

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: P300627

Luminaire Tested: **GAA-AF-05-LED-U-AFL-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300627  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24297)  
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-AFL-HSS  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive  
Frontline WITH HOUSESIDE SHIELD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22125.1 lumens  
Efficiency: N/A  
Efficacy: 79.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 279  
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

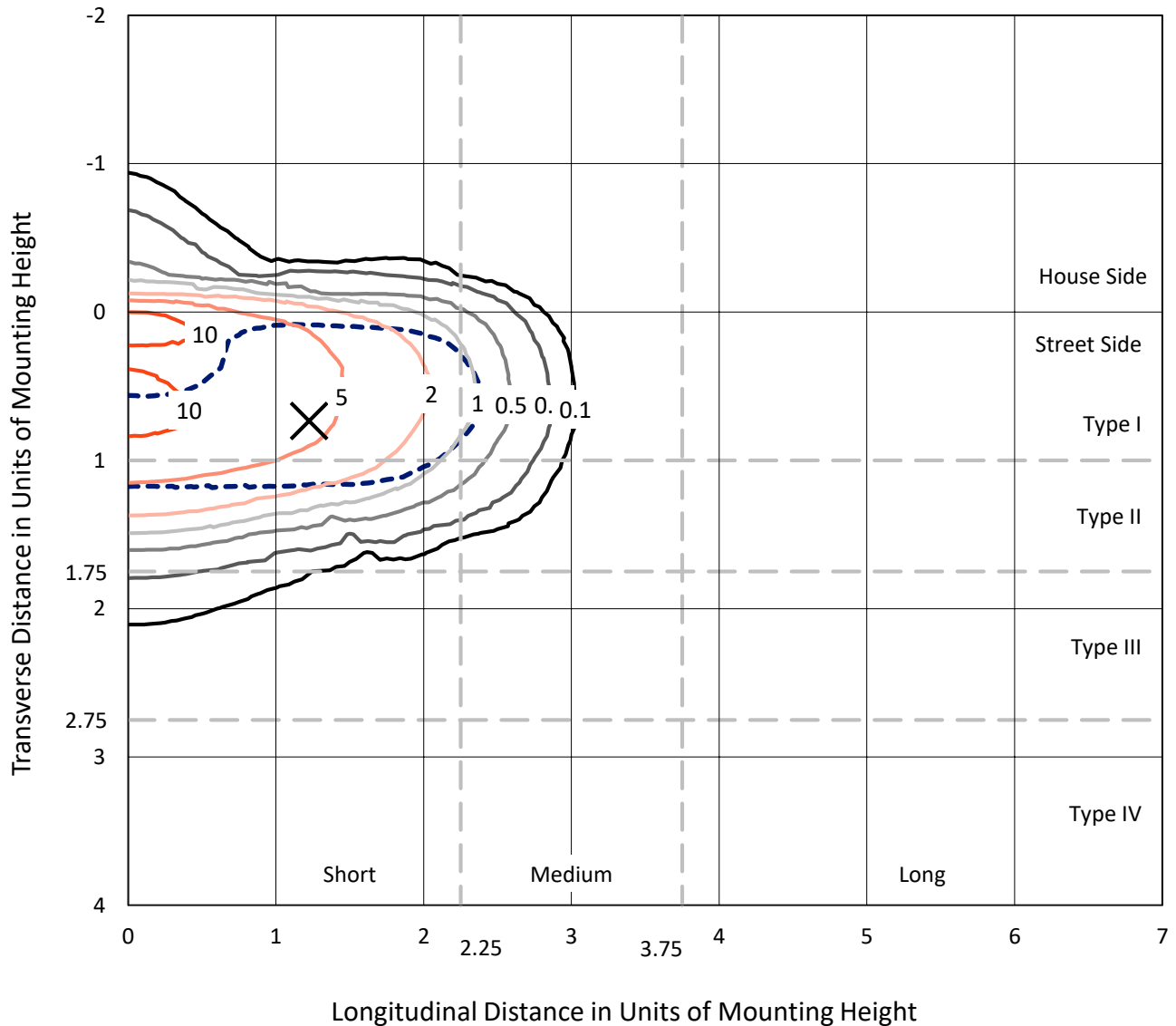


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

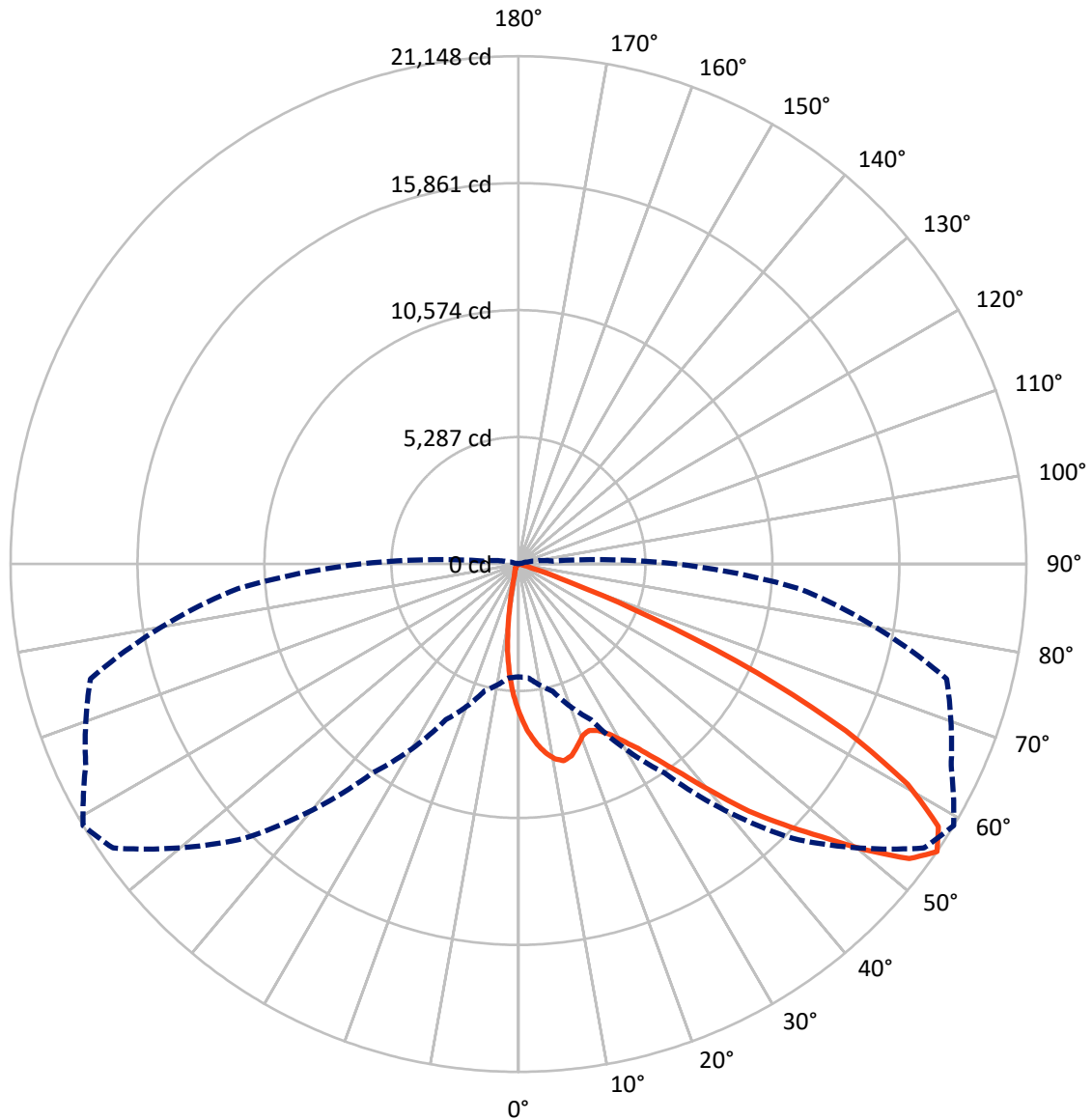


Based on 25 foot mounting height. Maximum calculated value = 12.4 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral      - - - Horizontal Cone Through 55-Deg Vertical

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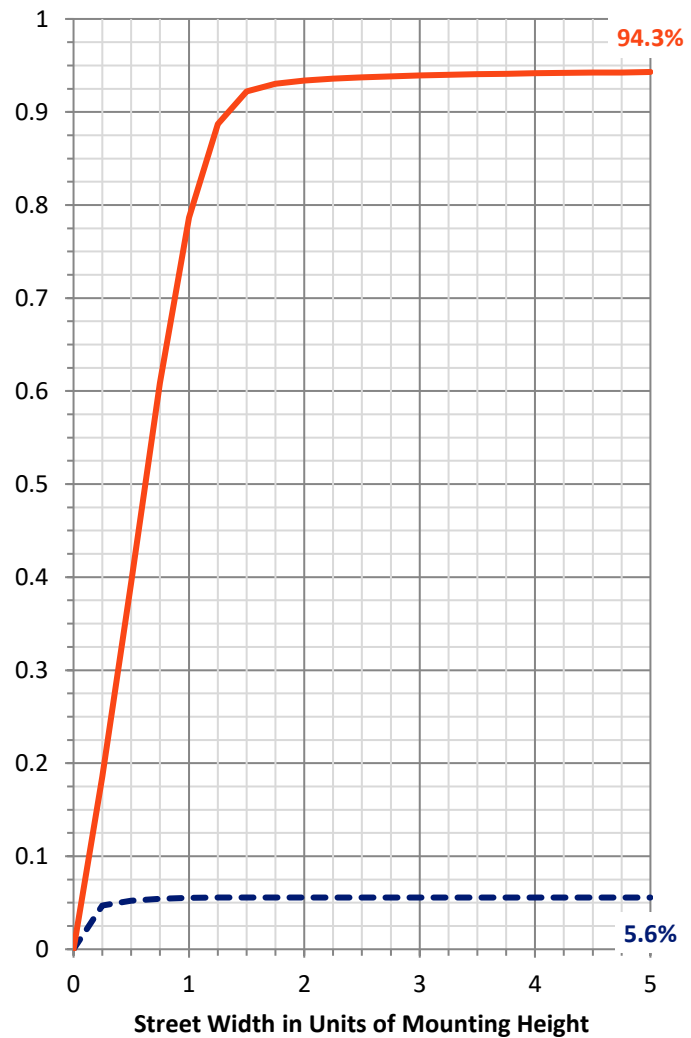
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1235.8   | 0.0    | 1235.8  |
|                    | % Fixture | 5.6      | 0.0    | 5.6     |
| <b>Street Side</b> | Lumens    | 20889.3  | 0.0    | 20889.3 |
|                    | % Fixture | 94.4     | 0.0    | 94.4    |
| <b>Total</b>       | Lumens    | 22125.1  | 0.0    | 22125.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 521.7   | 2.4       |
| 10°-20°   | 1249.0  | 5.6       |
| 20°-30°   | 2125.4  | 9.6       |
| 30°-40°   | 3655.2  | 16.5      |
| 40°-50°   | 5643.2  | 25.5      |
| 50°-60°   | 5673.2  | 25.6      |
| 60°-70°   | 2909.3  | 13.1      |
| 70°-80°   | 315.3   | 1.4       |
| 80°-90°   | 33.0    | 0.1       |
| 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°    | 22125.1 | 100.0     |
| 0°-180°   | 22125.1 | 100.0     |



--- HS    — SS

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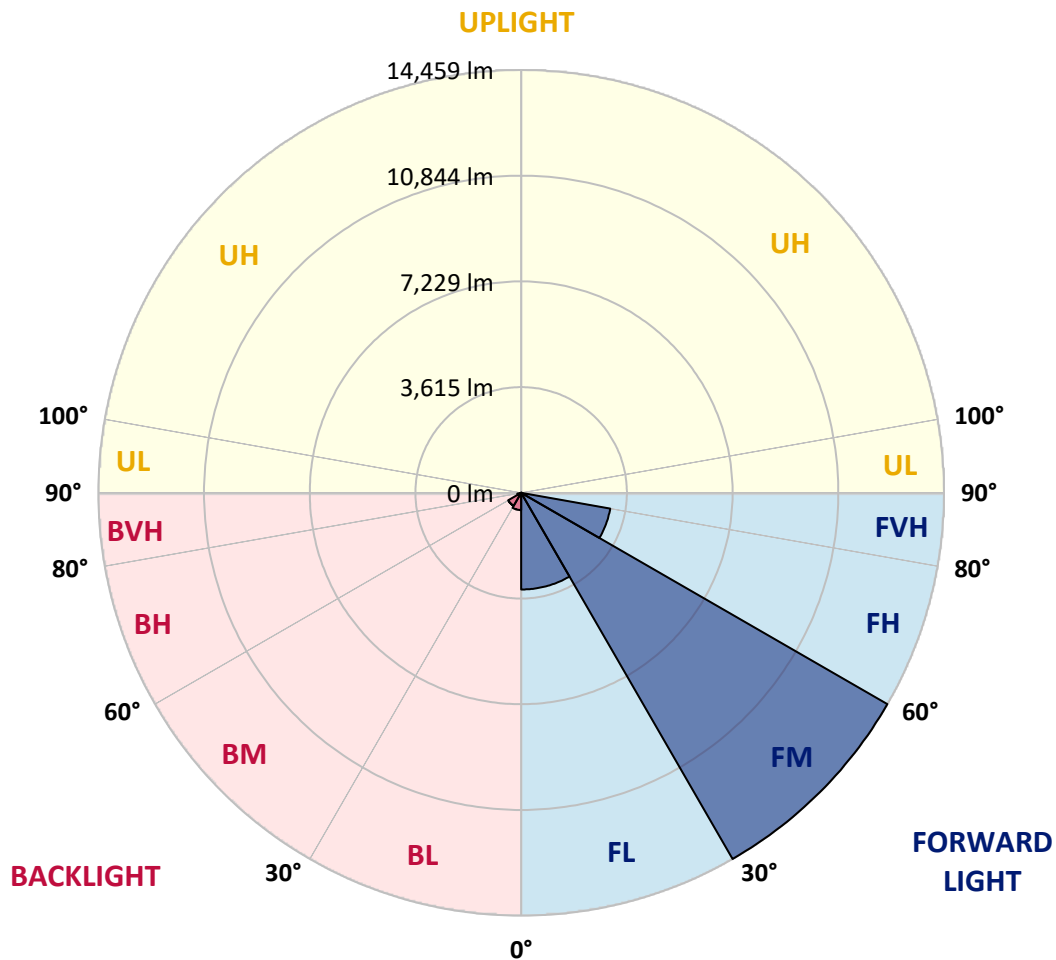
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 3306.2  | 14.9      |                         |      |         |
| FM   | (30°-60°)   | 14458.7 | 65.3      |                         |      |         |
| FH   | (60°-80°)   | 3092.1  | 14.0      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 32.3    | 0.1       |                         |      | G1/100  |
| BL   | (0°-30°)    | 589.9   | 2.7       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 512.9   | 2.3       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 132.4   | 0.6       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 0.7     | 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-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 59°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6228.1  | 6228.1  | 6228.1  | 6228.1  | 6228.1  | 6228.1  | 6228.1  | 6228.1  | 6228.1  | 6228.1  | 6228.1  |
| 2.5°  | 7369.3  | 7291.0  | 7267.5  | 7251.8  | 7180.0  | 7089.9  | 6967.2  | 6909.7  | 6792.2  | 6602.9  | 6370.5  |
| 5°    | 8044.4  | 8030.0  | 7977.8  | 7949.0  | 7872.0  | 7744.1  | 7548.2  | 7454.2  | 7267.5  | 6948.9  | 6532.4  |
| 7.5°  | 7749.3  | 7839.4  | 7911.2  | 8031.3  | 8182.8  | 8177.5  | 8013.0  | 7915.1  | 7706.2  | 7285.8  | 6712.6  |
| 10°   | 6609.4  | 6682.5  | 6800.0  | 7072.9  | 7629.2  | 8120.1  | 8313.3  | 8242.8  | 8075.7  | 7595.2  | 6886.2  |
| 12.5° | 6386.1  | 6378.3  | 6399.2  | 6478.8  | 6770.0  | 7469.9  | 8262.4  | 8404.7  | 8370.8  | 7878.5  | 7050.7  |
| 15°   | 6505.0  | 6495.8  | 6493.2  | 6520.6  | 6591.1  | 6886.2  | 7879.8  | 8288.5  | 8551.0  | 8141.0  | 7190.4  |
| 17.5° | 6837.9  | 6798.7  | 6777.8  | 6755.6  | 6734.8  | 6807.9  | 7420.2  | 7963.4  | 8578.4  | 8370.8  | 7306.6  |
| 20°   | 7408.5  | 7343.2  | 7266.2  | 7140.8  | 7023.3  | 6986.8  | 7227.0  | 7629.2  | 8480.5  | 8545.8  | 7382.4  |
| 22.5° | 8125.3  | 8041.8  | 7908.6  | 7680.1  | 7441.1  | 7302.7  | 7322.3  | 7523.4  | 8334.2  | 8736.4  | 7417.6  |
| 25°   | 8930.9  | 8823.9  | 8646.3  | 8329.0  | 7977.8  | 7732.3  | 7604.3  | 7674.9  | 8267.6  | 8959.7  | 7458.1  |
| 27.5° | 9794.0  | 9675.2  | 9442.8  | 9010.6  | 8612.3  | 8280.7  | 8019.6  | 8010.4  | 8381.2  | 9252.1  | 7523.4  |
| 30°   | 10649.2 | 10630.9 | 10328.0 | 9871.0  | 9343.5  | 8940.1  | 8564.0  | 8515.7  | 8698.5  | 9656.9  | 7652.7  |
| 32.5° | 11790.4 | 11653.3 | 11282.5 | 10812.4 | 10204.0 | 9719.6  | 9274.3  | 9162.0  | 9185.5  | 10128.2 | 7852.4  |
| 35°   | 13229.3 | 13079.1 | 12556.8 | 11907.9 | 11227.6 | 10655.7 | 10163.5 | 10010.7 | 9953.3  | 10899.9 | 8189.3  |
| 37.5° | 14158.9 | 14156.3 | 13828.6 | 13167.9 | 12438.0 | 11807.4 | 11272.0 | 11093.2 | 10976.9 | 11832.2 | 8711.6  |
| 40°   | 14183.7 | 14245.1 | 14288.2 | 14281.7 | 13762.0 | 13181.0 | 12705.7 | 12485.0 | 12214.7 | 13077.8 | 9386.6  |
| 42.5° | 13422.5 | 13580.5 | 13960.5 | 14605.5 | 14913.6 | 14682.5 | 14281.7 | 14064.9 | 13662.8 | 14410.9 | 10209.2 |
| 45°   | 12393.6 | 12503.3 | 13167.9 | 14356.1 | 15537.7 | 16171.0 | 15865.5 | 15477.7 | 14947.6 | 15801.5 | 10946.9 |
| 47.5° | 11932.7 | 11952.3 | 12381.9 | 13686.3 | 15584.7 | 17390.5 | 17575.9 | 16945.3 | 16114.8 | 16921.8 | 11524.0 |
| 50°   | 10555.2 | 10590.5 | 11183.2 | 12525.5 | 15033.7 | 17966.3 | 19294.2 | 18696.2 | 17387.9 | 17784.8 | 11734.2 |
| 52.5° | 7955.6  | 8005.2  | 8757.3  | 10617.9 | 13519.1 | 17720.8 | 20524.2 | 20379.2 | 18782.4 | 18206.6 | 11746.0 |
| 55°   | 4694.0  | 4759.2  | 5477.4  | 7147.4  | 10633.6 | 16159.2 | 20615.6 | 21148.3 | 19883.1 | 18455.9 | 11727.7 |
| 57.5° | 2192.3  | 2238.0  | 2649.2  | 3682.0  | 6613.3  | 12771.0 | 19239.4 | 20620.8 | 20490.2 | 18587.8 | 11857.0 |
| 60°   | 1164.7  | 1177.7  | 1277.0  | 1594.2  | 2988.7  | 8097.9  | 16553.6 | 18620.5 | 19936.6 | 18770.6 | 12015.0 |
| 62.5° | 890.5   | 894.4   | 889.2   | 927.0   | 1256.1  | 3594.6  | 12512.4 | 15307.9 | 17707.8 | 18633.5 | 11840.0 |
| 65°   | 771.7   | 778.2   | 741.6   | 732.5   | 805.6   | 1282.2  | 7433.3  | 10911.7 | 13914.8 | 16783.4 | 10647.9 |
| 67.5° | 692.0   | 694.6   | 650.2   | 612.4   | 625.4   | 693.3   | 2932.6  | 5973.5  | 9210.3  | 12302.2 | 7717.9  |
| 70°   | 637.2   | 634.6   | 586.3   | 526.2   | 509.2   | 474.0   | 932.3   | 2189.6  | 4401.5  | 6238.6  | 3589.3  |
| 72.5° | 564.1   | 565.4   | 541.9   | 463.5   | 423.0   | 331.6   | 432.2   | 638.5   | 1313.5  | 1700.0  | 840.9   |
| 75°   | 500.1   | 493.6   | 464.8   | 415.2   | 348.6   | 218.1   | 214.1   | 284.6   | 404.8   | 402.2   | 181.5   |
| 77.5° | 361.7   | 355.1   | 364.3   | 340.8   | 267.7   | 141.0   | 107.1   | 137.1   | 164.5   | 159.3   | 50.9    |
| 80°   | 265.1   | 261.1   | 235.0   | 283.3   | 236.3   | 96.6    | 66.6    | 73.1    | 84.9    | 71.8    | 15.7    |
| 82.5° | 181.5   | 180.2   | 165.8   | 156.7   | 134.5   | 58.8    | 41.8    | 45.7    | 54.8    | 40.5    | 7.8     |
| 85°   | 28.7    | 32.6    | 120.1   | 95.3    | 79.6    | 26.1    | 28.7    | 31.3    | 36.6    | 22.2    | 2.6     |
| 87.5° | 0.0     | 0.0     | 56.1    | 49.6    | 15.7    | 10.4    | 17.0    | 18.3    | 18.3    | 11.8    | 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     |



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**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 6228.1 | 6228.1 | 6228.1 | 6228.1 | 6228.1 | 6228.1 | 6228.1 | 6228.1 | 6228.1 | 6228.1 | 6228.1 |
| 2.5°  | 6251.7 | 6121.1 | 5879.5 | 5630.1 | 5399.0 | 5123.5 | 4934.2 | 4791.9 | 4627.4 | 4583.0 | 4679.6 |
| 5°    | 6294.7 | 6048.0 | 5528.3 | 4962.9 | 4431.5 | 3842.6 | 3392.2 | 3035.7 | 2713.2 | 2603.5 | 2702.8 |
| 7.5°  | 6362.6 | 5995.7 | 5148.3 | 4217.4 | 3293.0 | 2373.7 | 1744.4 | 1330.5 | 1066.7 | 988.4  | 1030.2 |
| 10°   | 6430.5 | 5920.0 | 4708.3 | 3334.7 | 2070.8 | 1155.5 | 752.1  | 600.6  | 544.5  | 532.7  | 539.3  |
| 12.5° | 6486.7 | 5818.2 | 4171.7 | 2371.1 | 1107.2 | 618.9  | 492.2  | 467.4  | 459.6  | 459.6  | 462.2  |
| 15°   | 6520.6 | 5664.1 | 3535.8 | 1508.1 | 637.2  | 467.4  | 429.6  | 421.7  | 421.7  | 423.0  | 425.7  |
| 17.5° | 6516.7 | 5468.2 | 2839.9 | 912.7  | 476.6  | 413.9  | 391.7  | 385.2  | 383.9  | 386.5  | 387.8  |
| 20°   | 6468.4 | 5212.3 | 2141.3 | 601.9  | 415.2  | 377.3  | 355.1  | 343.4  | 342.1  | 344.7  | 347.3  |
| 22.5° | 6377.0 | 4896.3 | 1531.6 | 463.5  | 374.7  | 342.1  | 314.7  | 304.2  | 304.2  | 306.8  | 309.4  |
| 25°   | 6266.0 | 4509.9 | 1047.2 | 393.0  | 338.2  | 304.2  | 278.1  | 269.0  | 271.6  | 278.1  | 279.4  |
| 27.5° | 6127.6 | 4075.1 | 711.6  | 336.9  | 293.8  | 266.4  | 246.8  | 240.2  | 246.8  | 255.9  | 258.5  |
| 30°   | 6008.8 | 3622.0 | 507.9  | 291.2  | 249.4  | 229.8  | 218.1  | 218.1  | 227.2  | 244.2  | 248.1  |
| 32.5° | 5917.4 | 3183.3 | 391.7  | 257.2  | 216.7  | 199.8  | 193.2  | 199.8  | 214.1  | 231.1  | 235.0  |
| 35°   | 5905.6 | 2821.6 | 331.6  | 229.8  | 193.2  | 176.3  | 173.7  | 185.4  | 199.8  | 212.8  | 215.4  |
| 37.5° | 5995.7 | 2487.3 | 299.0  | 207.6  | 172.4  | 156.7  | 154.1  | 168.4  | 182.8  | 198.5  | 202.4  |
| 40°   | 6166.8 | 2224.9 | 275.5  | 186.7  | 155.4  | 138.4  | 133.2  | 143.6  | 163.2  | 184.1  | 189.3  |
| 42.5° | 6388.7 | 2008.2 | 249.4  | 165.8  | 138.4  | 114.9  | 108.4  | 120.1  | 141.0  | 163.2  | 169.7  |
| 45°   | 6600.3 | 1821.4 | 220.7  | 142.3  | 116.2  | 88.8   | 86.2   | 101.8  | 112.3  | 134.5  | 139.7  |
| 47.5° | 6716.5 | 1656.9 | 195.9  | 116.2  | 90.1   | 71.8   | 71.8   | 75.7   | 86.2   | 112.3  | 117.5  |
| 50°   | 6677.3 | 1525.0 | 169.7  | 86.2   | 62.7   | 54.8   | 54.8   | 53.5   | 69.2   | 90.1   | 94.0   |
| 52.5° | 6599.0 | 1449.3 | 146.2  | 66.6   | 43.1   | 39.2   | 35.3   | 39.2   | 48.3   | 57.5   | 58.8   |
| 55°   | 6587.2 | 1436.3 | 122.7  | 53.5   | 30.0   | 26.1   | 19.6   | 19.6   | 19.6   | 18.3   | 15.7   |
| 57.5° | 6678.6 | 1457.2 | 103.1  | 43.1   | 22.2   | 17.0   | 10.4   | 0.0    | 0.0    | 0.0    | 0.0    |
| 60°   | 6772.6 | 1479.3 | 88.8   | 30.0   | 15.7   | 9.1    | 1.3    | 0.0    | 0.0    | 0.0    | 0.0    |
| 62.5° | 6615.9 | 1429.7 | 74.4   | 18.3   | 11.8   | 3.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 65°   | 5811.6 | 1216.9 | 58.8   | 13.1   | 7.8    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 67.5° | 4133.8 | 814.8  | 39.2   | 7.8    | 1.3    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 70°   | 1886.7 | 340.8  | 24.8   | 2.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 72.5° | 403.5  | 105.8  | 17.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 82.3   | 77.0   | 6.5    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 26.1   | 121.4  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 15.7   | 87.5   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 2.6    | 13.1   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 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)