

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: P453506

Luminaire Tested: **GALN-SA4C-740-U-SL4-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453506  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4C-740-U-SL4-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22877 lumens  
Efficiency: N/A  
Efficacy: 107.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4

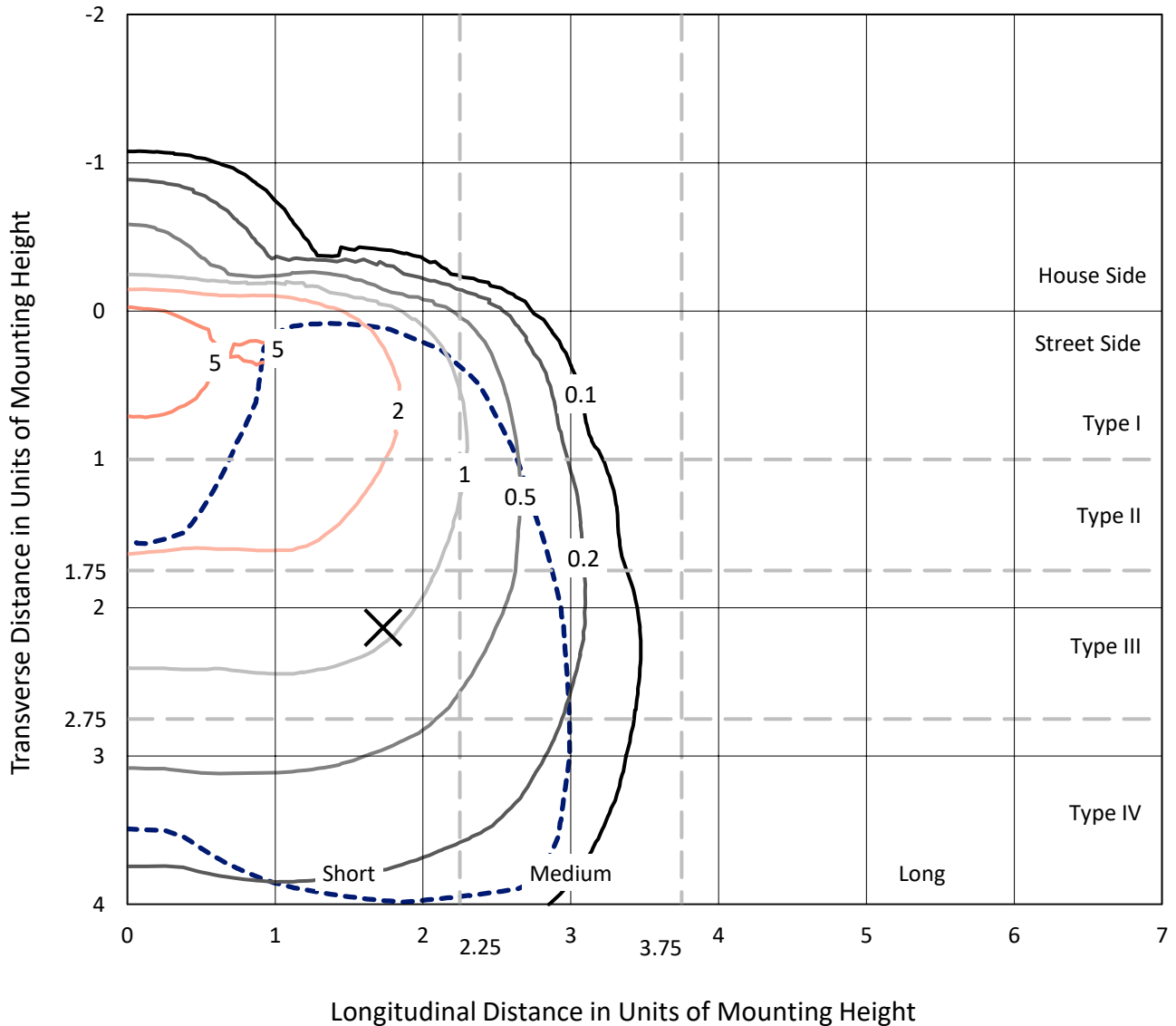
Input Watts (W): 213  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

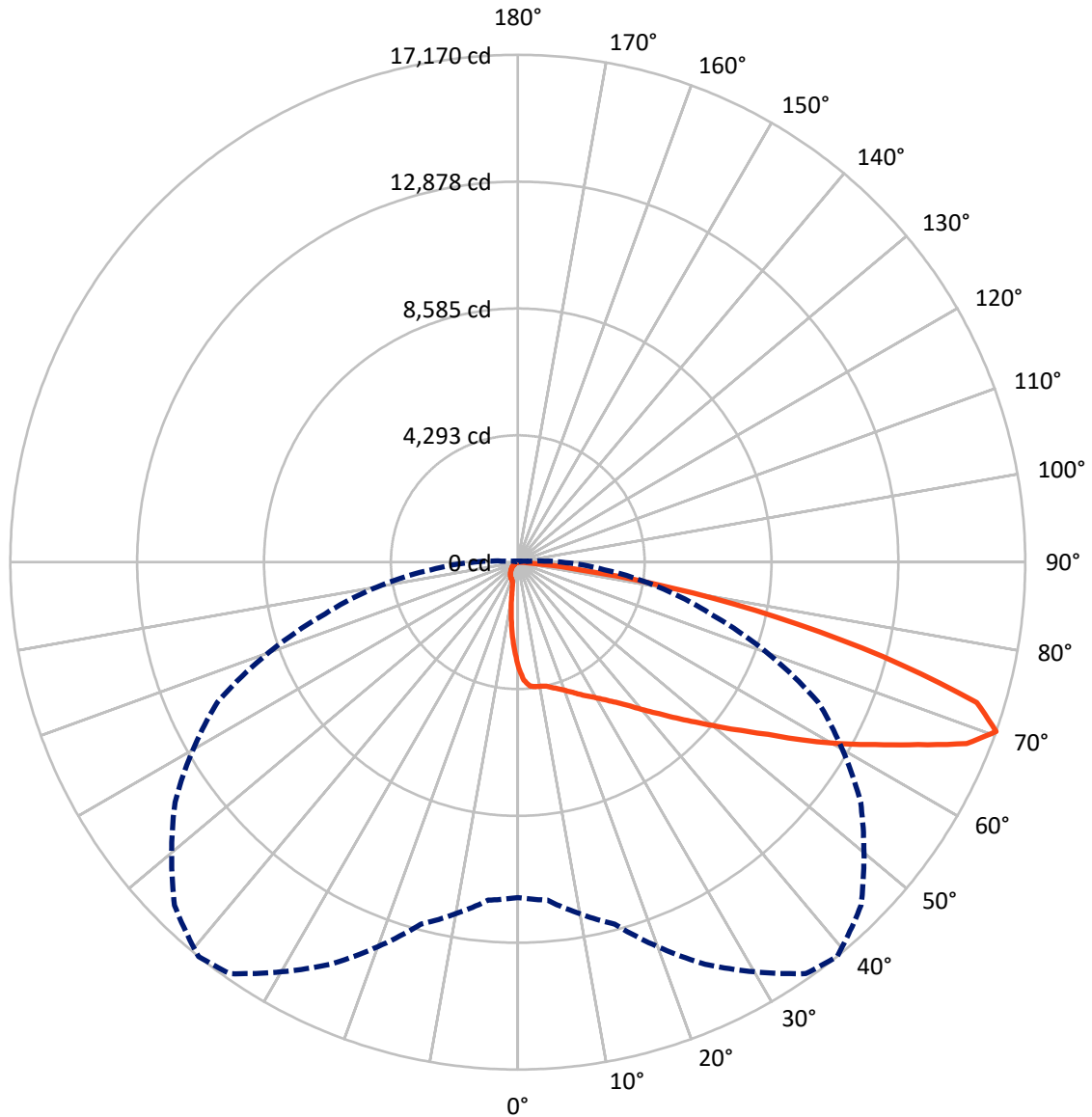
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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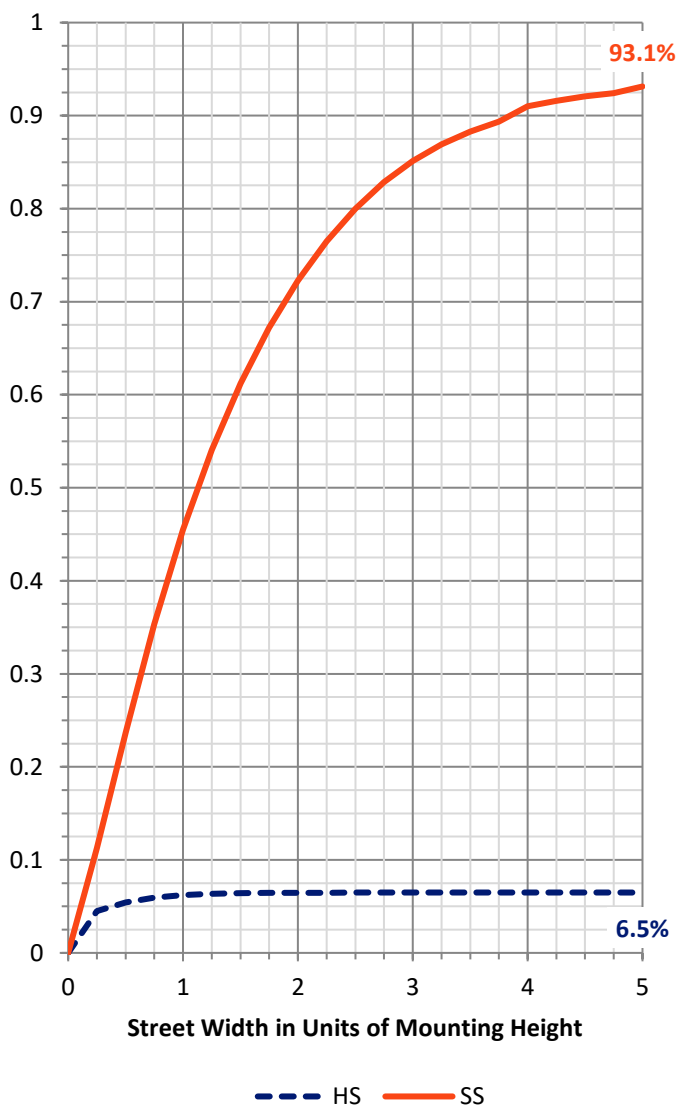
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1491.7   | 0.0    | 1491.7  |
|                    | % Fixture | 6.5      | 0.0    | 6.5     |
| <b>Street Side</b> | Lumens    | 21385.3  | 0.0    | 21385.3 |
|                    | % Fixture | 93.5     | 0.0    | 93.5    |
| <b>Total</b>       | Lumens    | 22877.0  | 0.0    | 22877.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 304.5   | 1.3       |
| 10°-20°   | 791.2   | 3.5       |
| 20°-30°   | 1325.5  | 5.8       |
| 30°-40°   | 2055.7  | 9.0       |
| 40°-50°   | 3257.6  | 14.2      |
| 50°-60°   | 4775.2  | 20.9      |
| 60°-70°   | 6120.6  | 26.8      |
| 70°-80°   | 3846.0  | 16.8      |
| 80°-90°   | 400.7   | 1.8       |
| 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°    | 22877.0 | 100.0     |
| 0°-180°   | 22877.0 | 100.0     |

**Coefficient of Utilization**

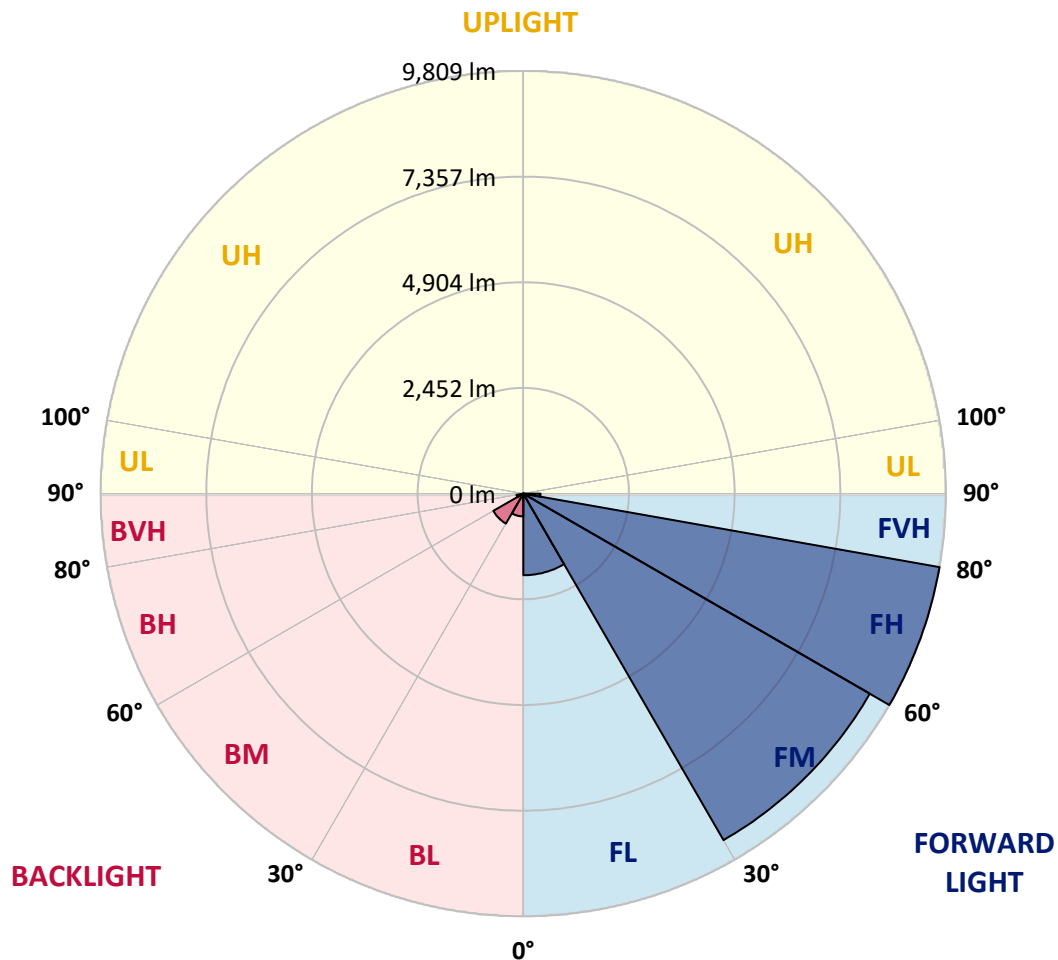


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|--------|-----------|-------------------------|------|----------|
|                |        |           | B                       | U    | G        |
| FL (0°-30°)    | 1893.0 | 8.3       |                         |      |          |
| FM (30°-60°)   | 9285.7 | 40.6      |                         |      |          |
| FH (60°-80°)   | 9808.9 | 42.9      |                         |      | G4/12000 |
| FVH (80°-90°)  | 397.7  | 1.7       |                         |      | G3/500   |
| BL (0°-30°)    | 528.2  | 2.3       | B2/1000                 |      |          |
| BM (30°-60°)   | 802.8  | 3.5       | B1/1000                 |      |          |
| BH (60°-80°)   | 157.8  | 0.7       | B1/500                  |      | G1/500   |
| BVH (80°-90°)  | 2.9    | 0.0       |                         |      | G0/10    |
| 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°     | 39°     | 45°     | 55°     | 65°     | 75°     | 85°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0°    | 3569.6  | 3569.6  | 3569.6  | 3569.6  | 3569.6  | 3569.6  | 3569.6  | 3569.6  | 3569.6  | 3569.6  | 3569.6 |
| 2.5°  | 4124.6  | 4110.7  | 4092.3  | 4070.8  | 4009.3  | 3998.5  | 3961.6  | 3883.2  | 3789.4  | 3712.6  | 3606.5 |
| 5°    | 4319.8  | 4327.5  | 4313.6  | 4275.2  | 4230.6  | 4204.5  | 4158.4  | 4036.9  | 3915.5  | 3760.2  | 3586.5 |
| 7.5°  | 4364.4  | 4379.8  | 4362.8  | 4325.9  | 4282.9  | 4255.2  | 4218.3  | 4113.8  | 3972.4  | 3795.6  | 3557.3 |
| 10°   | 4359.8  | 4378.2  | 4367.5  | 4333.6  | 4298.3  | 4272.1  | 4232.2  | 4149.2  | 4035.4  | 3849.4  | 3566.5 |
| 12.5° | 4352.1  | 4376.7  | 4375.1  | 4358.2  | 4329.0  | 4309.0  | 4284.4  | 4210.6  | 4104.6  | 3927.8  | 3617.3 |
| 15°   | 4330.6  | 4361.3  | 4389.0  | 4402.8  | 4404.3  | 4404.3  | 4373.6  | 4295.2  | 4193.7  | 4030.8  | 3683.4 |
| 17.5° | 4339.8  | 4375.1  | 4444.3  | 4484.3  | 4512.0  | 4508.9  | 4476.6  | 4392.0  | 4279.8  | 4136.9  | 3752.5 |
| 20°   | 4396.7  | 4444.3  | 4541.2  | 4621.1  | 4648.8  | 4639.6  | 4596.5  | 4498.1  | 4370.5  | 4227.6  | 3820.2 |
| 22.5° | 4536.6  | 4579.6  | 4701.0  | 4794.8  | 4814.8  | 4790.2  | 4728.7  | 4595.0  | 4479.7  | 4325.9  | 3901.7 |
| 25°   | 4745.6  | 4796.4  | 4908.6  | 4979.3  | 4979.3  | 4965.5  | 4879.4  | 4722.6  | 4602.7  | 4462.8  | 4007.7 |
| 27.5° | 4999.3  | 5042.3  | 5153.0  | 5216.0  | 5179.1  | 5139.2  | 5053.1  | 4864.0  | 4748.7  | 4634.9  | 4135.3 |
| 30°   | 5256.0  | 5283.7  | 5400.5  | 5428.2  | 5389.8  | 5339.0  | 5246.8  | 5057.7  | 4956.2  | 4868.6  | 4319.8 |
| 32.5° | 5498.9  | 5558.9  | 5655.7  | 5649.6  | 5597.3  | 5572.7  | 5488.1  | 5286.8  | 5229.9  | 5220.7  | 4578.1 |
| 35°   | 5741.8  | 5787.9  | 5874.0  | 5895.5  | 5849.4  | 5844.8  | 5783.3  | 5634.2  | 5635.7  | 5695.7  | 4980.8 |
| 37.5° | 5950.9  | 5992.4  | 6093.8  | 6141.5  | 6150.7  | 6173.8  | 6149.2  | 6050.8  | 6190.7  | 6355.2  | 5514.3 |
| 40°   | 6126.1  | 6184.5  | 6313.7  | 6396.7  | 6492.0  | 6576.5  | 6581.2  | 6602.7  | 6884.0  | 7166.9  | 6210.7 |
| 42.5° | 6262.9  | 6344.4  | 6532.0  | 6685.7  | 6904.0  | 7011.6  | 7097.7  | 7216.1  | 7689.5  | 8112.3  | 7031.6 |
| 45°   | 6441.3  | 6535.0  | 6768.7  | 7010.1  | 7351.3  | 7528.1  | 7648.0  | 7964.7  | 8636.5  | 9213.0  | 7874.0 |
| 47.5° | 6736.4  | 6785.6  | 7023.9  | 7375.9  | 7824.8  | 8076.9  | 8310.6  | 8790.2  | 9652.7  | 10169.2 | 8575.0 |
| 50°   | 7116.1  | 7148.4  | 7328.3  | 7817.1  | 8398.2  | 8730.3  | 9156.1  | 9720.3  | 10707.3 | 10962.4 | 8971.6 |
| 52.5° | 7535.8  | 7546.6  | 7681.9  | 8302.9  | 9040.8  | 9459.0  | 9935.5  | 10631.9 | 11566.6 | 11528.2 | 9234.5 |
| 55°   | 8023.1  | 8007.8  | 8123.1  | 8830.2  | 9801.8  | 10279.9 | 10834.8 | 11565.1 | 12312.2 | 11929.4 | 9385.2 |
| 57.5° | 8581.2  | 8539.7  | 8651.9  | 9529.7  | 10776.4 | 11348.3 | 11912.5 | 12370.6 | 12890.2 | 12266.1 | 9457.4 |
| 60°   | 9165.3  | 9082.3  | 9216.1  | 10315.2 | 11924.8 | 12467.5 | 12936.3 | 13059.3 | 13499.0 | 12533.6 | 9332.9 |
| 62.5° | 9631.1  | 9632.7  | 9881.7  | 11151.5 | 13105.4 | 13580.5 | 13829.5 | 13940.2 | 14023.2 | 12475.1 | 8678.0 |
| 65°   | 10358.3 | 10382.9 | 10781.0 | 12312.2 | 14472.1 | 14884.1 | 15054.7 | 14695.0 | 14046.3 | 11749.5 | 7694.2 |
| 67.5° | 11108.5 | 11186.9 | 11915.6 | 13911.0 | 16050.9 | 16382.9 | 16163.1 | 14841.0 | 13419.0 | 10093.9 | 5834.0 |
| 70°   | 11352.9 | 11482.0 | 12682.7 | 15011.7 | 16997.9 | 17170.0 | 16426.0 | 14160.0 | 11217.6 | 6748.7  | 2936.2 |
| 72.5° | 10402.9 | 10611.9 | 12241.5 | 14610.4 | 16393.7 | 16244.6 | 14696.5 | 11875.6 | 7131.5  | 2562.7  | 896.2  |
| 75°   | 7336.0  | 7428.2  | 10173.8 | 12120.0 | 13185.4 | 12762.6 | 11179.2 | 7655.7  | 2933.2  | 719.5   | 307.5  |
| 77.5° | 3787.9  | 3743.3  | 6050.8  | 8041.6  | 9403.6  | 8965.5  | 7320.6  | 3963.1  | 1111.5  | 299.8   | 190.6  |
| 80°   | 1958.5  | 1990.8  | 2618.0  | 4213.7  | 5740.3  | 5282.1  | 3903.2  | 1837.1  | 591.9   | 166.0   | 146.0  |
| 82.5° | 1097.6  | 1030.0  | 1505.0  | 1840.1  | 2684.1  | 2104.6  | 1497.3  | 1300.6  | 258.3   | 99.9    | 138.4  |
| 85°   | 199.8   | 209.1   | 825.5   | 994.6   | 931.6   | 591.9   | 482.7   | 868.6   | 75.3    | 55.3    | 96.8   |
| 87.5° | 3.1     | 3.1     | 159.9   | 285.9   | 181.4   | 83.0    | 152.2   | 124.5   | 15.4    | 21.5    | 16.9   |
| 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°    | 3569.6 | 3569.6 | 3569.6 | 3569.6 | 3569.6 | 3569.6 | 3569.6 | 3569.6 | 3569.6 | 3569.6 | 3569.6 |
| 2.5°  | 3552.7 | 3494.3 | 3385.1 | 3277.5 | 3140.7 | 3028.5 | 2953.1 | 2874.7 | 2794.8 | 2800.9 | 2819.4 |
| 5°    | 3491.2 | 3389.7 | 3174.5 | 2947.0 | 2728.7 | 2531.9 | 2338.2 | 2164.5 | 2093.8 | 2029.2 | 2032.3 |
| 7.5°  | 3429.7 | 3286.7 | 2971.6 | 2614.9 | 2284.4 | 1949.3 | 1706.4 | 1506.5 | 1400.5 | 1320.5 | 1297.5 |
| 10°   | 3402.0 | 3212.9 | 2785.6 | 2295.2 | 1826.3 | 1460.4 | 1148.4 | 985.4  | 859.3  | 819.4  | 830.1  |
| 12.5° | 3414.3 | 3176.0 | 2618.0 | 2006.2 | 1448.1 | 1017.7 | 799.4  | 716.4  | 688.7  | 684.1  | 681.0  |
| 15°   | 3437.4 | 3149.9 | 2453.5 | 1686.4 | 1063.8 | 756.3  | 671.8  | 656.4  | 653.3  | 650.3  | 651.8  |
| 17.5° | 3468.1 | 3126.9 | 2278.3 | 1386.6 | 816.3  | 661.0  | 636.4  | 628.8  | 627.2  | 627.2  | 627.2  |
| 20°   | 3498.9 | 3100.7 | 2083.0 | 1119.2 | 681.0  | 624.1  | 608.8  | 604.2  | 602.6  | 602.6  | 601.1  |
| 22.5° | 3534.2 | 3077.7 | 1884.7 | 879.3  | 627.2  | 598.0  | 584.2  | 581.1  | 579.6  | 578.0  | 578.0  |
| 25°   | 3585.0 | 3048.5 | 1674.1 | 719.5  | 593.4  | 573.4  | 559.6  | 556.5  | 555.0  | 548.8  | 550.4  |
| 27.5° | 3652.6 | 3026.9 | 1457.4 | 621.1  | 562.6  | 542.7  | 533.4  | 528.8  | 525.8  | 521.1  | 522.7  |
| 30°   | 3744.8 | 3008.5 | 1226.8 | 567.3  | 527.3  | 510.4  | 501.2  | 498.1  | 495.0  | 490.4  | 490.4  |
| 32.5° | 3904.7 | 3016.2 | 983.9  | 524.2  | 495.0  | 475.0  | 465.8  | 462.7  | 459.7  | 455.0  | 455.0  |
| 35°   | 4144.5 | 3060.8 | 787.1  | 487.3  | 456.6  | 436.6  | 427.4  | 427.4  | 422.8  | 416.6  | 415.1  |
| 37.5° | 4536.6 | 3174.5 | 631.8  | 452.0  | 419.7  | 401.2  | 390.5  | 387.4  | 382.8  | 373.6  | 372.0  |
| 40°   | 4999.3 | 3351.3 | 531.9  | 416.6  | 385.9  | 367.4  | 358.2  | 349.0  | 336.7  | 327.4  | 325.9  |
| 42.5° | 5580.4 | 3532.7 | 461.2  | 381.2  | 353.6  | 336.7  | 325.9  | 310.5  | 292.1  | 279.8  | 278.3  |
| 45°   | 6186.1 | 3698.7 | 413.5  | 349.0  | 322.8  | 309.0  | 296.7  | 272.1  | 249.0  | 233.7  | 232.1  |
| 47.5° | 6638.0 | 3729.5 | 375.1  | 318.2  | 296.7  | 282.9  | 266.0  | 235.2  | 204.5  | 190.6  | 186.0  |
| 50°   | 6851.7 | 3580.4 | 335.1  | 287.5  | 270.6  | 255.2  | 233.7  | 198.3  | 164.5  | 147.6  | 144.5  |
| 52.5° | 6927.0 | 3322.1 | 302.8  | 259.8  | 244.4  | 226.0  | 199.8  | 159.9  | 129.1  | 112.2  | 110.7  |
| 55°   | 6896.3 | 2996.2 | 273.6  | 233.7  | 213.7  | 192.2  | 166.0  | 127.6  | 95.3   | 81.5   | 78.4   |
| 57.5° | 6734.9 | 2581.1 | 244.4  | 207.5  | 182.9  | 161.4  | 132.2  | 95.3   | 64.6   | 52.3   | 50.7   |
| 60°   | 6299.8 | 2015.4 | 215.2  | 178.3  | 155.3  | 132.2  | 104.5  | 67.6   | 40.0   | 29.2   | 29.2   |
| 62.5° | 5565.0 | 1495.8 | 187.5  | 149.1  | 130.7  | 106.1  | 73.8   | 43.0   | 21.5   | 15.4   | 13.8   |
| 65°   | 4650.3 | 1103.8 | 156.8  | 126.1  | 109.1  | 83.0   | 52.3   | 26.1   | 10.8   | 4.6    | 3.1    |
| 67.5° | 3245.2 | 681.0  | 130.7  | 103.0  | 89.2   | 60.0   | 32.3   | 10.8   | 4.6    | 0.0    | 0.0    |
| 70°   | 1474.3 | 324.4  | 99.9   | 78.4   | 67.6   | 43.0   | 16.9   | 6.1    | 3.1    | 0.0    | 0.0    |
| 72.5° | 458.1  | 170.6  | 70.7   | 56.9   | 46.1   | 27.7   | 9.2    | 4.6    | 3.1    | 0.0    | 0.0    |
| 75°   | 212.1  | 109.1  | 44.6   | 30.7   | 26.1   | 13.8   | 6.1    | 3.1    | 1.5    | 0.0    | 0.0    |
| 77.5° | 158.3  | 84.6   | 26.1   | 16.9   | 13.8   | 9.2    | 4.6    | 3.1    | 1.5    | 0.0    | 0.0    |
| 80°   | 138.4  | 43.0   | 15.4   | 10.8   | 7.7    | 6.1    | 3.1    | 1.5    | 0.0    | 0.0    | 0.0    |
| 82.5° | 124.5  | 21.5   | 9.2    | 6.1    | 4.6    | 3.1    | 1.5    | 1.5    | 0.0    | 0.0    | 0.0    |
| 85°   | 67.6   | 12.3   | 6.1    | 4.6    | 3.1    | 1.5    | 1.5    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 12.3   | 6.1    | 4.6    | 3.1    | 3.1    | 1.5    | 1.5    | 1.5    | 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)