

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: P458115

Luminaire Tested: **GALN-SA9C-730-U-SL3-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P458115  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA9C-730-U-SL3-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 48015 lumens  
Efficiency: N/A  
Efficacy: 99.8 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

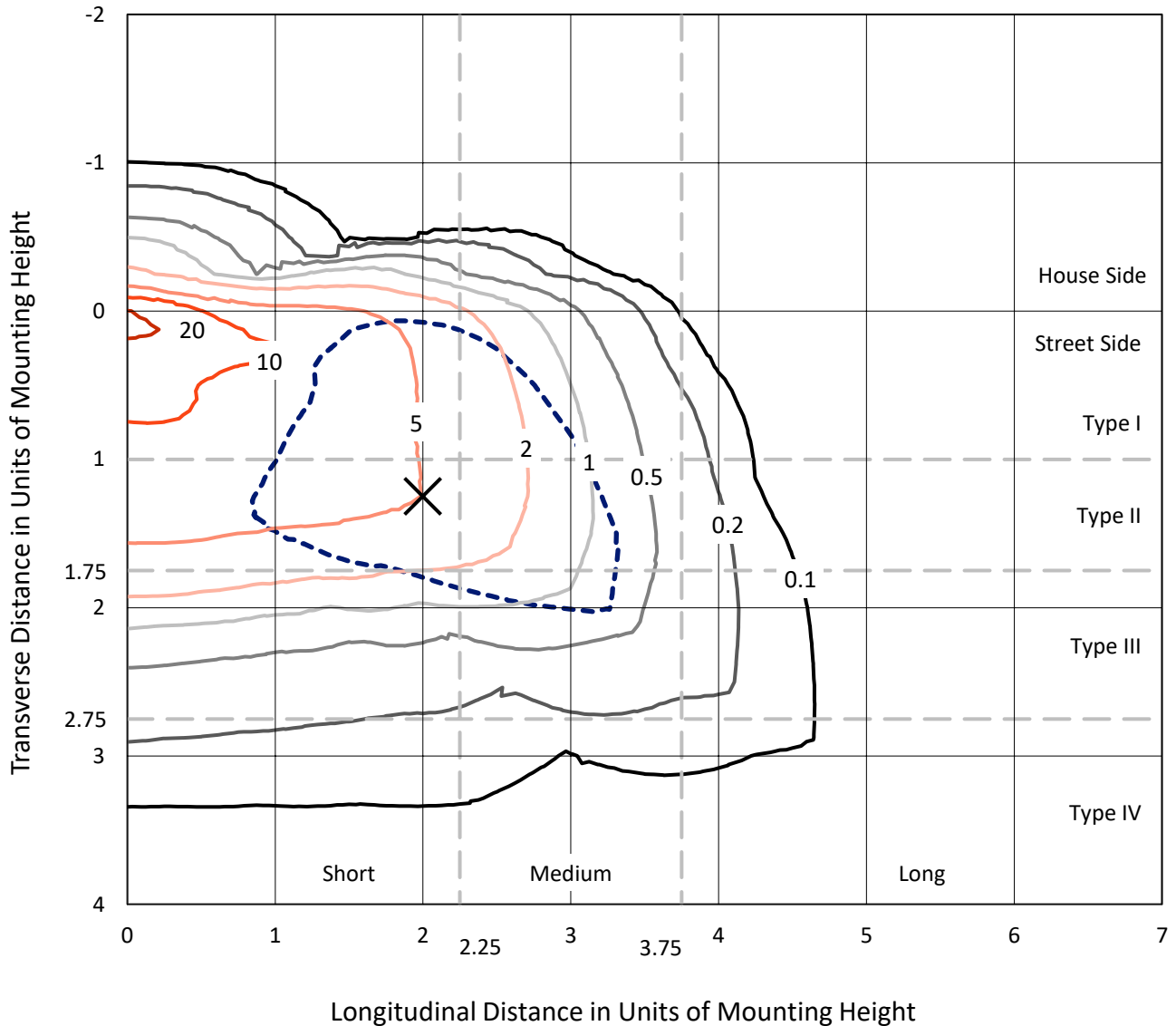
Input Watts (W): 481  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

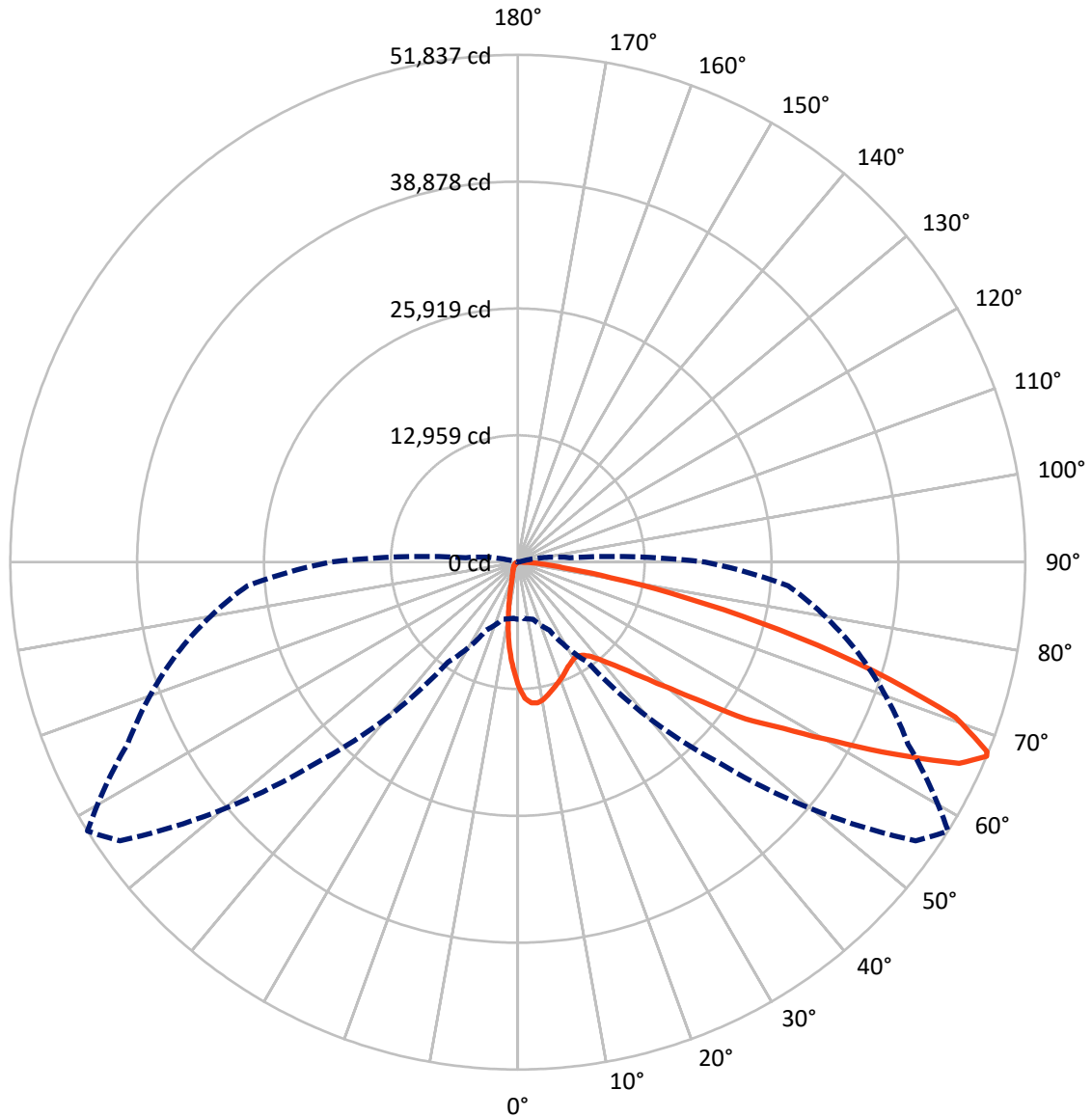
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 22.6 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral      - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3465.0   | 0.0    | 3465.0  |
|                    | % Fixture | 7.2      | 0.0    | 7.2     |
| <b>Street Side</b> | Lumens    | 44550.0  | 0.0    | 44550.0 |
|                    | % Fixture | 92.8     | 0.0    | 92.8    |
| <b>Total</b>       | Lumens    | 48015.0  | 0.0    | 48015.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 1032.9  | 2.2       |
| 10°-20°   | 2230.8  | 4.6       |
| 20°-30°   | 3022.8  | 6.3       |
| 30°-40°   | 4192.5  | 8.7       |
| 40°-50°   | 6686.5  | 13.9      |
| 50°-60°   | 11558.3 | 24.1      |
| 60°-70°   | 13203.1 | 27.5      |
| 70°-80°   | 5504.5  | 11.5      |
| 80°-90°   | 583.6   | 1.2       |
| 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°    | 48015.0 | 100.0     |
| 0°-180°   | 48015.0 | 100.0     |

**Coefficient of Utilization**



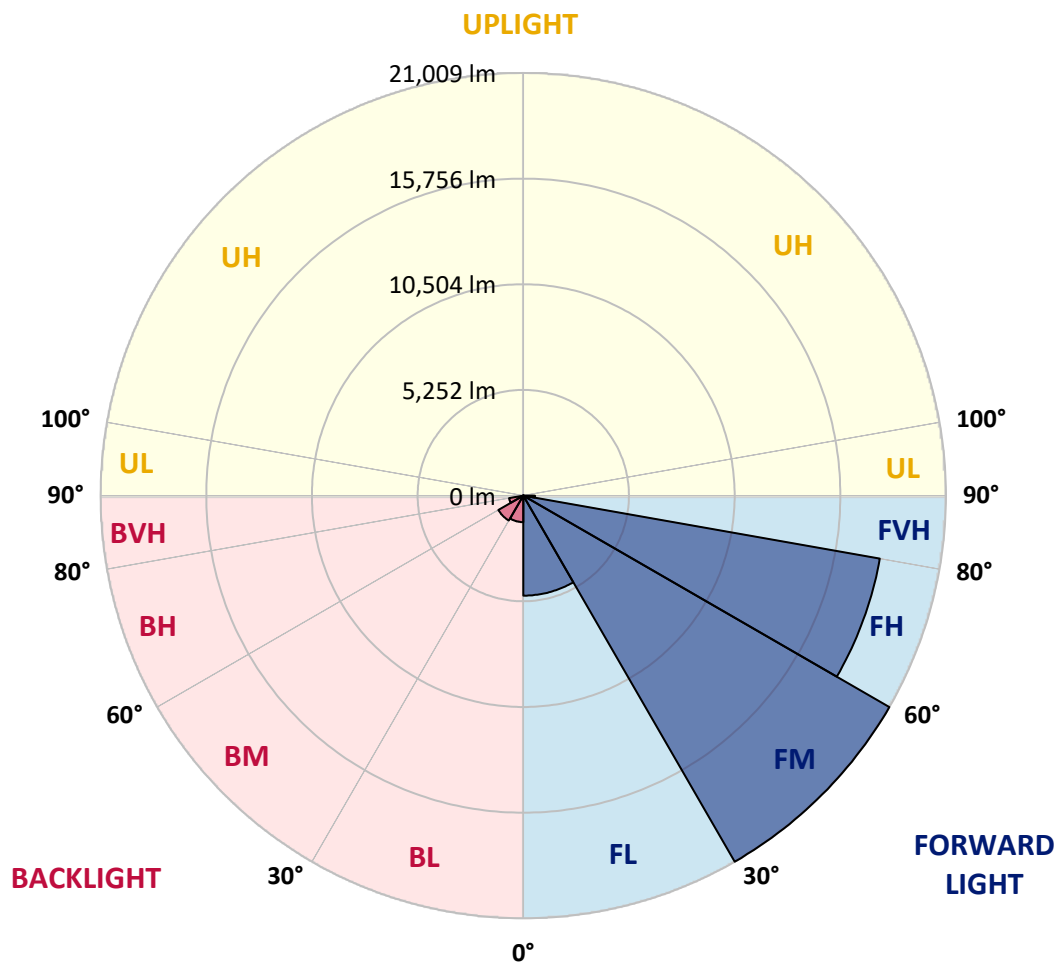
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 4970.7  | 10.4      |                         |      |         |
| FM   | (30°-60°)   | 21008.6 | 43.8      |                         |      |         |
| FH   | (60°-80°)   | 17991.3 | 37.5      |                         |      | G5      |
| FVH  | (80°-90°)   | 579.4   | 1.2       |                         |      | G4/750  |
| BL   | (0°-30°)    | 1315.8  | 2.7       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 1428.7  | 3.0       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 716.3   | 1.5       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 4.2     | 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°     | 58°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 12728.3 | 12728.3 | 12728.3 | 12728.3 | 12728.3 | 12728.3 | 12728.3 | 12728.3 | 12728.3 | 12728.3 | 12728.3 |
| 2.5°  | 14772.2 | 14794.6 | 14711.2 | 14643.8 | 14470.6 | 14284.5 | 14037.4 | 13905.9 | 13681.3 | 13293.0 | 12863.1 |
| 5°    | 15118.7 | 15147.6 | 15134.8 | 15118.7 | 15051.3 | 14871.6 | 14557.2 | 14441.7 | 14111.2 | 13479.1 | 12702.7 |
| 7.5°  | 14348.7 | 14454.5 | 14467.4 | 14592.5 | 14711.2 | 14727.3 | 14608.5 | 14521.9 | 14217.1 | 13475.9 | 12417.1 |
| 10°   | 13328.3 | 13398.9 | 13501.6 | 13646.0 | 13931.5 | 14169.0 | 14284.5 | 14271.7 | 14095.2 | 13376.5 | 12083.4 |
| 12.5° | 12298.4 | 12336.9 | 12494.1 | 12741.2 | 13090.9 | 13495.2 | 13803.2 | 13864.2 | 13867.4 | 13257.7 | 11804.3 |
| 15°   | 11412.8 | 11396.8 | 11518.7 | 11804.3 | 12295.2 | 12802.1 | 13354.0 | 13450.3 | 13604.3 | 13142.2 | 11544.4 |
| 17.5° | 10655.6 | 10739.0 | 10758.3 | 11072.7 | 11525.1 | 12182.9 | 12885.6 | 13055.6 | 13363.6 | 13042.8 | 11329.4 |
| 20°   | 10187.2 | 10232.1 | 10273.8 | 10450.3 | 10857.7 | 11550.8 | 12446.0 | 12680.2 | 13139.0 | 12952.9 | 11088.8 |
| 22.5° | 10049.2 | 10078.1 | 10042.8 | 10097.3 | 10386.1 | 11002.1 | 11967.9 | 12279.1 | 12924.1 | 12869.5 | 10893.0 |
| 25°   | 10155.1 | 10184.0 | 10100.5 | 10036.4 | 10135.8 | 10556.1 | 11505.9 | 11884.5 | 12750.8 | 12853.5 | 10745.4 |
| 27.5° | 10411.8 | 10466.3 | 10350.8 | 10235.3 | 10177.5 | 10315.5 | 11143.3 | 11582.9 | 12632.1 | 12930.5 | 10678.1 |
| 30°   | 10812.8 | 10844.9 | 10758.3 | 10617.1 | 10485.6 | 10347.6 | 10954.0 | 11374.3 | 12600.0 | 13110.2 | 10671.7 |
| 32.5° | 11249.2 | 11316.6 | 11268.4 | 11175.4 | 11005.3 | 10678.1 | 11008.6 | 11380.7 | 12677.0 | 13370.0 | 10751.9 |
| 35°   | 11788.2 | 11865.2 | 11910.2 | 11890.9 | 11672.7 | 11265.2 | 11355.1 | 11669.5 | 12882.3 | 13848.1 | 10970.0 |
| 37.5° | 12317.6 | 12385.0 | 12638.5 | 12725.1 | 12532.6 | 12147.6 | 12028.9 | 12237.4 | 13334.8 | 14473.8 | 11364.7 |
| 40°   | 12924.1 | 13013.9 | 13370.0 | 13700.5 | 13607.5 | 13203.2 | 12985.0 | 13158.3 | 14027.8 | 15417.1 | 12112.3 |
| 42.5° | 13504.8 | 13665.2 | 14207.5 | 14791.4 | 14878.1 | 14425.7 | 14281.3 | 14339.0 | 15054.5 | 16774.3 | 13155.1 |
| 45°   | 14329.4 | 14480.2 | 15179.7 | 15972.2 | 16379.7 | 16026.7 | 15879.1 | 15869.5 | 16463.1 | 18683.4 | 14846.0 |
| 47.5° | 15519.8 | 15654.5 | 16479.1 | 17262.0 | 17987.2 | 18035.3 | 17756.1 | 17852.4 | 18234.2 | 20916.6 | 16918.7 |
| 50°   | 16979.7 | 17297.3 | 17839.6 | 18654.5 | 19623.5 | 20406.4 | 20493.0 | 20364.7 | 20692.0 | 23502.7 | 19408.5 |
| 52.5° | 19100.5 | 19222.4 | 19719.8 | 20390.4 | 21526.2 | 22854.5 | 23884.5 | 23708.0 | 23605.3 | 25966.8 | 21924.1 |
| 55°   | 20682.3 | 20846.0 | 21619.2 | 22540.1 | 24205.3 | 25957.2 | 28190.4 | 28251.3 | 26955.1 | 28334.7 | 24385.0 |
| 57.5° | 20204.3 | 20454.5 | 21625.7 | 23477.0 | 27138.0 | 30340.1 | 32002.1 | 32043.8 | 30054.5 | 30635.3 | 27163.6 |
| 60°   | 17749.7 | 17868.4 | 19546.5 | 22017.1 | 27388.2 | 35088.8 | 37408.5 | 37071.6 | 33208.5 | 33208.5 | 29618.2 |
| 62.5° | 12587.2 | 12773.3 | 14133.7 | 17769.0 | 24734.7 | 36737.9 | 43883.4 | 43187.1 | 37552.9 | 35669.5 | 31081.3 |
| 65°   | 8043.8  | 7864.2  | 8765.8  | 11217.1 | 18426.7 | 34302.7 | 49520.8 | 49562.5 | 41640.6 | 36654.5 | 30282.3 |
| 67°   | 5826.7  | 5756.1  | 6016.0  | 7668.4  | 12494.1 | 28835.3 | 49639.5 | 51837.4 | 43989.3 | 36032.1 | 27728.3 |
| 67.5° | 5329.4  | 5384.0  | 5573.3  | 6917.6  | 11351.9 | 26239.6 | 49100.5 | 51702.6 | 44518.7 | 35656.7 | 26804.3 |
| 70°   | 4039.6  | 3946.5  | 4151.9  | 4893.0  | 6805.3  | 16552.9 | 42237.4 | 47419.2 | 43860.9 | 31931.5 | 21417.1 |
| 72.5° | 2971.1  | 2961.5  | 3247.1  | 4001.1  | 5239.6  | 8817.1  | 31706.9 | 38021.4 | 35833.1 | 24314.4 | 13485.6 |
| 75°   | 2005.3  | 2095.2  | 2550.8  | 3343.3  | 4748.7  | 5717.6  | 21616.0 | 27583.9 | 24875.9 | 13806.4 | 5512.3  |
| 77.5° | 1142.2  | 1148.7  | 1642.8  | 2685.6  | 4264.2  | 4601.1  | 12808.5 | 17573.3 | 13167.9 | 4591.4  | 1636.4  |
| 80°   | 494.1   | 542.2   | 815.0   | 1950.8  | 3535.8  | 4074.9  | 7344.4  | 9657.7  | 5326.2  | 972.2   | 529.4   |
| 82.5° | 182.9   | 215.0   | 359.4   | 1200.0  | 2579.7  | 3356.1  | 4437.4  | 4610.7  | 1806.4  | 343.3   | 330.5   |
| 85°   | 0.0     | 6.4     | 131.6   | 561.5   | 1344.4  | 1498.4  | 2964.7  | 2733.7  | 798.9   | 163.6   | 215.0   |
| 87.5° | 0.0     | 0.0     | 0.0     | 57.8    | 176.5   | 558.3   | 920.9   | 1026.7  | 192.5   | 57.8    | 51.3    |
| 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°    | 12728.3 | 12728.3 | 12728.3 | 12728.3 | 12728.3 | 12728.3 | 12728.3 | 12728.3 | 12728.3 | 12728.3 | 12728.3 |
| 2.5°  | 12632.1 | 12423.5 | 11900.5 | 11377.5 | 10989.3 | 10665.2 | 10177.5 | 9911.2  | 9770.0  | 9561.5  | 9574.3  |
| 5°    | 12314.4 | 11890.9 | 10970.0 | 10017.1 | 9247.1  | 8496.3  | 7597.9  | 7235.3  | 6930.5  | 6757.2  | 6641.7  |
| 7.5°  | 11842.8 | 11217.1 | 9853.5  | 8582.9  | 7398.9  | 6086.6  | 5101.6  | 4443.8  | 4001.1  | 3837.4  | 3680.2  |
| 10°   | 11326.2 | 10495.2 | 8720.9  | 6959.4  | 5316.6  | 3962.6  | 3128.3  | 2525.1  | 2310.2  | 2111.2  | 2130.5  |
| 12.5° | 10848.1 | 9837.4  | 7681.3  | 5493.0  | 3725.1  | 2518.7  | 1963.6  | 1716.6  | 1646.0  | 1623.5  | 1623.5  |
| 15°   | 10456.7 | 9208.6  | 6564.7  | 4129.4  | 2554.0  | 1809.6  | 1572.2  | 1504.8  | 1479.1  | 1472.7  | 1472.7  |
| 17.5° | 10039.6 | 8611.8  | 5557.2  | 3051.3  | 1857.8  | 1514.4  | 1434.2  | 1389.3  | 1379.7  | 1373.3  | 1373.3  |
| 20°   | 9667.4  | 8011.8  | 4601.1  | 2271.7  | 1501.6  | 1363.6  | 1312.3  | 1283.4  | 1273.8  | 1267.4  | 1270.6  |
| 22.5° | 9314.4  | 7479.1  | 3702.7  | 1716.6  | 1321.9  | 1241.7  | 1190.4  | 1161.5  | 1142.2  | 1126.2  | 1129.4  |
| 25°   | 9000.0  | 6965.8  | 2977.5  | 1405.3  | 1190.4  | 1119.8  | 1068.4  | 1026.7  | 985.0   | 965.8   | 962.6   |
| 27.5° | 8778.6  | 6516.6  | 2319.8  | 1203.2  | 1071.7  | 994.7   | 930.5   | 879.1   | 824.6   | 795.7   | 789.3   |
| 30°   | 8595.7  | 6061.0  | 1835.3  | 1062.0  | 952.9   | 879.1   | 798.9   | 725.1   | 667.4   | 638.5   | 625.7   |
| 32.5° | 8477.0  | 5627.8  | 1447.1  | 946.5   | 853.5   | 763.6   | 673.8   | 600.0   | 535.8   | 507.0   | 500.5   |
| 35°   | 8457.7  | 5265.2  | 1184.0  | 850.3   | 763.6   | 667.4   | 574.3   | 494.1   | 439.6   | 410.7   | 404.3   |
| 37.5° | 8595.7  | 4986.1  | 991.4   | 773.3   | 689.8   | 584.0   | 481.3   | 407.5   | 359.4   | 336.9   | 333.7   |
| 40°   | 8964.7  | 4809.6  | 859.9   | 709.1   | 622.5   | 507.0   | 410.7   | 346.5   | 298.4   | 275.9   | 275.9   |
| 42.5° | 9667.4  | 4816.0  | 773.3   | 648.1   | 555.1   | 433.2   | 349.7   | 288.8   | 247.1   | 227.8   | 221.4   |
| 45°   | 10764.7 | 5034.2  | 699.5   | 587.2   | 490.9   | 375.4   | 298.4   | 237.4   | 195.7   | 179.7   | 179.7   |
| 47.5° | 12234.2 | 5467.4  | 635.3   | 526.2   | 433.2   | 320.9   | 253.5   | 192.5   | 157.2   | 141.2   | 141.2   |
| 50°   | 14156.1 | 6163.6  | 580.7   | 474.9   | 385.0   | 275.9   | 205.3   | 157.2   | 121.9   | 109.1   | 105.9   |
| 52.5° | 16164.7 | 7023.5  | 516.6   | 429.9   | 330.5   | 234.2   | 166.8   | 121.9   | 93.0    | 83.4    | 80.2    |
| 55°   | 18381.8 | 7864.2  | 455.6   | 385.0   | 269.5   | 195.7   | 131.6   | 96.3    | 67.4    | 57.8    | 57.8    |
| 57.5° | 20618.2 | 8688.8  | 381.8   | 320.9   | 211.8   | 144.4   | 102.7   | 70.6    | 44.9    | 35.3    | 35.3    |
| 60°   | 22511.2 | 8955.1  | 324.1   | 259.9   | 160.4   | 102.7   | 73.8    | 44.9    | 25.7    | 16.0    | 16.0    |
| 62.5° | 22771.1 | 8056.7  | 272.7   | 198.9   | 115.5   | 70.6    | 38.5    | 25.7    | 9.6     | 6.4     | 6.4     |
| 65°   | 21359.3 | 6545.5  | 227.8   | 150.8   | 77.0    | 35.3    | 16.0    | 9.6     | 3.2     | 0.0     | 0.0     |
| 67°   | 19139.0 | 5306.9  | 186.1   | 112.3   | 54.5    | 22.5    | 9.6     | 3.2     | 0.0     | 0.0     | 0.0     |
| 67.5° | 18571.1 | 5059.9  | 179.7   | 105.9   | 48.1    | 19.3    | 6.4     | 3.2     | 0.0     | 0.0     | 0.0     |
| 70°   | 14573.3 | 3789.3  | 128.3   | 64.2    | 28.9    | 12.8    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 72.5° | 9057.7  | 2143.3  | 93.0    | 38.5    | 19.3    | 6.4     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 75°   | 3423.5  | 750.8   | 64.2    | 25.7    | 12.8    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 77.5° | 1065.2  | 285.6   | 38.5    | 19.3    | 6.4     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 80°   | 359.4   | 109.1   | 25.7    | 6.4     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 82.5° | 221.4   | 44.9    | 16.0    | 3.2     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 85°   | 138.0   | 19.3    | 6.4     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 87.5° | 25.7    | 6.4     | 3.2     | 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)