

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: P300859

Luminaire Tested: **GAA-AF-04-LED-U-SL4-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300859  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAA-AF-04-LED-U-SL4-7030  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

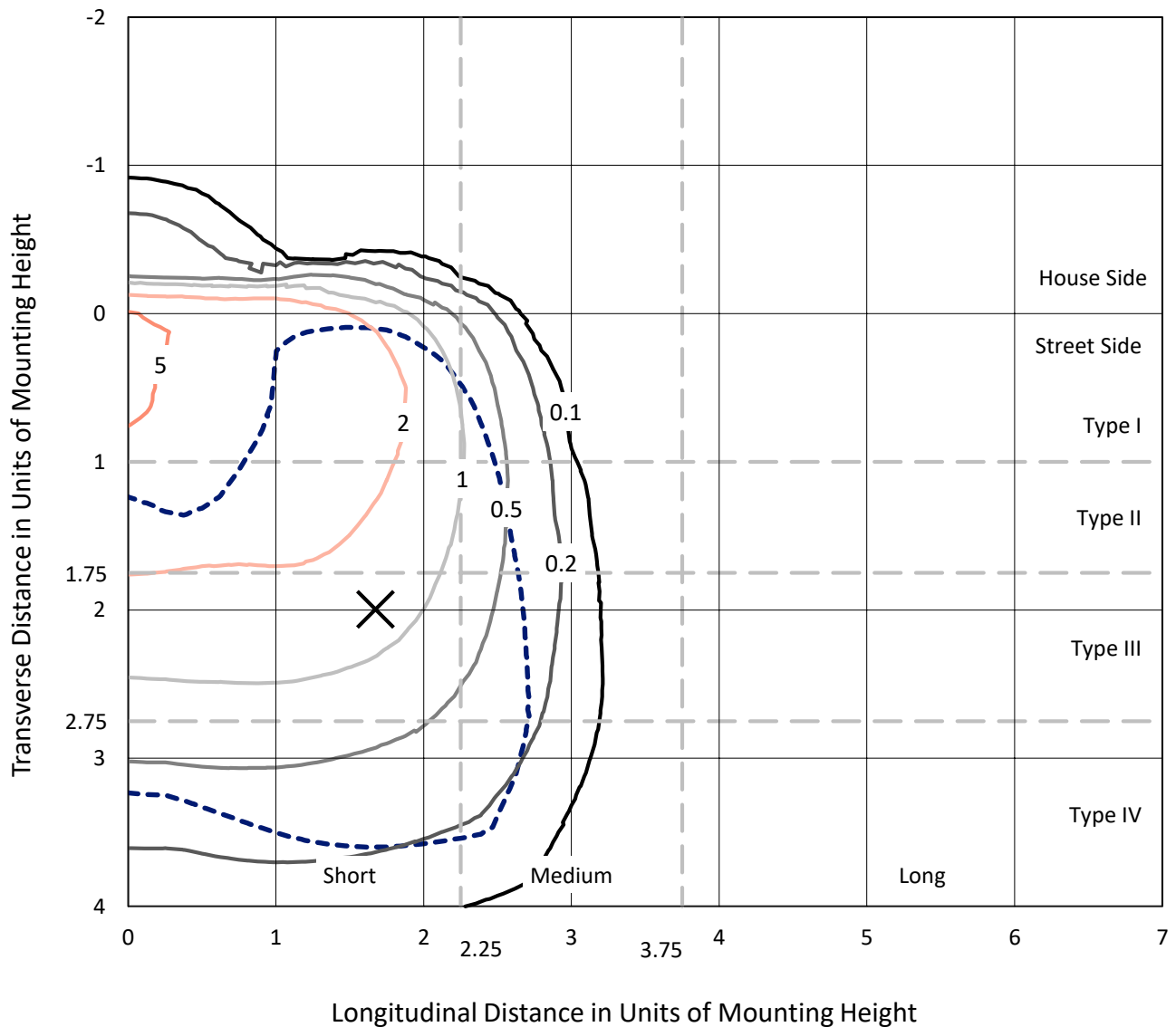
Lumens per Lamp: N/A  
Luminaire Lumens: 21992.2 lumens  
Efficiency: N/A  
Efficacy: 97.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G4  
  
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (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

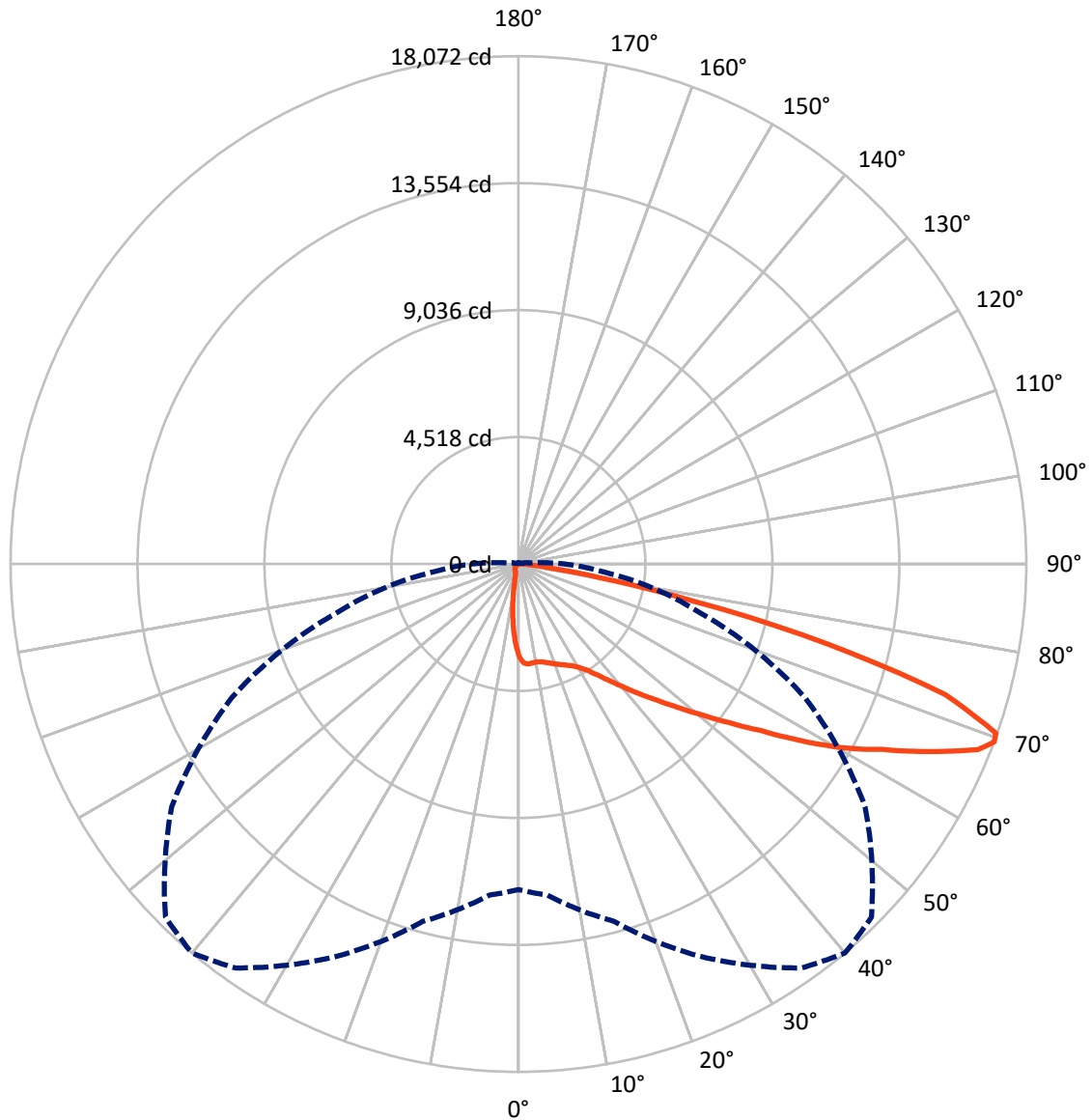


Based on 25 foot mounting height. Maximum calculated value = 5.8 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1286.7   | 0.0    | 1286.7  |
|                    | % Fixture | 5.9      | 0.0    | 5.9     |
| <b>Street Side</b> | Lumens    | 20705.5  | 0.0    | 20705.5 |
|                    | % Fixture | 94.1     | 0.0    | 94.1    |
| <b>Total</b>       | Lumens    | 21992.2  | 0.0    | 21992.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 266.4   | 1.2       |
| 10°-20°   | 655.1   | 3.0       |
| 20°-30°   | 1103.5  | 5.0       |
| 30°-40°   | 1806.5  | 8.2       |
| 40°-50°   | 3127.8  | 14.2      |
| 50°-60°   | 4926.6  | 22.4      |
| 60°-70°   | 6434.0  | 29.3      |
| 70°-80°   | 3313.8  | 15.1      |
| 80°-90°   | 358.5   | 1.6       |
| 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°    | 21992.2 | 100.0     |
| 0°-180°   | 21992.2 | 100.0     |

**Coefficient of Utilization**



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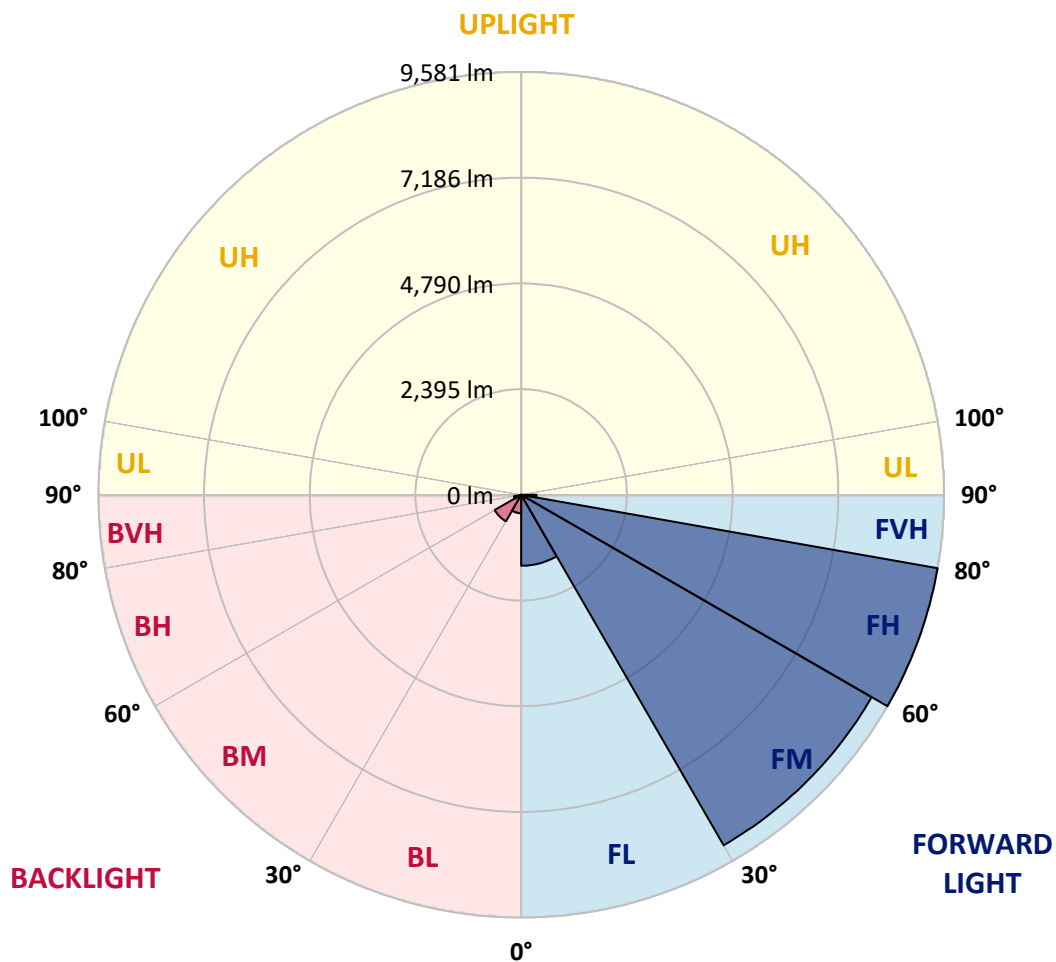
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|--------|-----------|-------------------------|------|----------|
|      |             |        |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1608.3 | 7.3       |                         |      |          |
| FM   | (30°-60°)   | 9169.3 | 41.7      |                         |      |          |
| FH   | (60°-80°)   | 9580.7 | 43.6      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 347.2  | 1.6       |                         |      | G3/500   |
| BL   | (0°-30°)    | 416.8  | 1.9       | B1/500                  |      |          |
| BM   | (30°-60°)   | 691.6  | 3.1       | B1/1000                 |      |          |
| BH   | (60°-80°)   | 167.1  | 0.8       | B1/500                  |      | G1/500   |
| BVH  | (80°-90°)   | 11.2   | 0.1       |                         |      | G1/100   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

**BUG Rating: B1-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 40°     | 45°     | 55°     | 65°     | 75°     | 85°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0°    | 3285.7  | 3285.7  | 3285.7  | 3285.7  | 3285.7  | 3285.7  | 3285.7  | 3285.7  | 3285.7  | 3285.7  | 3285.7 |
| 2.5°  | 3607.8  | 3588.1  | 3576.4  | 3560.6  | 3541.0  | 3524.0  | 3517.4  | 3469.0  | 3423.2  | 3360.4  | 3288.4 |
| 5°    | 3674.5  | 3668.0  | 3647.0  | 3626.1  | 3602.5  | 3576.4  | 3562.0  | 3504.4  | 3438.9  | 3347.3  | 3221.6 |
| 7.5°  | 3681.1  | 3673.2  | 3647.0  | 3618.2  | 3585.5  | 3554.1  | 3529.2  | 3471.6  | 3411.4  | 3318.5  | 3165.3 |
| 10°   | 3670.6  | 3661.4  | 3641.8  | 3610.4  | 3569.8  | 3539.7  | 3514.8  | 3459.8  | 3408.8  | 3325.0  | 3154.8 |
| 12.5° | 3658.8  | 3649.7  | 3640.5  | 3624.8  | 3589.4  | 3568.5  | 3547.6  | 3495.2  | 3449.4  | 3378.7  | 3192.8 |
| 15°   | 3670.6  | 3665.4  | 3675.8  | 3669.3  | 3649.7  | 3631.3  | 3610.4  | 3563.3  | 3521.4  | 3462.5  | 3262.2 |
| 17.5° | 3720.3  | 3720.3  | 3753.1  | 3757.0  | 3738.7  | 3712.5  | 3682.4  | 3635.3  | 3599.9  | 3550.2  | 3344.6 |
| 20°   | 3836.9  | 3832.9  | 3874.8  | 3882.7  | 3838.2  | 3797.6  | 3753.1  | 3695.5  | 3668.0  | 3636.6  | 3425.8 |
| 22.5° | 4037.1  | 4018.8  | 4043.7  | 4035.8  | 3948.1  | 3885.3  | 3830.3  | 3759.6  | 3745.2  | 3730.8  | 3516.1 |
| 25°   | 4297.6  | 4287.2  | 4304.2  | 4227.0  | 4072.5  | 3987.4  | 3921.9  | 3842.1  | 3842.1  | 3856.5  | 3618.2 |
| 27.5° | 4676.0  | 4636.7  | 4579.1  | 4443.0  | 4211.2  | 4102.6  | 4031.9  | 3946.8  | 3969.1  | 4022.7  | 3753.1 |
| 30°   | 5063.4  | 5020.2  | 4888.0  | 4678.6  | 4380.1  | 4266.2  | 4183.8  | 4094.7  | 4147.1  | 4245.3  | 3933.7 |
| 32.5° | 5445.7  | 5397.3  | 5210.1  | 4945.6  | 4622.3  | 4508.4  | 4428.6  | 4330.4  | 4418.1  | 4583.0  | 4198.2 |
| 35°   | 5816.2  | 5773.0  | 5557.0  | 5245.4  | 4944.3  | 4850.1  | 4776.8  | 4691.7  | 4804.3  | 5034.6  | 4571.2 |
| 37.5° | 6232.4  | 6185.3  | 5922.2  | 5584.5  | 5335.7  | 5267.7  | 5214.0  | 5128.9  | 5325.3  | 5663.0  | 5090.9 |
| 40°   | 6744.3  | 6664.4  | 6309.7  | 5973.2  | 5788.7  | 5755.9  | 5719.3  | 5707.5  | 6012.5  | 6479.8  | 5783.4 |
| 42.5° | 7330.7  | 7199.8  | 6715.5  | 6383.0  | 6286.1  | 6309.7  | 6300.5  | 6352.9  | 6872.6  | 7495.7  | 6626.5 |
| 45°   | 7917.2  | 7748.3  | 7167.1  | 6820.2  | 6833.3  | 6915.8  | 6966.8  | 7176.3  | 7949.9  | 8660.7  | 7533.6 |
| 47.5° | 8414.6  | 8248.4  | 7600.4  | 7292.8  | 7449.9  | 7612.2  | 7750.9  | 8147.6  | 9057.4  | 9807.5  | 8239.2 |
| 50°   | 8840.1  | 8683.0  | 8059.9  | 7812.5  | 8165.9  | 8427.7  | 8652.9  | 9240.7  | 10248.6 | 10680.6 | 8734.0 |
| 52.5° | 9188.3  | 9083.6  | 8536.4  | 8408.1  | 8984.1  | 9367.6  | 9697.5  | 10401.8 | 11303.7 | 11390.1 | 9118.9 |
| 55°   | 9527.3  | 9452.7  | 9048.2  | 9116.3  | 9944.9  | 10467.2 | 10884.8 | 11633.6 | 12212.2 | 11981.8 | 9488.1 |
| 57.5° | 9917.4  | 9849.4  | 9632.1  | 10014.3 | 11208.2 | 11865.3 | 12320.9 | 12725.4 | 13012.1 | 12586.6 | 9836.3 |
| 60°   | 10315.4 | 10276.1 | 10281.4 | 11011.8 | 12658.6 | 13289.6 | 13540.9 | 13645.6 | 13797.5 | 13156.1 | 9855.9 |
| 62.5° | 10695.0 | 10769.6 | 11023.6 | 12121.9 | 14047.5 | 14531.9 | 14658.9 | 14762.3 | 14584.2 | 13246.4 | 9105.8 |
| 65°   | 11337.8 | 11459.5 | 12065.6 | 13607.7 | 15575.2 | 16093.6 | 16224.5 | 15869.7 | 14708.6 | 12078.7 | 7406.7 |
| 67.5° | 11651.9 | 11874.5 | 12955.8 | 14992.7 | 17057.1 | 17633.0 | 17584.6 | 15941.7 | 13199.3 | 9210.5  | 4753.2 |
| 69°   | 11586.5 | 11823.4 | 13161.3 | 15416.8 | 17549.3 | 18071.6 | 17763.9 | 15060.7 | 11244.8 | 6672.3  | 2917.9 |
| 70°   | 11327.3 | 11566.9 | 13055.3 | 15401.1 | 17612.1 | 18025.8 | 17431.4 | 13972.9 | 9507.7  | 4878.9  | 1824.8 |
| 72.5° | 9459.3  | 9666.1  | 11590.4 | 13920.5 | 16224.5 | 15888.1 | 14582.9 | 9680.5  | 4632.8  | 1328.7  | 411.0  |
| 75°   | 5822.7  | 5937.9  | 8316.5  | 10486.9 | 12254.1 | 11390.1 | 9715.8  | 4816.0  | 1381.1  | 375.7   | 227.8  |
| 77.5° | 3076.3  | 3128.7  | 4552.9  | 6181.4  | 7768.0  | 6427.5  | 4979.7  | 1878.5  | 636.2   | 235.6   | 164.9  |
| 80°   | 1818.3  | 1857.6  | 2451.9  | 2826.3  | 3361.7  | 2807.9  | 1991.1  | 1153.3  | 455.6   | 147.9   | 146.6  |
| 82.5° | 1040.7  | 1065.6  | 1777.7  | 1570.9  | 1324.8  | 1131.0  | 991.0   | 1093.1  | 273.6   | 99.5    | 151.9  |
| 85°   | 382.2   | 387.5   | 1000.1  | 1195.2  | 788.1   | 468.6   | 492.2   | 905.9   | 73.3    | 62.8    | 119.1  |
| 87.5° | 178.0   | 174.1   | 514.5   | 731.8   | 460.8   | 297.2   | 383.6   | 199.0   | 28.8    | 40.6    | 32.7   |
| 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°    | 3285.7 | 3285.7 | 3285.7 | 3285.7 | 3285.7 | 3285.7 | 3285.7 | 3285.7 | 3285.7 | 3285.7 | 3285.7 |
| 2.5°  | 3246.5 | 3198.0 | 3110.3 | 3020.0 | 2928.4 | 2857.7 | 2788.3 | 2733.3 | 2715.0 | 2681.0 | 2683.6 |
| 5°    | 3147.0 | 3058.0 | 2874.7 | 2688.8 | 2495.1 | 2335.4 | 2184.8 | 2063.1 | 2004.2 | 1944.0 | 1944.0 |
| 7.5°  | 3060.6 | 2931.0 | 2644.3 | 2341.9 | 2029.0 | 1765.9 | 1529.0 | 1351.0 | 1252.8 | 1174.2 | 1172.9 |
| 10°   | 3027.9 | 2852.4 | 2451.9 | 2018.6 | 1582.7 | 1224.0 | 942.5  | 761.9  | 668.9  | 608.7  | 606.1  |
| 12.5° | 3042.3 | 2825.0 | 2303.9 | 1720.1 | 1172.9 | 786.7  | 545.9  | 429.4  | 390.1  | 371.8  | 371.8  |
| 15°   | 3084.1 | 2817.1 | 2156.0 | 1428.2 | 828.6  | 492.2  | 362.6  | 331.2  | 328.6  | 328.6  | 328.6  |
| 17.5° | 3135.2 | 2819.7 | 2004.2 | 1144.1 | 564.2  | 352.1  | 312.9  | 308.9  | 311.6  | 311.6  | 311.6  |
| 20°   | 3187.6 | 2821.0 | 1840.5 | 881.0  | 398.0  | 306.3  | 294.5  | 293.2  | 295.8  | 295.8  | 297.2  |
| 22.5° | 3251.7 | 2827.6 | 1676.9 | 658.5  | 328.6  | 289.3  | 280.1  | 280.1  | 281.4  | 281.4  | 280.1  |
| 25°   | 3325.0 | 2840.7 | 1506.7 | 488.3  | 299.8  | 277.5  | 269.7  | 268.4  | 269.7  | 268.4  | 267.0  |
| 27.5° | 3416.6 | 2859.0 | 1316.9 | 382.2  | 286.7  | 265.7  | 259.2  | 259.2  | 257.9  | 256.6  | 255.3  |
| 30°   | 3531.8 | 2879.9 | 1103.5 | 324.6  | 273.6  | 255.3  | 248.7  | 247.4  | 246.1  | 243.5  | 243.5  |
| 32.5° | 3707.3 | 2925.7 | 892.8  | 294.5  | 259.2  | 240.9  | 235.6  | 235.6  | 233.0  | 230.4  | 229.1  |
| 35°   | 3976.9 | 3016.1 | 704.3  | 276.2  | 243.5  | 225.2  | 218.6  | 218.6  | 216.0  | 214.7  | 213.4  |
| 37.5° | 4350.0 | 3153.5 | 547.2  | 259.2  | 227.8  | 208.1  | 201.6  | 200.3  | 197.7  | 195.0  | 193.7  |
| 40°   | 4846.1 | 3323.7 | 430.7  | 243.5  | 212.1  | 191.1  | 185.9  | 183.3  | 178.0  | 174.1  | 174.1  |
| 42.5° | 5469.3 | 3517.4 | 349.5  | 226.5  | 193.7  | 175.4  | 171.5  | 167.6  | 158.4  | 154.5  | 153.2  |
| 45°   | 6121.2 | 3691.5 | 295.8  | 206.8  | 175.4  | 159.7  | 157.1  | 150.5  | 138.8  | 134.8  | 134.8  |
| 47.5° | 6591.1 | 3732.1 | 260.5  | 188.5  | 158.4  | 142.7  | 141.4  | 129.6  | 119.1  | 116.5  | 115.2  |
| 50°   | 6884.3 | 3652.3 | 231.7  | 170.2  | 142.7  | 127.0  | 123.1  | 108.7  | 102.1  | 99.5   | 98.2   |
| 52.5° | 7082.0 | 3509.6 | 208.1  | 154.5  | 128.3  | 112.6  | 103.4  | 92.9   | 87.7   | 85.1   | 85.1   |
| 55°   | 7240.4 | 3308.0 | 184.6  | 140.1  | 116.5  | 100.8  | 87.7   | 79.9   | 74.6   | 72.0   | 72.0   |
| 57.5° | 7284.9 | 3034.4 | 161.0  | 128.3  | 104.7  | 89.0   | 74.6   | 69.4   | 62.8   | 61.5   | 61.5   |
| 60°   | 6961.6 | 2540.9 | 142.7  | 113.9  | 94.3   | 77.2   | 65.5   | 58.9   | 52.4   | 51.1   | 49.7   |
| 62.5° | 6109.4 | 1966.2 | 125.7  | 100.8  | 82.5   | 66.8   | 56.3   | 48.4   | 43.2   | 43.2   | 43.2   |
| 65°   | 4660.3 | 1318.2 | 110.0  | 87.7   | 72.0   | 56.3   | 48.4   | 39.3   | 36.7   | 36.7   | 38.0   |
| 67.5° | 2789.6 | 717.4  | 94.3   | 74.6   | 61.5   | 47.1   | 40.6   | 34.0   | 32.7   | 34.0   | 34.0   |
| 69°   | 1635.0 | 421.5  | 85.1   | 66.8   | 53.7   | 41.9   | 35.3   | 30.1   | 32.7   | 34.0   | 34.0   |
| 70°   | 1009.3 | 284.1  | 78.5   | 60.2   | 48.4   | 38.0   | 32.7   | 28.8   | 31.4   | 32.7   | 32.7   |
| 72.5° | 281.4  | 146.6  | 62.8   | 47.1   | 39.3   | 31.4   | 26.2   | 26.2   | 30.1   | 31.4   | 31.4   |
| 75°   | 183.3  | 108.7  | 48.4   | 35.3   | 30.1   | 24.9   | 22.3   | 24.9   | 28.8   | 30.1   | 30.1   |
| 77.5° | 151.9  | 89.0   | 39.3   | 28.8   | 24.9   | 23.6   | 20.9   | 22.3   | 26.2   | 27.5   | 27.5   |
| 80°   | 138.8  | 62.8   | 31.4   | 26.2   | 22.3   | 20.9   | 19.6   | 18.3   | 23.6   | 24.9   | 24.9   |
| 82.5° | 132.2  | 49.7   | 27.5   | 23.6   | 20.9   | 18.3   | 17.0   | 18.3   | 20.9   | 22.3   | 23.6   |
| 85°   | 82.5   | 32.7   | 24.9   | 22.3   | 18.3   | 17.0   | 17.0   | 17.0   | 19.6   | 20.9   | 20.9   |
| 87.5° | 30.1   | 26.2   | 22.3   | 18.3   | 15.7   | 15.7   | 15.7   | 15.7   | 17.0   | 19.6   | 19.6   |
| 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)