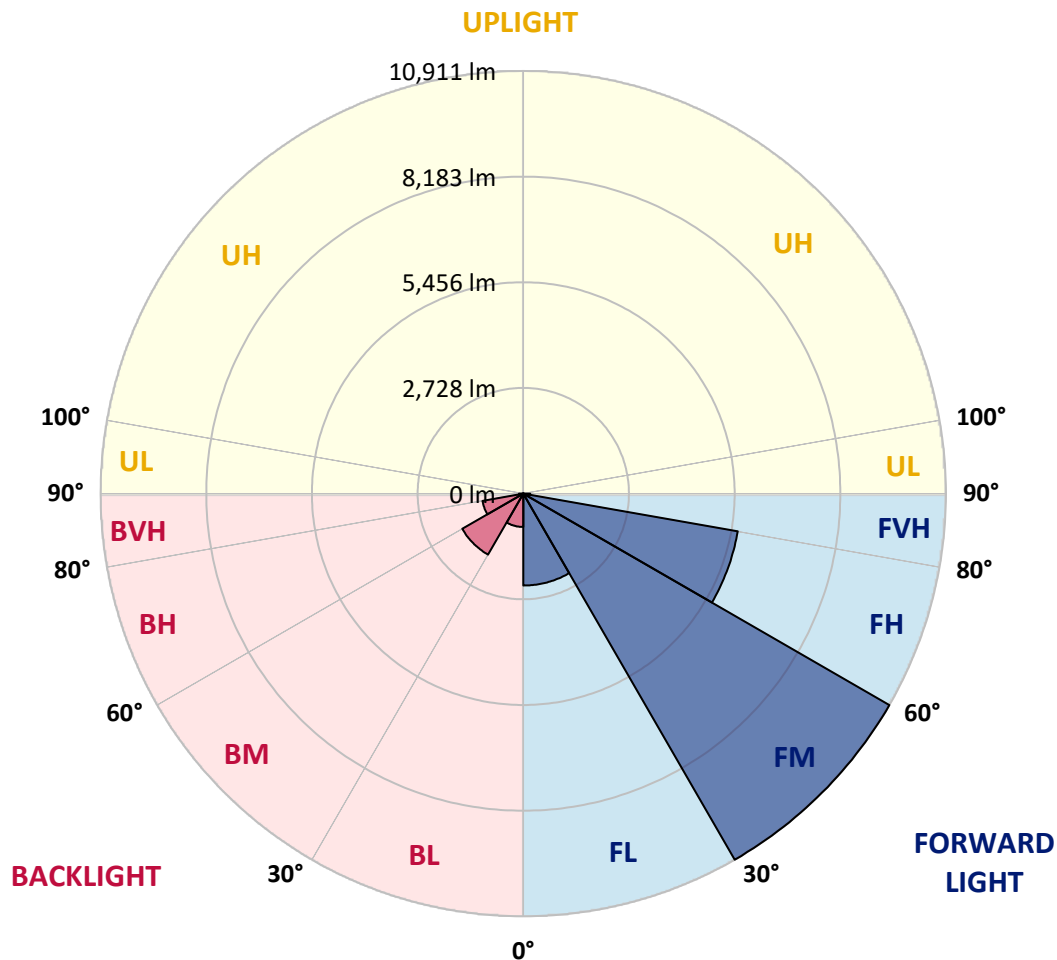
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 2371.7  | 10.3      |                         |      |         |
| FM (30°-60°)   | 10911.2 | 47.6      |                         |      |         |
| FH (60°-80°)   | 5621.6  | 24.5      |                         |      | G3/7500 |
| FVH (80°-90°)  | 179.8   | 0.8       |                         |      | G2/225  |
| BL (0°-30°)    | 861.0   | 3.8       | B2/1000                 |      |         |
| BM (30°-60°)   | 1818.4  | 7.9       | B2/2500                 |      |         |
| BH (60°-80°)   | 1069.4  | 4.7       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 107.9   | 0.5       |                         |      | G2/225  |
| 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 Short





REPORT NUMBER: P453313

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 76°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2131.5  | 2131.5  | 2131.5  | 2131.5  | 2131.5  | 2131.5  | 2131.5  | 2131.5  | 2131.5  | 2131.5  | 2131.5  |
| 2.5°  | 2832.1  | 2813.4  | 2793.5  | 2738.7  | 2680.3  | 2614.3  | 2519.7  | 2428.9  | 2308.2  | 2304.5  | 2214.9  |
| 5°    | 3617.2  | 3604.8  | 3516.4  | 3465.4  | 3329.8  | 3149.4  | 2996.3  | 2758.6  | 2538.4  | 2512.3  | 2338.1  |
| 7.5°  | 4338.9  | 4290.4  | 4256.8  | 4164.7  | 4030.3  | 3798.9  | 3502.7  | 3181.7  | 2813.4  | 2778.6  | 2489.9  |
| 10°   | 4882.7  | 4877.7  | 4860.3  | 4780.7  | 4679.9  | 4449.7  | 4121.2  | 3660.8  | 3161.8  | 3093.4  | 2674.0  |
| 12.5° | 5289.6  | 5293.3  | 5290.8  | 5289.6  | 5217.4  | 5022.0  | 4666.2  | 4180.9  | 3513.9  | 3465.4  | 2886.8  |
| 15°   | 5557.1  | 5594.4  | 5609.4  | 5671.6  | 5677.8  | 5547.1  | 5241.0  | 4683.6  | 3910.9  | 3838.7  | 3115.8  |
| 17.5° | 5733.8  | 5752.5  | 5822.1  | 5927.9  | 6013.8  | 5990.1  | 5717.6  | 5149.0  | 4316.5  | 4195.8  | 3353.4  |
| 20°   | 5903.0  | 5935.4  | 5988.9  | 6133.2  | 6285.0  | 6354.7  | 6163.1  | 5625.5  | 4718.4  | 4641.3  | 3616.0  |
| 22.5° | 6255.2  | 6301.2  | 6319.9  | 6393.3  | 6522.7  | 6645.9  | 6558.8  | 6082.2  | 5158.9  | 5054.4  | 3894.7  |
| 25°   | 6851.2  | 6899.7  | 6847.5  | 6830.0  | 6872.3  | 6933.3  | 6914.6  | 6512.7  | 5574.5  | 5425.2  | 4158.5  |
| 27.5° | 7627.6  | 7633.9  | 7531.8  | 7434.8  | 7330.2  | 7299.1  | 7241.9  | 6894.7  | 5935.4  | 5810.9  | 4423.5  |
| 30°   | 8461.3  | 8431.5  | 8262.2  | 8086.8  | 7910.1  | 7735.9  | 7571.6  | 7263.1  | 6337.3  | 6194.2  | 4683.6  |
| 32.5° | 9235.3  | 9219.1  | 9031.2  | 8758.7  | 8460.1  | 8295.8  | 7963.6  | 7635.1  | 6767.8  | 6629.7  | 4951.1  |
| 35°   | 9815.1  | 9838.8  | 9632.2  | 9334.8  | 9008.8  | 8863.2  | 8443.9  | 8025.8  | 7213.3  | 7062.7  | 5242.3  |
| 37.5° | 10227.0 | 10214.6 | 10031.7 | 9774.1  | 9487.9  | 9361.0  | 9005.1  | 8452.6  | 7692.3  | 7548.0  | 5560.8  |
| 40°   | 10373.8 | 10366.4 | 10230.7 | 10042.9 | 9861.2  | 9816.4  | 9592.4  | 8913.0  | 8241.1  | 8071.9  | 5944.1  |
| 42.5° | 10280.5 | 10296.7 | 10207.1 | 10156.1 | 10122.5 | 10154.8 | 10176.0 | 9516.5  | 8839.6  | 8684.1  | 6359.7  |
| 45°   | 9994.3  | 9985.6  | 9973.2  | 10056.5 | 10245.7 | 10458.5 | 10753.4 | 10086.4 | 9490.4  | 9365.9  | 6917.1  |
| 47.5° | 9482.9  | 9545.1  | 9576.2  | 9806.4  | 10219.5 | 10723.5 | 11417.8 | 10850.4 | 10434.8 | 10326.6 | 7767.0  |
| 50°   | 8767.4  | 8817.2  | 9001.4  | 9410.7  | 10026.7 | 10823.0 | 12067.4 | 12099.7 | 12010.1 | 11807.3 | 8690.3  |
| 52.5° | 7650.0  | 7727.2  | 8106.7  | 8857.0  | 9631.0  | 10782.0 | 12460.6 | 13171.1 | 13289.3 | 13137.5 | 9599.9  |
| 55°   | 6399.5  | 6507.8  | 6908.4  | 7892.7  | 9086.0  | 10558.0 | 12731.8 | 13792.0 | 14263.6 | 14123.0 | 10475.9 |
| 57.5° | 5175.1  | 5289.6  | 5701.4  | 6654.6  | 8135.3  | 10062.8 | 12909.8 | 14483.8 | 15590.0 | 15407.1 | 11565.9 |
| 60°   | 3878.5  | 3998.0  | 4351.4  | 5333.1  | 6781.5  | 9094.7  | 12789.1 | 15083.6 | 16915.2 | 16836.8 | 12657.2 |
| 62.5° | 2502.3  | 2634.2  | 2941.6  | 3754.1  | 5212.4  | 7772.0  | 12143.3 | 15414.6 | 18062.5 | 17967.9 | 13453.5 |
| 65°   | 1524.3  | 1539.2  | 1708.4  | 2330.6  | 3567.4  | 6017.5  | 10666.3 | 14975.3 | 18667.2 | 18638.6 | 13696.2 |
| 67.5° | 985.5   | 1009.1  | 1086.3  | 1396.1  | 2139.0  | 4179.6  | 8528.5  | 13525.7 | 18313.8 | 18303.8 | 13194.7 |
| 70°   | 832.4   | 839.9   | 874.8   | 941.9   | 1243.1  | 2534.7  | 5988.9  | 11215.0 | 16971.2 | 16971.2 | 11989.0 |
| 72.5° | 744.1   | 754.1   | 766.5   | 787.7   | 887.2   | 1435.9  | 3573.7  | 8730.1  | 14653.0 | 14750.1 | 10204.6 |
| 75°   | 675.7   | 673.2   | 680.6   | 684.4   | 756.5   | 938.2   | 1847.8  | 6456.7  | 11335.7 | 11141.6 | 7390.0  |
| 77.5° | 578.6   | 582.3   | 578.6   | 594.8   | 668.2   | 714.2   | 938.2   | 4332.7  | 6869.9  | 6618.5  | 3709.3  |
| 80°   | 475.3   | 481.5   | 487.8   | 497.7   | 571.1   | 542.5   | 563.7   | 1974.7  | 2540.9  | 2487.4  | 1146.0  |
| 82.5° | 357.1   | 365.8   | 375.8   | 399.4   | 449.2   | 358.4   | 355.9   | 843.6   | 917.1   | 839.9   | 421.8   |
| 85°   | 144.3   | 170.5   | 257.6   | 281.2   | 282.5   | 196.6   | 219.0   | 352.1   | 374.5   | 365.8   | 165.5   |
| 87.5° | 33.6    | 39.8    | 83.4    | 125.7   | 115.7   | 73.4    | 80.9    | 114.5   | 130.7   | 120.7   | 56.0    |
| 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°    | 2131.5 | 2131.5 | 2131.5 | 2131.5 | 2131.5 | 2131.5 | 2131.5 | 2131.5 | 2131.5 | 2131.5 | 2131.5 |
| 2.5°  | 2173.8 | 2130.3 | 2055.6 | 1998.4 | 1957.3 | 1921.2 | 1898.8 | 1885.1 | 1880.2 | 1878.9 | 1880.2 |
| 5°    | 2247.2 | 2170.1 | 2051.9 | 1977.2 | 1936.2 | 1912.5 | 1898.8 | 1897.6 | 1898.8 | 1900.1 | 1896.3 |
| 7.5°  | 2348.0 | 2237.3 | 2083.0 | 2013.3 | 1982.2 | 1964.8 | 1958.5 | 1956.1 | 1957.3 | 1956.1 | 1956.1 |
| 10°   | 2482.4 | 2330.6 | 2144.0 | 2071.8 | 2045.7 | 2025.7 | 2015.8 | 2009.6 | 2004.6 | 1999.6 | 1997.1 |
| 12.5° | 2630.5 | 2433.9 | 2209.9 | 2140.2 | 2102.9 | 2071.8 | 2049.4 | 2033.2 | 2022.0 | 2010.8 | 2008.3 |
| 15°   | 2796.0 | 2543.4 | 2283.3 | 2186.3 | 2132.8 | 2086.7 | 2048.1 | 2022.0 | 2002.1 | 1985.9 | 1984.7 |
| 17.5° | 2954.0 | 2646.7 | 2333.1 | 2207.4 | 2129.0 | 2064.3 | 2013.3 | 1977.2 | 1952.3 | 1931.2 | 1928.7 |
| 20°   | 3123.2 | 2745.0 | 2355.5 | 2193.7 | 2091.7 | 2013.3 | 1946.1 | 1902.6 | 1873.9 | 1850.3 | 1846.6 |
| 22.5° | 3293.7 | 2828.3 | 2353.0 | 2150.2 | 2027.0 | 1934.9 | 1864.0 | 1817.9 | 1784.3 | 1760.7 | 1752.0 |
| 25°   | 3456.7 | 2895.5 | 2321.9 | 2080.5 | 1937.4 | 1841.6 | 1769.4 | 1727.1 | 1697.2 | 1668.6 | 1668.6 |
| 27.5° | 3603.5 | 2935.3 | 2263.4 | 1995.9 | 1845.3 | 1744.5 | 1687.3 | 1648.7 | 1621.3 | 1602.7 | 1591.5 |
| 30°   | 3747.9 | 2954.0 | 2183.8 | 1888.9 | 1748.3 | 1662.4 | 1616.4 | 1594.0 | 1569.1 | 1547.9 | 1545.4 |
| 32.5° | 3877.3 | 2950.3 | 2084.2 | 1784.3 | 1656.2 | 1595.2 | 1576.5 | 1559.1 | 1533.0 | 1503.1 | 1495.7 |
| 35°   | 4003.0 | 2925.4 | 1966.0 | 1669.9 | 1579.0 | 1555.4 | 1560.4 | 1535.5 | 1488.2 | 1450.9 | 1444.6 |
| 37.5° | 4139.8 | 2880.6 | 1836.6 | 1576.5 | 1514.3 | 1536.7 | 1549.2 | 1494.4 | 1417.3 | 1358.8 | 1345.1 |
| 40°   | 4297.9 | 2829.6 | 1702.2 | 1483.2 | 1463.3 | 1519.3 | 1519.3 | 1418.5 | 1312.8 | 1276.7 | 1266.7 |
| 42.5° | 4483.3 | 2787.3 | 1590.2 | 1404.8 | 1421.0 | 1477.0 | 1470.8 | 1317.7 | 1274.2 | 1255.5 | 1250.5 |
| 45°   | 4776.9 | 2772.3 | 1474.5 | 1336.4 | 1386.2 | 1427.2 | 1376.2 | 1282.9 | 1258.0 | 1243.1 | 1238.1 |
| 47.5° | 5241.0 | 2789.8 | 1372.5 | 1285.4 | 1346.3 | 1377.5 | 1270.4 | 1259.2 | 1241.8 | 1220.7 | 1218.2 |
| 50°   | 5671.6 | 2773.6 | 1300.3 | 1256.8 | 1311.5 | 1317.7 | 1226.9 | 1230.6 | 1220.7 | 1197.0 | 1192.1 |
| 52.5° | 6023.7 | 2722.6 | 1254.3 | 1241.8 | 1281.6 | 1213.2 | 1185.8 | 1199.5 | 1195.8 | 1165.9 | 1160.9 |
| 55°   | 6410.7 | 2691.4 | 1231.9 | 1241.8 | 1261.7 | 1122.4 | 1147.3 | 1167.2 | 1162.2 | 1141.0 | 1139.8 |
| 57.5° | 6879.8 | 2697.7 | 1215.7 | 1245.6 | 1241.8 | 1076.3 | 1108.7 | 1132.3 | 1131.1 | 1124.9 | 1124.9 |
| 60°   | 7360.1 | 2700.2 | 1190.8 | 1244.3 | 1218.2 | 1040.2 | 1068.9 | 1102.5 | 1105.0 | 1108.7 | 1108.7 |
| 62.5° | 7519.4 | 2591.9 | 1142.3 | 1221.9 | 1165.9 | 1005.4 | 1031.5 | 1077.6 | 1075.1 | 1085.0 | 1086.3 |
| 65°   | 7222.0 | 2292.0 | 1070.1 | 1170.9 | 1098.7 | 980.5  | 1002.9 | 1045.2 | 1031.5 | 1057.7 | 1062.6 |
| 67.5° | 6573.7 | 1896.3 | 958.1  | 1078.8 | 1024.1 | 954.4  | 984.3  | 1000.4 | 975.5  | 1026.6 | 1027.8 |
| 70°   | 5681.5 | 1480.7 | 816.3  | 948.2  | 939.5  | 927.0  | 969.3  | 944.4  | 909.6  | 971.8  | 959.4  |
| 72.5° | 4750.8 | 1131.1 | 652.0  | 775.2  | 826.2  | 886.0  | 943.2  | 872.3  | 823.7  | 842.4  | 820.0  |
| 75°   | 3568.7 | 836.2  | 523.9  | 607.2  | 688.1  | 827.5  | 919.5  | 785.2  | 710.5  | 693.1  | 688.1  |
| 77.5° | 1819.2 | 546.3  | 392.0  | 454.2  | 516.4  | 747.8  | 887.2  | 683.1  | 588.6  | 561.2  | 548.7  |
| 80°   | 649.5  | 339.7  | 276.2  | 313.6  | 348.4  | 643.3  | 775.2  | 564.9  | 456.7  | 451.7  | 456.7  |
| 82.5° | 301.1  | 219.0  | 185.4  | 205.3  | 206.6  | 429.3  | 591.0  | 421.8  | 347.2  | 527.6  | 445.5  |
| 85°   | 129.4  | 109.5  | 104.5  | 102.0  | 94.6   | 191.6  | 332.2  | 226.5  | 353.4  | 158.0  | 145.6  |
| 87.5° | 38.6   | 43.6   | 38.6   | 28.6   | 21.2   | 21.2   | 33.6   | 12.4   | 8.7    | 6.2    | 6.2    |
| 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)