

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: P318541

Luminaire Tested: **GAN-SA7D-827-U-T3**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P318541  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA7D-827-U-T3  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(7) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 40353 lumens  
Efficiency: N/A  
Efficacy: 90.1 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G5

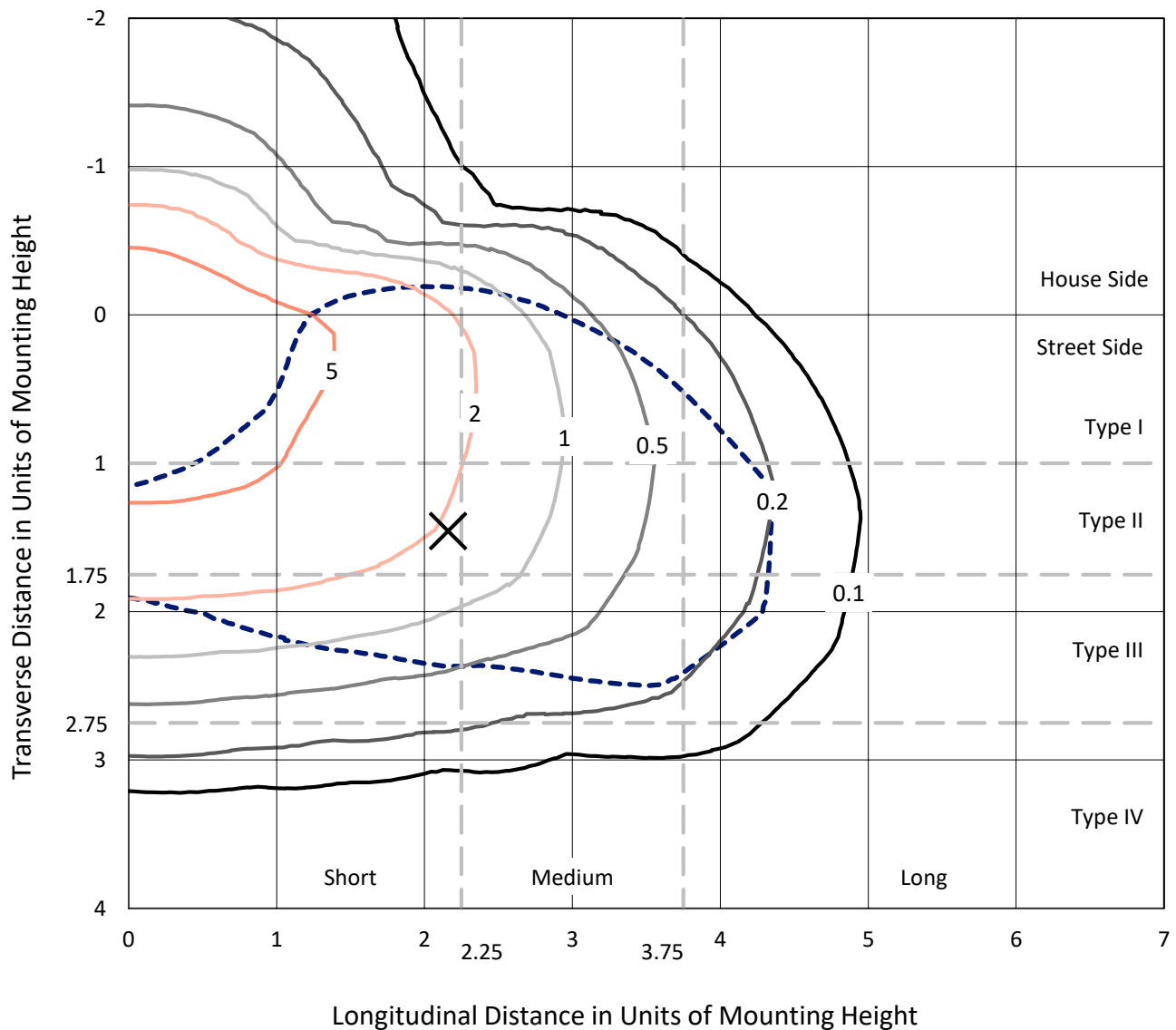
Input Watts (W): 448  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

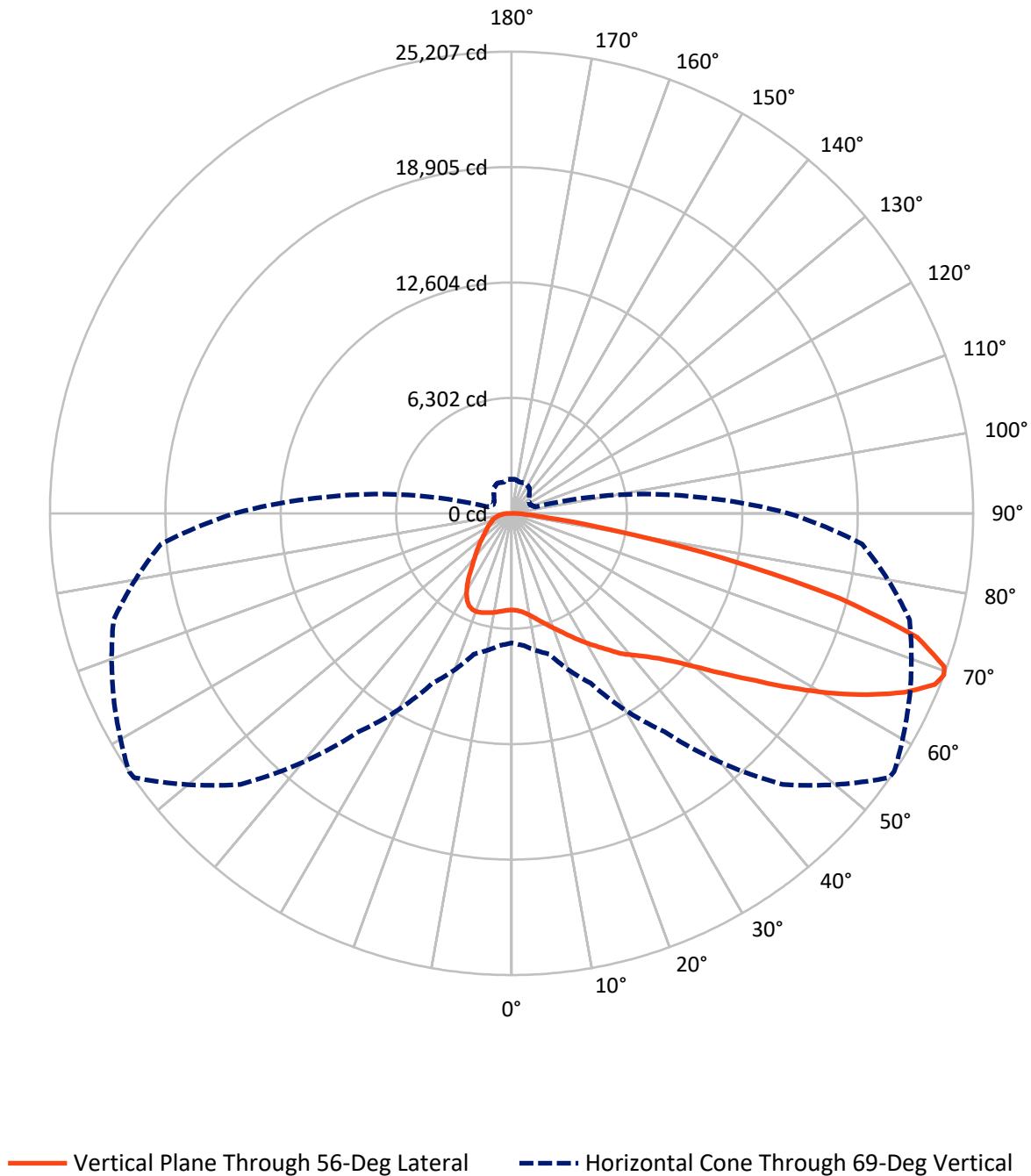
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.2 fc  
 Type III - 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    | 8986.5   | 0.0    | 8986.5  |
|                    | % Fixture | 22.3     | 0.0    | 22.3    |
| <b>Street Side</b> | Lumens    | 31366.5  | 0.0    | 31366.5 |
|                    | % Fixture | 77.7     | 0.0    | 77.7    |
| <b>Total</b>       | Lumens    | 40353.0  | 0.0    | 40353.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 518.1   | 1.3       |
| 10°-20°   | 1666.1  | 4.1       |
| 20°-30°   | 2908.4  | 7.2       |
| 30°-40°   | 4177.9  | 10.4      |
| 40°-50°   | 5782.0  | 14.3      |
| 50°-60°   | 8471.4  | 21.0      |
| 60°-70°   | 10328.2 | 25.6      |
| 70°-80°   | 5710.1  | 14.2      |
| 80°-90°   | 790.8   | 2.0       |
| 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°    | 40353.0 | 100.0     |
| 0°-180°   | 40353.0 | 100.0     |

**Coefficient of Utilization**



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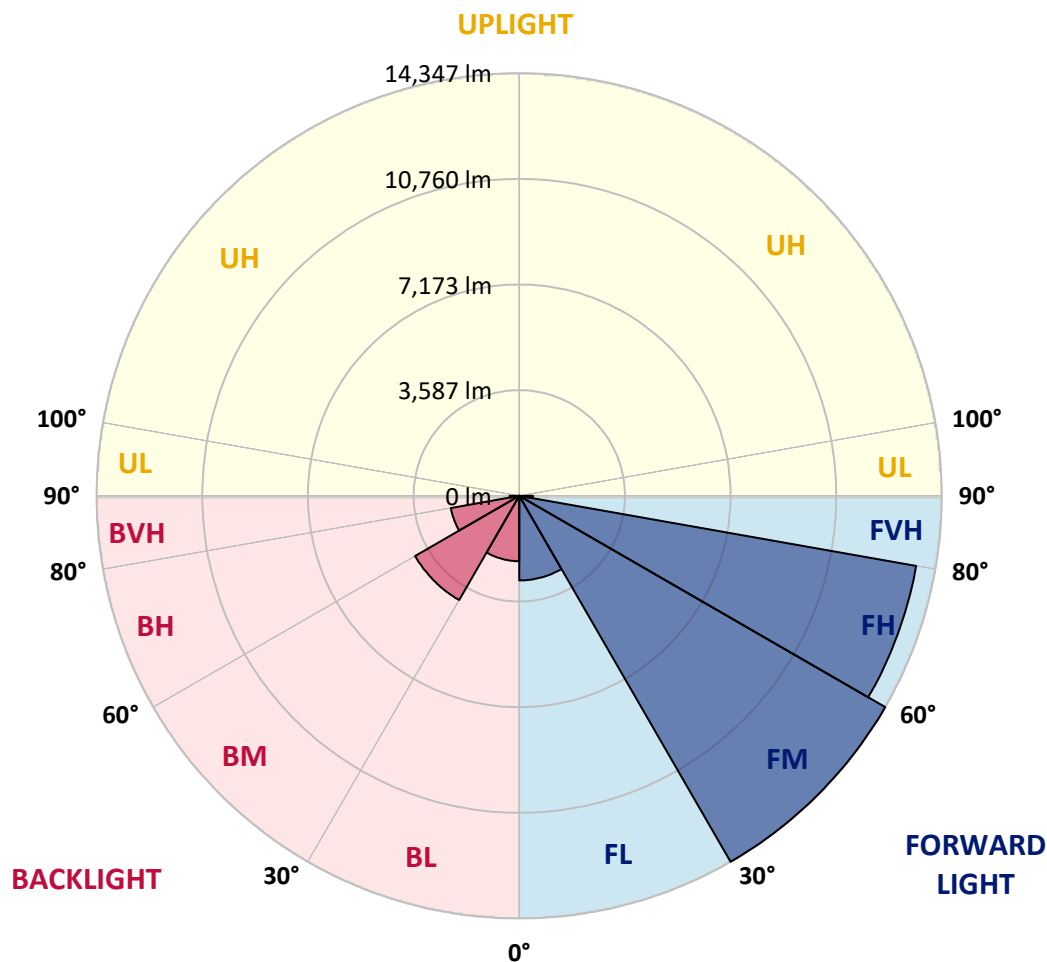
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2871.9  | 7.1       |                         |      |         |
| FM   | (30°-60°)   | 14347.0 | 35.6      |                         |      |         |
| FH   | (60°-80°)   | 13681.7 | 33.9      |                         |      | G5      |
| FVH  | (80°-90°)   | 465.8   | 1.2       |                         |      | G3/500  |
| BL   | (0°-30°)    | 2220.8  | 5.5       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 4084.2  | 10.1      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 2356.6  | 5.8       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 325.0   | 0.8       |                         |      | G3/500  |
| 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 Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 56°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5275.5  | 5275.5  | 5275.5  | 5275.5  | 5275.5  | 5275.5  | 5275.5  | 5275.5  | 5275.5  | 5275.5  | 5275.5  |
| 2.5°  | 5308.9  | 5314.5  | 5310.3  | 5321.4  | 5308.9  | 5317.3  | 5310.3  | 5310.3  | 5306.1  | 5293.6  | 5279.7  |
| 5°    | 5392.3  | 5403.4  | 5396.5  | 5407.6  | 5392.3  | 5395.1  | 5382.6  | 5382.6  | 5370.1  | 5343.7  | 5315.9  |
| 7.5°  | 5523.0  | 5535.5  | 5529.9  | 5541.1  | 5520.2  | 5520.2  | 5503.5  | 5502.1  | 5477.1  | 5434.0  | 5402.0  |
| 10°   | 5678.7  | 5695.4  | 5689.8  | 5706.5  | 5689.8  | 5695.4  | 5678.7  | 5678.7  | 5645.3  | 5584.2  | 5543.8  |
| 12.5° | 5905.3  | 5926.1  | 5910.8  | 5909.4  | 5902.5  | 5913.6  | 5899.7  | 5896.9  | 5866.4  | 5782.9  | 5727.3  |
| 15°   | 6208.3  | 6230.6  | 6198.6  | 6195.8  | 6156.9  | 6152.7  | 6152.7  | 6148.5  | 6129.1  | 6029.0  | 5937.2  |
| 17.5° | 6557.2  | 6564.2  | 6536.4  | 6491.9  | 6441.9  | 6409.9  | 6405.7  | 6416.8  | 6416.8  | 6300.1  | 6154.1  |
| 20°   | 6899.2  | 6911.7  | 6889.5  | 6839.4  | 6775.5  | 6728.2  | 6694.9  | 6717.1  | 6715.7  | 6576.7  | 6369.6  |
| 22.5° | 7271.8  | 7301.0  | 7267.6  | 7203.7  | 7128.6  | 7075.8  | 7017.4  | 7036.8  | 7038.2  | 6867.2  | 6580.9  |
| 25°   | 7754.2  | 7727.7  | 7706.9  | 7616.5  | 7509.5  | 7455.3  | 7401.1  | 7420.5  | 7415.0  | 7180.0  | 6799.1  |
| 27.5° | 8180.9  | 8186.5  | 8158.7  | 8062.8  | 7939.0  | 7819.5  | 7816.7  | 7829.2  | 7808.4  | 7505.3  | 7004.9  |
| 30°   | 8677.2  | 8680.0  | 8641.1  | 8554.9  | 8420.0  | 8265.7  | 8229.6  | 8250.4  | 8205.9  | 7813.9  | 7221.7  |
| 32.5° | 9170.7  | 9184.6  | 9141.5  | 9037.2  | 8928.8  | 8741.1  | 8668.9  | 8682.8  | 8571.5  | 8129.5  | 7445.5  |
| 35°   | 9603.0  | 9622.5  | 9608.6  | 9539.1  | 9420.9  | 9259.7  | 9173.5  | 9165.1  | 9027.5  | 8515.9  | 7741.6  |
| 37.5° | 10043.7 | 10061.8 | 10046.5 | 9988.1  | 9940.8  | 9769.8  | 9724.0  | 9724.0  | 9484.9  | 8910.7  | 8118.4  |
| 40°   | 10496.9 | 10524.7 | 10506.6 | 10426.0 | 10385.7 | 10307.8 | 10198.0 | 10171.6 | 9913.0  | 9384.8  | 8732.8  |
| 42.5° | 10918.1 | 10954.2 | 11026.5 | 10979.3 | 10897.2 | 10908.4 | 10687.3 | 10673.4 | 10484.4 | 10085.4 | 9504.3  |
| 45°   | 11515.8 | 11568.7 | 11691.0 | 11654.9 | 11638.2 | 11577.0 | 11314.3 | 11301.8 | 11229.5 | 11027.9 | 10462.1 |
| 47.5° | 12167.8 | 12240.1 | 12461.1 | 12468.1 | 12647.4 | 12532.0 | 12174.8 | 12131.7 | 12148.4 | 12156.7 | 11631.2 |
| 50°   | 12768.4 | 12847.6 | 13210.4 | 13381.4 | 13804.0 | 13829.0 | 13257.7 | 13218.8 | 13284.1 | 13475.9 | 12993.6 |
| 52.5° | 13247.9 | 13348.0 | 13801.2 | 14329.5 | 15053.7 | 15259.5 | 14590.8 | 14561.6 | 14610.3 | 14941.1 | 14533.8 |
| 55°   | 13599.7 | 13708.1 | 14201.6 | 15163.5 | 16320.1 | 16683.0 | 16125.5 | 16097.7 | 16128.3 | 16549.5 | 16208.9 |
| 57.5° | 13681.7 | 13708.1 | 14424.0 | 15725.2 | 17389.1 | 18260.8 | 18003.6 | 17948.0 | 17797.8 | 18164.8 | 18057.8 |
| 60°   | 13296.6 | 13402.3 | 14240.5 | 15922.6 | 18216.3 | 19816.3 | 19966.5 | 19896.9 | 19475.7 | 19776.0 | 19689.8 |
| 62.5° | 12515.3 | 12704.4 | 13555.2 | 15622.3 | 18540.2 | 21086.9 | 21891.8 | 21808.4 | 21082.7 | 21277.3 | 20863.1 |
| 65°   | 11239.2 | 11319.8 | 12213.7 | 14586.6 | 18128.7 | 21900.1 | 23608.6 | 23566.9 | 22653.6 | 22349.1 | 21079.9 |
| 67.5° | 8956.6  | 9108.1  | 9867.2  | 12422.2 | 16445.3 | 21804.2 | 24936.2 | 24932.0 | 23679.5 | 22746.7 | 20311.2 |
| 69°   | 7075.8  | 7232.9  | 7955.7  | 10232.8 | 14551.9 | 20927.0 | 25158.6 | 25207.2 | 23968.6 | 22504.8 | 19213.0 |
| 70°   | 5641.2  | 5823.3  | 6319.5  | 8618.8  | 12871.2 | 19770.4 | 24973.7 | 25061.3 | 23913.0 | 22105.9 | 18199.6 |
| 72.5° | 2400.8  | 2548.1  | 2901.2  | 4442.9  | 7844.5  | 14763.2 | 22834.3 | 23165.1 | 22624.4 | 20232.0 | 15041.2 |
| 75°   | 1048.2  | 1094.0  | 1253.9  | 1811.3  | 3482.3  | 8035.0  | 17888.2 | 18499.9 | 19345.1 | 17101.4 | 11204.5 |
| 77.5° | 767.4   | 786.8   | 874.4   | 1063.5  | 1562.5  | 3034.7  | 11503.3 | 11859.2 | 13951.4 | 12444.5 | 6872.8  |
| 80°   | 593.6   | 607.5   | 675.6   | 781.3   | 1020.4  | 1227.5  | 5246.4  | 5552.2  | 7844.5  | 6391.8  | 2862.3  |
| 82.5° | 472.6   | 482.4   | 529.6   | 575.5   | 704.8   | 743.7   | 1741.8  | 1932.3  | 2895.6  | 1765.5  | 757.6   |
| 85°   | 439.3   | 450.4   | 467.1   | 419.8   | 451.8   | 436.5   | 753.5   | 788.2   | 874.4   | 693.7   | 316.9   |
| 87.5° | 198.8   | 234.9   | 462.9   | 326.7   | 240.5   | 191.8   | 308.6   | 322.5   | 362.8   | 364.2   | 140.4   |
| 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°    | 5275.5  | 5275.5  | 5275.5 | 5275.5 | 5275.5 | 5275.5 | 5275.5 | 5275.5 | 5275.5 | 5275.5 | 5275.5 |
| 2.5°  | 5288.1  | 5283.9  | 5290.8 | 5274.2 | 5295.0 | 5293.6 | 5286.7 | 5289.4 | 5303.3 | 5302.0 | 5303.3 |
| 5°    | 5320.0  | 5317.3  | 5325.6 | 5313.1 | 5338.1 | 5346.4 | 5347.8 | 5360.3 | 5375.6 | 5379.8 | 5379.8 |
| 7.5°  | 5400.7  | 5400.7  | 5404.8 | 5388.1 | 5404.8 | 5403.4 | 5396.5 | 5409.0 | 5424.3 | 5425.7 | 5424.3 |
| 10°   | 5539.7  | 5541.1  | 5534.1 | 5491.0 | 5477.1 | 5439.6 | 5404.8 | 5406.2 | 5425.7 | 5441.0 | 5445.1 |
| 12.5° | 5714.8  | 5709.3  | 5678.7 | 5599.4 | 5541.1 | 5464.6 | 5428.5 | 5427.1 | 5446.5 | 5459.0 | 5463.2 |
| 15°   | 5915.0  | 5899.7  | 5820.5 | 5691.2 | 5588.3 | 5513.3 | 5454.9 | 5441.0 | 5429.9 | 5416.0 | 5417.3 |
| 17.5° | 6104.1  | 6069.3  | 5937.2 | 5757.9 | 5649.5 | 5549.4 | 5436.8 | 5346.4 | 5283.9 | 5247.7 | 5236.6 |
| 20°   | 6295.9  | 6227.8  | 6037.3 | 5820.5 | 5682.9 | 5500.7 | 5283.9 | 5100.4 | 4986.4 | 4933.6 | 4923.8 |
| 22.5° | 6471.1  | 6361.2  | 6130.5 | 5885.8 | 5656.4 | 5336.7 | 4996.1 | 4729.2 | 4570.8 | 4499.9 | 4505.4 |
| 25°   | 6642.0  | 6489.1  | 6227.8 | 5931.7 | 5523.0 | 5047.6 | 4595.8 | 4267.7 | 4084.2 | 4005.0 | 4002.2 |
| 27.5° | 6792.2  | 6618.4  | 6333.4 | 5894.2 | 5274.2 | 4636.1 | 4121.7 | 3802.0 | 3649.1 | 3581.0 | 3569.9 |
| 30°   | 6964.6  | 6781.1  | 6473.8 | 5751.0 | 4909.9 | 4160.7 | 3658.8 | 3433.6 | 3325.2 | 3257.1 | 3244.6 |
| 32.5° | 7174.5  | 7002.1  | 6589.2 | 5491.0 | 4444.2 | 3664.4 | 3297.4 | 3140.3 | 3041.6 | 2965.1 | 2951.2 |
| 35°   | 7480.3  | 7294.0  | 6618.4 | 5118.5 | 3932.7 | 3272.4 | 3031.9 | 2870.6 | 2737.2 | 2638.5 | 2628.7 |
| 37.5° | 7864.0  | 7659.6  | 6551.7 | 4636.1 | 3436.4 | 3018.0 | 2810.8 | 2612.1 | 2438.3 | 2299.3 | 2277.0 |
| 40°   | 8417.2  | 8108.6  | 6366.8 | 4080.0 | 3070.8 | 2822.0 | 2595.4 | 2368.8 | 2153.3 | 1990.7 | 1958.7 |
| 42.5° | 9081.7  | 8635.5  | 6083.2 | 3526.8 | 2802.5 | 2623.2 | 2381.3 | 2100.5 | 1894.7 | 1779.4 | 1762.7 |
| 45°   | 9926.9  | 9183.2  | 5689.8 | 3043.0 | 2538.4 | 2424.4 | 2150.5 | 1892.0 | 1764.1 | 1679.3 | 1665.4 |
| 47.5° | 10891.7 | 9797.6  | 5276.9 | 2649.6 | 2314.6 | 2238.1 | 1965.6 | 1798.8 | 1697.4 | 1630.6 | 1618.1 |
| 50°   | 12077.5 | 10491.3 | 4839.0 | 2327.1 | 2089.4 | 2014.3 | 1878.1 | 1747.4 | 1666.8 | 1615.3 | 1602.8 |
| 52.5° | 13414.8 | 11274.0 | 4523.5 | 2072.7 | 1903.1 | 1848.9 | 1832.2 | 1719.6 | 1654.3 | 1615.3 | 1602.8 |
| 55°   | 14854.9 | 12070.5 | 4182.9 | 1858.6 | 1741.8 | 1757.1 | 1801.6 | 1722.4 | 1677.9 | 1630.6 | 1612.6 |
| 57.5° | 16296.5 | 12893.5 | 3803.4 | 1677.9 | 1613.9 | 1689.0 | 1780.8 | 1727.9 | 1690.4 | 1644.5 | 1627.8 |
| 60°   | 17436.4 | 13414.8 | 3215.4 | 1526.4 | 1512.5 | 1613.9 | 1730.7 | 1686.2 | 1637.6 | 1639.0 | 1636.2 |
| 62.5° | 17968.8 | 13387.0 | 2566.2 | 1391.5 | 1411.0 | 1512.5 | 1650.1 | 1620.9 | 1580.6 | 1634.8 | 1639.0 |
| 65°   | 17670.0 | 12719.7 | 1997.6 | 1269.2 | 1302.6 | 1406.8 | 1566.7 | 1588.9 | 1602.8 | 1707.1 | 1721.0 |
| 67.5° | 16416.1 | 11421.3 | 1547.2 | 1162.1 | 1203.9 | 1334.5 | 1575.0 | 1730.7 | 1748.8 | 1858.6 | 1857.2 |
| 69°   | 15119.1 | 10203.6 | 1344.3 | 1106.5 | 1155.2 | 1352.6 | 1683.4 | 1821.1 | 1753.0 | 1869.7 | 1853.0 |
| 70°   | 14032.0 | 9240.2  | 1235.8 | 1069.0 | 1133.0 | 1384.6 | 1755.7 | 1819.7 | 1732.1 | 1832.2 | 1804.4 |
| 72.5° | 10806.9 | 6647.6  | 1048.2 | 999.5  | 1057.9 | 1324.8 | 1776.6 | 1779.4 | 1683.4 | 1702.9 | 1655.6 |
| 75°   | 7412.2  | 4201.0  | 914.7  | 905.0  | 943.9  | 1194.1 | 1709.9 | 1700.1 | 1556.9 | 1529.1 | 1490.2 |
| 77.5° | 4087.0  | 2133.9  | 777.1  | 814.6  | 841.0  | 1057.9 | 1554.2 | 1540.3 | 1422.1 | 1363.7 | 1349.8 |
| 80°   | 1576.4  | 934.2   | 656.1  | 724.3  | 740.9  | 916.1  | 1362.3 | 1349.8 | 1251.1 | 1176.1 | 1155.2 |
| 82.5° | 595.0   | 489.3   | 542.2  | 626.9  | 621.4  | 756.2  | 1153.8 | 1146.9 | 1050.9 | 941.1  | 907.8  |
| 85°   | 275.2   | 293.3   | 429.6  | 517.1  | 476.8  | 560.2  | 923.0  | 935.6  | 818.8  | 688.1  | 688.1  |
| 87.5° | 116.8   | 164.0   | 304.4  | 390.6  | 321.1  | 378.1  | 677.0  | 646.4  | 593.6  | 411.5  | 386.5  |
| 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)