

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: P676895

Luminaire Tested: **CCW-SA-1B-830-U-SL2-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676895
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1B-830-U-SL2-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @450mA w/
SL2 distribution lens and House Side Shield
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

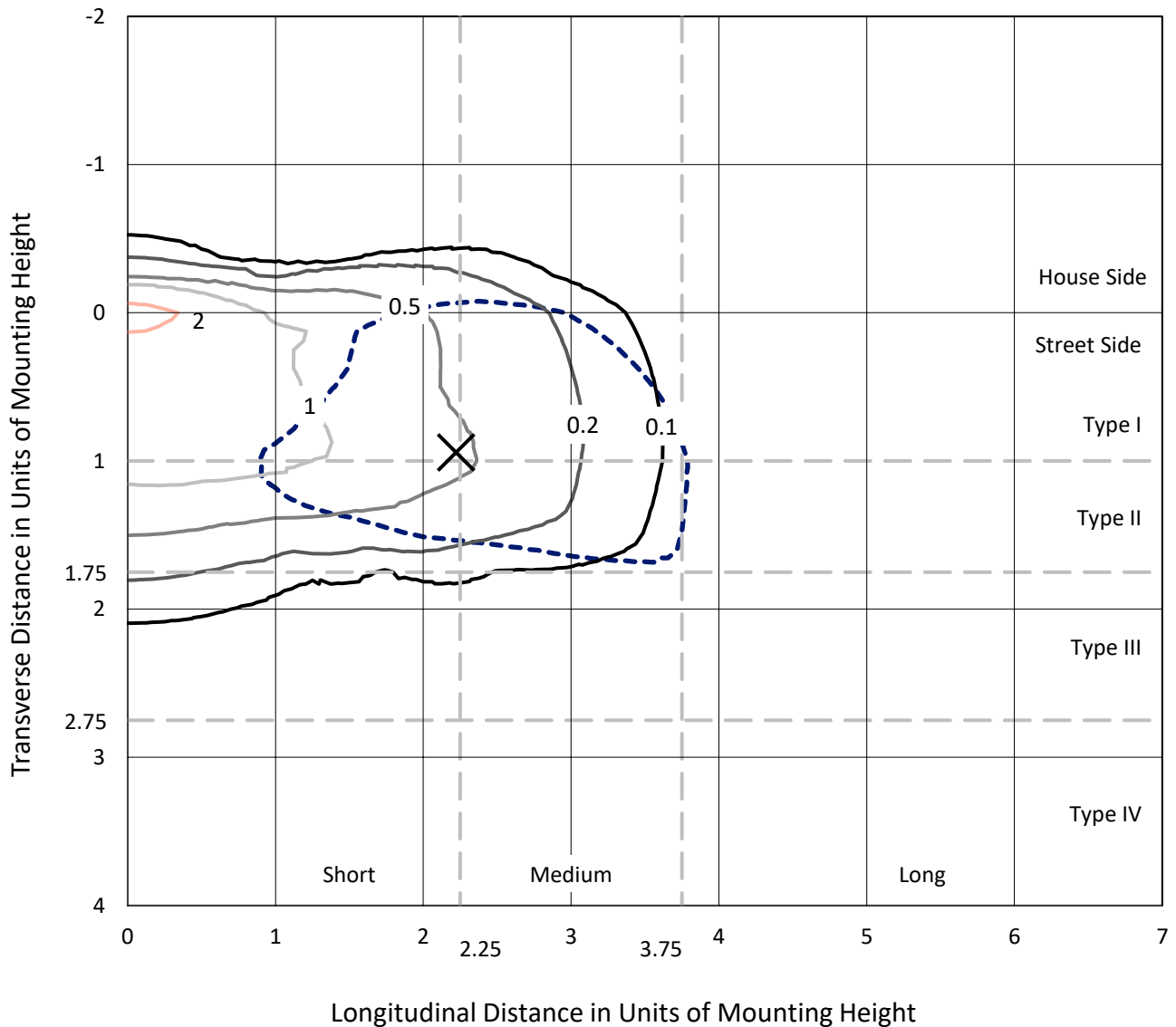
Lumens per Lamp: N/A
Luminaire Lumens: 2206.8 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B0 - U0 - G1

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

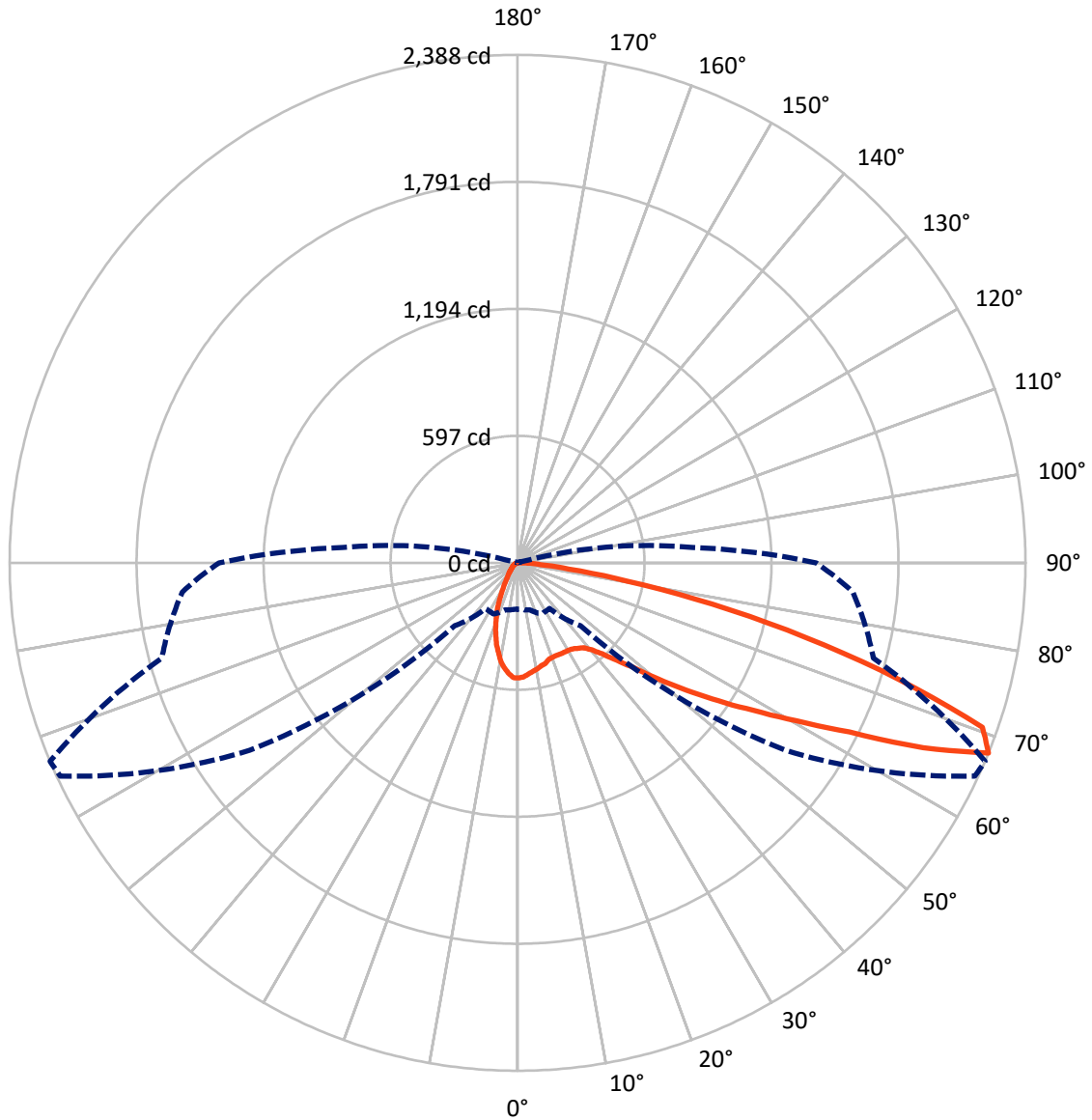
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2.4 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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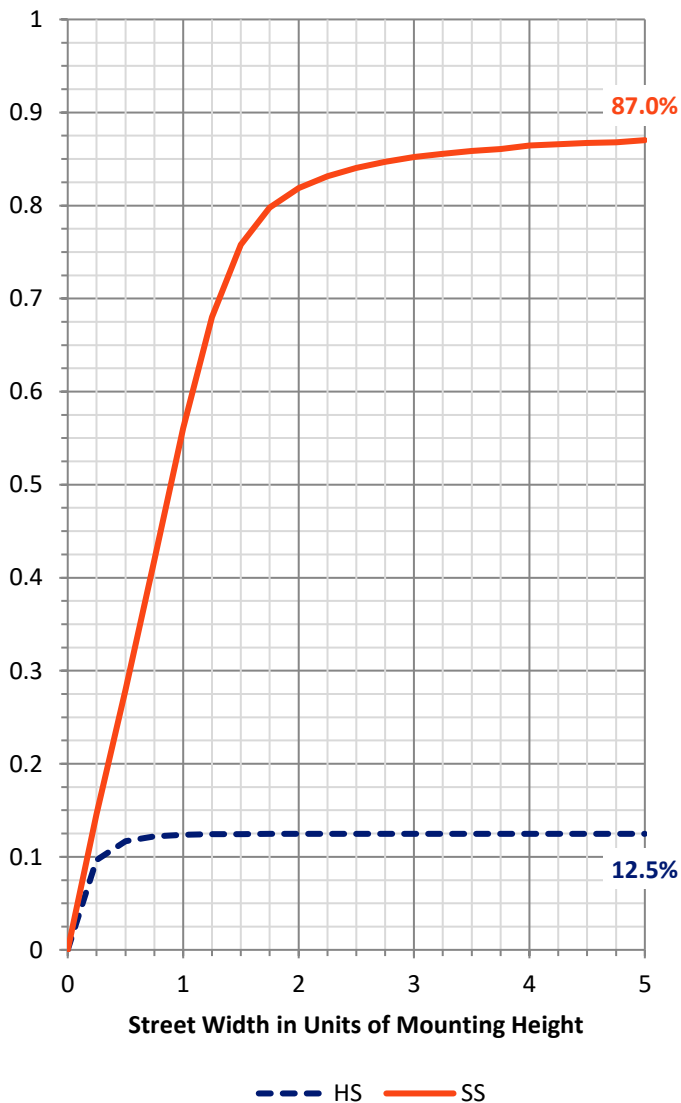
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 277.7 | 0.0 | 277.7 |
| | % Fixture | 12.6 | 0.0 | 12.6 |
| Street Side | Lumens | 1929.1 | 0.0 | 1929.1 |
| | % Fixture | 87.4 | 0.0 | 87.4 |
| Total | Lumens | 2206.8 | 0.0 | 2206.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 45.6 | 2.1 |
| 10°-20° | 101.3 | 4.6 |
| 20°-30° | 144.1 | 6.5 |
| 30°-40° | 209.8 | 9.5 |
| 40°-50° | 324.7 | 14.7 |
| 50°-60° | 498.3 | 22.6 |
| 60°-70° | 540.1 | 24.5 |
| 70°-80° | 304.7 | 13.8 |
| 80°-90° | 38.3 | 1.7 |
| 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° | 2206.8 | 100.0 |
| 0°-180° | 2206.8 | 100.0 |

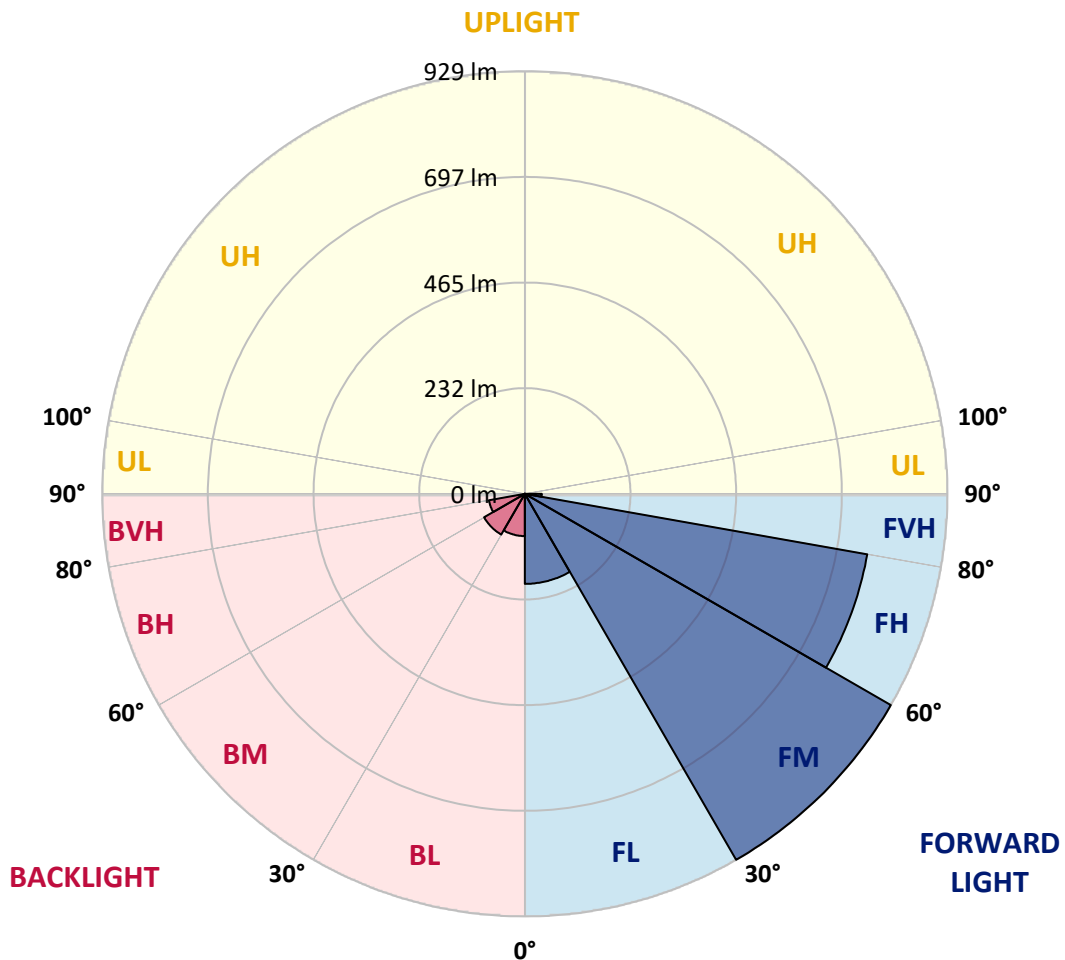


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 198.0 | 9.0 | | | |
| FM (30°-60°) | 929.3 | 42.1 | | | |
| FH (60°-80°) | 764.6 | 34.6 | | | G1/1800 |
| FVH (80°-90°) | 37.2 | 1.7 | | | G1/100 |
| BL (0°-30°) | 93.0 | 4.2 | B0/110 | | |
| BM (30°-60°) | 103.4 | 4.7 | B0/220 | | |
| BH (60°-80°) | 80.2 | 3.6 | B0/110 | | G0/110 |
| BVH (80°-90°) | 1.1 | 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 II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 67° | 75° | 85° |
|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 541.3 | 541.3 | 541.3 | 541.3 | 541.3 | 541.3 | 541.3 | 541.3 | 541.3 | 541.3 | 541.3 |
| 2.5° | 517.9 | 520.5 | 524.3 | 529.6 | 533.3 | 531.2 | 532.8 | 541.8 | 537.0 | 541.3 | 539.2 |
| 5° | 489.2 | 491.8 | 497.2 | 496.6 | 500.9 | 508.9 | 519.5 | 531.2 | 525.9 | 538.6 | 543.4 |
| 7.5° | 459.4 | 458.3 | 458.3 | 469.5 | 478.5 | 489.7 | 495.6 | 514.7 | 515.2 | 526.4 | 538.1 |
| 10° | 432.3 | 435.5 | 440.8 | 445.0 | 453.6 | 469.5 | 486.5 | 501.4 | 507.3 | 529.6 | 532.8 |
| 12.5° | 415.8 | 417.4 | 423.8 | 427.5 | 438.7 | 454.1 | 472.2 | 491.3 | 496.1 | 519.0 | 534.4 |
| 15° | 408.9 | 412.6 | 414.7 | 421.6 | 427.5 | 441.9 | 455.1 | 476.9 | 490.8 | 508.9 | 528.0 |
| 17.5° | 414.2 | 412.6 | 413.7 | 415.8 | 422.7 | 435.5 | 449.8 | 471.6 | 476.4 | 506.7 | 535.4 |
| 20° | 421.1 | 421.6 | 418.5 | 417.4 | 415.8 | 428.0 | 439.7 | 467.9 | 473.2 | 506.7 | 540.2 |
| 22.5° | 439.7 | 433.9 | 439.7 | 431.2 | 422.7 | 428.0 | 439.2 | 468.4 | 472.2 | 506.2 | 545.0 |
| 25° | 462.6 | 463.7 | 465.3 | 447.2 | 434.9 | 431.2 | 442.9 | 470.0 | 473.2 | 510.4 | 547.1 |
| 27.5° | 495.0 | 499.8 | 491.8 | 482.8 | 458.3 | 439.7 | 442.4 | 469.0 | 474.8 | 508.3 | 552.5 |
| 30° | 538.6 | 534.9 | 536.0 | 515.2 | 491.3 | 462.1 | 454.6 | 471.6 | 475.9 | 511.0 | 562.6 |
| 32.5° | 576.4 | 572.1 | 579.6 | 572.1 | 534.4 | 494.0 | 469.0 | 476.9 | 481.7 | 517.4 | 571.1 |
| 35° | 599.8 | 605.1 | 616.8 | 624.8 | 592.9 | 535.4 | 492.9 | 491.3 | 493.4 | 520.5 | 577.4 |
| 37.5° | 635.9 | 645.5 | 655.1 | 675.3 | 647.6 | 586.5 | 530.7 | 509.9 | 506.2 | 536.0 | 580.6 |
| 40° | 675.3 | 672.6 | 700.8 | 724.7 | 723.7 | 658.3 | 583.3 | 542.9 | 537.6 | 560.4 | 601.9 |
| 42.5° | 708.2 | 705.6 | 737.0 | 776.3 | 780.6 | 727.4 | 643.4 | 589.7 | 584.9 | 598.2 | 628.0 |
| 45° | 751.3 | 753.4 | 790.7 | 837.5 | 852.9 | 818.8 | 724.7 | 656.7 | 654.0 | 649.8 | 677.4 |
| 47.5° | 789.6 | 801.3 | 833.2 | 888.5 | 944.3 | 913.5 | 820.4 | 754.5 | 735.9 | 726.3 | 754.0 |
| 50° | 816.2 | 826.8 | 865.6 | 924.7 | 1026.7 | 1046.4 | 927.8 | 858.7 | 859.3 | 835.9 | 850.7 |
| 52.5° | 816.2 | 815.7 | 847.0 | 924.7 | 1084.2 | 1185.2 | 1071.4 | 990.1 | 994.3 | 969.8 | 970.9 |
| 55° | 737.5 | 735.9 | 774.2 | 856.6 | 1077.8 | 1318.7 | 1288.9 | 1156.5 | 1145.8 | 1098.5 | 1103.3 |
| 57.5° | 593.9 | 597.6 | 626.9 | 725.8 | 994.8 | 1380.9 | 1547.8 | 1343.6 | 1307.5 | 1209.7 | 1209.7 |
| 60° | 433.3 | 430.2 | 452.0 | 521.1 | 797.0 | 1357.5 | 1760.5 | 1564.3 | 1507.4 | 1301.6 | 1287.8 |
| 62.5° | 329.7 | 329.1 | 335.0 | 358.4 | 505.7 | 1183.6 | 1852.0 | 1845.0 | 1752.5 | 1392.0 | 1372.4 |
| 65° | 266.4 | 267.5 | 275.4 | 291.9 | 308.9 | 807.1 | 1803.6 | 2180.0 | 2095.5 | 1526.6 | 1462.2 |
| 67.5° | 217.5 | 220.1 | 229.7 | 265.3 | 261.6 | 417.9 | 1536.1 | 2372.0 | 2387.9 | 1731.8 | 1582.9 |
| 70° | 167.5 | 171.7 | 182.9 | 233.4 | 252.0 | 278.1 | 1065.0 | 2276.3 | 2318.8 | 1859.4 | 1510.1 |
| 72.5° | 113.8 | 113.3 | 137.2 | 189.3 | 254.7 | 254.7 | 592.9 | 1833.4 | 1873.8 | 1714.2 | 1311.7 |
| 75° | 61.7 | 65.4 | 90.9 | 143.0 | 233.4 | 246.2 | 337.6 | 1341.5 | 1398.4 | 1333.0 | 1014.5 |
| 77.5° | 33.5 | 34.0 | 50.5 | 93.6 | 194.1 | 235.0 | 225.4 | 912.4 | 934.8 | 804.0 | 555.6 |
| 80° | 17.5 | 18.1 | 26.6 | 61.1 | 134.0 | 218.0 | 187.7 | 543.9 | 522.7 | 308.4 | 183.4 |
| 82.5° | 8.0 | 8.5 | 13.3 | 38.3 | 85.6 | 171.7 | 162.2 | 262.7 | 242.5 | 86.1 | 55.8 |
| 85° | 3.2 | 3.2 | 5.8 | 22.9 | 50.0 | 84.5 | 138.8 | 131.9 | 110.1 | 26.1 | 27.6 |
| 87.5° | 1.1 | 1.1 | 1.6 | 9.0 | 20.2 | 50.5 | 73.9 | 69.7 | 47.9 | 9.6 | 14.9 |
| 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° | 541.3 | 541.3 | 541.3 | 541.3 | 541.3 | 541.3 | 541.3 | 541.3 | 541.3 | 541.3 | 541.3 |
| 2.5° | 537.0 | 542.9 | 541.3 | 540.2 | 530.1 | 529.1 | 528.0 | 518.4 | 521.6 | 513.6 | 519.0 |
| 5° | 540.2 | 543.4 | 534.9 | 519.0 | 504.6 | 488.6 | 476.4 | 467.9 | 452.5 | 446.6 | 445.6 |
| 7.5° | 537.0 | 537.0 | 519.5 | 494.0 | 465.8 | 439.7 | 406.8 | 383.4 | 365.8 | 352.5 | 357.3 |
| 10° | 532.8 | 526.4 | 508.3 | 463.1 | 412.1 | 372.7 | 325.4 | 290.8 | 264.8 | 256.3 | 251.0 |
| 12.5° | 532.8 | 521.6 | 481.2 | 419.5 | 353.6 | 294.0 | 237.7 | 192.5 | 167.5 | 152.6 | 150.5 |
| 15° | 528.0 | 511.5 | 461.5 | 378.6 | 296.7 | 215.9 | 151.5 | 112.7 | 91.5 | 85.6 | 83.5 |
| 17.5° | 529.1 | 509.4 | 432.3 | 330.2 | 230.2 | 143.6 | 92.5 | 71.2 | 65.9 | 63.3 | 63.8 |
| 20° | 531.2 | 509.4 | 406.2 | 282.9 | 165.9 | 89.3 | 63.8 | 60.1 | 57.4 | 56.4 | 56.9 |
| 22.5° | 538.1 | 499.3 | 379.6 | 234.5 | 112.2 | 64.3 | 56.4 | 52.6 | 50.5 | 48.9 | 48.4 |
| 25° | 539.2 | 497.7 | 354.1 | 186.6 | 77.1 | 54.2 | 49.4 | 45.2 | 42.5 | 40.4 | 39.9 |
| 27.5° | 537.6 | 490.8 | 318.5 | 138.8 | 58.0 | 48.4 | 42.0 | 37.8 | 34.0 | 32.4 | 31.9 |
| 30° | 543.4 | 478.0 | 288.2 | 100.0 | 48.9 | 42.0 | 35.6 | 30.8 | 27.6 | 25.5 | 25.5 |
| 32.5° | 543.9 | 466.8 | 254.7 | 71.2 | 44.7 | 37.2 | 30.3 | 25.0 | 21.8 | 20.7 | 20.7 |
| 35° | 544.5 | 456.7 | 217.5 | 54.2 | 39.9 | 31.9 | 25.0 | 20.7 | 18.6 | 17.0 | 17.0 |
| 37.5° | 546.1 | 449.3 | 183.4 | 45.7 | 35.6 | 27.1 | 20.7 | 17.0 | 14.9 | 14.4 | 14.4 |
| 40° | 549.3 | 439.2 | 147.8 | 40.4 | 30.8 | 22.9 | 17.5 | 14.4 | 12.2 | 11.7 | 11.2 |
| 42.5° | 557.8 | 436.5 | 118.0 | 36.2 | 27.6 | 19.1 | 14.4 | 11.7 | 10.1 | 9.0 | 8.5 |
| 45° | 592.9 | 443.5 | 91.5 | 33.5 | 23.4 | 16.0 | 12.2 | 9.6 | 7.4 | 6.9 | 6.4 |
| 47.5° | 650.3 | 466.3 | 72.3 | 29.8 | 19.7 | 13.3 | 10.1 | 7.4 | 5.8 | 5.3 | 4.8 |
| 50° | 737.5 | 518.4 | 59.0 | 26.6 | 16.5 | 11.2 | 8.0 | 5.8 | 4.3 | 3.7 | 3.7 |
| 52.5° | 851.8 | 588.6 | 51.0 | 23.4 | 13.3 | 9.6 | 6.4 | 4.3 | 3.2 | 2.7 | 2.7 |
| 55° | 968.8 | 671.6 | 47.9 | 20.2 | 11.2 | 8.0 | 4.8 | 3.2 | 2.1 | 1.6 | 1.6 |
| 57.5° | 1076.2 | 725.3 | 46.3 | 16.5 | 9.6 | 5.8 | 3.7 | 2.1 | 1.1 | 0.5 | 0.5 |
| 60° | 1143.2 | 764.6 | 41.5 | 13.3 | 7.4 | 4.8 | 2.7 | 1.1 | 0.5 | 0.0 | 0.0 |
| 62.5° | 1231.5 | 804.5 | 34.0 | 10.1 | 5.3 | 3.2 | 1.6 | 0.5 | 0.0 | 0.0 | 0.0 |
| 65° | 1347.9 | 849.1 | 26.6 | 8.0 | 4.3 | 2.1 | 1.1 | 0.5 | 0.0 | 0.0 | 0.0 |
| 67.5° | 1403.7 | 825.8 | 18.1 | 5.8 | 2.7 | 1.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 1292.1 | 695.5 | 12.8 | 4.3 | 1.6 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 1086.3 | 545.0 | 9.6 | 2.7 | 1.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 800.8 | 340.8 | 7.4 | 2.1 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 424.8 | 127.1 | 5.3 | 1.6 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 125.5 | 37.2 | 3.7 | 1.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 41.5 | 11.2 | 2.1 | 1.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 21.3 | 4.3 | 1.1 | 1.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 12.2 | 1.6 | 1.1 | 1.1 | 0.5 | 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)