

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: P322149

Luminaire Tested: **GAN-SA5A-727-U-T3-HSS**

Issue Date: 3/3/2020

#### Test Information

Test Method: LM-79-08  
Report Number: P322149  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA5A-727-U-T3-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

#### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 14194 lumens  
Efficiency: N/A  
Efficacy: 87.6 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G3

Input Watts (W): 162  
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



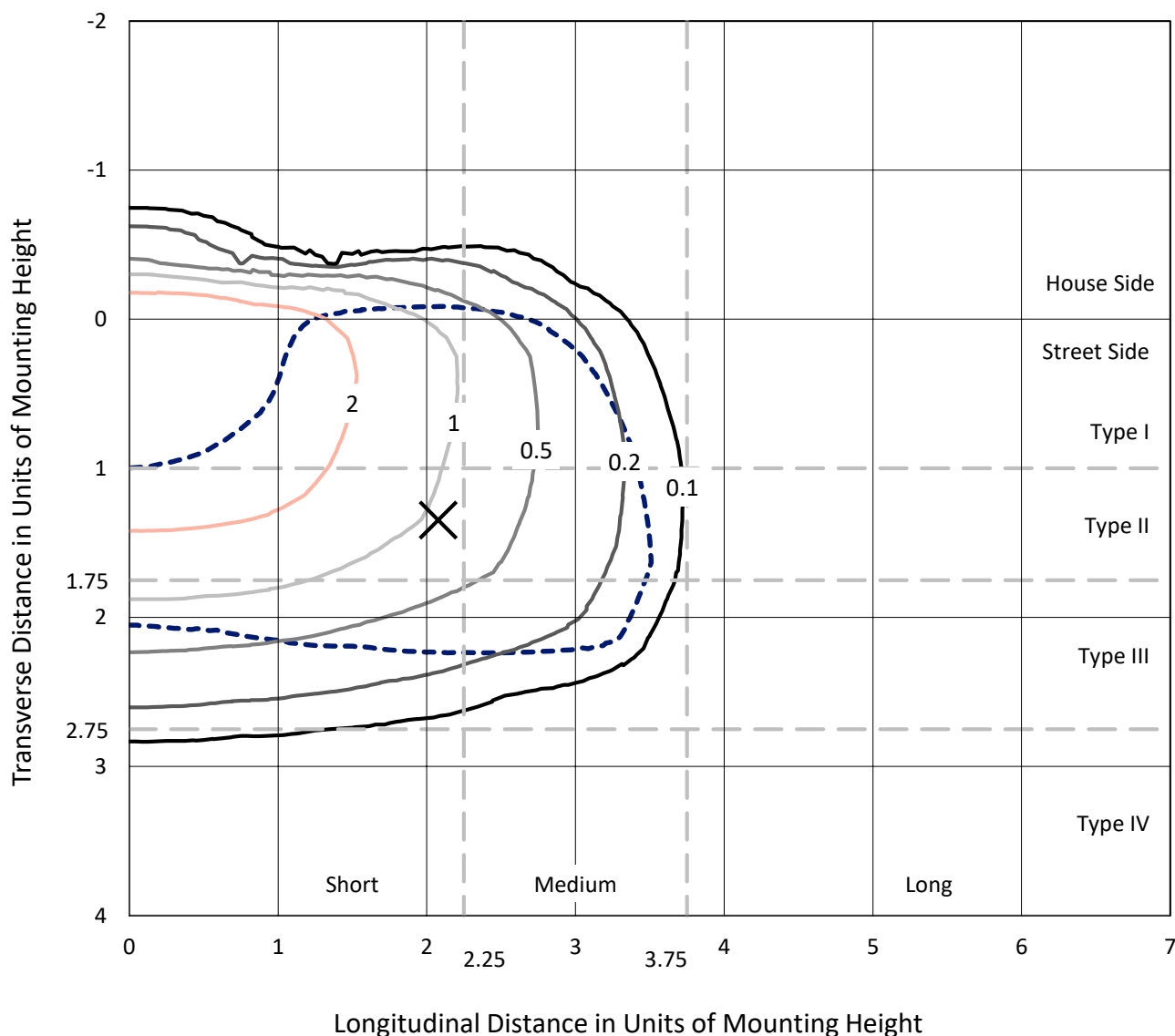
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## Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

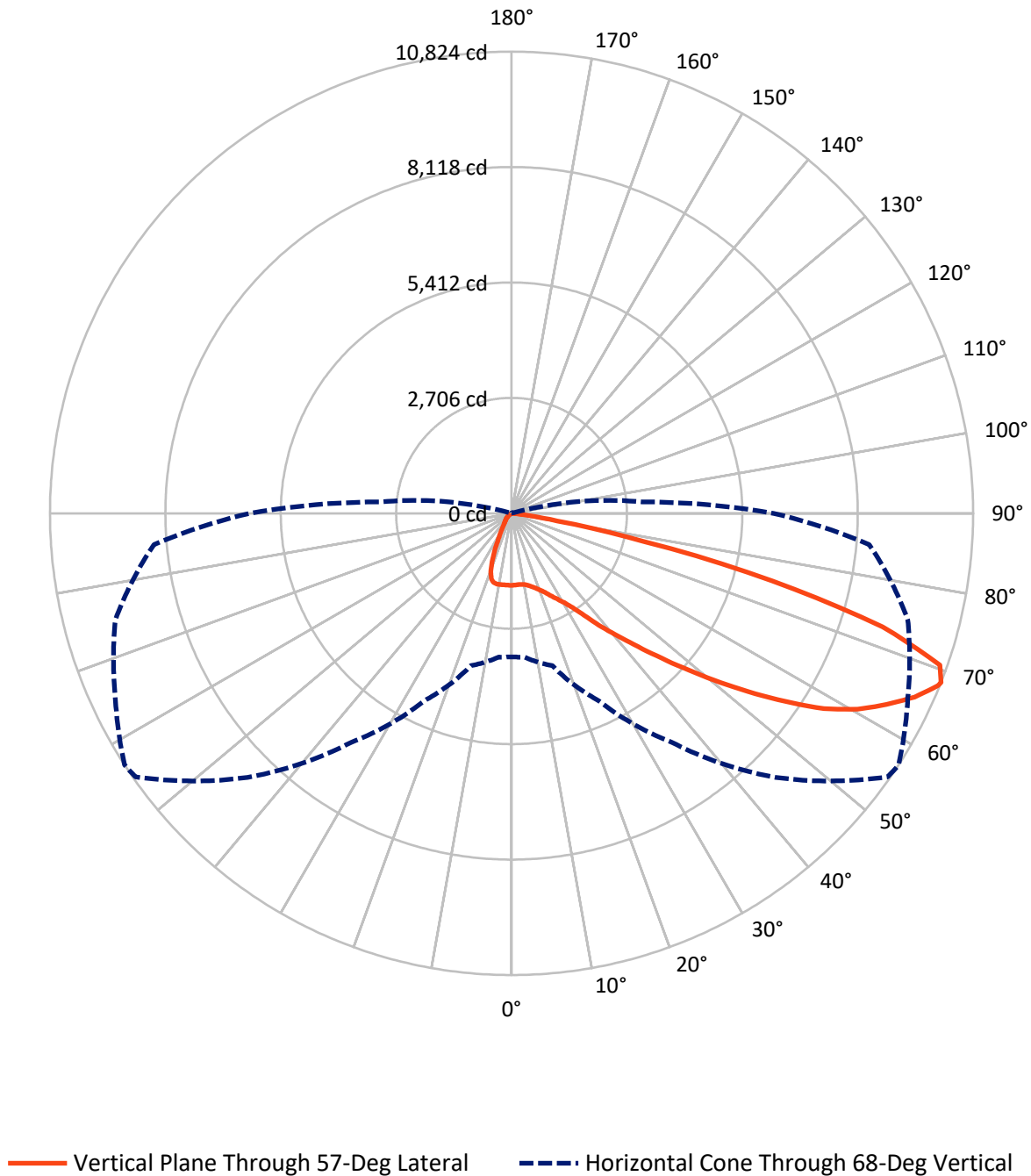


Based on 25 foot mounting height. Maximum calculated value = 3.5 fc

Type III - Short - N/A

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## Luminous Intensity Polar Plot



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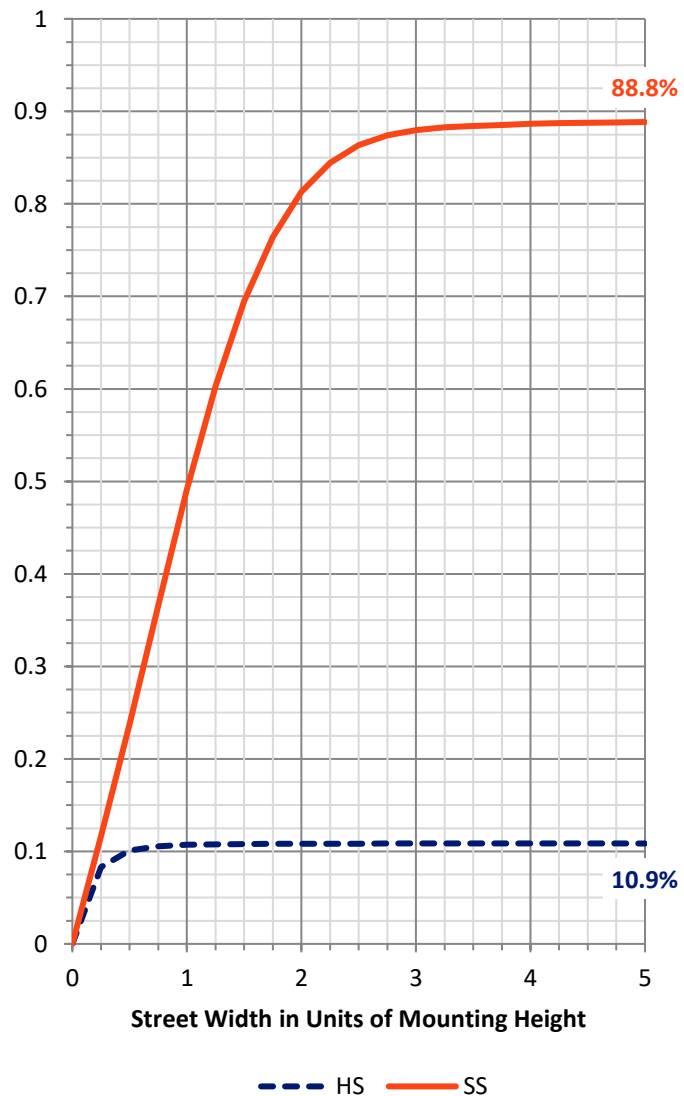
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1556.5   | 0.0    | 1556.5  |
|                    | % Fixture | 11.0     | 0.0    | 11.0    |
| <b>Street Side</b> | Lumens    | 12637.5  | 0.0    | 12637.5 |
|                    | % Fixture | 89.0     | 0.0    | 89.0    |
| <b>Total</b>       | Lumens    | 14194.0  | 0.0    | 14194.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 157.8   | 1.1       |
| 10°-20°   | 437.4   | 3.1       |
| 20°-30°   | 754.5   | 5.3       |
| 30°-40°   | 1302.3  | 9.2       |
| 40°-50°   | 2227.6  | 15.7      |
| 50°-60°   | 3564.0  | 25.1      |
| 60°-70°   | 4117.8  | 29.0      |
| 70°-80°   | 1573.5  | 11.1      |
| 80°-90°   | 59.0    | 0.4       |
| 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°    | 14194.0 | 100.0     |
| 0°-180°   | 14194.0 | 100.0     |

**Coefficient of Utilization**



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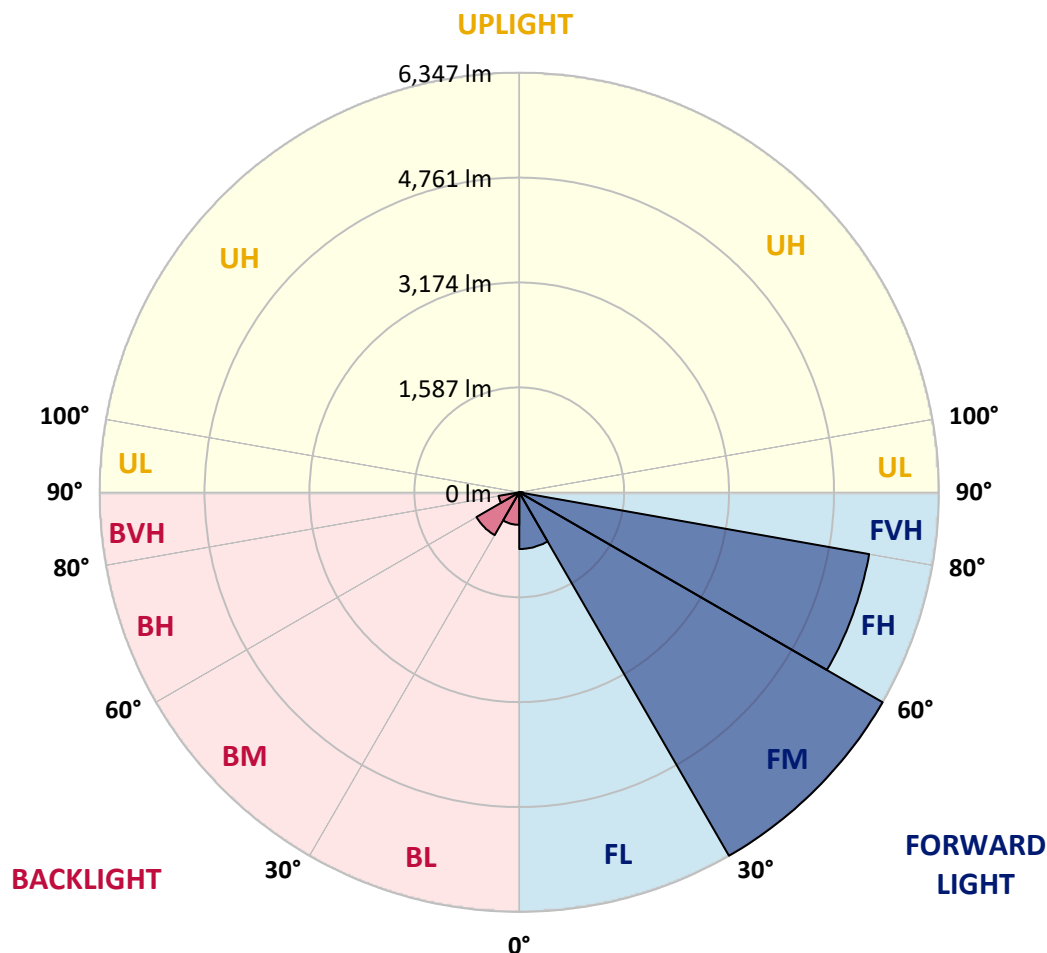
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 857.9  | 6.0       |                         |      |         |
| FM   | (30°-60°)   | 6347.4 | 44.7      |                         |      |         |
| FH   | (60°-80°)   | 5374.3 | 37.9      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 57.9   | 0.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 491.9  | 3.5       | B1/500                  |      |         |
| BM   | (30°-60°)   | 746.5  | 5.3       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 317.0  | 2.2       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 1.1    | 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-G3**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°     | 57°     | 65°     | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|--------|--------|
| 0°    | 1686.6 | 1686.6 | 1686.6 | 1686.6 | 1686.6 | 1686.6 | 1686.6  | 1686.6  | 1686.6  | 1686.6 | 1686.6 |
| 2.5°  | 1647.0 | 1654.4 | 1659.8 | 1663.1 | 1667.2 | 1675.9 | 1678.6  | 1682.6  | 1684.6  | 1684.6 | 1689.3 |
| 5°    | 1581.9 | 1590.0 | 1601.4 | 1610.8 | 1629.6 | 1653.7 | 1671.2  | 1677.9  | 1690.0  | 1700.7 | 1706.8 |
| 7.5°  | 1521.5 | 1530.9 | 1544.3 | 1566.5 | 1598.7 | 1637.6 | 1673.9  | 1683.3  | 1706.8  | 1729.6 | 1741.0 |
| 10°   | 1482.6 | 1490.0 | 1507.4 | 1539.0 | 1581.2 | 1635.6 | 1686.6  | 1698.0  | 1738.3  | 1776.6 | 1798.0 |
| 12.5° | 1469.2 | 1475.9 | 1494.0 | 1529.6 | 1581.9 | 1645.7 | 1716.2  | 1732.9  | 1792.0  | 1847.7 | 1877.9 |
| 15°   | 1488.6 | 1490.0 | 1509.4 | 1543.0 | 1594.7 | 1670.5 | 1765.1  | 1785.3  | 1859.8  | 1932.3 | 1969.9 |
| 17.5° | 1563.8 | 1557.8 | 1567.8 | 1582.6 | 1623.5 | 1703.4 | 1816.8  | 1847.0  | 1946.4  | 2031.6 | 2067.2 |
| 20°   | 1751.7 | 1751.7 | 1728.9 | 1688.6 | 1689.3 | 1754.4 | 1886.6  | 1920.9  | 2042.3  | 2141.0 | 2173.2 |
| 22.5° | 2073.2 | 2067.2 | 2021.5 | 1922.9 | 1832.3 | 1842.3 | 1971.9  | 2016.2  | 2157.8  | 2263.1 | 2273.9 |
| 25°   | 2459.8 | 2452.4 | 2381.9 | 2243.0 | 2086.0 | 1984.6 | 2087.3  | 2138.3  | 2295.4  | 2388.7 | 2366.5 |
| 27.5° | 2869.2 | 2863.2 | 2793.4 | 2620.9 | 2397.4 | 2211.5 | 2224.9  | 2273.2  | 2435.6  | 2527.6 | 2457.1 |
| 30°   | 3265.9 | 3267.9 | 3198.7 | 3021.6 | 2768.5 | 2500.7 | 2399.4  | 2427.6  | 2571.9  | 2665.2 | 2564.5 |
| 32.5° | 3643.0 | 3645.7 | 3586.0 | 3388.0 | 3151.8 | 2837.0 | 2641.0  | 2633.6  | 2730.3  | 2822.2 | 2706.8 |
| 35°   | 3979.3 | 3986.0 | 3945.1 | 3791.4 | 3541.0 | 3211.5 | 2954.4  | 2937.0  | 2955.1  | 3059.1 | 2924.9 |
| 37.5° | 4303.5 | 4307.5 | 4276.6 | 4147.1 | 3937.7 | 3622.9 | 3350.4  | 3325.6  | 3286.7  | 3366.5 | 3212.8 |
| 40°   | 4658.5 | 4648.4 | 4612.9 | 4495.4 | 4315.5 | 4077.3 | 3775.9  | 3733.0  | 3665.2  | 3736.3 | 3591.4 |
| 42.5° | 4988.7 | 4977.3 | 4983.4 | 4850.5 | 4698.8 | 4544.4 | 4271.9  | 4198.1  | 4158.5  | 4240.4 | 4055.8 |
| 45°   | 5401.5 | 5395.4 | 5415.6 | 5300.1 | 5177.3 | 5065.2 | 4840.4  | 4759.9  | 4742.4  | 4838.4 | 4617.6 |
| 47.5° | 5808.9 | 5823.6 | 5886.1 | 5837.1 | 5787.4 | 5688.7 | 5442.4  | 5406.2  | 5416.9  | 5533.0 | 5210.2 |
| 50°   | 6148.5 | 6165.9 | 6337.1 | 6393.5 | 6465.3 | 6407.6 | 6160.6  | 6138.4  | 6180.7  | 6285.4 | 5847.8 |
| 52.5° | 6394.1 | 6429.7 | 6642.5 | 6902.2 | 7163.9 | 7202.9 | 6956.6  | 6936.4  | 6993.5  | 7009.6 | 6340.4 |
| 55°   | 6564.6 | 6596.1 | 6837.1 | 7312.3 | 7845.2 | 8013.0 | 7859.9  | 7782.1  | 7771.3  | 7612.3 | 6858.6 |
| 57.5° | 6594.8 | 6591.4 | 6937.8 | 7577.4 | 8379.4 | 8812.3 | 8715.7  | 8639.2  | 8419.0  | 8169.3 | 7452.5 |
| 60°   | 6424.3 | 6443.8 | 6845.8 | 7669.3 | 8715.0 | 9417.0 | 9424.4  | 9325.1  | 8982.1  | 8711.0 | 8028.4 |
| 62.5° | 5899.5 | 5978.7 | 6384.7 | 7428.4 | 8711.0 | 9660.7 | 9943.9  | 9868.0  | 9458.0  | 9154.6 | 8612.3 |
| 65°   | 5048.5 | 5076.6 | 5463.9 | 6602.9 | 8122.4 | 9558.6 | 10411.7 | 10383.5 | 9886.8  | 9585.5 | 8912.3 |
| 67.5° | 3686.7 | 3625.6 | 4032.3 | 5199.5 | 6876.7 | 8964.0 | 10747.3 | 10782.8 | 10217.7 | 9674.1 | 8592.8 |
| 68°   | 3364.5 | 3382.6 | 3699.4 | 4852.5 | 6550.5 | 8753.9 | 10769.4 | 10823.8 | 10250.6 | 9616.4 | 8418.3 |
| 70°   | 2005.4 | 2040.3 | 2322.9 | 3341.0 | 4983.4 | 7565.3 | 10530.5 | 10654.6 | 10054.6 | 9021.0 | 7281.4 |
| 72.5° | 512.1  | 553.7  | 820.8  | 1495.3 | 2846.4 | 5330.3 | 8889.5  | 9099.6  | 8729.8  | 7318.3 | 4915.6 |
| 75°   | 210.7  | 221.5  | 293.3  | 492.6  | 1060.4 | 2401.4 | 5859.2  | 6308.9  | 6051.8  | 4381.3 | 2221.5 |
| 77.5° | 145.6  | 153.0  | 188.6  | 273.2  | 459.1  | 814.1  | 2872.6  | 3197.4  | 2880.6  | 1495.3 | 484.6  |
| 80°   | 104.7  | 110.7  | 134.9  | 181.9  | 263.8  | 290.6  | 936.3   | 1082.6  | 859.8   | 328.2  | 120.1  |
| 82.5° | 62.4   | 67.1   | 100.7  | 129.5  | 160.4  | 138.9  | 232.9   | 264.4   | 249.0   | 163.1  | 53.7   |
| 85°   | 30.9   | 36.2   | 67.8   | 92.6   | 86.6   | 58.4   | 71.1    | 79.2    | 98.0    | 99.3   | 28.9   |
| 87.5° | 2.0    | 4.0    | 39.6   | 55.7   | 24.2   | 13.4   | 20.8    | 25.5    | 34.9    | 49.0   | 12.1   |
| 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°    | 1686.6 | 1686.6 | 1686.6 | 1686.6 | 1686.6 | 1686.6 | 1686.6 | 1686.6 | 1686.6 | 1686.6 | 1686.6 |
| 2.5°  | 1691.3 | 1692.0 | 1687.3 | 1685.3 | 1686.6 | 1678.6 | 1675.2 | 1676.6 | 1676.6 | 1678.6 | 1675.2 |
| 5°    | 1708.1 | 1708.1 | 1700.0 | 1689.3 | 1683.3 | 1667.8 | 1657.8 | 1655.1 | 1653.1 | 1651.7 | 1649.0 |
| 7.5°  | 1744.3 | 1740.3 | 1726.2 | 1702.7 | 1682.6 | 1649.0 | 1623.5 | 1610.1 | 1603.4 | 1600.7 | 1598.7 |
| 10°   | 1802.7 | 1795.3 | 1771.9 | 1728.2 | 1681.9 | 1622.2 | 1566.5 | 1526.9 | 1494.0 | 1480.6 | 1472.5 |
| 12.5° | 1881.3 | 1870.5 | 1830.9 | 1758.4 | 1677.2 | 1567.2 | 1446.3 | 1330.2 | 1222.2 | 1177.9 | 1155.7 |
| 15°   | 1971.9 | 1956.4 | 1894.0 | 1783.9 | 1649.7 | 1443.0 | 1180.6 | 977.2  | 827.5  | 771.2  | 747.0  |
| 17.5° | 2063.8 | 2043.7 | 1949.0 | 1800.0 | 1567.2 | 1185.9 | 828.2  | 625.5  | 525.5  | 498.7  | 489.3  |
| 20°   | 2156.4 | 2126.9 | 1996.7 | 1788.0 | 1380.6 | 855.1  | 546.3  | 457.1  | 428.2  | 420.1  | 417.5  |
| 22.5° | 2244.4 | 2198.7 | 2039.7 | 1741.0 | 1093.3 | 573.8  | 432.2  | 404.0  | 394.6  | 389.9  | 388.6  |
| 25°   | 2320.9 | 2257.1 | 2077.2 | 1596.0 | 773.8  | 433.6  | 389.3  | 379.9  | 367.8  | 359.1  | 359.7  |
| 27.5° | 2392.7 | 2315.5 | 2100.1 | 1357.1 | 516.1  | 370.5  | 360.4  | 347.7  | 325.5  | 312.8  | 312.8  |
| 30°   | 2479.3 | 2393.4 | 2116.8 | 1044.3 | 379.9  | 327.5  | 319.5  | 300.0  | 269.8  | 253.0  | 253.0  |
| 32.5° | 2609.5 | 2511.5 | 2106.1 | 732.9  | 314.8  | 287.9  | 269.1  | 242.3  | 209.4  | 193.3  | 192.6  |
| 35°   | 2808.8 | 2694.0 | 2029.6 | 480.5  | 277.9  | 250.3  | 220.1  | 187.3  | 158.4  | 145.0  | 144.3  |
| 37.5° | 3077.3 | 2938.3 | 1857.8 | 343.6  | 249.0  | 215.4  | 179.2  | 143.0  | 121.5  | 112.8  | 112.1  |
| 40°   | 3425.6 | 3222.2 | 1612.1 | 278.5  | 222.2  | 181.9  | 138.3  | 110.7  | 96.0   | 89.3   | 89.9   |
| 42.5° | 3843.7 | 3526.3 | 1317.5 | 240.3  | 196.0  | 149.7  | 108.1  | 87.3   | 77.9   | 73.2   | 71.8   |
| 45°   | 4308.2 | 3826.3 | 1008.8 | 214.1  | 169.8  | 120.8  | 84.6   | 69.1   | 61.7   | 59.1   | 59.1   |
| 47.5° | 4818.9 | 4118.2 | 738.3  | 191.3  | 141.6  | 93.3   | 67.8   | 56.4   | 50.3   | 48.3   | 47.7   |
| 50°   | 5282.7 | 4320.9 | 532.2  | 167.1  | 116.1  | 73.8   | 55.0   | 47.0   | 43.0   | 40.3   | 40.3   |
| 52.5° | 5669.3 | 4384.7 | 392.0  | 140.9  | 94.0   | 59.1   | 45.6   | 40.3   | 36.2   | 34.2   | 34.2   |
| 55°   | 6009.6 | 4358.5 | 291.3  | 116.1  | 75.8   | 48.3   | 38.9   | 34.2   | 30.9   | 28.9   | 28.9   |
| 57.5° | 6335.7 | 4273.9 | 217.5  | 94.6   | 61.1   | 38.9   | 32.9   | 28.9   | 25.5   | 24.2   | 24.2   |
| 60°   | 6602.2 | 4133.0 | 161.7  | 76.5   | 49.0   | 31.5   | 27.5   | 23.5   | 20.8   | 18.8   | 18.8   |
| 62.5° | 6818.3 | 3977.3 | 118.8  | 63.1   | 38.9   | 24.8   | 21.5   | 19.5   | 15.4   | 13.4   | 13.4   |
| 65°   | 6819.6 | 3718.9 | 89.3   | 52.4   | 30.2   | 19.5   | 16.1   | 15.4   | 10.1   | 8.1    | 7.4    |
| 67.5° | 6326.3 | 3206.1 | 68.5   | 45.0   | 23.5   | 14.8   | 12.1   | 12.8   | 5.4    | 3.4    | 2.7    |
| 68°   | 6147.1 | 3075.9 | 64.4   | 44.3   | 22.1   | 14.1   | 11.4   | 12.8   | 4.7    | 2.7    | 2.0    |
| 70°   | 5182.7 | 2447.0 | 51.7   | 43.0   | 19.5   | 10.7   | 9.4    | 12.8   | 4.0    | 2.0    | 1.3    |
| 72.5° | 3314.9 | 1420.2 | 38.3   | 34.2   | 14.8   | 8.1    | 6.0    | 11.4   | 4.0    | 1.3    | 0.7    |
| 75°   | 1410.8 | 440.3  | 26.2   | 24.2   | 8.7    | 6.0    | 4.0    | 7.4    | 2.7    | 0.7    | 0.0    |
| 77.5° | 297.3  | 99.3   | 15.4   | 14.8   | 6.0    | 4.0    | 2.7    | 2.0    | 0.7    | 0.0    | 0.0    |
| 80°   | 76.5   | 28.9   | 8.1    | 7.4    | 3.4    | 2.0    | 1.3    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 24.2   | 11.4   | 4.7    | 3.4    | 1.3    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 12.1   | 6.7    | 2.7    | 1.3    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 6.7    | 2.0    | 0.7    | 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)