

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: P401609

Luminaire Tested: **ENC-SA1E-722-U-T4W-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401609
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-18)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENC-SA1E-722-U-T4W-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2200K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3856 lumens
Efficiency: N/A
Efficacy: 67.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B0 - U0 - G1

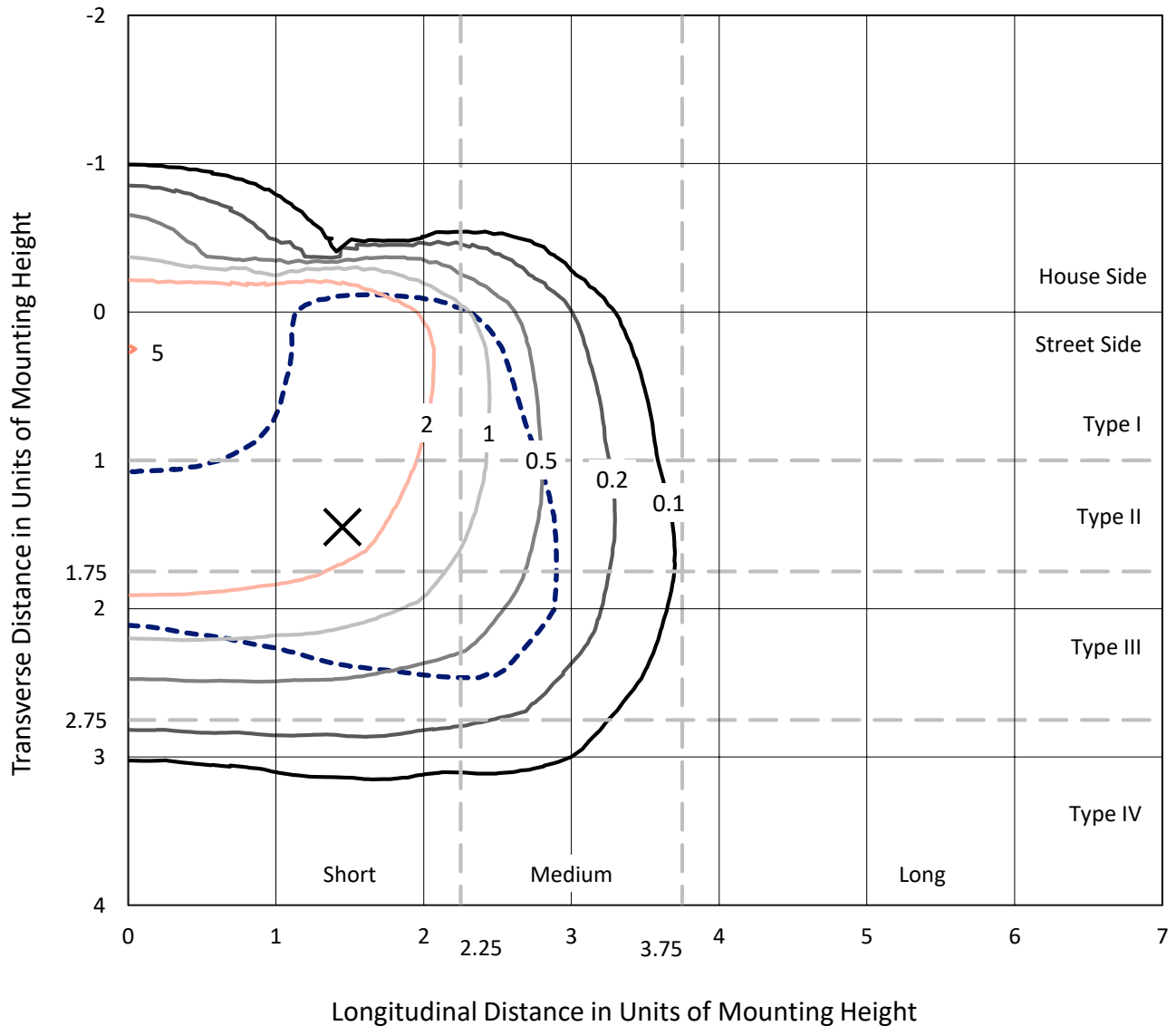
Input Watts (W): 57.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

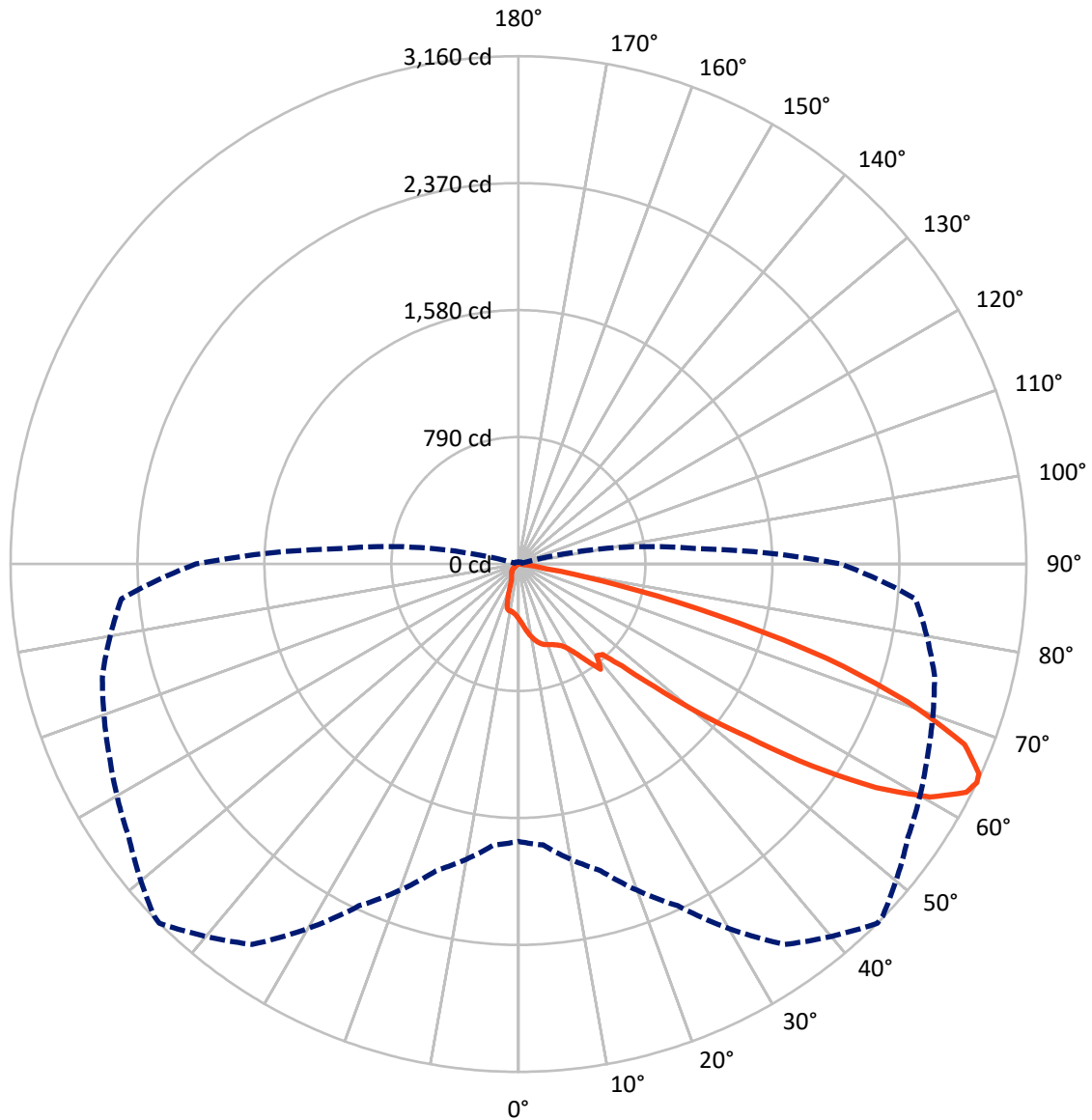
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.1 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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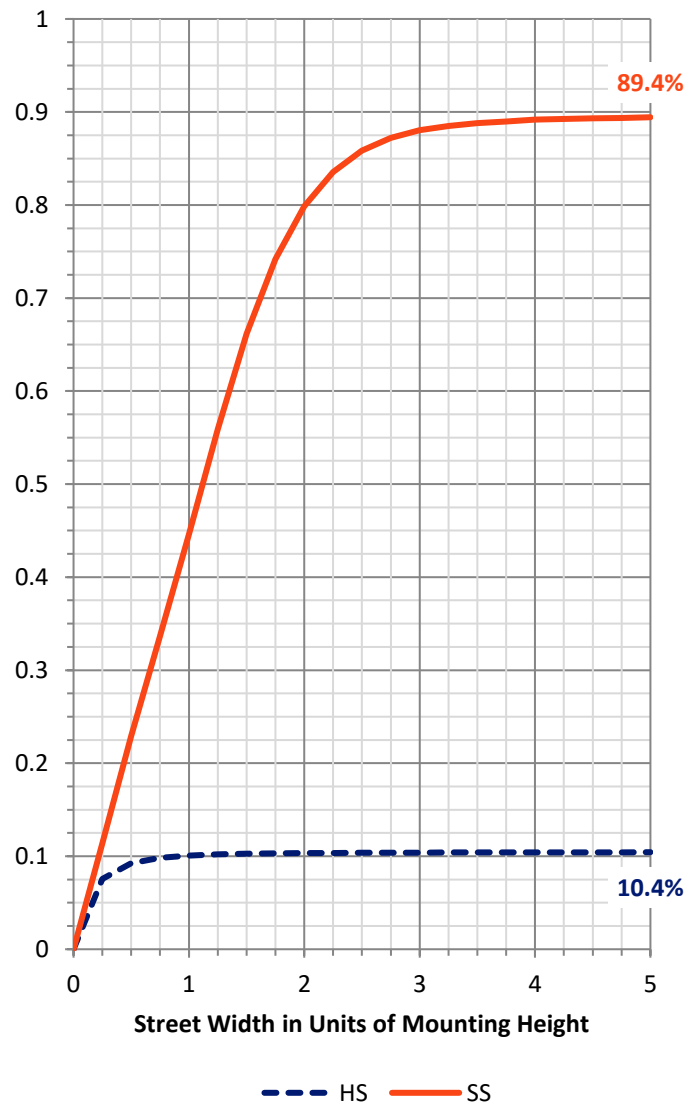
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 406.9 | 0.0 | 406.9 |
| | % Fixture | 10.6 | 0.0 | 10.6 |
| Street Side | Lumens | 3449.1 | 0.0 | 3449.1 |
| | % Fixture | 89.4 | 0.0 | 89.4 |
| Total | Lumens | 3856.0 | 0.0 | 3856.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 34.7 | 0.9 |
| 10°-20° | 108.1 | 2.8 |
| 20°-30° | 176.0 | 4.6 |
| 30°-40° | 279.5 | 7.2 |
| 40°-50° | 532.4 | 13.8 |
| 50°-60° | 1097.2 | 28.5 |
| 60°-70° | 1225.4 | 31.8 |
| 70°-80° | 387.0 | 10.0 |
| 80°-90° | 15.7 | 0.4 |
| 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° | 3856.0 | 100.0 |
| 0°-180° | 3856.0 | 100.0 |



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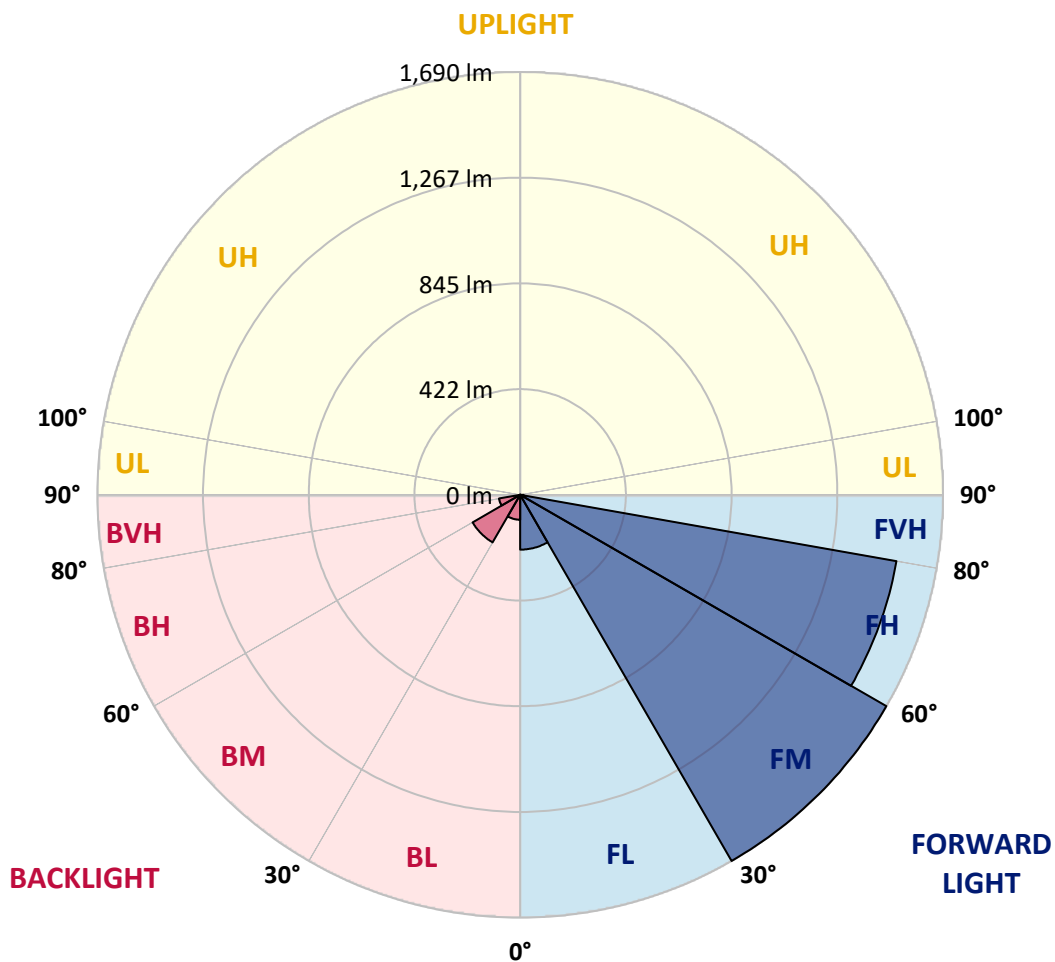
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 219.0 | 5.7 | | | |
| FM | (30°-60°) | 1689.6 | 43.8 | | | |
| FH | (60°-80°) | 1526.7 | 39.6 | | | G1/1800 |
| FVH | (80°-90°) | 13.9 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 99.7 | 2.6 | B0/110 | | |
| BM | (30°-60°) | 219.6 | 5.7 | B0/220 | | |
| BH | (60°-80°) | 85.8 | 2.2 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 1.9 | 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 III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 341.8 | 341.8 | 341.8 | 341.8 | 341.8 | 341.8 | 341.8 | 341.8 | 341.8 | 341.8 | 341.8 |
| 2.5° | 377.1 | 378.5 | 376.3 | 373.4 | 370.5 | 365.3 | 366.0 | 359.4 | 354.3 | 350.6 | 344.7 |
| 5° | 424.8 | 424.1 | 419.7 | 413.1 | 406.5 | 396.9 | 395.4 | 385.2 | 374.1 | 362.4 | 351.3 |
| 7.5° | 473.4 | 471.1 | 466.7 | 457.9 | 445.4 | 432.9 | 429.3 | 414.6 | 398.4 | 380.7 | 361.6 |
| 10° | 513.0 | 511.6 | 506.4 | 496.9 | 482.2 | 463.1 | 463.1 | 442.5 | 421.2 | 399.9 | 377.1 |
| 12.5° | 545.4 | 543.9 | 538.0 | 526.3 | 508.6 | 491.7 | 489.5 | 471.1 | 447.6 | 422.6 | 394.7 |
| 15° | 565.2 | 563.8 | 557.1 | 543.9 | 528.5 | 513.0 | 510.8 | 493.2 | 471.9 | 443.2 | 410.9 |
| 17.5° | 570.4 | 568.9 | 563.8 | 552.0 | 540.2 | 527.0 | 524.1 | 508.6 | 490.3 | 460.9 | 427.8 |
| 20° | 568.2 | 565.2 | 562.3 | 552.7 | 543.2 | 534.4 | 532.9 | 521.9 | 505.7 | 480.7 | 445.4 |
| 22.5° | 562.3 | 559.4 | 557.1 | 550.5 | 545.4 | 544.7 | 543.2 | 536.6 | 526.3 | 505.0 | 471.9 |
| 25° | 560.1 | 557.9 | 555.7 | 551.3 | 550.5 | 557.9 | 557.1 | 556.4 | 552.0 | 533.6 | 499.1 |
| 27.5° | 572.6 | 571.8 | 566.7 | 559.4 | 563.0 | 575.5 | 576.3 | 579.9 | 577.0 | 565.2 | 538.8 |
| 30° | 616.7 | 613.0 | 601.2 | 585.1 | 594.6 | 610.8 | 613.7 | 625.5 | 626.2 | 627.7 | 591.7 |
| 32.5° | 676.2 | 670.3 | 650.5 | 629.9 | 635.8 | 665.9 | 666.7 | 685.0 | 724.0 | 699.7 | 620.4 |
| 35° | 717.4 | 710.0 | 679.9 | 668.9 | 698.3 | 746.0 | 752.7 | 790.1 | 793.1 | 704.9 | 618.2 |
| 37.5° | 832.8 | 821.8 | 766.6 | 699.7 | 728.4 | 831.3 | 838.7 | 832.0 | 770.3 | 697.5 | 649.8 |
| 40° | 987.1 | 976.8 | 927.6 | 815.1 | 734.3 | 749.7 | 753.4 | 773.2 | 785.0 | 749.0 | 751.2 |
| 42.5° | 1187.8 | 1174.6 | 1123.8 | 986.4 | 826.2 | 769.6 | 776.9 | 817.3 | 894.5 | 911.4 | 998.2 |
| 45° | 1392.9 | 1385.5 | 1334.1 | 1185.6 | 993.7 | 904.8 | 908.5 | 957.7 | 1095.9 | 1202.5 | 1276.0 |
| 47.5° | 1593.5 | 1595.0 | 1550.9 | 1425.2 | 1237.8 | 1139.3 | 1134.9 | 1198.8 | 1373.8 | 1449.5 | 1524.4 |
| 50° | 1876.5 | 1875.0 | 1796.4 | 1718.5 | 1572.2 | 1455.3 | 1448.0 | 1484.0 | 1652.3 | 1680.3 | 1796.4 |
| 52.5° | 2198.5 | 2197.0 | 2078.6 | 2041.9 | 1980.1 | 1792.0 | 1811.8 | 1781.0 | 1902.2 | 1952.2 | 2116.9 |
| 55° | 2351.3 | 2338.1 | 2288.1 | 2334.4 | 2407.9 | 2219.0 | 2216.1 | 2098.5 | 2193.3 | 2235.9 | 2389.6 |
| 57.5° | 2335.9 | 2341.0 | 2388.8 | 2542.4 | 2783.5 | 2625.5 | 2629.9 | 2411.6 | 2466.7 | 2493.2 | 2605.7 |
| 60° | 2248.4 | 2252.1 | 2363.1 | 2618.9 | 2971.0 | 2943.8 | 2928.3 | 2704.1 | 2668.1 | 2657.1 | 2710.8 |
| 62.5° | 1998.5 | 2000.0 | 2180.1 | 2508.6 | 2969.5 | 3127.5 | 3112.8 | 2910.0 | 2797.5 | 2726.9 | 2629.2 |
| 64° | 1726.6 | 1754.5 | 1975.0 | 2346.2 | 2889.4 | 3159.9 | 3151.8 | 2959.9 | 2809.3 | 2679.9 | 2479.2 |
| 65° | 1503.1 | 1545.0 | 1811.8 | 2202.1 | 2799.0 | 3148.8 | 3139.3 | 2951.1 | 2793.1 | 2591.7 | 2324.1 |
| 67.5° | 1025.4 | 1047.4 | 1287.0 | 1733.2 | 2454.2 | 2993.7 | 2990.8 | 2837.9 | 2617.4 | 2238.9 | 1823.6 |
| 70° | 604.9 | 621.1 | 798.2 | 1209.8 | 1886.1 | 2571.8 | 2610.8 | 2555.7 | 2172.7 | 1608.2 | 1161.3 |
| 72.5° | 188.2 | 197.7 | 352.1 | 671.8 | 1236.3 | 2003.7 | 2054.4 | 2014.7 | 1581.8 | 1004.8 | 643.9 |
| 75° | 70.6 | 73.5 | 116.1 | 291.8 | 615.2 | 1281.1 | 1296.6 | 1342.9 | 963.6 | 530.7 | 281.5 |
| 77.5° | 39.0 | 39.7 | 57.3 | 109.5 | 270.5 | 629.2 | 643.9 | 638.0 | 512.3 | 250.6 | 89.7 |
| 80° | 19.1 | 19.8 | 27.9 | 48.5 | 105.1 | 177.9 | 211.0 | 278.6 | 180.8 | 123.5 | 28.7 |
| 82.5° | 6.6 | 5.9 | 12.5 | 22.1 | 35.3 | 47.8 | 53.7 | 77.2 | 75.7 | 67.6 | 10.3 |
| 85° | 0.0 | 0.0 | 0.7 | 0.7 | 0.7 | 1.5 | 1.5 | 9.6 | 19.1 | 22.1 | 2.9 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 1.5 | 1.5 |
| 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° | 341.8 | 341.8 | 341.8 | 341.8 | 341.8 | 341.8 | 341.8 | 341.8 | 341.8 | 341.8 | 341.8 |
| 2.5° | 341.8 | 340.3 | 335.2 | 330.0 | 326.3 | 321.9 | 321.2 | 318.3 | 317.5 | 317.5 | 317.5 |
| 5° | 345.5 | 341.1 | 331.5 | 323.4 | 316.1 | 309.4 | 306.5 | 303.6 | 301.4 | 300.6 | 300.6 |
| 7.5° | 353.5 | 346.9 | 331.5 | 319.7 | 308.7 | 300.6 | 296.2 | 293.3 | 291.1 | 291.1 | 291.1 |
| 10° | 365.3 | 355.0 | 335.9 | 319.7 | 306.5 | 296.2 | 289.6 | 285.2 | 282.2 | 281.5 | 282.2 |
| 12.5° | 380.0 | 366.8 | 343.3 | 323.4 | 308.0 | 294.7 | 280.8 | 255.1 | 238.1 | 228.6 | 227.1 |
| 15° | 394.0 | 378.5 | 351.3 | 328.6 | 310.2 | 280.8 | 230.1 | 190.4 | 163.9 | 155.8 | 154.4 |
| 17.5° | 409.4 | 393.2 | 362.4 | 335.9 | 302.1 | 226.4 | 163.9 | 130.8 | 125.7 | 127.2 | 127.2 |
| 20° | 428.5 | 409.4 | 374.1 | 343.3 | 260.2 | 161.0 | 119.8 | 115.4 | 116.9 | 119.8 | 119.8 |
| 22.5° | 450.6 | 430.0 | 390.3 | 338.8 | 198.5 | 117.6 | 109.5 | 110.3 | 111.7 | 114.7 | 114.7 |
| 25° | 479.2 | 457.9 | 407.9 | 305.8 | 138.2 | 102.9 | 103.6 | 104.4 | 106.6 | 109.5 | 110.3 |
| 27.5° | 521.9 | 496.1 | 429.3 | 256.5 | 104.4 | 95.6 | 96.3 | 98.5 | 100.7 | 104.4 | 104.4 |
| 30° | 567.4 | 535.8 | 448.4 | 197.7 | 91.1 | 87.5 | 88.2 | 90.4 | 94.1 | 97.0 | 98.5 |
| 32.5° | 587.3 | 559.4 | 452.0 | 135.2 | 84.5 | 80.9 | 79.4 | 81.6 | 84.5 | 87.5 | 88.2 |
| 35° | 598.3 | 586.5 | 434.4 | 97.8 | 79.4 | 75.0 | 72.0 | 71.3 | 72.0 | 74.2 | 74.2 |
| 37.5° | 652.7 | 644.6 | 399.1 | 83.8 | 74.2 | 69.8 | 65.4 | 61.7 | 60.3 | 59.5 | 60.3 |
| 40° | 757.1 | 739.4 | 352.8 | 77.2 | 69.8 | 64.7 | 58.8 | 52.9 | 47.8 | 45.6 | 45.6 |
| 42.5° | 987.1 | 898.2 | 286.7 | 72.8 | 65.4 | 59.5 | 50.7 | 42.6 | 36.8 | 35.3 | 35.3 |
| 45° | 1234.8 | 1095.2 | 215.4 | 69.1 | 61.0 | 53.7 | 42.6 | 33.8 | 28.7 | 27.2 | 27.2 |
| 47.5° | 1473.0 | 1240.7 | 150.7 | 64.7 | 55.9 | 47.0 | 35.3 | 27.2 | 23.5 | 22.8 | 22.8 |
| 50° | 1722.9 | 1367.1 | 105.1 | 59.5 | 50.7 | 40.4 | 28.7 | 22.1 | 19.8 | 19.8 | 19.8 |
| 52.5° | 1966.2 | 1460.5 | 77.2 | 54.4 | 44.1 | 33.8 | 24.3 | 19.8 | 18.4 | 18.4 | 18.4 |
| 55° | 2149.9 | 1496.5 | 58.8 | 47.8 | 37.5 | 28.7 | 22.1 | 19.1 | 17.6 | 16.9 | 16.9 |
| 57.5° | 2272.7 | 1466.4 | 47.8 | 39.7 | 31.6 | 25.0 | 19.8 | 17.6 | 16.2 | 15.4 | 15.4 |
| 60° | 2269.7 | 1366.4 | 38.2 | 32.3 | 25.7 | 21.3 | 18.4 | 16.2 | 14.7 | 14.0 | 14.0 |
| 62.5° | 2136.7 | 1204.0 | 30.1 | 25.7 | 21.3 | 18.4 | 16.2 | 14.7 | 13.2 | 12.5 | 11.8 |
| 64° | 2006.6 | 1103.3 | 25.7 | 22.1 | 19.1 | 16.9 | 14.7 | 13.2 | 11.8 | 10.3 | 10.3 |
| 65° | 1865.5 | 1007.7 | 23.5 | 19.8 | 16.9 | 15.4 | 14.0 | 12.5 | 10.3 | 8.8 | 8.8 |
| 67.5° | 1418.6 | 746.0 | 19.1 | 15.4 | 13.2 | 12.5 | 11.0 | 9.6 | 7.4 | 5.9 | 5.9 |
| 70° | 921.0 | 482.9 | 16.2 | 12.5 | 11.0 | 11.0 | 10.3 | 8.1 | 5.9 | 5.1 | 4.4 |
| 72.5° | 471.9 | 240.4 | 13.2 | 10.3 | 9.6 | 9.6 | 8.8 | 6.6 | 5.1 | 4.4 | 3.7 |
| 75° | 199.9 | 97.8 | 11.0 | 8.8 | 8.1 | 7.4 | 6.6 | 5.9 | 4.4 | 3.7 | 3.7 |
| 77.5° | 69.8 | 36.8 | 10.3 | 8.8 | 6.6 | 5.9 | 5.9 | 5.9 | 5.9 | 5.1 | 4.4 |
| 80° | 23.5 | 14.0 | 6.6 | 6.6 | 7.4 | 8.1 | 8.1 | 7.4 | 8.1 | 6.6 | 5.1 |
| 82.5° | 9.6 | 5.1 | 2.2 | 2.9 | 5.1 | 5.9 | 6.6 | 6.6 | 6.6 | 5.1 | 4.4 |
| 85° | 2.2 | 1.5 | 1.5 | 2.2 | 2.2 | 2.9 | 2.9 | 3.7 | 3.7 | 2.9 | 2.9 |
| 87.5° | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.2 | 1.5 | 2.2 | 2.2 | 2.2 |
| 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)