

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: P472290

Luminaire Tested: **CCP-VA-2-830-U-T4FT**

Issue Date: 01/27/2021



Test Information

Test Method: LM-79-08
Report Number: P472290
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCP-VA-2-830-U-T4FT
Description: INVUE CLEARCURVE POLE MOUNT Wave Stream LUMINAIRE WITH T4FT
DISTRIBUTION LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

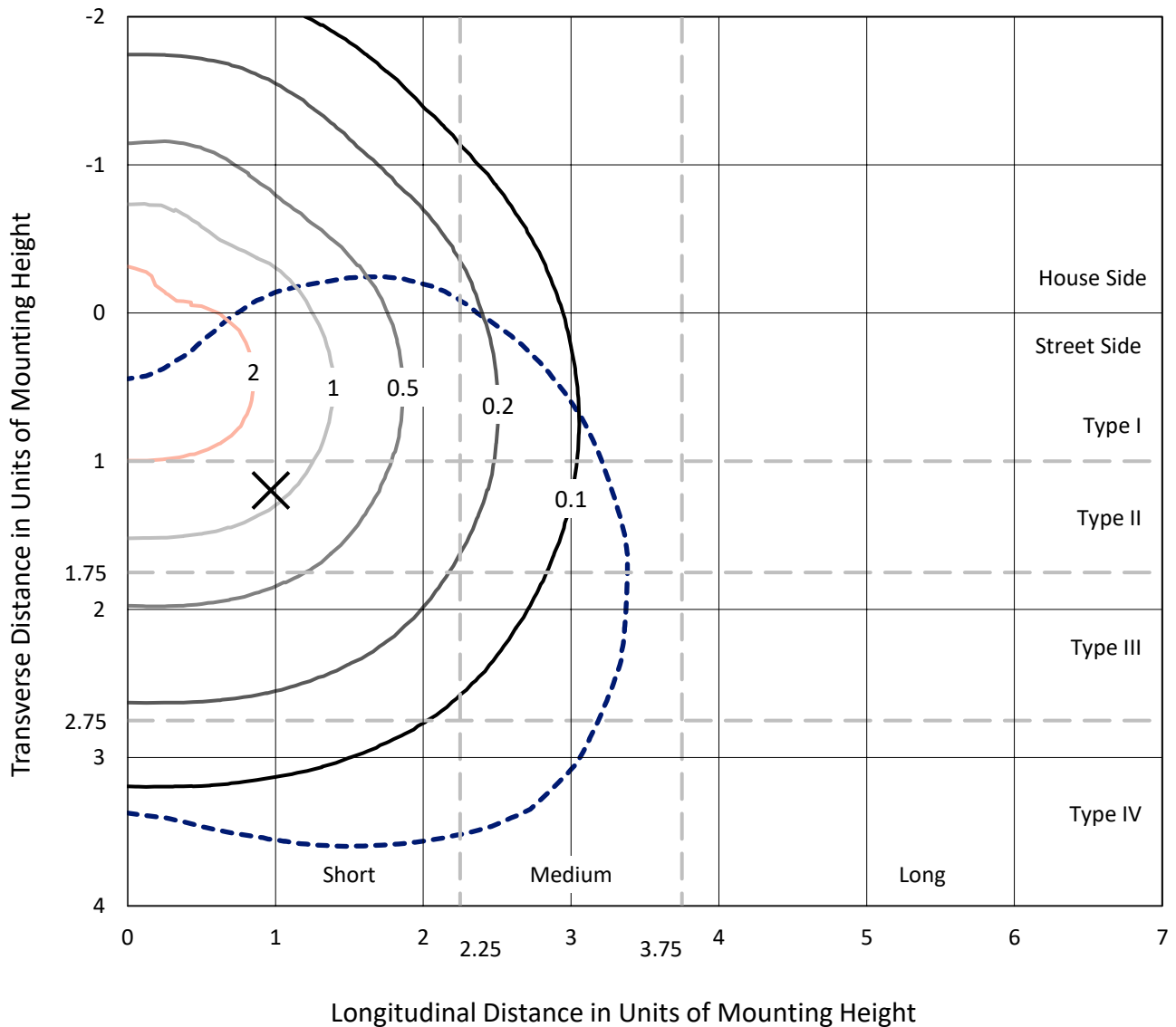
Lumens per Lamp: N/A
Luminaire Lumens: 4099 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

Input Watts (W): 40.7
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

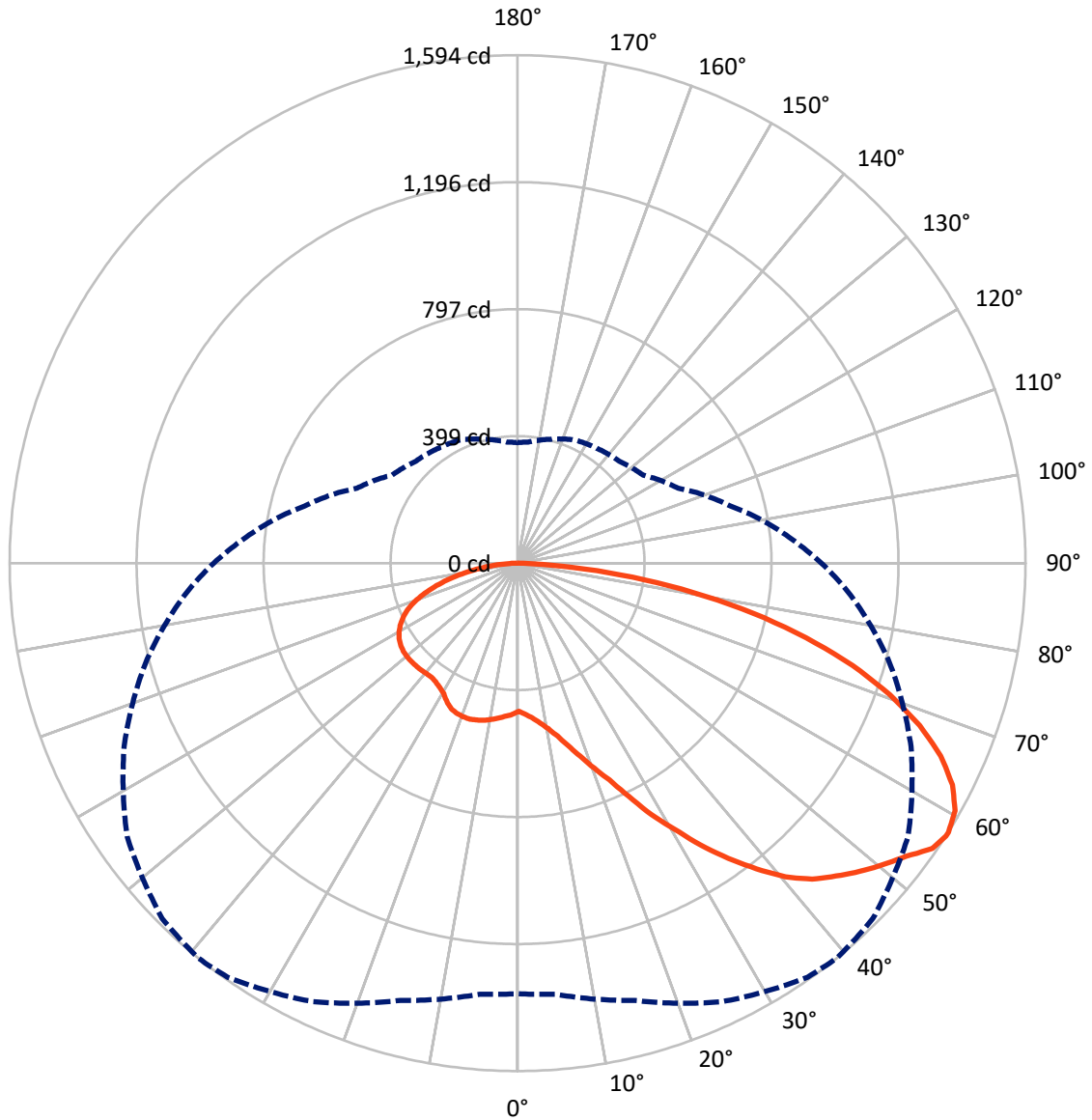
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 57-Deg Vertical

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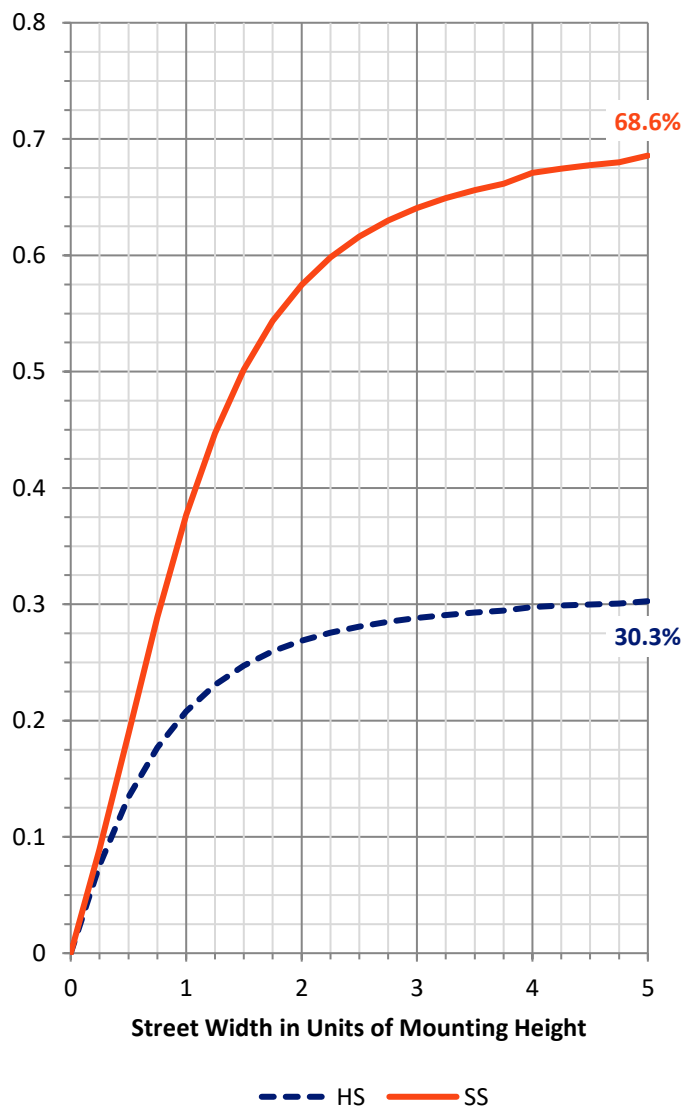
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1257.7 | 0.0 | 1257.7 |
| | % Fixture | 30.7 | 0.0 | 30.7 |
| Street Side | Lumens | 2841.3 | 0.0 | 2841.3 |
| | % Fixture | 69.3 | 0.0 | 69.3 |
| Total | Lumens | 4099.0 | 0.0 | 4099.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 47.1 | 1.1 |
| 10°-20° | 157.0 | 3.8 |
| 20°-30° | 303.2 | 7.4 |
| 30°-40° | 490.4 | 12.0 |
| 40°-50° | 689.0 | 16.8 |
| 50°-60° | 851.1 | 20.8 |
| 60°-70° | 846.0 | 20.6 |
| 70°-80° | 572.4 | 14.0 |
| 80°-90° | 142.9 | 3.5 |
| 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° | 4099.0 | 100.0 |
| 0°-180° | 4099.0 | 100.0 |



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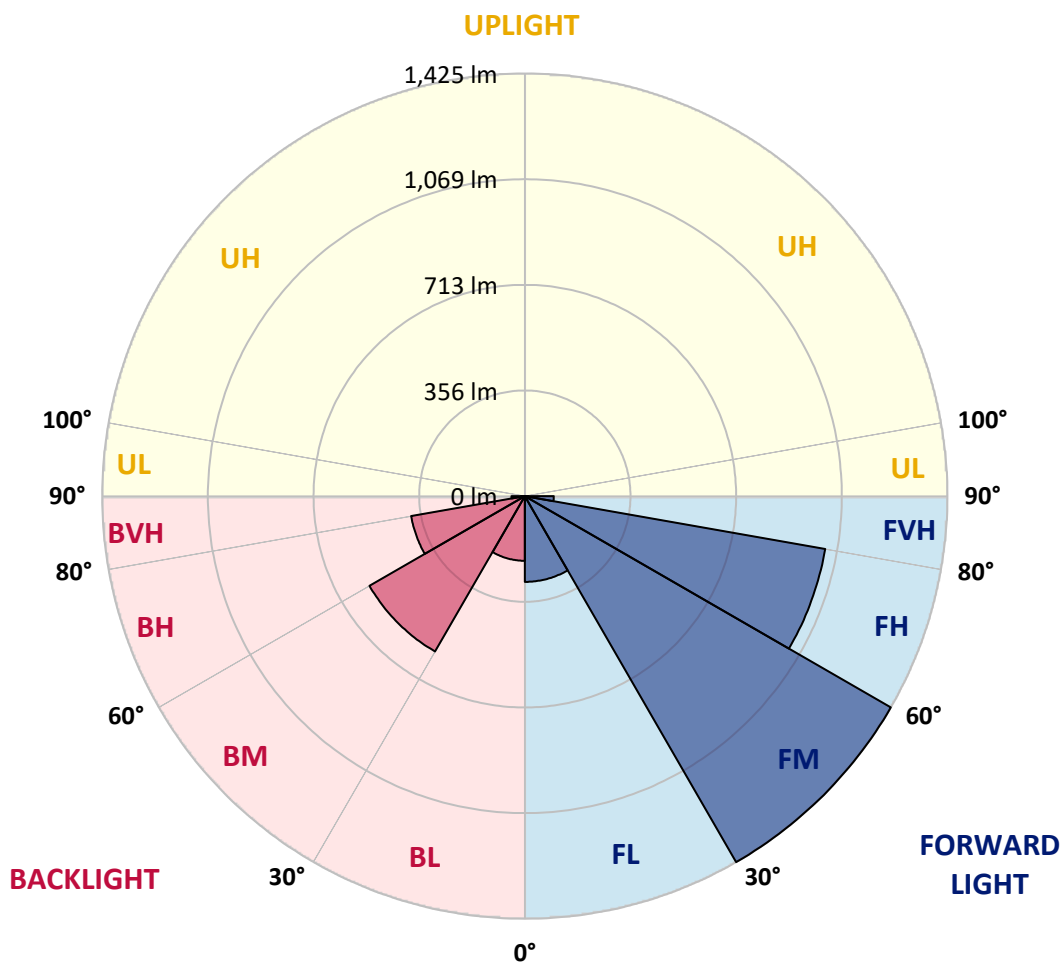
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 289.2 | 7.1 | | | |
| FM (30°-60°) | 1425.4 | 34.8 | | | |
| FH (60°-80°) | 1028.9 | 25.1 | | | G1/1800 |
| FVH (80°-90°) | 97.8 | 2.4 | | | G1/100 |
| BL (0°-30°) | 218.0 | 5.3 | B1/500 | | |
| BM (30°-60°) | 605.1 | 14.8 | B1/1000 | | |
| BH (60°-80°) | 389.5 | 9.5 | B1/500 | | G1/500 |
| BVH (80°-90°) | 45.1 | 1.1 | | | G1/100 |
| 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° | 464.8 | 464.8 | 464.8 | 464.8 | 464.8 | 464.8 | 464.8 | 464.8 | 464.8 | 464.8 | 464.8 |
| 2.5° | 478.6 | 478.0 | 477.4 | 477.4 | 476.1 | 474.9 | 474.2 | 473.0 | 473.6 | 474.9 | 475.5 |
| 5° | 492.4 | 491.2 | 491.2 | 489.9 | 488.0 | 488.0 | 486.2 | 483.7 | 483.0 | 482.4 | 482.4 |
| 7.5° | 513.8 | 511.9 | 512.5 | 510.7 | 508.8 | 506.3 | 503.1 | 500.0 | 498.7 | 494.3 | 490.6 |
| 10° | 538.3 | 537.7 | 535.8 | 532.6 | 530.8 | 528.2 | 525.1 | 519.5 | 515.1 | 510.0 | 506.9 |
| 12.5° | 567.2 | 565.9 | 566.6 | 564.1 | 560.9 | 556.5 | 551.5 | 545.8 | 537.7 | 528.2 | 522.0 |
| 15° | 604.9 | 602.4 | 602.4 | 601.7 | 595.5 | 594.2 | 589.2 | 576.6 | 565.3 | 552.7 | 538.3 |
| 17.5° | 650.7 | 650.1 | 647.6 | 645.1 | 641.3 | 636.9 | 631.9 | 618.1 | 601.1 | 581.6 | 562.2 |
| 20° | 699.7 | 698.5 | 700.4 | 696.6 | 689.0 | 687.2 | 679.0 | 663.3 | 642.6 | 620.0 | 590.4 |
| 22.5° | 753.1 | 754.4 | 754.4 | 753.1 | 746.8 | 739.3 | 732.4 | 711.7 | 687.8 | 660.2 | 625.6 |
| 25° | 817.8 | 818.4 | 822.2 | 826.0 | 822.2 | 810.3 | 800.9 | 768.8 | 736.8 | 701.6 | 660.8 |
| 27.5° | 890.7 | 886.3 | 897.0 | 903.9 | 897.0 | 893.8 | 873.1 | 837.9 | 793.9 | 750.0 | 699.1 |
| 30° | 961.0 | 961.0 | 969.8 | 979.9 | 975.5 | 967.9 | 951.0 | 905.7 | 855.5 | 799.6 | 738.0 |
| 32.5° | 1026.3 | 1033.9 | 1037.7 | 1060.9 | 1058.4 | 1054.6 | 1035.1 | 975.5 | 912.7 | 849.2 | 775.7 |
| 35° | 1103.6 | 1101.1 | 1116.8 | 1131.2 | 1142.5 | 1137.5 | 1123.1 | 1062.8 | 980.5 | 901.3 | 817.2 |
| 37.5° | 1162.0 | 1167.0 | 1180.9 | 1206.6 | 1214.8 | 1217.3 | 1199.1 | 1136.9 | 1043.3 | 957.3 | 863.0 |
| 40° | 1206.6 | 1210.4 | 1236.8 | 1269.4 | 1286.4 | 1295.2 | 1277.0 | 1201.6 | 1102.3 | 1001.8 | 898.8 |
| 42.5° | 1242.4 | 1244.9 | 1272.6 | 1319.0 | 1347.3 | 1356.1 | 1339.8 | 1260.0 | 1152.6 | 1037.7 | 928.4 |
| 45° | 1266.3 | 1270.7 | 1303.3 | 1351.1 | 1395.1 | 1401.3 | 1393.2 | 1311.5 | 1197.2 | 1071.6 | 949.7 |
| 47.5° | 1287.0 | 1292.0 | 1328.5 | 1388.8 | 1437.8 | 1445.9 | 1438.4 | 1356.7 | 1239.9 | 1102.3 | 967.9 |
| 50° | 1314.7 | 1320.3 | 1356.7 | 1423.9 | 1478.0 | 1487.4 | 1484.9 | 1404.5 | 1280.1 | 1136.9 | 986.8 |
| 52.5° | 1341.0 | 1345.4 | 1388.8 | 1463.5 | 1521.9 | 1528.2 | 1526.3 | 1449.1 | 1320.9 | 1174.0 | 1010.6 |
| 55° | 1361.8 | 1366.8 | 1418.3 | 1510.6 | 1573.4 | 1580.3 | 1567.2 | 1483.6 | 1353.0 | 1201.0 | 1033.3 |
| 57° | 1351.1 | 1358.0 | 1420.8 | 1518.8 | 1586.6 | 1594.2 | 1577.2 | 1496.2 | 1362.4 | 1208.5 | 1041.4 |
| 57.5° | 1347.9 | 1353.0 | 1418.3 | 1518.2 | 1587.3 | 1594.2 | 1577.2 | 1495.5 | 1361.8 | 1207.9 | 1041.4 |
| 60° | 1302.1 | 1314.0 | 1387.5 | 1495.5 | 1569.0 | 1577.8 | 1561.5 | 1470.4 | 1346.1 | 1190.3 | 1024.5 |
| 62.5° | 1240.5 | 1256.9 | 1334.1 | 1442.2 | 1525.1 | 1531.4 | 1515.0 | 1428.3 | 1310.9 | 1153.2 | 989.3 |
| 65° | 1152.0 | 1177.1 | 1258.1 | 1362.4 | 1452.2 | 1459.7 | 1443.4 | 1358.0 | 1252.5 | 1096.7 | 936.5 |
| 67.5° | 1065.3 | 1080.4 | 1167.0 | 1266.3 | 1349.8 | 1361.1 | 1347.3 | 1271.3 | 1172.1 | 1021.3 | 866.2 |
| 70° | 966.7 | 977.4 | 1049.0 | 1146.3 | 1230.5 | 1239.9 | 1228.0 | 1157.0 | 1063.4 | 927.7 | 783.9 |
| 72.5° | 848.0 | 859.3 | 920.2 | 1010.0 | 1084.8 | 1099.8 | 1091.7 | 1018.2 | 933.4 | 815.9 | 692.2 |
| 75° | 714.2 | 726.7 | 781.4 | 853.0 | 925.8 | 934.6 | 925.2 | 871.2 | 794.6 | 688.4 | 580.4 |
| 77.5° | 579.1 | 587.3 | 626.9 | 680.9 | 737.4 | 756.3 | 753.7 | 715.4 | 638.2 | 554.0 | 466.1 |
| 80° | 433.4 | 434.7 | 455.4 | 500.0 | 545.2 | 559.0 | 562.2 | 527.6 | 476.7 | 413.3 | 349.2 |
| 82.5° | 273.9 | 278.3 | 289.6 | 322.9 | 344.8 | 363.7 | 368.1 | 348.0 | 315.9 | 276.4 | 236.8 |
| 85° | 127.5 | 123.7 | 132.5 | 143.8 | 175.2 | 175.2 | 180.9 | 170.2 | 160.8 | 147.6 | 122.5 |
| 87.5° | 10.7 | 10.0 | 10.0 | 10.7 | 17.0 | 18.2 | 28.9 | 32.0 | 34.5 | 34.5 | 36.4 |
| 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° | 464.8 | 464.8 | 464.8 | 464.8 | 464.8 | 464.8 | 464.8 | 464.8 | 464.8 | 464.8 | 464.8 |
| 2.5° | 474.2 | 473.6 | 471.7 | 471.7 | 473.0 | 474.9 | 475.5 | 476.1 | 476.7 | 477.4 | 477.4 |
| 5° | 481.8 | 481.1 | 479.9 | 478.6 | 479.9 | 480.5 | 482.4 | 483.7 | 483.7 | 484.9 | 484.3 |
| 7.5° | 488.7 | 489.3 | 488.0 | 487.4 | 487.4 | 488.7 | 491.2 | 493.1 | 494.3 | 495.0 | 496.2 |
| 10° | 504.4 | 500.6 | 495.6 | 493.1 | 493.1 | 495.6 | 498.1 | 500.6 | 503.1 | 504.4 | 504.4 |
| 12.5° | 518.2 | 513.8 | 504.4 | 500.6 | 500.0 | 502.5 | 505.6 | 509.4 | 511.3 | 513.2 | 513.2 |
| 15° | 530.8 | 527.0 | 515.7 | 506.9 | 504.4 | 506.3 | 510.0 | 514.4 | 517.6 | 519.5 | 519.5 |
| 17.5° | 554.6 | 543.3 | 528.2 | 513.8 | 508.8 | 509.4 | 513.8 | 518.2 | 522.0 | 523.2 | 522.6 |
| 20° | 577.2 | 562.8 | 540.2 | 519.5 | 511.3 | 508.8 | 513.2 | 518.8 | 522.0 | 523.9 | 523.9 |
| 22.5° | 603.0 | 587.3 | 552.1 | 525.1 | 510.0 | 506.3 | 510.0 | 515.1 | 518.8 | 520.1 | 521.3 |
| 25° | 639.4 | 611.8 | 565.3 | 529.5 | 508.1 | 500.6 | 503.1 | 508.1 | 512.5 | 513.2 | 512.5 |
| 27.5° | 672.1 | 640.7 | 582.9 | 533.9 | 503.8 | 489.9 | 487.4 | 491.2 | 498.1 | 502.5 | 503.8 |
| 30° | 700.4 | 671.5 | 601.1 | 537.7 | 495.6 | 472.3 | 469.2 | 470.5 | 474.9 | 486.8 | 487.4 |
| 32.5° | 742.4 | 697.8 | 619.3 | 540.8 | 486.2 | 462.9 | 458.5 | 457.3 | 458.5 | 464.8 | 464.8 |
| 35° | 771.3 | 727.4 | 637.5 | 546.5 | 479.3 | 455.4 | 451.0 | 449.1 | 447.8 | 441.6 | 439.7 |
| 37.5° | 809.0 | 760.0 | 655.1 | 551.5 | 476.1 | 452.2 | 446.0 | 447.2 | 440.9 | 423.4 | 418.3 |
| 40° | 850.5 | 789.5 | 672.7 | 556.5 | 477.4 | 452.9 | 447.2 | 446.6 | 435.9 | 411.4 | 406.4 |
| 42.5° | 870.6 | 814.7 | 690.9 | 563.4 | 482.4 | 454.8 | 449.7 | 447.8 | 434.7 | 407.0 | 400.1 |
| 45° | 890.0 | 832.9 | 704.1 | 569.1 | 487.4 | 457.3 | 451.0 | 449.1 | 434.0 | 403.3 | 398.2 |
| 47.5° | 907.6 | 844.2 | 710.4 | 572.2 | 491.2 | 459.2 | 451.6 | 448.5 | 430.9 | 401.4 | 396.3 |
| 50° | 915.8 | 850.5 | 710.4 | 572.2 | 492.4 | 461.0 | 450.4 | 446.0 | 425.9 | 398.2 | 393.8 |
| 52.5° | 928.4 | 854.2 | 704.7 | 568.4 | 490.6 | 461.0 | 447.8 | 440.9 | 419.6 | 393.8 | 390.1 |
| 55° | 947.2 | 861.2 | 697.2 | 562.8 | 486.2 | 457.3 | 443.5 | 434.0 | 410.8 | 387.5 | 384.4 |
| 57° | 953.5 | 863.7 | 692.2 | 555.9 | 481.1 | 452.2 | 438.4 | 426.5 | 402.6 | 381.3 | 378.1 |
| 57.5° | 952.2 | 862.4 | 690.3 | 554.0 | 479.3 | 450.4 | 437.2 | 424.6 | 400.7 | 380.0 | 376.9 |
| 60° | 935.3 | 850.5 | 678.4 | 542.1 | 469.2 | 440.3 | 425.9 | 412.0 | 387.5 | 369.3 | 366.8 |
| 62.5° | 907.6 | 823.5 | 657.0 | 526.4 | 455.4 | 426.5 | 411.4 | 395.7 | 371.2 | 355.5 | 354.3 |
| 65° | 860.5 | 778.2 | 626.2 | 503.8 | 437.8 | 408.3 | 391.9 | 375.0 | 353.6 | 339.8 | 336.0 |
| 67.5° | 782.0 | 717.9 | 582.9 | 472.3 | 410.8 | 385.7 | 368.1 | 350.5 | 331.0 | 319.1 | 316.6 |
| 70° | 716.7 | 652.0 | 527.6 | 432.8 | 378.1 | 354.3 | 337.9 | 321.0 | 304.0 | 293.3 | 292.7 |
| 72.5° | 633.8 | 571.6 | 458.5 | 383.8 | 336.7 | 313.4 | 300.9 | 285.8 | 272.6 | 263.2 | 263.2 |
| 75° | 533.3 | 484.3 | 386.9 | 325.4 | 287.1 | 270.1 | 259.4 | 247.5 | 236.2 | 229.9 | 231.1 |
| 77.5° | 424.0 | 386.9 | 315.9 | 263.2 | 234.9 | 223.6 | 213.6 | 206.7 | 199.7 | 194.1 | 194.7 |
| 80° | 312.8 | 285.2 | 232.4 | 193.5 | 179.6 | 169.6 | 167.7 | 163.3 | 159.5 | 157.7 | 154.5 |
| 82.5° | 214.2 | 189.7 | 154.5 | 132.5 | 122.5 | 119.3 | 120.0 | 120.0 | 120.6 | 120.6 | 119.3 |
| 85° | 111.2 | 101.8 | 78.5 | 71.0 | 69.7 | 72.9 | 76.6 | 79.1 | 78.5 | 78.5 | 76.6 |
| 87.5° | 32.0 | 28.9 | 25.1 | 22.6 | 23.9 | 25.8 | 22.6 | 22.0 | 21.4 | 20.7 | 20.7 |
| 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)