

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: P322679

Luminaire Tested: **GAN-SA5B-827-U-T4FT-HSS**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P322679  
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-SA5B-827-U-T4FT-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 80 CRI, 2700K, 800mA 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: 14911 lumens  
Efficiency: N/A  
Efficacy: 71.0 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3

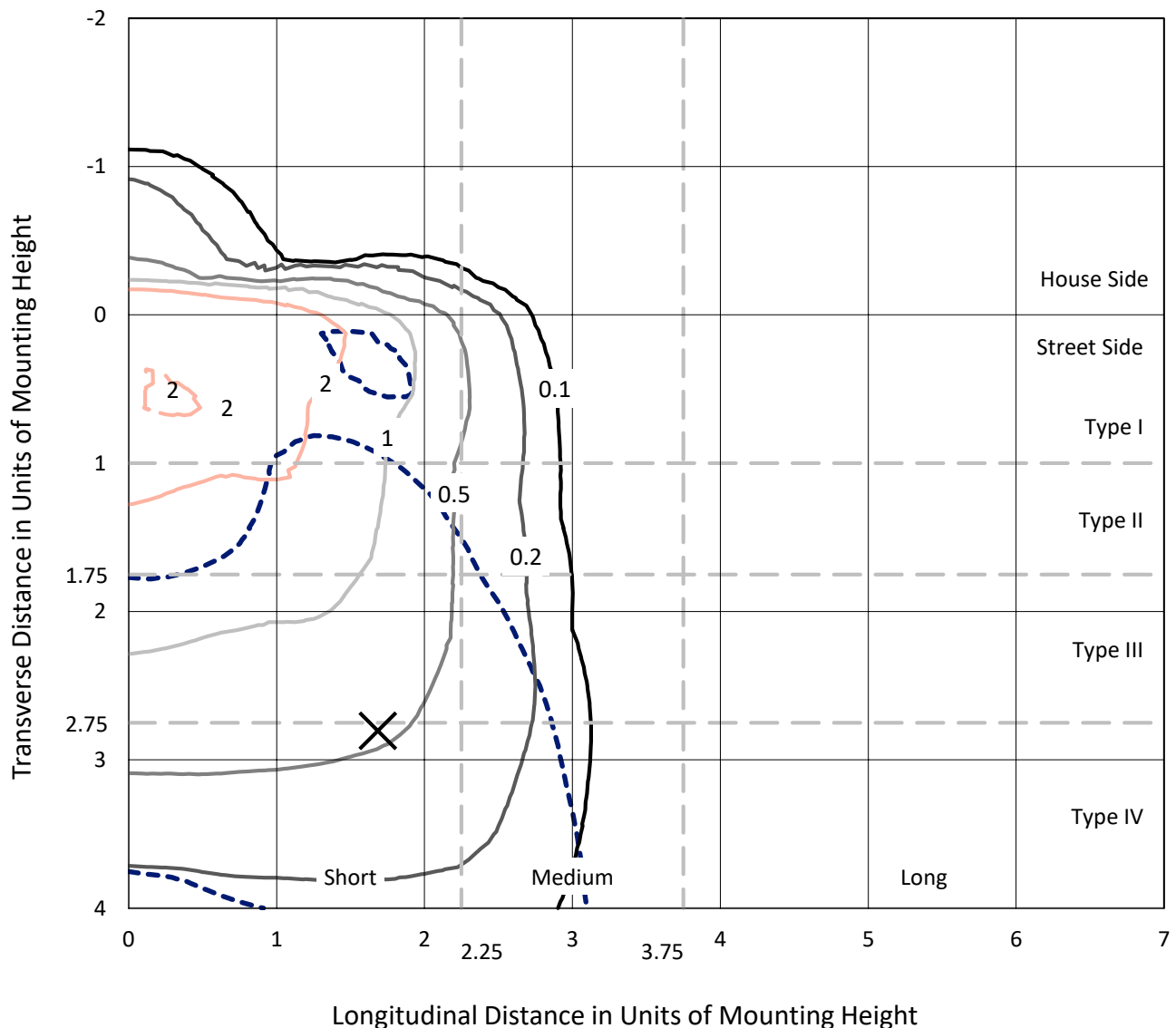
Input Watts (W): 210  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

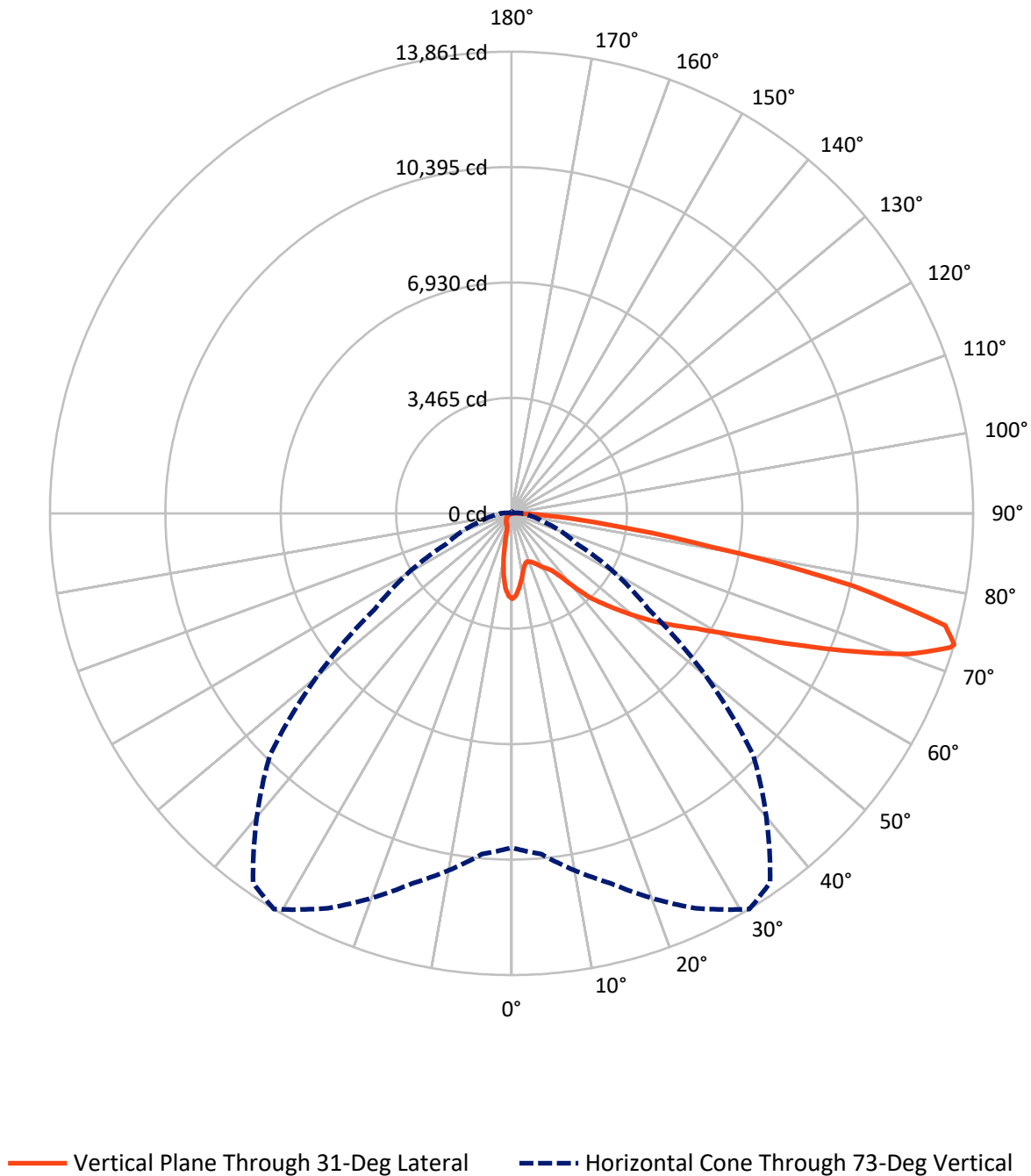
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc  
 Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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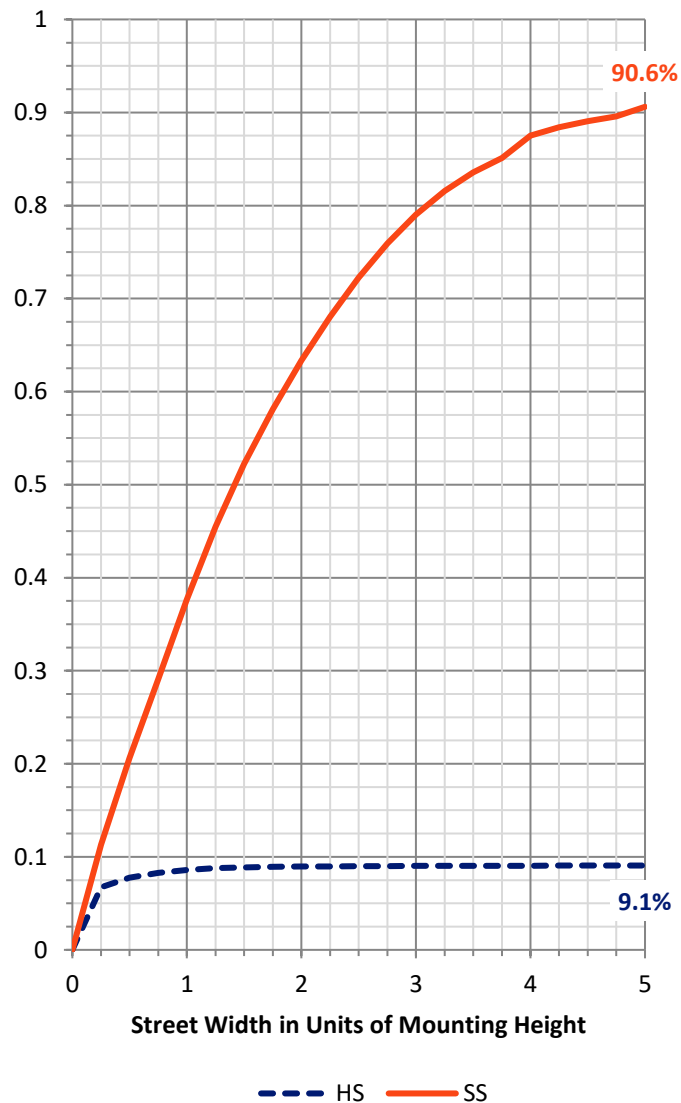
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1359.2   | 0.0    | 1359.2  |
|                    | % Fixture | 9.1      | 0.0    | 9.1     |
| <b>Street Side</b> | Lumens    | 13551.8  | 0.0    | 13551.8 |
|                    | % Fixture | 90.9     | 0.0    | 90.9    |
| <b>Total</b>       | Lumens    | 14911.0  | 0.0    | 14911.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 212.7   | 1.4       |
| 10°-20°   | 461.9   | 3.1       |
| 20°-30°   | 692.0   | 4.6       |
| 30°-40°   | 1101.0  | 7.4       |
| 40°-50°   | 1966.0  | 13.2      |
| 50°-60°   | 3050.7  | 20.5      |
| 60°-70°   | 4055.5  | 27.2      |
| 70°-80°   | 3050.6  | 20.5      |
| 80°-90°   | 320.6   | 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°    | 14911.0 | 100.0     |
| 0°-180°   | 14911.0 | 100.0     |

**Coefficient of Utilization**



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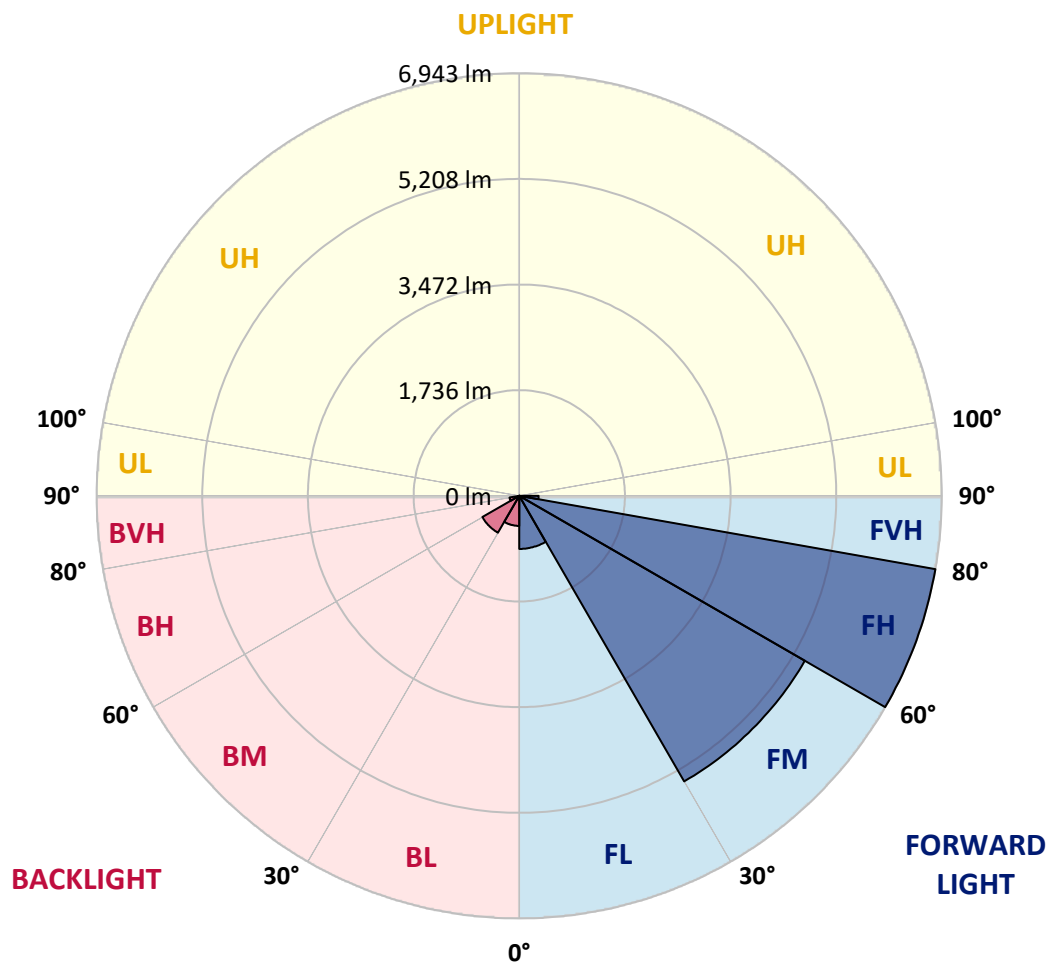
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 872.3  | 5.9       |                         |      |         |
| FM   | (30°-60°)   | 5418.1 | 36.3      |                         |      |         |
| FH   | (60°-80°)   | 6943.5 | 46.6      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 317.9  | 2.1       |                         |      | G3/500  |
| BL   | (0°-30°)    | 494.3  | 3.3       | B1/500                  |      |         |
| BM   | (30°-60°)   | 699.6  | 4.7       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 162.6  | 1.1       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 2.7    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 31°     | 35°     | 45°     | 55°    | 65°    | 75°    | 85°    |
|-------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|
| 0°    | 2565.5  | 2565.5  | 2565.5  | 2565.5  | 2565.5  | 2565.5  | 2565.5  | 2565.5 | 2565.5 | 2565.5 | 2565.5 |
| 2.5°  | 2431.2  | 2441.4  | 2452.4  | 2454.6  | 2472.8  | 2473.5  | 2499.8  | 2519.5 | 2539.2 | 2558.2 | 2564.7 |
| 5°    | 2181.7  | 2198.5  | 2218.2  | 2237.9  | 2276.5  | 2291.8  | 2356.1  | 2421.7 | 2484.5 | 2544.3 | 2573.5 |
| 7.5°  | 1915.3  | 1934.3  | 1962.0  | 2010.9  | 2054.0  | 2083.9  | 2185.3  | 2302.1 | 2418.8 | 2529.0 | 2592.5 |
| 10°   | 1672.4  | 1689.9  | 1719.1  | 1770.9  | 1837.3  | 1878.1  | 2014.6  | 2176.6 | 2348.0 | 2515.1 | 2620.9 |
| 12.5° | 1517.7  | 1527.2  | 1543.2  | 1598.7  | 1658.5  | 1704.5  | 1865.0  | 2065.7 | 2289.7 | 2514.4 | 2666.9 |
| 15°   | 1489.2  | 1492.1  | 1479.0  | 1503.8  | 1550.5  | 1595.0  | 1757.7  | 1975.9 | 2245.1 | 2526.1 | 2726.7 |
| 17.5° | 1534.5  | 1533.0  | 1489.2  | 1486.3  | 1523.5  | 1560.0  | 1705.2  | 1913.9 | 2213.8 | 2553.1 | 2804.1 |
| 20°   | 1603.1  | 1597.9  | 1522.1  | 1508.2  | 1547.6  | 1581.9  | 1701.6  | 1890.5 | 2202.1 | 2598.3 | 2898.2 |
| 22.5° | 1694.3  | 1685.5  | 1566.6  | 1552.0  | 1594.3  | 1630.0  | 1746.8  | 1913.2 | 2212.3 | 2658.9 | 3007.6 |
| 25°   | 1807.4  | 1794.2  | 1643.2  | 1627.1  | 1670.2  | 1705.9  | 1827.8  | 1978.1 | 2243.0 | 2732.6 | 3146.3 |
| 27.5° | 1935.0  | 1916.1  | 1765.8  | 1724.2  | 1773.1  | 1810.3  | 1935.8  | 2077.3 | 2291.1 | 2810.6 | 3316.3 |
| 30°   | 2055.4  | 2030.6  | 1894.9  | 1826.3  | 1886.2  | 1927.7  | 2052.5  | 2195.5 | 2368.5 | 2931.0 | 3549.0 |
| 32.5° | 2176.6  | 2148.8  | 2010.2  | 1928.5  | 1982.5  | 2027.7  | 2172.9  | 2358.2 | 2513.7 | 3114.9 | 3858.4 |
| 35°   | 2455.3  | 2426.1  | 2256.1  | 2121.1  | 2120.4  | 2145.9  | 2341.5  | 2580.8 | 2705.6 | 3371.0 | 4227.6 |
| 37.5° | 2924.5  | 2907.7  | 2745.7  | 2489.6  | 2421.0  | 2392.5  | 2571.3  | 2846.4 | 2981.4 | 3723.4 | 4644.3 |
| 40°   | 3438.1  | 3423.5  | 3241.9  | 3009.8  | 2905.5  | 2835.4  | 2901.1  | 3216.3 | 3371.0 | 4153.9 | 5069.6 |
| 42.5° | 4018.2  | 3948.9  | 3624.9  | 3555.6  | 3462.2  | 3408.9  | 3349.8  | 3672.4 | 3849.7 | 4622.4 | 5491.4 |
| 45°   | 4545.0  | 4428.3  | 4008.0  | 3902.9  | 3881.8  | 3894.9  | 3927.7  | 4285.3 | 4388.1 | 5179.1 | 5911.7 |
| 47.5° | 4858.8  | 4766.8  | 4444.3  | 4343.6  | 4337.8  | 4424.6  | 4672.7  | 4977.7 | 4924.4 | 5664.3 | 6281.6 |
| 50°   | 5157.2  | 5074.0  | 4806.2  | 4831.0  | 4858.0  | 4976.2  | 5518.4  | 5689.9 | 5414.0 | 6104.3 | 6620.9 |
| 52.5° | 5398.7  | 5271.8  | 5131.7  | 5271.0  | 5403.8  | 5594.3  | 6391.1  | 6329.0 | 5761.4 | 6454.5 | 6911.3 |
| 55°   | 5538.1  | 5480.4  | 5548.3  | 5688.4  | 5937.9  | 6247.3  | 7214.8  | 6860.9 | 6015.3 | 6774.1 | 7104.7 |
| 57.5° | 6048.8  | 5935.7  | 6070.7  | 6191.9  | 6517.3  | 6950.0  | 7920.4  | 7257.2 | 6198.4 | 6971.9 | 7149.2 |
| 60°   | 6666.9  | 6575.7  | 6655.2  | 6856.6  | 7295.8  | 7804.4  | 8580.0  | 7580.4 | 6294.0 | 7098.8 | 7033.9 |
| 62.5° | 7650.4  | 7530.0  | 7480.4  | 7705.9  | 8288.2  | 8843.4  | 9080.6  | 7804.4 | 6272.8 | 7042.6 | 6638.4 |
| 65°   | 8968.2  | 8843.4  | 8621.6  | 8825.9  | 9566.5  | 9958.3  | 9640.2  | 7851.8 | 6126.9 | 6588.1 | 5638.8 |
| 67.5° | 10318.1 | 10227.6 | 10037.9 | 10382.3 | 11050.6 | 11176.9 | 10232.0 | 7736.5 | 5657.0 | 5341.8 | 3983.9 |
| 70°   | 11209.7 | 11171.0 | 11294.3 | 12056.1 | 12652.2 | 12615.7 | 10774.8 | 7117.1 | 4409.3 | 3284.9 | 1970.8 |
| 72.5° | 10566.9 | 10752.2 | 11662.8 | 13044.0 | 13772.2 | 13474.5 | 10496.1 | 5465.1 | 2520.2 | 1263.8 | 569.9  |
| 73°   | 10034.2 | 10271.4 | 11497.2 | 13081.3 | 13860.5 | 13534.4 | 10261.9 | 5016.4 | 2148.1 | 997.4  | 432.0  |
| 75°   | 6980.6  | 7271.7  | 9518.4  | 12183.1 | 13447.5 | 12895.2 | 8553.7  | 3070.4 | 995.2  | 442.2  | 174.4  |
| 77.5° | 3389.2  | 3604.5  | 5241.1  | 8802.6  | 10458.1 | 10075.1 | 5325.0  | 1144.1 | 449.5  | 276.5  | 80.3   |
| 80°   | 1265.2  | 1406.8  | 2275.1  | 4480.1  | 6043.7  | 6202.1  | 2342.2  | 432.7  | 299.2  | 222.5  | 40.9   |
| 82.5° | 331.3   | 369.2   | 839.1   | 1997.8  | 3097.4  | 3241.9  | 738.4   | 218.2  | 218.9  | 183.1  | 24.8   |
| 85°   | 105.8   | 121.1   | 261.9   | 896.7   | 1459.3  | 1281.3  | 192.6   | 105.8  | 159.1  | 136.4  | 13.9   |
| 87.5° | 13.1    | 16.8    | 83.2    | 210.9   | 321.8   | 178.8   | 29.9    | 31.4   | 67.9   | 75.9   | 8.0    |
| 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°    | 2565.5 | 2565.5 | 2565.5 | 2565.5 | 2565.5 | 2565.5 | 2565.5 | 2565.5 | 2565.5 | 2565.5 | 2565.5 |
| 2.5°  | 2571.3 | 2567.7 | 2568.4 | 2549.4 | 2537.0 | 2512.2 | 2486.7 | 2475.0 | 2462.6 | 2457.5 | 2462.6 |
| 5°    | 2584.4 | 2577.9 | 2558.9 | 2500.5 | 2438.5 | 2358.2 | 2283.1 | 2226.2 | 2154.7 | 2135.0 | 2155.4 |
| 7.5°  | 2604.9 | 2591.7 | 2536.3 | 2417.3 | 2279.4 | 2126.2 | 1954.0 | 1828.5 | 1725.6 | 1659.2 | 1683.3 |
| 10°   | 2634.8 | 2610.0 | 2498.3 | 2296.2 | 2049.6 | 1778.2 | 1533.7 | 1343.3 | 1208.3 | 1152.9 | 1150.7 |
| 12.5° | 2685.1 | 2638.4 | 2451.6 | 2138.6 | 1768.7 | 1406.8 | 1086.5 | 880.0  | 770.5  | 699.7  | 698.3  |
| 15°   | 2740.6 | 2672.0 | 2392.5 | 1949.6 | 1441.8 | 1007.7 | 699.7  | 542.9  | 472.1  | 449.5  | 446.5  |
| 17.5° | 2808.4 | 2710.7 | 2315.9 | 1716.9 | 1099.6 | 667.6  | 456.8  | 411.5  | 408.6  | 406.4  | 406.4  |
| 20°   | 2893.8 | 2756.6 | 2217.4 | 1450.6 | 780.0  | 445.8  | 388.2  | 391.1  | 392.6  | 389.6  | 390.4  |
| 22.5° | 2993.0 | 2803.3 | 2099.9 | 1164.5 | 527.5  | 372.9  | 371.4  | 375.0  | 376.5  | 375.0  | 375.8  |
| 25°   | 3108.3 | 2857.3 | 1956.9 | 864.6  | 380.9  | 353.9  | 357.5  | 362.6  | 366.3  | 366.3  | 366.3  |
| 27.5° | 3251.3 | 2923.0 | 1784.7 | 603.4  | 329.1  | 334.2  | 344.4  | 353.9  | 359.0  | 360.4  | 360.4  |
| 30°   | 3437.4 | 3004.7 | 1578.2 | 413.7  | 299.2  | 307.9  | 326.9  | 345.1  | 354.6  | 356.1  | 356.8  |
| 32.5° | 3672.4 | 3096.7 | 1338.9 | 305.7  | 273.6  | 280.2  | 300.6  | 331.3  | 349.5  | 352.4  | 352.4  |
| 35°   | 3941.6 | 3203.2 | 1081.3 | 266.3  | 255.4  | 257.6  | 273.6  | 308.6  | 340.7  | 348.8  | 349.5  |
| 37.5° | 4236.4 | 3308.3 | 822.3  | 248.8  | 240.1  | 240.1  | 251.7  | 281.6  | 319.6  | 344.4  | 347.3  |
| 40°   | 4511.5 | 3371.7 | 576.4  | 234.9  | 226.2  | 226.2  | 236.4  | 258.3  | 294.1  | 331.3  | 339.3  |
| 42.5° | 4765.4 | 3393.6 | 401.3  | 221.8  | 213.1  | 215.2  | 224.0  | 241.5  | 268.5  | 305.7  | 313.0  |
| 45°   | 5026.6 | 3390.0 | 292.6  | 206.5  | 199.9  | 206.5  | 213.1  | 226.2  | 245.9  | 267.1  | 268.5  |
| 47.5° | 5223.6 | 3359.3 | 232.0  | 191.9  | 187.5  | 196.3  | 202.1  | 210.9  | 221.8  | 220.4  | 220.4  |
| 50°   | 5408.2 | 3284.9 | 186.8  | 172.2  | 175.1  | 185.3  | 188.3  | 191.2  | 191.9  | 178.0  | 176.6  |
| 52.5° | 5548.3 | 3168.9 | 149.6  | 151.0  | 162.7  | 172.9  | 170.0  | 165.6  | 158.3  | 141.6  | 138.6  |
| 55°   | 5595.0 | 2945.6 | 117.5  | 124.8  | 144.5  | 157.6  | 146.7  | 137.2  | 123.3  | 109.4  | 106.5  |
| 57.5° | 5510.4 | 2657.4 | 95.6   | 97.0   | 121.9  | 132.8  | 120.4  | 109.4  | 94.1   | 82.5   | 80.3   |
| 60°   | 5330.9 | 2337.1 | 78.8   | 73.0   | 94.1   | 103.6  | 95.6   | 84.6   | 70.8   | 62.0   | 61.3   |
| 62.5° | 4974.8 | 1995.6 | 64.9   | 56.9   | 71.5   | 79.5   | 74.4   | 66.4   | 54.7   | 48.9   | 48.2   |
| 65°   | 4226.2 | 1596.5 | 52.5   | 46.0   | 55.5   | 62.0   | 57.6   | 51.8   | 43.0   | 38.7   | 37.9   |
| 67.5° | 2950.0 | 1079.2 | 43.0   | 37.9   | 43.8   | 48.9   | 45.2   | 42.3   | 34.3   | 33.6   | 34.3   |
| 70°   | 1422.8 | 520.2  | 35.8   | 30.6   | 34.3   | 37.9   | 36.5   | 34.3   | 32.8   | 37.9   | 43.8   |
| 72.5° | 407.9  | 174.4  | 28.5   | 25.5   | 27.7   | 29.9   | 31.4   | 30.6   | 35.8   | 46.0   | 53.3   |
| 73°   | 313.8  | 140.8  | 27.0   | 24.1   | 26.3   | 29.2   | 30.6   | 29.9   | 36.5   | 46.7   | 53.3   |
| 75°   | 134.3  | 67.9   | 20.4   | 19.7   | 21.9   | 25.5   | 27.0   | 27.0   | 36.5   | 47.4   | 51.1   |
| 77.5° | 60.6   | 36.5   | 13.1   | 15.3   | 19.0   | 20.4   | 22.6   | 22.6   | 29.2   | 36.5   | 36.5   |
| 80°   | 34.3   | 19.7   | 10.2   | 11.7   | 13.9   | 13.9   | 13.9   | 12.4   | 13.1   | 14.6   | 16.1   |
| 82.5° | 21.9   | 13.1   | 8.0    | 9.5    | 8.8    | 7.3    | 5.8    | 5.8    | 5.1    | 5.8    | 7.3    |
| 85°   | 12.4   | 7.3    | 7.3    | 5.8    | 3.6    | 2.9    | 3.6    | 2.9    | 0.7    | 0.0    | 0.7    |
| 87.5° | 7.3    | 4.4    | 2.2    | 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)