

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: P457740

Luminaire Tested: **GALN-SA9A-760-U-SL4-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P457740  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA9A-760-U-SL4-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 5700K, 615mA 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: 34102 lumens  
Efficiency: N/A  
Efficacy: 124.5 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G5

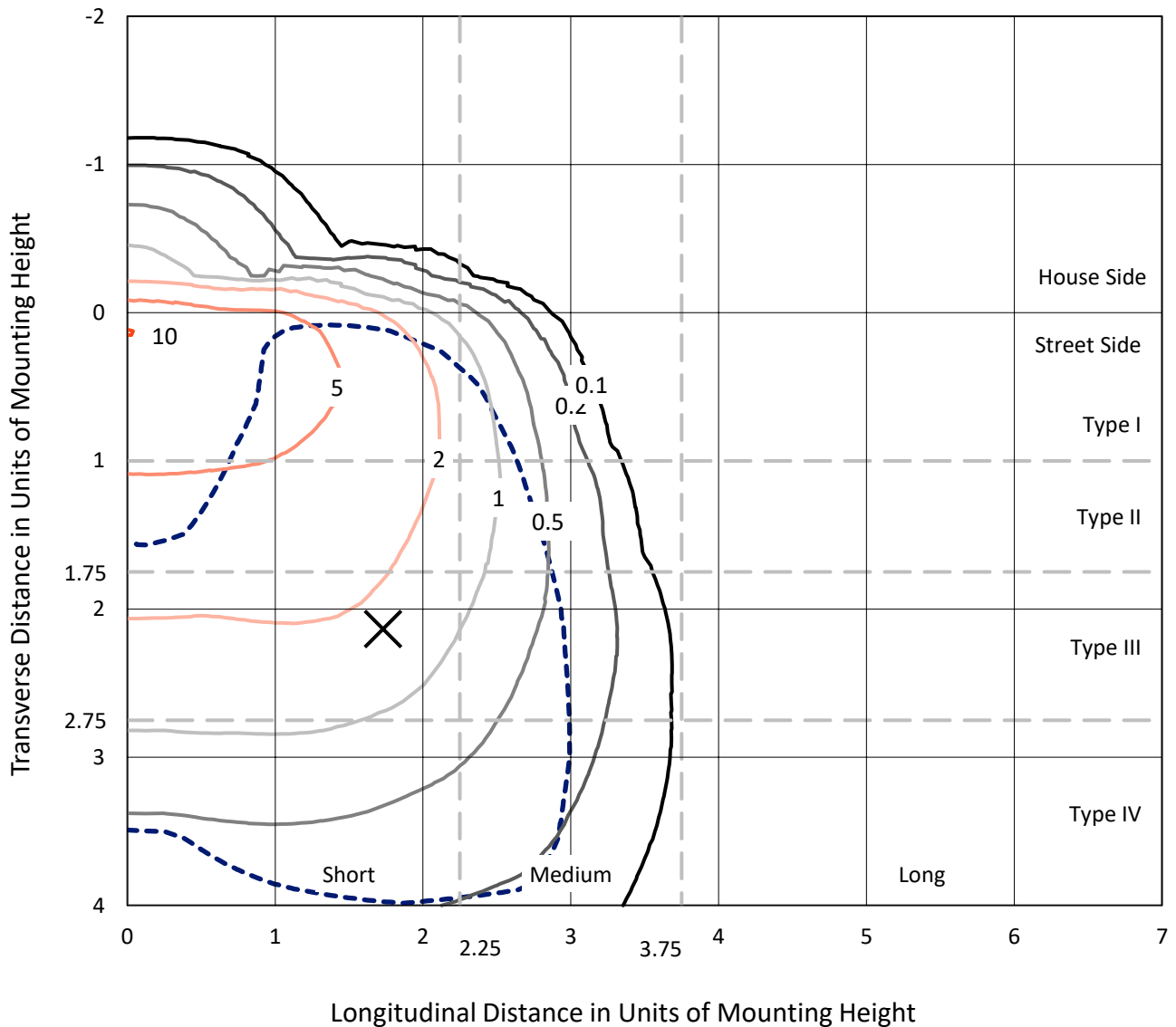
Input Watts (W): 274  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

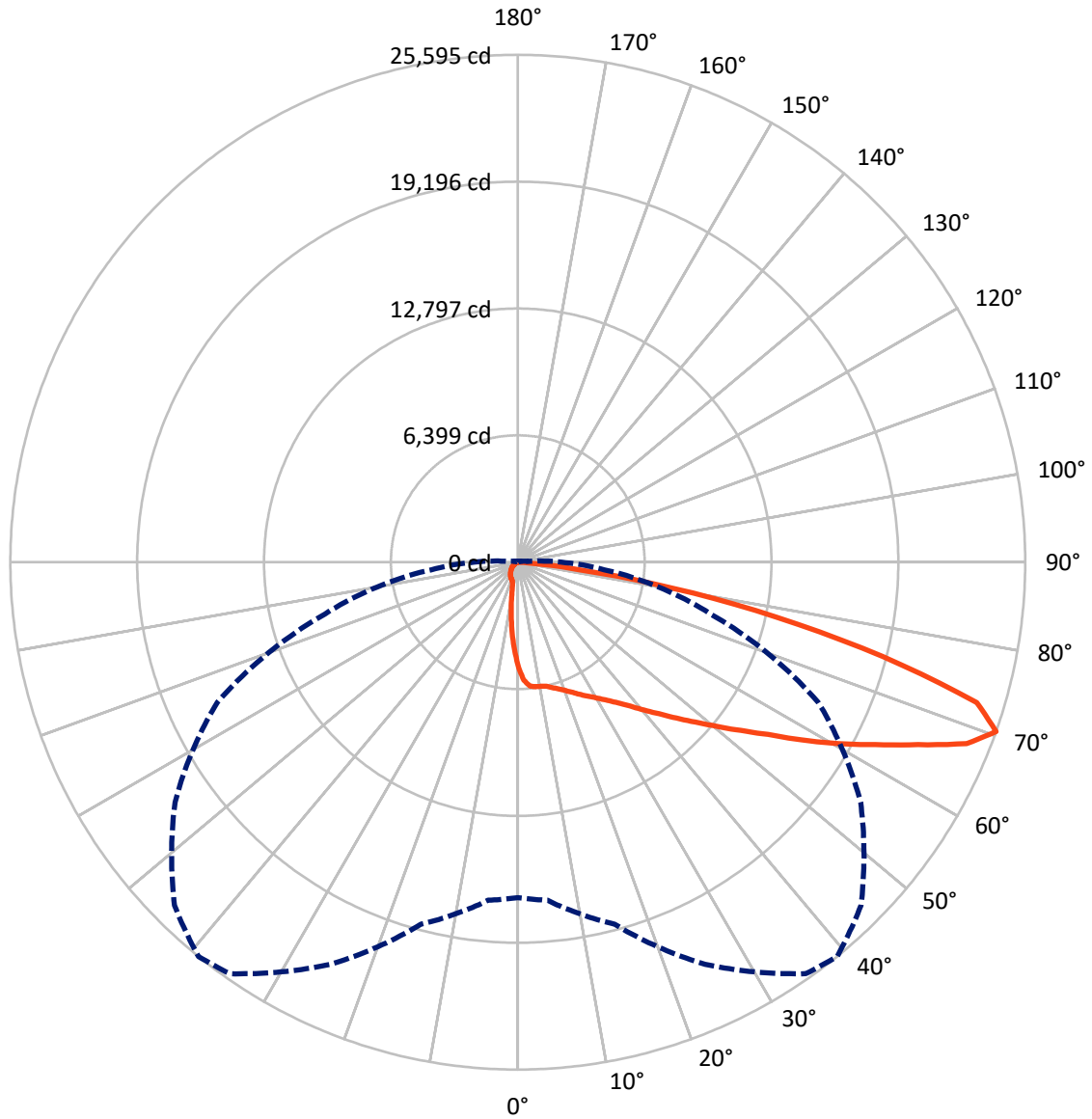
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical



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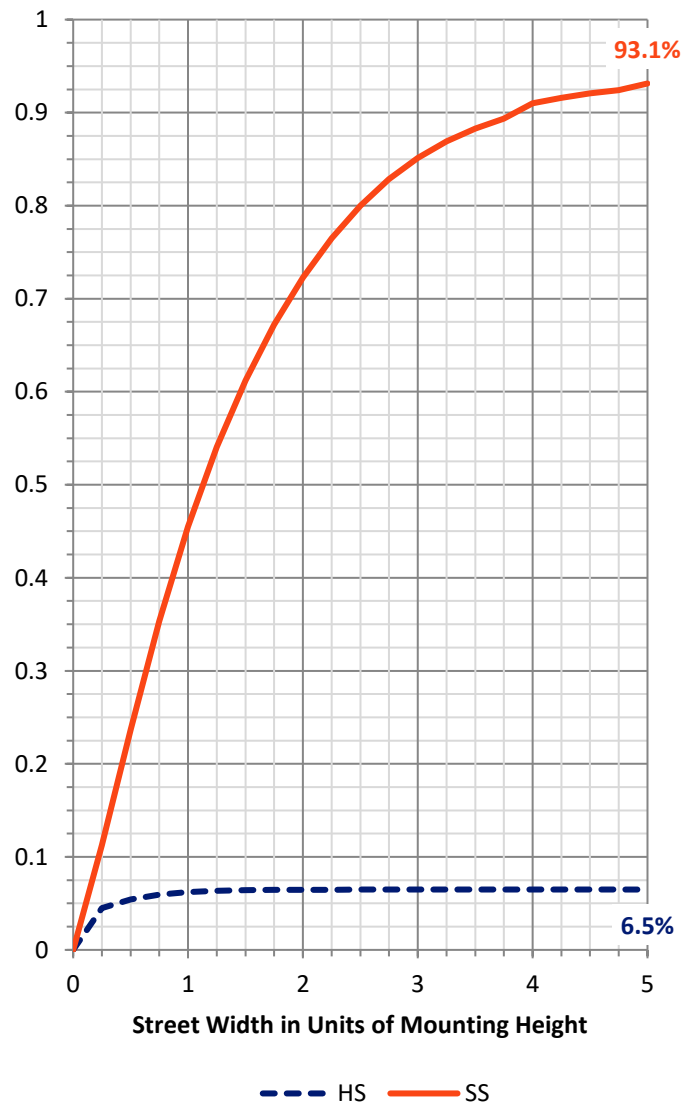
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2223.6   | 0.0    | 2223.6  |
|                    | % Fixture | 6.5      | 0.0    | 6.5     |
| <b>Street Side</b> | Lumens    | 31878.4  | 0.0    | 31878.4 |
|                    | % Fixture | 93.5     | 0.0    | 93.5    |
| <b>Total</b>       | Lumens    | 34102.0  | 0.0    | 34102.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 453.9   | 1.3       |
| 10°-20°   | 1179.4  | 3.5       |
| 20°-30°   | 1975.9  | 5.8       |
| 30°-40°   | 3064.3  | 9.0       |
| 40°-50°   | 4856.0  | 14.2      |
| 50°-60°   | 7118.2  | 20.9      |
| 60°-70°   | 9123.9  | 26.8      |
| 70°-80°   | 5733.1  | 16.8      |
| 80°-90°   | 597.3   | 1.8       |
| 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°    | 34102.0 | 100.0     |
| 0°-180°   | 34102.0 | 100.0     |



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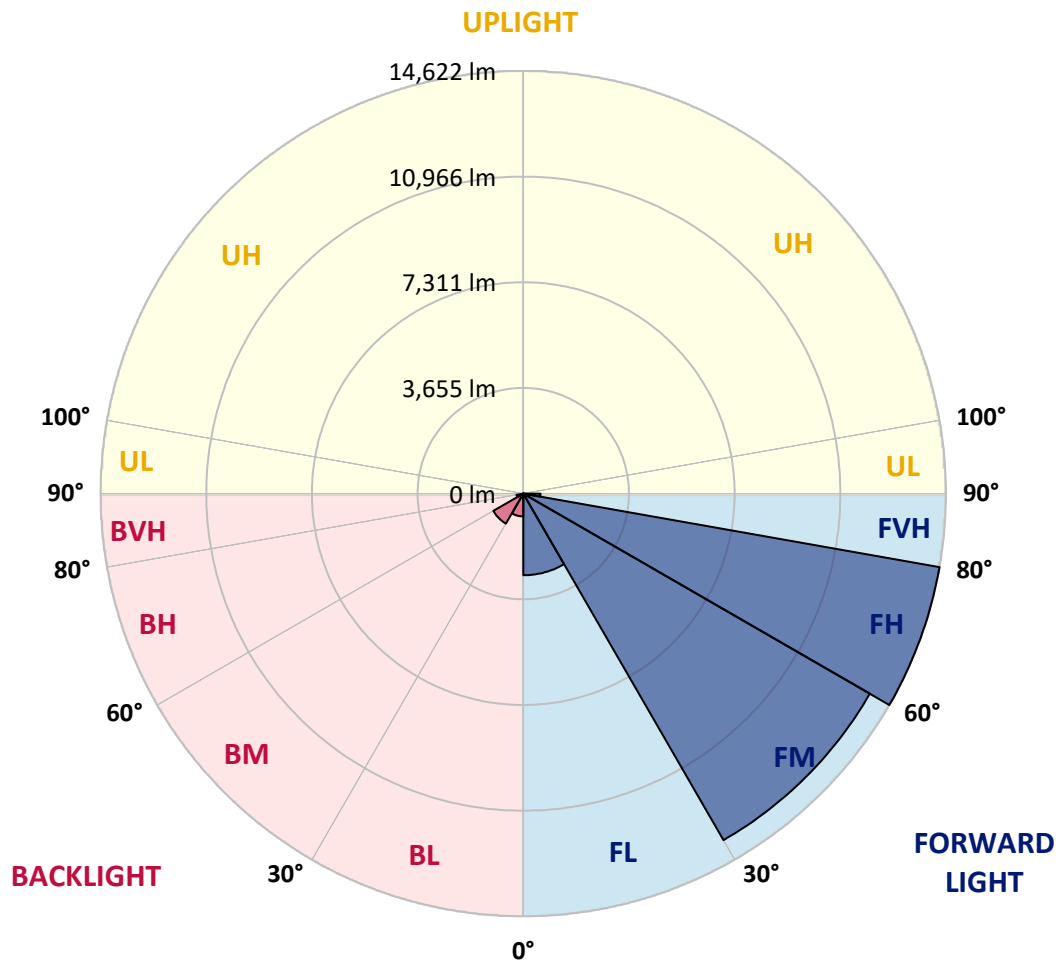
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |        |
|------|-------------|---------|-----------|-------------------------|------|--------|
|      |             |         |           | B                       | U    | G      |
| FL   | (0°-30°)    | 2821.8  | 8.3       |                         |      |        |
| FM   | (30°-60°)   | 13841.9 | 40.6      |                         |      |        |
| FH   | (60°-80°)   | 14621.8 | 42.9      |                         |      | G5     |
| FVH  | (80°-90°)   | 592.9   | 1.7       |                         |      | G4/750 |
| BL   | (0°-30°)    | 787.4   | 2.3       | B2/1000                 |      |        |
| BM   | (30°-60°)   | 1196.7  | 3.5       | B2/2500                 |      |        |
| BH   | (60°-80°)   | 235.2   | 0.7       | B1/500                  |      | G1/500 |
| BVH  | (80°-90°)   | 4.4     | 0.0       |                         |      | G0/10  |
| 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°     | 39°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5321.1  | 5321.1  | 5321.1  | 5321.1  | 5321.1  | 5321.1  | 5321.1  | 5321.1  | 5321.1  | 5321.1  | 5321.1  |
| 2.5°  | 6148.3  | 6127.7  | 6100.2  | 6068.1  | 5976.5  | 5960.4  | 5905.4  | 5788.6  | 5648.8  | 5534.2  | 5376.1  |
| 5°    | 6439.4  | 6450.8  | 6430.2  | 6372.9  | 6306.5  | 6267.5  | 6198.8  | 6017.7  | 5836.7  | 5605.2  | 5346.3  |
| 7.5°  | 6505.8  | 6528.8  | 6503.5  | 6448.5  | 6384.4  | 6343.1  | 6288.1  | 6132.3  | 5921.5  | 5657.9  | 5302.7  |
| 10°   | 6499.0  | 6526.5  | 6510.4  | 6460.0  | 6407.3  | 6368.3  | 6308.8  | 6185.0  | 6015.4  | 5738.2  | 5316.5  |
| 12.5° | 6487.5  | 6524.2  | 6521.9  | 6496.7  | 6453.1  | 6423.3  | 6386.7  | 6276.7  | 6118.6  | 5855.0  | 5392.1  |
| 15°   | 6455.4  | 6501.3  | 6542.5  | 6563.1  | 6565.4  | 6565.4  | 6519.6  | 6402.7  | 6251.5  | 6008.6  | 5490.7  |
| 17.5° | 6469.2  | 6521.9  | 6625.0  | 6684.6  | 6725.8  | 6721.2  | 6673.1  | 6547.1  | 6379.8  | 6166.7  | 5593.8  |
| 20°   | 6554.0  | 6625.0  | 6769.4  | 6888.5  | 6929.8  | 6916.0  | 6851.9  | 6705.2  | 6515.0  | 6301.9  | 5694.6  |
| 22.5° | 6762.5  | 6826.7  | 7007.7  | 7147.5  | 7177.3  | 7140.6  | 7048.9  | 6849.6  | 6677.7  | 6448.5  | 5816.1  |
| 25°   | 7074.2  | 7149.8  | 7317.1  | 7422.5  | 7422.5  | 7401.8  | 7273.5  | 7039.8  | 6861.0  | 6652.5  | 5974.2  |
| 27.5° | 7452.3  | 7516.4  | 7681.4  | 7775.4  | 7720.4  | 7660.8  | 7532.5  | 7250.6  | 7078.7  | 6909.2  | 6164.4  |
| 30°   | 7835.0  | 7876.2  | 8050.4  | 8091.6  | 8034.3  | 7958.7  | 7821.2  | 7539.3  | 7388.1  | 7257.5  | 6439.4  |
| 32.5° | 8197.0  | 8286.4  | 8430.8  | 8421.6  | 8343.7  | 8307.0  | 8181.0  | 7880.8  | 7796.0  | 7782.3  | 6824.4  |
| 35°   | 8559.1  | 8627.9  | 8756.2  | 8788.3  | 8719.5  | 8712.6  | 8621.0  | 8398.7  | 8401.0  | 8490.4  | 7424.8  |
| 37.5° | 8870.8  | 8932.6  | 9083.9  | 9154.9  | 9168.7  | 9203.0  | 9166.4  | 9019.7  | 9228.2  | 9473.5  | 8219.9  |
| 40°   | 9132.0  | 9219.1  | 9411.6  | 9535.3  | 9677.4  | 9803.4  | 9810.3  | 9842.4  | 10261.8 | 10683.4 | 9258.0  |
| 42.5° | 9336.0  | 9457.4  | 9737.0  | 9966.1  | 10291.5 | 10452.0 | 10580.3 | 10756.7 | 11462.6 | 12092.7 | 10481.8 |
| 45°   | 9601.8  | 9741.6  | 10089.9 | 10449.7 | 10958.4 | 11221.9 | 11400.7 | 11872.7 | 12874.2 | 13733.5 | 11737.5 |
| 47.5° | 10041.8 | 10115.1 | 10470.3 | 10995.1 | 11664.2 | 12040.0 | 12388.4 | 13103.3 | 14388.9 | 15158.9 | 12782.5 |
| 50°   | 10607.8 | 10655.9 | 10924.0 | 11652.8 | 12519.0 | 13014.0 | 13648.7 | 14489.8 | 15961.0 | 16341.4 | 13373.7 |
| 52.5° | 11233.4 | 11249.4 | 11451.1 | 12376.9 | 13476.9 | 14100.2 | 14810.6 | 15848.7 | 17242.0 | 17184.7 | 13765.6 |
| 55°   | 11959.8 | 11936.9 | 12108.8 | 13162.9 | 14611.2 | 15323.9 | 16151.2 | 17239.7 | 18353.4 | 17782.8 | 13990.2 |
| 57.5° | 12791.7 | 12729.8 | 12897.1 | 14205.6 | 16064.1 | 16916.5 | 17757.6 | 18440.5 | 19215.0 | 18284.6 | 14097.9 |
| 60°   | 13662.5 | 13538.7 | 13738.1 | 15376.6 | 17775.9 | 18584.8 | 19283.8 | 19467.1 | 20122.5 | 18683.4 | 13912.3 |
| 62.5° | 14356.8 | 14359.1 | 14730.4 | 16623.2 | 19535.8 | 20243.9 | 20615.2 | 20780.2 | 20903.9 | 18596.3 | 12936.0 |
| 65°   | 15440.8 | 15477.4 | 16071.0 | 18353.4 | 21573.1 | 22187.2 | 22441.6 | 21905.3 | 20938.3 | 17514.7 | 11469.4 |
| 67.5° | 16559.1 | 16675.9 | 17762.1 | 20736.6 | 23926.5 | 24421.5 | 24093.8 | 22123.1 | 20003.3 | 15046.6 | 8696.6  |
| 70°   | 16923.4 | 17115.9 | 18905.7 | 22377.4 | 25338.2 | 25594.8 | 24485.7 | 21107.9 | 16721.8 | 10060.1 | 4376.9  |
| 72.5° | 15507.2 | 15818.9 | 18248.0 | 21779.3 | 24437.6 | 24215.3 | 21907.6 | 17702.6 | 10630.7 | 3820.1  | 1336.0  |
| 75°   | 10935.5 | 11073.0 | 15165.8 | 18066.9 | 19655.0 | 19024.8 | 16664.5 | 11412.1 | 4372.4  | 1072.5  | 458.3   |
| 77.5° | 5646.5  | 5580.0  | 9019.7  | 11987.3 | 14017.7 | 13364.6 | 10912.6 | 5907.7  | 1656.8  | 446.9   | 284.2   |
| 80°   | 2919.5  | 2967.6  | 3902.6  | 6281.3  | 8556.8  | 7873.9  | 5818.4  | 2738.5  | 882.3   | 247.5   | 217.7   |
| 82.5° | 1636.2  | 1535.4  | 2243.5  | 2743.0  | 4001.1  | 3137.2  | 2232.0  | 1938.7  | 385.0   | 149.0   | 206.2   |
| 85°   | 297.9   | 311.7   | 1230.6  | 1482.7  | 1388.7  | 882.3   | 719.6   | 1294.8  | 112.3   | 82.5    | 144.4   |
| 87.5° | 4.6     | 4.6     | 238.3   | 426.2   | 270.4   | 123.7   | 226.9   | 185.6   | 22.9    | 32.1    | 25.2    |
| 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°    | 5321.1  | 5321.1 | 5321.1 | 5321.1 | 5321.1 | 5321.1 | 5321.1 | 5321.1 | 5321.1 | 5321.1 | 5321.1 |
| 2.5°  | 5295.9  | 5208.8 | 5046.1 | 4885.7 | 4681.7 | 4514.4 | 4402.2 | 4285.3 | 4166.1 | 4175.3 | 4202.8 |
| 5°    | 5204.2  | 5053.0 | 4732.1 | 4393.0 | 4067.6 | 3774.3 | 3485.5 | 3226.6 | 3121.2 | 3024.9 | 3029.5 |
| 7.5°  | 5112.5  | 4899.4 | 4429.7 | 3898.0 | 3405.3 | 2905.7 | 2543.7 | 2245.8 | 2087.6 | 1968.5 | 1934.1 |
| 10°   | 5071.3  | 4789.4 | 4152.4 | 3421.4 | 2722.4 | 2177.0 | 1711.8 | 1468.9 | 1281.0 | 1221.4 | 1237.5 |
| 12.5° | 5089.6  | 4734.4 | 3902.6 | 2990.5 | 2158.7 | 1517.0 | 1191.6 | 1067.9 | 1026.6 | 1019.8 | 1015.2 |
| 15°   | 5124.0  | 4695.5 | 3657.4 | 2513.9 | 1585.8 | 1127.5 | 1001.4 | 978.5  | 973.9  | 969.3  | 971.6  |
| 17.5° | 5169.8  | 4661.1 | 3396.1 | 2067.0 | 1216.8 | 985.4  | 948.7  | 937.3  | 935.0  | 935.0  | 935.0  |
| 20°   | 5215.7  | 4622.1 | 3105.1 | 1668.3 | 1015.2 | 930.4  | 907.5  | 900.6  | 898.3  | 898.3  | 896.0  |
| 22.5° | 5268.4  | 4587.8 | 2809.5 | 1310.8 | 935.0  | 891.4  | 870.8  | 866.2  | 863.9  | 861.6  | 861.6  |
| 25°   | 5344.0  | 4544.2 | 2495.5 | 1072.5 | 884.6  | 854.8  | 834.1  | 829.6  | 827.3  | 818.1  | 820.4  |
| 27.5° | 5444.8  | 4512.1 | 2172.4 | 925.8  | 838.7  | 808.9  | 795.2  | 788.3  | 783.7  | 776.9  | 779.1  |
| 30°   | 5582.3  | 4484.6 | 1828.7 | 845.6  | 786.0  | 760.8  | 747.1  | 742.5  | 737.9  | 731.0  | 731.0  |
| 32.5° | 5820.6  | 4496.1 | 1466.6 | 781.4  | 737.9  | 708.1  | 694.4  | 689.8  | 685.2  | 678.3  | 678.3  |
| 35°   | 6178.1  | 4562.6 | 1173.3 | 726.4  | 680.6  | 650.8  | 637.1  | 637.1  | 630.2  | 621.0  | 618.7  |
| 37.5° | 6762.5  | 4732.1 | 941.8  | 673.7  | 625.6  | 598.1  | 582.1  | 577.5  | 570.6  | 556.9  | 554.6  |
| 40°   | 7452.3  | 4995.7 | 792.9  | 621.0  | 575.2  | 547.7  | 533.9  | 520.2  | 501.9  | 488.1  | 485.8  |
| 42.5° | 8318.5  | 5266.1 | 687.5  | 568.3  | 527.1  | 501.9  | 485.8  | 462.9  | 435.4  | 417.1  | 414.8  |
| 45°   | 9221.4  | 5513.6 | 616.4  | 520.2  | 481.2  | 460.6  | 442.3  | 405.6  | 371.2  | 348.3  | 346.0  |
| 47.5° | 9895.1  | 5559.4 | 559.1  | 474.4  | 442.3  | 421.7  | 396.4  | 350.6  | 304.8  | 284.2  | 277.3  |
| 50°   | 10213.6 | 5337.1 | 499.6  | 428.5  | 403.3  | 380.4  | 348.3  | 295.6  | 245.2  | 220.0  | 215.4  |
| 52.5° | 10325.9 | 4952.1 | 451.4  | 387.3  | 364.4  | 336.9  | 297.9  | 238.3  | 192.5  | 167.3  | 165.0  |
| 55°   | 10280.1 | 4466.3 | 407.9  | 348.3  | 318.5  | 286.4  | 247.5  | 190.2  | 142.1  | 121.5  | 116.9  |
| 57.5° | 10039.5 | 3847.6 | 364.4  | 309.4  | 272.7  | 240.6  | 197.1  | 142.1  | 96.2   | 77.9   | 75.6   |
| 60°   | 9391.0  | 3004.3 | 320.8  | 265.8  | 231.5  | 197.1  | 155.8  | 100.8  | 59.6   | 43.5   | 43.5   |
| 62.5° | 8295.6  | 2229.7 | 279.6  | 222.3  | 194.8  | 158.1  | 110.0  | 64.2   | 32.1   | 22.9   | 20.6   |
| 65°   | 6932.1  | 1645.4 | 233.7  | 187.9  | 162.7  | 123.7  | 77.9   | 39.0   | 16.0   | 6.9    | 4.6    |
| 67.5° | 4837.6  | 1015.2 | 194.8  | 153.5  | 132.9  | 89.4   | 48.1   | 16.0   | 6.9    | 0.0    | 0.0    |
| 70°   | 2197.6  | 483.5  | 149.0  | 116.9  | 100.8  | 64.2   | 25.2   | 9.2    | 4.6    | 0.0    | 0.0    |
| 72.5° | 682.9   | 254.4  | 105.4  | 84.8   | 68.7   | 41.2   | 13.7   | 6.9    | 4.6    | 0.0    | 0.0    |
| 75°   | 316.2   | 162.7  | 66.5   | 45.8   | 39.0   | 20.6   | 9.2    | 4.6    | 2.3    | 0.0    | 0.0    |
| 77.5° | 236.0   | 126.0  | 39.0   | 25.2   | 20.6   | 13.7   | 6.9    | 4.6    | 2.3    | 0.0    | 0.0    |
| 80°   | 206.2   | 64.2   | 22.9   | 16.0   | 11.5   | 9.2    | 4.6    | 2.3    | 0.0    | 0.0    | 0.0    |
| 82.5° | 185.6   | 32.1   | 13.7   | 9.2    | 6.9    | 4.6    | 2.3    | 2.3    | 0.0    | 0.0    | 0.0    |
| 85°   | 100.8   | 18.3   | 9.2    | 6.9    | 4.6    | 2.3    | 2.3    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 18.3    | 9.2    | 6.9    | 4.6    | 4.6    | 2.3    | 2.3    | 2.3    | 0.0    | 0.0    | 0.0    |
| 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)