

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: P193756

Luminaire Tested: **GLEON-AF-08-LED-E1-SL4-8030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P193756  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLEON-AF-08-LED-E1-SL4-8030-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(8) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31594 lumens  
Efficiency: N/A  
Efficacy: 71.0 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G5

Input Watts (W): 445  
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

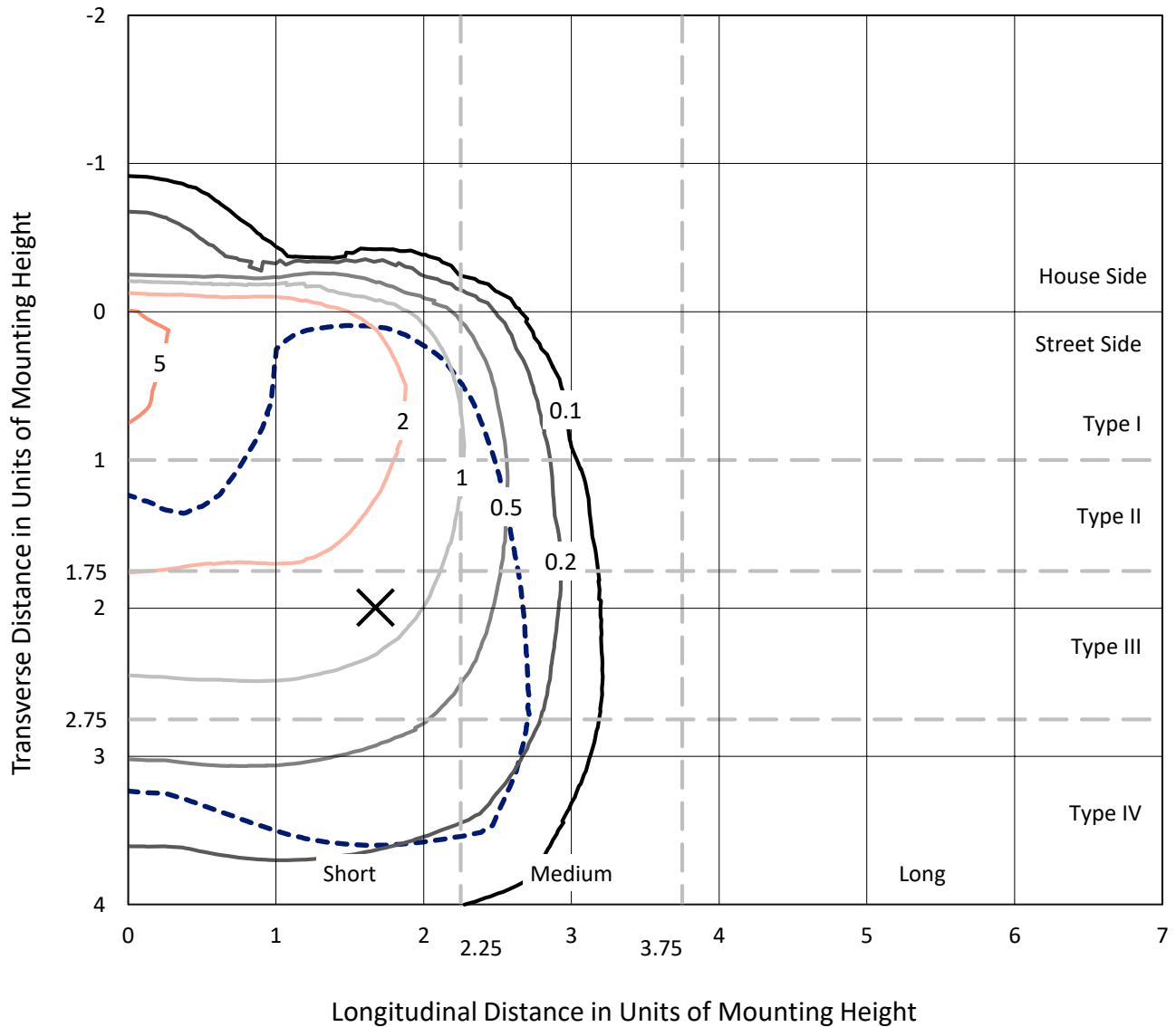


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### Iso-Footcandle Lines of Horizontal Illumination

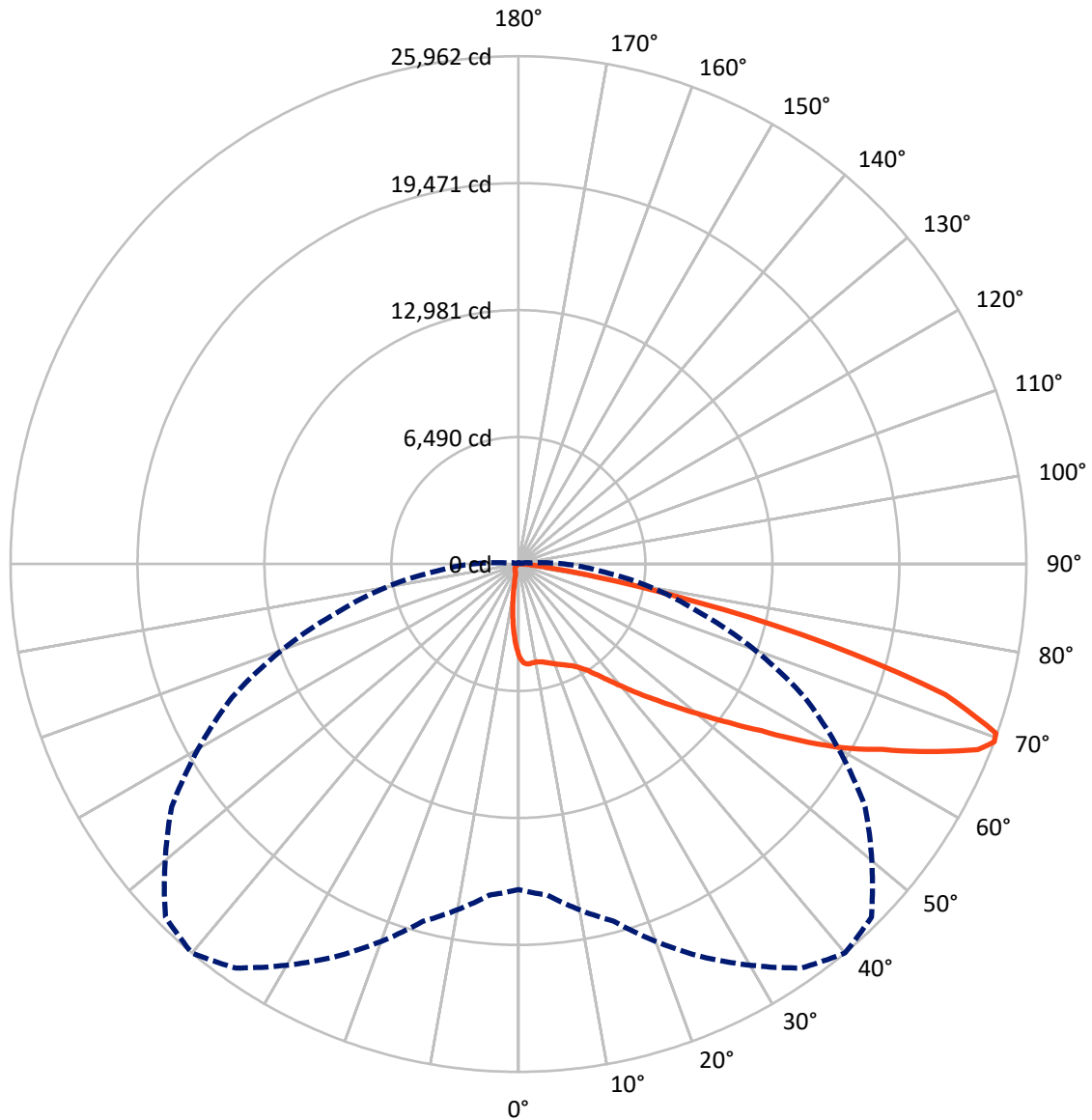
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.7 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1848.4   | 0.0    | 1848.4  |
|                    | % Fixture | 5.9      | 0.0    | 5.9     |
| <b>Street Side</b> | Lumens    | 29745.6  | 0.0    | 29745.6 |
|                    | % Fixture | 94.1     | 0.0    | 94.1    |
| <b>Total</b>       | Lumens    | 31594.0  | 0.0    | 31594.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 382.7   | 1.2       |
| 10°-20°   | 941.2   | 3.0       |
| 20°-30°   | 1585.3  | 5.0       |
| 30°-40°   | 2595.2  | 8.2       |
| 40°-50°   | 4493.4  | 14.2      |
| 50°-60°   | 7077.6  | 22.4      |
| 60°-70°   | 9243.1  | 29.3      |
| 70°-80°   | 4760.6  | 15.1      |
| 80°-90°   | 515.0   | 1.6       |
| 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°    | 31594.0 | 100.0     |
| 0°-180°   | 31594.0 | 100.0     |

**Coefficient of Utilization**



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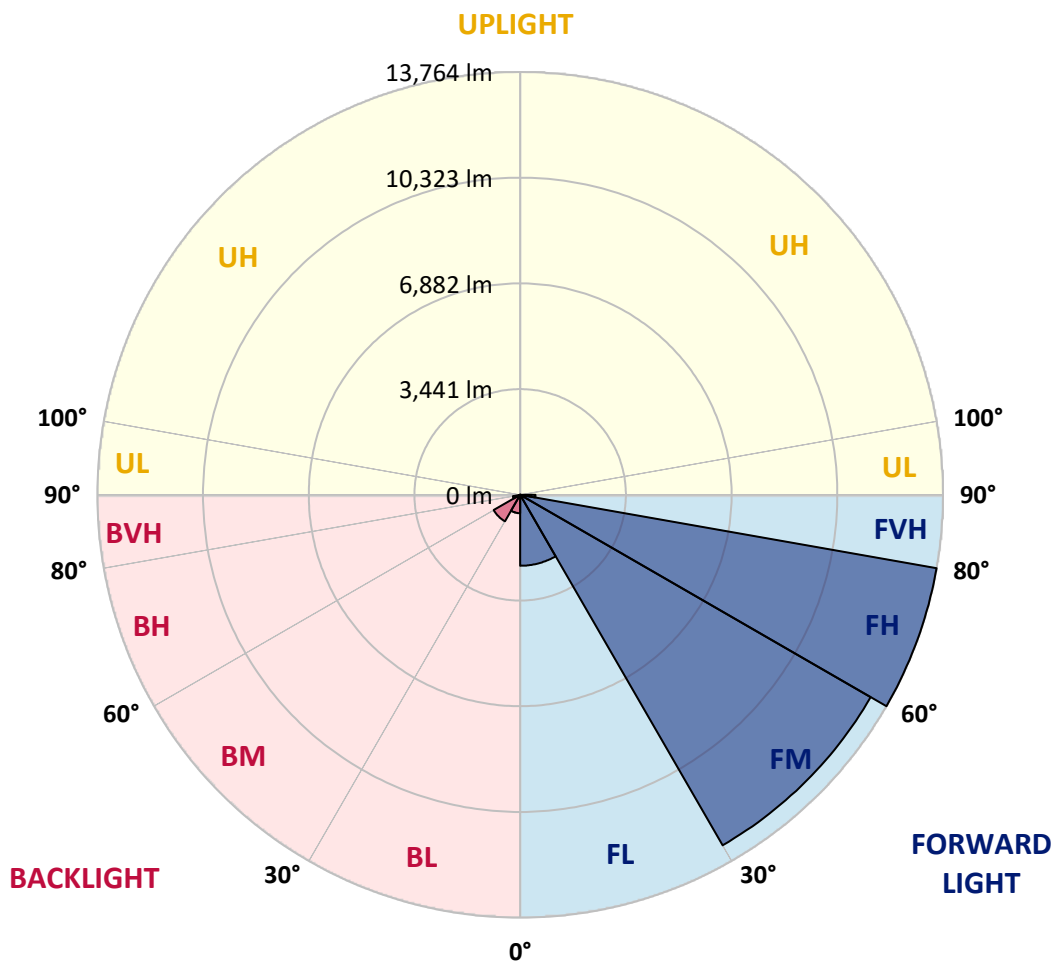
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |        |
|------|-------------|---------|-----------|-------------------------|------|--------|
|      |             |         |           | B                       | U    | G      |
| FL   | (0°-30°)    | 2310.4  | 7.3       |                         |      |        |
| FM   | (30°-60°)   | 13172.7 | 41.7      |                         |      |        |
| FH   | (60°-80°)   | 13763.6 | 43.6      |                         |      | G5     |
| FVH  | (80°-90°)   | 498.8   | 1.6       |                         |      | G3/500 |
| BL   | (0°-30°)    | 598.8   | 1.9       | B2/1000                 |      |        |
| BM   | (30°-60°)   | 993.5   | 3.1       | B1/1000                 |      |        |
| BH   | (60°-80°)   | 240.0   | 0.8       | B1/500                  |      | G1/500 |
| BVH  | (80°-90°)   | 16.2    | 0.1       |                         |      | G1/100 |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |        |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |        |

**BUG Rating: B2-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 40°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4720.3  | 4720.3  | 4720.3  | 4720.3  | 4720.3  | 4720.3  | 4720.3  | 4720.3  | 4720.3  | 4720.3  | 4720.3  |
| 2.5°  | 5182.9  | 5154.7  | 5137.8  | 5115.2  | 5087.0  | 5062.6  | 5053.2  | 4983.6  | 4917.8  | 4827.5  | 4724.1  |
| 5°    | 5278.8  | 5269.4  | 5239.4  | 5209.3  | 5175.4  | 5137.8  | 5117.1  | 5034.4  | 4940.3  | 4808.7  | 4628.2  |
| 7.5°  | 5288.2  | 5277.0  | 5239.4  | 5198.0  | 5151.0  | 5105.8  | 5070.1  | 4987.4  | 4900.8  | 4767.3  | 4547.3  |
| 10°   | 5273.2  | 5260.0  | 5231.8  | 5186.7  | 5128.4  | 5085.1  | 5049.4  | 4970.4  | 4897.1  | 4776.7  | 4532.2  |
| 12.5° | 5256.3  | 5243.1  | 5229.9  | 5207.4  | 5156.6  | 5126.5  | 5096.4  | 5021.2  | 4955.4  | 4853.8  | 4586.8  |
| 15°   | 5273.2  | 5265.7  | 5280.7  | 5271.3  | 5243.1  | 5216.8  | 5186.7  | 5119.0  | 5058.8  | 4974.2  | 4686.5  |
| 17.5° | 5344.7  | 5344.7  | 5391.7  | 5397.3  | 5371.0  | 5333.4  | 5290.1  | 5222.4  | 5171.7  | 5100.2  | 4804.9  |
| 20°   | 5512.0  | 5506.4  | 5566.6  | 5577.9  | 5513.9  | 5455.6  | 5391.7  | 5308.9  | 5269.4  | 5224.3  | 4921.5  |
| 22.5° | 5799.8  | 5773.4  | 5809.2  | 5797.9  | 5671.9  | 5581.6  | 5502.6  | 5401.1  | 5380.4  | 5359.7  | 5051.3  |
| 25°   | 6174.0  | 6159.0  | 6183.4  | 6072.5  | 5850.5  | 5728.3  | 5634.3  | 5519.6  | 5519.6  | 5540.2  | 5198.0  |
| 27.5° | 6717.5  | 6661.1  | 6578.3  | 6382.8  | 6049.9  | 5893.8  | 5792.2  | 5670.0  | 5702.0  | 5779.1  | 5391.7  |
| 30°   | 7274.2  | 7212.1  | 7022.2  | 6721.3  | 6292.5  | 6128.9  | 6010.4  | 5882.5  | 5957.7  | 6098.8  | 5651.2  |
| 32.5° | 7823.3  | 7753.7  | 7484.8  | 7104.9  | 6640.4  | 6476.8  | 6362.1  | 6221.0  | 6347.0  | 6584.0  | 6031.1  |
| 35°   | 8355.5  | 8293.4  | 7983.1  | 7535.6  | 7103.0  | 6967.6  | 6862.3  | 6740.1  | 6901.8  | 7232.8  | 6567.1  |
| 37.5° | 8953.5  | 8885.8  | 8507.8  | 8022.6  | 7665.3  | 7567.5  | 7490.4  | 7368.2  | 7650.3  | 8135.5  | 7313.7  |
| 40°   | 9688.9  | 9574.1  | 9064.5  | 8581.2  | 8316.0  | 8269.0  | 8216.3  | 8199.4  | 8637.6  | 9309.0  | 8308.5  |
| 42.5° | 10531.4 | 10343.3 | 9647.5  | 9169.8  | 9030.6  | 9064.5  | 9051.3  | 9126.6  | 9873.2  | 10768.3 | 9519.6  |
| 45°   | 11373.9 | 11131.3 | 10296.3 | 9797.9  | 9816.7  | 9935.2  | 10008.6 | 10309.4 | 11420.9 | 12442.0 | 10822.9 |
| 47.5° | 12088.5 | 11849.7 | 10918.8 | 10476.8 | 10702.5 | 10935.7 | 11135.0 | 11704.9 | 13011.9 | 14089.5 | 11836.5 |
| 50°   | 12699.7 | 12474.0 | 11578.9 | 11223.4 | 11731.2 | 12107.3 | 12430.8 | 13275.2 | 14723.2 | 15343.8 | 12547.4 |
| 52.5° | 13199.9 | 13049.5 | 12263.4 | 12079.1 | 12906.6 | 13457.6 | 13931.5 | 14943.2 | 16239.0 | 16363.1 | 13100.3 |
| 55°   | 13687.0 | 13579.8 | 12998.7 | 13096.5 | 14286.9 | 15037.3 | 15637.2 | 16712.9 | 17544.1 | 17213.1 | 13630.6 |
| 57.5° | 14247.4 | 14149.6 | 13837.5 | 14386.6 | 16101.7 | 17045.8 | 17700.2 | 18281.3 | 18693.2 | 18082.0 | 14130.8 |
| 60°   | 14819.1 | 14762.7 | 14770.2 | 15819.6 | 18185.4 | 19091.9 | 19452.9 | 19603.4 | 19821.5 | 18900.0 | 14159.0 |
| 62.5° | 15364.5 | 15471.7 | 15836.5 | 17414.4 | 20180.7 | 20876.5 | 21059.0 | 21207.5 | 20951.8 | 19029.8 | 13081.5 |
| 65°   | 16287.9 | 16462.8 | 17333.5 | 19548.8 | 22375.4 | 23120.1 | 23308.2 | 22798.5 | 21130.4 | 17352.3 | 10640.4 |
| 67.5° | 16739.2 | 17058.9 | 18612.3 | 21538.5 | 24504.2 | 25331.7 | 25262.1 | 22901.9 | 18962.1 | 13231.9 | 6828.5  |
| 69°   | 16645.2 | 16985.6 | 18907.6 | 22147.8 | 25211.3 | 25961.7 | 25519.7 | 21636.3 | 16154.4 | 9585.4  | 4191.9  |
| 70°   | 16272.8 | 16617.0 | 18755.2 | 22125.3 | 25301.6 | 25895.9 | 25042.1 | 20073.5 | 13658.8 | 7009.0  | 2621.6  |
| 72.5° | 13589.2 | 13886.4 | 16650.8 | 19998.3 | 23308.2 | 22824.8 | 20949.9 | 13907.0 | 6655.4  | 1908.8  | 590.5   |
| 75°   | 8364.9  | 8530.4  | 11947.5 | 15065.5 | 17604.3 | 16363.1 | 13957.8 | 6918.7  | 1984.0  | 539.7   | 327.2   |
| 77.5° | 4419.4  | 4494.6  | 6540.7  | 8880.2  | 11159.5 | 9233.7  | 7153.8  | 2698.7  | 914.0   | 338.5   | 237.0   |
| 80°   | 2612.2  | 2668.6  | 3522.4  | 4060.2  | 4829.4  | 4033.9  | 2860.4  | 1656.8  | 654.4   | 212.5   | 210.6   |
| 82.5° | 1495.1  | 1530.8  | 2553.9  | 2256.7  | 1903.2  | 1624.8  | 1423.6  | 1570.3  | 393.0   | 142.9   | 218.1   |
| 85°   | 549.1   | 556.7   | 1436.8  | 1717.0  | 1132.1  | 673.3   | 707.1   | 1301.4  | 105.3   | 90.3    | 171.1   |
| 87.5° | 255.8   | 250.1   | 739.1   | 1051.3  | 662.0   | 426.9   | 551.0   | 285.9   | 41.4    | 58.3    | 47.0    |
| 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°    | 4720.3  | 4720.3 | 4720.3 | 4720.3 | 4720.3 | 4720.3 | 4720.3 | 4720.3 | 4720.3 | 4720.3 | 4720.3 |
| 2.5°  | 4663.9  | 4594.3 | 4468.3 | 4338.5 | 4206.9 | 4105.3 | 4005.7 | 3926.7 | 3900.4 | 3851.5 | 3855.2 |
| 5°    | 4521.0  | 4393.1 | 4129.8 | 3862.8 | 3584.4 | 3355.0 | 3138.7 | 2963.8 | 2879.2 | 2792.7 | 2792.7 |
| 7.5°  | 4396.8  | 4210.7 | 3798.8 | 3364.4 | 2914.9 | 2536.9 | 2196.5 | 1940.8 | 1799.7 | 1686.9 | 1685.0 |
| 10°   | 4349.8  | 4097.8 | 3522.4 | 2899.9 | 2273.6 | 1758.4 | 1354.0 | 1094.5 | 961.0  | 874.5  | 870.7  |
| 12.5° | 4370.5  | 4058.3 | 3309.9 | 2471.1 | 1685.0 | 1130.2 | 784.2  | 616.8  | 560.4  | 534.1  | 534.1  |
| 15°   | 4430.7  | 4047.1 | 3097.3 | 2051.7 | 1190.4 | 707.1  | 520.9  | 475.8  | 472.0  | 472.0  | 472.0  |
| 17.5° | 4504.0  | 4050.8 | 2879.2 | 1643.6 | 810.5  | 505.9  | 449.5  | 443.8  | 447.6  | 447.6  | 447.6  |
| 20°   | 4579.3  | 4052.7 | 2644.1 | 1265.6 | 571.7  | 440.1  | 423.1  | 421.3  | 425.0  | 425.0  | 426.9  |
| 22.5° | 4671.4  | 4062.1 | 2409.0 | 945.9  | 472.0  | 415.6  | 402.4  | 402.4  | 404.3  | 404.3  | 402.4  |
| 25°   | 4776.7  | 4080.9 | 2164.6 | 701.5  | 430.7  | 398.7  | 387.4  | 385.5  | 387.4  | 385.5  | 383.6  |
| 27.5° | 4908.4  | 4107.2 | 1891.9 | 549.1  | 411.9  | 381.8  | 372.4  | 372.4  | 370.5  | 368.6  | 366.7  |
| 30°   | 5073.9  | 4137.3 | 1585.3 | 466.4  | 393.0  | 366.7  | 357.3  | 355.4  | 353.6  | 349.8  | 349.8  |
| 32.5° | 5325.9  | 4203.1 | 1282.6 | 423.1  | 372.4  | 346.0  | 338.5  | 338.5  | 334.7  | 331.0  | 329.1  |
| 35°   | 5713.3  | 4332.9 | 1011.8 | 396.8  | 349.8  | 323.5  | 314.1  | 314.1  | 310.3  | 308.4  | 306.5  |
| 37.5° | 6249.2  | 4530.4 | 786.1  | 372.4  | 327.2  | 299.0  | 289.6  | 287.7  | 284.0  | 280.2  | 278.3  |
| 40°   | 6962.0  | 4774.8 | 618.7  | 349.8  | 304.7  | 274.6  | 267.0  | 263.3  | 255.8  | 250.1  | 250.1  |
| 42.5° | 7857.1  | 5053.2 | 502.1  | 325.3  | 278.3  | 252.0  | 246.4  | 240.7  | 227.6  | 221.9  | 220.0  |
| 45°   | 8793.7  | 5303.3 | 425.0  | 297.1  | 252.0  | 229.4  | 225.7  | 216.3  | 199.3  | 193.7  | 193.7  |
| 47.5° | 9468.8  | 5361.6 | 374.2  | 270.8  | 227.6  | 205.0  | 203.1  | 186.2  | 171.1  | 167.4  | 165.5  |
| 50°   | 9890.1  | 5246.9 | 332.9  | 244.5  | 205.0  | 182.4  | 176.8  | 156.1  | 146.7  | 142.9  | 141.0  |
| 52.5° | 10174.0 | 5041.9 | 299.0  | 221.9  | 184.3  | 161.7  | 148.6  | 133.5  | 126.0  | 122.2  | 122.2  |
| 55°   | 10401.6 | 4752.3 | 265.2  | 201.2  | 167.4  | 144.8  | 126.0  | 114.7  | 107.2  | 103.4  | 103.4  |
| 57.5° | 10465.5 | 4359.2 | 231.3  | 184.3  | 150.4  | 127.9  | 107.2  | 99.7   | 90.3   | 88.4   | 88.4   |
| 60°   | 10001.0 | 3650.2 | 205.0  | 163.6  | 135.4  | 111.0  | 94.0   | 84.6   | 75.2   | 73.3   | 71.5   |
| 62.5° | 8776.8  | 2824.7 | 180.5  | 144.8  | 118.5  | 95.9   | 80.9   | 69.6   | 62.1   | 62.1   | 62.1   |
| 65°   | 6694.9  | 1893.8 | 158.0  | 126.0  | 103.4  | 80.9   | 69.6   | 56.4   | 52.7   | 52.7   | 54.5   |
| 67.5° | 4007.6  | 1030.6 | 135.4  | 107.2  | 88.4   | 67.7   | 58.3   | 48.9   | 47.0   | 48.9   | 48.9   |
| 69°   | 2348.9  | 605.6  | 122.2  | 95.9   | 77.1   | 60.2   | 50.8   | 43.3   | 47.0   | 48.9   | 48.9   |
| 70°   | 1449.9  | 408.1  | 112.8  | 86.5   | 69.6   | 54.5   | 47.0   | 41.4   | 45.1   | 47.0   | 47.0   |
| 72.5° | 404.3   | 210.6  | 90.3   | 67.7   | 56.4   | 45.1   | 37.6   | 37.6   | 43.3   | 45.1   | 45.1   |
| 75°   | 263.3   | 156.1  | 69.6   | 50.8   | 43.3   | 35.7   | 32.0   | 35.7   | 41.4   | 43.3   | 43.3   |
| 77.5° | 218.1   | 127.9  | 56.4   | 41.4   | 35.7   | 33.9   | 30.1   | 32.0   | 37.6   | 39.5   | 39.5   |
| 80°   | 199.3   | 90.3   | 45.1   | 37.6   | 32.0   | 30.1   | 28.2   | 26.3   | 33.9   | 35.7   | 35.7   |
| 82.5° | 189.9   | 71.5   | 39.5   | 33.9   | 30.1   | 26.3   | 24.4   | 26.3   | 30.1   | 32.0   | 33.9   |
| 85°   | 118.5   | 47.0   | 35.7   | 32.0   | 26.3   | 24.4   | 24.4   | 24.4   | 28.2   | 30.1   | 30.1   |
| 87.5° | 43.3    | 37.6   | 32.0   | 26.3   | 22.6   | 22.6   | 22.6   | 22.6   | 24.4   | 28.2   | 28.2   |
| 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)