

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: P194587

Luminaire Tested: **GLEON-AF-09-LED-E1-SL4-7060-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P194587  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24294)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLEON-AF-09-LED-E1-SL4-7060-800  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 5700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 40854 lumens  
Efficiency: N/A  
Efficacy: 109.2 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-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: 25 FT



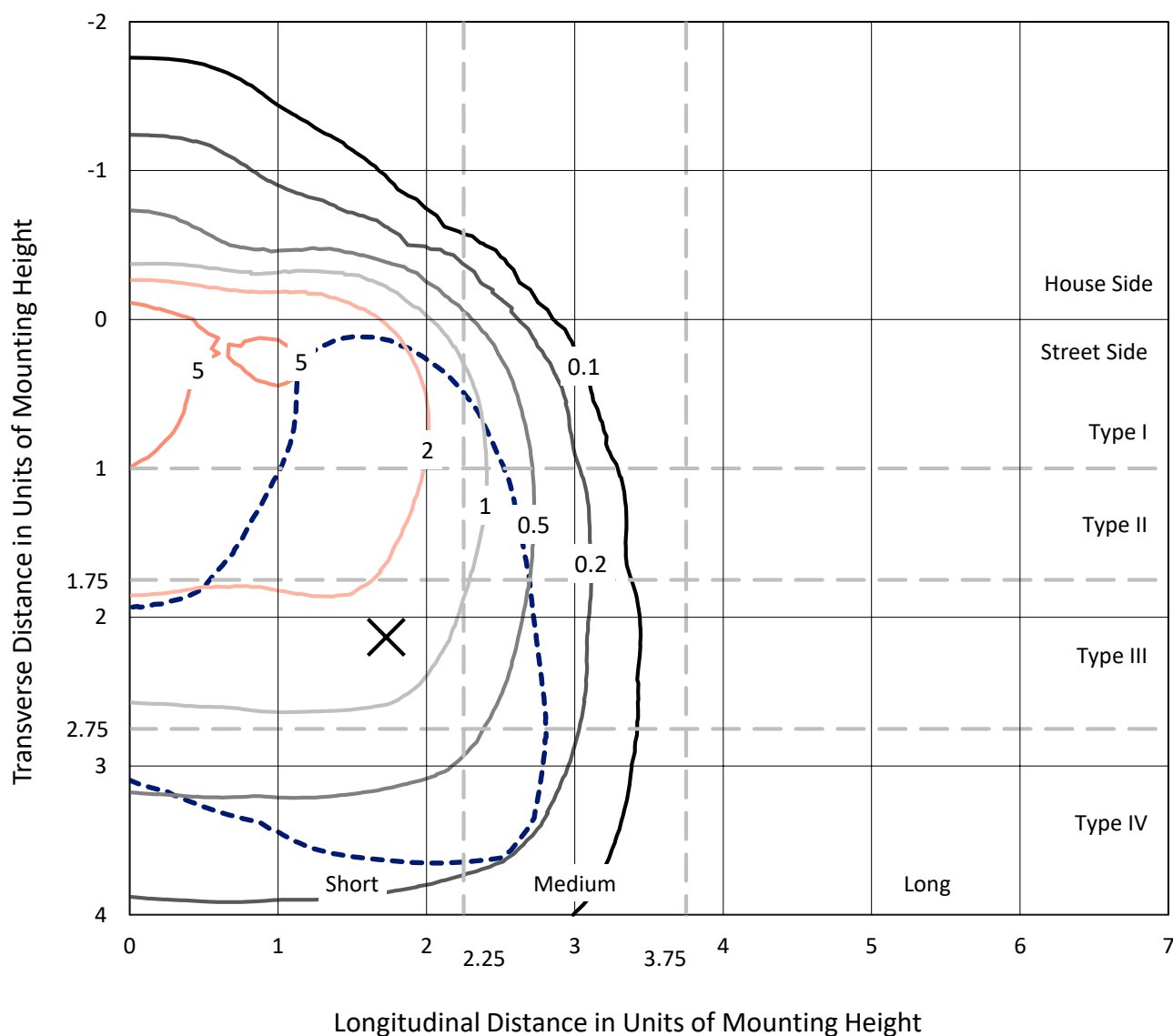
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

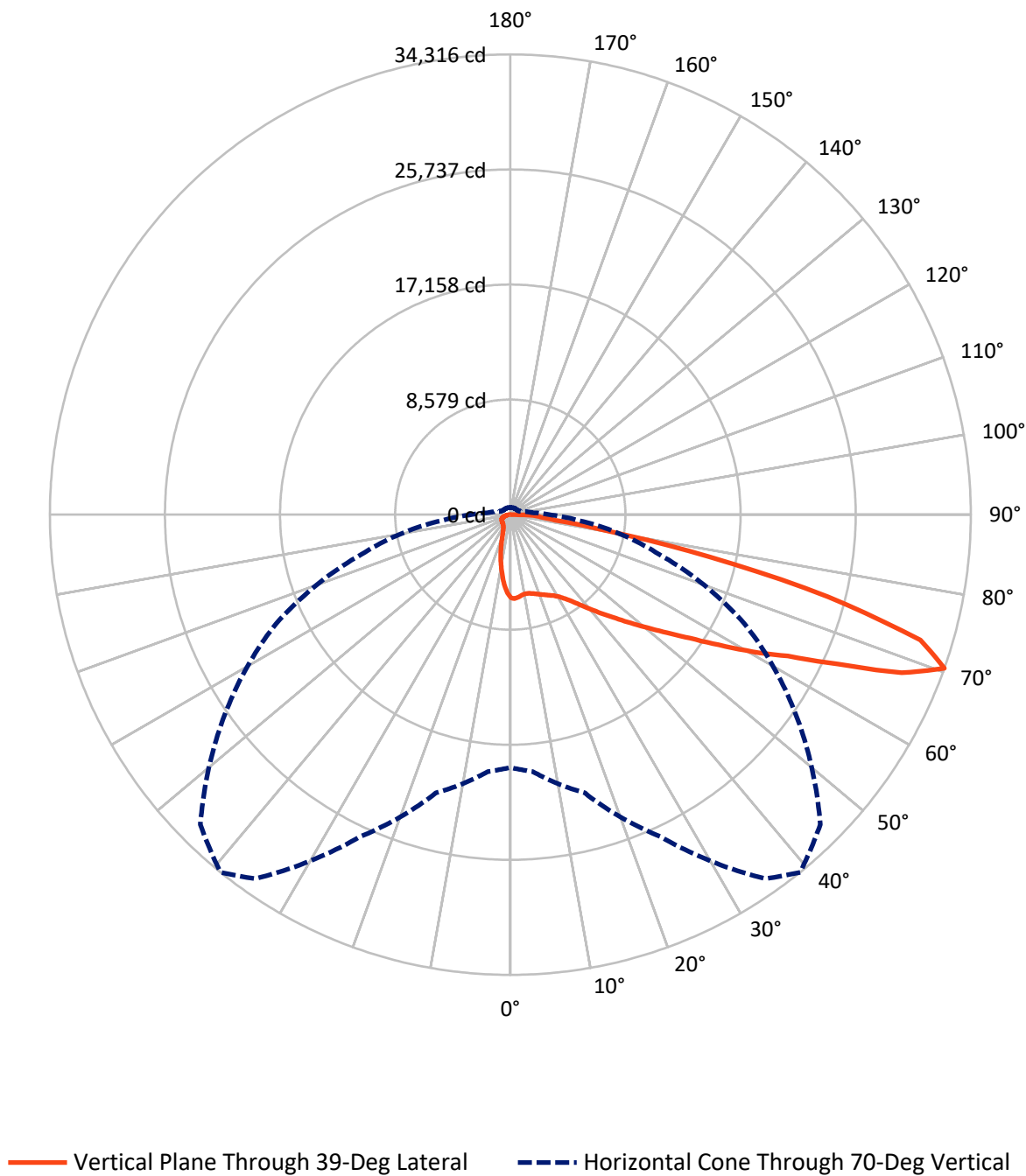


Based on 30 foot mounting height. Maximum calculated value = 6.9 fc  
 Type IV - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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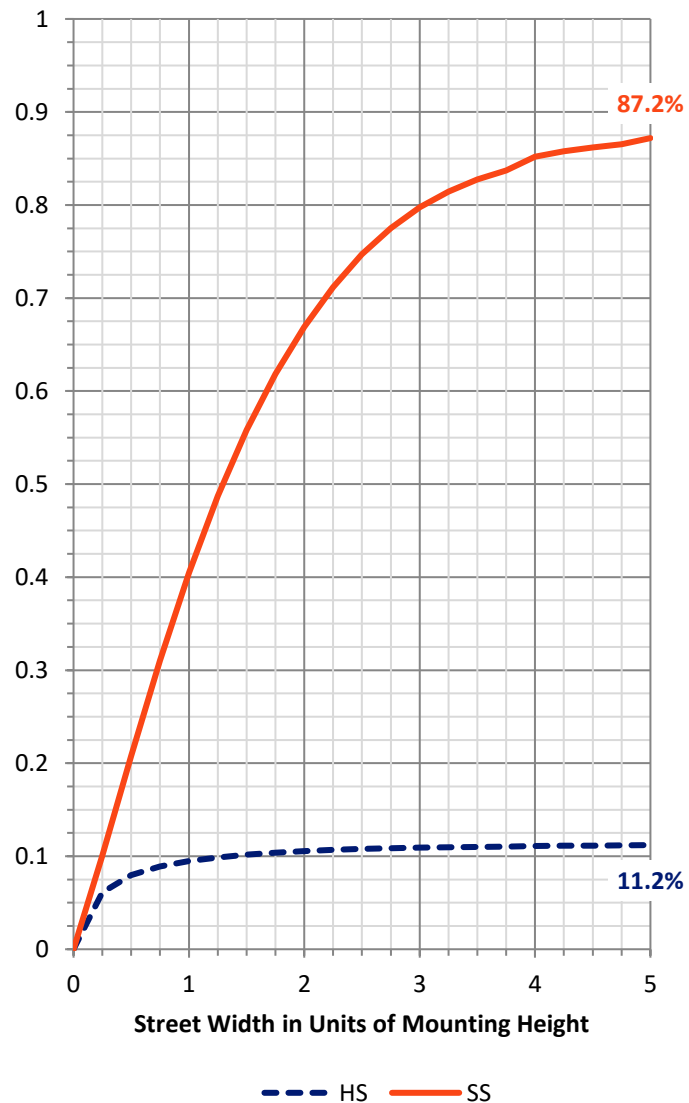
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4646.5   | 0.0    | 4646.5  |
|                    | % Fixture | 11.4     | 0.0    | 11.4    |
| <b>Street Side</b> | Lumens    | 36207.5  | 0.0    | 36207.5 |
|                    | % Fixture | 88.6     | 0.0    | 88.6    |
| <b>Total</b>       | Lumens    | 40854.0  | 0.0    | 40854.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 532.3   | 1.3       |
| 10°-20°   | 1330.5  | 3.3       |
| 20°-30°   | 2071.6  | 5.1       |
| 30°-40°   | 3227.2  | 7.9       |
| 40°-50°   | 5417.9  | 13.3      |
| 50°-60°   | 8606.7  | 21.1      |
| 60°-70°   | 11480.4 | 28.1      |
| 70°-80°   | 6932.7  | 17.0      |
| 80°-90°   | 1254.7  | 3.1       |
| 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°    | 40854.0 | 100.0     |
| 0°-180°   | 40854.0 | 100.0     |

**Coefficient of Utilization**



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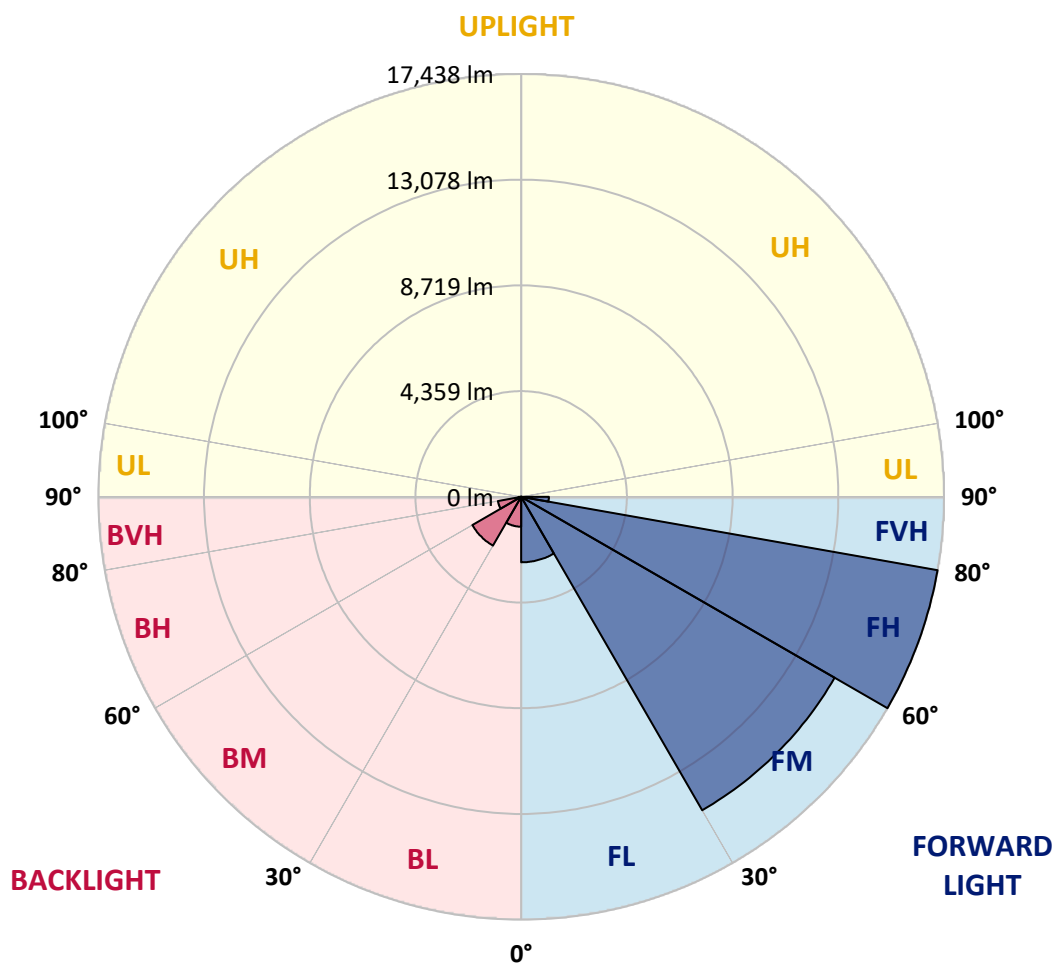
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2701.7  | 6.6       |                         |      |         |
| FM   | (30°-60°)   | 14926.5 | 36.5      |                         |      |         |
| FH   | (60°-80°)   | 17437.7 | 42.7      |                         |      | G5      |
| FVH  | (80°-90°)   | 1141.6  | 2.8       |                         |      | G5      |
| BL   | (0°-30°)    | 1232.6  | 3.0       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 2325.3  | 5.7       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 975.5   | 2.4       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 113.1   | 0.3       |                         |      | 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 IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 39°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6202.3  | 6202.3  | 6202.3  | 6202.3  | 6202.3  | 6202.3  | 6202.3  | 6202.3  | 6202.3  | 6202.3  | 6202.3  |
| 2.5°  | 6322.7  | 6320.7  | 6304.0  | 6291.6  | 6281.2  | 6277.0  | 6285.4  | 6254.2  | 6227.2  | 6194.0  | 6158.7  |
| 5°    | 6275.0  | 6272.9  | 6245.9  | 6221.0  | 6196.0  | 6187.7  | 6185.7  | 6129.6  | 6096.3  | 6046.5  | 5980.0  |
| 7.5°  | 6223.0  | 6212.7  | 6177.3  | 6135.8  | 6092.2  | 6071.4  | 6050.6  | 5977.9  | 5940.6  | 5890.7  | 5813.8  |
| 10°   | 6169.0  | 6156.6  | 6123.3  | 6081.8  | 6040.3  | 6009.1  | 5973.8  | 5903.2  | 5863.7  | 5826.3  | 5737.0  |
| 12.5° | 6113.0  | 6102.6  | 6094.3  | 6075.6  | 6046.5  | 6019.5  | 5992.5  | 5932.2  | 5890.7  | 5847.1  | 5743.2  |
| 15°   | 6104.6  | 6100.5  | 6119.2  | 6131.6  | 6115.0  | 6098.4  | 6069.3  | 6017.4  | 5973.8  | 5930.2  | 5795.2  |
| 17.5° | 6171.1  | 6169.0  | 6216.8  | 6250.0  | 6241.7  | 6212.7  | 6173.2  | 6115.0  | 6079.7  | 6042.3  | 5874.1  |
| 20°   | 6316.5  | 6326.9  | 6385.1  | 6428.7  | 6387.1  | 6345.6  | 6281.2  | 6200.2  | 6181.5  | 6164.9  | 5955.1  |
| 22.5° | 6590.7  | 6601.1  | 6642.6  | 6659.2  | 6551.2  | 6491.0  | 6401.7  | 6297.8  | 6285.4  | 6297.8  | 6052.7  |
| 25°   | 7018.6  | 7008.2  | 7002.0  | 6939.6  | 6742.3  | 6648.9  | 6534.6  | 6426.6  | 6432.8  | 6488.9  | 6189.8  |
| 27.5° | 7585.6  | 7529.5  | 7442.3  | 7255.4  | 6941.7  | 6837.9  | 6698.7  | 6599.0  | 6638.5  | 6746.5  | 6395.4  |
| 30°   | 8173.5  | 8111.1  | 7909.7  | 7604.3  | 7203.4  | 7089.2  | 6933.4  | 6821.3  | 6925.1  | 7095.4  | 6669.6  |
| 32.5° | 8717.7  | 8709.4  | 8414.4  | 8021.8  | 7564.9  | 7465.2  | 7309.4  | 7182.7  | 7350.9  | 7610.6  | 7080.9  |
| 35°   | 9311.7  | 9330.4  | 8977.3  | 8505.8  | 8053.0  | 7949.1  | 7837.0  | 7741.4  | 7965.7  | 8323.0  | 7677.0  |
| 37.5° | 9947.3  | 9984.7  | 9567.2  | 9035.5  | 8609.6  | 8566.0  | 8499.6  | 8458.0  | 8804.9  | 9299.3  | 8509.9  |
| 40°   | 10796.9 | 10759.5 | 10179.9 | 9633.7  | 9293.0  | 9290.9  | 9270.2  | 9320.0  | 9897.5  | 10574.6 | 9579.7  |
| 42.5° | 11706.6 | 11596.5 | 10830.1 | 10275.5 | 10042.9 | 10113.5 | 10155.0 | 10358.6 | 11212.3 | 12124.1 | 10884.1 |
| 45°   | 12687.0 | 12439.9 | 11505.1 | 10954.7 | 10875.8 | 11025.3 | 11166.6 | 11609.0 | 12759.7 | 13887.6 | 12313.1 |
| 47.5° | 13470.1 | 13231.2 | 12203.1 | 11667.2 | 11839.6 | 12066.0 | 12338.1 | 13038.1 | 14492.0 | 15709.2 | 13723.5 |
| 50°   | 14087.0 | 13931.2 | 12907.2 | 12498.0 | 12901.0 | 13249.9 | 13694.4 | 14656.1 | 16295.0 | 17483.1 | 15030.0 |
| 52.5° | 14685.2 | 14568.9 | 13617.6 | 13349.6 | 14147.2 | 14629.1 | 15233.6 | 16392.6 | 18143.6 | 19227.9 | 16128.8 |
| 55°   | 15225.3 | 15142.2 | 14382.0 | 14411.0 | 15613.7 | 16241.0 | 17001.2 | 18370.0 | 20158.4 | 20783.6 | 17059.4 |
| 57.5° | 15833.9 | 15727.9 | 15254.3 | 15742.5 | 17497.6 | 18311.9 | 19300.6 | 20592.5 | 22048.6 | 22167.0 | 17767.7 |
| 60°   | 16446.6 | 16355.2 | 16222.3 | 17279.5 | 19890.5 | 20746.2 | 21683.0 | 22746.5 | 23965.8 | 23240.9 | 17726.1 |
| 62.5° | 16978.4 | 16988.7 | 17223.5 | 18893.5 | 22233.5 | 23224.2 | 24366.7 | 25417.7 | 25700.2 | 23427.8 | 16415.5 |
| 65°   | 17879.8 | 18043.9 | 18743.9 | 21178.3 | 25531.9 | 26857.1 | 28259.2 | 28090.9 | 26180.0 | 21680.9 | 13605.1 |
| 67.5° | 18951.6 | 19240.3 | 20659.0 | 24223.3 | 29700.7 | 31460.0 | 32002.1 | 28695.4 | 24258.6 | 17624.3 | 9698.1  |
| 70°   | 18843.6 | 19240.3 | 21485.7 | 26493.6 | 33136.2 | 34316.0 | 32671.0 | 25970.2 | 19263.2 | 11513.5 | 5151.2  |
| 72.5° | 16733.3 | 17300.3 | 19801.2 | 25453.0 | 32054.1 | 31950.2 | 28363.0 | 19360.8 | 11444.9 | 4623.7  | 2012.7  |
| 75°   | 12753.5 | 13326.8 | 15478.7 | 20108.6 | 25334.6 | 24462.2 | 20125.2 | 10695.1 | 4343.3  | 1836.2  | 1269.1  |
| 77.5° | 7336.4  | 7780.9  | 9442.6  | 12331.8 | 16072.7 | 15177.5 | 11201.9 | 4756.6  | 2114.5  | 1279.5  | 990.8   |
| 80°   | 4096.1  | 4343.3  | 5352.7  | 6256.3  | 7876.4  | 7220.1  | 5012.1  | 2955.7  | 1578.6  | 928.5   | 764.4   |
| 82.5° | 3238.2  | 3458.4  | 4328.7  | 3946.5  | 3597.6  | 3319.2  | 2878.9  | 2631.7  | 1260.8  | 585.7   | 457.0   |
| 85°   | 2829.0  | 3038.8  | 3664.0  | 3107.4  | 2457.2  | 2253.7  | 2338.8  | 2590.2  | 980.4   | 353.1   | 390.5   |
| 87.5° | 2621.3  | 2901.7  | 3265.2  | 2394.9  | 1913.0  | 1694.9  | 2158.1  | 2839.4  | 315.7   | 220.2   | 157.9   |
| 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°    | 6202.3  | 6202.3 | 6202.3 | 6202.3 | 6202.3 | 6202.3 | 6202.3 | 6202.3 | 6202.3 | 6202.3 | 6202.3 |
| 2.5°  | 6127.5  | 6094.3 | 6040.3 | 5992.5 | 5917.7 | 5878.2 | 5834.6 | 5803.5 | 5778.5 | 5757.8 | 5791.0 |
| 5°    | 5938.5  | 5876.2 | 5761.9 | 5639.4 | 5494.0 | 5379.7 | 5284.2 | 5194.9 | 5132.6 | 5091.0 | 5120.1 |
| 7.5°  | 5759.8  | 5658.1 | 5479.4 | 5257.2 | 5007.9 | 4796.1 | 4621.6 | 4467.9 | 4361.9 | 4293.4 | 4320.4 |
| 10°   | 5658.1  | 5531.4 | 5255.1 | 4906.1 | 4538.5 | 4208.2 | 3934.1 | 3697.3 | 3533.2 | 3439.7 | 3454.2 |
| 12.5° | 5633.1  | 5469.0 | 5086.9 | 4607.0 | 4104.4 | 3645.3 | 3259.0 | 2930.8 | 2700.3 | 2579.8 | 2583.9 |
| 15°   | 5651.8  | 5442.0 | 4929.0 | 4320.4 | 3684.8 | 3105.3 | 2623.4 | 2224.6 | 1956.6 | 1819.6 | 1817.5 |
| 17.5° | 5683.0  | 5421.3 | 4762.8 | 4010.9 | 3259.0 | 2586.0 | 2048.0 | 1657.5 | 1420.7 | 1310.7 | 1302.4 |
| 20°   | 5716.2  | 5388.0 | 4575.9 | 3676.5 | 2816.6 | 2104.1 | 1603.5 | 1298.2 | 1148.6 | 1088.4 | 1084.3 |
| 22.5° | 5764.0  | 5359.0 | 4382.7 | 3323.4 | 2382.5 | 1713.6 | 1319.0 | 1113.3 | 1034.4 | 1003.2 | 999.1  |
| 25°   | 5840.9  | 5344.4 | 4177.1 | 2955.7 | 1992.0 | 1433.2 | 1148.6 | 1021.9 | 976.2  | 955.5  | 953.4  |
| 27.5° | 5969.6  | 5365.2 | 3983.9 | 2598.5 | 1674.2 | 1244.2 | 1053.1 | 976.2  | 943.0  | 924.3  | 922.2  |
| 30°   | 6135.8  | 5429.6 | 3780.4 | 2259.9 | 1427.0 | 1115.4 | 994.9  | 945.1  | 918.1  | 899.4  | 899.4  |
| 32.5° | 6412.1  | 5537.6 | 3566.4 | 1967.0 | 1250.4 | 1026.1 | 951.3  | 918.1  | 895.2  | 880.7  | 878.6  |
| 35°   | 6819.2  | 5741.2 | 3367.0 | 1724.0 | 1123.7 | 961.7  | 913.9  | 889.0  | 872.4  | 864.1  | 864.1  |
| 37.5° | 7411.2  | 6063.1 | 3190.5 | 1549.5 | 1046.9 | 918.1  | 878.6  | 859.9  | 849.5  | 849.5  | 849.5  |
| 40°   | 8206.7  | 6507.6 | 3047.1 | 1433.2 | 1003.2 | 886.9  | 851.6  | 837.1  | 830.8  | 832.9  | 832.9  |
| 42.5° | 9189.2  | 7085.0 | 2951.6 | 1352.2 | 982.5  | 868.2  | 832.9  | 820.5  | 814.2  | 812.2  | 814.2  |
| 45°   | 10308.7 | 7741.4 | 2941.2 | 1292.0 | 961.7  | 855.8  | 820.5  | 808.0  | 795.5  | 787.2  | 787.2  |
| 47.5° | 11397.1 | 8408.2 | 3026.4 | 1271.2 | 938.9  | 841.2  | 810.1  | 797.6  | 778.9  | 760.2  | 760.2  |
| 50°   | 12358.8 | 8975.2 | 3140.6 | 1279.5 | 930.5  | 820.5  | 793.5  | 787.2  | 758.1  | 737.4  | 735.3  |
| 52.5° | 13123.2 | 9411.4 | 3234.1 | 1304.4 | 938.9  | 805.9  | 772.7  | 774.8  | 743.6  | 720.8  | 718.7  |
| 55°   | 13736.0 | 9698.1 | 3209.1 | 1329.4 | 957.6  | 797.6  | 754.0  | 758.1  | 733.2  | 710.4  | 710.4  |
| 57.5° | 14003.9 | 9592.1 | 2932.9 | 1308.6 | 972.1  | 799.7  | 739.5  | 756.1  | 735.3  | 714.5  | 714.5  |
| 60°   | 13428.6 | 8651.2 | 2415.7 | 1217.2 | 953.4  | 793.5  | 733.2  | 764.4  | 762.3  | 741.5  | 739.5  |
| 62.5° | 11687.9 | 6966.6 | 1873.6 | 1082.2 | 889.0  | 762.3  | 716.6  | 762.3  | 785.2  | 778.9  | 776.8  |
| 65°   | 9008.5  | 4962.2 | 1431.1 | 936.8  | 801.8  | 710.4  | 673.0  | 714.5  | 745.7  | 754.0  | 751.9  |
| 67.5° | 5847.1  | 3040.9 | 1102.9 | 799.7  | 704.1  | 650.1  | 616.9  | 635.6  | 641.8  | 641.8  | 637.7  |
| 70°   | 2874.7  | 1636.8 | 878.6  | 673.0  | 604.4  | 585.7  | 567.1  | 556.7  | 546.3  | 538.0  | 538.0  |
| 72.5° | 1418.7  | 1069.7 | 722.8  | 569.1  | 521.4  | 513.0  | 508.9  | 496.4  | 488.1  | 477.7  | 473.6  |
| 75°   | 1048.9  | 870.3  | 614.8  | 479.8  | 448.7  | 440.3  | 448.7  | 438.3  | 436.2  | 427.9  | 423.7  |
| 77.5° | 862.0   | 741.5  | 529.7  | 411.3  | 384.3  | 369.7  | 382.2  | 384.3  | 386.3  | 373.9  | 369.7  |
| 80°   | 700.0   | 627.3  | 442.4  | 340.6  | 315.7  | 305.3  | 313.6  | 330.3  | 334.4  | 315.7  | 307.4  |
| 82.5° | 504.7   | 513.0  | 357.3  | 265.9  | 245.1  | 236.8  | 253.4  | 274.2  | 278.3  | 251.3  | 245.1  |
| 85°   | 423.7   | 427.9  | 274.2  | 189.0  | 168.2  | 155.8  | 182.8  | 203.6  | 218.1  | 191.1  | 184.9  |
| 87.5° | 176.6   | 251.3  | 157.9  | 105.9  | 93.5   | 81.0   | 97.6   | 108.0  | 130.9  | 120.5  | 118.4  |
| 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)