

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: P299995

Luminaire Tested: **GLNA-AF-08-LED-E1-SL3-7060-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299995  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)  
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-SL3-7060-600-HSS  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 5700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24387.9 lumens  
Efficiency: N/A  
Efficacy: 94.9 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G4  
  
Input Watts (W): 257  
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

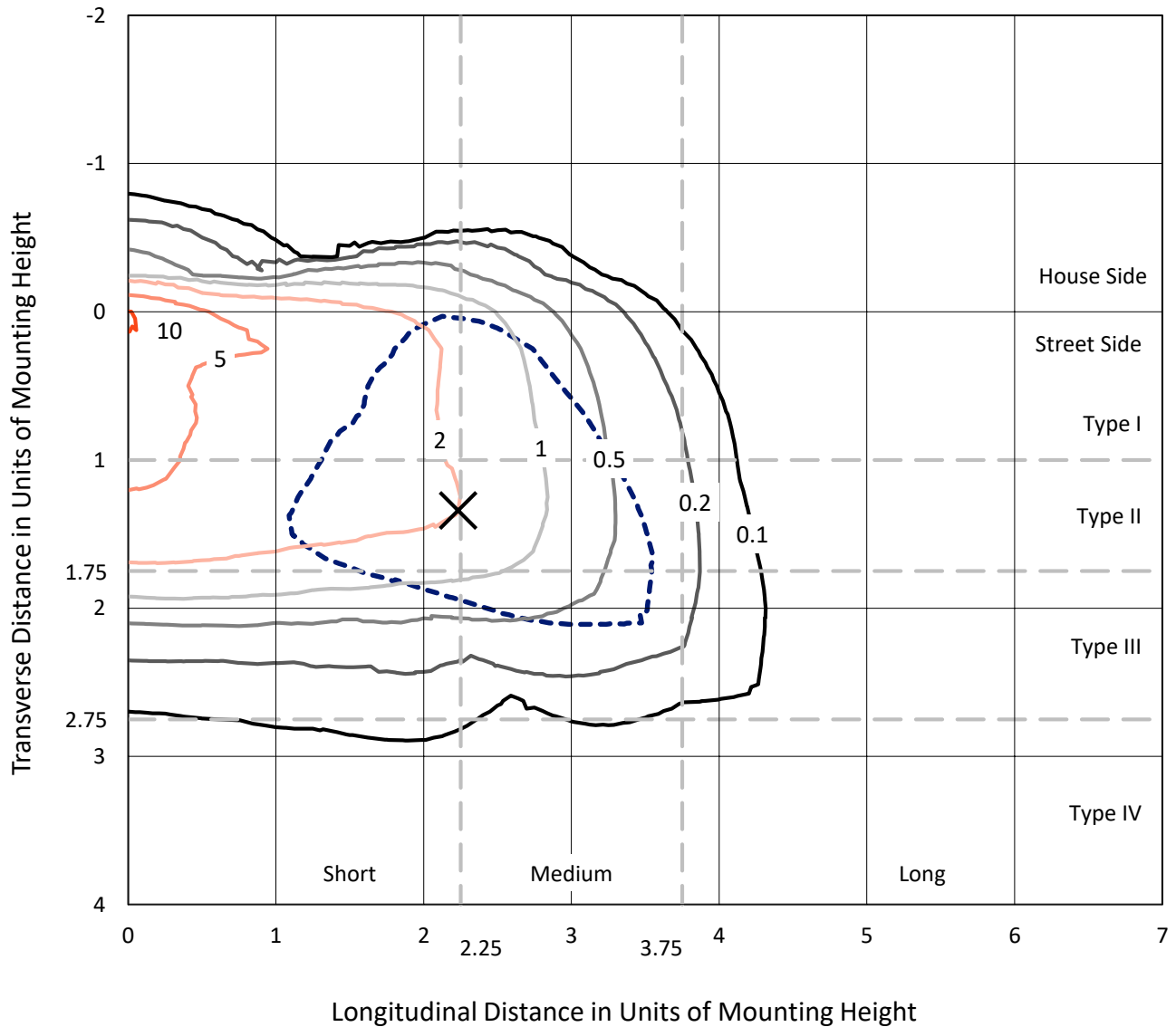


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

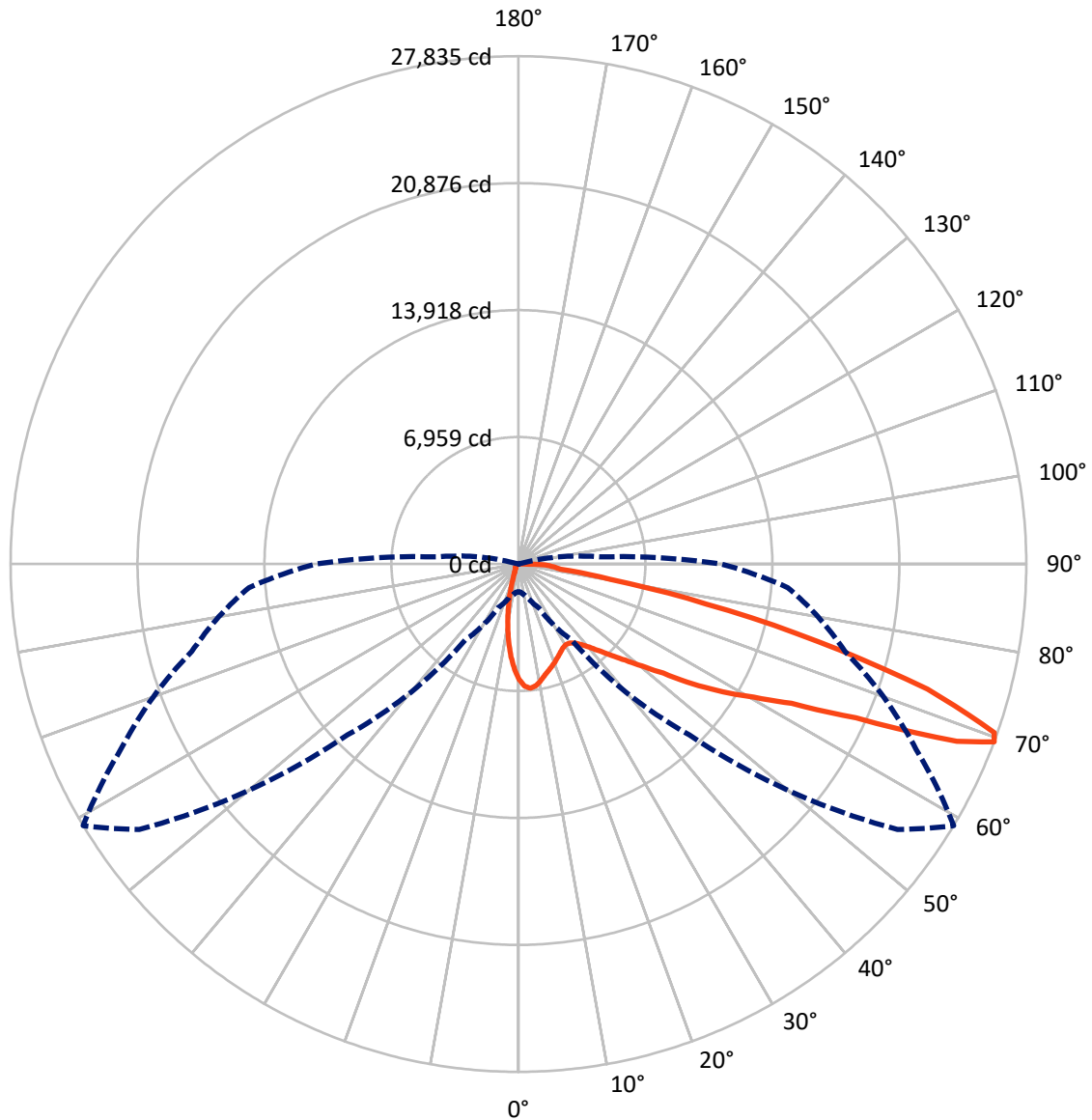


Based on 25 foot mounting height. Maximum calculated value = 10.2 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1986.1   | 0.0    | 1986.1  |
|                    | % Fixture | 8.1      | 0.0    | 8.1     |
| <b>Street Side</b> | Lumens    | 22401.8  | 0.0    | 22401.8 |
|                    | % Fixture | 91.9     | 0.0    | 91.9    |
| <b>Total</b>       | Lumens    | 24387.9  | 0.0    | 24387.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 515.3   | 2.1       |
| 10°-20°   | 1064.7  | 4.4       |
| 20°-30°   | 1432.6  | 5.9       |
| 30°-40°   | 2080.1  | 8.5       |
| 40°-50°   | 3463.5  | 14.2      |
| 50°-60°   | 5403.0  | 22.2      |
| 60°-70°   | 6685.8  | 27.4      |
| 70°-80°   | 3388.3  | 13.9      |
| 80°-90°   | 354.5   | 1.5       |
| 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°    | 24387.9 | 100.0     |
| 0°-180°   | 24387.9 | 100.0     |

**Coefficient of Utilization**



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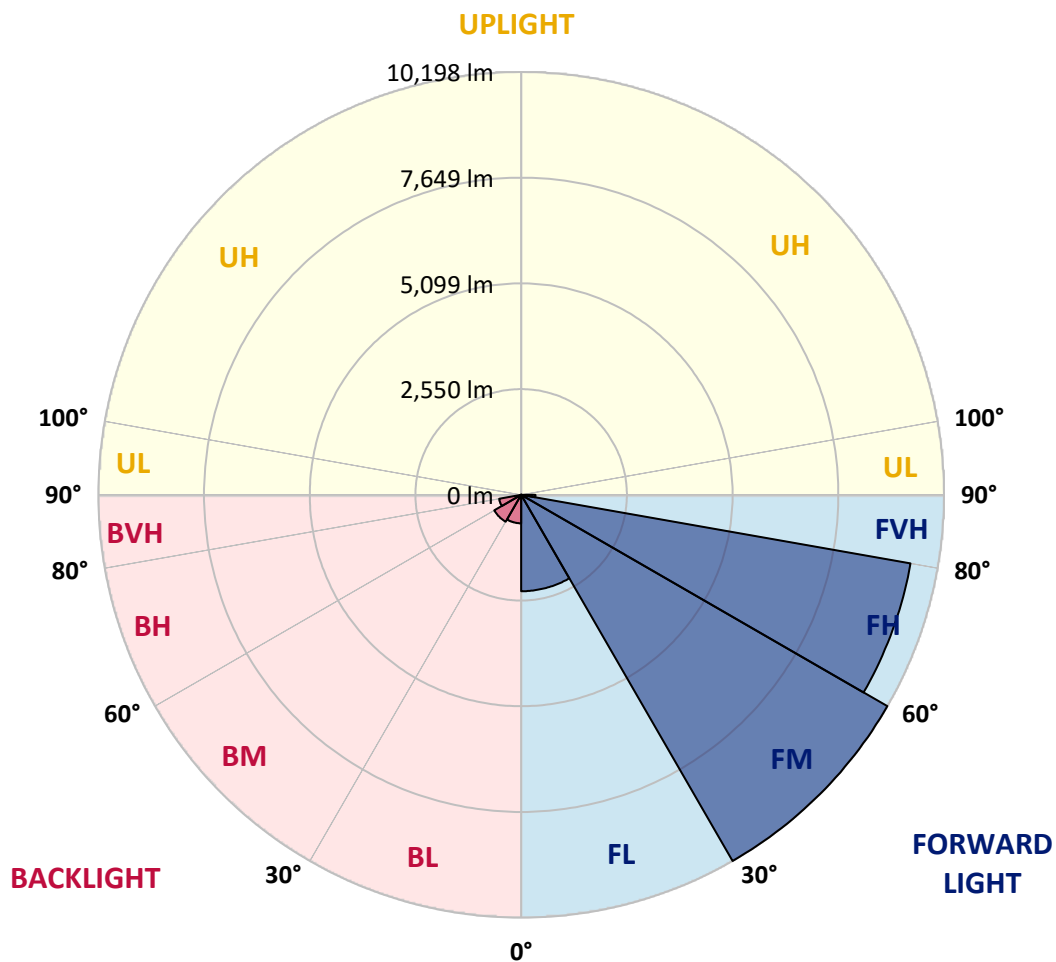
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 2325.1  | 9.5       |                         |      |          |
| FM   | (30°-60°)   | 10198.3 | 41.8      |                         |      |          |
| FH   | (60°-80°)   | 9534.8  | 39.1      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 343.6   | 1.4       |                         |      | G3/500   |
| BL   | (0°-30°)    | 687.4   | 2.8       | B2/1000                 |      |          |
| BM   | (30°-60°)   | 748.3   | 3.1       | B1/1000                 |      |          |
| BH   | (60°-80°)   | 539.4   | 2.2       | B2/1000                 |      | G2/1000  |
| BVH  | (80°-90°)   | 10.9    | 0.0       |                         |      | G1/100   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B2-U0-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 59°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6347.7  | 6347.7  | 6347.7  | 6347.7  | 6347.7  | 6347.7  | 6347.7  | 6347.7  | 6347.7  | 6347.7  | 6347.7  |
| 2.5°  | 6957.3  | 6954.8  | 6924.3  | 6910.5  | 6885.5  | 6833.3  | 6751.9  | 6709.3  | 6640.4  | 6520.1  | 6359.0  |
| 5°    | 6893.8  | 6927.2  | 6944.8  | 6946.4  | 6964.4  | 6944.8  | 6871.7  | 6836.2  | 6741.0  | 6547.7  | 6258.3  |
| 7.5°  | 6463.8  | 6475.9  | 6527.2  | 6571.1  | 6656.7  | 6738.1  | 6764.4  | 6748.9  | 6692.6  | 6485.9  | 6100.9  |
| 10°   | 6003.2  | 6015.3  | 6076.3  | 6133.9  | 6250.0  | 6375.2  | 6507.6  | 6535.6  | 6559.0  | 6397.4  | 5949.4  |
| 12.5° | 5605.7  | 5618.3  | 5680.5  | 5756.1  | 5891.3  | 6045.8  | 6251.2  | 6296.8  | 6400.3  | 6313.5  | 5827.9  |
| 15°   | 5263.8  | 5269.2  | 5330.2  | 5423.7  | 5585.3  | 5783.6  | 6017.0  | 6090.1  | 6248.7  | 6254.2  | 5721.8  |
| 17.5° | 4972.8  | 4986.5  | 5024.1  | 5113.5  | 5290.1  | 5535.6  | 5807.4  | 5912.2  | 6098.0  | 6204.5  | 5618.3  |
| 20°   | 4794.9  | 4808.7  | 4807.4  | 4857.1  | 5015.8  | 5277.6  | 5597.8  | 5723.1  | 5949.4  | 6153.5  | 5526.0  |
| 22.5° | 4760.7  | 4760.7  | 4724.8  | 4717.7  | 4811.6  | 5030.8  | 5379.9  | 5532.7  | 5815.3  | 6131.4  | 5461.3  |
| 25°   | 4883.4  | 4877.6  | 4788.2  | 4715.2  | 4719.3  | 4850.0  | 5168.6  | 5350.6  | 5702.6  | 6146.4  | 5426.6  |
| 27.5° | 5142.7  | 5135.6  | 5022.5  | 4883.4  | 4771.5  | 4770.3  | 5008.7  | 5204.5  | 5612.8  | 6218.3  | 5440.4  |
| 30°   | 5500.9  | 5498.4  | 5375.7  | 5200.3  | 4997.8  | 4811.6  | 4953.6  | 5131.4  | 5554.8  | 6347.7  | 5472.1  |
| 32.5° | 5892.6  | 5888.4  | 5796.1  | 5611.6  | 5354.8  | 4997.8  | 5011.6  | 5160.7  | 5571.5  | 6520.1  | 5549.4  |
| 35°   | 6308.0  | 6300.9  | 6260.8  | 6099.7  | 5817.0  | 5341.0  | 5202.0  | 5317.6  | 5676.3  | 6778.2  | 5700.9  |
| 37.5° | 6757.3  | 6764.4  | 6793.2  | 6638.7  | 6342.3  | 5822.4  | 5520.6  | 5599.1  | 5887.2  | 7128.5  | 5947.7  |
| 40°   | 7420.7  | 7419.5  | 7429.1  | 7226.2  | 6941.0  | 6411.2  | 5965.7  | 5990.7  | 6240.4  | 7593.2  | 6323.1  |
| 42.5° | 8624.5  | 8540.6  | 8285.4  | 7871.7  | 7584.8  | 7084.2  | 6527.2  | 6500.9  | 6672.1  | 8168.1  | 6848.3  |
| 45°   | 10242.4 | 10062.9 | 9401.1  | 8608.2  | 8241.2  | 7842.9  | 7217.8  | 7133.9  | 7242.9  | 8859.1  | 7496.7  |
| 47.5° | 11633.6 | 11447.4 | 10511.3 | 9374.8  | 8937.6  | 8562.7  | 8027.4  | 7875.8  | 7911.8  | 9632.8  | 8318.4  |
| 50°   | 12106.7 | 12015.6 | 11198.1 | 10042.4 | 9611.9  | 9468.7  | 8966.8  | 8781.9  | 8730.9  | 10527.6 | 9271.2  |
| 52.5° | 11942.6 | 11935.9 | 11391.0 | 10475.4 | 10229.9 | 10406.5 | 10148.5 | 9934.7  | 9747.2  | 11471.2 | 10240.7 |
| 55°   | 11679.1 | 11713.8 | 11469.5 | 10854.5 | 10846.1 | 11262.8 | 11764.7 | 11586.8 | 11043.6 | 12495.8 | 11076.6 |
| 57.5° | 10952.6 | 11100.0 | 11425.7 | 11571.8 | 11910.8 | 12337.1 | 13110.8 | 13215.6 | 12573.0 | 13280.3 | 11770.1 |
| 60°   | 8886.7  | 9210.7  | 10275.4 | 11674.9 | 13283.3 | 14345.0 | 14735.4 | 14824.8 | 13827.7 | 13932.5 | 12706.7 |
| 62.5° | 6308.0  | 6638.7  | 7989.0  | 10356.8 | 13303.7 | 16983.0 | 17155.4 | 16803.9 | 15209.7 | 14899.5 | 14321.7 |
| 65°   | 3348.2  | 3603.7  | 4706.8  | 7475.9  | 11534.7 | 17595.5 | 21387.9 | 20339.9 | 17647.7 | 16800.9 | 16408.0 |
| 67.5° | 1712.7  | 1789.9  | 2228.8  | 3658.8  | 7929.7  | 15628.9 | 25181.6 | 25919.4 | 21849.7 | 18687.8 | 16307.4 |
| 69°   | 1515.6  | 1561.1  | 1852.2  | 2645.0  | 5077.6  | 13237.8 | 25366.5 | 27835.0 | 24049.7 | 18530.3 | 14819.4 |
| 70°   | 1467.2  | 1507.3  | 1772.0  | 2394.1  | 3969.0  | 11101.3 | 24658.8 | 27666.7 | 24612.1 | 17932.0 | 13707.9 |
| 72.5° | 1245.5  | 1279.7  | 1577.8  | 2115.6  | 3225.8  | 5510.5  | 20030.9 | 23444.2 | 22085.6 | 14937.9 | 9922.2  |
| 75°   | 833.0   | 946.1   | 1514.4  | 1983.3  | 3000.8  | 3130.6  | 13206.0 | 16941.6 | 15737.9 | 10075.4 | 5168.6  |
| 77.5° | 200.0   | 215.0   | 427.5   | 1577.8  | 2744.4  | 2755.3  | 6791.9  | 10531.7 | 8590.2  | 3591.2  | 1221.7  |
| 80°   | 107.7   | 103.5   | 119.8   | 313.1   | 2555.3  | 2585.8  | 3057.6  | 5112.2  | 3067.2  | 595.8   | 402.5   |
| 82.5° | 76.0    | 71.8    | 77.2    | 131.1   | 804.2   | 2355.3  | 2212.1  | 2313.9  | 1271.4  | 228.8   | 180.8   |
| 85°   | 27.6    | 26.3    | 42.6    | 118.6   | 252.2   | 1354.0  | 2272.6  | 1908.5  | 1030.0  | 104.8   | 132.4   |
| 87.5° | 9.6     | 8.4     | 16.7    | 64.7    | 77.2    | 576.6   | 1402.5  | 1442.6  | 405.4   | 63.5    | 62.2    |
| 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°    | 6347.7  | 6347.7 | 6347.7 | 6347.7 | 6347.7 | 6347.7 | 6347.7 | 6347.7 | 6347.7 | 6347.7 | 6347.7 |
| 2.5°  | 6291.3  | 6205.7 | 6048.7 | 5887.2 | 5738.1 | 5559.0 | 5469.2 | 5381.1 | 5344.0 | 5330.2 | 5265.5 |
| 5°    | 6109.3  | 5964.4 | 5630.8 | 5295.5 | 4986.5 | 4658.4 | 4442.1 | 4268.4 | 4166.1 | 4116.4 | 4037.9 |
| 7.5°  | 5876.3  | 5639.1 | 5132.7 | 4615.8 | 4134.4 | 3660.1 | 3308.5 | 3037.9 | 2851.7 | 2762.4 | 2681.0 |
| 10°   | 5650.0  | 5334.3 | 4614.5 | 3909.7 | 3255.9 | 2627.1 | 2141.5 | 1789.9 | 1565.3 | 1461.8 | 1395.8 |
| 12.5° | 5447.5  | 5037.9 | 4113.9 | 3221.7 | 2400.8 | 1664.7 | 1170.8 | 891.0  | 751.6  | 703.1  | 679.7  |
| 15°   | 5266.7  | 4764.8 | 3640.9 | 2567.8 | 1625.9 | 951.5  | 640.1  | 544.9  | 522.7  | 522.7  | 519.8  |
| 17.5° | 5095.5  | 4497.2 | 3184.1 | 1954.0 | 1020.4 | 582.0  | 486.8  | 474.3  | 474.3  | 479.7  | 479.7  |
| 20°   | 4931.4  | 4242.1 | 2742.7 | 1402.5 | 642.6  | 461.8  | 440.1  | 437.2  | 440.1  | 446.8  | 446.8  |
| 22.5° | 4790.7  | 4010.4 | 2330.6 | 962.4  | 477.2  | 416.3  | 405.4  | 401.2  | 402.5  | 406.7  | 409.6  |
| 25°   | 4685.9  | 3814.5 | 1941.9 | 652.2  | 410.8  | 379.1  | 367.0  | 359.9  | 354.5  | 354.5  | 357.0  |
| 27.5° | 4620.0  | 3649.2 | 1565.3 | 474.3  | 369.5  | 344.9  | 325.3  | 314.4  | 301.9  | 295.2  | 297.7  |
| 30°   | 4571.5  | 3491.8 | 1212.1 | 387.5  | 331.1  | 306.0  | 281.4  | 263.5  | 245.5  | 237.2  | 240.1  |
| 32.5° | 4553.6  | 3364.9 | 906.0  | 342.0  | 296.4  | 268.9  | 238.4  | 215.0  | 195.8  | 188.7  | 190.4  |
| 35°   | 4602.0  | 3264.2 | 663.5  | 309.0  | 268.9  | 234.2  | 200.0  | 173.7  | 158.7  | 154.5  | 155.7  |
| 37.5° | 4728.9  | 3210.4 | 496.4  | 281.4  | 244.3  | 205.4  | 167.0  | 142.0  | 132.4  | 132.4  | 133.6  |
| 40°   | 4968.6  | 3209.1 | 398.7  | 262.2  | 222.1  | 177.9  | 137.8  | 119.8  | 114.4  | 117.3  | 118.6  |
| 42.5° | 5318.9  | 3282.2 | 347.4  | 244.3  | 202.9  | 151.6  | 114.4  | 101.9  | 100.6  | 103.5  | 104.8  |
| 45°   | 5797.4  | 3415.8 | 319.8  | 228.8  | 182.0  | 126.9  | 96.4   | 88.1   | 88.1   | 92.3   | 93.9   |
| 47.5° | 6383.6  | 3611.6 | 296.4  | 213.8  | 161.2  | 106.1  | 82.7   | 77.2   | 78.5   | 82.7   | 83.9   |
| 50°   | 7089.6  | 3858.8 | 273.1  | 197.1  | 146.1  | 88.1   | 71.8   | 67.6   | 68.9   | 74.3   | 76.0   |
| 52.5° | 7893.8  | 4191.2 | 253.9  | 182.0  | 126.9  | 73.1   | 60.5   | 58.0   | 60.5   | 66.4   | 67.6   |
| 55°   | 8583.1  | 4488.9 | 230.5  | 169.5  | 101.9  | 60.5   | 49.7   | 49.7   | 52.6   | 59.3   | 60.5   |
| 57.5° | 9246.6  | 4800.3 | 209.6  | 146.1  | 80.2   | 48.4   | 41.3   | 42.6   | 46.8   | 53.9   | 55.1   |
| 60°   | 10220.3 | 5328.5 | 185.0  | 122.8  | 60.5   | 38.4   | 34.7   | 35.9   | 41.3   | 48.4   | 49.7   |
| 62.5° | 11873.7 | 6132.7 | 159.9  | 101.9  | 46.8   | 30.5   | 27.6   | 30.5   | 37.2   | 45.5   | 46.8   |
| 65°   | 13365.9 | 6459.6 | 131.1  | 85.6   | 35.9   | 23.4   | 23.4   | 27.6   | 35.9   | 44.3   | 45.5   |
| 67.5° | 12534.2 | 5437.5 | 101.9  | 67.6   | 27.6   | 18.0   | 19.2   | 26.3   | 34.7   | 44.3   | 45.5   |
| 69°   | 11085.0 | 4446.3 | 86.8   | 53.9   | 23.4   | 16.7   | 18.0   | 26.3   | 34.7   | 42.6   | 44.3   |
| 70°   | 9955.6  | 3754.0 | 77.2   | 45.5   | 20.9   | 16.7   | 18.0   | 24.6   | 34.7   | 42.6   | 44.3   |
| 72.5° | 6667.9  | 2027.1 | 62.2   | 33.0   | 19.2   | 15.0   | 15.0   | 24.6   | 33.0   | 41.3   | 42.6   |
| 75°   | 2865.5  | 559.9  | 49.7   | 23.4   | 16.7   | 13.8   | 13.8   | 23.4   | 31.7   | 40.1   | 42.6   |
| 77.5° | 524.0   | 142.0  | 40.1   | 20.9   | 16.7   | 13.8   | 12.5   | 22.1   | 30.5   | 38.4   | 40.1   |
| 80°   | 208.3   | 70.1   | 31.7   | 18.0   | 15.0   | 12.5   | 10.9   | 20.9   | 28.8   | 37.2   | 38.4   |
| 82.5° | 125.7   | 40.1   | 26.3   | 16.7   | 15.0   | 10.9   | 9.6    | 18.0   | 27.6   | 35.9   | 37.2   |
| 85°   | 101.9   | 27.6   | 20.9   | 16.7   | 13.8   | 10.9   | 8.4    | 16.7   | 24.6   | 34.7   | 35.9   |
| 87.5° | 49.7    | 19.2   | 19.2   | 15.0   | 13.8   | 10.9   | 8.4    | 15.0   | 23.4   | 33.0   | 34.7   |
| 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)