

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: P641159

Luminaire Tested: GWS-SA5F-735-U-AFL-W-HSS

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P641159  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-48)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA5F-735-U-AFL-W-HSS  
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND  
AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: (80) 3500K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

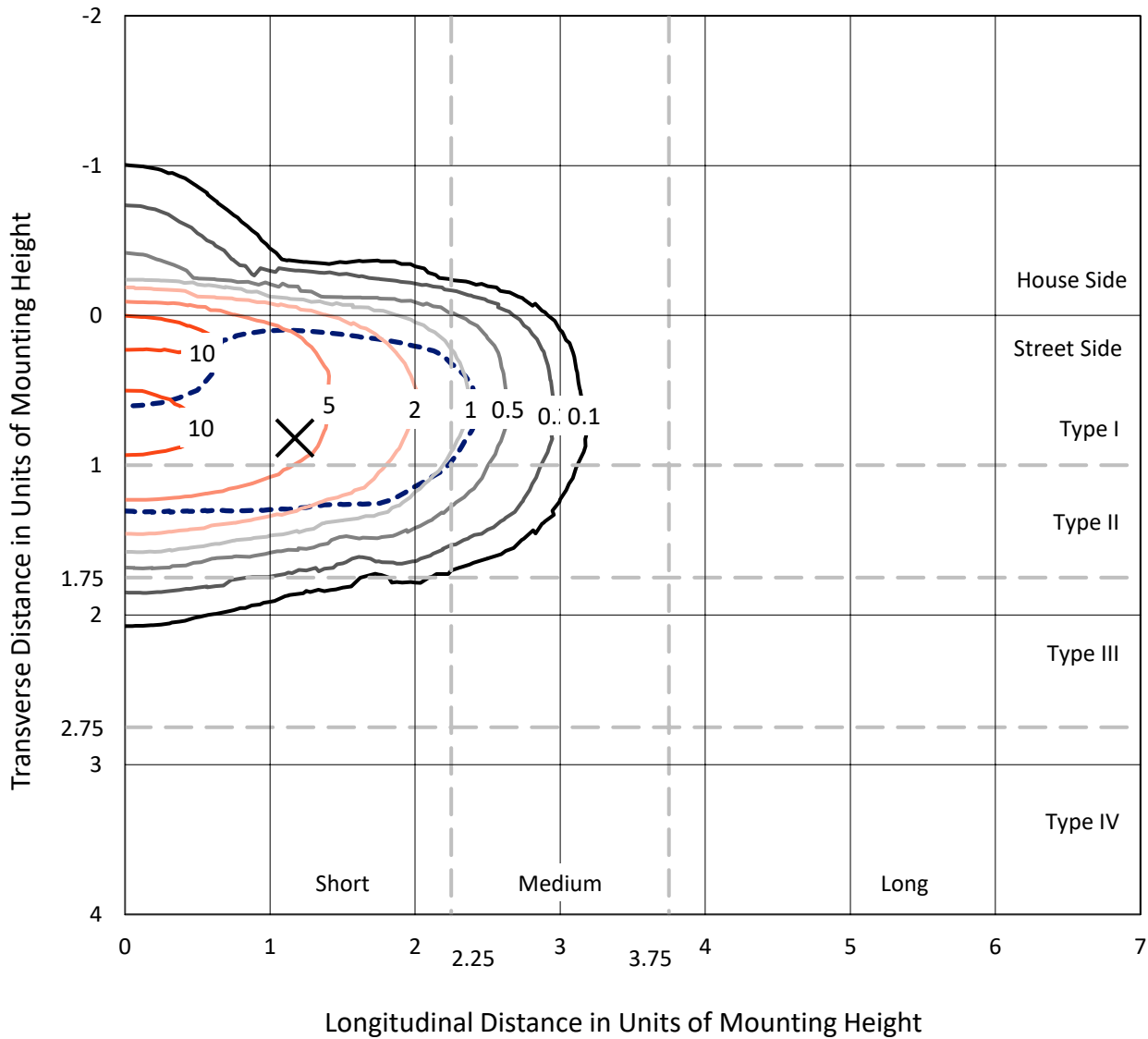
Lumens per Lamp: N/A  
Luminaire Lumens: 34521.9 lumens  
Efficiency: N/A  
Efficacy: 111.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 310.3  
Input Voltage (V): 120  
Input Current (Ain): 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

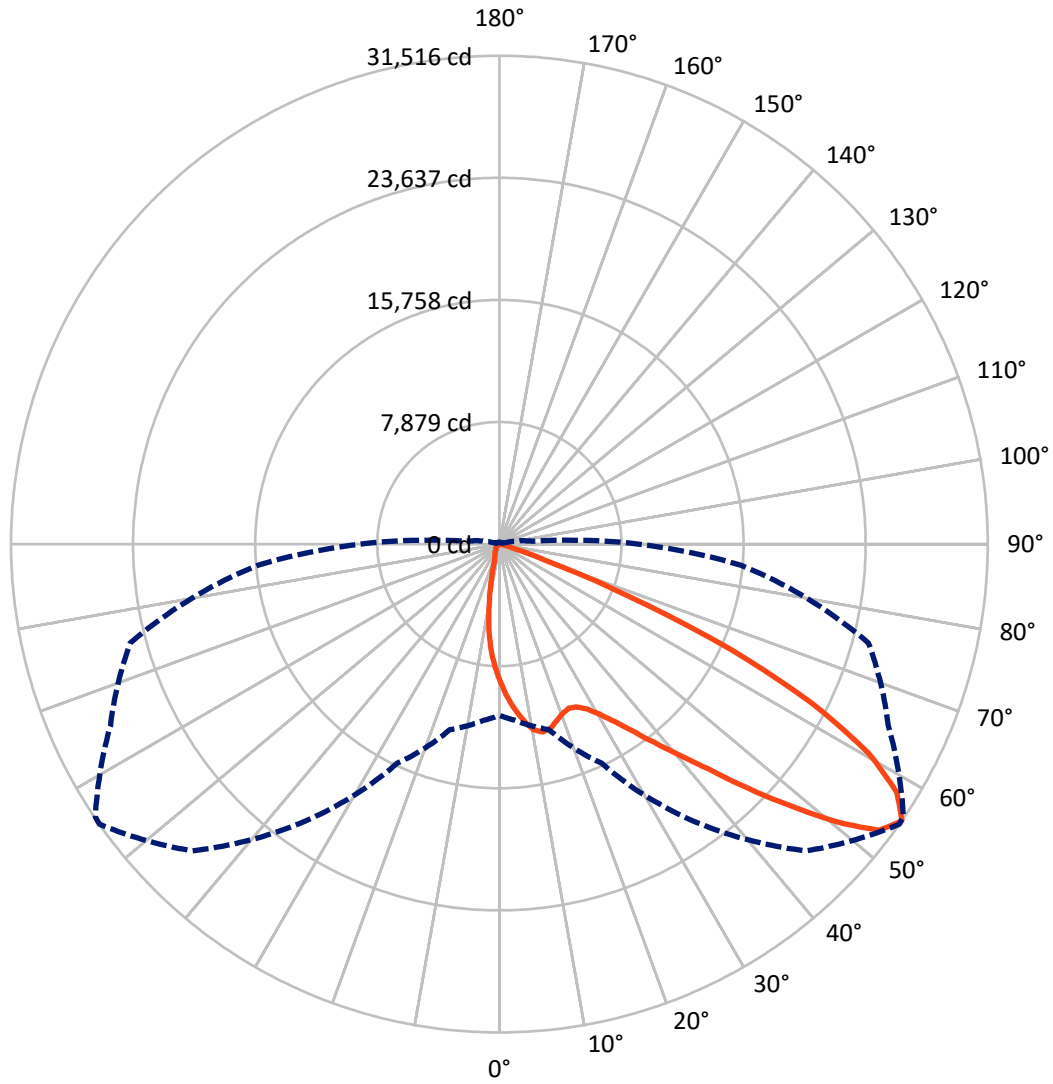
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral    - - - Horizontal Cone Through 55-Deg Vertical

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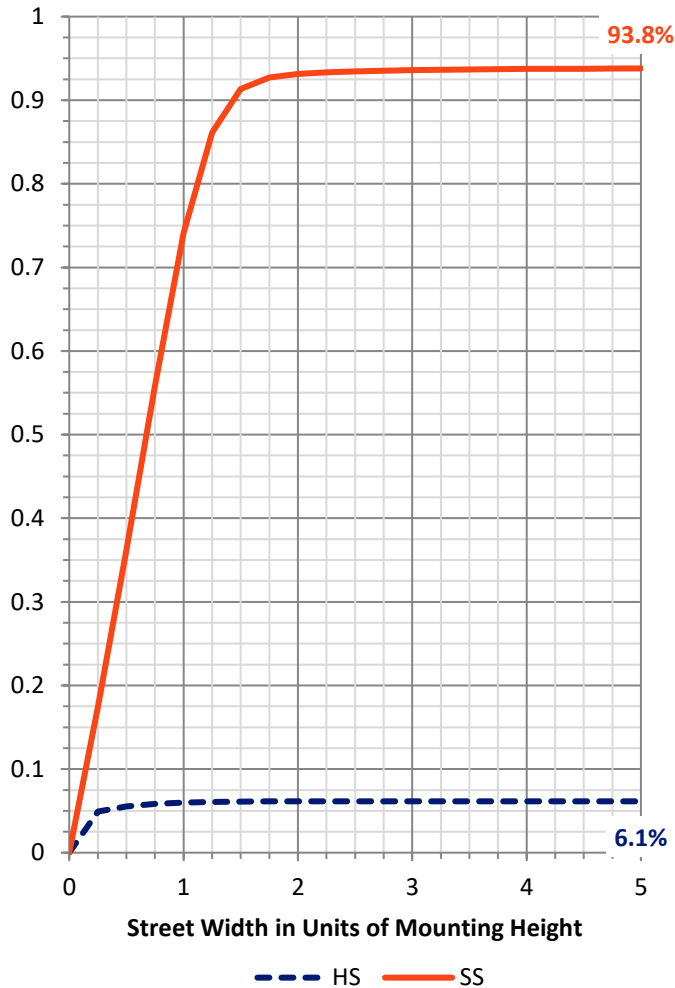
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2130.2   | 0.0    | 2130.2  |
|                    | % Fixture | 6.2      | 0.0    | 6.2     |
| <b>Street Side</b> | Lumens    | 32391.8  | 0.0    | 32391.8 |
|                    | % Fixture | 93.8     | 0.0    | 93.8    |
| <b>Total</b>       | Lumens    | 34521.9  | 0.0    | 34521.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 788.2   | 2.3       |
| 10°-20°   | 1900.2  | 5.5       |
| 20°-30°   | 3164.6  | 9.2       |
| 30°-40°   | 5392.6  | 15.6      |
| 40°-50°   | 8802.6  | 25.5      |
| 50°-60°   | 9215.9  | 26.7      |
| 60°-70°   | 4648.3  | 13.5      |
| 70°-80°   | 587.2   | 1.7       |
| 80°-90°   | 22.3    | 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°    | 34521.9 | 100.0     |
| 0°-180°   | 34521.9 | 100.0     |

**Coefficient of Utilization**



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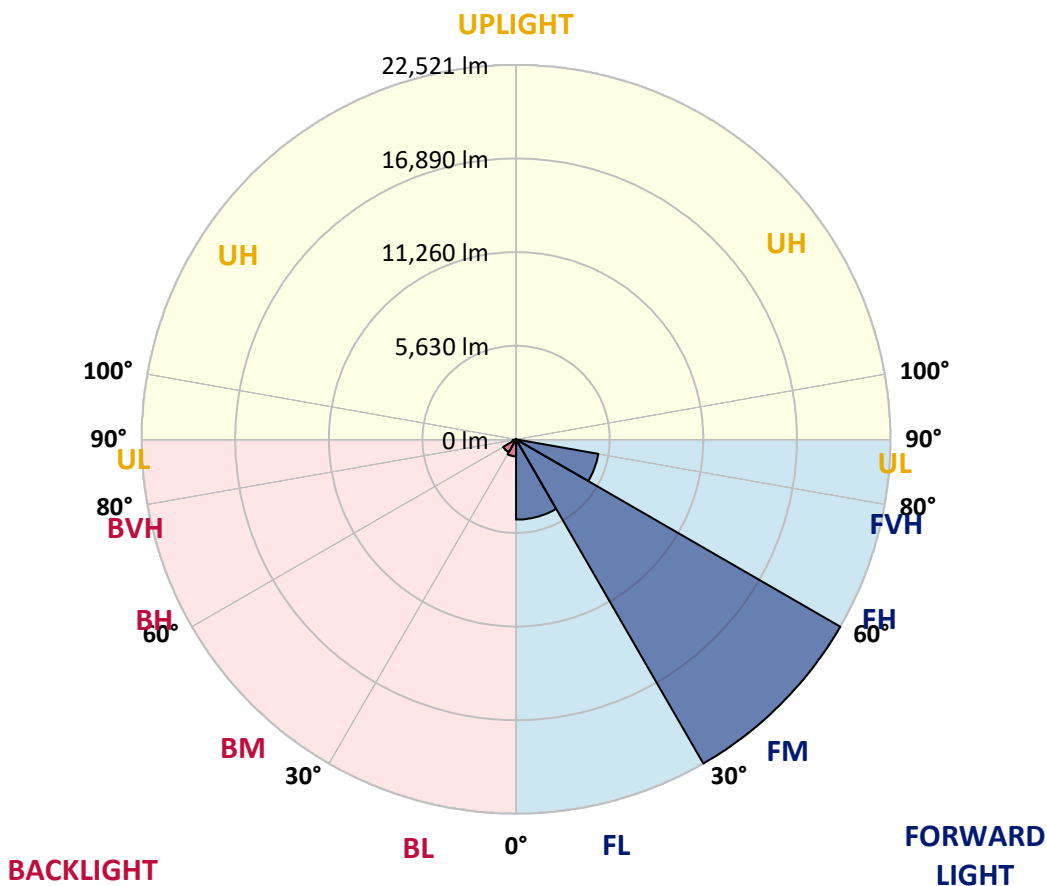
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 4829.1  | 14.0      |                         |      |         |
| FM (30°-60°)   | 22520.5 | 65.2      |                         |      |         |
| FH (60°-80°)   | 5021.8  | 14.5      |                         |      | G3/7500 |
| FVH (80°-90°)  | 20.3    | 0.1       |                         |      | G1/100  |
| BL (0°-30°)    | 1023.8  | 3.0       | B3/2500                 |      |         |
| BM (30°-60°)   | 890.6   | 2.6       | B1/1000                 |      |         |
| BH (60°-80°)   | 213.7   | 0.6       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 2.0     | 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-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 56°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 8918.4  | 8918.4  | 8918.4  | 8918.4  | 8918.4  | 8918.4  | 8918.4  | 8918.4  | 8918.4  | 8918.4  | 8918.4  |
| 2.5°  | 10397.0 | 10346.8 | 10423.5 | 10335.0 | 10184.5 | 10057.6 | 9892.3  | 9833.3  | 9567.7  | 9316.8  | 9074.8  |
| 5°    | 11660.1 | 11674.8 | 11651.2 | 11527.3 | 11314.8 | 11078.7 | 10745.2 | 10671.4 | 10208.1 | 9730.0  | 9213.6  |
| 7.5°  | 11972.9 | 11964.0 | 12014.2 | 12061.4 | 12026.0 | 11908.0 | 11545.0 | 11471.2 | 10895.7 | 10178.6 | 9426.0  |
| 10°   | 11007.9 | 11013.8 | 11117.1 | 11435.8 | 11831.2 | 12241.5 | 12185.4 | 12144.1 | 11580.4 | 10686.2 | 9662.1  |
| 12.5° | 9644.4  | 9697.5  | 9806.7  | 10261.2 | 10931.1 | 11863.7 | 12442.1 | 12483.5 | 12209.0 | 11244.0 | 9939.5  |
| 15°   | 9054.2  | 9066.0  | 9154.5  | 9429.0  | 9927.7  | 11078.7 | 12332.9 | 12448.0 | 12734.3 | 11804.7 | 10240.6 |
| 17.5° | 9039.4  | 9054.2  | 9092.6  | 9213.6  | 9538.2  | 10461.9 | 11981.8 | 12182.4 | 13129.8 | 12406.7 | 10600.6 |
| 20°   | 9594.3  | 9585.4  | 9558.8  | 9493.9  | 9635.6  | 10258.3 | 11657.1 | 11878.5 | 13345.2 | 12994.0 | 10963.6 |
| 22.5° | 10600.6 | 10588.8 | 10470.8 | 10202.2 | 10087.1 | 10444.2 | 11497.8 | 11698.4 | 13475.0 | 13516.4 | 11261.7 |
| 25°   | 11760.4 | 11843.0 | 11621.7 | 11214.4 | 10931.1 | 10919.3 | 11639.4 | 11781.1 | 13587.2 | 13979.7 | 11465.3 |
| 27.5° | 13032.4 | 13058.9 | 12870.1 | 12412.6 | 12002.4 | 11680.7 | 12049.6 | 12155.9 | 13711.1 | 14392.9 | 11580.4 |
| 30°   | 14428.3 | 14419.4 | 14204.0 | 13672.8 | 13174.0 | 12710.7 | 12740.2 | 12781.5 | 14000.4 | 14865.0 | 11707.3 |
| 32.5° | 16172.4 | 16210.8 | 15827.1 | 15104.1 | 14505.0 | 13864.6 | 13643.3 | 13649.2 | 14522.7 | 15473.0 | 11899.1 |
| 35°   | 18542.2 | 18447.8 | 17940.2 | 16910.2 | 15889.1 | 15198.5 | 14820.8 | 14788.3 | 15328.4 | 16290.5 | 12232.6 |
| 37.5° | 20799.8 | 20808.7 | 20277.5 | 19144.2 | 17854.6 | 16765.6 | 16231.4 | 16142.9 | 16461.6 | 17423.7 | 12787.4 |
| 40°   | 22366.9 | 22396.4 | 22175.1 | 21581.9 | 20215.5 | 18675.0 | 17890.0 | 17798.5 | 17931.3 | 18858.0 | 13513.4 |
| 42.5° | 23196.2 | 23278.8 | 23340.8 | 23479.5 | 22443.7 | 21059.6 | 19852.5 | 19843.7 | 19705.0 | 20492.9 | 14354.5 |
| 45°   | 23228.7 | 23352.6 | 23730.4 | 24677.7 | 24795.7 | 23780.5 | 22467.3 | 22269.5 | 21735.4 | 22243.0 | 15107.0 |
| 47.5° | 21944.9 | 22231.2 | 23033.9 | 24910.8 | 26150.3 | 26486.8 | 25185.3 | 25064.3 | 23565.1 | 23627.1 | 15670.7 |
| 50°   | 18952.4 | 19250.5 | 20729.0 | 23715.6 | 26492.7 | 28635.2 | 28168.9 | 27918.1 | 25093.8 | 24541.9 | 15942.2 |
| 52.5° | 15883.2 | 16154.7 | 17158.1 | 20870.7 | 25073.1 | 29311.0 | 30683.3 | 30385.3 | 26466.1 | 24860.7 | 15830.1 |
| 55°   | 11052.1 | 11415.1 | 12394.9 | 15599.9 | 21803.2 | 27994.8 | 31515.5 | 31453.6 | 27690.8 | 24660.0 | 15656.0 |
| 57.5° | 5418.3  | 5778.4  | 6755.2  | 9617.9  | 16151.8 | 24441.6 | 30243.6 | 30571.2 | 28422.7 | 24444.5 | 15514.3 |
| 60°   | 2263.5  | 2411.1  | 2747.5  | 4220.2  | 9036.5  | 18471.4 | 27372.1 | 27826.6 | 27974.1 | 24152.4 | 15499.5 |
| 62.5° | 1313.3  | 1336.9  | 1372.3  | 1750.0  | 3514.8  | 10588.8 | 22706.3 | 23352.6 | 25616.2 | 23765.8 | 15266.4 |
| 65°   | 991.6   | 1000.4  | 985.7   | 1074.2  | 1452.0  | 4016.5  | 16405.6 | 17285.0 | 21381.2 | 22254.8 | 14345.6 |
| 67.5° | 814.5   | 814.5   | 776.2   | 793.9   | 911.9   | 1505.1  | 9057.1  | 10284.8 | 15821.2 | 18291.4 | 11846.0 |
| 70°   | 649.3   | 664.0   | 646.3   | 622.7   | 652.2   | 832.2   | 3222.7  | 3995.9  | 9213.6  | 10801.3 | 6908.7  |
| 72.5° | 492.8   | 492.8   | 522.4   | 504.7   | 484.0   | 522.4   | 1124.4  | 1263.1  | 3697.8  | 4503.5  | 2493.7  |
| 75°   | 380.7   | 392.5   | 413.2   | 395.5   | 365.9   | 309.9   | 540.1   | 572.5   | 1115.5  | 1047.7  | 557.8   |
| 77.5° | 194.8   | 197.7   | 262.7   | 289.2   | 271.5   | 188.9   | 236.1   | 259.7   | 363.0   | 324.6   | 206.6   |
| 80°   | 118.0   | 123.9   | 147.6   | 227.2   | 180.0   | 100.3   | 97.4    | 103.3   | 171.2   | 147.6   | 85.6    |
| 82.5° | 50.2    | 53.1    | 82.6    | 82.6    | 73.8    | 38.4    | 38.4    | 38.4    | 82.6    | 76.7    | 35.4    |
| 85°   | 0.0     | 0.0     | 14.8    | 11.8    | 11.8    | 14.8    | 14.8    | 14.8    | 20.7    | 29.5    | 17.7    |
| 87.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 3.0     | 8.9     | 8.9     |
| 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°    | 8918.4 | 8918.4 | 8918.4 | 8918.4 | 8918.4 | 8918.4 | 8918.4 | 8918.4 | 8918.4 | 8918.4 | 8918.4 |
| 2.5°  | 8918.4 | 8729.6 | 8475.8 | 8245.6 | 7935.7 | 7761.6 | 7519.6 | 7321.9 | 7153.6 | 7100.5 | 7076.9 |
| 5°    | 8921.4 | 8596.8 | 8053.7 | 7510.7 | 6843.8 | 6318.5 | 5778.4 | 5350.5 | 4999.3 | 4887.1 | 4857.6 |
| 7.5°  | 8980.4 | 8502.3 | 7622.9 | 6637.2 | 5521.6 | 4600.9 | 3777.5 | 3039.7 | 2697.4 | 2582.3 | 2558.7 |
| 10°   | 9060.1 | 8422.6 | 7124.1 | 5589.5 | 3987.0 | 2803.6 | 1986.1 | 1514.0 | 1289.7 | 1165.7 | 1183.4 |
| 12.5° | 9163.4 | 8357.7 | 6572.3 | 4456.3 | 2638.3 | 1540.5 | 1091.9 | 914.9  | 867.6  | 844.0  | 832.2  |
| 15°   | 9302.1 | 8281.0 | 5887.6 | 3331.9 | 1617.2 | 991.6  | 841.1  | 793.9  | 776.2  | 764.4  | 761.4  |
| 17.5° | 9443.7 | 8192.4 | 5191.1 | 2343.2 | 1074.2 | 823.4  | 755.5  | 731.9  | 720.1  | 711.2  | 708.3  |
| 20°   | 9594.3 | 8041.9 | 4373.6 | 1614.3 | 847.0  | 740.7  | 696.5  | 669.9  | 655.2  | 640.4  | 637.5  |
| 22.5° | 9659.2 | 7799.9 | 3591.6 | 1130.3 | 752.5  | 681.7  | 625.6  | 593.2  | 575.5  | 563.7  | 563.7  |
| 25°   | 9597.2 | 7407.4 | 2783.0 | 858.8  | 684.7  | 616.8  | 560.7  | 525.3  | 510.6  | 498.7  | 498.7  |
| 27.5° | 9431.9 | 6902.8 | 2030.4 | 711.2  | 610.9  | 548.9  | 495.8  | 463.3  | 451.5  | 445.6  | 445.6  |
| 30°   | 9249.0 | 6265.3 | 1431.3 | 610.9  | 528.3  | 478.1  | 433.8  | 413.2  | 410.2  | 404.3  | 404.3  |
| 32.5° | 9092.6 | 5669.2 | 985.7  | 537.1  | 466.3  | 416.1  | 386.6  | 377.7  | 380.7  | 374.8  | 377.7  |
| 35°   | 9007.0 | 5084.9 | 731.9  | 478.1  | 416.1  | 368.9  | 354.1  | 354.1  | 354.1  | 351.2  | 351.2  |
| 37.5° | 9042.4 | 4509.4 | 596.1  | 436.8  | 371.8  | 336.4  | 321.7  | 327.6  | 333.5  | 333.5  | 333.5  |
| 40°   | 9219.5 | 3998.8 | 528.3  | 398.4  | 333.5  | 306.9  | 295.1  | 304.0  | 312.8  | 318.7  | 318.7  |
| 42.5° | 9443.7 | 3585.7 | 478.1  | 365.9  | 306.9  | 277.4  | 271.5  | 280.4  | 289.2  | 295.1  | 295.1  |
| 45°   | 9585.4 | 3169.6 | 427.9  | 324.6  | 280.4  | 244.9  | 244.9  | 256.8  | 253.8  | 256.8  | 256.8  |
| 47.5° | 9650.3 | 2839.0 | 377.7  | 280.4  | 239.0  | 212.5  | 215.4  | 221.3  | 215.4  | 221.3  | 221.3  |
| 50°   | 9491.0 | 2505.5 | 333.5  | 233.1  | 197.7  | 185.9  | 191.8  | 188.9  | 188.9  | 200.7  | 200.7  |
| 52.5° | 9198.8 | 2257.6 | 295.1  | 197.7  | 168.2  | 165.3  | 171.2  | 159.4  | 162.3  | 162.3  | 159.4  |
| 55°   | 8983.4 | 2116.0 | 262.7  | 171.2  | 144.6  | 147.6  | 144.6  | 123.9  | 112.1  | 100.3  | 97.4   |
| 57.5° | 8877.1 | 2059.9 | 239.0  | 153.5  | 129.9  | 129.9  | 118.0  | 85.6   | 64.9   | 50.2   | 44.3   |
| 60°   | 8853.5 | 1992.0 | 215.4  | 132.8  | 115.1  | 109.2  | 85.6   | 50.2   | 32.5   | 23.6   | 20.7   |
| 62.5° | 8629.2 | 1826.8 | 194.8  | 106.2  | 100.3  | 88.5   | 53.1   | 29.5   | 17.7   | 11.8   | 8.9    |
| 65°   | 7894.4 | 1502.1 | 174.1  | 82.6   | 76.7   | 64.9   | 32.5   | 17.7   | 8.9    | 3.0    | 0.0    |
| 67.5° | 6280.1 | 1065.4 | 153.5  | 62.0   | 53.1   | 41.3   | 20.7   | 11.8   | 3.0    | 0.0    | 0.0    |
| 70°   | 3621.1 | 575.5  | 126.9  | 44.3   | 35.4   | 26.6   | 14.8   | 5.9    | 0.0    | 0.0    | 0.0    |
| 72.5° | 1210.0 | 268.6  | 97.4   | 29.5   | 26.6   | 20.7   | 8.9    | 3.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 265.6  | 159.4  | 64.9   | 20.7   | 17.7   | 14.8   | 5.9    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 100.3  | 112.1  | 32.5   | 14.8   | 11.8   | 8.9    | 3.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 38.4   | 73.8   | 14.8   | 8.9    | 8.9    | 3.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 20.7   | 29.5   | 8.9    | 5.9    | 5.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 11.8   | 14.8   | 5.9    | 3.0    | 3.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 5.9    | 3.0    | 3.0    | 3.0    | 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)