

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: P299662

Luminaire Tested: **GAA-AF-05-LED-U-SL2-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299662  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAA-AF-05-LED-U-SL2-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18083.4 lumens  
Efficiency: N/A  
Efficacy: 86.1 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
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: 28.75 FT

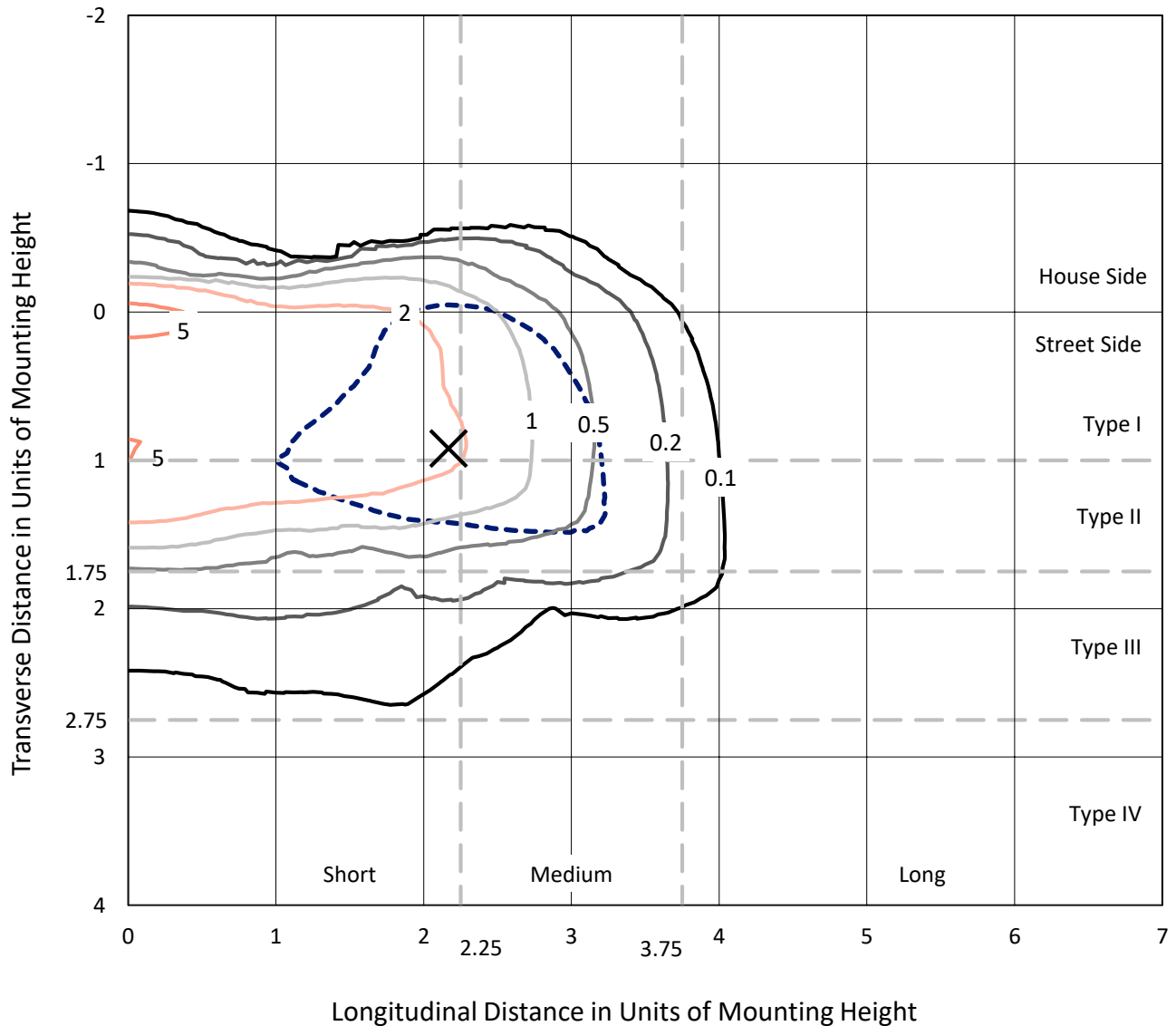


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

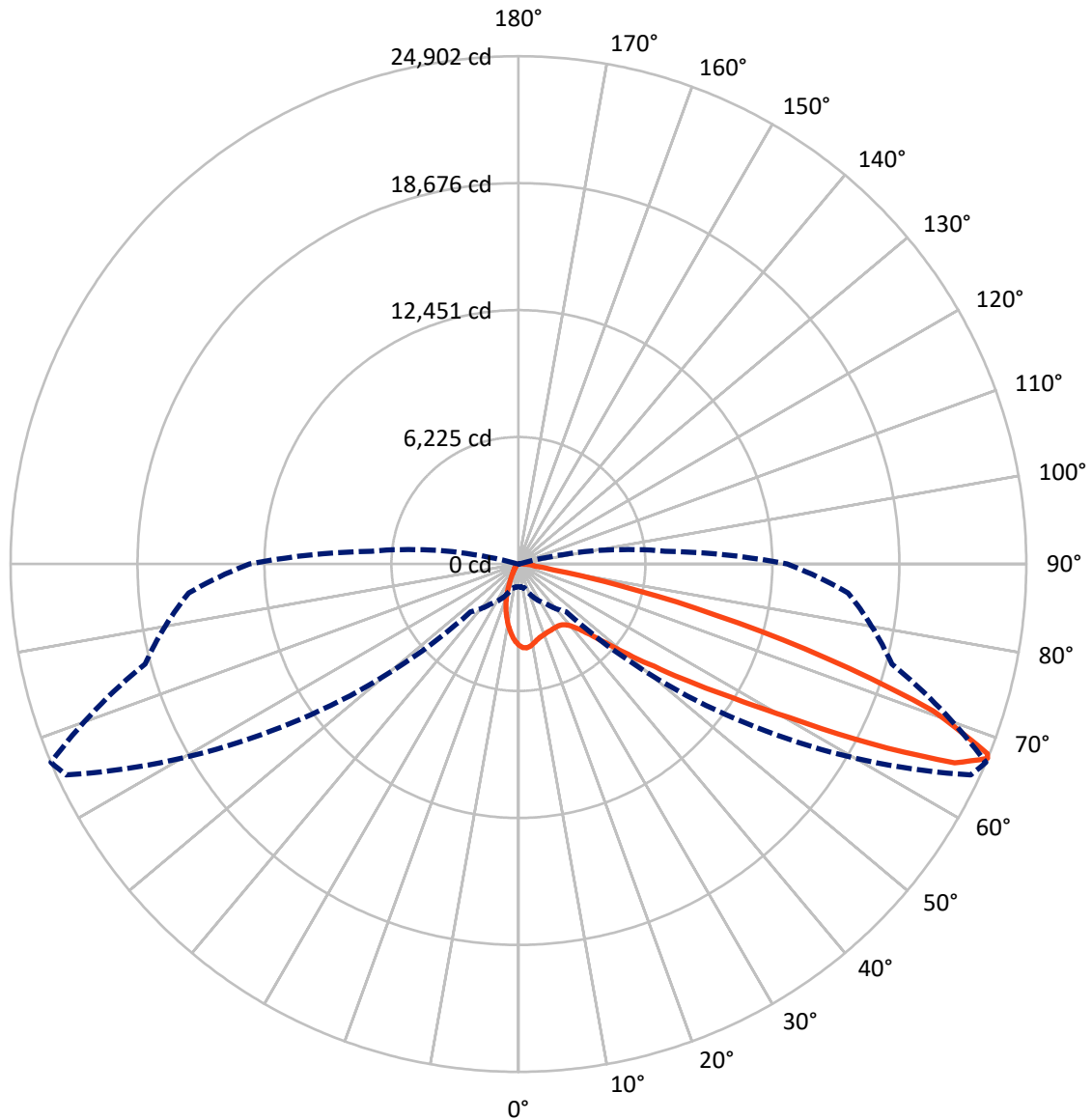


Based on 25 foot mounting height. Maximum calculated value = 6.4 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral      - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1877.6   | 0.0    | 1877.6  |
|                    | % Fixture | 10.4     | 0.0    | 10.4    |
| <b>Street Side</b> | Lumens    | 16205.8  | 0.0    | 16205.8 |
|                    | % Fixture | 89.6     | 0.0    | 89.6    |
| <b>Total</b>       | Lumens    | 18083.4  | 0.0    | 18083.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 324.5   | 1.8       |
| 10°-20°   | 690.7   | 3.8       |
| 20°-30°   | 1004.2  | 5.6       |
| 30°-40°   | 1566.5  | 8.7       |
| 40°-50°   | 2775.0  | 15.3      |
| 50°-60°   | 4391.2  | 24.3      |
| 60°-70°   | 5029.5  | 27.8      |
| 70°-80°   | 2086.2  | 11.5      |
| 80°-90°   | 215.5   | 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°    | 18083.4 | 100.0     |
| 0°-180°   | 18083.4 | 100.0     |

**Coefficient of Utilization**



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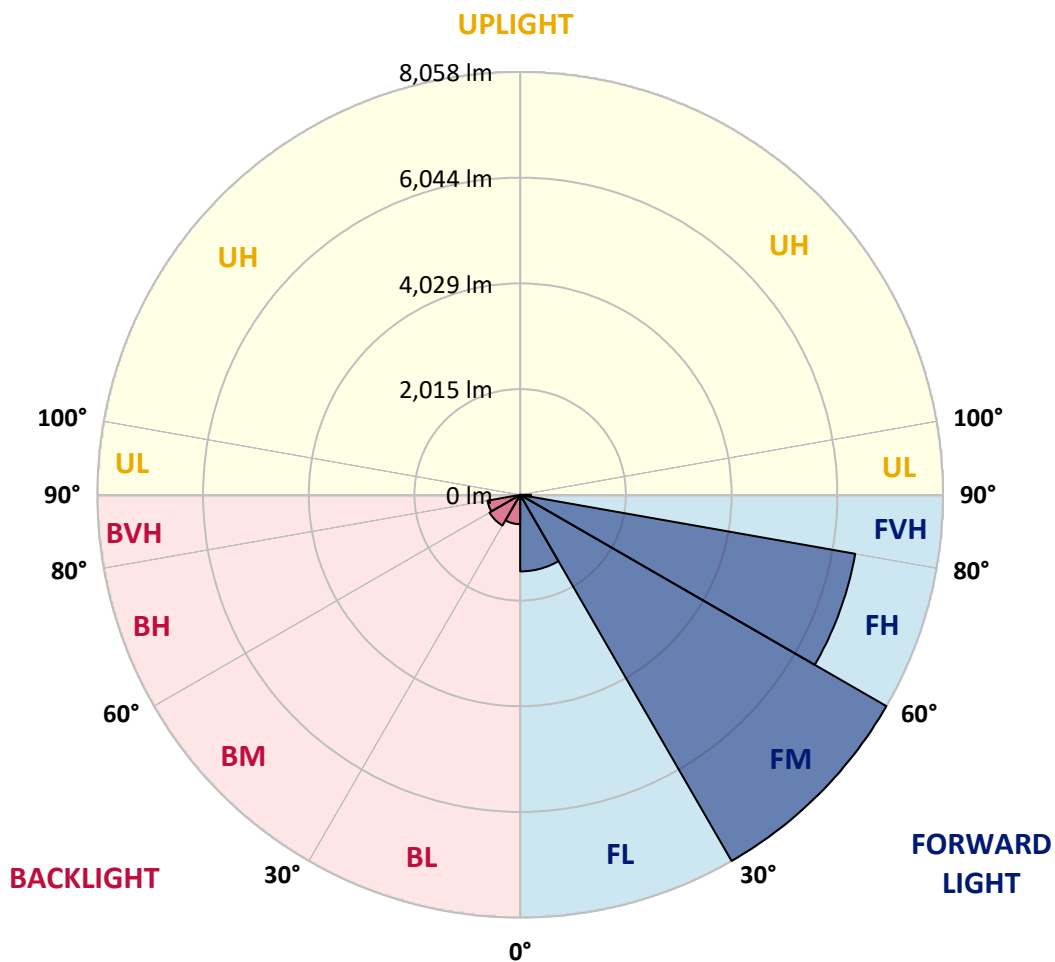
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1459.1 | 8.1       |                         |      |         |
| FM   | (30°-60°)   | 8058.0 | 44.6      |                         |      |         |
| FH   | (60°-80°)   | 6482.9 | 35.9      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 205.8  | 1.1       |                         |      | G2/225  |
| BL   | (0°-30°)    | 560.3  | 3.1       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 674.8  | 3.7       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 632.8  | 3.5       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 9.7    | 0.1       |                         |      | 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 II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 55°     | 65°     | 67°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| 0°    | 3988.1 | 3988.1 | 3988.1 | 3988.1 | 3988.1 | 3988.1  | 3988.1  | 3988.1  | 3988.1  | 3988.1  | 3988.1  |
| 2.5°  | 4123.1 | 4131.5 | 4130.5 | 4136.8 | 4151.5 | 4152.6  | 4137.8  | 4109.4  | 4103.0  | 4066.1  | 4001.8  |
| 5°    | 3802.4 | 3826.7 | 3841.4 | 3901.6 | 3969.1 | 4050.3  | 4111.5  | 4133.6  | 4130.5  | 4104.1  | 4007.0  |
| 7.5°  | 3436.4 | 3460.7 | 3477.6 | 3548.2 | 3637.9 | 3777.1  | 3936.4  | 4067.2  | 4078.8  | 4107.2  | 4002.8  |
| 10°   | 3192.8 | 3197.0 | 3220.2 | 3287.7 | 3381.6 | 3524.0  | 3713.8  | 3942.7  | 3977.5  | 4081.9  | 3992.3  |
| 12.5° | 2992.4 | 2995.5 | 3026.1 | 3098.9 | 3199.1 | 3342.5  | 3541.9  | 3806.6  | 3860.4  | 4050.3  | 3990.2  |
| 15°   | 2850.0 | 2861.6 | 2889.0 | 2964.9 | 3071.5 | 3213.9  | 3418.5  | 3706.4  | 3770.8  | 4038.7  | 4009.2  |
| 17.5° | 2802.5 | 2815.2 | 2823.6 | 2878.4 | 2975.5 | 3114.7  | 3324.6  | 3641.0  | 3713.8  | 4045.0  | 4046.1  |
| 20°   | 2852.1 | 2861.6 | 2842.6 | 2856.3 | 2916.4 | 3040.9  | 3245.5  | 3585.1  | 3671.6  | 4052.4  | 4093.5  |
| 22.5° | 3036.7 | 3040.9 | 2989.2 | 2929.1 | 2918.5 | 2987.1  | 3183.3  | 3540.8  | 3633.7  | 4072.4  | 4149.4  |
| 25°   | 3353.1 | 3345.7 | 3261.3 | 3131.6 | 3009.2 | 2977.6  | 3146.4  | 3513.4  | 3614.7  | 4093.5  | 4207.4  |
| 27.5° | 3734.9 | 3745.5 | 3629.4 | 3440.6 | 3207.5 | 3040.9  | 3141.1  | 3501.8  | 3606.2  | 4108.3  | 4258.1  |
| 30°   | 4199.0 | 4213.8 | 4080.9 | 3843.6 | 3509.2 | 3197.0  | 3189.6  | 3499.7  | 3601.0  | 4098.8  | 4262.3  |
| 32.5° | 4672.6 | 4690.5 | 4586.1 | 4341.4 | 3912.1 | 3458.6  | 3299.3  | 3522.9  | 3611.5  | 4066.1  | 4238.0  |
| 35°   | 5168.3 | 5193.7 | 5124.0 | 4914.1 | 4458.5 | 3836.2  | 3492.3  | 3593.6  | 3661.1  | 4062.9  | 4213.8  |
| 37.5° | 5852.9 | 5876.1 | 5745.3 | 5522.7 | 5119.8 | 4342.5  | 3802.4  | 3726.5  | 3778.2  | 4113.6  | 4220.1  |
| 40°   | 6874.9 | 6871.8 | 6534.3 | 6193.6 | 5846.5 | 4985.9  | 4238.0  | 3967.0  | 3993.3  | 4266.5  | 4298.2  |
| 42.5° | 7988.8 | 7983.5 | 7484.6 | 6966.7 | 6653.4 | 5778.0  | 4810.8  | 4382.5  | 4364.6  | 4548.1  | 4500.7  |
| 45°   | 8847.3 | 8846.3 | 8439.2 | 7855.9 | 7624.9 | 6687.2  | 5551.2  | 4960.5  | 4933.1  | 5005.9  | 4874.1  |
| 47.5° | 9213.4 | 9219.7 | 9015.1 | 8604.8 | 8701.8 | 7917.0  | 6484.7  | 5798.0  | 5756.9  | 5727.4  | 5527.0  |
| 50°   | 8928.6 | 8941.2 | 8958.1 | 8877.9 | 9491.8 | 9569.9  | 7736.7  | 6978.3  | 6958.3  | 6826.4  | 6513.2  |
| 52.5° | 7998.3 | 8062.6 | 8260.9 | 8515.1 | 9766.0 | 11156.2 | 9699.6  | 8444.4  | 8336.8  | 8196.6  | 7851.7  |
| 55°   | 6430.9 | 6501.6 | 6878.1 | 7495.1 | 9357.9 | 12198.3 | 12450.4 | 10334.6 | 10155.3 | 9736.5  | 9238.7  |
| 57.5° | 4256.0 | 4365.7 | 4912.0 | 5696.8 | 8172.3 | 12366.0 | 15194.9 | 12957.8 | 12333.3 | 11186.8 | 10625.7 |
| 60°   | 2344.7 | 2450.2 | 3043.0 | 3753.9 | 5902.5 | 11537.0 | 17040.7 | 16373.1 | 15269.8 | 12808.0 | 12310.1 |
| 62.5° | 1444.0 | 1500.9 | 1938.7 | 2600.0 | 3539.8 | 9105.8  | 17422.6 | 20664.9 | 19387.6 | 14895.4 | 14344.8 |
| 65°   | 1149.7 | 1174.0 | 1388.1 | 2125.3 | 2537.8 | 5416.2  | 16189.6 | 23936.8 | 23510.7 | 17422.6 | 16166.3 |
| 67°   | 1115.9 | 1125.4 | 1226.7 | 1824.7 | 2392.2 | 3320.4  | 13563.2 | 24469.4 | 24901.9 | 18952.0 | 16223.3 |
| 67.5° | 1123.3 | 1133.9 | 1229.9 | 1741.4 | 2388.0 | 3051.4  | 12658.2 | 24259.5 | 24805.9 | 19073.3 | 15971.2 |
| 70°   | 1083.2 | 1115.9 | 1408.1 | 1740.4 | 2270.9 | 2535.6  | 7580.6  | 21019.3 | 21587.8 | 17722.1 | 13551.6 |
| 72.5° | 383.9  | 386.0  | 608.6  | 1408.1 | 2469.2 | 2563.1  | 3806.6  | 15409.0 | 15829.9 | 13556.9 | 9770.3  |
| 75°   | 227.8  | 194.1  | 202.5  | 400.8  | 2359.5 | 2489.2  | 2196.0  | 9846.2  | 10003.4 | 7768.3  | 4947.9  |
| 77.5° | 157.2  | 137.1  | 141.3  | 177.2  | 898.7  | 2454.4  | 1744.6  | 5134.6  | 4966.9  | 2724.5  | 1053.7  |
| 80°   | 89.7   | 79.1   | 84.4   | 155.1  | 327.0  | 2289.9  | 1645.4  | 2082.1  | 1775.2  | 462.0   | 291.1   |
| 82.5° | 47.5   | 40.1   | 48.5   | 127.6  | 227.8  | 1427.1  | 1648.6  | 1006.2  | 797.4   | 156.1   | 198.3   |
| 85°   | 16.9   | 13.7   | 23.2   | 87.5   | 151.9  | 437.7   | 1528.4  | 845.9   | 664.5   | 75.9    | 150.8   |
| 87.5° | 3.2    | 3.2    | 9.5    | 35.9   | 61.2   | 134.0   | 903.9   | 502.1   | 336.5   | 45.4    | 103.4   |
| 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°    | 3988.1  | 3988.1 | 3988.1 | 3988.1 | 3988.1 | 3988.1 | 3988.1 | 3988.1 | 3988.1 | 3988.1 | 3988.1 |
| 2.5°  | 3975.4  | 3930.0 | 3868.9 | 3794.0 | 3705.4 | 3627.3 | 3569.3 | 3509.2 | 3496.5 | 3475.4 | 3472.3 |
| 5°    | 3949.0  | 3871.0 | 3719.1 | 3545.1 | 3359.4 | 3191.7 | 3055.6 | 2934.3 | 2880.6 | 2834.1 | 2828.9 |
| 7.5°  | 3910.0  | 3792.9 | 3534.5 | 3253.9 | 2963.9 | 2700.2 | 2476.6 | 2318.4 | 2172.8 | 2103.2 | 2092.6 |
| 10°   | 3864.7  | 3696.9 | 3326.7 | 2937.5 | 2536.7 | 2164.4 | 1832.1 | 1553.7 | 1384.9 | 1284.7 | 1272.0 |
| 12.5° | 3822.5  | 3603.1 | 3114.7 | 2609.5 | 2076.8 | 1579.0 | 1151.8 | 886.0  | 708.8  | 637.1  | 628.6  |
| 15°   | 3802.4  | 3527.1 | 2916.4 | 2274.1 | 1595.9 | 1005.2 | 629.7  | 487.3  | 429.3  | 412.4  | 411.4  |
| 17.5° | 3800.3  | 3462.8 | 2722.3 | 1927.1 | 1118.0 | 584.3  | 410.3  | 374.4  | 362.8  | 358.6  | 358.6  |
| 20°   | 3799.3  | 3401.6 | 2528.3 | 1567.4 | 709.9  | 389.2  | 341.7  | 333.3  | 324.9  | 319.6  | 319.6  |
| 22.5° | 3810.9  | 3346.8 | 2325.8 | 1200.3 | 447.2  | 315.4  | 300.6  | 292.2  | 281.6  | 274.2  | 273.2  |
| 25°   | 3822.5  | 3304.6 | 2119.0 | 854.4  | 323.8  | 274.2  | 259.5  | 247.9  | 233.1  | 223.6  | 222.6  |
| 27.5° | 3824.6  | 3251.8 | 1897.5 | 571.7  | 271.1  | 239.4  | 220.4  | 202.5  | 185.6  | 176.1  | 175.1  |
| 30°   | 3792.9  | 3163.2 | 1651.8 | 386.0  | 239.4  | 207.8  | 182.5  | 163.5  | 147.7  | 140.3  | 140.3  |
| 32.5° | 3730.7  | 3053.5 | 1381.7 | 291.1  | 213.1  | 178.3  | 150.8  | 132.9  | 122.4  | 119.2  | 118.1  |
| 35°   | 3674.8  | 2935.4 | 1104.3 | 246.8  | 190.9  | 150.8  | 123.4  | 111.8  | 105.5  | 104.4  | 103.4  |
| 37.5° | 3642.1  | 2840.5 | 843.8  | 223.6  | 169.8  | 126.6  | 104.4  | 96.0   | 92.8   | 90.7   | 91.8   |
| 40°   | 3667.4  | 2761.4 | 623.4  | 204.6  | 148.7  | 105.5  | 88.6   | 84.4   | 81.2   | 80.2   | 80.2   |
| 42.5° | 3778.2  | 2747.7 | 463.0  | 187.7  | 128.7  | 87.5   | 77.0   | 73.8   | 71.7   | 70.7   | 71.7   |
| 45°   | 4069.3  | 2832.0 | 359.7  | 171.9  | 108.6  | 73.8   | 65.4   | 64.3   | 63.3   | 63.3   | 63.3   |
| 47.5° | 4507.0  | 3006.1 | 299.6  | 154.0  | 90.7   | 63.3   | 57.0   | 55.9   | 54.8   | 55.9   | 55.9   |
| 50°   | 5248.5  | 3324.6 | 267.9  | 136.1  | 74.9   | 53.8   | 48.5   | 48.5   | 48.5   | 48.5   | 49.6   |
| 52.5° | 6376.0  | 3951.1 | 246.8  | 118.1  | 61.2   | 45.4   | 41.1   | 41.1   | 42.2   | 42.2   | 43.2   |
| 55°   | 7632.3  | 4782.3 | 227.8  | 100.2  | 51.7   | 38.0   | 33.8   | 34.8   | 35.9   | 36.9   | 36.9   |
| 57.5° | 8995.0  | 5703.1 | 212.0  | 82.3   | 44.3   | 30.6   | 28.5   | 29.5   | 30.6   | 32.7   | 32.7   |
| 60°   | 10639.4 | 6699.9 | 188.8  | 64.3   | 36.9   | 24.3   | 22.2   | 24.3   | 27.4   | 29.5   | 30.6   |
| 62.5° | 12445.1 | 7663.9 | 159.3  | 50.6   | 30.6   | 19.0   | 17.9   | 22.2   | 26.4   | 28.5   | 29.5   |
| 65°   | 13679.2 | 7966.6 | 122.4  | 41.1   | 23.2   | 13.7   | 14.8   | 20.0   | 25.3   | 28.5   | 28.5   |
| 67°   | 13179.3 | 7223.0 | 100.2  | 34.8   | 19.0   | 10.5   | 13.7   | 20.0   | 25.3   | 27.4   | 28.5   |
| 67.5° | 12832.2 | 6931.9 | 96.0   | 33.8   | 17.9   | 10.5   | 13.7   | 20.0   | 25.3   | 28.5   | 28.5   |
| 70°   | 10441.1 | 5207.4 | 80.2   | 25.3   | 14.8   | 9.5    | 11.6   | 19.0   | 24.3   | 27.4   | 27.4   |
| 72.5° | 7254.7  | 3210.7 | 71.7   | 17.9   | 12.7   | 8.4    | 10.5   | 17.9   | 23.2   | 26.4   | 27.4   |
| 75°   | 3449.1  | 1162.3 | 61.2   | 13.7   | 11.6   | 7.4    | 9.5    | 17.9   | 23.2   | 26.4   | 26.4   |
| 77.5° | 703.5   | 270.0  | 49.6   | 11.6   | 9.5    | 7.4    | 8.4    | 16.9   | 22.2   | 25.3   | 25.3   |
| 80°   | 231.0   | 104.4  | 36.9   | 10.5   | 9.5    | 7.4    | 8.4    | 15.8   | 22.2   | 24.3   | 25.3   |
| 82.5° | 166.7   | 52.7   | 24.3   | 10.5   | 9.5    | 7.4    | 7.4    | 15.8   | 21.1   | 24.3   | 24.3   |
| 85°   | 127.6   | 36.9   | 15.8   | 10.5   | 9.5    | 7.4    | 7.4    | 14.8   | 20.0   | 23.2   | 23.2   |
| 87.5° | 84.4    | 14.8   | 12.7   | 10.5   | 9.5    | 7.4    | 7.4    | 14.8   | 19.0   | 22.2   | 23.2   |
| 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)