

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: P594912

Luminaire Tested: **ISS-PA1F-827-U-T2R**

Issue Date: 3/22/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P594912  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2201-510-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/22/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: ISS-PA1F-827-U-T2R  
Description: IMPACT ELITE LED QUARTER SPHERE LUMINAIRE  
(1) 80 CRI, 2700K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8638 lumens  
Efficiency: N/A  
Efficacy: 91.5 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G2

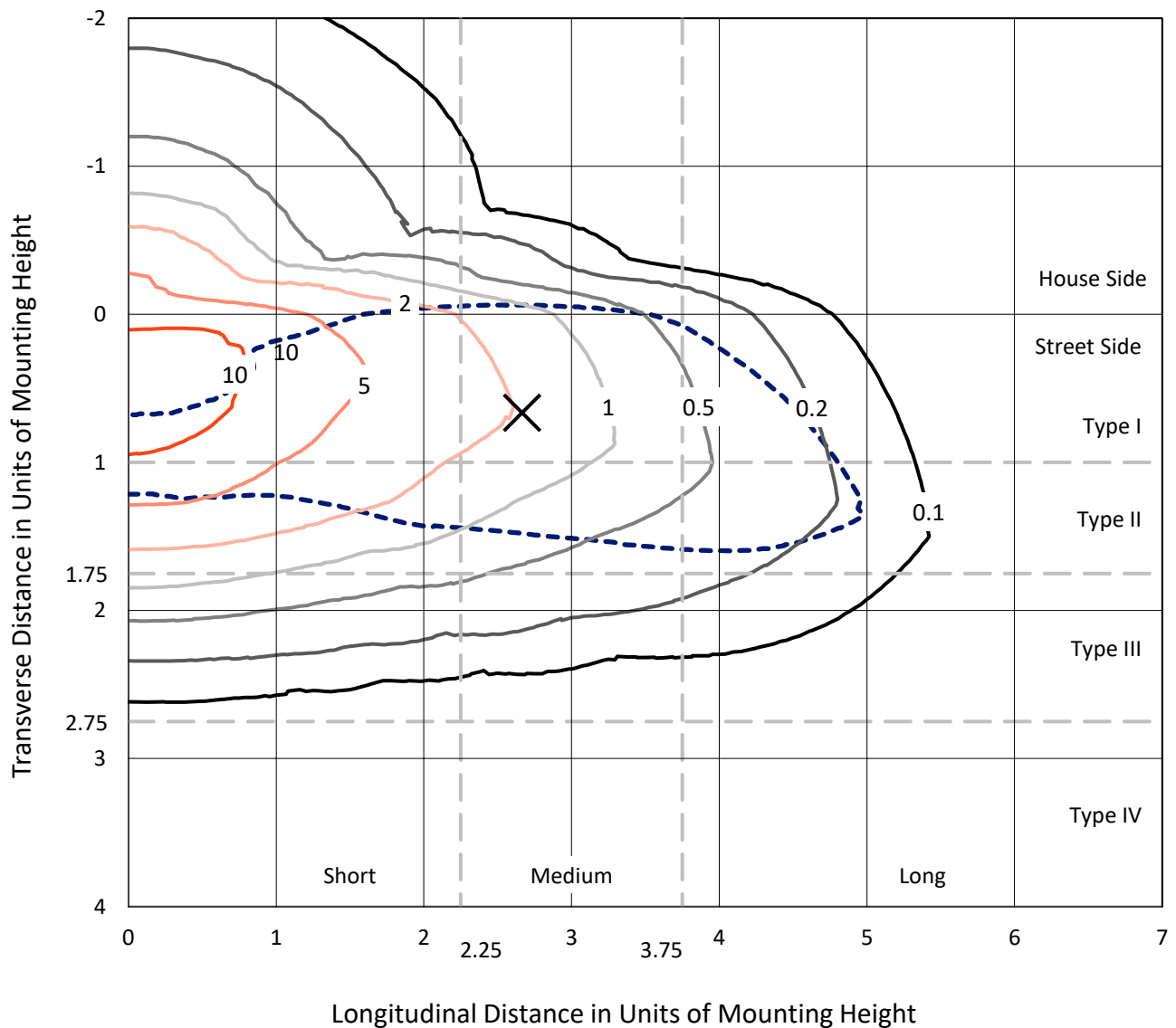
Input Watts (W): 94.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

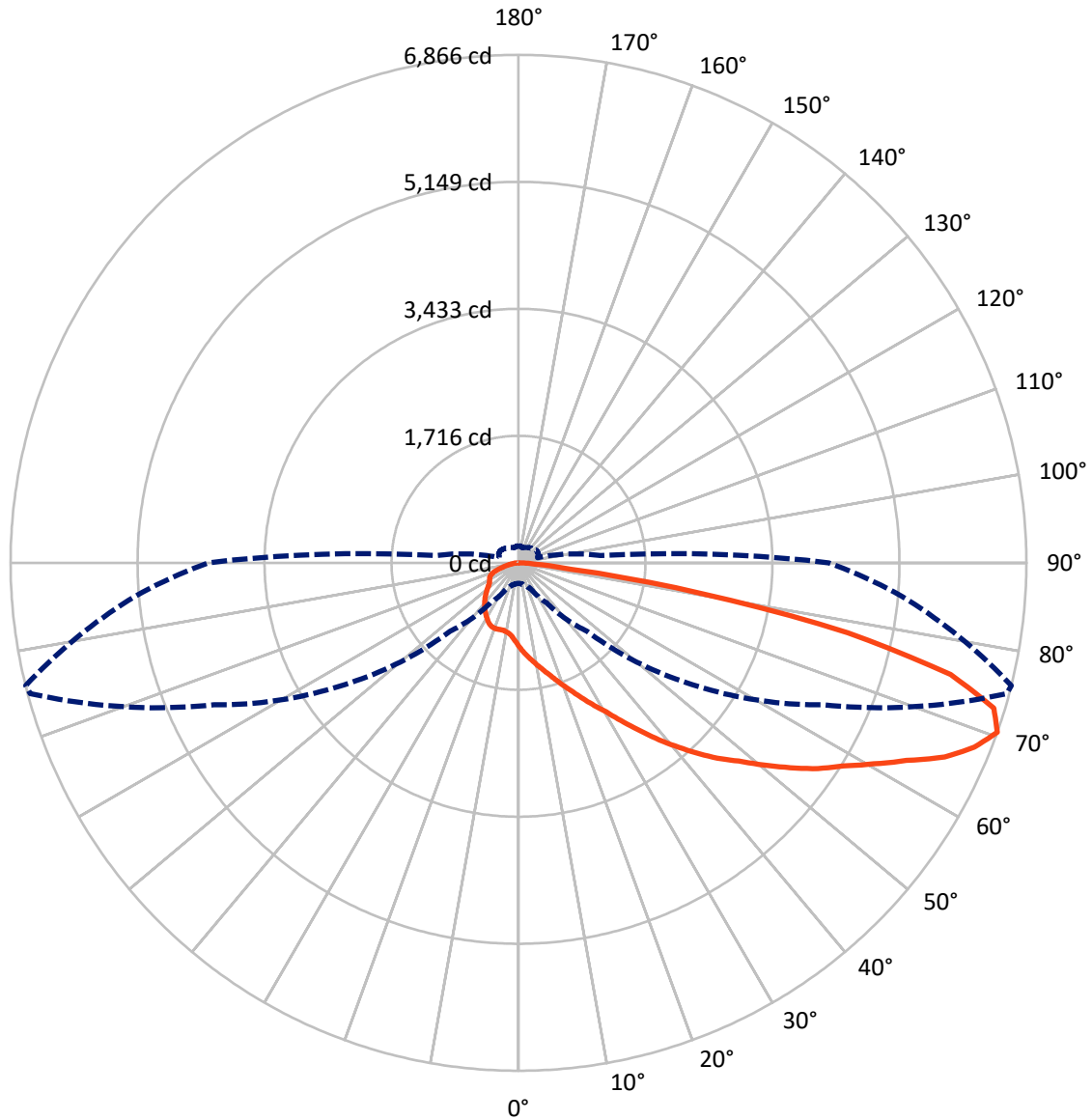
× Max cd  
 - - - 1/2 Max cd



Based on 12 foot mounting height. Maximum calculated value = 13.6 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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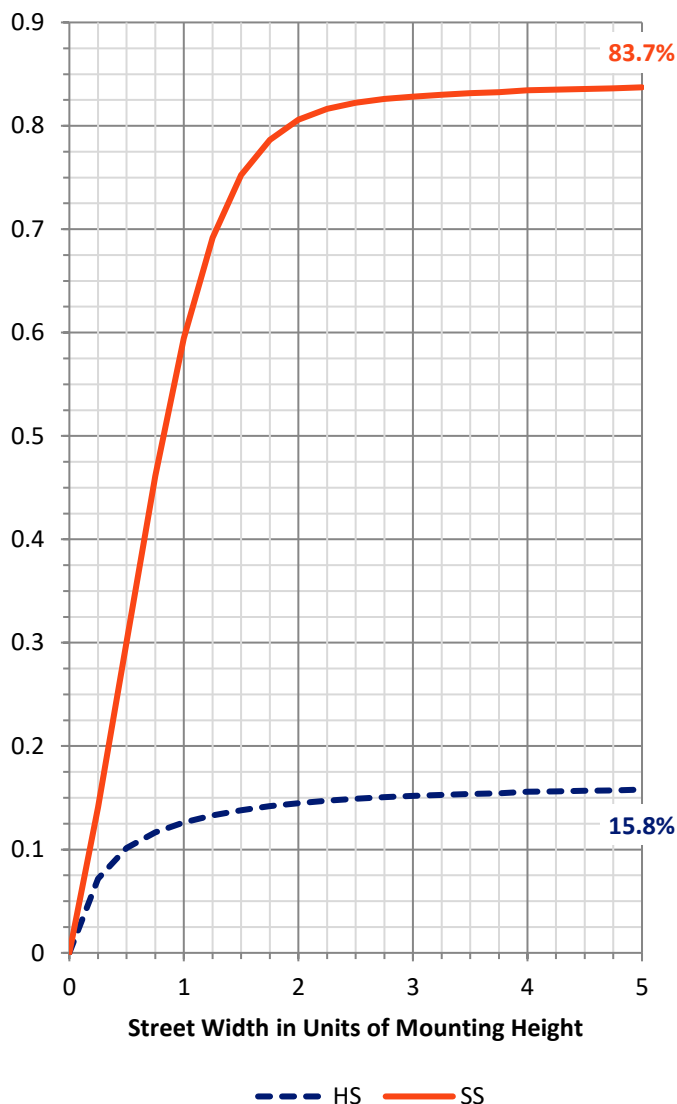
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1385.5   | 0.0    | 1385.5 |
|                    | % Fixture | 16.0     | 0.0    | 16.0   |
| <b>Street Side</b> | Lumens    | 7252.5   | 0.0    | 7252.5 |
|                    | % Fixture | 84.0     | 0.0    | 84.0   |
| <b>Total</b>       | Lumens    | 8638.0   | 0.0    | 8638.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 110.5  | 1.3       |
| 10°-20°   | 364.4  | 4.2       |
| 20°-30°   | 671.6  | 7.8       |
| 30°-40°   | 1125.3 | 13.0      |
| 40°-50°   | 1599.0 | 18.5      |
| 50°-60°   | 1846.1 | 21.4      |
| 60°-70°   | 1697.1 | 19.6      |
| 70°-80°   | 1070.1 | 12.4      |
| 80°-90°   | 153.9  | 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°    | 8638.0 | 100.0     |
| 0°-180°   | 8638.0 | 100.0     |

**Coefficient of Utilization**

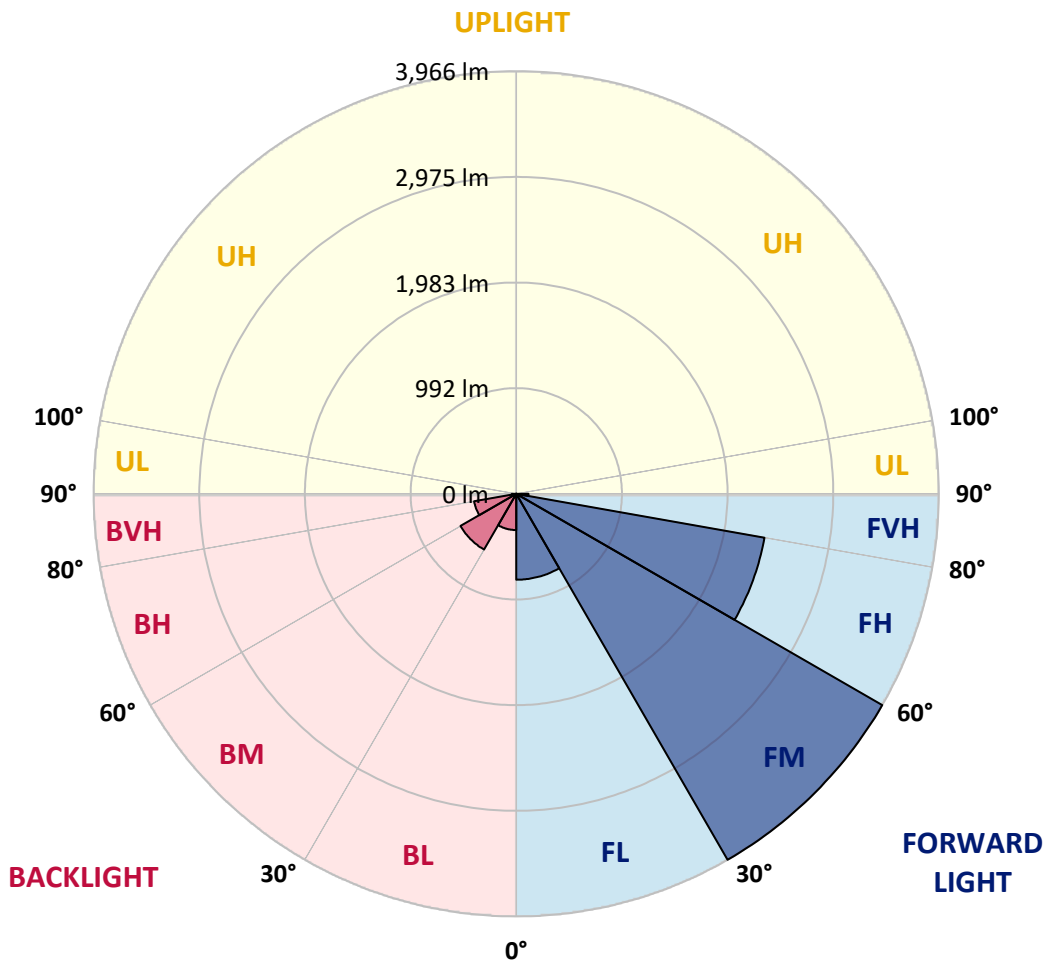


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 806.5  | 9.3       |                         |      |         |
| FM (30°-60°)   | 3966.4 | 45.9      |                         |      |         |
| FH (60°-80°)   | 2365.6 | 27.4      |                         |      | G2/5000 |
| FVH (80°-90°)  | 114.1  | 1.3       |                         |      | G2/225  |
| BL (0°-30°)    | 340.1  | 3.9       | B1/500                  |      |         |
| BM (30°-60°)   | 604.0  | 7.0       | B1/1000                 |      |         |
| BH (60°-80°)   | 401.5  | 4.6       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 39.8   | 0.5       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**  
 Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 76°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1133.2 | 1133.2 | 1133.2 | 1133.2 | 1133.2 | 1133.2 | 1133.2 | 1133.2 | 1133.2 | 1133.2 | 1133.2 |
| 2.5°  | 1364.0 | 1361.9 | 1355.7 | 1345.3 | 1336.9 | 1312.0 | 1278.7 | 1249.6 | 1205.9 | 1201.8 | 1158.1 |
| 5°    | 1486.6 | 1478.3 | 1478.3 | 1467.9 | 1457.5 | 1430.5 | 1388.9 | 1336.9 | 1274.6 | 1270.4 | 1187.2 |
| 7.5°  | 1544.9 | 1546.9 | 1542.8 | 1534.5 | 1536.5 | 1513.7 | 1476.2 | 1424.3 | 1339.0 | 1334.9 | 1226.7 |
| 10°   | 1628.0 | 1626.0 | 1617.6 | 1611.4 | 1609.3 | 1588.5 | 1555.3 | 1507.4 | 1418.0 | 1409.7 | 1272.5 |
| 12.5° | 1709.1 | 1702.9 | 1705.0 | 1702.9 | 1698.7 | 1677.9 | 1646.7 | 1598.9 | 1488.7 | 1484.6 | 1328.6 |
| 15°   | 1754.9 | 1752.8 | 1767.3 | 1771.5 | 1788.1 | 1769.4 | 1742.4 | 1688.3 | 1588.5 | 1571.9 | 1395.2 |
| 17.5° | 1784.0 | 1781.9 | 1796.4 | 1829.7 | 1860.9 | 1860.9 | 1852.6 | 1794.4 | 1684.2 | 1671.7 | 1470.0 |
| 20°   | 1833.9 | 1842.2 | 1867.1 | 1894.2 | 1939.9 | 1948.2 | 1946.2 | 1921.2 | 1794.4 | 1781.9 | 1553.2 |
| 22.5° | 1933.7 | 1929.5 | 1950.3 | 1991.9 | 2033.5 | 2046.0 | 2048.0 | 2048.0 | 1921.2 | 1898.3 | 1638.4 |
| 25°   | 2147.8 | 2137.4 | 2120.8 | 2116.6 | 2166.6 | 2164.5 | 2158.2 | 2172.8 | 2054.3 | 2037.6 | 1736.2 |
| 27.5° | 2555.4 | 2532.5 | 2468.0 | 2339.1 | 2310.0 | 2320.4 | 2289.2 | 2291.3 | 2206.1 | 2185.3 | 1819.3 |
| 30°   | 2942.1 | 2931.7 | 2871.4 | 2715.5 | 2551.2 | 2493.0 | 2438.9 | 2416.1 | 2374.5 | 2339.1 | 1908.7 |
| 32.5° | 3291.4 | 3293.5 | 3220.7 | 3050.2 | 2881.8 | 2698.8 | 2605.3 | 2557.4 | 2574.1 | 2542.9 | 2031.4 |
| 35°   | 3528.4 | 3509.7 | 3464.0 | 3349.6 | 3166.7 | 2992.0 | 2813.2 | 2707.1 | 2796.6 | 2761.2 | 2154.1 |
| 37.5° | 3667.8 | 3653.2 | 3615.8 | 3534.7 | 3443.2 | 3274.8 | 3048.1 | 2886.0 | 3060.6 | 3008.6 | 2310.0 |
| 40°   | 3738.4 | 3717.7 | 3680.2 | 3647.0 | 3603.3 | 3511.8 | 3312.2 | 3089.7 | 3301.8 | 3256.1 | 2463.9 |
| 42.5° | 3746.8 | 3732.2 | 3711.4 | 3694.8 | 3709.3 | 3696.9 | 3570.0 | 3326.8 | 3555.5 | 3505.6 | 2640.6 |
| 45°   | 3740.5 | 3750.9 | 3726.0 | 3696.9 | 3726.0 | 3832.0 | 3832.0 | 3563.8 | 3807.1 | 3769.6 | 2809.0 |
| 47.5° | 3744.7 | 3734.3 | 3726.0 | 3717.7 | 3721.8 | 3867.4 | 4012.9 | 3786.3 | 4048.2 | 4004.6 | 3006.6 |
| 50°   | 3572.1 | 3586.7 | 3657.4 | 3688.5 | 3707.3 | 3875.7 | 4158.4 | 4027.5 | 4347.7 | 4293.6 | 3227.0 |
| 52.5° | 3023.2 | 3031.5 | 3353.8 | 3586.7 | 3661.5 | 3842.4 | 4260.3 | 4295.7 | 4642.9 | 4601.3 | 3464.0 |
| 55°   | 2328.7 | 2372.4 | 2678.0 | 3247.7 | 3557.6 | 3786.3 | 4291.5 | 4470.3 | 4944.4 | 4911.1 | 3703.1 |
| 57.5° | 1917.0 | 1923.3 | 2100.0 | 2609.4 | 3229.0 | 3734.3 | 4322.7 | 4630.4 | 5214.7 | 5177.3 | 3952.6 |
| 60°   | 1590.6 | 1576.1 | 1684.2 | 2012.7 | 2682.2 | 3526.4 | 4328.9 | 4757.3 | 5528.7 | 5516.2 | 4210.4 |
| 62.5° | 1168.5 | 1185.2 | 1289.1 | 1567.7 | 2097.9 | 3104.3 | 4297.8 | 4865.4 | 5902.9 | 5886.3 | 4497.4 |
| 65°   | 717.3  | 738.1  | 865.0  | 1120.7 | 1588.5 | 2463.9 | 4094.0 | 4921.5 | 6295.9 | 6333.3 | 4807.2 |
| 67.5° | 380.5  | 395.1  | 469.9  | 677.8  | 1089.5 | 1877.5 | 3603.3 | 4850.8 | 6628.6 | 6645.2 | 5104.5 |
| 70°   | 278.6  | 280.7  | 305.6  | 382.6  | 657.0  | 1305.8 | 2869.3 | 4543.1 | 6832.3 | 6865.6 | 5202.2 |
| 72.5° | 243.3  | 245.3  | 255.7  | 274.5  | 357.6  | 796.3  | 2056.4 | 4006.7 | 6747.1 | 6718.0 | 5038.0 |
| 75°   | 220.4  | 220.4  | 228.7  | 235.0  | 262.0  | 440.8  | 1260.0 | 3278.9 | 6096.3 | 6031.8 | 4295.7 |
| 77.5° | 189.2  | 189.2  | 197.5  | 205.8  | 226.6  | 284.9  | 659.1  | 2430.6 | 4661.6 | 4551.4 | 2937.9 |
| 80°   | 151.8  | 151.8  | 162.2  | 172.6  | 199.6  | 214.2  | 322.3  | 1626.0 | 2665.6 | 2503.4 | 1336.9 |
| 82.5° | 104.0  | 112.3  | 131.0  | 143.5  | 166.3  | 151.8  | 189.2  | 702.8  | 840.0  | 727.7  | 301.5  |
| 85°   | 62.4   | 66.5   | 93.6   | 108.1  | 124.8  | 81.1   | 116.4  | 270.3  | 251.6  | 220.4  | 68.6   |
| 87.5° | 6.2    | 10.4   | 37.4   | 43.7   | 43.7   | 22.9   | 49.9   | 64.5   | 72.8   | 74.9   | 16.6   |
| 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°    | 1133.2 | 1133.2 | 1133.2 | 1133.2 | 1133.2 | 1133.2 | 1133.2 | 1133.2 | 1133.2 | 1133.2 | 1133.2 |
| 2.5°  | 1133.2 | 1108.2 | 1060.4 | 1016.7 | 973.1  | 944.0  | 914.9  | 904.5  | 889.9  | 879.5  | 887.8  |
| 5°    | 1143.6 | 1091.6 | 1000.1 | 923.2  | 871.2  | 831.7  | 813.0  | 802.6  | 794.3  | 792.2  | 790.1  |
| 7.5°  | 1156.0 | 1079.1 | 956.4  | 871.2  | 821.3  | 802.6  | 798.4  | 798.4  | 798.4  | 800.5  | 802.6  |
| 10°   | 1183.1 | 1083.3 | 933.6  | 842.1  | 815.1  | 810.9  | 813.0  | 821.3  | 821.3  | 823.4  | 823.4  |
| 12.5° | 1214.3 | 1093.7 | 916.9  | 837.9  | 821.3  | 823.4  | 825.5  | 829.6  | 829.6  | 835.8  | 833.8  |
| 15°   | 1260.0 | 1114.5 | 914.9  | 842.1  | 827.5  | 823.4  | 823.4  | 821.3  | 821.3  | 821.3  | 825.5  |
| 17.5° | 1318.2 | 1143.6 | 916.9  | 842.1  | 821.3  | 813.0  | 806.7  | 800.5  | 792.2  | 796.3  | 792.2  |
| 20°   | 1376.4 | 1178.9 | 916.9  | 831.7  | 804.7  | 783.9  | 765.2  | 754.8  | 744.4  | 742.3  | 744.4  |
| 22.5° | 1449.2 | 1220.5 | 906.5  | 808.8  | 769.3  | 740.2  | 713.2  | 698.6  | 682.0  | 675.7  | 671.6  |
| 25°   | 1511.6 | 1253.8 | 885.7  | 775.6  | 729.8  | 688.2  | 652.9  | 627.9  | 607.1  | 603.0  | 603.0  |
| 27.5° | 1576.1 | 1282.9 | 854.6  | 734.0  | 673.7  | 627.9  | 588.4  | 557.2  | 536.4  | 534.4  | 532.3  |
| 30°   | 1636.3 | 1307.8 | 813.0  | 688.2  | 623.8  | 569.7  | 524.0  | 496.9  | 478.2  | 467.8  | 461.6  |
| 32.5° | 1715.4 | 1341.1 | 773.5  | 642.5  | 565.5  | 511.5  | 469.9  | 447.0  | 422.1  | 405.4  | 399.2  |
| 35°   | 1815.2 | 1380.6 | 729.8  | 592.6  | 513.6  | 459.5  | 434.6  | 401.3  | 370.1  | 351.4  | 345.2  |
| 37.5° | 1927.4 | 1436.7 | 684.1  | 540.6  | 461.6  | 422.1  | 407.5  | 355.5  | 322.3  | 316.0  | 314.0  |
| 40°   | 2066.7 | 1490.8 | 632.1  | 486.5  | 411.7  | 401.3  | 376.3  | 322.3  | 305.6  | 303.6  | 301.5  |
| 42.5° | 2206.1 | 1549.0 | 582.2  | 432.5  | 372.2  | 376.3  | 341.0  | 314.0  | 299.4  | 295.2  | 293.2  |
| 45°   | 2368.2 | 1607.2 | 532.3  | 384.7  | 341.0  | 341.0  | 322.3  | 305.6  | 293.2  | 289.0  | 289.0  |
| 47.5° | 2538.7 | 1665.5 | 478.2  | 343.1  | 318.1  | 305.6  | 307.7  | 295.2  | 286.9  | 282.8  | 280.7  |
| 50°   | 2752.9 | 1721.6 | 428.3  | 314.0  | 303.6  | 286.9  | 293.2  | 284.9  | 280.7  | 276.5  | 274.5  |
| 52.5° | 2954.6 | 1746.5 | 382.6  | 297.3  | 295.2  | 278.6  | 280.7  | 276.5  | 274.5  | 268.2  | 266.1  |
| 55°   | 3152.1 | 1740.3 | 347.2  | 289.0  | 284.9  | 276.5  | 272.4  | 270.3  | 268.2  | 262.0  | 259.9  |
| 57.5° | 3372.5 | 1732.0 | 324.4  | 286.9  | 278.6  | 270.3  | 270.3  | 264.1  | 255.7  | 255.7  | 255.7  |
| 60°   | 3601.2 | 1705.0 | 314.0  | 286.9  | 276.5  | 270.3  | 266.1  | 259.9  | 251.6  | 253.7  | 251.6  |
| 62.5° | 3859.0 | 1653.0 | 307.7  | 293.2  | 278.6  | 268.2  | 264.1  | 255.7  | 245.3  | 247.4  | 245.3  |
| 65°   | 4085.7 | 1546.9 | 303.6  | 299.4  | 282.8  | 270.3  | 259.9  | 249.5  | 237.0  | 239.1  | 237.0  |
| 67.5° | 4239.5 | 1368.1 | 291.1  | 303.6  | 289.0  | 268.2  | 255.7  | 241.2  | 224.6  | 232.9  | 230.8  |
| 70°   | 4195.9 | 1112.4 | 268.2  | 295.2  | 295.2  | 270.3  | 249.5  | 230.8  | 212.1  | 228.7  | 222.5  |
| 72.5° | 3857.0 | 835.8  | 224.6  | 266.1  | 291.1  | 270.3  | 237.0  | 214.2  | 197.5  | 207.9  | 195.4  |
| 75°   | 3166.7 | 567.6  | 178.8  | 212.1  | 272.4  | 272.4  | 226.6  | 197.5  | 176.7  | 170.5  | 166.3  |
| 77.5° | 1975.3 | 353.5  | 139.3  | 155.9  | 228.7  | 270.3  | 216.2  | 176.7  | 147.6  | 143.5  | 139.3  |
| 80°   | 781.8  | 189.2  | 110.2  | 112.3  | 168.4  | 247.4  | 201.7  | 149.7  | 118.5  | 114.4  | 106.0  |
| 82.5° | 178.8  | 95.6   | 76.9   | 74.9   | 104.0  | 201.7  | 183.0  | 118.5  | 91.5   | 91.5   | 76.9   |
| 85°   | 54.1   | 49.9   | 49.9   | 47.8   | 52.0   | 104.0  | 141.4  | 81.1   | 62.4   | 43.7   | 37.4   |
| 87.5° | 14.6   | 20.8   | 18.7   | 16.6   | 16.6   | 14.6   | 45.7   | 20.8   | 12.5   | 6.2    | 4.2    |
| 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)