

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: P193462

Luminaire Tested: **GAN-AF-04-LED-U-AFL-8030-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P193462  
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: GAN-AF-04-LED-U-AFL-8030-800-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12959 lumens  
Efficiency: N/A  
Efficacy: 75.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 171  
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

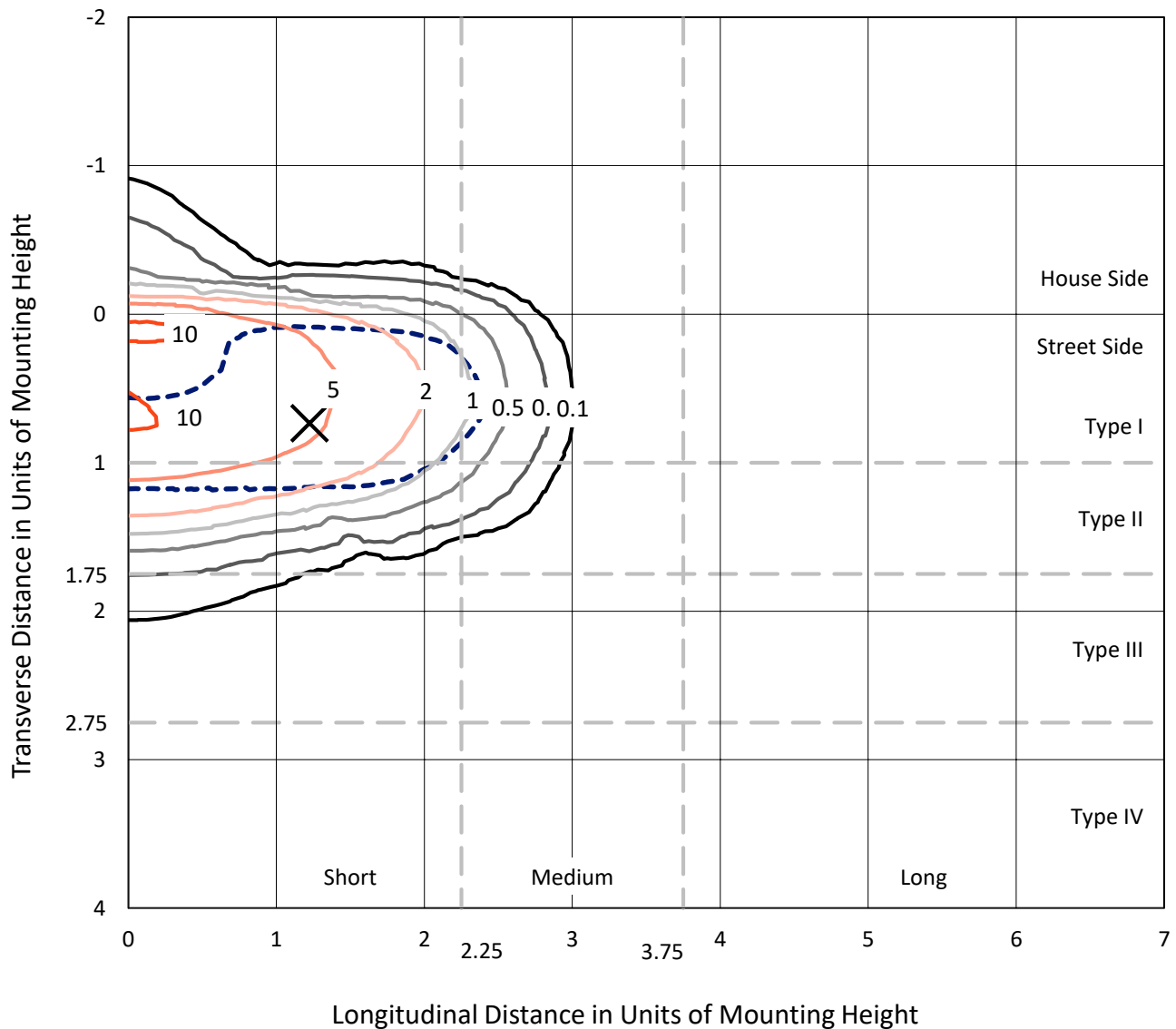


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

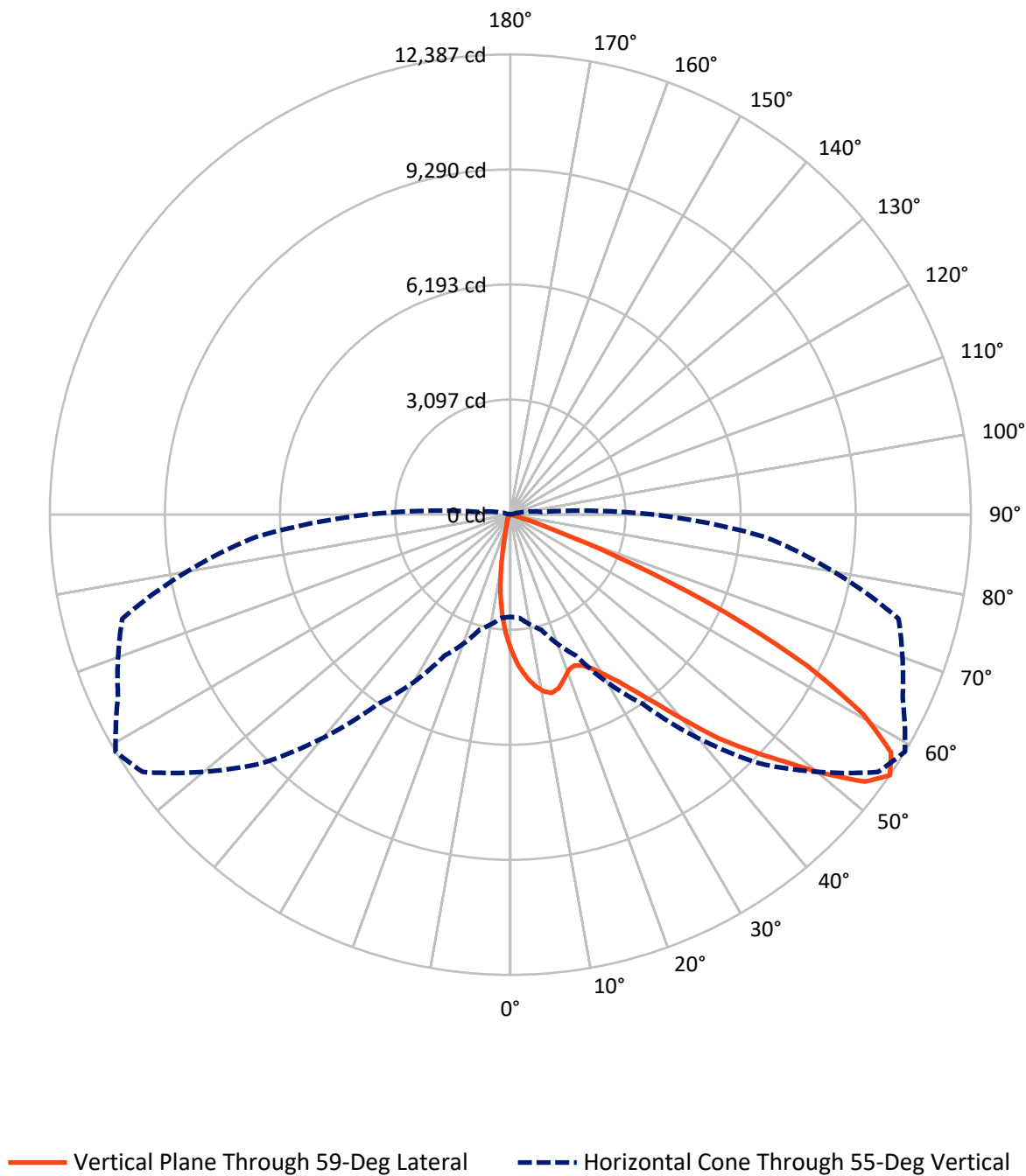


Based on 20 foot mounting height. Maximum calculated value = 11.3 fc  
Type II - Short - Full Cutoff

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## Luminous Intensity Polar Plot



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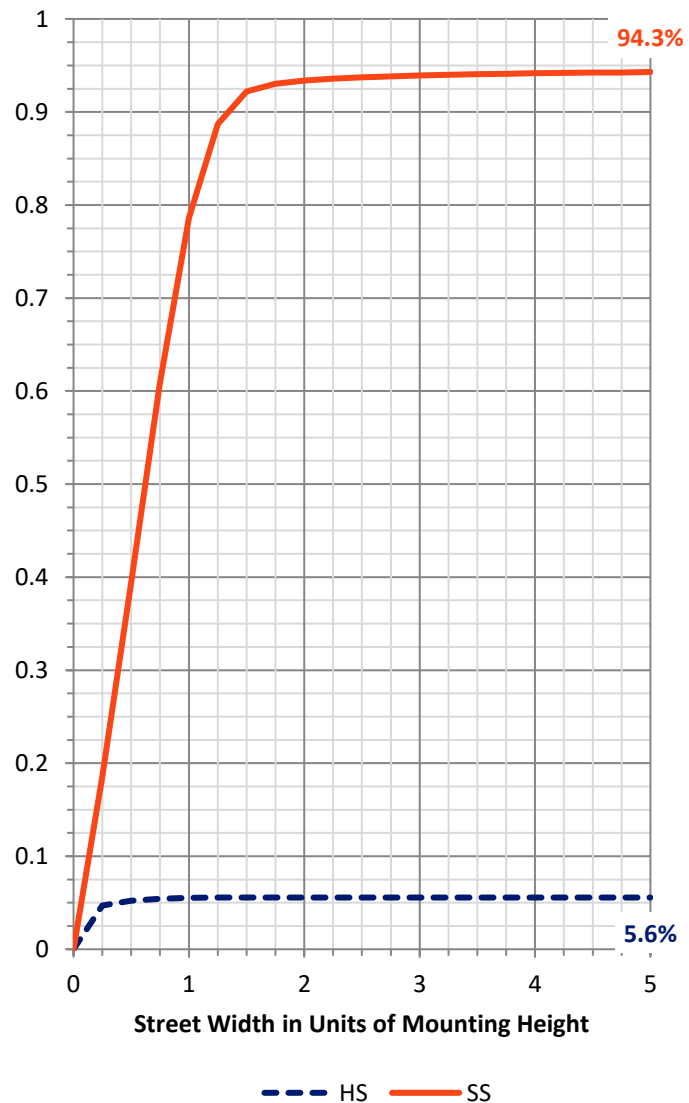
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 723.8    | 0.0    | 723.8   |
|                    | % Fixture | 5.6      | 0.0    | 5.6     |
| <b>Street Side</b> | Lumens    | 12235.2  | 0.0    | 12235.2 |
|                    | % Fixture | 94.4     | 0.0    | 94.4    |
| <b>Total</b>       | Lumens    | 12959.0  | 0.0    | 12959.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 305.5   | 2.4       |
| 10°-20°   | 731.6   | 5.6       |
| 20°-30°   | 1244.9  | 9.6       |
| 30°-40°   | 2140.9  | 16.5      |
| 40°-50°   | 3305.3  | 25.5      |
| 50°-60°   | 3322.9  | 25.6      |
| 60°-70°   | 1704.0  | 13.1      |
| 70°-80°   | 184.7   | 1.4       |
| 80°-90°   | 19.3    | 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°    | 12959.0 | 100.0     |
| 0°-180°   | 12959.0 | 100.0     |

**Coefficient of Utilization**



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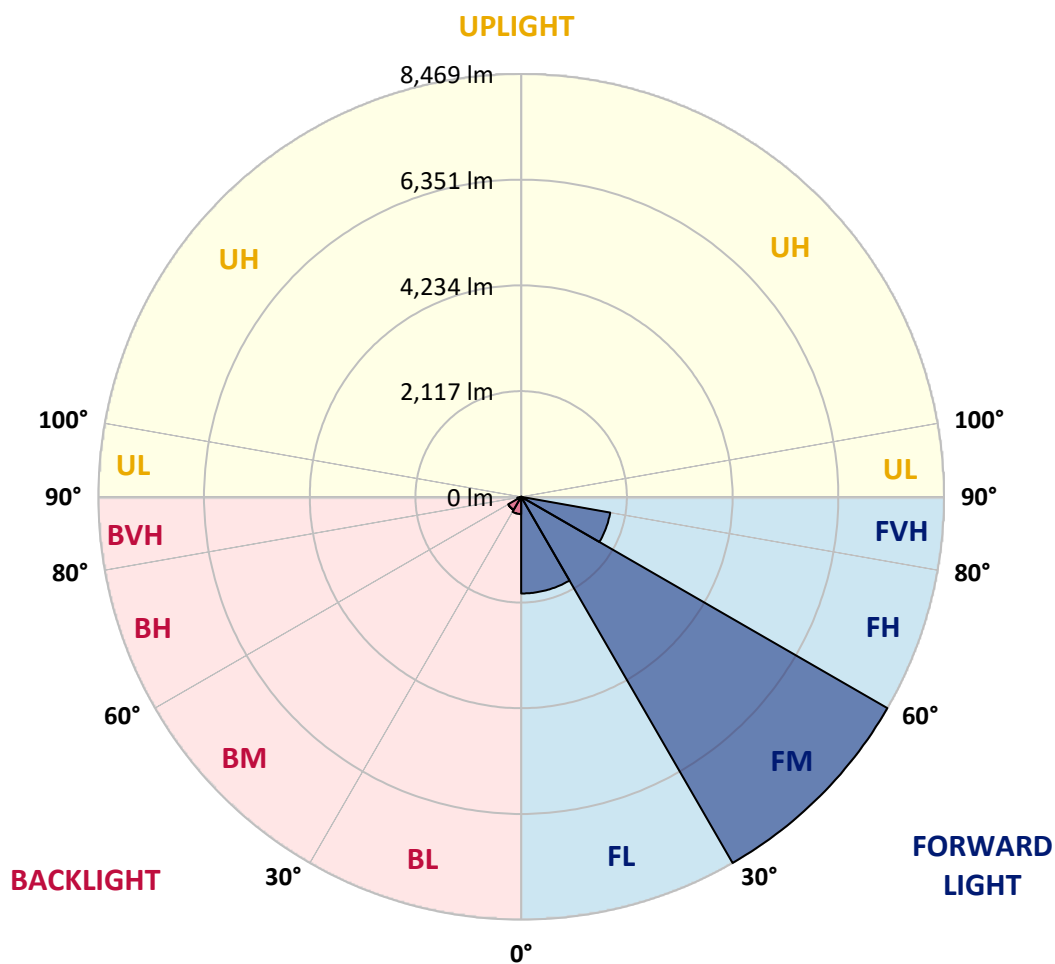
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1936.5 | 14.9      |                         |      |         |
| FM   | (30°-60°)   | 8468.7 | 65.3      |                         |      |         |
| FH   | (60°-80°)   | 1811.1 | 14.0      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 18.9   | 0.1       |                         |      | G1/100  |
| BL   | (0°-30°)    | 345.5  | 2.7       | B1/500                  |      |         |
| BM   | (30°-60°)   | 300.4  | 2.3       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 77.5   | 0.6       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 0.4    | 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-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 55°     | 59°     | 65°     | 75°     | 85°    |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|
| 0°    | 3647.9 | 3647.9 | 3647.9 | 3647.9 | 3647.9 | 3647.9  | 3647.9  | 3647.9  | 3647.9  | 3647.9  | 3647.9 |
| 2.5°  | 4316.3 | 4270.4 | 4256.7 | 4247.5 | 4205.4 | 4152.7  | 4080.8  | 4047.1  | 3978.3  | 3867.4  | 3731.3 |
| 5°    | 4711.7 | 4703.3 | 4672.7 | 4655.9 | 4610.7 | 4535.8  | 4421.1  | 4366.0  | 4256.7  | 4070.1  | 3826.1 |
| 7.5°  | 4538.9 | 4591.6 | 4633.7 | 4704.0 | 4792.8 | 4789.7  | 4693.3  | 4636.0  | 4513.6  | 4267.4  | 3931.6 |
| 10°   | 3871.2 | 3914.0 | 3982.9 | 4142.7 | 4468.5 | 4756.1  | 4869.2  | 4827.9  | 4730.0  | 4448.6  | 4033.4 |
| 12.5° | 3740.4 | 3735.9 | 3748.1 | 3794.7 | 3965.3 | 4375.2  | 4839.4  | 4922.8  | 4902.9  | 4614.6  | 4129.7 |
| 15°   | 3810.0 | 3804.7 | 3803.2 | 3819.2 | 3860.5 | 4033.4  | 4615.3  | 4854.7  | 5008.4  | 4768.3  | 4211.5 |
| 17.5° | 4005.1 | 3982.1 | 3969.9 | 3956.9 | 3944.6 | 3987.5  | 4346.1  | 4664.3  | 5024.5  | 4902.9  | 4279.6 |
| 20°   | 4339.3 | 4301.0 | 4255.9 | 4182.5 | 4113.7 | 4092.2  | 4233.0  | 4468.5  | 4967.1  | 5005.4  | 4324.0 |
| 22.5° | 4759.1 | 4710.2 | 4632.2 | 4498.3 | 4358.4 | 4277.3  | 4288.8  | 4406.6  | 4881.5  | 5117.0  | 4344.6 |
| 25°   | 5231.0 | 5168.3 | 5064.2 | 4878.4 | 4672.7 | 4528.9  | 4454.0  | 4495.3  | 4842.5  | 5247.8  | 4368.3 |
| 27.5° | 5736.5 | 5666.9 | 5530.8 | 5277.6 | 5044.4 | 4850.1  | 4697.2  | 4691.8  | 4909.0  | 5419.1  | 4406.6 |
| 30°   | 6237.4 | 6226.7 | 6049.3 | 5781.6 | 5472.6 | 5236.3  | 5016.1  | 4987.8  | 5094.8  | 5656.2  | 4482.3 |
| 32.5° | 6905.8 | 6825.5 | 6608.3 | 6333.0 | 5976.6 | 5692.9  | 5432.1  | 5366.3  | 5380.1  | 5932.3  | 4599.3 |
| 35°   | 7748.6 | 7660.6 | 7354.7 | 6974.6 | 6576.2 | 6241.2  | 5952.9  | 5863.4  | 5829.8  | 6384.2  | 4796.6 |
| 37.5° | 8293.1 | 8291.5 | 8099.6 | 7712.6 | 7285.1 | 6915.7  | 6602.2  | 6497.4  | 6429.3  | 6930.3  | 5102.5 |
| 40°   | 8307.6 | 8343.5 | 8368.8 | 8365.0 | 8060.6 | 7720.3  | 7441.9  | 7312.6  | 7154.3  | 7659.8  | 5497.9 |
| 42.5° | 7861.7 | 7954.3 | 8176.8 | 8554.6 | 8735.1 | 8599.7  | 8365.0  | 8238.0  | 8002.5  | 8440.7  | 5979.7 |
| 45°   | 7259.1 | 7323.4 | 7712.6 | 8408.6 | 9100.7 | 9471.6  | 9292.6  | 9065.5  | 8755.0  | 9255.1  | 6411.8 |
| 47.5° | 6989.2 | 7000.6 | 7252.2 | 8016.2 | 9128.2 | 10185.9 | 10294.5 | 9925.1  | 9438.7  | 9911.3  | 6749.8 |
| 50°   | 6182.3 | 6203.0 | 6550.2 | 7336.4 | 8805.5 | 10523.1 | 11300.9 | 10950.6 | 10184.3 | 10416.8 | 6872.9 |
| 52.5° | 4659.7 | 4688.8 | 5129.3 | 6219.0 | 7918.3 | 10379.3 | 12021.3 | 11936.4 | 11001.1 | 10663.8 | 6879.8 |
| 55°   | 2749.3 | 2787.6 | 3208.2 | 4186.3 | 6228.2 | 9464.7  | 12074.8 | 12386.8 | 11645.8 | 10809.9 | 6869.1 |
| 57.5° | 1284.0 | 1310.8 | 1551.7 | 2156.6 | 3873.5 | 7480.1  | 11268.8 | 12077.9 | 12001.4 | 10887.1 | 6944.8 |
| 60°   | 682.2  | 689.8  | 747.9  | 933.8  | 1750.5 | 4743.0  | 9695.6  | 10906.3 | 11677.1 | 10994.2 | 7037.3 |
| 62.5° | 521.6  | 523.9  | 520.8  | 543.0  | 735.7  | 2105.4  | 7328.7  | 8966.1  | 10371.7 | 10913.9 | 6934.9 |
| 65°   | 452.0  | 455.8  | 434.4  | 429.0  | 471.9  | 751.0   | 4353.8  | 6391.1  | 8150.1  | 9830.2  | 6236.6 |
| 67.5° | 405.3  | 406.9  | 380.9  | 358.7  | 366.3  | 406.1   | 1717.7  | 3498.8  | 5394.6  | 7205.6  | 4520.5 |
| 70°   | 373.2  | 371.7  | 343.4  | 308.2  | 298.3  | 277.6   | 546.0   | 1282.5  | 2578.0  | 3654.0  | 2102.3 |
| 72.5° | 330.4  | 331.1  | 317.4  | 271.5  | 247.8  | 194.2   | 253.1   | 374.0   | 769.3   | 995.7   | 492.5  |
| 75°   | 292.9  | 289.1  | 272.3  | 243.2  | 204.2  | 127.7   | 125.4   | 166.7   | 237.1   | 235.5   | 106.3  |
| 77.5° | 211.8  | 208.0  | 213.4  | 199.6  | 156.8  | 82.6    | 62.7    | 80.3    | 96.4    | 93.3    | 29.8   |
| 80°   | 155.2  | 153.0  | 137.7  | 166.0  | 138.4  | 56.6    | 39.0    | 42.8    | 49.7    | 42.1    | 9.2    |
| 82.5° | 106.3  | 105.5  | 97.1   | 91.8   | 78.8   | 34.4    | 24.5    | 26.8    | 32.1    | 23.7    | 4.6    |
| 85°   | 16.8   | 19.1   | 70.4   | 55.8   | 46.7   | 15.3    | 16.8    | 18.4    | 21.4    | 13.0    | 1.5    |
| 87.5° | 0.0    | 0.0    | 32.9   | 29.1   | 9.2    | 6.1     | 9.9     | 10.7    | 10.7    | 6.9     | 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°    | 3647.9 | 3647.9 | 3647.9 | 3647.9 | 3647.9 | 3647.9 | 3647.9 | 3647.9 | 3647.9 | 3647.9 | 3647.9 |
| 2.5°  | 3661.7 | 3585.2 | 3443.7 | 3297.7 | 3162.3 | 3000.9 | 2890.0 | 2806.7 | 2710.3 | 2684.3 | 2740.9 |
| 5°    | 3686.9 | 3542.4 | 3238.0 | 2906.9 | 2595.6 | 2250.7 | 1986.9 | 1778.1 | 1589.2 | 1524.9 | 1583.1 |
| 7.5°  | 3726.7 | 3511.8 | 3015.5 | 2470.2 | 1928.7 | 1390.3 | 1021.7 | 779.3  | 624.8  | 578.9  | 603.4  |
| 10°   | 3766.4 | 3467.4 | 2757.7 | 1953.2 | 1212.9 | 676.8  | 440.5  | 351.8  | 318.9  | 312.0  | 315.8  |
| 12.5° | 3799.3 | 3407.8 | 2443.4 | 1388.8 | 648.5  | 362.5  | 288.3  | 273.8  | 269.2  | 269.2  | 270.7  |
| 15°   | 3819.2 | 3317.5 | 2071.0 | 883.3  | 373.2  | 273.8  | 251.6  | 247.0  | 247.0  | 247.8  | 249.3  |
| 17.5° | 3816.9 | 3202.8 | 1663.4 | 534.6  | 279.1  | 242.4  | 229.4  | 225.6  | 224.8  | 226.4  | 227.1  |
| 20°   | 3788.6 | 3052.9 | 1254.2 | 352.6  | 243.2  | 221.0  | 208.0  | 201.1  | 200.4  | 201.9  | 203.4  |
| 22.5° | 3735.1 | 2867.9 | 897.1  | 271.5  | 219.5  | 200.4  | 184.3  | 178.2  | 178.2  | 179.7  | 181.2  |
| 25°   | 3670.1 | 2641.5 | 613.3  | 230.2  | 198.1  | 178.2  | 162.9  | 157.5  | 159.1  | 162.9  | 163.7  |
| 27.5° | 3589.0 | 2386.8 | 416.8  | 197.3  | 172.1  | 156.0  | 144.5  | 140.7  | 144.5  | 149.9  | 151.4  |
| 30°   | 3519.4 | 2121.4 | 297.5  | 170.5  | 146.1  | 134.6  | 127.7  | 127.7  | 133.1  | 143.0  | 145.3  |
| 32.5° | 3465.9 | 1864.5 | 229.4  | 150.7  | 127.0  | 117.0  | 113.2  | 117.0  | 125.4  | 135.4  | 137.7  |
| 35°   | 3459.0 | 1652.6 | 194.2  | 134.6  | 113.2  | 103.2  | 101.7  | 108.6  | 117.0  | 124.7  | 126.2  |
| 37.5° | 3511.8 | 1456.9 | 175.1  | 121.6  | 100.9  | 91.8   | 90.2   | 98.7   | 107.1  | 116.2  | 118.5  |
| 40°   | 3612.0 | 1303.2 | 161.4  | 109.4  | 91.0   | 81.1   | 78.0   | 84.1   | 95.6   | 107.8  | 110.9  |
| 42.5° | 3742.0 | 1176.2 | 146.1  | 97.1   | 81.1   | 67.3   | 63.5   | 70.4   | 82.6   | 95.6   | 99.4   |
| 45°   | 3865.9 | 1066.8 | 129.2  | 83.4   | 68.1   | 52.0   | 50.5   | 59.7   | 65.8   | 78.8   | 81.8   |
| 47.5° | 3933.9 | 970.5  | 114.7  | 68.1   | 52.8   | 42.1   | 42.1   | 44.4   | 50.5   | 65.8   | 68.8   |
| 50°   | 3911.0 | 893.2  | 99.4   | 50.5   | 36.7   | 32.1   | 32.1   | 31.4   | 40.5   | 52.8   | 55.1   |
| 52.5° | 3865.1 | 848.9  | 85.7   | 39.0   | 25.2   | 22.9   | 20.6   | 22.9   | 28.3   | 33.6   | 34.4   |
| 55°   | 3858.2 | 841.2  | 71.9   | 31.4   | 17.6   | 15.3   | 11.5   | 11.5   | 11.5   | 10.7   | 9.2    |
| 57.5° | 3911.8 | 853.5  | 60.4   | 25.2   | 13.0   | 9.9    | 6.1    | 0.0    | 0.0    | 0.0    | 0.0    |
| 60°   | 3966.8 | 866.5  | 52.0   | 17.6   | 9.2    | 5.4    | 0.8    | 0.0    | 0.0    | 0.0    | 0.0    |
| 62.5° | 3875.0 | 837.4  | 43.6   | 10.7   | 6.9    | 2.3    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 65°   | 3404.0 | 712.8  | 34.4   | 7.6    | 4.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 67.5° | 2421.2 | 477.2  | 22.9   | 4.6    | 0.8    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 70°   | 1105.1 | 199.6  | 14.5   | 1.5    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 72.5° | 236.3  | 61.9   | 9.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 48.2   | 45.1   | 3.8    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 15.3   | 71.1   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 9.2    | 51.2   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 1.5    | 7.6    | 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)