

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: P300862

Luminaire Tested: **GAA-AF-04-LED-U-SL4-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300862  
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-SL4-7050  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 5000K 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: 22736.1 lumens  
Efficiency: N/A  
Efficacy: 101.0 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

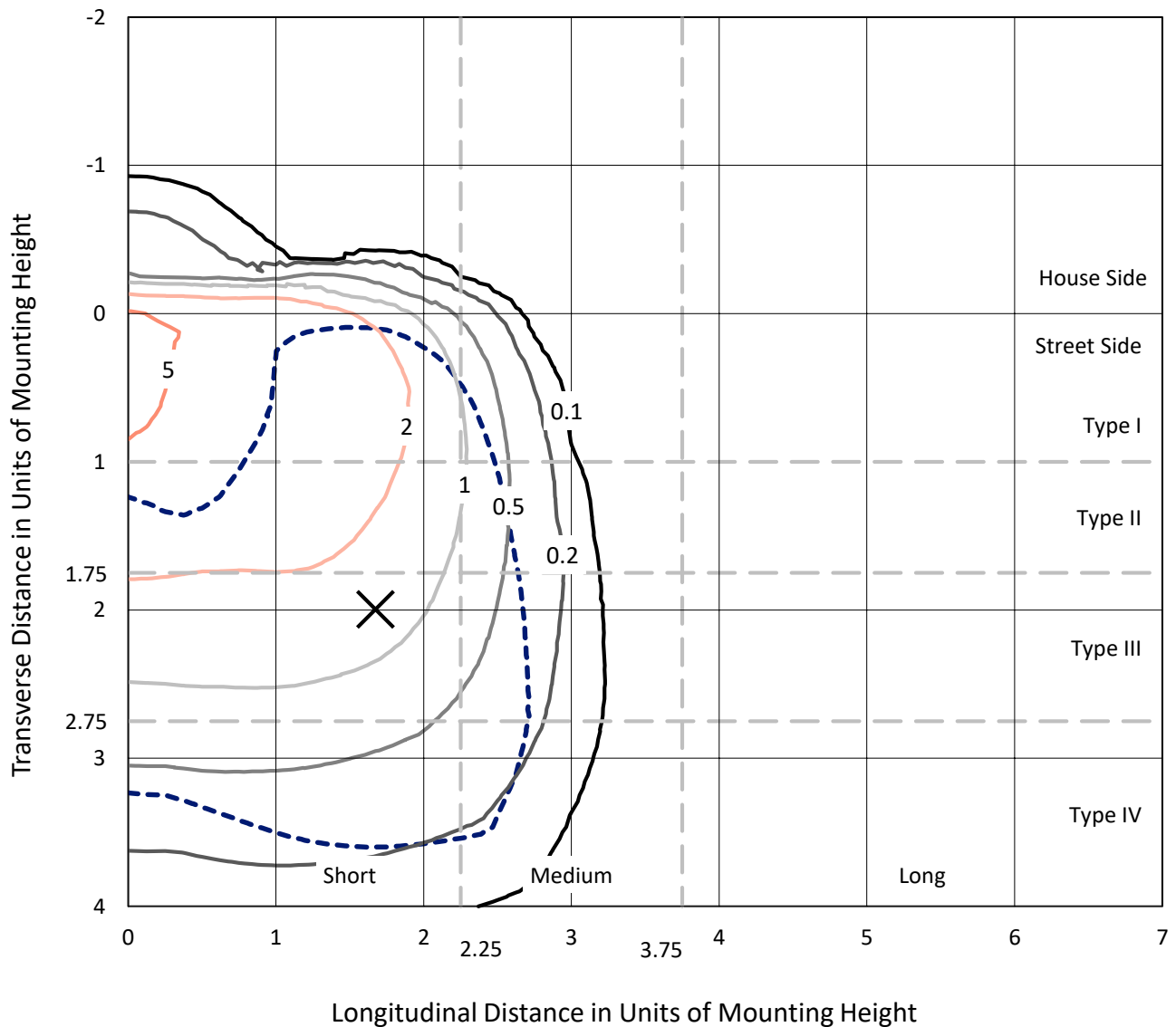


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

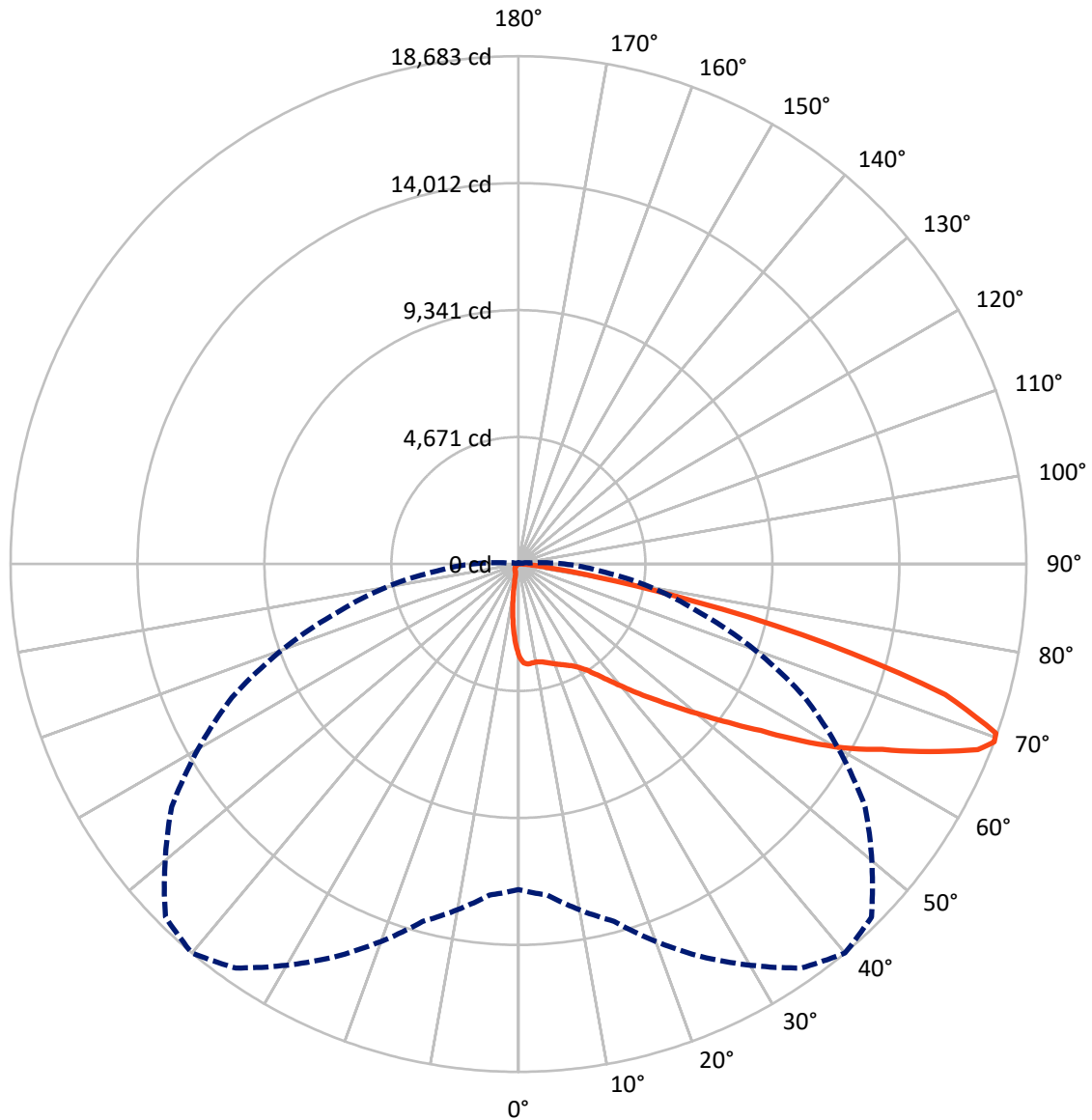


Based on 25 foot mounting height. Maximum calculated value = 5.9 fc  
 Type IV - Short - Semi-Cutoff

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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    | 1330.2   | 0.0    | 1330.2  |
|                    | % Fixture | 5.9      | 0.0    | 5.9     |
| <b>Street Side</b> | Lumens    | 21405.9  | 0.0    | 21405.9 |
|                    | % Fixture | 94.1     | 0.0    | 94.1    |
| <b>Total</b>       | Lumens    | 22736.1  | 0.0    | 22736.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 275.4   | 1.2       |
| 10°-20°   | 677.3   | 3.0       |
| 20°-30°   | 1140.8  | 5.0       |
| 30°-40°   | 1867.6  | 8.2       |
| 40°-50°   | 3233.6  | 14.2      |
| 50°-60°   | 5093.3  | 22.4      |
| 60°-70°   | 6651.6  | 29.3      |
| 70°-80°   | 3425.9  | 15.1      |
| 80°-90°   | 370.6   | 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°    | 22736.1 | 100.0     |
| 0°-180°   | 22736.1 | 100.0     |



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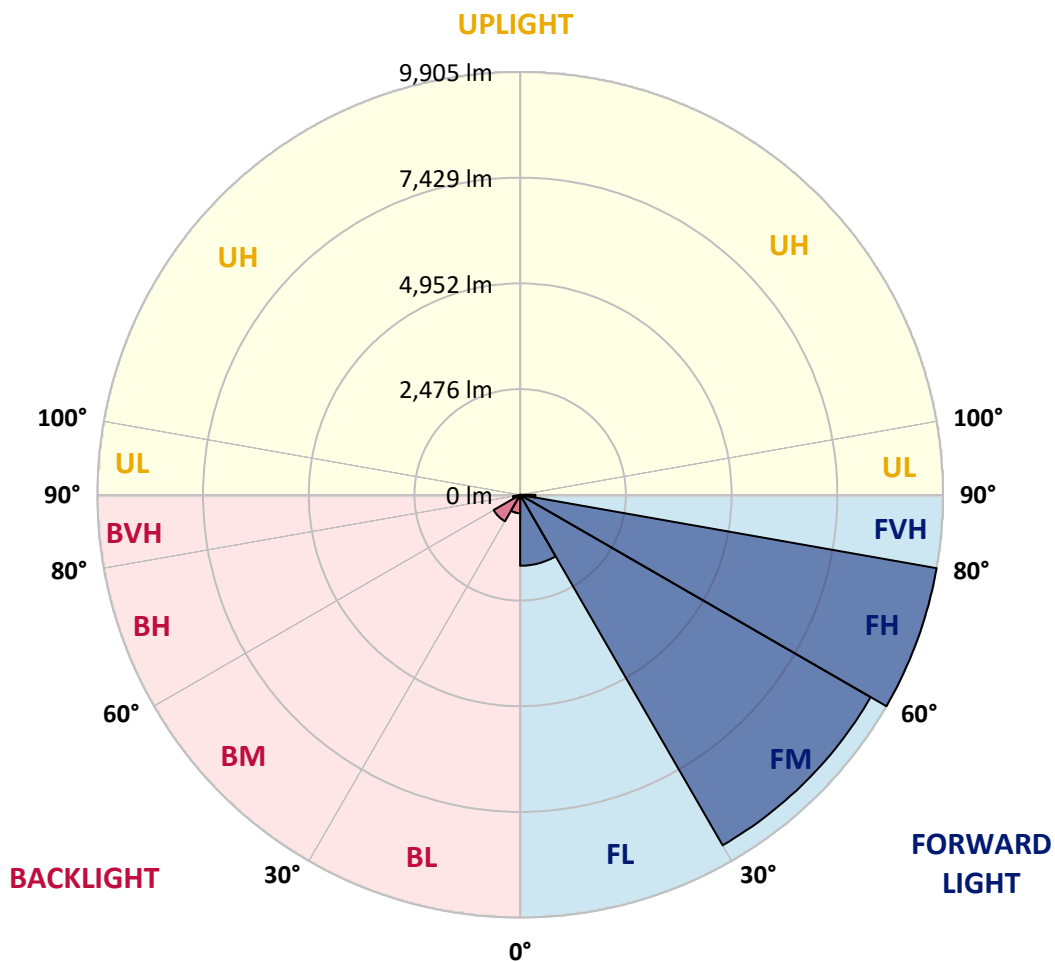
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|--------|-----------|-------------------------|------|----------|
|                |        |           | B                       | U    | G        |
| FL (0°-30°)    | 1662.7 | 7.3       |                         |      |          |
| FM (30°-60°)   | 9479.5 | 41.7      |                         |      |          |
| FH (60°-80°)   | 9904.8 | 43.6      |                         |      | G4/12000 |
| FVH (80°-90°)  | 358.9  | 1.6       |                         |      | G3/500   |
| BL (0°-30°)    | 430.9  | 1.9       | B1/500                  |      |          |
| BM (30°-60°)   | 714.9  | 3.1       | B1/1000                 |      |          |
| BH (60°-80°)   | 172.7  | 0.8       | B1/500                  |      | G1/500   |
| BVH (80°-90°)  | 11.6   | 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°    | 3396.9  | 3396.9  | 3396.9  | 3396.9  | 3396.9  | 3396.9  | 3396.9  | 3396.9  | 3396.9  | 3396.9  | 3396.9  |
| 2.5°  | 3729.8  | 3709.5  | 3697.3  | 3681.1  | 3660.8  | 3643.2  | 3636.4  | 3586.4  | 3539.0  | 3474.0  | 3399.6  |
| 5°    | 3798.8  | 3792.1  | 3770.4  | 3748.8  | 3724.4  | 3697.3  | 3682.4  | 3622.9  | 3555.2  | 3460.5  | 3330.6  |
| 7.5°  | 3805.6  | 3797.5  | 3770.4  | 3740.6  | 3706.8  | 3674.3  | 3648.6  | 3589.1  | 3526.8  | 3430.7  | 3272.4  |
| 10°   | 3794.8  | 3785.3  | 3765.0  | 3732.5  | 3690.6  | 3659.4  | 3633.7  | 3576.9  | 3524.1  | 3437.5  | 3261.6  |
| 12.5° | 3782.6  | 3773.1  | 3763.6  | 3747.4  | 3710.9  | 3689.2  | 3667.6  | 3613.4  | 3566.1  | 3493.0  | 3300.8  |
| 15°   | 3794.8  | 3789.4  | 3800.2  | 3793.4  | 3773.1  | 3754.2  | 3732.5  | 3683.8  | 3640.5  | 3579.6  | 3372.5  |
| 17.5° | 3846.2  | 3846.2  | 3880.0  | 3884.1  | 3865.1  | 3838.1  | 3807.0  | 3758.2  | 3721.7  | 3670.3  | 3457.8  |
| 20°   | 3966.6  | 3962.6  | 4005.9  | 4014.0  | 3968.0  | 3926.0  | 3880.0  | 3820.5  | 3792.1  | 3759.6  | 3541.7  |
| 22.5° | 4173.7  | 4154.8  | 4180.5  | 4172.4  | 4081.7  | 4016.7  | 3959.9  | 3886.8  | 3871.9  | 3857.0  | 3635.1  |
| 25°   | 4443.0  | 4432.2  | 4449.8  | 4369.9  | 4210.2  | 4122.3  | 4054.6  | 3972.1  | 3972.1  | 3986.9  | 3740.6  |
| 27.5° | 4834.1  | 4793.5  | 4734.0  | 4593.2  | 4353.7  | 4241.4  | 4168.3  | 4080.3  | 4103.3  | 4158.8  | 3880.0  |
| 30°   | 5234.7  | 5190.1  | 5053.4  | 4836.8  | 4528.3  | 4410.5  | 4325.3  | 4233.3  | 4287.4  | 4388.9  | 4066.8  |
| 32.5° | 5629.9  | 5579.8  | 5386.3  | 5112.9  | 4778.7  | 4660.9  | 4578.4  | 4476.9  | 4567.5  | 4738.1  | 4340.2  |
| 35°   | 6012.9  | 5968.2  | 5744.9  | 5422.8  | 5111.6  | 5014.1  | 4938.3  | 4850.4  | 4966.8  | 5205.0  | 4725.9  |
| 37.5° | 6443.3  | 6394.5  | 6122.5  | 5773.4  | 5516.2  | 5445.9  | 5390.4  | 5302.4  | 5505.4  | 5854.6  | 5263.1  |
| 40°   | 6972.4  | 6889.9  | 6523.1  | 6175.3  | 5984.5  | 5950.6  | 5912.8  | 5900.6  | 6215.9  | 6699.0  | 5979.1  |
| 42.5° | 7578.7  | 7443.4  | 6942.6  | 6598.9  | 6498.8  | 6523.1  | 6513.6  | 6567.8  | 7105.0  | 7749.2  | 6850.6  |
| 45°   | 8185.0  | 8010.4  | 7409.6  | 7050.9  | 7064.4  | 7149.7  | 7202.5  | 7419.0  | 8218.8  | 8953.7  | 7788.5  |
| 47.5° | 8699.3  | 8527.4  | 7857.5  | 7539.5  | 7701.9  | 7869.7  | 8013.1  | 8423.2  | 9363.8  | 10139.2 | 8517.9  |
| 50°   | 9139.1  | 8976.7  | 8332.5  | 8076.7  | 8442.2  | 8712.8  | 8945.6  | 9553.2  | 10595.3 | 11041.9 | 9029.5  |
| 52.5° | 9499.1  | 9390.8  | 8825.1  | 8692.5  | 9288.0  | 9684.5  | 10025.6 | 10753.7 | 11686.1 | 11775.4 | 9427.4  |
| 55°   | 9849.6  | 9772.5  | 9354.3  | 9424.7  | 10281.3 | 10821.3 | 11253.0 | 12027.2 | 12625.3 | 12387.1 | 9809.0  |
| 57.5° | 10252.9 | 10182.5 | 9957.9  | 10353.1 | 11587.3 | 12266.7 | 12737.7 | 13155.8 | 13452.2 | 13012.4 | 10169.0 |
| 60°   | 10664.3 | 10623.7 | 10629.2 | 11384.3 | 13086.8 | 13739.1 | 13999.0 | 14107.2 | 14264.2 | 13601.1 | 10189.3 |
| 62.5° | 11056.8 | 11133.9 | 11396.5 | 12532.0 | 14522.7 | 15023.5 | 15154.7 | 15261.6 | 15077.6 | 13694.5 | 9413.9  |
| 65°   | 11721.3 | 11847.2 | 12473.8 | 14068.0 | 16102.1 | 16638.0 | 16773.3 | 16406.6 | 15206.2 | 12487.3 | 7657.2  |
| 67.5° | 12046.1 | 12276.2 | 13394.0 | 15499.8 | 17634.1 | 18229.5 | 18179.4 | 16481.0 | 13645.8 | 9522.1  | 4914.0  |
| 69°   | 11978.4 | 12223.4 | 13606.5 | 15938.3 | 18142.9 | 18682.9 | 18364.9 | 15570.2 | 11625.2 | 6898.0  | 3016.6  |
| 70°   | 11710.5 | 11958.1 | 13496.9 | 15922.1 | 18207.9 | 18635.5 | 18021.1 | 14445.6 | 9829.3  | 5043.9  | 1886.6  |
| 72.5° | 9779.3  | 9993.1  | 11982.5 | 14391.4 | 16773.3 | 16425.5 | 15076.2 | 10008.0 | 4789.5  | 1373.6  | 424.9   |
| 75°   | 6019.7  | 6138.8  | 8597.8  | 10841.6 | 12668.6 | 11775.4 | 10044.5 | 4978.9  | 1427.8  | 388.4   | 235.5   |
| 77.5° | 3180.4  | 3234.5  | 4706.9  | 6390.5  | 8030.7  | 6644.9  | 5148.1  | 1942.0  | 657.7   | 243.6   | 170.5   |
| 80°   | 1879.8  | 1920.4  | 2534.8  | 2921.9  | 3475.4  | 2902.9  | 2058.4  | 1192.3  | 471.0   | 152.9   | 151.6   |
| 82.5° | 1075.9  | 1101.6  | 1837.8  | 1624.0  | 1369.6  | 1169.3  | 1024.5  | 1130.0  | 282.8   | 102.9   | 157.0   |
| 85°   | 395.2   | 400.6   | 1034.0  | 1235.6  | 814.7   | 484.5   | 508.9   | 936.5   | 75.8    | 65.0    | 123.2   |
| 87.5° | 184.1   | 180.0   | 531.9   | 756.5   | 476.4   | 307.2   | 396.5   | 205.7   | 29.8    | 42.0    | 33.8    |
| 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°    | 3396.9 | 3396.9 | 3396.9 | 3396.9 | 3396.9 | 3396.9 | 3396.9 | 3396.9 | 3396.9 | 3396.9 | 3396.9 |
| 2.5°  | 3356.3 | 3306.2 | 3215.5 | 3122.2 | 3027.4 | 2954.3 | 2882.6 | 2825.8 | 2806.8 | 2771.6 | 2774.4 |
| 5°    | 3253.4 | 3161.4 | 2971.9 | 2779.8 | 2579.5 | 2414.4 | 2258.7 | 2132.9 | 2072.0 | 2009.7 | 2009.7 |
| 7.5°  | 3164.1 | 3030.1 | 2733.8 | 2421.1 | 2097.7 | 1825.7 | 1580.7 | 1396.6 | 1295.1 | 1213.9 | 1212.6 |
| 10°   | 3130.3 | 2948.9 | 2534.8 | 2086.9 | 1636.2 | 1265.4 | 974.4  | 787.6  | 691.6  | 629.3  | 626.6  |
| 12.5° | 3145.2 | 2920.5 | 2381.9 | 1778.3 | 1212.6 | 813.4  | 564.3  | 443.9  | 403.3  | 384.3  | 384.3  |
| 15°   | 3188.5 | 2912.4 | 2229.0 | 1476.5 | 856.7  | 508.9  | 374.9  | 342.4  | 339.7  | 339.7  | 339.7  |
| 17.5° | 3241.3 | 2915.1 | 2072.0 | 1182.8 | 583.3  | 364.0  | 323.4  | 319.4  | 322.1  | 322.1  | 322.1  |
| 20°   | 3295.4 | 2916.5 | 1902.8 | 910.8  | 411.4  | 316.7  | 304.5  | 303.1  | 305.9  | 305.9  | 307.2  |
| 22.5° | 3361.7 | 2923.2 | 1733.6 | 680.7  | 339.7  | 299.1  | 289.6  | 289.6  | 291.0  | 291.0  | 289.6  |
| 25°   | 3437.5 | 2936.8 | 1557.7 | 504.8  | 309.9  | 286.9  | 278.8  | 277.4  | 278.8  | 277.4  | 276.1  |
| 27.5° | 3532.2 | 2955.7 | 1361.5 | 395.2  | 296.4  | 274.7  | 268.0  | 268.0  | 266.6  | 265.3  | 263.9  |
| 30°   | 3651.3 | 2977.4 | 1140.9 | 335.6  | 282.8  | 263.9  | 257.1  | 255.8  | 254.4  | 251.7  | 251.7  |
| 32.5° | 3832.7 | 3024.7 | 923.0  | 304.5  | 268.0  | 249.0  | 243.6  | 243.6  | 240.9  | 238.2  | 236.8  |
| 35°   | 4111.5 | 3118.1 | 728.1  | 285.6  | 251.7  | 232.8  | 226.0  | 226.0  | 223.3  | 221.9  | 220.6  |
| 37.5° | 4497.2 | 3260.2 | 565.7  | 268.0  | 235.5  | 215.2  | 208.4  | 207.1  | 204.4  | 201.6  | 200.3  |
| 40°   | 5010.1 | 3436.1 | 445.2  | 251.7  | 219.2  | 197.6  | 192.2  | 189.5  | 184.1  | 180.0  | 180.0  |
| 42.5° | 5654.3 | 3636.4 | 361.3  | 234.1  | 200.3  | 181.3  | 177.3  | 173.2  | 163.8  | 159.7  | 158.3  |
| 45°   | 6328.2 | 3816.4 | 305.9  | 213.8  | 181.3  | 165.1  | 162.4  | 155.6  | 143.5  | 139.4  | 139.4  |
| 47.5° | 6814.1 | 3858.4 | 269.3  | 194.9  | 163.8  | 147.5  | 146.2  | 134.0  | 123.2  | 120.4  | 119.1  |
| 50°   | 7117.2 | 3775.8 | 239.5  | 175.9  | 147.5  | 131.3  | 127.2  | 112.3  | 105.6  | 102.9  | 101.5  |
| 52.5° | 7321.6 | 3628.3 | 215.2  | 159.7  | 132.6  | 116.4  | 106.9  | 96.1   | 90.7   | 88.0   | 88.0   |
| 55°   | 7485.3 | 3419.9 | 190.8  | 144.8  | 120.4  | 104.2  | 90.7   | 82.6   | 77.1   | 74.4   | 74.4   |
| 57.5° | 7531.4 | 3137.0 | 166.5  | 132.6  | 108.3  | 92.0   | 77.1   | 71.7   | 65.0   | 63.6   | 63.6   |
| 60°   | 7197.1 | 2626.8 | 147.5  | 117.7  | 97.4   | 79.8   | 67.7   | 60.9   | 54.1   | 52.8   | 51.4   |
| 62.5° | 6316.0 | 2032.7 | 129.9  | 104.2  | 85.3   | 69.0   | 58.2   | 50.1   | 44.7   | 44.7   | 44.7   |
| 65°   | 4817.9 | 1362.8 | 113.7  | 90.7   | 74.4   | 58.2   | 50.1   | 40.6   | 37.9   | 37.9   | 39.2   |
| 67.5° | 2884.0 | 741.6  | 97.4   | 77.1   | 63.6   | 48.7   | 42.0   | 35.2   | 33.8   | 35.2   | 35.2   |
| 69°   | 1690.3 | 435.8  | 88.0   | 69.0   | 55.5   | 43.3   | 36.5   | 31.1   | 33.8   | 35.2   | 35.2   |
| 70°   | 1043.4 | 293.7  | 81.2   | 62.3   | 50.1   | 39.2   | 33.8   | 29.8   | 32.5   | 33.8   | 33.8   |
| 72.5° | 291.0  | 151.6  | 65.0   | 48.7   | 40.6   | 32.5   | 27.1   | 27.1   | 31.1   | 32.5   | 32.5   |
| 75°   | 189.5  | 112.3  | 50.1   | 36.5   | 31.1   | 25.7   | 23.0   | 25.7   | 29.8   | 31.1   | 31.1   |
| 77.5° | 157.0  | 92.0   | 40.6   | 29.8   | 25.7   | 24.4   | 21.7   | 23.0   | 27.1   | 28.4   | 28.4   |
| 80°   | 143.5  | 65.0   | 32.5   | 27.1   | 23.0   | 21.7   | 20.3   | 18.9   | 24.4   | 25.7   | 25.7   |
| 82.5° | 136.7  | 51.4   | 28.4   | 24.4   | 21.7   | 18.9   | 17.6   | 18.9   | 21.7   | 23.0   | 24.4   |
| 85°   | 85.3   | 33.8   | 25.7   | 23.0   | 18.9   | 17.6   | 17.6   | 17.6   | 20.3   | 21.7   | 21.7   |
| 87.5° | 31.1   | 27.1   | 23.0   | 18.9   | 16.2   | 16.2   | 16.2   | 16.2   | 17.6   | 20.3   | 20.3   |
| 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)