

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: STREETWORKS

Report Number: P324947

Luminaire Tested: **GAN-SA3A-830-U-AFL-HSS**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P324947  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-30)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA3A-830-U-AFL-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(3) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 9254 lumens  
Efficiency: N/A  
Efficacy: 96.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

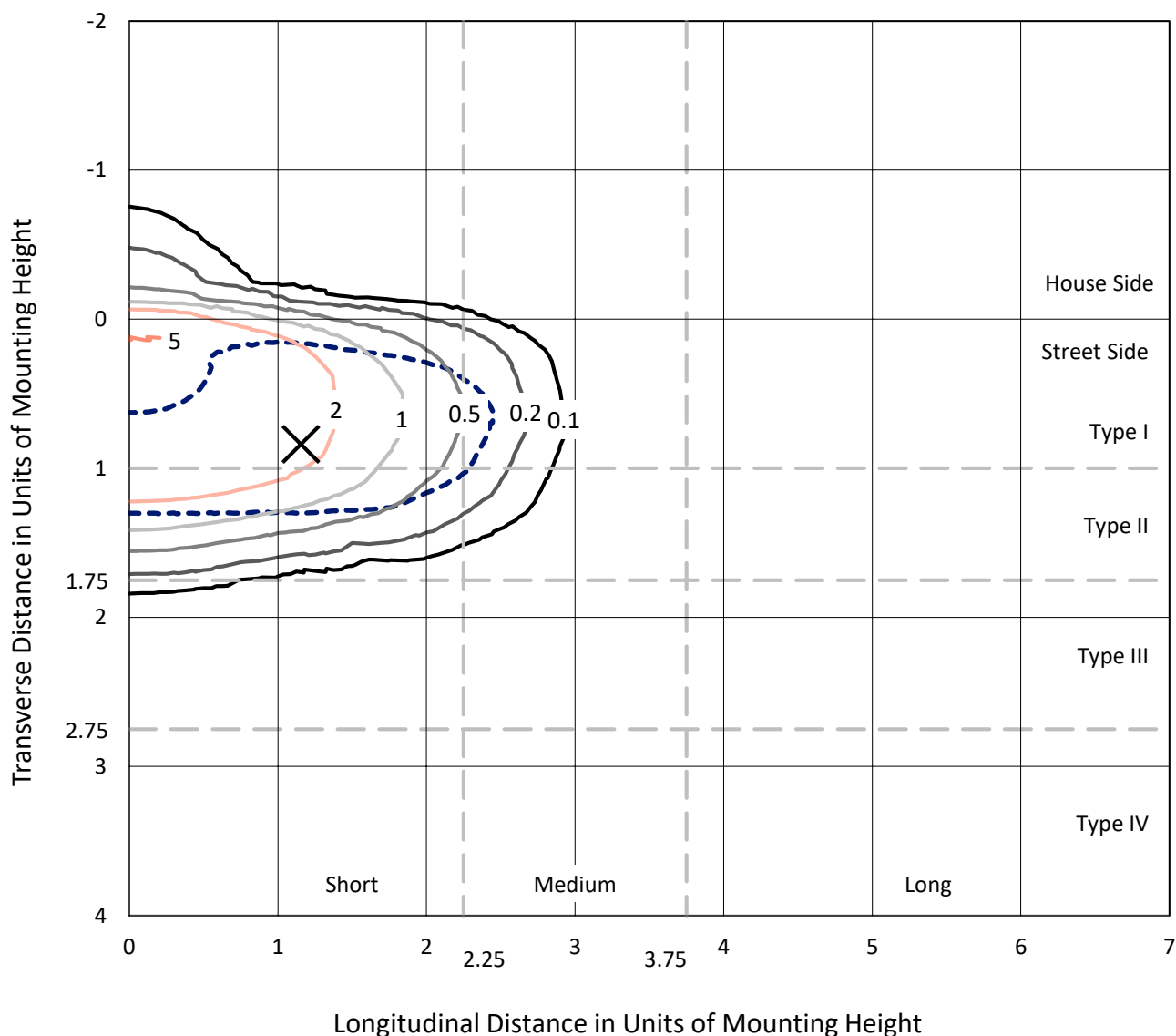
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

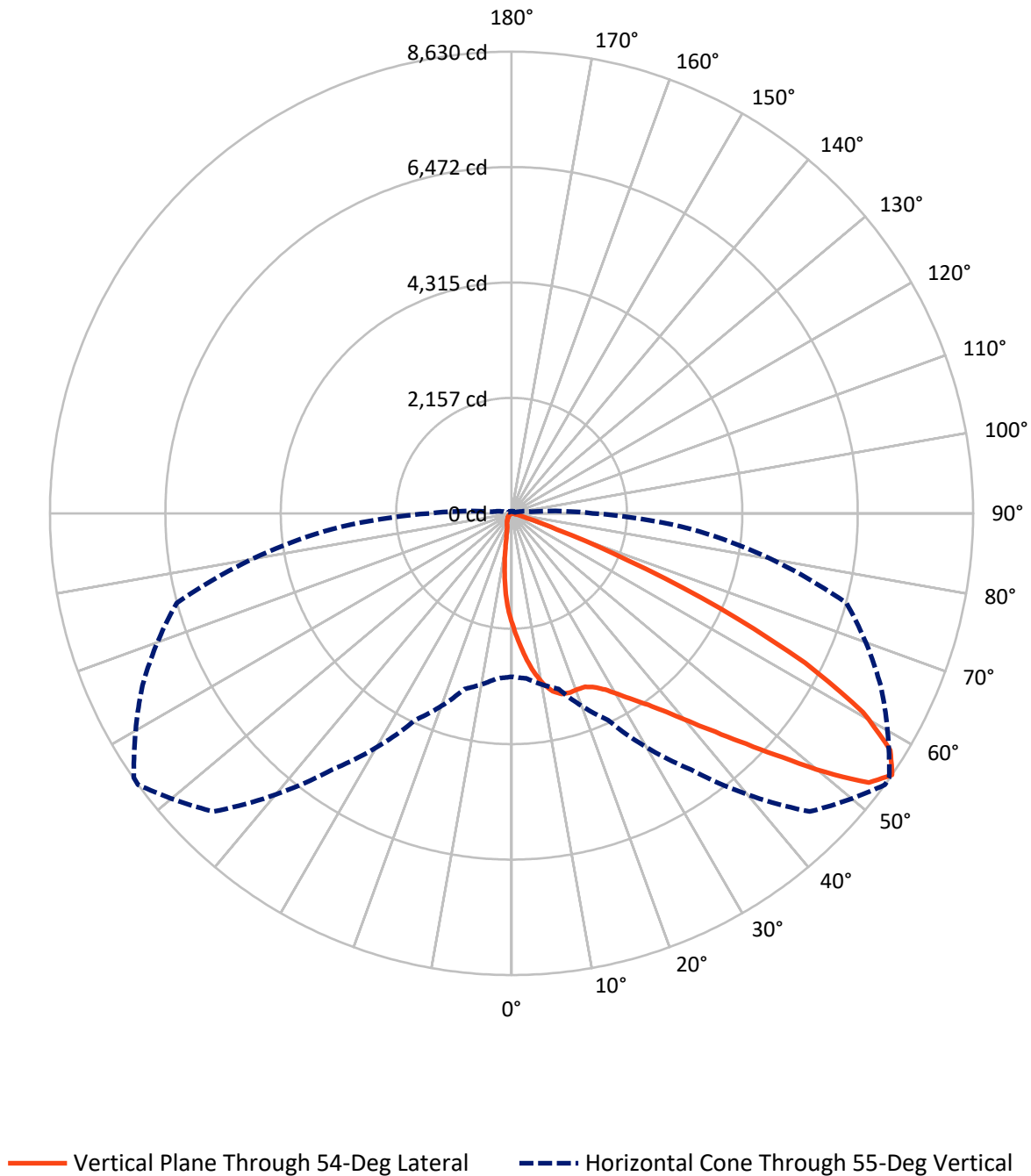
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc  
 Type II - Short - N/A

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## Luminous Intensity Polar Plot



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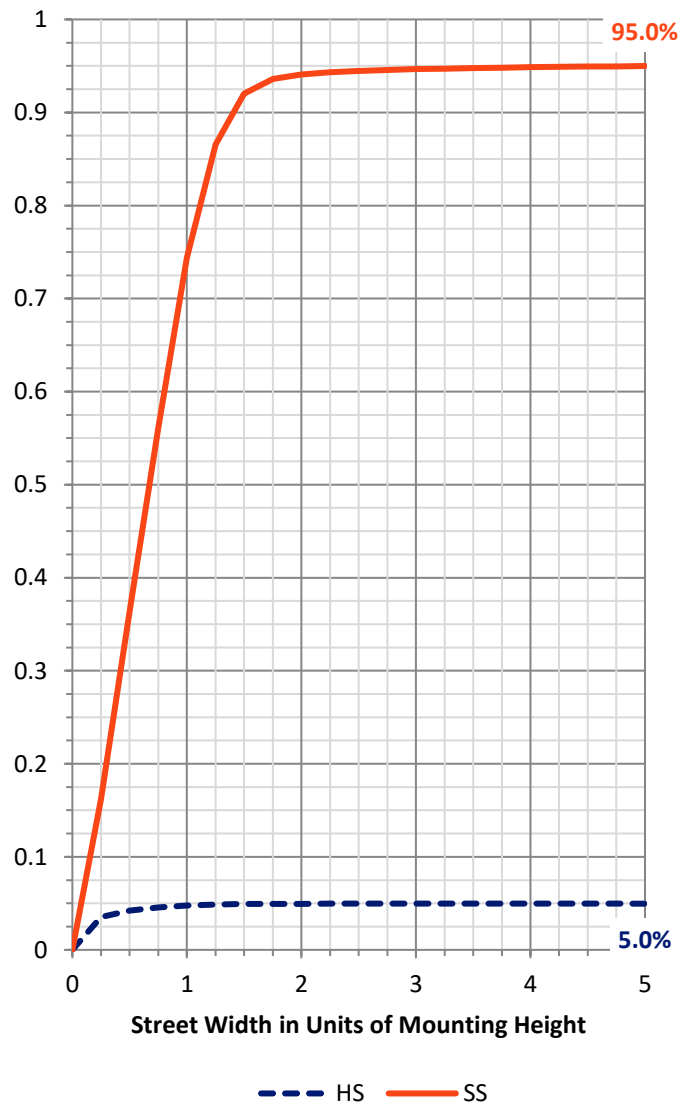
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 461.7    | 0.0    | 461.7  |
|                    | % Fixture | 5.0      | 0.0    | 5.0    |
| <b>Street Side</b> | Lumens    | 8792.3   | 0.0    | 8792.3 |
|                    | % Fixture | 95.0     | 0.0    | 95.0   |
| <b>Total</b>       | Lumens    | 9254.0   | 0.0    | 9254.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 190.9  | 2.1       |
| 10°-20°   | 523.4  | 5.7       |
| 20°-30°   | 893.7  | 9.7       |
| 30°-40°   | 1434.2 | 15.5      |
| 40°-50°   | 2291.8 | 24.8      |
| 50°-60°   | 2455.8 | 26.5      |
| 60°-70°   | 1260.9 | 13.6      |
| 70°-80°   | 191.0  | 2.1       |
| 80°-90°   | 12.4   | 0.1       |
| 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°    | 9254.0 | 100.0     |
| 0°-180°   | 9254.0 | 100.0     |

**Coefficient of Utilization**



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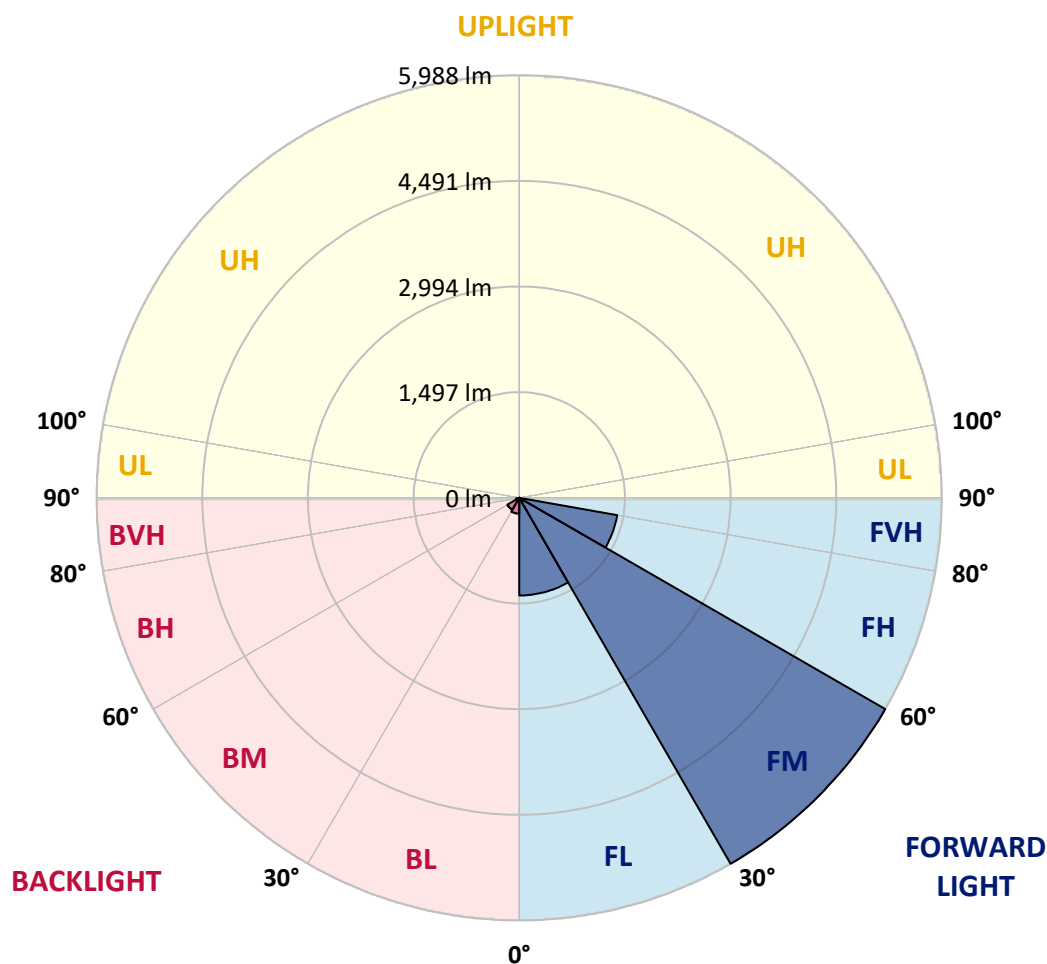
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1383.3 | 14.9      |                         |      |         |
| FM   | (30°-60°)   | 5987.7 | 64.7      |                         |      |         |
| FH   | (60°-80°)   | 1409.3 | 15.2      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 11.9   | 0.1       |                         |      | G1/100  |
| BL   | (0°-30°)    | 224.6  | 2.4       | B1/500                  |      |         |
| BM   | (30°-60°)   | 194.0  | 2.1       | B0/220                  |      |         |
| BH   | (60°-80°)   | 42.6   | 0.5       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 0.5    | 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-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 54°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2072.5 | 2072.5 | 2072.5 | 2072.5 | 2072.5 | 2072.5 | 2072.5 | 2072.5 | 2072.5 | 2072.5 | 2072.5 |
| 2.5°  | 2600.8 | 2562.1 | 2563.3 | 2545.7 | 2481.4 | 2431.0 | 2378.6 | 2366.3 | 2284.7 | 2199.2 | 2116.9 |
| 5°    | 3050.4 | 3022.1 | 3015.3 | 2981.3 | 2891.8 | 2797.1 | 2695.6 | 2672.0 | 2512.5 | 2337.5 | 2165.2 |
| 7.5°  | 3281.4 | 3281.8 | 3276.2 | 3263.8 | 3207.9 | 3116.0 | 2992.1 | 2967.3 | 2750.3 | 2487.7 | 2215.6 |
| 10°   | 3214.3 | 3229.5 | 3260.6 | 3301.8 | 3344.6 | 3333.0 | 3239.9 | 3217.5 | 2981.7 | 2646.8 | 2271.5 |
| 12.5° | 3057.6 | 3059.6 | 3094.4 | 3161.9 | 3285.0 | 3411.3 | 3412.9 | 3405.3 | 3202.7 | 2813.1 | 2333.1 |
| 15°   | 2979.7 | 2987.3 | 3000.1 | 3043.6 | 3160.3 | 3362.6 | 3507.2 | 3518.0 | 3405.3 | 2989.7 | 2398.6 |
| 17.5° | 3030.9 | 3041.6 | 3030.9 | 3036.1 | 3103.6 | 3285.4 | 3523.6 | 3551.2 | 3582.4 | 3164.3 | 2460.6 |
| 20°   | 3169.5 | 3179.5 | 3160.3 | 3139.2 | 3152.3 | 3263.0 | 3512.0 | 3549.2 | 3721.0 | 3319.4 | 2512.5 |
| 22.5° | 3356.6 | 3360.6 | 3331.4 | 3296.6 | 3287.0 | 3339.0 | 3521.6 | 3560.0 | 3832.1 | 3459.7 | 2545.3 |
| 25°   | 3562.4 | 3566.0 | 3529.6 | 3489.6 | 3466.9 | 3488.0 | 3600.3 | 3629.1 | 3930.0 | 3593.5 | 2564.1 |
| 27.5° | 3786.6 | 3789.8 | 3744.2 | 3695.1 | 3668.7 | 3669.5 | 3730.2 | 3761.0 | 4034.3 | 3746.2 | 2579.3 |
| 30°   | 4023.6 | 4022.0 | 3980.0 | 3911.7 | 3878.1 | 3877.3 | 3917.3 | 3948.4 | 4185.4 | 3942.0 | 2600.0 |
| 32.5° | 4289.7 | 4286.5 | 4227.0 | 4142.3 | 4104.3 | 4109.9 | 4145.4 | 4163.4 | 4372.8 | 4150.6 | 2637.2 |
| 35°   | 4640.2 | 4631.0 | 4541.1 | 4436.0 | 4366.0 | 4364.1 | 4394.0 | 4408.4 | 4611.8 | 4403.2 | 2699.2 |
| 37.5° | 5095.0 | 5086.6 | 4964.7 | 4812.0 | 4713.7 | 4677.0 | 4712.5 | 4730.9 | 4952.7 | 4727.3 | 2798.7 |
| 40°   | 5543.4 | 5535.0 | 5462.7 | 5322.8 | 5171.3 | 5083.0 | 5111.0 | 5130.6 | 5378.3 | 5120.6 | 2924.2 |
| 42.5° | 5852.7 | 5859.9 | 5885.1 | 5896.7 | 5754.8 | 5569.4 | 5582.1 | 5602.5 | 5825.5 | 5541.0 | 3067.6 |
| 45°   | 5934.2 | 5949.8 | 6092.1 | 6371.4 | 6424.6 | 6279.9 | 6146.0 | 6157.2 | 6279.9 | 5961.4 | 3211.1 |
| 47.5° | 5689.3 | 5718.0 | 5992.6 | 6512.1 | 6962.1 | 7064.4 | 6811.0 | 6796.3 | 6715.9 | 6301.5 | 3313.0 |
| 50°   | 5132.6 | 5158.9 | 5514.6 | 6283.1 | 7125.2 | 7813.3 | 7607.9 | 7564.4 | 7098.4 | 6504.9 | 3349.0 |
| 52.5° | 4326.9 | 4358.9 | 4647.8 | 5562.2 | 6817.8 | 8147.4 | 8362.4 | 8326.1 | 7378.9 | 6520.9 | 3355.0 |
| 55°   | 3055.6 | 3094.4 | 3400.1 | 4262.9 | 5843.9 | 7881.7 | 8629.8 | 8619.0 | 7611.9 | 6478.5 | 3367.8 |
| 57.5° | 1717.2 | 1745.2 | 2074.9 | 2732.7 | 4280.1 | 6865.0 | 8350.4 | 8422.0 | 7752.6 | 6405.0 | 3386.9 |
| 60°   | 762.5  | 770.1  | 940.7  | 1360.4 | 2505.7 | 5246.5 | 7550.8 | 7671.5 | 7631.9 | 6306.7 | 3419.3 |
| 62.5° | 422.8  | 416.4  | 416.4  | 565.5  | 1089.0 | 3247.9 | 6157.2 | 6356.6 | 7116.8 | 6190.4 | 3420.9 |
| 65°   | 331.3  | 325.3  | 308.1  | 310.5  | 414.8  | 1441.5 | 4263.7 | 4618.2 | 6138.4 | 5849.5 | 3305.8 |
| 67.5° | 280.9  | 275.8  | 258.6  | 251.8  | 257.8  | 475.6  | 2342.7 | 2710.7 | 4657.8 | 4963.5 | 2863.4 |
| 70°   | 237.4  | 233.8  | 225.0  | 216.6  | 201.4  | 235.0  | 896.4  | 1146.6 | 2870.2 | 3301.8 | 1954.6 |
| 72.5° | 191.0  | 189.4  | 192.6  | 185.4  | 167.0  | 156.7  | 306.5  | 371.3  | 1289.2 | 1473.5 | 805.3  |
| 75°   | 164.7  | 163.9  | 165.5  | 158.3  | 137.5  | 109.1  | 155.9  | 170.2  | 363.7  | 360.5  | 163.1  |
| 77.5° | 107.1  | 108.3  | 137.1  | 133.9  | 118.3  | 72.7   | 80.7   | 87.1   | 110.3  | 82.7   | 49.6   |
| 80°   | 68.3   | 67.5   | 69.5   | 111.1  | 106.3  | 55.5   | 40.4   | 42.4   | 53.2   | 40.8   | 24.0   |
| 82.5° | 41.6   | 40.8   | 45.6   | 52.0   | 53.6   | 38.8   | 24.8   | 25.2   | 33.2   | 26.4   | 12.8   |
| 85°   | 3.6    | 4.8    | 27.6   | 25.6   | 18.4   | 12.0   | 12.0   | 12.8   | 17.6   | 15.6   | 7.2    |
| 87.5° | 0.0    | 0.0    | 4.8    | 7.2    | 4.0    | 4.4    | 4.4    | 4.8    | 6.8    | 6.8    | 3.6    |
| 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°    | 2072.5 | 2072.5 | 2072.5 | 2072.5 | 2072.5 | 2072.5 | 2072.5 | 2072.5 | 2072.5 | 2072.5 | 2072.5 |
| 2.5°  | 2074.1 | 2032.6 | 1948.6 | 1867.9 | 1799.6 | 1733.6 | 1658.5 | 1584.2 | 1549.4 | 1535.4 | 1521.0 |
| 5°    | 2077.7 | 1992.2 | 1819.2 | 1644.9 | 1464.3 | 1301.6 | 1162.9 | 1020.7 | 949.5  | 918.4  | 904.0  |
| 7.5°  | 2082.5 | 1952.2 | 1672.5 | 1380.0 | 1089.0 | 868.4  | 675.8  | 551.9  | 498.3  | 490.0  | 469.2  |
| 10°   | 2083.3 | 1903.9 | 1502.2 | 1087.4 | 730.1  | 523.5  | 402.8  | 338.9  | 315.3  | 311.3  | 304.5  |
| 12.5° | 2084.9 | 1846.7 | 1313.2 | 805.3  | 486.8  | 350.1  | 291.3  | 270.2  | 263.8  | 263.4  | 263.4  |
| 15°   | 2089.7 | 1786.8 | 1117.0 | 580.3  | 349.7  | 277.3  | 255.8  | 247.4  | 245.0  | 246.2  | 245.8  |
| 17.5° | 2089.7 | 1716.0 | 924.4  | 432.4  | 282.5  | 249.4  | 237.4  | 231.8  | 231.0  | 232.2  | 232.6  |
| 20°   | 2074.5 | 1630.1 | 747.7  | 336.5  | 250.6  | 231.4  | 220.6  | 215.4  | 213.4  | 214.2  | 214.6  |
| 22.5° | 2038.2 | 1524.6 | 603.9  | 278.5  | 229.4  | 215.0  | 203.4  | 195.4  | 192.2  | 192.6  | 192.6  |
| 25°   | 1981.4 | 1399.5 | 472.4  | 241.0  | 212.2  | 197.4  | 183.8  | 174.6  | 172.6  | 172.2  | 173.0  |
| 27.5° | 1908.7 | 1261.3 | 376.1  | 212.2  | 191.8  | 177.8  | 164.3  | 156.7  | 155.1  | 155.5  | 155.9  |
| 30°   | 1837.1 | 1117.8 | 296.5  | 187.8  | 169.0  | 155.9  | 145.5  | 141.9  | 141.9  | 143.1  | 143.5  |
| 32.5° | 1771.6 | 979.9  | 234.6  | 166.6  | 148.7  | 136.7  | 130.7  | 130.3  | 132.3  | 133.1  | 133.5  |
| 35°   | 1715.2 | 852.4  | 194.2  | 150.3  | 132.7  | 122.3  | 120.3  | 121.9  | 124.3  | 125.9  | 126.3  |
| 37.5° | 1675.3 | 738.5  | 169.8  | 136.7  | 120.3  | 111.9  | 111.5  | 114.7  | 117.9  | 121.5  | 122.3  |
| 40°   | 1658.5 | 642.2  | 153.1  | 124.7  | 110.3  | 103.9  | 102.7  | 107.1  | 113.1  | 118.3  | 119.1  |
| 42.5° | 1644.5 | 563.5  | 138.7  | 113.1  | 102.3  | 93.1   | 92.7   | 98.3   | 105.5  | 110.7  | 111.9  |
| 45°   | 1632.5 | 500.3  | 125.5  | 100.7  | 91.9   | 79.9   | 81.1   | 88.3   | 93.9   | 99.5   | 100.7  |
| 47.5° | 1607.7 | 448.4  | 111.1  | 87.5   | 75.9   | 68.3   | 70.7   | 77.1   | 81.5   | 89.9   | 91.1   |
| 50°   | 1563.4 | 406.0  | 96.3   | 71.5   | 61.9   | 59.1   | 62.7   | 67.1   | 72.7   | 79.9   | 80.7   |
| 52.5° | 1533.4 | 374.1  | 83.5   | 59.9   | 51.2   | 52.0   | 55.5   | 57.1   | 60.3   | 63.1   | 62.3   |
| 55°   | 1516.2 | 356.5  | 73.1   | 52.0   | 43.6   | 46.0   | 46.8   | 44.8   | 43.2   | 40.4   | 39.2   |
| 57.5° | 1514.2 | 340.5  | 65.1   | 45.2   | 38.4   | 39.6   | 36.8   | 30.0   | 24.4   | 21.2   | 20.4   |
| 60°   | 1511.0 | 320.9  | 58.7   | 38.0   | 34.0   | 32.4   | 26.4   | 16.4   | 11.6   | 10.8   | 10.8   |
| 62.5° | 1476.3 | 290.5  | 54.0   | 32.0   | 28.8   | 24.4   | 15.2   | 7.6    | 6.4    | 6.8    | 6.8    |
| 65°   | 1365.6 | 248.2  | 49.2   | 26.0   | 22.8   | 17.6   | 7.6    | 4.4    | 2.4    | 2.8    | 2.8    |
| 67.5° | 1160.9 | 197.8  | 44.0   | 20.0   | 17.2   | 11.2   | 4.4    | 2.0    | 0.0    | 0.0    | 0.0    |
| 70°   | 777.3  | 122.7  | 37.2   | 14.0   | 11.2   | 6.8    | 3.2    | 0.4    | 0.0    | 0.0    | 0.0    |
| 72.5° | 298.1  | 66.3   | 30.0   | 8.4    | 7.2    | 4.8    | 2.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 67.1   | 43.6   | 20.8   | 6.0    | 5.2    | 3.2    | 0.8    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 25.6   | 31.6   | 12.0   | 4.0    | 3.6    | 2.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 12.4   | 18.8   | 5.6    | 2.4    | 2.0    | 0.8    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 6.4    | 7.2    | 2.4    | 1.2    | 0.8    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 3.6    | 3.6    | 1.2    | 0.8    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 2.0    | 1.2    | 0.4    | 0.4    | 0.0    | 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)