

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: P453370

Luminaire Tested: **GLAN-SA4B-827-U-T2R-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453370  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GLAN-SA4B-827-U-T2R-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13248 lumens  
Efficiency: N/A  
Efficacy: 80.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 164  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

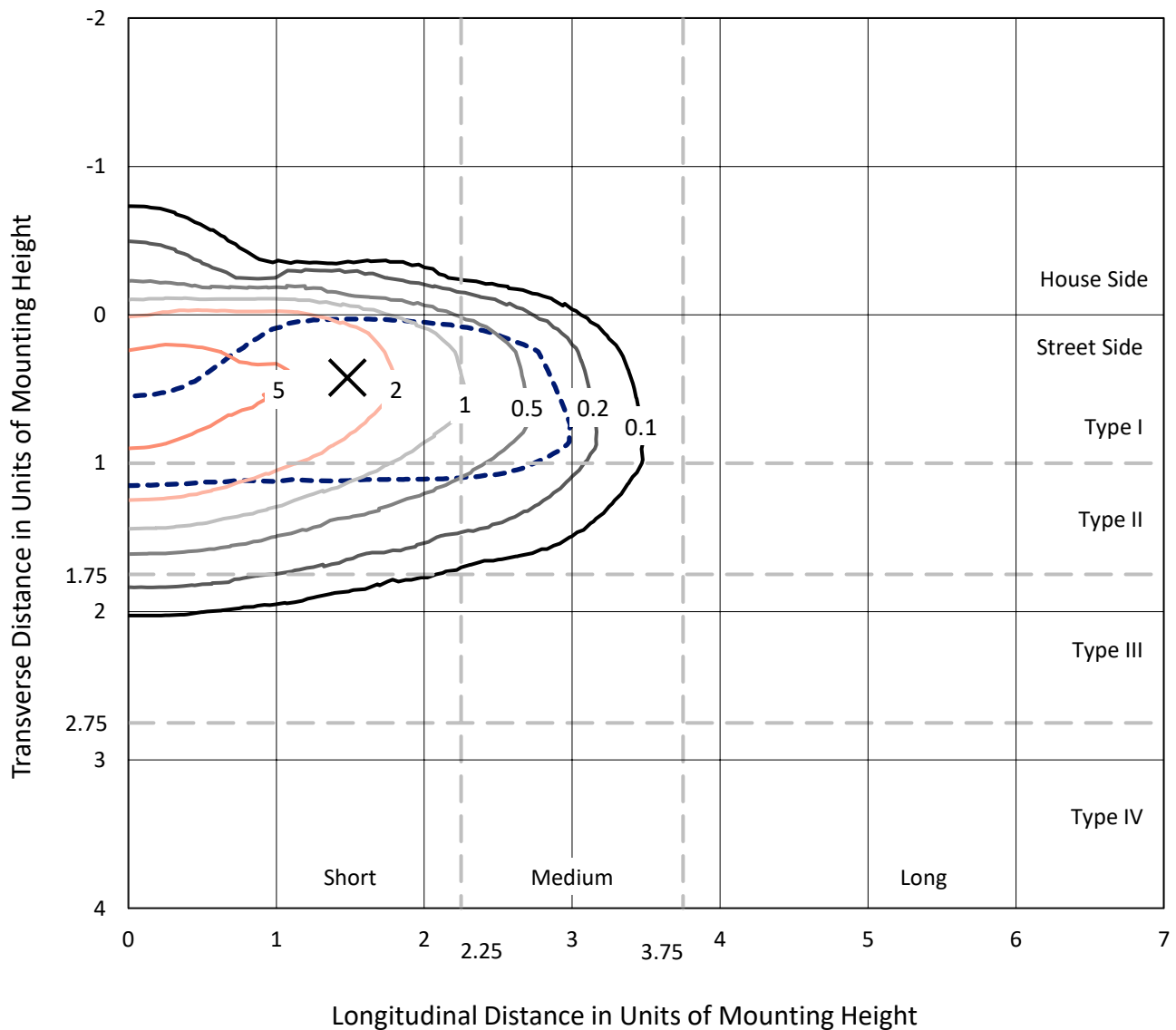


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## Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

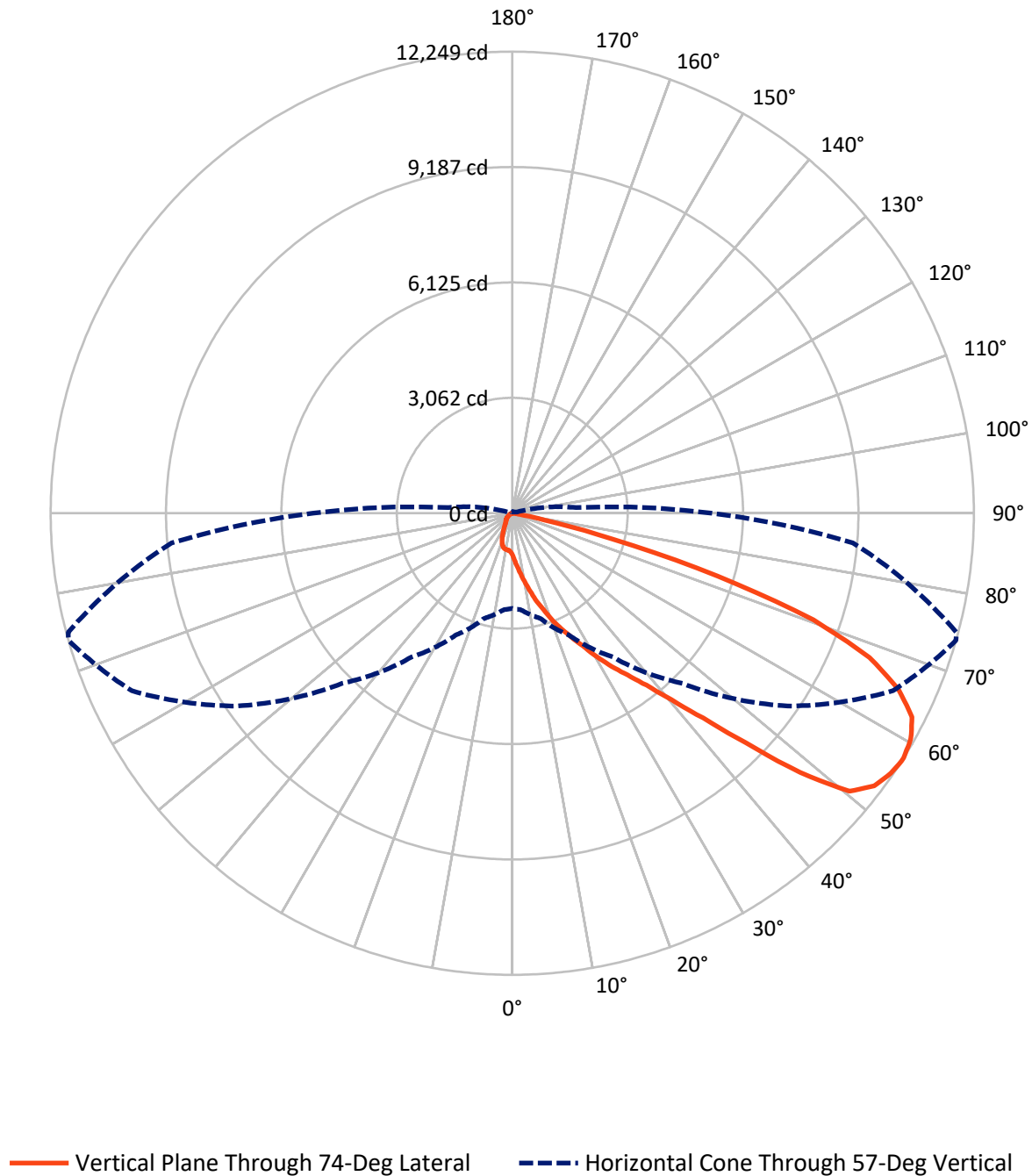


Based on 25 foot mounting height. Maximum calculated value = 6.7 fc  
 Type II - Short - N/A

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 764.1    | 0.0    | 764.1   |
|                    | % Fixture | 5.8      | 0.0    | 5.8     |
| <b>Street Side</b> | Lumens    | 12483.9  | 0.0    | 12483.9 |
|                    | % Fixture | 94.2     | 0.0    | 94.2    |
| <b>Total</b>       | Lumens    | 13248.0  | 0.0    | 13248.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 133.9   | 1.0       |
| 10°-20°   | 527.9   | 4.0       |
| 20°-30°   | 1129.5  | 8.5       |
| 30°-40°   | 2076.0  | 15.7      |
| 40°-50°   | 3182.5  | 24.0      |
| 50°-60°   | 3366.7  | 25.4      |
| 60°-70°   | 2198.5  | 16.6      |
| 70°-80°   | 600.7   | 4.5       |
| 80°-90°   | 32.3    | 0.2       |
| 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°    | 13248.0 | 100.0     |
| 0°-180°   | 13248.0 | 100.0     |

**Coefficient of Utilization**



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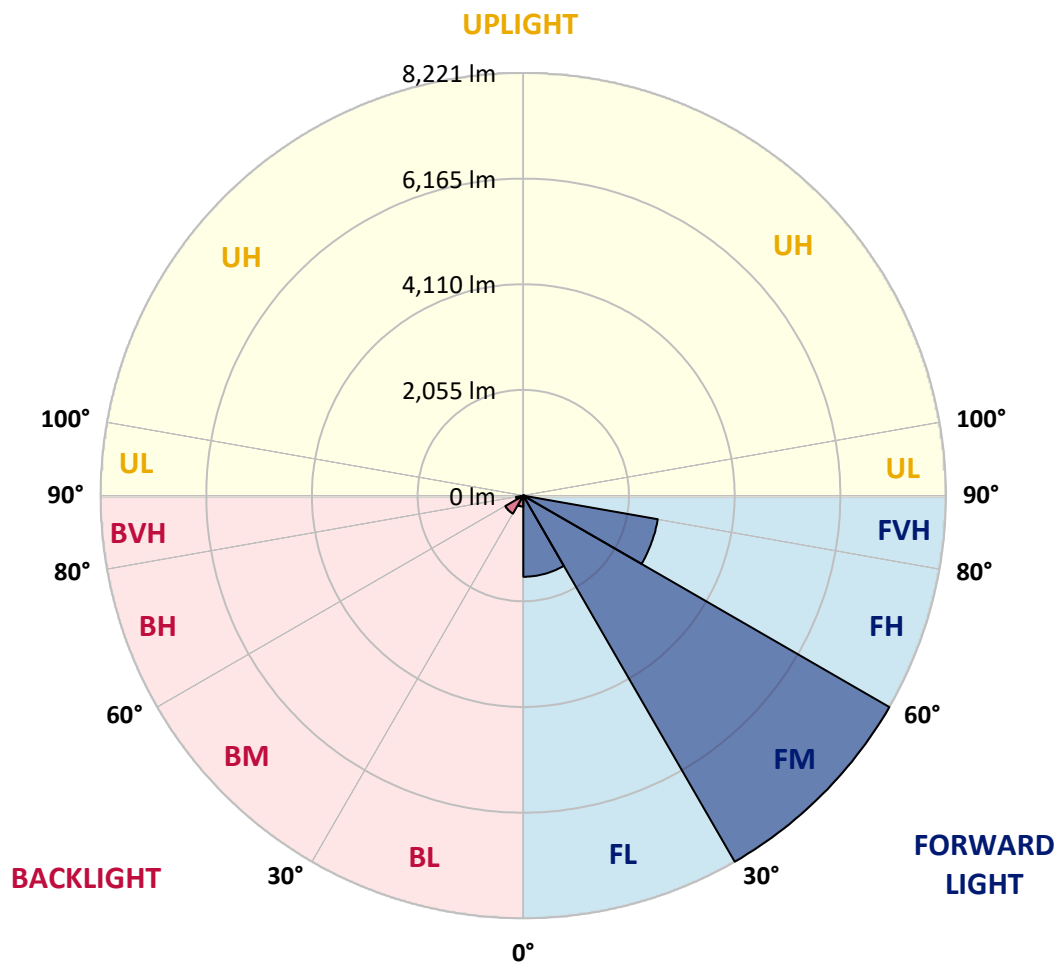
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1577.8 | 11.9      |                         |      |         |
| FM   | (30°-60°)   | 8220.6 | 62.1      |                         |      |         |
| FH   | (60°-80°)   | 2655.8 | 20.0      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 29.7   | 0.2       |                         |      | G1/100  |
| BL   | (0°-30°)    | 213.4  | 1.6       | B1/500                  |      |         |
| BM   | (30°-60°)   | 404.5  | 3.1       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 143.5  | 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-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°     | 65°     | 74°     | 75°     | 85°    |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| 0°    | 1109.5 | 1109.5 | 1109.5 | 1109.5 | 1109.5 | 1109.5 | 1109.5  | 1109.5  | 1109.5  | 1109.5  | 1109.5 |
| 2.5°  | 1623.6 | 1608.9 | 1579.6 | 1569.6 | 1526.6 | 1459.8 | 1401.3  | 1322.6  | 1260.4  | 1254.0  | 1179.0 |
| 5°    | 2174.2 | 2141.3 | 2127.5 | 2061.7 | 1958.3 | 1861.4 | 1694.9  | 1568.7  | 1423.2  | 1412.3  | 1261.3 |
| 7.5°  | 2704.7 | 2659.0 | 2645.2 | 2583.0 | 2462.3 | 2309.6 | 2093.7  | 1864.1  | 1633.6  | 1612.6  | 1372.0 |
| 10°   | 3088.9 | 3095.3 | 3070.6 | 3029.4 | 2931.5 | 2776.0 | 2509.9  | 2196.1  | 1867.8  | 1841.2  | 1496.4 |
| 12.5° | 3364.2 | 3363.3 | 3367.8 | 3366.9 | 3314.8 | 3196.8 | 2916.9  | 2555.6  | 2125.7  | 2073.6  | 1639.1 |
| 15°   | 3543.5 | 3546.2 | 3559.9 | 3607.5 | 3613.0 | 3539.8 | 3306.6  | 2899.5  | 2424.8  | 2359.9  | 1793.7 |
| 17.5° | 3724.6 | 3743.8 | 3765.7 | 3810.5 | 3850.8 | 3821.5 | 3656.9  | 3258.1  | 2695.6  | 2647.1  | 1959.2 |
| 20°   | 4023.7 | 4050.2 | 4037.4 | 4064.8 | 4085.9 | 4088.6 | 3961.5  | 3589.2  | 3023.9  | 2942.5  | 2148.6 |
| 22.5° | 4502.0 | 4501.1 | 4468.2 | 4418.8 | 4377.6 | 4375.8 | 4260.6  | 3929.5  | 3322.1  | 3243.4  | 2338.8 |
| 25°   | 5106.6 | 5109.4 | 5045.4 | 4904.5 | 4802.1 | 4676.7 | 4544.1  | 4227.6  | 3641.3  | 3544.4  | 2539.1 |
| 27.5° | 5800.0 | 5782.6 | 5685.6 | 5491.7 | 5288.7 | 5074.6 | 4883.5  | 4574.3  | 3979.8  | 3899.3  | 2768.7 |
| 30°   | 6422.9 | 6416.5 | 6303.0 | 6066.1 | 5799.0 | 5584.1 | 5307.0  | 5008.8  | 4417.9  | 4319.1  | 3025.8 |
| 32.5° | 7002.8 | 7011.9 | 6854.6 | 6609.5 | 6351.5 | 6103.6 | 5810.9  | 5424.0  | 4847.8  | 4707.8  | 3305.6 |
| 35°   | 7455.5 | 7464.7 | 7301.9 | 7097.9 | 6832.6 | 6626.8 | 6347.9  | 5866.7  | 5272.2  | 5154.2  | 3627.6 |
| 37.5° | 7697.0 | 7708.9 | 7614.7 | 7461.0 | 7295.5 | 7192.1 | 6932.3  | 6436.6  | 5788.1  | 5716.7  | 4008.1 |
| 40°   | 7742.7 | 7756.5 | 7715.3 | 7674.1 | 7665.0 | 7739.1 | 7663.2  | 7108.0  | 6503.4  | 6391.8  | 4575.2 |
| 42.5° | 7605.5 | 7623.8 | 7642.1 | 7733.6 | 7920.2 | 8191.8 | 8456.2  | 8019.0  | 7424.4  | 7274.4  | 5268.5 |
| 45°   | 7245.2 | 7243.3 | 7315.6 | 7552.5 | 7970.5 | 8550.4 | 9284.9  | 9159.6  | 8679.4  | 8501.0  | 6248.2 |
| 47.5° | 6628.7 | 6619.5 | 6775.9 | 7113.4 | 7764.7 | 8616.3 | 9960.8  | 10544.4 | 10281.0 | 10116.3 | 7300.9 |
| 50°   | 5689.3 | 5734.1 | 5980.2 | 6451.2 | 7253.4 | 8416.9 | 10169.4 | 11452.7 | 11595.4 | 11420.7 | 8151.6 |
| 52.5° | 4588.9 | 4587.1 | 4973.1 | 5612.5 | 6496.0 | 7977.8 | 10023.9 | 11617.3 | 12022.5 | 11889.0 | 8570.5 |
| 55°   | 3396.2 | 3420.0 | 3821.5 | 4466.4 | 5512.8 | 7176.6 | 9549.2  | 11448.1 | 12185.3 | 12091.1 | 8846.8 |
| 57°   | 2526.3 | 2568.4 | 2890.4 | 3572.7 | 4656.6 | 6383.5 | 8917.2  | 11145.3 | 12249.3 | 12198.1 | 9076.3 |
| 57.5° | 2358.0 | 2359.9 | 2673.6 | 3293.8 | 4406.0 | 6078.9 | 8736.1  | 11019.1 | 12247.5 | 12219.2 | 9113.8 |
| 60°   | 1451.6 | 1497.3 | 1714.1 | 2226.3 | 3225.1 | 4744.4 | 7522.3  | 10293.8 | 12152.4 | 12193.6 | 9273.9 |
| 62.5° | 868.9  | 888.2  | 1029.0 | 1341.8 | 2079.1 | 3463.0 | 6155.8  | 9365.4  | 11904.5 | 12029.8 | 9262.9 |
| 65°   | 558.9  | 563.4  | 627.5  | 812.2  | 1299.8 | 2340.7 | 4743.5  | 8138.8  | 11263.3 | 11493.8 | 8900.7 |
| 67.5° | 431.7  | 439.0  | 464.7  | 533.3  | 753.7  | 1458.0 | 3355.0  | 6829.9  | 10226.1 | 10523.4 | 8022.6 |
| 70°   | 383.2  | 386.9  | 396.1  | 418.0  | 498.5  | 823.2  | 2087.3  | 5335.3  | 8480.0  | 8564.1  | 6278.3 |
| 72.5° | 312.8  | 322.9  | 351.2  | 358.6  | 395.1  | 514.0  | 1161.6  | 3581.0  | 5697.5  | 5718.6  | 3512.4 |
| 75°   | 242.4  | 244.2  | 286.3  | 307.3  | 332.9  | 354.0  | 518.6   | 1805.6  | 2736.7  | 2590.4  | 1353.7 |
| 77.5° | 181.1  | 189.3  | 208.5  | 235.1  | 271.7  | 253.4  | 232.3   | 680.5   | 849.7   | 834.2   | 393.3  |
| 80°   | 116.2  | 120.7  | 145.4  | 176.5  | 211.3  | 165.6  | 130.8   | 199.4   | 186.6   | 192.1   | 94.2   |
| 82.5° | 58.5   | 59.5   | 93.3   | 143.6  | 134.5  | 83.2   | 82.3    | 81.4    | 69.5    | 68.6    | 43.9   |
| 85°   | 6.4    | 13.7   | 60.4   | 82.3   | 60.4   | 27.4   | 38.4    | 37.5    | 36.6    | 37.5    | 25.6   |
| 87.5° | 0.9    | 0.9    | 10.1   | 11.9   | 8.2    | 9.1    | 11.0    | 11.9    | 14.6    | 13.7    | 11.0   |
| 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°    | 1109.5 | 1109.5 | 1109.5 | 1109.5 | 1109.5 | 1109.5 | 1109.5 | 1109.5 | 1109.5 | 1109.5 | 1109.5 |
| 2.5°  | 1142.4 | 1105.8 | 1038.2 | 973.2  | 924.7  | 893.6  | 853.4  | 838.8  | 817.7  | 815.0  | 804.9  |
| 5°    | 1191.8 | 1122.3 | 1004.3 | 911.0  | 836.0  | 779.3  | 729.9  | 688.8  | 655.8  | 648.5  | 652.2  |
| 7.5°  | 1262.3 | 1158.9 | 994.3  | 867.1  | 762.8  | 665.9  | 587.2  | 538.7  | 504.0  | 491.2  | 493.0  |
| 10°   | 1341.8 | 1207.4 | 992.4  | 820.5  | 661.3  | 542.4  | 456.4  | 413.4  | 393.3  | 386.0  | 377.8  |
| 12.5° | 1436.0 | 1263.2 | 987.9  | 748.2  | 549.7  | 432.6  | 371.4  | 345.7  | 326.5  | 321.1  | 321.1  |
| 15°   | 1542.1 | 1322.6 | 965.9  | 658.6  | 446.4  | 357.6  | 316.5  | 296.4  | 290.0  | 284.5  | 284.5  |
| 17.5° | 1652.8 | 1381.2 | 920.2  | 547.9  | 370.4  | 306.4  | 280.8  | 268.9  | 259.8  | 253.4  | 253.4  |
| 20°   | 1779.0 | 1438.8 | 847.0  | 450.0  | 312.8  | 273.5  | 253.4  | 239.6  | 232.3  | 226.8  | 225.0  |
| 22.5° | 1898.9 | 1485.4 | 753.7  | 369.5  | 272.6  | 246.0  | 227.8  | 213.1  | 205.8  | 203.1  | 203.1  |
| 25°   | 2023.3 | 1513.8 | 641.2  | 305.5  | 248.8  | 223.2  | 203.1  | 191.2  | 184.8  | 182.9  | 182.0  |
| 27.5° | 2144.0 | 1530.3 | 542.4  | 267.1  | 226.8  | 202.1  | 182.9  | 173.8  | 167.4  | 165.6  | 166.5  |
| 30°   | 2290.4 | 1533.0 | 446.4  | 239.6  | 207.6  | 182.0  | 164.6  | 156.4  | 152.8  | 150.9  | 150.0  |
| 32.5° | 2438.5 | 1529.3 | 375.0  | 223.2  | 189.3  | 164.6  | 150.0  | 143.6  | 140.9  | 138.1  | 138.1  |
| 35°   | 2605.0 | 1510.1 | 319.2  | 206.7  | 172.0  | 150.0  | 137.2  | 131.7  | 128.1  | 125.3  | 124.4  |
| 37.5° | 2811.7 | 1500.1 | 287.2  | 188.4  | 156.4  | 136.3  | 124.4  | 118.9  | 116.2  | 112.5  | 111.6  |
| 40°   | 3137.3 | 1544.9 | 277.1  | 172.0  | 140.9  | 123.5  | 112.5  | 106.1  | 102.4  | 98.8   | 97.9   |
| 42.5° | 3543.5 | 1623.6 | 260.7  | 155.5  | 127.1  | 111.6  | 100.6  | 93.3   | 86.9   | 82.3   | 80.5   |
| 45°   | 4069.4 | 1726.9 | 235.1  | 138.1  | 115.2  | 98.8   | 88.7   | 79.6   | 71.3   | 67.7   | 66.8   |
| 47.5° | 4620.9 | 1826.6 | 212.2  | 124.4  | 102.4  | 87.8   | 76.8   | 66.8   | 59.5   | 56.7   | 55.8   |
| 50°   | 4959.4 | 1846.7 | 197.6  | 108.8  | 89.6   | 75.9   | 64.9   | 55.8   | 51.2   | 48.5   | 48.5   |
| 52.5° | 5114.0 | 1814.7 | 177.4  | 95.1   | 77.7   | 66.8   | 55.8   | 48.5   | 45.7   | 43.9   | 43.0   |
| 55°   | 5221.9 | 1765.3 | 150.9  | 82.3   | 66.8   | 56.7   | 49.4   | 43.9   | 40.2   | 38.4   | 37.5   |
| 57°   | 5285.0 | 1698.6 | 130.8  | 72.3   | 57.6   | 49.4   | 43.9   | 39.3   | 35.7   | 32.0   | 32.0   |
| 57.5° | 5287.7 | 1672.9 | 125.3  | 71.3   | 54.9   | 47.6   | 43.0   | 38.4   | 33.8   | 30.2   | 29.3   |
| 60°   | 5206.3 | 1497.3 | 100.6  | 60.4   | 43.9   | 40.2   | 35.7   | 30.2   | 23.8   | 20.1   | 19.2   |
| 62.5° | 4944.7 | 1274.1 | 83.2   | 51.2   | 35.7   | 31.1   | 25.6   | 22.9   | 16.5   | 11.9   | 11.9   |
| 65°   | 4548.7 | 1033.6 | 71.3   | 41.2   | 29.3   | 22.9   | 17.4   | 16.5   | 10.1   | 5.5    | 4.6    |
| 67.5° | 3976.1 | 804.9  | 60.4   | 33.8   | 24.7   | 16.5   | 11.9   | 11.0   | 5.5    | 1.8    | 0.0    |
| 70°   | 3029.4 | 548.8  | 50.3   | 27.4   | 18.3   | 11.9   | 8.2    | 6.4    | 3.7    | 0.9    | 0.0    |
| 72.5° | 1746.1 | 301.8  | 42.1   | 21.0   | 13.7   | 9.1    | 6.4    | 3.7    | 3.7    | 0.0    | 0.0    |
| 75°   | 623.8  | 129.9  | 32.0   | 15.5   | 11.0   | 7.3    | 4.6    | 1.8    | 2.7    | 0.9    | 0.0    |
| 77.5° | 198.5  | 69.5   | 21.0   | 11.9   | 9.1    | 5.5    | 3.7    | 1.8    | 1.8    | 0.9    | 0.0    |
| 80°   | 58.5   | 36.6   | 12.8   | 10.1   | 6.4    | 4.6    | 2.7    | 0.9    | 1.8    | 0.9    | 0.0    |
| 82.5° | 32.0   | 18.3   | 10.1   | 7.3    | 6.4    | 3.7    | 2.7    | 0.9    | 0.9    | 0.9    | 0.0    |
| 85°   | 16.5   | 11.0   | 8.2    | 7.3    | 6.4    | 3.7    | 2.7    | 0.9    | 0.0    | 0.9    | 0.9    |
| 87.5° | 9.1    | 8.2    | 8.2    | 7.3    | 6.4    | 4.6    | 2.7    | 0.9    | 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)