

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: P320123

Luminaire Tested: **GLEON-SA9B-827-U-SL4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P320123  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA9B-827-U-SL4  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 35687 lumens  
Efficiency: N/A  
Efficacy: 95.4 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

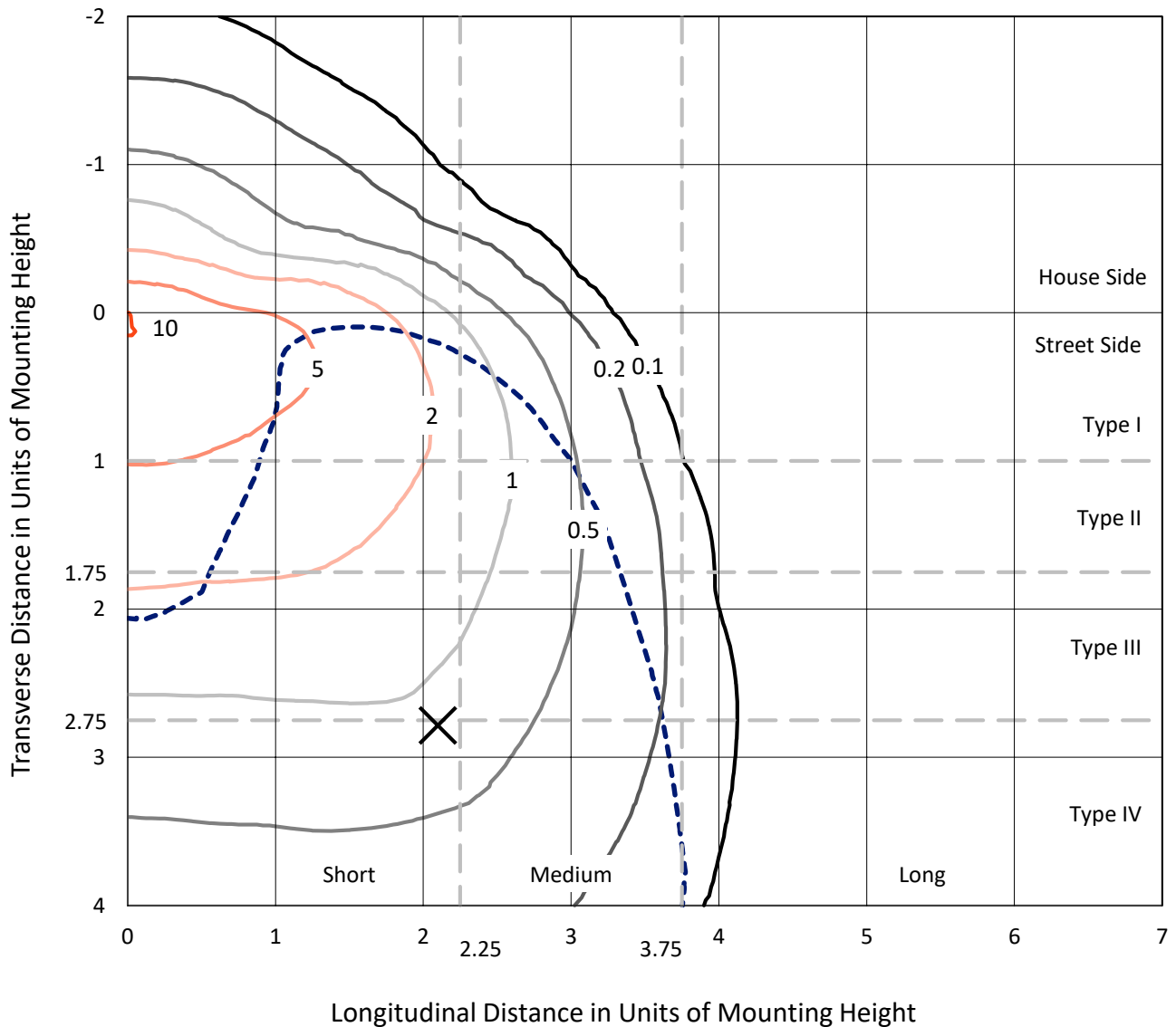
Input Watts (W): 374  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

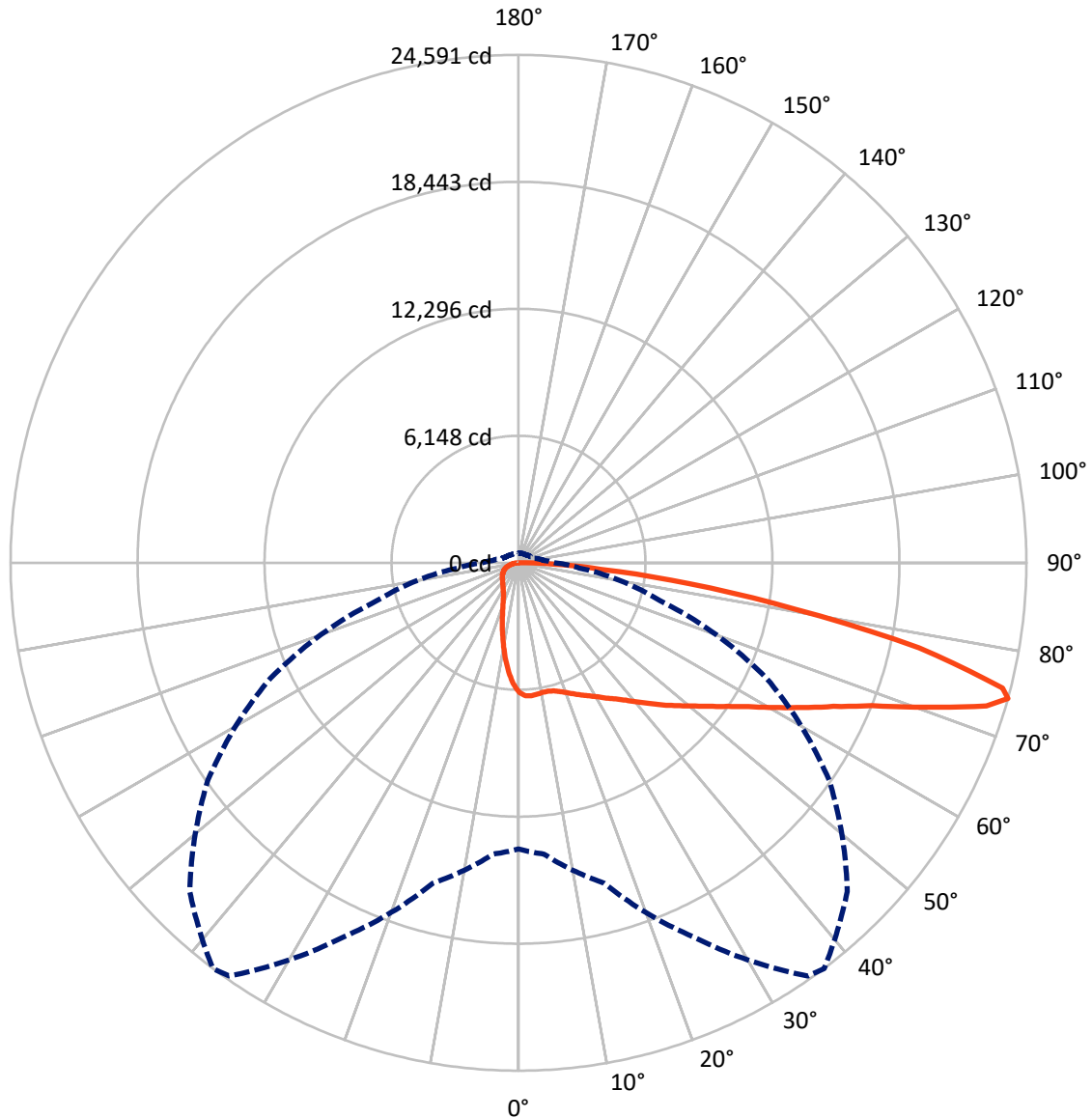
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 37-Deg Lateral      - - - Horizontal Cone Through 74-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4910.3   | 0.0    | 4910.3  |
|                    | % Fixture | 13.8     | 0.0    | 13.8    |
| <b>Street Side</b> | Lumens    | 30776.7  | 0.0    | 30776.7 |
|                    | % Fixture | 86.2     | 0.0    | 86.2    |
| <b>Total</b>       | Lumens    | 35687.0  | 0.0    | 35687.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 553.7   | 1.6       |
| 10°-20°   | 1419.3  | 4.0       |
| 20°-30°   | 2186.9  | 6.1       |
| 30°-40°   | 3180.1  | 8.9       |
| 40°-50°   | 4680.6  | 13.1      |
| 50°-60°   | 6573.0  | 18.4      |
| 60°-70°   | 8319.4  | 23.3      |
| 70°-80°   | 7325.6  | 20.5      |
| 80°-90°   | 1448.4  | 4.1       |
| 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°    | 35687.0 | 100.0     |
| 0°-180°   | 35687.0 | 100.0     |

**Coefficient of Utilization**

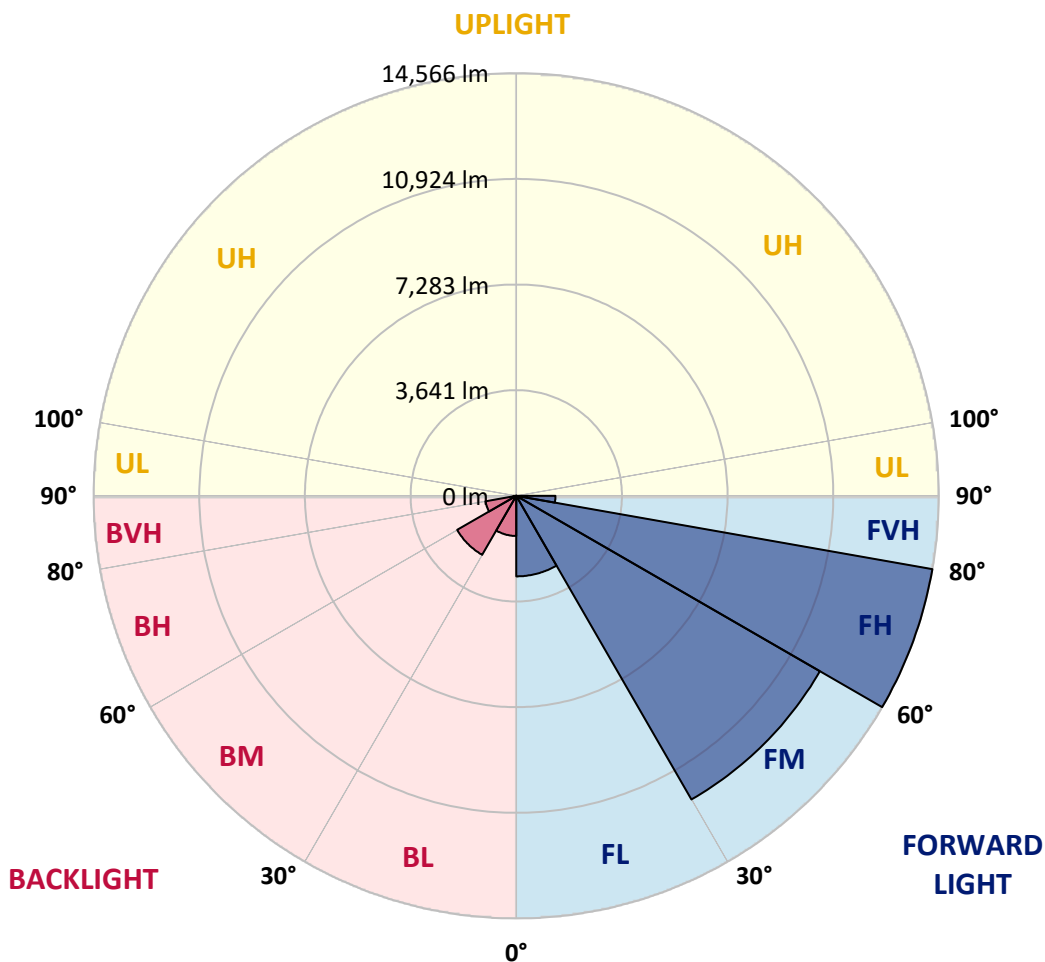


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 2776.9  | 7.8       |                         |      |         |
| FM (30°-60°)   | 12083.9 | 33.9      |                         |      |         |
| FH (60°-80°)   | 14565.6 | 40.8      |                         |      | G5      |
| FVH (80°-90°)  | 1350.3  | 3.8       |                         |      | G5      |
| BL (0°-30°)    | 1383.1  | 3.9       | B3/2500                 |      |         |
| BM (30°-60°)   | 2349.8  | 6.6       | B2/2500                 |      |         |
| BH (60°-80°)   | 1079.3  | 3.0       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 98.1    | 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-G5**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 37°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6287.9  | 6287.9  | 6287.9  | 6287.9  | 6287.9  | 6287.9  | 6287.9  | 6287.9  | 6287.9  | 6287.9  | 6287.9  |
| 2.5°  | 6502.9  | 6504.1  | 6502.9  | 6492.8  | 6468.9  | 6448.8  | 6432.5  | 6408.6  | 6355.8  | 6315.6  | 6255.2  |
| 5°    | 6564.5  | 6556.9  | 6551.9  | 6533.0  | 6495.3  | 6472.7  | 6441.3  | 6396.0  | 6309.3  | 6228.8  | 6130.8  |
| 7.5°  | 6535.6  | 6526.8  | 6515.4  | 6492.8  | 6450.1  | 6431.2  | 6387.2  | 6328.1  | 6223.8  | 6118.2  | 5977.4  |
| 10°   | 6446.3  | 6443.8  | 6438.8  | 6433.7  | 6397.3  | 6382.2  | 6342.0  | 6279.1  | 6176.0  | 6047.8  | 5883.1  |
| 12.5° | 6347.0  | 6353.3  | 6373.4  | 6399.8  | 6383.4  | 6375.9  | 6350.8  | 6308.0  | 6202.4  | 6064.2  | 5865.5  |
| 15°   | 6284.1  | 6301.7  | 6355.8  | 6424.9  | 6438.8  | 6436.2  | 6430.0  | 6402.3  | 6290.4  | 6137.1  | 5905.8  |
| 17.5° | 6262.8  | 6291.7  | 6394.8  | 6509.2  | 6549.4  | 6558.2  | 6560.7  | 6512.9  | 6388.5  | 6226.3  | 5947.2  |
| 20°   | 6301.7  | 6338.2  | 6489.0  | 6646.2  | 6710.3  | 6715.3  | 6704.0  | 6621.0  | 6481.5  | 6303.0  | 5969.9  |
| 22.5° | 6419.9  | 6452.6  | 6641.2  | 6818.4  | 6891.3  | 6898.9  | 6864.9  | 6739.2  | 6579.6  | 6393.5  | 6001.3  |
| 25°   | 6647.4  | 6687.7  | 6876.2  | 7053.5  | 7091.2  | 7092.4  | 7043.4  | 6887.5  | 6707.8  | 6520.5  | 6069.2  |
| 27.5° | 6944.1  | 6984.3  | 7154.0  | 7327.5  | 7307.4  | 7296.1  | 7229.5  | 7073.6  | 6875.0  | 6695.2  | 6189.9  |
| 30°   | 7274.7  | 7318.7  | 7479.6  | 7602.8  | 7555.0  | 7532.4  | 7478.4  | 7277.2  | 7107.5  | 6934.0  | 6374.6  |
| 32.5° | 7616.6  | 7656.9  | 7797.7  | 7881.9  | 7821.5  | 7811.5  | 7729.8  | 7546.2  | 7410.5  | 7298.6  | 6673.8  |
| 35°   | 7967.4  | 7996.3  | 8134.6  | 8182.3  | 8101.9  | 8099.4  | 8076.7  | 7908.3  | 7822.8  | 7875.6  | 7108.8  |
| 37.5° | 8325.6  | 8333.2  | 8451.3  | 8453.9  | 8430.0  | 8440.0  | 8463.9  | 8358.3  | 8382.2  | 8546.9  | 7674.5  |
| 40°   | 8644.9  | 8665.0  | 8750.5  | 8776.9  | 8818.4  | 8853.6  | 8973.0  | 8903.9  | 9088.7  | 9380.3  | 8378.4  |
| 42.5° | 8881.3  | 8920.2  | 9057.3  | 9125.1  | 9259.6  | 9315.0  | 9483.4  | 9547.5  | 9919.6  | 10357.1 | 9215.6  |
| 45°   | 9081.1  | 9141.5  | 9361.5  | 9501.0  | 9728.5  | 9825.3  | 10066.7 | 10281.7 | 10858.7 | 11416.8 | 10096.9 |
| 47.5° | 9297.4  | 9374.0  | 9649.3  | 9915.8  | 10225.1 | 10334.4 | 10773.2 | 11095.0 | 11860.5 | 12482.8 | 10927.8 |
| 50°   | 9615.4  | 9674.5  | 9943.5  | 10362.1 | 10748.0 | 10888.8 | 11496.0 | 11957.3 | 12878.8 | 13498.5 | 11648.1 |
| 52.5° | 10059.1 | 10036.5 | 10264.1 | 10851.1 | 11369.0 | 11542.5 | 12267.8 | 12875.0 | 13910.8 | 14417.4 | 12256.5 |
| 55°   | 10505.4 | 10467.7 | 10627.3 | 11362.7 | 12093.1 | 12275.4 | 13117.6 | 13796.4 | 14892.6 | 15244.6 | 12722.9 |
| 57.5° | 11002.0 | 10930.3 | 11064.8 | 11939.7 | 12917.7 | 13135.2 | 14069.2 | 14775.7 | 15858.1 | 15913.4 | 13019.6 |
| 60°   | 11513.6 | 11416.8 | 11567.6 | 12655.0 | 13964.9 | 14221.3 | 15183.0 | 15731.1 | 16768.2 | 16448.9 | 13115.1 |
| 62.5° | 11961.1 | 11893.2 | 12125.8 | 13453.3 | 15145.3 | 15426.9 | 16276.7 | 16746.8 | 17665.7 | 16671.4 | 12770.7 |
| 65°   | 12352.1 | 12363.4 | 12765.6 | 14350.8 | 16461.5 | 16761.9 | 17531.2 | 17998.9 | 18372.2 | 16539.4 | 11964.9 |
| 67.5° | 12818.4 | 12882.5 | 13568.9 | 15532.5 | 18118.3 | 18447.6 | 19356.5 | 19364.1 | 18766.9 | 15765.0 | 10378.4 |
| 70°   | 13498.5 | 13630.5 | 14673.9 | 17171.7 | 20474.1 | 20926.6 | 21628.1 | 20166.1 | 18212.6 | 13665.7 | 8166.0  |
| 72.5° | 14101.9 | 14348.3 | 15849.3 | 19047.3 | 23345.2 | 23688.4 | 22956.8 | 19703.5 | 15895.8 | 10241.4 | 5087.4  |
| 74°   | 13856.8 | 14162.3 | 16063.0 | 19971.2 | 24426.3 | 24591.0 | 22508.0 | 18353.4 | 13253.4 | 7092.4  | 2956.7  |
| 75°   | 13328.8 | 13660.7 | 15751.2 | 19962.4 | 24289.3 | 24197.5 | 21424.4 | 16810.9 | 10915.2 | 4837.2  | 1967.3  |
| 77.5° | 10756.8 | 11107.6 | 13272.2 | 17108.9 | 19915.9 | 19829.2 | 16457.7 | 11277.3 | 4780.7  | 1586.4  | 999.4   |
| 80°   | 6254.0  | 6521.7  | 8238.9  | 10864.9 | 13429.4 | 13586.5 | 10823.5 | 5580.2  | 1880.6  | 891.3   | 677.6   |
| 82.5° | 2778.1  | 2962.9  | 3979.9  | 5546.2  | 8104.4  | 8306.8  | 5668.2  | 2924.0  | 1161.5  | 541.8   | 407.3   |
| 85°   | 1822.8  | 1959.8  | 2416.1  | 2641.1  | 3859.2  | 3997.5  | 2774.4  | 2276.6  | 766.8   | 297.9   | 299.2   |
| 87.5° | 1311.1  | 1443.1  | 1795.1  | 1567.6  | 1771.2  | 1676.9  | 1509.8  | 2106.9  | 308.0   | 169.7   | 100.6   |
| 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°    | 6287.9  | 6287.9 | 6287.9 | 6287.9 | 6287.9 | 6287.9 | 6287.9 | 6287.9 | 6287.9 | 6287.9 | 6287.9 |
| 2.5°  | 6228.8  | 6208.7 | 6163.5 | 6078.0 | 6030.2 | 5990.0 | 5923.4 | 5884.4 | 5866.8 | 5865.5 | 5873.1 |
| 5°    | 6074.2  | 6027.7 | 5910.8 | 5767.5 | 5653.1 | 5548.7 | 5419.3 | 5341.3 | 5286.0 | 5253.3 | 5262.1 |
| 7.5°  | 5894.4  | 5821.5 | 5638.0 | 5409.2 | 5225.7 | 5023.3 | 4823.4 | 4704.0 | 4611.0 | 4541.8 | 4554.4 |
| 10°   | 5771.3  | 5670.7 | 5402.9 | 5073.6 | 4768.1 | 4473.9 | 4198.6 | 4034.0 | 3903.2 | 3802.7 | 3810.2 |
| 12.5° | 5729.8  | 5594.0 | 5223.2 | 4783.2 | 4354.5 | 3952.3 | 3592.7 | 3340.1 | 3205.6 | 3091.2 | 3100.0 |
| 15°   | 5736.1  | 5553.8 | 5072.3 | 4521.7 | 3982.4 | 3475.8 | 3039.6 | 2744.2 | 2561.9 | 2482.7 | 2484.0 |
| 17.5° | 5741.1  | 5507.3 | 4913.9 | 4241.4 | 3614.1 | 3030.8 | 2556.9 | 2257.7 | 2085.5 | 2012.6 | 2013.8 |
| 20°   | 5724.7  | 5431.8 | 4717.8 | 3919.6 | 3229.4 | 2622.3 | 2163.4 | 1909.5 | 1778.8 | 1722.2 | 1722.2 |
| 22.5° | 5703.4  | 5342.6 | 4496.6 | 3596.5 | 2849.8 | 2267.8 | 1881.8 | 1688.3 | 1612.8 | 1575.1 | 1573.9 |
| 25°   | 5713.4  | 5276.0 | 4270.3 | 3264.6 | 2500.3 | 1984.9 | 1694.5 | 1566.3 | 1516.0 | 1492.2 | 1490.9 |
| 27.5° | 5767.5  | 5244.5 | 4061.6 | 2934.0 | 2194.9 | 1772.5 | 1568.8 | 1478.3 | 1445.6 | 1430.6 | 1430.6 |
| 30°   | 5865.5  | 5244.5 | 3844.1 | 2652.4 | 1940.9 | 1615.3 | 1472.0 | 1410.4 | 1387.8 | 1377.8 | 1377.8 |
| 32.5° | 6036.5  | 5273.4 | 3634.2 | 2373.4 | 1738.5 | 1492.2 | 1391.6 | 1350.1 | 1332.5 | 1327.5 | 1327.5 |
| 35°   | 6330.7  | 5371.5 | 3429.3 | 2109.4 | 1575.1 | 1391.6 | 1314.9 | 1291.0 | 1278.4 | 1277.2 | 1281.0 |
| 37.5° | 6744.2  | 5571.4 | 3237.0 | 1914.5 | 1459.5 | 1309.9 | 1250.8 | 1231.9 | 1224.4 | 1230.7 | 1235.7 |
| 40°   | 7264.7  | 5842.9 | 3062.2 | 1738.5 | 1371.5 | 1244.5 | 1191.7 | 1179.1 | 1175.4 | 1184.2 | 1191.7 |
| 42.5° | 7893.2  | 6210.0 | 2918.9 | 1611.6 | 1303.6 | 1189.2 | 1141.4 | 1126.3 | 1122.6 | 1132.6 | 1142.7 |
| 45°   | 8573.3  | 6604.7 | 2818.4 | 1517.3 | 1250.8 | 1147.7 | 1097.4 | 1081.1 | 1073.5 | 1078.6 | 1089.9 |
| 47.5° | 9191.8  | 6978.0 | 2778.1 | 1450.7 | 1200.5 | 1112.5 | 1058.5 | 1038.3 | 1025.8 | 1023.3 | 1032.1 |
| 50°   | 9713.5  | 7255.9 | 2797.0 | 1410.4 | 1160.3 | 1073.5 | 1020.7 | 998.1  | 979.3  | 968.0  | 974.2  |
| 52.5° | 10093.1 | 7430.6 | 2814.6 | 1392.8 | 1128.9 | 1030.8 | 979.3  | 957.9  | 932.8  | 913.9  | 913.9  |
| 55°   | 10368.4 | 7470.8 | 2775.6 | 1379.0 | 1105.0 | 984.3  | 932.8  | 912.6  | 887.5  | 866.1  | 863.6  |
| 57.5° | 10476.5 | 7357.7 | 2631.1 | 1358.9 | 1088.6 | 940.3  | 883.7  | 868.6  | 847.3  | 822.1  | 820.9  |
| 60°   | 10330.7 | 7008.2 | 2352.0 | 1316.2 | 1067.3 | 903.8  | 834.7  | 824.6  | 814.6  | 790.7  | 789.4  |
| 62.5° | 9744.9  | 6241.4 | 1991.2 | 1229.4 | 1024.5 | 864.9  | 789.4  | 794.5  | 795.7  | 779.4  | 776.9  |
| 65°   | 8682.6  | 5188.0 | 1639.2 | 1116.3 | 960.4  | 818.4  | 742.9  | 766.8  | 780.6  | 778.1  | 774.4  |
| 67.5° | 7139.0  | 4037.7 | 1389.1 | 996.9  | 876.2  | 754.2  | 692.7  | 720.3  | 731.6  | 740.4  | 737.9  |
| 70°   | 5298.6  | 2847.3 | 1149.0 | 871.2  | 774.4  | 678.8  | 627.3  | 641.1  | 633.6  | 643.6  | 647.4  |
| 72.5° | 2954.1  | 1708.4 | 936.5  | 745.4  | 668.8  | 590.8  | 554.4  | 551.9  | 535.5  | 535.5  | 535.5  |
| 74°   | 1772.5  | 1253.3 | 823.4  | 667.5  | 604.7  | 533.0  | 501.6  | 490.3  | 475.2  | 476.4  | 475.2  |
| 75°   | 1425.5  | 1077.3 | 755.5  | 616.0  | 559.4  | 499.1  | 467.6  | 452.5  | 441.2  | 441.2  | 440.0  |
| 77.5° | 900.1   | 818.4  | 608.4  | 490.3  | 447.5  | 411.1  | 389.7  | 369.6  | 369.6  | 368.3  | 367.1  |
| 80°   | 680.1   | 651.2  | 473.9  | 370.8  | 343.2  | 315.5  | 301.7  | 292.9  | 292.9  | 296.7  | 295.4  |
| 82.5° | 466.4   | 490.3  | 333.1  | 259.0  | 245.1  | 225.0  | 222.5  | 223.8  | 220.0  | 215.0  | 213.7  |
| 85°   | 340.7   | 368.3  | 225.0  | 163.4  | 149.6  | 137.0  | 147.1  | 152.1  | 145.8  | 134.5  | 129.5  |
| 87.5° | 130.7   | 241.4  | 120.7  | 67.9   | 62.9   | 54.1   | 62.9   | 65.4   | 70.4   | 55.3   | 56.6   |
| 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)