

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: P323458

Luminaire Tested: **GAN-SA4D-727-U-SL3-HSS**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P323458  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-23)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA4D-727-U-SL3-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 22362 lumens  
Efficiency: N/A  
Efficacy: 86.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B2 - U0 - G4

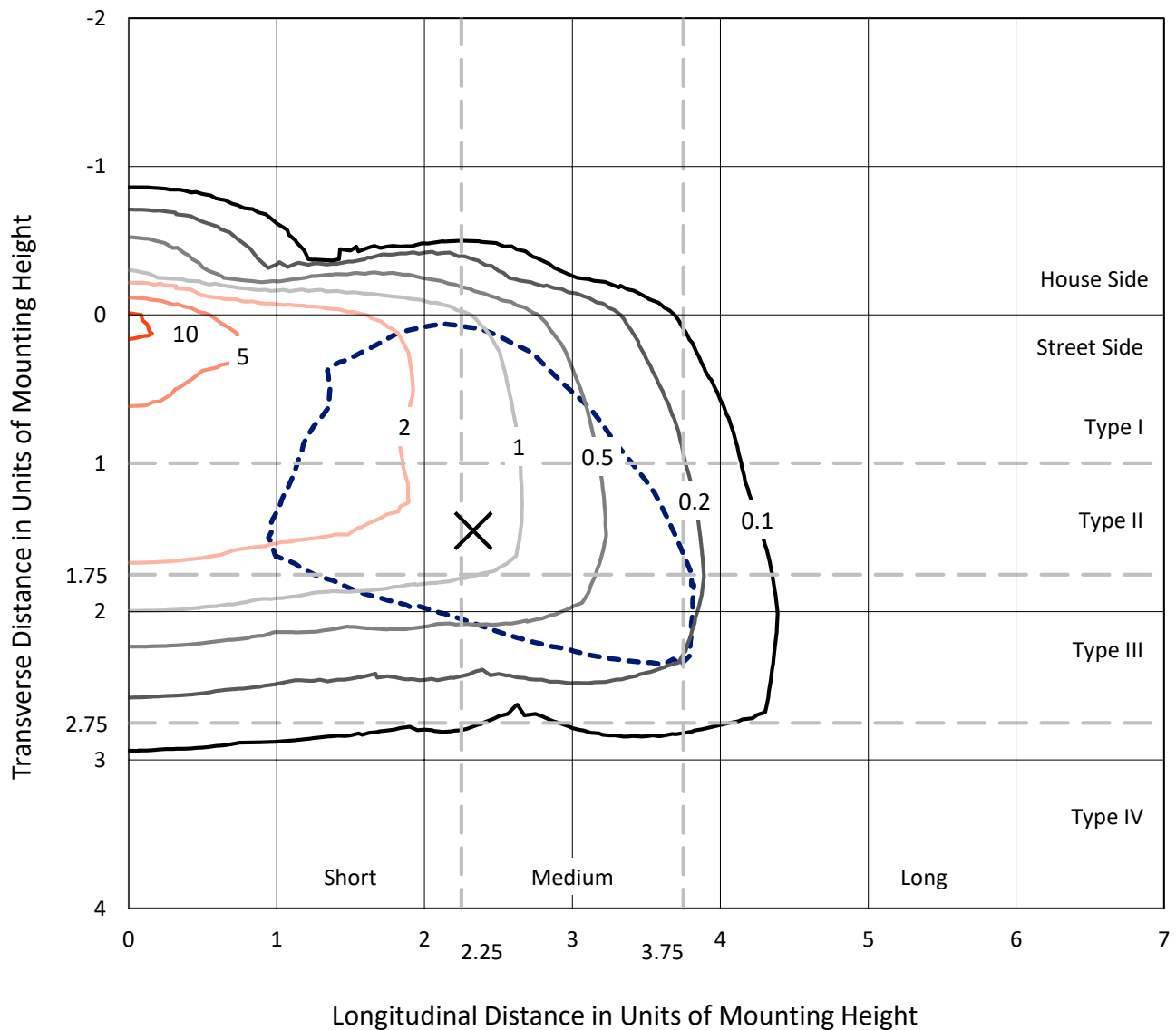
Input Watts (W): 258  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

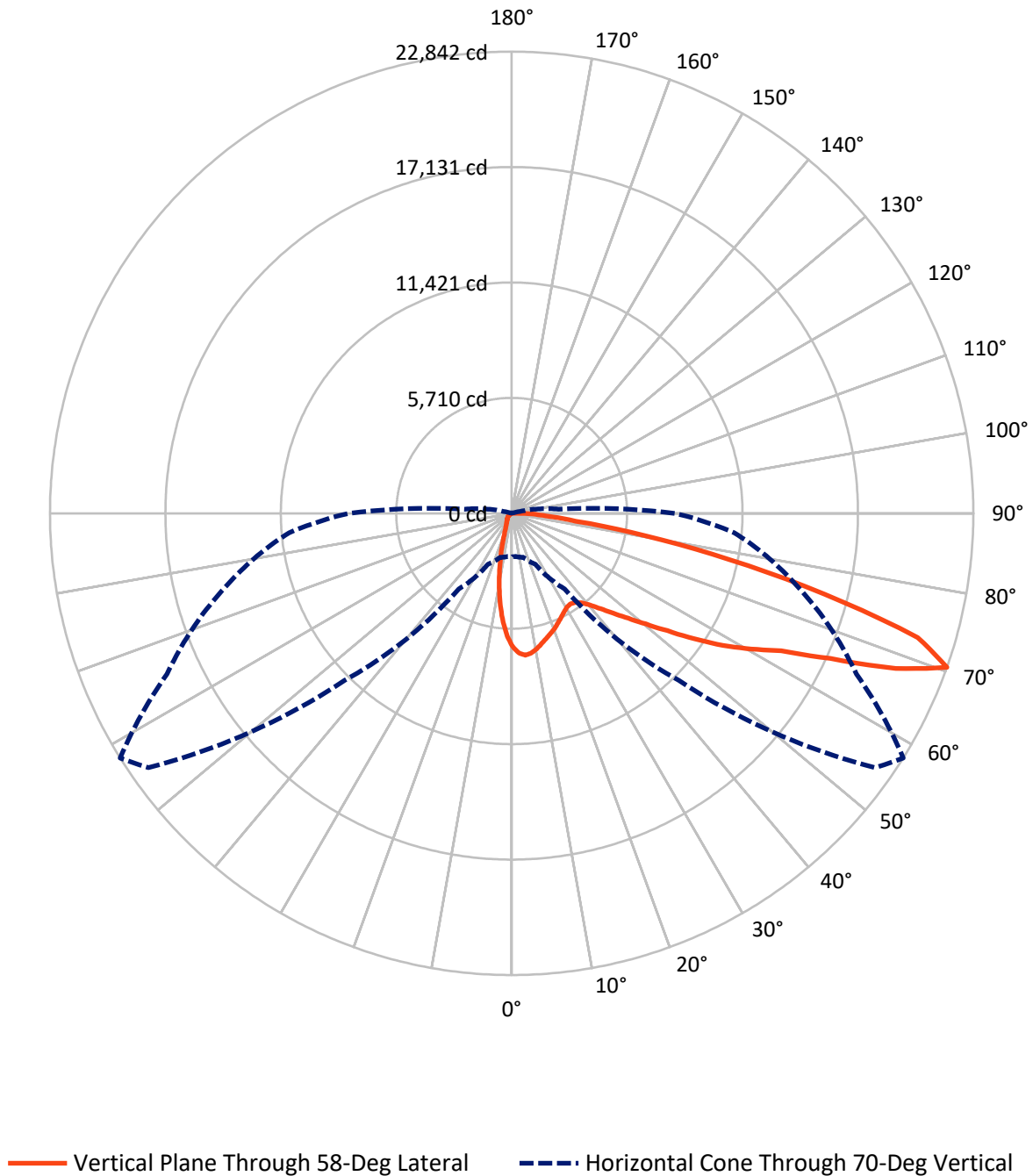
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.7 fc  
 Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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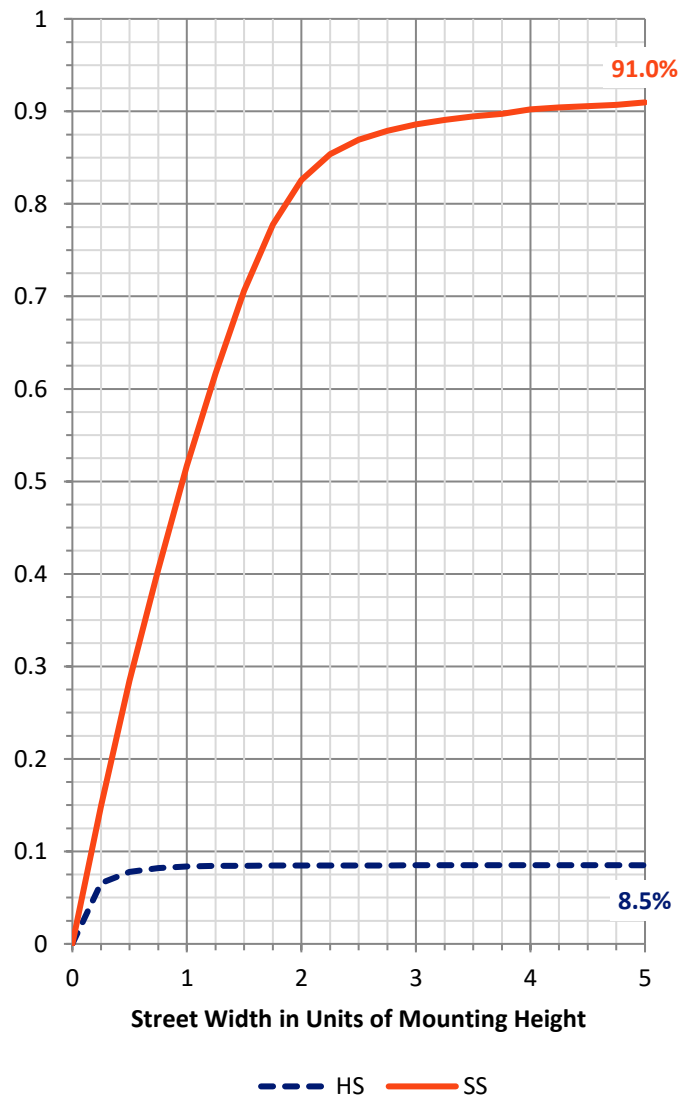
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1913.7   | 0.0    | 1913.7  |
|                    | % Fixture | 8.6      | 0.0    | 8.6     |
| <b>Street Side</b> | Lumens    | 20448.3  | 0.0    | 20448.3 |
|                    | % Fixture | 91.4     | 0.0    | 91.4    |
| <b>Total</b>       | Lumens    | 22362.0  | 0.0    | 22362.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 540.2   | 2.4       |
| 10°-20°   | 1133.7  | 5.1       |
| 20°-30°   | 1490.4  | 6.7       |
| 30°-40°   | 1973.9  | 8.8       |
| 40°-50°   | 2950.4  | 13.2      |
| 50°-60°   | 4726.4  | 21.1      |
| 60°-70°   | 5957.5  | 26.6      |
| 70°-80°   | 3213.5  | 14.4      |
| 80°-90°   | 376.1   | 1.7       |
| 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°    | 22362.0 | 100.0     |
| 0°-180°   | 22362.0 | 100.0     |

**Coefficient of Utilization**



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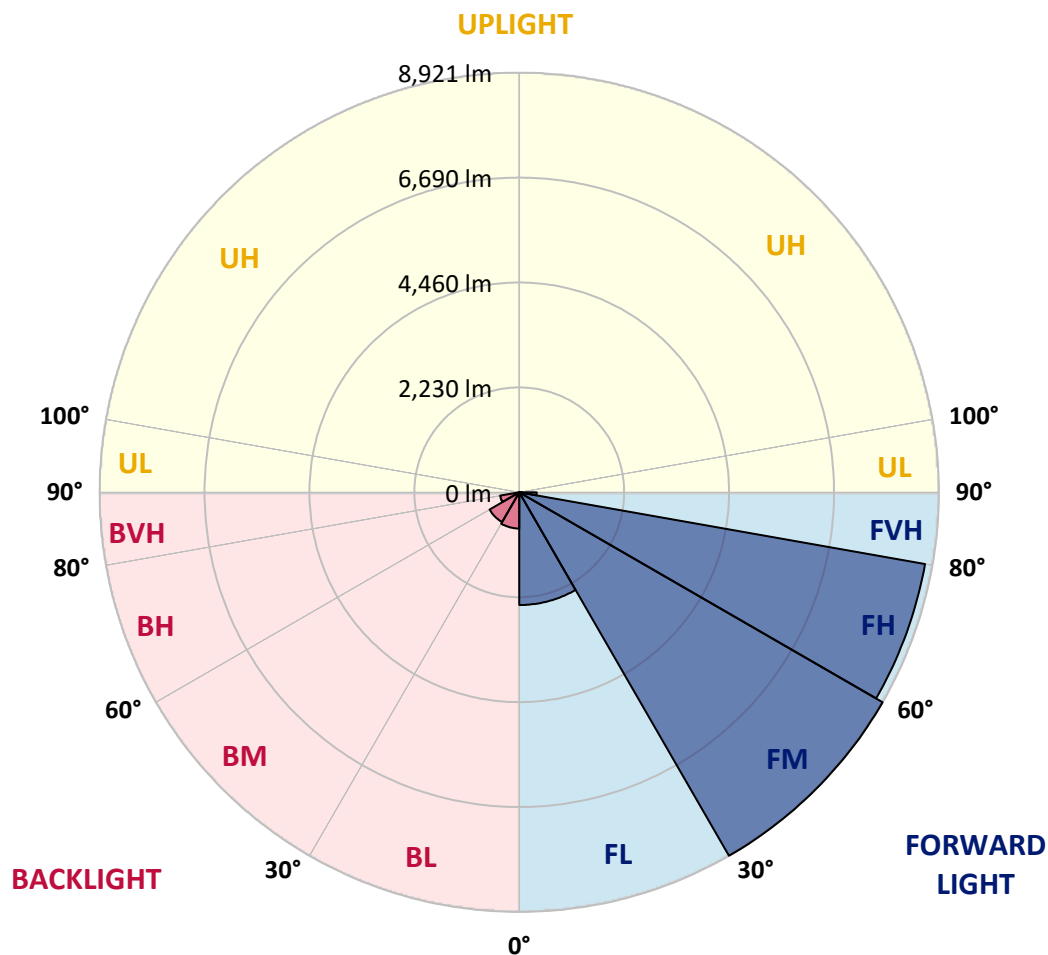
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|--------|-----------|-------------------------|------|----------|
|      |             |        |           | B                       | U    | G        |
| FL   | (0°-30°)    | 2395.4 | 10.7      |                         |      |          |
| FM   | (30°-60°)   | 8920.5 | 39.9      |                         |      |          |
| FH   | (60°-80°)   | 8759.4 | 39.2      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 372.9  | 1.7       |                         |      | G3/500   |
| BL   | (0°-30°)    | 768.8  | 3.4       | B2/1000                 |      |          |
| BM   | (30°-60°)   | 730.0  | 3.3       | B1/1000                 |      |          |
| BH   | (60°-80°)   | 411.5  | 1.8       | B1/500                  |      | G1/500   |
| BVH  | (80°-90°)   | 3.2    | 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-G4**

Type III Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°     | 35°     | 45°     | 55°     | 58°     | 65°     | 75°     | 85°     |
|-------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6605.6 | 6605.6 | 6605.6 | 6605.6  | 6605.6  | 6605.6  | 6605.6  | 6605.6  | 6605.6  | 6605.6  | 6605.6  |
| 2.5°  | 7153.3 | 7135.6 | 7129.1 | 7118.0  | 7075.2  | 7033.4  | 6950.6  | 6927.4  | 6875.3  | 6751.6  | 6620.5  |
| 5°    | 7158.9 | 7158.0 | 7177.5 | 7172.8  | 7158.0  | 7138.4  | 7078.9  | 7048.2  | 6959.9  | 6783.2  | 6543.3  |
| 7.5°  | 6813.9 | 6831.6 | 6875.3 | 6910.6  | 6951.5  | 7004.5  | 7012.0  | 6982.2  | 6909.7  | 6719.1  | 6401.1  |
| 10°   | 6350.9 | 6378.7 | 6440.1 | 6509.9  | 6616.8  | 6722.8  | 6817.6  | 6813.9  | 6788.8  | 6601.0  | 6230.0  |
| 12.5° | 5886.9 | 5919.4 | 5990.1 | 6093.3  | 6244.8  | 6417.8  | 6587.0  | 6610.3  | 6652.1  | 6495.0  | 6071.9  |
| 15°   | 5480.5 | 5508.4 | 5578.1 | 5704.6  | 5892.4  | 6124.9  | 6373.2  | 6415.9  | 6523.8  | 6412.2  | 5939.9  |
| 17.5° | 5135.5 | 5153.2 | 5204.4 | 5344.8  | 5562.3  | 5844.1  | 6166.7  | 6250.4  | 6411.3  | 6347.1  | 5825.5  |
| 20°   | 4894.7 | 4897.5 | 4931.0 | 5029.5  | 5247.1  | 5562.3  | 5952.9  | 6072.8  | 6292.3  | 6291.3  | 5707.4  |
| 22.5° | 4775.7 | 4766.4 | 4772.9 | 4829.6  | 4989.6  | 5293.6  | 5739.0  | 5881.3  | 6185.3  | 6243.9  | 5587.4  |
| 25°   | 4753.4 | 4745.9 | 4727.3 | 4734.8  | 4831.5  | 5058.4  | 5523.3  | 5687.9  | 6091.4  | 6215.1  | 5483.3  |
| 27.5° | 4823.1 | 4830.6 | 4798.9 | 4765.5  | 4772.9  | 4905.9  | 5331.7  | 5522.4  | 6015.2  | 6215.1  | 5409.8  |
| 30°   | 4963.5 | 4967.2 | 4944.0 | 4900.3  | 4841.7  | 4863.1  | 5198.8  | 5389.4  | 5977.1  | 6257.9  | 5363.4  |
| 32.5° | 5118.8 | 5139.3 | 5136.5 | 5101.1  | 5017.5  | 4931.0  | 5167.2  | 5341.0  | 5974.3  | 6352.7  | 5358.7  |
| 35°   | 5311.3 | 5334.5 | 5373.6 | 5366.1  | 5278.7  | 5136.5  | 5275.0  | 5411.7  | 6029.1  | 6508.9  | 5408.9  |
| 37.5° | 5515.8 | 5551.2 | 5634.9 | 5674.9  | 5618.1  | 5457.3  | 5516.8  | 5614.4  | 6176.0  | 6761.8  | 5536.3  |
| 40°   | 5713.9 | 5753.9 | 5906.4 | 6063.5  | 6020.8  | 5855.2  | 5883.1  | 5961.2  | 6437.3  | 7125.4  | 5778.1  |
| 42.5° | 5908.2 | 5967.8 | 6191.8 | 6450.3  | 6501.5  | 6369.4  | 6384.3  | 6446.6  | 6825.1  | 7625.7  | 6173.3  |
| 45°   | 6140.7 | 6207.7 | 6539.6 | 6858.5  | 6995.2  | 6937.6  | 7000.8  | 7041.7  | 7331.8  | 8286.8  | 6706.1  |
| 47.5° | 6482.0 | 6559.1 | 6966.4 | 7330.0  | 7569.9  | 7607.1  | 7734.5  | 7761.4  | 7972.5  | 9056.7  | 7400.6  |
| 50°   | 7147.7 | 7169.1 | 7537.3 | 7867.4  | 8213.3  | 8436.5  | 8581.6  | 8602.0  | 8748.0  | 9898.2  | 8268.2  |
| 52.5° | 7985.5 | 7999.5 | 8207.8 | 8429.1  | 8822.4  | 9278.0  | 9617.4  | 9646.2  | 9676.9  | 10718.3 | 9124.6  |
| 55°   | 8817.7 | 8815.9 | 8953.5 | 9083.7  | 9533.7  | 10195.8 | 10932.2 | 10949.9 | 10729.5 | 11496.6 | 9779.2  |
| 57.5° | 9337.5 | 9387.7 | 9596.9 | 9764.3  | 10392.9 | 11241.8 | 12263.7 | 12328.8 | 11835.1 | 12073.1 | 10426.4 |
| 60°   | 9172.0 | 9196.2 | 9660.2 | 10279.5 | 11463.1 | 12728.7 | 13611.1 | 13627.8 | 12666.4 | 12648.7 | 11244.6 |
| 62.5° | 7814.4 | 7827.4 | 8556.4 | 9833.1  | 12005.2 | 14657.2 | 15236.5 | 14964.0 | 13622.3 | 13447.4 | 12223.8 |
| 65°   | 5355.9 | 5440.5 | 6049.6 | 7627.5  | 11009.4 | 15866.9 | 17752.6 | 17301.7 | 15079.3 | 14598.6 | 13109.0 |
| 67.5° | 3154.0 | 3136.4 | 3437.6 | 4600.0  | 8085.9  | 15063.5 | 20935.5 | 20487.3 | 17066.4 | 15369.4 | 12849.5 |
| 70°   | 2154.5 | 2142.4 | 2257.7 | 2784.9  | 4564.6  | 11685.4 | 21936.9 | 22841.7 | 18821.0 | 14850.6 | 11058.7 |
| 72.5° | 1538.0 | 1544.5 | 1714.6 | 2163.8  | 2865.8  | 6808.3  | 18864.7 | 21006.2 | 18271.5 | 12946.3 | 8405.8  |
| 75°   | 1044.2 | 1061.9 | 1305.5 | 1775.1  | 2512.4  | 3463.7  | 13387.0 | 15968.3 | 14878.5 | 9409.1  | 4831.5  |
| 77.5° | 561.6  | 581.2  | 868.5  | 1430.1  | 2271.6  | 2406.4  | 8611.3  | 10989.9 | 9345.9  | 4229.9  | 1400.3  |
| 80°   | 234.3  | 245.5  | 406.3  | 1039.6  | 1962.9  | 2113.5  | 5066.7  | 6664.2  | 3982.5  | 834.1   | 312.4   |
| 82.5° | 101.4  | 106.9  | 169.2  | 620.2   | 1467.3  | 1784.4  | 2682.6  | 3206.1  | 1206.9  | 183.2   | 157.1   |
| 85°   | 19.5   | 20.5   | 69.7   | 328.2   | 936.4   | 1007.0  | 1738.8  | 1704.4  | 542.1   | 79.0    | 114.4   |
| 87.5° | 0.0    | 0.0    | 16.7   | 103.2   | 275.2   | 548.6   | 1061.0  | 1047.9  | 184.1   | 38.1    | 42.8    |
| 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°    | 6605.6  | 6605.6 | 6605.6 | 6605.6 | 6605.6 | 6605.6 | 6605.6 | 6605.6 | 6605.6 | 6605.6 | 6605.6 |
| 2.5°  | 6553.6  | 6489.4 | 6354.6 | 6188.1 | 6060.7 | 5920.3 | 5808.8 | 5667.4 | 5606.0 | 5608.8 | 5575.4 |
| 5°    | 6406.6  | 6274.6 | 5976.1 | 5599.5 | 5309.4 | 5010.0 | 4752.4 | 4495.8 | 4344.2 | 4295.0 | 4248.5 |
| 7.5°  | 6196.5  | 5987.3 | 5511.2 | 4931.0 | 4440.0 | 3960.2 | 3542.7 | 3175.4 | 2943.0 | 2829.5 | 2787.7 |
| 10°   | 5959.4  | 5665.6 | 4976.5 | 4212.2 | 3511.1 | 2862.1 | 2320.9 | 1850.4 | 1662.6 | 1535.2 | 1502.6 |
| 12.5° | 5751.1  | 5353.1 | 4454.0 | 3474.8 | 2642.6 | 1859.7 | 1343.6 | 1050.7 | 923.3  | 873.1  | 864.8  |
| 15°   | 5554.9  | 5061.2 | 3950.9 | 2807.2 | 1829.9 | 1144.6 | 854.5  | 755.0  | 725.3  | 716.9  | 716.9  |
| 17.5° | 5369.9  | 4783.1 | 3459.0 | 2149.8 | 1210.7 | 802.5  | 707.6  | 685.3  | 676.0  | 675.1  | 676.0  |
| 20°   | 5176.5  | 4505.1 | 2975.5 | 1575.2 | 845.2  | 679.7  | 653.7  | 641.6  | 638.8  | 638.8  | 638.8  |
| 22.5° | 4991.4  | 4227.1 | 2505.0 | 1125.1 | 677.9  | 620.2  | 607.2  | 598.8  | 596.0  | 595.1  | 593.2  |
| 25°   | 4813.8  | 3963.0 | 2045.7 | 795.0  | 595.1  | 568.1  | 557.0  | 545.8  | 537.5  | 532.8  | 530.0  |
| 27.5° | 4667.8  | 3727.8 | 1617.9 | 637.9  | 537.5  | 514.2  | 500.3  | 483.5  | 463.1  | 453.8  | 450.0  |
| 30°   | 4551.6  | 3513.0 | 1246.9 | 538.4  | 483.5  | 460.3  | 438.9  | 410.1  | 380.3  | 364.5  | 363.6  |
| 32.5° | 4460.5  | 3301.9 | 946.6  | 476.1  | 435.2  | 406.3  | 375.7  | 339.4  | 305.0  | 287.3  | 286.4  |
| 35°   | 4415.8  | 3115.9 | 723.4  | 430.5  | 392.4  | 356.1  | 318.0  | 278.0  | 244.5  | 227.8  | 226.0  |
| 37.5° | 4445.6  | 2958.8 | 564.4  | 392.4  | 356.1  | 314.3  | 269.7  | 227.8  | 198.1  | 183.2  | 182.2  |
| 40°   | 4554.4  | 2858.3 | 458.4  | 359.9  | 325.4  | 274.3  | 226.0  | 186.9  | 161.8  | 149.7  | 148.8  |
| 42.5° | 4785.9  | 2821.2 | 391.5  | 332.9  | 295.7  | 237.1  | 187.8  | 154.4  | 131.1  | 122.7  | 120.9  |
| 45°   | 5172.7  | 2876.0 | 345.9  | 306.8  | 265.0  | 201.8  | 155.3  | 126.5  | 106.0  | 99.5   | 98.6   |
| 47.5° | 5687.9  | 3020.1 | 313.4  | 281.7  | 237.1  | 170.2  | 129.2  | 102.3  | 86.5   | 80.0   | 79.0   |
| 50°   | 6351.8  | 3248.9 | 286.4  | 256.6  | 211.1  | 144.1  | 106.9  | 80.9   | 66.9   | 62.3   | 62.3   |
| 52.5° | 7074.3  | 3521.3 | 262.2  | 233.4  | 185.0  | 120.0  | 86.5   | 62.3   | 53.0   | 47.4   | 47.4   |
| 55°   | 7671.2  | 3759.4 | 236.2  | 215.7  | 153.4  | 99.5   | 66.0   | 47.4   | 39.1   | 36.3   | 36.3   |
| 57.5° | 8267.3  | 4013.2 | 206.4  | 185.0  | 122.7  | 80.9   | 50.2   | 35.3   | 28.8   | 27.0   | 27.0   |
| 60°   | 9040.0  | 4323.8 | 177.6  | 150.6  | 96.7   | 61.4   | 37.2   | 25.1   | 21.4   | 20.5   | 20.5   |
| 62.5° | 9889.8  | 4506.0 | 151.6  | 120.9  | 75.3   | 45.6   | 27.0   | 16.7   | 15.8   | 15.8   | 14.9   |
| 65°   | 10409.6 | 4248.5 | 127.4  | 96.7   | 58.6   | 34.4   | 17.7   | 12.1   | 13.9   | 13.0   | 11.2   |
| 67.5° | 9746.7  | 3326.1 | 104.1  | 75.3   | 45.6   | 26.0   | 11.2   | 8.4    | 14.9   | 12.1   | 9.3    |
| 70°   | 8070.1  | 2328.3 | 80.9   | 53.0   | 36.3   | 22.3   | 7.4    | 5.6    | 15.8   | 12.1   | 7.4    |
| 72.5° | 6039.4  | 1558.4 | 64.2   | 35.3   | 27.0   | 19.5   | 6.5    | 2.8    | 13.9   | 10.2   | 6.5    |
| 75°   | 3300.0  | 627.6  | 51.1   | 22.3   | 16.7   | 13.9   | 4.6    | 1.9    | 9.3    | 7.4    | 4.6    |
| 77.5° | 868.5   | 165.5  | 37.2   | 14.9   | 9.3    | 5.6    | 2.8    | 0.9    | 4.6    | 3.7    | 1.9    |
| 80°   | 221.3   | 64.2   | 24.2   | 10.2   | 6.5    | 2.8    | 0.0    | 0.0    | 0.9    | 0.0    | 0.0    |
| 82.5° | 118.1   | 27.0   | 14.9   | 7.4    | 3.7    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 89.3    | 17.7   | 8.4    | 4.6    | 0.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 34.4    | 5.6    | 2.8    | 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)