

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: P454347

Luminaire Tested: **GALN-SA5C-722-U-SL4-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P454347  
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-SA5C-722-U-SL4-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2200K, 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: 21290 lumens  
Efficiency: N/A  
Efficacy: 79.1 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G4

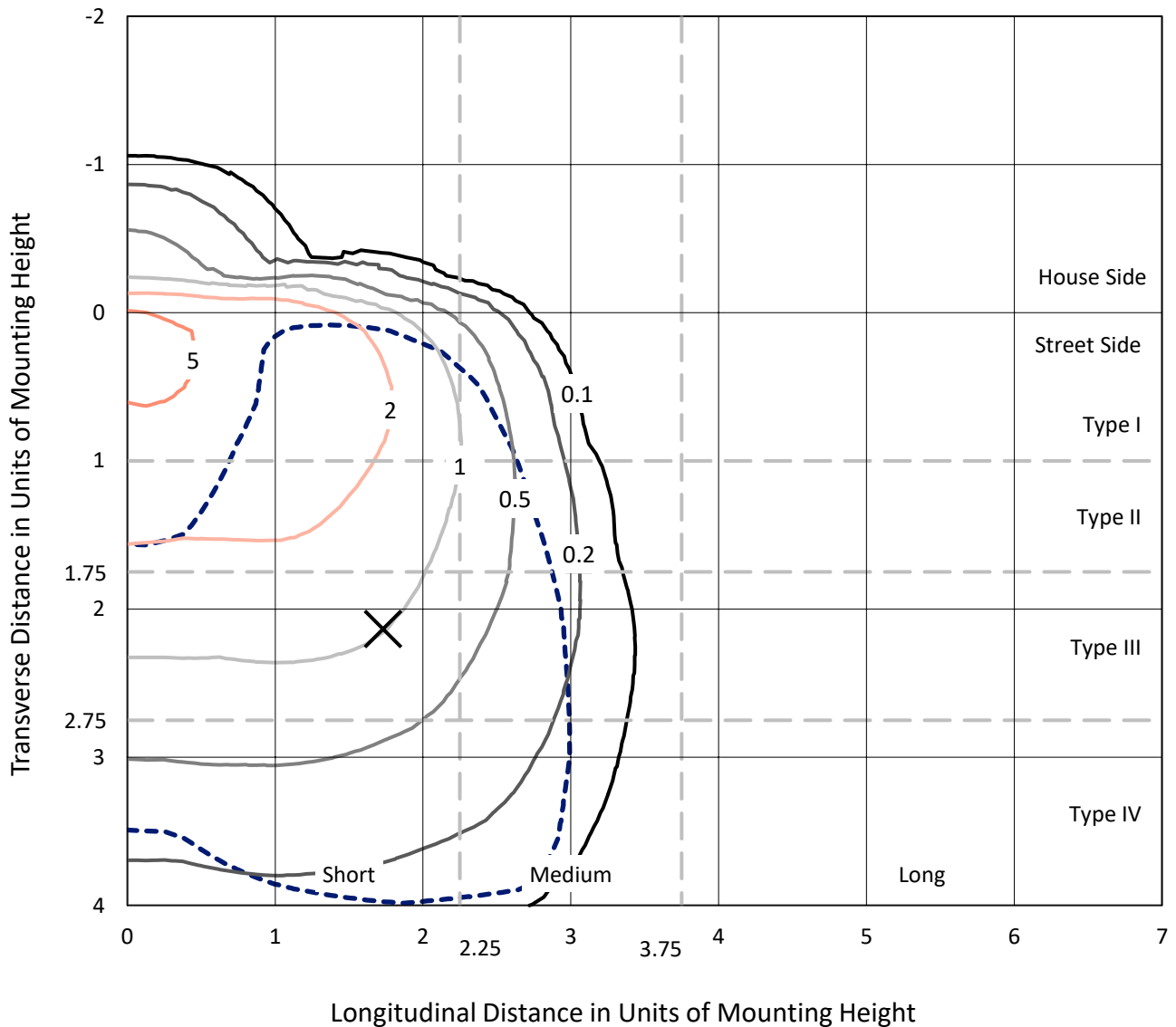
Input Watts (W): 269  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

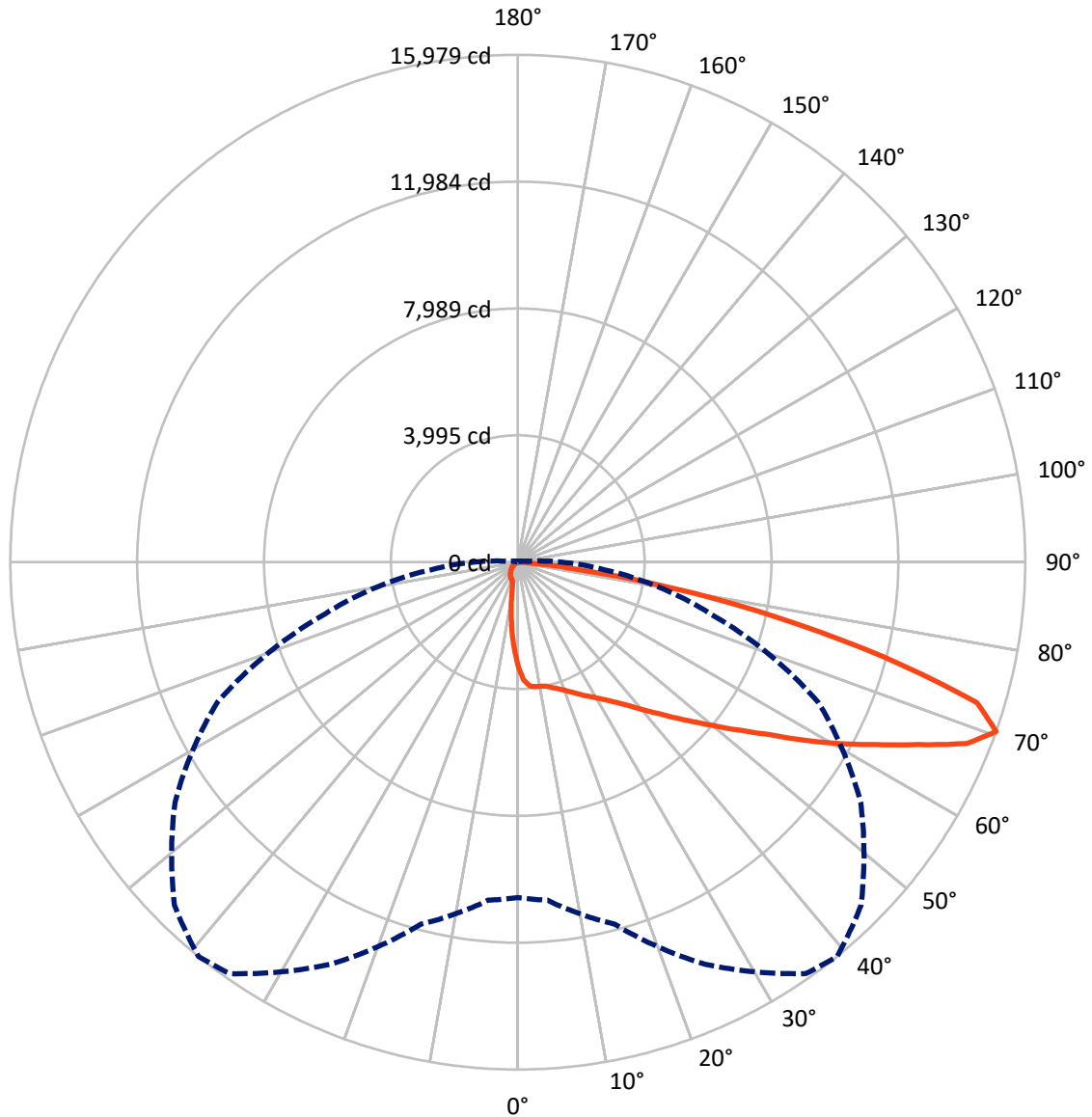
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 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    | 1388.2   | 0.0    | 1388.2  |
|                    | % Fixture | 6.5      | 0.0    | 6.5     |
| <b>Street Side</b> | Lumens    | 19901.8  | 0.0    | 19901.8 |
|                    | % Fixture | 93.5     | 0.0    | 93.5    |
| <b>Total</b>       | Lumens    | 21290.0  | 0.0    | 21290.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 283.3   | 1.3       |
| 10°-20°   | 736.3   | 3.5       |
| 20°-30°   | 1233.5  | 5.8       |
| 30°-40°   | 1913.1  | 9.0       |
| 40°-50°   | 3031.6  | 14.2      |
| 50°-60°   | 4443.9  | 20.9      |
| 60°-70°   | 5696.1  | 26.8      |
| 70°-80°   | 3579.2  | 16.8      |
| 80°-90°   | 372.9   | 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°    | 21290.0 | 100.0     |
| 0°-180°   | 21290.0 | 100.0     |



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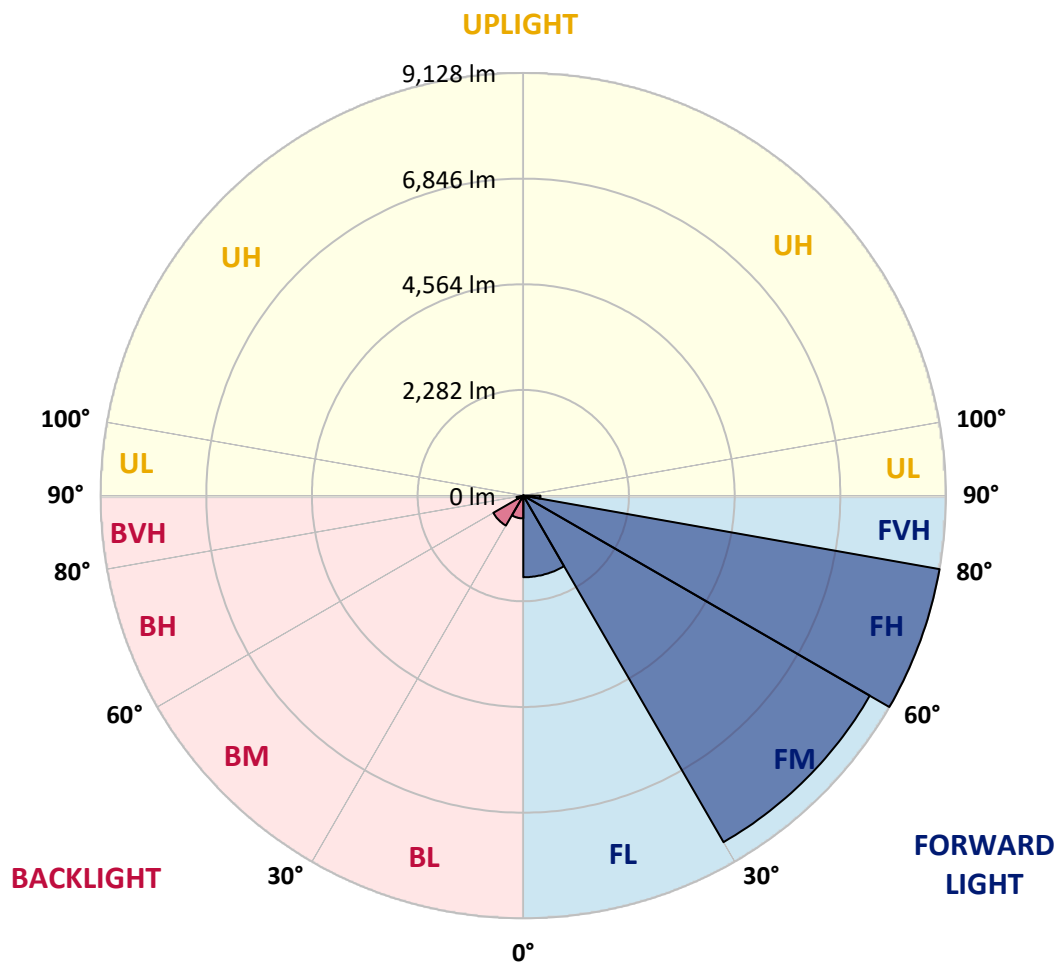
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|--------|-----------|-------------------------|------|----------|
|                |        |           | B                       | U    | G        |
| FL (0°-30°)    | 1761.6 | 8.3       |                         |      |          |
| FM (30°-60°)   | 8641.6 | 40.6      |                         |      |          |
| FH (60°-80°)   | 9128.5 | 42.9      |                         |      | G4/12000 |
| FVH (80°-90°)  | 370.1  | 1.7       |                         |      | G3/500   |
| BL (0°-30°)    | 491.6  | 2.3       | B1/500                  |      |          |
| BM (30°-60°)   | 747.1  | 3.5       | B1/1000                 |      |          |
| BH (60°-80°)   | 146.8  | 0.7       | B1/500                  |      | G1/500   |
| BVH (80°-90°)  | 2.7    | 0.0       |                         |      | G0/10    |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

**BUG Rating: B1-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 39°     | 45°     | 55°     | 65°     | 75°     | 85°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0°    | 3322.0  | 3322.0  | 3322.0  | 3322.0  | 3322.0  | 3322.0  | 3322.0  | 3322.0  | 3322.0  | 3322.0  | 3322.0 |
| 2.5°  | 3838.4  | 3825.6  | 3808.4  | 3788.4  | 3731.1  | 3721.1  | 3686.8  | 3613.8  | 3526.6  | 3455.0  | 3356.3 |
| 5°    | 4020.1  | 4027.3  | 4014.4  | 3978.6  | 3937.1  | 3912.8  | 3869.9  | 3756.9  | 3643.9  | 3499.4  | 3337.7 |
| 7.5°  | 4061.6  | 4075.9  | 4060.2  | 4025.9  | 3985.8  | 3960.0  | 3925.7  | 3828.4  | 3696.8  | 3532.3  | 3310.5 |
| 10°   | 4057.3  | 4074.5  | 4064.5  | 4033.0  | 4000.1  | 3975.8  | 3938.6  | 3861.3  | 3755.5  | 3582.3  | 3319.1 |
| 12.5° | 4050.2  | 4073.1  | 4071.6  | 4055.9  | 4028.7  | 4010.1  | 3987.2  | 3918.6  | 3819.8  | 3655.3  | 3366.3 |
| 15°   | 4030.1  | 4058.8  | 4084.5  | 4097.4  | 4098.8  | 4098.8  | 4070.2  | 3997.2  | 3902.8  | 3751.2  | 3427.8 |
| 17.5° | 4038.7  | 4071.6  | 4136.0  | 4173.2  | 4199.0  | 4196.1  | 4166.1  | 4087.4  | 3982.9  | 3849.9  | 3492.2 |
| 20°   | 4091.7  | 4136.0  | 4226.1  | 4300.5  | 4326.3  | 4317.7  | 4277.6  | 4186.1  | 4067.3  | 3934.3  | 3555.2 |
| 22.5° | 4221.8  | 4261.9  | 4374.9  | 4462.2  | 4480.8  | 4457.9  | 4400.7  | 4276.2  | 4168.9  | 4025.9  | 3631.0 |
| 25°   | 4416.4  | 4463.6  | 4568.1  | 4633.9  | 4633.9  | 4621.0  | 4540.9  | 4395.0  | 4283.4  | 4153.2  | 3729.7 |
| 27.5° | 4652.5  | 4692.5  | 4795.5  | 4854.2  | 4819.9  | 4782.7  | 4702.5  | 4526.6  | 4419.3  | 4313.4  | 3848.4 |
| 30°   | 4891.4  | 4917.1  | 5025.9  | 5051.6  | 5015.9  | 4968.6  | 4882.8  | 4706.8  | 4612.4  | 4530.9  | 4020.1 |
| 32.5° | 5117.4  | 5173.2  | 5263.4  | 5257.6  | 5209.0  | 5186.1  | 5107.4  | 4920.0  | 4867.1  | 4858.5  | 4260.5 |
| 35°   | 5343.5  | 5386.4  | 5466.5  | 5486.5  | 5443.6  | 5439.3  | 5382.1  | 5243.3  | 5244.8  | 5300.6  | 4635.3 |
| 37.5° | 5538.0  | 5576.7  | 5671.1  | 5715.4  | 5724.0  | 5745.5  | 5722.6  | 5631.0  | 5761.2  | 5914.3  | 5131.7 |
| 40°   | 5701.1  | 5755.5  | 5875.7  | 5952.9  | 6041.6  | 6120.3  | 6124.6  | 6144.6  | 6406.5  | 6669.7  | 5779.8 |
| 42.5° | 5828.5  | 5904.3  | 6078.8  | 6221.9  | 6425.1  | 6525.2  | 6605.3  | 6715.5  | 7156.1  | 7549.5  | 6543.8 |
| 45°   | 5994.4  | 6081.7  | 6299.2  | 6523.8  | 6841.4  | 7005.9  | 7117.5  | 7412.2  | 8037.4  | 8573.9  | 7327.8 |
| 47.5° | 6269.1  | 6314.9  | 6536.6  | 6864.3  | 7282.0  | 7516.6  | 7734.1  | 8180.5  | 8983.1  | 9463.8  | 7980.2 |
| 50°   | 6622.5  | 6652.5  | 6819.9  | 7274.9  | 7815.6  | 8124.7  | 8521.0  | 9046.0  | 9964.5  | 10202.0 | 8349.3 |
| 52.5° | 7013.0  | 7023.1  | 7149.0  | 7726.9  | 8413.7  | 8802.8  | 9246.3  | 9894.4  | 10764.2 | 10728.4 | 8593.9 |
| 55°   | 7466.6  | 7452.3  | 7559.6  | 8217.7  | 9121.8  | 9566.8  | 10083.2 | 10762.8 | 11458.1 | 11101.8 | 8734.1 |
| 57.5° | 7985.9  | 7947.3  | 8051.7  | 8868.6  | 10028.9 | 10561.1 | 11086.1 | 11512.4 | 11996.0 | 11415.2 | 8801.4 |
| 60°   | 8529.5  | 8452.3  | 8576.7  | 9599.7  | 11097.6 | 11602.6 | 12038.9 | 12153.4 | 12562.5 | 11664.1 | 8685.5 |
| 62.5° | 8963.0  | 8964.5  | 9196.2  | 10377.9 | 12196.3 | 12638.4 | 12870.1 | 12973.1 | 13050.4 | 11609.7 | 8076.0 |
| 65°   | 9639.7  | 9662.6  | 10033.2 | 11458.1 | 13468.1 | 13851.6 | 14010.4 | 13675.6 | 13071.9 | 10934.5 | 7160.4 |
| 67.5° | 10337.9 | 10410.8 | 11089.0 | 12946.0 | 14937.4 | 15246.4 | 15041.9 | 13811.5 | 12488.1 | 9393.7  | 5429.3 |
| 70°   | 10565.4 | 10685.5 | 11802.9 | 13970.3 | 15818.7 | 15978.9 | 15286.5 | 13177.7 | 10439.5 | 6280.6  | 2732.5 |
| 72.5° | 9681.2  | 9875.8  | 11392.3 | 13596.9 | 15256.5 | 15117.7 | 13677.0 | 11051.8 | 6636.8  | 2384.9  | 834.1  |
| 75°   | 6827.1  | 6912.9  | 9468.0  | 11279.2 | 12270.7 | 11877.3 | 10403.7 | 7124.6  | 2729.7  | 669.5   | 286.1  |
| 77.5° | 3525.1  | 3483.6  | 5631.0  | 7483.7  | 8751.3  | 8343.6  | 6812.8  | 3688.2  | 1034.4  | 279.0   | 177.4  |
| 80°   | 1822.6  | 1852.7  | 2436.4  | 3921.4  | 5342.0  | 4915.7  | 3632.4  | 1709.6  | 550.8   | 154.5   | 135.9  |
| 82.5° | 1021.5  | 958.5   | 1400.6  | 1712.5  | 2497.9  | 1958.6  | 1393.5  | 1210.3  | 240.3   | 93.0    | 128.8  |
| 85°   | 186.0   | 194.6   | 768.3   | 925.6   | 867.0   | 550.8   | 449.2   | 808.3   | 70.1    | 51.5    | 90.1   |
| 87.5° | 2.9     | 2.9     | 148.8   | 266.1   | 168.8   | 77.3    | 141.6   | 115.9   | 14.3    | 20.0    | 15.7   |
| 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°    | 3322.0 | 3322.0 | 3322.0 | 3322.0 | 3322.0 | 3322.0 | 3322.0 | 3322.0 | 3322.0 | 3322.0 | 3322.0 |
| 2.5°  | 3306.2 | 3251.9 | 3150.3 | 3050.1 | 2922.8 | 2818.4 | 2748.3 | 2675.3 | 2600.9 | 2606.6 | 2623.8 |
| 5°    | 3249.0 | 3154.6 | 2954.3 | 2742.6 | 2539.4 | 2356.3 | 2176.0 | 2014.4 | 1948.5 | 1888.5 | 1891.3 |
| 7.5°  | 3191.8 | 3058.7 | 2765.4 | 2433.5 | 2125.9 | 1814.1 | 1588.0 | 1402.0 | 1303.3 | 1228.9 | 1207.5 |
| 10°   | 3166.0 | 2990.1 | 2592.3 | 2136.0 | 1699.6 | 1359.1 | 1068.7 | 917.0  | 799.7  | 762.5  | 772.6  |
| 12.5° | 3177.5 | 2955.7 | 2436.4 | 1867.0 | 1347.7 | 947.1  | 743.9  | 666.7  | 640.9  | 636.6  | 633.8  |
| 15°   | 3198.9 | 2931.4 | 2283.3 | 1569.4 | 990.0  | 703.9  | 625.2  | 610.9  | 608.0  | 605.2  | 606.6  |
| 17.5° | 3227.5 | 2909.9 | 2120.2 | 1290.4 | 759.7  | 615.2  | 592.3  | 585.1  | 583.7  | 583.7  | 583.7  |
| 20°   | 3256.2 | 2885.6 | 1938.5 | 1041.5 | 633.8  | 580.8  | 566.5  | 562.2  | 560.8  | 560.8  | 559.4  |
| 22.5° | 3289.1 | 2864.2 | 1754.0 | 818.3  | 583.7  | 556.5  | 543.6  | 540.8  | 539.4  | 537.9  | 537.9  |
| 25°   | 3336.3 | 2837.0 | 1558.0 | 669.5  | 552.2  | 533.6  | 520.8  | 517.9  | 516.5  | 510.7  | 512.2  |
| 27.5° | 3399.2 | 2817.0 | 1356.3 | 578.0  | 523.6  | 505.0  | 496.4  | 492.1  | 489.3  | 485.0  | 486.4  |
| 30°   | 3485.1 | 2799.8 | 1141.7 | 527.9  | 490.7  | 475.0  | 466.4  | 463.5  | 460.7  | 456.4  | 456.4  |
| 32.5° | 3633.9 | 2806.9 | 915.6  | 487.9  | 460.7  | 442.1  | 433.5  | 430.6  | 427.8  | 423.5  | 423.5  |
| 35°   | 3857.0 | 2848.4 | 732.5  | 453.5  | 424.9  | 406.3  | 397.7  | 397.7  | 393.4  | 387.7  | 386.3  |
| 37.5° | 4221.8 | 2954.3 | 588.0  | 420.6  | 390.6  | 373.4  | 363.4  | 360.5  | 356.2  | 347.6  | 346.2  |
| 40°   | 4652.5 | 3118.8 | 495.0  | 387.7  | 359.1  | 341.9  | 333.3  | 324.8  | 313.3  | 304.7  | 303.3  |
| 42.5° | 5193.3 | 3287.6 | 429.2  | 354.8  | 329.0  | 313.3  | 303.3  | 289.0  | 271.8  | 260.4  | 258.9  |
| 45°   | 5756.9 | 3442.1 | 384.8  | 324.8  | 300.4  | 287.6  | 276.1  | 253.2  | 231.8  | 217.5  | 216.0  |
| 47.5° | 6177.5 | 3470.8 | 349.1  | 296.1  | 276.1  | 263.2  | 247.5  | 218.9  | 190.3  | 177.4  | 173.1  |
| 50°   | 6376.4 | 3332.0 | 311.9  | 267.5  | 251.8  | 237.5  | 217.5  | 184.6  | 153.1  | 137.3  | 134.5  |
| 52.5° | 6446.5 | 3091.6 | 281.8  | 241.8  | 227.5  | 210.3  | 186.0  | 148.8  | 120.2  | 104.4  | 103.0  |
| 55°   | 6417.9 | 2788.3 | 254.7  | 217.5  | 198.9  | 178.8  | 154.5  | 118.7  | 88.7   | 75.8   | 73.0   |
| 57.5° | 6267.7 | 2402.1 | 227.5  | 193.1  | 170.2  | 150.2  | 123.0  | 88.7   | 60.1   | 48.6   | 47.2   |
| 60°   | 5862.8 | 1875.6 | 200.3  | 166.0  | 144.5  | 123.0  | 97.3   | 62.9   | 37.2   | 27.2   | 27.2   |
| 62.5° | 5179.0 | 1392.0 | 174.5  | 138.8  | 121.6  | 98.7   | 68.7   | 40.1   | 20.0   | 14.3   | 12.9   |
| 65°   | 4327.7 | 1027.2 | 145.9  | 117.3  | 101.6  | 77.3   | 48.6   | 24.3   | 10.0   | 4.3    | 2.9    |
| 67.5° | 3020.1 | 633.8  | 121.6  | 95.9   | 83.0   | 55.8   | 30.0   | 10.0   | 4.3    | 0.0    | 0.0    |
| 70°   | 1372.0 | 301.9  | 93.0   | 73.0   | 62.9   | 40.1   | 15.7   | 5.7    | 2.9    | 0.0    | 0.0    |
| 72.5° | 426.3  | 158.8  | 65.8   | 52.9   | 42.9   | 25.8   | 8.6    | 4.3    | 2.9    | 0.0    | 0.0    |
| 75°   | 197.4  | 101.6  | 41.5   | 28.6   | 24.3   | 12.9   | 5.7    | 2.9    | 1.4    | 0.0    | 0.0    |
| 77.5° | 147.4  | 78.7   | 24.3   | 15.7   | 12.9   | 8.6    | 4.3    | 2.9    | 1.4    | 0.0    | 0.0    |
| 80°   | 128.8  | 40.1   | 14.3   | 10.0   | 7.2    | 5.7    | 2.9    | 1.4    | 0.0    | 0.0    | 0.0    |
| 82.5° | 115.9  | 20.0   | 8.6    | 5.7    | 4.3    | 2.9    | 1.4    | 1.4    | 0.0    | 0.0    | 0.0    |
| 85°   | 62.9   | 11.4   | 5.7    | 4.3    | 2.9    | 1.4    | 1.4    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 11.4   | 5.7    | 4.3    | 2.9    | 2.9    | 1.4    | 1.4    | 1.4    | 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)