

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: P241544

Luminaire Tested: **FVS8M-2-LD4-50-2STD-O-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241544  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-9)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS8M-2-LD4-50-2STD-O-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
2FT LENGTH, 2-MODULE LED WITH OPAL LENS  
Light Source: (84) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

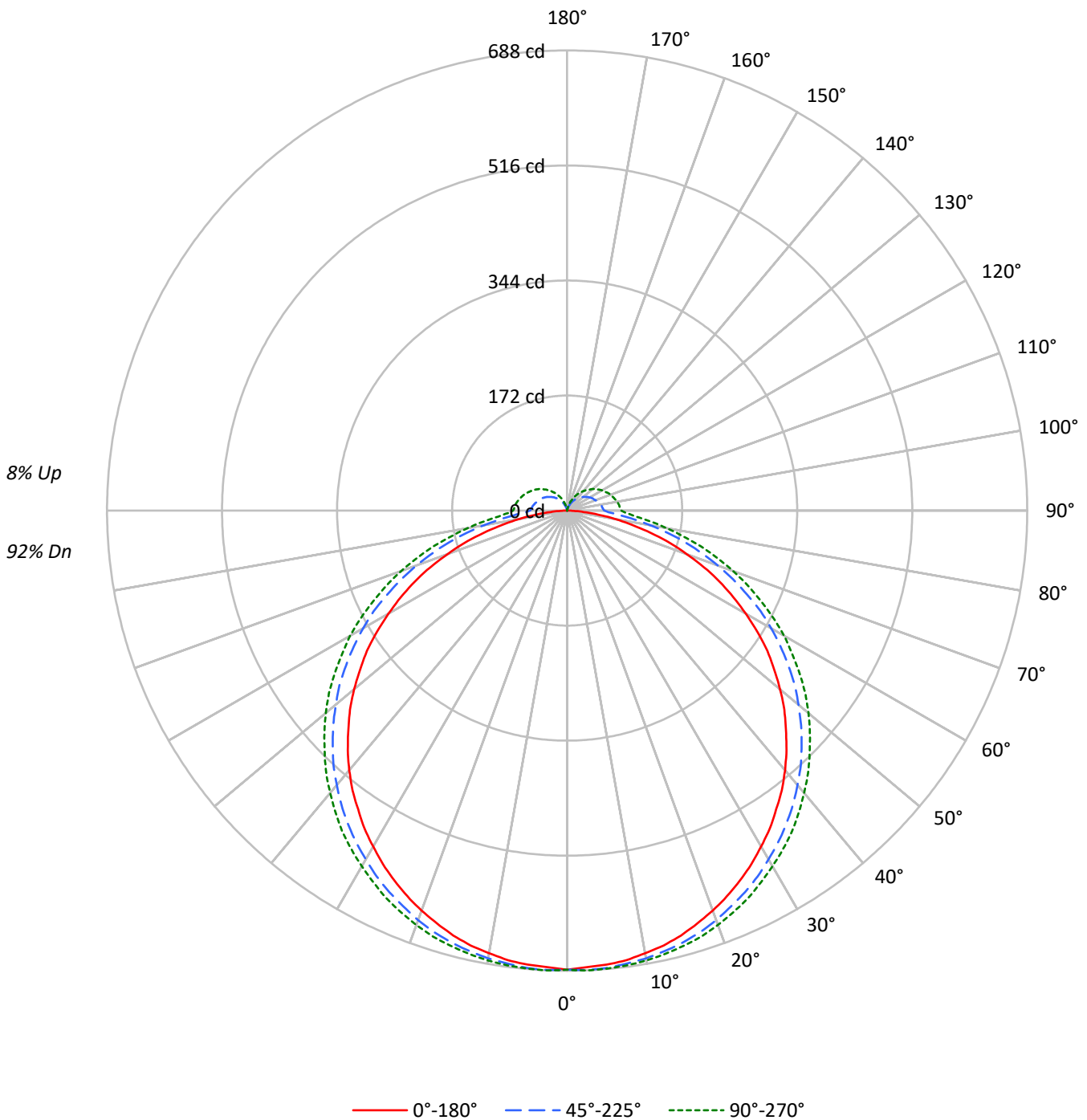
Lumens per Lamp: N/A  
Luminaire Lumens: 2395.0 lumens  
Efficiency: N/A  
Efficacy: 71.3 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.33 / 1.43  
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 33.6  
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

TEST NUMBER: P241544

CATALOG NUMBER: FVS8M-2-LD4-50-2STD-O-UNV-EDC1

### Luminous Intensity Polar Plot





TEST NUMBER: P241544

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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 | 92 |
| 1   | 106 | 101 | 96  | 92  | 102 | 98  | 93  | 89  | 92  | 88  | 85  | 86  | 84  | 81  | 81 | 79 | 77 | 74 |
| 2   | 96  | 87  | 80  | 74  | 92  | 84  | 78  | 72  | 79  | 74  | 69  | 75  | 70  | 66  | 71 | 67 | 64 | 61 |
| 3   | 87  | 76  | 67  | 61  | 84  | 74  | 66  | 60  | 70  | 63  | 57  | 66  | 60  | 55  | 62 | 57 | 53 | 51 |
| 4   | 79  | 67  | 58  | 51  | 76  | 65  | 57  | 50  | 61  | 54  | 49  | 58  | 52  | 47  | 55 | 50 | 46 | 43 |
| 5   | 73  | 60  | 50  | 44  | 70  | 58  | 49  | 43  | 55  | 47  | 42  | 52  | 46  | 41  | 49 | 44 | 39 | 37 |
| 6   | 67  | 54  | 44  | 38  | 65  | 52  | 44  | 37  | 49  | 42  | 36  | 47  | 40  | 35  | 45 | 39 | 34 | 32 |
| 7   | 62  | 48  | 39  | 33  | 60  | 47  | 39  | 33  | 45  | 37  | 32  | 43  | 36  | 31  | 41 | 35 | 30 | 28 |
| 8   | 58  | 44  | 35  | 29  | 56  | 43  | 35  | 29  | 41  | 34  | 28  | 39  | 33  | 28  | 37 | 31 | 27 | 25 |
| 9   | 54  | 40  | 32  | 26  | 52  | 39  | 31  | 26  | 38  | 31  | 26  | 36  | 30  | 25  | 34 | 29 | 24 | 22 |
| 10  | 50  | 37  | 29  | 24  | 49  | 36  | 29  | 24  | 35  | 28  | 23  | 33  | 27  | 23  | 32 | 26 | 22 | 20 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6171 | 6171 | 6171 |
| 5°  | 6106 | 6080 | 6082 |
| 10° | 6050 | 5977 | 5996 |
| 15° | 5993 | 5883 | 5912 |
| 20° | 5917 | 5780 | 5828 |
| 25° | 5843 | 5673 | 5740 |
| 30° | 5759 | 5559 | 5639 |
| 35° | 5669 | 5450 | 5552 |
| 40° | 5579 | 5325 | 5437 |
| 45° | 5451 | 5185 | 5318 |
| 50° | 5315 | 5024 | 5190 |
| 55° | 5148 | 4839 | 5027 |
| 60° | 4878 | 4617 | 4844 |
| 65° | 4574 | 4313 | 4577 |
| 70° | 4104 | 3952 | 4282 |
| 75° | 3477 | 3511 | 3901 |
| 80° | 2624 | 2939 | 3423 |
| 85° | 1341 | 2360 | 2992 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 65.2   | 2.7       |
| 10°-20°   | 188.3  | 7.9       |
| 20°-30°   | 289.3  | 12.1      |
| 30°-40°   | 355.9  | 14.9      |
| 40°-50°   | 379.9  | 15.9      |
| 50°-60°   | 357.2  | 14.9      |
| 60°-70°   | 288.8  | 12.1      |
| 70°-80°   | 186.3  | 7.8       |
| 80°-90°   | 84.1   | 3.5       |
| 90°-100°  | 51.2   | 2.1       |
| 100°-110° | 45.5   | 1.9       |
| 110°-120° | 37.7   | 1.6       |
| 120°-130° | 28.7   | 1.2       |
| 130°-140° | 19.5   | 0.8       |
| 140°-150° | 11.3   | 0.5       |
| 150°-160° | 4.9    | 0.2       |
| 160°-170° | 1.1    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 542.8  | 22.7      |
| 0°-40°    | 898.7  | 37.5      |
| 0°-60°    | 1635.8 | 68.3      |
| 0°-90°    | 2195.1 | 91.7      |
| 90°-120°  | 134.4  | 5.6       |
| 90°-150°  | 193.8  | 8.1       |
| 90°-180°  | 200.0  | 8.4       |
| 0°-180°   | 2395.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 686 | 686   | 686 | 686   | 686 |      |
| 5°   | 681 | 682   | 686 | 687   | 687 | 65   |
| 15°  | 658 | 661   | 669 | 673   | 674 | 186  |
| 25°  | 611 | 618   | 629 | 636   | 640 | 282  |
| 35°  | 545 | 556   | 572 | 582   | 586 | 341  |
| 45°  | 462 | 476   | 496 | 508   | 513 | 357  |
| 55°  | 365 | 382   | 404 | 419   | 424 | 325  |
| 65°  | 251 | 272   | 296 | 315   | 319 | 248  |
| 75°  | 130 | 154   | 182 | 200   | 207 | 138  |
| 85°  | 25  | 50    | 79  | 97    | 104 | 31   |
| 90°  | 0   | 26    | 55  | 74    | 81  | 1    |
| 95°  | 0   | 24    | 53  | 72    | 78  | 0    |
| 105° | 0   | 21    | 48  | 66    | 72  | 0    |
| 115° | 0   | 18    | 43  | 59    | 65  | 0    |
| 125° | 0   | 14    | 36  | 50    | 55  | 0    |
| 135° | 0   | 11    | 28  | 40    | 44  | 0    |
| 145° | 0   | 7     | 20  | 29    | 32  | 0    |
| 155° | 1   | 3     | 11  | 18    | 20  | 0    |
| 165° | 1   | 1     | 3   | 7     | 8   | 0    |
| 175° | 0   | 0     | 0   | 0     | 0   | 0    |
| 180° | 0   | 0     | 0   | 0     | 0   | 0    |



TEST NUMBER: P241544

CATALOG NUMBER: FVS8M-2-LD4-50-2STD-O-UNV-EDC1

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 22.5° | 25°   | 30°   | 35°   | 40°   | 45°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°     | 686.5 | 686.5 | 686.5 | 686.5 | 686.5 | 686.5 | 686.5 | 686.5 | 686.5 | 686.5 | 686.5 |
| 2.5°   | 683.1 | 683.1 | 683.1 | 683.1 | 684.0 | 684.0 | 684.8 | 685.7 | 685.7 | 686.5 | 687.4 |
| 5°     | 681.4 | 680.6 | 681.4 | 681.4 | 682.3 | 682.3 | 683.1 | 684.0 | 684.8 | 685.7 | 686.5 |
| 7.5°   | 678.0 | 677.1 | 678.0 | 678.8 | 678.8 | 679.7 | 679.7 | 680.6 | 681.4 | 682.3 | 683.1 |
| 10°    | 672.0 | 672.0 | 672.9 | 673.7 | 674.6 | 674.6 | 675.4 | 676.3 | 677.1 | 678.8 | 679.7 |
| 12.5°  | 666.1 | 665.2 | 666.1 | 666.9 | 667.8 | 668.6 | 668.6 | 670.3 | 672.0 | 672.9 | 674.6 |
| 15°    | 657.6 | 657.6 | 658.4 | 659.3 | 660.1 | 661.0 | 661.8 | 664.4 | 665.2 | 666.9 | 668.6 |
| 17.5°  | 647.3 | 648.2 | 648.2 | 649.9 | 651.6 | 652.4 | 653.3 | 655.0 | 657.6 | 658.4 | 661.0 |
| 20°    | 636.3 | 637.1 | 637.1 | 638.8 | 640.5 | 642.2 | 643.1 | 645.6 | 648.2 | 649.9 | 651.6 |
| 22.5°  | 624.3 | 624.3 | 625.2 | 627.7 | 629.4 | 630.3 | 632.0 | 634.6 | 636.3 | 638.8 | 640.5 |
| 25°    | 610.7 | 610.7 | 612.4 | 614.1 | 616.7 | 617.5 | 619.2 | 621.8 | 624.3 | 626.9 | 629.4 |
| 27.5°  | 596.2 | 596.2 | 597.9 | 600.5 | 603.0 | 603.9 | 605.6 | 609.0 | 611.6 | 614.1 | 616.7 |
| 30°    | 580.0 | 580.9 | 582.6 | 585.2 | 587.7 | 589.4 | 591.1 | 593.7 | 596.2 | 599.6 | 602.2 |
| 32.5°  | 563.9 | 563.9 | 565.6 | 568.1 | 571.5 | 573.2 | 575.8 | 578.3 | 581.7 | 585.2 | 587.7 |
| 35°    | 545.1 | 546.0 | 547.7 | 551.9 | 553.6 | 556.2 | 557.9 | 561.3 | 565.6 | 568.1 | 571.5 |
| 37.5°  | 527.2 | 528.1 | 528.9 | 532.3 | 535.8 | 538.3 | 540.0 | 543.4 | 546.8 | 550.2 | 554.5 |
| 40°    | 506.8 | 506.8 | 509.3 | 513.6 | 516.2 | 518.7 | 520.4 | 524.7 | 528.1 | 532.3 | 535.8 |
| 42.5°  | 485.5 | 485.5 | 488.9 | 491.5 | 495.7 | 498.3 | 500.0 | 504.2 | 508.5 | 512.8 | 517.0 |
| 45°    | 462.5 | 464.2 | 466.8 | 470.2 | 475.3 | 476.1 | 478.7 | 482.9 | 488.1 | 492.3 | 495.7 |
| 47.5°  | 440.4 | 441.2 | 443.8 | 448.0 | 452.3 | 455.7 | 457.4 | 460.8 | 465.9 | 471.0 | 474.4 |
| 50°    | 415.7 | 417.4 | 419.9 | 424.2 | 428.4 | 431.8 | 434.4 | 438.7 | 443.8 | 448.0 | 451.4 |
| 52.5°  | 390.1 | 391.8 | 395.2 | 400.3 | 405.4 | 407.1 | 409.7 | 414.8 | 420.8 | 424.2 | 429.3 |
| 55°    | 365.4 | 366.3 | 369.7 | 373.9 | 379.9 | 381.6 | 384.1 | 389.3 | 394.4 | 399.5 | 403.7 |
| 57.5°  | 337.3 | 338.1 | 342.4 | 347.5 | 351.8 | 355.2 | 357.7 | 363.7 | 368.8 | 373.9 | 378.2 |
| 60°    | 308.3 | 310.9 | 315.1 | 321.1 | 325.4 | 328.8 | 331.3 | 336.4 | 341.6 | 346.7 | 352.6 |
| 62.5°  | 280.2 | 281.9 | 287.0 | 291.3 | 297.3 | 299.8 | 303.2 | 309.2 | 314.3 | 319.4 | 326.2 |
| 65°    | 251.3 | 253.0 | 256.4 | 262.3 | 269.2 | 271.7 | 275.1 | 280.2 | 286.2 | 292.2 | 296.4 |
| 67.5°  | 221.5 | 224.0 | 228.3 | 232.5 | 238.5 | 241.9 | 244.5 | 252.1 | 257.2 | 263.2 | 268.3 |
| 70°    | 189.9 | 192.5 | 197.6 | 203.6 | 209.5 | 213.8 | 216.3 | 222.3 | 229.1 | 234.2 | 239.3 |
| 72.5°  | 161.8 | 161.8 | 166.9 | 173.8 | 180.6 | 184.0 | 187.4 | 194.2 | 199.3 | 203.6 | 210.4 |
| 75°    | 129.5 | 132.0 | 138.0 | 143.9 | 151.6 | 154.2 | 157.6 | 163.5 | 171.2 | 176.3 | 182.3 |
| 77.5°  | 99.7  | 104.8 | 108.2 | 114.1 | 121.8 | 125.2 | 128.6 | 134.6 | 142.2 | 148.2 | 153.3 |
| 80°    | 73.3  | 75.8  | 80.1  | 86.0  | 94.5  | 96.2  | 100.5 | 107.3 | 113.3 | 119.2 | 126.1 |
| 82.5°  | 46.8  | 49.4  | 54.5  | 60.5  | 68.1  | 71.5  | 75.0  | 81.8  | 87.7  | 94.5  | 100.5 |
| 85°    | 24.7  | 27.3  | 32.4  | 39.2  | 46.8  | 50.3  | 53.7  | 59.6  | 66.4  | 73.3  | 79.2  |
| 87.5°  | 9.4   | 11.9  | 17.0  | 23.8  | 30.7  | 34.1  | 37.5  | 44.3  | 51.1  | 57.1  | 63.0  |
| 90°    | 0.0   | 3.4   | 9.4   | 15.3  | 23.0  | 26.4  | 29.8  | 36.6  | 43.4  | 49.4  | 55.4  |
| 92.5°  | 0.0   | 2.6   | 7.7   | 13.6  | 21.3  | 24.7  | 28.1  | 34.9  | 41.7  | 47.7  | 53.7  |
| 95°    | 0.0   | 2.6   | 6.8   | 13.6  | 20.4  | 23.8  | 27.3  | 34.1  | 40.9  | 46.8  | 52.8  |
| 97.5°  | 0.0   | 2.6   | 6.8   | 12.8  | 19.6  | 23.0  | 26.4  | 33.2  | 40.0  | 46.0  | 52.0  |
| 100°   | 0.0   | 1.7   | 6.8   | 12.8  | 18.7  | 22.1  | 25.6  | 32.4  | 39.2  | 45.1  | 50.3  |
| 102.5° | 0.0   | 1.7   | 6.0   | 11.9  | 18.7  | 22.1  | 24.7  | 31.5  | 37.5  | 43.4  | 49.4  |
| 105°   | 0.0   | 1.7   | 6.0   | 11.9  | 17.9  | 21.3  | 24.7  | 30.7  | 36.6  | 42.6  | 47.7  |
| 107.5° | 0.0   | 1.7   | 6.0   | 11.1  | 17.0  | 20.4  | 23.8  | 29.8  | 35.8  | 41.7  | 46.8  |
| 110°   | 0.0   | 1.7   | 5.1   | 10.2  | 16.2  | 19.6  | 23.0  | 29.0  | 34.9  | 40.0  | 45.1  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 5°  | 10° | 15°  | 20°  | 22.5° | 25°  | 30°  | 35°  | 40°  | 45°  |
|--------|-----|-----|-----|------|------|-------|------|------|------|------|------|
| 112.5° | 0.0 | 1.7 | 5.1 | 10.2 | 16.2 | 18.7  | 22.1 | 28.1 | 33.2 | 39.2 | 43.4 |
| 115°   | 0.0 | 0.9 | 4.3 | 9.4  | 15.3 | 17.9  | 20.4 | 26.4 | 32.4 | 37.5 | 42.6 |
| 117.5° | 0.0 | 0.9 | 4.3 | 9.4  | 14.5 | 17.0  | 19.6 | 25.6 | 30.7 | 35.8 | 40.9 |
| 120°   | 0.0 | 0.9 | 4.3 | 8.5  | 13.6 | 16.2  | 18.7 | 24.7 | 29.8 | 34.1 | 39.2 |
| 122.5° | 0.0 | 0.9 | 3.4 | 7.7  | 12.8 | 15.3  | 17.9 | 23.0 | 28.1 | 33.2 | 37.5 |
| 125°   | 0.0 | 0.9 | 3.4 | 7.7  | 11.9 | 14.5  | 17.0 | 22.1 | 26.4 | 31.5 | 35.8 |
| 127.5° | 0.0 | 0.9 | 3.4 | 6.8  | 11.1 | 13.6  | 16.2 | 20.4 | 25.6 | 29.8 | 33.2 |
| 130°   | 0.0 | 0.9 | 2.6 | 6.0  | 10.2 | 12.8  | 14.5 | 19.6 | 23.8 | 28.1 | 31.5 |
| 132.5° | 0.0 | 0.9 | 2.6 | 6.0  | 9.4  | 11.9  | 13.6 | 17.9 | 22.1 | 26.4 | 29.8 |
| 135°   | 0.0 | 0.9 | 1.7 | 5.1  | 8.5  | 11.1  | 12.8 | 17.0 | 20.4 | 24.7 | 28.1 |
| 137.5° | 0.0 | 0.0 | 1.7 | 4.3  | 7.7  | 9.4   | 11.9 | 15.3 | 18.7 | 23.0 | 25.6 |
| 140°   | 0.0 | 0.0 | 1.7 | 4.3  | 6.8  | 8.5   | 10.2 | 13.6 | 17.0 | 20.4 | 23.8 |
| 142.5° | 0.0 | 0.0 | 0.9 | 3.4  | 6.0  | 7.7   | 9.4  | 12.8 | 16.2 | 18.7 | 22.1 |
| 145°   | 0.0 | 0.0 | 0.9 | 2.6  | 5.1  | 6.8   | 8.5  | 11.1 | 14.5 | 17.0 | 19.6 |
| 147.5° | 0.0 | 0.0 | 0.9 | 2.6  | 4.3  | 6.0   | 6.8  | 10.2 | 12.8 | 15.3 | 17.9 |
| 150°   | 0.0 | 0.0 | 0.9 | 1.7  | 3.4  | 4.3   | 6.0  | 8.5  | 11.1 | 13.6 | 15.3 |
| 152.5° | 0.9 | 0.0 | 0.9 | 0.9  | 2.6  | 3.4   | 4.3  | 6.8  | 9.4  | 11.1 | 13.6 |
| 155°   | 0.9 | 0.0 | 0.9 | 0.9  | 1.7  | 2.6   | 3.4  | 5.1  | 6.8  | 9.4  | 11.1 |
| 157.5° | 0.9 | 0.9 | 0.0 | 0.9  | 1.7  | 1.7   | 2.6  | 4.3  | 6.0  | 6.8  | 8.5  |
| 160°   | 0.9 | 0.9 | 0.9 | 0.9  | 0.9  | 1.7   | 1.7  | 2.6  | 4.3  | 5.1  | 6.8  |
| 162.5° | 0.9 | 0.9 | 0.9 | 0.9  | 0.9  | 0.9   | 0.9  | 1.7  | 2.6  | 3.4  | 5.1  |
| 165°   | 0.9 | 0.9 | 0.9 | 0.0  | 0.9  | 0.9   | 0.9  | 0.9  | 1.7  | 2.6  | 3.4  |
| 167.5° | 0.9 | 0.9 | 0.9 | 0.9  | 0.0  | 0.9   | 0.9  | 0.9  | 0.9  | 1.7  | 1.7  |
| 170°   | 0.9 | 0.9 | 0.9 | 0.9  | 0.0  | 0.0   | 0.0  | 0.0  | 0.9  | 0.9  | 0.9  |
| 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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CATALOG NUMBER: FVS8M-2-LD4-50-2STD-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

|        | 50°   | 55°   | 60°   | 65°   | 67.5° | 70°   | 75°   | 80°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°     | 686.5 | 686.5 | 686.5 | 686.5 | 686.5 | 686.5 | 686.5 | 686.5 | 686.5 | 686.5 |
| 2.5°   | 687.4 | 687.4 | 687.4 | 688.2 | 688.2 | 688.2 | 688.2 | 687.4 | 687.4 | 688.2 |
| 5°     | 686.5 | 686.5 | 687.4 | 687.4 | 687.4 | 687.4 | 687.4 | 687.4 | 687.4 | 687.4 |
| 7.5°   | 684.0 | 684.8 | 684.8 | 685.7 | 685.7 | 685.7 | 685.7 | 685.7 | 685.7 | 685.7 |
| 10°    | 680.6 | 681.4 | 682.3 | 682.3 | 682.3 | 683.1 | 683.1 | 683.1 | 683.1 | 683.1 |
| 12.5°  | 675.4 | 677.1 | 678.0 | 678.0 | 678.8 | 678.0 | 678.8 | 678.8 | 678.8 | 678.8 |
| 15°    | 669.5 | 671.2 | 672.0 | 672.0 | 672.9 | 672.9 | 672.9 | 673.7 | 673.7 | 673.7 |
| 17.5°  | 661.8 | 663.5 | 664.4 | 665.2 | 666.1 | 666.1 | 666.9 | 666.9 | 666.9 | 667.8 |
| 20°    | 653.3 | 655.0 | 655.9 | 657.6 | 657.6 | 657.6 | 658.4 | 658.4 | 659.3 | 659.3 |
| 22.5°  | 643.1 | 644.8 | 646.5 | 648.2 | 648.2 | 648.2 | 649.0 | 649.9 | 649.9 | 649.9 |
| 25°    | 632.0 | 632.9 | 634.6 | 636.3 | 636.3 | 637.1 | 638.8 | 638.8 | 638.8 | 639.7 |
| 27.5°  | 619.2 | 620.9 | 623.5 | 623.5 | 625.2 | 625.2 | 626.0 | 626.9 | 626.9 | 626.9 |
| 30°    | 605.6 | 607.3 | 609.9 | 610.7 | 612.4 | 612.4 | 613.3 | 614.1 | 614.1 | 614.1 |
| 32.5°  | 590.3 | 592.8 | 594.5 | 597.1 | 597.1 | 597.9 | 599.6 | 599.6 | 600.5 | 600.5 |
| 35°    | 574.9 | 577.5 | 579.2 | 580.9 | 581.7 | 582.6 | 583.5 | 584.3 | 585.2 | 586.0 |
| 37.5°  | 556.2 | 559.6 | 562.2 | 564.7 | 565.6 | 565.6 | 567.3 | 568.1 | 569.0 | 569.0 |
| 40°    | 538.3 | 541.7 | 543.4 | 546.0 | 547.7 | 547.7 | 549.4 | 550.2 | 551.1 | 551.1 |
| 42.5°  | 519.6 | 523.0 | 526.4 | 528.1 | 528.9 | 528.9 | 530.6 | 532.3 | 532.3 | 533.2 |
| 45°    | 499.1 | 503.4 | 506.8 | 508.5 | 508.5 | 509.3 | 511.1 | 512.8 | 512.8 | 512.8 |
| 47.5°  | 478.7 | 481.2 | 483.8 | 487.2 | 488.1 | 489.8 | 490.6 | 490.6 | 491.5 | 492.3 |
| 50°    | 456.5 | 459.1 | 462.5 | 465.1 | 466.8 | 467.6 | 469.3 | 469.3 | 471.0 | 471.0 |
| 52.5°  | 431.8 | 436.1 | 439.5 | 442.1 | 442.9 | 444.6 | 445.5 | 447.2 | 448.0 | 448.9 |
| 55°    | 408.0 | 411.4 | 414.8 | 417.4 | 419.1 | 419.9 | 422.5 | 423.3 | 424.2 | 424.2 |
| 57.5°  | 382.4 | 386.7 | 390.1 | 392.7 | 393.5 | 395.2 | 396.9 | 398.6 | 399.5 | 398.6 |
| 60°    | 356.9 | 361.1 | 363.7 | 366.3 | 368.8 | 369.7 | 370.5 | 373.1 | 373.9 | 374.8 |
| 62.5°  | 329.6 | 333.0 | 336.4 | 339.8 | 340.7 | 343.3 | 345.0 | 345.8 | 345.8 | 347.5 |
| 65°    | 301.5 | 305.8 | 310.0 | 312.6 | 315.1 | 316.0 | 317.7 | 318.6 | 320.3 | 319.4 |
| 67.5°  | 273.4 | 277.7 | 281.9 | 284.5 | 286.2 | 287.9 | 289.6 | 291.3 | 292.2 | 292.2 |
| 70°    | 244.5 | 249.6 | 252.1 | 256.4 | 258.1 | 258.9 | 260.6 | 262.3 | 262.3 | 264.0 |
| 72.5°  | 215.5 | 219.8 | 224.0 | 228.3 | 228.3 | 231.7 | 232.5 | 235.1 | 234.2 | 235.1 |
| 75°    | 187.4 | 190.8 | 195.1 | 197.6 | 200.2 | 201.0 | 204.4 | 205.3 | 205.3 | 207.0 |
| 77.5°  | 157.6 | 163.5 | 166.1 | 170.4 | 173.8 | 172.9 | 175.5 | 177.2 | 178.9 | 177.2 |
| 80°    | 129.5 | 135.4 | 139.7 | 142.2 | 143.9 | 145.6 | 148.2 | 148.2 | 150.8 | 150.8 |
| 82.5°  | 105.6 | 110.7 | 114.1 | 117.5 | 119.2 | 120.9 | 122.7 | 124.4 | 125.2 | 126.1 |
| 85°    | 84.3  | 87.7  | 92.0  | 96.2  | 97.1  | 98.8  | 101.4 | 102.2 | 103.9 | 103.9 |
| 87.5°  | 68.1  | 72.4  | 76.7  | 80.1  | 82.6  | 83.5  | 86.0  | 86.9  | 87.7  | 88.6  |
| 90°    | 60.5  | 64.7  | 69.0  | 73.3  | 74.1  | 75.8  | 78.4  | 79.2  | 80.9  | 80.9  |
| 92.5°  | 58.8  | 63.0  | 67.3  | 70.7  | 72.4  | 74.1  | 75.8  | 77.5  | 78.4  | 79.2  |
| 95°    | 57.9  | 62.2  | 66.4  | 69.8  | 71.5  | 73.3  | 75.0  | 76.7  | 77.5  | 78.4  |
| 97.5°  | 57.1  | 61.3  | 65.6  | 69.0  | 70.7  | 72.4  | 74.1  | 75.8  | 76.7  | 77.5  |
| 100°   | 55.4  | 60.5  | 63.9  | 68.1  | 69.0  | 70.7  | 73.3  | 75.0  | 75.8  | 75.8  |
| 102.5° | 54.5  | 58.8  | 63.0  | 66.4  | 68.1  | 69.0  | 71.5  | 73.3  | 74.1  | 74.1  |
| 105°   | 52.8  | 57.1  | 61.3  | 64.7  | 66.4  | 68.1  | 69.8  | 71.5  | 72.4  | 72.4  |
| 107.5° | 52.0  | 56.2  | 59.6  | 63.0  | 64.7  | 66.4  | 68.1  | 69.8  | 70.7  | 70.7  |
| 110°   | 50.3  | 54.5  | 57.9  | 61.3  | 63.0  | 63.9  | 66.4  | 68.1  | 69.0  | 69.0  |





TEST NUMBER: P241544

CATALOG NUMBER: FVS8M-2-LD4-50-2STD-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

|        | 50°  | 55°  | 60°  | 65°  | 67.5° | 70°  | 75°  | 80°  | 85°  | 90°  |
|--------|------|------|------|------|-------|------|------|------|------|------|
| 112.5° | 48.5 | 52.8 | 56.2 | 59.6 | 61.3  | 62.2 | 64.7 | 65.6 | 66.4 | 67.3 |
| 115°   | 46.8 | 51.1 | 54.5 | 57.9 | 58.8  | 60.5 | 62.2 | 63.9 | 64.7 | 64.7 |
| 117.5° | 45.1 | 48.5 | 52.8 | 55.4 | 57.1  | 57.9 | 59.6 | 61.3 | 62.2 | 62.2 |
| 120°   | 43.4 | 46.8 | 50.3 | 53.7 | 54.5  | 56.2 | 57.9 | 58.8 | 59.6 | 60.5 |
| 122.5° | 41.7 | 45.1 | 48.5 | 51.1 | 52.8  | 53.7 | 55.4 | 57.1 | 57.9 | 57.9 |
| 125°   | 39.2 | 42.6 | 46.0 | 48.5 | 50.3  | 51.1 | 52.8 | 54.5 | 54.5 | 55.4 |
| 127.5° | 37.5 | 40.9 | 44.3 | 46.8 | 47.7  | 48.5 | 50.3 | 52.0 | 52.8 | 52.8 |
| 130°   | 35.8 | 38.3 | 41.7 | 44.3 | 45.1  | 46.0 | 47.7 | 48.5 | 49.4 | 50.3 |
| 132.5° | 33.2 | 36.6 | 39.2 | 41.7 | 42.6  | 43.4 | 45.1 | 46.0 | 46.8 | 46.8 |
| 135°   | 31.5 | 34.1 | 36.6 | 39.2 | 40.0  | 40.9 | 42.6 | 43.4 | 44.3 | 44.3 |
| 137.5° | 29.0 | 31.5 | 34.1 | 36.6 | 37.5  | 38.3 | 39.2 | 40.9 | 40.9 | 40.9 |
| 140°   | 26.4 | 29.0 | 31.5 | 33.2 | 34.9  | 34.9 | 36.6 | 37.5 | 38.3 | 38.3 |
| 142.5° | 24.7 | 26.4 | 29.0 | 30.7 | 31.5  | 32.4 | 33.2 | 34.9 | 34.9 | 34.9 |
| 145°   | 22.1 | 24.7 | 26.4 | 28.1 | 29.0  | 29.8 | 30.7 | 31.5 | 32.4 | 32.4 |
| 147.5° | 19.6 | 22.1 | 23.8 | 25.6 | 26.4  | 26.4 | 28.1 | 28.1 | 29.0 | 29.0 |
| 150°   | 17.9 | 19.6 | 21.3 | 23.0 | 23.0  | 23.8 | 24.7 | 25.6 | 25.6 | 25.6 |
| 152.5° | 15.3 | 17.0 | 18.7 | 19.6 | 20.4  | 20.4 | 22.1 | 22.1 | 23.0 | 23.0 |
| 155°   | 12.8 | 14.5 | 16.2 | 17.0 | 17.9  | 17.9 | 18.7 | 18.7 | 19.6 | 19.6 |
| 157.5° | 10.2 | 11.9 | 13.6 | 14.5 | 14.5  | 15.3 | 15.3 | 16.2 | 16.2 | 16.2 |
| 160°   | 7.7  | 9.4  | 10.2 | 11.1 | 11.9  | 11.9 | 12.8 | 12.8 | 13.6 | 13.6 |
| 162.5° | 6.0  | 6.8  | 7.7  | 8.5  | 9.4   | 9.4  | 10.2 | 10.2 | 10.2 | 10.2 |
| 165°   | 4.3  | 4.3  | 5.1  | 6.0  | 6.8   | 6.8  | 6.8  | 6.8  | 7.7  | 7.7  |
| 167.5° | 2.6  | 2.6  | 3.4  | 3.4  | 4.3   | 4.3  | 4.3  | 4.3  | 4.3  | 4.3  |
| 170°   | 0.9  | 0.9  | 1.7  | 1.7  | 1.7   | 1.7  | 2.6  | 2.6  | 2.6  | 2.6  |
| 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)