

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: P401152

Luminaire Tested: **ENC-SA1B-740-U-T3**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401152
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-13)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENC-SA1B-740-U-T3
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3490 lumens
Efficiency: N/A
Efficacy: 137.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

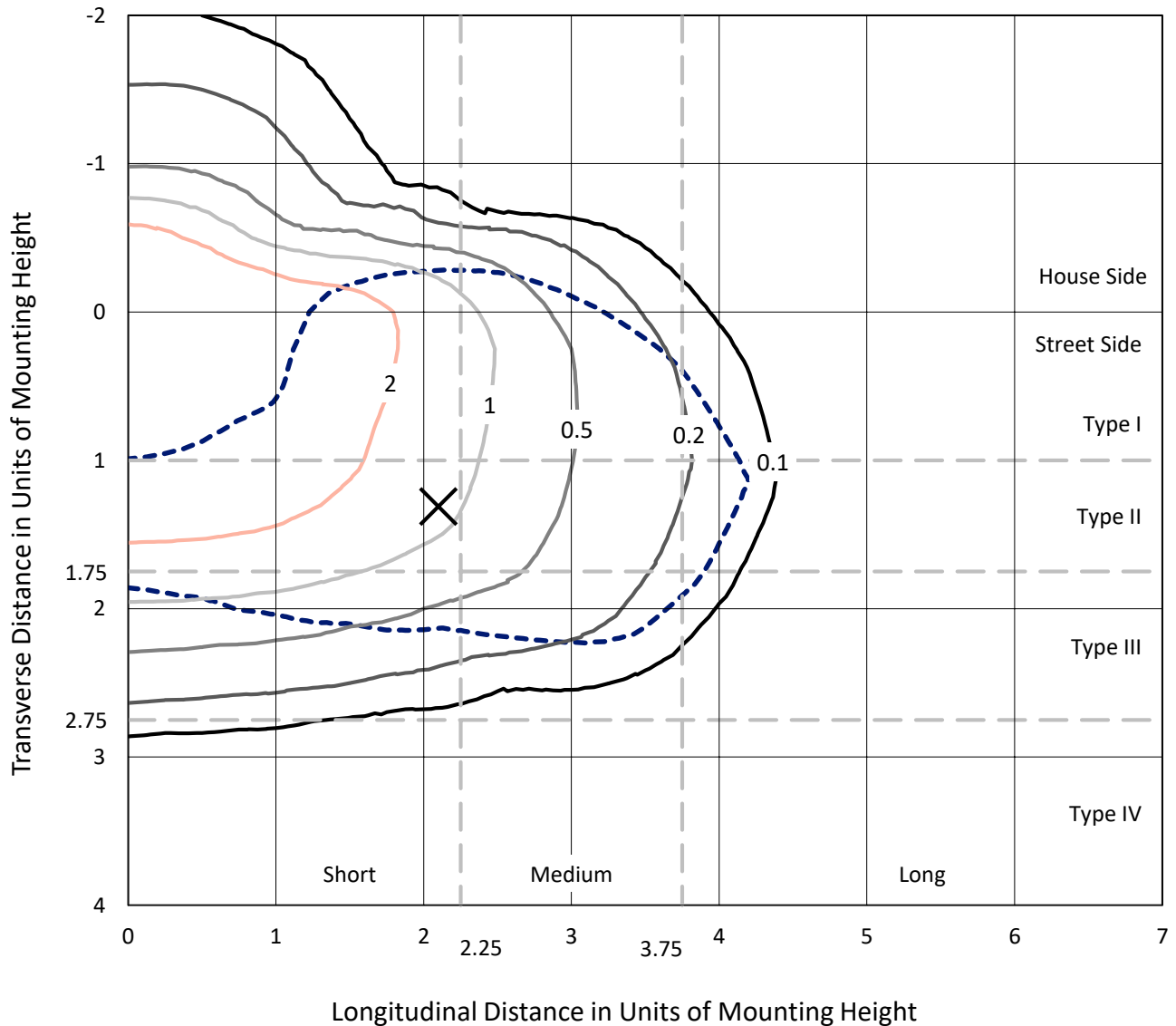
Input Watts (W): 25.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

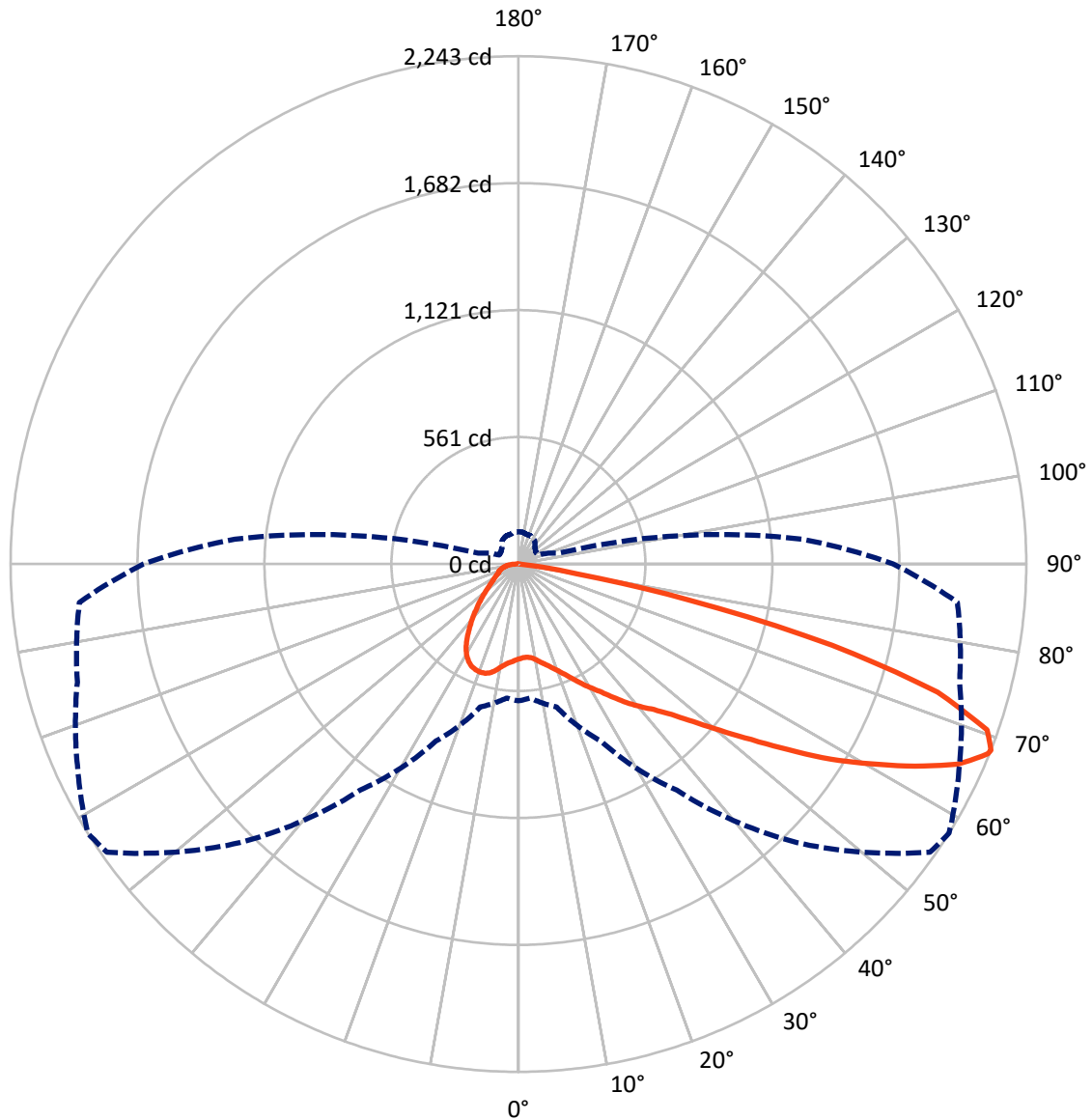
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 817.2 | 0.0 | 817.2 |
| | % Fixture | 23.4 | 0.0 | 23.4 |
| Street Side | Lumens | 2672.8 | 0.0 | 2672.8 |
| | % Fixture | 76.6 | 0.0 | 76.6 |
| Total | Lumens | 3490.0 | 0.0 | 3490.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 41.3 | 1.2 |
| 10°-20° | 135.0 | 3.9 |
| 20°-30° | 242.8 | 7.0 |
| 30°-40° | 356.7 | 10.2 |
| 40°-50° | 523.1 | 15.0 |
| 50°-60° | 782.0 | 22.4 |
| 60°-70° | 914.3 | 26.2 |
| 70°-80° | 450.8 | 12.9 |
| 80°-90° | 44.0 | 1.3 |
| 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° | 3490.0 | 100.0 |
| 0°-180° | 3490.0 | 100.0 |



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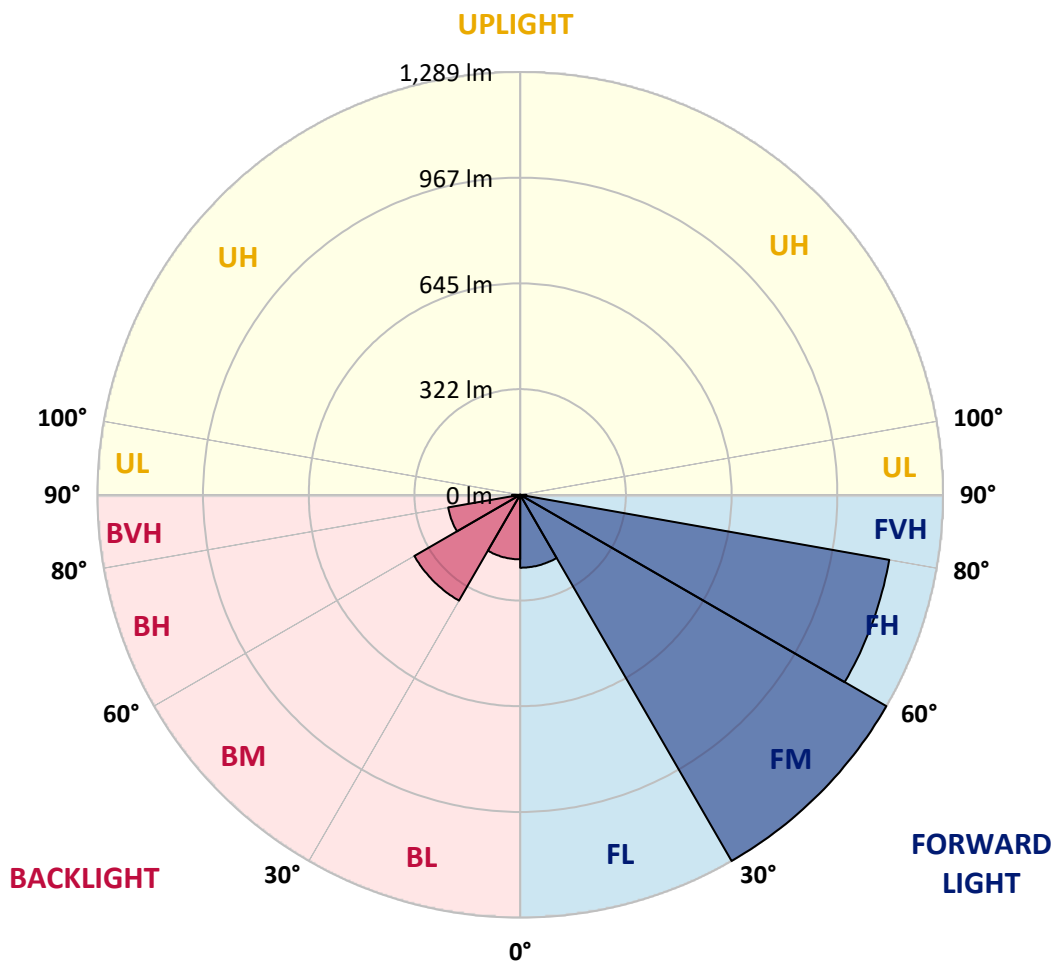
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 222.3 | 6.4 | | | |
| FM (30°-60°) | 1289.1 | 36.9 | | | |
| FH (60°-80°) | 1142.5 | 32.7 | | | G1/1800 |
| FVH (80°-90°) | 18.9 | 0.5 | | | G1/100 |
| BL (0°-30°) | 196.8 | 5.6 | B1/500 | | |
| BM (30°-60°) | 372.7 | 10.7 | B1/1000 | | |
| BH (60°-80°) | 222.7 | 6.4 | B1/500 | | G1/500 |
| BVH (80°-90°) | 25.1 | 0.7 | | | 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 III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 58° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 419.1 | 419.1 | 419.1 | 419.1 | 419.1 | 419.1 | 419.1 | 419.1 | 419.1 | 419.1 | 419.1 |
| 2.5° | 408.9 | 408.9 | 410.3 | 410.8 | 411.8 | 412.8 | 413.7 | 414.2 | 415.7 | 417.6 | 418.6 |
| 5° | 405.5 | 405.9 | 406.9 | 407.4 | 408.9 | 410.8 | 412.3 | 413.3 | 415.7 | 419.6 | 422.0 |
| 7.5° | 413.3 | 414.7 | 415.2 | 415.7 | 416.2 | 417.6 | 417.6 | 418.1 | 420.6 | 424.5 | 427.9 |
| 10° | 425.9 | 426.9 | 428.4 | 429.8 | 431.3 | 432.3 | 429.3 | 429.8 | 430.8 | 434.7 | 439.6 |
| 12.5° | 442.0 | 442.0 | 442.5 | 444.4 | 445.9 | 448.8 | 445.9 | 445.9 | 445.9 | 449.3 | 455.2 |
| 15° | 460.0 | 459.1 | 459.1 | 461.0 | 461.5 | 463.4 | 462.0 | 462.0 | 463.9 | 467.3 | 473.2 |
| 17.5° | 480.5 | 482.0 | 480.5 | 479.5 | 478.1 | 479.0 | 480.0 | 481.0 | 484.9 | 490.3 | 493.7 |
| 20° | 510.2 | 512.7 | 511.7 | 507.8 | 501.5 | 498.5 | 501.9 | 503.9 | 511.7 | 518.0 | 518.5 |
| 22.5° | 557.5 | 556.0 | 554.6 | 547.8 | 535.1 | 527.3 | 527.8 | 530.7 | 542.9 | 552.6 | 547.8 |
| 25° | 601.4 | 602.8 | 602.8 | 593.1 | 576.5 | 560.4 | 561.9 | 563.4 | 575.5 | 584.3 | 571.1 |
| 27.5° | 654.5 | 653.5 | 653.0 | 639.9 | 619.9 | 604.3 | 596.0 | 599.9 | 608.7 | 612.1 | 586.7 |
| 30° | 709.5 | 713.4 | 709.5 | 691.0 | 672.0 | 652.0 | 635.5 | 634.5 | 638.9 | 638.4 | 605.3 |
| 32.5° | 775.8 | 772.4 | 771.0 | 749.5 | 725.6 | 699.3 | 678.4 | 674.9 | 672.5 | 669.1 | 627.2 |
| 35° | 827.0 | 831.4 | 831.4 | 812.9 | 784.6 | 758.8 | 726.1 | 723.2 | 717.3 | 706.1 | 655.9 |
| 37.5° | 887.4 | 886.4 | 889.9 | 868.4 | 840.2 | 815.3 | 785.1 | 776.8 | 763.6 | 747.1 | 690.1 |
| 40° | 946.4 | 948.8 | 956.6 | 930.8 | 905.0 | 885.5 | 842.6 | 827.5 | 807.5 | 792.4 | 739.8 |
| 42.5° | 1026.8 | 1030.2 | 1033.1 | 1011.7 | 981.0 | 963.4 | 897.2 | 878.2 | 867.0 | 864.0 | 805.6 |
| 45° | 1124.3 | 1130.1 | 1132.5 | 1113.1 | 1095.5 | 1053.6 | 965.9 | 948.3 | 936.2 | 948.8 | 895.2 |
| 47.5° | 1217.8 | 1214.9 | 1226.1 | 1225.6 | 1227.6 | 1177.4 | 1064.8 | 1038.5 | 1026.8 | 1059.0 | 998.0 |
| 50° | 1270.5 | 1274.8 | 1299.2 | 1324.1 | 1358.7 | 1322.6 | 1179.3 | 1153.0 | 1139.4 | 1179.3 | 1118.9 |
| 52.5° | 1297.8 | 1303.6 | 1336.3 | 1405.9 | 1479.5 | 1462.5 | 1317.2 | 1288.0 | 1276.3 | 1315.3 | 1248.5 |
| 55° | 1300.2 | 1303.6 | 1347.5 | 1455.6 | 1571.6 | 1577.0 | 1474.7 | 1446.9 | 1430.8 | 1456.1 | 1389.9 |
| 57.5° | 1259.7 | 1249.5 | 1325.0 | 1463.0 | 1630.6 | 1696.4 | 1647.7 | 1627.7 | 1582.4 | 1609.6 | 1565.3 |
| 60° | 1187.6 | 1197.9 | 1271.9 | 1432.7 | 1655.5 | 1789.5 | 1821.1 | 1790.9 | 1738.3 | 1749.5 | 1754.4 |
| 62.5° | 1078.5 | 1091.6 | 1168.6 | 1362.6 | 1635.5 | 1868.4 | 1981.5 | 1966.4 | 1895.7 | 1889.9 | 1898.6 |
| 65° | 923.0 | 915.2 | 1001.0 | 1209.1 | 1540.9 | 1894.7 | 2138.9 | 2132.5 | 2048.2 | 1979.5 | 1982.9 |
| 67.5° | 665.7 | 658.4 | 718.3 | 933.2 | 1285.1 | 1796.8 | 2222.7 | 2236.8 | 2140.3 | 2019.0 | 1966.4 |
| 68° | 604.3 | 594.1 | 654.0 | 862.6 | 1219.3 | 1740.2 | 2218.3 | 2242.7 | 2147.2 | 2016.6 | 1945.9 |
| 70° | 348.0 | 331.4 | 389.4 | 562.9 | 897.7 | 1464.9 | 2128.6 | 2195.9 | 2131.1 | 1969.3 | 1811.9 |
| 72.5° | 109.2 | 109.2 | 150.6 | 227.6 | 440.5 | 926.9 | 1821.1 | 1935.7 | 1949.3 | 1790.0 | 1505.8 |
| 75° | 68.2 | 68.2 | 78.5 | 107.7 | 175.4 | 393.3 | 1256.3 | 1430.8 | 1548.7 | 1506.8 | 1097.9 |
| 77.5° | 46.3 | 45.3 | 52.1 | 66.8 | 98.0 | 126.2 | 630.6 | 774.9 | 947.4 | 1028.7 | 642.3 |
| 80° | 25.3 | 25.8 | 32.2 | 40.0 | 55.6 | 58.5 | 185.2 | 261.7 | 417.2 | 488.8 | 243.7 |
| 82.5° | 14.6 | 14.1 | 15.6 | 17.5 | 24.4 | 25.3 | 53.1 | 65.3 | 109.2 | 101.4 | 65.3 |
| 85° | 0.0 | 0.5 | 0.5 | 0.5 | 1.0 | 2.4 | 6.8 | 10.2 | 16.6 | 22.9 | 16.1 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.5 | 1.0 | 1.0 | 1.0 | 1.0 | 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° | 419.1 | 419.1 | 419.1 | 419.1 | 419.1 | 419.1 | 419.1 | 419.1 | 419.1 | 419.1 | 419.1 |
| 2.5° | 419.6 | 421.1 | 423.5 | 425.4 | 426.4 | 425.4 | 428.8 | 428.4 | 429.3 | 429.3 | 430.3 |
| 5° | 424.0 | 425.9 | 430.3 | 432.7 | 435.2 | 436.2 | 440.1 | 441.0 | 443.0 | 444.0 | 443.5 |
| 7.5° | 430.3 | 432.7 | 438.1 | 442.5 | 445.9 | 448.3 | 454.7 | 457.6 | 460.5 | 461.5 | 462.5 |
| 10° | 442.0 | 445.4 | 451.3 | 456.6 | 461.5 | 464.9 | 470.3 | 474.2 | 477.1 | 478.1 | 479.0 |
| 12.5° | 457.6 | 461.5 | 468.8 | 476.1 | 481.5 | 483.4 | 482.9 | 482.0 | 482.0 | 481.5 | 482.0 |
| 15° | 475.6 | 479.5 | 488.8 | 495.6 | 496.1 | 489.8 | 481.0 | 476.6 | 475.6 | 475.6 | 476.1 |
| 17.5° | 496.6 | 501.5 | 507.3 | 511.2 | 501.9 | 486.4 | 476.1 | 471.7 | 470.8 | 470.3 | 469.3 |
| 20° | 520.5 | 523.4 | 525.3 | 520.5 | 500.0 | 482.0 | 470.3 | 463.9 | 459.1 | 458.6 | 456.6 |
| 22.5° | 545.8 | 544.8 | 542.4 | 524.9 | 494.6 | 471.7 | 455.7 | 444.0 | 437.6 | 437.1 | 435.2 |
| 25° | 564.3 | 560.4 | 553.1 | 525.8 | 484.9 | 455.2 | 432.3 | 413.7 | 405.5 | 401.6 | 402.5 |
| 27.5° | 576.5 | 568.2 | 555.6 | 521.0 | 467.8 | 429.8 | 397.7 | 373.3 | 361.1 | 359.2 | 360.6 |
| 30° | 591.1 | 578.0 | 557.5 | 508.8 | 443.5 | 394.2 | 352.3 | 328.0 | 321.1 | 317.7 | 318.7 |
| 32.5° | 608.7 | 591.6 | 563.8 | 490.3 | 412.8 | 352.8 | 307.5 | 290.4 | 282.6 | 276.3 | 278.3 |
| 35° | 631.6 | 610.1 | 574.1 | 463.9 | 373.8 | 309.0 | 275.3 | 259.7 | 245.6 | 238.8 | 239.3 |
| 37.5° | 658.4 | 634.0 | 582.8 | 433.2 | 331.4 | 275.8 | 247.6 | 229.0 | 211.5 | 198.3 | 195.9 |
| 40° | 701.3 | 681.3 | 590.2 | 399.1 | 290.9 | 248.5 | 220.3 | 199.3 | 182.7 | 169.6 | 168.1 |
| 42.5° | 772.9 | 738.3 | 590.6 | 358.2 | 256.3 | 225.1 | 197.9 | 175.0 | 156.4 | 145.2 | 144.7 |
| 45° | 857.2 | 803.6 | 580.4 | 314.3 | 226.1 | 201.8 | 177.9 | 152.0 | 141.3 | 134.0 | 133.0 |
| 47.5° | 957.1 | 878.7 | 558.0 | 273.4 | 200.3 | 178.8 | 157.4 | 141.8 | 134.0 | 128.7 | 128.7 |
| 50° | 1071.1 | 966.9 | 535.6 | 238.3 | 175.4 | 160.3 | 145.7 | 137.4 | 131.6 | 126.7 | 126.2 |
| 52.5° | 1199.8 | 1071.1 | 528.3 | 202.7 | 155.0 | 143.3 | 141.8 | 134.0 | 129.1 | 125.7 | 124.8 |
| 55° | 1353.3 | 1188.1 | 535.1 | 175.0 | 138.9 | 136.5 | 139.4 | 133.0 | 129.6 | 124.3 | 122.8 |
| 57.5° | 1530.7 | 1302.1 | 527.8 | 151.6 | 127.7 | 130.1 | 136.5 | 133.0 | 130.1 | 123.3 | 121.3 |
| 60° | 1697.8 | 1404.0 | 478.1 | 132.1 | 117.0 | 122.3 | 132.6 | 128.7 | 124.3 | 122.8 | 121.8 |
| 62.5° | 1787.5 | 1437.1 | 381.1 | 117.0 | 108.7 | 114.5 | 126.2 | 121.3 | 118.4 | 121.8 | 122.3 |
| 65° | 1788.5 | 1399.6 | 280.2 | 105.8 | 101.9 | 107.7 | 119.9 | 118.4 | 120.4 | 128.2 | 129.6 |
| 67.5° | 1689.1 | 1285.6 | 197.9 | 95.5 | 95.0 | 102.3 | 122.8 | 132.6 | 134.0 | 141.8 | 141.8 |
| 68° | 1655.0 | 1257.3 | 183.7 | 94.1 | 93.6 | 102.3 | 125.2 | 135.0 | 136.0 | 143.3 | 142.8 |
| 70° | 1467.8 | 1062.9 | 133.0 | 88.2 | 91.1 | 109.6 | 138.4 | 141.8 | 136.0 | 144.2 | 143.8 |
| 72.5° | 1147.2 | 786.1 | 99.4 | 81.9 | 86.7 | 108.2 | 139.4 | 136.0 | 127.2 | 129.1 | 126.7 |
| 75° | 775.3 | 501.0 | 81.9 | 75.0 | 77.0 | 91.6 | 126.7 | 128.2 | 117.9 | 116.0 | 113.1 |
| 77.5° | 405.9 | 234.9 | 66.3 | 66.8 | 68.7 | 79.4 | 113.1 | 116.5 | 107.2 | 101.4 | 100.4 |
| 80° | 149.6 | 93.1 | 54.1 | 59.0 | 59.9 | 69.7 | 97.0 | 102.3 | 93.6 | 89.2 | 88.2 |
| 82.5° | 54.6 | 46.3 | 44.8 | 51.7 | 50.7 | 59.5 | 84.8 | 88.7 | 79.4 | 75.0 | 72.6 |
| 85° | 15.1 | 17.1 | 28.3 | 40.4 | 39.5 | 46.3 | 68.2 | 71.6 | 63.8 | 52.6 | 51.2 |
| 87.5° | 1.0 | 3.4 | 11.2 | 23.9 | 24.9 | 28.8 | 49.2 | 54.1 | 47.3 | 39.0 | 38.5 |
| 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)