

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: P299615

Luminaire Tested: **GLNA-AF-07-LED-E1-SL2-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299615  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-07-LED-E1-SL2-7050-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31677.7 lumens  
Efficiency: N/A  
Efficacy: 81.0 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

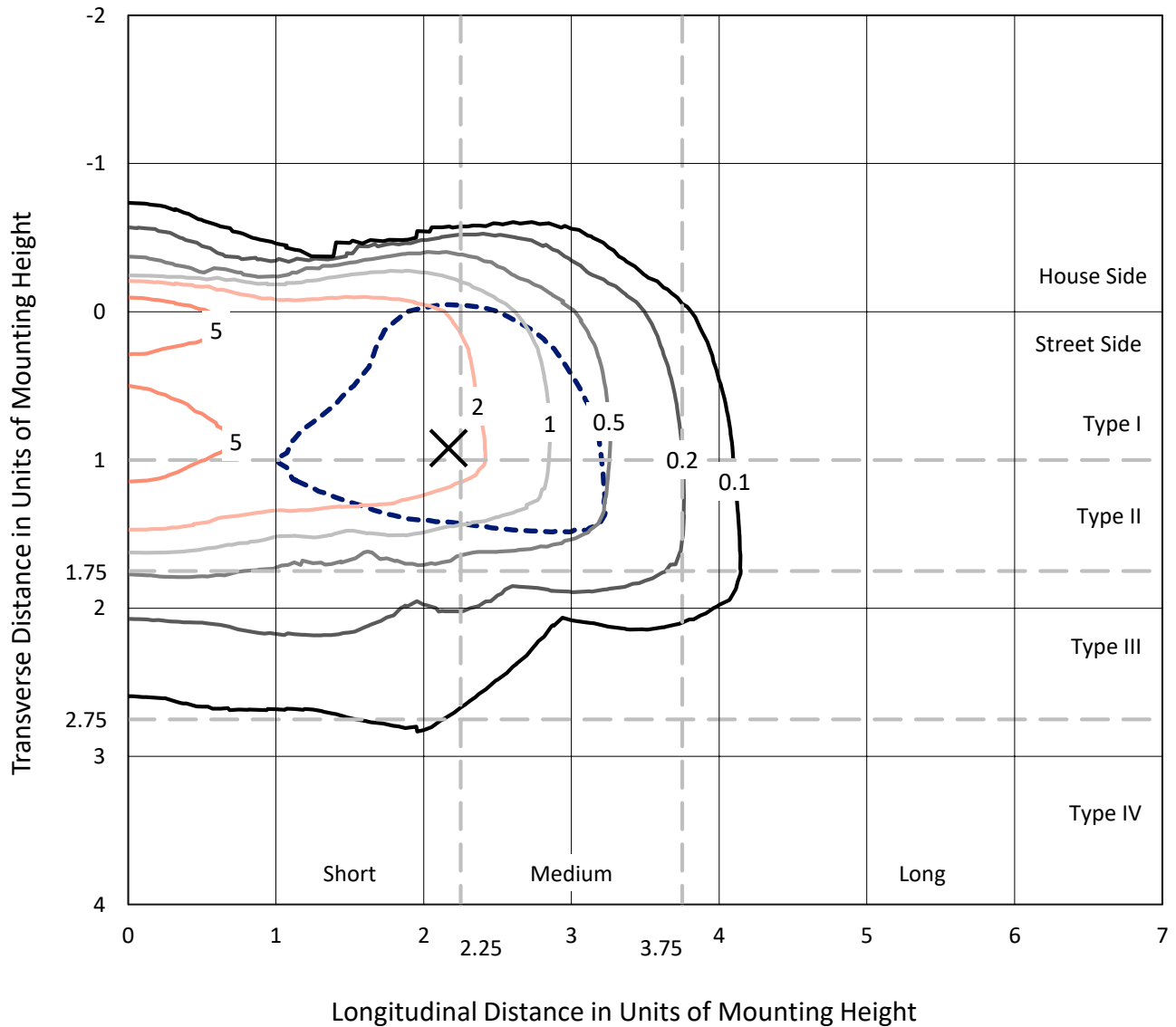
Input Watts (W): 391  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

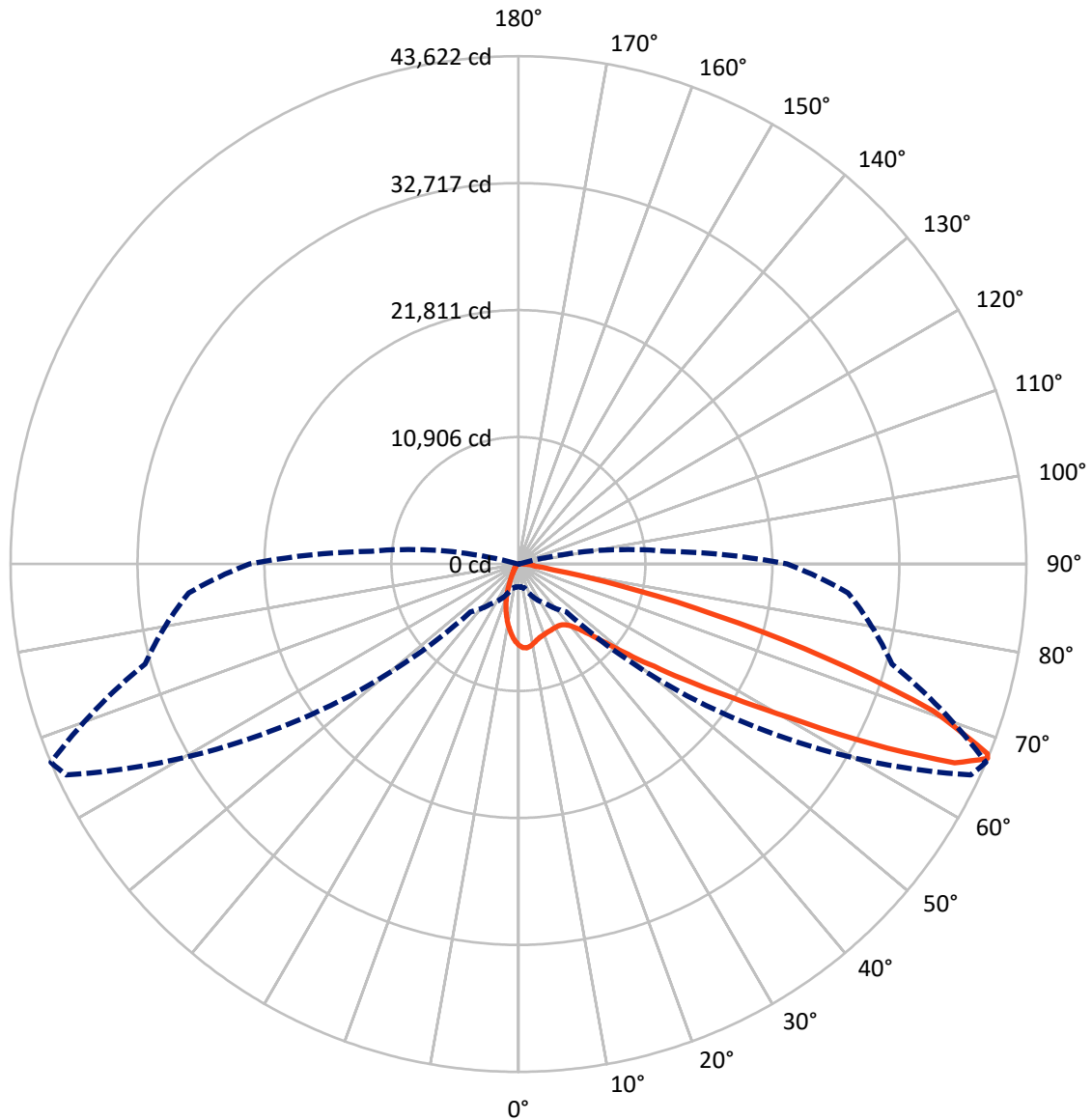
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.8 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral      - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3289.1   | 0.0    | 3289.1  |
|                    | % Fixture | 10.4     | 0.0    | 10.4    |
| <b>Street Side</b> | Lumens    | 28388.6  | 0.0    | 28388.6 |
|                    | % Fixture | 89.6     | 0.0    | 89.6    |
| <b>Total</b>       | Lumens    | 31677.7  | 0.0    | 31677.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 568.4   | 1.8       |
| 10°-20°   | 1209.9  | 3.8       |
| 20°-30°   | 1759.1  | 5.6       |
| 30°-40°   | 2744.2  | 8.7       |
| 40°-50°   | 4861.2  | 15.3      |
| 50°-60°   | 7692.4  | 24.3      |
| 60°-70°   | 8810.5  | 27.8      |
| 70°-80°   | 3654.5  | 11.5      |
| 80°-90°   | 377.5   | 1.2       |
| 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°    | 31677.7 | 100.0     |
| 0°-180°   | 31677.7 | 100.0     |



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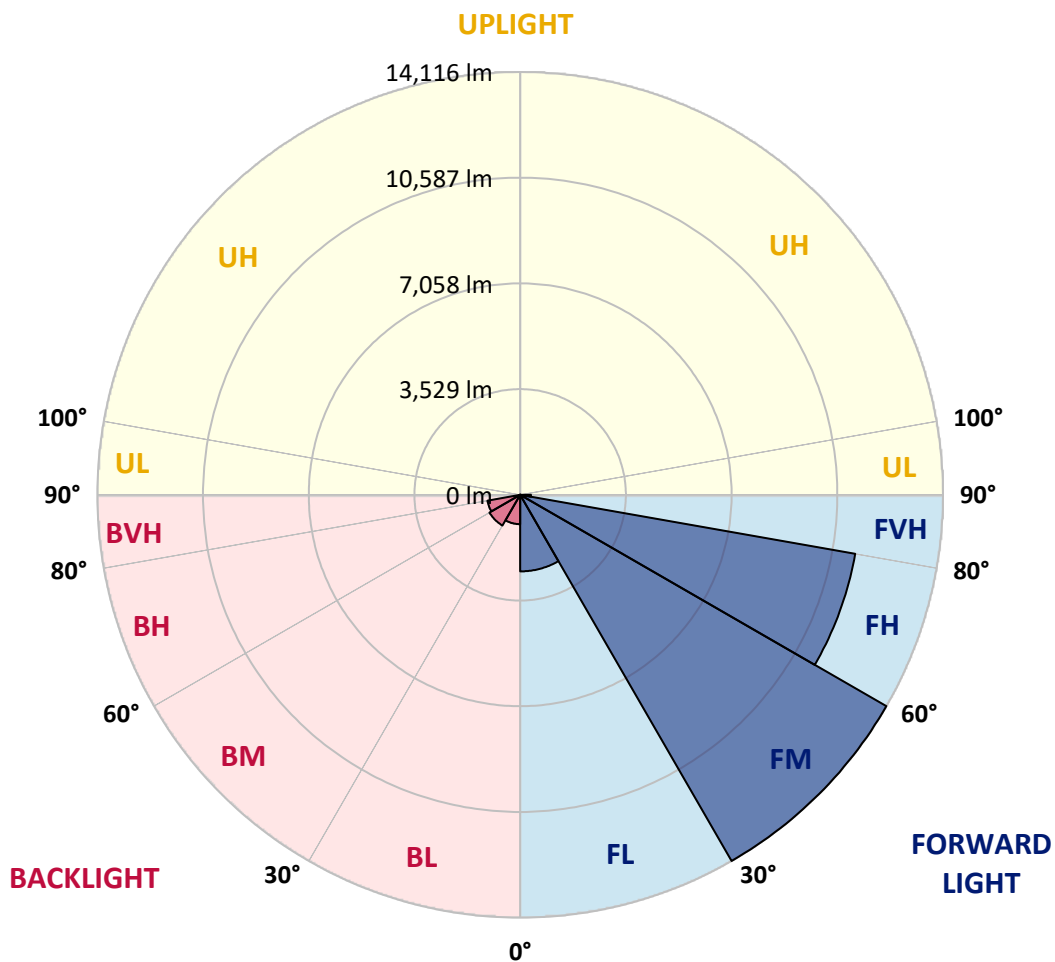
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 2555.9  | 8.1       |                         |      |          |
| FM   | (30°-60°)   | 14115.7 | 44.6      |                         |      |          |
| FH   | (60°-80°)   | 11356.5 | 35.9      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 360.5   | 1.1       |                         |      | G3/500   |
| BL   | (0°-30°)    | 981.5   | 3.1       | B2/1000                 |      |          |
| BM   | (30°-60°)   | 1182.1  | 3.7       | B2/2500                 |      |          |
| BH   | (60°-80°)   | 1108.5  | 3.5       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 17.0    | 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-G4**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 67°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6986.1  | 6986.1  | 6986.1  | 6986.1  | 6986.1  | 6986.1  | 6986.1  | 6986.1  | 6986.1  | 6986.1  | 6986.1  |
| 2.5°  | 7222.6  | 7237.4  | 7235.5  | 7246.6  | 7272.5  | 7274.3  | 7248.5  | 7198.6  | 7187.5  | 7122.8  | 7010.1  |
| 5°    | 6660.9  | 6703.4  | 6729.3  | 6834.6  | 6952.8  | 7095.1  | 7202.3  | 7241.1  | 7235.5  | 7189.3  | 7019.4  |
| 7.5°  | 6019.8  | 6062.3  | 6091.8  | 6215.6  | 6372.7  | 6616.6  | 6895.6  | 7124.7  | 7145.0  | 7194.9  | 7012.0  |
| 10°   | 5592.9  | 5600.3  | 5641.0  | 5759.2  | 5923.7  | 6173.1  | 6505.7  | 6906.6  | 6967.6  | 7150.5  | 6993.5  |
| 12.5° | 5241.9  | 5247.4  | 5301.0  | 5428.5  | 5604.0  | 5855.3  | 6204.5  | 6668.3  | 6762.5  | 7095.1  | 6989.8  |
| 15°   | 4992.4  | 5012.8  | 5060.8  | 5193.8  | 5380.5  | 5629.9  | 5988.3  | 6492.8  | 6605.5  | 7074.8  | 7023.0  |
| 17.5° | 4909.3  | 4931.5  | 4946.2  | 5042.3  | 5212.3  | 5456.2  | 5823.9  | 6378.2  | 6505.7  | 7085.9  | 7087.7  |
| 20°   | 4996.1  | 5012.8  | 4979.5  | 5003.5  | 5108.8  | 5326.9  | 5685.3  | 6280.3  | 6431.8  | 7098.8  | 7170.9  |
| 22.5° | 5319.5  | 5326.9  | 5236.3  | 5131.0  | 5112.5  | 5232.6  | 5576.3  | 6202.7  | 6365.3  | 7133.9  | 7268.8  |
| 25°   | 5873.8  | 5860.9  | 5713.0  | 5485.8  | 5271.4  | 5216.0  | 5511.6  | 6154.6  | 6332.0  | 7170.9  | 7370.4  |
| 27.5° | 6542.6  | 6561.1  | 6357.9  | 6027.1  | 5618.8  | 5326.9  | 5502.4  | 6134.3  | 6317.2  | 7196.7  | 7459.1  |
| 30°   | 7355.6  | 7381.5  | 7148.7  | 6733.0  | 6147.2  | 5600.3  | 5587.4  | 6130.6  | 6308.0  | 7180.1  | 7466.5  |
| 32.5° | 8185.2  | 8216.7  | 8033.7  | 7605.1  | 6853.1  | 6058.6  | 5779.6  | 6171.3  | 6326.5  | 7122.8  | 7424.0  |
| 35°   | 9053.7  | 9098.0  | 8976.0  | 8608.4  | 7810.2  | 6720.0  | 6117.7  | 6295.1  | 6413.3  | 7117.3  | 7381.5  |
| 37.5° | 10252.8 | 10293.4 | 10064.3 | 9674.5  | 8968.7  | 7606.9  | 6660.9  | 6527.9  | 6618.4  | 7206.0  | 7392.6  |
| 40°   | 12043.2 | 12037.7 | 11446.4 | 10849.6 | 10241.7 | 8734.0  | 7424.0  | 6949.1  | 6995.3  | 7473.9  | 7529.3  |
| 42.5° | 13994.4 | 13985.1 | 13111.2 | 12204.0 | 11655.2 | 10121.6 | 8427.3  | 7677.1  | 7645.7  | 7967.2  | 7884.1  |
| 45°   | 15498.4 | 15496.5 | 14783.3 | 13761.5 | 13356.9 | 11714.3 | 9724.4  | 8689.7  | 8641.6  | 8769.1  | 8538.1  |
| 47.5° | 16139.5 | 16150.6 | 15792.2 | 15073.4 | 15243.4 | 13868.7 | 11359.6 | 10156.7 | 10084.7 | 10032.9 | 9681.9  |
| 50°   | 15640.6 | 15662.8 | 15692.4 | 15552.0 | 16627.3 | 16764.0 | 13552.8 | 12224.3 | 12189.2 | 11958.2 | 11409.4 |
| 52.5° | 14011.0 | 14123.7 | 14471.1 | 14916.4 | 17107.7 | 19543.0 | 16991.3 | 14792.6 | 14604.1 | 14358.4 | 13754.2 |
| 55°   | 11265.3 | 11389.1 | 12048.7 | 13129.6 | 16392.7 | 21368.5 | 21810.1 | 18103.6 | 17789.5 | 17056.0 | 16183.9 |
| 57.5° | 7455.4  | 7647.6  | 8604.7  | 9979.3  | 14315.9 | 21662.2 | 26617.7 | 22698.8 | 21605.0 | 19596.5 | 18613.6 |
| 60°   | 4107.4  | 4292.2  | 5330.6  | 6575.9  | 10339.6 | 20210.0 | 29851.2 | 28681.6 | 26748.9 | 22436.4 | 21564.3 |
| 62.5° | 2529.5  | 2629.3  | 3396.0  | 4554.5  | 6200.8  | 15951.1 | 30520.0 | 36199.8 | 33962.3 | 26093.0 | 25128.5 |
| 65°   | 2014.0  | 2056.5  | 2431.6  | 3723.1  | 4445.5  | 9487.9  | 28360.1 | 41931.3 | 41184.9 | 30520.0 | 28319.5 |
| 67°   | 1954.8  | 1971.5  | 2148.9  | 3196.5  | 4190.5  | 5816.5  | 23759.4 | 42864.4 | 43622.0 | 33199.2 | 28419.2 |
| 67.5° | 1967.8  | 1986.3  | 2154.4  | 3050.5  | 4183.2  | 5345.3  | 22174.1 | 42496.7 | 43453.8 | 33411.7 | 27977.6 |
| 70°   | 1897.6  | 1954.8  | 2466.7  | 3048.7  | 3978.1  | 4441.8  | 13279.3 | 36820.6 | 37816.5 | 31044.8 | 23739.0 |
| 72.5° | 672.6   | 676.3   | 1066.1  | 2466.7  | 4325.4  | 4489.9  | 6668.3  | 26992.8 | 27730.0 | 23748.3 | 17115.1 |
| 75°   | 399.1   | 340.0   | 354.8   | 702.1   | 4133.3  | 4360.5  | 3846.9  | 17248.1 | 17523.4 | 13608.2 | 8667.5  |
| 77.5° | 275.3   | 240.2   | 247.6   | 310.4   | 1574.2  | 4299.6  | 3056.1  | 8994.5  | 8700.7  | 4772.6  | 1845.8  |
| 80°   | 157.1   | 138.6   | 147.8   | 271.6   | 572.8   | 4011.3  | 2882.4  | 3647.3  | 3109.7  | 809.3   | 510.0   |
| 82.5° | 83.1    | 70.2    | 85.0    | 223.6   | 399.1   | 2499.9  | 2887.9  | 1762.7  | 1396.8  | 273.5   | 347.4   |
| 85°   | 29.6    | 24.0    | 40.6    | 153.4   | 266.1   | 766.8   | 2677.3  | 1481.8  | 1164.0  | 133.0   | 264.2   |
| 87.5° | 5.5     | 5.5     | 16.6    | 62.8    | 107.2   | 234.7   | 1583.5  | 879.5   | 589.4   | 79.5    | 181.1   |
| 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°    | 6986.1  | 6986.1  | 6986.1 | 6986.1 | 6986.1 | 6986.1 | 6986.1 | 6986.1 | 6986.1 | 6986.1 | 6986.1 |
| 2.5°  | 6963.9  | 6884.5  | 6777.3 | 6646.1 | 6490.9 | 6354.2 | 6252.6 | 6147.2 | 6125.1 | 6088.1 | 6082.6 |
| 5°    | 6917.7  | 6781.0  | 6514.9 | 6210.1 | 5884.9 | 5591.1 | 5352.7 | 5140.3 | 5046.0 | 4964.7 | 4955.5 |
| 7.5°  | 6849.4  | 6644.3  | 6191.6 | 5700.1 | 5192.0 | 4730.1 | 4338.4 | 4061.2 | 3806.2 | 3684.3 | 3665.8 |
| 10°   | 6769.9  | 6476.1  | 5827.6 | 5145.8 | 4443.7 | 3791.4 | 3209.4 | 2721.6 | 2426.0 | 2250.5 | 2228.3 |
| 12.5° | 6696.0  | 6311.7  | 5456.2 | 4571.2 | 3638.1 | 2766.0 | 2017.7 | 1552.1 | 1241.6 | 1116.0 | 1101.2 |
| 15°   | 6660.9  | 6178.7  | 5108.8 | 3983.6 | 2795.5 | 1760.8 | 1103.1 | 853.6  | 752.0  | 722.4  | 720.6  |
| 17.5° | 6657.2  | 6065.9  | 4768.9 | 3375.7 | 1958.5 | 1023.6 | 718.7  | 655.9  | 635.6  | 628.2  | 628.2  |
| 20°   | 6655.4  | 5958.8  | 4428.9 | 2745.7 | 1243.5 | 681.8  | 598.6  | 583.9  | 569.1  | 559.8  | 559.8  |
| 22.5° | 6675.7  | 5862.7  | 4074.1 | 2102.7 | 783.4  | 552.5  | 526.6  | 511.8  | 493.3  | 480.4  | 478.6  |
| 25°   | 6696.0  | 5788.8  | 3712.0 | 1496.6 | 567.2  | 480.4  | 454.5  | 434.2  | 408.3  | 391.7  | 389.9  |
| 27.5° | 6699.7  | 5696.4  | 3324.0 | 1001.4 | 474.9  | 419.4  | 386.2  | 354.8  | 325.2  | 308.6  | 306.7  |
| 30°   | 6644.3  | 5541.2  | 2893.5 | 676.3  | 419.4  | 364.0  | 319.6  | 286.4  | 258.7  | 245.7  | 245.7  |
| 32.5° | 6535.3  | 5349.0  | 2420.5 | 510.0  | 373.2  | 312.3  | 264.2  | 232.8  | 214.3  | 208.8  | 206.9  |
| 35°   | 6437.3  | 5142.1  | 1934.5 | 432.4  | 334.4  | 264.2  | 216.2  | 195.9  | 184.8  | 182.9  | 181.1  |
| 37.5° | 6380.1  | 4975.8  | 1478.1 | 391.7  | 297.5  | 221.7  | 182.9  | 168.1  | 162.6  | 158.9  | 160.7  |
| 40°   | 6424.4  | 4837.2  | 1092.0 | 358.5  | 260.5  | 184.8  | 155.2  | 147.8  | 142.3  | 140.4  | 140.4  |
| 42.5° | 6618.4  | 4813.2  | 811.1  | 328.9  | 225.4  | 153.4  | 134.9  | 129.3  | 125.6  | 123.8  | 125.6  |
| 45°   | 7128.4  | 4961.0  | 630.1  | 301.2  | 190.3  | 129.3  | 114.6  | 112.7  | 110.9  | 110.9  | 110.9  |
| 47.5° | 7895.2  | 5265.9  | 524.7  | 269.8  | 158.9  | 110.9  | 99.8   | 97.9   | 96.1   | 97.9   | 97.9   |
| 50°   | 9194.1  | 5823.9  | 469.3  | 238.4  | 131.2  | 94.2   | 85.0   | 85.0   | 85.0   | 85.0   | 86.8   |
| 52.5° | 11169.2 | 6921.4  | 432.4  | 206.9  | 107.2  | 79.5   | 72.1   | 72.1   | 73.9   | 73.9   | 75.8   |
| 55°   | 13369.8 | 8377.4  | 399.1  | 175.5  | 90.5   | 66.5   | 59.1   | 61.0   | 62.8   | 64.7   | 64.7   |
| 57.5° | 15757.0 | 9990.4  | 371.4  | 144.1  | 77.6   | 53.6   | 49.9   | 51.7   | 53.6   | 57.3   | 57.3   |
| 60°   | 18637.6 | 11736.5 | 330.7  | 112.7  | 64.7   | 42.5   | 38.8   | 42.5   | 48.0   | 51.7   | 53.6   |
| 62.5° | 21800.8 | 13425.3 | 279.0  | 88.7   | 53.6   | 33.3   | 31.4   | 38.8   | 46.2   | 49.9   | 51.7   |
| 65°   | 23962.6 | 13955.6 | 214.3  | 72.1   | 40.6   | 24.0   | 25.9   | 35.1   | 44.3   | 49.9   | 49.9   |
| 67°   | 23086.8 | 12652.9 | 175.5  | 61.0   | 33.3   | 18.5   | 24.0   | 35.1   | 44.3   | 48.0   | 49.9   |
| 67.5° | 22478.9 | 12143.0 | 168.1  | 59.1   | 31.4   | 18.5   | 24.0   | 35.1   | 44.3   | 49.9   | 49.9   |
| 70°   | 18290.2 | 9122.0  | 140.4  | 44.3   | 25.9   | 16.6   | 20.3   | 33.3   | 42.5   | 48.0   | 48.0   |
| 72.5° | 12708.4 | 5624.3  | 125.6  | 31.4   | 22.2   | 14.8   | 18.5   | 31.4   | 40.6   | 46.2   | 48.0   |
| 75°   | 6041.9  | 2036.1  | 107.2  | 24.0   | 20.3   | 12.9   | 16.6   | 31.4   | 40.6   | 46.2   | 46.2   |
| 77.5° | 1232.4  | 473.0   | 86.8   | 20.3   | 16.6   | 12.9   | 14.8   | 29.6   | 38.8   | 44.3   | 44.3   |
| 80°   | 404.6   | 182.9   | 64.7   | 18.5   | 16.6   | 12.9   | 14.8   | 27.7   | 38.8   | 42.5   | 44.3   |
| 82.5° | 291.9   | 92.4    | 42.5   | 18.5   | 16.6   | 12.9   | 12.9   | 27.7   | 37.0   | 42.5   | 42.5   |
| 85°   | 223.6   | 64.7    | 27.7   | 18.5   | 16.6   | 12.9   | 12.9   | 25.9   | 35.1   | 40.6   | 40.6   |
| 87.5° | 147.8   | 25.9    | 22.2   | 18.5   | 16.6   | 12.9   | 12.9   | 25.9   | 33.3   | 38.8   | 40.6   |
| 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)