

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: P401754

Luminaire Tested: **ENC-SA1E-827-U-T4W**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401754
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-17)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENC-SA1E-827-U-T4W
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5171 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

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

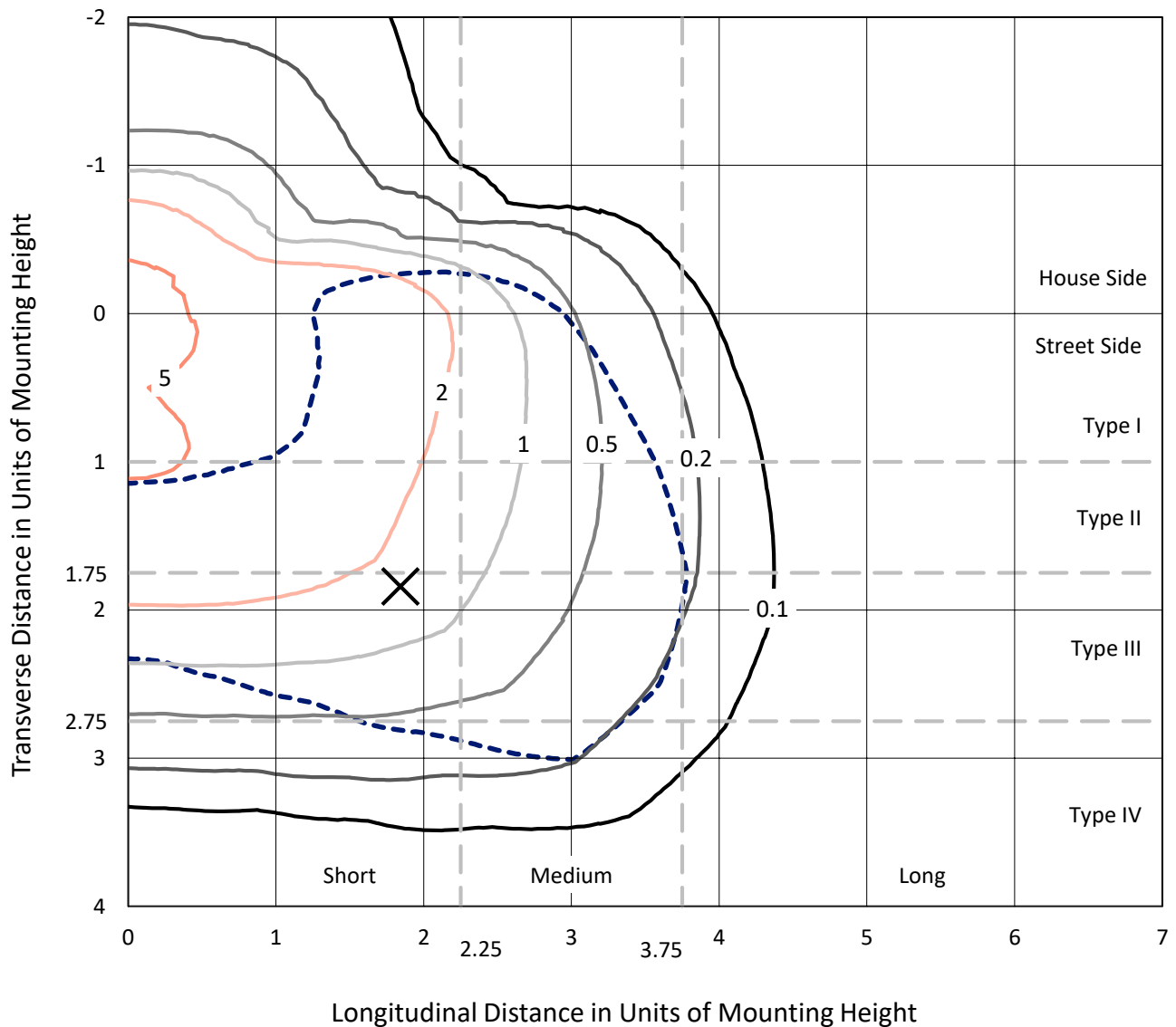


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

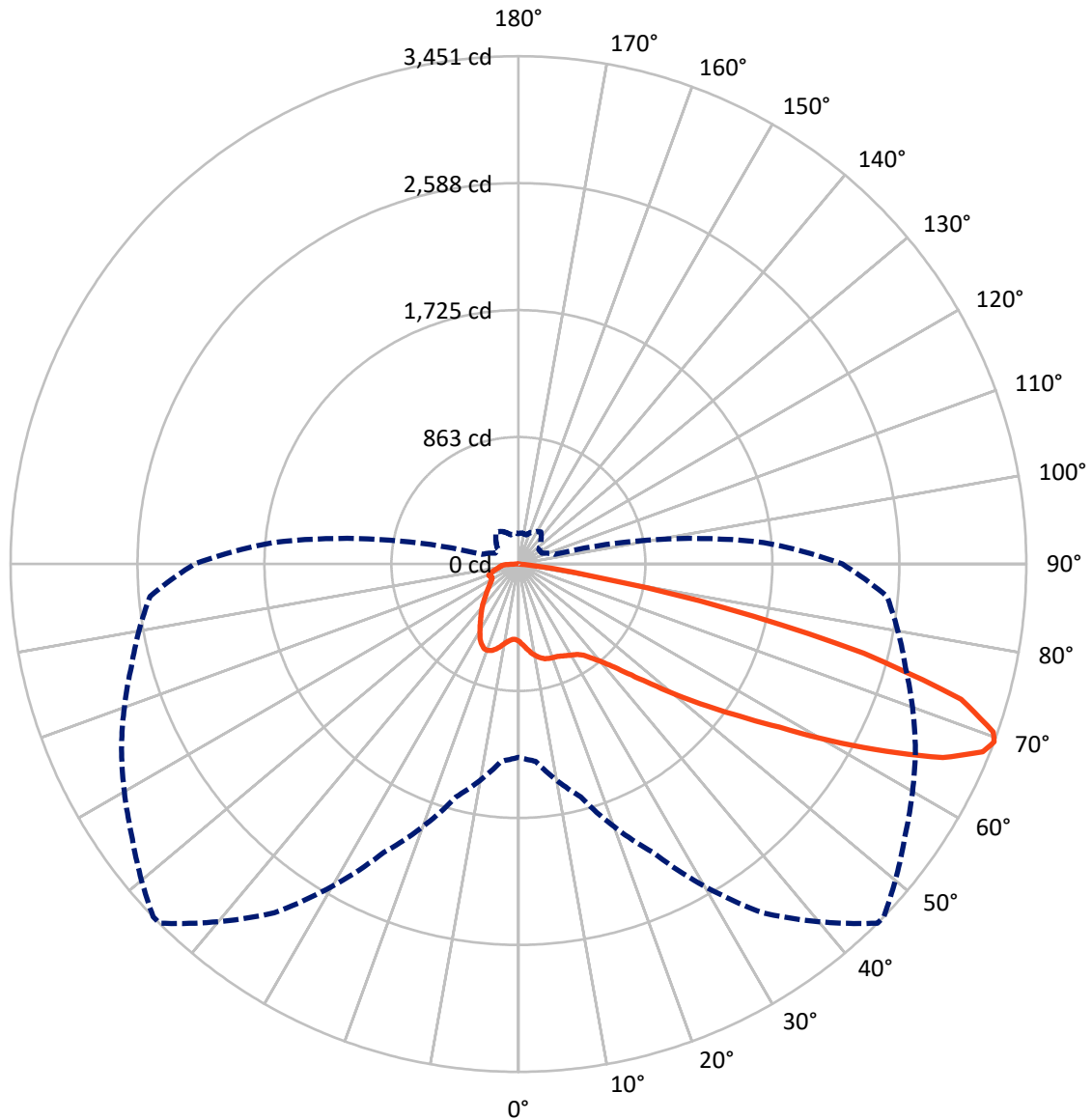


Based on 10 foot mounting height. Maximum calculated value = 6.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1217.4 | 0.0 | 1217.4 |
| | % Fixture | 23.5 | 0.0 | 23.5 |
| Street Side | Lumens | 3953.6 | 0.0 | 3953.6 |
| | % Fixture | 76.5 | 0.0 | 76.5 |
| Total | Lumens | 5171.0 | 0.0 | 5171.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 53.4 | 1.0 |
| 10°-20° | 177.2 | 3.4 |
| 20°-30° | 299.5 | 5.8 |
| 30°-40° | 433.3 | 8.4 |
| 40°-50° | 654.2 | 12.7 |
| 50°-60° | 1103.2 | 21.3 |
| 60°-70° | 1517.7 | 29.3 |
| 70°-80° | 841.0 | 16.3 |
| 80°-90° | 91.6 | 1.8 |
| 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° | 5171.0 | 100.0 |
| 0°-180° | 5171.0 | 100.0 |



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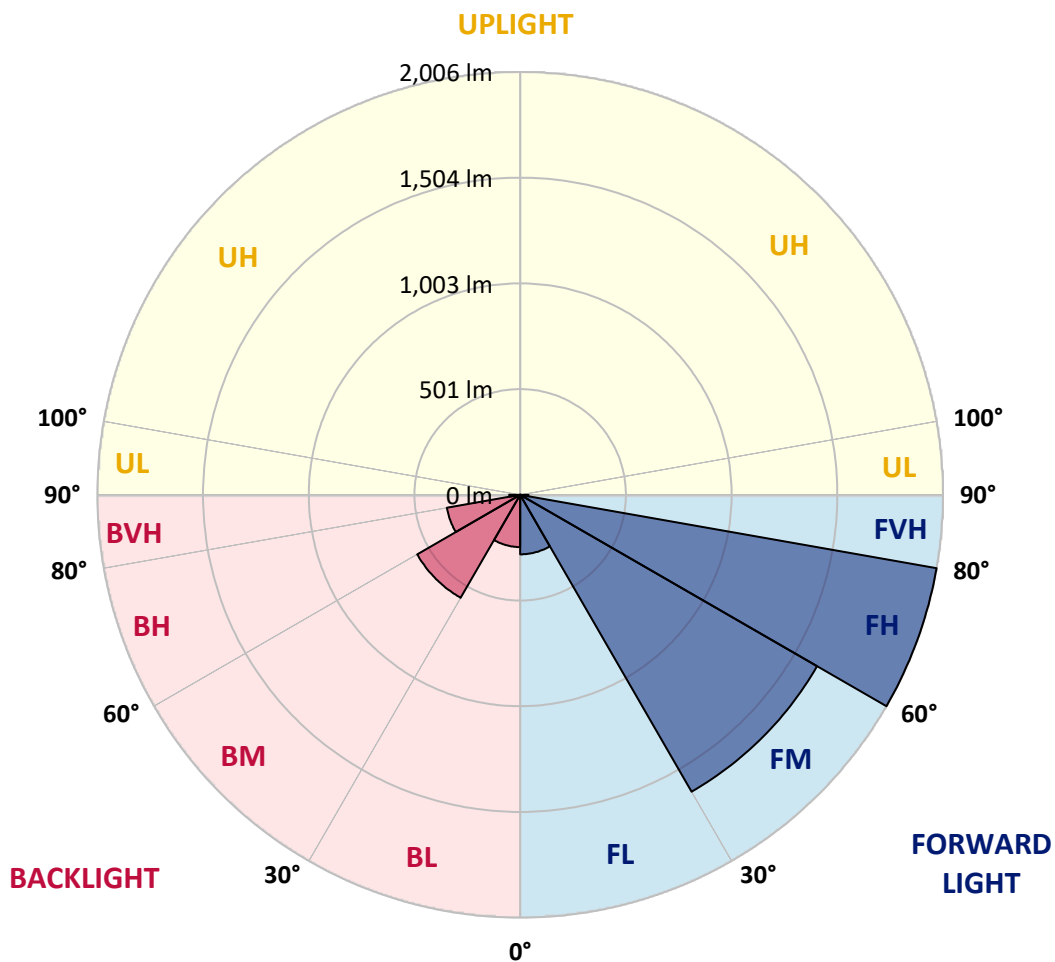
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 282.2 | 5.5 | | | |
| FM | (30°-60°) | 1626.3 | 31.5 | | | |
| FH | (60°-80°) | 2005.8 | 38.8 | | | G2/5000 |
| FVH | (80°-90°) | 39.2 | 0.8 | | | G1/100 |
| BL | (0°-30°) | 247.9 | 4.8 | B1/500 | | |
| BM | (30°-60°) | 564.3 | 10.9 | B1/1000 | | |
| BH | (60°-80°) | 352.9 | 6.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 52.4 | 1.0 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 524.9 | 524.9 | 524.9 | 524.9 | 524.9 | 524.9 | 524.9 | 524.9 | 524.9 | 524.9 | 524.9 |
| 2.5° | 557.9 | 557.2 | 557.9 | 555.0 | 552.1 | 547.7 | 546.2 | 541.0 | 537.4 | 532.2 | 527.8 |
| 5° | 599.1 | 601.3 | 600.6 | 596.9 | 585.1 | 576.3 | 576.3 | 565.3 | 553.5 | 542.5 | 532.2 |
| 7.5° | 644.0 | 644.0 | 639.5 | 632.2 | 620.4 | 607.2 | 605.7 | 591.0 | 574.1 | 558.7 | 542.5 |
| 10° | 676.3 | 677.8 | 671.2 | 660.9 | 646.2 | 632.2 | 630.7 | 613.8 | 597.6 | 577.8 | 557.9 |
| 12.5° | 699.1 | 699.1 | 693.2 | 683.7 | 666.0 | 652.8 | 651.3 | 635.9 | 619.0 | 598.4 | 575.6 |
| 15° | 710.9 | 709.4 | 704.2 | 693.9 | 678.5 | 667.5 | 665.3 | 652.0 | 638.1 | 617.5 | 593.2 |
| 17.5° | 708.6 | 708.6 | 704.2 | 693.9 | 682.9 | 674.1 | 672.6 | 663.1 | 652.8 | 632.9 | 608.7 |
| 20° | 699.1 | 698.4 | 696.9 | 688.8 | 681.4 | 677.8 | 676.3 | 671.9 | 665.3 | 648.4 | 625.6 |
| 22.5° | 690.3 | 689.5 | 687.3 | 682.2 | 679.2 | 681.4 | 681.4 | 680.7 | 680.0 | 666.7 | 644.7 |
| 25° | 695.4 | 694.7 | 690.3 | 682.9 | 682.2 | 692.5 | 693.2 | 695.4 | 696.9 | 685.9 | 663.1 |
| 27.5° | 731.4 | 729.2 | 716.7 | 697.6 | 691.0 | 704.2 | 705.7 | 712.3 | 710.9 | 699.1 | 679.2 |
| 30° | 802.0 | 802.7 | 774.8 | 733.6 | 711.6 | 717.5 | 718.2 | 725.6 | 723.3 | 713.8 | 697.6 |
| 32.5° | 908.6 | 908.6 | 863.0 | 800.5 | 744.7 | 732.9 | 730.7 | 737.3 | 746.1 | 733.6 | 717.5 |
| 35° | 1043.9 | 1040.2 | 985.0 | 888.7 | 801.3 | 759.4 | 757.9 | 755.0 | 770.4 | 758.6 | 735.1 |
| 37.5° | 1179.9 | 1166.6 | 1113.0 | 1007.1 | 880.7 | 810.8 | 804.9 | 796.1 | 804.9 | 780.0 | 759.4 |
| 40° | 1289.4 | 1287.2 | 1243.1 | 1135.7 | 974.8 | 873.3 | 868.9 | 829.9 | 835.8 | 816.0 | 807.9 |
| 42.5° | 1409.9 | 1411.4 | 1382.0 | 1273.9 | 1087.2 | 957.8 | 946.1 | 885.8 | 902.7 | 895.4 | 891.7 |
| 45° | 1542.3 | 1540.8 | 1518.7 | 1405.5 | 1224.7 | 1075.5 | 1060.8 | 986.5 | 1021.1 | 1016.7 | 1037.2 |
| 47.5° | 1643.7 | 1651.8 | 1639.3 | 1559.2 | 1387.9 | 1218.1 | 1207.1 | 1116.6 | 1168.8 | 1204.1 | 1243.1 |
| 50° | 1781.9 | 1781.2 | 1747.4 | 1714.3 | 1577.5 | 1400.4 | 1389.4 | 1288.6 | 1363.6 | 1415.1 | 1486.4 |
| 52.5° | 1953.2 | 1947.3 | 1877.5 | 1865.7 | 1808.4 | 1599.6 | 1590.0 | 1484.9 | 1592.2 | 1637.1 | 1781.9 |
| 55° | 2060.5 | 2059.8 | 2023.8 | 2044.3 | 2045.8 | 1821.6 | 1809.8 | 1716.5 | 1837.8 | 1889.2 | 2108.3 |
| 57.5° | 2150.2 | 2150.9 | 2181.1 | 2253.1 | 2301.6 | 2091.4 | 2087.0 | 1973.0 | 2095.8 | 2167.8 | 2426.6 |
| 60° | 2219.3 | 2234.0 | 2318.5 | 2483.2 | 2564.1 | 2435.4 | 2416.3 | 2295.7 | 2378.1 | 2406.8 | 2669.9 |
| 62.5° | 2191.4 | 2210.5 | 2376.6 | 2619.2 | 2827.2 | 2800.0 | 2793.4 | 2619.2 | 2618.5 | 2603.8 | 2851.5 |
| 65° | 1970.8 | 2012.0 | 2273.7 | 2614.1 | 3000.7 | 3170.5 | 3161.0 | 2924.3 | 2841.9 | 2768.4 | 2905.9 |
| 67.5° | 1612.8 | 1621.7 | 1937.0 | 2414.1 | 2999.2 | 3403.6 | 3393.3 | 3146.3 | 2980.9 | 2800.8 | 2746.4 |
| 69° | 1312.9 | 1345.3 | 1637.1 | 2161.2 | 2893.4 | 3450.6 | 3450.6 | 3208.0 | 2975.7 | 2723.6 | 2512.6 |
| 70° | 1135.7 | 1137.2 | 1418.8 | 1959.8 | 2749.3 | 3422.7 | 3429.3 | 3208.0 | 2933.8 | 2622.9 | 2305.3 |
| 72.5° | 532.2 | 565.3 | 743.2 | 1279.1 | 2220.8 | 3146.3 | 3162.4 | 2996.3 | 2690.5 | 2259.7 | 1729.7 |
| 75° | 159.5 | 165.4 | 247.7 | 606.5 | 1272.5 | 2423.7 | 2459.7 | 2492.8 | 2191.4 | 1663.6 | 1065.2 |
| 77.5° | 94.8 | 94.1 | 119.8 | 205.8 | 588.8 | 1437.1 | 1453.3 | 1594.5 | 1421.7 | 924.8 | 483.7 |
| 80° | 46.3 | 47.8 | 64.0 | 100.0 | 220.5 | 521.9 | 574.1 | 745.4 | 630.0 | 361.7 | 177.2 |
| 82.5° | 15.4 | 16.9 | 26.5 | 40.4 | 93.4 | 168.3 | 186.0 | 233.8 | 201.4 | 131.6 | 75.7 |
| 85° | 0.0 | 0.0 | 0.7 | 1.5 | 5.1 | 12.5 | 12.5 | 27.9 | 41.9 | 46.3 | 25.0 |
| 87.5° | 0.0 | 0.0 | 0.7 | 0.7 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 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 |



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CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 524.9 | 524.9 | 524.9 | 524.9 | 524.9 | 524.9 | 524.9 | 524.9 | 524.9 | 524.9 | 524.9 |
| 2.5° | 525.6 | 524.1 | 521.2 | 518.3 | 516.8 | 513.1 | 513.8 | 512.4 | 511.6 | 511.6 | 512.4 |
| 5° | 527.1 | 524.9 | 520.5 | 517.5 | 514.6 | 513.1 | 516.8 | 518.3 | 519.7 | 519.7 | 520.5 |
| 7.5° | 535.9 | 531.5 | 526.3 | 522.7 | 523.4 | 525.6 | 531.5 | 535.9 | 538.1 | 539.6 | 541.0 |
| 10° | 550.6 | 545.5 | 538.1 | 537.4 | 538.8 | 544.7 | 552.8 | 559.4 | 565.3 | 569.0 | 569.0 |
| 12.5° | 566.0 | 559.4 | 553.5 | 555.0 | 561.6 | 570.4 | 578.5 | 585.9 | 591.0 | 594.7 | 595.4 |
| 15° | 582.9 | 576.3 | 570.4 | 574.1 | 585.1 | 595.4 | 602.8 | 605.7 | 607.9 | 611.6 | 612.3 |
| 17.5° | 598.4 | 592.5 | 587.4 | 596.9 | 606.5 | 614.6 | 616.8 | 615.3 | 612.3 | 614.6 | 616.0 |
| 20° | 614.6 | 609.4 | 606.5 | 616.8 | 623.4 | 624.1 | 618.2 | 611.6 | 604.3 | 604.3 | 605.0 |
| 22.5° | 634.4 | 627.8 | 626.3 | 631.5 | 629.3 | 620.4 | 605.7 | 595.4 | 585.1 | 583.7 | 585.9 |
| 25° | 653.5 | 646.9 | 646.2 | 642.5 | 623.4 | 600.6 | 580.7 | 569.0 | 560.9 | 561.6 | 566.0 |
| 27.5° | 672.6 | 668.2 | 669.0 | 649.1 | 606.5 | 571.9 | 545.5 | 535.9 | 538.1 | 539.6 | 544.0 |
| 30° | 691.7 | 691.7 | 694.7 | 649.1 | 582.9 | 531.5 | 506.5 | 505.8 | 511.6 | 516.0 | 521.2 |
| 32.5° | 713.8 | 720.4 | 715.3 | 641.0 | 551.3 | 490.3 | 470.5 | 471.9 | 478.6 | 485.9 | 490.3 |
| 35° | 735.1 | 750.5 | 735.8 | 622.6 | 508.0 | 452.8 | 436.7 | 434.5 | 439.6 | 446.2 | 448.4 |
| 37.5° | 768.9 | 793.9 | 753.5 | 594.0 | 463.1 | 419.7 | 403.6 | 397.7 | 392.5 | 397.7 | 397.0 |
| 40° | 827.7 | 857.9 | 766.7 | 546.2 | 419.7 | 388.9 | 372.0 | 360.9 | 348.4 | 337.4 | 337.4 |
| 42.5° | 921.8 | 941.7 | 774.1 | 488.1 | 376.4 | 358.0 | 341.1 | 324.9 | 305.8 | 286.0 | 286.0 |
| 45° | 1075.5 | 1079.9 | 777.0 | 426.4 | 336.7 | 327.1 | 309.5 | 294.0 | 269.1 | 249.2 | 244.8 |
| 47.5° | 1280.6 | 1261.4 | 784.4 | 366.8 | 302.1 | 299.9 | 285.2 | 267.6 | 240.4 | 222.0 | 219.8 |
| 50° | 1556.2 | 1473.9 | 816.7 | 319.0 | 274.2 | 276.4 | 265.4 | 244.8 | 219.1 | 205.8 | 202.9 |
| 52.5° | 1866.4 | 1742.2 | 841.7 | 280.8 | 249.9 | 256.6 | 248.5 | 228.6 | 206.6 | 195.5 | 193.3 |
| 55° | 2205.3 | 2000.2 | 835.8 | 255.1 | 231.6 | 238.9 | 236.0 | 219.1 | 199.2 | 189.7 | 187.5 |
| 57.5° | 2481.7 | 2181.8 | 784.4 | 232.3 | 213.2 | 223.5 | 226.4 | 213.2 | 194.8 | 186.0 | 183.8 |
| 60° | 2689.0 | 2281.0 | 678.5 | 213.2 | 198.5 | 211.0 | 219.1 | 209.5 | 194.1 | 188.9 | 186.7 |
| 62.5° | 2783.1 | 2272.2 | 541.0 | 198.5 | 187.5 | 202.2 | 219.8 | 215.4 | 205.1 | 208.8 | 209.5 |
| 65° | 2730.2 | 2161.2 | 405.8 | 187.5 | 180.8 | 203.6 | 232.3 | 232.3 | 216.9 | 223.5 | 224.2 |
| 67.5° | 2458.9 | 1870.9 | 295.5 | 179.4 | 174.2 | 211.0 | 255.8 | 241.1 | 211.7 | 216.9 | 214.7 |
| 69° | 2200.9 | 1673.8 | 253.6 | 175.0 | 169.1 | 214.7 | 266.1 | 242.6 | 205.8 | 211.7 | 205.8 |
| 70° | 2011.3 | 1495.9 | 227.9 | 171.3 | 166.9 | 214.7 | 269.1 | 241.1 | 202.9 | 207.3 | 200.7 |
| 72.5° | 1431.3 | 1038.7 | 187.5 | 163.9 | 158.8 | 198.5 | 263.9 | 233.0 | 194.8 | 189.7 | 177.2 |
| 75° | 832.1 | 574.1 | 159.5 | 155.8 | 140.4 | 174.2 | 250.7 | 224.2 | 186.7 | 177.2 | 168.3 |
| 77.5° | 349.2 | 256.6 | 136.0 | 141.9 | 124.2 | 155.1 | 234.5 | 215.4 | 177.2 | 163.9 | 159.5 |
| 80° | 141.9 | 127.9 | 113.2 | 122.8 | 108.1 | 136.7 | 216.1 | 200.7 | 163.2 | 150.0 | 143.3 |
| 82.5° | 74.2 | 70.6 | 86.7 | 99.2 | 89.7 | 125.7 | 203.6 | 190.4 | 151.4 | 138.2 | 130.1 |
| 85° | 22.1 | 29.4 | 49.3 | 67.6 | 68.4 | 113.2 | 197.7 | 176.4 | 131.6 | 113.9 | 112.5 |
| 87.5° | 1.5 | 5.9 | 16.9 | 35.3 | 44.8 | 86.7 | 160.3 | 144.8 | 106.6 | 89.7 | 90.4 |
| 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)