

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: P323959

Luminaire Tested: **GAN-SA5B-827-U-SL4-HSS**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P323959  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA5B-827-U-SL4-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 80 CRI, 2700K, 800mA 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: 17041 lumens  
Efficiency: N/A  
Efficacy: 81.1 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3

Input Watts (W): 210  
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

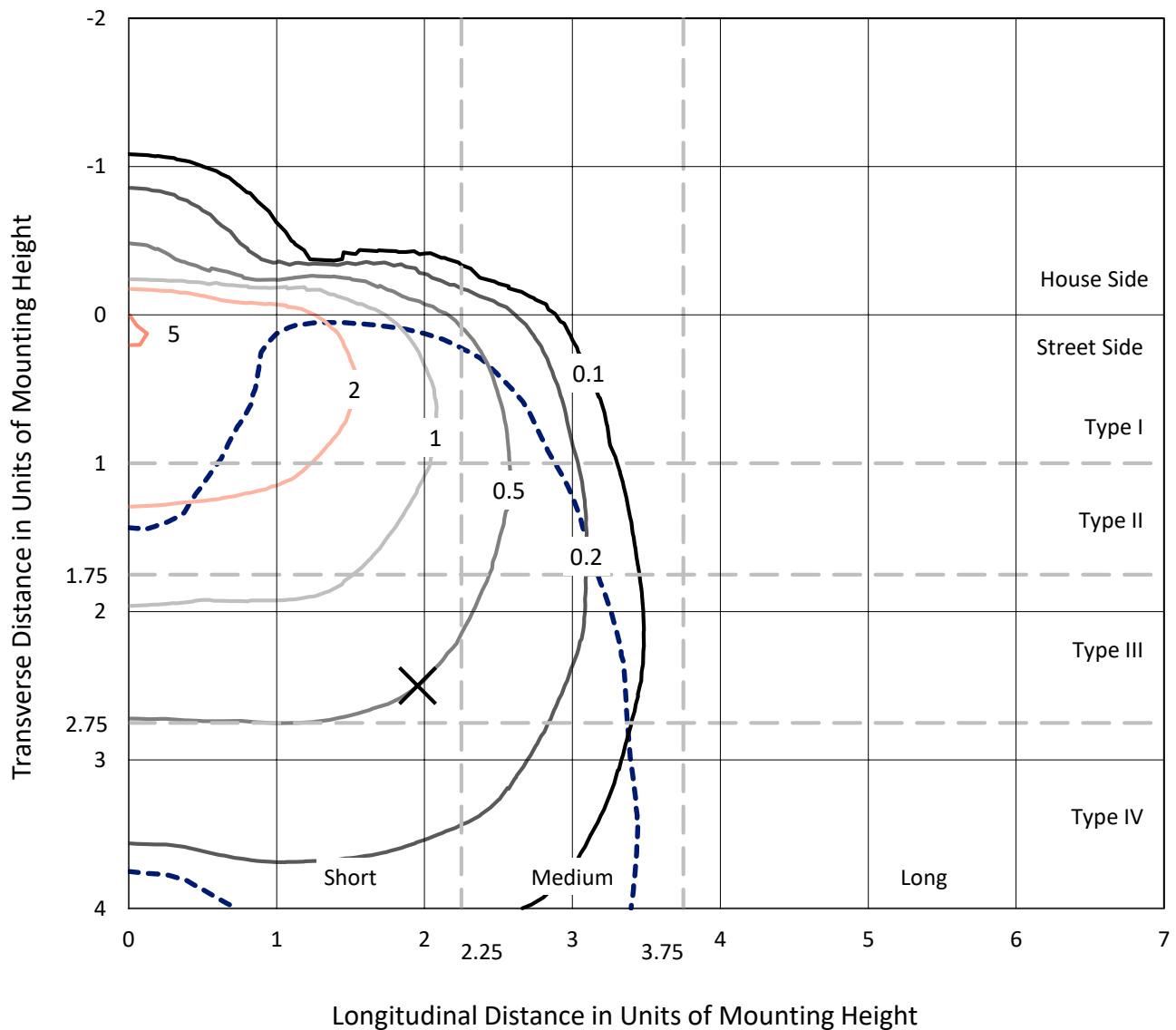


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## Iso-Footcandle Lines of Horizontal Illumination

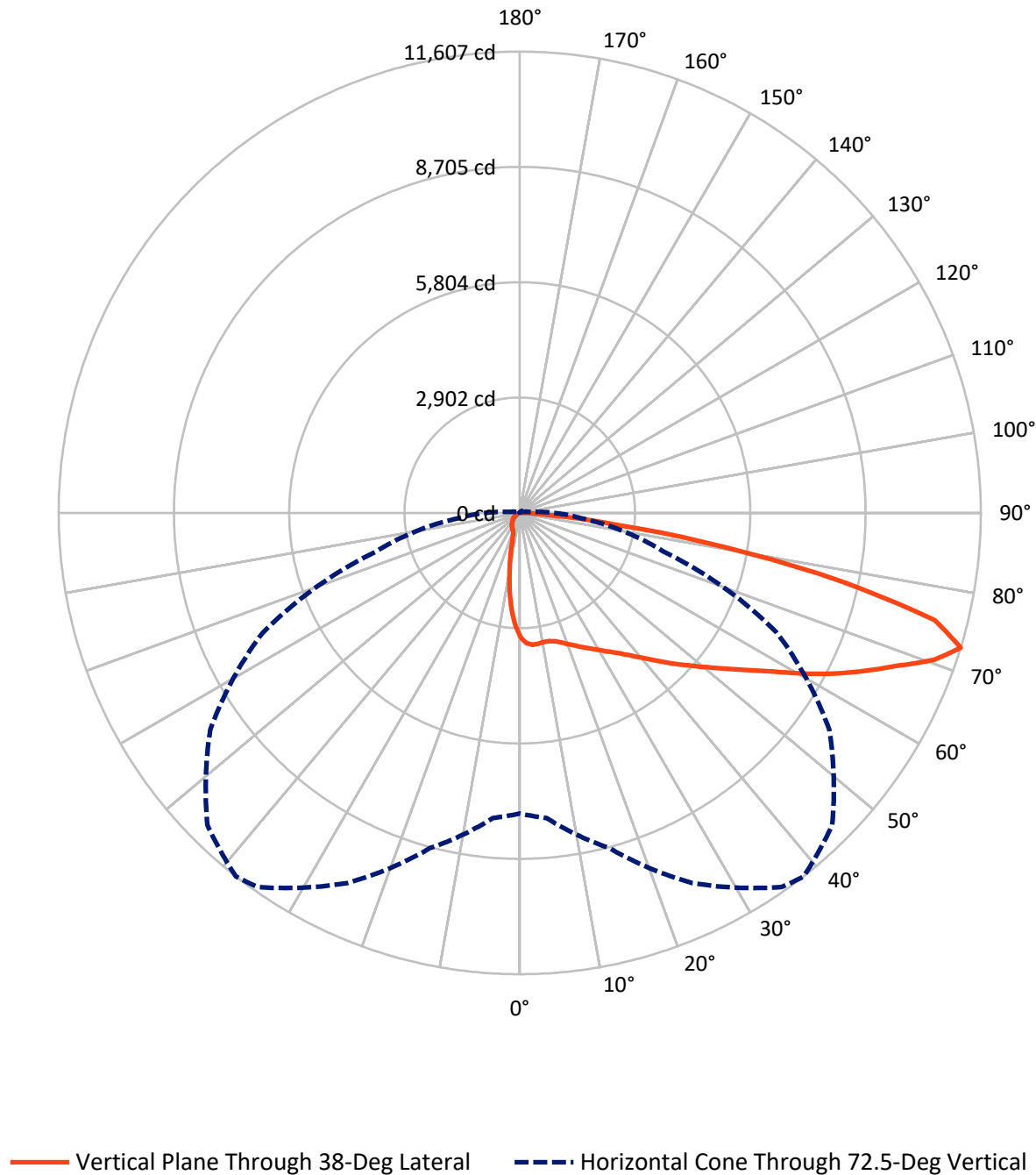
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc  
 Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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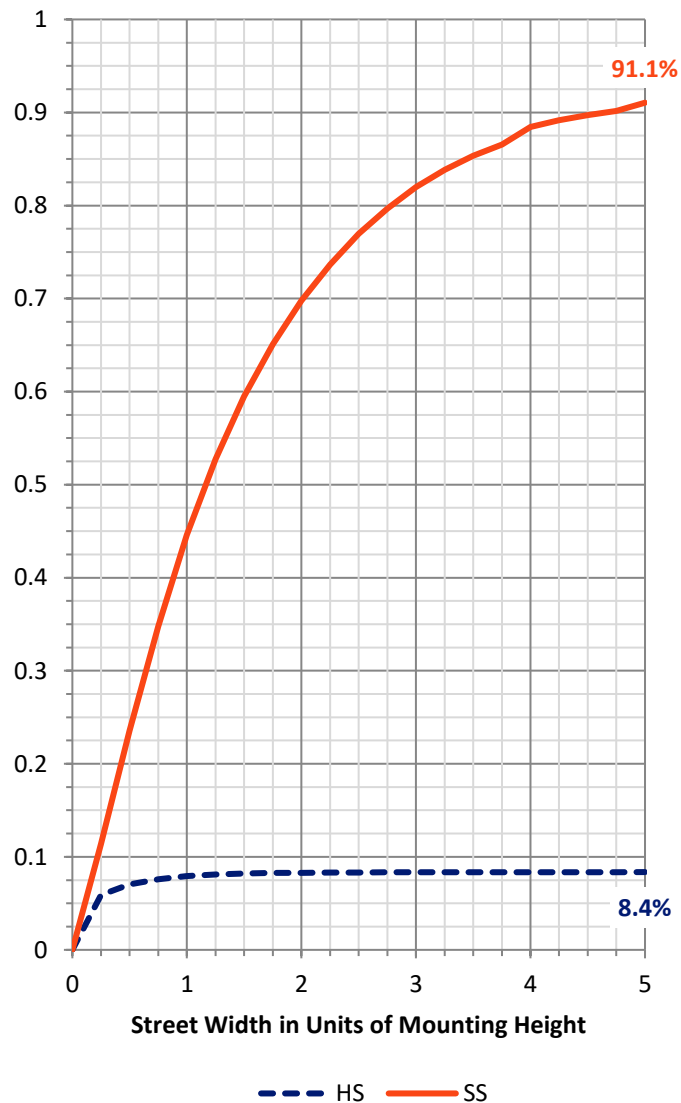
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1434.1   | 0.0    | 1434.1  |
|                    | % Fixture | 8.4      | 0.0    | 8.4     |
| <b>Street Side</b> | Lumens    | 15606.9  | 0.0    | 15606.9 |
|                    | % Fixture | 91.6     | 0.0    | 91.6    |
| <b>Total</b>       | Lumens    | 17041.0  | 0.0    | 17041.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 267.1   | 1.6       |
| 10°-20°   | 653.0   | 3.8       |
| 20°-30°   | 1038.6  | 6.1       |
| 30°-40°   | 1561.4  | 9.2       |
| 40°-50°   | 2382.1  | 14.0      |
| 50°-60°   | 3366.7  | 19.8      |
| 60°-70°   | 4223.0  | 24.8      |
| 70°-80°   | 3157.6  | 18.5      |
| 80°-90°   | 391.5   | 2.3       |
| 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°    | 17041.0 | 100.0     |
| 0°-180°   | 17041.0 | 100.0     |

**Coefficient of Utilization**



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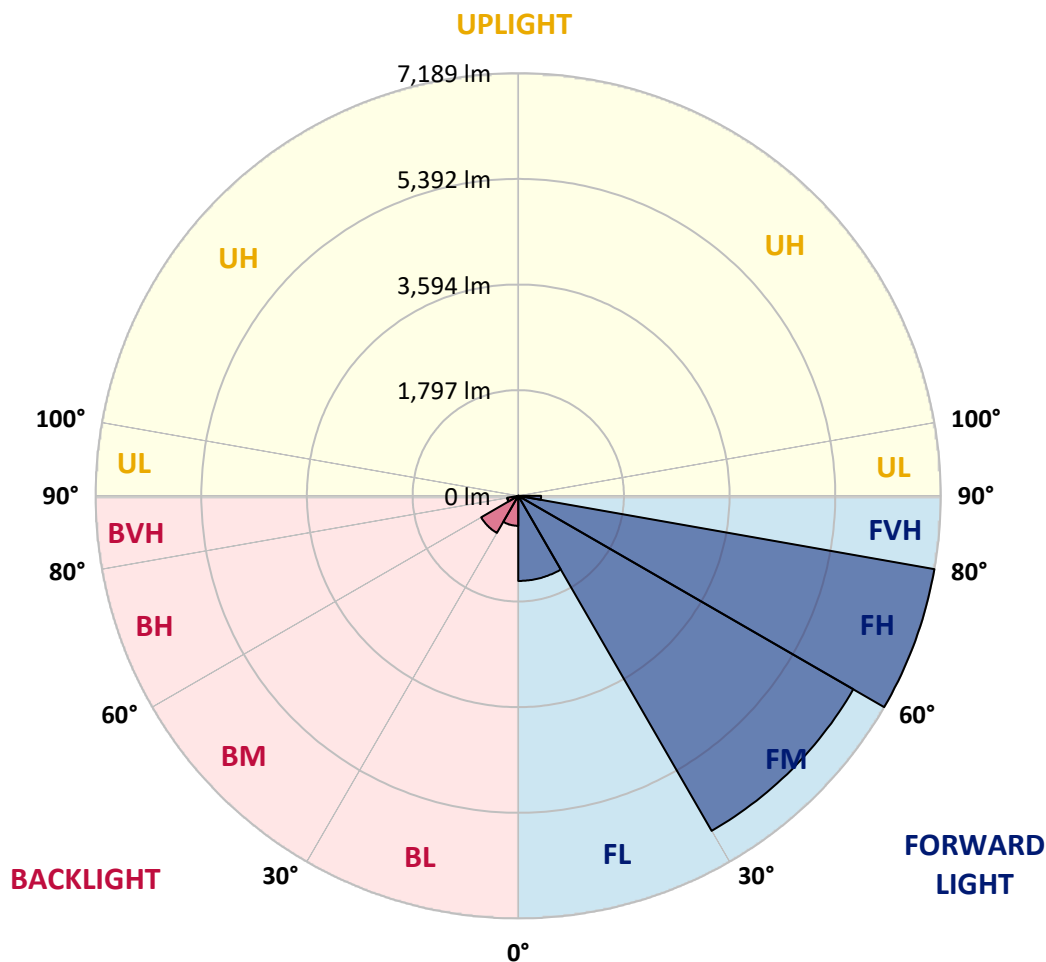
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1448.1 | 8.5       |                         |      |         |
| FM   | (30°-60°)   | 6582.0 | 38.6      |                         |      |         |
| FH   | (60°-80°)   | 7189.0 | 42.2      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 387.9  | 2.3       |                         |      | G3/500  |
| BL   | (0°-30°)    | 510.6  | 3.0       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 728.2  | 4.3       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 191.6  | 1.1       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 3.7    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G3**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°     | 35°     | 38°     | 45°     | 55°     | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|---------|---------|---------|---------|---------|--------|--------|--------|
| 0°    | 3133.8 | 3133.8 | 3133.8 | 3133.8  | 3133.8  | 3133.8  | 3133.8  | 3133.8  | 3133.8 | 3133.8 | 3133.8 |
| 2.5°  | 3326.3 | 3327.0 | 3319.2 | 3306.5  | 3290.2  | 3281.7  | 3267.5  | 3244.9  | 3220.8 | 3177.7 | 3131.0 |
| 5°    | 3394.2 | 3394.2 | 3384.3 | 3367.3  | 3341.1  | 3333.4  | 3306.5  | 3270.4  | 3220.8 | 3150.8 | 3072.2 |
| 7.5°  | 3387.1 | 3388.6 | 3375.1 | 3357.4  | 3331.2  | 3324.2  | 3291.6  | 3251.3  | 3189.7 | 3104.8 | 3004.3 |
| 10°   | 3350.3 | 3353.9 | 3343.3 | 3334.8  | 3310.7  | 3302.9  | 3272.5  | 3232.2  | 3170.6 | 3080.0 | 2964.6 |
| 12.5° | 3312.8 | 3316.4 | 3319.9 | 3327.7  | 3312.8  | 3310.0  | 3285.9  | 3252.0  | 3193.2 | 3099.1 | 2968.9 |
| 15°   | 3288.8 | 3295.9 | 3321.3 | 3351.8  | 3355.3  | 3352.5  | 3336.9  | 3305.1  | 3245.6 | 3147.9 | 2999.3 |
| 17.5° | 3288.8 | 3300.1 | 3353.2 | 3411.2  | 3431.7  | 3433.9  | 3420.4  | 3375.8  | 3305.1 | 3200.3 | 3027.6 |
| 20°   | 3316.4 | 3331.9 | 3414.7 | 3496.8  | 3530.8  | 3530.8  | 3504.6  | 3442.3  | 3359.5 | 3247.7 | 3046.7 |
| 22.5° | 3387.1 | 3407.7 | 3511.7 | 3606.5  | 3642.6  | 3634.8  | 3599.5  | 3508.9  | 3416.2 | 3301.5 | 3070.8 |
| 25°   | 3526.6 | 3542.1 | 3650.4 | 3746.0  | 3767.9  | 3750.2  | 3705.6  | 3589.6  | 3488.4 | 3374.4 | 3114.7 |
| 27.5° | 3706.3 | 3708.5 | 3820.3 | 3901.0  | 3887.5  | 3875.5  | 3819.6  | 3690.8  | 3592.4 | 3478.4 | 3190.4 |
| 30°   | 3903.8 | 3903.8 | 4002.2 | 4063.7  | 4022.7  | 4012.8  | 3956.9  | 3813.2  | 3725.4 | 3620.0 | 3298.0 |
| 32.5° | 4094.9 | 4103.4 | 4183.3 | 4222.3  | 4176.3  | 4166.3  | 4111.9  | 3968.2  | 3902.4 | 3835.8 | 3465.7 |
| 35°   | 4279.6 | 4286.0 | 4361.7 | 4382.9  | 4339.0  | 4341.9  | 4302.9  | 4181.2  | 4156.4 | 4147.9 | 3718.4 |
| 37.5° | 4458.6 | 4460.1 | 4537.2 | 4550.6  | 4528.7  | 4552.8  | 4556.3  | 4448.7  | 4494.7 | 4563.4 | 4074.3 |
| 40°   | 4622.1 | 4623.5 | 4700.0 | 4734.6  | 4772.2  | 4803.3  | 4830.9  | 4773.6  | 4925.7 | 5085.0 | 4498.3 |
| 42.5° | 4753.0 | 4767.9 | 4864.9 | 4930.7  | 5029.8  | 5089.2  | 5164.2  | 5161.4  | 5438.8 | 5678.0 | 5010.7 |
| 45°   | 4868.4 | 4893.9 | 5029.1 | 5144.4  | 5314.3  | 5409.1  | 5526.6  | 5618.6  | 6016.3 | 6338.3 | 5529.4 |
| 47.5° | 5020.6 | 5044.6 | 5198.9 | 5387.9  | 5614.3  | 5738.9  | 5933.5  | 6132.4  | 6651.2 | 6986.6 | 6036.1 |
| 50°   | 5235.0 | 5224.4 | 5376.5 | 5647.6  | 5938.5  | 6102.0  | 6379.4  | 6677.3  | 7281.0 | 7551.4 | 6334.1 |
| 52.5° | 5463.6 | 5459.4 | 5571.9 | 5930.0  | 6320.6  | 6511.7  | 6878.3  | 7240.7  | 7883.3 | 7940.6 | 6470.7 |
| 55°   | 5746.7 | 5716.3 | 5811.1 | 6252.0  | 6774.3  | 6979.5  | 7411.2  | 7798.4  | 8363.1 | 8160.0 | 6539.3 |
| 57.5° | 6043.2 | 5993.0 | 6083.6 | 6610.8  | 7286.0  | 7528.7  | 8001.5  | 8341.9  | 8682.3 | 8310.0 | 6538.6 |
| 60°   | 6349.7 | 6290.2 | 6397.8 | 7059.5  | 7921.5  | 8202.5  | 8641.3  | 8709.2  | 8980.3 | 8385.8 | 6490.5 |
| 62.5° | 6605.9 | 6570.5 | 6730.4 | 7539.3  | 8631.4  | 8907.4  | 9124.6  | 9043.2  | 9231.5 | 8444.5 | 6378.0 |
| 65°   | 6876.9 | 6879.0 | 7137.4 | 8099.1  | 9385.8  | 9571.9  | 9590.3  | 9476.4  | 9441.7 | 8432.5 | 5997.2 |
| 67.5° | 7243.5 | 7277.5 | 7708.5 | 8859.2  | 10119.7 | 10263.4 | 10261.9 | 9945.6  | 9595.3 | 7954.1 | 5152.9 |
| 70°   | 7631.3 | 7711.3 | 8366.7 | 9729.0  | 10920.8 | 11066.6 | 10991.6 | 10244.2 | 9034.8 | 6431.8 | 3646.9 |
| 72.5° | 7566.2 | 7704.9 | 8732.6 | 10277.5 | 11496.2 | 11607.3 | 11119.7 | 9510.3  | 7140.9 | 3738.2 | 1552.7 |
| 75°   | 5837.3 | 5997.9 | 8007.1 | 9734.0  | 10892.5 | 10792.7 | 9554.2  | 7400.6  | 3902.4 | 1043.2 | 349.6  |
| 77.5° | 3083.5 | 3169.2 | 5289.5 | 7415.5  | 8493.3  | 8284.6  | 6730.4  | 4105.5  | 1189.7 | 258.3  | 157.1  |
| 80°   | 1615.0 | 1634.8 | 2305.0 | 4207.4  | 5242.1  | 5243.5  | 3988.7  | 1803.3  | 490.4  | 132.3  | 105.5  |
| 82.5° | 864.8  | 881.8  | 1218.0 | 1944.1  | 2746.7  | 2489.8  | 1527.3  | 992.2   | 285.2  | 75.0   | 101.2  |
| 85°   | 208.1  | 211.6  | 690.7  | 888.2   | 1080.0  | 771.4   | 453.6   | 833.0   | 77.1   | 43.9   | 82.1   |
| 87.5° | 80.0   | 81.4   | 256.2  | 384.3   | 275.3   | 178.3   | 212.3   | 310.7   | 9.9    | 17.0   | 12.7   |
| 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°    | 3133.8 | 3133.8 | 3133.8 | 3133.8 | 3133.8 | 3133.8 | 3133.8 | 3133.8 | 3133.8 | 3133.8 | 3133.8 |
| 2.5°  | 3102.6 | 3084.2 | 3038.9 | 2981.6 | 2930.7 | 2893.9 | 2838.7 | 2802.6 | 2778.5 | 2777.8 | 2768.6 |
| 5°    | 3024.1 | 2986.6 | 2888.9 | 2772.8 | 2667.4 | 2572.6 | 2460.7 | 2372.3 | 2306.5 | 2295.8 | 2273.2 |
| 7.5°  | 2939.9 | 2878.3 | 2728.3 | 2547.1 | 2370.2 | 2190.4 | 1981.6 | 1852.1 | 1741.0 | 1687.9 | 1682.3 |
| 10°   | 2888.2 | 2801.9 | 2588.8 | 2327.0 | 2049.6 | 1757.3 | 1484.1 | 1295.1 | 1158.5 | 1119.6 | 1090.6 |
| 12.5° | 2877.6 | 2763.6 | 2481.3 | 2120.3 | 1724.0 | 1337.6 | 1035.4 | 834.4  | 725.4  | 690.7  | 681.5  |
| 15°   | 2888.2 | 2746.0 | 2390.7 | 1915.8 | 1394.2 | 949.1  | 695.0  | 578.2  | 537.2  | 527.3  | 526.5  |
| 17.5° | 2894.6 | 2724.7 | 2288.1 | 1688.6 | 1074.3 | 678.0  | 532.2  | 498.2  | 491.9  | 491.2  | 492.6  |
| 20°   | 2893.9 | 2692.2 | 2165.6 | 1435.3 | 799.0  | 532.9  | 481.2  | 474.2  | 472.8  | 473.5  | 472.8  |
| 22.5° | 2888.9 | 2653.9 | 2031.2 | 1174.1 | 603.7  | 476.3  | 459.3  | 455.1  | 454.4  | 454.4  | 454.4  |
| 25°   | 2898.1 | 2623.5 | 1883.2 | 924.3  | 497.5  | 450.1  | 439.5  | 436.0  | 435.2  | 435.2  | 433.8  |
| 27.5° | 2931.4 | 2606.5 | 1721.2 | 711.3  | 449.4  | 426.8  | 418.3  | 417.6  | 415.4  | 414.7  | 416.1  |
| 30°   | 2985.2 | 2606.5 | 1543.5 | 553.4  | 420.4  | 402.7  | 396.3  | 394.9  | 394.2  | 393.5  | 394.2  |
| 32.5° | 3080.0 | 2626.3 | 1349.6 | 460.0  | 392.8  | 375.8  | 371.6  | 373.7  | 371.6  | 371.6  | 371.6  |
| 35°   | 3251.3 | 2685.8 | 1146.5 | 401.3  | 363.8  | 349.6  | 345.4  | 348.2  | 346.8  | 346.8  | 346.1  |
| 37.5° | 3501.1 | 2796.2 | 942.0  | 365.9  | 338.3  | 323.4  | 317.8  | 322.0  | 320.6  | 320.6  | 319.9  |
| 40°   | 3805.4 | 2956.9 | 747.4  | 339.0  | 313.5  | 298.0  | 293.0  | 295.1  | 291.6  | 291.6  | 293.0  |
| 42.5° | 4181.2 | 3160.7 | 577.5  | 312.8  | 288.7  | 273.9  | 271.1  | 268.9  | 262.6  | 259.0  | 259.7  |
| 45°   | 4598.8 | 3373.0 | 450.1  | 287.3  | 265.4  | 253.4  | 249.1  | 243.5  | 232.8  | 225.8  | 226.5  |
| 47.5° | 4971.7 | 3536.5 | 365.9  | 262.6  | 244.2  | 235.0  | 228.6  | 218.0  | 202.4  | 193.9  | 194.6  |
| 50°   | 5167.8 | 3561.2 | 311.4  | 237.8  | 224.3  | 215.1  | 205.9  | 189.7  | 171.3  | 162.1  | 161.4  |
| 52.5° | 5218.0 | 3445.2 | 271.1  | 215.1  | 204.5  | 193.9  | 181.9  | 159.9  | 139.4  | 129.5  | 128.1  |
| 55°   | 5236.4 | 3268.3 | 235.0  | 193.9  | 183.3  | 171.3  | 155.7  | 130.9  | 111.8  | 101.9  | 101.2  |
| 57.5° | 5175.6 | 3004.3 | 206.7  | 174.8  | 162.1  | 147.2  | 128.1  | 104.7  | 86.3   | 78.6   | 78.6   |
| 60°   | 5040.4 | 2646.9 | 184.7  | 154.3  | 140.1  | 123.1  | 103.3  | 81.4   | 64.4   | 58.0   | 58.0   |
| 62.5° | 4770.7 | 2184.0 | 164.2  | 133.1  | 119.6  | 101.9  | 83.5   | 61.6   | 45.3   | 41.8   | 42.5   |
| 65°   | 4261.9 | 1656.8 | 143.7  | 113.9  | 101.9  | 84.2   | 65.1   | 43.9   | 30.4   | 30.4   | 31.8   |
| 67.5° | 3475.6 | 1150.8 | 122.4  | 97.0   | 87.8   | 68.6   | 49.5   | 30.4   | 21.2   | 24.1   | 26.9   |
| 70°   | 2300.8 | 645.4  | 104.7  | 80.0   | 75.0   | 54.5   | 36.8   | 20.5   | 17.0   | 22.6   | 27.6   |
| 72.5° | 868.4  | 251.2  | 87.8   | 64.4   | 65.1   | 41.8   | 26.2   | 15.6   | 15.6   | 24.8   | 32.6   |
| 75°   | 242.0  | 123.1  | 63.0   | 47.4   | 51.0   | 30.4   | 19.1   | 13.4   | 14.9   | 28.3   | 38.2   |
| 77.5° | 142.3  | 90.6   | 41.0   | 27.6   | 34.7   | 21.2   | 12.7   | 10.6   | 12.7   | 24.1   | 36.8   |
| 80°   | 114.7  | 48.1   | 24.1   | 14.2   | 19.1   | 12.0   | 8.5    | 6.4    | 3.5    | 9.2    | 19.1   |
| 82.5° | 114.7  | 29.0   | 11.3   | 9.9    | 9.9    | 6.4    | 4.2    | 2.8    | 0.7    | 0.0    | 5.0    |
| 85°   | 77.1   | 12.0   | 7.1    | 6.4    | 5.0    | 2.1    | 1.4    | 0.7    | 0.0    | 0.0    | 0.0    |
| 87.5° | 12.7   | 5.0    | 2.8    | 1.4    | 0.7    | 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)