

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: P301189

Luminaire Tested: **GAA-AF-09-LED-U-T3R-7030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301189  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAA-AF-09-LED-U-T3R-7030-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

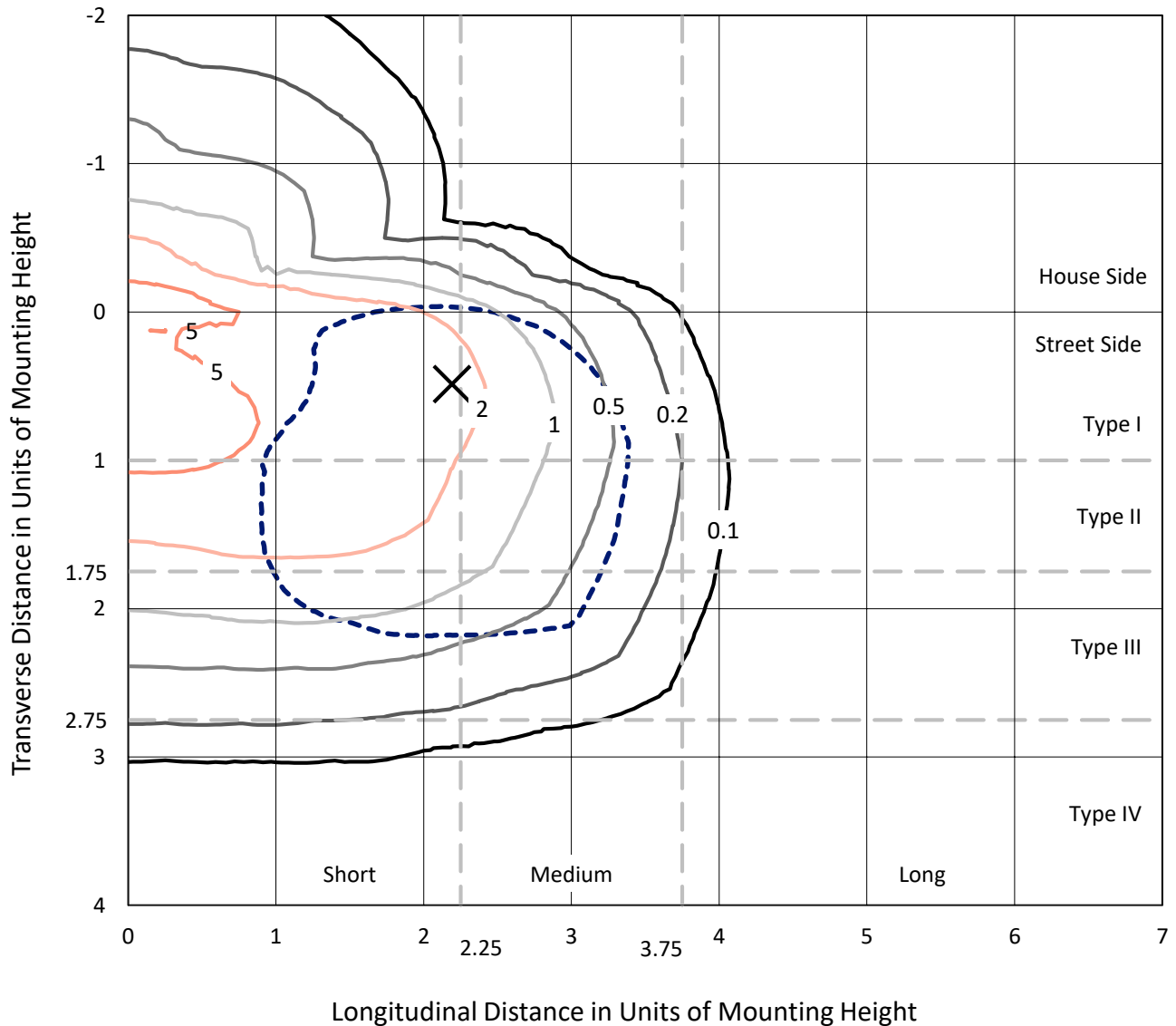
Lumens per Lamp: N/A  
Luminaire Lumens: 42368.3 lumens  
Efficiency: N/A  
Efficacy: 113.3 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B3 - U0 - G5  
  
Input Watts (W): 374  
Input Voltage (V): NR  
Input Current (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: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

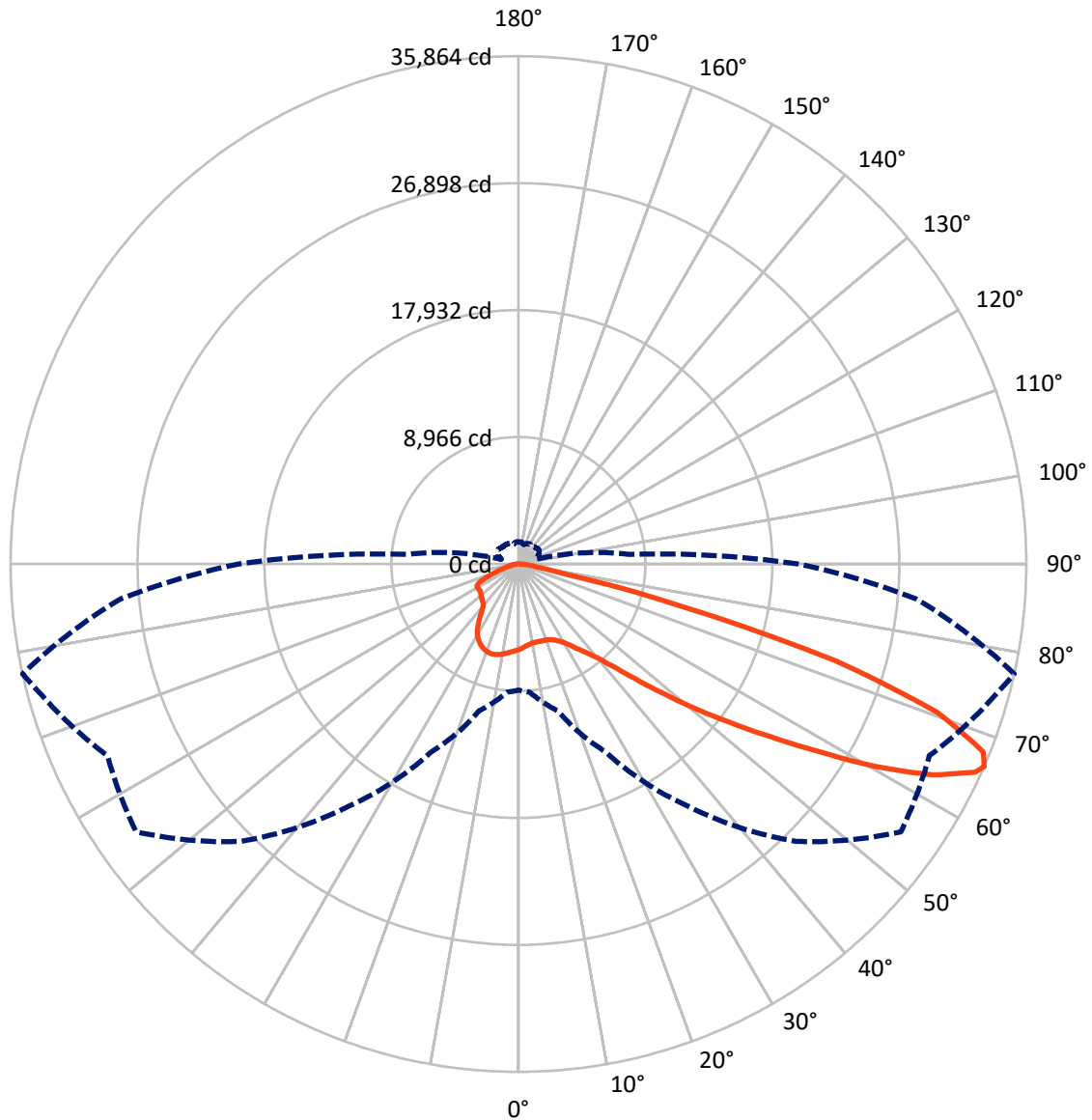
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.3 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7238.4   | 0.0    | 7238.4  |
|                    | % Fixture | 17.1     | 0.0    | 17.1    |
| <b>Street Side</b> | Lumens    | 35129.9  | 0.0    | 35129.9 |
|                    | % Fixture | 82.9     | 0.0    | 82.9    |
| <b>Total</b>       | Lumens    | 42368.3  | 0.0    | 42368.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 539.4   | 1.3       |
| 10°-20°   | 1521.8  | 3.6       |
| 20°-30°   | 2597.2  | 6.1       |
| 30°-40°   | 4157.6  | 9.8       |
| 40°-50°   | 6423.1  | 15.2      |
| 50°-60°   | 9110.1  | 21.5      |
| 60°-70°   | 12186.9 | 28.8      |
| 70°-80°   | 5292.6  | 12.5      |
| 80°-90°   | 539.7   | 1.3       |
| 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°    | 42368.3 | 100.0     |
| 0°-180°   | 42368.3 | 100.0     |

**Coefficient of Utilization**



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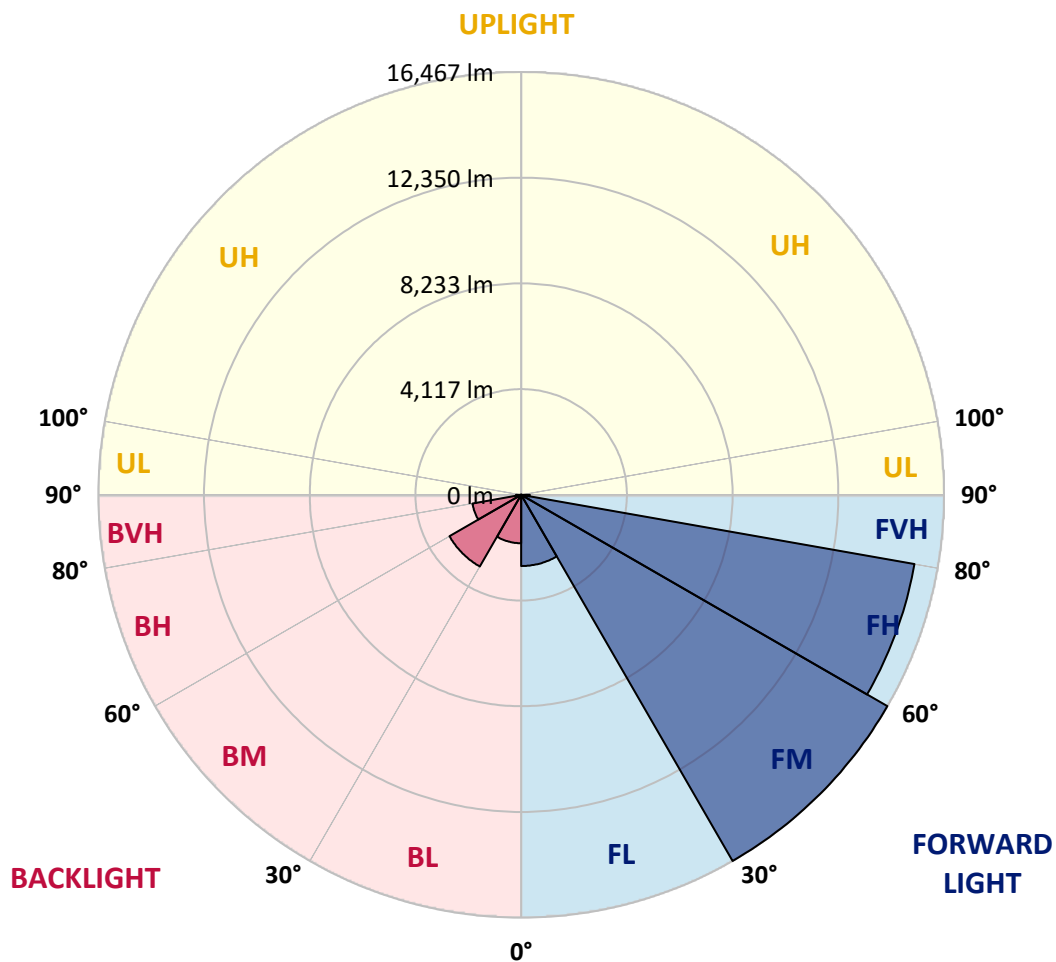
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2773.2  | 6.5       |                         |      |         |
| FM   | (30°-60°)   | 16466.5 | 38.9      |                         |      |         |
| FH   | (60°-80°)   | 15551.7 | 36.7      |                         |      | G5      |
| FVH  | (80°-90°)   | 338.5   | 0.8       |                         |      | G3/500  |
| BL   | (0°-30°)    | 1885.2  | 4.4       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 3224.3  | 7.6       | B3/5000                 |      |         |
| BH   | (60°-80°)   | 1927.7  | 4.5       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 201.2   | 0.5       |                         |      | G2/225  |
| 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°     | 65°     | 75°     | 77.5°   | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6037.6  | 6037.6  | 6037.6  | 6037.6  | 6037.6  | 6037.6  | 6037.6  | 6037.6  | 6037.6  | 6037.6  | 6037.6  |
| 2.5°  | 5341.2  | 5376.9  | 5407.2  | 5435.1  | 5490.9  | 5583.0  | 5689.1  | 5775.2  | 5899.4  | 5923.7  | 5989.7  |
| 5°    | 4850.8  | 4850.8  | 4874.5  | 4916.9  | 4992.7  | 5130.9  | 5275.1  | 5467.3  | 5737.6  | 5801.2  | 5977.6  |
| 7.5°  | 4612.6  | 4614.4  | 4628.4  | 4664.1  | 4730.2  | 4856.3  | 5014.5  | 5241.2  | 5607.3  | 5713.3  | 6013.4  |
| 10°   | 4700.5  | 4680.5  | 4650.2  | 4632.6  | 4642.3  | 4716.3  | 4866.6  | 5118.7  | 5527.3  | 5663.0  | 6094.0  |
| 12.5° | 5192.7  | 5155.1  | 5050.8  | 4912.7  | 4780.5  | 4726.6  | 4814.5  | 5060.5  | 5493.3  | 5651.5  | 6200.1  |
| 15°   | 5997.6  | 5981.9  | 5787.3  | 5501.2  | 5181.2  | 4912.7  | 4852.6  | 5038.7  | 5497.0  | 5665.5  | 6326.1  |
| 17.5° | 7006.8  | 6984.4  | 6728.6  | 6312.2  | 5789.7  | 5267.2  | 4986.6  | 5056.9  | 5510.9  | 5689.1  | 6448.0  |
| 20°   | 8025.7  | 7957.2  | 7681.4  | 7185.0  | 6514.0  | 5749.1  | 5209.0  | 5103.0  | 5529.1  | 5715.2  | 6576.5  |
| 22.5° | 8786.4  | 8730.0  | 8482.1  | 7999.6  | 7226.8  | 6308.0  | 5507.3  | 5183.0  | 5587.3  | 5791.5  | 6734.1  |
| 25°   | 9455.0  | 9458.6  | 9212.5  | 8746.4  | 7947.5  | 6900.7  | 5891.5  | 5396.9  | 5735.2  | 5947.3  | 6950.4  |
| 27.5° | 10281.7 | 10233.8 | 10003.5 | 9541.0  | 8660.3  | 7499.0  | 6355.8  | 5691.5  | 5955.8  | 6169.8  | 7234.7  |
| 30°   | 11270.3 | 11236.4 | 10970.3 | 10446.0 | 9450.7  | 8141.5  | 6886.2  | 6033.4  | 6240.1  | 6461.9  | 7606.9  |
| 32.5° | 12433.5 | 12417.7 | 12141.3 | 11466.7 | 10363.5 | 8898.5  | 7509.3  | 6486.2  | 6664.4  | 6894.7  | 8141.5  |
| 35°   | 13799.1 | 13800.9 | 13474.8 | 12663.8 | 11362.4 | 9779.2  | 8215.4  | 7068.6  | 7180.8  | 7420.8  | 8778.5  |
| 37.5° | 14639.8 | 14741.6 | 14619.8 | 13793.0 | 12493.5 | 10764.2 | 9132.5  | 7841.5  | 7769.3  | 8011.8  | 9461.0  |
| 40°   | 14819.8 | 14944.0 | 15330.1 | 14910.1 | 13759.1 | 11849.2 | 9945.3  | 8584.0  | 8494.2  | 8790.0  | 10339.9 |
| 42.5° | 14567.6 | 14739.8 | 15556.8 | 15852.6 | 15102.2 | 13186.3 | 11038.2 | 9687.1  | 9573.2  | 9971.4  | 11432.7 |
| 45°   | 14417.3 | 14545.8 | 15490.8 | 16343.6 | 16267.2 | 14697.9 | 12429.8 | 11072.1 | 11030.3 | 11552.8 | 12694.1 |
| 47.5° | 14157.3 | 14273.7 | 15182.2 | 16457.5 | 16952.1 | 16082.9 | 14101.5 | 12766.2 | 12848.1 | 13533.0 | 14117.3 |
| 50°   | 14297.3 | 14345.2 | 14838.0 | 16167.2 | 17150.3 | 17098.2 | 15969.0 | 14727.6 | 15008.3 | 15862.9 | 15729.0 |
| 52.5° | 14277.3 | 14401.6 | 14798.0 | 15690.8 | 17176.4 | 17724.9 | 17808.6 | 16915.8 | 17506.7 | 18487.4 | 17516.4 |
| 55°   | 11543.1 | 11771.0 | 14327.6 | 15570.8 | 17267.9 | 18338.9 | 19446.3 | 19222.1 | 20322.8 | 21465.9 | 19534.2 |
| 57.5° | 11022.4 | 11166.7 | 12583.8 | 15822.9 | 17756.5 | 19512.4 | 21267.7 | 21760.5 | 23601.9 | 24929.4 | 21992.7 |
| 60°   | 10920.0 | 11098.2 | 12565.6 | 16131.4 | 18747.5 | 21424.1 | 23968.6 | 24833.6 | 27592.1 | 29045.6 | 24843.3 |
| 62.5° | 10601.7 | 10793.9 | 12447.4 | 16090.8 | 20154.9 | 24068.7 | 27426.0 | 28100.6 | 31375.5 | 32789.0 | 27227.8 |
| 65°   | 9593.2  | 9773.2  | 11484.9 | 15444.7 | 21104.1 | 26891.4 | 31517.3 | 31095.5 | 34362.5 | 35425.0 | 28416.4 |
| 66°   | 8902.2  | 9078.6  | 10726.0 | 14684.0 | 20883.5 | 27692.1 | 32967.2 | 32022.2 | 35031.0 | 35863.9 | 28184.2 |
| 67.5° | 7639.0  | 7777.2  | 9252.5  | 12980.2 | 19712.4 | 27916.3 | 34186.1 | 32718.7 | 35100.7 | 35395.3 | 26857.4 |
| 70°   | 4826.6  | 4866.6  | 6013.4  | 8960.4  | 14922.2 | 24210.5 | 32330.1 | 30989.4 | 32206.5 | 31409.4 | 22515.2 |
| 72.5° | 2094.2  | 2080.2  | 2887.0  | 4558.1  | 8448.2  | 16245.4 | 26152.5 | 25570.0 | 25263.9 | 23446.2 | 15761.1 |
| 75°   | 1165.0  | 1181.3  | 1499.6  | 2116.0  | 3433.1  | 7979.6  | 17107.9 | 16371.5 | 13822.7 | 11795.2 | 7146.8  |
| 77.5° | 934.6   | 957.1   | 1243.2  | 1501.4  | 1541.4  | 2782.7  | 8005.7  | 6514.0  | 3921.6  | 3147.0  | 1985.7  |
| 80°   | 738.9   | 778.9   | 1085.0  | 1169.2  | 1038.9  | 1146.8  | 2586.3  | 2068.1  | 1551.7  | 1423.2  | 1029.2  |
| 82.5° | 584.3   | 612.8   | 931.0   | 884.9   | 726.7   | 772.8   | 1238.9  | 1207.4  | 1009.2  | 918.9   | 594.6   |
| 85°   | 420.7   | 472.2   | 764.9   | 666.7   | 476.4   | 520.7   | 822.5   | 788.6   | 578.2   | 472.2   | 262.5   |
| 87.5° | 172.1   | 224.3   | 540.7   | 442.5   | 266.1   | 242.5   | 410.3   | 386.1   | 274.0   | 200.0   | 130.3   |
| 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°    | 6037.6  | 6037.6 | 6037.6 | 6037.6 | 6037.6 | 6037.6 | 6037.6 | 6037.6 | 6037.6 | 6037.6 | 6037.6 |
| 2.5°  | 6031.6  | 6079.4 | 6141.9 | 6180.1 | 6200.1 | 6214.0 | 6235.8 | 6234.0 | 6240.1 | 6241.9 | 6249.8 |
| 5°    | 6071.6  | 6151.6 | 6241.9 | 6266.1 | 6266.1 | 6243.7 | 6221.9 | 6185.5 | 6171.6 | 6167.9 | 6171.6 |
| 7.5°  | 6175.8  | 6263.7 | 6341.9 | 6314.0 | 6254.0 | 6165.5 | 6051.6 | 5951.5 | 5897.6 | 5879.4 | 5875.8 |
| 10°   | 6308.0  | 6414.0 | 6446.1 | 6340.1 | 6163.7 | 5951.5 | 5725.5 | 5561.2 | 5467.3 | 5441.2 | 5433.3 |
| 12.5° | 6468.0  | 6568.0 | 6524.3 | 6300.1 | 5973.4 | 5631.5 | 5318.8 | 5056.9 | 4860.5 | 4798.7 | 4794.5 |
| 15°   | 6644.4  | 6722.5 | 6568.0 | 6175.8 | 5689.1 | 5184.8 | 4628.4 | 4176.2 | 3931.9 | 3853.7 | 3847.7 |
| 17.5° | 6808.6  | 6848.6 | 6541.9 | 5959.4 | 5270.9 | 4454.4 | 3715.6 | 3367.0 | 3283.4 | 3303.4 | 3307.0 |
| 20°   | 6948.6  | 6948.6 | 6454.0 | 5649.1 | 4612.6 | 3491.3 | 3024.6 | 3019.1 | 3079.1 | 3139.1 | 3151.2 |
| 22.5° | 7102.6  | 7010.5 | 6300.1 | 5210.9 | 3679.2 | 2856.7 | 2788.8 | 2844.5 | 2912.4 | 2978.5 | 2988.8 |
| 25°   | 7292.9  | 7060.8 | 6085.5 | 4546.6 | 2892.4 | 2594.2 | 2620.3 | 2666.3 | 2700.3 | 2742.7 | 2748.8 |
| 27.5° | 7505.1  | 7124.4 | 5803.7 | 3631.3 | 2510.6 | 2430.6 | 2450.6 | 2466.3 | 2462.1 | 2478.4 | 2482.1 |
| 30°   | 7759.0  | 7199.0 | 5416.9 | 2838.5 | 2352.4 | 2289.9 | 2254.2 | 2240.2 | 2240.2 | 2266.3 | 2276.0 |
| 32.5° | 8099.7  | 7308.7 | 4862.3 | 2432.4 | 2276.0 | 2189.9 | 2074.2 | 2022.0 | 2042.0 | 2129.9 | 2149.9 |
| 35°   | 8474.2  | 7426.9 | 4112.0 | 2294.2 | 2260.2 | 2143.9 | 1963.8 | 1867.5 | 1869.9 | 1951.7 | 1977.8 |
| 37.5° | 8882.2  | 7577.2 | 3288.8 | 2268.1 | 2296.0 | 2146.3 | 1905.7 | 1773.5 | 1719.6 | 1719.6 | 1729.9 |
| 40°   | 9404.6  | 7731.1 | 2662.7 | 2286.3 | 2372.4 | 2169.9 | 1876.0 | 1699.6 | 1547.4 | 1551.7 | 1559.6 |
| 42.5° | 10085.3 | 7863.3 | 2326.3 | 2323.9 | 2464.5 | 2202.1 | 1873.5 | 1601.4 | 1469.2 | 1559.6 | 1641.4 |
| 45°   | 10842.4 | 7929.3 | 2177.8 | 2358.4 | 2538.5 | 2222.1 | 1842.0 | 1585.6 | 1479.6 | 1747.5 | 1903.8 |
| 47.5° | 11712.8 | 7891.2 | 2096.0 | 2370.0 | 2556.6 | 2222.1 | 1805.6 | 1623.8 | 1549.3 | 2023.9 | 2206.3 |
| 50°   | 12668.0 | 7781.4 | 2016.0 | 2346.3 | 2550.6 | 2217.8 | 1839.6 | 1661.4 | 1575.3 | 2071.7 | 2197.8 |
| 52.5° | 13791.2 | 7689.3 | 1931.7 | 2294.2 | 2508.1 | 2196.0 | 1879.6 | 1645.6 | 1493.5 | 1883.8 | 1971.7 |
| 55°   | 15071.9 | 7715.4 | 1837.8 | 2220.2 | 2442.1 | 2154.2 | 1865.7 | 1581.4 | 1407.4 | 1659.6 | 1713.5 |
| 57.5° | 16709.7 | 8025.7 | 1725.6 | 2126.3 | 2352.4 | 2083.9 | 1816.0 | 1551.7 | 1381.4 | 1505.6 | 1537.7 |
| 60°   | 18537.1 | 8565.8 | 1585.6 | 2031.7 | 2240.2 | 1971.7 | 1777.8 | 1565.6 | 1393.5 | 1493.5 | 1509.3 |
| 62.5° | 19878.5 | 8880.4 | 1465.6 | 1893.5 | 2088.1 | 1847.5 | 1729.9 | 1583.2 | 1425.6 | 1535.3 | 1531.7 |
| 65°   | 20242.8 | 8363.9 | 1315.3 | 1691.7 | 1882.0 | 1717.8 | 1669.3 | 1603.2 | 1439.5 | 1569.3 | 1551.7 |
| 66°   | 19732.4 | 7807.5 | 1249.2 | 1597.7 | 1777.8 | 1653.5 | 1639.6 | 1601.4 | 1433.5 | 1573.5 | 1543.2 |
| 67.5° | 18493.5 | 6666.2 | 1135.3 | 1459.6 | 1611.7 | 1557.7 | 1591.7 | 1583.2 | 1417.1 | 1569.3 | 1527.4 |
| 70°   | 15082.2 | 4548.4 | 971.0  | 1215.3 | 1341.4 | 1371.1 | 1499.6 | 1519.6 | 1365.0 | 1499.6 | 1407.4 |
| 72.5° | 10538.1 | 2770.6 | 858.9  | 943.1  | 1085.0 | 1169.2 | 1373.5 | 1431.1 | 1295.3 | 1309.2 | 1221.3 |
| 75°   | 5092.7  | 1471.7 | 778.9  | 731.0  | 842.5  | 977.1  | 1221.3 | 1311.1 | 1185.0 | 1095.3 | 1063.1 |
| 77.5° | 1587.4  | 898.9  | 660.7  | 588.5  | 660.7  | 788.6  | 1020.7 | 1149.2 | 1055.3 | 917.1  | 904.9  |
| 80°   | 852.8   | 660.7  | 508.5  | 472.2  | 522.5  | 618.9  | 802.5  | 958.9  | 906.8  | 822.5  | 734.6  |
| 82.5° | 562.5   | 428.5  | 376.4  | 366.1  | 398.2  | 472.2  | 596.4  | 794.6  | 794.6  | 704.9  | 512.8  |
| 85°   | 290.3   | 262.5  | 258.2  | 258.2  | 278.2  | 314.6  | 406.1  | 612.8  | 652.8  | 372.2  | 308.5  |
| 87.5° | 144.3   | 150.3  | 140.0  | 146.1  | 156.4  | 154.0  | 194.0  | 308.5  | 368.5  | 226.1  | 187.9  |
| 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)