

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: P299995

Luminaire Tested: **GAA-AF-05-LED-U-SL3-7030-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299995  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)  
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-SL3-7030-600-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI  
3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III w/Spill  
Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14711.5 lumens  
Efficiency: N/A  
Efficacy: 90.8 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G3

Input Watts (W): 162  
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

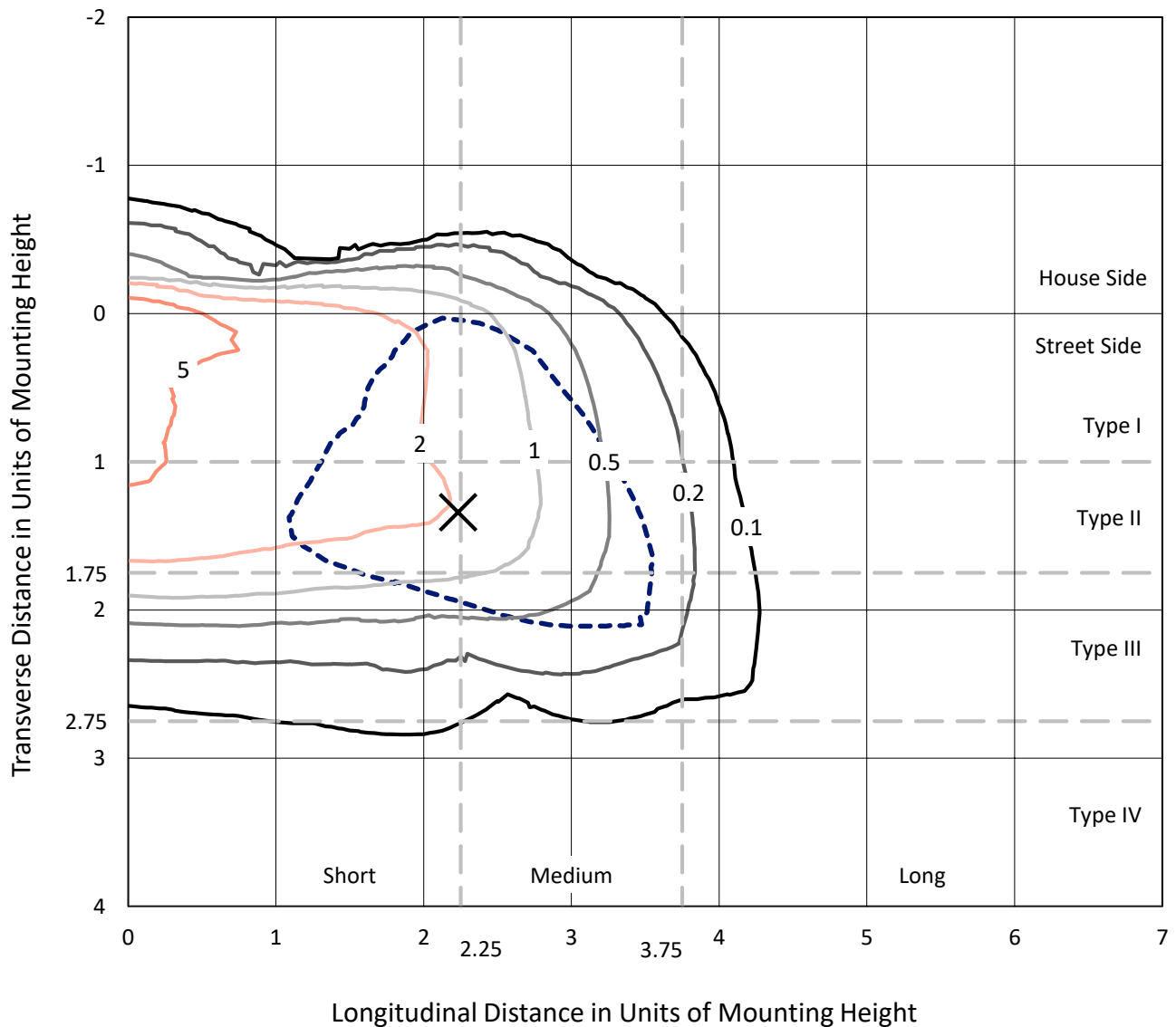


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

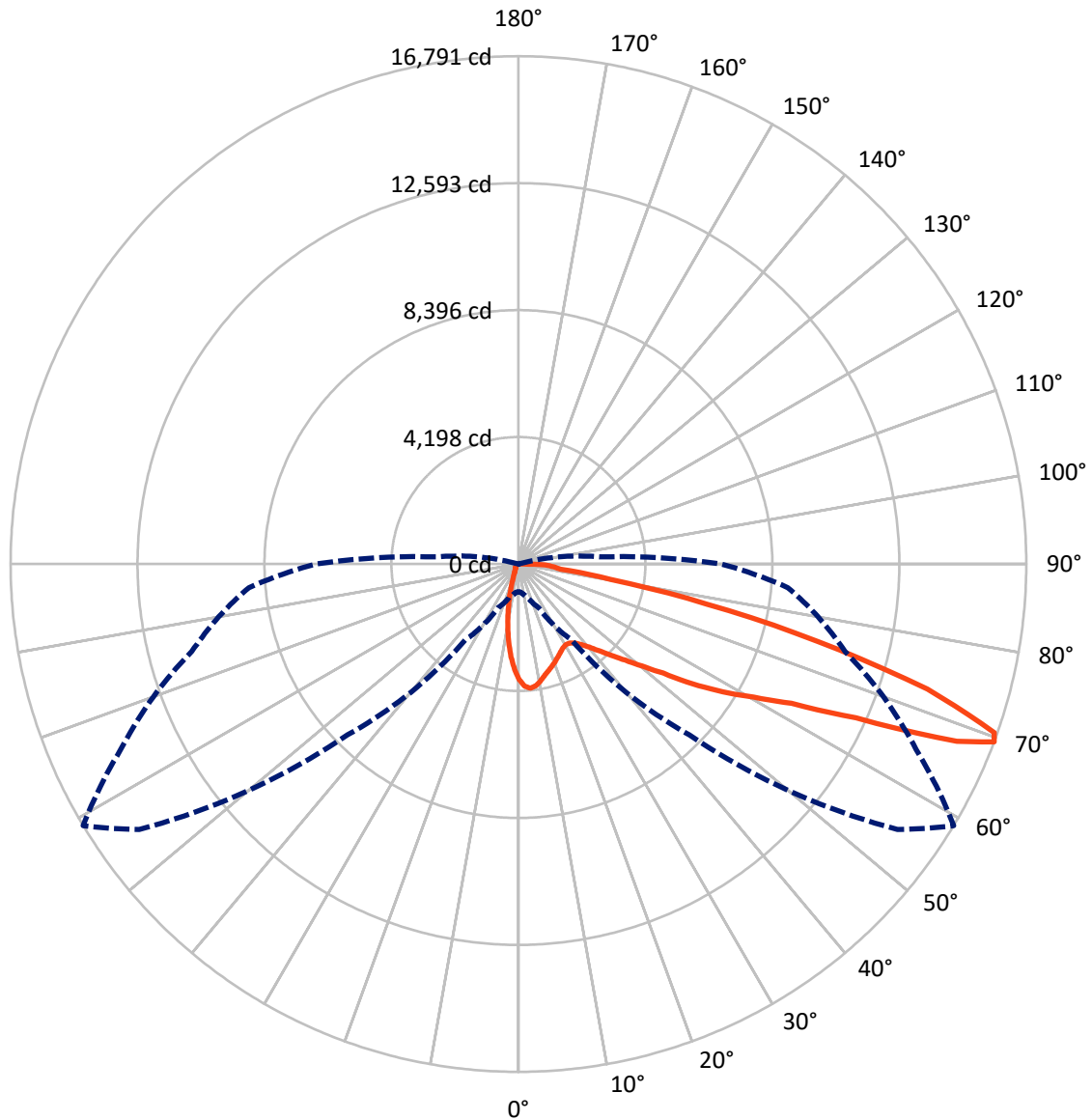


Based on 20 foot mounting height. Maximum calculated value = 9.6 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1198.0   | 0.0    | 1198.0  |
|                    | % Fixture | 8.1      | 0.0    | 8.1     |
| <b>Street Side</b> | Lumens    | 13513.5  | 0.0    | 13513.5 |
|                    | % Fixture | 91.9     | 0.0    | 91.9    |
| <b>Total</b>       | Lumens    | 14711.5  | 0.0    | 14711.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 310.8   | 2.1       |
| 10°-20°   | 642.2   | 4.4       |
| 20°-30°   | 864.2   | 5.9       |
| 30°-40°   | 1254.8  | 8.5       |
| 40°-50°   | 2089.3  | 14.2      |
| 50°-60°   | 3259.3  | 22.2      |
| 60°-70°   | 4033.1  | 27.4      |
| 70°-80°   | 2043.9  | 13.9      |
| 80°-90°   | 213.9   | 1.5       |
| 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°    | 14711.5 | 100.0     |
| 0°-180°   | 14711.5 | 100.0     |

**Coefficient of Utilization**



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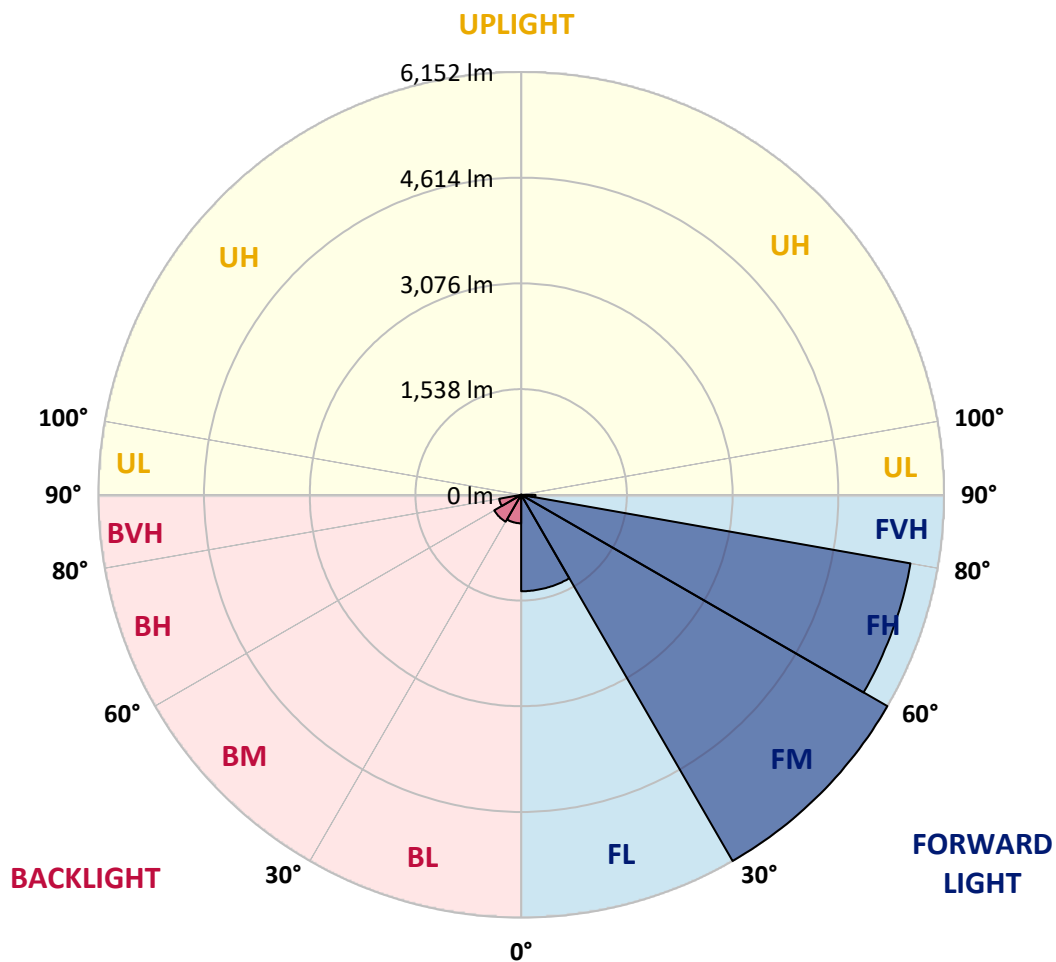
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1402.6 | 9.5       |                         |      |         |
| FM   | (30°-60°)   | 6151.9 | 41.8      |                         |      |         |
| FH   | (60°-80°)   | 5751.7 | 39.1      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 207.3  | 1.4       |                         |      | G2/225  |
| BL   | (0°-30°)    | 414.7  | 2.8       | B1/500                  |      |         |
| BM   | (30°-60°)   | 451.4  | 3.1       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 325.4  | 2.2       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 6.6    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G3**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 55°     | 59°     | 65°     | 75°     | 85°    |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|
| 0°    | 3829.1 | 3829.1 | 3829.1 | 3829.1 | 3829.1 | 3829.1  | 3829.1  | 3829.1  | 3829.1  | 3829.1  | 3829.1 |
| 2.5°  | 4196.9 | 4195.3 | 4177.0 | 4168.6 | 4153.5 | 4122.1  | 4072.9  | 4047.2  | 4005.7  | 3933.2  | 3835.9 |
| 5°    | 4158.6 | 4178.7 | 4189.3 | 4190.3 | 4201.1 | 4189.3  | 4145.2  | 4123.8  | 4066.4  | 3949.8  | 3775.2 |
| 7.5°  | 3899.2 | 3906.5 | 3937.4 | 3963.9 | 4015.5 | 4064.6  | 4080.5  | 4071.2  | 4037.2  | 3912.5  | 3680.3 |
| 10°   | 3621.3 | 3628.6 | 3665.4 | 3700.2 | 3770.2 | 3845.8  | 3925.6  | 3942.5  | 3956.6  | 3859.1  | 3588.9 |
| 12.5° | 3381.6 | 3389.1 | 3426.6 | 3472.2 | 3553.8 | 3647.0  | 3771.0  | 3798.4  | 3860.9  | 3808.5  | 3515.6 |
| 15°   | 3175.3 | 3178.6 | 3215.3 | 3271.8 | 3369.2 | 3488.9  | 3629.7  | 3673.7  | 3769.4  | 3772.7  | 3451.6 |
| 17.5° | 2999.7 | 3008.0 | 3030.7 | 3084.6 | 3191.2 | 3339.3  | 3503.2  | 3566.4  | 3678.5  | 3742.7  | 3389.1 |
| 20°   | 2892.4 | 2900.8 | 2900.0 | 2930.0 | 3025.7 | 3183.6  | 3376.8  | 3452.3  | 3588.9  | 3712.0  | 3333.5 |
| 22.5° | 2871.8 | 2871.8 | 2850.1 | 2845.8 | 2902.5 | 3034.7  | 3245.3  | 3337.5  | 3508.0  | 3698.7  | 3294.4 |
| 25°   | 2945.8 | 2942.3 | 2888.4 | 2844.3 | 2846.9 | 2925.7  | 3117.9  | 3227.7  | 3440.0  | 3707.7  | 3273.5 |
| 27.5° | 3102.2 | 3098.0 | 3029.7 | 2945.8 | 2878.3 | 2877.6  | 3021.4  | 3139.5  | 3385.8  | 3751.1  | 3281.8 |
| 30°   | 3318.3 | 3316.8 | 3242.8 | 3137.0 | 3014.8 | 2902.5  | 2988.1  | 3095.4  | 3350.8  | 3829.1  | 3301.0 |
| 32.5° | 3554.6 | 3552.1 | 3496.4 | 3385.1 | 3230.2 | 3014.8  | 3023.2  | 3113.1  | 3360.9  | 3933.2  | 3347.6 |
| 35°   | 3805.2 | 3800.9 | 3776.7 | 3679.5 | 3509.0 | 3221.9  | 3138.0  | 3207.8  | 3424.1  | 4088.8  | 3439.0 |
| 37.5° | 4076.2 | 4080.5 | 4097.9 | 4004.7 | 3825.9 | 3512.3  | 3330.2  | 3377.5  | 3551.3  | 4300.1  | 3587.8 |
| 40°   | 4476.4 | 4475.7 | 4481.5 | 4359.1 | 4187.0 | 3867.4  | 3598.7  | 3613.8  | 3764.4  | 4580.5  | 3814.3 |
| 42.5° | 5202.6 | 5151.9 | 4998.0 | 4748.4 | 4575.4 | 4273.4  | 3937.4  | 3921.6  | 4024.8  | 4927.3  | 4131.1 |
| 45°   | 6178.5 | 6070.2 | 5671.0 | 5192.7 | 4971.3 | 4731.1  | 4354.0  | 4303.4  | 4369.1  | 5344.1  | 4522.3 |
| 47.5° | 7017.8 | 6905.4 | 6340.7 | 5655.2 | 5391.5 | 5165.3  | 4842.4  | 4751.0  | 4772.6  | 5810.8  | 5017.9 |
| 50°   | 7303.1 | 7248.2 | 6755.1 | 6057.9 | 5798.2 | 5711.8  | 5409.1  | 5297.5  | 5266.8  | 6350.6  | 5592.7 |
| 52.5° | 7204.1 | 7200.1 | 6871.4 | 6319.1 | 6171.0 | 6277.5  | 6121.9  | 5992.9  | 5879.8  | 6919.8  | 6177.5 |
| 55°   | 7045.2 | 7066.1 | 6918.8 | 6547.8 | 6542.7 | 6794.1  | 7096.9  | 6989.6  | 6661.9  | 7537.9  | 6681.8 |
| 57.5° | 6607.0 | 6695.9 | 6892.3 | 6980.5 | 7185.0 | 7442.2  | 7908.9  | 7972.1  | 7584.5  | 8011.1  | 7100.1 |
| 60°   | 5360.7 | 5556.2 | 6198.4 | 7042.7 | 8012.9 | 8653.4  | 8888.9  | 8942.8  | 8341.3  | 8404.5  | 7665.1 |
| 62.5° | 3805.2 | 4004.7 | 4819.2 | 6247.6 | 8025.2 | 10244.7 | 10348.7 | 10136.6 | 9175.0  | 8987.9  | 8639.3 |
| 65°   | 2019.7 | 2173.9 | 2839.3 | 4509.7 | 6958.1 | 10614.2 | 12901.9 | 12269.7 | 10645.7 | 10134.9 | 9897.9 |
| 67.5° | 1033.2 | 1079.8 | 1344.5 | 2207.1 | 4783.5 | 9427.9  | 15190.3 | 15635.4 | 13180.4 | 11273.1 | 9837.2 |
| 69°   | 914.3  | 941.7  | 1117.3 | 1595.6 | 3063.0 | 7985.4  | 15301.9 | 16791.0 | 14507.5 | 11178.1 | 8939.5 |
| 70°   | 885.1  | 909.2  | 1068.9 | 1444.2 | 2394.2 | 6696.6  | 14875.0 | 16689.5 | 14846.8 | 10817.2 | 8269.0 |
| 72.5° | 751.3  | 772.0  | 951.8  | 1276.2 | 1945.9 | 3324.1  | 12083.3 | 14142.3 | 13322.8 | 9011.0  | 5985.4 |
| 75°   | 502.5  | 570.7  | 913.5  | 1196.4 | 1810.2 | 1888.5  | 7966.3  | 10219.8 | 9493.6  | 6077.8  | 3117.9 |
| 77.5° | 120.6  | 129.7  | 257.9  | 951.8  | 1655.5 | 1662.1  | 4097.1  | 6353.1  | 5181.9  | 2166.3  | 737.0  |
| 80°   | 65.0   | 62.5   | 72.3   | 188.9  | 1541.4 | 1559.8  | 1844.4  | 3083.9  | 1850.2  | 359.4   | 242.8  |
| 82.5° | 45.8   | 43.3   | 46.6   | 79.1   | 485.1  | 1420.8  | 1334.4  | 1395.8  | 766.9   | 138.0   | 109.1  |
| 85°   | 16.6   | 15.9   | 25.7   | 71.5   | 152.1  | 816.8   | 1370.9  | 1151.3  | 621.4   | 63.2    | 79.8   |
| 87.5° | 5.8    | 5.0    | 10.1   | 39.0   | 46.6   | 347.8   | 846.0   | 870.2   | 244.6   | 38.3    | 37.5   |
| 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°    | 3829.1 | 3829.1 | 3829.1 | 3829.1 | 3829.1 | 3829.1 | 3829.1 | 3829.1 | 3829.1 | 3829.1 | 3829.1 |
| 2.5°  | 3795.1 | 3743.5 | 3648.8 | 3551.3 | 3461.4 | 3353.4 | 3299.2 | 3246.1 | 3223.6 | 3215.3 | 3176.3 |
| 5°    | 3685.3 | 3597.9 | 3396.7 | 3194.4 | 3008.0 | 2810.1 | 2679.6 | 2574.8 | 2513.1 | 2483.2 | 2435.8 |
| 7.5°  | 3544.8 | 3401.7 | 3096.2 | 2784.4 | 2494.0 | 2207.9 | 1995.8 | 1832.6 | 1720.3 | 1666.4 | 1617.2 |
| 10°   | 3408.3 | 3217.9 | 2783.6 | 2358.5 | 1964.1 | 1584.7 | 1291.8 | 1079.8 | 944.2  | 881.8  | 842.0  |
| 12.5° | 3286.1 | 3039.0 | 2481.6 | 1943.4 | 1448.2 | 1004.2 | 706.2  | 537.5  | 453.4  | 424.1  | 410.0  |
| 15°   | 3177.0 | 2874.3 | 2196.3 | 1549.0 | 980.8  | 574.0  | 386.1  | 328.7  | 315.3  | 315.3  | 313.6  |
| 17.5° | 3073.8 | 2712.9 | 1920.7 | 1178.7 | 615.6  | 351.1  | 293.7  | 286.1  | 286.1  | 289.4  | 289.4  |
| 20°   | 2974.8 | 2559.0 | 1654.5 | 846.0  | 387.6  | 278.6  | 265.5  | 263.7  | 265.5  | 269.5  | 269.5  |
| 22.5° | 2889.9 | 2419.2 | 1405.9 | 580.6  | 287.9  | 251.1  | 244.6  | 242.0  | 242.8  | 245.3  | 247.1  |
| 25°   | 2826.7 | 2301.1 | 1171.4 | 393.4  | 247.8  | 228.7  | 221.4  | 217.1  | 213.8  | 213.8  | 215.3  |
| 27.5° | 2786.9 | 2201.3 | 944.2  | 286.1  | 222.9  | 208.0  | 196.2  | 189.7  | 182.1  | 178.1  | 179.6  |
| 30°   | 2757.7 | 2106.4 | 731.2  | 233.7  | 199.7  | 184.6  | 169.8  | 158.9  | 148.1  | 143.1  | 144.8  |
| 32.5° | 2746.9 | 2029.8 | 546.6  | 206.3  | 178.8  | 162.2  | 143.8  | 129.7  | 118.1  | 113.8  | 114.9  |
| 35°   | 2776.1 | 1969.1 | 400.2  | 186.4  | 162.2  | 141.3  | 120.6  | 104.8  | 95.7   | 93.2   | 93.9   |
| 37.5° | 2852.6 | 1936.6 | 299.5  | 169.8  | 147.3  | 123.9  | 100.7  | 85.6   | 79.8   | 79.8   | 80.6   |
| 40°   | 2997.2 | 1935.8 | 240.5  | 158.2  | 134.0  | 107.3  | 83.1   | 72.3   | 69.0   | 70.8   | 71.5   |
| 42.5° | 3208.5 | 1979.9 | 209.6  | 147.3  | 122.4  | 91.4   | 69.0   | 61.5   | 60.7   | 62.5   | 63.2   |
| 45°   | 3497.2 | 2060.5 | 192.9  | 138.0  | 109.8  | 76.6   | 58.2   | 53.1   | 53.1   | 55.7   | 56.7   |
| 47.5° | 3850.8 | 2178.6 | 178.8  | 129.0  | 97.2   | 64.0   | 49.9   | 46.6   | 47.4   | 49.9   | 50.6   |
| 50°   | 4276.7 | 2327.8 | 164.7  | 118.9  | 88.2   | 53.1   | 43.3   | 40.8   | 41.6   | 44.8   | 45.8   |
| 52.5° | 4761.8 | 2528.2 | 153.1  | 109.8  | 76.6   | 44.1   | 36.5   | 35.0   | 36.5   | 40.0   | 40.8   |
| 55°   | 5177.6 | 2707.8 | 139.0  | 102.3  | 61.5   | 36.5   | 30.0   | 30.0   | 31.7   | 35.8   | 36.5   |
| 57.5° | 5577.8 | 2895.7 | 126.4  | 88.2   | 48.4   | 29.2   | 24.9   | 25.7   | 28.2   | 32.5   | 33.2   |
| 60°   | 6165.2 | 3214.3 | 111.6  | 74.0   | 36.5   | 23.2   | 20.9   | 21.7   | 24.9   | 29.2   | 30.0   |
| 62.5° | 7162.6 | 3699.4 | 96.5   | 61.5   | 28.2   | 18.4   | 16.6   | 18.4   | 22.4   | 27.5   | 28.2   |
| 65°   | 8062.8 | 3896.6 | 79.1   | 51.6   | 21.7   | 14.1   | 14.1   | 16.6   | 21.7   | 26.7   | 27.5   |
| 67.5° | 7561.0 | 3280.1 | 61.5   | 40.8   | 16.6   | 10.8   | 11.6   | 15.9   | 20.9   | 26.7   | 27.5   |
| 69°   | 6686.8 | 2682.1 | 52.4   | 32.5   | 14.1   | 10.1   | 10.8   | 15.9   | 20.9   | 25.7   | 26.7   |
| 70°   | 6005.5 | 2264.5 | 46.6   | 27.5   | 12.6   | 10.1   | 10.8   | 14.9   | 20.9   | 25.7   | 26.7   |
| 72.5° | 4022.3 | 1222.8 | 37.5   | 19.9   | 11.6   | 9.1    | 9.1    | 14.9   | 19.9   | 24.9   | 25.7   |
| 75°   | 1728.6 | 337.8  | 30.0   | 14.1   | 10.1   | 8.3    | 8.3    | 14.1   | 19.1   | 24.2   | 25.7   |
| 77.5° | 316.1  | 85.6   | 24.2   | 12.6   | 10.1   | 8.3    | 7.6    | 13.3   | 18.4   | 23.2   | 24.2   |
| 80°   | 125.7  | 42.3   | 19.1   | 10.8   | 9.1    | 7.6    | 6.5    | 12.6   | 17.4   | 22.4   | 23.2   |
| 82.5° | 75.8   | 24.2   | 15.9   | 10.1   | 9.1    | 6.5    | 5.8    | 10.8   | 16.6   | 21.7   | 22.4   |
| 85°   | 61.5   | 16.6   | 12.6   | 10.1   | 8.3    | 6.5    | 5.0    | 10.1   | 14.9   | 20.9   | 21.7   |
| 87.5° | 30.0   | 11.6   | 11.6   | 9.1    | 8.3    | 6.5    | 5.0    | 9.1    | 14.1   | 19.9   | 20.9   |
| 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)