

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: P677095

Luminaire Tested: **CCW-SA-1B-722-U-SL4-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P677095
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1B-722-U-SL4-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @450mA w/
SL4 distribution lens and House Side Shield
Light Source: (16) 2200K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

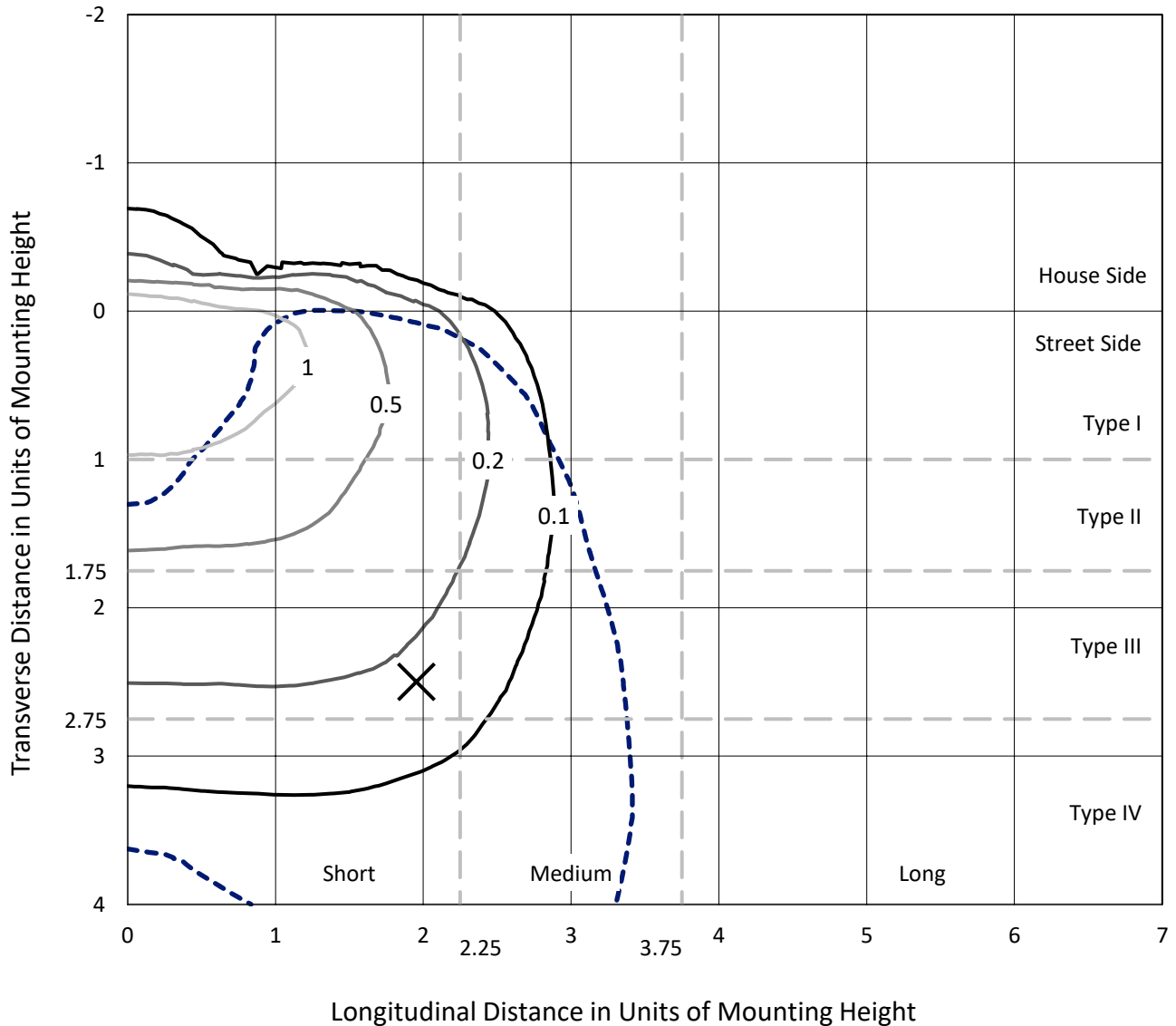
Lumens per Lamp: N/A
Luminaire Lumens: 2101.4 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

Input Watts (W): 24
Input Voltage (V): 120
Input Current (A_{in}): 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

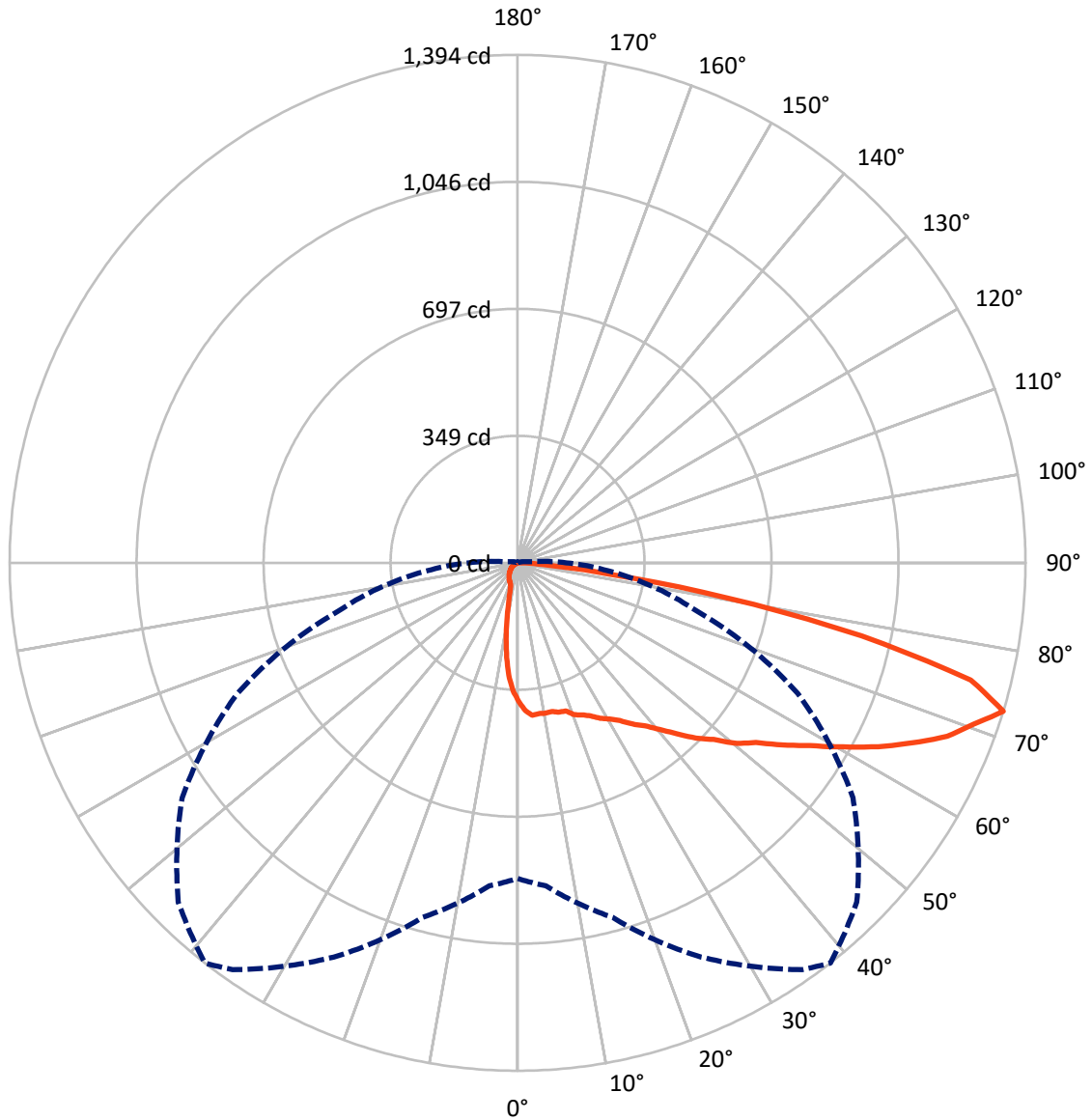
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.8 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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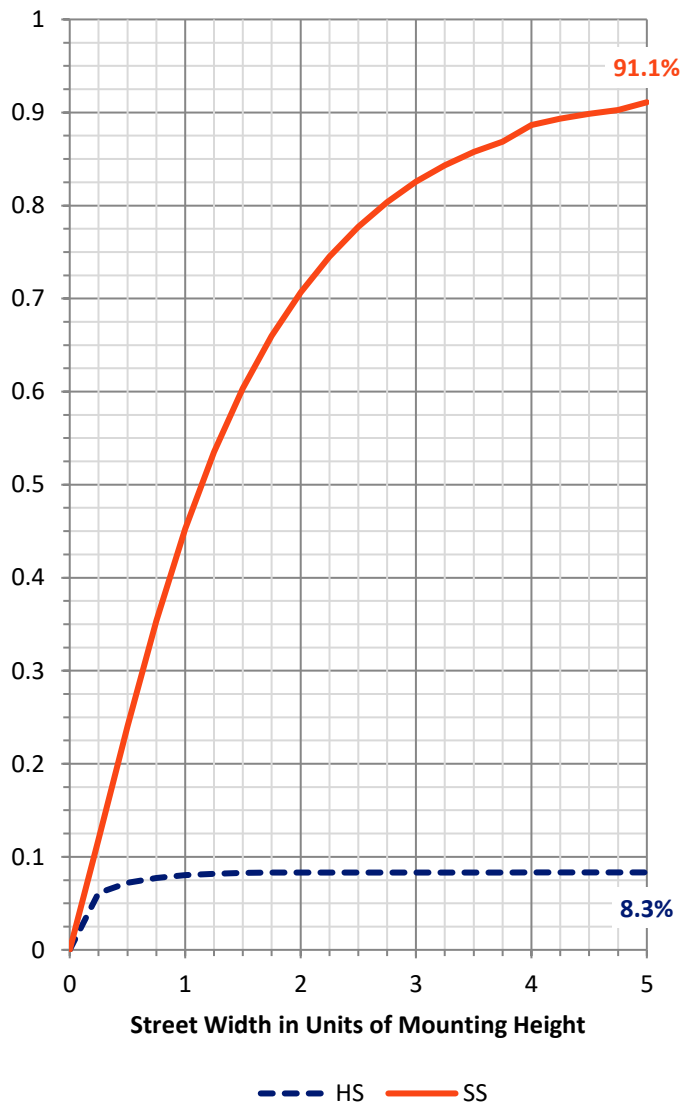
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 176.0 | 0.0 | 176.0 |
| | % Fixture | 8.4 | 0.0 | 8.4 |
| Street Side | Lumens | 1925.4 | 0.0 | 1925.4 |
| | % Fixture | 91.6 | 0.0 | 91.6 |
| Total | Lumens | 2101.4 | 0.0 | 2101.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 33.3 | 1.6 |
| 10°-20° | 81.4 | 3.9 |
| 20°-30° | 130.6 | 6.2 |
| 30°-40° | 197.1 | 9.4 |
| 40°-50° | 300.0 | 14.3 |
| 50°-60° | 422.3 | 20.1 |
| 60°-70° | 515.9 | 24.6 |
| 70°-80° | 374.6 | 17.8 |
| 80°-90° | 46.1 | 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° | 2101.4 | 100.0 |
| 0°-180° | 2101.4 | 100.0 |

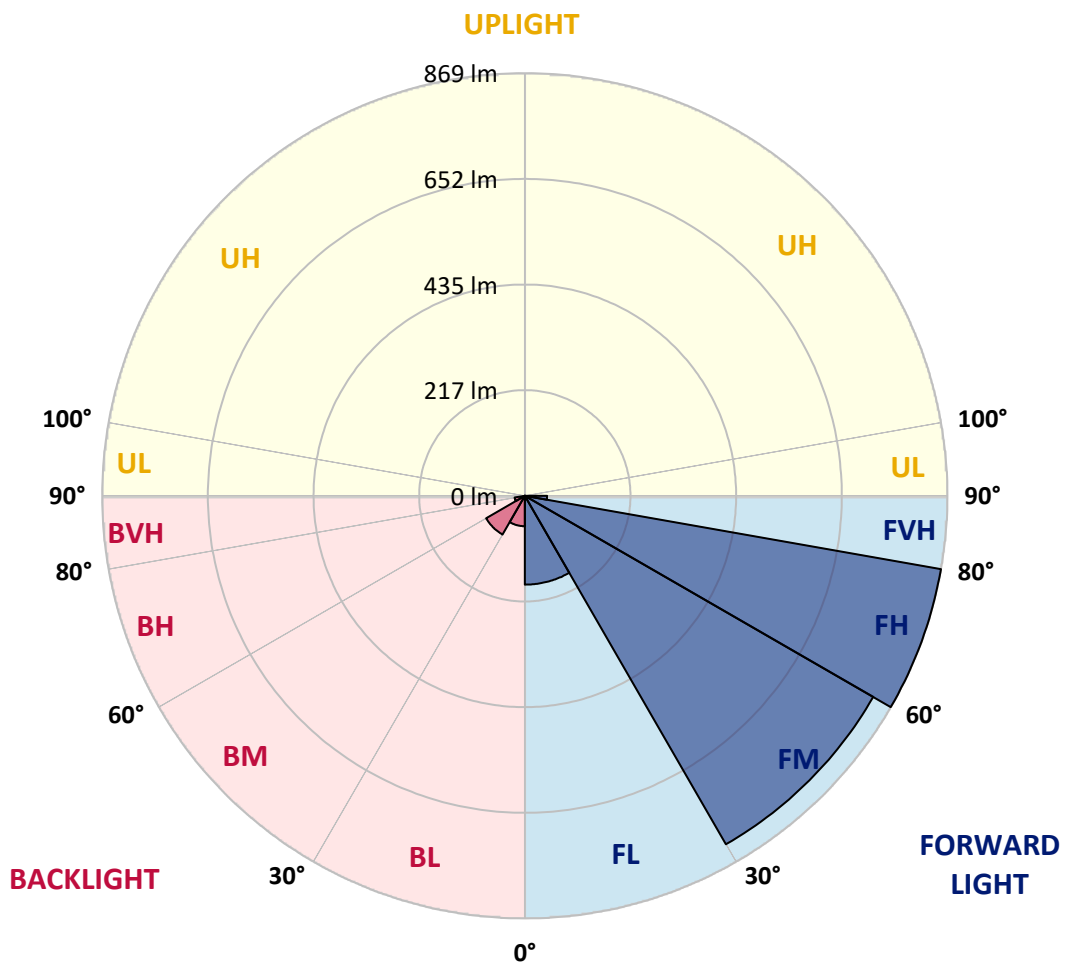


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 182.8 | 8.7 | | | |
| FM (30°-60°) | 827.5 | 39.4 | | | |
| FH (60°-80°) | 869.2 | 41.4 | | | G1/1800 |
| FVH (80°-90°) | 45.9 | 2.2 | | | G1/100 |
| BL (0°-30°) | 62.5 | 3.0 | B0/110 | | |
| BM (30°-60°) | 91.9 | 4.4 | B0/220 | | |
| BH (60°-80°) | 21.3 | 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° | 380.0 | 380.0 | 380.0 | 380.0 | 380.0 | 380.0 | 380.0 | 380.0 | 380.0 | 380.0 | 380.0 |
| 2.5° | 417.5 | 417.5 | 421.4 | 417.5 | 416.0 | 406.6 | 407.1 | 402.2 | 397.3 | 390.4 | 383.9 |
| 5° | 422.4 | 425.8 | 428.3 | 424.9 | 419.4 | 420.4 | 423.9 | 414.5 | 401.2 | 392.8 | 378.5 |
| 7.5° | 420.4 | 427.8 | 425.8 | 423.9 | 420.4 | 418.0 | 413.0 | 409.1 | 402.7 | 394.8 | 378.0 |
| 10° | 418.9 | 421.4 | 421.9 | 420.4 | 413.0 | 419.9 | 414.5 | 408.1 | 400.2 | 390.8 | 370.1 |
| 12.5° | 413.5 | 413.5 | 418.0 | 414.5 | 415.5 | 418.9 | 416.5 | 415.0 | 406.6 | 398.7 | 380.5 |
| 15° | 407.6 | 409.6 | 416.5 | 421.9 | 426.8 | 425.4 | 423.9 | 419.4 | 412.0 | 403.2 | 383.9 |
| 17.5° | 409.1 | 410.1 | 420.9 | 430.8 | 428.3 | 427.3 | 435.2 | 425.8 | 418.5 | 408.6 | 386.9 |
| 20° | 414.5 | 417.5 | 429.8 | 442.6 | 445.1 | 445.1 | 442.1 | 436.7 | 426.3 | 413.0 | 392.3 |
| 22.5° | 419.9 | 420.9 | 441.1 | 457.4 | 459.9 | 453.4 | 455.9 | 440.1 | 430.3 | 422.9 | 397.7 |
| 25° | 440.6 | 438.7 | 460.3 | 473.2 | 471.7 | 465.3 | 462.8 | 449.0 | 445.1 | 431.8 | 409.6 |
| 27.5° | 468.7 | 460.3 | 481.5 | 489.4 | 481.5 | 483.5 | 476.6 | 461.8 | 453.4 | 445.6 | 415.0 |
| 30° | 486.0 | 490.9 | 502.2 | 510.1 | 496.8 | 497.3 | 493.9 | 477.6 | 464.8 | 466.8 | 433.2 |
| 32.5° | 512.6 | 516.0 | 524.4 | 527.9 | 517.5 | 516.5 | 513.1 | 500.3 | 490.9 | 488.9 | 457.9 |
| 35° | 541.2 | 547.6 | 548.1 | 549.1 | 539.7 | 543.6 | 538.7 | 520.5 | 525.4 | 528.9 | 487.5 |
| 37.5° | 569.3 | 563.4 | 573.2 | 577.6 | 567.3 | 567.3 | 568.8 | 556.5 | 565.3 | 575.7 | 529.3 |
| 40° | 580.1 | 582.6 | 599.8 | 596.4 | 608.7 | 601.3 | 606.7 | 603.8 | 611.2 | 634.8 | 588.5 |
| 42.5° | 591.4 | 594.4 | 617.6 | 624.0 | 638.8 | 641.2 | 649.1 | 649.6 | 671.3 | 710.2 | 645.2 |
| 45° | 613.1 | 608.2 | 639.8 | 655.5 | 679.7 | 686.6 | 695.9 | 703.8 | 737.8 | 783.7 | 709.7 |
| 47.5° | 632.9 | 626.0 | 661.9 | 693.5 | 723.0 | 724.5 | 750.2 | 758.5 | 798.9 | 851.2 | 773.8 |
| 50° | 660.5 | 662.9 | 678.2 | 732.4 | 762.5 | 779.7 | 797.5 | 825.1 | 869.9 | 925.6 | 820.1 |
| 52.5° | 689.0 | 686.6 | 712.2 | 765.4 | 812.7 | 819.2 | 859.1 | 890.1 | 938.9 | 980.8 | 840.8 |
| 55° | 724.0 | 727.0 | 736.8 | 806.8 | 867.0 | 882.2 | 927.1 | 959.6 | 1012.9 | 1004.5 | 847.7 |
| 57.5° | 759.0 | 756.1 | 778.2 | 853.2 | 935.0 | 946.3 | 1006.0 | 1025.2 | 1061.2 | 1020.2 | 830.5 |
| 60° | 793.5 | 798.9 | 808.3 | 905.4 | 1009.4 | 1026.2 | 1073.5 | 1083.3 | 1091.2 | 1027.6 | 817.2 |
| 62.5° | 833.0 | 820.1 | 849.2 | 960.6 | 1076.4 | 1111.4 | 1148.9 | 1110.0 | 1103.1 | 1014.3 | 786.6 |
| 65° | 852.7 | 856.6 | 894.6 | 1023.7 | 1165.6 | 1191.3 | 1196.2 | 1145.9 | 1110.4 | 984.8 | 758.0 |
| 67.5° | 883.2 | 888.7 | 937.0 | 1088.3 | 1257.3 | 1271.6 | 1253.9 | 1178.5 | 1104.0 | 946.3 | 655.0 |
| 70° | 887.2 | 900.5 | 993.6 | 1155.8 | 1315.0 | 1327.3 | 1313.5 | 1200.1 | 1052.3 | 795.0 | 485.0 |
| 72.5° | 866.5 | 890.1 | 1007.4 | 1194.2 | 1363.3 | 1394.3 | 1317.0 | 1123.8 | 848.2 | 507.2 | 248.4 |
| 75° | 654.5 | 674.3 | 922.2 | 1137.1 | 1277.5 | 1284.9 | 1156.3 | 857.6 | 483.0 | 173.0 | 63.6 |
| 77.5° | 339.1 | 373.1 | 615.6 | 868.9 | 973.4 | 965.5 | 804.9 | 505.2 | 166.1 | 45.3 | 25.6 |
| 80° | 194.7 | 203.1 | 269.1 | 487.9 | 612.1 | 582.1 | 445.1 | 217.9 | 72.9 | 22.7 | 16.8 |
| 82.5° | 96.1 | 107.9 | 144.9 | 218.3 | 306.1 | 251.9 | 167.1 | 130.6 | 40.9 | 12.3 | 14.8 |
| 85° | 20.7 | 21.7 | 73.9 | 104.5 | 124.2 | 81.8 | 57.2 | 109.9 | 14.8 | 7.4 | 14.3 |
| 87.5° | 14.8 | 14.3 | 20.7 | 46.8 | 34.5 | 21.2 | 34.0 | 57.7 | 3.5 | 3.5 | 3.0 |
| 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° | 380.0 | 380.0 | 380.0 | 380.0 | 380.0 | 380.0 | 380.0 | 380.0 | 380.0 | 380.0 | 380.0 |
| 2.5° | 380.0 | 375.6 | 370.6 | 361.3 | 358.8 | 357.3 | 349.0 | 348.5 | 347.0 | 343.5 | 342.1 |
| 5° | 369.7 | 362.3 | 352.9 | 343.0 | 335.2 | 320.9 | 303.6 | 294.7 | 283.9 | 284.4 | 280.9 |
| 7.5° | 368.2 | 354.4 | 341.1 | 320.4 | 295.2 | 268.6 | 242.0 | 224.8 | 212.4 | 205.0 | 206.5 |
| 10° | 361.3 | 350.9 | 329.2 | 290.8 | 250.4 | 210.0 | 176.0 | 150.3 | 135.5 | 124.2 | 127.7 |
| 12.5° | 364.2 | 344.0 | 313.5 | 262.2 | 204.5 | 154.8 | 112.4 | 87.7 | 76.9 | 72.9 | 73.9 |
| 15° | 362.3 | 344.0 | 304.1 | 231.2 | 160.7 | 105.0 | 72.9 | 65.1 | 63.1 | 63.1 | 62.1 |
| 17.5° | 368.2 | 348.0 | 288.3 | 200.6 | 115.3 | 70.0 | 62.6 | 61.1 | 59.6 | 59.6 | 59.6 |
| 20° | 376.6 | 349.9 | 277.5 | 166.6 | 81.3 | 61.6 | 58.7 | 57.7 | 57.2 | 57.2 | 56.7 |
| 22.5° | 377.0 | 348.0 | 257.3 | 129.1 | 62.6 | 58.2 | 55.7 | 55.2 | 55.2 | 54.2 | 54.2 |
| 25° | 380.0 | 349.9 | 235.6 | 97.1 | 58.2 | 54.7 | 52.7 | 52.2 | 52.7 | 52.2 | 51.8 |
| 27.5° | 387.4 | 353.4 | 213.9 | 71.0 | 54.7 | 51.8 | 50.3 | 49.8 | 49.8 | 49.8 | 48.8 |
| 30° | 396.8 | 353.4 | 189.8 | 58.7 | 51.8 | 48.8 | 47.3 | 46.8 | 46.3 | 46.3 | 46.3 |
| 32.5° | 416.5 | 364.7 | 160.2 | 52.2 | 47.8 | 45.3 | 43.9 | 43.9 | 43.4 | 43.4 | 42.9 |
| 35° | 441.1 | 372.6 | 130.1 | 48.3 | 44.4 | 41.9 | 40.4 | 40.4 | 39.9 | 39.9 | 39.4 |
| 37.5° | 471.7 | 392.3 | 99.6 | 45.3 | 40.9 | 38.4 | 37.0 | 37.0 | 37.0 | 36.5 | 36.5 |
| 40° | 515.1 | 412.5 | 73.9 | 41.4 | 37.5 | 35.0 | 34.0 | 33.5 | 33.0 | 33.0 | 32.0 |
| 42.5° | 561.4 | 443.6 | 55.2 | 38.4 | 34.5 | 32.5 | 31.1 | 29.6 | 29.6 | 28.1 | 28.1 |
| 45° | 611.7 | 470.7 | 44.9 | 35.0 | 31.5 | 29.1 | 27.6 | 26.6 | 25.1 | 24.2 | 24.2 |
| 47.5° | 660.9 | 487.5 | 39.4 | 31.1 | 28.6 | 26.6 | 25.1 | 23.2 | 21.2 | 20.7 | 20.2 |
| 50° | 700.9 | 492.4 | 35.0 | 28.1 | 26.1 | 24.2 | 22.2 | 19.7 | 17.7 | 16.8 | 16.3 |
| 52.5° | 700.9 | 465.3 | 31.5 | 25.1 | 23.7 | 21.7 | 19.2 | 16.3 | 13.8 | 12.8 | 12.3 |
| 55° | 700.9 | 422.4 | 28.1 | 23.2 | 21.2 | 19.7 | 16.3 | 13.3 | 10.8 | 9.4 | 8.9 |
| 57.5° | 690.5 | 370.6 | 25.1 | 20.7 | 18.7 | 16.8 | 13.8 | 10.4 | 7.9 | 6.4 | 6.4 |
| 60° | 661.9 | 316.4 | 21.7 | 18.2 | 16.3 | 13.8 | 10.8 | 7.4 | 4.9 | 3.5 | 3.5 |
| 62.5° | 625.5 | 251.9 | 18.7 | 15.3 | 13.3 | 11.3 | 8.4 | 4.9 | 2.0 | 1.0 | 1.0 |
| 65° | 561.9 | 185.8 | 16.3 | 12.8 | 10.4 | 8.4 | 5.4 | 2.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 463.8 | 124.2 | 12.8 | 10.4 | 8.9 | 5.9 | 3.5 | 0.5 | 0.0 | 0.0 | 0.0 |
| 70° | 326.3 | 70.5 | 9.9 | 7.4 | 6.4 | 3.9 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 134.1 | 31.1 | 6.9 | 5.4 | 4.4 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 36.5 | 13.8 | 4.4 | 3.0 | 2.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 21.2 | 9.4 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 16.8 | 4.4 | 1.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 16.8 | 2.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 14.3 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.0 | 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)