

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: P671502

Luminaire Tested: **CCP-SA-1B-727-U-SL4**

Issue Date: 04/16/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P671502  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCP-SA-1B-727-U-SL4  
Description: INVUE CLEAR CURVE POLE MOUNT LIGHT SQUARE LUMINAIRE @450mA w/ SL4  
distribution lens  
Light Source: (16) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2830.3 lumens  
Efficiency: N/A  
Efficacy: 117.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G1

Input Watts (W): 24  
Input Voltage (V): 120  
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

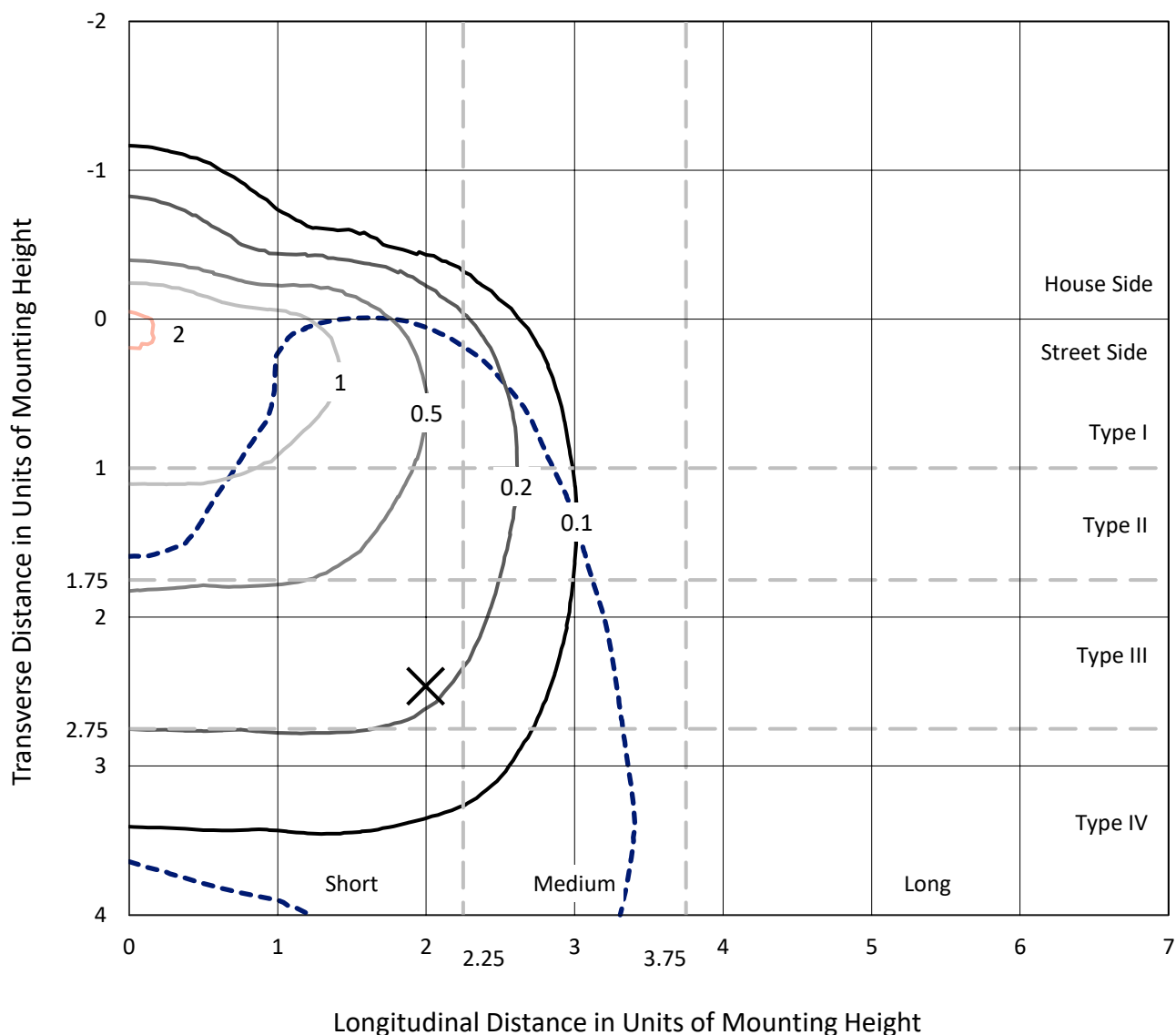
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



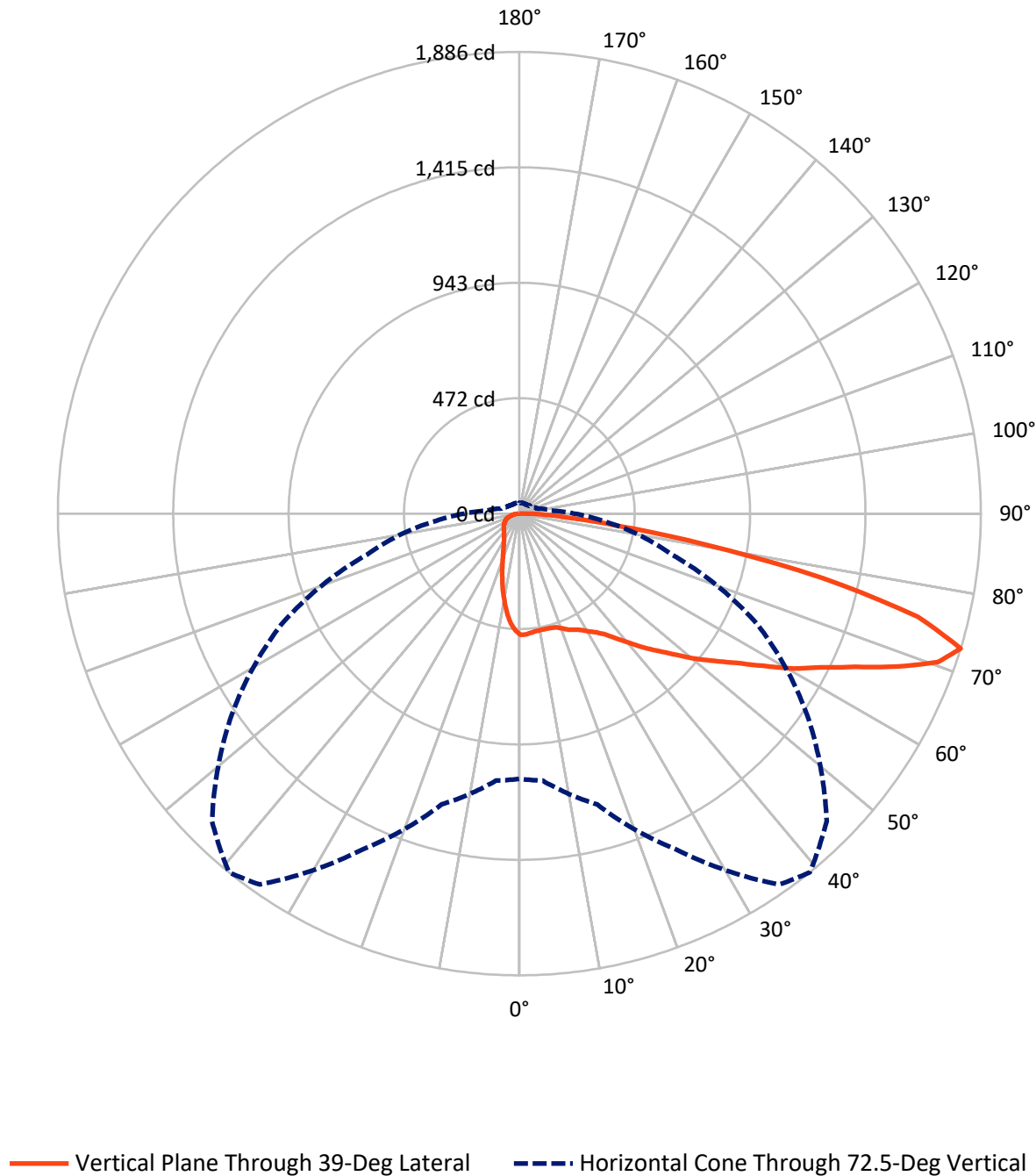
Based on 15 foot mounting height. Maximum calculated value = 2.2 fc

Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 420.6    | 0.0    | 420.6  |
|                    | % Fixture | 14.9     | 0.0    | 14.9   |
| <b>Street Side</b> | Lumens    | 2409.6   | 0.0    | 2409.6 |
|                    | % Fixture | 85.1     | 0.0    | 85.1   |
| <b>Total</b>       | Lumens    | 2830.3   | 0.0    | 2830.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 43.8   | 1.5       |
| 10°-20°   | 111.7  | 3.9       |
| 20°-30°   | 170.2  | 6.0       |
| 30°-40°   | 249.0  | 8.8       |
| 40°-50°   | 381.2  | 13.5      |
| 50°-60°   | 559.1  | 19.8      |
| 60°-70°   | 713.1  | 25.2      |
| 70°-80°   | 515.2  | 18.2      |
| 80°-90°   | 86.9   | 3.1       |
| 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°    | 2830.3 | 100.0     |
| 0°-180°   | 2830.3 | 100.0     |

**Coefficient of Utilization**



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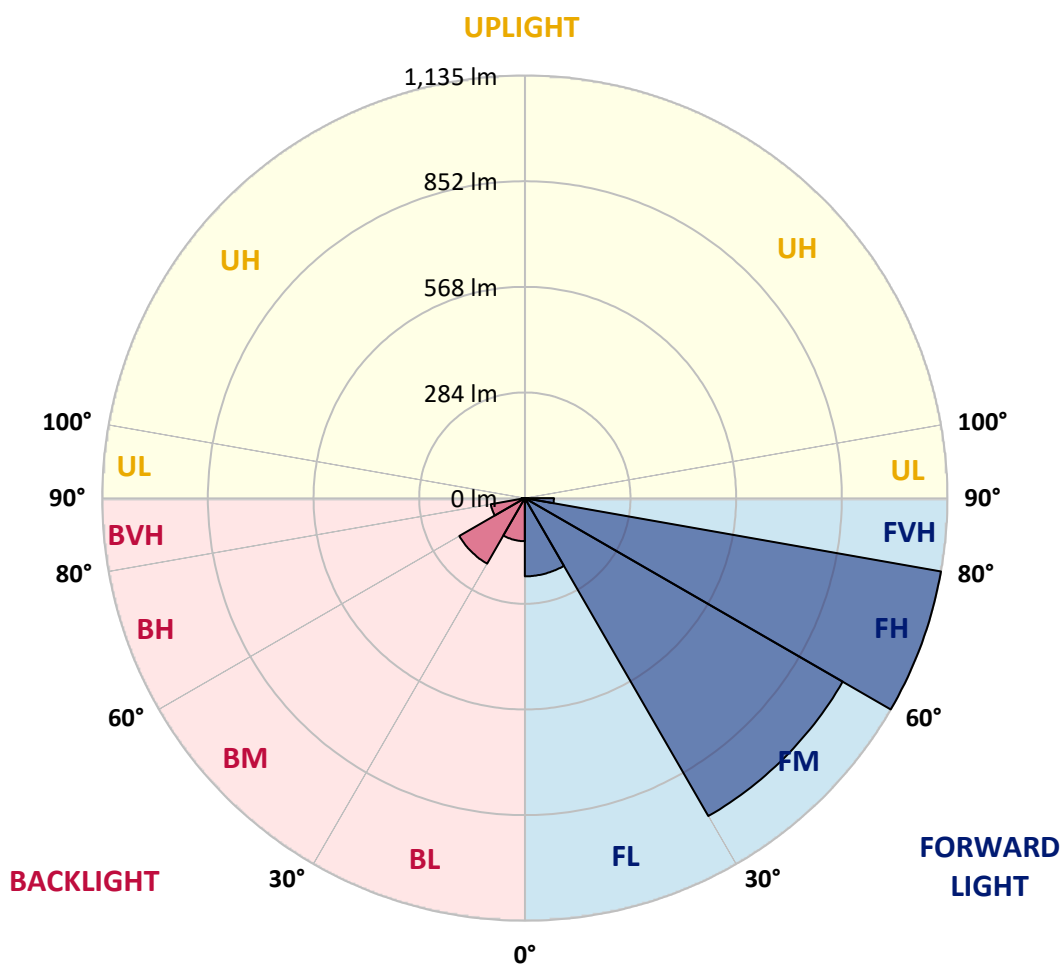
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 210.0  | 7.4       |                         |      |         |
| FM   | (30°-60°)   | 986.1  | 34.8      |                         |      |         |
| FH   | (60°-80°)   | 1135.3 | 40.1      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 78.1   | 2.8       |                         |      | G1/100  |
| BL   | (0°-30°)    | 115.7  | 4.1       | B1/500                  |      |         |
| BM   | (30°-60°)   | 203.2  | 7.2       | B0/220                  |      |         |
| BH   | (60°-80°)   | 92.9   | 3.3       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 8.8    | 0.3       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 39°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 495.4  | 495.4  | 495.4  | 495.4  | 495.4  | 495.4  | 495.4  | 495.4  | 495.4  | 495.4  | 495.4  |
| 2.5°  | 502.9  | 503.9  | 501.8  | 499.7  | 498.6  | 494.4  | 498.6  | 496.5  | 494.4  | 494.4  | 494.4  |
| 5°    | 496.5  | 497.5  | 497.5  | 495.4  | 496.5  | 489.0  | 488.0  | 489.0  | 485.9  | 483.7  | 482.7  |
| 7.5°  | 486.9  | 489.0  | 493.3  | 492.2  | 488.0  | 484.8  | 485.9  | 484.8  | 479.5  | 476.3  | 467.8  |
| 10°   | 479.5  | 481.6  | 483.7  | 485.9  | 484.8  | 483.7  | 482.7  | 478.4  | 477.3  | 469.9  | 461.4  |
| 12.5° | 472.0  | 472.0  | 473.1  | 481.6  | 482.7  | 482.7  | 476.3  | 476.3  | 473.1  | 472.0  | 459.3  |
| 15°   | 464.6  | 467.8  | 476.3  | 478.4  | 482.7  | 484.8  | 481.6  | 481.6  | 476.3  | 468.8  | 459.3  |
| 17.5° | 466.7  | 472.0  | 480.5  | 485.9  | 488.0  | 488.0  | 492.2  | 489.0  | 481.6  | 477.3  | 467.8  |
| 20°   | 477.3  | 478.4  | 489.0  | 498.6  | 500.7  | 500.7  | 496.5  | 493.3  | 488.0  | 480.5  | 467.8  |
| 22.5° | 483.7  | 491.2  | 503.9  | 509.2  | 515.6  | 515.6  | 510.3  | 502.9  | 495.4  | 488.0  | 474.2  |
| 25°   | 511.4  | 512.4  | 517.7  | 526.3  | 529.4  | 525.2  | 519.9  | 511.4  | 501.8  | 494.4  | 481.6  |
| 27.5° | 530.5  | 535.8  | 542.2  | 546.5  | 541.1  | 537.9  | 533.7  | 524.1  | 516.7  | 510.3  | 492.2  |
| 30°   | 565.6  | 559.2  | 563.5  | 565.6  | 556.0  | 558.1  | 546.5  | 537.9  | 529.4  | 529.4  | 509.2  |
| 32.5° | 586.8  | 592.2  | 587.9  | 586.8  | 579.4  | 578.3  | 570.9  | 561.3  | 556.0  | 562.4  | 534.8  |
| 35°   | 624.1  | 620.9  | 620.9  | 619.8  | 611.3  | 606.0  | 606.0  | 589.0  | 594.3  | 608.1  | 574.1  |
| 37.5° | 643.2  | 642.1  | 648.5  | 653.8  | 645.3  | 648.5  | 645.3  | 637.9  | 640.0  | 664.5  | 623.0  |
| 40°   | 662.3  | 669.8  | 682.5  | 684.7  | 690.0  | 694.2  | 692.1  | 691.0  | 699.5  | 738.9  | 688.9  |
| 42.5° | 680.4  | 686.8  | 705.9  | 722.9  | 735.7  | 749.5  | 750.6  | 750.6  | 778.2  | 834.6  | 768.6  |
| 45°   | 703.8  | 709.1  | 735.7  | 769.7  | 791.0  | 800.5  | 809.0  | 818.6  | 855.8  | 922.8  | 853.7  |
| 47.5° | 735.7  | 739.9  | 771.8  | 814.4  | 855.8  | 861.1  | 878.1  | 888.8  | 945.1  | 1013.2 | 940.9  |
| 50°   | 781.4  | 778.2  | 803.7  | 865.4  | 905.8  | 931.3  | 955.8  | 974.9  | 1030.2 | 1104.6 | 1008.9 |
| 52.5° | 818.6  | 818.6  | 837.7  | 919.6  | 974.9  | 999.3  | 1024.9 | 1051.4 | 1115.2 | 1196.0 | 1064.2 |
| 55°   | 882.4  | 876.0  | 887.7  | 972.8  | 1052.5 | 1075.9 | 1124.8 | 1147.1 | 1208.8 | 1264.1 | 1111.0 |
| 57.5° | 926.0  | 929.2  | 943.0  | 1042.9 | 1143.9 | 1172.6 | 1221.5 | 1237.5 | 1291.7 | 1335.3 | 1145.0 |
| 60°   | 983.4  | 972.8  | 1002.5 | 1120.5 | 1244.9 | 1285.3 | 1325.7 | 1335.3 | 1375.7 | 1381.0 | 1160.9 |
| 62.5° | 1038.7 | 1036.6 | 1062.1 | 1198.2 | 1353.4 | 1382.1 | 1423.5 | 1434.2 | 1451.2 | 1417.2 | 1138.6 |
| 65°   | 1072.7 | 1086.5 | 1134.4 | 1283.2 | 1476.7 | 1508.6 | 1550.0 | 1528.8 | 1509.6 | 1385.3 | 1029.1 |
| 67.5° | 1119.5 | 1125.9 | 1199.2 | 1375.7 | 1619.2 | 1667.0 | 1703.1 | 1619.2 | 1476.7 | 1254.5 | 866.5  |
| 70°   | 1130.1 | 1147.1 | 1242.8 | 1472.4 | 1765.9 | 1814.8 | 1816.9 | 1588.3 | 1356.6 | 1020.6 | 628.3  |
| 72.5° | 1083.3 | 1095.0 | 1230.0 | 1512.8 | 1849.9 | 1886.0 | 1776.5 | 1436.3 | 1074.8 | 643.2  | 342.3  |
| 75°   | 911.1  | 944.1  | 1070.6 | 1388.5 | 1695.7 | 1681.9 | 1505.4 | 1096.1 | 645.3  | 284.9  | 144.6  |
| 77.5° | 634.7  | 635.8  | 767.6  | 1010.0 | 1269.4 | 1266.2 | 1073.8 | 635.8  | 276.4  | 114.8  | 85.1   |
| 80°   | 281.7  | 301.9  | 381.7  | 544.3  | 770.8  | 770.8  | 626.2  | 315.8  | 138.2  | 74.4   | 58.5   |
| 82.5° | 165.8  | 172.2  | 204.1  | 254.1  | 375.3  | 395.5  | 299.8  | 210.5  | 94.6   | 46.8   | 36.1   |
| 85°   | 122.3  | 132.9  | 152.0  | 153.1  | 177.5  | 180.7  | 165.8  | 182.9  | 64.9   | 25.5   | 29.8   |
| 87.5° | 91.4   | 97.8   | 121.2  | 101.0  | 94.6   | 89.3   | 102.1  | 187.1  | 24.5   | 12.8   | 9.6    |
| 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°    | 495.4 | 495.4 | 495.4 | 495.4 | 495.4 | 495.4 | 495.4 | 495.4 | 495.4 | 495.4 | 495.4 |
| 2.5°  | 490.1 | 490.1 | 488.0 | 483.7 | 483.7 | 475.2 | 477.3 | 479.5 | 474.2 | 474.2 | 475.2 |
| 5°    | 482.7 | 478.4 | 473.1 | 466.7 | 462.5 | 450.8 | 448.6 | 441.2 | 440.1 | 438.0 | 434.8 |
| 7.5°  | 467.8 | 461.4 | 451.8 | 442.3 | 428.4 | 417.8 | 405.1 | 394.4 | 390.2 | 387.0 | 385.9 |
| 10°   | 454.0 | 452.9 | 436.9 | 417.8 | 396.5 | 376.3 | 357.2 | 343.4 | 334.9 | 329.6 | 328.5 |
| 12.5° | 454.0 | 445.5 | 423.1 | 396.5 | 365.7 | 335.9 | 311.5 | 292.4 | 280.7 | 272.2 | 269.0 |
| 15°   | 451.8 | 443.3 | 413.6 | 373.2 | 338.1 | 297.7 | 263.7 | 243.5 | 226.4 | 217.9 | 219.0 |
| 17.5° | 454.0 | 441.2 | 399.7 | 356.1 | 307.2 | 263.7 | 223.3 | 198.8 | 181.8 | 175.4 | 174.4 |
| 20°   | 455.0 | 439.1 | 389.1 | 332.8 | 275.4 | 226.4 | 188.2 | 164.8 | 152.0 | 147.8 | 147.8 |
| 22.5° | 452.9 | 432.7 | 373.2 | 305.1 | 247.7 | 195.6 | 163.7 | 143.5 | 135.0 | 129.7 | 131.8 |
| 25°   | 462.5 | 431.6 | 358.3 | 281.7 | 215.8 | 170.1 | 145.6 | 130.8 | 125.4 | 122.3 | 123.3 |
| 27.5° | 464.6 | 431.6 | 346.6 | 255.2 | 188.2 | 151.0 | 131.8 | 122.3 | 118.0 | 115.9 | 114.8 |
| 30°   | 473.1 | 433.8 | 332.8 | 228.6 | 165.8 | 136.1 | 121.2 | 115.9 | 112.7 | 111.6 | 111.6 |
| 32.5° | 496.5 | 440.1 | 317.9 | 206.2 | 146.7 | 123.3 | 113.8 | 109.5 | 107.4 | 106.3 | 107.4 |
| 35°   | 524.1 | 457.1 | 301.9 | 182.9 | 132.9 | 114.8 | 107.4 | 104.2 | 103.1 | 103.1 | 103.1 |
| 37.5° | 566.6 | 482.7 | 288.1 | 163.7 | 121.2 | 106.3 | 101.0 | 99.9  | 98.9  | 99.9  | 99.9  |
| 40°   | 615.6 | 510.3 | 275.4 | 148.8 | 112.7 | 101.0 | 95.7  | 95.7  | 94.6  | 95.7  | 96.7  |
| 42.5° | 671.9 | 544.3 | 262.6 | 134.0 | 105.3 | 96.7  | 92.5  | 91.4  | 90.4  | 92.5  | 93.6  |
| 45°   | 749.5 | 591.1 | 254.1 | 125.4 | 99.9  | 92.5  | 88.2  | 88.2  | 87.2  | 87.2  | 89.3  |
| 47.5° | 814.4 | 635.8 | 254.1 | 116.9 | 96.7  | 89.3  | 85.1  | 85.1  | 82.9  | 84.0  | 84.0  |
| 50°   | 868.6 | 674.0 | 259.4 | 114.8 | 92.5  | 86.1  | 82.9  | 80.8  | 79.7  | 79.7  | 79.7  |
| 52.5° | 904.7 | 697.4 | 263.7 | 112.7 | 90.4  | 81.9  | 79.7  | 78.7  | 76.5  | 75.5  | 76.5  |
| 55°   | 940.9 | 713.4 | 264.7 | 112.7 | 87.2  | 77.6  | 75.5  | 75.5  | 73.4  | 72.3  | 72.3  |
| 57.5° | 954.7 | 707.0 | 249.8 | 110.6 | 85.1  | 74.4  | 72.3  | 71.2  | 70.2  | 69.1  | 69.1  |
| 60°   | 948.3 | 683.6 | 216.9 | 105.3 | 82.9  | 72.3  | 68.0  | 68.0  | 68.0  | 65.9  | 67.0  |
| 62.5° | 904.7 | 603.9 | 174.4 | 96.7  | 79.7  | 68.0  | 63.8  | 65.9  | 65.9  | 64.9  | 64.9  |
| 65°   | 789.9 | 498.6 | 141.4 | 89.3  | 75.5  | 64.9  | 60.6  | 63.8  | 64.9  | 63.8  | 62.7  |
| 67.5° | 631.5 | 383.8 | 116.9 | 80.8  | 70.2  | 59.5  | 56.3  | 59.5  | 60.6  | 59.5  | 59.5  |
| 70°   | 433.8 | 247.7 | 94.6  | 72.3  | 62.7  | 54.2  | 51.0  | 53.2  | 53.2  | 54.2  | 54.2  |
| 72.5° | 224.3 | 134.0 | 77.6  | 61.7  | 54.2  | 48.9  | 45.7  | 45.7  | 44.7  | 44.7  | 44.7  |
| 75°   | 111.6 | 91.4  | 64.9  | 52.1  | 45.7  | 41.5  | 39.3  | 37.2  | 37.2  | 37.2  | 37.2  |
| 77.5° | 77.6  | 70.2  | 53.2  | 41.5  | 37.2  | 34.0  | 34.0  | 30.8  | 30.8  | 30.8  | 30.8  |
| 80°   | 58.5  | 55.3  | 40.4  | 31.9  | 28.7  | 26.6  | 26.6  | 25.5  | 25.5  | 24.5  | 24.5  |
| 82.5° | 41.5  | 44.7  | 30.8  | 23.4  | 21.3  | 20.2  | 20.2  | 19.1  | 19.1  | 17.0  | 17.0  |
| 85°   | 33.0  | 37.2  | 23.4  | 17.0  | 15.9  | 13.8  | 13.8  | 12.8  | 12.8  | 11.7  | 10.6  |
| 87.5° | 9.6   | 20.2  | 9.6   | 6.4   | 6.4   | 6.4   | 6.4   | 5.3   | 5.3   | 4.3   | 4.3   |
| 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)