

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: FAIL-SAFE

Report Number: P241579

Luminaire Tested: **FVS8M-3-LD4-40-2STD-O-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241579  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-24)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS8M-3-LD4-40-2STD-O-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
3FT LENGTH, 2-MODULE LED WITH OPAL LENS  
Light Source: (168) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

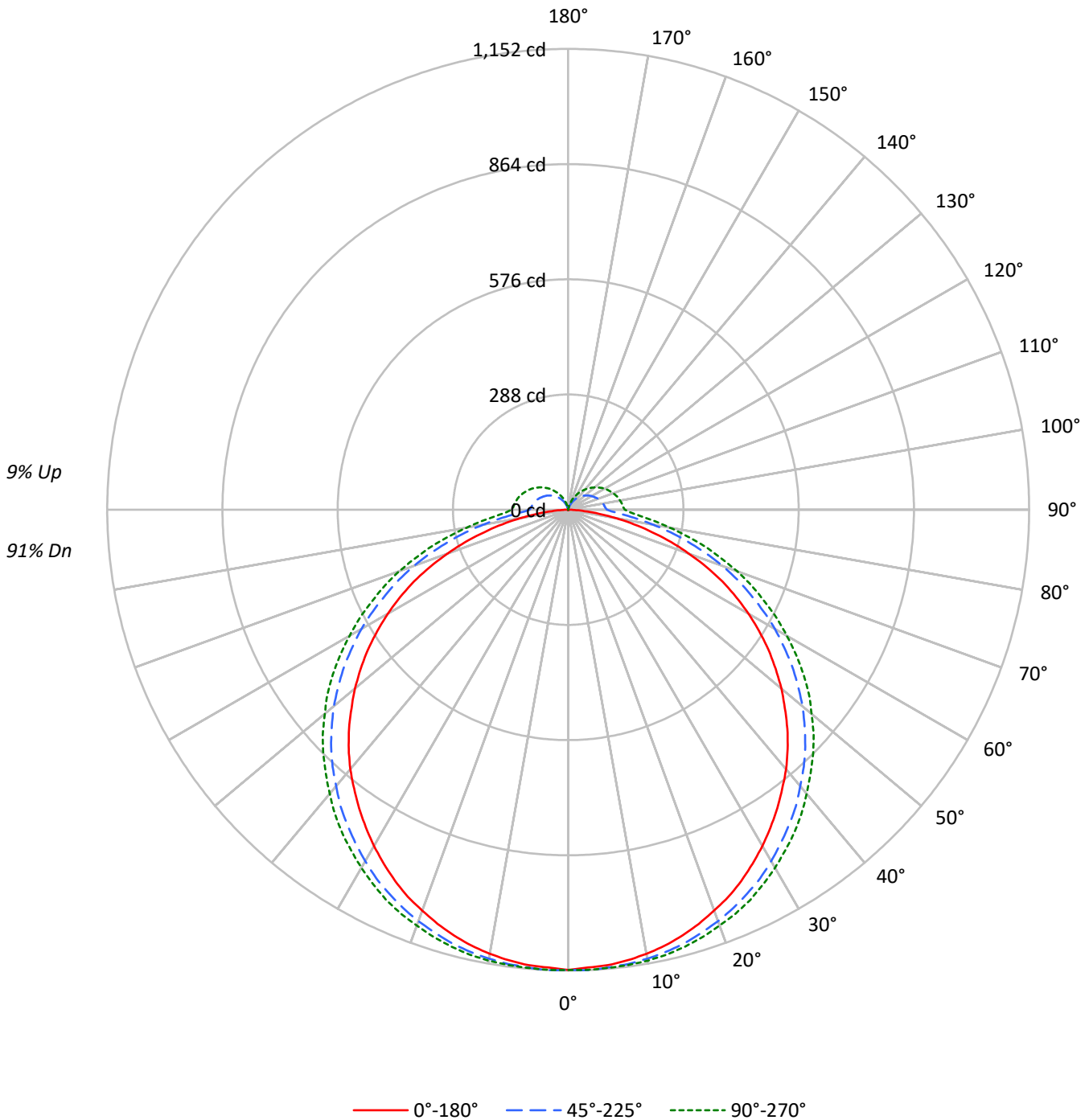
Lumens per Lamp: N/A  
Luminaire Lumens: 4050.0 lumens  
Efficiency: N/A  
Efficacy: 74.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.33 / 1.44  
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 54.7  
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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CATALOG NUMBER: FVS8M-3-LD4-40-2STD-O-UNV-EDC1

### Luminous Intensity Polar Plot





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

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |    |    | 20 |    |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |     | 30  |     |    |    | 10 | 0  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50 | 30 | 10 | 0  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |
| 0   | 117 | 117 | 117 | 117 | 113 | 113 | 113 | 113 | 106 | 106 | 106 | 100 | 100 | 100 | 94 | 94 | 94 | 91 |
| 1   | 106 | 101 | 96  | 92  | 102 | 97  | 93  | 89  | 92  | 88  | 85  | 86  | 83  | 81  | 81 | 79 | 77 | 74 |
| 2   | 96  | 87  | 80  | 74  | 92  | 84  | 78  | 72  | 79  | 74  | 69  | 75  | 70  | 66  | 70 | 67 | 64 | 61 |
| 3   | 87  | 76  | 67  | 61  | 84  | 74  | 66  | 59  | 69  | 63  | 57  | 65  | 60  | 55  | 62 | 57 | 53 | 51 |
| 4   | 79  | 67  | 58  | 51  | 76  | 65  | 57  | 50  | 61  | 54  | 48  | 58  | 52  | 47  | 55 | 50 | 45 | 43 |
| 5   | 73  | 60  | 50  | 43  | 70  | 58  | 49  | 43  | 55  | 47  | 42  | 52  | 45  | 40  | 49 | 44 | 39 | 37 |
| 6   | 67  | 53  | 44  | 38  | 64  | 52  | 43  | 37  | 49  | 42  | 36  | 47  | 40  | 35  | 44 | 39 | 34 | 32 |
| 7   | 62  | 48  | 39  | 33  | 60  | 47  | 39  | 33  | 45  | 37  | 32  | 43  | 36  | 31  | 40 | 35 | 30 | 28 |
| 8   | 58  | 44  | 35  | 29  | 56  | 43  | 35  | 29  | 41  | 34  | 28  | 39  | 32  | 28  | 37 | 31 | 27 | 25 |
| 9   | 54  | 40  | 32  | 26  | 52  | 39  | 31  | 26  | 37  | 30  | 25  | 36  | 29  | 25  | 34 | 28 | 24 | 22 |
| 10  | 50  | 37  | 29  | 24  | 49  | 36  | 29  | 23  | 35  | 28  | 23  | 33  | 27  | 22  | 32 | 26 | 22 | 20 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6718 | 6718 | 6718 |
| 5°  | 6670 | 6621 | 6609 |
| 10° | 6623 | 6532 | 6528 |
| 15° | 6573 | 6445 | 6444 |
| 20° | 6505 | 6350 | 6353 |
| 25° | 6443 | 6251 | 6274 |
| 30° | 6356 | 6146 | 6167 |
| 35° | 6271 | 6032 | 6066 |
| 40° | 6191 | 5906 | 5941 |
| 45° | 6085 | 5787 | 5830 |
| 50° | 5954 | 5631 | 5681 |
| 55° | 5798 | 5439 | 5526 |
| 60° | 5581 | 5206 | 5298 |
| 65° | 5295 | 4892 | 5029 |
| 70° | 4806 | 4544 | 4726 |
| 75° | 4123 | 4032 | 4318 |
| 80° | 3131 | 3427 | 3798 |
| 85° | 1730 | 2812 | 3370 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 109.2  | 2.7       |
| 10°-20°   | 316.0  | 7.8       |
| 20°-30°   | 486.1  | 12.0      |
| 30°-40°   | 598.6  | 14.8      |
| 40°-50°   | 639.9  | 15.8      |
| 50°-60°   | 603.1  | 14.9      |
| 60°-70°   | 489.3  | 12.1      |
| 70°-80°   | 316.7  | 7.8       |
| 80°-90°   | 144.7  | 3.6       |
| 90°-100°  | 89.4   | 2.2       |
| 100°-110° | 79.3   | 2.0       |
| 110°-120° | 65.4   | 1.6       |
| 120°-130° | 49.6   | 1.2       |
| 130°-140° | 33.6   | 0.8       |
| 140°-150° | 19.2   | 0.5       |
| 150°-160° | 8.2    | 0.2       |
| 160°-170° | 1.9    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 911.4  | 22.5      |
| 0°-40°    | 1509.9 | 37.3      |
| 0°-60°    | 2753.0 | 68.0      |
| 0°-90°    | 3703.5 | 91.4      |
| 90°-120°  | 234.1  | 5.8       |
| 90°-150°  | 336.4  | 8.3       |
| 90°-180°  | 346.0  | 8.5       |
| 0°-180°   | 4050.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1150 | 1150  | 1150 | 1150  | 1150 |      |
| 5°   | 1143 | 1145  | 1149 | 1150  | 1150 | 109  |
| 15°  | 1102 | 1109  | 1122 | 1129  | 1130 | 311  |
| 25°  | 1024 | 1037  | 1059 | 1070  | 1076 | 472  |
| 35°  | 911  | 935   | 962  | 980   | 985  | 570  |
| 45°  | 774  | 804   | 838  | 857   | 865  | 597  |
| 55°  | 611  | 644   | 684  | 708   | 718  | 545  |
| 65°  | 425  | 460   | 503  | 533   | 540  | 419  |
| 75°  | 218  | 260   | 309  | 338   | 353  | 231  |
| 85°  | 41   | 85    | 136  | 169   | 180  | 51   |
| 90°  | 1    | 45    | 97   | 131   | 142  | 2    |
| 95°  | 1    | 42    | 92   | 125   | 136  | 0    |
| 105° | 1    | 37    | 84   | 116   | 127  | 0    |
| 115° | 1    | 31    | 73   | 102   | 112  | 1    |
| 125° | 1    | 25    | 62   | 87    | 96   | 1    |
| 135° | 1    | 18    | 48   | 69    | 77   | 1    |
| 145° | 1    | 10    | 33   | 50    | 55   | 1    |
| 155° | 1    | 4     | 18   | 30    | 33   | 0    |
| 165° | 2    | 1     | 5    | 10    | 12   | 0    |
| 175° | 0    | 0     | 0    | 0     | 0    | 0    |
| 180° | 0    | 0     | 0    | 0     | 0    | 0    |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 22.5°  | 25°    | 30°    | 35°    | 40°    | 45°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1150.5 | 1150.5 | 1150.5 | 1150.5 | 1150.5 | 1150.5 | 1150.5 | 1150.5 | 1150.5 | 1150.5 | 1150.5 |
| 2.5°   | 1145.5 | 1146.3 | 1146.3 | 1146.3 | 1147.2 | 1148.0 | 1148.8 | 1150.5 | 1151.3 | 1152.2 | 1152.2 |
| 5°     | 1143.0 | 1143.0 | 1143.0 | 1143.0 | 1143.8 | 1144.7 | 1146.3 | 1147.2 | 1148.0 | 1148.8 | 1148.8 |
| 7.5°   | 1136.3 | 1137.2 | 1137.2 | 1137.2 | 1138.0 | 1138.8 | 1139.7 | 1142.2 | 1143.8 | 1144.7 | 1145.5 |
| 10°    | 1127.1 | 1128.8 | 1128.8 | 1128.8 | 1129.6 | 1131.3 | 1132.2 | 1134.7 | 1137.2 | 1138.8 | 1139.7 |
| 12.5°  | 1116.3 | 1116.3 | 1117.1 | 1117.1 | 1119.6 | 1120.5 | 1123.0 | 1126.3 | 1128.0 | 1130.5 | 1132.2 |
| 15°    | 1102.1 | 1103.0 | 1103.0 | 1103.8 | 1107.1 | 1108.8 | 1110.5 | 1113.8 | 1118.0 | 1119.6 | 1122.1 |
| 17.5°  | 1085.5 | 1086.3 | 1088.0 | 1088.8 | 1092.1 | 1094.6 | 1096.3 | 1100.5 | 1104.6 | 1107.1 | 1108.8 |
| 20°    | 1066.3 | 1068.0 | 1068.8 | 1071.3 | 1075.5 | 1078.0 | 1079.6 | 1084.6 | 1088.8 | 1091.3 | 1094.6 |
| 22.5°  | 1047.1 | 1047.1 | 1048.8 | 1052.1 | 1056.3 | 1059.6 | 1062.1 | 1066.3 | 1071.3 | 1073.8 | 1078.0 |
| 25°    | 1023.8 | 1023.8 | 1026.3 | 1030.4 | 1034.6 | 1037.1 | 1039.6 | 1045.4 | 1051.3 | 1055.5 | 1058.8 |
| 27.5°  | 997.9  | 998.8  | 1002.1 | 1006.3 | 1011.3 | 1015.4 | 1017.1 | 1023.8 | 1028.8 | 1034.6 | 1038.8 |
| 30°    | 970.4  | 972.9  | 976.3  | 980.4  | 987.1  | 990.4  | 993.8  | 999.6  | 1005.4 | 1011.3 | 1014.6 |
| 32.5°  | 941.2  | 942.9  | 948.7  | 952.9  | 959.6  | 963.7  | 967.1  | 973.7  | 979.6  | 984.6  | 988.8  |
| 35°    | 911.2  | 912.9  | 917.9  | 923.7  | 931.2  | 934.6  | 937.1  | 945.4  | 952.9  | 957.9  | 962.1  |
| 37.5°  | 878.7  | 882.0  | 886.2  | 892.0  | 901.2  | 904.6  | 907.9  | 915.4  | 922.9  | 927.9  | 934.6  |
| 40°    | 847.0  | 847.9  | 852.9  | 861.2  | 868.7  | 871.2  | 876.2  | 885.4  | 891.2  | 897.9  | 902.1  |
| 42.5°  | 812.0  | 812.8  | 817.8  | 826.2  | 833.7  | 838.7  | 843.7  | 852.0  | 858.7  | 865.4  | 871.2  |
| 45°    | 774.5  | 777.0  | 782.0  | 790.3  | 797.8  | 803.7  | 807.8  | 817.0  | 824.5  | 830.4  | 837.9  |
| 47.5°  | 734.5  | 737.8  | 743.7  | 752.0  | 760.3  | 766.2  | 770.3  | 778.7  | 787.8  | 794.5  | 801.2  |
| 50°    | 695.3  | 699.5  | 704.5  | 713.6  | 722.0  | 727.8  | 731.1  | 740.3  | 748.7  | 757.0  | 764.5  |
| 52.5°  | 653.6  | 656.9  | 663.6  | 672.8  | 681.1  | 687.0  | 690.3  | 701.1  | 710.3  | 717.0  | 723.6  |
| 55°    | 611.1  | 614.4  | 621.1  | 629.4  | 639.4  | 643.6  | 648.6  | 659.4  | 667.8  | 676.1  | 683.6  |
| 57.5°  | 566.1  | 570.2  | 576.9  | 586.1  | 595.3  | 599.4  | 604.4  | 614.4  | 625.3  | 632.8  | 639.4  |
| 60°    | 520.2  | 522.7  | 529.4  | 540.2  | 548.6  | 553.6  | 559.4  | 568.6  | 579.4  | 587.8  | 596.9  |
| 62.5°  | 473.5  | 476.0  | 482.7  | 493.5  | 503.5  | 506.9  | 513.6  | 524.4  | 532.7  | 543.6  | 550.2  |
| 65°    | 425.2  | 428.5  | 435.2  | 442.7  | 455.2  | 460.2  | 465.2  | 476.0  | 485.2  | 494.4  | 502.7  |
| 67.5°  | 374.3  | 376.0  | 386.0  | 395.2  | 403.5  | 411.0  | 416.8  | 427.7  | 437.7  | 447.7  | 457.7  |
| 70°    | 321.0  | 325.1  | 333.5  | 344.3  | 354.3  | 361.0  | 365.2  | 377.7  | 388.5  | 401.0  | 409.3  |
| 72.5°  | 270.1  | 276.0  | 284.3  | 293.5  | 303.5  | 311.8  | 316.8  | 327.6  | 338.5  | 349.3  | 359.3  |
| 75°    | 217.6  | 224.3  | 233.4  | 243.4  | 254.3  | 260.1  | 268.4  | 279.3  | 290.1  | 300.1  | 309.3  |
| 77.5°  | 168.4  | 172.6  | 184.2  | 194.2  | 207.6  | 212.6  | 217.6  | 230.1  | 240.9  | 251.8  | 262.6  |
| 80°    | 120.1  | 125.1  | 135.1  | 146.7  | 159.2  | 164.2  | 170.9  | 182.6  | 194.2  | 205.1  | 215.1  |
| 82.5°  | 77.5   | 82.5   | 90.9   | 102.5  | 115.0  | 120.9  | 127.6  | 139.2  | 151.7  | 162.6  | 172.6  |
| 85°    | 40.9   | 45.0   | 54.2   | 65.9   | 78.4   | 85.0   | 90.0   | 103.4  | 113.4  | 126.7  | 135.9  |
| 87.5°  | 15.0   | 18.3   | 26.7   | 40.0   | 51.7   | 59.2   | 64.2   | 76.7   | 88.4   | 99.2   | 110.0  |
| 90°    | 0.8    | 5.8    | 15.0   | 26.7   | 39.2   | 45.0   | 51.7   | 64.2   | 75.9   | 86.7   | 96.7   |
| 92.5°  | 0.0    | 4.2    | 13.3   | 24.2   | 36.7   | 43.4   | 49.2   | 60.9   | 72.5   | 83.4   | 93.4   |
| 95°    | 0.8    | 4.2    | 12.5   | 23.3   | 35.8   | 41.7   | 48.4   | 60.0   | 70.9   | 81.7   | 91.7   |
| 97.5°  | 0.0    | 3.3    | 11.7   | 22.5   | 34.2   | 40.9   | 46.7   | 58.4   | 70.0   | 80.0   | 90.0   |
| 100°   | 0.8    | 3.3    | 10.8   | 21.7   | 33.3   | 39.2   | 45.0   | 56.7   | 68.4   | 78.4   | 88.4   |
| 102.5° | 0.0    | 3.3    | 10.8   | 20.8   | 32.5   | 38.3   | 44.2   | 55.0   | 65.9   | 76.7   | 85.9   |
| 105°   | 0.8    | 2.5    | 10.0   | 20.0   | 30.8   | 36.7   | 42.5   | 53.4   | 64.2   | 74.2   | 84.2   |
| 107.5° | 0.0    | 2.5    | 9.2    | 19.2   | 30.0   | 35.0   | 40.9   | 51.7   | 62.5   | 72.5   | 81.7   |
| 110°   | 0.8    | 2.5    | 9.2    | 18.3   | 28.3   | 34.2   | 39.2   | 50.0   | 60.0   | 70.0   | 79.2   |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 5°  | 10° | 15°  | 20°  | 22.5° | 25°  | 30°  | 35°  | 40°  | 45°  |
|--------|-----|-----|-----|------|------|-------|------|------|------|------|------|
| 112.5° | 0.8 | 1.7 | 8.3 | 17.5 | 27.5 | 32.5  | 37.5 | 48.4 | 58.4 | 67.5 | 76.7 |
| 115°   | 0.8 | 1.7 | 7.5 | 16.7 | 25.8 | 30.8  | 35.8 | 45.9 | 55.9 | 65.0 | 73.4 |
| 117.5° | 0.8 | 1.7 | 7.5 | 15.0 | 25.0 | 29.2  | 34.2 | 44.2 | 53.4 | 62.5 | 70.9 |
| 120°   | 0.8 | 1.7 | 6.7 | 14.2 | 23.3 | 27.5  | 32.5 | 41.7 | 50.9 | 60.0 | 67.5 |
| 122.5° | 0.8 | 0.8 | 5.8 | 13.3 | 21.7 | 26.7  | 30.8 | 40.0 | 48.4 | 56.7 | 65.0 |
| 125°   | 0.8 | 0.8 | 5.0 | 12.5 | 20.8 | 25.0  | 29.2 | 37.5 | 45.9 | 54.2 | 61.7 |
| 127.5° | 0.8 | 0.8 | 5.0 | 11.7 | 19.2 | 23.3  | 27.5 | 35.0 | 43.4 | 50.9 | 58.4 |
| 130°   | 0.8 | 0.8 | 4.2 | 10.0 | 17.5 | 21.7  | 25.0 | 33.3 | 40.9 | 48.4 | 55.0 |
| 132.5° | 0.8 | 0.8 | 3.3 | 9.2  | 15.8 | 20.0  | 23.3 | 30.8 | 38.3 | 45.0 | 51.7 |
| 135°   | 0.8 | 0.8 | 3.3 | 8.3  | 15.0 | 18.3  | 21.7 | 28.3 | 35.0 | 41.7 | 48.4 |
| 137.5° | 0.8 | 0.8 | 2.5 | 6.7  | 12.5 | 15.8  | 19.2 | 25.8 | 32.5 | 38.3 | 44.2 |
| 140°   | 0.8 | 0.8 | 1.7 | 5.8  | 10.8 | 14.2  | 17.5 | 23.3 | 30.0 | 35.8 | 40.9 |
| 142.5° | 0.8 | 0.8 | 1.7 | 5.0  | 10.0 | 12.5  | 15.0 | 20.8 | 26.7 | 32.5 | 37.5 |
| 145°   | 0.8 | 0.8 | 1.7 | 4.2  | 8.3  | 10.0  | 12.5 | 17.5 | 23.3 | 28.3 | 33.3 |
| 147.5° | 0.8 | 0.8 | 0.8 | 3.3  | 6.7  | 8.3   | 10.8 | 15.0 | 20.0 | 25.0 | 29.2 |
| 150°   | 0.8 | 0.8 | 0.8 | 2.5  | 5.8  | 7.5   | 9.2  | 12.5 | 16.7 | 20.8 | 25.0 |
| 152.5° | 0.8 | 0.8 | 0.8 | 1.7  | 4.2  | 5.8   | 7.5  | 10.8 | 14.2 | 17.5 | 20.8 |
| 155°   | 0.8 | 0.8 | 0.8 | 1.7  | 3.3  | 4.2   | 5.8  | 8.3  | 11.7 | 14.2 | 17.5 |
| 157.5° | 0.8 | 0.8 | 0.8 | 1.7  | 2.5  | 3.3   | 4.2  | 6.7  | 8.3  | 10.8 | 14.2 |
| 160°   | 0.8 | 0.8 | 0.8 | 0.8  | 1.7  | 2.5   | 3.3  | 4.2  | 6.7  | 8.3  | 10.0 |
| 162.5° | 1.7 | 1.7 | 0.8 | 0.8  | 1.7  | 1.7   | 2.5  | 3.3  | 4.2  | 5.8  | 7.5  |
| 165°   | 1.7 | 1.7 | 1.7 | 0.8  | 0.8  | 0.8   | 1.7  | 2.5  | 3.3  | 4.2  | 5.0  |
| 167.5° | 1.7 | 1.7 | 1.7 | 1.7  | 0.8  | 0.8   | 0.8  | 0.8  | 1.7  | 2.5  | 2.5  |
| 170°   | 1.7 | 1.7 | 1.7 | 1.7  | 0.8  | 0.8   | 0.8  | 0.8  | 0.8  | 0.8  | 1.7  |
| 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  |



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**CANDELA DISTRIBUTION (continued):**

|        | 50°    | 55°    | 60°    | 65°    | 67.5°  | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1150.5 | 1150.5 | 1150.5 | 1150.5 | 1150.5 | 1150.5 | 1150.5 | 1150.5 | 1150.5 | 1150.5 |
| 2.5°   | 1152.2 | 1152.2 | 1152.2 | 1152.2 | 1152.2 | 1152.2 | 1152.2 | 1152.2 | 1151.3 | 1151.3 |
| 5°     | 1148.8 | 1148.8 | 1149.7 | 1150.5 | 1150.5 | 1150.5 | 1150.5 | 1149.7 | 1149.7 | 1149.7 |
| 7.5°   | 1145.5 | 1147.2 | 1148.0 | 1148.0 | 1148.0 | 1148.0 | 1148.8 | 1148.8 | 1148.0 | 1148.0 |
| 10°    | 1140.5 | 1141.3 | 1143.0 | 1143.8 | 1143.8 | 1143.8 | 1143.8 | 1144.7 | 1144.7 | 1144.7 |
| 12.5°  | 1133.8 | 1134.7 | 1135.5 | 1137.2 | 1137.2 | 1138.0 | 1138.8 | 1138.0 | 1139.7 | 1138.8 |
| 15°    | 1123.0 | 1125.5 | 1127.1 | 1128.0 | 1128.8 | 1128.8 | 1129.6 | 1130.5 | 1130.5 | 1130.5 |
| 17.5°  | 1111.3 | 1113.0 | 1115.5 | 1117.1 | 1117.1 | 1118.8 | 1118.0 | 1119.6 | 1120.5 | 1119.6 |
| 20°    | 1096.3 | 1098.8 | 1101.3 | 1103.0 | 1104.6 | 1104.6 | 1105.5 | 1106.3 | 1106.3 | 1106.3 |
| 22.5°  | 1080.5 | 1083.0 | 1085.5 | 1088.0 | 1088.8 | 1089.6 | 1091.3 | 1092.1 | 1092.1 | 1093.0 |
| 25°    | 1061.3 | 1064.6 | 1068.0 | 1069.6 | 1070.5 | 1072.1 | 1073.0 | 1073.8 | 1074.6 | 1076.3 |
| 27.5°  | 1041.3 | 1044.6 | 1047.9 | 1050.4 | 1050.4 | 1052.9 | 1054.6 | 1055.5 | 1055.5 | 1055.5 |
| 30°    | 1018.8 | 1022.1 | 1024.6 | 1028.8 | 1028.8 | 1029.6 | 1031.3 | 1033.8 | 1032.9 | 1033.8 |
| 32.5°  | 993.8  | 997.9  | 1001.3 | 1002.9 | 1005.4 | 1007.1 | 1007.1 | 1009.6 | 1011.3 | 1009.6 |
| 35°    | 967.1  | 971.2  | 975.4  | 977.9  | 980.4  | 980.4  | 983.8  | 983.8  | 985.4  | 985.4  |
| 37.5°  | 939.6  | 942.9  | 947.1  | 949.6  | 952.1  | 954.6  | 956.2  | 956.2  | 957.1  | 957.9  |
| 40°    | 907.9  | 912.1  | 917.9  | 922.1  | 922.9  | 923.7  | 926.2  | 927.1  | 928.7  | 927.1  |
| 42.5°  | 876.2  | 881.2  | 886.2  | 890.4  | 890.4  | 892.9  | 894.5  | 896.2  | 897.0  | 896.2  |
| 45°    | 842.0  | 848.7  | 852.0  | 857.0  | 857.0  | 859.5  | 861.2  | 864.5  | 865.4  | 865.4  |
| 47.5°  | 806.2  | 812.0  | 817.8  | 822.9  | 822.9  | 825.4  | 826.2  | 828.7  | 829.5  | 832.0  |
| 50°    | 770.3  | 776.2  | 780.3  | 786.2  | 787.0  | 788.7  | 791.2  | 792.8  | 793.7  | 793.7  |
| 52.5°  | 732.0  | 737.0  | 742.0  | 746.2  | 749.5  | 749.5  | 753.7  | 754.5  | 755.3  | 758.7  |
| 55°    | 691.1  | 697.0  | 702.0  | 707.8  | 707.8  | 709.5  | 712.0  | 713.6  | 716.1  | 717.8  |
| 57.5°  | 647.8  | 653.6  | 661.1  | 663.6  | 667.0  | 668.6  | 672.0  | 672.8  | 673.6  | 675.3  |
| 60°    | 603.6  | 610.3  | 615.3  | 620.3  | 622.8  | 624.4  | 626.9  | 629.4  | 631.1  | 631.1  |
| 62.5°  | 559.4  | 563.6  | 571.1  | 576.9  | 578.6  | 581.9  | 583.6  | 585.3  | 586.9  | 587.8  |
| 65°    | 511.9  | 518.6  | 526.1  | 530.2  | 532.7  | 532.7  | 536.9  | 540.2  | 539.4  | 540.2  |
| 67.5°  | 464.4  | 471.9  | 476.9  | 482.7  | 485.2  | 487.7  | 491.9  | 492.7  | 495.2  | 496.0  |
| 70°    | 415.2  | 424.3  | 430.2  | 434.4  | 438.5  | 437.7  | 443.5  | 444.4  | 446.9  | 448.5  |
| 72.5°  | 367.7  | 374.3  | 382.7  | 386.8  | 389.3  | 391.0  | 394.3  | 396.8  | 396.8  | 398.5  |
| 75°    | 318.5  | 325.1  | 331.8  | 338.5  | 338.5  | 343.5  | 346.8  | 350.1  | 350.1  | 352.7  |
| 77.5°  | 269.3  | 279.3  | 286.0  | 290.1  | 293.5  | 296.0  | 298.5  | 302.6  | 301.8  | 302.6  |
| 80°    | 222.6  | 230.9  | 237.6  | 244.3  | 246.8  | 249.3  | 251.8  | 255.1  | 256.8  | 257.6  |
| 82.5°  | 180.1  | 188.4  | 195.9  | 201.8  | 204.3  | 207.6  | 211.8  | 214.3  | 215.1  | 217.6  |
| 85°    | 144.2  | 152.6  | 160.1  | 166.7  | 169.2  | 170.9  | 175.1  | 177.6  | 179.2  | 180.1  |
| 87.5°  | 119.2  | 127.6  | 135.1  | 140.9  | 143.4  | 145.9  | 150.1  | 152.6  | 155.1  | 155.1  |
| 90°    | 105.9  | 114.2  | 121.7  | 127.6  | 130.9  | 133.4  | 137.6  | 140.1  | 141.7  | 141.7  |
| 92.5°  | 102.5  | 110.0  | 117.6  | 123.4  | 126.7  | 129.2  | 132.6  | 135.1  | 137.6  | 137.6  |
| 95°    | 100.9  | 109.2  | 115.9  | 121.7  | 125.1  | 127.6  | 130.9  | 134.2  | 135.9  | 135.9  |
| 97.5°  | 99.2   | 107.5  | 114.2  | 120.1  | 123.4  | 125.9  | 129.2  | 131.7  | 133.4  | 134.2  |
| 100°   | 96.7   | 105.0  | 112.5  | 118.4  | 120.9  | 123.4  | 127.6  | 130.1  | 131.7  | 131.7  |
| 102.5° | 95.0   | 102.5  | 110.0  | 115.9  | 118.4  | 120.9  | 124.2  | 127.6  | 128.4  | 129.2  |
| 105°   | 92.5   | 100.0  | 107.5  | 113.4  | 115.9  | 118.4  | 121.7  | 124.2  | 125.9  | 126.7  |
| 107.5° | 90.0   | 97.5   | 104.2  | 110.0  | 112.5  | 115.0  | 119.2  | 121.7  | 123.4  | 123.4  |
| 110°   | 87.5   | 95.0   | 101.7  | 106.7  | 110.0  | 111.7  | 115.9  | 118.4  | 120.1  | 120.1  |





TEST NUMBER: P241579

CATALOG NUMBER: FVS8M-3-LD4-40-2STD-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

|        | 50°  | 55°  | 60°  | 65°   | 67.5° | 70°   | 75°   | 80°   | 85°   | 90°   |
|--------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 84.2 | 91.7 | 98.4 | 103.4 | 105.9 | 108.4 | 111.7 | 114.2 | 115.9 | 116.7 |
| 115°   | 81.7 | 88.4 | 95.0 | 100.0 | 102.5 | 105.0 | 108.4 | 110.9 | 112.5 | 112.5 |
| 117.5° | 78.4 | 85.0 | 90.9 | 96.7  | 99.2  | 100.9 | 104.2 | 106.7 | 108.4 | 109.2 |
| 120°   | 75.0 | 81.7 | 87.5 | 92.5  | 95.0  | 96.7  | 100.0 | 102.5 | 104.2 | 105.0 |
| 122.5° | 71.7 | 78.4 | 84.2 | 89.2  | 90.9  | 92.5  | 95.9  | 98.4  | 100.0 | 100.9 |
| 125°   | 68.4 | 74.2 | 80.0 | 85.0  | 86.7  | 88.4  | 91.7  | 94.2  | 95.0  | 95.9  |
| 127.5° | 65.0 | 70.9 | 75.9 | 80.9  | 82.5  | 84.2  | 87.5  | 89.2  | 90.9  | 91.7  |
| 130°   | 60.9 | 66.7 | 71.7 | 75.9  | 78.4  | 80.0  | 82.5  | 85.0  | 85.9  | 86.7  |
| 132.5° | 57.5 | 62.5 | 67.5 | 71.7  | 73.4  | 75.0  | 78.4  | 80.0  | 81.7  | 81.7  |
| 135°   | 53.4 | 58.4 | 63.4 | 67.5  | 69.2  | 70.9  | 73.4  | 75.0  | 75.9  | 76.7  |
| 137.5° | 50.0 | 55.0 | 59.2 | 62.5  | 64.2  | 65.9  | 68.4  | 70.0  | 70.9  | 71.7  |
| 140°   | 45.9 | 50.0 | 54.2 | 57.5  | 59.2  | 60.9  | 63.4  | 65.0  | 65.9  | 65.9  |
| 142.5° | 41.7 | 45.9 | 50.0 | 53.4  | 55.0  | 55.9  | 58.4  | 59.2  | 60.0  | 60.9  |
| 145°   | 38.3 | 41.7 | 45.0 | 48.4  | 50.0  | 50.9  | 52.5  | 54.2  | 55.0  | 55.0  |
| 147.5° | 34.2 | 37.5 | 40.9 | 43.4  | 45.0  | 45.9  | 47.5  | 49.2  | 50.0  | 50.0  |
| 150°   | 29.2 | 33.3 | 35.8 | 38.3  | 40.0  | 40.9  | 42.5  | 43.4  | 44.2  | 44.2  |
| 152.5° | 25.0 | 28.3 | 31.7 | 34.2  | 35.0  | 35.8  | 37.5  | 38.3  | 39.2  | 39.2  |
| 155°   | 20.8 | 23.3 | 26.7 | 29.2  | 30.0  | 30.8  | 31.7  | 32.5  | 33.3  | 33.3  |
| 157.5° | 16.7 | 19.2 | 21.7 | 24.2  | 25.0  | 25.8  | 26.7  | 27.5  | 27.5  | 28.3  |
| 160°   | 12.5 | 14.2 | 16.7 | 19.2  | 20.0  | 20.8  | 21.7  | 21.7  | 22.5  | 22.5  |
| 162.5° | 9.2  | 10.8 | 12.5 | 14.2  | 14.2  | 15.8  | 16.7  | 17.5  | 17.5  | 17.5  |
| 165°   | 5.8  | 7.5  | 8.3  | 9.2   | 10.0  | 10.8  | 11.7  | 11.7  | 12.5  | 12.5  |
| 167.5° | 3.3  | 4.2  | 5.0  | 5.8   | 5.8   | 6.7   | 6.7   | 7.5   | 7.5   | 7.5   |
| 170°   | 1.7  | 1.7  | 2.5  | 2.5   | 2.5   | 2.5   | 3.3   | 3.3   | 3.3   | 4.2   |
| 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)