

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: P651151

Luminaire Tested: **GALN-SA9C-840-U-T3R-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P651151  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA9C-840-U-T3R-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 41965.9 lumens  
Efficiency: N/A  
Efficacy: 87.2 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G5

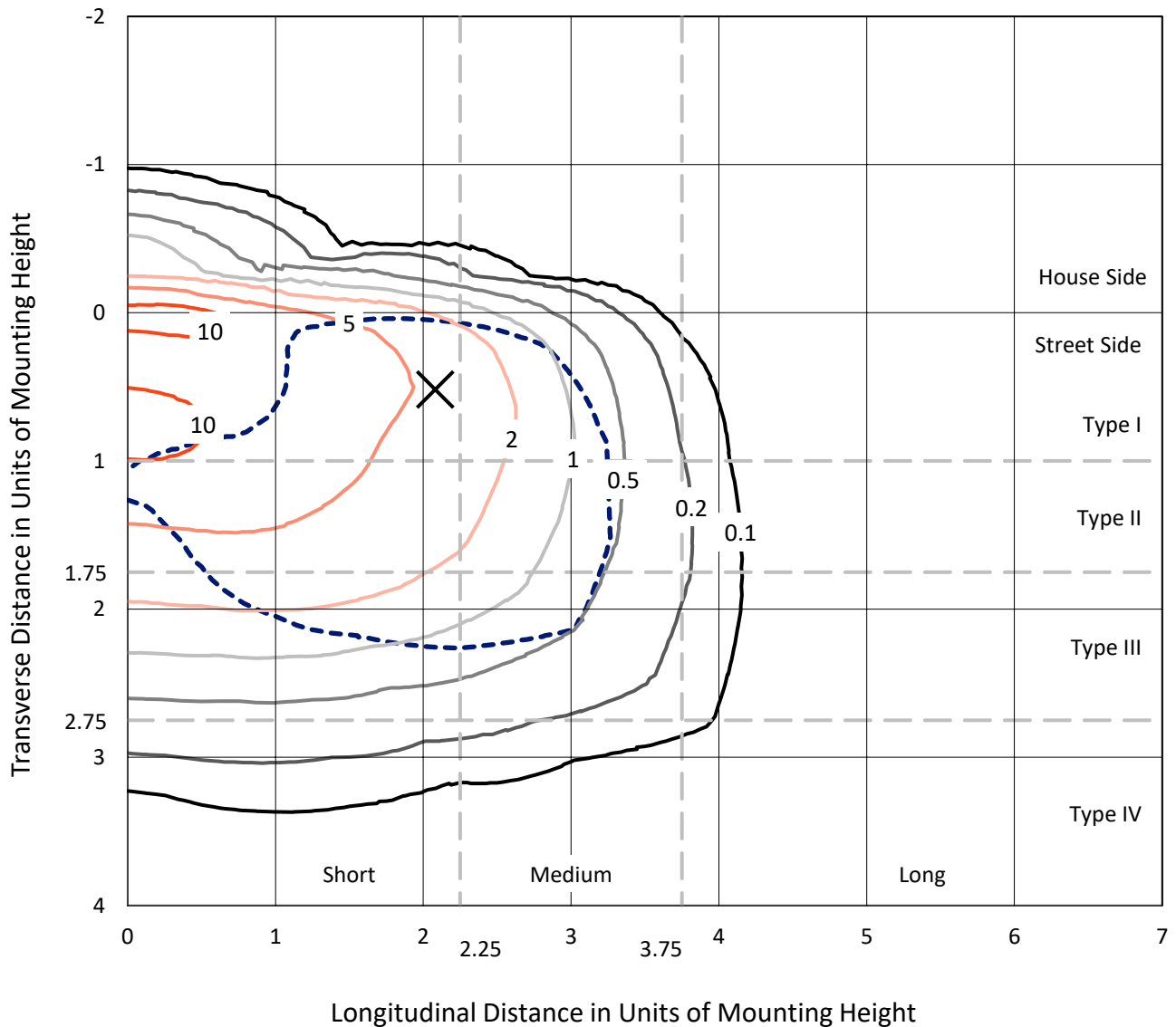
Input Watts (W): 481  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

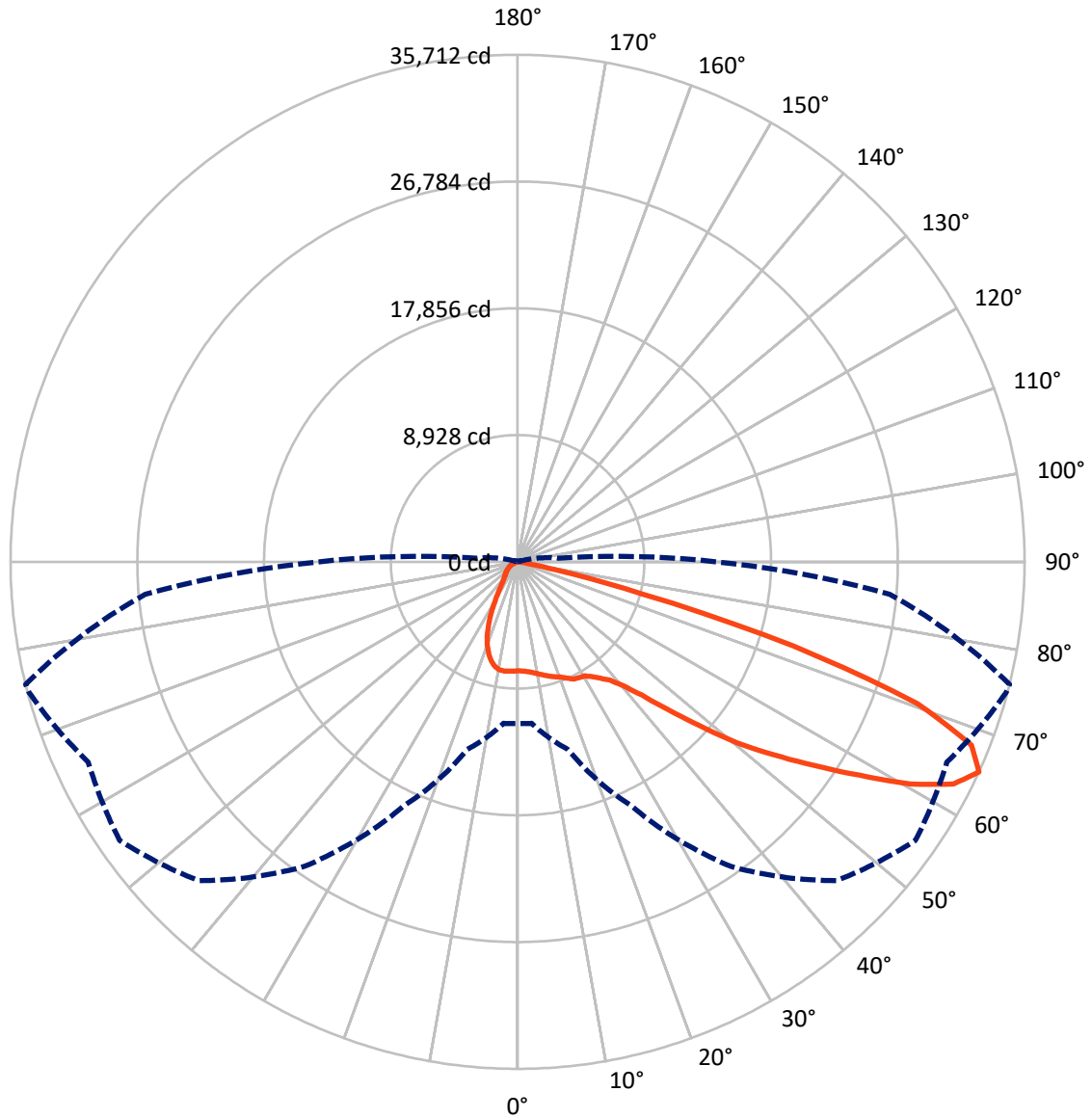
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.8 fc  
 Type III - 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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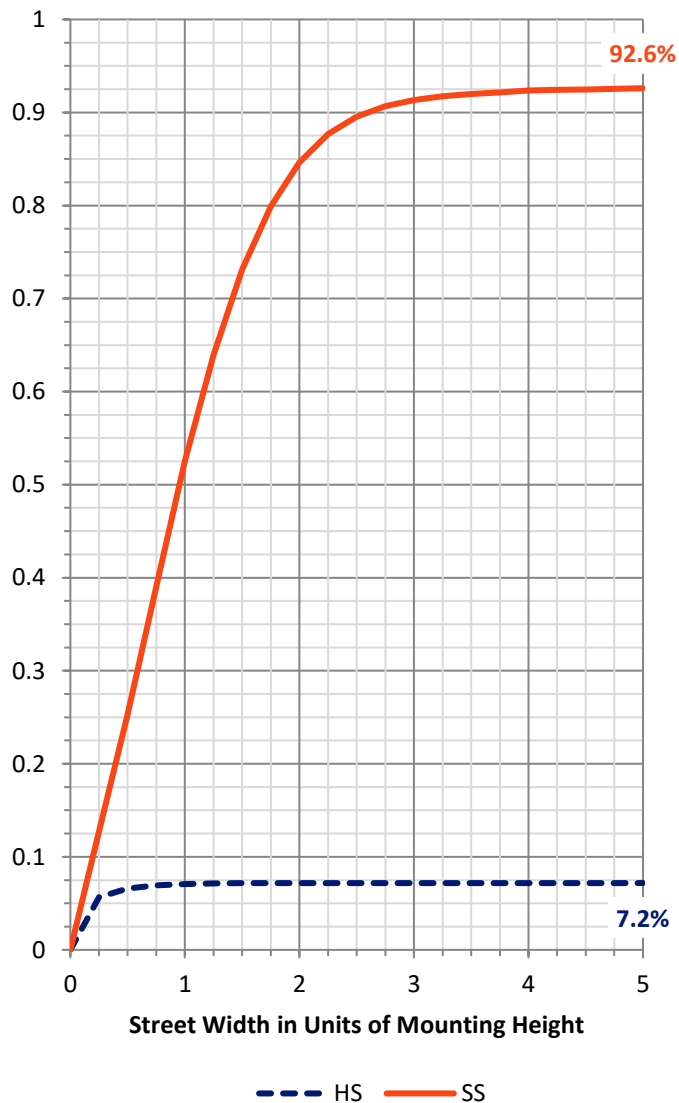
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3030.8   | 0.0    | 3030.8  |
|                    | % Fixture | 7.2      | 0.0    | 7.2     |
| <b>Street Side</b> | Lumens    | 38935.1  | 0.0    | 38935.1 |
|                    | % Fixture | 92.8     | 0.0    | 92.8    |
| <b>Total</b>       | Lumens    | 41965.9  | 0.0    | 41965.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 632.4   | 1.5       |
| 10°-20°   | 1408.1  | 3.4       |
| 20°-30°   | 2269.0  | 5.4       |
| 30°-40°   | 3945.2  | 9.4       |
| 40°-50°   | 6519.2  | 15.5      |
| 50°-60°   | 10070.9 | 24.0      |
| 60°-70°   | 12298.0 | 29.3      |
| 70°-80°   | 4667.4  | 11.1      |
| 80°-90°   | 155.8   | 0.4       |
| 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°    | 41965.9 | 100.0     |
| 0°-180°   | 41965.9 | 100.0     |

**Coefficient of Utilization**

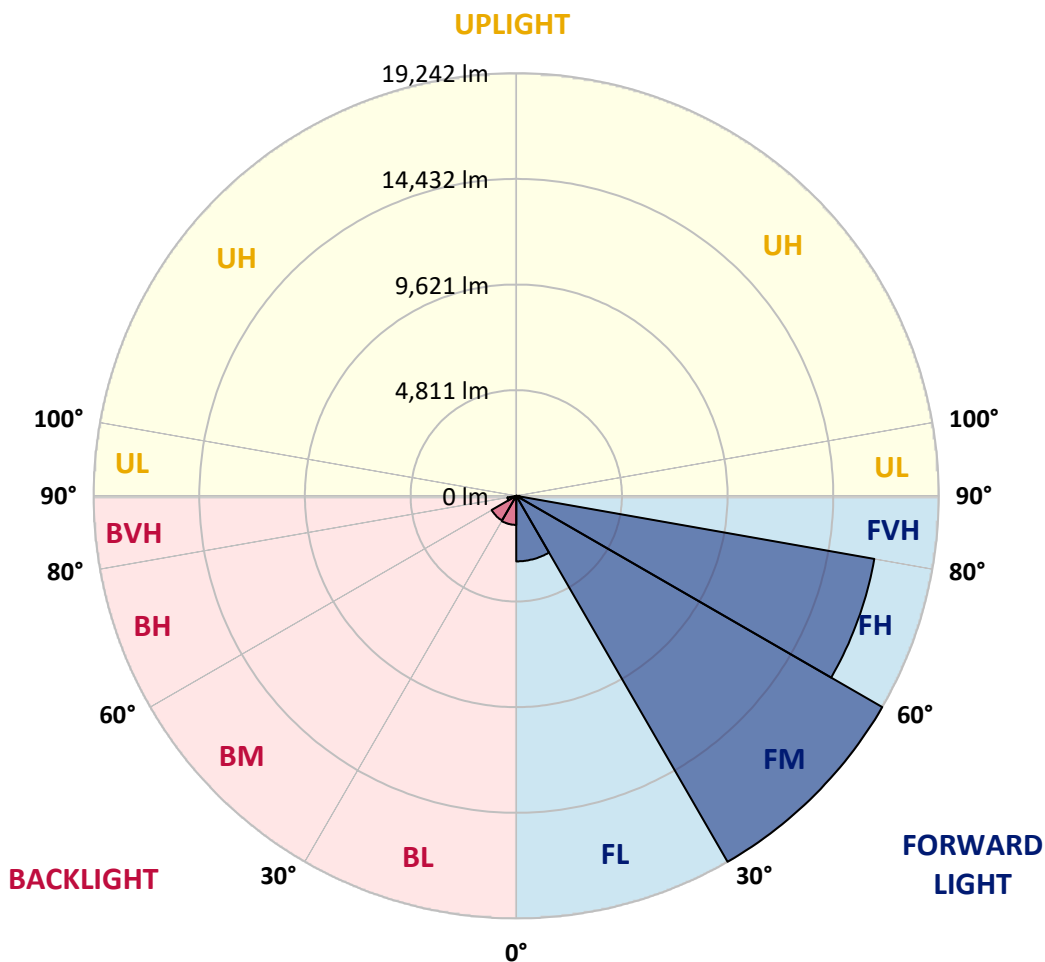


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |        |
|----------------|---------|-----------|-------------------------|------|--------|
|                |         |           | B                       | U    | G      |
| FL (0°-30°)    | 2985.4  | 7.1       |                         |      |        |
| FM (30°-60°)   | 19242.0 | 45.9      |                         |      |        |
| FH (60°-80°)   | 16554.1 | 39.4      |                         |      | G5     |
| FVH (80°-90°)  | 153.6   | 0.4       |                         |      | G2/225 |
| BL (0°-30°)    | 1324.1  | 3.2       | B3/2500                 |      |        |
| BM (30°-60°)   | 1293.3  | 3.1       | B2/2500                 |      |        |
| BH (60°-80°)   | 411.2   | 1.0       | B1/500                  |      | G1/500 |
| BVH (80°-90°)  | 2.1     | 0.0       |                         |      | G0/10  |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |        |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |        |

**BUG Rating: B3-U0-G5**  
 Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 76°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 7676.9  | 7676.9  | 7676.9  | 7676.9  | 7676.9  | 7676.9  | 7676.9  | 7676.9  | 7676.9  | 7676.9  | 7676.9  |
| 2.5°  | 7336.1  | 7339.2  | 7356.9  | 7401.4  | 7469.5  | 7525.8  | 7573.2  | 7650.2  | 7703.6  | 7709.5  | 7727.3  |
| 5°    | 6829.5  | 6793.9  | 6829.5  | 6945.1  | 7048.8  | 7205.8  | 7398.4  | 7591.0  | 7762.9  | 7774.7  | 7857.6  |
| 7.5°  | 6260.7  | 6290.3  | 6346.5  | 6465.1  | 6660.6  | 6900.7  | 7179.1  | 7522.8  | 7848.7  | 7878.4  | 8041.3  |
| 10°   | 5682.9  | 5748.1  | 5839.9  | 6020.6  | 6293.2  | 6604.3  | 6983.6  | 7475.4  | 7985.0  | 8026.5  | 8308.0  |
| 12.5° | 5149.5  | 5179.1  | 5291.7  | 5534.7  | 5872.5  | 6311.0  | 6835.4  | 7448.7  | 8136.2  | 8186.5  | 8592.4  |
| 15°   | 4740.6  | 4779.2  | 4877.0  | 5096.2  | 5472.5  | 6035.4  | 6714.0  | 7439.9  | 8284.3  | 8355.4  | 8876.9  |
| 17.5° | 4663.6  | 4687.3  | 4728.8  | 4877.0  | 5205.9  | 5816.2  | 6604.3  | 7436.9  | 8426.5  | 8512.4  | 9140.6  |
| 20°   | 4980.7  | 4959.9  | 4918.4  | 4903.6  | 5084.3  | 5647.3  | 6524.3  | 7460.6  | 8562.8  | 8660.6  | 9419.1  |
| 22.5° | 5774.7  | 5801.4  | 5558.4  | 5271.1  | 5211.8  | 5620.7  | 6512.5  | 7573.2  | 8779.1  | 8894.7  | 9730.2  |
| 25°   | 7460.6  | 7256.1  | 6876.9  | 6189.5  | 5671.0  | 5783.6  | 6645.8  | 7839.9  | 9031.0  | 9158.3  | 10011.7 |
| 27.5° | 9324.3  | 9262.1  | 8672.5  | 7540.6  | 6574.7  | 6127.3  | 6882.8  | 8044.3  | 9113.9  | 9244.3  | 10171.6 |
| 30°   | 11155.4 | 11229.5 | 10553.9 | 9303.6  | 7887.2  | 6764.3  | 7105.0  | 8121.4  | 9188.0  | 9324.3  | 10376.1 |
| 32.5° | 12853.1 | 12942.0 | 12349.4 | 11111.0 | 9433.9  | 7866.5  | 7487.3  | 8420.6  | 9499.1  | 9638.4  | 10716.9 |
| 35°   | 14189.4 | 14201.2 | 13753.8 | 12767.2 | 11122.7 | 9205.8  | 8314.0  | 8945.0  | 9919.8  | 10082.7 | 11078.3 |
| 37.5° | 15416.0 | 15398.3 | 14873.8 | 14023.4 | 12530.1 | 10536.1 | 9353.9  | 9549.5  | 10399.8 | 10568.7 | 11599.8 |
| 40°   | 16325.7 | 16337.5 | 16168.6 | 15368.6 | 13842.7 | 11765.8 | 10177.6 | 10115.4 | 11205.7 | 11469.4 | 12358.3 |
| 42.5° | 16933.0 | 17042.7 | 17125.6 | 16719.7 | 15493.1 | 13279.7 | 11442.7 | 11327.2 | 12604.2 | 12823.5 | 13430.9 |
| 45°   | 17424.8 | 17620.5 | 18035.2 | 18014.5 | 17078.2 | 15137.5 | 13179.1 | 12942.0 | 14586.4 | 14820.5 | 14796.8 |
| 47.5° | 17783.4 | 17981.9 | 18669.3 | 19084.1 | 18568.5 | 16939.0 | 15362.7 | 15158.3 | 16953.8 | 17208.6 | 16304.9 |
| 50°   | 17967.1 | 18204.1 | 19081.1 | 19884.1 | 19733.0 | 18675.2 | 17851.6 | 17863.4 | 19813.0 | 20058.9 | 18053.0 |
| 52.5° | 17537.5 | 17845.6 | 19300.4 | 20746.3 | 21039.6 | 20337.4 | 20183.3 | 20574.5 | 22358.2 | 22568.5 | 19632.2 |
| 55°   | 16165.6 | 16553.8 | 19001.1 | 21481.1 | 22553.7 | 22298.9 | 22832.2 | 23427.7 | 25140.3 | 25276.6 | 21253.0 |
| 57.5° | 15297.5 | 15709.4 | 18118.2 | 22106.3 | 24372.9 | 24764.0 | 25608.4 | 26044.0 | 28011.4 | 28358.0 | 23113.7 |
| 60°   | 14565.7 | 14888.6 | 17392.3 | 22239.6 | 26221.8 | 27780.2 | 28601.0 | 29051.3 | 31555.0 | 31780.2 | 25161.0 |
| 62.5° | 13347.9 | 13718.3 | 16165.6 | 21309.3 | 27152.1 | 30195.0 | 31895.8 | 31694.3 | 34295.7 | 34452.7 | 26417.3 |
| 65°   | 11389.4 | 11422.0 | 13676.8 | 18971.5 | 26192.1 | 31762.4 | 34209.8 | 33365.3 | 35605.3 | 35712.0 | 26319.5 |
| 67.5° | 8500.6  | 8814.7  | 10521.3 | 14912.4 | 22124.0 | 30423.2 | 34959.4 | 33409.8 | 34778.6 | 34482.3 | 24230.7 |
| 70°   | 5475.5  | 5715.4  | 7131.8  | 10340.6 | 15952.3 | 25389.2 | 32473.5 | 31119.4 | 30523.9 | 29866.2 | 19833.7 |
| 72.5° | 2527.4  | 2835.5  | 4237.0  | 5908.0  | 9460.6  | 18085.6 | 26361.1 | 25282.5 | 21969.9 | 20346.3 | 12607.2 |
| 75°   | 1102.2  | 1179.3  | 2091.8  | 3117.0  | 4435.5  | 9564.3  | 17380.4 | 15694.6 | 9922.8  | 9063.5  | 5045.8  |
| 77.5° | 672.5   | 722.9   | 1096.2  | 1671.1  | 1742.2  | 3644.4  | 9362.8  | 6847.3  | 3066.6  | 2705.2  | 1368.9  |
| 80°   | 456.3   | 512.6   | 797.0   | 874.1   | 595.5   | 1016.3  | 3514.0  | 1828.1  | 619.2   | 592.6   | 293.3   |
| 82.5° | 222.2   | 281.5   | 589.6   | 488.9   | 257.8   | 325.9   | 1022.2  | 391.1   | 180.7   | 168.9   | 103.7   |
| 85°   | 32.6    | 56.3    | 331.9   | 320.0   | 115.6   | 77.0    | 180.7   | 97.8    | 62.2    | 59.3    | 47.4    |
| 87.5° | 0.0     | 0.0     | 112.6   | 50.4    | 11.9    | 11.9    | 20.8    | 20.8    | 23.7    | 20.8    | 23.7    |
| 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°    | 7676.9  | 7676.9 | 7676.9 | 7676.9 | 7676.9 | 7676.9 | 7676.9 | 7676.9 | 7676.9 | 7676.9 | 7676.9 |
| 2.5°  | 7736.2  | 7751.0 | 7694.6 | 7614.7 | 7528.7 | 7442.8 | 7321.3 | 7211.7 | 7146.6 | 7185.1 | 7090.2 |
| 5°    | 7875.4  | 7863.6 | 7715.4 | 7472.5 | 7149.5 | 6761.4 | 6376.2 | 6047.3 | 5940.7 | 5780.6 | 5762.9 |
| 7.5°  | 8068.0  | 8035.4 | 7721.3 | 7164.3 | 6435.4 | 5706.6 | 4995.5 | 4524.3 | 4254.7 | 4026.6 | 4032.5 |
| 10°   | 8337.6  | 8242.8 | 7653.2 | 6622.1 | 5422.1 | 4322.9 | 3416.2 | 2794.1 | 2524.4 | 2438.5 | 2370.4 |
| 12.5° | 8616.1  | 8432.5 | 7463.5 | 5890.3 | 4222.2 | 2954.0 | 2077.0 | 1697.7 | 1531.8 | 1478.5 | 1472.6 |
| 15°   | 8865.1  | 8574.7 | 7131.8 | 5010.3 | 3069.6 | 1887.4 | 1416.2 | 1291.9 | 1271.1 | 1274.0 | 1271.1 |
| 17.5° | 9111.0  | 8687.3 | 6672.5 | 4077.0 | 2085.8 | 1354.0 | 1217.8 | 1188.2 | 1197.0 | 1208.9 | 1205.9 |
| 20°   | 9315.4  | 8711.0 | 6085.8 | 3111.0 | 1475.5 | 1188.2 | 1143.7 | 1137.8 | 1146.6 | 1155.5 | 1155.5 |
| 22.5° | 9537.6  | 8728.7 | 5389.5 | 2154.1 | 1205.9 | 1105.2 | 1081.4 | 1081.4 | 1093.3 | 1105.2 | 1108.1 |
| 25°   | 9703.5  | 8630.9 | 4557.0 | 1546.6 | 1063.7 | 1025.2 | 1013.3 | 1016.3 | 1028.1 | 1034.1 | 1031.1 |
| 27.5° | 9730.2  | 8355.4 | 3674.0 | 1185.1 | 965.9  | 927.4  | 915.5  | 927.4  | 912.6  | 921.5  | 915.5  |
| 30°   | 9753.9  | 8005.8 | 2779.2 | 998.5  | 877.0  | 817.8  | 800.0  | 782.2  | 770.4  | 755.6  | 752.6  |
| 32.5° | 9828.0  | 7594.0 | 2029.6 | 897.8  | 794.1  | 728.9  | 687.4  | 637.1  | 598.5  | 586.7  | 583.7  |
| 35°   | 9860.6  | 7099.1 | 1490.3 | 817.8  | 720.0  | 648.9  | 574.8  | 503.7  | 447.4  | 426.6  | 441.4  |
| 37.5° | 9985.0  | 6619.2 | 1155.5 | 758.5  | 654.8  | 565.9  | 471.1  | 382.2  | 328.9  | 317.1  | 322.9  |
| 40°   | 10239.8 | 6097.7 | 968.8  | 708.1  | 598.5  | 488.9  | 373.3  | 287.4  | 251.9  | 240.0  | 237.0  |
| 42.5° | 10648.7 | 5579.2 | 862.2  | 660.7  | 542.2  | 411.8  | 293.3  | 225.2  | 195.5  | 186.7  | 186.7  |
| 45°   | 11146.4 | 5081.4 | 788.1  | 610.4  | 483.0  | 331.9  | 231.1  | 180.7  | 163.0  | 157.0  | 157.0  |
| 47.5° | 11801.2 | 4645.9 | 726.0  | 560.0  | 417.8  | 263.7  | 186.7  | 157.0  | 145.2  | 148.2  | 151.1  |
| 50°   | 12465.0 | 4322.9 | 657.7  | 503.7  | 343.7  | 216.3  | 160.0  | 139.3  | 136.3  | 139.3  | 139.3  |
| 52.5° | 12965.7 | 4133.3 | 565.9  | 426.6  | 269.6  | 180.7  | 142.2  | 130.4  | 127.4  | 121.4  | 121.4  |
| 55°   | 13641.3 | 4091.8 | 450.4  | 346.7  | 213.4  | 151.1  | 127.4  | 118.5  | 109.7  | 103.7  | 100.8  |
| 57.5° | 14509.4 | 4139.1 | 346.7  | 269.6  | 165.9  | 124.5  | 112.6  | 97.8   | 86.0   | 74.1   | 74.1   |
| 60°   | 15048.6 | 4032.5 | 269.6  | 207.4  | 121.4  | 100.8  | 86.0   | 71.1   | 56.3   | 47.4   | 44.4   |
| 62.5° | 14876.8 | 3582.2 | 213.4  | 154.1  | 86.0   | 74.1   | 56.3   | 47.4   | 32.6   | 23.7   | 20.8   |
| 65°   | 13990.9 | 2891.8 | 171.8  | 106.6  | 62.2   | 44.4   | 29.6   | 29.6   | 14.8   | 2.9    | 0.0    |
| 67.5° | 12245.7 | 2142.2 | 136.3  | 71.1   | 35.6   | 20.8   | 14.8   | 8.9    | 0.0    | 0.0    | 0.0    |
| 70°   | 9967.2  | 1546.6 | 106.6  | 44.4   | 20.8   | 14.8   | 5.9    | 2.9    | 0.0    | 0.0    | 0.0    |
| 72.5° | 6328.8  | 885.9  | 82.9   | 26.7   | 14.8   | 5.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 2447.4  | 346.7  | 56.3   | 17.7   | 5.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 693.3   | 163.0  | 32.6   | 8.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 180.7   | 71.1   | 17.7   | 2.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 86.0    | 29.6   | 5.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 50.4    | 11.9   | 2.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 23.7    | 2.9    | 0.0    | 0.0    | 0.0    | 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)