

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P636789

Luminaire Tested: GWS-SA4B-740-U-T2R-W-HSS

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P636789  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-14)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA4B-740-U-T2R-W-HSS  
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: (64) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

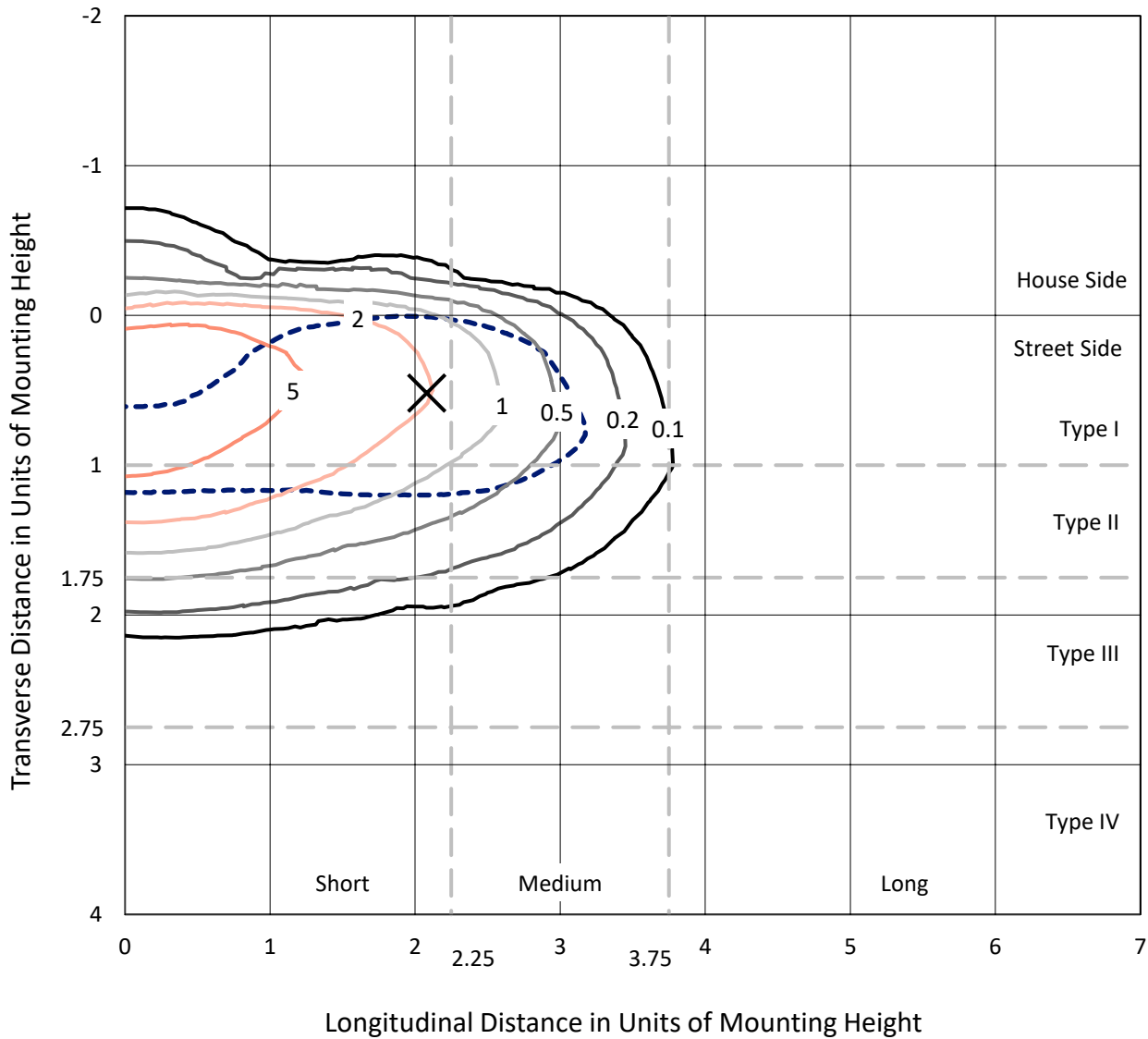
Lumens per Lamp: N/A  
Luminaire Lumens: 11673.2 lumens  
Efficiency: N/A  
Efficacy: 123.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 94.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 0  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

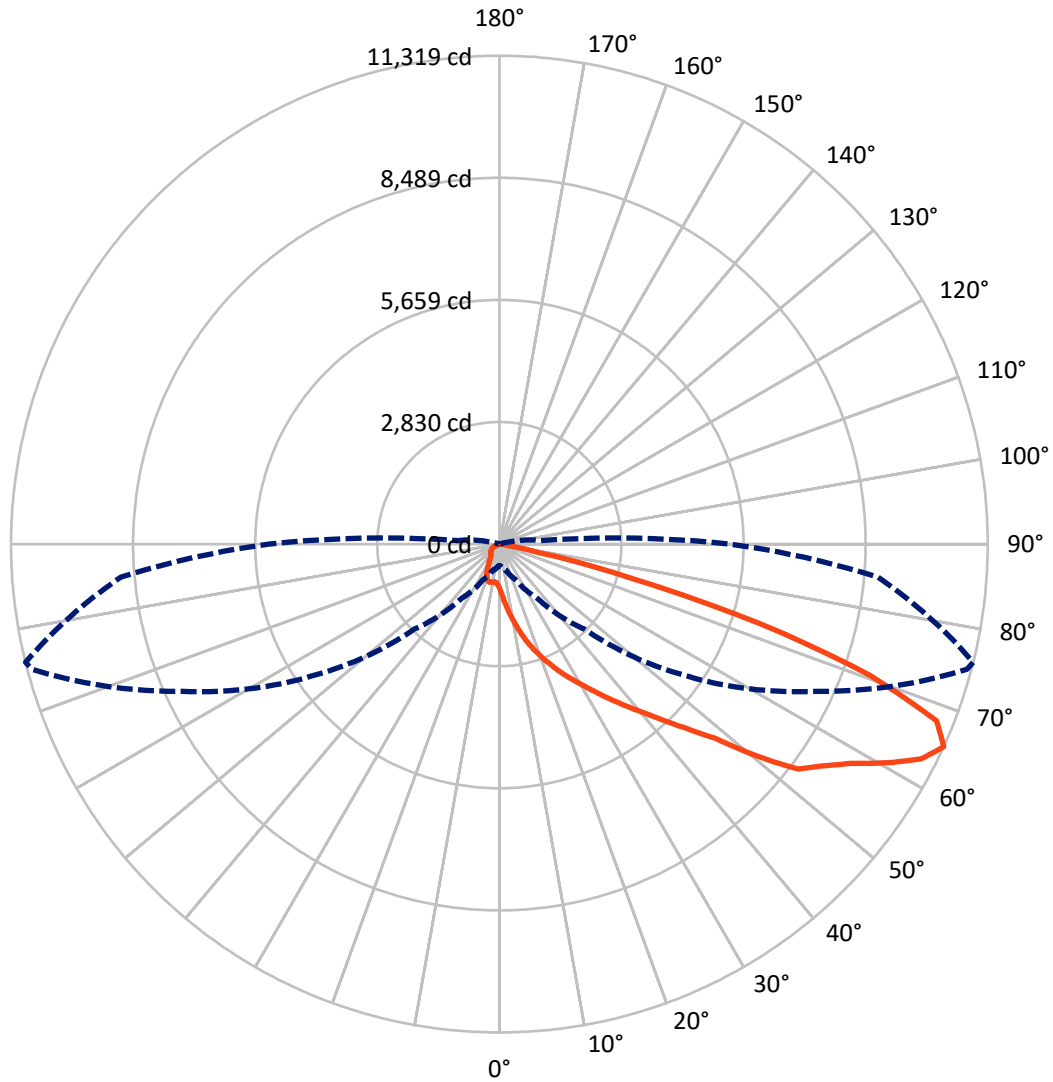
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.7 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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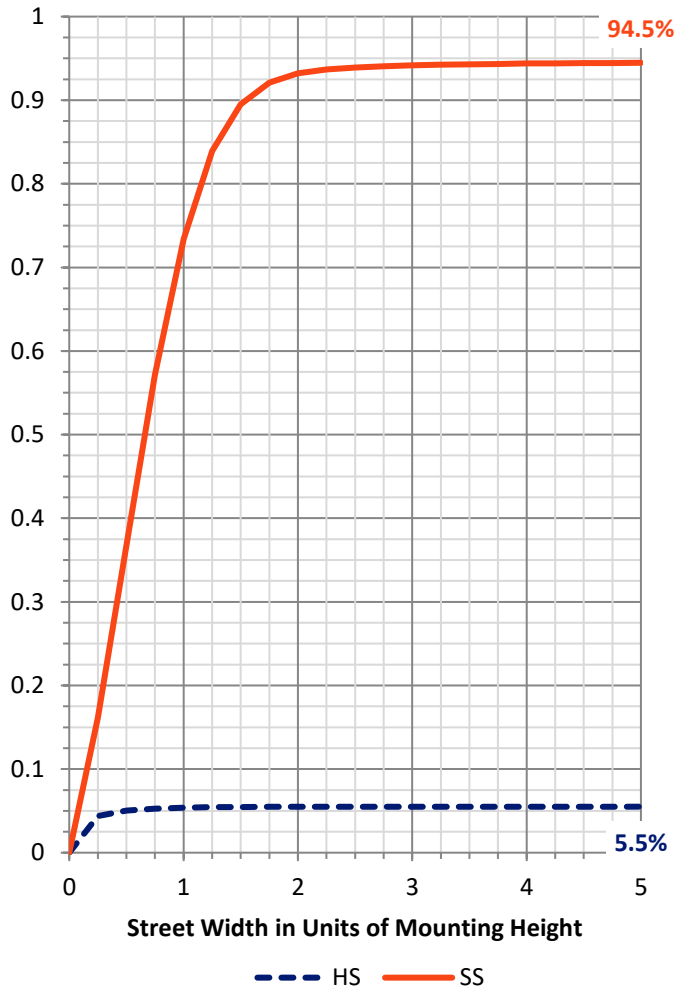
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 645.5    | 0.0    | 645.5   |
|                    | % Fixture | 5.5      | 0.0    | 5.5     |
| <b>Street Side</b> | Lumens    | 11027.7  | 0.0    | 11027.7 |
|                    | % Fixture | 94.5     | 0.0    | 94.5    |
| <b>Total</b>       | Lumens    | 11673.2  | 0.0    | 11673.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 125.7   | 1.1       |
| 10°-20°   | 477.1   | 4.1       |
| 20°-30°   | 973.3   | 8.3       |
| 30°-40°   | 1731.1  | 14.8      |
| 40°-50°   | 2559.0  | 21.9      |
| 50°-60°   | 2929.8  | 25.1      |
| 60°-70°   | 2235.3  | 19.1      |
| 70°-80°   | 626.2   | 5.4       |
| 80°-90°   | 15.8    | 0.1       |
| 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°    | 11673.2 | 100.0     |
| 0°-180°   | 11673.2 | 100.0     |

**Coefficient of Utilization**



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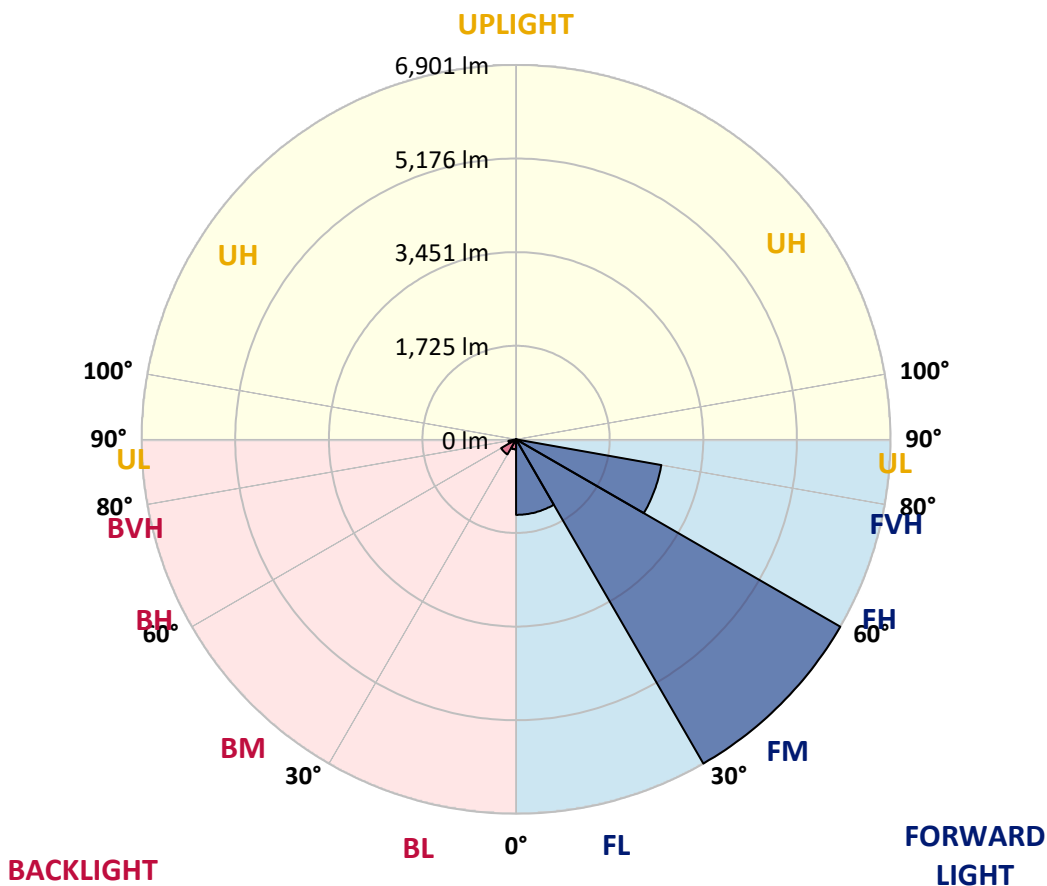
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1391.9 | 11.9      |                         |      |         |
| FM (30°-60°)   | 6901.4 | 59.1      |                         |      |         |
| FH (60°-80°)   | 2719.6 | 23.3      |                         |      | G2/5000 |
| FVH (80°-90°)  | 14.8   | 0.1       |                         |      | G1/100  |
| BL (0°-30°)    | 184.2  | 1.6       | B1/500                  |      |         |
| BM (30°-60°)   | 318.5  | 2.7       | B1/1000                 |      |         |
| BH (60°-80°)   | 141.9  | 1.2       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 0.9    | 0.0       |                         |      | 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 II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°     | 76°     | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|
| 0°    | 1033.5 | 1033.5 | 1033.5 | 1033.5 | 1033.5 | 1033.5 | 1033.5 | 1033.5 | 1033.5  | 1033.5  | 1033.5 |
| 2.5°  | 1592.8 | 1616.7 | 1598.0 | 1566.9 | 1506.7 | 1448.6 | 1373.9 | 1271.1 | 1189.2  | 1178.8  | 1102.0 |
| 5°    | 2151.1 | 2149.0 | 2108.5 | 2068.0 | 2004.7 | 1905.1 | 1754.7 | 1563.7 | 1380.1  | 1364.5  | 1192.3 |
| 7.5°  | 2483.1 | 2486.2 | 2463.4 | 2432.3 | 2370.0 | 2267.3 | 2110.6 | 1880.2 | 1611.5  | 1580.3  | 1315.7 |
| 10°   | 2762.2 | 2761.2 | 2744.6 | 2730.1 | 2674.0 | 2605.6 | 2437.5 | 2184.3 | 1860.5  | 1811.7  | 1453.8 |
| 12.5° | 2971.8 | 2979.1 | 2987.4 | 3001.9 | 2978.1 | 2910.6 | 2751.9 | 2475.8 | 2112.7  | 2058.7  | 1611.5 |
| 15°   | 3137.9 | 3139.9 | 3171.1 | 3227.1 | 3246.8 | 3211.5 | 3067.3 | 2758.1 | 2361.7  | 2315.0  | 1793.1 |
| 17.5° | 3187.7 | 3191.8 | 3244.7 | 3347.5 | 3451.2 | 3471.0 | 3362.0 | 3042.4 | 2606.6  | 2556.8  | 1969.5 |
| 20°   | 3292.5 | 3301.8 | 3341.2 | 3431.5 | 3562.3 | 3668.1 | 3625.6 | 3329.8 | 2851.5  | 2786.1  | 2150.0 |
| 22.5° | 3622.5 | 3627.6 | 3614.2 | 3625.6 | 3693.0 | 3815.5 | 3841.4 | 3607.9 | 3102.6  | 3033.1  | 2345.1 |
| 25°   | 4190.0 | 4192.1 | 4097.7 | 4008.5 | 3957.6 | 3980.4 | 4037.5 | 3864.2 | 3351.6  | 3283.1  | 2526.7 |
| 27.5° | 4779.4 | 4786.7 | 4673.6 | 4522.1 | 4340.5 | 4236.7 | 4220.1 | 4098.7 | 3602.7  | 3527.0  | 2706.2 |
| 30°   | 5334.6 | 5334.6 | 5215.3 | 5030.5 | 4787.7 | 4585.4 | 4466.1 | 4335.3 | 3871.5  | 3788.5  | 2889.9 |
| 32.5° | 5833.7 | 5829.5 | 5677.0 | 5476.7 | 5237.0 | 5015.0 | 4763.9 | 4582.3 | 4170.3  | 4078.0  | 3101.5 |
| 35°   | 6245.6 | 6235.3 | 6062.0 | 5870.0 | 5613.7 | 5448.7 | 5168.6 | 4847.9 | 4494.1  | 4401.7  | 3319.5 |
| 37.5° | 6556.9 | 6545.5 | 6386.8 | 6183.4 | 5945.8 | 5838.9 | 5604.4 | 5166.5 | 4835.5  | 4751.4  | 3561.2 |
| 40°   | 6726.1 | 6703.2 | 6593.3 | 6441.8 | 6242.5 | 6149.1 | 6051.6 | 5561.8 | 5237.0  | 5132.2  | 3846.6 |
| 42.5° | 6775.9 | 6748.9 | 6676.3 | 6605.7 | 6485.3 | 6411.7 | 6516.5 | 6008.0 | 5678.0  | 5587.8  | 4172.4 |
| 45°   | 6628.5 | 6613.0 | 6606.7 | 6657.6 | 6679.4 | 6700.1 | 6958.5 | 6501.9 | 6164.7  | 6096.2  | 4582.3 |
| 47.5° | 6273.7 | 6269.5 | 6324.5 | 6536.2 | 6766.5 | 6985.5 | 7438.9 | 7111.0 | 6795.6  | 6721.9  | 5155.1 |
| 50°   | 5617.9 | 5660.4 | 5814.0 | 6185.5 | 6646.2 | 7147.4 | 7888.3 | 7955.7 | 7816.7  | 7708.7  | 5902.2 |
| 52.5° | 4592.7 | 4674.6 | 5019.1 | 5583.6 | 6245.6 | 7101.7 | 8095.8 | 8632.2 | 8774.4  | 8662.3  | 6437.6 |
| 55°   | 3603.8 | 3680.6 | 3987.7 | 4703.7 | 5586.7 | 6754.1 | 8105.1 | 8865.7 | 9176.0  | 9072.2  | 6799.8 |
| 57.5° | 2684.4 | 2755.0 | 3034.1 | 3719.0 | 4690.2 | 6070.3 | 7883.1 | 8995.4 | 9652.3  | 9585.9  | 7371.5 |
| 60°   | 1754.7 | 1824.2 | 2076.3 | 2675.1 | 3638.0 | 5074.1 | 7336.2 | 8968.4 | 10300.8 | 10294.6 | 8074.0 |
| 62.5° | 973.3  | 1028.3 | 1210.9 | 1677.9 | 2539.1 | 3929.6 | 6477.0 | 8697.6 | 10928.6 | 10968.0 | 8653.0 |
| 65°   | 498.1  | 533.4  | 644.4  | 922.5  | 1536.8 | 2786.1 | 5347.0 | 8077.1 | 11219.1 | 11318.7 | 8805.5 |
| 67.5° | 325.8  | 337.2  | 364.2  | 479.4  | 822.9  | 1752.6 | 4024.0 | 7082.0 | 10810.3 | 10926.5 | 8294.0 |
| 70°   | 264.6  | 273.9  | 289.5  | 319.6  | 424.4  | 930.8  | 2642.9 | 5656.3 | 9032.8  | 9111.6  | 6604.7 |
| 72.5° | 194.0  | 206.5  | 236.6  | 256.3  | 306.1  | 510.5  | 1374.9 | 3712.7 | 6203.1  | 6342.1  | 4150.6 |
| 75°   | 143.2  | 150.5  | 175.4  | 202.3  | 250.1  | 322.7  | 526.1  | 1951.8 | 3203.2  | 3122.3  | 1743.3 |
| 77.5° | 86.1   | 91.3   | 112.1  | 129.7  | 178.5  | 201.3  | 183.7  | 721.2  | 974.4   | 916.2   | 421.3  |
| 80°   | 42.5   | 47.7   | 73.7   | 97.5   | 114.1  | 80.9   | 76.8   | 201.3  | 216.9   | 216.9   | 105.8  |
| 82.5° | 14.5   | 18.7   | 39.4   | 64.3   | 56.0   | 31.1   | 36.3   | 51.9   | 58.1    | 61.2    | 31.1   |
| 85°   | 0.0    | 0.0    | 9.3    | 18.7   | 8.3    | 4.2    | 9.3    | 11.4   | 14.5    | 15.6    | 10.4   |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 1.0    | 3.1     | 4.2     | 4.2    |
| 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):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1033.5 | 1033.5 | 1033.5 | 1033.5 | 1033.5 | 1033.5 | 1033.5 | 1033.5 | 1033.5 | 1033.5 | 1033.5 |
| 2.5°  | 1060.5 | 1011.7 | 938.0  | 871.6  | 820.8  | 773.1  | 736.7  | 707.7  | 702.5  | 685.9  | 688.0  |
| 5°    | 1108.2 | 1020.0 | 884.1  | 779.3  | 705.6  | 655.8  | 614.3  | 583.2  | 569.7  | 556.2  | 545.8  |
| 7.5°  | 1181.9 | 1054.3 | 863.3  | 735.7  | 649.6  | 572.8  | 508.5  | 456.6  | 431.7  | 416.1  | 405.7  |
| 10°   | 1272.2 | 1102.0 | 864.4  | 709.8  | 582.1  | 464.9  | 376.7  | 319.6  | 292.6  | 284.3  | 283.3  |
| 12.5° | 1380.1 | 1162.2 | 872.7  | 667.2  | 484.6  | 345.5  | 279.1  | 253.2  | 244.9  | 237.6  | 237.6  |
| 15°   | 1494.2 | 1229.6 | 872.7  | 589.4  | 369.4  | 269.8  | 241.8  | 225.2  | 214.8  | 210.6  | 208.6  |
| 17.5° | 1614.6 | 1292.9 | 851.9  | 482.5  | 283.3  | 237.6  | 214.8  | 199.2  | 190.9  | 184.7  | 182.6  |
| 20°   | 1743.3 | 1353.1 | 800.0  | 369.4  | 242.8  | 212.7  | 190.9  | 175.4  | 167.1  | 160.8  | 160.8  |
| 22.5° | 1874.0 | 1409.1 | 716.0  | 284.3  | 214.8  | 188.9  | 168.1  | 153.6  | 145.3  | 139.0  | 139.0  |
| 25°   | 1995.4 | 1446.5 | 608.1  | 234.5  | 194.0  | 168.1  | 149.4  | 134.9  | 125.6  | 121.4  | 119.3  |
| 27.5° | 2108.5 | 1470.4 | 488.7  | 206.5  | 174.3  | 150.5  | 130.7  | 117.3  | 110.0  | 106.9  | 104.8  |
| 30°   | 2225.8 | 1476.6 | 373.6  | 187.8  | 157.7  | 132.8  | 114.1  | 103.8  | 97.5   | 93.4   | 93.4   |
| 32.5° | 2339.9 | 1469.3 | 285.4  | 172.3  | 143.2  | 117.3  | 101.7  | 92.4   | 87.2   | 84.1   | 83.0   |
| 35°   | 2456.1 | 1436.1 | 231.4  | 158.8  | 128.7  | 102.7  | 90.3   | 83.0   | 79.9   | 75.7   | 75.7   |
| 37.5° | 2582.7 | 1391.5 | 201.3  | 145.3  | 114.1  | 92.4   | 80.9   | 75.7   | 71.6   | 68.5   | 67.4   |
| 40°   | 2740.4 | 1339.6 | 184.7  | 133.9  | 100.7  | 83.0   | 72.6   | 67.4   | 64.3   | 61.2   | 60.2   |
| 42.5° | 2927.2 | 1288.8 | 176.4  | 121.4  | 90.3   | 73.7   | 65.4   | 59.1   | 56.0   | 51.9   | 50.8   |
| 45°   | 3191.8 | 1277.4 | 167.1  | 107.9  | 80.9   | 66.4   | 57.1   | 50.8   | 46.7   | 43.6   | 42.5   |
| 47.5° | 3617.3 | 1309.5 | 151.5  | 93.4   | 71.6   | 58.1   | 48.8   | 43.6   | 38.4   | 35.3   | 33.2   |
| 50°   | 4039.6 | 1301.2 | 135.9  | 80.9   | 63.3   | 49.8   | 41.5   | 36.3   | 31.1   | 28.0   | 27.0   |
| 52.5° | 4269.9 | 1261.8 | 121.4  | 71.6   | 55.0   | 42.5   | 35.3   | 29.1   | 25.9   | 22.8   | 21.8   |
| 55°   | 4478.5 | 1246.2 | 106.9  | 62.3   | 46.7   | 37.4   | 29.1   | 23.9   | 21.8   | 18.7   | 17.6   |
| 57.5° | 4887.4 | 1282.5 | 94.4   | 54.0   | 40.5   | 32.2   | 24.9   | 19.7   | 17.6   | 14.5   | 13.5   |
| 60°   | 5314.9 | 1286.7 | 80.9   | 46.7   | 35.3   | 27.0   | 19.7   | 15.6   | 13.5   | 10.4   | 9.3    |
| 62.5° | 5538.0 | 1181.9 | 66.4   | 39.4   | 29.1   | 22.8   | 16.6   | 12.5   | 10.4   | 6.2    | 6.2    |
| 65°   | 5351.2 | 955.7  | 56.0   | 32.2   | 22.8   | 17.6   | 12.5   | 9.3    | 6.2    | 3.1    | 1.0    |
| 67.5° | 4735.9 | 679.7  | 46.7   | 25.9   | 16.6   | 12.5   | 9.3    | 6.2    | 1.0    | 0.0    | 0.0    |
| 70°   | 3467.8 | 388.1  | 36.3   | 18.7   | 12.5   | 8.3    | 6.2    | 3.1    | 0.0    | 0.0    | 0.0    |
| 72.5° | 2131.3 | 207.5  | 27.0   | 12.5   | 9.3    | 6.2    | 5.2    | 2.1    | 0.0    | 0.0    | 0.0    |
| 75°   | 808.3  | 99.6   | 16.6   | 8.3    | 7.3    | 5.2    | 3.1    | 1.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 218.9  | 48.8   | 9.3    | 6.2    | 5.2    | 3.1    | 2.1    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 57.1   | 22.8   | 6.2    | 4.2    | 3.1    | 2.1    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 19.7   | 10.4   | 3.1    | 3.1    | 2.1    | 1.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 8.3    | 4.2    | 2.1    | 2.1    | 1.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 3.1    | 1.0    | 1.0    | 1.0    | 1.0    | 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)