

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: P320867

Luminaire Tested: **GAN-SA3A-727-U-AFL**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P320867  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-29)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA3A-727-U-AFL  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12208 lumens  
Efficiency: N/A  
Efficacy: 127.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2

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

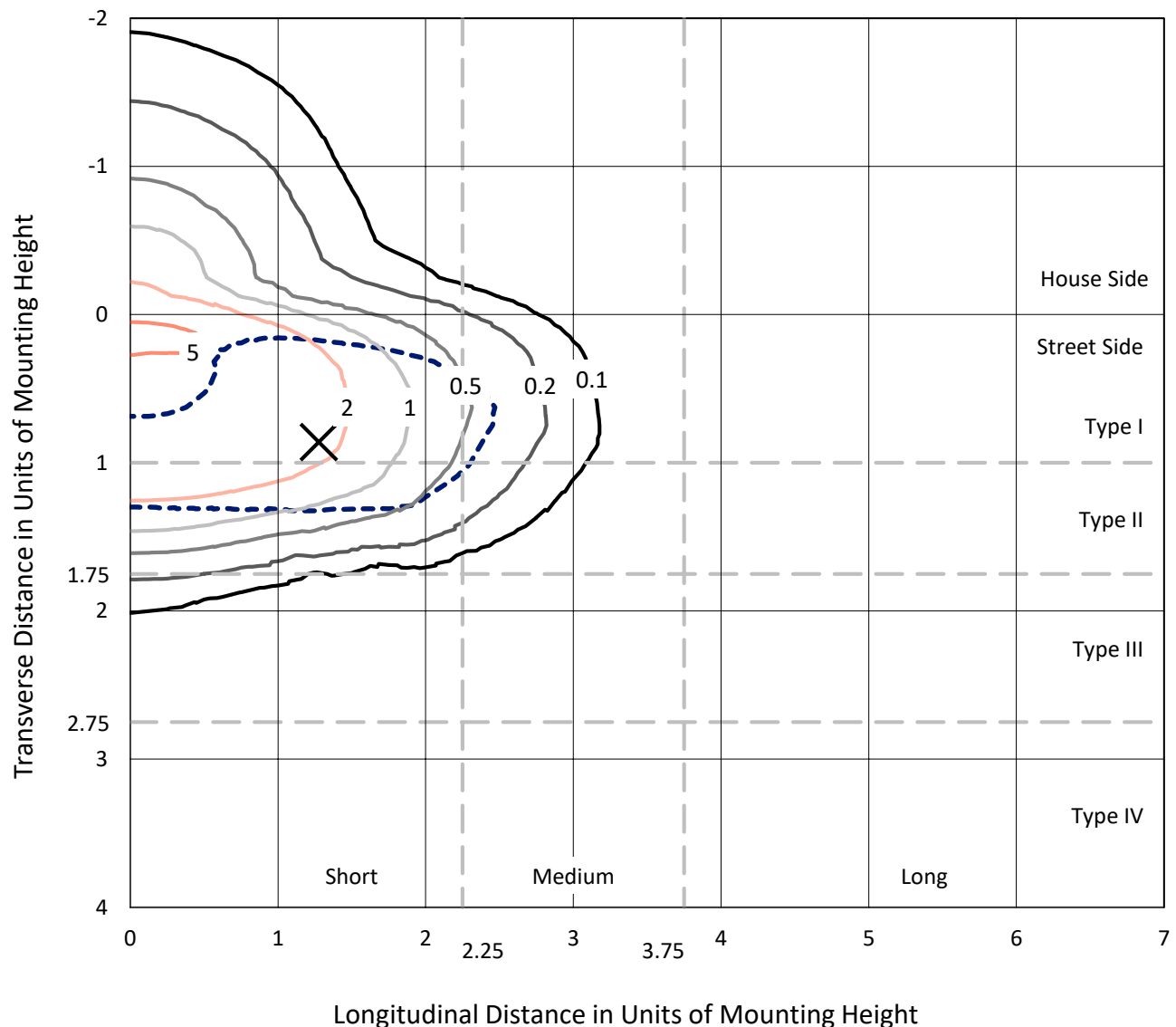


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## Iso-Footcandle Lines of Horizontal Illumination

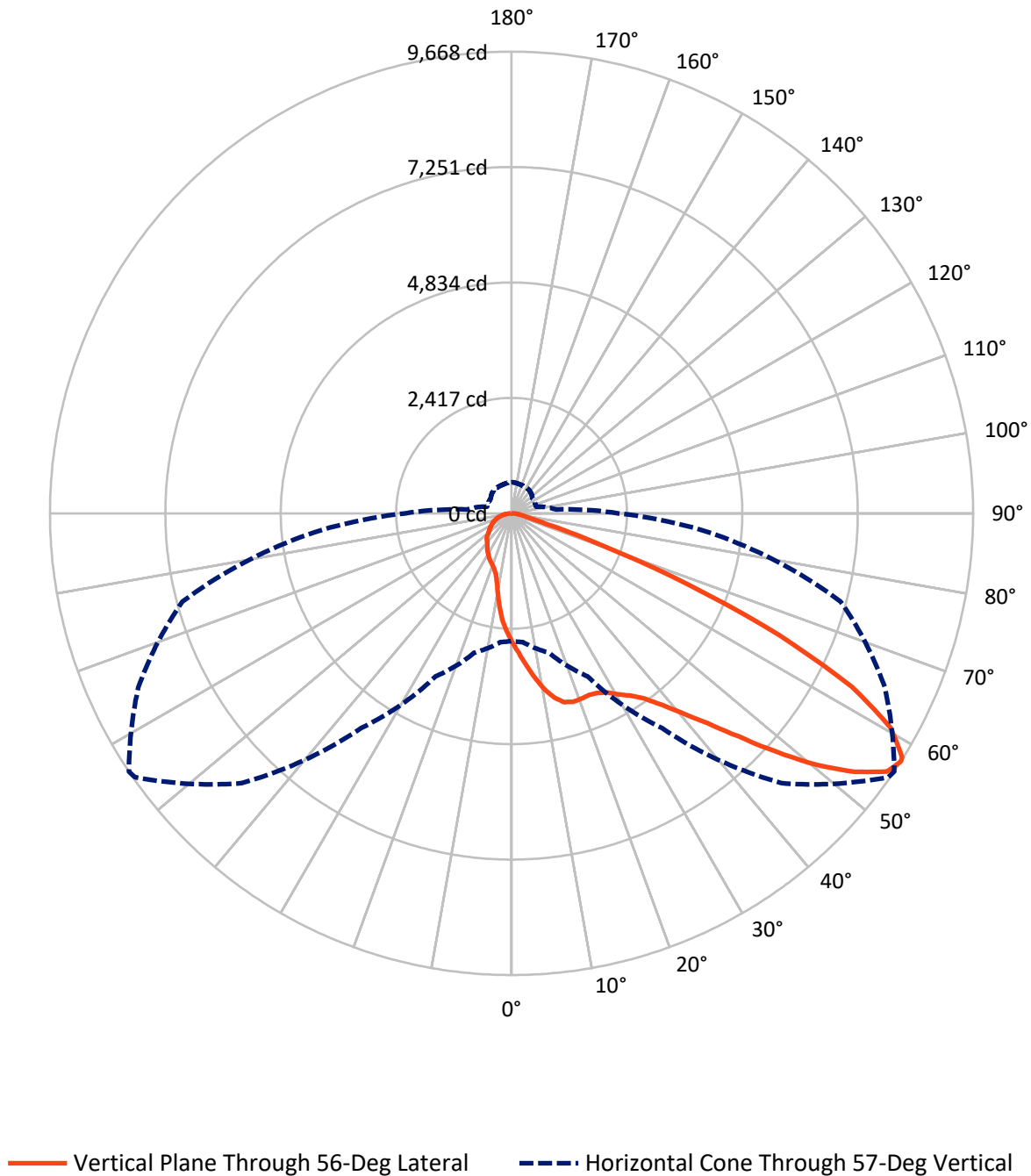
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc  
 Type II - Short - N/A

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## Luminous Intensity Polar Plot



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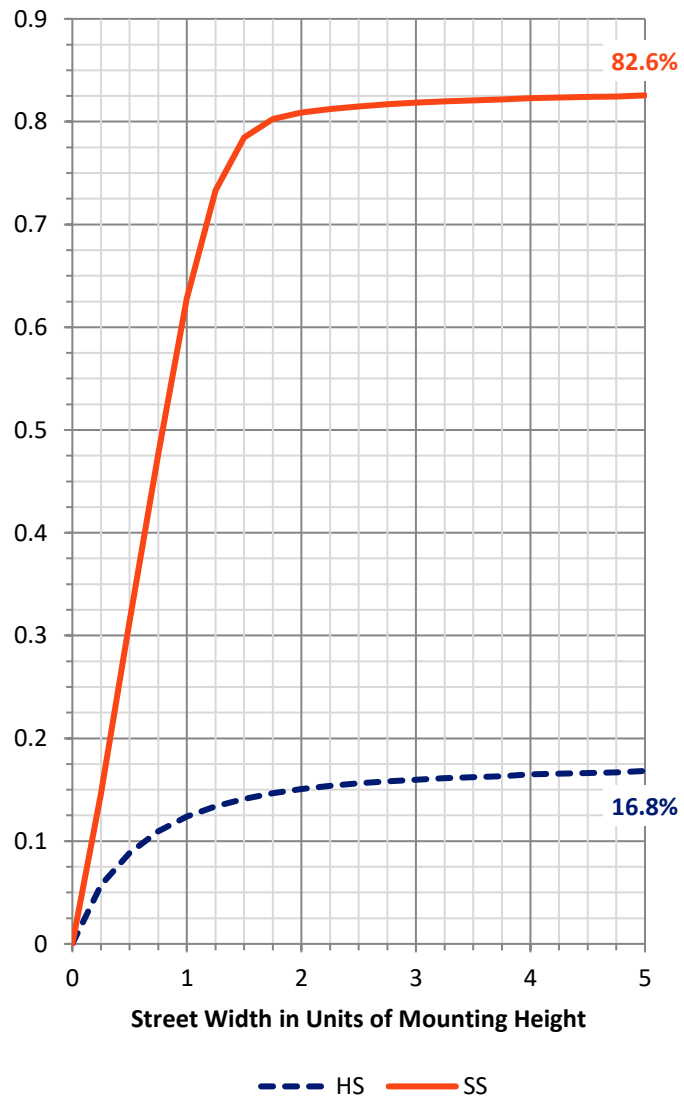
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2104.4   | 0.0    | 2104.4  |
|                    | % Fixture | 17.2     | 0.0    | 17.2    |
| <b>Street Side</b> | Lumens    | 10103.6  | 0.0    | 10103.6 |
|                    | % Fixture | 82.8     | 0.0    | 82.8    |
| <b>Total</b>       | Lumens    | 12208.0  | 0.0    | 12208.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 258.7   | 2.1       |
| 10°-20°   | 731.3   | 6.0       |
| 20°-30°   | 1191.1  | 9.8       |
| 30°-40°   | 1780.6  | 14.6      |
| 40°-50°   | 2700.8  | 22.1      |
| 50°-60°   | 3027.1  | 24.8      |
| 60°-70°   | 1787.9  | 14.6      |
| 70°-80°   | 585.8   | 4.8       |
| 80°-90°   | 144.7   | 1.2       |
| 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°    | 12208.0 | 100.0     |
| 0°-180°   | 12208.0 | 100.0     |

**Coefficient of Utilization**



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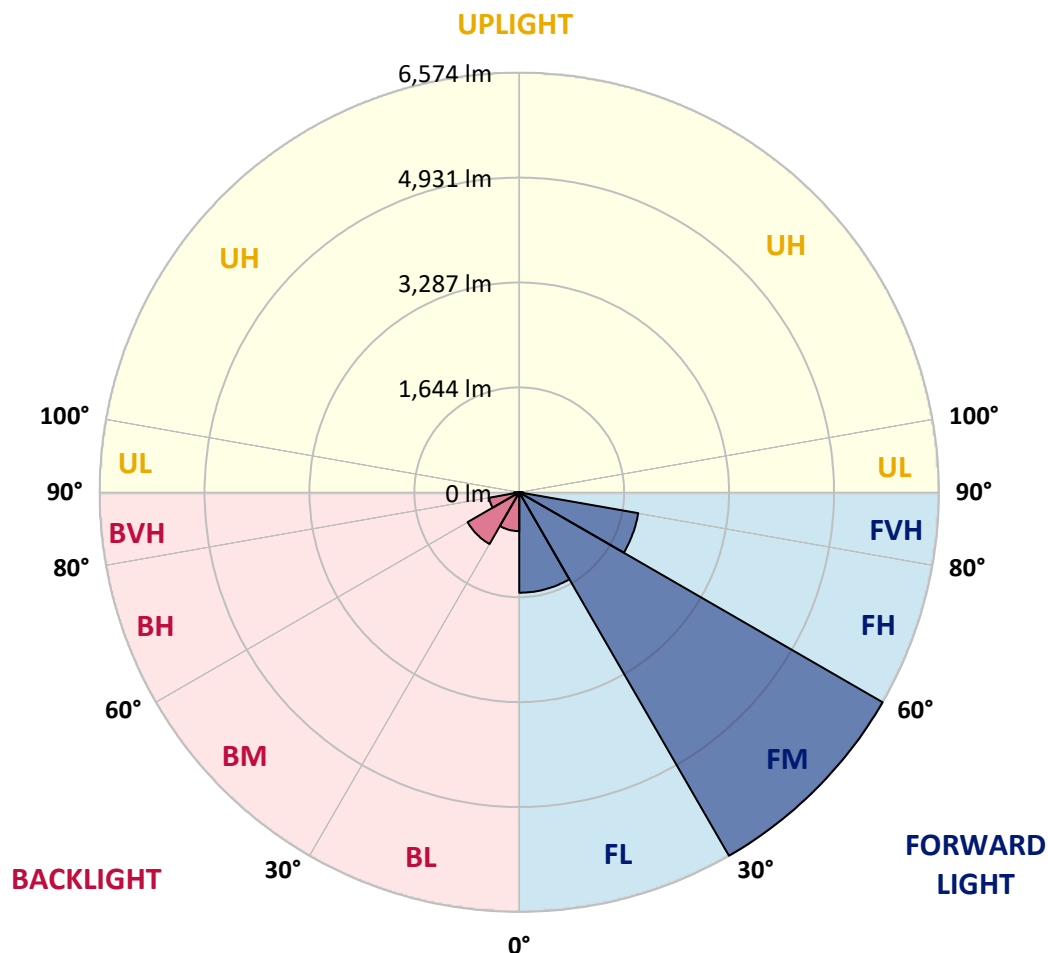
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1572.6 | 12.9      |                         |      |         |
| FM   | (30°-60°)   | 6574.4 | 53.9      |                         |      |         |
| FH   | (60°-80°)   | 1892.9 | 15.5      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 63.7   | 0.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 608.5  | 5.0       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 934.1  | 7.7       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 480.8  | 3.9       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 81.0   | 0.7       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 56°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2707.7 | 2707.7 | 2707.7 | 2707.7 | 2707.7 | 2707.7 | 2707.7 | 2707.7 | 2707.7 | 2707.7 | 2707.7 |
| 2.5°  | 3109.3 | 3137.8 | 3125.2 | 3081.6 | 3048.0 | 3000.6 | 2947.7 | 2931.8 | 2876.0 | 2813.5 | 2738.4 |
| 5°    | 3601.4 | 3587.1 | 3566.6 | 3498.6 | 3426.8 | 3343.4 | 3210.8 | 3189.8 | 3065.6 | 2924.2 | 2774.9 |
| 7.5°  | 3881.6 | 3880.4 | 3868.2 | 3828.4 | 3762.9 | 3653.8 | 3494.0 | 3469.2 | 3281.7 | 3054.3 | 2822.7 |
| 10°   | 3840.9 | 3838.0 | 3858.1 | 3899.7 | 3919.4 | 3896.7 | 3762.1 | 3737.3 | 3507.0 | 3198.2 | 2878.1 |
| 12.5° | 3609.8 | 3611.4 | 3643.8 | 3731.0 | 3849.7 | 3992.4 | 3970.6 | 3958.4 | 3740.7 | 3361.0 | 2945.2 |
| 15°   | 3429.8 | 3433.6 | 3459.2 | 3535.1 | 3675.2 | 3934.1 | 4097.3 | 4101.5 | 3966.8 | 3540.5 | 3023.7 |
| 17.5° | 3350.9 | 3358.9 | 3370.6 | 3423.9 | 3552.3 | 3817.9 | 4127.5 | 4150.1 | 4164.8 | 3726.8 | 3099.2 |
| 20°   | 3376.1 | 3383.6 | 3387.0 | 3421.0 | 3526.3 | 3747.4 | 4106.5 | 4147.2 | 4316.7 | 3902.2 | 3174.7 |
| 22.5° | 3488.9 | 3493.6 | 3495.7 | 3504.5 | 3586.3 | 3767.5 | 4092.7 | 4135.5 | 4426.6 | 4059.5 | 3231.8 |
| 25°   | 3676.1 | 3672.7 | 3659.3 | 3647.9 | 3702.9 | 3847.2 | 4124.6 | 4165.2 | 4516.0 | 4202.2 | 3269.1 |
| 27.5° | 3900.1 | 3895.9 | 3869.9 | 3838.8 | 3870.3 | 3971.4 | 4216.4 | 4248.7 | 4596.1 | 4335.6 | 3288.0 |
| 30°   | 4169.0 | 4158.1 | 4109.0 | 4072.1 | 4084.3 | 4157.7 | 4367.9 | 4397.3 | 4719.9 | 4487.0 | 3306.4 |
| 32.5° | 4479.9 | 4468.2 | 4397.3 | 4336.0 | 4336.0 | 4397.3 | 4524.0 | 4548.3 | 4824.8 | 4658.2 | 3336.2 |
| 35°   | 4869.2 | 4854.6 | 4762.3 | 4659.5 | 4630.5 | 4661.6 | 4736.7 | 4753.9 | 5013.6 | 4873.9 | 3390.3 |
| 37.5° | 5328.2 | 5308.5 | 5188.9 | 5051.3 | 4988.0 | 4986.3 | 5040.4 | 5075.7 | 5315.2 | 5157.1 | 3482.2 |
| 40°   | 5788.5 | 5774.6 | 5670.2 | 5561.9 | 5437.7 | 5397.9 | 5481.4 | 5492.3 | 5709.6 | 5508.6 | 3599.7 |
| 42.5° | 6144.2 | 6141.7 | 6122.4 | 6136.7 | 6009.6 | 5929.0 | 5994.5 | 6003.3 | 6191.2 | 5889.2 | 3724.7 |
| 45°   | 6332.2 | 6336.4 | 6430.0 | 6637.2 | 6684.2 | 6625.5 | 6657.8 | 6660.3 | 6741.7 | 6273.0 | 3839.3 |
| 47.5° | 6181.6 | 6203.4 | 6440.0 | 6903.6 | 7288.3 | 7483.4 | 7429.7 | 7460.8 | 7275.3 | 6602.8 | 3929.0 |
| 50°   | 5594.6 | 5621.5 | 6024.3 | 6784.9 | 7570.3 | 8313.7 | 8285.6 | 8278.5 | 7705.8 | 6844.5 | 3977.7 |
| 52.5° | 4867.6 | 4888.5 | 5220.8 | 6167.7 | 7363.4 | 8772.7 | 9030.7 | 8993.8 | 8088.4 | 7025.3 | 3986.9 |
| 55°   | 3760.4 | 3793.1 | 4111.5 | 4936.0 | 6526.9 | 8597.3 | 9578.6 | 9545.5 | 8437.1 | 7120.1 | 3976.0 |
| 57°   | 2673.3 | 2707.7 | 3024.1 | 3767.1 | 5490.6 | 7990.2 | 9633.2 | 9668.4 | 8625.4 | 7136.0 | 3988.2 |
| 57.5° | 2385.5 | 2420.8 | 2734.2 | 3455.8 | 5167.5 | 7770.8 | 9586.2 | 9644.9 | 8659.4 | 7133.5 | 3994.9 |
| 60°   | 1201.2 | 1214.6 | 1414.3 | 1929.1 | 3266.6 | 6282.3 | 8973.2 | 9124.7 | 8690.0 | 7010.2 | 4023.9 |
| 62.5° | 746.8  | 737.1  | 730.8  | 888.6  | 1589.2 | 4166.1 | 7708.3 | 7999.9 | 8103.9 | 6711.5 | 3953.8 |
| 65°   | 656.6  | 638.5  | 569.3  | 556.7  | 701.9  | 2023.5 | 5804.8 | 6167.7 | 6851.6 | 6240.7 | 3786.8 |
| 67.5° | 616.7  | 599.1  | 521.1  | 474.1  | 474.5  | 802.2  | 3603.9 | 4012.5 | 5337.5 | 5444.9 | 3392.9 |
| 70°   | 575.6  | 559.7  | 486.7  | 431.3  | 404.0  | 444.3  | 1658.0 | 1968.1 | 3479.3 | 4279.8 | 2835.7 |
| 72.5° | 522.8  | 511.8  | 442.6  | 385.6  | 356.6  | 332.7  | 634.8  | 749.7  | 2014.2 | 2874.3 | 1969.3 |
| 75°   | 467.4  | 457.3  | 398.1  | 343.6  | 308.4  | 261.8  | 357.5  | 385.1  | 1023.3 | 1470.5 | 969.6  |
| 77.5° | 406.5  | 400.7  | 354.1  | 303.8  | 275.6  | 216.9  | 253.0  | 266.4  | 438.8  | 630.6  | 486.3  |
| 80°   | 323.5  | 334.8  | 309.6  | 270.6  | 244.6  | 173.7  | 179.1  | 188.0  | 255.5  | 307.9  | 276.1  |
| 82.5° | 210.6  | 230.3  | 242.5  | 219.8  | 201.4  | 136.8  | 128.8  | 132.6  | 166.6  | 188.0  | 120.0  |
| 85°   | 87.7   | 98.6   | 159.4  | 143.9  | 133.8  | 99.9   | 86.4   | 88.1   | 103.2  | 107.0  | 49.1   |
| 87.5° | 39.0   | 41.5   | 70.1   | 65.9   | 56.6   | 34.4   | 36.9   | 40.3   | 55.0   | 52.0   | 18.9   |
| 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°    | 2707.7 | 2707.7 | 2707.7 | 2707.7 | 2707.7 | 2707.7 | 2707.7 | 2707.7 | 2707.7 | 2707.7 | 2707.7 |
| 2.5°  | 2710.3 | 2675.0 | 2614.6 | 2547.9 | 2493.4 | 2449.7 | 2405.7 | 2375.5 | 2340.2 | 2321.3 | 2311.7 |
| 5°    | 2712.4 | 2643.1 | 2516.0 | 2385.5 | 2268.9 | 2162.3 | 2060.8 | 1982.8 | 1909.8 | 1870.3 | 1859.4 |
| 7.5°  | 2721.2 | 2617.1 | 2411.5 | 2196.7 | 1989.5 | 1800.3 | 1654.3 | 1562.8 | 1496.9 | 1467.6 | 1459.2 |
| 10°   | 2728.3 | 2586.5 | 2282.3 | 1964.3 | 1682.4 | 1490.6 | 1377.4 | 1326.2 | 1303.5 | 1299.8 | 1296.0 |
| 12.5° | 2745.1 | 2555.0 | 2146.4 | 1721.8 | 1443.7 | 1311.1 | 1271.6 | 1268.3 | 1274.6 | 1283.8 | 1283.8 |
| 15°   | 2771.5 | 2524.0 | 1991.2 | 1513.7 | 1291.8 | 1245.2 | 1253.2 | 1271.6 | 1288.8 | 1303.1 | 1305.2 |
| 17.5° | 2790.8 | 2485.8 | 1824.2 | 1347.2 | 1210.8 | 1223.4 | 1251.9 | 1277.9 | 1295.6 | 1309.4 | 1310.7 |
| 20°   | 2804.7 | 2426.7 | 1645.9 | 1220.0 | 1164.2 | 1203.3 | 1238.9 | 1262.0 | 1274.2 | 1288.0 | 1290.1 |
| 22.5° | 2797.5 | 2347.4 | 1487.7 | 1129.0 | 1126.5 | 1173.9 | 1207.9 | 1235.6 | 1226.3 | 1212.9 | 1221.7 |
| 25°   | 2763.1 | 2238.3 | 1324.9 | 1061.0 | 1086.6 | 1134.5 | 1176.4 | 1157.9 | 1126.9 | 1121.0 | 1124.4 |
| 27.5° | 2701.9 | 2099.0 | 1174.3 | 998.1  | 1040.5 | 1098.0 | 1095.4 | 1077.0 | 1066.1 | 1058.5 | 1063.1 |
| 30°   | 2636.0 | 1947.9 | 1042.6 | 943.1  | 989.3  | 1036.7 | 1027.0 | 1026.6 | 1015.7 | 1003.6 | 1009.4 |
| 32.5° | 2571.0 | 1796.1 | 938.1  | 897.8  | 950.7  | 957.0  | 978.0  | 984.3  | 962.9  | 937.3  | 935.6  |
| 35°   | 2514.3 | 1652.6 | 858.8  | 856.7  | 904.1  | 905.0  | 935.6  | 926.8  | 873.5  | 847.1  | 847.1  |
| 37.5° | 2472.0 | 1509.5 | 798.4  | 819.8  | 842.9  | 864.7  | 880.2  | 843.7  | 834.9  | 820.2  | 819.8  |
| 40°   | 2453.5 | 1383.7 | 760.6  | 791.7  | 799.7  | 827.3  | 787.5  | 801.8  | 805.9  | 798.4  | 798.4  |
| 42.5° | 2434.2 | 1274.2 | 727.9  | 770.3  | 769.0  | 765.3  | 745.1  | 763.6  | 780.4  | 780.8  | 779.5  |
| 45°   | 2414.9 | 1179.8 | 699.0  | 724.6  | 742.2  | 701.5  | 705.3  | 725.0  | 748.5  | 756.9  | 756.9  |
| 47.5° | 2393.5 | 1105.1 | 672.5  | 676.3  | 703.6  | 676.3  | 673.4  | 688.5  | 716.2  | 729.6  | 732.5  |
| 50°   | 2346.5 | 1038.0 | 642.3  | 633.9  | 641.5  | 650.7  | 653.2  | 660.4  | 691.0  | 712.4  | 717.4  |
| 52.5° | 2281.5 | 978.0  | 603.7  | 594.9  | 594.9  | 629.7  | 641.5  | 643.6  | 669.6  | 695.2  | 700.2  |
| 55°   | 2227.4 | 939.8  | 563.9  | 562.2  | 560.5  | 607.5  | 627.6  | 631.0  | 649.0  | 669.2  | 671.7  |
| 57°   | 2231.1 | 936.8  | 533.2  | 534.9  | 534.5  | 584.8  | 614.6  | 621.8  | 631.0  | 648.2  | 651.1  |
| 57.5° | 2233.2 | 938.9  | 526.5  | 527.4  | 526.9  | 578.6  | 610.9  | 618.8  | 626.0  | 644.0  | 646.9  |
| 60°   | 2264.7 | 944.4  | 499.3  | 490.0  | 492.1  | 545.0  | 589.5  | 599.5  | 604.1  | 628.1  | 631.8  |
| 62.5° | 2218.1 | 920.1  | 477.4  | 455.2  | 455.2  | 509.7  | 559.7  | 575.6  | 582.7  | 615.1  | 621.3  |
| 65°   | 2083.0 | 851.7  | 451.9  | 415.8  | 420.0  | 474.5  | 524.0  | 550.0  | 560.9  | 601.2  | 607.9  |
| 67.5° | 1874.5 | 772.4  | 424.6  | 380.5  | 384.7  | 437.6  | 487.1  | 515.2  | 532.4  | 586.1  | 591.6  |
| 70°   | 1603.1 | 675.5  | 387.7  | 343.2  | 348.2  | 397.3  | 443.5  | 475.3  | 500.9  | 571.8  | 573.5  |
| 72.5° | 1181.9 | 553.8  | 336.1  | 302.1  | 307.5  | 350.3  | 399.4  | 436.3  | 470.7  | 536.2  | 535.3  |
| 75°   | 702.7  | 433.0  | 279.0  | 260.5  | 264.3  | 304.2  | 359.6  | 404.4  | 456.0  | 522.3  | 530.3  |
| 77.5° | 426.3  | 326.0  | 227.4  | 218.2  | 222.8  | 263.5  | 331.0  | 378.8  | 449.8  | 492.5  | 490.0  |
| 80°   | 257.6  | 232.8  | 181.7  | 175.8  | 180.4  | 225.3  | 306.3  | 359.6  | 393.1  | 420.8  | 420.8  |
| 82.5° | 134.7  | 142.2  | 133.4  | 128.8  | 135.1  | 182.9  | 278.6  | 313.8  | 347.4  | 298.3  | 278.6  |
| 85°   | 55.0   | 74.3   | 81.0   | 80.6   | 84.3   | 126.7  | 240.4  | 268.5  | 224.0  | 212.7  | 217.7  |
| 87.5° | 18.5   | 31.5   | 39.4   | 34.0   | 35.7   | 79.7   | 166.6  | 129.6  | 154.0  | 107.4  | 101.9  |
| 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)