

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: P301801

Luminaire Tested: **GLNA-AF-01-LED-E1-SL4-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301801  
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: GLNA-AF-01-LED-E1-SL4-7030-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(1) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

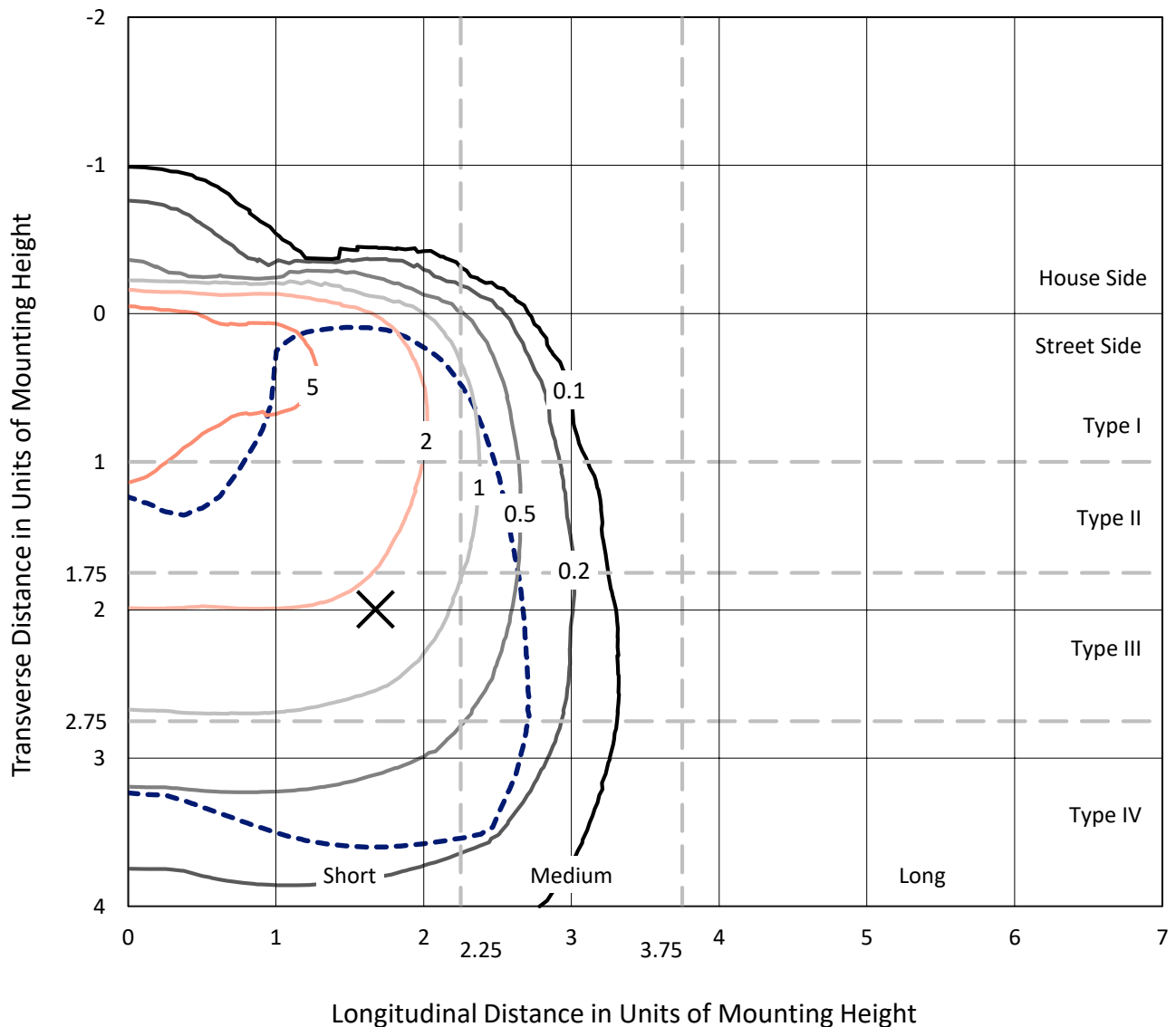
Lumens per Lamp: N/A  
Luminaire Lumens: 4445.5 lumens  
Efficiency: N/A  
Efficacy: 75.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B0 - U0 - G2  
  
Input Watts (W): 59  
Input Voltage (V): NR  
Input Current (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

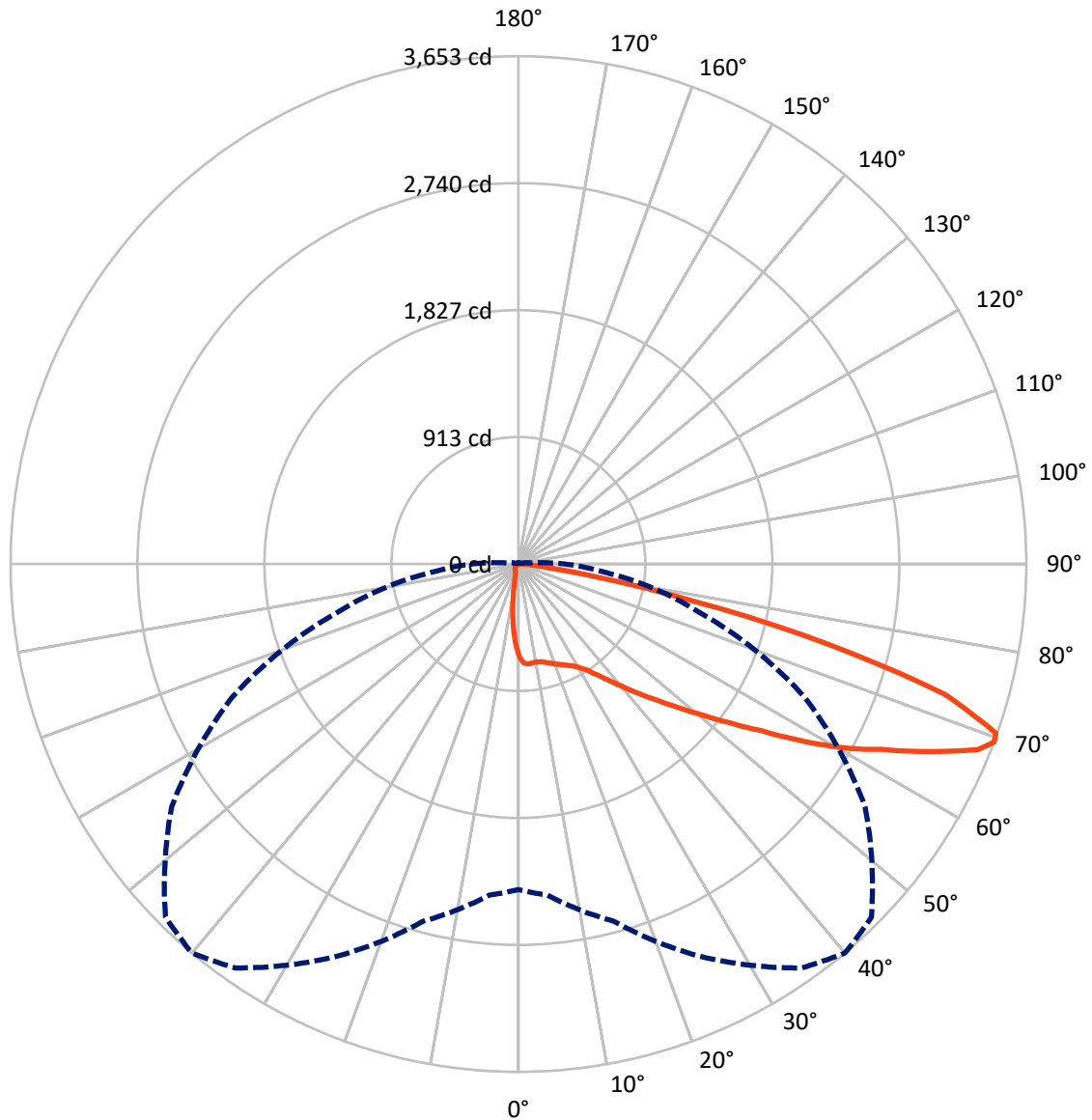
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.3 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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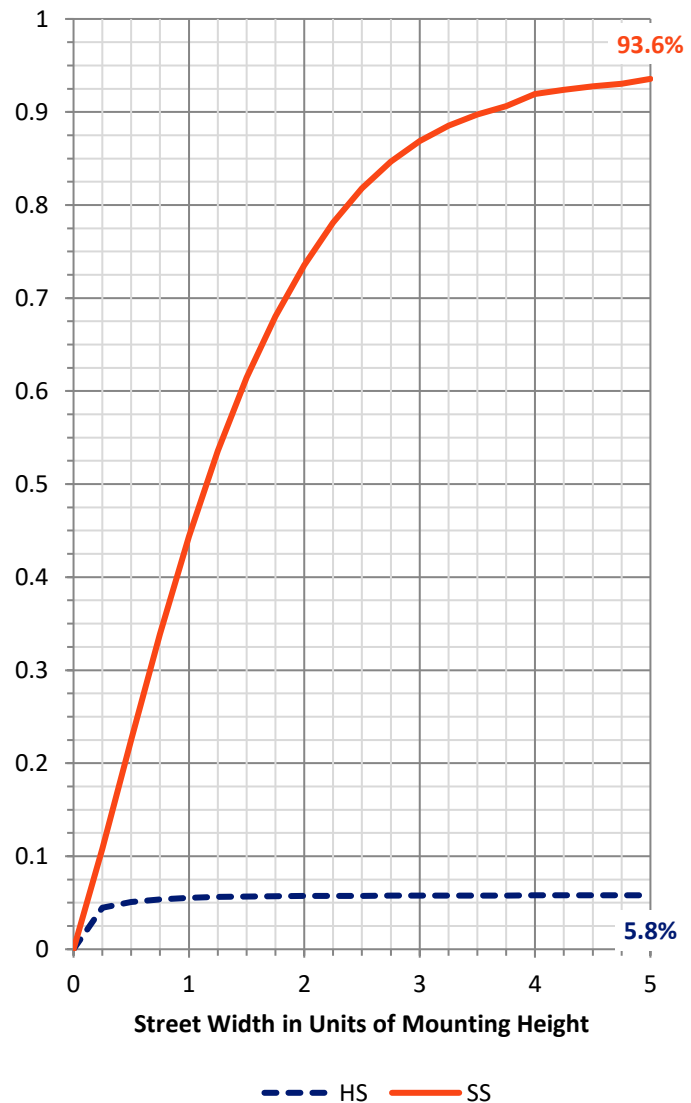
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 260.1    | 0.0    | 260.1  |
|                    | % Fixture | 5.9      | 0.0    | 5.9    |
| <b>Street Side</b> | Lumens    | 4185.4   | 0.0    | 4185.4 |
|                    | % Fixture | 94.1     | 0.0    | 94.1   |
| <b>Total</b>       | Lumens    | 4445.5   | 0.0    | 4445.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 53.9   | 1.2       |
| 10°-20°   | 132.4  | 3.0       |
| 20°-30°   | 223.1  | 5.0       |
| 30°-40°   | 365.2  | 8.2       |
| 40°-50°   | 632.3  | 14.2      |
| 50°-60°   | 995.9  | 22.4      |
| 60°-70°   | 1300.6 | 29.3      |
| 70°-80°   | 669.8  | 15.1      |
| 80°-90°   | 72.5   | 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°    | 4445.5 | 100.0     |
| 0°-180°   | 4445.5 | 100.0     |



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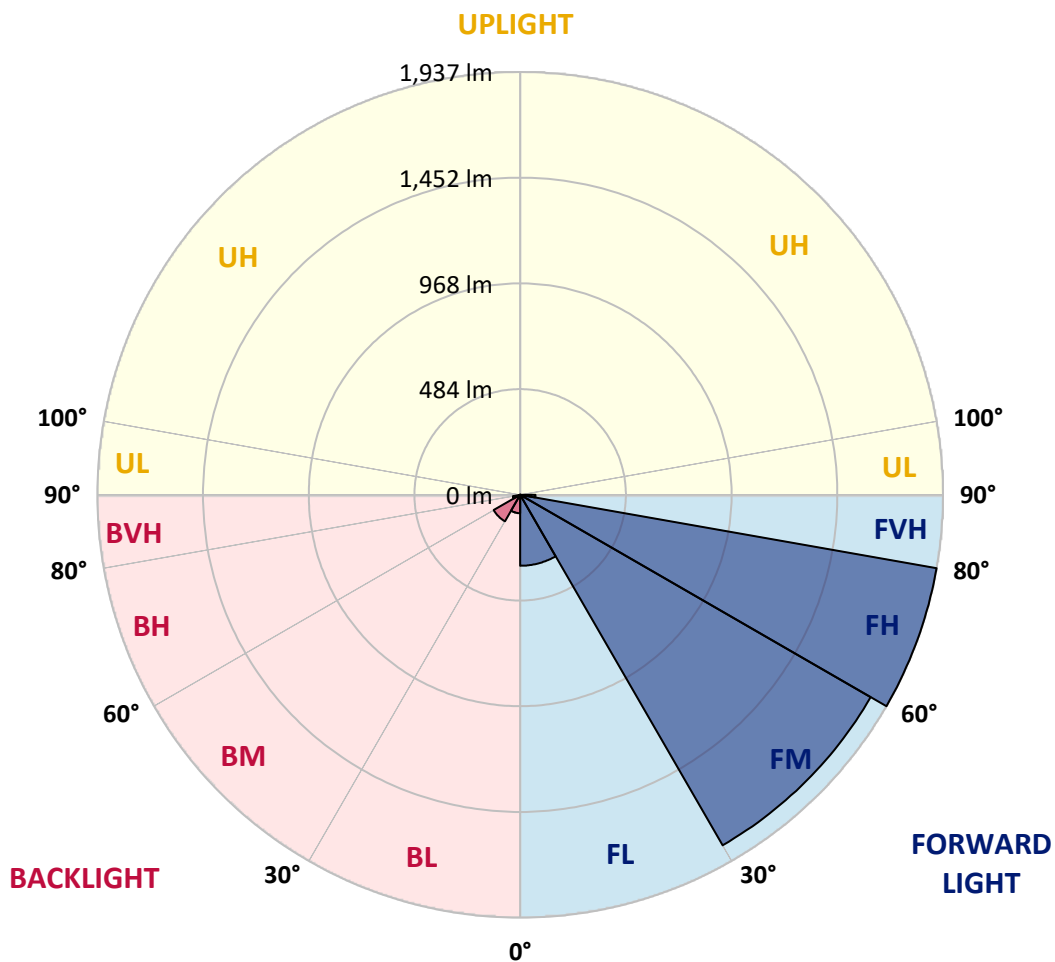
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 325.1  | 7.3       |                         |      |         |
| FM   | (30°-60°)   | 1853.5 | 41.7      |                         |      |         |
| FH   | (60°-80°)   | 1936.6 | 43.6      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 70.2   | 1.6       |                         |      | G1/100  |
| BL   | (0°-30°)    | 84.2   | 1.9       | B0/110                  |      |         |
| BM   | (30°-60°)   | 139.8  | 3.1       | B0/220                  |      |         |
| BH   | (60°-80°)   | 33.8   | 0.8       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 2.3    | 0.1       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B0-U0-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 40°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 664.2  | 664.2  | 664.2  | 664.2  | 664.2  | 664.2  | 664.2  | 664.2  | 664.2  | 664.2  | 664.2  |
| 2.5°  | 729.3  | 725.3  | 722.9  | 719.7  | 715.8  | 712.3  | 711.0  | 701.2  | 692.0  | 679.3  | 664.7  |
| 5°    | 742.8  | 741.4  | 737.2  | 733.0  | 728.2  | 722.9  | 720.0  | 708.4  | 695.1  | 676.6  | 651.2  |
| 7.5°  | 744.1  | 742.5  | 737.2  | 731.4  | 724.8  | 718.4  | 713.4  | 701.8  | 689.6  | 670.8  | 639.8  |
| 10°   | 742.0  | 740.1  | 736.2  | 729.8  | 721.6  | 715.5  | 710.5  | 699.4  | 689.1  | 672.1  | 637.7  |
| 12.5° | 739.6  | 737.7  | 735.9  | 732.7  | 725.6  | 721.3  | 717.1  | 706.5  | 697.3  | 683.0  | 645.4  |
| 15°   | 742.0  | 740.9  | 743.0  | 741.7  | 737.7  | 734.0  | 729.8  | 720.3  | 711.8  | 699.9  | 659.4  |
| 17.5° | 752.0  | 752.0  | 758.6  | 759.4  | 755.7  | 750.4  | 744.4  | 734.8  | 727.7  | 717.6  | 676.1  |
| 20°   | 775.6  | 774.8  | 783.3  | 784.8  | 775.8  | 767.6  | 758.6  | 747.0  | 741.4  | 735.1  | 692.5  |
| 22.5° | 816.1  | 812.4  | 817.4  | 815.8  | 798.1  | 785.4  | 774.3  | 760.0  | 757.1  | 754.1  | 710.8  |
| 25°   | 868.7  | 866.6  | 870.0  | 854.4  | 823.2  | 806.0  | 792.8  | 776.6  | 776.6  | 779.6  | 731.4  |
| 27.5° | 945.2  | 937.3  | 925.6  | 898.1  | 851.3  | 829.3  | 815.0  | 797.8  | 802.3  | 813.2  | 758.6  |
| 30°   | 1023.5 | 1014.8 | 988.1  | 945.7  | 885.4  | 862.4  | 845.7  | 827.7  | 838.3  | 858.1  | 795.2  |
| 32.5° | 1100.8 | 1091.0 | 1053.2 | 999.7  | 934.4  | 911.3  | 895.2  | 875.3  | 893.1  | 926.4  | 848.6  |
| 35°   | 1175.7 | 1166.9 | 1123.3 | 1060.3 | 999.4  | 980.4  | 965.6  | 948.4  | 971.1  | 1017.7 | 924.0  |
| 37.5° | 1259.8 | 1250.3 | 1197.1 | 1128.8 | 1078.6 | 1064.8 | 1054.0 | 1036.8 | 1076.4 | 1144.7 | 1029.1 |
| 40°   | 1363.3 | 1347.1 | 1275.4 | 1207.4 | 1170.1 | 1163.5 | 1156.1 | 1153.7 | 1215.4 | 1309.8 | 1169.1 |
| 42.5° | 1481.8 | 1455.4 | 1357.5 | 1290.3 | 1270.7 | 1275.4 | 1273.6 | 1284.2 | 1389.2 | 1515.2 | 1339.5 |
| 45°   | 1600.4 | 1566.2 | 1448.8 | 1378.6 | 1381.3 | 1398.0 | 1408.3 | 1450.6 | 1607.0 | 1750.7 | 1522.9 |
| 47.5° | 1700.9 | 1667.3 | 1536.3 | 1474.2 | 1505.9 | 1538.7 | 1566.8 | 1647.0 | 1830.9 | 1982.5 | 1665.5 |
| 50°   | 1786.9 | 1755.2 | 1629.2 | 1579.2 | 1650.7 | 1703.6 | 1749.1 | 1867.9 | 2071.7 | 2159.0 | 1765.5 |
| 52.5° | 1857.3 | 1836.2 | 1725.5 | 1699.6 | 1816.0 | 1893.6 | 1960.3 | 2102.6 | 2284.9 | 2302.4 | 1843.3 |
| 55°   | 1925.9 | 1910.8 | 1829.0 | 1842.8 | 2010.3 | 2115.8 | 2200.3 | 2351.6 | 2468.6 | 2422.0 | 1917.9 |
| 57.5° | 2004.7 | 1991.0 | 1947.0 | 2024.3 | 2265.6 | 2398.5 | 2490.5 | 2572.3 | 2630.3 | 2544.3 | 1988.3 |
| 60°   | 2085.2 | 2077.2 | 2078.3 | 2225.9 | 2558.8 | 2686.4 | 2737.2 | 2758.3 | 2789.0 | 2659.4 | 1992.3 |
| 62.5° | 2161.9 | 2177.0 | 2228.3 | 2450.3 | 2839.6 | 2937.5 | 2963.1 | 2984.0 | 2948.1 | 2677.6 | 1840.7 |
| 65°   | 2291.8 | 2316.4 | 2438.9 | 2750.7 | 3148.4 | 3253.2 | 3279.6 | 3207.9 | 2973.2 | 2441.6 | 1497.2 |
| 67.5° | 2355.3 | 2400.3 | 2618.9 | 3030.6 | 3447.9 | 3564.3 | 3554.6 | 3222.5 | 2668.1 | 1861.8 | 960.8  |
| 69°   | 2342.1 | 2390.0 | 2660.4 | 3116.4 | 3547.4 | 3653.0 | 3590.8 | 3044.4 | 2273.0 | 1348.7 | 589.8  |
| 70°   | 2289.7 | 2338.1 | 2639.0 | 3113.2 | 3560.1 | 3643.7 | 3523.6 | 2824.5 | 1921.9 | 986.2  | 368.9  |
| 72.5° | 1912.1 | 1953.9 | 2342.9 | 2813.9 | 3279.6 | 3211.6 | 2947.8 | 1956.8 | 936.5  | 268.6  | 83.1   |
| 75°   | 1177.0 | 1200.3 | 1681.1 | 2119.8 | 2477.0 | 2302.4 | 1964.0 | 973.5  | 279.2  | 75.9   | 46.0   |
| 77.5° | 621.8  | 632.4  | 920.3  | 1249.5 | 1570.2 | 1299.3 | 1006.6 | 379.7  | 128.6  | 47.6   | 33.3   |
| 80°   | 367.5  | 375.5  | 495.6  | 571.3  | 679.5  | 567.6  | 402.5  | 233.1  | 92.1   | 29.9   | 29.6   |
| 82.5° | 210.4  | 215.4  | 359.3  | 317.5  | 267.8  | 228.6  | 200.3  | 221.0  | 55.3   | 20.1   | 30.7   |
| 85°   | 77.3   | 78.3   | 202.2  | 241.6  | 159.3  | 94.7   | 99.5   | 183.1  | 14.8   | 12.7   | 24.1   |
| 87.5° | 36.0   | 35.2   | 104.0  | 147.9  | 93.1   | 60.1   | 77.5   | 40.2   | 5.8    | 8.2    | 6.6    |
| 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°    | 664.2  | 664.2 | 664.2 | 664.2 | 664.2 | 664.2 | 664.2 | 664.2 | 664.2 | 664.2 | 664.2 |
| 2.5°  | 656.2  | 646.5 | 628.7 | 610.5 | 591.9 | 577.7 | 563.6 | 552.5 | 548.8 | 541.9 | 542.5 |
| 5°    | 636.1  | 618.1 | 581.1 | 543.5 | 504.4 | 472.1 | 441.6 | 417.0 | 405.1 | 393.0 | 393.0 |
| 7.5°  | 618.7  | 592.5 | 534.5 | 473.4 | 410.2 | 357.0 | 309.1 | 273.1 | 253.2 | 237.4 | 237.1 |
| 10°   | 612.1  | 576.6 | 495.6 | 408.0 | 319.9 | 247.4 | 190.5 | 154.0 | 135.2 | 123.0 | 122.5 |
| 12.5° | 615.0  | 571.0 | 465.7 | 347.7 | 237.1 | 159.0 | 110.3 | 86.8  | 78.9  | 75.2  | 75.2  |
| 15°   | 623.4  | 569.4 | 435.8 | 288.7 | 167.5 | 99.5  | 73.3  | 66.9  | 66.4  | 66.4  | 66.4  |
| 17.5° | 633.7  | 570.0 | 405.1 | 231.3 | 114.0 | 71.2  | 63.2  | 62.4  | 63.0  | 63.0  | 63.0  |
| 20°   | 644.3  | 570.2 | 372.0 | 178.1 | 80.4  | 61.9  | 59.5  | 59.3  | 59.8  | 59.8  | 60.1  |
| 22.5° | 657.3  | 571.6 | 339.0 | 133.1 | 66.4  | 58.5  | 56.6  | 56.6  | 56.9  | 56.9  | 56.6  |
| 25°   | 672.1  | 574.2 | 304.6 | 98.7  | 60.6  | 56.1  | 54.5  | 54.2  | 54.5  | 54.2  | 54.0  |
| 27.5° | 690.6  | 577.9 | 266.2 | 77.3  | 58.0  | 53.7  | 52.4  | 52.4  | 52.1  | 51.9  | 51.6  |
| 30°   | 713.9  | 582.1 | 223.1 | 65.6  | 55.3  | 51.6  | 50.3  | 50.0  | 49.7  | 49.2  | 49.2  |
| 32.5° | 749.4  | 591.4 | 180.5 | 59.5  | 52.4  | 48.7  | 47.6  | 47.6  | 47.1  | 46.6  | 46.3  |
| 35°   | 803.9  | 609.7 | 142.4 | 55.8  | 49.2  | 45.5  | 44.2  | 44.2  | 43.7  | 43.4  | 43.1  |
| 37.5° | 879.3  | 637.5 | 110.6 | 52.4  | 46.0  | 42.1  | 40.8  | 40.5  | 40.0  | 39.4  | 39.2  |
| 40°   | 979.6  | 671.9 | 87.1  | 49.2  | 42.9  | 38.6  | 37.6  | 37.0  | 36.0  | 35.2  | 35.2  |
| 42.5° | 1105.6 | 711.0 | 70.7  | 45.8  | 39.2  | 35.5  | 34.7  | 33.9  | 32.0  | 31.2  | 31.0  |
| 45°   | 1237.3 | 746.2 | 59.8  | 41.8  | 35.5  | 32.3  | 31.8  | 30.4  | 28.0  | 27.3  | 27.3  |
| 47.5° | 1332.3 | 754.4 | 52.7  | 38.1  | 32.0  | 28.8  | 28.6  | 26.2  | 24.1  | 23.6  | 23.3  |
| 50°   | 1391.6 | 738.3 | 46.8  | 34.4  | 28.8  | 25.7  | 24.9  | 22.0  | 20.6  | 20.1  | 19.8  |
| 52.5° | 1431.6 | 709.4 | 42.1  | 31.2  | 25.9  | 22.8  | 20.9  | 18.8  | 17.7  | 17.2  | 17.2  |
| 55°   | 1463.6 | 668.7 | 37.3  | 28.3  | 23.6  | 20.4  | 17.7  | 16.1  | 15.1  | 14.6  | 14.6  |
| 57.5° | 1472.6 | 613.4 | 32.5  | 25.9  | 21.2  | 18.0  | 15.1  | 14.0  | 12.7  | 12.4  | 12.4  |
| 60°   | 1407.2 | 513.6 | 28.8  | 23.0  | 19.1  | 15.6  | 13.2  | 11.9  | 10.6  | 10.3  | 10.1  |
| 62.5° | 1235.0 | 397.4 | 25.4  | 20.4  | 16.7  | 13.5  | 11.4  | 9.8   | 8.7   | 8.7   | 8.7   |
| 65°   | 942.0  | 266.5 | 22.2  | 17.7  | 14.6  | 11.4  | 9.8   | 7.9   | 7.4   | 7.4   | 7.7   |
| 67.5° | 563.9  | 145.0 | 19.1  | 15.1  | 12.4  | 9.5   | 8.2   | 6.9   | 6.6   | 6.9   | 6.9   |
| 69°   | 330.5  | 85.2  | 17.2  | 13.5  | 10.8  | 8.5   | 7.1   | 6.1   | 6.6   | 6.9   | 6.9   |
| 70°   | 204.0  | 57.4  | 15.9  | 12.2  | 9.8   | 7.7   | 6.6   | 5.8   | 6.4   | 6.6   | 6.6   |
| 72.5° | 56.9   | 29.6  | 12.7  | 9.5   | 7.9   | 6.4   | 5.3   | 5.3   | 6.1   | 6.4   | 6.4   |
| 75°   | 37.0   | 22.0  | 9.8   | 7.1   | 6.1   | 5.0   | 4.5   | 5.0   | 5.8   | 6.1   | 6.1   |
| 77.5° | 30.7   | 18.0  | 7.9   | 5.8   | 5.0   | 4.8   | 4.2   | 4.5   | 5.3   | 5.6   | 5.6   |
| 80°   | 28.0   | 12.7  | 6.4   | 5.3   | 4.5   | 4.2   | 4.0   | 3.7   | 4.8   | 5.0   | 5.0   |
| 82.5° | 26.7   | 10.1  | 5.6   | 4.8   | 4.2   | 3.7   | 3.4   | 3.7   | 4.2   | 4.5   | 4.8   |
| 85°   | 16.7   | 6.6   | 5.0   | 4.5   | 3.7   | 3.4   | 3.4   | 3.4   | 4.0   | 4.2   | 4.2   |
| 87.5° | 6.1    | 5.3   | 4.5   | 3.7   | 3.2   | 3.2   | 3.2   | 3.2   | 3.4   | 4.0   | 4.0   |
| 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)