

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: P191131

Luminaire Tested: **GLEON-AF-03-LED-E1-SL3-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P191131  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24289)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLEON-AF-03-LED-E1-SL3-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15881.3 lumens  
Efficiency: N/A  
Efficacy: 95.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G3

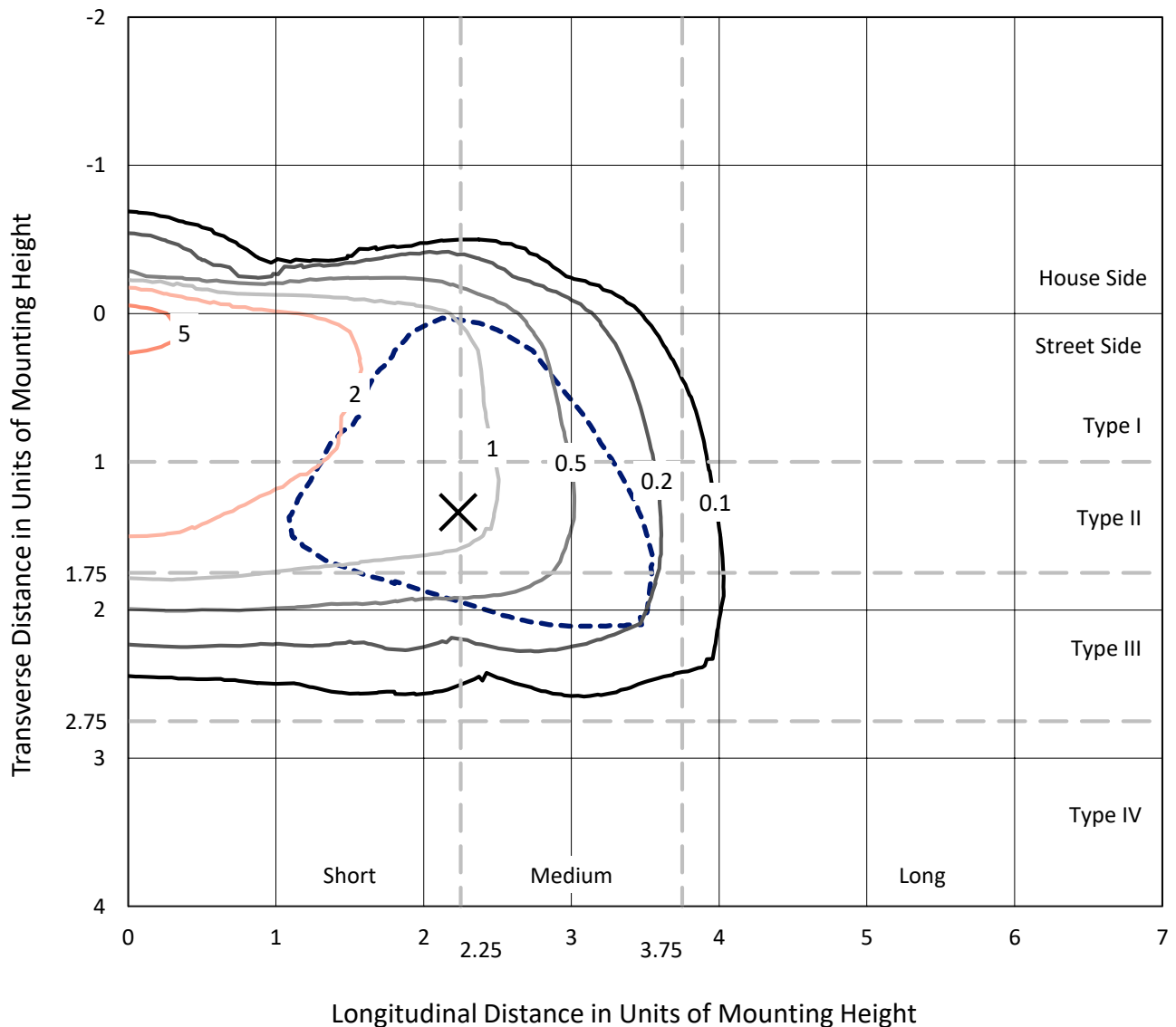
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

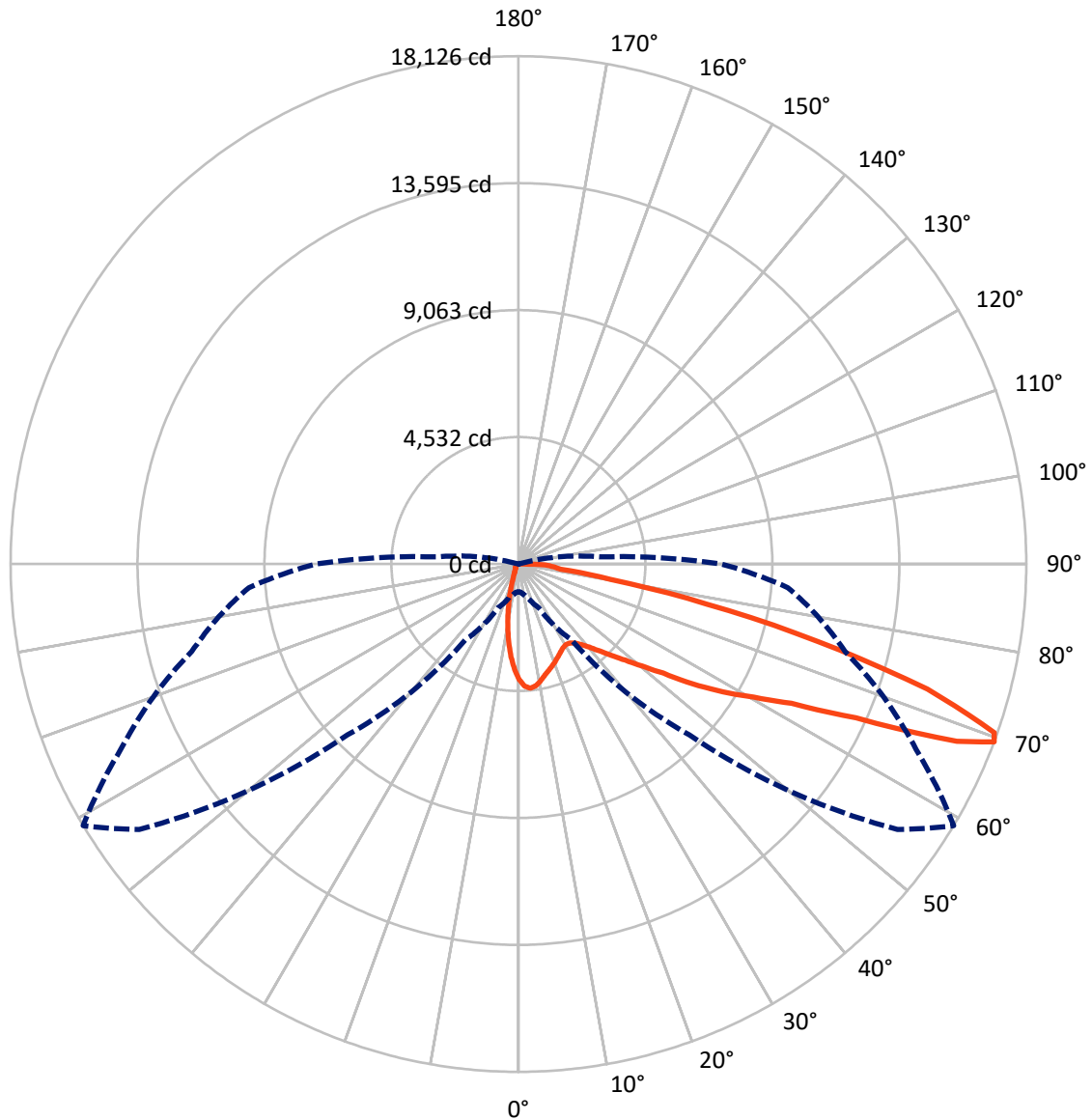


Based on 25 foot mounting height. Maximum calculated value = 6.6 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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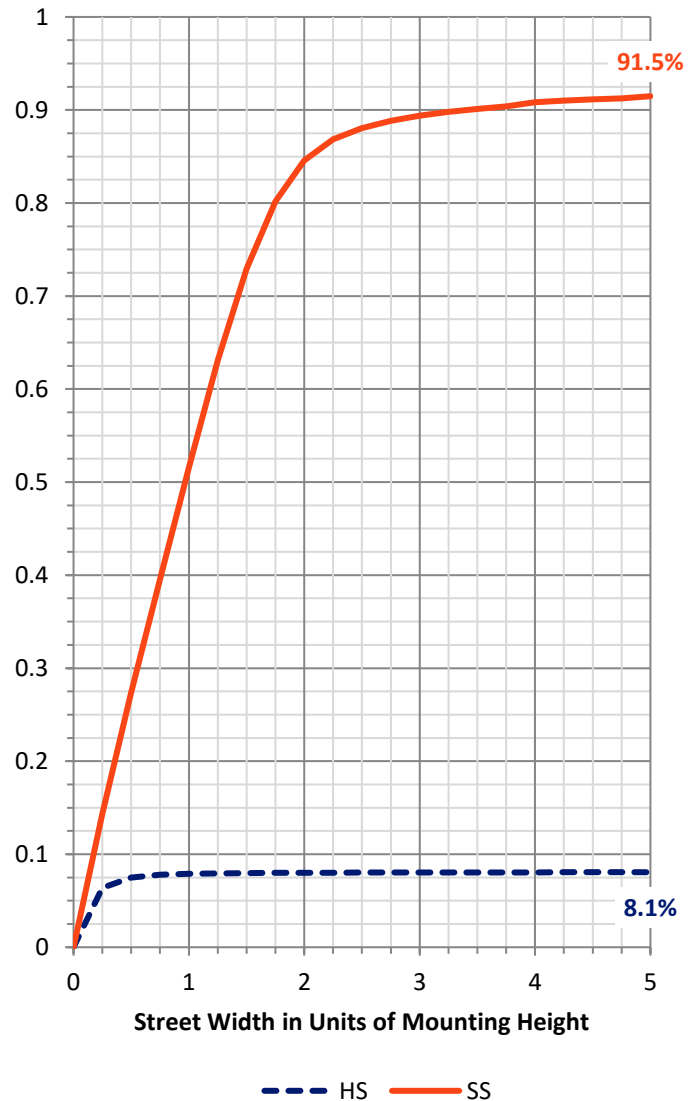
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1293.3   | 0.0    | 1293.3  |
|                    | % Fixture | 8.1      | 0.0    | 8.1     |
| <b>Street Side</b> | Lumens    | 14588.0  | 0.0    | 14588.0 |
|                    | % Fixture | 91.9     | 0.0    | 91.9    |
| <b>Total</b>       | Lumens    | 15881.3  | 0.0    | 15881.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 335.5   | 2.1       |
| 10°-20°   | 693.3   | 4.4       |
| 20°-30°   | 932.9   | 5.9       |
| 30°-40°   | 1354.6  | 8.5       |
| 40°-50°   | 2255.4  | 14.2      |
| 50°-60°   | 3518.4  | 22.2      |
| 60°-70°   | 4353.8  | 27.4      |
| 70°-80°   | 2206.4  | 13.9      |
| 80°-90°   | 230.9   | 1.5       |
| 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°    | 15881.3 | 100.0     |
| 0°-180°   | 15881.3 | 100.0     |



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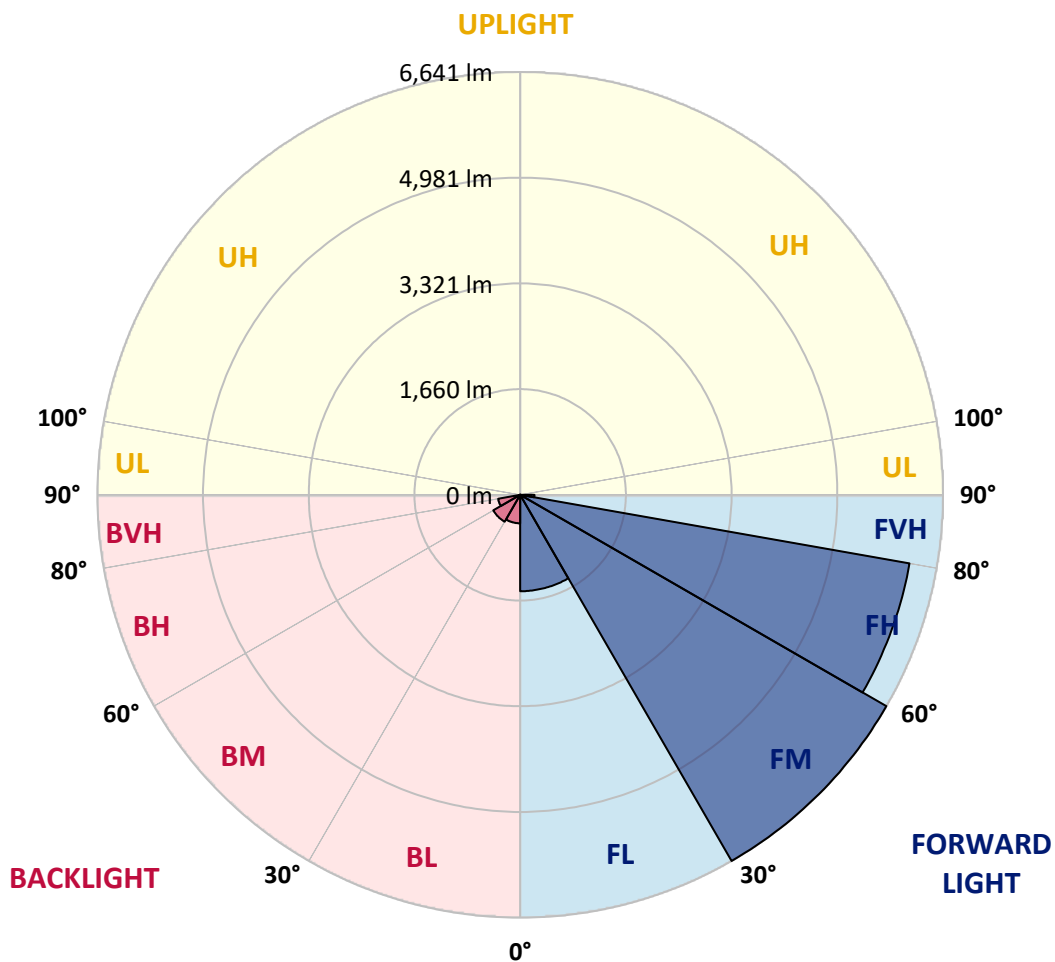
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1514.1 | 9.5       |                         |      |         |
| FM   | (30°-60°)   | 6641.1 | 41.8      |                         |      |         |
| FH   | (60°-80°)   | 6209.0 | 39.1      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 223.8  | 1.4       |                         |      | G2/225  |
| BL   | (0°-30°)    | 447.7  | 2.8       | B1/500                  |      |         |
| BM   | (30°-60°)   | 487.3  | 3.1       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 351.2  | 2.2       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 7.1    | 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-G3**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 55°     | 59°     | 65°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| 0°    | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6  | 4133.6  | 4133.6  | 4133.6  | 4133.6  | 4133.6  |
| 2.5°  | 4530.6 | 4528.8 | 4509.1 | 4500.1 | 4483.9 | 4449.8  | 4396.8  | 4369.0  | 4324.1  | 4246.0  | 4140.9  |
| 5°    | 4489.3 | 4510.9 | 4522.6 | 4523.4 | 4535.2 | 4522.6  | 4474.9  | 4451.6  | 4389.6  | 4263.9  | 4075.3  |
| 7.5°  | 4209.1 | 4217.2 | 4250.5 | 4279.2 | 4334.9 | 4387.8  | 4404.9  | 4395.0  | 4358.2  | 4223.5  | 3972.9  |
| 10°   | 3909.2 | 3917.3 | 3956.8 | 3994.5 | 4069.9 | 4151.6  | 4237.9  | 4255.8  | 4271.1  | 4166.0  | 3874.1  |
| 12.5° | 3650.5 | 3658.6 | 3699.0 | 3748.4 | 3836.5 | 3937.0  | 4070.8  | 4100.5  | 4167.8  | 4111.2  | 3795.1  |
| 15°   | 3427.8 | 3431.4 | 3471.0 | 3532.0 | 3637.1 | 3766.4  | 3918.1  | 3965.8  | 4069.0  | 4072.6  | 3726.0  |
| 17.5° | 3238.4 | 3247.4 | 3271.6 | 3329.9 | 3444.9 | 3604.8  | 3781.6  | 3849.9  | 3971.1  | 4040.2  | 3658.6  |
| 20°   | 3122.5 | 3131.5 | 3130.5 | 3162.9 | 3266.2 | 3436.8  | 3645.2  | 3726.9  | 3874.1  | 4007.1  | 3598.4  |
| 22.5° | 3100.1 | 3100.1 | 3076.7 | 3072.2 | 3133.3 | 3276.1  | 3503.3  | 3602.9  | 3787.1  | 3992.7  | 3556.3  |
| 25°   | 3179.9 | 3176.4 | 3118.0 | 3070.4 | 3073.1 | 3158.5  | 3365.8  | 3484.4  | 3713.4  | 4002.6  | 3533.8  |
| 27.5° | 3348.8 | 3344.3 | 3270.7 | 3179.9 | 3107.2 | 3106.3  | 3261.7  | 3389.2  | 3655.0  | 4049.2  | 3542.8  |
| 30°   | 3582.3 | 3580.5 | 3500.5 | 3386.5 | 3254.5 | 3133.3  | 3225.8  | 3341.6  | 3617.4  | 4133.6  | 3563.4  |
| 32.5° | 3837.3 | 3834.6 | 3774.5 | 3654.1 | 3487.1 | 3254.5  | 3263.5  | 3360.5  | 3628.1  | 4246.0  | 3613.7  |
| 35°   | 4107.7 | 4103.2 | 4077.1 | 3972.0 | 3788.0 | 3478.1  | 3387.4  | 3462.9  | 3696.3  | 4413.8  | 3712.5  |
| 37.5° | 4400.4 | 4404.9 | 4423.8 | 4323.2 | 4130.1 | 3791.6  | 3594.9  | 3646.0  | 3833.7  | 4641.9  | 3873.3  |
| 40°   | 4832.3 | 4831.5 | 4837.7 | 4705.8 | 4519.8 | 4175.0  | 3885.0  | 3901.1  | 4063.7  | 4944.6  | 4117.5  |
| 42.5° | 5616.3 | 5561.6 | 5395.5 | 5126.0 | 4939.2 | 4613.2  | 4250.5  | 4233.4  | 4344.7  | 5319.1  | 4459.7  |
| 45°   | 6669.7 | 6553.0 | 6122.0 | 5605.6 | 5366.7 | 5107.2  | 4700.4  | 4645.5  | 4716.5  | 5769.0  | 4881.7  |
| 47.5° | 7575.9 | 7454.7 | 6844.9 | 6104.9 | 5820.2 | 5575.9  | 5227.5  | 5128.7  | 5152.1  | 6272.8  | 5417.0  |
| 50°   | 7883.9 | 7824.7 | 7292.1 | 6539.5 | 6259.3 | 6165.9  | 5839.1  | 5718.7  | 5685.5  | 6855.6  | 6037.6  |
| 52.5° | 7777.1 | 7772.6 | 7417.8 | 6821.5 | 6661.7 | 6776.6  | 6608.7  | 6469.4  | 6347.3  | 7469.9  | 6668.8  |
| 55°   | 7605.5 | 7627.9 | 7469.0 | 7068.5 | 7063.1 | 7334.4  | 7661.2  | 7545.4  | 7191.5  | 8137.2  | 7213.0  |
| 57.5° | 7132.2 | 7228.4 | 7440.2 | 7535.5 | 7756.4 | 8033.8  | 8537.6  | 8606.0  | 8187.5  | 8648.1  | 7664.8  |
| 60°   | 5786.9 | 5998.0 | 6691.3 | 7602.8 | 8650.0 | 9341.4  | 9595.6  | 9654.0  | 9004.6  | 9073.0  | 8274.5  |
| 62.5° | 4107.7 | 4323.2 | 5202.3 | 6744.3 | 8663.4 | 11059.4 | 11171.6 | 10942.6 | 9904.5  | 9702.5  | 9326.1  |
| 65°   | 2180.4 | 2346.5 | 3065.0 | 4868.3 | 7511.2 | 11458.1 | 13927.7 | 13245.2 | 11492.2 | 10940.9 | 10684.9 |
| 67.5° | 1115.3 | 1165.7 | 1451.3 | 2382.6 | 5163.8 | 10177.5 | 16398.2 | 16878.7 | 14228.5 | 12169.3 | 10619.4 |
| 69°   | 986.9  | 1016.6 | 1206.1 | 1722.4 | 3306.6 | 8620.3  | 16518.6 | 18126.1 | 15661.0 | 12067.0 | 9650.3  |
| 70°   | 955.5  | 981.5  | 1154.0 | 1559.0 | 2584.6 | 7229.2  | 16057.9 | 18016.5 | 16027.4 | 11677.2 | 8926.6  |
| 72.5° | 810.9  | 833.4  | 1027.3 | 1377.6 | 2100.5 | 3588.6  | 13044.1 | 15266.7 | 14382.2 | 9727.5  | 6461.4  |
| 75°   | 542.4  | 616.0  | 986.0  | 1291.4 | 1954.1 | 2038.5  | 8599.6  | 11032.4 | 10248.4 | 6561.1  | 3365.8  |
| 77.5° | 130.2  | 140.1  | 278.3  | 1027.3 | 1787.1 | 1794.3  | 4422.8  | 6858.4  | 5593.9  | 2338.5  | 795.7   |
| 80°   | 70.1   | 67.3   | 78.2   | 203.9  | 1664.0 | 1683.8  | 1991.0  | 3329.1  | 1997.2  | 387.9   | 262.2   |
| 82.5° | 49.4   | 46.7   | 50.3   | 85.3   | 523.5  | 1533.8  | 1440.4  | 1506.9  | 828.0   | 149.0   | 117.6   |
| 85°   | 18.0   | 17.1   | 27.8   | 77.2   | 164.4  | 881.9   | 1480.0  | 1242.9  | 670.9   | 68.2    | 86.2    |
| 87.5° | 6.2    | 5.4    | 10.7   | 42.2   | 50.3   | 375.4   | 913.3   | 939.4   | 264.0   | 41.3    | 40.4    |
| 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°    | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 |
| 2.5°  | 4096.8 | 4041.2 | 3938.8 | 3833.7 | 3736.7 | 3620.0 | 3561.6 | 3504.1 | 3479.9 | 3471.0 | 3428.7 |
| 5°    | 3978.4 | 3884.0 | 3666.7 | 3448.5 | 3247.4 | 3033.6 | 2892.6 | 2779.5 | 2713.0 | 2680.6 | 2629.5 |
| 7.5°  | 3826.6 | 3672.1 | 3342.5 | 3005.7 | 2692.3 | 2383.4 | 2154.4 | 1978.4 | 1857.2 | 1798.8 | 1745.8 |
| 10°   | 3679.2 | 3473.6 | 3004.8 | 2545.9 | 2120.3 | 1710.8 | 1394.7 | 1165.7 | 1019.3 | 952.0  | 908.8  |
| 12.5° | 3547.3 | 3280.5 | 2678.9 | 2097.9 | 1563.5 | 1083.9 | 762.4  | 580.1  | 489.5  | 458.0  | 442.7  |
| 15°   | 3429.6 | 3102.7 | 2370.8 | 1672.1 | 1058.8 | 619.6  | 416.6  | 354.8  | 340.3  | 340.3  | 338.6  |
| 17.5° | 3318.2 | 2928.5 | 2073.6 | 1272.6 | 664.5  | 379.0  | 317.0  | 308.9  | 308.9  | 312.5  | 312.5  |
| 20°   | 3211.3 | 2762.4 | 1786.2 | 913.3  | 418.5  | 300.8  | 286.4  | 284.7  | 286.4  | 290.9  | 290.9  |
| 22.5° | 3119.8 | 2611.5 | 1517.6 | 626.9  | 310.8  | 271.2  | 264.0  | 261.4  | 262.2  | 264.9  | 266.7  |
| 25°   | 3051.6 | 2484.0 | 1264.5 | 424.7  | 267.6  | 246.9  | 238.9  | 234.4  | 230.8  | 230.8  | 232.6  |
| 27.5° | 3008.4 | 2376.2 | 1019.3 | 308.9  | 240.7  | 224.5  | 212.0  | 204.8  | 196.7  | 192.2  | 194.0  |
| 30°   | 2977.0 | 2273.8 | 789.4  | 252.4  | 215.5  | 199.4  | 183.2  | 171.5  | 159.9  | 154.5  | 156.3  |
| 32.5° | 2965.3 | 2191.3 | 590.0  | 222.7  | 193.0  | 175.1  | 155.4  | 140.1  | 127.6  | 123.1  | 123.9  |
| 35°   | 2996.7 | 2125.7 | 432.0  | 201.1  | 175.1  | 152.6  | 130.2  | 113.1  | 103.3  | 100.6  | 101.5  |
| 37.5° | 3079.4 | 2090.6 | 323.3  | 183.2  | 159.0  | 133.8  | 108.6  | 92.5   | 86.2   | 86.2   | 87.2   |
| 40°   | 3235.6 | 2089.8 | 259.5  | 170.6  | 144.5  | 115.8  | 89.8   | 78.2   | 74.6   | 76.3   | 77.2   |
| 42.5° | 3463.7 | 2137.4 | 226.3  | 159.0  | 132.1  | 98.8   | 74.6   | 66.5   | 65.6   | 67.3   | 68.2   |
| 45°   | 3775.4 | 2224.4 | 208.4  | 149.0  | 118.6  | 82.7   | 62.9   | 57.5   | 57.5   | 60.1   | 61.1   |
| 47.5° | 4157.1 | 2352.0 | 193.0  | 139.2  | 105.1  | 69.2   | 53.9   | 50.3   | 51.1   | 53.9   | 54.8   |
| 50°   | 4616.8 | 2512.7 | 177.8  | 128.4  | 95.2   | 57.5   | 46.7   | 44.0   | 44.9   | 48.5   | 49.4   |
| 52.5° | 5140.4 | 2729.1 | 165.2  | 118.6  | 82.7   | 47.6   | 39.5   | 37.7   | 39.5   | 43.1   | 44.0   |
| 55°   | 5589.4 | 2923.1 | 150.0  | 110.5  | 66.5   | 39.5   | 32.3   | 32.3   | 34.2   | 38.6   | 39.5   |
| 57.5° | 6021.4 | 3126.0 | 136.5  | 95.2   | 52.1   | 31.4   | 26.9   | 27.8   | 30.5   | 35.0   | 35.9   |
| 60°   | 6655.4 | 3470.1 | 120.3  | 79.9   | 39.5   | 25.2   | 22.4   | 23.3   | 26.9   | 31.4   | 32.3   |
| 62.5° | 7732.2 | 3993.6 | 104.1  | 66.5   | 30.5   | 19.7   | 18.0   | 19.7   | 24.2   | 29.7   | 30.5   |
| 65°   | 8703.8 | 4206.5 | 85.3   | 55.6   | 23.3   | 15.2   | 15.2   | 18.0   | 23.3   | 28.7   | 29.7   |
| 67.5° | 8162.3 | 3540.9 | 66.5   | 44.0   | 18.0   | 11.7   | 12.6   | 17.1   | 22.4   | 28.7   | 29.7   |
| 69°   | 7218.5 | 2895.3 | 56.6   | 35.0   | 15.2   | 10.7   | 11.7   | 17.1   | 22.4   | 27.8   | 28.7   |
| 70°   | 6483.0 | 2444.4 | 50.3   | 29.7   | 13.5   | 10.7   | 11.7   | 16.2   | 22.4   | 27.8   | 28.7   |
| 72.5° | 4342.0 | 1320.1 | 40.4   | 21.6   | 12.6   | 9.9    | 9.9    | 16.2   | 21.6   | 26.9   | 27.8   |
| 75°   | 1866.2 | 364.6  | 32.3   | 15.2   | 10.7   | 9.0    | 9.0    | 15.2   | 20.7   | 26.1   | 27.8   |
| 77.5° | 341.3  | 92.5   | 26.1   | 13.5   | 10.7   | 9.0    | 8.1    | 14.3   | 19.7   | 25.2   | 26.1   |
| 80°   | 135.6  | 45.8   | 20.7   | 11.7   | 9.9    | 8.1    | 7.2    | 13.5   | 18.8   | 24.2   | 25.2   |
| 82.5° | 81.7   | 26.1   | 17.1   | 10.7   | 9.9    | 7.2    | 6.2    | 11.7   | 18.0   | 23.3   | 24.2   |
| 85°   | 66.5   | 18.0   | 13.5   | 10.7   | 9.0    | 7.2    | 5.4    | 10.7   | 16.2   | 22.4   | 23.3   |
| 87.5° | 32.3   | 12.6   | 12.6   | 9.9    | 9.0    | 7.2    | 5.4    | 9.9    | 15.2   | 21.6   | 22.4   |
| 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)