

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: P534407

Luminaire Tested: **GLAN-SA9D-827-U-T3R-GRSBK**

Issue Date: 5/27/2021

### Test Information

Test Method: LM-79-08  
Report Number: P534407  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-057-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GLAN-SA9D-827-U-T3R-GRSBK  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS WITH BLACK GLARE REDUCTION SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 31354 lumens  
Efficiency: N/A  
Efficacy: 56.8 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G2

Input Watts (W): 552  
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



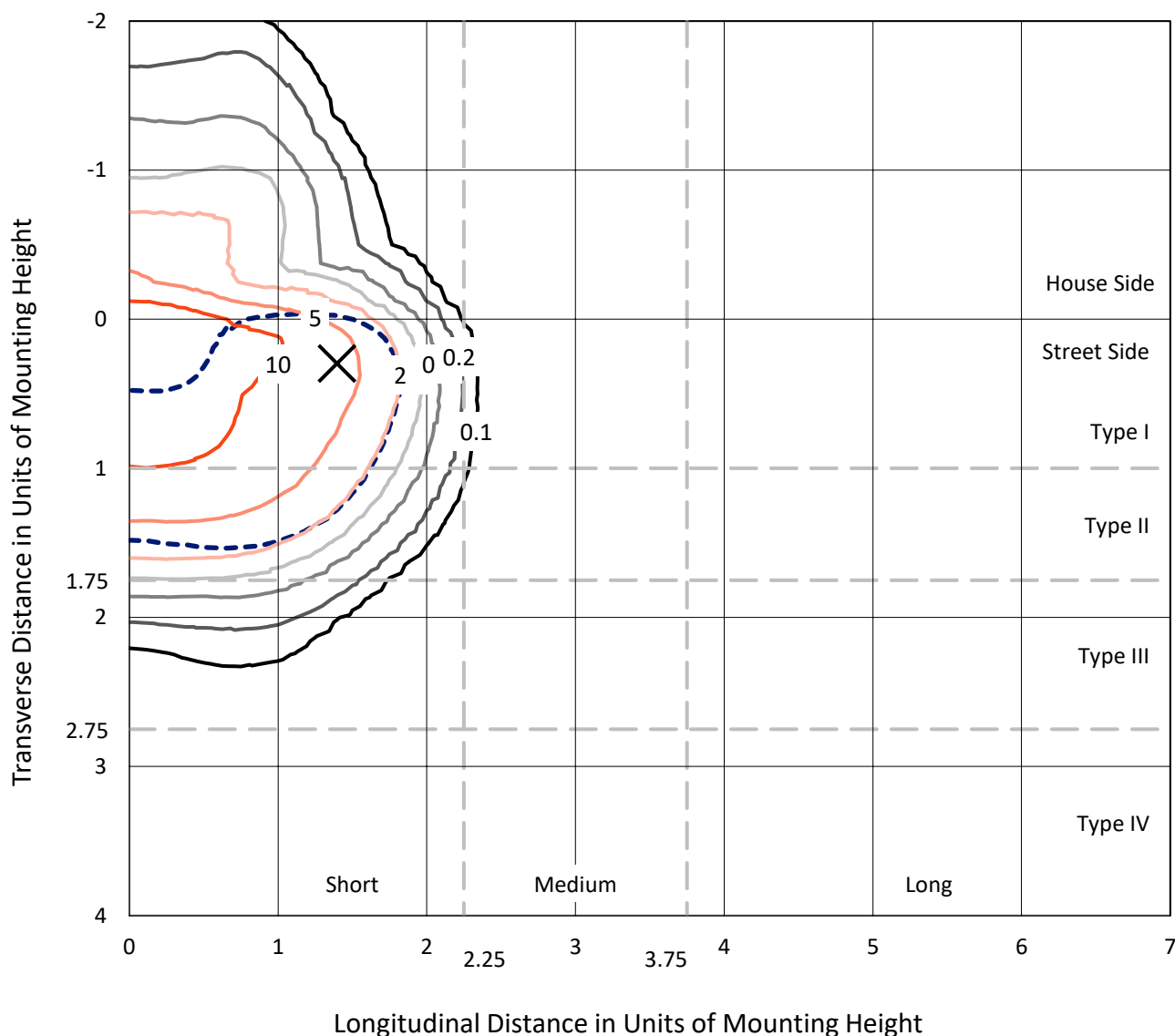
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## Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

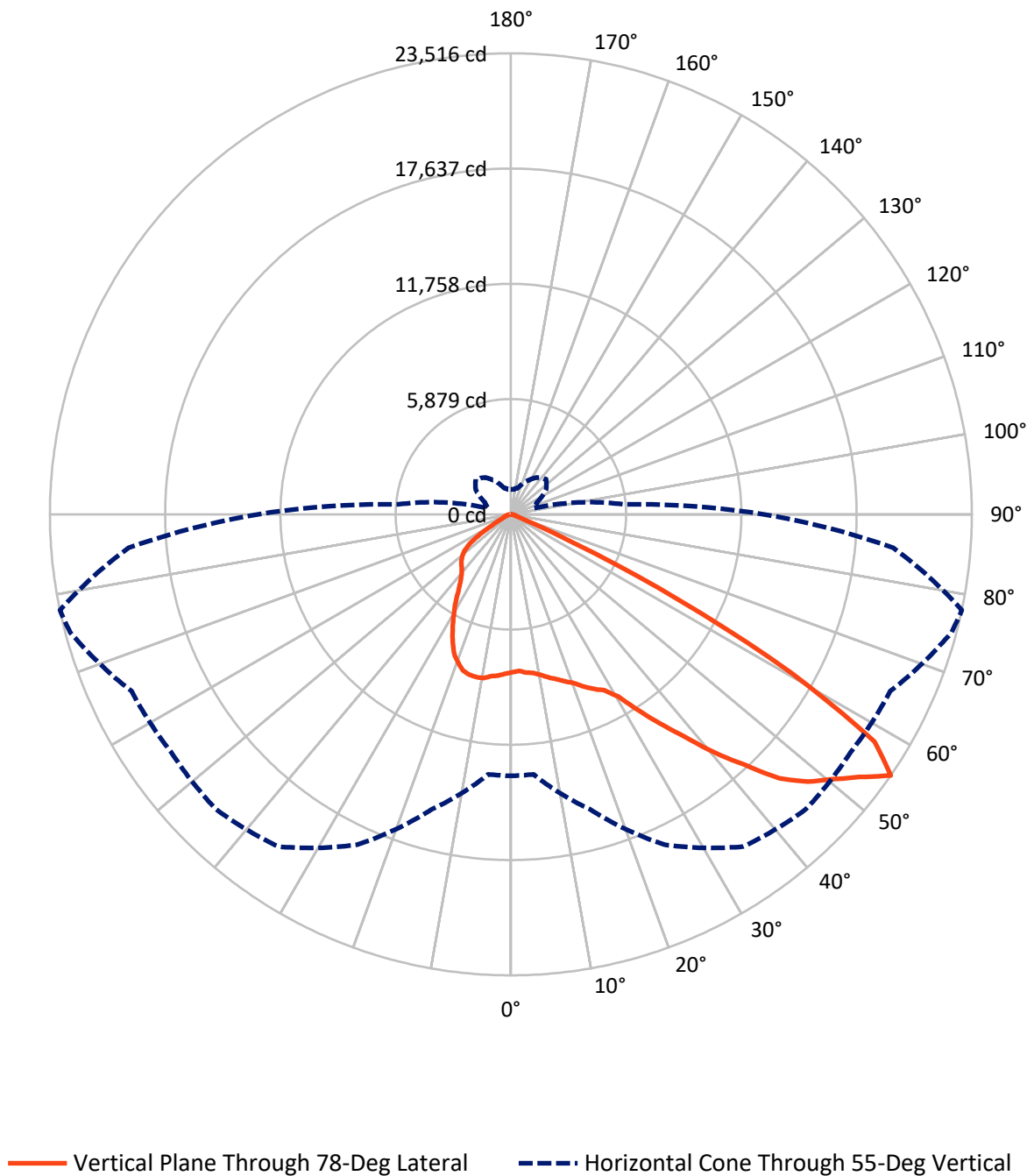


Based on 25 foot mounting height. Maximum calculated value = 13.9 fc

Type II - Short - N/A

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## Luminous Intensity Polar Plot



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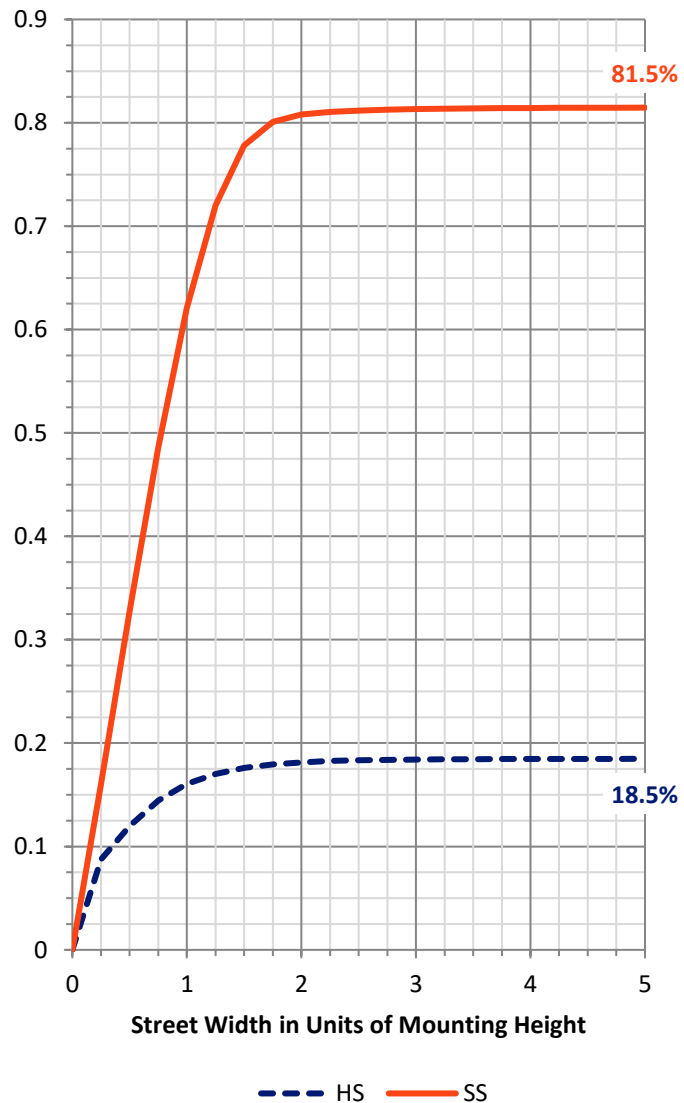
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 5823.7   | 0.0    | 5823.7  |
|                    | % Fixture | 18.6     | 0.0    | 18.6    |
| <b>Street Side</b> | Lumens    | 25530.3  | 0.0    | 25530.3 |
|                    | % Fixture | 81.4     | 0.0    | 81.4    |
| <b>Total</b>       | Lumens    | 31354.0  | 0.0    | 31354.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 718.8   | 2.3       |
| 10°-20°   | 1902.3  | 6.1       |
| 20°-30°   | 3334.4  | 10.6      |
| 30°-40°   | 5498.0  | 17.5      |
| 40°-50°   | 8000.3  | 25.5      |
| 50°-60°   | 9065.2  | 28.9      |
| 60°-70°   | 2591.9  | 8.3       |
| 70°-80°   | 201.2   | 0.6       |
| 80°-90°   | 41.9    | 0.1       |
| 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°    | 31354.0 | 100.0     |
| 0°-180°   | 31354.0 | 100.0     |

**Coefficient of Utilization**



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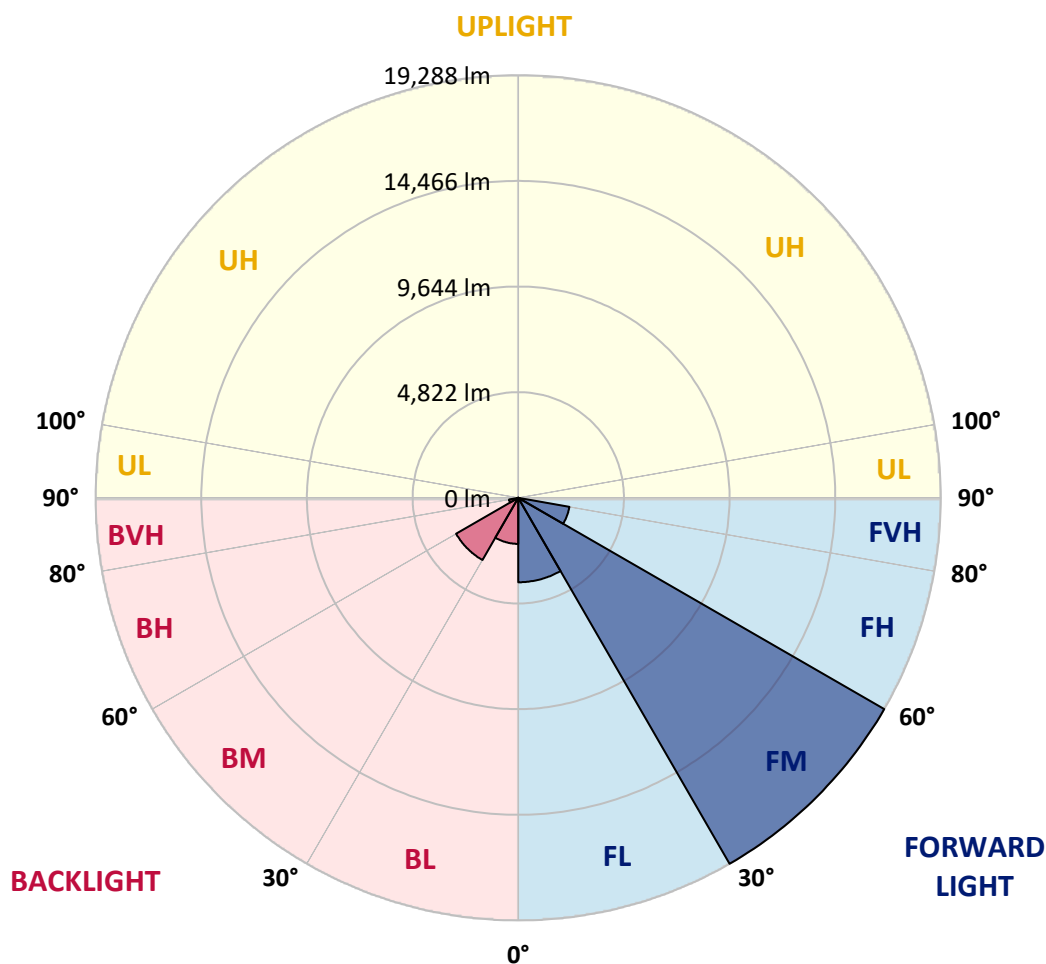
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 3854.3  | 12.3      |                         |      |         |
| FM   | (30°-60°)   | 19287.6 | 61.5      |                         |      |         |
| FH   | (60°-80°)   | 2368.0  | 7.6       |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 20.4    | 0.1       |                         |      | G1/100  |
| BL   | (0°-30°)    | 2101.2  | 6.7       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 3275.9  | 10.4      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 425.1   | 1.4       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 21.5    | 0.1       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G2**

Type II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 78°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 8061.1  | 8061.1  | 8061.1  | 8061.1  | 8061.1  | 8061.1  | 8061.1  | 8061.1  | 8061.1  | 8061.1  | 8061.1  |
| 2.5°  | 7579.0  | 7651.9  | 7663.1  | 7752.8  | 7747.2  | 7898.6  | 7943.4  | 7949.0  | 8049.9  | 7999.5  | 8128.4  |
| 5°    | 7366.0  | 7326.8  | 7310.0  | 7466.9  | 7511.8  | 7646.3  | 7758.4  | 7825.7  | 8033.1  | 8106.0  | 8240.5  |
| 7.5°  | 7175.4  | 7175.4  | 7186.6  | 7326.8  | 7310.0  | 7483.7  | 7601.5  | 7808.9  | 8111.6  | 8173.2  | 8335.8  |
| 10°   | 6990.4  | 6923.2  | 7007.2  | 7153.0  | 7276.3  | 7354.8  | 7601.5  | 7797.7  | 8150.8  | 8330.2  | 8554.4  |
| 12.5° | 6895.1  | 6928.8  | 6940.0  | 7046.5  | 7181.0  | 7416.5  | 7551.0  | 7876.1  | 8431.1  | 8537.6  | 8778.7  |
| 15°   | 7494.9  | 7427.7  | 7265.1  | 7169.8  | 7281.9  | 7394.0  | 7730.4  | 8061.1  | 8576.9  | 8728.2  | 8997.3  |
| 17.5° | 8190.1  | 8134.0  | 7999.5  | 7741.6  | 7489.3  | 7696.8  | 7960.2  | 8262.9  | 8733.8  | 8958.1  | 9356.1  |
| 20°   | 9098.2  | 9008.5  | 8874.0  | 8369.5  | 8150.8  | 7926.6  | 8206.9  | 8565.7  | 8991.7  | 9193.5  | 9602.7  |
| 22.5° | 10180.1 | 10180.1 | 9877.4  | 9266.4  | 8812.3  | 8599.3  | 8717.0  | 8924.4  | 9277.6  | 9552.3  | 9955.9  |
| 25°   | 11306.9 | 11273.3 | 10998.6 | 10365.1 | 9597.1  | 9344.9  | 9479.4  | 9625.1  | 9720.4  | 9871.8  | 10140.9 |
| 27.5° | 12596.2 | 12400.0 | 12052.5 | 11351.7 | 10673.4 | 10185.7 | 10331.5 | 10202.5 | 10084.8 | 10163.3 | 10550.1 |
| 30°   | 13470.7 | 13594.1 | 13151.2 | 12478.5 | 11839.4 | 11295.7 | 11323.7 | 11211.6 | 10673.4 | 10785.5 | 11015.4 |
| 32.5° | 14378.9 | 14457.3 | 14210.7 | 13840.7 | 13201.6 | 12568.2 | 12338.4 | 12243.1 | 11839.4 | 11889.9 | 11665.7 |
| 35°   | 15135.6 | 15287.0 | 15068.4 | 14905.8 | 14720.8 | 14210.7 | 13577.2 | 13885.6 | 13235.3 | 13112.0 | 12528.9 |
| 37.5° | 15830.8 | 15785.9 | 16043.8 | 15875.6 | 15836.4 | 15477.6 | 14782.5 | 14844.1 | 14406.9 | 14378.9 | 13706.2 |
| 40°   | 16453.0 | 16464.2 | 16817.4 | 16895.9 | 16738.9 | 16099.8 | 15090.8 | 15578.5 | 15931.7 | 15965.3 | 15102.0 |
| 42.5° | 16968.7 | 17120.1 | 17422.8 | 18056.3 | 17820.8 | 16755.7 | 15410.3 | 15942.9 | 17254.6 | 17462.0 | 16425.0 |
| 45°   | 17417.2 | 17725.5 | 18101.1 | 18667.3 | 18532.8 | 17686.3 | 16206.4 | 16694.1 | 18667.3 | 19211.1 | 17669.5 |
| 47.5° | 17445.2 | 17848.8 | 18258.1 | 19098.9 | 19267.1 | 18185.2 | 17030.4 | 17882.5 | 19788.5 | 20377.1 | 18577.6 |
| 50°   | 17333.1 | 17546.1 | 18364.6 | 19278.3 | 19659.5 | 18998.0 | 18185.2 | 18880.3 | 20876.0 | 21246.0 | 19037.3 |
| 52.5° | 16004.5 | 16167.1 | 17809.6 | 19446.5 | 20365.8 | 19917.4 | 19715.6 | 20270.6 | 21985.9 | 22260.6 | 19468.9 |
| 55°   | 13341.8 | 13313.8 | 15572.9 | 18600.0 | 20691.0 | 21279.6 | 21156.3 | 21352.5 | 23269.7 | 23516.3 | 19575.4 |
| 57.5° | 9126.2  | 9636.4  | 11587.2 | 15488.8 | 18700.9 | 20960.1 | 21089.0 | 20763.9 | 21772.9 | 21868.2 | 17064.0 |
| 60°   | 4921.9  | 5134.9  | 6704.5  | 10337.1 | 14238.7 | 17080.9 | 17417.2 | 16828.6 | 16750.1 | 16481.0 | 12181.4 |
| 62.5° | 1956.4  | 2062.9  | 2954.3  | 5118.1  | 7758.4  | 10381.9 | 11105.1 | 10864.0 | 10348.3 | 9642.0  | 6306.5  |
| 65°   | 930.6   | 997.8   | 1468.7  | 2393.7  | 3442.0  | 4327.7  | 5050.8  | 5275.1  | 3890.4  | 3503.6  | 2079.7  |
| 67.5° | 633.5   | 683.9   | 1070.7  | 1367.8  | 1227.7  | 1283.7  | 1670.5  | 1552.8  | 913.7   | 779.2   | 577.4   |
| 70°   | 482.1   | 515.7   | 857.7   | 930.6   | 549.4   | 386.8   | 431.6   | 403.6   | 375.6   | 381.2   | 375.6   |
| 72.5° | 342.0   | 370.0   | 627.8   | 549.4   | 241.0   | 179.4   | 229.8   | 274.7   | 274.7   | 274.7   | 269.1   |
| 75°   | 207.4   | 235.4   | 364.4   | 213.0   | 95.3    | 95.3    | 145.8   | 185.0   | 196.2   | 201.8   | 190.6   |
| 77.5° | 106.5   | 134.5   | 123.3   | 61.7    | 61.7    | 72.9    | 106.5   | 128.9   | 140.1   | 140.1   | 134.5   |
| 80°   | 22.4    | 22.4    | 22.4    | 33.6    | 61.7    | 78.5    | 106.5   | 117.7   | 134.5   | 134.5   | 123.3   |
| 82.5° | 0.0     | 5.6     | 16.8    | 33.6    | 56.1    | 72.9    | 100.9   | 117.7   | 134.5   | 140.1   | 128.9   |
| 85°   | 0.0     | 5.6     | 11.2    | 22.4    | 39.2    | 44.8    | 39.2    | 33.6    | 33.6    | 33.6    | 33.6    |
| 87.5° | 0.0     | 0.0     | 5.6     | 5.6     | 5.6     | 11.2    | 11.2    | 11.2    | 11.2    | 11.2    | 11.2    |
| 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°    | 8061.1  | 8061.1 | 8061.1 | 8061.1 | 8061.1 | 8061.1 | 8061.1 | 8061.1 | 8061.1 | 8061.1 | 8061.1 |
| 2.5°  | 8139.6  | 8156.4 | 8128.4 | 8122.8 | 8100.4 | 8167.6 | 8005.1 | 7965.8 | 8066.7 | 7971.4 | 7993.9 |
| 5°    | 8246.1  | 8285.4 | 8234.9 | 8150.8 | 8027.5 | 7836.9 | 7674.3 | 7461.3 | 7360.4 | 7287.5 | 7276.3 |
| 7.5°  | 8324.6  | 8352.6 | 8302.2 | 8033.1 | 7663.1 | 7181.0 | 6822.3 | 6558.8 | 6351.4 | 6289.7 | 6188.8 |
| 10°   | 8644.1  | 8649.7 | 8397.5 | 7803.3 | 7080.1 | 6446.7 | 5897.3 | 5493.7 | 5286.3 | 5157.3 | 5101.3 |
| 12.5° | 8857.2  | 8845.9 | 8335.8 | 7349.2 | 6385.0 | 5544.1 | 4916.3 | 4428.6 | 4238.0 | 4176.3 | 4137.1 |
| 15°   | 9126.2  | 9064.6 | 8190.1 | 6883.9 | 5488.1 | 4579.9 | 4013.7 | 3677.4 | 3660.6 | 3621.3 | 3660.6 |
| 17.5° | 9339.3  | 9165.5 | 7977.0 | 6037.4 | 4630.4 | 3772.7 | 3402.7 | 3425.1 | 3470.0 | 3509.2 | 3514.8 |
| 20°   | 9686.8  | 9328.0 | 7489.3 | 5297.5 | 3834.4 | 3234.5 | 3228.9 | 3329.8 | 3442.0 | 3486.8 | 3531.7 |
| 22.5° | 9950.3  | 9395.3 | 6968.0 | 4507.1 | 3184.1 | 3015.9 | 3111.2 | 3262.6 | 3346.7 | 3391.5 | 3458.8 |
| 25°   | 10045.6 | 9210.3 | 6272.9 | 3716.6 | 2870.2 | 2915.0 | 3060.8 | 3161.7 | 3268.2 | 3318.6 | 3290.6 |
| 27.5° | 10140.9 | 9115.0 | 5443.2 | 3060.8 | 2702.0 | 2847.7 | 2971.1 | 3072.0 | 3105.6 | 3172.9 | 3217.7 |
| 30°   | 10370.7 | 8784.3 | 4697.7 | 2645.9 | 2617.9 | 2802.9 | 2892.6 | 2926.2 | 3015.9 | 3055.2 | 3055.2 |
| 32.5° | 10555.7 | 8655.3 | 3907.2 | 2449.7 | 2606.7 | 2825.3 | 2836.5 | 2836.5 | 2847.7 | 2819.7 | 2808.5 |
| 35°   | 10936.9 | 8212.5 | 3200.9 | 2332.0 | 2601.1 | 2830.9 | 2859.0 | 2763.7 | 2505.8 | 2404.9 | 2376.9 |
| 37.5° | 11407.8 | 7926.6 | 2679.6 | 2304.0 | 2640.3 | 2898.2 | 2943.0 | 2584.3 | 2247.9 | 2085.4 | 2057.3 |
| 40°   | 11979.6 | 7724.8 | 2337.6 | 2292.8 | 2730.0 | 3055.2 | 2920.6 | 2444.1 | 2006.9 | 1771.4 | 1760.2 |
| 42.5° | 12646.7 | 7539.8 | 2107.8 | 2287.2 | 2842.1 | 3217.7 | 2898.2 | 2326.4 | 1760.2 | 1603.3 | 1625.7 |
| 45°   | 13179.2 | 7438.9 | 1950.8 | 2247.9 | 2881.4 | 3313.0 | 2915.0 | 2119.0 | 1659.3 | 1558.4 | 1569.6 |
| 47.5° | 13594.1 | 7225.9 | 1821.9 | 2180.7 | 2875.8 | 3346.7 | 2763.7 | 2034.9 | 1608.9 | 1636.9 | 1664.9 |
| 50°   | 13605.3 | 6940.0 | 1659.3 | 2034.9 | 2791.7 | 3285.0 | 2589.9 | 1956.4 | 1597.7 | 1715.4 | 1771.4 |
| 52.5° | 13453.9 | 6536.4 | 1485.5 | 1827.5 | 2595.5 | 3072.0 | 2432.9 | 1922.8 | 1547.2 | 1536.0 | 1603.3 |
| 55°   | 12915.7 | 5779.6 | 1194.0 | 1479.9 | 2191.9 | 2533.8 | 2292.8 | 1861.1 | 1395.8 | 1266.9 | 1278.1 |
| 57.5° | 10438.0 | 4142.7 | 880.1  | 1059.5 | 1552.8 | 1855.5 | 2068.5 | 1833.1 | 1255.7 | 1076.3 | 1081.9 |
| 60°   | 6463.5  | 2348.8 | 644.7  | 723.1  | 958.6  | 1126.8 | 1676.1 | 1704.2 | 1121.2 | 908.1  | 896.9  |
| 62.5° | 3318.6  | 1160.4 | 498.9  | 510.1  | 588.6  | 661.5  | 1149.2 | 1429.5 | 1014.6 | 863.3  | 863.3  |
| 65°   | 1109.9  | 571.8  | 437.3  | 392.4  | 392.4  | 409.2  | 695.1  | 992.2  | 857.7  | 723.1  | 723.1  |
| 67.5° | 476.5   | 426.0  | 381.2  | 342.0  | 313.9  | 297.1  | 392.4  | 577.4  | 639.1  | 549.4  | 526.9  |
| 70°   | 370.0   | 358.8  | 330.7  | 285.9  | 246.7  | 224.2  | 229.8  | 297.1  | 364.4  | 353.2  | 342.0  |
| 72.5° | 274.7   | 274.7  | 263.5  | 224.2  | 190.6  | 162.6  | 151.4  | 157.0  | 173.8  | 179.4  | 185.0  |
| 75°   | 190.6   | 196.2  | 196.2  | 173.8  | 140.1  | 117.7  | 100.9  | 84.1   | 67.3   | 56.1   | 50.5   |
| 77.5° | 128.9   | 134.5  | 145.8  | 128.9  | 106.5  | 78.5   | 61.7   | 44.8   | 28.0   | 11.2   | 11.2   |
| 80°   | 112.1   | 128.9  | 140.1  | 128.9  | 112.1  | 84.1   | 61.7   | 33.6   | 16.8   | 0.0    | 0.0    |
| 82.5° | 117.7   | 128.9  | 145.8  | 123.3  | 106.5  | 78.5   | 61.7   | 39.2   | 16.8   | 5.6    | 0.0    |
| 85°   | 28.0    | 28.0   | 33.6   | 39.2   | 50.5   | 56.1   | 44.8   | 28.0   | 16.8   | 5.6    | 0.0    |
| 87.5° | 11.2    | 11.2   | 11.2   | 11.2   | 11.2   | 5.6    | 5.6    | 5.6    | 5.6    | 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)