

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: P319863

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

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P319863  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-22)  
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  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 55126 lumens  
Efficiency: N/A  
Efficacy: 95.9 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B4 - U0 - G5

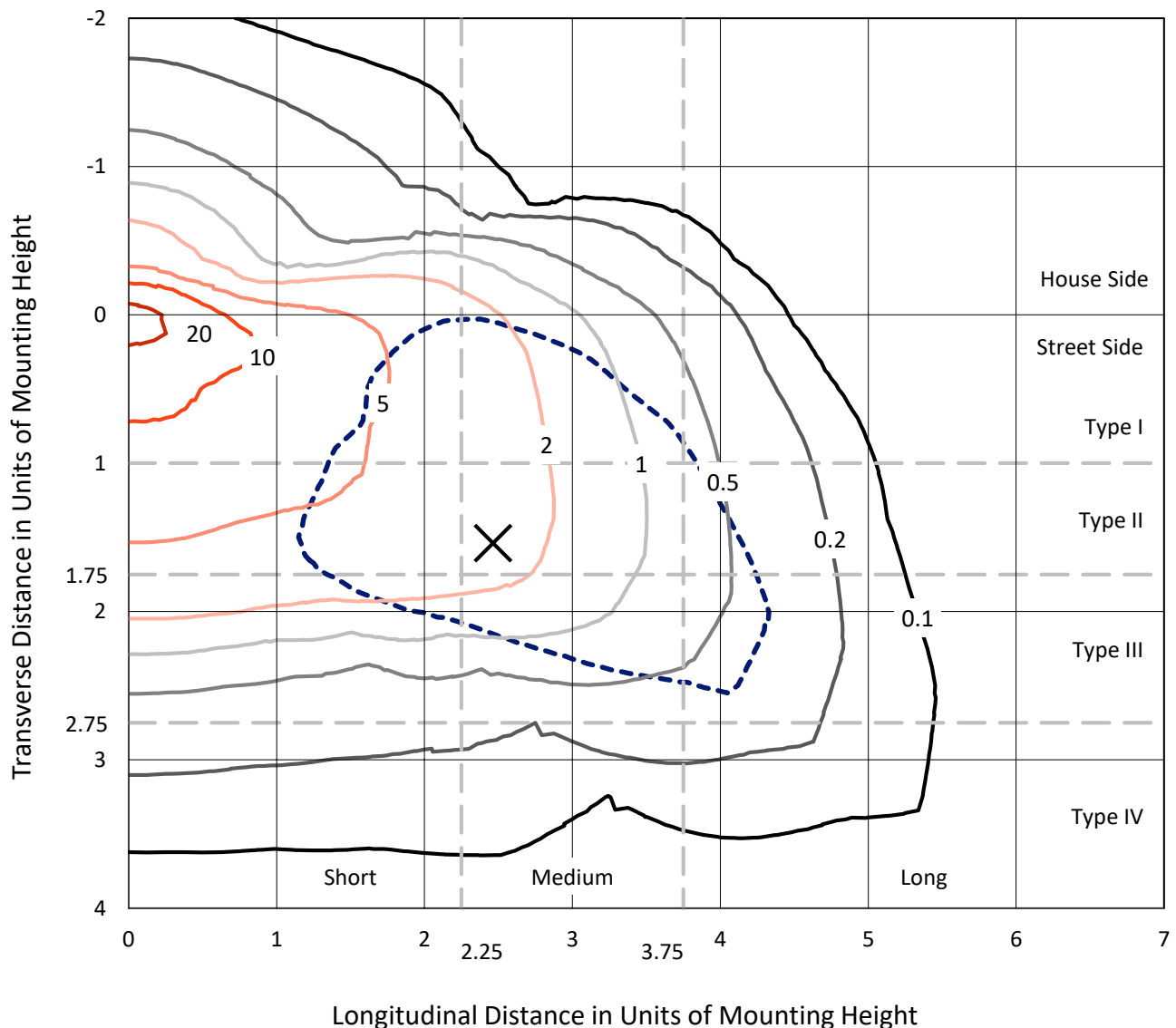
Input Watts (W): 575  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

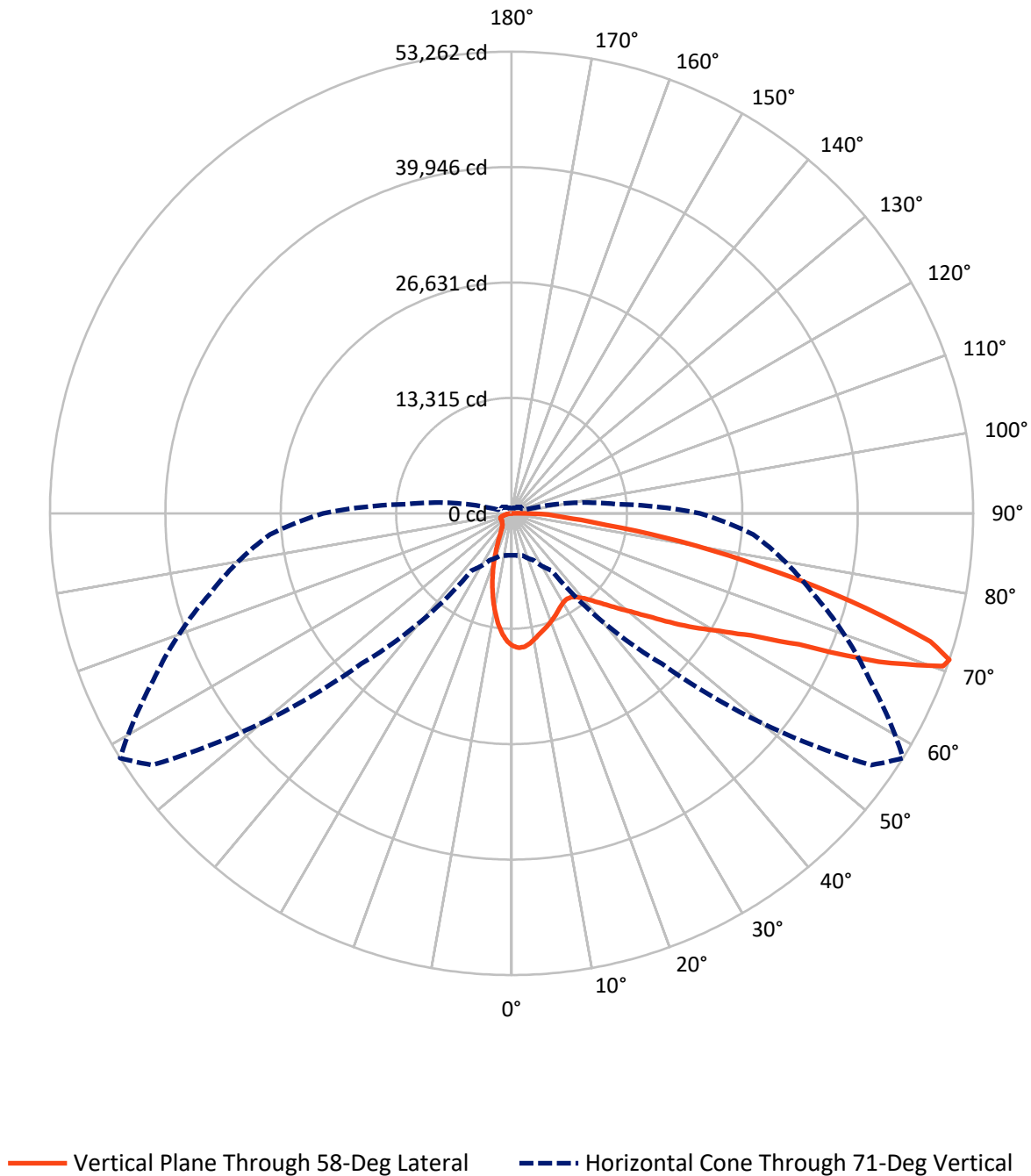
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 24.4 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    | 8241.7   | 0.0    | 8241.7  |
|                    | % Fixture | 15.0     | 0.0    | 15.0    |
| <b>Street Side</b> | Lumens    | 46884.3  | 0.0    | 46884.3 |
|                    | % Fixture | 85.0     | 0.0    | 85.0    |
| <b>Total</b>       | Lumens    | 55126.0  | 0.0    | 55126.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 1317.7  | 2.4       |
| 10°-20°   | 2930.0  | 5.3       |
| 20°-30°   | 3723.7  | 6.8       |
| 30°-40°   | 4743.2  | 8.6       |
| 40°-50°   | 6726.1  | 12.2      |
| 50°-60°   | 10408.9 | 18.9      |
| 60°-70°   | 14170.4 | 25.7      |
| 70°-80°   | 9453.3  | 17.1      |
| 80°-90°   | 1652.8  | 3.0       |
| 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°    | 55126.0 | 100.0     |
| 0°-180°   | 55126.0 | 100.0     |

**Coefficient of Utilization**



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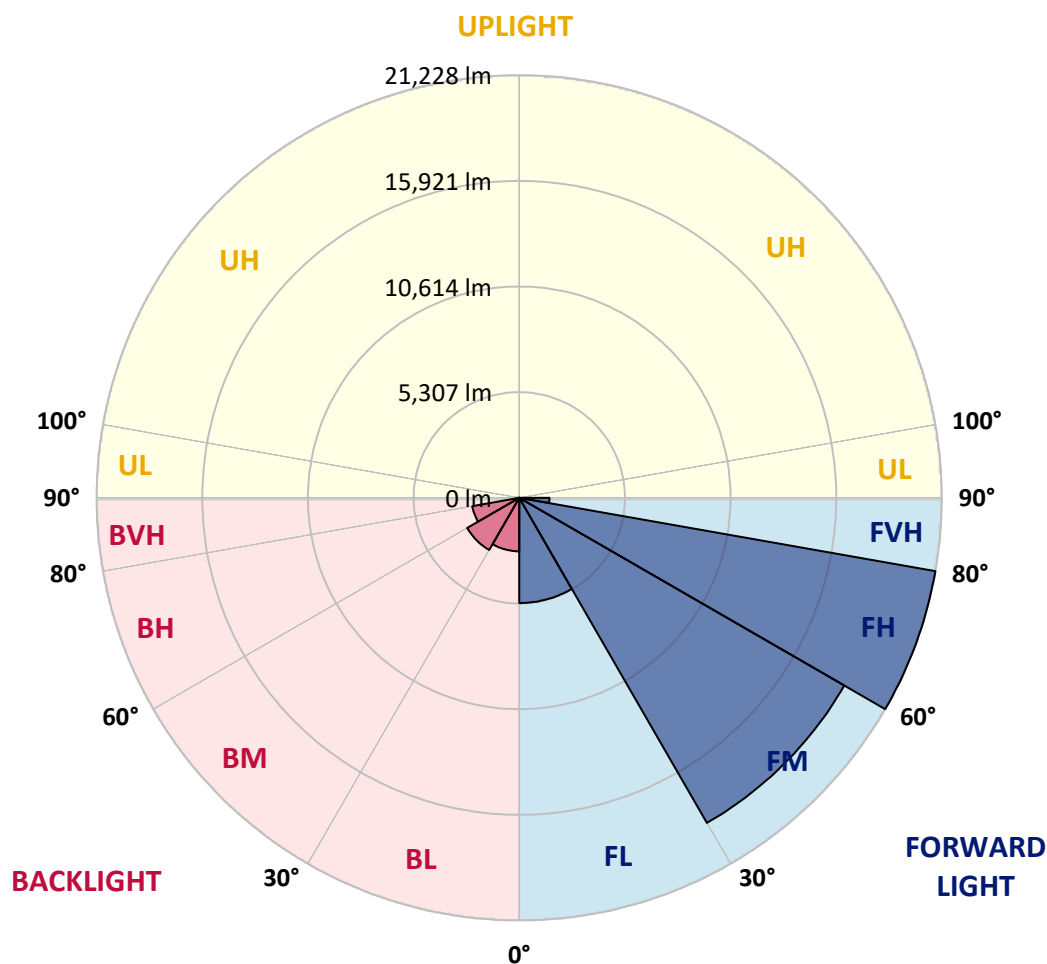
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 5284.7  | 9.6       |                         |      |         |
| FM   | (30°-60°)   | 18855.8 | 34.2      |                         |      |         |
| FH   | (60°-80°)   | 21228.3 | 38.5      |                         |      | G5      |
| FVH  | (80°-90°)   | 1515.4  | 2.7       |                         |      | G5      |
| BL   | (0°-30°)    | 2686.6  | 4.9       | B4/5000                 |      |         |
| BM   | (30°-60°)   | 3022.5  | 5.5       | B3/5000                 |      |         |
| BH   | (60°-80°)   | 2395.4  | 4.3       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 137.3   | 0.2       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B4-U0-G5**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 58°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 15273.6 | 15273.6 | 15273.6 | 15273.6 | 15273.6 | 15273.6 | 15273.6 | 15273.6 | 15273.6 | 15273.6 | 15273.6 |
| 2.5°  | 15678.8 | 15657.6 | 15665.3 | 15650.0 | 15613.5 | 15577.0 | 15523.2 | 15532.8 | 15457.9 | 15346.6 | 15208.3 |
| 5°    | 15383.0 | 15375.4 | 15433.0 | 15465.6 | 15492.5 | 15471.4 | 15456.0 | 15475.2 | 15365.8 | 15212.1 | 14972.1 |
| 7.5°  | 14762.8 | 14678.3 | 14751.3 | 14860.7 | 14964.4 | 15043.2 | 15146.9 | 15160.3 | 15091.2 | 14929.9 | 14614.9 |
| 10°   | 13881.4 | 13800.8 | 13908.3 | 14079.2 | 14286.6 | 14474.8 | 14684.1 | 14722.5 | 14735.9 | 14590.0 | 14207.9 |
| 12.5° | 12967.4 | 12905.9 | 13013.5 | 13253.5 | 13597.2 | 13887.2 | 14221.3 | 14278.9 | 14398.0 | 14300.0 | 13831.5 |
| 15°   | 12149.4 | 12126.3 | 12256.9 | 12493.1 | 12888.6 | 13332.2 | 13814.2 | 13919.8 | 14121.4 | 14088.8 | 13537.7 |
| 17.5° | 11442.7 | 11436.9 | 11536.8 | 11784.5 | 12222.3 | 12783.0 | 13409.0 | 13587.6 | 13887.2 | 13925.6 | 13295.7 |
| 20°   | 10916.6 | 10905.0 | 10974.2 | 11156.6 | 11607.8 | 12243.4 | 12971.2 | 13217.0 | 13649.1 | 13783.5 | 13046.1 |
| 22.5° | 10634.3 | 10632.4 | 10634.3 | 10720.7 | 11089.4 | 11680.8 | 12544.9 | 12844.5 | 13416.7 | 13670.2 | 12769.6 |
| 25°   | 10586.3 | 10580.5 | 10538.3 | 10528.7 | 10738.0 | 11210.4 | 12122.5 | 12452.8 | 13195.9 | 13591.5 | 12506.5 |
| 27.5° | 10711.1 | 10718.8 | 10663.1 | 10572.8 | 10615.1 | 10901.2 | 11755.7 | 12109.0 | 13019.2 | 13576.1 | 12324.1 |
| 30°   | 10970.3 | 10966.5 | 10918.5 | 10824.4 | 10741.8 | 10786.0 | 11494.6 | 11847.9 | 12900.2 | 13643.3 | 12199.3 |
| 32.5° | 11256.4 | 11277.6 | 11268.0 | 11216.1 | 11093.2 | 10916.6 | 11415.8 | 11761.5 | 12865.6 | 13804.6 | 12145.5 |
| 35°   | 11600.2 | 11623.2 | 11692.3 | 11732.7 | 11588.6 | 11304.5 | 11584.8 | 11884.4 | 12965.5 | 14108.0 | 12231.9 |
| 37.5° | 11926.6 | 11986.1 | 12180.1 | 12351.0 | 12228.1 | 11911.2 | 12034.1 | 12247.3 | 13274.6 | 14586.1 | 12464.3 |
| 40°   | 12303.0 | 12354.8 | 12671.7 | 13034.6 | 13015.4 | 12687.0 | 12758.1 | 12900.2 | 13820.0 | 15271.7 | 12884.8 |
| 42.5° | 12673.6 | 12777.3 | 13236.2 | 13750.8 | 13898.7 | 13608.7 | 13722.0 | 13796.9 | 14588.1 | 16179.9 | 13618.3 |
| 45°   | 13167.1 | 13278.5 | 13916.0 | 14536.2 | 14881.9 | 14718.6 | 14899.1 | 14927.9 | 15553.9 | 17416.6 | 14684.1 |
| 47.5° | 13914.1 | 14040.8 | 14783.9 | 15434.9 | 15963.0 | 15980.2 | 16277.9 | 16266.4 | 16759.9 | 18831.8 | 16026.3 |
| 50°   | 15077.7 | 15260.1 | 15868.9 | 16477.6 | 17118.9 | 17476.1 | 17873.6 | 17817.9 | 18205.8 | 20339.2 | 17572.1 |
| 52.5° | 16602.4 | 16686.9 | 17138.1 | 17587.5 | 18384.4 | 19185.1 | 19755.4 | 19705.5 | 19845.7 | 21888.8 | 19327.2 |
| 55°   | 18182.8 | 18246.1 | 18432.4 | 18678.2 | 19749.7 | 21055.4 | 22261.3 | 22182.6 | 21827.4 | 23498.0 | 21061.2 |
| 57.5° | 19603.7 | 19732.4 | 19861.0 | 19962.8 | 21124.6 | 23010.2 | 24824.9 | 24830.6 | 23978.0 | 25233.9 | 22852.8 |
| 60°   | 19824.6 | 19937.8 | 20788.5 | 21591.2 | 23476.9 | 25617.9 | 27568.9 | 27511.3 | 26203.6 | 27117.6 | 24849.8 |
| 62.5° | 17524.1 | 17779.5 | 19200.5 | 21335.8 | 25742.7 | 30387.8 | 31069.5 | 30998.4 | 28865.0 | 29439.2 | 27175.2 |
| 65°   | 12558.4 | 12848.3 | 14563.1 | 17771.8 | 24644.4 | 35643.5 | 37387.1 | 36430.8 | 32494.3 | 32294.6 | 29898.1 |
| 67.5° | 7245.1  | 7314.2  | 8057.3  | 10634.3 | 18764.6 | 35918.1 | 47024.8 | 45686.3 | 38130.2 | 35534.0 | 31230.8 |
| 70°   | 5357.5  | 5355.5  | 5532.2  | 6544.2  | 10154.2 | 29314.4 | 51608.4 | 52808.5 | 44063.7 | 36599.8 | 29347.0 |
| 71°   | 4844.8  | 4850.5  | 5048.3  | 5956.6  | 8042.0  | 24536.8 | 50634.8 | 53261.7 | 45626.8 | 36073.6 | 27983.7 |
| 72.5° | 4143.9  | 4163.1  | 4437.7  | 5342.1  | 6765.0  | 16921.2 | 46441.0 | 50542.6 | 46368.0 | 34775.5 | 25850.3 |
| 75°   | 3143.4  | 3187.6  | 3567.8  | 4503.0  | 6183.2  | 8581.6  | 34084.3 | 40359.6 | 41191.1 | 30685.4 | 19208.2 |
| 77.5° | 2242.8  | 2292.8  | 2722.9  | 3786.7  | 5877.9  | 6467.4  | 22825.9 | 29439.2 | 30312.9 | 19665.2 | 8664.1  |
| 80°   | 1417.1  | 1476.7  | 1801.2  | 3012.9  | 5522.6  | 6140.9  | 14344.2 | 19788.1 | 16529.4 | 6292.6  | 2204.4  |
| 82.5° | 831.5   | 877.5   | 1117.6  | 1968.2  | 4510.6  | 5914.3  | 8439.5  | 10968.4 | 6432.8  | 1901.0  | 1002.4  |
| 85°   | 482.0   | 503.1   | 697.0   | 1253.9  | 3275.9  | 5582.1  | 6200.5  | 6131.3  | 2792.0  | 929.4   | 474.3   |
| 87.5° | 224.7   | 249.6   | 412.9   | 654.8   | 1818.5  | 4045.9  | 4900.5  | 4234.1  | 1735.9  | 435.9   | 222.7   |
| 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°    | 15273.6 | 15273.6 | 15273.6 | 15273.6 | 15273.6 | 15273.6 | 15273.6 | 15273.6 | 15273.6 | 15273.6 | 15273.6 |
| 2.5°  | 15141.1 | 15108.4 | 14972.1 | 14851.1 | 14724.4 | 14559.3 | 14376.8 | 14353.8 | 14242.4 | 14263.5 | 14225.1 |
| 5°    | 14841.5 | 14759.0 | 14430.6 | 14133.0 | 13781.6 | 13466.6 | 13124.8 | 12967.4 | 12740.8 | 12725.4 | 12667.8 |
| 7.5°  | 14413.3 | 14259.7 | 13750.8 | 13186.3 | 12621.7 | 12084.1 | 11552.2 | 11202.7 | 10845.5 | 10693.8 | 10680.4 |
| 10°   | 13931.3 | 13670.2 | 12921.3 | 12086.0 | 11271.8 | 10486.4 | 9726.0  | 9163.4  | 8656.4  | 8416.4  | 8406.8  |
| 12.5° | 13474.3 | 13088.4 | 12061.0 | 10924.2 | 9810.5  | 8792.8  | 7750.1  | 7010.8  | 6375.2  | 6162.0  | 6071.8  |
| 15°   | 13086.4 | 12543.0 | 11223.8 | 9770.2  | 8418.3  | 7005.0  | 5818.3  | 5040.6  | 4453.0  | 4249.5  | 4211.1  |
| 17.5° | 12710.1 | 12011.1 | 10365.5 | 8604.6  | 6970.5  | 5417.0  | 4228.4  | 3650.4  | 3337.4  | 3254.8  | 3252.9  |
| 20°   | 12335.6 | 11463.8 | 9468.7  | 7412.1  | 5570.6  | 4051.7  | 3251.0  | 2991.7  | 2886.1  | 2876.5  | 2861.2  |
| 22.5° | 11911.2 | 10883.9 | 8525.9  | 6215.8  | 4347.4  | 3185.7  | 2763.2  | 2659.5  | 2646.1  | 2680.7  | 2680.7  |
| 25°   | 11513.8 | 10307.8 | 7569.6  | 5044.5  | 3381.5  | 2657.6  | 2467.5  | 2446.4  | 2482.9  | 2544.3  | 2550.1  |
| 27.5° | 11143.2 | 9752.9  | 6636.3  | 4003.7  | 2709.5  | 2340.8  | 2262.0  | 2287.0  | 2352.3  | 2423.3  | 2425.3  |
| 30°   | 10837.8 | 9228.7  | 5730.0  | 3155.0  | 2288.9  | 2104.6  | 2091.1  | 2141.1  | 2212.1  | 2267.8  | 2281.2  |
| 32.5° | 10601.6 | 8781.3  | 4854.4  | 2536.6  | 2014.3  | 1927.9  | 1939.4  | 1981.7  | 2025.9  | 2056.6  | 2077.7  |
| 35°   | 10492.2 | 8397.2  | 4045.9  | 2139.1  | 1839.6  | 1791.6  | 1806.9  | 1830.0  | 1849.2  | 1872.2  | 1889.5  |
| 37.5° | 10511.4 | 8099.6  | 3323.9  | 1891.4  | 1722.5  | 1697.5  | 1697.5  | 1697.5  | 1697.5  | 1709.0  | 1710.9  |
| 40°   | 10690.0 | 7928.7  | 2736.3  | 1734.0  | 1643.7  | 1616.8  | 1595.7  | 1576.5  | 1561.2  | 1568.8  | 1565.0  |
| 42.5° | 11147.0 | 7913.3  | 2306.2  | 1634.1  | 1580.4  | 1536.2  | 1493.9  | 1467.1  | 1447.9  | 1455.5  | 1459.4  |
| 45°   | 11922.8 | 8105.3  | 2016.3  | 1563.1  | 1520.8  | 1453.6  | 1399.9  | 1371.1  | 1357.6  | 1382.6  | 1386.4  |
| 47.5° | 12927.1 | 8523.9  | 1839.6  | 1511.2  | 1465.1  | 1376.8  | 1319.2  | 1292.3  | 1296.2  | 1332.6  | 1342.2  |
| 50°   | 14221.3 | 9203.7  | 1755.1  | 1478.6  | 1426.7  | 1311.5  | 1252.0  | 1229.0  | 1240.5  | 1292.3  | 1303.8  |
| 52.5° | 15642.3 | 10183.0 | 1764.7  | 1469.0  | 1401.8  | 1263.5  | 1200.1  | 1173.3  | 1192.5  | 1240.5  | 1250.1  |
| 55°   | 17282.2 | 11360.1 | 1924.1  | 1482.4  | 1365.3  | 1232.8  | 1157.9  | 1111.8  | 1127.2  | 1171.3  | 1179.0  |
| 57.5° | 19104.5 | 12708.1 | 2244.8  | 1478.6  | 1319.2  | 1204.0  | 1113.7  | 1044.6  | 1056.1  | 1083.0  | 1090.7  |
| 60°   | 21001.7 | 14336.5 | 2742.1  | 1490.1  | 1298.1  | 1169.4  | 1054.2  | 967.8   | 964.0   | 987.0   | 990.8   |
| 62.5° | 23279.1 | 16220.3 | 3310.5  | 1497.8  | 1311.5  | 1125.3  | 975.5   | 891.0   | 879.5   | 885.2   | 889.1   |
| 65°   | 25625.6 | 17583.6 | 3097.3  | 1467.1  | 1353.8  | 1088.8  | 906.4   | 816.1   | 795.0   | 791.1   | 793.1   |
| 67.5° | 25698.6 | 16122.3 | 2171.8  | 1405.6  | 1371.1  | 1069.6  | 854.5   | 752.7   | 718.2   | 704.7   | 702.8   |
| 70°   | 23046.7 | 13098.0 | 1691.7  | 1340.3  | 1301.9  | 1038.8  | 806.5   | 700.9   | 649.0   | 627.9   | 626.0   |
| 71°   | 21752.5 | 12057.2 | 1603.4  | 1307.7  | 1250.1  | 1008.1  | 785.4   | 677.8   | 624.1   | 601.0   | 597.2   |
| 72.5° | 19722.8 | 10809.0 | 1495.9  | 1255.8  | 1150.2  | 929.4   | 745.1   | 645.2   | 589.5   | 562.6   | 556.9   |
| 75°   | 14154.1 | 7068.4  | 1284.6  | 1119.5  | 952.4   | 741.2   | 652.9   | 579.9   | 531.9   | 499.3   | 495.4   |
| 77.5° | 5453.5  | 2813.2  | 971.6   | 931.3   | 729.7   | 579.9   | 537.7   | 501.2   | 466.6   | 434.0   | 432.1   |
| 80°   | 1686.0  | 1257.8  | 708.6   | 700.9   | 528.1   | 432.1   | 418.6   | 409.0   | 395.6   | 361.0   | 353.3   |
| 82.5° | 900.6   | 722.0   | 487.7   | 453.2   | 345.6   | 288.0   | 303.4   | 307.2   | 309.2   | 272.7   | 268.8   |
| 85°   | 430.1   | 382.1   | 274.6   | 257.3   | 201.6   | 161.3   | 186.3   | 201.6   | 203.5   | 167.1   | 155.5   |
| 87.5° | 205.5   | 199.7   | 128.7   | 97.9    | 74.9    | 53.8    | 65.3    | 80.7    | 88.3    | 63.4    | 55.7    |
| 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)