

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: P323703

Luminaire Tested: **GAN-SA9D-830-U-SL3-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P323703  
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-SA9D-830-U-SL3-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 CRI, 3000K, 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: 47091 lumens  
Efficiency: N/A  
Efficacy: 81.9 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G5

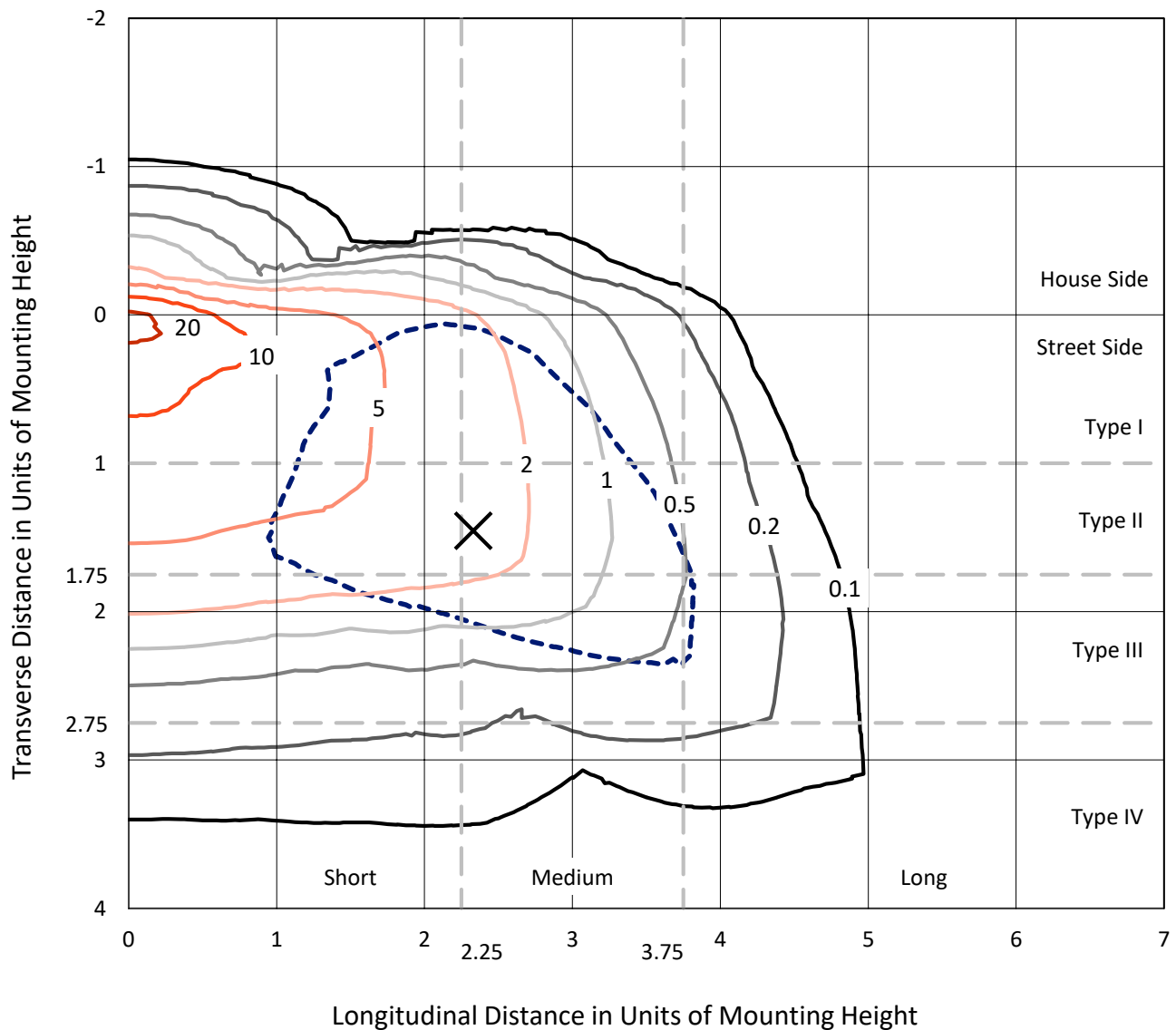
Input Watts (W): 575  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

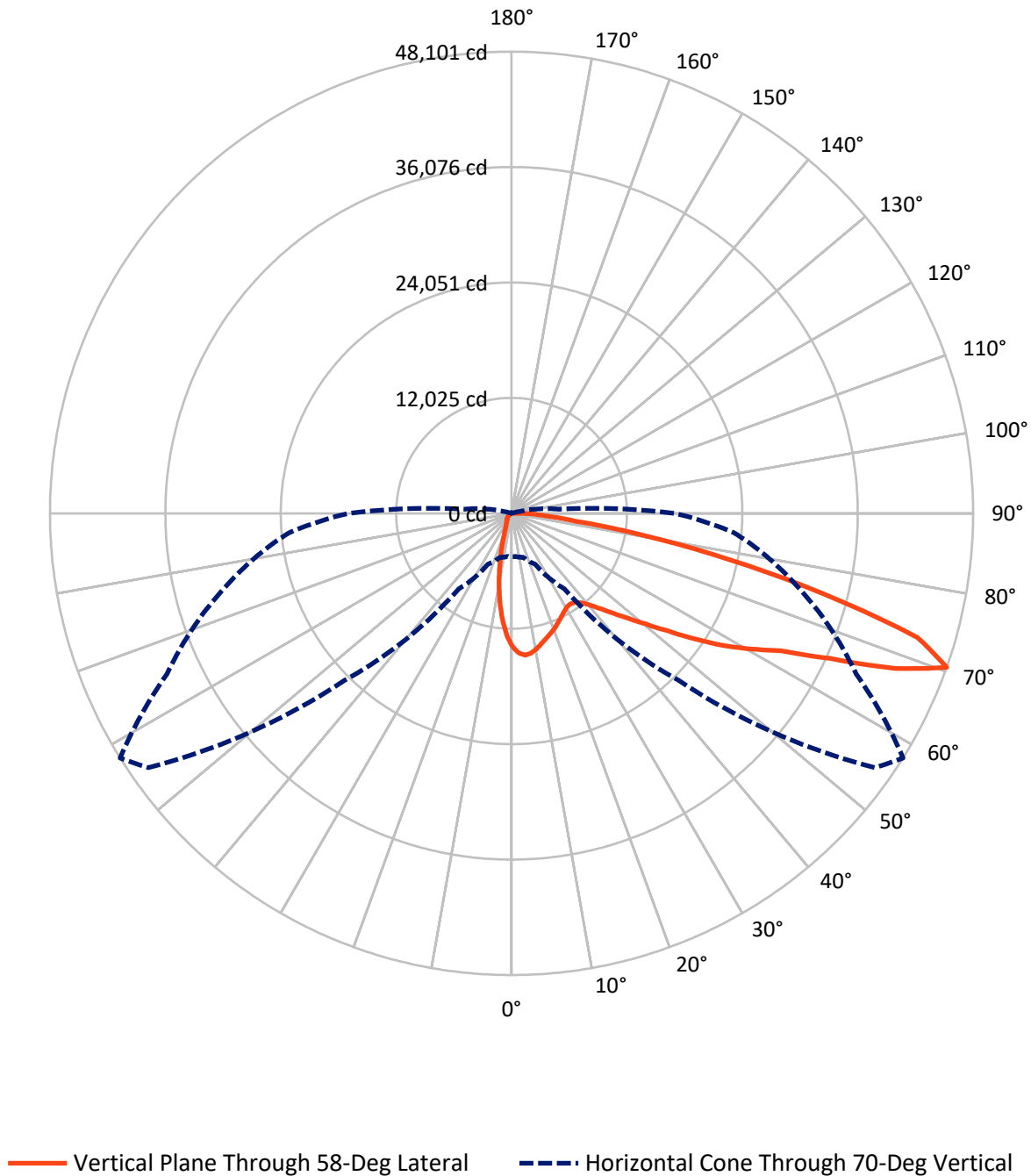
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 22.6 fc  
 Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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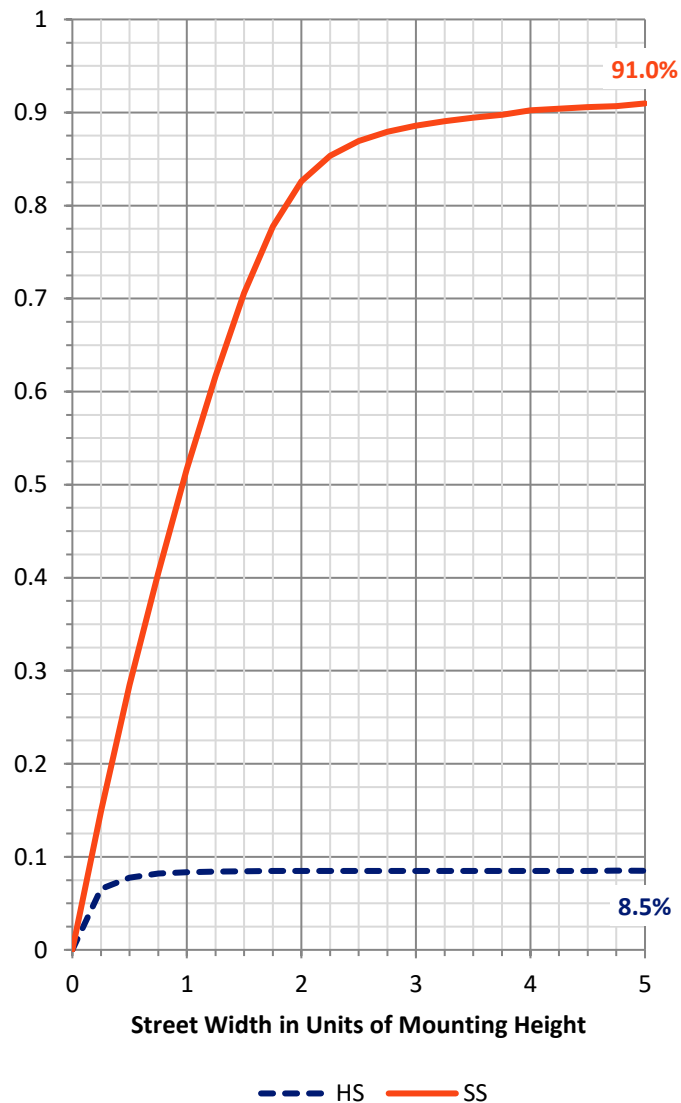
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4030.0   | 0.0    | 4030.0  |
|                    | % Fixture | 8.6      | 0.0    | 8.6     |
| <b>Street Side</b> | Lumens    | 43061.1  | 0.0    | 43061.1 |
|                    | % Fixture | 91.4     | 0.0    | 91.4    |
| <b>Total</b>       | Lumens    | 47091.0  | 0.0    | 47091.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 1137.5  | 2.4       |
| 10°-20°   | 2387.4  | 5.1       |
| 20°-30°   | 3138.6  | 6.7       |
| 30°-40°   | 4156.7  | 8.8       |
| 40°-50°   | 6213.0  | 13.2      |
| 50°-60°   | 9953.0  | 21.1      |
| 60°-70°   | 12545.6 | 26.6      |
| 70°-80°   | 6767.1  | 14.4      |
| 80°-90°   | 792.1   | 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°    | 47091.0 | 100.0     |
| 0°-180°   | 47091.0 | 100.0     |

**Coefficient of Utilization**



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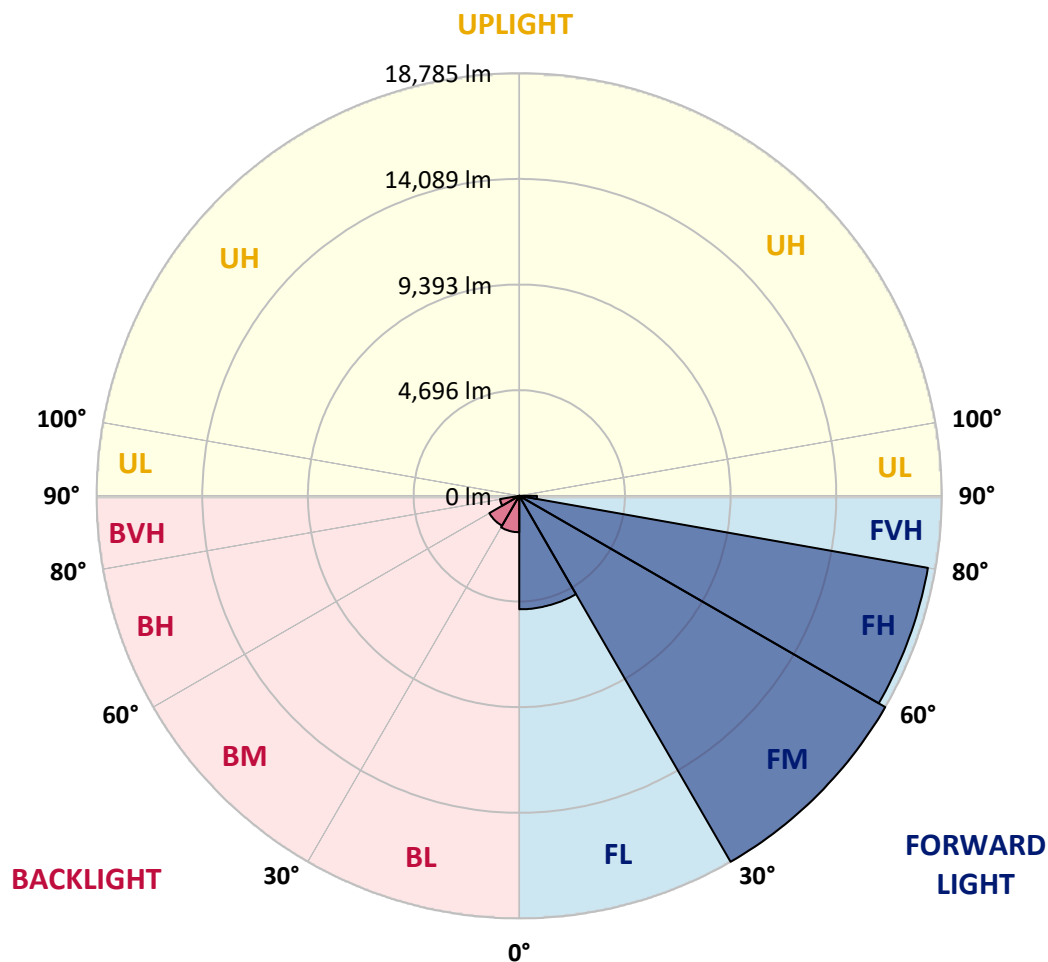
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 5044.4  | 10.7      |                         |      |         |
| FM   | (30°-60°)   | 18785.3 | 39.9      |                         |      |         |
| FH   | (60°-80°)   | 18446.0 | 39.2      |                         |      | G5      |
| FVH  | (80°-90°)   | 785.3   | 1.7       |                         |      | G5      |
| BL   | (0°-30°)    | 1619.1  | 3.4       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 1537.4  | 3.3       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 866.7   | 1.8       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 6.8     | 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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 58°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 13910.5 | 13910.5 | 13910.5 | 13910.5 | 13910.5 | 13910.5 | 13910.5 | 13910.5 | 13910.5 | 13910.5 | 13910.5 |
| 2.5°  | 15063.8 | 15026.6 | 15012.9 | 14989.4 | 14899.3 | 14811.2 | 14636.9 | 14588.0 | 14478.3 | 14217.9 | 13941.8 |
| 5°    | 15075.5 | 15073.6 | 15114.7 | 15104.9 | 15073.6 | 15032.5 | 14907.1 | 14842.5 | 14656.5 | 14284.5 | 13779.3 |
| 7.5°  | 14349.1 | 14386.3 | 14478.3 | 14552.7 | 14638.9 | 14750.5 | 14766.2 | 14703.5 | 14550.8 | 14149.3 | 13479.7 |
| 10°   | 13373.9 | 13432.7 | 13561.9 | 13708.8 | 13934.0 | 14157.2 | 14356.9 | 14349.1 | 14296.2 | 13900.7 | 13119.4 |
| 12.5° | 12396.8 | 12465.4 | 12614.2 | 12831.5 | 13150.7 | 13514.9 | 13871.3 | 13920.2 | 14008.4 | 13677.4 | 12786.5 |
| 15°   | 11541.1 | 11599.9 | 11746.7 | 12013.0 | 12408.6 | 12898.1 | 13420.9 | 13511.0 | 13738.1 | 13503.2 | 12508.4 |
| 17.5° | 10814.7 | 10851.9 | 10959.6 | 11255.3 | 11713.5 | 12306.8 | 12986.2 | 13162.5 | 13501.2 | 13366.1 | 12267.6 |
| 20°   | 10307.5 | 10313.4 | 10383.9 | 10591.5 | 11049.7 | 11713.5 | 12535.9 | 12788.5 | 13250.6 | 13248.6 | 12018.9 |
| 22.5° | 10056.9 | 10037.3 | 10051.0 | 10170.5 | 10507.3 | 11147.6 | 12085.5 | 12385.1 | 13025.4 | 13148.8 | 11766.3 |
| 25°   | 10009.9 | 9994.2  | 9955.1  | 9970.7  | 10174.4 | 10652.2 | 11631.2 | 11977.8 | 12827.6 | 13088.0 | 11547.0 |
| 27.5° | 10156.7 | 10172.4 | 10105.8 | 10035.3 | 10051.0 | 10331.0 | 11227.8 | 11629.3 | 12667.1 | 13088.0 | 11392.3 |
| 30°   | 10452.4 | 10460.3 | 10411.3 | 10319.3 | 10195.9 | 10240.9 | 10947.8 | 11349.2 | 12586.8 | 13178.1 | 11294.4 |
| 32.5° | 10779.4 | 10822.5 | 10816.6 | 10742.2 | 10566.0 | 10383.9 | 10881.3 | 11247.4 | 12580.9 | 13377.9 | 11284.6 |
| 35°   | 11184.8 | 11233.7 | 11316.0 | 11300.3 | 11116.2 | 10816.6 | 11108.4 | 11396.2 | 12696.4 | 13706.8 | 11390.4 |
| 37.5° | 11615.5 | 11690.0 | 11866.2 | 11950.4 | 11830.9 | 11492.2 | 11617.5 | 11823.1 | 13005.8 | 14239.4 | 11658.6 |
| 40°   | 12032.6 | 12116.8 | 12438.0 | 12768.9 | 12678.8 | 12330.3 | 12389.0 | 12553.5 | 13556.0 | 15005.0 | 12167.7 |
| 42.5° | 12441.9 | 12567.2 | 13039.1 | 13583.5 | 13691.1 | 13413.1 | 13444.4 | 13575.6 | 14372.6 | 16058.5 | 12999.9 |
| 45°   | 12931.4 | 13072.4 | 13771.4 | 14443.1 | 14730.9 | 14609.5 | 14742.7 | 14828.8 | 15439.7 | 17450.7 | 14121.9 |
| 47.5° | 13650.0 | 13812.6 | 14670.2 | 15435.8 | 15941.0 | 16019.3 | 16287.6 | 16344.4 | 16788.9 | 19072.1 | 15584.6 |
| 50°   | 15052.0 | 15097.1 | 15872.5 | 16567.6 | 17296.0 | 17766.0 | 18071.5 | 18114.5 | 18422.0 | 20844.1 | 17411.6 |
| 52.5° | 16816.3 | 16845.7 | 17284.3 | 17750.3 | 18578.6 | 19538.1 | 20252.8 | 20313.5 | 20378.1 | 22571.2 | 19215.0 |
| 55°   | 18568.8 | 18564.9 | 18854.7 | 19128.8 | 20076.6 | 21470.7 | 23021.6 | 23058.8 | 22594.7 | 24210.2 | 20593.5 |
| 57.5° | 19663.4 | 19769.1 | 20209.7 | 20562.2 | 21885.9 | 23673.6 | 25825.6 | 25962.7 | 24922.9 | 25424.2 | 21956.4 |
| 60°   | 19314.9 | 19365.8 | 20342.9 | 21647.0 | 24139.7 | 26804.7 | 28662.9 | 28698.2 | 26673.5 | 26636.3 | 23679.5 |
| 62.5° | 16456.0 | 16483.4 | 18018.6 | 20707.1 | 25281.2 | 30865.8 | 32085.7 | 31512.0 | 28686.4 | 28318.3 | 25741.4 |
| 65°   | 11278.8 | 11456.9 | 12739.5 | 16062.4 | 23184.1 | 33413.3 | 37384.4 | 36434.7 | 31754.8 | 30742.4 | 27605.5 |
| 67.5° | 6641.9  | 6604.7  | 7239.2  | 9686.8  | 17027.8 | 31721.5 | 44087.0 | 43143.2 | 35939.3 | 32365.7 | 27059.2 |
| 70°   | 4537.0  | 4511.5  | 4754.3  | 5864.6  | 9612.4  | 24607.6 | 46195.9 | 48101.1 | 39634.2 | 31273.1 | 23287.9 |
| 72.5° | 3238.7  | 3252.4  | 3610.8  | 4556.5  | 6034.9  | 14337.3 | 39726.3 | 44235.8 | 38477.0 | 27262.9 | 17701.4 |
| 75°   | 2199.0  | 2236.2  | 2749.2  | 3738.0  | 5290.8  | 7294.0  | 28191.0 | 33626.7 | 31331.8 | 19814.2 | 10174.4 |
| 77.5° | 1182.7  | 1223.8  | 1828.9  | 3011.6  | 4783.7  | 5067.6  | 18134.1 | 23143.0 | 19681.0 | 8907.5  | 2948.9  |
| 80°   | 493.4   | 516.9   | 855.7   | 2189.2  | 4133.6  | 4450.8  | 10669.8 | 14033.8 | 8386.6  | 1756.4  | 657.9   |
| 82.5° | 213.4   | 225.2   | 356.4   | 1306.1  | 3089.9  | 3757.6  | 5649.2  | 6751.6  | 2541.6  | 385.7   | 330.9   |
| 85°   | 41.1    | 43.1    | 146.9   | 691.2   | 1971.8  | 2120.6  | 3661.7  | 3589.2  | 1141.6  | 166.4   | 240.8   |
| 87.5° | 0.0     | 0.0     | 35.2    | 217.4   | 579.6   | 1155.3  | 2234.2  | 2206.8  | 387.7   | 80.3    | 90.1    |
| 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°    | 13910.5 | 13910.5 | 13910.5 | 13910.5 | 13910.5 | 13910.5 | 13910.5 | 13910.5 | 13910.5 | 13910.5 | 13910.5 |
| 2.5°  | 13800.8 | 13665.7 | 13381.8 | 13031.3 | 12763.0 | 12467.3 | 12232.4 | 11934.7 | 11805.5 | 11811.4 | 11740.9 |
| 5°    | 13491.4 | 13213.4 | 12584.8 | 11791.8 | 11180.8 | 10550.3 | 10007.9 | 9467.5  | 9148.3  | 9044.5  | 8946.6  |
| 7.5°  | 13048.9 | 12608.3 | 11605.8 | 10383.9 | 9350.0  | 8339.6  | 7460.4  | 6687.0  | 6197.4  | 5958.5  | 5870.4  |
| 10°   | 12549.6 | 11930.8 | 10479.8 | 8870.3  | 7393.8  | 6027.1  | 4887.5  | 3896.7  | 3501.1  | 3232.9  | 3164.3  |
| 12.5° | 12110.9 | 11272.9 | 9379.4  | 7317.5  | 5565.0  | 3916.2  | 2829.5  | 2212.7  | 1944.4  | 1838.7  | 1821.0  |
| 15°   | 11697.8 | 10658.0 | 8320.0  | 5911.6  | 3853.6  | 2410.4  | 1799.5  | 1590.0  | 1527.3  | 1509.7  | 1509.7  |
| 17.5° | 11308.1 | 10072.6 | 7284.2  | 4527.2  | 2549.5  | 1689.9  | 1490.1  | 1443.1  | 1423.6  | 1421.6  | 1423.6  |
| 20°   | 10900.8 | 9487.1  | 6266.0  | 3317.0  | 1779.9  | 1431.4  | 1376.6  | 1351.1  | 1345.2  | 1345.2  | 1345.2  |
| 22.5° | 10511.2 | 8901.6  | 5275.2  | 2369.3  | 1427.5  | 1306.1  | 1278.6  | 1261.0  | 1255.2  | 1253.2  | 1249.3  |
| 25°   | 10137.2 | 8345.5  | 4307.9  | 1674.2  | 1253.2  | 1196.4  | 1172.9  | 1149.4  | 1131.8  | 1122.0  | 1116.1  |
| 27.5° | 9829.7  | 7850.1  | 3407.1  | 1343.3  | 1131.8  | 1082.8  | 1053.5  | 1018.2  | 975.1   | 955.6   | 947.7   |
| 30°   | 9585.0  | 7397.8  | 2625.8  | 1133.7  | 1018.2  | 969.3   | 924.2   | 863.5   | 800.9   | 767.6   | 765.6   |
| 32.5° | 9393.1  | 6953.3  | 1993.4  | 1002.6  | 916.4   | 855.7   | 791.1   | 714.7   | 642.3   | 605.1   | 603.1   |
| 35°   | 9299.1  | 6561.6  | 1523.4  | 906.6   | 826.3   | 750.0   | 669.7   | 585.5   | 515.0   | 479.7   | 475.8   |
| 37.5° | 9361.8  | 6230.7  | 1188.6  | 826.3   | 750.0   | 661.8   | 567.9   | 479.7   | 417.1   | 385.7   | 383.8   |
| 40°   | 9590.9  | 6019.2  | 965.4   | 757.8   | 685.3   | 577.6   | 475.8   | 393.6   | 340.7   | 315.3   | 313.3   |
| 42.5° | 10078.4 | 5940.9  | 824.4   | 701.0   | 622.7   | 499.3   | 395.5   | 325.0   | 276.1   | 258.5   | 254.6   |
| 45°   | 10893.0 | 6056.5  | 728.4   | 646.2   | 558.1   | 424.9   | 327.0   | 266.3   | 223.2   | 209.5   | 207.6   |
| 47.5° | 11977.8 | 6360.0  | 659.9   | 593.3   | 499.3   | 358.3   | 272.2   | 215.4   | 182.1   | 168.4   | 166.4   |
| 50°   | 13375.9 | 6841.7  | 603.1   | 540.4   | 444.5   | 303.5   | 225.2   | 170.4   | 141.0   | 131.2   | 131.2   |
| 52.5° | 14897.3 | 7415.4  | 552.2   | 491.5   | 389.7   | 252.6   | 182.1   | 131.2   | 111.6   | 99.9    | 99.9    |
| 55°   | 16154.5 | 7916.7  | 497.4   | 454.3   | 323.1   | 209.5   | 139.0   | 99.9    | 82.2    | 76.4    | 76.4    |
| 57.5° | 17409.6 | 8451.2  | 434.7   | 389.7   | 258.5   | 170.4   | 105.7   | 74.4    | 60.7    | 56.8    | 56.8    |
| 60°   | 19036.8 | 9105.2  | 374.0   | 317.2   | 203.6   | 129.2   | 78.3    | 52.9    | 45.0    | 43.1    | 43.1    |
| 62.5° | 20826.5 | 9489.0  | 319.2   | 254.6   | 158.6   | 95.9    | 56.8    | 35.2    | 33.3    | 33.3    | 31.3    |
| 65°   | 21921.1 | 8946.6  | 268.3   | 203.6   | 123.4   | 72.5    | 37.2    | 25.5    | 29.4    | 27.4    | 23.5    |
| 67.5° | 20525.0 | 7004.2  | 219.3   | 158.6   | 95.9    | 54.8    | 23.5    | 17.6    | 31.3    | 25.5    | 19.6    |
| 70°   | 16994.5 | 4903.1  | 170.4   | 111.6   | 76.4    | 47.0    | 15.7    | 11.7    | 33.3    | 25.5    | 15.7    |
| 72.5° | 12718.0 | 3281.8  | 135.1   | 74.4    | 56.8    | 41.1    | 13.7    | 5.9     | 29.4    | 21.5    | 13.7    |
| 75°   | 6949.4  | 1321.7  | 107.7   | 47.0    | 35.2    | 29.4    | 9.8     | 3.9     | 19.6    | 15.7    | 9.8     |
| 77.5° | 1828.9  | 348.5   | 78.3    | 31.3    | 19.6    | 11.7    | 5.9     | 2.0     | 9.8     | 7.8     | 3.9     |
| 80°   | 466.0   | 135.1   | 50.9    | 21.5    | 13.7    | 5.9     | 0.0     | 0.0     | 2.0     | 0.0     | 0.0     |
| 82.5° | 248.7   | 56.8    | 31.3    | 15.7    | 7.8     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 85°   | 188.0   | 37.2    | 17.6    | 9.8     | 2.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 87.5° | 72.5    | 11.7    | 5.9     | 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)