

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: METALUX

Report Number: P233294

Luminaire Tested: **4VRVT3-LD5-4-W-UNV-L850-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P233294  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1709-268-9)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4VRVT3-LD5-4-W-UNV-L850-CD1-U  
Description: 4FT VRVT3 WIDE APPLICATION, 4000LM  
Light Source: (392) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4767.0 lumens  
Efficiency: N/A  
Efficacy: 152.2 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.67 / 1.66  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.17')  
CIE Type: Semi-Direct

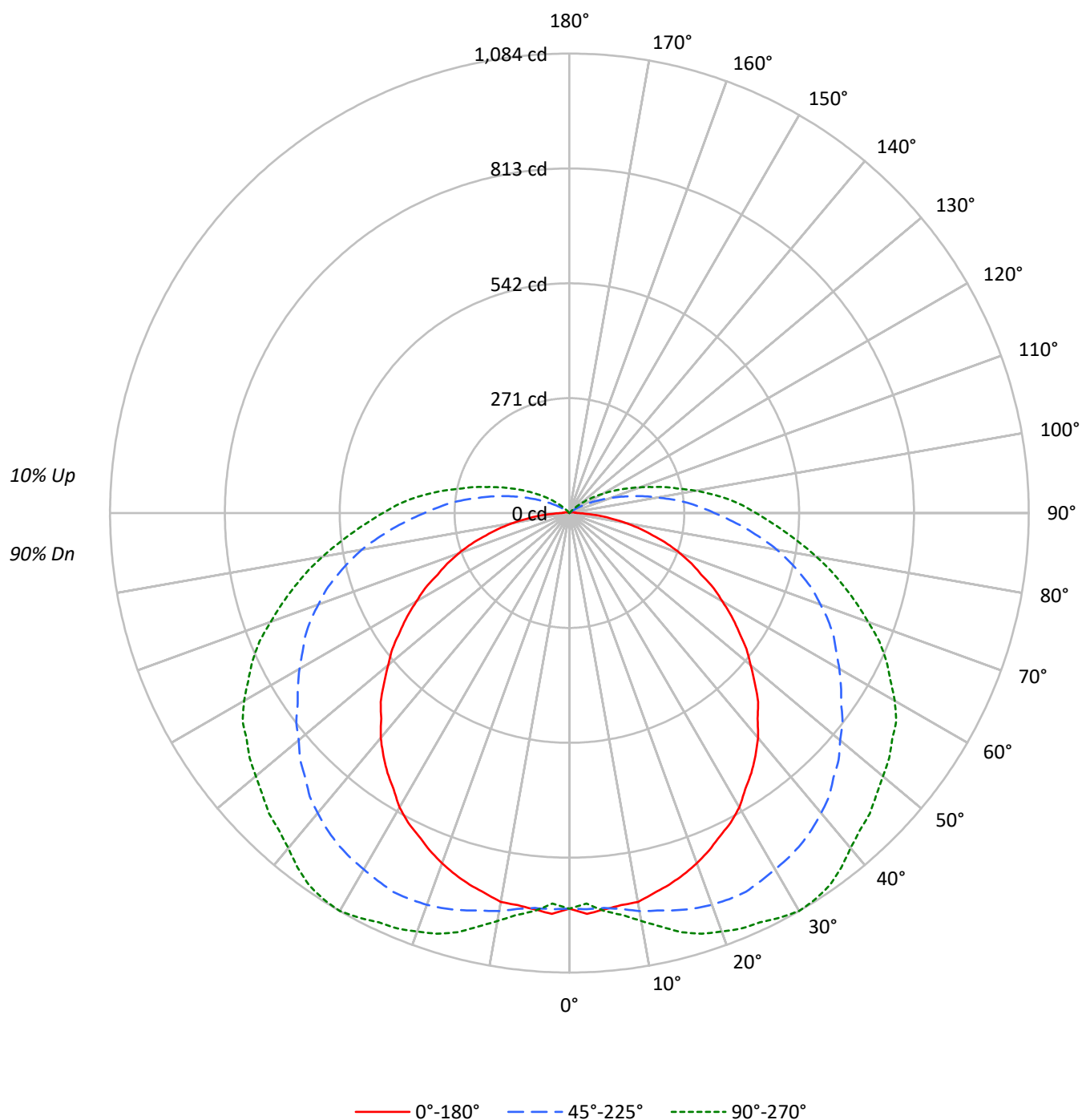
Input Watts (W): 31.32  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P233294

CATALOG NUMBER: 4VRVT3-LD5-4-W-UNV-L850-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P233294

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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |  |    |    |    |  |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|----|----|----|--|----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |  | 20 |    |    |  | 20 |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |  | 30 |    |    |  | 10 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50 | 30 | 10 |  | 50 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |    |    |    |  |    |
| 0   | 117 | 117 | 117 | 117 | 113 | 113 | 113 | 113 | 105 | 105 | 105 |  | 99 | 99 | 99 |  | 93 |
| 1   | 103 | 96  | 91  | 86  | 99  | 93  | 88  | 83  | 87  | 83  | 79  |  | 81 | 78 | 74 |  | 76 |
| 2   | 92  | 82  | 74  | 67  | 88  | 79  | 72  | 65  | 74  | 67  | 62  |  | 69 | 64 | 59 |  | 64 |
| 3   | 83  | 71  | 61  | 54  | 79  | 68  | 60  | 53  | 64  | 56  | 50  |  | 59 | 53 | 48 |  | 55 |
| 4   | 75  | 62  | 52  | 44  | 72  | 60  | 51  | 44  | 56  | 48  | 42  |  | 52 | 46 | 40 |  | 49 |
| 5   | 69  | 55  | 45  | 38  | 66  | 53  | 44  | 37  | 50  | 42  | 35  |  | 46 | 40 | 34 |  | 43 |
| 6   | 63  | 49  | 39  | 32  | 61  | 47  | 38  | 32  | 44  | 36  | 31  |  | 42 | 35 | 29 |  | 39 |
| 7   | 58  | 44  | 35  | 28  | 56  | 43  | 34  | 28  | 40  | 32  | 27  |  | 38 | 31 | 26 |  | 36 |
| 8   | 54  | 40  | 31  | 25  | 52  | 39  | 30  | 24  | 37  | 29  | 24  |  | 34 | 28 | 23 |  | 33 |
| 9   | 51  | 36  | 28  | 22  | 49  | 35  | 27  | 22  | 33  | 26  | 21  |  | 32 | 25 | 20 |  | 30 |
| 10  | 47  | 33  | 25  | 20  | 45  | 33  | 25  | 19  | 31  | 24  | 19  |  | 29 | 23 | 18 |  | 28 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6026 | 6026 | 6026 |
| 5°  | 6062 | 5902 | 5902 |
| 10° | 6064 | 5927 | 5986 |
| 15° | 6003 | 5986 | 6183 |
| 20° | 5950 | 6070 | 6304 |
| 25° | 5877 | 6131 | 6397 |
| 30° | 5837 | 6133 | 6567 |
| 35° | 5733 | 6169 | 6600 |
| 40° | 5642 | 6172 | 6514 |
| 45° | 5522 | 6136 | 6540 |
| 50° | 5345 | 6105 | 6572 |
| 55° | 5186 | 6095 | 6664 |
| 60° | 5019 | 6165 | 6763 |
| 65° | 4813 | 6299 | 6788 |
| 70° | 4712 | 6406 | 6747 |
| 75° | 4395 | 6539 | 6724 |
| 80° | 4070 | 6673 | 6733 |
| 85° | 3479 | 6781 | 6797 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 90.1   | 1.9       |
| 10°-20°   | 274.5  | 5.8       |
| 20°-30°   | 448.2  | 9.4       |
| 30°-40°   | 584.1  | 12.3      |
| 40°-50°   | 655.7  | 13.8      |
| 50°-60°   | 670.3  | 14.1      |
| 60°-70°   | 629.5  | 13.2      |
| 70°-80°   | 532.1  | 11.2      |
| 80°-90°   | 394.0  | 8.3       |
| 90°-100°  | 257.9  | 5.4       |
| 100°-110° | 142.2  | 3.0       |
| 110°-120° | 64.4   | 1.4       |
| 120°-130° | 21.5   | 0.5       |
| 130°-140° | 2.6    | 0.1       |
| 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°-30°    | 812.8  | 17.1      |
| 0°-40°    | 1396.9 | 29.3      |
| 0°-60°    | 2722.9 | 57.1      |
| 0°-90°    | 4278.5 | 89.8      |
| 90°-120°  | 464.5  | 9.7       |
| 90°-150°  | 488.5  | 10.2      |
| 90°-180°  | 489.0  | 10.3      |
| 0°-180°   | 4767.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90°  | Flux |
|------|-----|-------|-----|-------|------|------|
| 0°   | 933 | 933   | 933 | 933   | 933  |      |
| 5°   | 938 | 937   | 935 | 943   | 942  | 89   |
| 15°  | 908 | 929   | 970 | 1013  | 1024 | 256  |
| 25°  | 841 | 894   | 986 | 1050  | 1065 | 388  |
| 35°  | 748 | 822   | 954 | 1053  | 1072 | 468  |
| 45°  | 630 | 724   | 882 | 975   | 1002 | 484  |
| 55°  | 488 | 603   | 783 | 897   | 930  | 438  |
| 65°  | 343 | 474   | 688 | 800   | 825  | 343  |
| 75°  | 204 | 356   | 568 | 654   | 672  | 217  |
| 85°  | 69  | 240   | 418 | 496   | 511  | 70   |
| 90°  | 18  | 179   | 342 | 421   | 440  | 12   |
| 95°  | 13  | 128   | 280 | 351   | 376  | 10   |
| 105° | 7   | 40    | 154 | 217   | 236  | 8    |
| 115° | 3   | 4     | 64  | 118   | 130  | 3    |
| 125° | 1   | 1     | 13  | 48    | 58   | 1    |
| 135° | 0   | 0     | 0   | 3     | 9    | 0    |
| 145° | 0   | 0     | 0   | 0     | 0    | 0    |
| 155° | 0   | 0     | 0   | 0     | 0    | 0    |
| 165° | 0   | 0     | 0   | 0     | 0    | 0    |
| 175° | 0   | 0     | 0   | 0     | 0    | 0    |
| 180° | 0   | 0     | 0   | 0     | 0    | 0    |



TEST NUMBER: P233294

CATALOG NUMBER: 4VRVT3-LD5-4-W-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 22.5° | 25°   | 30°   | 35°   | 40°   | 45°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°     | 933.1 | 933.1 | 933.1 | 933.1 | 933.1 | 933.1 | 933.1 | 933.1 | 933.1 | 933.1 | 933.1 |
| 2.5°   | 946.5 | 935.3 | 935.8 | 934.2 | 934.2 | 940.6 | 939.0 | 934.7 | 935.8 | 933.7 | 935.3 |
| 5°     | 938.5 | 933.1 | 933.7 | 936.9 | 936.3 | 937.4 | 938.5 | 935.8 | 940.6 | 939.0 | 935.3 |
| 7.5°   | 933.1 | 928.8 | 929.9 | 925.6 | 934.2 | 936.3 | 936.3 | 934.7 | 939.6 | 941.2 | 941.7 |
| 10°    | 931.5 | 923.5 | 926.7 | 920.2 | 928.8 | 938.5 | 936.9 | 942.8 | 946.5 | 950.3 | 953.5 |
| 12.5°  | 918.6 | 915.4 | 913.8 | 918.6 | 930.4 | 938.0 | 933.1 | 937.4 | 947.6 | 954.6 | 960.5 |
| 15°    | 907.9 | 906.8 | 906.3 | 911.1 | 916.5 | 929.4 | 931.0 | 942.3 | 956.2 | 960.0 | 970.2 |
| 17.5°  | 894.5 | 891.2 | 893.4 | 897.2 | 914.3 | 922.4 | 929.9 | 938.0 | 957.3 | 964.8 | 978.2 |
| 20°    | 878.9 | 876.7 | 883.7 | 888.6 | 904.7 | 914.3 | 923.5 | 936.3 | 950.8 | 969.1 | 983.6 |
| 22.5°  | 861.2 | 860.1 | 866.0 | 875.7 | 896.6 | 905.7 | 912.2 | 929.9 | 952.5 | 967.5 | 985.7 |
| 25°    | 840.8 | 840.8 | 847.2 | 862.8 | 887.5 | 893.9 | 904.1 | 919.7 | 940.6 | 960.0 | 985.7 |
| 27.5°  | 823.6 | 823.6 | 829.5 | 845.1 | 865.5 | 882.7 | 895.5 | 906.8 | 934.2 | 955.7 | 978.2 |
| 30°    | 801.6 | 804.3 | 809.1 | 823.6 | 848.8 | 863.9 | 875.7 | 897.7 | 924.0 | 947.6 | 970.7 |
| 32.5°  | 772.1 | 773.1 | 785.5 | 803.2 | 829.0 | 844.0 | 860.1 | 882.1 | 916.5 | 931.0 | 963.2 |
| 35°    | 748.4 | 748.4 | 759.7 | 778.0 | 811.2 | 822.5 | 838.1 | 863.9 | 894.5 | 920.8 | 953.5 |
| 37.5°  | 721.0 | 721.6 | 736.6 | 761.3 | 787.6 | 802.1 | 817.2 | 845.6 | 876.2 | 903.6 | 940.1 |
| 40°    | 692.6 | 696.9 | 704.4 | 729.1 | 760.2 | 778.0 | 790.8 | 823.1 | 862.3 | 889.1 | 924.0 |
| 42.5°  | 657.2 | 662.0 | 675.4 | 700.6 | 730.7 | 755.4 | 771.0 | 799.4 | 835.9 | 871.9 | 906.8 |
| 45°    | 629.8 | 632.5 | 645.3 | 670.6 | 704.4 | 723.7 | 739.3 | 775.3 | 813.4 | 848.8 | 881.6 |
| 47.5°  | 593.3 | 599.2 | 612.1 | 640.5 | 676.5 | 698.0 | 711.4 | 746.8 | 787.6 | 821.4 | 861.7 |
| 50°    | 558.4 | 563.2 | 581.5 | 607.2 | 647.0 | 665.2 | 683.5 | 718.9 | 765.1 | 801.0 | 833.8 |
| 52.5°  | 526.7 | 530.5 | 546.6 | 577.2 | 612.1 | 636.2 | 650.7 | 692.1 | 737.7 | 773.7 | 812.3 |
| 55°    | 488.0 | 497.2 | 513.3 | 543.9 | 583.6 | 602.9 | 616.9 | 660.4 | 706.6 | 748.4 | 782.8 |
| 57.5°  | 454.2 | 463.3 | 480.0 | 512.2 | 550.9 | 569.1 | 591.1 | 634.1 | 676.5 | 720.5 | 759.7 |
| 60°    | 416.6 | 426.3 | 445.1 | 480.5 | 519.2 | 538.0 | 556.8 | 603.5 | 649.1 | 690.4 | 735.5 |
| 62.5°  | 383.9 | 390.9 | 413.4 | 442.9 | 482.7 | 504.7 | 525.6 | 571.8 | 626.0 | 668.4 | 709.8 |
| 65°    | 343.1 | 357.6 | 378.0 | 412.9 | 452.1 | 473.5 | 496.6 | 543.9 | 592.2 | 639.4 | 688.3 |
| 67.5°  | 311.9 | 320.5 | 344.7 | 377.4 | 419.3 | 445.1 | 466.0 | 519.2 | 568.0 | 614.7 | 660.9 |
| 70°    | 278.1 | 286.2 | 309.8 | 344.7 | 388.7 | 411.3 | 439.7 | 490.2 | 544.4 | 588.4 | 630.3 |
| 72.5°  | 242.7 | 252.3 | 274.9 | 310.9 | 359.2 | 385.5 | 409.7 | 463.9 | 519.7 | 560.0 | 601.9 |
| 75°    | 203.5 | 218.0 | 244.3 | 279.2 | 328.6 | 356.5 | 380.7 | 438.1 | 488.0 | 529.4 | 567.5 |
| 77.5°  | 170.7 | 182.0 | 211.5 | 254.5 | 304.4 | 329.7 | 355.4 | 410.2 | 459.6 | 497.7 | 533.1 |
| 80°    | 135.3 | 150.9 | 177.2 | 222.3 | 272.7 | 299.1 | 325.9 | 377.4 | 424.7 | 462.8 | 497.2 |
| 82.5°  | 100.4 | 114.4 | 147.1 | 193.8 | 245.4 | 270.6 | 293.1 | 343.6 | 389.2 | 427.4 | 456.9 |
| 85°    | 69.3  | 82.1  | 118.7 | 165.9 | 214.8 | 240.0 | 262.5 | 313.5 | 354.9 | 386.6 | 418.2 |
| 87.5°  | 38.7  | 55.8  | 93.4  | 138.0 | 186.3 | 210.5 | 230.9 | 278.6 | 317.3 | 351.1 | 378.5 |
| 90°    | 17.7  | 35.4  | 68.7  | 111.7 | 156.2 | 179.3 | 200.8 | 243.8 | 283.5 | 313.0 | 342.5 |
| 92.5°  | 15.0  | 21.5  | 51.0  | 89.7  | 132.6 | 153.6 | 175.0 | 215.3 | 250.2 | 283.5 | 309.8 |
| 95°    | 13.4  | 14.5  | 33.3  | 69.3  | 107.4 | 128.3 | 147.6 | 186.3 | 219.6 | 250.7 | 279.7 |
| 97.5°  | 11.8  | 11.8  | 20.4  | 48.9  | 85.4  | 102.5 | 120.8 | 158.4 | 189.5 | 219.1 | 244.3 |
| 100°   | 9.7   | 10.2  | 11.8  | 31.7  | 61.7  | 78.4  | 96.6  | 129.4 | 160.5 | 188.5 | 211.0 |
| 102.5° | 8.6   | 8.6   | 9.1   | 19.3  | 42.4  | 57.4  | 73.6  | 102.5 | 133.7 | 158.4 | 182.5 |
| 105°   | 7.0   | 7.5   | 7.5   | 10.2  | 28.5  | 39.7  | 53.2  | 81.1  | 106.8 | 131.5 | 153.6 |
| 107.5° | 5.9   | 5.9   | 5.9   | 6.4   | 17.2  | 25.8  | 36.5  | 59.1  | 83.8  | 107.4 | 127.8 |
| 110°   | 4.8   | 4.8   | 4.8   | 5.4   | 8.1   | 15.0  | 23.6  | 41.9  | 63.4  | 85.9  | 103.6 |



TEST NUMBER: P233294

CATALOG NUMBER: 4VRVT3-LD5-4-W-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 5°  | 10° | 15° | 20° | 22.5° | 25°  | 30°  | 35°  | 40°  | 45°  |
|--------|-----|-----|-----|-----|-----|-------|------|------|------|------|------|
| 112.5° | 3.8 | 4.3 | 4.3 | 4.3 | 4.8 | 7.0   | 13.4 | 30.1 | 46.2 | 65.5 | 82.1 |
| 115°   | 3.2 | 3.2 | 3.2 | 3.2 | 3.8 | 3.8   | 5.4  | 17.7 | 33.3 | 48.3 | 64.4 |
| 117.5° | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7   | 2.7  | 8.6  | 22.0 | 34.9 | 48.3 |
| 120°   | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1   | 2.1  | 3.2  | 11.8 | 24.2 | 34.9 |
| 122.5° | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6   | 1.6  | 1.6  | 3.2  | 13.4 | 23.6 |
| 125°   | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1   | 1.1  | 1.1  | 1.1  | 4.3  | 13.4 |
| 127.5° | 1.1 | 1.1 | 1.1 | 1.1 | 0.5 | 0.5   | 0.5  | 0.5  | 0.5  | 1.1  | 4.8  |
| 130°   | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5   | 0.5  | 0.5  | 0.0  | 0.0  | 0.5  |
| 132.5° | 0.5 | 0.5 | 0.5 | 0.5 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 135°   | 0.5 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 137.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 140°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 142.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 145°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 147.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 150°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 152.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 155°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 157.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 160°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 162.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 165°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 170°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 175°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 180°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |



TEST NUMBER: P233294

CATALOG NUMBER: 4VRVT3-LD5-4-W-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 50°   | 55°    | 60°    | 65°    | 67.5°  | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 933.1 | 933.1  | 933.1  | 933.1  | 933.1  | 933.1  | 933.1  | 933.1  | 933.1  | 933.1  |
| 2.5°   | 926.1 | 930.4  | 935.8  | 938.0  | 933.7  | 937.4  | 937.4  | 932.0  | 932.6  | 921.8  |
| 5°     | 931.0 | 939.0  | 946.5  | 942.3  | 942.8  | 942.3  | 948.2  | 943.9  | 942.3  | 942.3  |
| 7.5°   | 943.9 | 950.8  | 952.5  | 957.3  | 956.7  | 962.1  | 957.3  | 961.6  | 960.0  | 956.2  |
| 10°    | 957.3 | 960.5  | 964.8  | 977.7  | 978.8  | 976.6  | 984.7  | 978.2  | 978.8  | 977.1  |
| 12.5°  | 963.7 | 982.0  | 982.5  | 995.4  | 992.7  | 1000.8 | 1001.8 | 1004.0 | 1004.5 | 999.2  |
| 15°    | 979.3 | 992.2  | 1002.4 | 1013.1 | 1013.1 | 1019.6 | 1025.5 | 1024.9 | 1025.5 | 1023.9 |
| 17.5°  | 989.5 | 1009.4 | 1016.3 | 1025.5 | 1029.2 | 1036.2 | 1039.4 | 1044.8 | 1043.2 | 1040.5 |
| 20°    | 997.0 | 1012.0 | 1027.6 | 1037.3 | 1035.7 | 1044.3 | 1052.9 | 1044.3 | 1050.2 | 1050.7 |
| 22.5°  | 994.9 | 1018.5 | 1029.8 | 1042.1 | 1046.9 | 1050.2 | 1057.1 | 1063.6 | 1063.6 | 1060.9 |
| 25°    | 996.5 | 1016.9 | 1034.1 | 1046.4 | 1050.2 | 1057.7 | 1066.8 | 1069.0 | 1072.2 | 1065.2 |
| 27.5°  | 993.8 | 1017.4 | 1035.7 | 1049.1 | 1049.1 | 1065.2 | 1069.0 | 1078.1 | 1080.8 | 1075.9 |
| 30°    | 994.9 | 1015.8 | 1033.0 | 1054.5 | 1059.3 | 1067.9 | 1077.5 | 1084.0 | 1082.9 | 1084.0 |
| 32.5°  | 987.3 | 1011.5 | 1031.4 | 1054.5 | 1062.0 | 1066.8 | 1078.1 | 1079.2 | 1078.1 | 1080.2 |
| 35°    | 974.5 | 1004.0 | 1034.1 | 1046.4 | 1052.9 | 1062.5 | 1065.2 | 1070.6 | 1079.7 | 1071.6 |
| 37.5°  | 966.4 | 995.4  | 1011.5 | 1030.8 | 1037.8 | 1045.9 | 1051.8 | 1052.9 | 1054.5 | 1053.9 |
| 40°    | 951.4 | 978.8  | 993.3  | 1013.1 | 1015.8 | 1028.7 | 1024.9 | 1030.3 | 1035.1 | 1031.9 |
| 42.5°  | 935.3 | 957.3  | 976.6  | 990.6  | 997.0  | 1000.2 | 1010.4 | 1012.6 | 1018.5 | 1014.7 |
| 45°    | 910.0 | 933.7  | 954.6  | 969.6  | 975.0  | 985.7  | 990.6  | 994.3  | 1000.2 | 1002.4 |
| 47.5°  | 889.6 | 913.3  | 934.7  | 956.7  | 955.7  | 968.0  | 977.1  | 975.5  | 980.4  | 982.5  |
| 50°    | 862.3 | 891.2  | 917.6  | 933.1  | 938.5  | 950.3  | 954.1  | 964.8  | 969.6  | 965.9  |
| 52.5°  | 840.2 | 871.9  | 888.6  | 914.3  | 920.8  | 930.4  | 941.2  | 942.3  | 952.5  | 950.8  |
| 55°    | 817.7 | 846.1  | 873.0  | 889.6  | 897.2  | 909.5  | 917.0  | 921.3  | 925.6  | 929.9  |
| 57.5°  | 789.2 | 825.7  | 848.3  | 869.2  | 877.3  | 885.3  | 896.6  | 902.0  | 911.1  | 914.3  |
| 60°    | 767.2 | 804.8  | 823.6  | 847.8  | 855.8  | 864.9  | 873.0  | 877.8  | 884.8  | 886.4  |
| 62.5°  | 743.6 | 777.4  | 800.5  | 823.1  | 830.6  | 838.1  | 847.2  | 855.3  | 858.0  | 854.2  |
| 65°    | 716.2 | 750.6  | 771.5  | 794.1  | 800.0  | 814.5  | 811.8  | 819.8  | 823.1  | 825.2  |
| 67.5°  | 690.4 | 728.6  | 744.7  | 758.1  | 772.1  | 770.4  | 781.2  | 780.6  | 787.1  | 791.4  |
| 70°    | 659.8 | 689.9  | 704.9  | 724.8  | 728.6  | 733.4  | 742.0  | 744.1  | 747.9  | 750.0  |
| 72.5°  | 628.2 | 659.3  | 672.7  | 686.7  | 695.8  | 695.3  | 701.2  | 705.5  | 710.3  | 710.8  |
| 75°    | 597.0 | 617.4  | 634.1  | 647.5  | 654.5  | 655.5  | 663.1  | 662.0  | 673.3  | 671.7  |
| 77.5°  | 561.1 | 583.6  | 594.3  | 607.8  | 613.7  | 619.6  | 623.3  | 626.6  | 628.2  | 632.5  |
| 80°    | 518.6 | 545.5  | 553.5  | 568.0  | 572.3  | 578.8  | 580.4  | 587.4  | 590.0  | 591.7  |
| 82.5°  | 482.7 | 500.4  | 512.7  | 527.2  | 536.9  | 535.8  | 542.8  | 547.1  | 550.3  | 550.3  |
| 85°    | 442.4 | 462.8  | 474.1  | 487.0  | 496.1  | 497.7  | 504.7  | 504.7  | 509.0  | 511.1  |
| 87.5°  | 400.5 | 425.2  | 434.3  | 448.3  | 458.5  | 456.9  | 461.7  | 468.2  | 470.3  | 474.1  |
| 90°    | 363.5 | 383.3  | 398.4  | 411.8  | 420.9  | 422.0  | 427.4  | 432.7  | 433.8  | 440.3  |
| 92.5°  | 333.4 | 350.1  | 366.2  | 380.1  | 383.3  | 387.6  | 392.5  | 401.1  | 402.7  | 409.1  |
| 95°    | 298.5 | 318.9  | 331.8  | 345.8  | 351.1  | 354.4  | 359.7  | 366.2  | 371.5  | 376.4  |
| 97.5°  | 266.8 | 285.1  | 299.1  | 309.8  | 317.3  | 319.5  | 326.4  | 330.7  | 334.5  | 339.9  |
| 100°   | 233.0 | 249.1  | 264.2  | 276.5  | 282.4  | 284.0  | 291.5  | 294.8  | 298.0  | 302.8  |
| 102.5° | 201.9 | 221.2  | 229.8  | 243.2  | 248.0  | 250.7  | 256.1  | 263.1  | 263.6  | 265.2  |
| 105°   | 170.2 | 189.0  | 201.3  | 211.0  | 216.9  | 219.1  | 224.4  | 231.9  | 232.5  | 236.2  |
| 107.5° | 145.5 | 161.6  | 174.0  | 184.2  | 190.1  | 192.2  | 196.5  | 199.2  | 202.9  | 204.0  |
| 110°   | 121.3 | 135.8  | 148.2  | 156.8  | 161.6  | 165.9  | 170.7  | 175.0  | 177.2  | 177.7  |



TEST NUMBER: P233294

CATALOG NUMBER: 4VRVT3-LD5-4-W-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 50°  | 55°   | 60°   | 65°   | 67.5° | 70°   | 75°   | 80°   | 85°   | 90°   |
|--------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 98.3 | 112.2 | 122.9 | 133.7 | 138.0 | 141.2 | 146.0 | 151.4 | 154.1 | 154.1 |
| 115°   | 78.9 | 91.8  | 103.1 | 111.7 | 117.6 | 119.2 | 123.5 | 127.8 | 129.9 | 129.9 |
| 117.5° | 60.7 | 74.1  | 84.3  | 91.8  | 96.1  | 98.3  | 103.6 | 107.9 | 109.5 | 110.6 |
| 120°   | 46.2 | 56.9  | 66.6  | 74.6  | 77.3  | 81.1  | 84.8  | 88.6  | 90.7  | 90.7  |
| 122.5° | 33.8 | 43.5  | 50.5  | 57.4  | 62.3  | 63.4  | 68.2  | 72.5  | 73.6  | 74.6  |
| 125°   | 23.1 | 31.1  | 38.1  | 44.0  | 47.8  | 48.9  | 52.6  | 56.4  | 57.4  | 58.5  |
| 127.5° | 11.8 | 19.9  | 26.3  | 32.2  | 34.9  | 37.0  | 40.3  | 43.5  | 44.6  | 45.1  |
| 130°   | 3.2  | 9.1   | 15.6  | 20.9  | 23.1  | 24.7  | 28.5  | 30.6  | 32.8  | 32.2  |
| 132.5° | 0.0  | 1.6   | 5.4   | 10.2  | 11.8  | 14.0  | 17.2  | 19.3  | 20.4  | 21.5  |
| 135°   | 0.0  | 0.0   | 0.5   | 2.1   | 3.2   | 4.3   | 6.4   | 9.1   | 9.1   | 9.1   |
| 137.5° | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 140°   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 142.5° | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 145°   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 147.5° | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 150°   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 152.5° | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 155°   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 157.5° | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 160°   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 162.5° | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 165°   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 167.5° | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 170°   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 172.5° | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 175°   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 177.5° | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 180°   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)