

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: P674048

Luminaire Tested: **CCP-SA-1A-840-U-SL4-HSS**

Issue Date: 04/16/2023



Test Information

Test Method: LM-79-08
Report Number: P674048
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCP-SA-1A-840-U-SL4-HSS
Description: INVUE CLEAR CURVE POLE MOUNT Light Square Luminaire @350mA w/ SL4 distribution lens and House Side Shield
Light Source: (16) 4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

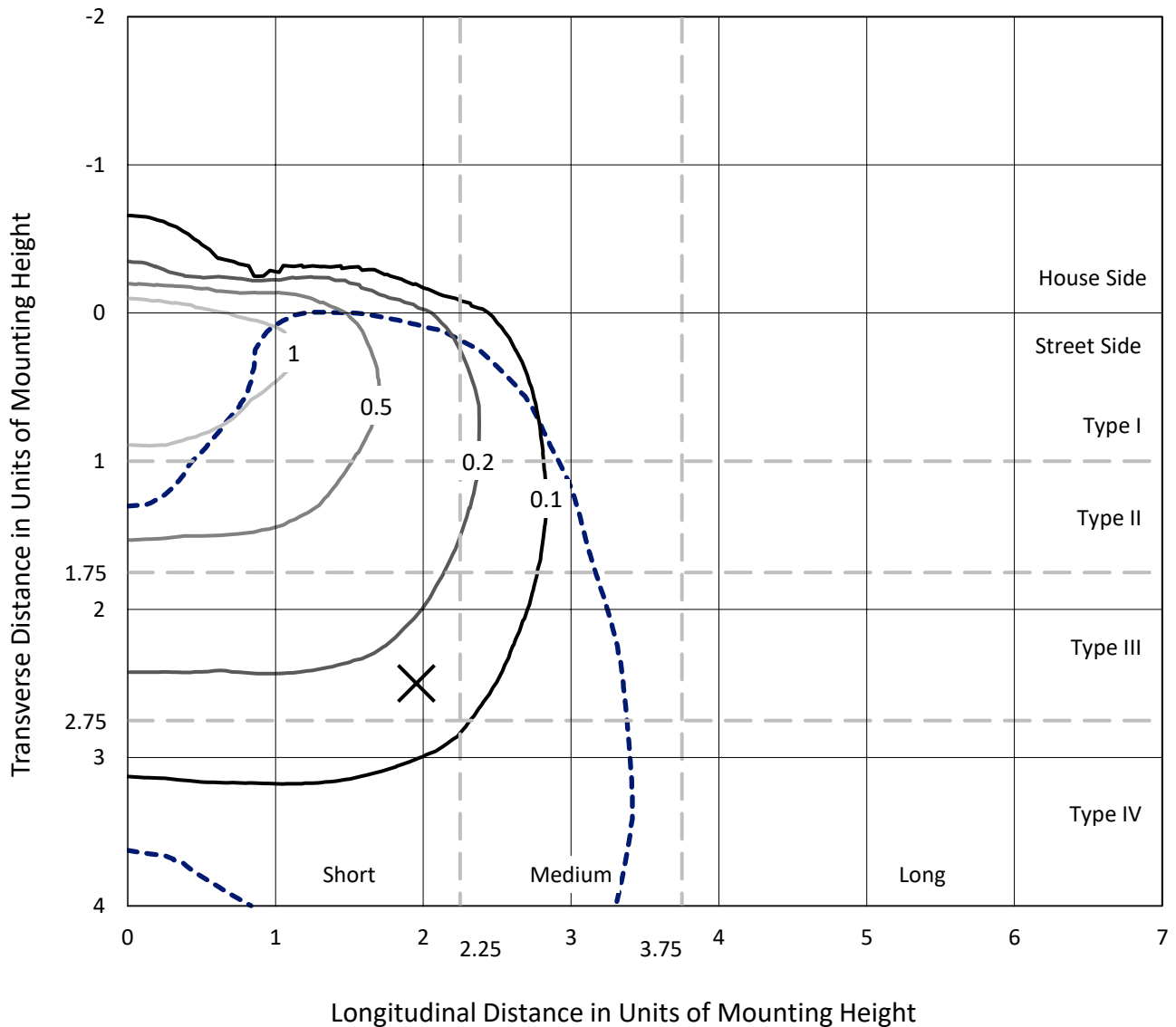
Lumens per Lamp: N/A
Luminaire Lumens: 1926.8 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

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

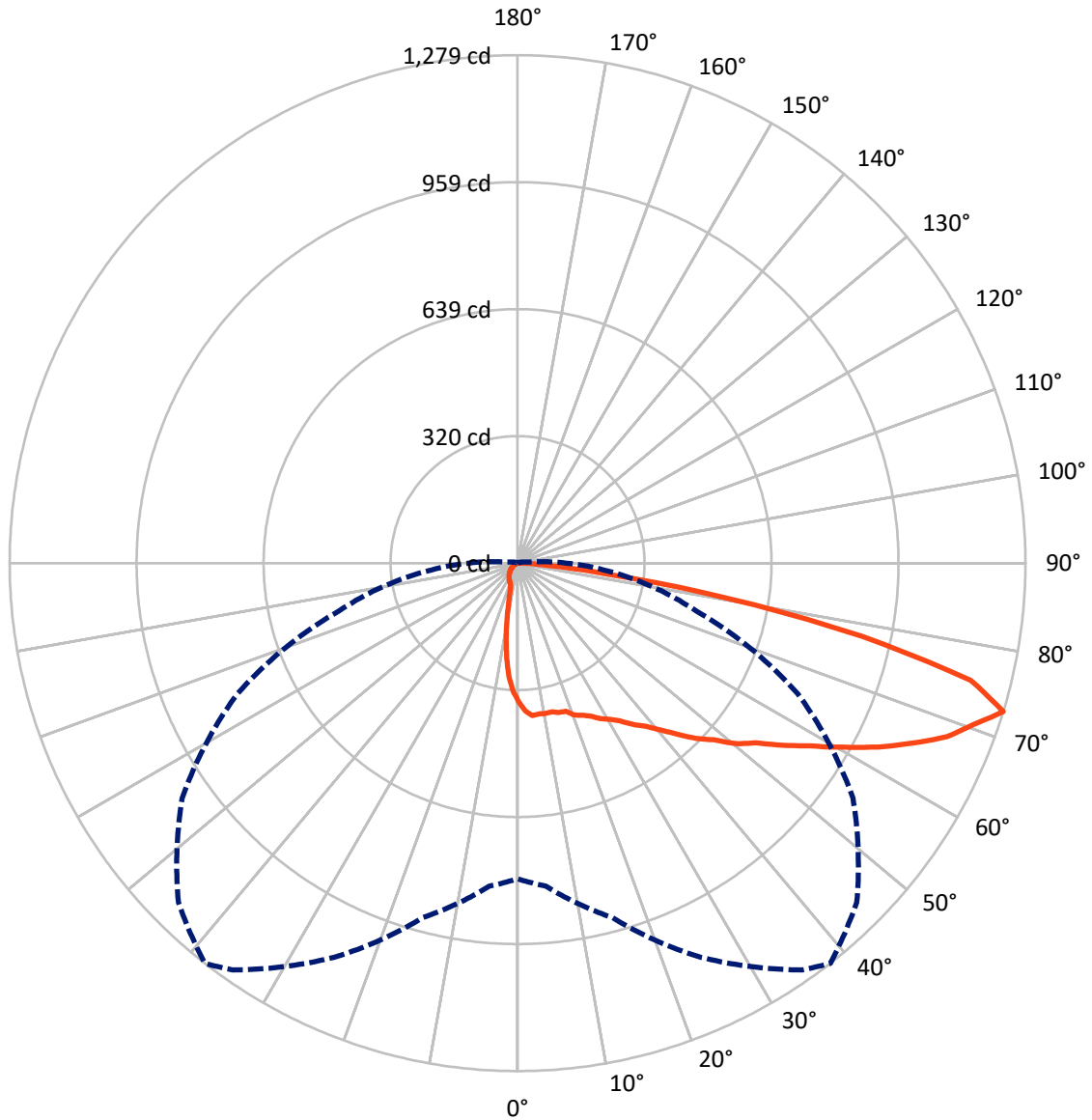
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.7 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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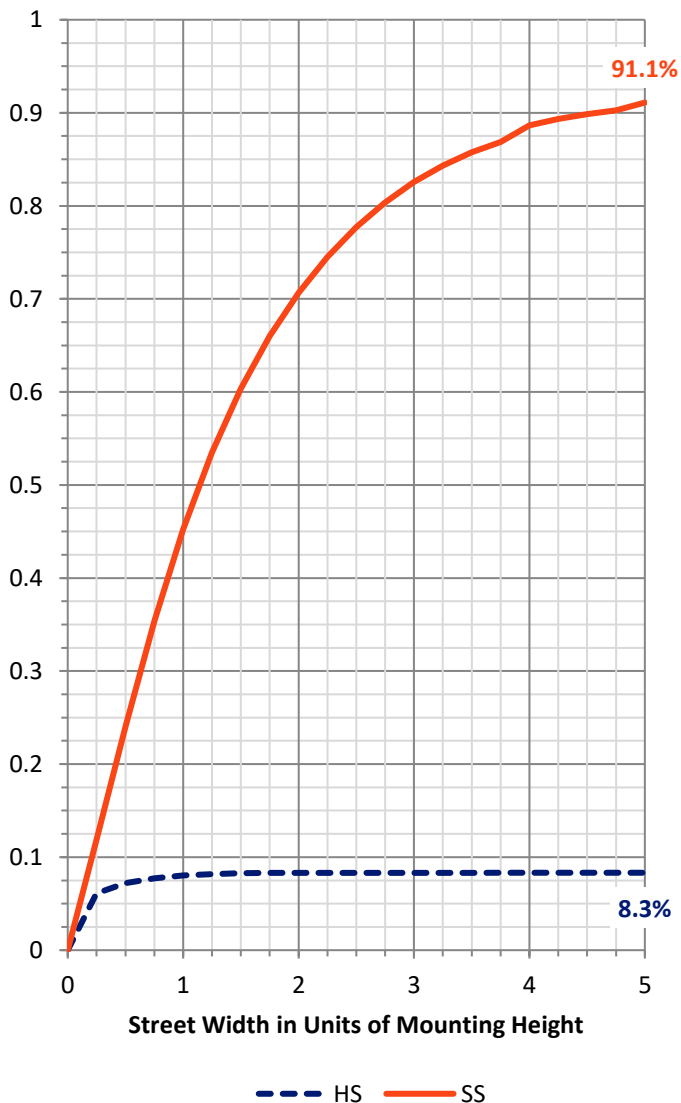
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 161.4 | 0.0 | 161.4 |
| | % Fixture | 8.4 | 0.0 | 8.4 |
| Street Side | Lumens | 1765.4 | 0.0 | 1765.4 |
| | % Fixture | 91.6 | 0.0 | 91.6 |
| Total | Lumens | 1926.8 | 0.0 | 1926.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 30.5 | 1.6 |
| 10°-20° | 74.7 | 3.9 |
| 20°-30° | 119.7 | 6.2 |
| 30°-40° | 180.7 | 9.4 |
| 40°-50° | 275.1 | 14.3 |
| 50°-60° | 387.3 | 20.1 |
| 60°-70° | 473.0 | 24.6 |
| 70°-80° | 343.5 | 17.8 |
| 80°-90° | 42.3 | 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° | 1926.8 | 100.0 |
| 0°-180° | 1926.8 | 100.0 |

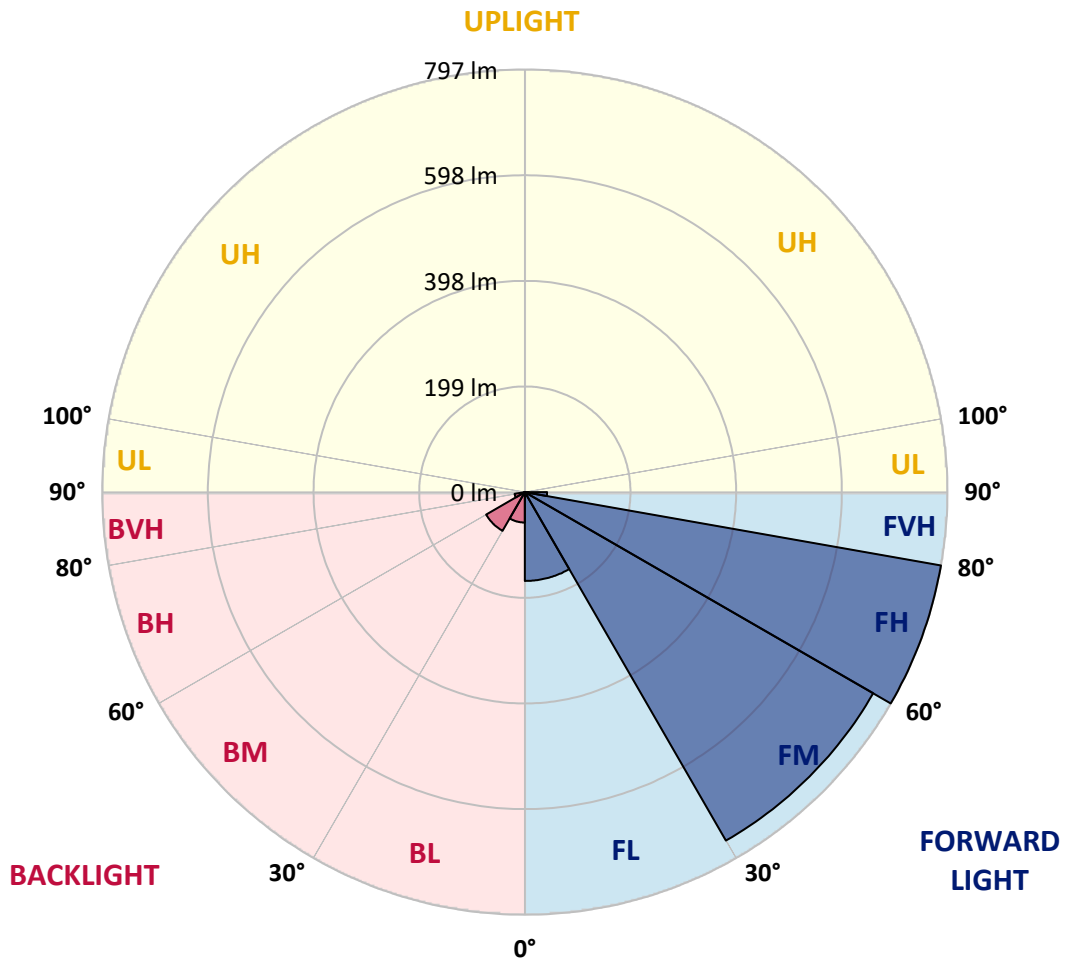


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 167.6 | 8.7 | | | |
| FM (30°-60°) | 758.8 | 39.4 | | | |
| FH (60°-80°) | 797.0 | 41.4 | | | G1/1800 |
| FVH (80°-90°) | 42.1 | 2.2 | | | G1/100 |
| BL (0°-30°) | 57.3 | 3.0 | B0/110 | | |
| BM (30°-60°) | 84.3 | 4.4 | B0/220 | | |
| BH (60°-80°) | 19.6 | 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° | 348.4 | 348.4 | 348.4 | 348.4 | 348.4 | 348.4 | 348.4 | 348.4 | 348.4 | 348.4 | 348.4 |
| 2.5° | 382.8 | 382.8 | 386.4 | 382.8 | 381.4 | 372.8 | 373.3 | 368.8 | 364.2 | 357.9 | 352.0 |
| 5° | 387.3 | 390.5 | 392.7 | 389.6 | 384.6 | 385.5 | 388.7 | 380.1 | 367.9 | 360.2 | 347.1 |
| 7.5° | 385.5 | 392.3 | 390.5 | 388.7 | 385.5 | 383.2 | 378.7 | 375.1 | 369.2 | 362.0 | 346.6 |
| 10° | 384.1 | 386.4 | 386.8 | 385.5 | 378.7 | 385.0 | 380.1 | 374.2 | 367.0 | 358.4 | 339.4 |
| 12.5° | 379.2 | 379.2 | 383.2 | 380.1 | 381.0 | 384.1 | 381.9 | 380.5 | 372.8 | 365.6 | 348.9 |
| 15° | 373.7 | 375.5 | 381.9 | 386.8 | 391.4 | 390.0 | 388.7 | 384.6 | 377.8 | 369.7 | 352.0 |
| 17.5° | 375.1 | 376.0 | 385.9 | 395.0 | 392.7 | 391.8 | 399.0 | 390.5 | 383.7 | 374.6 | 354.8 |
| 20° | 380.1 | 382.8 | 394.1 | 405.8 | 408.1 | 408.1 | 405.4 | 400.4 | 390.9 | 378.7 | 359.7 |
| 22.5° | 385.0 | 385.9 | 404.5 | 419.4 | 421.6 | 415.8 | 418.0 | 403.6 | 394.5 | 387.7 | 364.7 |
| 25° | 404.0 | 402.2 | 422.1 | 433.8 | 432.5 | 426.6 | 424.4 | 411.7 | 408.1 | 395.9 | 375.5 |
| 27.5° | 429.8 | 422.1 | 441.5 | 448.8 | 441.5 | 443.3 | 437.0 | 423.5 | 415.8 | 408.5 | 380.5 |
| 30° | 445.6 | 450.1 | 460.5 | 467.7 | 455.5 | 456.0 | 452.8 | 437.9 | 426.2 | 428.0 | 397.2 |
| 32.5° | 470.0 | 473.2 | 480.8 | 484.0 | 474.5 | 473.6 | 470.5 | 458.7 | 450.1 | 448.3 | 419.8 |
| 35° | 496.2 | 502.1 | 502.5 | 503.4 | 494.9 | 498.5 | 494.0 | 477.2 | 481.7 | 484.9 | 447.0 |
| 37.5° | 522.0 | 516.5 | 525.6 | 529.7 | 520.2 | 520.2 | 521.5 | 510.2 | 518.4 | 527.8 | 485.4 |
| 40° | 531.9 | 534.2 | 550.0 | 546.8 | 558.1 | 551.3 | 556.3 | 553.6 | 560.4 | 582.1 | 539.6 |
| 42.5° | 542.3 | 545.0 | 566.3 | 572.1 | 585.7 | 588.0 | 595.2 | 595.6 | 615.5 | 651.2 | 591.6 |
| 45° | 562.2 | 557.7 | 586.6 | 601.1 | 623.2 | 629.5 | 638.1 | 645.3 | 676.5 | 718.6 | 650.8 |
| 47.5° | 580.3 | 573.9 | 606.9 | 635.9 | 663.0 | 664.3 | 687.8 | 695.5 | 732.6 | 780.5 | 709.5 |
| 50° | 605.6 | 607.8 | 621.8 | 671.6 | 699.1 | 714.9 | 731.2 | 756.5 | 797.6 | 848.7 | 752.0 |
| 52.5° | 631.8 | 629.5 | 653.0 | 701.8 | 745.2 | 751.1 | 787.7 | 816.2 | 860.9 | 899.3 | 771.0 |
| 55° | 663.9 | 666.6 | 675.6 | 739.8 | 794.9 | 808.9 | 850.1 | 879.9 | 928.7 | 921.0 | 777.3 |
| 57.5° | 696.0 | 693.2 | 713.6 | 782.3 | 857.3 | 867.7 | 922.4 | 940.0 | 973.0 | 935.5 | 761.5 |
| 60° | 727.6 | 732.6 | 741.2 | 830.2 | 925.5 | 940.9 | 984.3 | 993.3 | 1000.6 | 942.3 | 749.3 |
| 62.5° | 763.7 | 752.0 | 778.7 | 880.8 | 987.0 | 1019.1 | 1053.4 | 1017.7 | 1011.4 | 930.1 | 721.3 |
| 65° | 781.8 | 785.4 | 820.2 | 938.6 | 1068.8 | 1092.3 | 1096.8 | 1050.7 | 1018.2 | 902.9 | 695.1 |
| 67.5° | 809.8 | 814.8 | 859.1 | 997.8 | 1152.9 | 1166.0 | 1149.7 | 1080.5 | 1012.3 | 867.7 | 600.6 |
| 70° | 813.5 | 825.7 | 911.1 | 1059.8 | 1205.7 | 1217.0 | 1204.4 | 1100.4 | 964.9 | 729.0 | 444.7 |
| 72.5° | 794.5 | 816.2 | 923.7 | 1095.0 | 1250.0 | 1278.5 | 1207.5 | 1030.4 | 777.8 | 465.0 | 227.8 |
| 75° | 600.2 | 618.2 | 845.5 | 1042.6 | 1171.4 | 1178.2 | 1060.2 | 786.3 | 442.9 | 158.6 | 58.3 |
| 77.5° | 310.9 | 342.1 | 564.5 | 796.7 | 892.5 | 885.3 | 738.0 | 463.2 | 152.3 | 41.6 | 23.5 |
| 80° | 178.5 | 186.2 | 246.7 | 447.4 | 561.3 | 533.7 | 408.1 | 199.7 | 66.9 | 20.8 | 15.4 |
| 82.5° | 88.1 | 99.0 | 132.9 | 200.2 | 280.6 | 230.9 | 153.2 | 119.8 | 37.5 | 11.3 | 13.6 |
| 85° | 19.0 | 19.9 | 67.8 | 95.8 | 113.9 | 75.0 | 52.4 | 100.8 | 13.6 | 6.8 | 13.1 |
| 87.5° | 13.6 | 13.1 | 19.0 | 42.9 | 31.6 | 19.4 | 31.2 | 52.9 | 3.2 | 3.2 | 2.7 |
| 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° | 348.4 | 348.4 | 348.4 | 348.4 | 348.4 | 348.4 | 348.4 | 348.4 | 348.4 | 348.4 | 348.4 |
| 2.5° | 348.4 | 344.4 | 339.8 | 331.3 | 329.0 | 327.6 | 320.0 | 319.5 | 318.2 | 315.0 | 313.6 |
| 5° | 338.9 | 332.2 | 323.6 | 314.5 | 307.3 | 294.2 | 278.4 | 270.2 | 260.3 | 260.8 | 257.6 |
| 7.5° | 337.6 | 324.9 | 312.7 | 293.7 | 270.7 | 246.3 | 221.9 | 206.1 | 194.8 | 188.0 | 189.4 |
| 10° | 331.3 | 321.8 | 301.9 | 266.6 | 229.6 | 192.5 | 161.3 | 137.8 | 124.3 | 113.9 | 117.0 |
| 12.5° | 334.0 | 315.4 | 287.4 | 240.4 | 187.5 | 141.9 | 103.0 | 80.4 | 70.5 | 66.9 | 67.8 |
| 15° | 332.2 | 315.4 | 278.8 | 212.0 | 147.3 | 96.3 | 66.9 | 59.7 | 57.8 | 57.8 | 56.9 |
| 17.5° | 337.6 | 319.1 | 264.4 | 183.9 | 105.7 | 64.2 | 57.4 | 56.0 | 54.7 | 54.7 | 54.7 |
| 20° | 345.3 | 320.9 | 254.4 | 152.7 | 74.6 | 56.5 | 53.8 | 52.9 | 52.4 | 52.4 | 52.0 |
| 22.5° | 345.7 | 319.1 | 235.9 | 118.4 | 57.4 | 53.3 | 51.1 | 50.6 | 50.6 | 49.7 | 49.7 |
| 25° | 348.4 | 320.9 | 216.0 | 89.0 | 53.3 | 50.2 | 48.4 | 47.9 | 48.4 | 47.9 | 47.5 |
| 27.5° | 355.2 | 324.0 | 196.1 | 65.1 | 50.2 | 47.5 | 46.1 | 45.6 | 45.6 | 45.6 | 44.7 |
| 30° | 363.8 | 324.0 | 174.0 | 53.8 | 47.5 | 44.7 | 43.4 | 42.9 | 42.5 | 42.5 | 42.5 |
| 32.5° | 381.9 | 334.4 | 146.9 | 47.9 | 43.8 | 41.6 | 40.2 | 40.2 | 39.8 | 39.8 | 39.3 |
| 35° | 404.5 | 341.7 | 119.3 | 44.3 | 40.7 | 38.4 | 37.1 | 37.1 | 36.6 | 36.6 | 36.2 |
| 37.5° | 432.5 | 359.7 | 91.3 | 41.6 | 37.5 | 35.2 | 33.9 | 33.9 | 33.9 | 33.4 | 33.4 |
| 40° | 472.3 | 378.3 | 67.8 | 38.0 | 34.3 | 32.1 | 31.2 | 30.7 | 30.3 | 30.3 | 29.4 |
| 42.5° | 514.7 | 406.7 | 50.6 | 35.2 | 31.6 | 29.8 | 28.5 | 27.1 | 27.1 | 25.8 | 25.8 |
| 45° | 560.8 | 431.6 | 41.1 | 32.1 | 28.9 | 26.7 | 25.3 | 24.4 | 23.0 | 22.1 | 22.1 |
| 47.5° | 606.0 | 447.0 | 36.2 | 28.5 | 26.2 | 24.4 | 23.0 | 21.2 | 19.4 | 19.0 | 18.5 |
| 50° | 642.6 | 451.5 | 32.1 | 25.8 | 24.0 | 22.1 | 20.3 | 18.1 | 16.3 | 15.4 | 14.9 |
| 52.5° | 642.6 | 426.6 | 28.9 | 23.0 | 21.7 | 19.9 | 17.6 | 14.9 | 12.7 | 11.7 | 11.3 |
| 55° | 642.6 | 387.3 | 25.8 | 21.2 | 19.4 | 18.1 | 14.9 | 12.2 | 9.9 | 8.6 | 8.1 |
| 57.5° | 633.1 | 339.8 | 23.0 | 19.0 | 17.2 | 15.4 | 12.7 | 9.5 | 7.2 | 5.9 | 5.9 |
| 60° | 606.9 | 290.1 | 19.9 | 16.7 | 14.9 | 12.7 | 9.9 | 6.8 | 4.5 | 3.2 | 3.2 |
| 62.5° | 573.5 | 230.9 | 17.2 | 14.0 | 12.2 | 10.4 | 7.7 | 4.5 | 1.8 | 0.9 | 0.9 |
| 65° | 515.2 | 170.4 | 14.9 | 11.7 | 9.5 | 7.7 | 5.0 | 1.8 | 0.0 | 0.0 | 0.0 |
| 67.5° | 425.3 | 113.9 | 11.7 | 9.5 | 8.1 | 5.4 | 3.2 | 0.5 | 0.0 | 0.0 | 0.0 |
| 70° | 299.2 | 64.6 | 9.0 | 6.8 | 5.9 | 3.6 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 122.9 | 28.5 | 6.3 | 5.0 | 4.1 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 33.4 | 12.7 | 4.1 | 2.7 | 2.3 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 19.4 | 8.6 | 1.8 | 0.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 15.4 | 4.1 | 0.9 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 15.4 | 2.3 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 13.1 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 1.8 | 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)