

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: P323337

Luminaire Tested: **GLEON-SA3D-827-U-SL2-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P323337  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-21)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA3D-827-U-SL2-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(3) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14424 lumens  
Efficiency: N/A  
Efficacy: 75.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B2 - U0 - G3

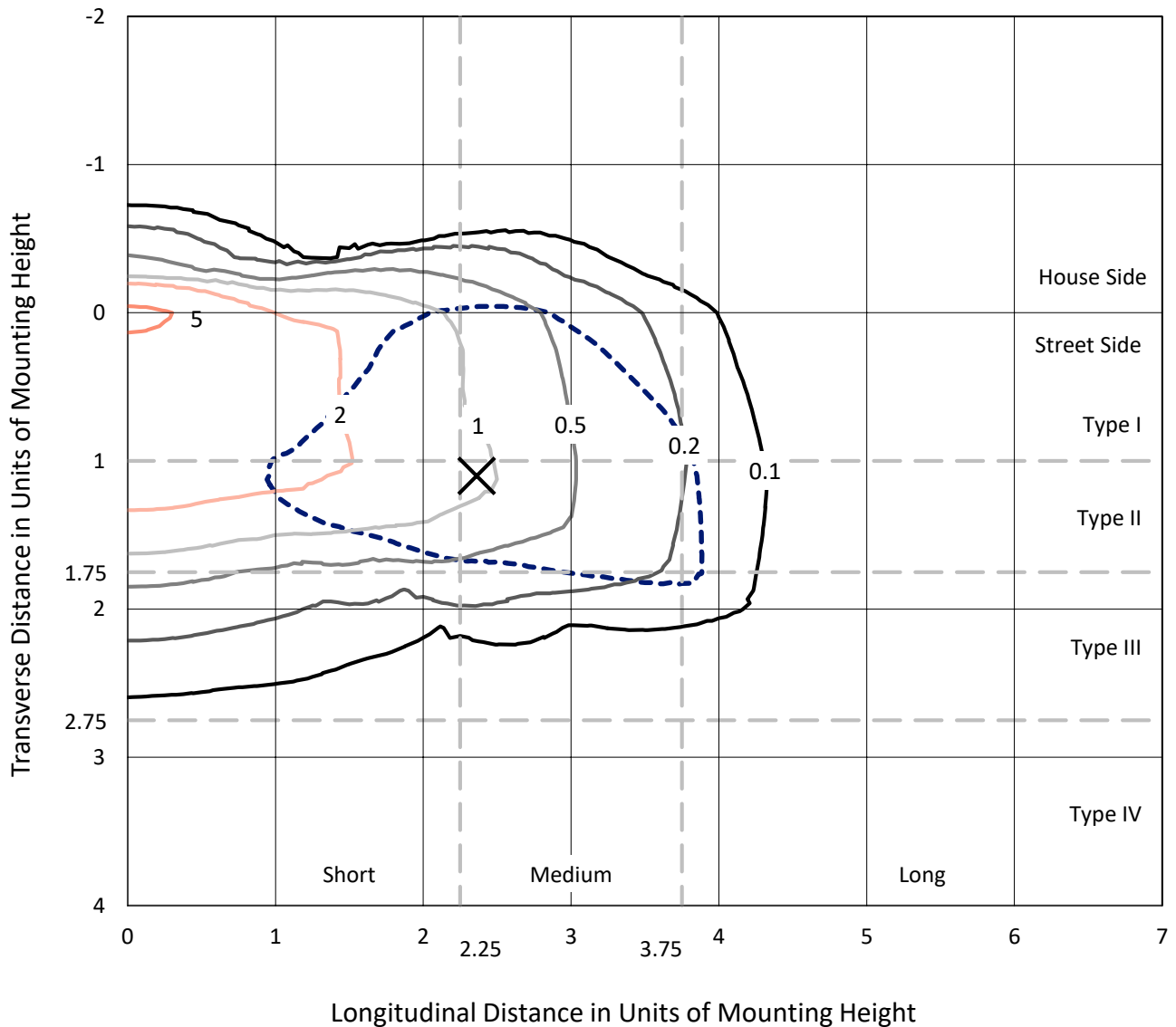
Input Watts (W): 191  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

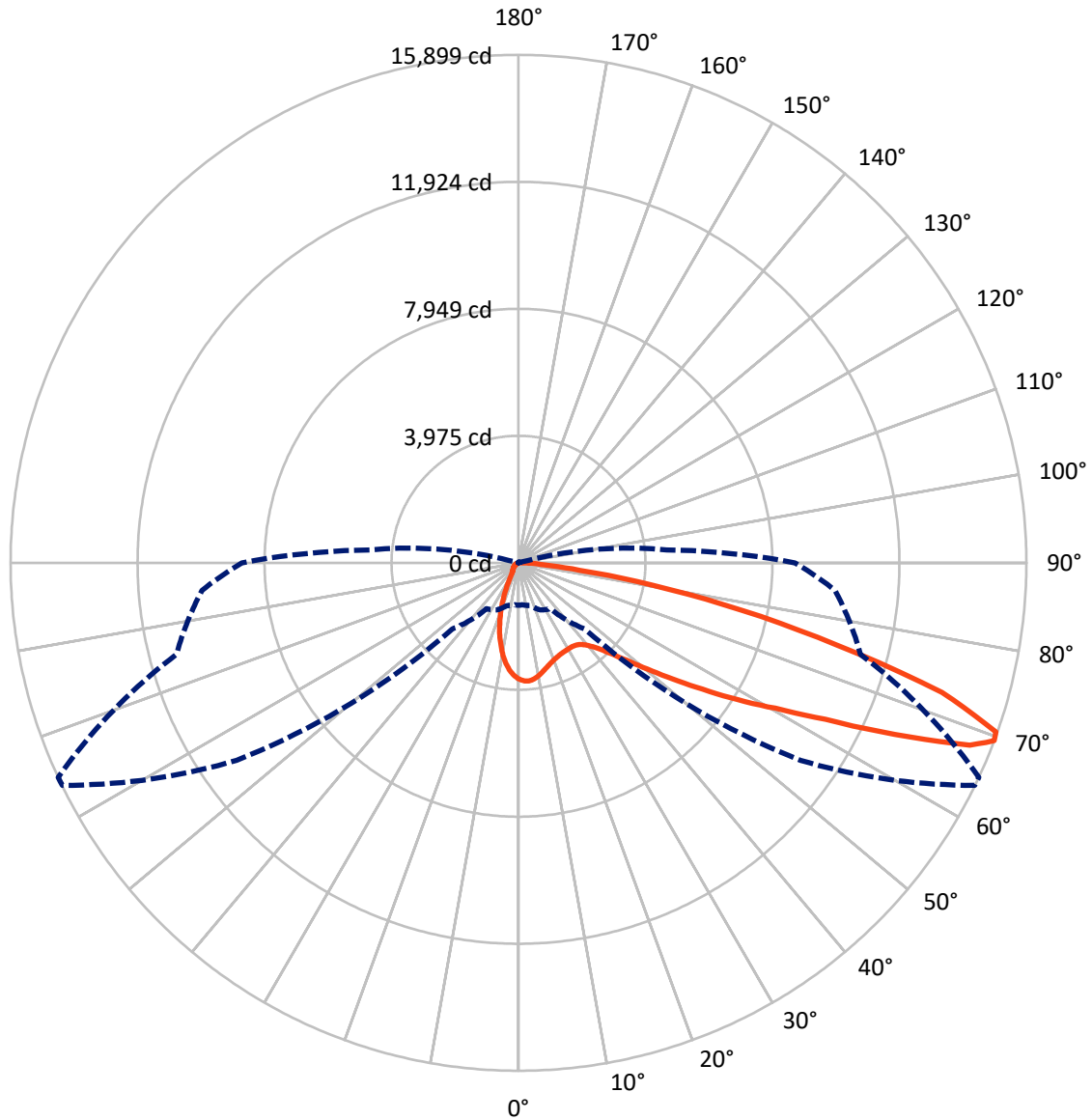
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1700.3   | 0.0    | 1700.3  |
|                    | % Fixture | 11.8     | 0.0    | 11.8    |
| <b>Street Side</b> | Lumens    | 12723.8  | 0.0    | 12723.8 |
|                    | % Fixture | 88.2     | 0.0    | 88.2    |
| <b>Total</b>       | Lumens    | 14424.0  | 0.0    | 14424.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 304.8   | 2.1       |
| 10°-20°   | 667.2   | 4.6       |
| 20°-30°   | 924.1   | 6.4       |
| 30°-40°   | 1288.5  | 8.9       |
| 40°-50°   | 2002.8  | 13.9      |
| 50°-60°   | 3215.2  | 22.3      |
| 60°-70°   | 3636.9  | 25.2      |
| 70°-80°   | 2136.0  | 14.8      |
| 80°-90°   | 248.5   | 1.7       |
| 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°    | 14424.0 | 100.0     |
| 0°-180°   | 14424.0 | 100.0     |

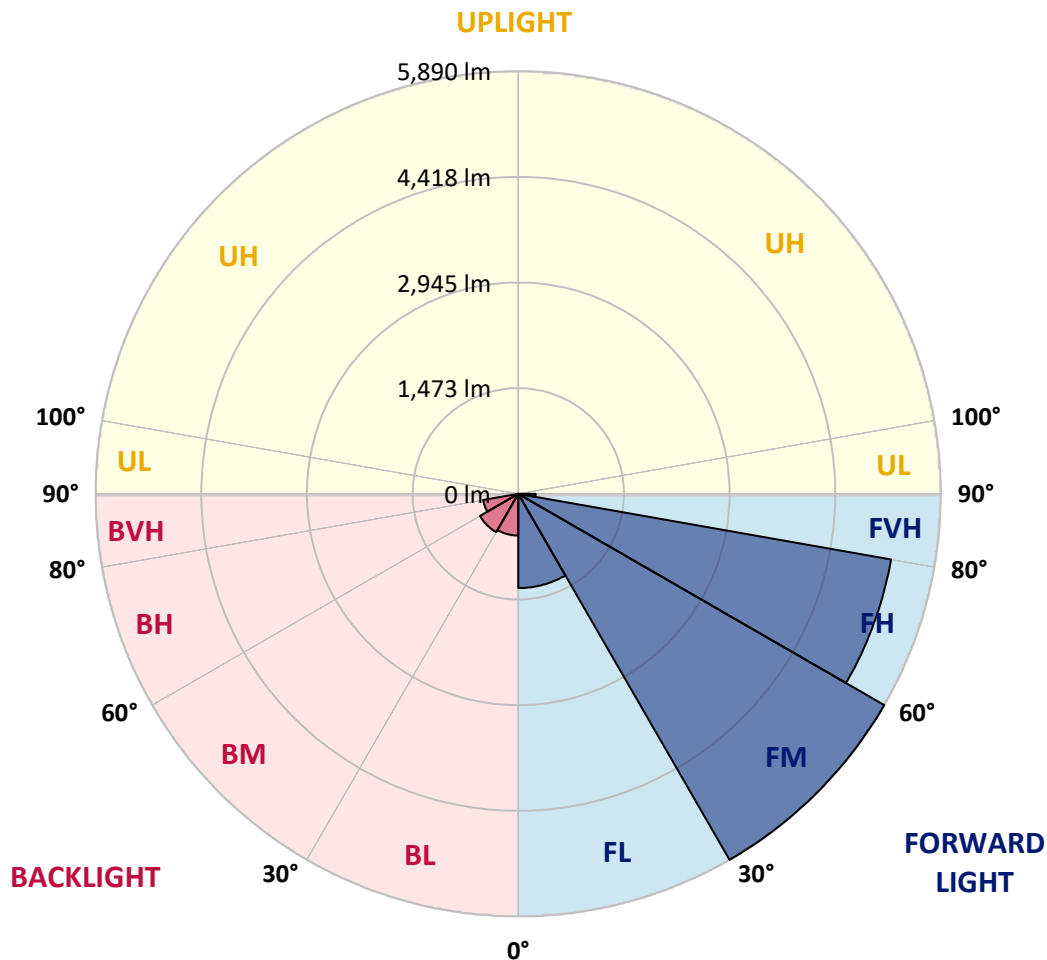


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1314.4 | 9.1       |                         |      |         |
| FM (30°-60°)   | 5890.3 | 40.8      |                         |      |         |
| FH (60°-80°)   | 5276.2 | 36.6      |                         |      | G3/7500 |
| FVH (80°-90°)  | 242.9  | 1.7       |                         |      | G3/500  |
| BL (0°-30°)    | 581.8  | 4.0       | B2/1000                 |      |         |
| BM (30°-60°)   | 616.1  | 4.3       | B1/1000                 |      |         |
| BH (60°-80°)   | 496.8  | 3.4       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 5.6    | 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-G3**  
 Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°     | 64°     | 65°     | 75°     | 85°    |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| 0°    | 3645.0 | 3645.0 | 3645.0 | 3645.0 | 3645.0 | 3645.0 | 3645.0  | 3645.0  | 3645.0  | 3645.0  | 3645.0 |
| 2.5°  | 3677.3 | 3668.2 | 3675.5 | 3691.4 | 3699.3 | 3699.3 | 3705.4  | 3698.1  | 3700.5  | 3682.8  | 3657.2 |
| 5°    | 3447.2 | 3433.2 | 3453.3 | 3497.9 | 3552.8 | 3599.8 | 3669.4  | 3706.0  | 3709.7  | 3710.3  | 3680.4 |
| 7.5°  | 3199.4 | 3186.6 | 3216.5 | 3269.0 | 3339.8 | 3427.1 | 3548.5  | 3654.7  | 3660.8  | 3718.2  | 3696.2 |
| 10°   | 2998.0 | 2988.9 | 3023.6 | 3079.8 | 3162.8 | 3260.5 | 3409.4  | 3557.1  | 3574.8  | 3701.7  | 3693.8 |
| 12.5° | 2838.1 | 2830.8 | 2863.7 | 2928.4 | 3013.3 | 3121.3 | 3276.9  | 3448.4  | 3472.2  | 3664.5  | 3681.6 |
| 15°   | 2721.5 | 2720.3 | 2747.8 | 2810.0 | 2904.0 | 3004.7 | 3164.0  | 3347.7  | 3375.2  | 3624.2  | 3679.8 |
| 17.5° | 2660.5 | 2662.3 | 2682.5 | 2735.6 | 2816.1 | 2916.2 | 3068.8  | 3262.9  | 3292.8  | 3588.2  | 3688.9 |
| 20°   | 2654.4 | 2656.2 | 2667.2 | 2697.1 | 2762.4 | 2850.9 | 2991.3  | 3191.5  | 3222.6  | 3561.4  | 3703.6 |
| 22.5° | 2708.1 | 2706.9 | 2709.9 | 2706.9 | 2743.5 | 2810.6 | 2940.0  | 3136.6  | 3172.6  | 3543.7  | 3715.2 |
| 25°   | 2811.2 | 2809.4 | 2808.2 | 2785.6 | 2761.2 | 2797.2 | 2918.7  | 3105.4  | 3139.6  | 3530.8  | 3721.9 |
| 27.5° | 2954.7 | 2953.5 | 2951.6 | 2914.4 | 2841.1 | 2818.6 | 2921.1  | 3093.8  | 3122.5  | 3520.5  | 3720.7 |
| 30°   | 3143.3 | 3151.8 | 3149.4 | 3097.5 | 2983.4 | 2883.9 | 2946.7  | 3087.7  | 3112.8  | 3500.3  | 3707.8 |
| 32.5° | 3364.8 | 3381.9 | 3395.3 | 3339.8 | 3197.0 | 3013.3 | 3005.9  | 3094.4  | 3112.8  | 3485.1  | 3684.6 |
| 35°   | 3594.9 | 3616.9 | 3666.3 | 3646.8 | 3458.8 | 3208.0 | 3107.9  | 3134.7  | 3150.0  | 3493.6  | 3673.7 |
| 37.5° | 3821.4 | 3847.6 | 3955.0 | 4011.8 | 3801.8 | 3465.5 | 3266.6  | 3234.2  | 3242.1  | 3545.5  | 3685.9 |
| 40°   | 4084.4 | 4124.1 | 4287.1 | 4378.6 | 4211.4 | 3810.4 | 3504.0  | 3405.1  | 3408.2  | 3659.6  | 3742.6 |
| 42.5° | 4429.9 | 4470.8 | 4647.2 | 4790.6 | 4672.8 | 4246.2 | 3826.2  | 3666.3  | 3663.3  | 3873.2  | 3876.3 |
| 45°   | 4851.0 | 4893.7 | 5076.2 | 5235.5 | 5182.4 | 4762.5 | 4238.8  | 4047.8  | 4044.1  | 4210.1  | 4129.6 |
| 47.5° | 5328.3 | 5370.4 | 5533.4 | 5697.6 | 5754.9 | 5365.5 | 4764.3  | 4568.4  | 4559.9  | 4678.3  | 4520.8 |
| 50°   | 5737.8 | 5765.3 | 5915.4 | 6136.4 | 6395.2 | 6106.5 | 5418.0  | 5229.4  | 5220.3  | 5300.2  | 5095.1 |
| 52.5° | 5886.8 | 5902.6 | 6055.2 | 6364.7 | 7010.4 | 7109.9 | 6276.8  | 6033.9  | 6027.1  | 6061.9  | 5859.9 |
| 55°   | 5585.3 | 5613.9 | 5801.3 | 6260.3 | 7343.7 | 8243.9 | 7360.7  | 7029.9  | 6979.3  | 6904.2  | 6659.5 |
| 57.5° | 4763.7 | 4809.5 | 5010.9 | 5621.3 | 7188.0 | 9143.6 | 8953.7  | 8156.6  | 8082.2  | 7623.2  | 7309.5 |
| 60°   | 3569.3 | 3625.4 | 3792.7 | 4451.2 | 6357.3 | 9464.0 | 10694.4 | 9412.1  | 9244.3  | 8195.7  | 7907.0 |
| 62.5° | 2449.3 | 2477.4 | 2590.9 | 3020.0 | 4681.9 | 8939.1 | 12150.7 | 11093.6 | 10787.2 | 8818.2  | 8553.4 |
| 65°   | 1870.7 | 1880.5 | 1926.9 | 2074.6 | 2788.0 | 7261.3 | 12729.9 | 13312.2 | 12941.7 | 9562.9  | 9224.1 |
| 67.5° | 1507.5 | 1499.6 | 1563.7 | 1774.9 | 1867.0 | 4429.9 | 12054.3 | 15411.2 | 15237.8 | 10558.3 | 9899.2 |
| 69°   | 1329.3 | 1318.3 | 1383.6 | 1629.0 | 1753.5 | 2928.4 | 10776.2 | 15887.8 | 15898.8 | 11083.8 | 9945.5 |
| 70°   | 1196.3 | 1203.6 | 1268.3 | 1542.3 | 1715.1 | 2298.6 | 9555.5  | 15766.4 | 15853.1 | 11280.4 | 9667.2 |
| 72.5° | 798.9  | 818.5  | 948.5  | 1280.5 | 1649.1 | 1739.5 | 5769.6  | 13529.5 | 13862.7 | 10837.9 | 8294.0 |
| 75°   | 450.4  | 465.1  | 619.5  | 965.6  | 1553.9 | 1656.5 | 3047.4  | 9967.5  | 10289.8 | 9063.0  | 6395.8 |
| 77.5° | 220.9  | 228.9  | 350.3  | 623.2  | 1299.4 | 1578.3 | 1728.5  | 6770.5  | 7138.6  | 5915.4  | 3617.5 |
| 80°   | 93.4   | 97.7   | 175.2  | 384.5  | 928.9  | 1506.3 | 1283.6  | 4166.8  | 4212.6  | 2317.5  | 963.7  |
| 82.5° | 36.0   | 37.2   | 73.9   | 239.9  | 590.2  | 1174.3 | 1073.6  | 1975.7  | 1928.1  | 436.4   | 219.7  |
| 85°   | 4.3    | 4.9    | 26.9   | 144.0  | 328.4  | 604.2  | 872.2   | 851.4   | 788.0   | 86.7    | 112.9  |
| 87.5° | 0.0    | 0.0    | 1.8    | 43.9   | 97.7   | 283.2  | 453.5   | 353.4   | 318.6   | 28.1    | 58.6   |
| 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°    | 3645.0 | 3645.0 | 3645.0 | 3645.0 | 3645.0 | 3645.0 | 3645.0 | 3645.0 | 3645.0 | 3645.0 | 3645.0 |
| 2.5°  | 3635.8 | 3629.7 | 3596.8 | 3549.1 | 3504.0 | 3447.8 | 3394.1 | 3361.8 | 3336.1 | 3319.0 | 3339.2 |
| 5°    | 3645.6 | 3618.7 | 3518.6 | 3390.5 | 3264.7 | 3123.1 | 2991.3 | 2879.6 | 2835.7 | 2786.8 | 2808.8 |
| 7.5°  | 3642.5 | 3591.9 | 3411.8 | 3183.6 | 2952.8 | 2714.2 | 2488.4 | 2314.4 | 2224.1 | 2135.6 | 2158.2 |
| 10°   | 3627.3 | 3541.8 | 3269.0 | 2930.9 | 2585.4 | 2242.4 | 1922.0 | 1678.4 | 1542.3 | 1419.0 | 1436.7 |
| 12.5° | 3593.7 | 3474.7 | 3100.5 | 2641.6 | 2179.5 | 1727.3 | 1351.9 | 1040.0 | 872.8  | 798.9  | 808.1  |
| 15°   | 3573.6 | 3409.4 | 2922.3 | 2348.6 | 1746.2 | 1203.0 | 826.4  | 614.6  | 538.3  | 513.9  | 517.0  |
| 17.5° | 3563.8 | 3346.5 | 2738.0 | 2013.5 | 1303.1 | 766.0  | 534.1  | 471.2  | 454.7  | 450.4  | 451.7  |
| 20°   | 3554.0 | 3283.0 | 2548.2 | 1682.1 | 897.8  | 515.1  | 438.8  | 420.5  | 414.4  | 408.9  | 410.2  |
| 22.5° | 3537.5 | 3222.0 | 2344.3 | 1346.4 | 605.5  | 418.1  | 395.5  | 377.8  | 365.0  | 358.3  | 359.5  |
| 25°   | 3517.4 | 3157.9 | 2136.2 | 1002.8 | 441.9  | 372.9  | 351.6  | 326.5  | 311.3  | 299.1  | 299.7  |
| 27.5° | 3485.1 | 3079.2 | 1921.4 | 730.0  | 371.1  | 333.9  | 305.2  | 277.7  | 252.1  | 238.0  | 238.0  |
| 30°   | 3439.9 | 2990.1 | 1682.7 | 522.5  | 332.6  | 295.4  | 260.6  | 226.4  | 199.0  | 186.2  | 184.9  |
| 32.5° | 3389.8 | 2897.3 | 1441.6 | 396.1  | 302.1  | 259.4  | 219.7  | 183.7  | 159.3  | 148.9  | 148.3  |
| 35°   | 3347.1 | 2797.2 | 1201.2 | 332.0  | 271.6  | 224.6  | 181.3  | 150.8  | 131.2  | 122.7  | 122.1  |
| 37.5° | 3319.7 | 2697.1 | 966.8  | 296.6  | 244.1  | 192.3  | 152.0  | 124.5  | 110.5  | 103.8  | 103.1  |
| 40°   | 3315.4 | 2622.6 | 752.6  | 269.8  | 218.5  | 163.6  | 127.0  | 105.6  | 92.8   | 85.4   | 84.8   |
| 42.5° | 3370.9 | 2579.9 | 577.4  | 247.2  | 192.3  | 138.5  | 108.0  | 90.3   | 76.9   | 69.6   | 69.0   |
| 45°   | 3516.8 | 2593.3 | 444.3  | 227.0  | 166.0  | 117.2  | 91.6   | 75.1   | 62.9   | 57.4   | 56.2   |
| 47.5° | 3782.9 | 2686.1 | 353.4  | 206.9  | 141.0  | 99.5   | 78.1   | 62.3   | 51.9   | 46.4   | 45.8   |
| 50°   | 4256.5 | 2904.0 | 295.4  | 184.9  | 117.8  | 84.8   | 64.7   | 50.7   | 42.1   | 37.2   | 36.6   |
| 52.5° | 4885.2 | 3292.2 | 263.7  | 163.6  | 97.7   | 72.0   | 53.1   | 40.3   | 33.0   | 29.3   | 28.7   |
| 55°   | 5578.5 | 3762.2 | 242.9  | 140.4  | 80.0   | 59.8   | 42.1   | 31.7   | 25.6   | 22.6   | 21.4   |
| 57.5° | 6255.4 | 4169.3 | 223.4  | 117.8  | 66.5   | 48.8   | 33.6   | 25.0   | 20.1   | 17.1   | 16.5   |
| 60°   | 6877.3 | 4543.4 | 200.8  | 94.6   | 54.3   | 38.5   | 26.2   | 19.5   | 15.9   | 12.8   | 12.8   |
| 62.5° | 7543.2 | 4832.7 | 169.7  | 73.9   | 44.6   | 29.3   | 21.4   | 17.7   | 12.8   | 11.0   | 10.4   |
| 65°   | 8248.8 | 5047.5 | 133.1  | 57.4   | 34.8   | 22.0   | 17.7   | 18.3   | 10.4   | 7.9    | 7.3    |
| 67.5° | 8770.0 | 5004.8 | 98.3   | 45.2   | 26.9   | 17.1   | 17.1   | 19.5   | 9.2    | 6.1    | 5.5    |
| 69°   | 8655.3 | 4657.5 | 82.4   | 39.1   | 23.2   | 14.6   | 15.9   | 19.5   | 8.5    | 5.5    | 4.9    |
| 70°   | 8322.6 | 4273.0 | 72.6   | 34.8   | 20.8   | 13.4   | 15.3   | 18.9   | 7.9    | 5.5    | 4.9    |
| 72.5° | 6931.1 | 3218.3 | 56.8   | 26.2   | 16.5   | 11.0   | 12.8   | 16.5   | 7.9    | 5.5    | 4.3    |
| 75°   | 5213.6 | 2059.9 | 43.3   | 18.9   | 12.2   | 8.5    | 9.8    | 12.2   | 7.9    | 4.9    | 4.3    |
| 77.5° | 2836.9 | 742.8  | 31.1   | 12.8   | 8.5    | 6.7    | 6.7    | 9.2    | 7.3    | 3.7    | 2.4    |
| 80°   | 729.4  | 186.8  | 19.5   | 8.5    | 6.7    | 4.9    | 4.3    | 6.1    | 4.3    | 0.6    | 0.0    |
| 82.5° | 180.1  | 42.1   | 10.4   | 6.1    | 4.9    | 1.8    | 1.8    | 3.1    | 1.8    | 0.0    | 0.0    |
| 85°   | 98.9   | 20.8   | 6.7    | 4.3    | 2.4    | 0.0    | 0.0    | 0.6    | 0.0    | 0.0    | 0.0    |
| 87.5° | 50.7   | 6.1    | 1.8    | 1.2    | 0.6    | 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)