

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: P458656

Luminaire Tested: **GALN-SA2A-735-U-T4W-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P458656  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA2A-735-U-T4W-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 3500K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6197 lumens  
Efficiency: N/A  
Efficacy: 98.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2

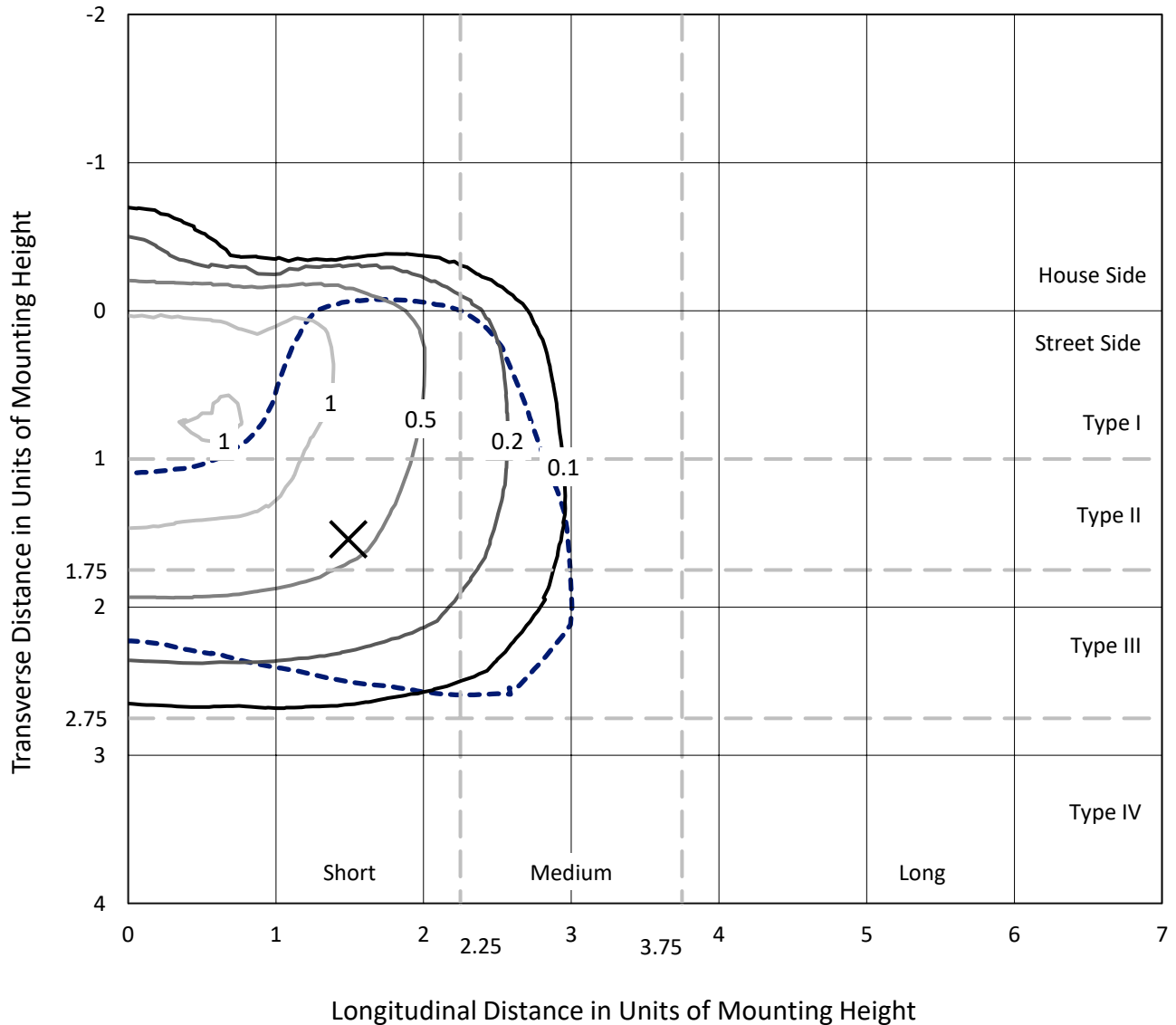
Input Watts (W): 63  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

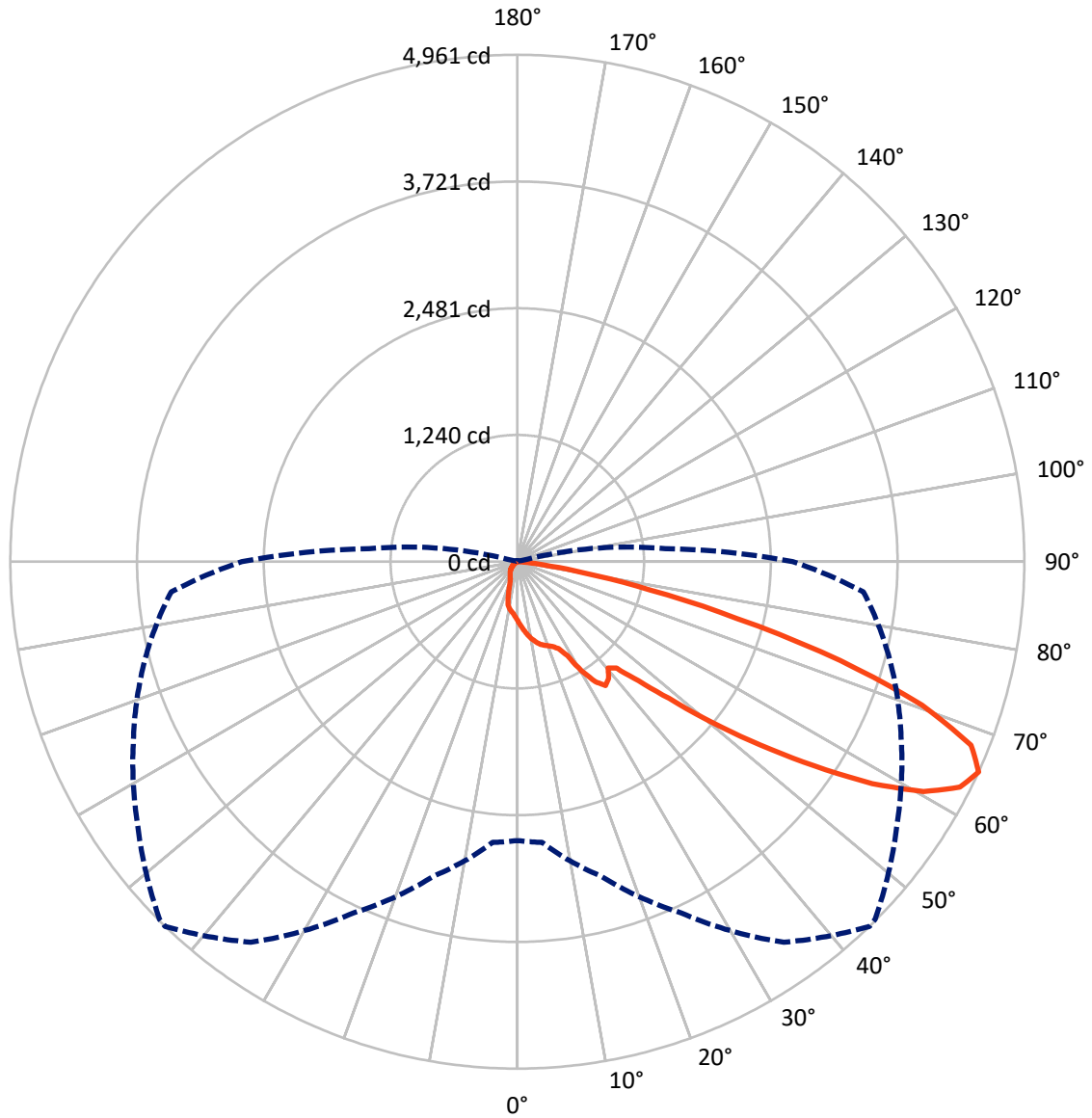
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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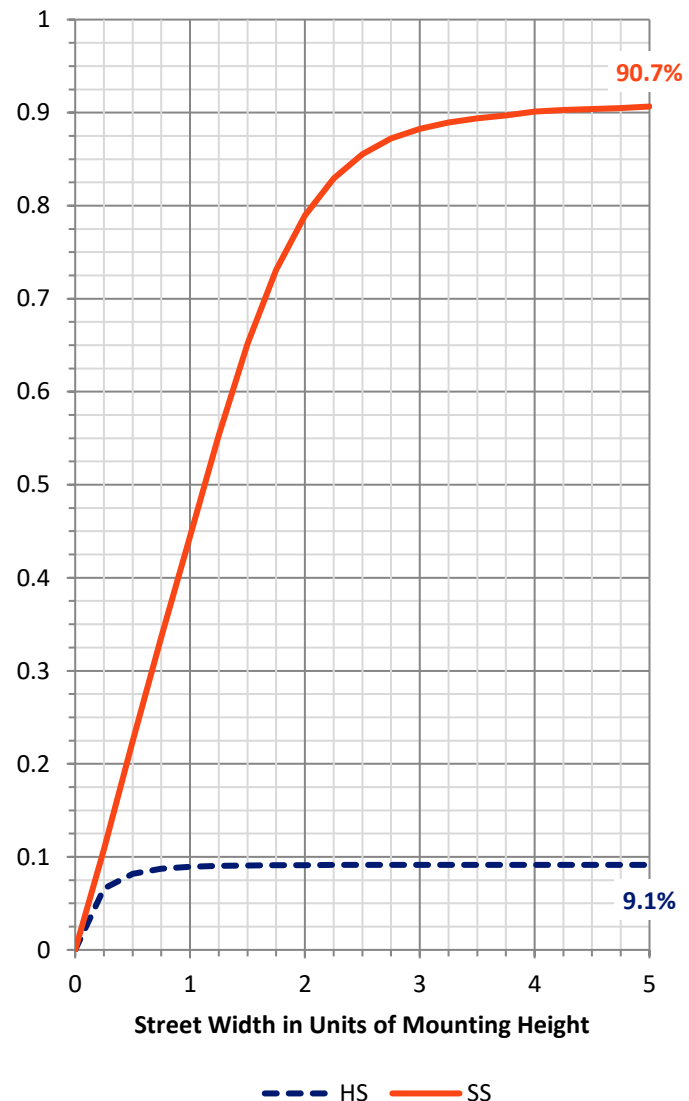
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 571.0    | 0.0    | 571.0  |
|                    | % Fixture | 9.2      | 0.0    | 9.2    |
| <b>Street Side</b> | Lumens    | 5626.0   | 0.0    | 5626.0 |
|                    | % Fixture | 90.8     | 0.0    | 90.8   |
| <b>Total</b>       | Lumens    | 6197.0   | 0.0    | 6197.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 57.4   | 0.9       |
| 10°-20°   | 172.6  | 2.8       |
| 20°-30°   | 292.8  | 4.7       |
| 30°-40°   | 486.7  | 7.9       |
| 40°-50°   | 849.9  | 13.7      |
| 50°-60°   | 1660.3 | 26.8      |
| 60°-70°   | 1926.4 | 31.1      |
| 70°-80°   | 701.5  | 11.3      |
| 80°-90°   | 49.4   | 0.8       |
| 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°    | 6197.0 | 100.0     |
| 0°-180°   | 6197.0 | 100.0     |



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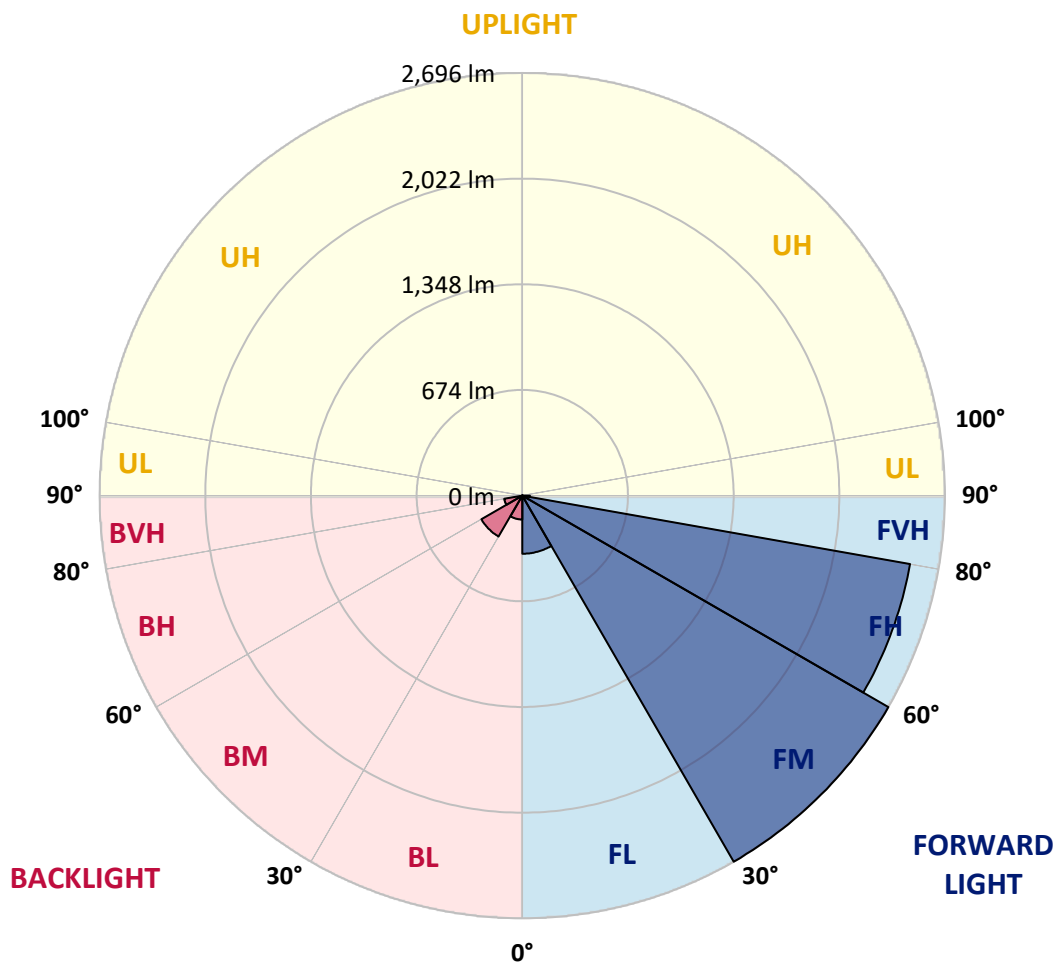
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 370.6  | 6.0       |                         |      |         |
| FM   | (30°-60°)   | 2695.7 | 43.5      |                         |      |         |
| FH   | (60°-80°)   | 2510.9 | 40.5      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 48.8   | 0.8       |                         |      | G1/100  |
| BL   | (0°-30°)    | 152.1  | 2.5       | B1/500                  |      |         |
| BM   | (30°-60°)   | 301.2  | 4.9       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 116.9  | 1.9       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 0.7    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 44°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 576.8  | 576.8  | 576.8  | 576.8  | 576.8  | 576.8  | 576.8  | 576.8  | 576.8  | 576.8  | 576.8  |
| 2.5°  | 649.2  | 646.4  | 644.9  | 637.4  | 631.7  | 624.6  | 624.6  | 615.6  | 605.2  | 593.8  | 583.4  |
| 5°    | 721.7  | 716.9  | 710.8  | 704.1  | 690.9  | 671.9  | 671.9  | 653.0  | 631.2  | 611.8  | 590.5  |
| 7.5°  | 791.3  | 787.0  | 776.6  | 763.8  | 742.0  | 722.1  | 720.7  | 693.2  | 667.2  | 637.8  | 607.5  |
| 10°   | 852.3  | 849.0  | 840.0  | 815.4  | 792.7  | 766.6  | 766.2  | 735.4  | 705.1  | 669.1  | 631.7  |
| 12.5° | 895.0  | 895.4  | 883.6  | 859.9  | 830.6  | 805.9  | 804.0  | 773.7  | 742.0  | 703.2  | 657.3  |
| 15°   | 925.3  | 925.3  | 913.0  | 886.4  | 859.9  | 838.1  | 836.2  | 809.7  | 777.1  | 734.9  | 685.2  |
| 17.5° | 933.8  | 936.6  | 923.4  | 899.7  | 878.4  | 859.5  | 859.0  | 836.7  | 810.7  | 770.0  | 713.6  |
| 20°   | 930.5  | 933.3  | 922.9  | 904.4  | 889.8  | 878.9  | 877.4  | 868.4  | 844.3  | 805.9  | 743.9  |
| 22.5° | 923.4  | 926.2  | 918.6  | 907.8  | 900.6  | 904.0  | 901.6  | 909.2  | 896.4  | 850.0  | 779.9  |
| 25°   | 924.8  | 927.6  | 922.0  | 915.8  | 922.0  | 942.3  | 948.5  | 981.1  | 969.8  | 905.9  | 818.7  |
| 27.5° | 969.3  | 975.0  | 966.9  | 969.8  | 991.6  | 1038.9 | 1050.8 | 1107.1 | 1056.9 | 976.9  | 879.3  |
| 30°   | 1068.3 | 1064.5 | 1049.3 | 1063.1 | 1138.8 | 1239.2 | 1235.9 | 1226.9 | 1148.3 | 1058.8 | 951.3  |
| 32.5° | 1158.2 | 1154.9 | 1154.0 | 1213.2 | 1350.5 | 1399.3 | 1396.9 | 1309.8 | 1230.2 | 1152.6 | 1022.3 |
| 35°   | 1194.7 | 1181.9 | 1179.1 | 1322.6 | 1552.2 | 1487.8 | 1473.1 | 1343.9 | 1329.7 | 1254.8 | 1094.8 |
| 37.5° | 1304.6 | 1295.6 | 1251.5 | 1340.6 | 1471.7 | 1450.4 | 1439.0 | 1402.6 | 1435.7 | 1345.3 | 1176.7 |
| 40°   | 1530.9 | 1505.8 | 1466.0 | 1378.9 | 1357.6 | 1366.6 | 1378.0 | 1477.9 | 1561.2 | 1468.9 | 1286.1 |
| 42.5° | 1812.2 | 1806.5 | 1732.6 | 1570.2 | 1410.6 | 1422.9 | 1437.6 | 1635.1 | 1741.6 | 1655.0 | 1464.6 |
| 45°   | 2149.8 | 2157.9 | 2051.3 | 1859.5 | 1650.2 | 1660.7 | 1682.0 | 1867.1 | 1986.0 | 1944.3 | 1745.4 |
| 47.5° | 2456.7 | 2450.5 | 2414.5 | 2215.2 | 2022.0 | 1998.8 | 2033.3 | 2165.0 | 2324.1 | 2330.7 | 2093.9 |
| 50°   | 2765.4 | 2798.1 | 2744.6 | 2666.4 | 2523.0 | 2474.2 | 2461.4 | 2525.8 | 2768.2 | 2736.5 | 2512.5 |
| 52.5° | 3209.1 | 3226.1 | 3125.8 | 3105.9 | 3138.5 | 2980.4 | 2967.6 | 2983.2 | 3200.1 | 3091.2 | 2826.0 |
| 55°   | 3488.0 | 3478.1 | 3440.6 | 3596.0 | 3725.2 | 3527.8 | 3511.7 | 3448.7 | 3558.6 | 3341.7 | 3127.6 |
| 57.5° | 3576.1 | 3590.3 | 3677.4 | 3958.2 | 4264.1 | 4096.5 | 4067.1 | 3888.1 | 3817.1 | 3575.1 | 3405.1 |
| 60°   | 3536.8 | 3562.8 | 3750.8 | 4168.5 | 4592.7 | 4567.6 | 4542.5 | 4241.9 | 4002.7 | 3770.2 | 3599.8 |
| 62.5° | 3256.9 | 3293.4 | 3594.1 | 4131.0 | 4704.0 | 4860.8 | 4829.5 | 4462.5 | 4126.3 | 3864.9 | 3633.8 |
| 65°   | 2729.4 | 2756.4 | 3188.3 | 3791.5 | 4545.9 | 4961.1 | 4949.8 | 4531.7 | 4145.7 | 3778.3 | 3400.4 |
| 67.5° | 1945.7 | 2037.6 | 2437.7 | 3195.4 | 4078.0 | 4789.7 | 4809.1 | 4448.8 | 3963.4 | 3403.7 | 2816.1 |
| 70°   | 1223.1 | 1285.6 | 1572.6 | 2287.6 | 3269.2 | 4202.1 | 4266.0 | 4069.5 | 3439.7 | 2653.2 | 1885.1 |
| 72.5° | 583.4  | 629.8  | 834.4  | 1448.0 | 2307.5 | 3306.2 | 3356.8 | 3340.7 | 2659.8 | 1671.6 | 972.6  |
| 75°   | 260.0  | 277.5  | 398.2  | 739.2  | 1489.7 | 2222.3 | 2353.4 | 2375.2 | 1662.1 | 817.8  | 378.3  |
| 77.5° | 132.6  | 133.1  | 186.6  | 358.0  | 743.9  | 1325.9 | 1351.9 | 1428.2 | 901.1  | 360.4  | 131.6  |
| 80°   | 70.6   | 75.3   | 99.0   | 169.0  | 385.9  | 653.0  | 649.7  | 714.1  | 399.7  | 176.6  | 44.0   |
| 82.5° | 31.7   | 35.0   | 55.9   | 88.5   | 188.5  | 247.7  | 267.1  | 292.2  | 171.4  | 112.7  | 19.4   |
| 85°   | 9.5    | 11.4   | 27.5   | 44.5   | 68.2   | 71.5   | 80.0   | 103.2  | 97.1   | 80.0   | 9.9    |
| 87.5° | 1.4    | 1.4    | 11.4   | 12.3   | 9.9    | 12.8   | 13.3   | 14.7   | 31.3   | 29.4   | 5.2    |
| 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°    | 576.8  | 576.8  | 576.8 | 576.8 | 576.8 | 576.8 | 576.8 | 576.8 | 576.8 | 576.8 | 576.8 |
| 2.5°  | 577.7  | 574.4  | 562.6 | 552.6 | 544.1 | 538.9 | 532.7 | 528.9 | 527.0 | 525.6 | 526.1 |
| 5°    | 580.1  | 572.0  | 551.7 | 535.6 | 523.2 | 510.0 | 501.0 | 495.8 | 493.4 | 489.6 | 489.6 |
| 7.5°  | 593.3  | 580.5  | 552.1 | 527.5 | 506.2 | 488.2 | 471.2 | 465.0 | 460.7 | 459.8 | 458.8 |
| 10°   | 612.3  | 596.2  | 557.3 | 523.2 | 492.9 | 468.3 | 444.2 | 422.9 | 406.3 | 396.3 | 394.9 |
| 12.5° | 635.9  | 612.7  | 565.4 | 520.4 | 481.6 | 438.0 | 374.1 | 331.0 | 302.1 | 293.1 | 294.5 |
| 15°   | 657.7  | 632.6  | 573.4 | 518.0 | 460.7 | 363.2 | 290.7 | 241.5 | 226.8 | 225.4 | 225.9 |
| 17.5° | 683.8  | 653.9  | 582.9 | 514.7 | 403.4 | 277.5 | 215.9 | 202.7 | 205.5 | 210.2 | 209.8 |
| 20°   | 710.8  | 676.7  | 594.3 | 494.8 | 322.0 | 208.8 | 190.8 | 192.3 | 196.5 | 200.8 | 201.7 |
| 22.5° | 739.6  | 702.7  | 607.5 | 447.0 | 245.8 | 181.8 | 180.9 | 182.8 | 187.0 | 191.8 | 192.7 |
| 25°   | 779.4  | 735.4  | 617.5 | 384.5 | 186.1 | 168.1 | 170.0 | 173.3 | 177.1 | 182.3 | 183.3 |
| 27.5° | 830.6  | 779.4  | 622.7 | 303.1 | 161.0 | 155.8 | 156.3 | 161.0 | 165.7 | 170.5 | 170.5 |
| 30°   | 896.9  | 832.0  | 612.3 | 229.2 | 148.7 | 144.0 | 142.1 | 144.9 | 151.1 | 155.8 | 156.3 |
| 32.5° | 956.1  | 881.7  | 584.8 | 175.2 | 139.7 | 133.1 | 128.3 | 128.8 | 131.2 | 134.0 | 134.5 |
| 35°   | 1015.2 | 930.0  | 537.9 | 147.3 | 130.2 | 122.6 | 115.5 | 111.8 | 109.9 | 108.4 | 109.9 |
| 37.5° | 1091.0 | 990.1  | 475.4 | 134.0 | 122.2 | 112.7 | 102.8 | 94.7  | 88.1  | 83.8  | 84.8  |
| 40°   | 1188.6 | 1073.5 | 401.6 | 125.5 | 114.6 | 103.2 | 90.0  | 79.6  | 68.2  | 64.4  | 62.5  |
| 42.5° | 1349.6 | 1199.9 | 323.9 | 118.4 | 107.0 | 93.3  | 76.7  | 62.5  | 52.1  | 48.3  | 49.2  |
| 45°   | 1603.8 | 1359.5 | 249.5 | 110.8 | 99.4  | 82.4  | 64.4  | 49.2  | 40.7  | 38.8  | 39.8  |
| 47.5° | 1941.0 | 1566.0 | 192.3 | 102.3 | 90.0  | 70.6  | 50.7  | 38.8  | 33.6  | 33.1  | 32.7  |
| 50°   | 2258.3 | 1758.2 | 160.5 | 92.8  | 78.6  | 58.7  | 41.7  | 32.7  | 29.4  | 28.9  | 28.9  |
| 52.5° | 2545.2 | 1896.0 | 130.7 | 81.9  | 66.3  | 48.3  | 35.0  | 28.9  | 26.0  | 24.6  | 24.6  |
| 55°   | 2800.4 | 1986.0 | 106.1 | 68.7  | 52.1  | 38.4  | 30.3  | 26.0  | 22.7  | 20.8  | 20.4  |
| 57.5° | 2993.2 | 1996.9 | 79.6  | 54.9  | 38.8  | 29.8  | 26.0  | 22.7  | 18.9  | 16.6  | 15.6  |
| 60°   | 3075.6 | 1902.6 | 58.7  | 41.7  | 28.9  | 23.7  | 20.8  | 18.5  | 14.2  | 11.8  | 11.4  |
| 62.5° | 2992.7 | 1719.4 | 43.6  | 31.7  | 22.3  | 17.5  | 14.7  | 13.7  | 9.9   | 7.1   | 6.6   |
| 65°   | 2695.8 | 1454.7 | 34.6  | 24.1  | 16.6  | 12.8  | 9.5   | 9.0   | 6.2   | 3.3   | 2.8   |
| 67.5° | 2159.8 | 1139.3 | 27.5  | 18.0  | 11.8  | 8.5   | 6.2   | 5.7   | 3.3   | 0.9   | 0.9   |
| 70°   | 1404.5 | 728.3  | 22.3  | 13.3  | 7.6   | 5.7   | 3.8   | 2.8   | 1.9   | 0.5   | 0.0   |
| 72.5° | 694.7  | 340.5  | 18.0  | 10.4  | 5.2   | 2.8   | 1.4   | 0.9   | 1.4   | 0.0   | 0.0   |
| 75°   | 269.4  | 121.2  | 13.3  | 7.1   | 2.8   | 1.4   | 0.9   | 0.0   | 0.5   | 0.0   | 0.0   |
| 77.5° | 89.5   | 40.2   | 8.0   | 3.8   | 1.9   | 0.9   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 80°   | 33.1   | 15.6   | 4.3   | 2.4   | 0.9   | 0.5   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 82.5° | 13.3   | 6.2    | 2.8   | 1.9   | 0.9   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 6.6    | 3.8    | 1.9   | 1.4   | 0.9   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 4.7    | 2.8    | 1.9   | 1.4   | 0.9   | 0.5   | 0.0   | 0.0   | 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)