

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: P450934

Luminaire Tested: **GALN-SA1D-730-U-T2R-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P450934  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA1D-730-U-T2R-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5707 lumens  
Efficiency: N/A  
Efficacy: 87.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B0 - U0 - G1

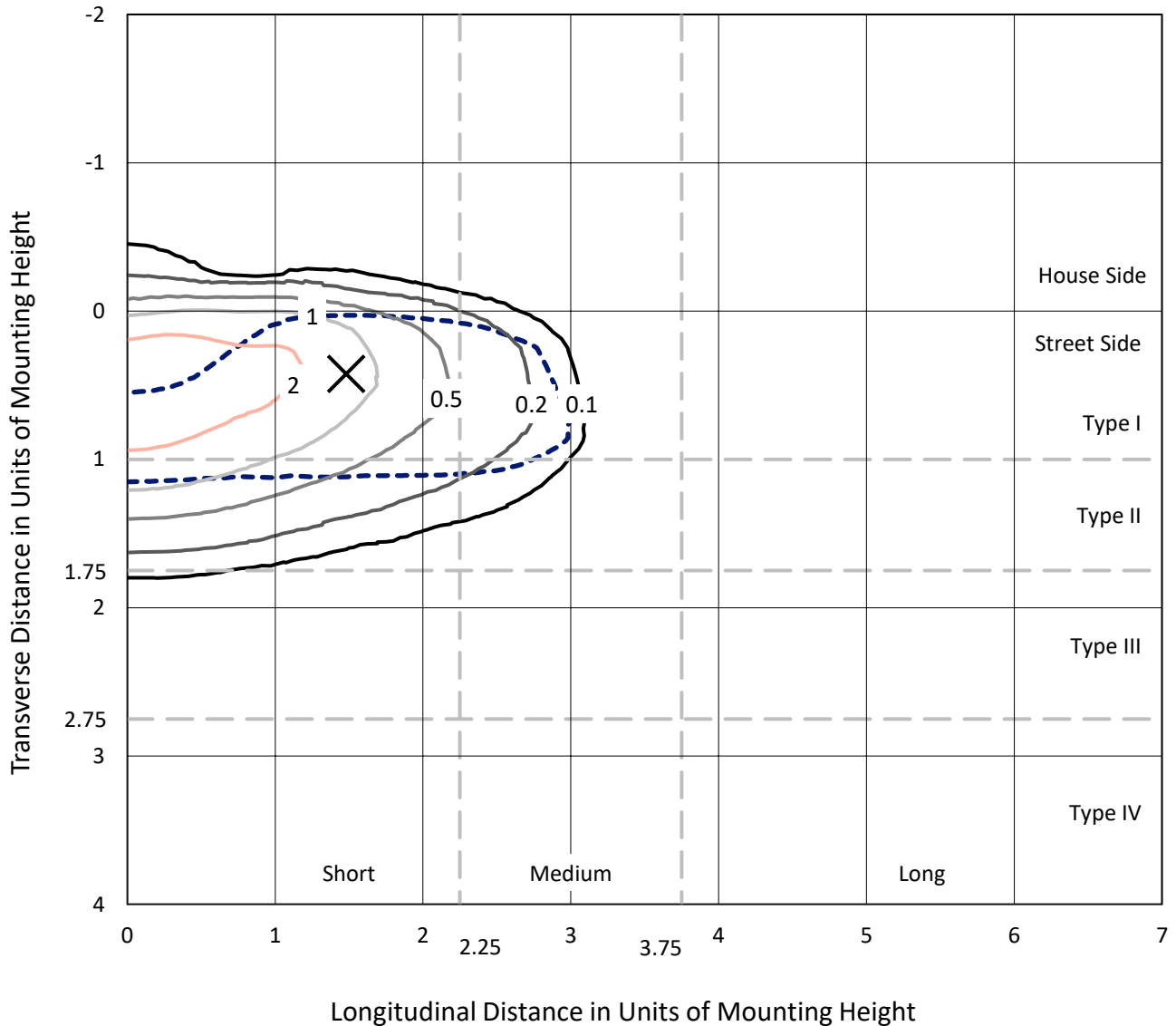
Input Watts (W): 65  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

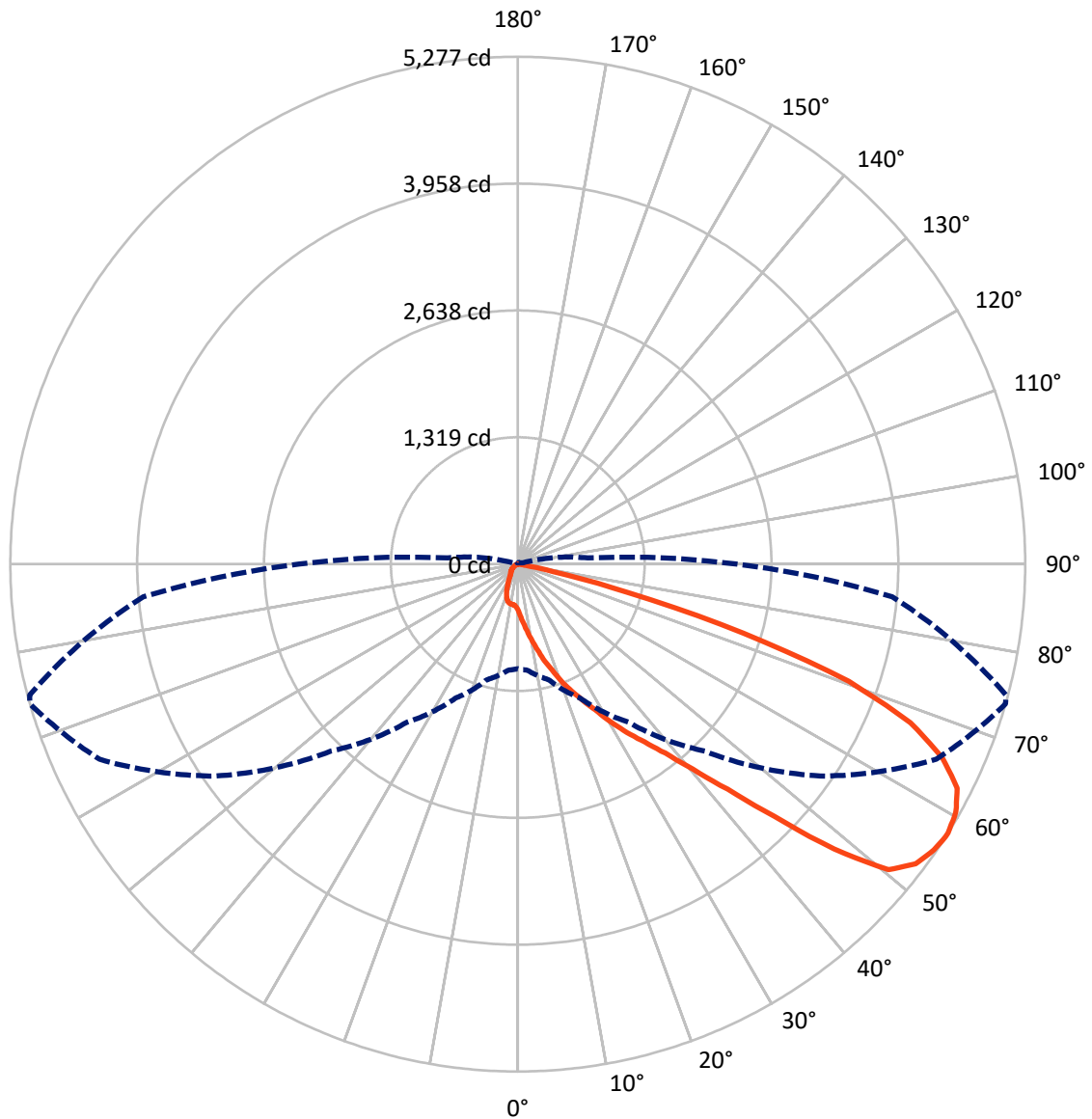
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 74-Deg Lateral      - - - Horizontal Cone Through 57-Deg Vertical

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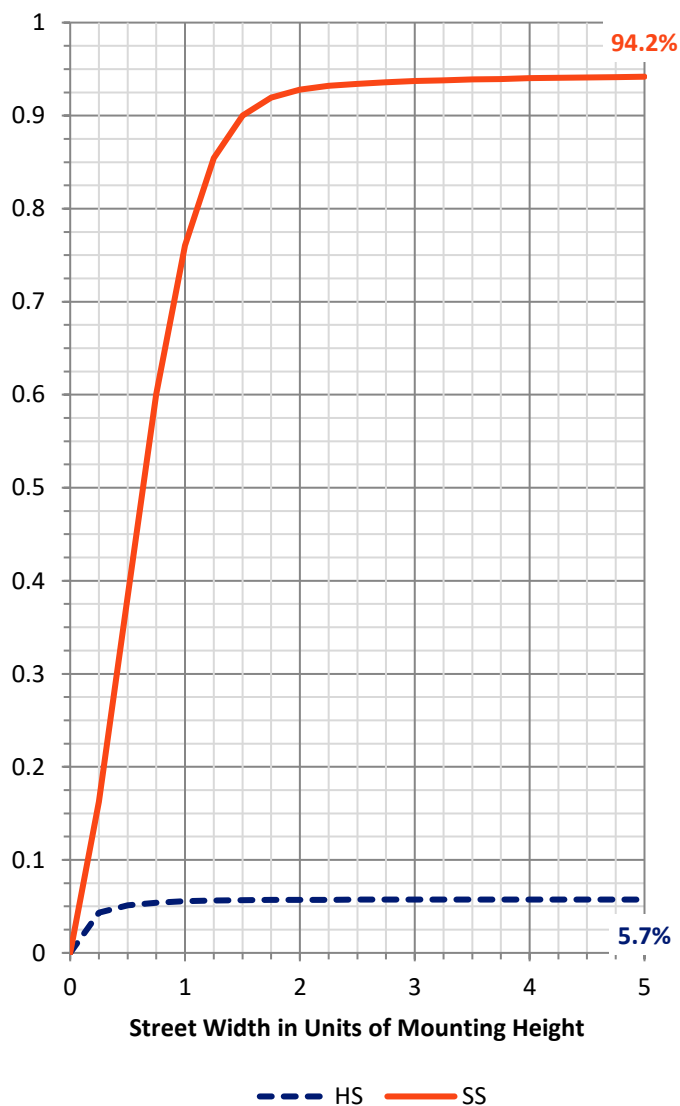
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 329.2    | 0.0    | 329.2  |
|                    | % Fixture | 5.8      | 0.0    | 5.8    |
| <b>Street Side</b> | Lumens    | 5377.8   | 0.0    | 5377.8 |
|                    | % Fixture | 94.2     | 0.0    | 94.2   |
| <b>Total</b>       | Lumens    | 5707.0   | 0.0    | 5707.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 57.7   | 1.0       |
| 10°-20°   | 227.4  | 4.0       |
| 20°-30°   | 486.6  | 8.5       |
| 30°-40°   | 894.3  | 15.7      |
| 40°-50°   | 1371.0 | 24.0      |
| 50°-60°   | 1450.3 | 25.4      |
| 60°-70°   | 947.1  | 16.6      |
| 70°-80°   | 258.8  | 4.5       |
| 80°-90°   | 13.9   | 0.2       |
| 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°    | 5707.0 | 100.0     |
| 0°-180°   | 5707.0 | 100.0     |

**Coefficient of Utilization**



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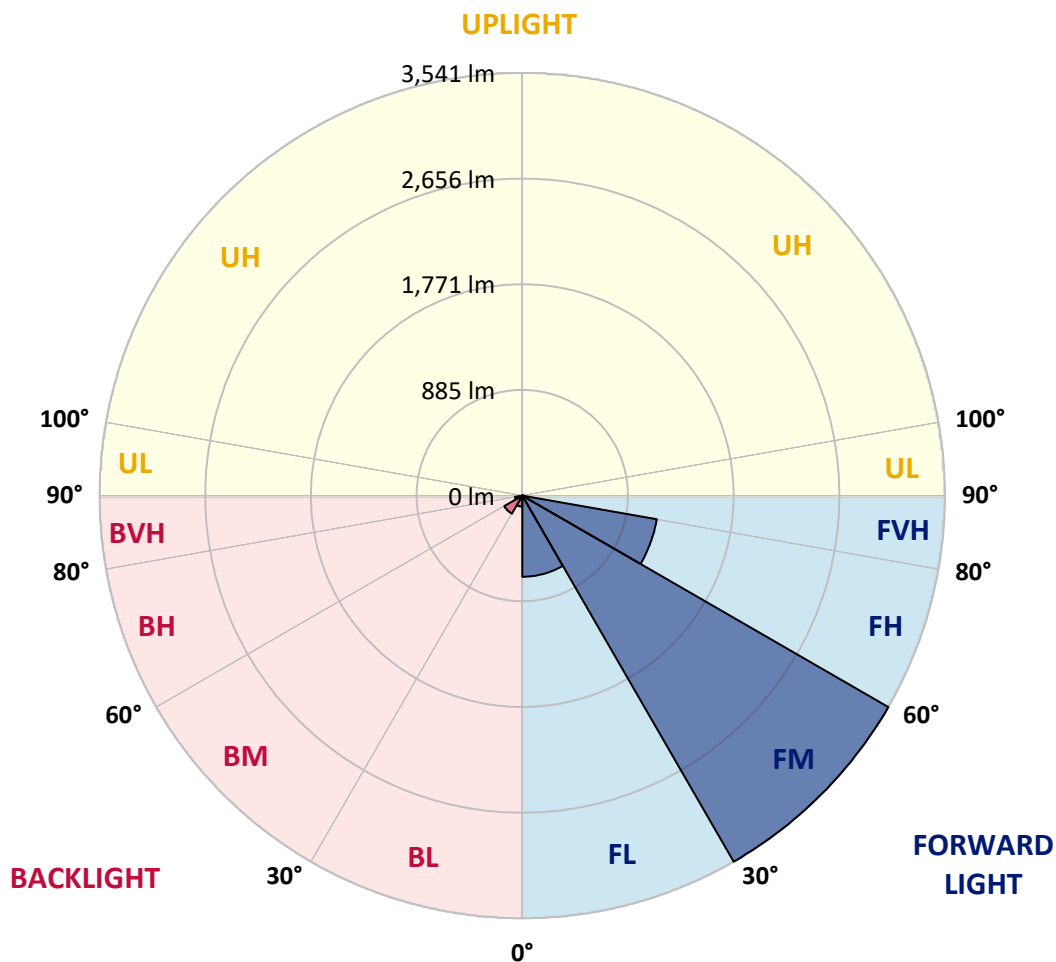
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 679.7  | 11.9      |                         |      |         |
| FM (30°-60°)   | 3541.3 | 62.1      |                         |      |         |
| FH (60°-80°)   | 1144.1 | 20.0      |                         |      | G1/1800 |
| FVH (80°-90°)  | 12.8   | 0.2       |                         |      | G1/100  |
| BL (0°-30°)    | 91.9   | 1.6       | B0/110                  |      |         |
| BM (30°-60°)   | 174.3  | 3.1       | B0/220                  |      |         |
| BH (60°-80°)   | 61.8   | 1.1       | B0/110                  |      | G0/110  |
| BVH (80°-90°)  | 1.2    | 0.0       |                         |      | G0/10   |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B0-U0-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 74°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 478.0  | 478.0  | 478.0  | 478.0  | 478.0  | 478.0  | 478.0  | 478.0  | 478.0  | 478.0  | 478.0  |
| 2.5°  | 699.4  | 693.1  | 680.5  | 676.1  | 657.6  | 628.9  | 603.6  | 569.8  | 543.0  | 540.2  | 507.9  |
| 5°    | 936.6  | 922.4  | 916.5  | 888.1  | 843.6  | 801.8  | 730.1  | 675.8  | 613.1  | 608.4  | 543.4  |
| 7.5°  | 1165.1 | 1145.4 | 1139.5 | 1112.7 | 1060.7 | 994.9  | 901.9  | 803.0  | 703.7  | 694.7  | 591.0  |
| 10°   | 1330.6 | 1333.4 | 1322.7 | 1305.0 | 1262.9 | 1195.9 | 1081.2 | 946.1  | 804.6  | 793.2  | 644.6  |
| 12.5° | 1449.2 | 1448.8 | 1450.8 | 1450.4 | 1428.0 | 1377.1 | 1256.5 | 1100.9 | 915.7  | 893.3  | 706.1  |
| 15°   | 1526.5 | 1527.6 | 1533.6 | 1554.0 | 1556.4 | 1524.9 | 1424.4 | 1249.1 | 1044.6 | 1016.6 | 772.7  |
| 17.5° | 1604.5 | 1612.7 | 1622.2 | 1641.5 | 1658.9 | 1646.2 | 1575.3 | 1403.5 | 1161.2 | 1140.3 | 844.0  |
| 20°   | 1733.3 | 1744.7 | 1739.2 | 1751.1 | 1760.1 | 1761.3 | 1706.5 | 1546.2 | 1302.7 | 1267.6 | 925.6  |
| 22.5° | 1939.4 | 1939.0 | 1924.8 | 1903.5 | 1885.8 | 1885.0 | 1835.4 | 1692.7 | 1431.1 | 1397.2 | 1007.5 |
| 25°   | 2199.8 | 2201.0 | 2173.4 | 2112.8 | 2068.6 | 2014.7 | 1957.5 | 1821.2 | 1568.6 | 1526.9 | 1093.8 |
| 27.5° | 2498.5 | 2491.0 | 2449.3 | 2365.7 | 2278.3 | 2186.1 | 2103.7 | 1970.5 | 1714.4 | 1679.7 | 1192.7 |
| 30°   | 2766.9 | 2764.1 | 2715.2 | 2613.2 | 2498.1 | 2405.5 | 2286.1 | 2157.7 | 1903.1 | 1860.6 | 1303.4 |
| 32.5° | 3016.7 | 3020.6 | 2952.8 | 2847.2 | 2736.1 | 2629.3 | 2503.2 | 2336.6 | 2088.3 | 2028.1 | 1424.0 |
| 35°   | 3211.7 | 3215.6 | 3145.5 | 3057.6 | 2943.4 | 2854.7 | 2734.5 | 2527.3 | 2271.2 | 2220.3 | 1562.7 |
| 37.5° | 3315.7 | 3320.9 | 3280.3 | 3214.1 | 3142.8 | 3098.2 | 2986.3 | 2772.8 | 2493.4 | 2462.7 | 1726.6 |
| 40°   | 3335.4 | 3341.3 | 3323.6 | 3305.9 | 3301.9 | 3333.9 | 3301.2 | 3062.0 | 2801.5 | 2753.5 | 1970.9 |
| 42.5° | 3276.3 | 3284.2 | 3292.1 | 3331.5 | 3411.9 | 3528.9 | 3642.8 | 3454.4 | 3198.3 | 3133.7 | 2269.6 |
| 45°   | 3121.1 | 3120.3 | 3151.4 | 3253.5 | 3433.5 | 3683.4 | 3999.8 | 3945.8 | 3738.9 | 3662.1 | 2691.6 |
| 47.5° | 2855.5 | 2851.6 | 2918.9 | 3064.3 | 3344.9 | 3711.7 | 4290.9 | 4542.3 | 4428.9 | 4357.9 | 3145.1 |
| 50°   | 2450.8 | 2470.2 | 2576.1 | 2779.1 | 3124.6 | 3625.8 | 4380.8 | 4933.6 | 4995.1 | 4919.8 | 3511.6 |
| 52.5° | 1976.8 | 1976.0 | 2142.3 | 2417.7 | 2798.4 | 3436.7 | 4318.1 | 5004.5 | 5179.1 | 5121.6 | 3692.0 |
| 55°   | 1463.0 | 1473.3 | 1646.2 | 1924.0 | 2374.8 | 3091.5 | 4113.6 | 4931.6 | 5249.2 | 5208.6 | 3811.0 |
| 57°   | 1088.3 | 1106.4 | 1245.1 | 1539.1 | 2006.0 | 2749.9 | 3841.4 | 4801.2 | 5276.8 | 5254.7 | 3909.9 |
| 57.5° | 1015.8 | 1016.6 | 1151.7 | 1418.9 | 1898.0 | 2618.7 | 3763.3 | 4746.8 | 5276.0 | 5263.8 | 3926.1 |
| 60°   | 625.3  | 645.0  | 738.4  | 959.1  | 1389.3 | 2043.8 | 3240.5 | 4434.4 | 5235.0 | 5252.8 | 3995.0 |
| 62.5° | 374.3  | 382.6  | 443.3  | 578.0  | 895.6  | 1491.8 | 2651.8 | 4034.4 | 5128.3 | 5182.2 | 3990.3 |
| 65°   | 240.8  | 242.7  | 270.3  | 349.9  | 559.9  | 1008.3 | 2043.4 | 3506.0 | 4852.0 | 4951.3 | 3834.3 |
| 67.5° | 186.0  | 189.1  | 200.2  | 229.7  | 324.7  | 628.1  | 1445.3 | 2942.2 | 4405.2 | 4533.3 | 3456.0 |
| 70°   | 165.1  | 166.7  | 170.6  | 180.1  | 214.7  | 354.6  | 899.2  | 2298.4 | 3653.0 | 3689.3 | 2704.6 |
| 72.5° | 134.8  | 139.1  | 151.3  | 154.5  | 170.2  | 221.4  | 500.4  | 1542.6 | 2454.4 | 2463.5 | 1513.1 |
| 75°   | 104.4  | 105.2  | 123.3  | 132.4  | 143.4  | 152.5  | 223.4  | 777.8  | 1178.9 | 1115.9 | 583.2  |
| 77.5° | 78.0   | 81.6   | 89.8   | 101.3  | 117.0  | 109.1  | 100.1  | 293.2  | 366.1  | 359.4  | 169.4  |
| 80°   | 50.0   | 52.0   | 62.7   | 76.0   | 91.0   | 71.3   | 56.3   | 85.9   | 80.4   | 82.7   | 40.6   |
| 82.5° | 25.2   | 25.6   | 40.2   | 61.9   | 57.9   | 35.9   | 35.5   | 35.1   | 29.9   | 29.6   | 18.9   |
| 85°   | 2.8    | 5.9    | 26.0   | 35.5   | 26.0   | 11.8   | 16.5   | 16.2   | 15.8   | 16.2   | 11.0   |
| 87.5° | 0.4    | 0.4    | 4.3    | 5.1    | 3.5    | 3.9    | 4.7    | 5.1    | 6.3    | 5.9    | 4.7    |
| 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°    | 478.0  | 478.0 | 478.0 | 478.0 | 478.0 | 478.0 | 478.0 | 478.0 | 478.0 | 478.0 | 478.0 |
| 2.5°  | 492.1  | 476.4 | 447.2 | 419.2 | 398.4 | 385.0 | 367.6 | 361.3 | 352.3 | 351.1 | 346.7 |
| 5°    | 513.4  | 483.5 | 432.6 | 392.5 | 360.1 | 335.7 | 314.4 | 296.7 | 282.5 | 279.4 | 280.9 |
| 7.5°  | 543.8  | 499.2 | 428.3 | 373.5 | 328.6 | 286.9 | 253.0 | 232.1 | 217.1 | 211.6 | 212.4 |
| 10°   | 578.0  | 520.1 | 427.5 | 353.4 | 284.9 | 233.7 | 196.6 | 178.1 | 169.4 | 166.3 | 162.7 |
| 12.5° | 618.6  | 544.2 | 425.5 | 322.3 | 236.8 | 186.4 | 160.0 | 148.9 | 140.7 | 138.3 | 138.3 |
| 15°   | 664.3  | 569.8 | 416.1 | 283.7 | 192.3 | 154.1 | 136.3 | 127.7 | 124.9 | 122.5 | 122.5 |
| 17.5° | 712.0  | 595.0 | 396.4 | 236.0 | 159.6 | 132.0 | 121.0 | 115.8 | 111.9 | 109.1 | 109.1 |
| 20°   | 766.4  | 619.8 | 364.9 | 193.9 | 134.8 | 117.8 | 109.1 | 103.2 | 100.1 | 97.7  | 96.9  |
| 22.5° | 818.0  | 639.9 | 324.7 | 159.2 | 117.4 | 106.0 | 98.1  | 91.8  | 88.7  | 87.5  | 87.5  |
| 25°   | 871.6  | 652.1 | 276.2 | 131.6 | 107.2 | 96.1  | 87.5  | 82.4  | 79.6  | 78.8  | 78.4  |
| 27.5° | 923.6  | 659.2 | 233.7 | 115.1 | 97.7  | 87.1  | 78.8  | 74.9  | 72.1  | 71.3  | 71.7  |
| 30°   | 986.6  | 660.4 | 192.3 | 103.2 | 89.4  | 78.4  | 70.9  | 67.4  | 65.8  | 65.0  | 64.6  |
| 32.5° | 1050.5 | 658.8 | 161.6 | 96.1  | 81.6  | 70.9  | 64.6  | 61.9  | 60.7  | 59.5  | 59.5  |
| 35°   | 1122.2 | 650.5 | 137.5 | 89.0  | 74.1  | 64.6  | 59.1  | 56.7  | 55.2  | 54.0  | 53.6  |
| 37.5° | 1211.2 | 646.2 | 123.7 | 81.2  | 67.4  | 58.7  | 53.6  | 51.2  | 50.0  | 48.5  | 48.1  |
| 40°   | 1351.5 | 665.5 | 119.4 | 74.1  | 60.7  | 53.2  | 48.5  | 45.7  | 44.1  | 42.6  | 42.2  |
| 42.5° | 1526.5 | 699.4 | 112.3 | 67.0  | 54.8  | 48.1  | 43.3  | 40.2  | 37.4  | 35.5  | 34.7  |
| 45°   | 1753.0 | 743.9 | 101.3 | 59.5  | 49.6  | 42.6  | 38.2  | 34.3  | 30.7  | 29.2  | 28.8  |
| 47.5° | 1990.6 | 786.9 | 91.4  | 53.6  | 44.1  | 37.8  | 33.1  | 28.8  | 25.6  | 24.4  | 24.0  |
| 50°   | 2136.4 | 795.5 | 85.1  | 46.9  | 38.6  | 32.7  | 28.0  | 24.0  | 22.1  | 20.9  | 20.9  |
| 52.5° | 2203.0 | 781.7 | 76.4  | 41.0  | 33.5  | 28.8  | 24.0  | 20.9  | 19.7  | 18.9  | 18.5  |
| 55°   | 2249.5 | 760.5 | 65.0  | 35.5  | 28.8  | 24.4  | 21.3  | 18.9  | 17.3  | 16.5  | 16.2  |
| 57°   | 2276.7 | 731.7 | 56.3  | 31.1  | 24.8  | 21.3  | 18.9  | 16.9  | 15.4  | 13.8  | 13.8  |
| 57.5° | 2277.9 | 720.7 | 54.0  | 30.7  | 23.6  | 20.5  | 18.5  | 16.5  | 14.6  | 13.0  | 12.6  |
| 60°   | 2242.8 | 645.0 | 43.3  | 26.0  | 18.9  | 17.3  | 15.4  | 13.0  | 10.2  | 8.7   | 8.3   |
| 62.5° | 2130.1 | 548.9 | 35.9  | 22.1  | 15.4  | 13.4  | 11.0  | 9.9   | 7.1   | 5.1   | 5.1   |
| 65°   | 1959.5 | 445.2 | 30.7  | 17.7  | 12.6  | 9.9   | 7.5   | 7.1   | 4.3   | 2.4   | 2.0   |
| 67.5° | 1712.8 | 346.7 | 26.0  | 14.6  | 10.6  | 7.1   | 5.1   | 4.7   | 2.4   | 0.8   | 0.0   |
| 70°   | 1305.0 | 236.4 | 21.7  | 11.8  | 7.9   | 5.1   | 3.5   | 2.8   | 1.6   | 0.4   | 0.0   |
| 72.5° | 752.2  | 130.0 | 18.1  | 9.1   | 5.9   | 3.9   | 2.8   | 1.6   | 1.6   | 0.0   | 0.0   |
| 75°   | 268.7  | 56.0  | 13.8  | 6.7   | 4.7   | 3.2   | 2.0   | 0.8   | 1.2   | 0.4   | 0.0   |
| 77.5° | 85.5   | 29.9  | 9.1   | 5.1   | 3.9   | 2.4   | 1.6   | 0.8   | 0.8   | 0.4   | 0.0   |
| 80°   | 25.2   | 15.8  | 5.5   | 4.3   | 2.8   | 2.0   | 1.2   | 0.4   | 0.8   | 0.4   | 0.0   |
| 82.5° | 13.8   | 7.9   | 4.3   | 3.2   | 2.8   | 1.6   | 1.2   | 0.4   | 0.4   | 0.4   | 0.0   |
| 85°   | 7.1    | 4.7   | 3.5   | 3.2   | 2.8   | 1.6   | 1.2   | 0.4   | 0.0   | 0.4   | 0.4   |
| 87.5° | 3.9    | 3.5   | 3.5   | 3.2   | 2.8   | 2.0   | 1.2   | 0.4   | 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)