

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: P653108

Luminaire Tested: **GLAN-SA9C-840-U-SL4**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P653108  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GLAN-SA9C-840-U-SL4  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 52466.6 lumens  
Efficiency: N/A  
Efficacy: 109.1 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

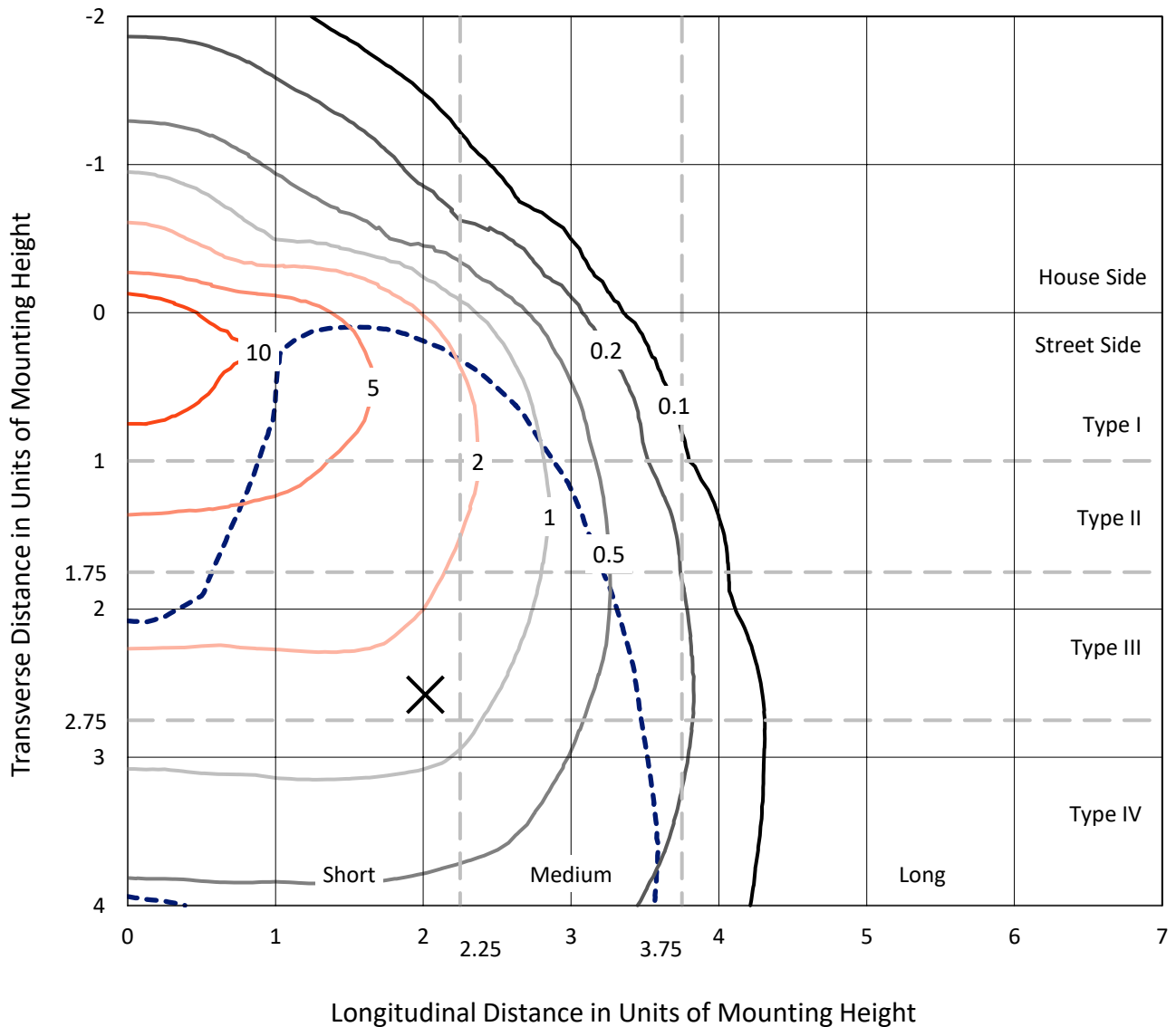
Input Watts (W): 481  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

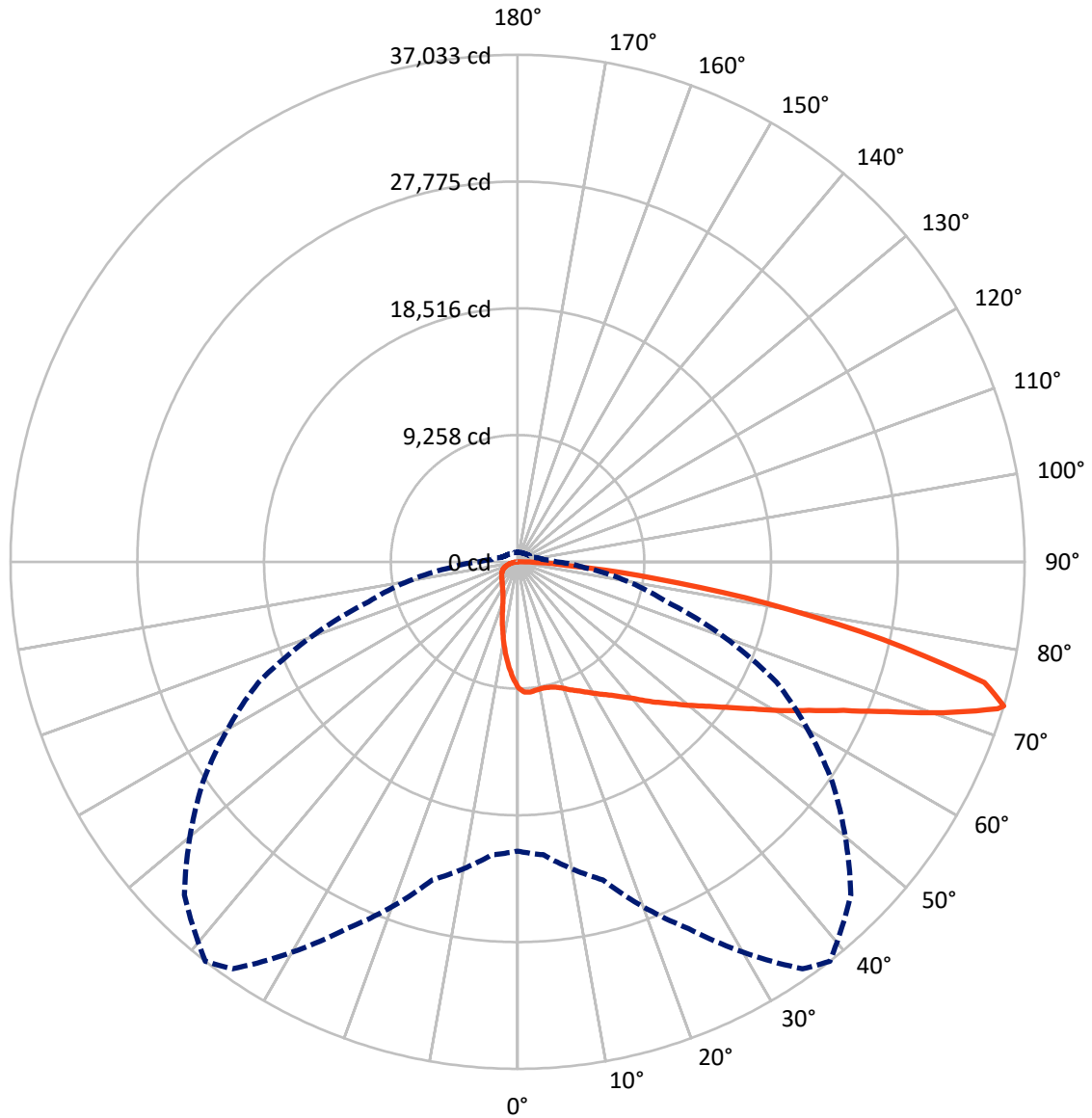
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral    - - - Horizontal Cone Through 73-Deg Vertical

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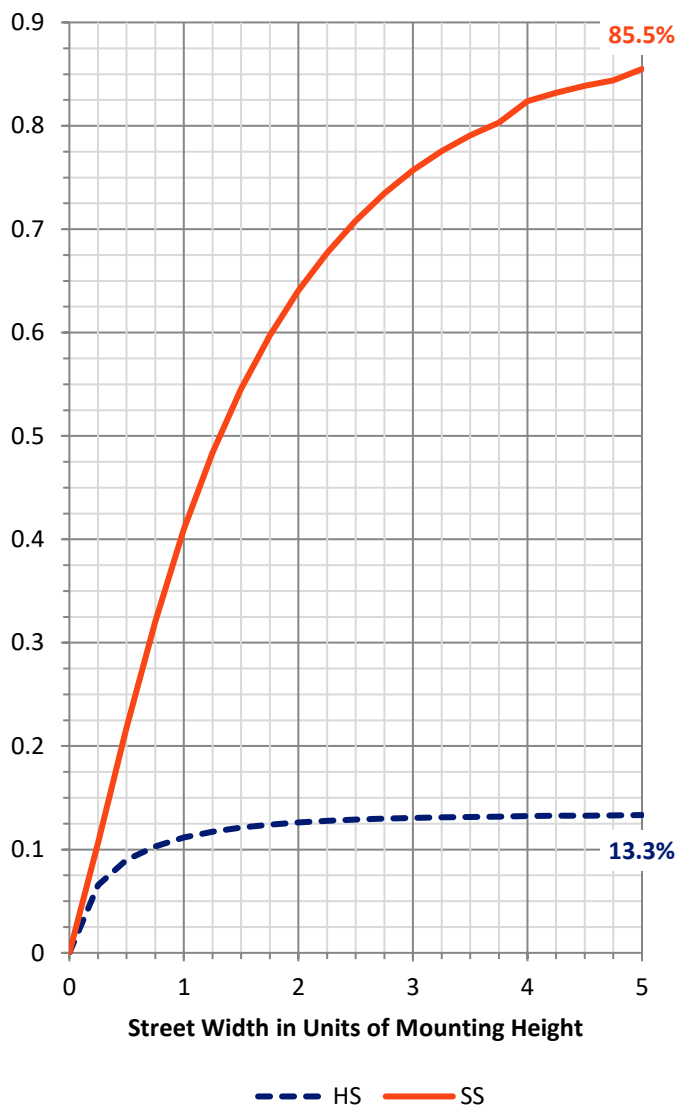
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7053.1   | 0.0    | 7053.1  |
|                    | % Fixture | 13.4     | 0.0    | 13.4    |
| <b>Street Side</b> | Lumens    | 45413.6  | 0.0    | 45413.6 |
|                    | % Fixture | 86.6     | 0.0    | 86.6    |
| <b>Total</b>       | Lumens    | 52466.6  | 0.0    | 52466.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 804.6   | 1.5       |
| 10°-20°   | 2063.2  | 3.9       |
| 20°-30°   | 3212.8  | 6.1       |
| 30°-40°   | 4712.5  | 9.0       |
| 40°-50°   | 6990.4  | 13.3      |
| 50°-60°   | 9904.1  | 18.9      |
| 60°-70°   | 12563.6 | 23.9      |
| 70°-80°   | 10458.2 | 19.9      |
| 80°-90°   | 1757.2  | 3.3       |
| 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°    | 52466.6 | 100.0     |
| 0°-180°   | 52466.6 | 100.0     |

**Coefficient of Utilization**



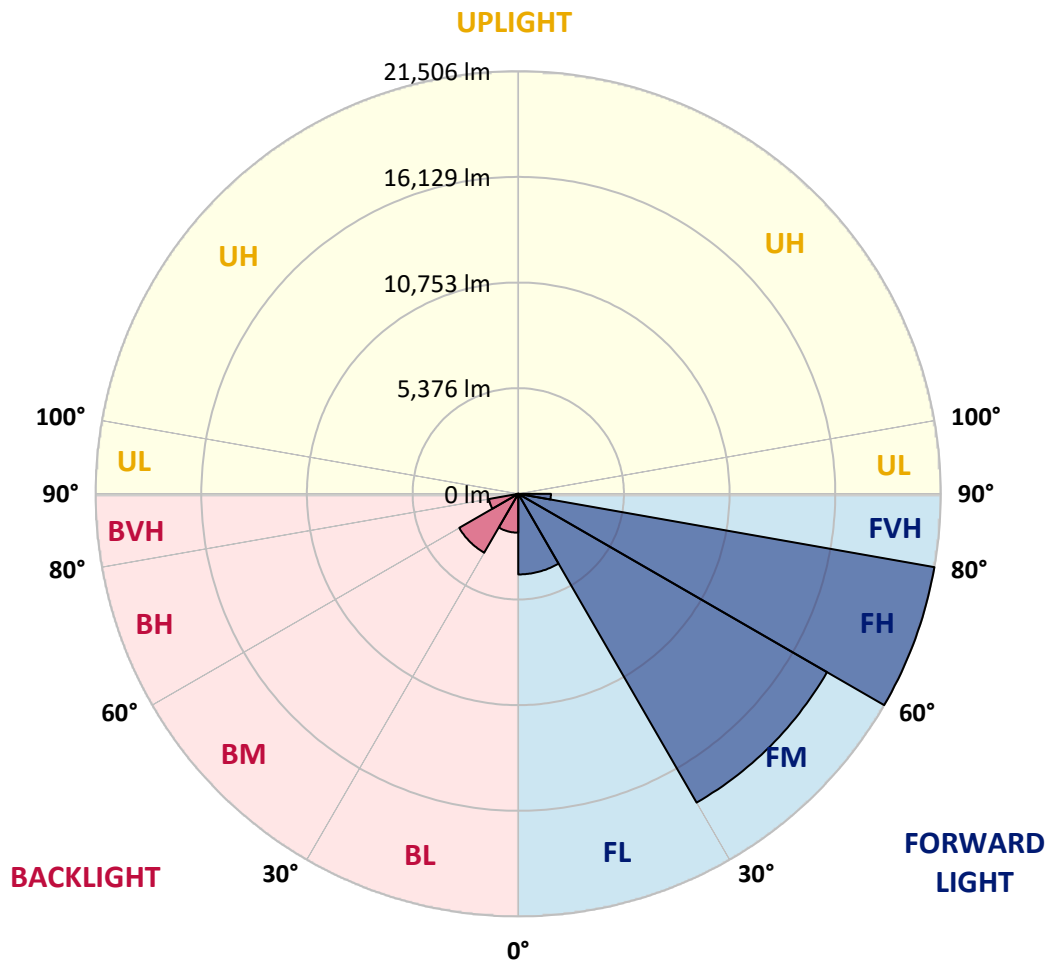
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 4101.5  | 7.8       |                         |      |         |
| FM (30°-60°)   | 18144.4 | 34.6      |                         |      |         |
| FH (60°-80°)   | 21505.9 | 41.0      |                         |      | G5      |
| FVH (80°-90°)  | 1661.9  | 3.2       |                         |      | G5      |
| BL (0°-30°)    | 1979.2  | 3.8       | B3/2500                 |      |         |
| BM (30°-60°)   | 3462.6  | 6.6       | B3/5000                 |      |         |
| BH (60°-80°)   | 1516.0  | 2.9       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 95.3    | 0.2       |                         |      | G1/100  |
| 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°     | 35°     | 38°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 9217.5  | 9217.5  | 9217.5  | 9217.5  | 9217.5  | 9217.5  | 9217.5  | 9217.5  | 9217.5  | 9217.5  | 9217.5  |
| 2.5°  | 9587.8  | 9635.3  | 9611.5  | 9579.0  | 9558.2  | 9537.5  | 9507.8  | 9422.0  | 9353.8  | 9279.7  | 9164.1  |
| 5°    | 9659.0  | 9688.6  | 9667.9  | 9626.3  | 9579.0  | 9558.2  | 9502.0  | 9389.3  | 9279.7  | 9155.3  | 8983.4  |
| 7.5°  | 9617.5  | 9629.4  | 9605.6  | 9555.3  | 9513.8  | 9475.3  | 9410.1  | 9285.6  | 9152.4  | 9001.2  | 8776.0  |
| 10°   | 9469.3  | 9513.8  | 9513.8  | 9472.3  | 9430.8  | 9410.1  | 9344.9  | 9226.4  | 9104.9  | 8933.1  | 8666.4  |
| 12.5° | 9347.9  | 9395.2  | 9433.7  | 9422.0  | 9418.9  | 9418.9  | 9368.6  | 9279.7  | 9137.5  | 8974.6  | 8657.5  |
| 15°   | 9264.9  | 9321.2  | 9404.1  | 9451.6  | 9481.2  | 9490.1  | 9469.3  | 9392.3  | 9247.1  | 9057.5  | 8693.1  |
| 17.5° | 9247.1  | 9315.3  | 9466.4  | 9570.1  | 9647.1  | 9644.2  | 9638.2  | 9531.6  | 9371.6  | 9176.0  | 8737.5  |
| 20°   | 9327.1  | 9416.0  | 9626.3  | 9789.3  | 9901.9  | 9881.2  | 9848.6  | 9709.3  | 9522.6  | 9303.4  | 8779.0  |
| 22.5° | 9567.1  | 9659.0  | 9890.1  | 10067.9 | 10177.4 | 10177.4 | 10079.7 | 9896.0  | 9697.5  | 9451.6  | 8835.3  |
| 25°   | 9910.8  | 10011.5 | 10257.4 | 10438.2 | 10488.5 | 10450.0 | 10352.3 | 10130.1 | 9901.9  | 9664.9  | 8953.8  |
| 27.5° | 10331.5 | 10453.0 | 10681.1 | 10832.2 | 10817.4 | 10787.8 | 10687.1 | 10402.7 | 10174.5 | 9958.2  | 9155.3  |
| 30°   | 10856.0 | 10944.9 | 11181.9 | 11217.4 | 11164.1 | 11158.2 | 11015.9 | 10731.5 | 10518.2 | 10352.3 | 9442.7  |
| 32.5° | 11350.7 | 11430.8 | 11620.3 | 11635.2 | 11540.4 | 11552.2 | 11418.9 | 11158.2 | 11036.7 | 10977.4 | 9925.7  |
| 35°   | 11875.2 | 11916.6 | 12079.6 | 12061.9 | 11999.6 | 11990.7 | 11937.4 | 11688.6 | 11727.1 | 11833.7 | 10610.1 |
| 37.5° | 12313.7 | 12396.7 | 12488.5 | 12503.3 | 12500.4 | 12530.0 | 12565.5 | 12447.1 | 12669.2 | 13004.0 | 11507.8 |
| 40°   | 12716.7 | 12787.7 | 12924.1 | 12971.4 | 13087.0 | 13146.3 | 13267.8 | 13270.7 | 13783.3 | 14334.3 | 12613.0 |
| 42.5° | 12989.2 | 13110.7 | 13365.5 | 13451.5 | 13732.9 | 13910.7 | 14091.5 | 14284.0 | 15027.7 | 15735.8 | 13916.6 |
| 45°   | 13226.2 | 13386.3 | 13810.0 | 14076.6 | 14458.8 | 14675.1 | 15057.3 | 15460.3 | 16529.9 | 17457.2 | 15241.0 |
| 47.5° | 13584.8 | 13727.0 | 14212.9 | 14684.0 | 15261.8 | 15510.6 | 16082.4 | 16683.9 | 18082.4 | 19098.7 | 16509.2 |
| 50°   | 14082.5 | 14168.5 | 14663.3 | 15430.7 | 16168.4 | 16488.4 | 17243.9 | 18112.0 | 19741.6 | 20719.4 | 17623.2 |
| 52.5° | 14719.5 | 14755.1 | 15149.2 | 16171.3 | 17143.2 | 17540.2 | 18541.7 | 19554.9 | 21193.5 | 22126.7 | 18506.1 |
| 55°   | 15472.1 | 15412.8 | 15721.0 | 16956.5 | 18257.2 | 18775.7 | 19851.2 | 21015.7 | 22826.0 | 23264.5 | 19149.1 |
| 57.5° | 16215.8 | 16124.0 | 16369.9 | 17910.5 | 19632.0 | 20257.2 | 21510.4 | 22520.8 | 24283.7 | 24328.1 | 19599.4 |
| 60°   | 17003.9 | 16935.8 | 17229.1 | 19030.6 | 21317.8 | 22058.6 | 23217.1 | 24082.2 | 25694.1 | 25068.9 | 19670.5 |
| 62.5° | 17812.8 | 17703.1 | 18120.9 | 20289.7 | 23217.1 | 23889.6 | 25012.6 | 25741.4 | 27077.7 | 25344.4 | 18986.1 |
| 65°   | 18598.0 | 18547.6 | 19193.5 | 21786.0 | 25380.0 | 26144.4 | 27234.7 | 27729.5 | 28185.8 | 24929.6 | 17288.4 |
| 67.5° | 19433.5 | 19534.2 | 20565.3 | 23783.0 | 28200.7 | 29160.6 | 30336.9 | 29871.6 | 28502.8 | 22965.2 | 14559.6 |
| 70°   | 20707.5 | 20772.7 | 22366.7 | 26399.2 | 31836.1 | 32994.5 | 33563.4 | 30633.2 | 26974.0 | 19234.9 | 10944.9 |
| 72.5° | 21255.7 | 21543.1 | 23975.6 | 29145.8 | 35966.3 | 36674.4 | 34647.9 | 28935.4 | 22470.4 | 13066.3 | 5750.9  |
| 73°   | 21134.2 | 21477.9 | 24049.7 | 29563.5 | 36289.2 | 37032.9 | 34416.7 | 28061.4 | 20888.3 | 11253.0 | 4930.2  |
| 75°   | 19620.1 | 20043.8 | 23086.7 | 29213.9 | 35661.2 | 35216.7 | 30701.3 | 23916.3 | 14115.1 | 5116.9  | 2245.9  |
| 77.5° | 15481.0 | 15602.5 | 18292.8 | 23590.4 | 28082.1 | 27258.4 | 22977.0 | 14947.7 | 5765.7  | 1902.2  | 1274.0  |
| 80°   | 7765.7  | 8213.1  | 10310.8 | 13513.7 | 18778.7 | 18509.1 | 14503.3 | 7069.4  | 2402.9  | 1117.0  | 844.4   |
| 82.5° | 3736.1  | 4053.2  | 5022.0  | 6589.4  | 10376.0 | 10130.1 | 7182.0  | 3863.6  | 1525.9  | 651.9   | 497.8   |
| 85°   | 2405.8  | 2642.8  | 3197.0  | 3143.6  | 4266.6  | 4074.0  | 3226.6  | 2924.3  | 903.7   | 340.7   | 346.7   |
| 87.5° | 1588.1  | 1739.2  | 2085.8  | 1668.1  | 1552.6  | 1404.4  | 1425.2  | 1647.4  | 177.8   | 130.4   | 47.4    |
| 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°    | 9217.5  | 9217.5  | 9217.5 | 9217.5 | 9217.5 | 9217.5 | 9217.5 | 9217.5 | 9217.5 | 9217.5 | 9217.5 |
| 2.5°  | 9116.8  | 9078.3  | 8950.8 | 8826.4 | 8707.9 | 8595.3 | 8521.2 | 8423.5 | 8358.3 | 8376.0 | 8402.7 |
| 5°    | 8888.6  | 8802.7  | 8577.5 | 8358.3 | 8150.9 | 7905.0 | 7706.4 | 7546.5 | 7424.9 | 7380.5 | 7371.6 |
| 7.5°  | 8648.6  | 8503.4  | 8180.5 | 7804.2 | 7451.6 | 7146.5 | 6793.9 | 6619.1 | 6414.6 | 6343.5 | 6319.8 |
| 10°   | 8503.4  | 8307.9  | 7854.6 | 7330.2 | 6799.8 | 6293.1 | 5911.0 | 5599.8 | 5318.3 | 5265.0 | 5238.3 |
| 12.5° | 8462.0  | 8204.2  | 7593.8 | 6918.3 | 6213.1 | 5591.0 | 5025.1 | 4616.2 | 4343.6 | 4281.4 | 4189.5 |
| 15°   | 8438.3  | 8118.3  | 7350.9 | 6503.5 | 5608.7 | 4850.2 | 4254.7 | 3777.7 | 3528.8 | 3362.8 | 3365.9 |
| 17.5° | 8417.5  | 8020.5  | 7078.3 | 6050.2 | 5087.3 | 4213.2 | 3555.4 | 3125.8 | 2897.7 | 2808.8 | 2799.9 |
| 20°   | 8387.9  | 7905.0  | 6764.2 | 5573.1 | 4491.7 | 3632.4 | 3036.9 | 2716.9 | 2562.9 | 2488.8 | 2485.8 |
| 22.5° | 8376.0  | 7792.4  | 6456.1 | 5087.3 | 3964.3 | 3185.1 | 2693.2 | 2468.1 | 2370.3 | 2319.9 | 2319.9 |
| 25°   | 8405.7  | 7712.4  | 6133.2 | 4625.1 | 3496.2 | 2802.9 | 2456.2 | 2302.2 | 2245.9 | 2219.2 | 2210.3 |
| 27.5° | 8497.5  | 7676.8  | 5813.2 | 4162.9 | 3066.5 | 2542.2 | 2296.3 | 2189.5 | 2148.1 | 2127.3 | 2130.3 |
| 30°   | 8672.3  | 7673.9  | 5499.1 | 3706.5 | 2746.6 | 2343.6 | 2168.9 | 2094.8 | 2062.1 | 2050.3 | 2047.3 |
| 32.5° | 8953.8  | 7739.1  | 5191.0 | 3330.3 | 2477.0 | 2177.7 | 2050.3 | 1997.0 | 1982.2 | 1973.2 | 1970.3 |
| 35°   | 9430.8  | 7922.7  | 4885.8 | 2986.6 | 2269.5 | 2029.6 | 1937.7 | 1911.1 | 1890.3 | 1899.2 | 1902.2 |
| 37.5° | 10073.8 | 8239.8  | 4595.4 | 2716.9 | 2112.5 | 1919.9 | 1842.9 | 1819.2 | 1807.4 | 1816.2 | 1825.1 |
| 40°   | 10935.9 | 8696.0  | 4352.4 | 2500.6 | 1999.9 | 1828.1 | 1760.0 | 1739.2 | 1727.3 | 1742.1 | 1745.2 |
| 42.5° | 11887.0 | 9223.4  | 4151.0 | 2331.8 | 1908.1 | 1751.0 | 1685.9 | 1662.2 | 1653.3 | 1662.2 | 1665.1 |
| 45°   | 12864.8 | 9836.8  | 4047.3 | 2210.3 | 1831.0 | 1694.8 | 1626.6 | 1599.9 | 1579.2 | 1573.3 | 1582.2 |
| 47.5° | 13827.7 | 10370.0 | 4044.3 | 2136.2 | 1768.9 | 1644.4 | 1570.3 | 1540.7 | 1514.1 | 1499.3 | 1496.2 |
| 50°   | 14612.9 | 10793.7 | 4115.4 | 2103.7 | 1715.5 | 1588.1 | 1514.1 | 1484.4 | 1448.9 | 1419.2 | 1425.2 |
| 52.5° | 15205.4 | 11069.3 | 4148.0 | 2088.8 | 1685.9 | 1528.9 | 1454.8 | 1428.1 | 1386.6 | 1348.1 | 1348.1 |
| 55°   | 15587.7 | 11134.5 | 4068.0 | 2074.0 | 1662.2 | 1466.6 | 1386.6 | 1362.9 | 1321.5 | 1282.9 | 1282.9 |
| 57.5° | 15718.0 | 10933.0 | 3780.6 | 2038.4 | 1638.4 | 1413.3 | 1318.5 | 1297.7 | 1265.1 | 1226.6 | 1220.7 |
| 60°   | 15415.9 | 10251.5 | 3277.0 | 1931.8 | 1591.1 | 1357.0 | 1244.4 | 1235.5 | 1223.7 | 1191.1 | 1188.1 |
| 62.5° | 14251.4 | 8805.7  | 2728.8 | 1792.5 | 1511.0 | 1297.7 | 1176.2 | 1191.1 | 1199.9 | 1182.2 | 1179.3 |
| 65°   | 12313.7 | 7149.4  | 2331.8 | 1599.9 | 1404.4 | 1214.7 | 1102.2 | 1140.7 | 1164.4 | 1164.4 | 1158.5 |
| 67.5° | 9987.9  | 5490.2  | 1964.4 | 1434.0 | 1271.1 | 1102.2 | 1019.2 | 1048.9 | 1066.6 | 1060.7 | 1075.6 |
| 70°   | 7099.0  | 3718.4  | 1599.9 | 1244.4 | 1102.2 | 974.8  | 912.6  | 912.6  | 900.7  | 894.8  | 894.8  |
| 72.5° | 3442.9  | 2124.4  | 1297.7 | 1040.0 | 939.2  | 832.6  | 782.2  | 761.4  | 737.7  | 734.8  | 720.0  |
| 73°   | 2877.0  | 1905.1  | 1238.5 | 1001.5 | 900.7  | 811.8  | 755.6  | 722.9  | 708.1  | 696.3  | 693.3  |
| 75°   | 1751.0  | 1445.8  | 1034.0 | 844.4  | 767.4  | 699.2  | 648.8  | 619.2  | 604.4  | 595.5  | 592.6  |
| 77.5° | 1152.6  | 1078.5  | 802.9  | 645.9  | 586.7  | 545.1  | 524.4  | 494.8  | 485.9  | 474.1  | 474.1  |
| 80°   | 859.2   | 823.7   | 574.8  | 456.2  | 420.8  | 385.2  | 379.2  | 373.3  | 349.6  | 334.8  | 328.9  |
| 82.5° | 554.1   | 586.7   | 391.1  | 305.2  | 266.7  | 237.0  | 240.0  | 248.9  | 225.2  | 204.4  | 198.5  |
| 85°   | 394.1   | 423.7   | 237.0  | 139.3  | 112.6  | 97.8   | 109.7  | 97.8   | 100.8  | 80.0   | 65.2   |
| 87.5° | 65.2    | 112.6   | 41.5   | 17.7   | 8.9    | 5.9    | 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)