

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: P322504

Luminaire Tested: **GAN-SA0D-727-U-T4FT-HSS**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P322504  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA0D-727-U-T4FT-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 45611 lumens  
Efficiency: N/A  
Efficacy: 71.3 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

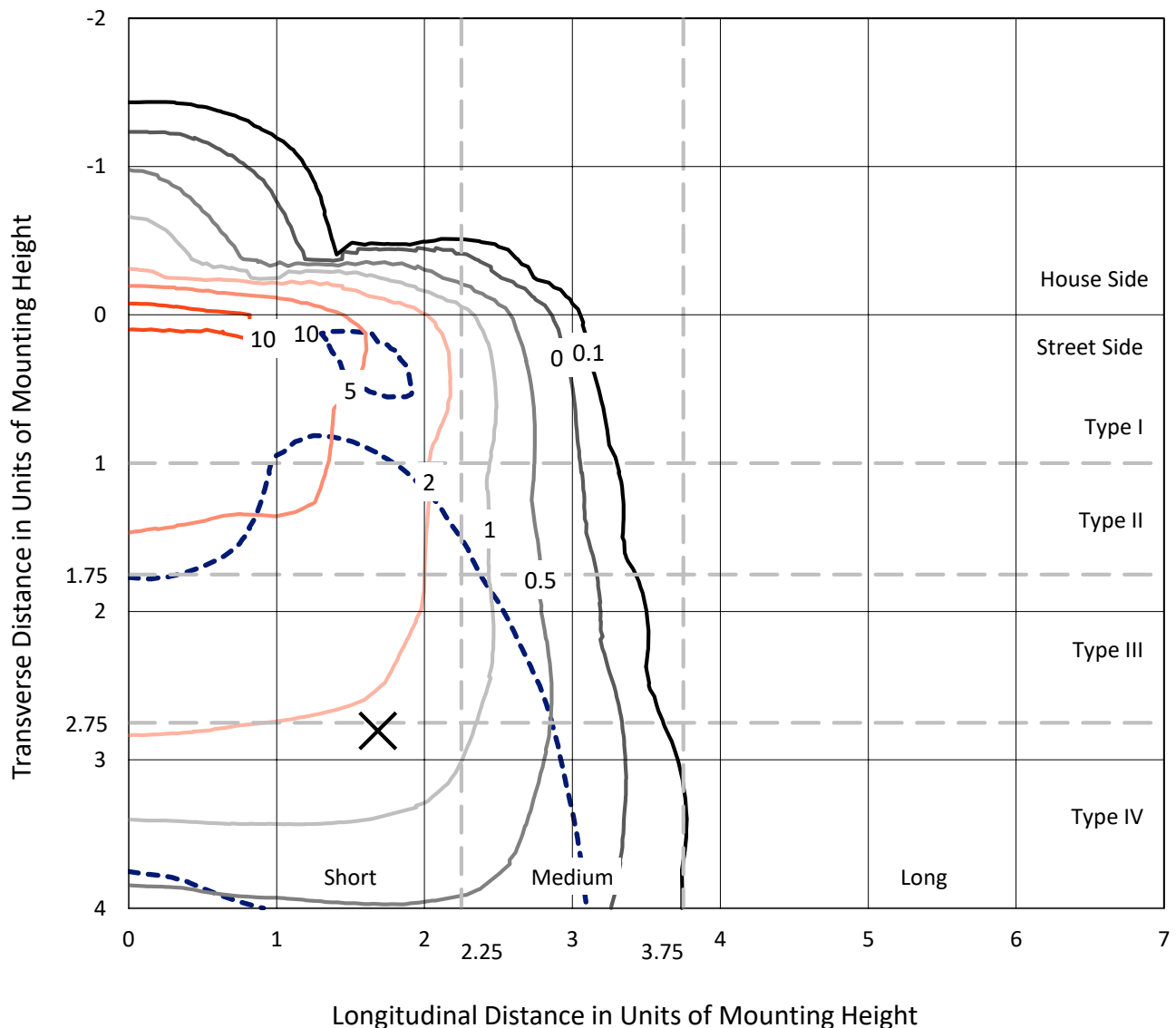
Input Watts (W): 640  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

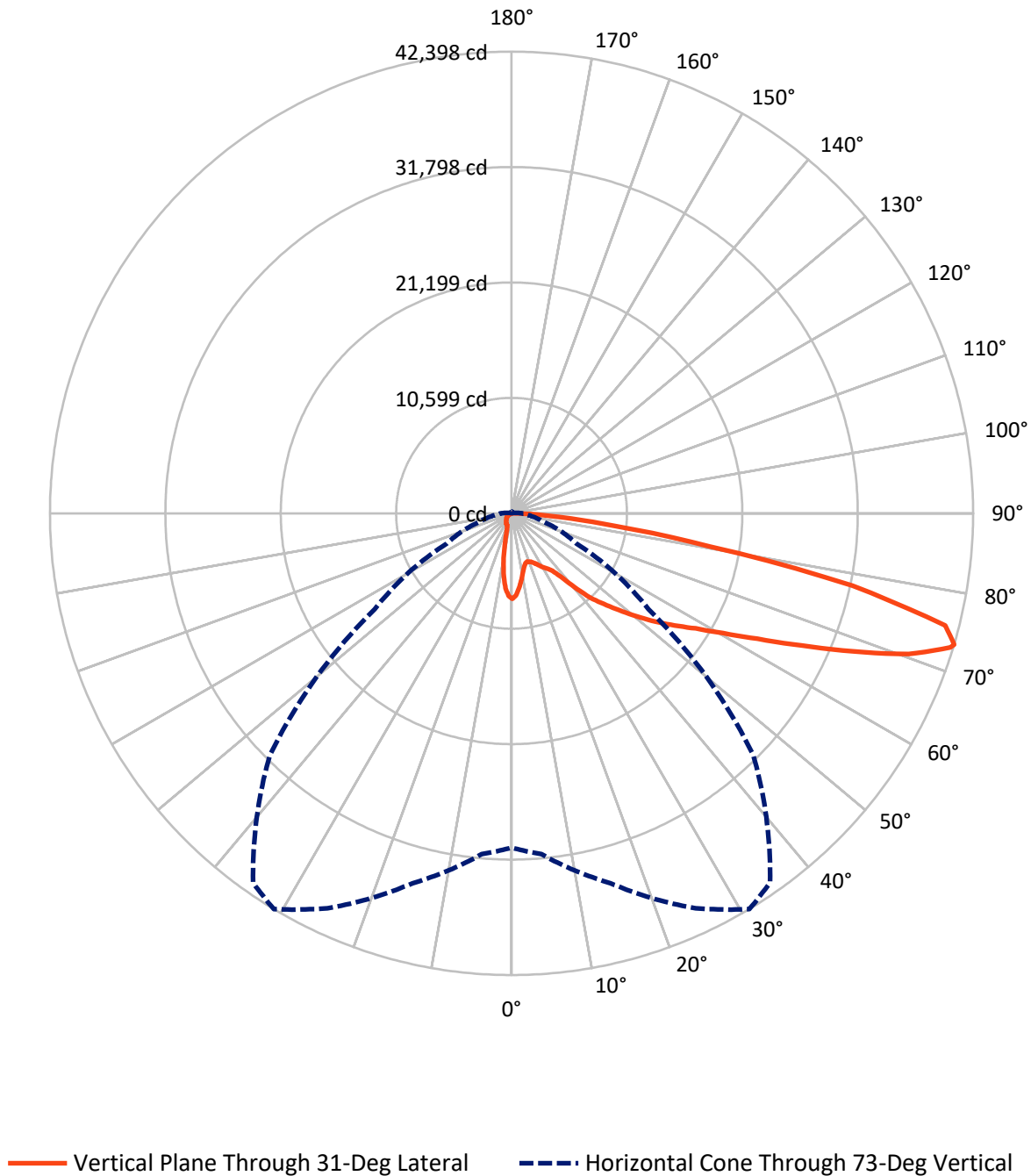
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.6 fc  
Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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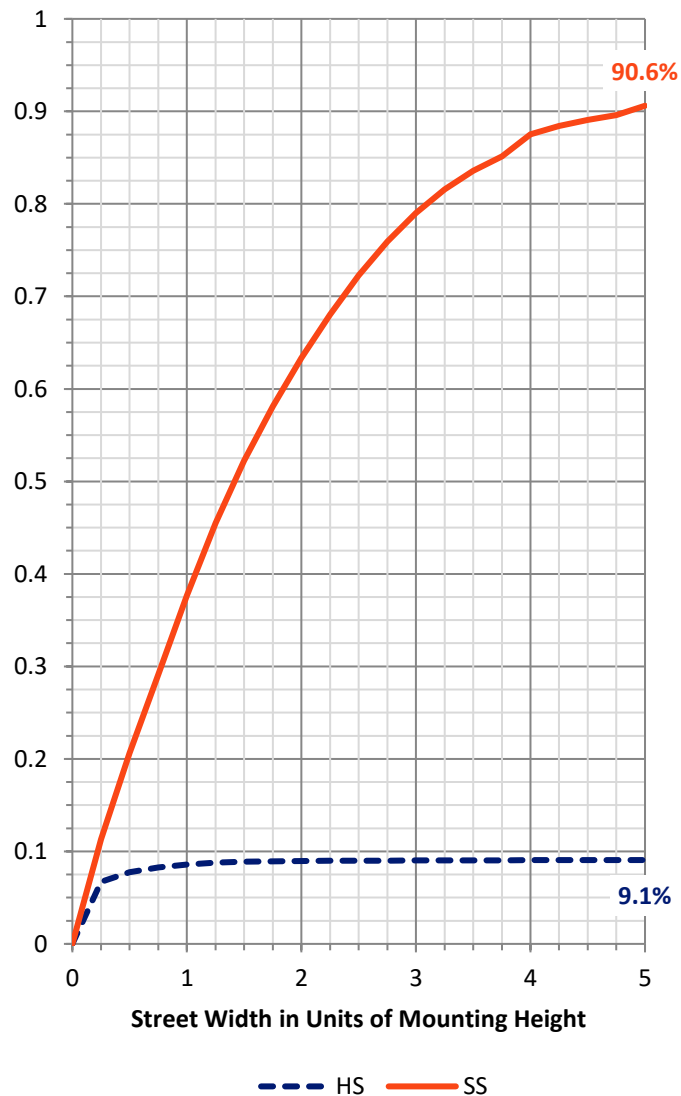
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4157.6   | 0.0    | 4157.6  |
|                    | % Fixture | 9.1      | 0.0    | 9.1     |
| <b>Street Side</b> | Lumens    | 41453.4  | 0.0    | 41453.4 |
|                    | % Fixture | 90.9     | 0.0    | 90.9    |
| <b>Total</b>       | Lumens    | 45611.0  | 0.0    | 45611.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 650.7   | 1.4       |
| 10°-20°   | 1412.8  | 3.1       |
| 20°-30°   | 2116.8  | 4.6       |
| 30°-40°   | 3367.8  | 7.4       |
| 40°-50°   | 6013.9  | 13.2      |
| 50°-60°   | 9331.8  | 20.5      |
| 60°-70°   | 12405.4 | 27.2      |
| 70°-80°   | 9331.4  | 20.5      |
| 80°-90°   | 980.5   | 2.1       |
| 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°    | 45611.0 | 100.0     |
| 0°-180°   | 45611.0 | 100.0     |

**Coefficient of Utilization**



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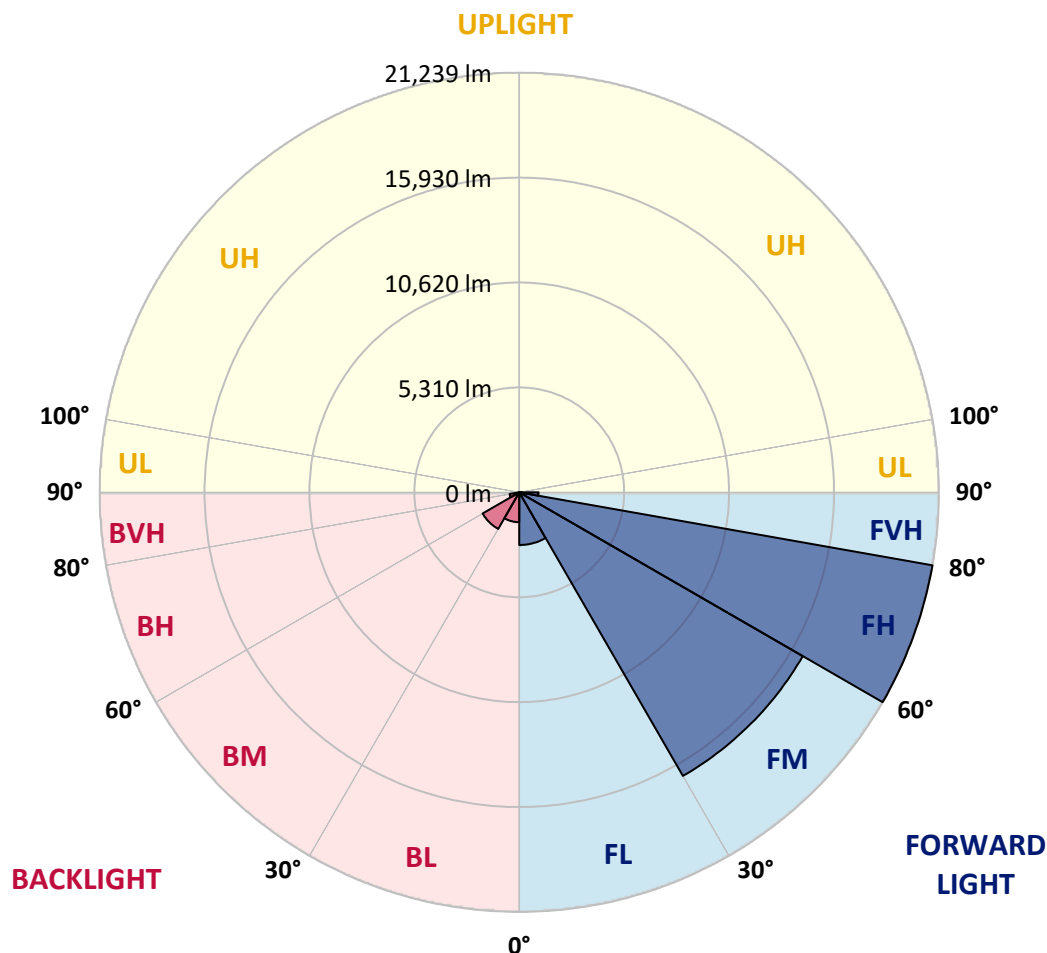
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |        |
|------|-------------|---------|-----------|-------------------------|------|--------|
|      |             |         |           | B                       | U    | G      |
| FL   | (0°-30°)    | 2668.3  | 5.9       |                         |      |        |
| FM   | (30°-60°)   | 16573.5 | 36.3      |                         |      |        |
| FH   | (60°-80°)   | 21239.3 | 46.6      |                         |      | G5     |
| FVH  | (80°-90°)   | 972.3   | 2.1       |                         |      | G5     |
| BL   | (0°-30°)    | 1511.9  | 3.3       | B3/2500                 |      |        |
| BM   | (30°-60°)   | 2140.0  | 4.7       | B2/2500                 |      |        |
| BH   | (60°-80°)   | 497.4   | 1.1       | B1/500                  |      | G1/500 |
| BVH  | (80°-90°)   | 8.2     | 0.0       |                         |      | G0/10  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |        |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |        |

**BUG Rating: B3-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 31°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 7847.5  | 7847.5  | 7847.5  | 7847.5  | 7847.5  | 7847.5  | 7847.5  | 7847.5  | 7847.5  | 7847.5  | 7847.5  |
| 2.5°  | 7436.8  | 7468.0  | 7501.5  | 7508.2  | 7564.0  | 7566.2  | 7646.6  | 7706.9  | 7767.1  | 7825.1  | 7845.2  |
| 5°    | 6673.5  | 6724.8  | 6785.1  | 6845.3  | 6963.6  | 7010.5  | 7206.9  | 7407.8  | 7599.7  | 7782.7  | 7872.0  |
| 7.5°  | 5858.8  | 5916.8  | 6001.7  | 6151.2  | 6282.9  | 6374.4  | 6684.6  | 7041.7  | 7398.8  | 7735.9  | 7930.0  |
| 10°   | 5115.6  | 5169.1  | 5258.4  | 5416.9  | 5620.0  | 5745.0  | 6162.4  | 6657.8  | 7182.4  | 7693.5  | 8017.1  |
| 12.5° | 4642.4  | 4671.4  | 4720.5  | 4890.2  | 5073.2  | 5213.8  | 5704.8  | 6318.6  | 7003.8  | 7691.2  | 8157.7  |
| 15°   | 4555.4  | 4564.3  | 4524.1  | 4600.0  | 4742.9  | 4879.0  | 5376.7  | 6044.1  | 6867.6  | 7726.9  | 8340.7  |
| 17.5° | 4693.7  | 4689.3  | 4555.4  | 4546.4  | 4660.3  | 4771.9  | 5216.0  | 5854.4  | 6771.7  | 7809.5  | 8577.3  |
| 20°   | 4903.6  | 4887.9  | 4655.8  | 4613.4  | 4733.9  | 4838.8  | 5204.9  | 5782.9  | 6736.0  | 7947.9  | 8865.2  |
| 22.5° | 5182.5  | 5155.8  | 4792.0  | 4747.3  | 4876.8  | 4986.1  | 5343.2  | 5852.1  | 6767.2  | 8133.2  | 9200.0  |
| 25°   | 5528.5  | 5488.3  | 5026.3  | 4977.2  | 5108.9  | 5218.3  | 5591.0  | 6050.8  | 6861.0  | 8358.6  | 9624.1  |
| 27.5° | 5919.1  | 5861.0  | 5401.3  | 5274.1  | 5423.6  | 5537.4  | 5921.3  | 6354.3  | 7008.3  | 8597.4  | 10144.1 |
| 30°   | 6287.3  | 6211.5  | 5796.3  | 5586.5  | 5769.5  | 5896.8  | 6278.4  | 6715.9  | 7244.8  | 8965.7  | 10856.1 |
| 32.5° | 6657.8  | 6573.0  | 6149.0  | 5899.0  | 6064.2  | 6202.5  | 6646.7  | 7213.6  | 7689.0  | 9528.1  | 11802.4 |
| 35°   | 7510.4  | 7421.2  | 6901.1  | 6488.2  | 6486.0  | 6564.1  | 7162.3  | 7894.3  | 8276.0  | 10311.5 | 12931.8 |
| 37.5° | 8945.6  | 8894.2  | 8398.8  | 7615.3  | 7405.5  | 7318.5  | 7865.3  | 8706.8  | 9119.7  | 11389.5 | 14206.2 |
| 40°   | 10516.9 | 10472.2 | 9916.5  | 9206.7  | 8887.5  | 8673.3  | 8874.2  | 9838.3  | 10311.5 | 12706.4 | 15507.4 |
| 42.5° | 12291.2 | 12079.2 | 11088.2 | 10876.2 | 10590.5 | 10427.6 | 10246.8 | 11233.3 | 11775.7 | 14139.3 | 16797.5 |
| 45°   | 13902.7 | 13545.6 | 12260.0 | 11938.6 | 11873.9 | 11914.0 | 12014.5 | 13108.1 | 13422.8 | 15842.2 | 18083.1 |
| 47.5° | 14862.4 | 14581.2 | 13594.7 | 13286.7 | 13268.8 | 13534.4 | 14293.3 | 15226.2 | 15063.3 | 17326.5 | 19214.7 |
| 50°   | 15775.3 | 15520.8 | 14701.7 | 14777.6 | 14860.2 | 15221.8 | 16880.1 | 17404.6 | 16560.9 | 18672.3 | 20252.5 |
| 52.5° | 16514.1 | 16125.7 | 15697.2 | 16123.5 | 16529.7 | 17112.2 | 19549.5 | 19359.8 | 17623.3 | 19743.7 | 21140.8 |
| 55°   | 16940.3 | 16764.0 | 16971.6 | 17400.1 | 18163.4 | 19109.8 | 22069.3 | 20986.8 | 18400.0 | 20721.2 | 21732.3 |
| 57.5° | 18502.7 | 18156.8 | 18569.7 | 18940.2 | 19935.6 | 21259.1 | 24227.6 | 22198.8 | 18960.2 | 21326.1 | 21868.5 |
| 60°   | 20393.1 | 20114.2 | 20357.4 | 20973.4 | 22317.1 | 23872.7 | 26245.3 | 23187.5 | 19252.6 | 21714.4 | 21515.8 |
| 62.5° | 23401.8 | 23033.5 | 22881.7 | 23571.4 | 25352.5 | 27051.0 | 27776.4 | 23872.7 | 19187.9 | 21542.6 | 20306.1 |
| 65°   | 27432.7 | 27051.0 | 26372.5 | 26997.4 | 29262.8 | 30461.4 | 29488.3 | 24017.8 | 18741.5 | 20152.1 | 17248.4 |
| 67.5° | 31561.7 | 31285.0 | 30704.7 | 31758.1 | 33802.6 | 34188.7 | 31298.4 | 23665.2 | 17304.2 | 16340.0 | 12186.3 |
| 70°   | 34289.1 | 34170.8 | 34548.0 | 36878.2 | 38701.7 | 38590.1 | 32958.9 | 21770.2 | 13487.6 | 10048.1 | 6028.4  |
| 72.5° | 32322.8 | 32889.7 | 35675.2 | 39900.2 | 42127.7 | 41217.1 | 32106.3 | 16717.2 | 7709.1  | 3865.7  | 1743.1  |
| 73°   | 30693.5 | 31418.9 | 35168.5 | 40014.0 | 42397.7 | 41400.1 | 31389.9 | 15344.5 | 6570.8  | 3051.0  | 1321.3  |
| 75°   | 21352.9 | 22243.4 | 29115.5 | 37266.5 | 41134.5 | 39444.9 | 26164.9 | 9392.0  | 3044.4  | 1352.5  | 533.4   |
| 77.5° | 10367.3 | 11025.7 | 16032.0 | 26926.0 | 31990.3 | 30818.5 | 16288.6 | 3499.7  | 1374.9  | 845.9   | 245.5   |
| 80°   | 3870.2  | 4303.2  | 6959.2  | 13704.1 | 18487.1 | 18971.4 | 7164.5  | 1323.5  | 915.1   | 680.7   | 125.0   |
| 82.5° | 1013.3  | 1129.4  | 2566.7  | 6111.0  | 9474.5  | 9916.5  | 2258.7  | 667.3   | 669.6   | 560.2   | 75.9    |
| 85°   | 323.6   | 370.5   | 801.3   | 2743.0  | 4463.9  | 3919.3  | 589.2   | 323.6   | 486.6   | 417.4   | 42.4    |
| 87.5° | 40.2    | 51.3    | 254.4   | 645.0   | 984.3   | 546.8   | 91.5    | 96.0    | 207.6   | 232.1   | 24.6    |
| 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°    | 7847.5  | 7847.5  | 7847.5 | 7847.5 | 7847.5 | 7847.5 | 7847.5 | 7847.5 | 7847.5 | 7847.5 | 7847.5 |
| 2.5°  | 7865.3  | 7854.2  | 7856.4 | 7798.4 | 7760.4 | 7684.5 | 7606.4 | 7570.7 | 7532.8 | 7517.1 | 7532.8 |
| 5°    | 7905.5  | 7885.4  | 7827.4 | 7648.8 | 7459.1 | 7213.6 | 6983.7 | 6809.6 | 6590.9 | 6530.6 | 6593.1 |
| 7.5°  | 7968.0  | 7927.8  | 7758.2 | 7394.4 | 6972.5 | 6503.8 | 5977.1 | 5593.2 | 5278.5 | 5075.4 | 5149.1 |
| 10°   | 8059.5  | 7983.6  | 7642.1 | 7023.9 | 6269.5 | 5439.2 | 4691.5 | 4109.0 | 3696.1 | 3526.4 | 3519.8 |
| 12.5° | 8213.5  | 8070.7  | 7499.3 | 6541.8 | 5410.2 | 4303.2 | 3323.3 | 2691.7 | 2356.9 | 2140.4 | 2136.0 |
| 15°   | 8383.1  | 8173.3  | 7318.5 | 5963.7 | 4410.3 | 3082.3 | 2140.4 | 1660.6 | 1444.1 | 1374.9 | 1365.9 |
| 17.5° | 8590.7  | 8291.6  | 7084.1 | 5251.7 | 3363.5 | 2042.2 | 1397.2 | 1258.8 | 1249.9 | 1243.2 | 1243.2 |
| 20°   | 8851.8  | 8432.2  | 6782.8 | 4437.1 | 2385.9 | 1363.7 | 1187.4 | 1196.3 | 1200.8 | 1191.9 | 1194.1 |
| 22.5° | 9155.4  | 8575.1  | 6423.5 | 3562.2 | 1613.7 | 1140.5 | 1136.1 | 1147.2 | 1151.7 | 1147.2 | 1149.4 |
| 25°   | 9508.0  | 8740.2  | 5986.0 | 2644.8 | 1165.1 | 1082.5 | 1093.6 | 1109.3 | 1120.4 | 1120.4 | 1120.4 |
| 27.5° | 9945.5  | 8941.1  | 5459.3 | 1845.8 | 1006.6 | 1022.2 | 1053.5 | 1082.5 | 1098.1 | 1102.6 | 1102.6 |
| 30°   | 10514.6 | 9191.1  | 4827.7 | 1265.5 | 915.1  | 941.9  | 999.9  | 1055.7 | 1084.7 | 1089.2 | 1091.4 |
| 32.5° | 11233.3 | 9472.3  | 4095.6 | 935.2  | 837.0  | 857.1  | 919.6  | 1013.3 | 1069.1 | 1078.0 | 1078.0 |
| 35°   | 12056.9 | 9798.2  | 3307.7 | 814.7  | 781.2  | 787.9  | 837.0  | 944.1  | 1042.3 | 1066.9 | 1069.1 |
| 37.5° | 12958.6 | 10119.6 | 2515.4 | 761.1  | 734.3  | 734.3  | 770.0  | 861.5  | 977.6  | 1053.5 | 1062.4 |
| 40°   | 13800.0 | 10313.7 | 1763.2 | 718.7  | 691.9  | 691.9  | 723.1  | 790.1  | 899.5  | 1013.3 | 1037.8 |
| 42.5° | 14576.7 | 10380.7 | 1227.6 | 678.5  | 651.7  | 658.4  | 685.2  | 738.8  | 821.4  | 935.2  | 957.5  |
| 45°   | 15375.8 | 10369.5 | 895.0  | 631.6  | 611.5  | 631.6  | 651.7  | 691.9  | 752.2  | 816.9  | 821.4  |
| 47.5° | 15978.4 | 10275.8 | 709.8  | 587.0  | 573.6  | 600.4  | 618.2  | 645.0  | 678.5  | 674.0  | 674.0  |
| 50°   | 16543.1 | 10048.1 | 571.4  | 526.7  | 535.7  | 566.9  | 575.8  | 584.8  | 587.0  | 544.6  | 540.1  |
| 52.5° | 16971.6 | 9693.3  | 457.5  | 462.0  | 497.7  | 529.0  | 520.0  | 506.6  | 484.3  | 433.0  | 424.1  |
| 55°   | 17114.4 | 9010.3  | 359.3  | 381.7  | 441.9  | 482.1  | 448.6  | 419.6  | 377.2  | 334.8  | 325.9  |
| 57.5° | 16855.5 | 8128.7  | 292.4  | 296.8  | 372.7  | 406.2  | 368.3  | 334.8  | 287.9  | 252.2  | 245.5  |
| 60°   | 16306.5 | 7148.9  | 241.0  | 223.2  | 287.9  | 316.9  | 292.4  | 258.9  | 216.5  | 189.7  | 187.5  |
| 62.5° | 15217.3 | 6104.3  | 198.6  | 174.1  | 218.7  | 243.3  | 227.7  | 203.1  | 167.4  | 149.5  | 147.3  |
| 65°   | 12927.3 | 4883.5  | 160.7  | 140.6  | 169.6  | 189.7  | 176.3  | 158.5  | 131.7  | 118.3  | 116.1  |
| 67.5° | 9023.7  | 3301.0  | 131.7  | 116.1  | 133.9  | 149.5  | 138.4  | 129.5  | 104.9  | 102.7  | 104.9  |
| 70°   | 4352.3  | 1591.4  | 109.4  | 93.7   | 104.9  | 116.1  | 111.6  | 104.9  | 100.4  | 116.1  | 133.9  |
| 72.5° | 1247.6  | 533.4   | 87.0   | 78.1   | 84.8   | 91.5   | 96.0   | 93.7   | 109.4  | 140.6  | 162.9  |
| 73°   | 959.7   | 430.8   | 82.6   | 73.7   | 80.3   | 89.3   | 93.7   | 91.5   | 111.6  | 142.8  | 162.9  |
| 75°   | 410.7   | 207.6   | 62.5   | 60.3   | 67.0   | 78.1   | 82.6   | 82.6   | 111.6  | 145.1  | 156.2  |
| 77.5° | 185.3   | 111.6   | 40.2   | 46.9   | 58.0   | 62.5   | 69.2   | 69.2   | 89.3   | 111.6  | 111.6  |
| 80°   | 104.9   | 60.3    | 31.2   | 35.7   | 42.4   | 42.4   | 42.4   | 37.9   | 40.2   | 44.6   | 49.1   |
| 82.5° | 67.0    | 40.2    | 24.6   | 29.0   | 26.8   | 22.3   | 17.9   | 17.9   | 15.6   | 17.9   | 22.3   |
| 85°   | 37.9    | 22.3    | 22.3   | 17.9   | 11.2   | 8.9    | 11.2   | 8.9    | 2.2    | 0.0    | 2.2    |
| 87.5° | 22.3    | 13.4    | 6.7    | 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)