

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: INVUE

Report Number: P401747

Luminaire Tested: **ENC-SA1E-827-U-T2-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401747  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENC-SA1E-827-U-T2-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3913 lumens  
Efficiency: N/A  
Efficacy: 68.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B0 - U0 - G1

Input Watts (W): 57.2  
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

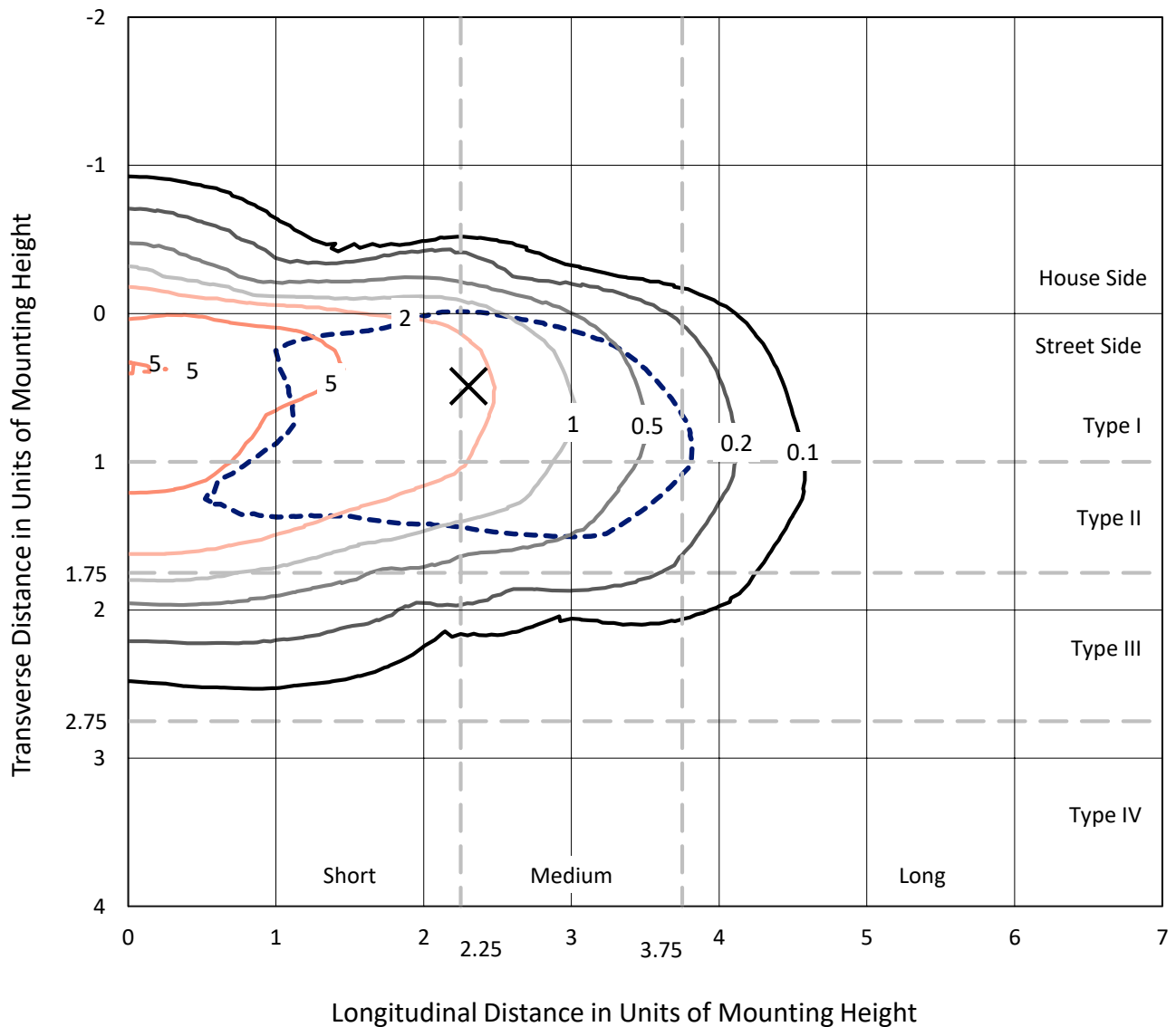


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

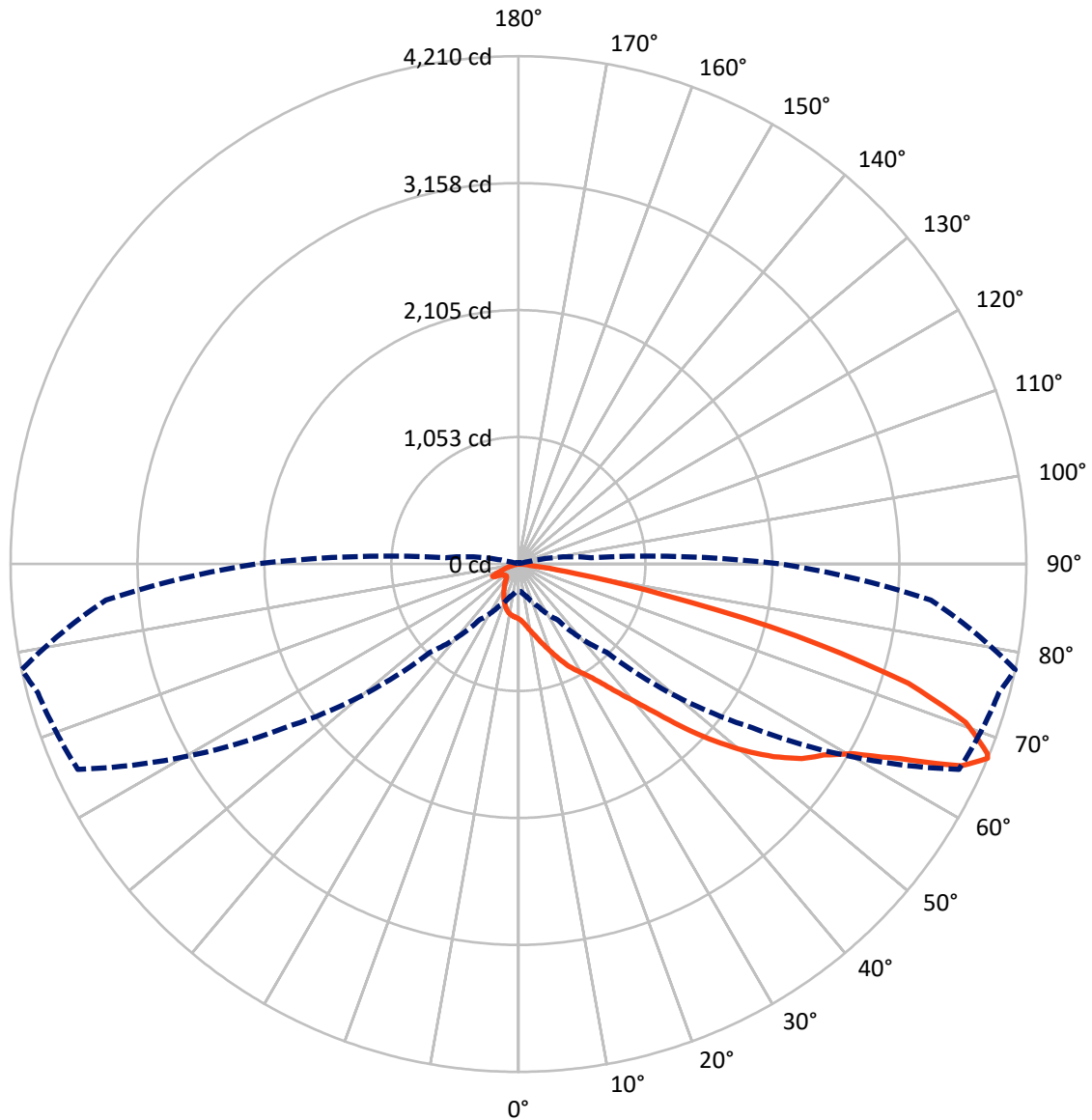


Based on 10 foot mounting height. Maximum calculated value = 7.1 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral      - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 276.1    | 0.0    | 276.1  |
|                    | % Fixture | 7.1      | 0.0    | 7.1    |
| <b>Street Side</b> | Lumens    | 3636.9   | 0.0    | 3636.9 |
|                    | % Fixture | 92.9     | 0.0    | 92.9   |
| <b>Total</b>       | Lumens    | 3913.0   | 0.0    | 3913.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 43.8   | 1.1       |
| 10°-20°   | 125.4  | 3.2       |
| 20°-30°   | 221.6  | 5.7       |
| 30°-40°   | 390.8  | 10.0      |
| 40°-50°   | 671.6  | 17.2      |
| 50°-60°   | 1011.0 | 25.8      |
| 60°-70°   | 994.9  | 25.4      |
| 70°-80°   | 434.7  | 11.1      |
| 80°-90°   | 19.3   | 0.5       |
| 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°    | 3913.0 | 100.0     |
| 0°-180°   | 3913.0 | 100.0     |



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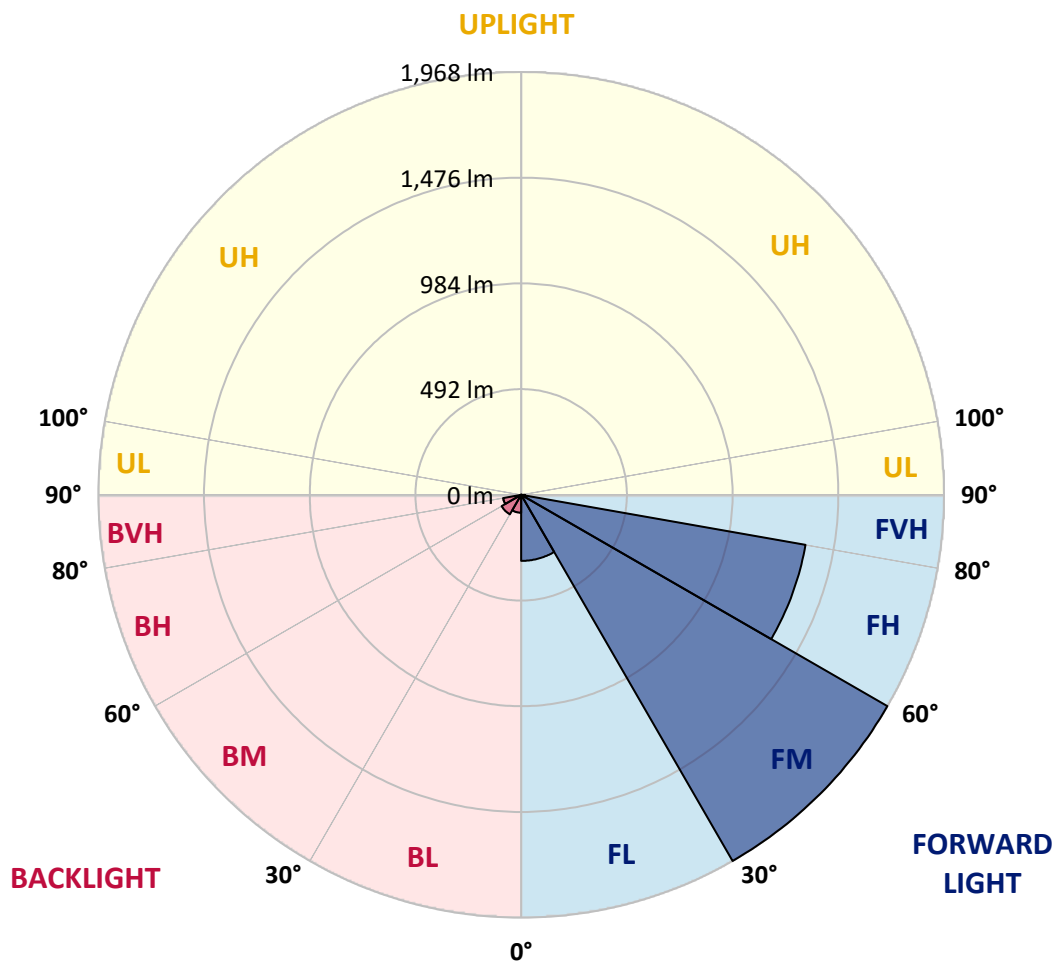
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 307.4  | 7.9       |                         |      |         |
| FM (30°-60°)   | 1968.3 | 50.3      |                         |      |         |
| FH (60°-80°)   | 1343.9 | 34.3      |                         |      | G1/1800 |
| FVH (80°-90°)  | 17.3   | 0.4       |                         |      | G1/100  |
| BL (0°-30°)    | 83.4   | 2.1       | B0/110                  |      |         |
| BM (30°-60°)   | 105.0  | 2.7       | B0/220                  |      |         |
| BH (60°-80°)   | 85.6   | 2.2       | B0/110                  |      | G0/110  |
| BVH (80°-90°)  | 2.0    | 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-G1**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 78°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 454.3  | 454.3  | 454.3  | 454.3  | 454.3  | 454.3  | 454.3  | 454.3  | 454.3  | 454.3  | 454.3  |
| 2.5°  | 521.2  | 523.4  | 520.5  | 518.3  | 512.4  | 505.0  | 497.7  | 486.7  | 474.9  | 470.5  | 463.1  |
| 5°    | 585.2  | 585.2  | 585.2  | 579.3  | 574.2  | 560.2  | 543.3  | 526.4  | 504.3  | 496.2  | 479.3  |
| 7.5°  | 619.0  | 619.7  | 621.9  | 621.9  | 619.0  | 609.4  | 591.1  | 571.9  | 538.9  | 527.8  | 500.6  |
| 10°   | 622.7  | 625.6  | 631.5  | 640.3  | 646.9  | 652.1  | 641.0  | 620.5  | 580.8  | 567.5  | 527.8  |
| 12.5° | 613.1  | 614.6  | 624.1  | 640.3  | 661.6  | 683.0  | 683.7  | 671.2  | 627.1  | 608.7  | 560.9  |
| 15°   | 591.1  | 593.3  | 607.2  | 633.0  | 666.0  | 704.3  | 726.3  | 722.7  | 681.5  | 660.2  | 597.7  |
| 17.5° | 555.8  | 558.0  | 575.6  | 613.8  | 662.4  | 718.2  | 765.3  | 783.7  | 735.1  | 714.6  | 635.2  |
| 20°   | 554.3  | 555.0  | 561.7  | 590.3  | 647.7  | 726.3  | 803.5  | 846.9  | 800.6  | 778.5  | 679.3  |
| 22.5° | 648.4  | 642.5  | 627.8  | 609.4  | 634.4  | 724.1  | 838.1  | 913.8  | 881.4  | 846.9  | 730.0  |
| 25°   | 753.5  | 755.7  | 739.6  | 696.2  | 664.6  | 720.4  | 864.5  | 989.5  | 957.2  | 922.6  | 782.2  |
| 27.5° | 863.8  | 860.1  | 846.2  | 806.5  | 753.5  | 746.9  | 883.6  | 1050.5 | 1029.9 | 988.0  | 828.5  |
| 30°   | 971.1  | 968.2  | 957.9  | 917.5  | 860.1  | 815.3  | 898.4  | 1105.7 | 1099.0 | 1052.7 | 866.0  |
| 32.5° | 1093.9 | 1099.0 | 1085.8 | 1032.9 | 963.0  | 907.9  | 930.0  | 1163.7 | 1182.9 | 1126.2 | 905.0  |
| 35°   | 1236.5 | 1236.5 | 1209.3 | 1160.8 | 1088.8 | 1011.6 | 993.2  | 1227.7 | 1289.4 | 1228.4 | 966.7  |
| 37.5° | 1354.1 | 1363.7 | 1347.5 | 1277.7 | 1210.1 | 1129.2 | 1089.5 | 1306.4 | 1421.0 | 1359.3 | 1049.8 |
| 40°   | 1446.8 | 1462.9 | 1463.7 | 1394.6 | 1332.1 | 1279.2 | 1224.0 | 1417.4 | 1586.4 | 1507.1 | 1149.0 |
| 42.5° | 1532.8 | 1535.7 | 1548.2 | 1508.5 | 1446.0 | 1432.1 | 1375.5 | 1549.0 | 1793.0 | 1699.7 | 1281.4 |
| 45°   | 1642.3 | 1648.2 | 1640.9 | 1611.4 | 1557.8 | 1576.2 | 1544.5 | 1715.8 | 2025.3 | 1946.7 | 1437.2 |
| 47.5° | 1803.3 | 1817.3 | 1806.3 | 1753.3 | 1687.9 | 1722.5 | 1699.7 | 1882.0 | 2287.8 | 2192.2 | 1606.3 |
| 50°   | 1954.0 | 1965.1 | 1976.8 | 1959.9 | 1894.5 | 1861.4 | 1833.5 | 2057.7 | 2512.7 | 2431.9 | 1772.4 |
| 52.5° | 1970.2 | 1980.5 | 2045.2 | 2104.7 | 2148.1 | 2061.4 | 1973.9 | 2235.6 | 2720.8 | 2653.1 | 1924.6 |
| 55°   | 1865.1 | 1871.7 | 1979.8 | 2097.4 | 2296.6 | 2326.0 | 2180.4 | 2411.3 | 2895.0 | 2848.7 | 2026.8 |
| 57.5° | 1572.5 | 1600.4 | 1754.1 | 1934.2 | 2259.8 | 2483.3 | 2473.8 | 2615.7 | 3008.2 | 2986.9 | 2158.4 |
| 60°   | 1032.9 | 1063.8 | 1247.5 | 1520.3 | 1989.3 | 2441.4 | 2795.8 | 2922.2 | 3167.0 | 3190.5 | 2389.2 |
| 62.5° | 535.2  | 571.2  | 732.9  | 974.8  | 1441.6 | 2126.0 | 2905.3 | 3425.8 | 3471.4 | 3551.5 | 2800.9 |
| 65°   | 305.8  | 313.2  | 394.0  | 571.2  | 892.5  | 1522.5 | 2773.7 | 3924.2 | 3872.0 | 4034.5 | 3326.5 |
| 67°   | 227.2  | 227.2  | 283.8  | 388.2  | 565.3  | 1035.1 | 2365.7 | 4029.3 | 4124.2 | 4210.2 | 3432.4 |
| 67.5° | 203.6  | 214.7  | 263.2  | 358.0  | 507.3  | 918.2  | 2213.5 | 4001.4 | 4140.4 | 4194.0 | 3395.6 |
| 70°   | 139.7  | 147.0  | 188.9  | 256.6  | 341.8  | 477.8  | 1451.2 | 3539.0 | 3988.9 | 3934.5 | 3077.3 |
| 72.5° | 83.8   | 86.7   | 125.0  | 184.5  | 255.1  | 255.8  | 791.8  | 2686.2 | 3380.2 | 3379.5 | 2513.5 |
| 75°   | 52.2   | 55.1   | 73.5   | 123.5  | 178.6  | 160.3  | 366.1  | 1827.6 | 2427.5 | 2380.4 | 1684.2 |
| 77.5° | 29.4   | 33.8   | 44.1   | 67.6   | 113.2  | 102.2  | 154.4  | 1024.1 | 1311.5 | 1230.6 | 836.6  |
| 80°   | 11.8   | 14.0   | 25.0   | 32.3   | 64.0   | 61.0   | 63.2   | 360.2  | 530.8  | 478.6  | 280.1  |
| 82.5° | 2.9    | 3.7    | 8.8    | 15.4   | 25.0   | 25.0   | 19.8   | 98.5   | 125.7  | 116.9  | 72.0   |
| 85°   | 0.0    | 0.0    | 0.7    | 0.7    | 0.7    | 1.5    | 5.1    | 11.0   | 13.2   | 15.4   | 11.8   |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.7    | 0.7    | 0.7    | 1.5    | 2.2    | 2.2    | 2.2    | 2.2    |
| 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°    | 454.3  | 454.3 | 454.3 | 454.3 | 454.3 | 454.3 | 454.3 | 454.3 | 454.3 | 454.3 | 454.3 |
| 2.5°  | 457.3  | 452.1 | 441.8 | 430.8 | 419.8 | 410.9 | 403.6 | 393.3 | 391.8 | 391.8 | 391.8 |
| 5°    | 466.8  | 455.1 | 431.5 | 408.0 | 384.5 | 363.2 | 347.7 | 335.2 | 324.2 | 320.5 | 323.5 |
| 7.5°  | 480.8  | 459.5 | 418.3 | 377.1 | 340.4 | 310.2 | 288.2 | 270.5 | 262.4 | 258.0 | 254.4 |
| 10°   | 499.2  | 466.1 | 400.7 | 340.4 | 294.1 | 258.0 | 234.5 | 217.6 | 209.5 | 204.4 | 205.1 |
| 12.5° | 519.0  | 471.2 | 378.6 | 300.7 | 249.2 | 216.1 | 196.3 | 182.3 | 169.1 | 161.0 | 163.2 |
| 15°   | 538.9  | 474.9 | 351.4 | 263.9 | 214.7 | 185.3 | 157.3 | 132.3 | 123.5 | 122.0 | 121.3 |
| 17.5° | 560.9  | 474.2 | 321.3 | 229.4 | 185.3 | 144.1 | 116.2 | 113.2 | 112.5 | 112.5 | 111.7 |
| 20°   | 583.7  | 470.5 | 286.7 | 200.7 | 155.9 | 109.5 | 105.1 | 103.7 | 101.5 | 100.7 | 100.0 |
| 22.5° | 608.7  | 463.9 | 255.1 | 175.7 | 116.2 | 100.0 | 94.1  | 89.7  | 86.0  | 83.8  | 84.5  |
| 25°   | 631.5  | 451.4 | 224.2 | 152.2 | 99.2  | 89.7  | 81.6  | 75.0  | 71.3  | 68.4  | 69.1  |
| 27.5° | 646.9  | 429.3 | 197.8 | 122.8 | 91.2  | 79.4  | 69.8  | 63.2  | 58.1  | 55.9  | 55.9  |
| 30°   | 648.4  | 397.7 | 174.2 | 100.7 | 83.1  | 69.8  | 59.5  | 52.2  | 49.3  | 47.8  | 47.0  |
| 32.5° | 646.9  | 365.4 | 156.6 | 92.6  | 75.7  | 61.0  | 50.7  | 45.6  | 42.6  | 41.2  | 41.2  |
| 35°   | 654.3  | 332.3 | 140.4 | 85.3  | 67.6  | 53.7  | 44.8  | 39.7  | 37.5  | 36.0  | 36.0  |
| 37.5° | 676.3  | 309.5 | 123.5 | 77.9  | 60.3  | 47.0  | 40.4  | 36.0  | 33.8  | 32.3  | 32.3  |
| 40°   | 706.5  | 290.4 | 102.9 | 70.6  | 52.9  | 42.6  | 36.8  | 33.1  | 30.1  | 28.7  | 28.7  |
| 42.5° | 759.4  | 283.0 | 86.0  | 63.2  | 46.3  | 38.2  | 33.8  | 29.4  | 26.5  | 25.0  | 25.0  |
| 45°   | 838.1  | 286.7 | 78.7  | 56.6  | 41.9  | 34.6  | 30.1  | 25.7  | 22.8  | 22.1  | 22.1  |
| 47.5° | 924.8  | 302.1 | 73.5  | 50.7  | 38.2  | 32.3  | 27.2  | 22.8  | 19.8  | 19.1  | 19.1  |
| 50°   | 1021.9 | 326.4 | 69.1  | 44.8  | 34.6  | 29.4  | 24.3  | 19.8  | 17.6  | 16.9  | 16.9  |
| 52.5° | 1114.5 | 357.3 | 64.7  | 40.4  | 32.3  | 26.5  | 21.3  | 17.6  | 16.2  | 15.4  | 15.4  |
| 55°   | 1185.1 | 377.1 | 61.0  | 37.5  | 30.1  | 24.3  | 19.1  | 16.9  | 14.7  | 14.0  | 14.0  |
| 57.5° | 1283.6 | 410.2 | 56.6  | 33.8  | 27.2  | 22.1  | 17.6  | 15.4  | 13.2  | 13.2  | 13.2  |
| 60°   | 1483.5 | 499.2 | 50.0  | 30.9  | 24.3  | 19.8  | 16.9  | 14.0  | 12.5  | 11.8  | 11.8  |
| 62.5° | 1843.8 | 646.2 | 43.4  | 28.7  | 21.3  | 17.6  | 14.7  | 12.5  | 11.0  | 9.6   | 9.6   |
| 65°   | 2190.7 | 707.2 | 36.8  | 25.0  | 19.1  | 15.4  | 13.2  | 11.0  | 8.1   | 6.6   | 6.6   |
| 67°   | 2171.6 | 605.0 | 30.9  | 21.3  | 16.2  | 14.0  | 11.0  | 8.8   | 5.9   | 3.7   | 3.7   |
| 67.5° | 2120.2 | 563.1 | 30.1  | 20.6  | 15.4  | 13.2  | 11.0  | 8.1   | 5.1   | 2.9   | 2.9   |
| 70°   | 1801.8 | 394.0 | 23.5  | 16.2  | 13.2  | 11.8  | 8.8   | 5.9   | 2.9   | 1.5   | 1.5   |
| 72.5° | 1463.7 | 312.4 | 18.4  | 13.2  | 11.0  | 8.8   | 7.4   | 3.7   | 2.2   | 0.7   | 0.7   |
| 75°   | 1035.1 | 191.9 | 16.2  | 11.8  | 8.8   | 6.6   | 5.9   | 3.7   | 2.2   | 1.5   | 0.7   |
| 77.5° | 510.9  | 88.2  | 13.2  | 10.3  | 8.1   | 6.6   | 5.1   | 4.4   | 3.7   | 2.9   | 1.5   |
| 80°   | 150.0  | 28.7  | 8.8   | 7.4   | 7.4   | 6.6   | 5.9   | 5.1   | 4.4   | 3.7   | 2.2   |
| 82.5° | 33.8   | 10.3  | 2.9   | 3.7   | 5.1   | 5.1   | 5.1   | 3.7   | 2.9   | 1.5   | 0.7   |
| 85°   | 4.4    | 2.2   | 2.2   | 2.2   | 2.9   | 2.9   | 2.2   | 1.5   | 1.5   | 0.0   | 0.0   |
| 87.5° | 1.5    | 1.5   | 1.5   | 2.2   | 2.2   | 2.2   | 1.5   | 0.7   | 0.7   | 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)