

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: McGRAW-EDISON

Report Number: P298961

Luminaire Tested: **GLNA-AF-08-LED-E1-T2-7050-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P298961  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-08-LED-E1-T2-7050-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37690.1 lumens  
Efficiency: N/A  
Efficacy: 112.8 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B3 - U0 - G4

Input Watts (W): 334  
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: 25 FT

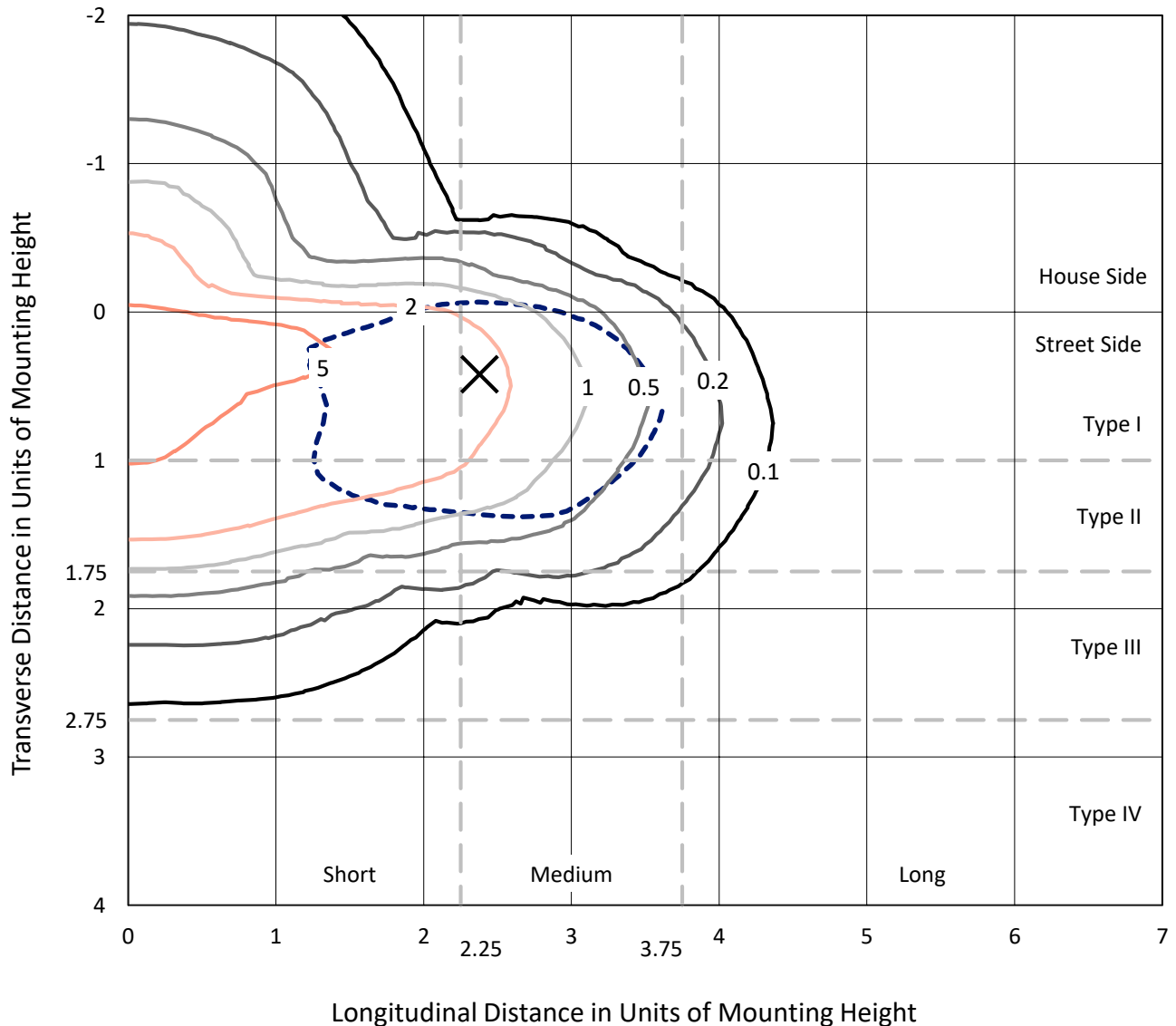


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

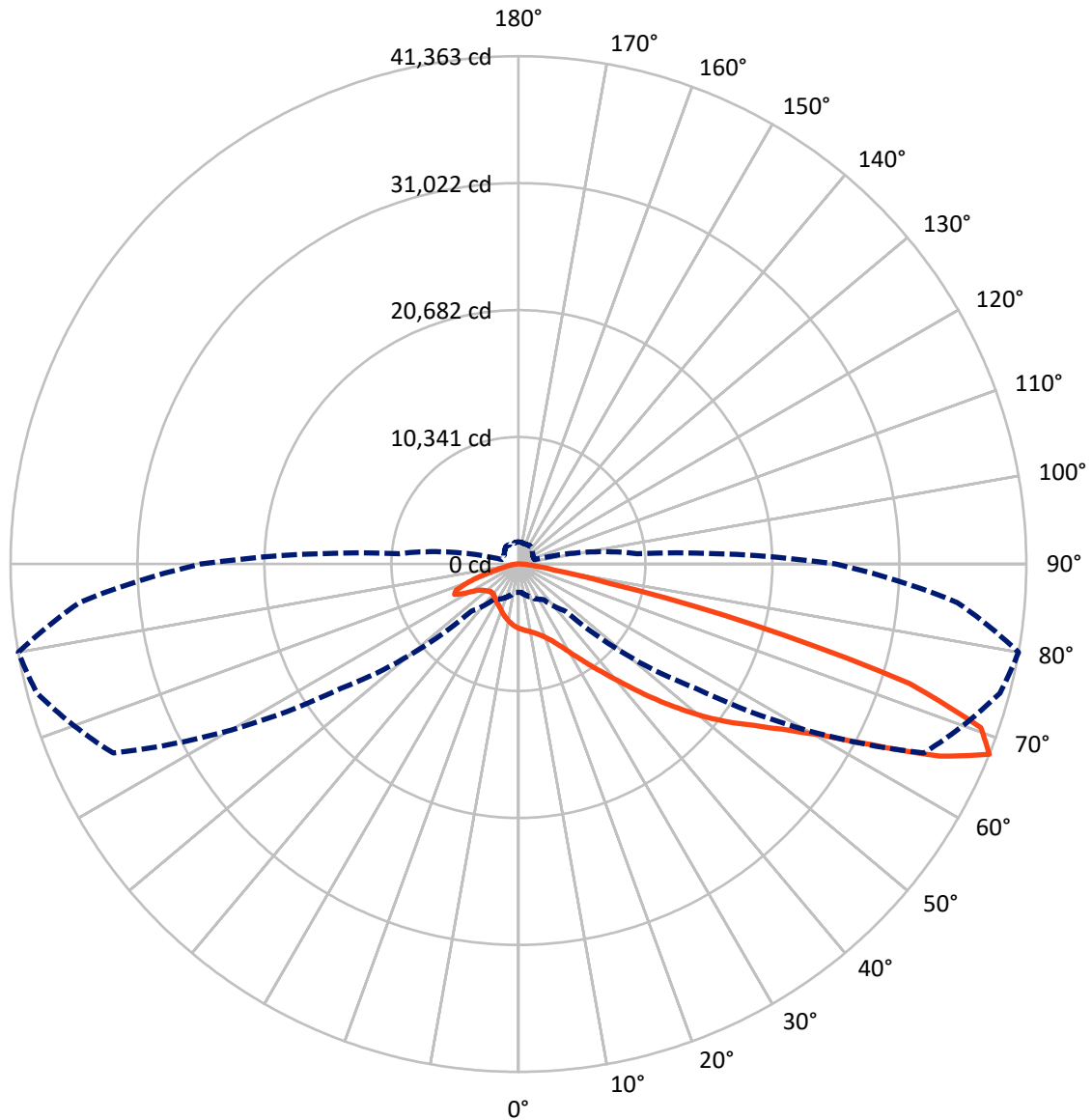


Based on 30 foot mounting height. Maximum calculated value = 7.1 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6941.1   | 0.0    | 6941.1  |
|                    | % Fixture | 18.4     | 0.0    | 18.4    |
| <b>Street Side</b> | Lumens    | 30749.0  | 0.0    | 30749.0 |
|                    | % Fixture | 81.6     | 0.0    | 81.6    |
| <b>Total</b>       | Lumens    | 37690.1  | 0.0    | 37690.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 483.0   | 1.3       |
| 10°-20°   | 1391.4  | 3.7       |
| 20°-30°   | 2303.1  | 6.1       |
| 30°-40°   | 3767.3  | 10.0      |
| 40°-50°   | 6082.8  | 16.1      |
| 50°-60°   | 8781.7  | 23.3      |
| 60°-70°   | 9691.2  | 25.7      |
| 70°-80°   | 4467.0  | 11.9      |
| 80°-90°   | 722.5   | 1.9       |
| 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°    | 37690.1 | 100.0     |
| 0°-180°   | 37690.1 | 100.0     |



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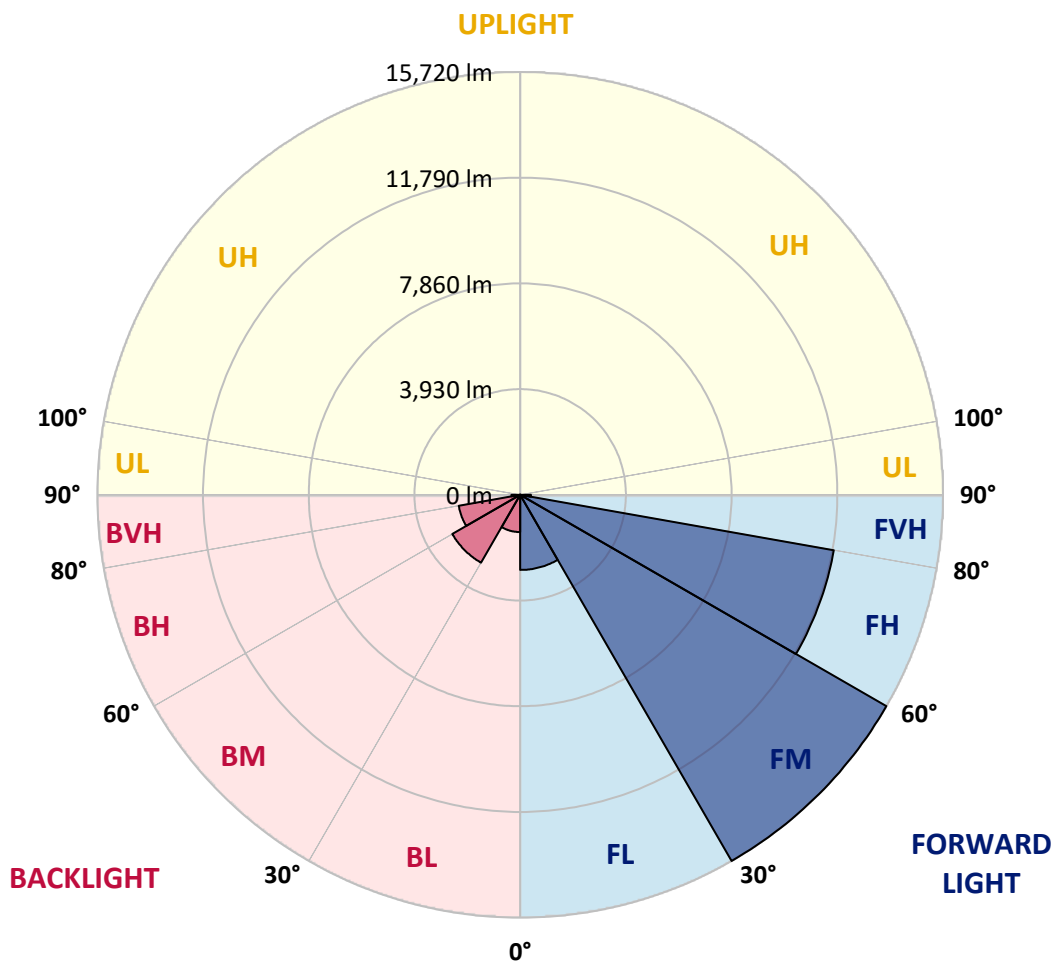
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|---------|-----------|-------------------------|------|----------|
|                |         |           | B                       | U    | G        |
| FL (0°-30°)    | 2792.8  | 7.4       |                         |      |          |
| FM (30°-60°)   | 15719.6 | 41.7      |                         |      |          |
| FH (60°-80°)   | 11839.4 | 31.4      |                         |      | G4/12000 |
| FVH (80°-90°)  | 397.2   | 1.1       |                         |      | G3/500   |
| BL (0°-30°)    | 1384.8  | 3.7       | B3/2500                 |      |          |
| BM (30°-60°)   | 2912.2  | 7.7       | B3/5000                 |      |          |
| BH (60°-80°)   | 2318.7  | 6.2       | B3/2500                 |      | G3/2500  |
| BVH (80°-90°)  | 325.3   | 0.9       |                         |      | G3/500   |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 80°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5236.3  | 5236.3  | 5236.3  | 5236.3  | 5236.3  | 5236.3  | 5236.3  | 5236.3  | 5236.3  | 5236.3  | 5236.3  |
| 2.5°  | 5728.0  | 5694.6  | 5700.1  | 5690.9  | 5663.0  | 5614.8  | 5562.8  | 5468.2  | 5369.8  | 5317.9  | 5277.1  |
| 5°    | 6206.7  | 6197.4  | 6184.4  | 6154.7  | 6084.2  | 5984.0  | 5859.7  | 5692.7  | 5512.7  | 5418.1  | 5327.2  |
| 7.5°  | 6564.8  | 6559.2  | 6542.5  | 6524.0  | 6455.3  | 6334.7  | 6147.3  | 5909.8  | 5648.2  | 5518.3  | 5377.3  |
| 10°   | 6594.5  | 6603.8  | 6616.8  | 6666.9  | 6676.1  | 6611.2  | 6420.1  | 6132.5  | 5789.2  | 5622.2  | 5442.2  |
| 12.5° | 6342.1  | 6362.5  | 6412.6  | 6540.7  | 6676.1  | 6755.9  | 6657.6  | 6366.3  | 5954.3  | 5752.1  | 5523.9  |
| 15°   | 6008.1  | 6019.3  | 6080.5  | 6256.8  | 6499.9  | 6746.6  | 6839.4  | 6624.2  | 6167.7  | 5919.1  | 5646.3  |
| 17.5° | 5865.3  | 5870.8  | 5913.5  | 6030.4  | 6256.8  | 6609.3  | 6941.5  | 6904.4  | 6429.3  | 6126.9  | 5796.6  |
| 20°   | 5792.9  | 5805.9  | 5867.1  | 5982.2  | 6125.0  | 6433.1  | 6956.3  | 7206.8  | 6741.1  | 6386.7  | 5985.9  |
| 22.5° | 5998.9  | 5993.3  | 6015.6  | 6073.1  | 6193.7  | 6379.2  | 6945.2  | 7518.5  | 7138.2  | 6720.7  | 6232.7  |
| 25°   | 6479.4  | 6499.9  | 6460.9  | 6395.9  | 6434.9  | 6564.8  | 7004.6  | 7856.2  | 7635.4  | 7149.3  | 6555.5  |
| 27.5° | 7164.1  | 7143.7  | 7086.2  | 6934.0  | 6854.3  | 6909.9  | 7201.2  | 8219.9  | 8253.3  | 7713.4  | 6982.3  |
| 30°   | 7847.0  | 7830.3  | 7774.6  | 7589.0  | 7425.8  | 7379.4  | 7583.5  | 8637.4  | 8990.0  | 8390.6  | 7505.5  |
| 32.5° | 8555.8  | 8537.2  | 8485.3  | 8299.7  | 8103.0  | 7995.4  | 8127.1  | 9119.8  | 9858.3  | 9199.6  | 8121.6  |
| 35°   | 9429.7  | 9394.5  | 9285.0  | 9027.1  | 8834.1  | 8750.6  | 8811.8  | 9726.6  | 10860.3 | 10157.1 | 8869.3  |
| 37.5° | 10251.7 | 10305.5 | 10194.2 | 9837.9  | 9587.4  | 9557.7  | 9626.4  | 10466.9 | 11940.2 | 11227.7 | 9728.4  |
| 40°   | 11077.4 | 11086.7 | 10986.5 | 10695.2 | 10437.3 | 10389.0 | 10561.6 | 11365.0 | 13215.0 | 12508.0 | 10773.1 |
| 42.5° | 11930.9 | 11949.5 | 11780.6 | 11511.6 | 11322.3 | 11331.6 | 11528.3 | 12417.1 | 14677.1 | 14016.5 | 11975.5 |
| 45°   | 12942.2 | 12970.0 | 12784.5 | 12431.9 | 12259.4 | 12606.3 | 12524.7 | 13597.2 | 16280.3 | 15731.0 | 13356.0 |
| 47.5° | 13999.8 | 14042.5 | 13901.5 | 13571.2 | 13356.0 | 13832.8 | 13521.1 | 14905.3 | 18005.9 | 17569.8 | 14871.9 |
| 50°   | 14576.9 | 14638.1 | 14775.4 | 14751.3 | 14704.9 | 14625.1 | 14632.6 | 16308.1 | 19785.3 | 19484.7 | 16430.6 |
| 52.5° | 14267.0 | 14265.2 | 14766.2 | 15374.8 | 16024.2 | 16072.4 | 15987.1 | 17786.9 | 21447.9 | 21356.9 | 17898.3 |
| 55°   | 12849.4 | 12945.9 | 13704.8 | 14883.1 | 16656.9 | 17764.7 | 18017.0 | 19481.0 | 23080.7 | 23186.5 | 19388.2 |
| 57.5° | 10489.2 | 10569.0 | 11593.2 | 13235.4 | 15803.4 | 18770.4 | 20904.2 | 21943.3 | 24906.5 | 25400.1 | 21371.8 |
| 60°   | 7114.0  | 7210.5  | 8296.0  | 10268.4 | 13506.3 | 18210.0 | 23652.2 | 26337.1 | 27092.3 | 28214.9 | 24155.0 |
| 62.5° | 4180.5  | 4267.7  | 5152.8  | 6477.6  | 9509.5  | 15606.7 | 24858.3 | 32588.3 | 30564.0 | 32462.2 | 28400.5 |
| 65°   | 2877.9  | 2937.3  | 3367.8  | 4032.0  | 5464.5  | 10511.5 | 23362.7 | 36904.3 | 35906.0 | 37724.4 | 33323.1 |
| 67.5° | 2315.7  | 2308.3  | 2649.7  | 3102.4  | 3518.0  | 5419.9  | 17666.3 | 36416.3 | 40604.2 | 41363.1 | 35878.2 |
| 70°   | 1907.5  | 1900.0  | 2132.0  | 2506.8  | 2811.1  | 3052.3  | 9622.7  | 30731.0 | 39646.7 | 39954.7 | 33525.4 |
| 72.5° | 1595.7  | 1603.2  | 1751.6  | 2029.9  | 2306.4  | 2299.0  | 4228.7  | 21618.6 | 31189.3 | 33319.4 | 26724.9 |
| 75°   | 1347.1  | 1350.8  | 1449.2  | 1645.8  | 1872.2  | 1851.8  | 2293.4  | 11712.0 | 18130.2 | 19612.8 | 14814.4 |
| 77.5° | 1146.7  | 1150.4  | 1213.5  | 1323.0  | 1484.4  | 1477.0  | 1673.7  | 5060.0  | 7563.1  | 7470.3  | 5067.4  |
| 80°   | 1022.4  | 1022.4  | 1052.1  | 1072.5  | 1161.6  | 1128.2  | 1241.3  | 2430.7  | 3197.0  | 2952.1  | 2022.5  |
| 82.5° | 801.6   | 805.3   | 987.1   | 979.7   | 914.8   | 872.1   | 872.1   | 1432.5  | 1694.1  | 1566.1  | 1183.8  |
| 85°   | 450.9   | 449.0   | 636.4   | 768.2   | 805.3   | 614.2   | 608.6   | 801.6   | 922.2   | 812.7   | 573.4   |
| 87.5° | 193.0   | 196.7   | 295.0   | 341.4   | 456.5   | 382.2   | 376.7   | 413.8   | 469.4   | 406.4   | 265.3   |
| 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°    | 5236.3  | 5236.3  | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 |
| 2.5°  | 5238.1  | 5189.9  | 5084.1 | 4952.4 | 4833.6 | 4755.7 | 4685.2 | 4583.1 | 4588.7 | 4518.2 | 4466.2 |
| 5°    | 5234.4  | 5134.2  | 4889.3 | 4598.0 | 4317.8 | 4115.5 | 3963.4 | 3826.1 | 3792.7 | 3727.7 | 3688.8 |
| 7.5°  | 5238.1  | 5074.8  | 4662.9 | 4197.2 | 3850.2 | 3594.1 | 3464.2 | 3391.9 | 3375.2 | 3352.9 | 3354.8 |
| 10°   | 5251.1  | 5021.0  | 4414.3 | 3822.4 | 3458.7 | 3289.8 | 3258.3 | 3280.5 | 3306.5 | 3313.9 | 3315.8 |
| 12.5° | 5280.8  | 4972.8  | 4141.5 | 3488.4 | 3213.7 | 3161.8 | 3215.6 | 3291.7 | 3341.8 | 3365.9 | 3364.0 |
| 15°   | 5347.6  | 4935.7  | 3879.9 | 3226.7 | 3078.3 | 3106.1 | 3206.3 | 3313.9 | 3386.3 | 3419.7 | 3421.6 |
| 17.5° | 5419.9  | 4881.9  | 3610.8 | 3026.3 | 2978.1 | 3048.6 | 3172.9 | 3299.1 | 3388.2 | 3425.3 | 3432.7 |
| 20°   | 5514.6  | 4815.1  | 3328.8 | 2876.0 | 2883.5 | 2963.3 | 3080.1 | 3206.3 | 3304.7 | 3336.2 | 3351.1 |
| 22.5° | 5638.9  | 4742.7  | 3082.0 | 2753.6 | 2775.8 | 2837.1 | 2928.0 | 3037.5 | 3122.8 | 3137.7 | 3150.7 |
| 25°   | 5805.9  | 4664.8  | 2885.3 | 2642.2 | 2651.5 | 2686.8 | 2748.0 | 2813.0 | 2872.3 | 2855.6 | 2868.6 |
| 27.5° | 6030.4  | 4598.0  | 2738.7 | 2540.2 | 2523.5 | 2530.9 | 2562.5 | 2582.9 | 2614.4 | 2568.0 | 2573.6 |
| 30°   | 6293.9  | 4525.6  | 2625.5 | 2451.1 | 2404.7 | 2391.8 | 2399.2 | 2410.3 | 2434.4 | 2371.3 | 2362.1 |
| 32.5° | 6600.1  | 4438.4  | 2519.8 | 2373.2 | 2308.3 | 2282.3 | 2286.0 | 2315.7 | 2408.5 | 2369.5 | 2349.1 |
| 35°   | 6956.3  | 4340.0  | 2408.5 | 2287.8 | 2243.3 | 2206.2 | 2202.5 | 2295.3 | 2571.7 | 2547.6 | 2529.1 |
| 37.5° | 7373.8  | 4241.7  | 2297.1 | 2191.4 | 2195.1 | 2154.2 | 2141.3 | 2247.0 | 2603.3 | 2508.7 | 2495.7 |
| 40°   | 7904.5  | 4189.7  | 2202.5 | 2089.3 | 2135.7 | 2130.1 | 2104.1 | 2158.0 | 2395.5 | 2222.9 | 2200.6 |
| 42.5° | 8561.3  | 4197.2  | 2132.0 | 1979.8 | 2065.2 | 2124.6 | 2083.7 | 2085.6 | 2170.9 | 2041.1 | 2020.7 |
| 45°   | 9372.2  | 4284.4  | 2081.9 | 1892.6 | 1985.4 | 2119.0 | 2076.3 | 2046.6 | 2054.1 | 1985.4 | 1974.3 |
| 47.5° | 10318.5 | 4464.4  | 2046.6 | 1820.3 | 1909.3 | 2098.6 | 2074.5 | 2035.5 | 2018.8 | 1981.7 | 1972.4 |
| 50°   | 11370.6 | 4726.0  | 2020.7 | 1751.6 | 1840.7 | 2065.2 | 2076.3 | 2024.4 | 2005.8 | 1991.0 | 1985.4 |
| 52.5° | 12404.1 | 5024.7  | 1981.7 | 1692.2 | 1786.9 | 2024.4 | 2081.9 | 2013.2 | 1992.8 | 1981.7 | 1976.1 |
| 55°   | 13556.4 | 5397.7  | 1922.3 | 1642.1 | 1742.3 | 1972.4 | 2081.9 | 1996.5 | 1974.3 | 1976.1 | 1974.3 |
| 57.5° | 15113.1 | 6000.7  | 1851.8 | 1599.5 | 1688.5 | 1909.3 | 2046.6 | 1978.0 | 1950.1 | 1952.0 | 1953.9 |
| 60°   | 17545.7 | 7063.9  | 1766.4 | 1556.8 | 1621.7 | 1835.1 | 1998.4 | 1937.2 | 1909.3 | 1916.7 | 1918.6 |
| 62.5° | 21123.1 | 8624.4  | 1655.1 | 1493.7 | 1551.2 | 1755.3 | 1931.6 | 1885.2 | 1857.4 | 1875.9 | 1875.9 |
| 65°   | 24841.6 | 10001.2 | 1517.8 | 1413.9 | 1477.0 | 1668.1 | 1848.1 | 1820.3 | 1792.4 | 1835.1 | 1833.2 |
| 67.5° | 25841.7 | 9693.2  | 1380.5 | 1326.7 | 1402.8 | 1571.6 | 1747.9 | 1733.0 | 1718.2 | 1792.4 | 1788.7 |
| 70°   | 22956.4 | 7782.0  | 1254.3 | 1237.6 | 1321.1 | 1467.7 | 1640.3 | 1640.3 | 1631.0 | 1686.7 | 1673.7 |
| 72.5° | 17490.1 | 5518.3  | 1133.7 | 1143.0 | 1228.3 | 1354.5 | 1523.4 | 1536.4 | 1521.5 | 1549.4 | 1538.2 |
| 75°   | 9362.9  | 3158.1  | 1013.1 | 1039.1 | 1113.3 | 1239.5 | 1393.5 | 1406.5 | 1397.2 | 1395.3 | 1400.9 |
| 77.5° | 3111.7  | 1543.8  | 886.9  | 927.8  | 992.7  | 1120.7 | 1258.0 | 1278.4 | 1256.2 | 1252.5 | 1250.6 |
| 80°   | 1386.1  | 970.4   | 747.8  | 801.6  | 859.1  | 985.3  | 1115.2 | 1131.9 | 1107.7 | 1141.1 | 1098.5 |
| 82.5° | 890.6   | 638.3   | 599.3  | 658.7  | 714.4  | 849.8  | 972.3  | 976.0  | 953.7  | 1107.7 | 944.5  |
| 85°   | 432.3   | 395.2   | 450.9  | 504.7  | 552.9  | 668.0  | 805.3  | 807.1  | 751.5  | 684.7  | 660.6  |
| 87.5° | 215.2   | 230.1   | 300.6  | 348.8  | 373.0  | 458.3  | 586.3  | 575.2  | 551.1  | 501.0  | 462.0  |
| 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)