

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: P194387

Luminaire Tested: **GLEON-AF-09-LED-E1-SL2-7060-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P194387  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLEON-AF-09-LED-E1-SL2-7060-800-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 5700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 35611 lumens  
Efficiency: N/A  
Efficacy: 95.2 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
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: 25 FT



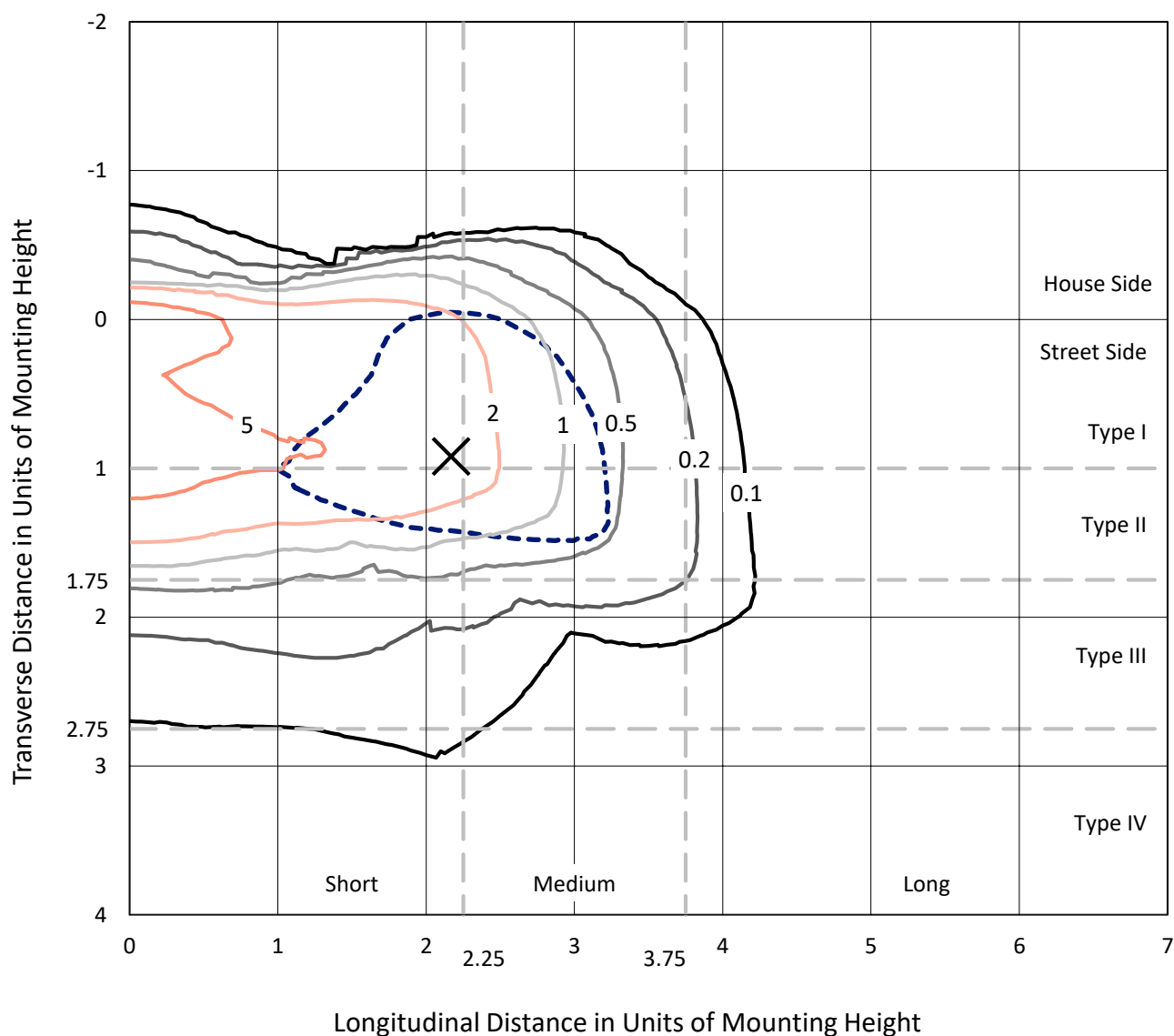
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

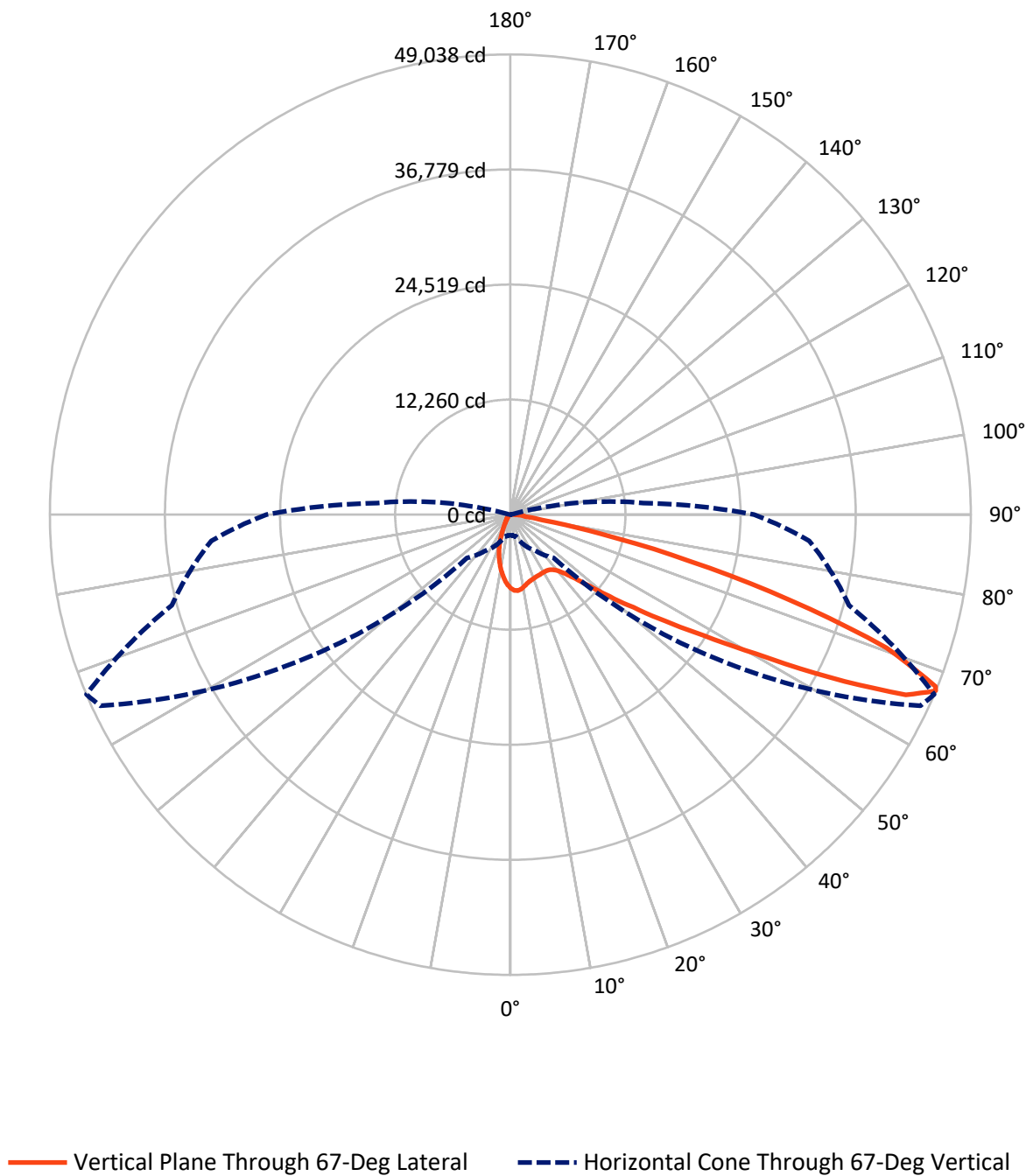


Based on 30 foot mounting height. Maximum calculated value = 8.7 fc  
 Type II - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3697.5   | 0.0    | 3697.5  |
|                    | % Fixture | 10.4     | 0.0    | 10.4    |
| <b>Street Side</b> | Lumens    | 31913.5  | 0.0    | 31913.5 |
|                    | % Fixture | 89.6     | 0.0    | 89.6    |
| <b>Total</b>       | Lumens    | 35611.0  | 0.0    | 35611.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 639.0   | 1.8       |
| 10°-20°   | 1360.1  | 3.8       |
| 20°-30°   | 1977.5  | 5.6       |
| 30°-40°   | 3084.9  | 8.7       |
| 40°-50°   | 5464.8  | 15.3      |
| 50°-60°   | 8647.5  | 24.3      |
| 60°-70°   | 9904.5  | 27.8      |
| 70°-80°   | 4108.3  | 11.5      |
| 80°-90°   | 424.4   | 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°    | 35611.0 | 100.0     |
| 0°-180°   | 35611.0 | 100.0     |

**Coefficient of Utilization**



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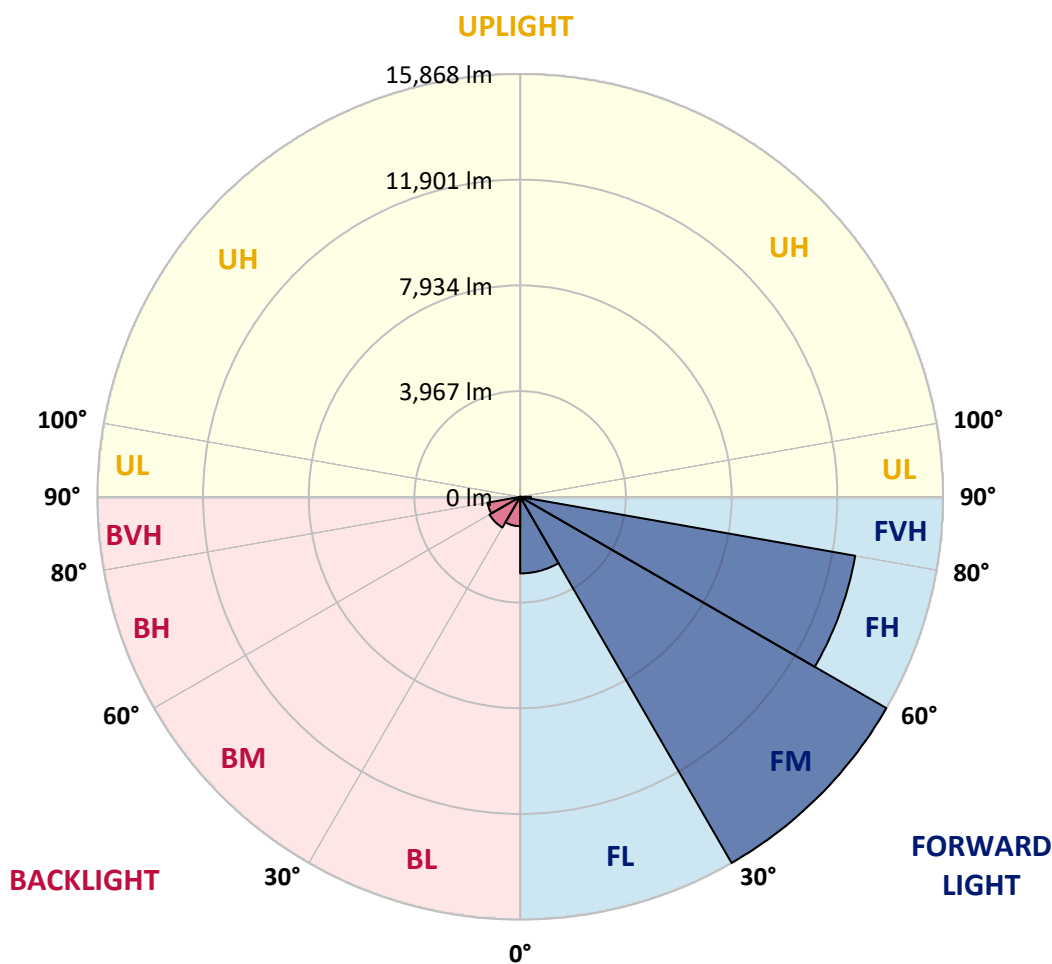
CATALOG NUMBER: GLEON-AF-09-LED-E1-SL2-7060-800-HSS

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

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2873.3  | 8.1       |                         |      |         |
| FM   | (30°-60°)   | 15868.4 | 44.6      |                         |      |         |
| FH   | (60°-80°)   | 12766.6 | 35.9      |                         |      | G5      |
| FVH  | (80°-90°)   | 405.3   | 1.1       |                         |      | G3/500  |
| BL   | (0°-30°)    | 1103.3  | 3.1       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 1328.8  | 3.7       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 1246.2  | 3.5       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 19.1    | 0.1       |                         |      | 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 II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 67°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 7853.5  | 7853.5  | 7853.5  | 7853.5  | 7853.5  | 7853.5  | 7853.5  | 7853.5  | 7853.5  | 7853.5  | 7853.5  |
| 2.5°  | 8119.4  | 8136.0  | 8134.0  | 8146.4  | 8175.5  | 8177.6  | 8148.5  | 8092.4  | 8079.9  | 8007.2  | 7880.5  |
| 5°    | 7488.0  | 7535.7  | 7564.8  | 7683.2  | 7816.2  | 7976.1  | 8096.6  | 8140.2  | 8134.0  | 8082.0  | 7890.9  |
| 7.5°  | 6767.2  | 6815.0  | 6848.2  | 6987.4  | 7163.9  | 7438.1  | 7751.8  | 8009.3  | 8032.2  | 8088.3  | 7882.6  |
| 10°   | 6287.4  | 6295.7  | 6341.4  | 6474.3  | 6659.2  | 6939.6  | 7313.5  | 7764.2  | 7832.8  | 8038.4  | 7861.8  |
| 12.5° | 5892.8  | 5899.0  | 5959.2  | 6102.5  | 6299.9  | 6582.4  | 6974.9  | 7496.3  | 7602.2  | 7976.1  | 7857.7  |
| 15°   | 5612.3  | 5635.2  | 5689.2  | 5838.7  | 6048.5  | 6328.9  | 6731.9  | 7299.0  | 7425.7  | 7953.2  | 7895.1  |
| 17.5° | 5518.9  | 5543.8  | 5560.4  | 5668.4  | 5859.5  | 6133.7  | 6547.0  | 7170.2  | 7313.5  | 7965.7  | 7967.8  |
| 20°   | 5616.5  | 5635.2  | 5597.8  | 5624.8  | 5743.2  | 5988.3  | 6391.3  | 7060.1  | 7230.4  | 7980.2  | 8061.3  |
| 22.5° | 5980.0  | 5988.3  | 5886.5  | 5768.1  | 5747.4  | 5882.4  | 6268.7  | 6972.8  | 7155.6  | 8019.7  | 8171.3  |
| 25°   | 6603.1  | 6588.6  | 6422.4  | 6166.9  | 5926.0  | 5863.7  | 6196.0  | 6918.8  | 7118.2  | 8061.3  | 8285.6  |
| 27.5° | 7355.0  | 7375.8  | 7147.3  | 6775.5  | 6316.5  | 5988.3  | 6185.6  | 6896.0  | 7101.6  | 8090.3  | 8385.3  |
| 30°   | 8269.0  | 8298.0  | 8036.3  | 7569.0  | 6910.5  | 6295.7  | 6281.2  | 6891.8  | 7091.2  | 8071.6  | 8393.6  |
| 32.5° | 9201.6  | 9236.9  | 9031.3  | 8549.4  | 7704.0  | 6810.8  | 6497.2  | 6937.5  | 7112.0  | 8007.2  | 8345.8  |
| 35°   | 10177.8 | 10227.7 | 10090.6 | 9677.2  | 8779.9  | 7554.4  | 6877.3  | 7076.7  | 7209.6  | 8001.0  | 8298.0  |
| 37.5° | 11525.9 | 11571.6 | 11314.0 | 10875.7 | 10082.3 | 8551.4  | 7488.0  | 7338.4  | 7440.2  | 8100.7  | 8310.5  |
| 40°   | 13538.6 | 13532.4 | 12867.7 | 12196.8 | 11513.4 | 9818.5  | 8345.8  | 7812.0  | 7863.9  | 8401.9  | 8464.2  |
| 42.5° | 15732.0 | 15721.6 | 14739.1 | 13719.3 | 13102.4 | 11378.4 | 9473.7  | 8630.4  | 8595.1  | 8956.5  | 8863.0  |
| 45°   | 17422.8 | 17420.7 | 16618.9 | 15470.3 | 15015.4 | 13168.9 | 10931.8 | 9768.6  | 9714.6  | 9857.9  | 9598.3  |
| 47.5° | 18143.5 | 18156.0 | 17753.0 | 16945.0 | 17136.1 | 15590.8 | 12770.1 | 11417.9 | 11336.8 | 11278.7 | 10884.0 |
| 50°   | 17582.7 | 17607.6 | 17640.9 | 17483.0 | 18691.9 | 18845.6 | 15235.6 | 13742.1 | 13702.7 | 13443.0 | 12826.1 |
| 52.5° | 15750.7 | 15877.4 | 16267.9 | 16768.5 | 19231.9 | 21969.6 | 19101.1 | 16629.3 | 16417.5 | 16141.2 | 15462.0 |
| 55°   | 12664.1 | 12803.3 | 13544.8 | 14759.9 | 18428.1 | 24021.7 | 24518.2 | 20351.5 | 19998.4 | 19173.8 | 18193.4 |
| 57.5° | 8381.1  | 8597.1  | 9673.1  | 11218.5 | 16093.4 | 24352.0 | 29922.8 | 25517.3 | 24287.6 | 22029.8 | 20924.8 |
| 60°   | 4617.4  | 4825.1  | 5992.5  | 7392.4  | 11623.5 | 22719.4 | 33557.7 | 32242.9 | 30070.3 | 25222.3 | 24241.9 |
| 62.5° | 2843.6  | 2955.7  | 3817.7  | 5120.1  | 6970.8  | 17931.7 | 34309.6 | 40694.7 | 38179.3 | 29332.9 | 28248.7 |
| 65°   | 2264.0  | 2311.8  | 2733.5  | 4185.4  | 4997.5  | 10665.9 | 31881.5 | 47137.9 | 46298.7 | 34309.6 | 31835.8 |
| 67°   | 2197.6  | 2216.3  | 2415.7  | 3593.4  | 4710.9  | 6538.7  | 26709.5 | 48186.8 | 49038.4 | 37321.5 | 31948.0 |
| 67.5° | 2212.1  | 2232.9  | 2421.9  | 3429.3  | 4702.6  | 6009.1  | 24927.4 | 47773.5 | 48849.4 | 37560.3 | 31451.6 |
| 70°   | 2133.2  | 2197.6  | 2772.9  | 3427.2  | 4472.0  | 4993.4  | 14928.2 | 41392.6 | 42512.1 | 34899.5 | 26686.7 |
| 72.5° | 756.1   | 760.2   | 1198.5  | 2772.9  | 4862.5  | 5047.4  | 7496.3  | 30344.5 | 31173.2 | 26697.1 | 19240.2 |
| 75°   | 448.7   | 382.2   | 398.8   | 789.3   | 4646.5  | 4902.0  | 4324.5  | 19389.8 | 19699.3 | 15297.9 | 9743.7  |
| 77.5° | 309.5   | 270.0   | 278.3   | 349.0   | 1769.7  | 4833.4  | 3435.5  | 10111.4 | 9781.1  | 5365.2  | 2075.0  |
| 80°   | 176.6   | 155.8   | 166.2   | 305.3   | 643.9   | 4509.4  | 3240.3  | 4100.2  | 3495.8  | 909.8   | 573.3   |
| 82.5° | 93.5    | 78.9    | 95.5    | 251.3   | 448.7   | 2810.3  | 3246.5  | 1981.6  | 1570.3  | 307.4   | 390.5   |
| 85°   | 33.2    | 27.0    | 45.7    | 172.4   | 299.1   | 862.0   | 3009.7  | 1665.8  | 1308.6  | 149.6   | 297.0   |
| 87.5° | 6.2     | 6.2     | 18.7    | 70.6    | 120.5   | 263.8   | 1780.1  | 988.7   | 662.6   | 89.3    | 203.6   |
| 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°    | 7853.5  | 7853.5  | 7853.5 | 7853.5 | 7853.5 | 7853.5 | 7853.5 | 7853.5 | 7853.5 | 7853.5 | 7853.5 |
| 2.5°  | 7828.6  | 7739.3  | 7618.8 | 7471.4 | 7296.9 | 7143.2 | 7028.9 | 6910.5 | 6885.6 | 6844.1 | 6837.8 |
| 5°    | 7776.7  | 7623.0  | 7323.9 | 6981.2 | 6615.6 | 6285.3 | 6017.4 | 5778.5 | 5672.6 | 5581.2 | 5570.8 |
| 7.5°  | 7699.8  | 7469.3  | 6960.4 | 6407.9 | 5836.7 | 5317.4 | 4877.0 | 4565.5 | 4278.8 | 4141.8 | 4121.0 |
| 10°   | 7610.5  | 7280.3  | 6551.2 | 5784.7 | 4995.4 | 4262.2 | 3607.9 | 3059.6 | 2727.2 | 2529.9 | 2505.0 |
| 12.5° | 7527.4  | 7095.4  | 6133.7 | 5138.8 | 4089.8 | 3109.4 | 2268.2 | 1744.8 | 1395.8 | 1254.6 | 1238.0 |
| 15°   | 7488.0  | 6945.8  | 5743.2 | 4478.2 | 3142.7 | 1979.5 | 1240.0 | 959.6  | 845.4  | 812.1  | 810.1  |
| 17.5° | 7483.8  | 6819.1  | 5361.0 | 3794.9 | 2201.7 | 1150.7 | 808.0  | 737.4  | 714.5  | 706.2  | 706.2  |
| 20°   | 7481.7  | 6698.7  | 4978.8 | 3086.6 | 1397.9 | 766.5  | 673.0  | 656.4  | 639.7  | 629.4  | 629.4  |
| 22.5° | 7504.6  | 6590.7  | 4580.0 | 2363.7 | 880.7  | 621.1  | 592.0  | 575.4  | 554.6  | 540.0  | 538.0  |
| 25°   | 7527.4  | 6507.6  | 4172.9 | 1682.5 | 637.7  | 540.0  | 511.0  | 488.1  | 459.0  | 440.3  | 438.3  |
| 27.5° | 7531.6  | 6403.7  | 3736.7 | 1125.8 | 533.8  | 471.5  | 434.1  | 398.8  | 365.6  | 346.9  | 344.8  |
| 30°   | 7469.3  | 6229.2  | 3252.7 | 760.2  | 471.5  | 409.2  | 359.3  | 322.0  | 290.8  | 276.3  | 276.3  |
| 32.5° | 7346.7  | 6013.2  | 2721.0 | 573.3  | 419.6  | 351.0  | 297.0  | 261.7  | 240.9  | 234.7  | 232.6  |
| 35°   | 7236.6  | 5780.6  | 2174.7 | 486.0  | 376.0  | 297.0  | 243.0  | 220.2  | 207.7  | 205.6  | 203.6  |
| 37.5° | 7172.2  | 5593.6  | 1661.7 | 440.3  | 334.4  | 249.3  | 205.6  | 189.0  | 182.8  | 178.6  | 180.7  |
| 40°   | 7222.1  | 5437.9  | 1227.6 | 403.0  | 292.9  | 207.7  | 174.5  | 166.2  | 159.9  | 157.9  | 157.9  |
| 42.5° | 7440.2  | 5410.9  | 911.8  | 369.7  | 253.4  | 172.4  | 151.6  | 145.4  | 141.2  | 139.2  | 141.2  |
| 45°   | 8013.5  | 5577.0  | 708.3  | 338.6  | 213.9  | 145.4  | 128.8  | 126.7  | 124.6  | 124.6  | 124.6  |
| 47.5° | 8875.5  | 5919.8  | 589.9  | 303.3  | 178.6  | 124.6  | 112.2  | 110.1  | 108.0  | 110.1  | 110.1  |
| 50°   | 10335.7 | 6547.0  | 527.6  | 267.9  | 147.5  | 105.9  | 95.5   | 95.5   | 95.5   | 95.5   | 97.6   |
| 52.5° | 12556.1 | 7780.8  | 486.0  | 232.6  | 120.5  | 89.3   | 81.0   | 81.0   | 83.1   | 83.1   | 85.2   |
| 55°   | 15029.9 | 9417.6  | 448.7  | 197.3  | 101.8  | 74.8   | 66.5   | 68.5   | 70.6   | 72.7   | 72.7   |
| 57.5° | 17713.6 | 11230.9 | 417.5  | 162.0  | 87.2   | 60.2   | 56.1   | 58.2   | 60.2   | 64.4   | 64.4   |
| 60°   | 20951.8 | 13193.8 | 371.8  | 126.7  | 72.7   | 47.8   | 43.6   | 47.8   | 54.0   | 58.2   | 60.2   |
| 62.5° | 24507.8 | 15092.3 | 313.6  | 99.7   | 60.2   | 37.4   | 35.3   | 43.6   | 51.9   | 56.1   | 58.2   |
| 65°   | 26938.0 | 15688.4 | 240.9  | 81.0   | 45.7   | 27.0   | 29.1   | 39.5   | 49.9   | 56.1   | 56.1   |
| 67°   | 25953.4 | 14224.0 | 197.3  | 68.5   | 37.4   | 20.8   | 27.0   | 39.5   | 49.9   | 54.0   | 56.1   |
| 67.5° | 25270.1 | 13650.7 | 189.0  | 66.5   | 35.3   | 20.8   | 27.0   | 39.5   | 49.9   | 56.1   | 56.1   |
| 70°   | 20561.3 | 10254.7 | 157.9  | 49.9   | 29.1   | 18.7   | 22.8   | 37.4   | 47.8   | 54.0   | 54.0   |
| 72.5° | 14286.3 | 6322.7  | 141.2  | 35.3   | 24.9   | 16.6   | 20.8   | 35.3   | 45.7   | 51.9   | 54.0   |
| 75°   | 6792.1  | 2289.0  | 120.5  | 27.0   | 22.8   | 14.5   | 18.7   | 35.3   | 45.7   | 51.9   | 51.9   |
| 77.5° | 1385.4  | 531.7   | 97.6   | 22.8   | 18.7   | 14.5   | 16.6   | 33.2   | 43.6   | 49.9   | 49.9   |
| 80°   | 454.9   | 205.6   | 72.7   | 20.8   | 18.7   | 14.5   | 16.6   | 31.2   | 43.6   | 47.8   | 49.9   |
| 82.5° | 328.2   | 103.9   | 47.8   | 20.8   | 18.7   | 14.5   | 14.5   | 31.2   | 41.5   | 47.8   | 47.8   |
| 85°   | 251.3   | 72.7    | 31.2   | 20.8   | 18.7   | 14.5   | 14.5   | 29.1   | 39.5   | 45.7   | 45.7   |
| 87.5° | 166.2   | 29.1    | 24.9   | 20.8   | 18.7   | 14.5   | 14.5   | 29.1   | 37.4   | 43.6   | 45.7   |
| 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)