

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: P674015

Luminaire Tested: **CCP-SA-1A-827-U-SL4-HSS**

Issue Date: 04/16/2023



Test Information

Test Method: LM-79-08
Report Number: P674015
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCP-SA-1A-827-U-SL4-HSS
Description: INVUE CLEAR CURVE POLE MOUNT Light Square Luminaire @350mA w/ SL4 distribution lens and House Side Shield
Light Source: (16) 2700K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1661.2 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

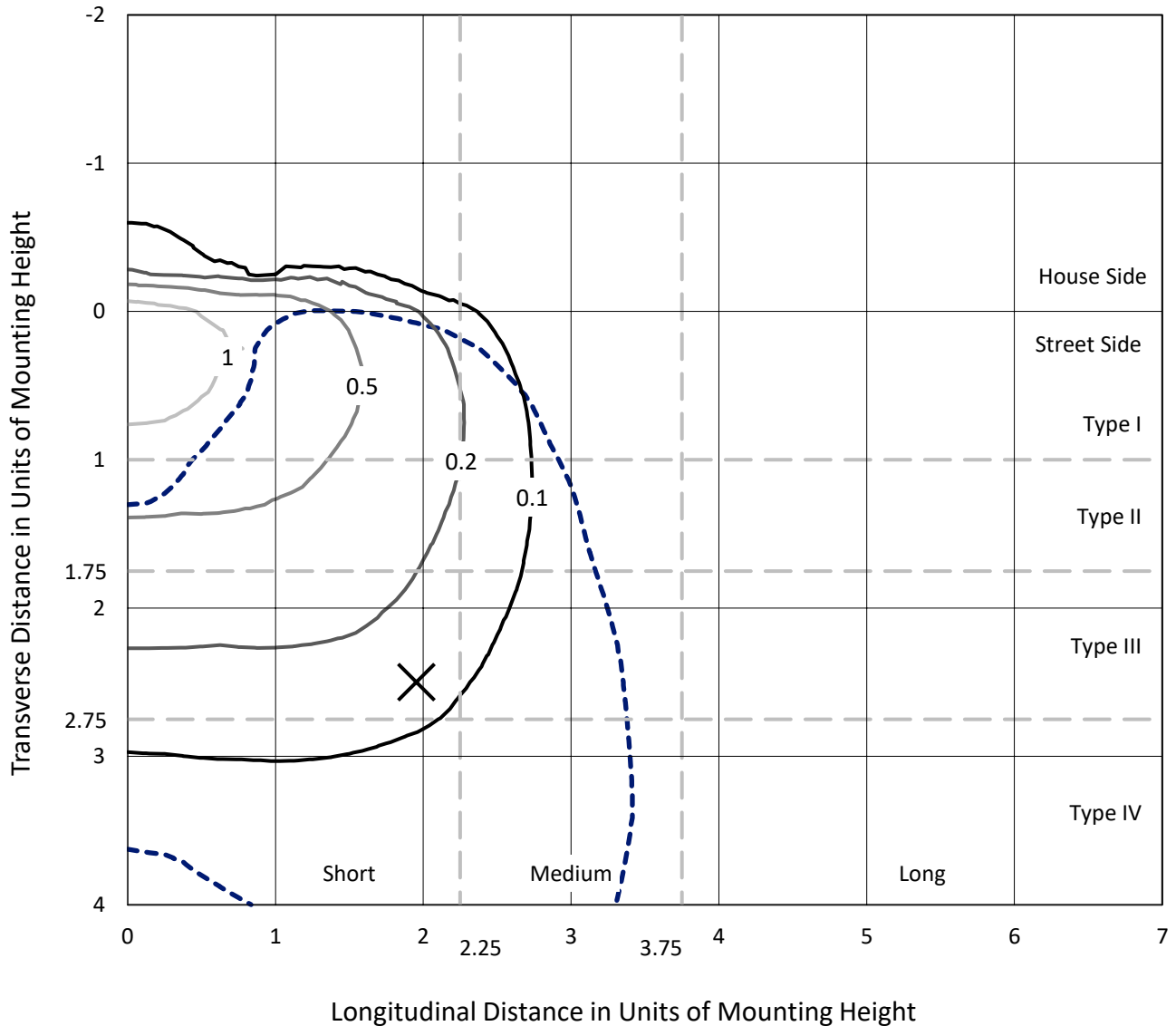
Input Watts (W): 18
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

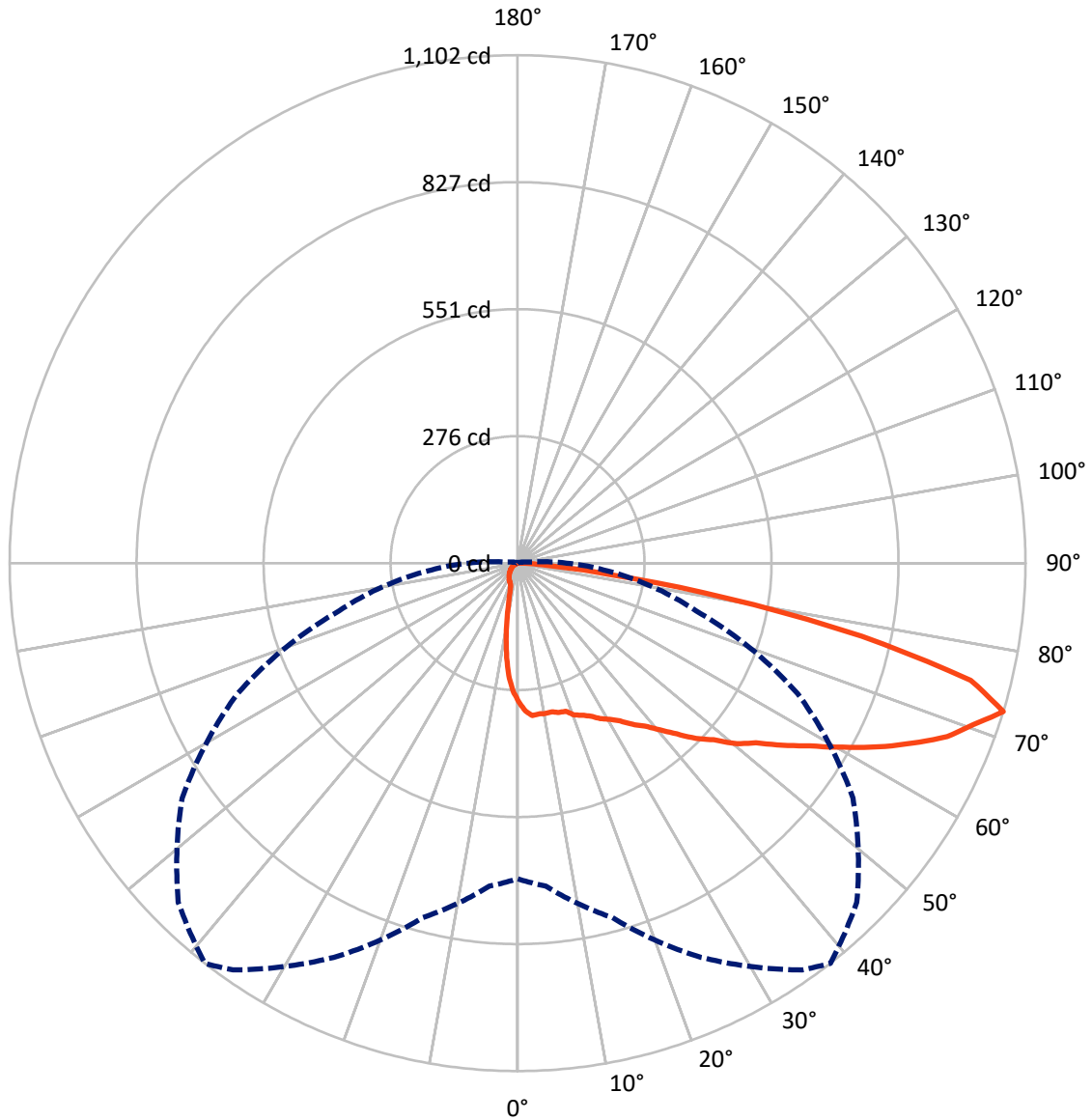
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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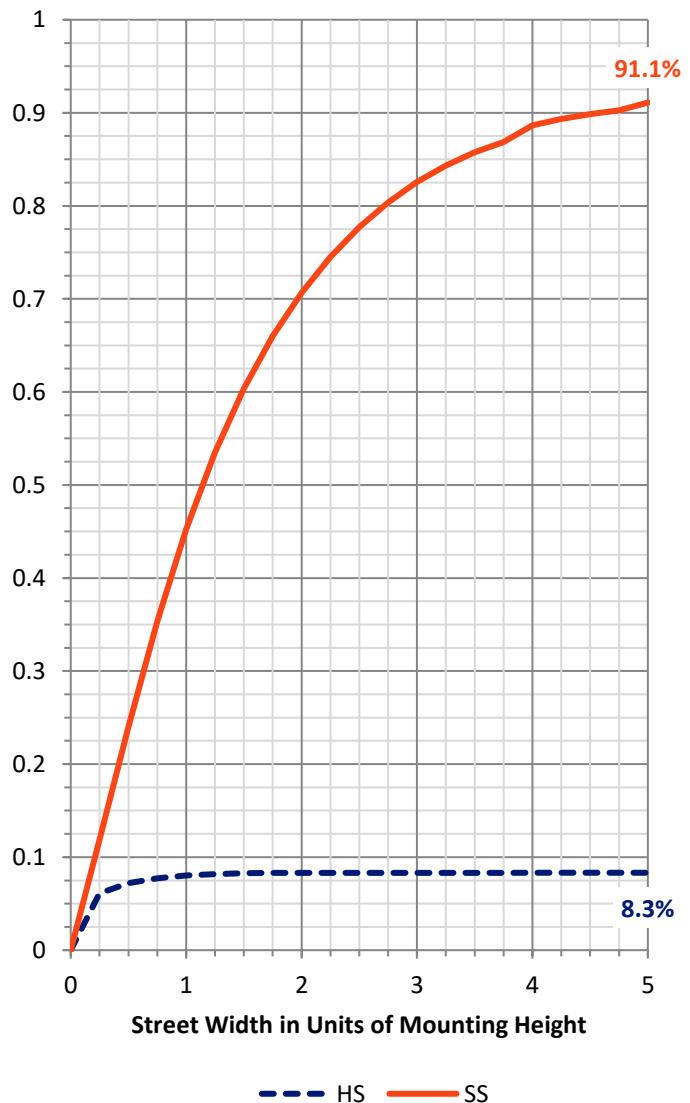
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 139.1 | 0.0 | 139.1 |
| | % Fixture | 8.4 | 0.0 | 8.4 |
| Street Side | Lumens | 1522.1 | 0.0 | 1522.1 |
| | % Fixture | 91.6 | 0.0 | 91.6 |
| Total | Lumens | 1661.2 | 0.0 | 1661.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 26.3 | 1.6 |
| 10°-20° | 64.4 | 3.9 |
| 20°-30° | 103.2 | 6.2 |
| 30°-40° | 155.8 | 9.4 |
| 40°-50° | 237.2 | 14.3 |
| 50°-60° | 333.9 | 20.1 |
| 60°-70° | 407.8 | 24.6 |
| 70°-80° | 296.2 | 17.8 |
| 80°-90° | 36.5 | 2.2 |
| 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° | 1661.2 | 100.0 |
| 0°-180° | 1661.2 | 100.0 |



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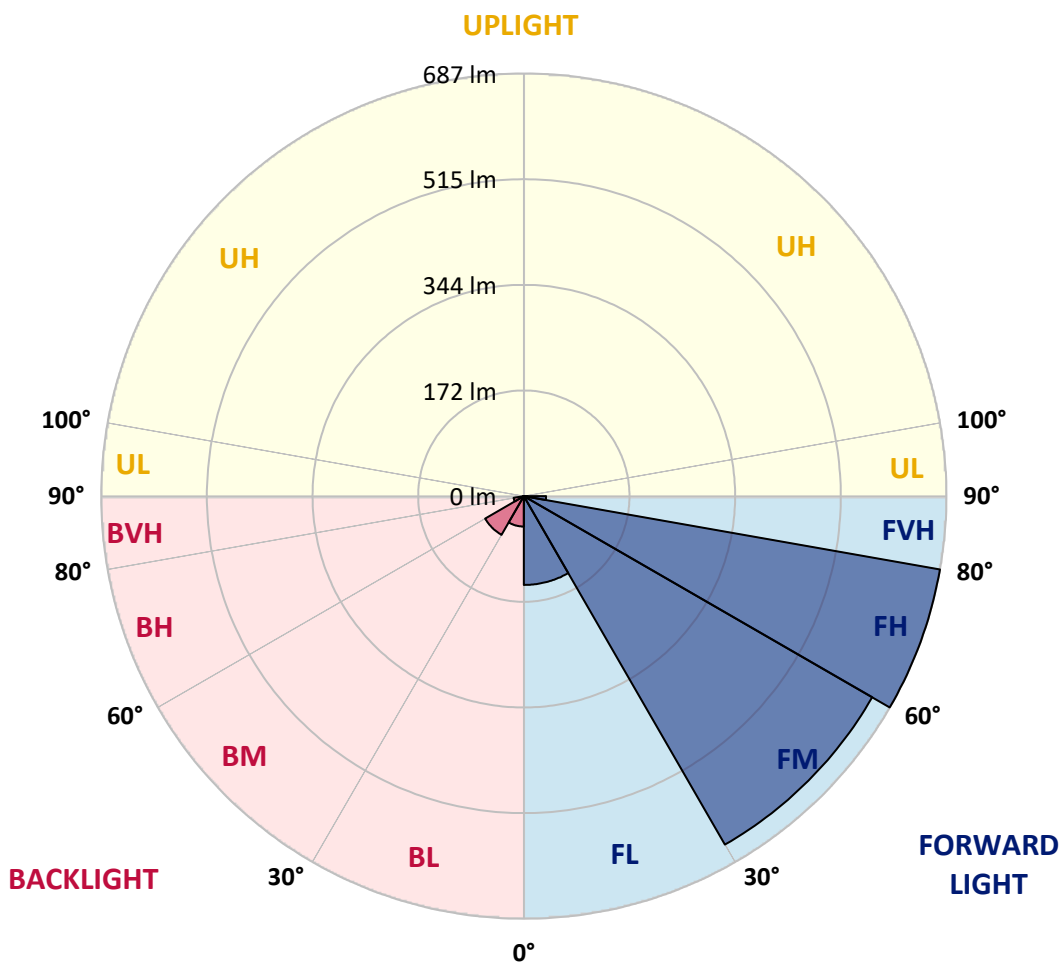
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 144.5 | 8.7 | | | |
| FM (30°-60°) | 654.2 | 39.4 | | | |
| FH (60°-80°) | 687.1 | 41.4 | | | G1/1800 |
| FVH (80°-90°) | 36.3 | 2.2 | | | G1/100 |
| BL (0°-30°) | 49.4 | 3.0 | B0/110 | | |
| BM (30°-60°) | 72.7 | 4.4 | B0/220 | | |
| BH (60°-80°) | 16.9 | 1.0 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.2 | 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 IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 38° | 45° | 55° | 65° | 75° | 85° |
|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|-------|-------|
| 0° | 300.4 | 300.4 | 300.4 | 300.4 | 300.4 | 300.4 | 300.4 | 300.4 | 300.4 | 300.4 | 300.4 |
| 2.5° | 330.0 | 330.0 | 333.1 | 330.0 | 328.9 | 321.5 | 321.8 | 317.9 | 314.1 | 308.6 | 303.5 |
| 5° | 333.9 | 336.7 | 338.6 | 335.9 | 331.6 | 332.4 | 335.1 | 327.7 | 317.2 | 310.5 | 299.2 |
| 7.5° | 332.4 | 338.2 | 336.7 | 335.1 | 332.4 | 330.4 | 326.5 | 323.4 | 318.3 | 312.1 | 298.9 |
| 10° | 331.2 | 333.1 | 333.5 | 332.4 | 326.5 | 332.0 | 327.7 | 322.6 | 316.4 | 309.0 | 292.6 |
| 12.5° | 326.9 | 326.9 | 330.4 | 327.7 | 328.5 | 331.2 | 329.2 | 328.1 | 321.5 | 315.2 | 300.8 |
| 15° | 322.2 | 323.8 | 329.2 | 333.5 | 337.4 | 336.3 | 335.1 | 331.6 | 325.7 | 318.7 | 303.5 |
| 17.5° | 323.4 | 324.2 | 332.8 | 340.5 | 338.6 | 337.8 | 344.1 | 336.7 | 330.8 | 323.0 | 305.9 |
| 20° | 327.7 | 330.0 | 339.8 | 349.9 | 351.8 | 351.8 | 349.5 | 345.2 | 337.0 | 326.5 | 310.2 |
| 22.5° | 332.0 | 332.8 | 348.7 | 361.6 | 363.5 | 358.5 | 360.4 | 347.9 | 340.2 | 334.3 | 314.4 |
| 25° | 348.3 | 346.8 | 363.9 | 374.1 | 372.9 | 367.8 | 365.9 | 355.0 | 351.8 | 341.3 | 323.8 |
| 27.5° | 370.5 | 363.9 | 380.7 | 386.9 | 380.7 | 382.2 | 376.8 | 365.1 | 358.5 | 352.2 | 328.1 |
| 30° | 384.2 | 388.1 | 397.0 | 403.3 | 392.8 | 393.1 | 390.4 | 377.6 | 367.4 | 369.0 | 342.5 |
| 32.5° | 405.2 | 408.0 | 414.6 | 417.3 | 409.1 | 408.3 | 405.6 | 395.5 | 388.1 | 386.5 | 362.0 |
| 35° | 427.8 | 432.9 | 433.3 | 434.1 | 426.7 | 429.8 | 425.9 | 411.5 | 415.4 | 418.1 | 385.4 |
| 37.5° | 450.0 | 445.4 | 453.2 | 456.7 | 448.5 | 448.5 | 449.6 | 439.9 | 446.9 | 455.1 | 418.5 |
| 40° | 458.6 | 460.6 | 474.2 | 471.5 | 481.2 | 475.4 | 479.6 | 477.3 | 483.2 | 501.9 | 465.2 |
| 42.5° | 467.6 | 469.9 | 488.2 | 493.3 | 505.0 | 506.9 | 513.2 | 513.5 | 530.7 | 561.5 | 510.0 |
| 45° | 484.7 | 480.8 | 505.8 | 518.2 | 537.3 | 542.8 | 550.2 | 556.4 | 583.3 | 619.5 | 561.1 |
| 47.5° | 500.3 | 494.8 | 523.3 | 548.2 | 571.6 | 572.8 | 593.0 | 599.7 | 631.6 | 672.9 | 611.7 |
| 50° | 522.1 | 524.1 | 536.1 | 579.0 | 602.8 | 616.4 | 630.4 | 652.3 | 687.7 | 731.7 | 648.4 |
| 52.5° | 544.7 | 542.8 | 563.0 | 605.1 | 642.5 | 647.6 | 679.1 | 703.7 | 742.3 | 775.4 | 664.7 |
| 55° | 572.4 | 574.7 | 582.5 | 637.8 | 685.4 | 697.5 | 732.9 | 758.6 | 800.7 | 794.1 | 670.2 |
| 57.5° | 600.0 | 597.7 | 615.2 | 674.5 | 739.1 | 748.1 | 795.3 | 810.5 | 838.9 | 806.6 | 656.5 |
| 60° | 627.3 | 631.6 | 639.0 | 715.8 | 798.0 | 811.2 | 848.6 | 856.4 | 862.7 | 812.4 | 646.0 |
| 62.5° | 658.5 | 648.4 | 671.4 | 759.4 | 851.0 | 878.6 | 908.3 | 877.5 | 872.0 | 801.9 | 621.9 |
| 65° | 674.1 | 677.2 | 707.2 | 809.3 | 921.5 | 941.8 | 945.7 | 905.9 | 877.9 | 778.5 | 599.3 |
| 67.5° | 698.2 | 702.5 | 740.7 | 860.3 | 994.0 | 1005.3 | 991.2 | 931.6 | 872.8 | 748.1 | 517.8 |
| 70° | 701.4 | 711.9 | 785.5 | 913.7 | 1039.6 | 1049.3 | 1038.4 | 948.8 | 831.9 | 628.5 | 383.4 |
| 72.5° | 685.0 | 703.7 | 796.4 | 944.1 | 1077.7 | 1102.3 | 1041.1 | 888.4 | 670.6 | 400.9 | 196.4 |
| 75° | 517.4 | 533.0 | 729.0 | 898.9 | 1010.0 | 1015.8 | 914.1 | 678.0 | 381.8 | 136.8 | 50.3 |
| 77.5° | 268.1 | 295.0 | 486.7 | 686.9 | 769.5 | 763.3 | 636.3 | 399.4 | 131.3 | 35.8 | 20.3 |
| 80° | 153.9 | 160.5 | 212.7 | 385.7 | 483.9 | 460.2 | 351.8 | 172.2 | 57.7 | 17.9 | 13.2 |
| 82.5° | 76.0 | 85.3 | 114.6 | 172.6 | 242.0 | 199.1 | 132.1 | 103.3 | 32.3 | 9.7 | 11.7 |
| 85° | 16.4 | 17.1 | 58.4 | 82.6 | 98.2 | 64.7 | 45.2 | 86.9 | 11.7 | 5.8 | 11.3 |
| 87.5° | 11.7 | 11.3 | 16.4 | 37.0 | 27.3 | 16.8 | 26.9 | 45.6 | 2.7 | 2.7 | 2.3 |
| 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° | 300.4 | 300.4 | 300.4 | 300.4 | 300.4 | 300.4 | 300.4 | 300.4 | 300.4 | 300.4 | 300.4 |
| 2.5° | 300.4 | 296.9 | 293.0 | 285.6 | 283.7 | 282.5 | 275.9 | 275.5 | 274.3 | 271.6 | 270.4 |
| 5° | 292.2 | 286.4 | 279.0 | 271.2 | 265.0 | 253.7 | 240.0 | 233.0 | 224.4 | 224.8 | 222.1 |
| 7.5° | 291.1 | 280.2 | 269.6 | 253.3 | 233.4 | 212.4 | 191.3 | 177.7 | 167.9 | 162.1 | 163.3 |
| 10° | 285.6 | 277.4 | 260.3 | 229.9 | 197.9 | 166.0 | 139.1 | 118.8 | 107.2 | 98.2 | 100.9 |
| 12.5° | 287.9 | 272.0 | 247.8 | 207.3 | 161.7 | 122.3 | 88.8 | 69.4 | 60.8 | 57.7 | 58.4 |
| 15° | 286.4 | 272.0 | 240.4 | 182.7 | 127.0 | 83.0 | 57.7 | 51.4 | 49.9 | 49.9 | 49.1 |
| 17.5° | 291.1 | 275.1 | 227.9 | 158.6 | 91.2 | 55.3 | 49.5 | 48.3 | 47.1 | 47.1 | 47.1 |
| 20° | 297.7 | 276.6 | 219.4 | 131.7 | 64.3 | 48.7 | 46.4 | 45.6 | 45.2 | 45.2 | 44.8 |
| 22.5° | 298.1 | 275.1 | 203.4 | 102.1 | 49.5 | 46.0 | 44.0 | 43.6 | 43.6 | 42.9 | 42.9 |
| 25° | 300.4 | 276.6 | 186.2 | 76.8 | 46.0 | 43.3 | 41.7 | 41.3 | 41.7 | 41.3 | 40.9 |
| 27.5° | 306.3 | 279.4 | 169.1 | 56.1 | 43.3 | 40.9 | 39.7 | 39.4 | 39.4 | 39.4 | 38.6 |
| 30° | 313.7 | 279.4 | 150.0 | 46.4 | 40.9 | 38.6 | 37.4 | 37.0 | 36.6 | 36.6 | 36.6 |
| 32.5° | 329.2 | 288.3 | 126.6 | 41.3 | 37.8 | 35.8 | 34.7 | 34.7 | 34.3 | 34.3 | 33.9 |
| 35° | 348.7 | 294.6 | 102.9 | 38.2 | 35.1 | 33.1 | 32.0 | 32.0 | 31.6 | 31.6 | 31.2 |
| 37.5° | 372.9 | 310.2 | 78.7 | 35.8 | 32.3 | 30.4 | 29.2 | 29.2 | 29.2 | 28.8 | 28.8 |
| 40° | 407.2 | 326.1 | 58.4 | 32.7 | 29.6 | 27.7 | 26.9 | 26.5 | 26.1 | 26.1 | 25.3 |
| 42.5° | 443.8 | 350.7 | 43.6 | 30.4 | 27.3 | 25.7 | 24.5 | 23.4 | 23.4 | 22.2 | 22.2 |
| 45° | 483.5 | 372.1 | 35.5 | 27.7 | 24.9 | 23.0 | 21.8 | 21.0 | 19.9 | 19.1 | 19.1 |
| 47.5° | 522.5 | 385.4 | 31.2 | 24.5 | 22.6 | 21.0 | 19.9 | 18.3 | 16.8 | 16.4 | 16.0 |
| 50° | 554.1 | 389.3 | 27.7 | 22.2 | 20.7 | 19.1 | 17.5 | 15.6 | 14.0 | 13.2 | 12.9 |
| 52.5° | 554.1 | 367.8 | 24.9 | 19.9 | 18.7 | 17.1 | 15.2 | 12.9 | 10.9 | 10.1 | 9.7 |
| 55° | 554.1 | 333.9 | 22.2 | 18.3 | 16.8 | 15.6 | 12.9 | 10.5 | 8.6 | 7.4 | 7.0 |
| 57.5° | 545.9 | 293.0 | 19.9 | 16.4 | 14.8 | 13.2 | 10.9 | 8.2 | 6.2 | 5.1 | 5.1 |
| 60° | 523.3 | 250.1 | 17.1 | 14.4 | 12.9 | 10.9 | 8.6 | 5.8 | 3.9 | 2.7 | 2.7 |
| 62.5° | 494.5 | 199.1 | 14.8 | 12.1 | 10.5 | 9.0 | 6.6 | 3.9 | 1.6 | 0.8 | 0.8 |
| 65° | 444.2 | 146.9 | 12.9 | 10.1 | 8.2 | 6.6 | 4.3 | 1.6 | 0.0 | 0.0 | 0.0 |
| 67.5° | 366.7 | 98.2 | 10.1 | 8.2 | 7.0 | 4.7 | 2.7 | 0.4 | 0.0 | 0.0 | 0.0 |
| 70° | 257.9 | 55.7 | 7.8 | 5.8 | 5.1 | 3.1 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 106.0 | 24.5 | 5.5 | 4.3 | 3.5 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 28.8 | 10.9 | 3.5 | 2.3 | 1.9 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 16.8 | 7.4 | 1.6 | 0.8 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 13.2 | 3.5 | 0.8 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 13.2 | 1.9 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 11.3 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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)