

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: P650853

Luminaire Tested: **GALN-SA4C-840-U-SL4**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P650853  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA4C-840-U-SL4  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 4000K, 1050mA 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: 22894.5 lumens  
Efficiency: N/A  
Efficacy: 107.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4

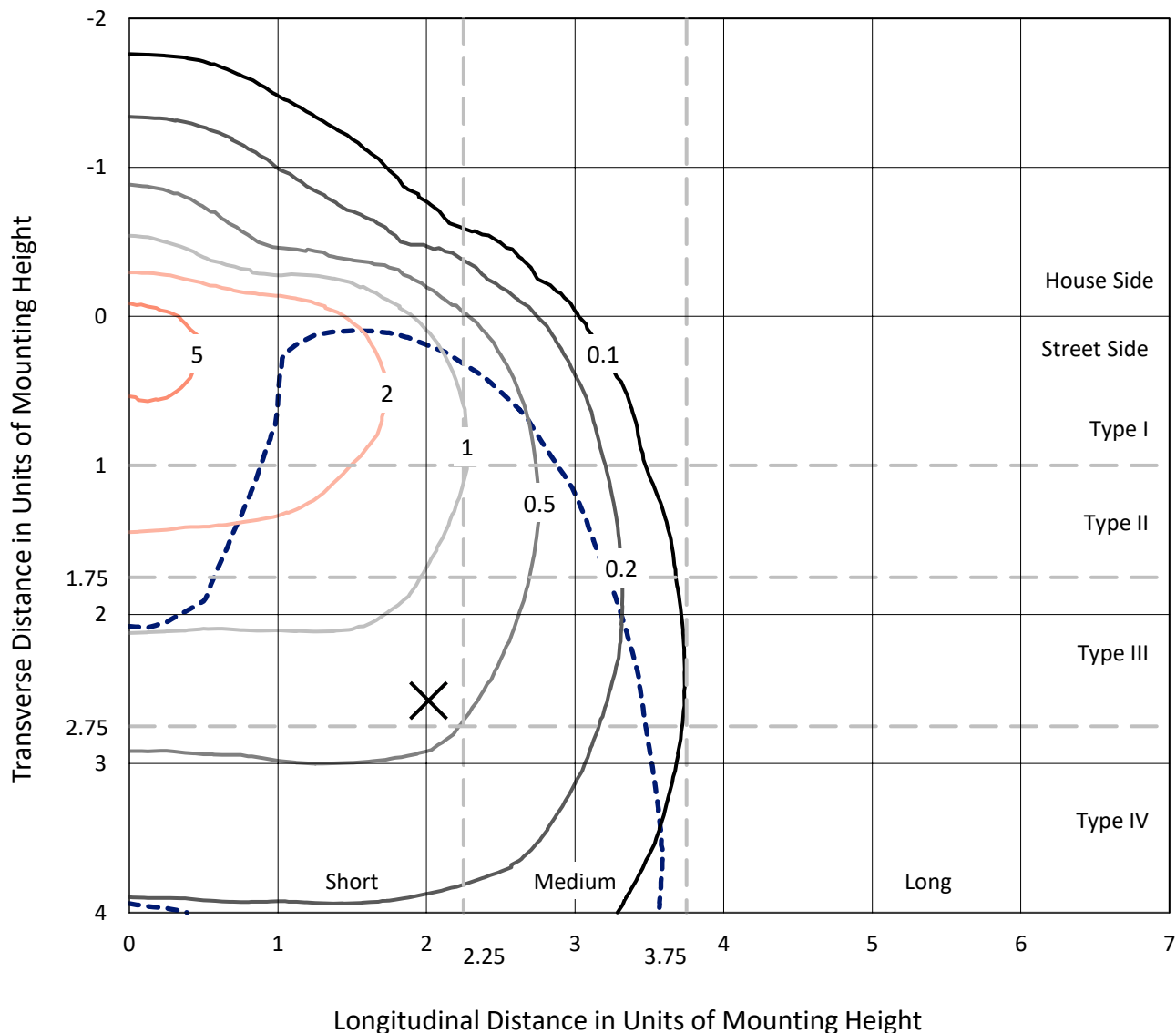
Input Watts (W): 213  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

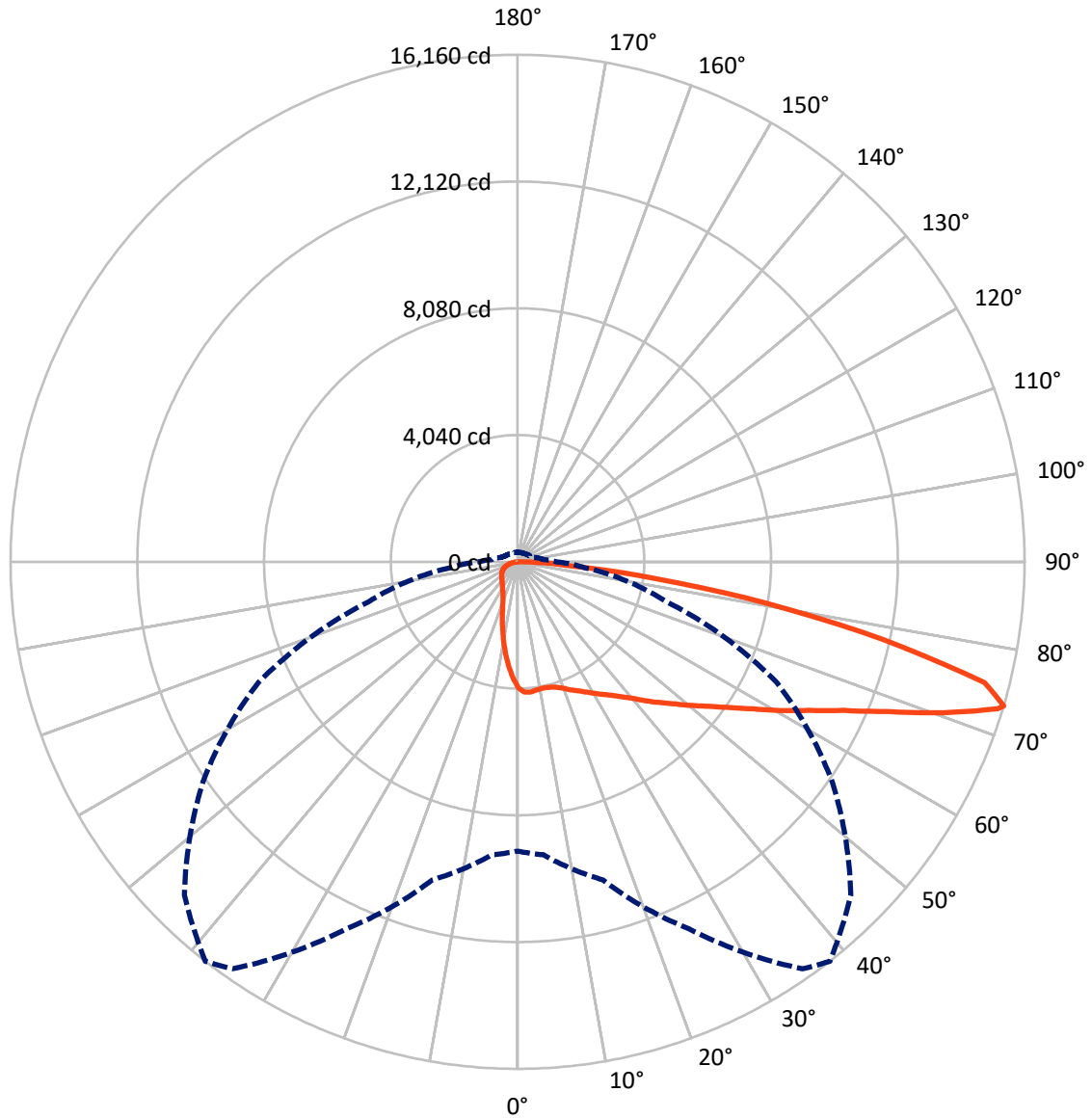
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral      - - - Horizontal Cone Through 73-Deg Vertical

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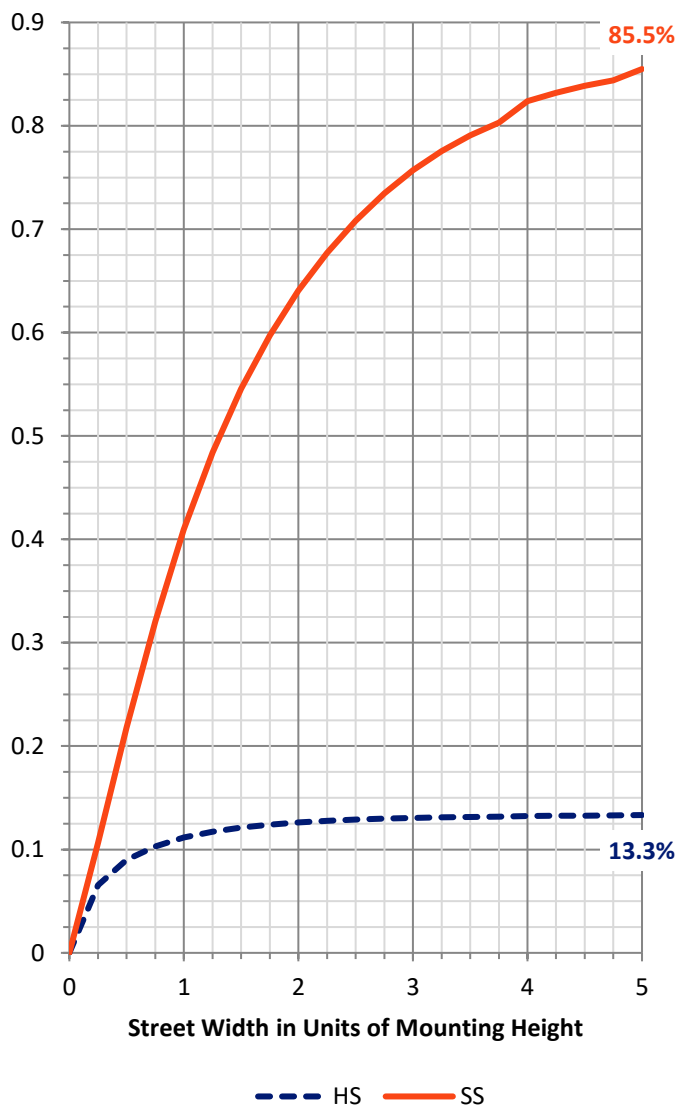
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3077.7   | 0.0    | 3077.7  |
|                    | % Fixture | 13.4     | 0.0    | 13.4    |
| <b>Street Side</b> | Lumens    | 19816.8  | 0.0    | 19816.8 |
|                    | % Fixture | 86.6     | 0.0    | 86.6    |
| <b>Total</b>       | Lumens    | 22894.5  | 0.0    | 22894.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 351.1   | 1.5       |
| 10°-20°   | 900.3   | 3.9       |
| 20°-30°   | 1402.0  | 6.1       |
| 30°-40°   | 2056.4  | 9.0       |
| 40°-50°   | 3050.4  | 13.3      |
| 50°-60°   | 4321.8  | 18.9      |
| 60°-70°   | 5482.3  | 23.9      |
| 70°-80°   | 4563.6  | 19.9      |
| 80°-90°   | 766.8   | 3.3       |
| 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°    | 22894.5 | 100.0     |
| 0°-180°   | 22894.5 | 100.0     |

**Coefficient of Utilization**

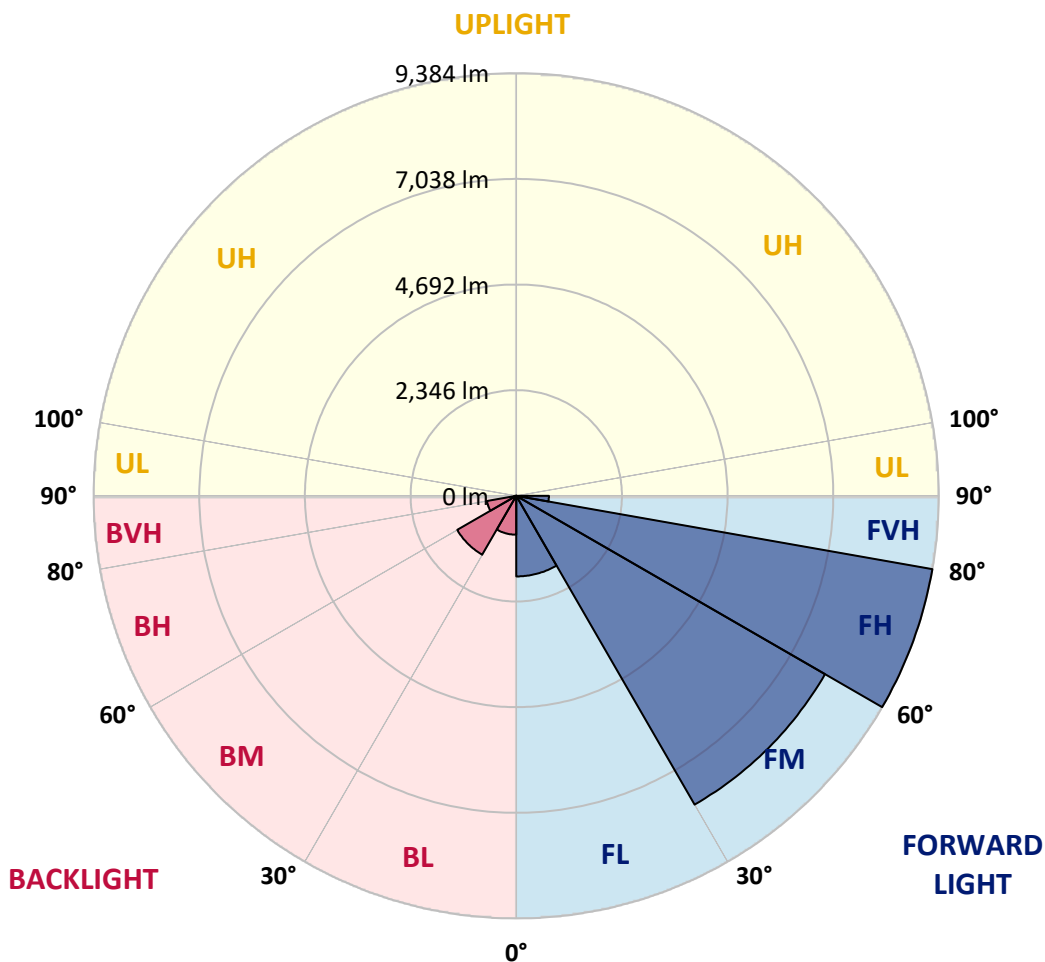


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|--------|-----------|-------------------------|------|----------|
|                |        |           | B                       | U    | G        |
| FL (0°-30°)    | 1789.7 | 7.8       |                         |      |          |
| FM (30°-60°)   | 7917.5 | 34.6      |                         |      |          |
| FH (60°-80°)   | 9384.4 | 41.0      |                         |      | G4/12000 |
| FVH (80°-90°)  | 725.2  | 3.2       |                         |      | G4/750   |
| BL (0°-30°)    | 863.6  | 3.8       | B2/1000                 |      |          |
| BM (30°-60°)   | 1511.0 | 6.6       | B2/2500                 |      |          |
| BH (60°-80°)   | 661.5  | 2.9       | B2/1000                 |      | G2/1000  |
| BVH (80°-90°)  | 41.6   | 0.2       |                         |      | G1/100   |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

**BUG Rating: B2-U0-G4**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°     | 25°     | 35°     | 38°     | 45°     | 55°     | 65°     | 75°     | 85°    |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0°    | 4022.2 | 4022.2 | 4022.2  | 4022.2  | 4022.2  | 4022.2  | 4022.2  | 4022.2  | 4022.2  | 4022.2  | 4022.2 |
| 2.5°  | 4183.8 | 4204.5 | 4194.2  | 4179.9  | 4170.9  | 4161.9  | 4148.9  | 4111.4  | 4081.6  | 4049.3  | 3998.9 |
| 5°    | 4214.8 | 4227.8 | 4218.7  | 4200.6  | 4179.9  | 4170.9  | 4146.3  | 4097.2  | 4049.3  | 3995.0  | 3920.1 |
| 7.5°  | 4196.8 | 4201.9 | 4191.5  | 4169.6  | 4151.5  | 4134.7  | 4106.2  | 4051.9  | 3993.7  | 3927.8  | 3829.6 |
| 10°   | 4132.1 | 4151.5 | 4151.5  | 4133.3  | 4115.3  | 4106.2  | 4077.8  | 4026.0  | 3973.1  | 3898.0  | 3781.7 |
| 12.5° | 4079.1 | 4099.8 | 4116.5  | 4111.4  | 4110.1  | 4110.1  | 4088.1  | 4049.3  | 3987.3  | 3916.2  | 3777.9 |
| 15°   | 4042.9 | 4067.4 | 4103.7  | 4124.3  | 4137.2  | 4141.2  | 4132.1  | 4098.4  | 4035.1  | 3952.4  | 3793.3 |
| 17.5° | 4035.1 | 4064.9 | 4130.8  | 4176.1  | 4209.6  | 4208.4  | 4205.8  | 4159.2  | 4089.4  | 4004.1  | 3812.8 |
| 20°   | 4070.0 | 4108.8 | 4200.6  | 4271.7  | 4320.8  | 4311.8  | 4297.6  | 4236.8  | 4155.4  | 4059.7  | 3830.8 |
| 22.5° | 4174.7 | 4214.8 | 4315.7  | 4393.2  | 4441.1  | 4441.1  | 4398.4  | 4318.3  | 4231.7  | 4124.3  | 3855.4 |
| 25°   | 4324.8 | 4368.7 | 4476.0  | 4554.9  | 4576.8  | 4560.0  | 4517.3  | 4420.4  | 4320.8  | 4217.4  | 3907.1 |
| 27.5° | 4508.3 | 4561.3 | 4660.9  | 4726.8  | 4720.4  | 4707.4  | 4663.4  | 4539.3  | 4439.8  | 4345.4  | 3995.0 |
| 30°   | 4737.2 | 4776.0 | 4879.4  | 4894.9  | 4871.6  | 4869.1  | 4807.0  | 4682.9  | 4589.8  | 4517.3  | 4120.5 |
| 32.5° | 4953.1 | 4988.0 | 5070.7  | 5077.2  | 5035.8  | 5041.0  | 4982.8  | 4869.1  | 4816.0  | 4790.2  | 4331.2 |
| 35°   | 5181.9 | 5200.0 | 5271.1  | 5263.4  | 5236.2  | 5232.4  | 5209.1  | 5100.4  | 5117.2  | 5163.8  | 4629.9 |
| 37.5° | 5373.2 | 5409.5 | 5449.5  | 5456.0  | 5454.7  | 5467.6  | 5483.2  | 5431.4  | 5528.4  | 5674.5  | 5021.6 |
| 40°   | 5549.1 | 5580.1 | 5639.6  | 5660.3  | 5710.7  | 5736.5  | 5789.5  | 5790.9  | 6014.5  | 6255.0  | 5503.8 |
| 42.5° | 5668.0 | 5721.1 | 5832.3  | 5869.8  | 5992.5  | 6070.1  | 6149.0  | 6233.0  | 6557.5  | 6866.5  | 6072.7 |
| 45°   | 5771.4 | 5841.2 | 6026.2  | 6142.5  | 6309.3  | 6403.7  | 6570.5  | 6746.3  | 7213.0  | 7617.7  | 6650.6 |
| 47.5° | 5927.9 | 5989.9 | 6202.0  | 6407.6  | 6659.7  | 6768.3  | 7017.8  | 7280.3  | 7890.5  | 8334.0  | 7204.0 |
| 50°   | 6145.1 | 6182.6 | 6398.5  | 6733.4  | 7055.3  | 7194.9  | 7524.6  | 7903.5  | 8614.5  | 9041.2  | 7690.1 |
| 52.5° | 6423.1 | 6438.6 | 6610.5  | 7056.6  | 7480.7  | 7653.9  | 8090.9  | 8533.0  | 9248.1  | 9655.3  | 8075.4 |
| 55°   | 6751.5 | 6725.6 | 6860.0  | 7399.2  | 7966.8  | 8193.0  | 8662.4  | 9170.4  | 9960.5  | 10151.8 | 8355.9 |
| 57.5° | 7076.0 | 7035.9 | 7143.2  | 7815.5  | 8566.7  | 8839.5  | 9386.4  | 9827.3  | 10596.5 | 10615.9 | 8552.5 |
| 60°   | 7419.9 | 7390.2 | 7518.1  | 8304.2  | 9302.4  | 9625.6  | 10131.1 | 10508.6 | 11212.0 | 10939.1 | 8583.5 |
| 62.5° | 7772.9 | 7725.0 | 7907.3  | 8853.7  | 10131.1 | 10424.6 | 10914.6 | 11232.6 | 11815.7 | 11059.4 | 8284.9 |
| 65°   | 8115.5 | 8093.5 | 8375.4  | 9506.7  | 11074.9 | 11408.5 | 11884.3 | 12100.1 | 12299.3 | 10878.4 | 7544.0 |
| 67.5° | 8480.1 | 8524.0 | 8974.0  | 10378.0 | 12305.8 | 12724.7 | 13237.9 | 13034.9 | 12437.6 | 10021.2 | 6353.3 |
| 70°   | 9036.0 | 9064.5 | 9760.1  | 11519.7 | 13892.1 | 14397.7 | 14645.8 | 13367.2 | 11770.5 | 8393.4  | 4776.0 |
| 72.5° | 9275.2 | 9400.6 | 10462.0 | 12718.2 | 15694.4 | 16003.4 | 15119.1 | 12626.4 | 9805.3  | 5701.6  | 2509.5 |
| 73°   | 9222.2 | 9372.2 | 10494.4 | 12900.4 | 15835.4 | 16159.8 | 15018.2 | 12245.0 | 9114.8  | 4910.4  | 2151.4 |
| 75°   | 8561.5 | 8746.4 | 10074.2 | 12747.9 | 15561.3 | 15367.3 | 13397.0 | 10436.2 | 6159.3  | 2232.9  | 980.0  |
| 77.5° | 6755.3 | 6808.4 | 7982.3  | 10294.0 | 12254.0 | 11894.6 | 10026.4 | 6522.6  | 2515.9  | 830.1   | 555.9  |
| 80°   | 3388.6 | 3583.9 | 4499.3  | 5896.8  | 8194.4  | 8076.7  | 6328.7  | 3084.9  | 1048.6  | 487.4   | 368.4  |
| 82.5° | 1630.4 | 1768.7 | 2191.5  | 2875.4  | 4527.7  | 4420.4  | 3134.0  | 1686.0  | 665.8   | 284.4   | 217.2  |
| 85°   | 1049.8 | 1153.3 | 1395.1  | 1371.8  | 1861.7  | 1777.7  | 1407.9  | 1276.0  | 394.3   | 148.7   | 151.3  |
| 87.5° | 693.0  | 758.9  | 910.2   | 727.9   | 677.5   | 612.8   | 621.9   | 718.9   | 77.5    | 56.9    | 20.7   |
| 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°    | 4022.2 | 4022.2 | 4022.2 | 4022.2 | 4022.2 | 4022.2 | 4022.2 | 4022.2 | 4022.2 | 4022.2 | 4022.2 |
| 2.5°  | 3978.3 | 3961.4 | 3905.9 | 3851.5 | 3799.8 | 3750.7 | 3718.3 | 3675.7 | 3647.2 | 3655.0 | 3666.7 |
| 5°    | 3878.7 | 3841.2 | 3743.0 | 3647.2 | 3556.8 | 3449.4 | 3362.8 | 3293.0 | 3240.0 | 3220.6 | 3216.7 |
| 7.5°  | 3774.0 | 3710.6 | 3569.7 | 3405.5 | 3251.6 | 3118.4 | 2964.6 | 2888.3 | 2799.1 | 2768.1 | 2757.7 |
| 10°   | 3710.6 | 3625.3 | 3427.4 | 3198.6 | 2967.2 | 2746.1 | 2579.3 | 2443.5 | 2320.7 | 2297.4 | 2285.8 |
| 12.5° | 3692.5 | 3580.1 | 3313.7 | 3018.9 | 2711.2 | 2439.7 | 2192.7 | 2014.4 | 1895.4 | 1868.2 | 1828.2 |
| 15°   | 3682.2 | 3542.5 | 3207.7 | 2837.9 | 2447.5 | 2116.5 | 1856.6 | 1648.4 | 1539.9 | 1467.5 | 1468.7 |
| 17.5° | 3673.1 | 3499.8 | 3088.7 | 2640.1 | 2219.9 | 1838.5 | 1551.5 | 1364.0 | 1264.4 | 1225.7 | 1221.8 |
| 20°   | 3660.2 | 3449.4 | 2951.7 | 2431.9 | 1960.0 | 1585.1 | 1325.2 | 1185.6 | 1118.4 | 1086.1 | 1084.7 |
| 22.5° | 3655.0 | 3400.3 | 2817.2 | 2219.9 | 1729.9 | 1389.8 | 1175.2 | 1077.0 | 1034.3 | 1012.3 | 1012.3 |
| 25°   | 3667.9 | 3365.4 | 2676.3 | 2018.2 | 1525.6 | 1223.1 | 1071.8 | 1004.6 | 980.0  | 968.4  | 964.5  |
| 27.5° | 3708.0 | 3349.9 | 2536.6 | 1816.5 | 1338.1 | 1109.3 | 1002.0 | 955.5  | 937.4  | 928.3  | 929.6  |
| 30°   | 3784.3 | 3348.6 | 2399.6 | 1617.4 | 1198.5 | 1022.7 | 946.4  | 914.1  | 899.9  | 894.7  | 893.4  |
| 32.5° | 3907.1 | 3377.0 | 2265.1 | 1453.2 | 1080.9 | 950.2  | 894.7  | 871.4  | 865.0  | 861.1  | 859.8  |
| 35°   | 4115.3 | 3457.2 | 2131.9 | 1303.2 | 990.4  | 885.7  | 845.5  | 833.9  | 824.9  | 828.7  | 830.1  |
| 37.5° | 4395.8 | 3595.5 | 2005.3 | 1185.6 | 921.8  | 837.8  | 804.2  | 793.8  | 788.7  | 792.6  | 796.4  |
| 40°   | 4772.1 | 3794.7 | 1899.2 | 1091.2 | 872.7  | 797.7  | 768.0  | 758.9  | 753.8  | 760.2  | 761.5  |
| 42.5° | 5187.1 | 4024.8 | 1811.3 | 1017.5 | 832.6  | 764.1  | 735.6  | 725.3  | 721.4  | 725.3  | 726.6  |
| 45°   | 5613.8 | 4292.4 | 1766.1 | 964.5  | 799.0  | 739.6  | 709.8  | 698.2  | 689.1  | 686.5  | 690.4  |
| 47.5° | 6033.9 | 4525.1 | 1764.8 | 932.2  | 771.9  | 717.5  | 685.2  | 672.3  | 660.7  | 654.2  | 652.9  |
| 50°   | 6376.5 | 4710.0 | 1795.8 | 918.0  | 748.6  | 693.0  | 660.7  | 647.7  | 632.3  | 619.3  | 621.9  |
| 52.5° | 6635.2 | 4830.2 | 1810.1 | 911.5  | 735.6  | 667.2  | 634.8  | 623.2  | 605.1  | 588.3  | 588.3  |
| 55°   | 6801.9 | 4858.7 | 1775.1 | 905.0  | 725.3  | 640.0  | 605.1  | 594.8  | 576.6  | 559.9  | 559.9  |
| 57.5° | 6858.8 | 4770.7 | 1649.7 | 889.5  | 714.9  | 616.7  | 575.3  | 566.2  | 552.0  | 535.3  | 532.7  |
| 60°   | 6726.9 | 4473.4 | 1430.0 | 842.9  | 694.2  | 592.1  | 543.0  | 539.2  | 534.0  | 519.7  | 518.5  |
| 62.5° | 6218.8 | 3842.4 | 1190.8 | 782.2  | 659.3  | 566.2  | 513.3  | 519.7  | 523.6  | 515.9  | 514.6  |
| 65°   | 5373.2 | 3119.8 | 1017.5 | 698.2  | 612.8  | 530.1  | 481.0  | 497.8  | 508.1  | 508.1  | 505.5  |
| 67.5° | 4358.3 | 2395.8 | 857.1  | 625.8  | 554.6  | 481.0  | 444.7  | 457.7  | 465.4  | 462.9  | 469.3  |
| 70°   | 3097.7 | 1622.5 | 698.2  | 543.0  | 481.0  | 425.4  | 398.2  | 398.2  | 393.0  | 390.5  | 390.5  |
| 72.5° | 1502.4 | 927.0  | 566.2  | 453.8  | 409.8  | 363.3  | 341.4  | 332.3  | 321.9  | 320.7  | 314.2  |
| 73°   | 1255.4 | 831.3  | 540.4  | 437.0  | 393.0  | 354.2  | 329.7  | 315.5  | 309.0  | 303.9  | 302.5  |
| 75°   | 764.1  | 630.9  | 451.2  | 368.4  | 334.9  | 305.1  | 283.2  | 270.2  | 263.7  | 259.9  | 258.6  |
| 77.5° | 502.9  | 470.6  | 350.4  | 281.8  | 256.0  | 237.9  | 228.8  | 215.9  | 212.0  | 206.9  | 206.9  |
| 80°   | 374.9  | 359.4  | 250.8  | 199.1  | 183.6  | 168.1  | 165.5  | 162.9  | 152.6  | 146.1  | 143.5  |
| 82.5° | 241.8  | 256.0  | 170.6  | 133.1  | 116.4  | 103.4  | 104.7  | 108.6  | 98.2   | 89.2   | 86.6   |
| 85°   | 172.0  | 184.9  | 103.4  | 60.8   | 49.1   | 42.6   | 47.9   | 42.6   | 44.0   | 34.9   | 28.4   |
| 87.5° | 28.4   | 49.1   | 18.1   | 7.7    | 3.9    | 2.6    | 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)