

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: P241603

Luminaire Tested: **FVS8M-4-LD4-40-1STD-O-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241603
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-34)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-4-LD4-40-1STD-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
4FT LENGTH, 1-MODULE LED WITH OPAL LENS
Light Source: (84) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

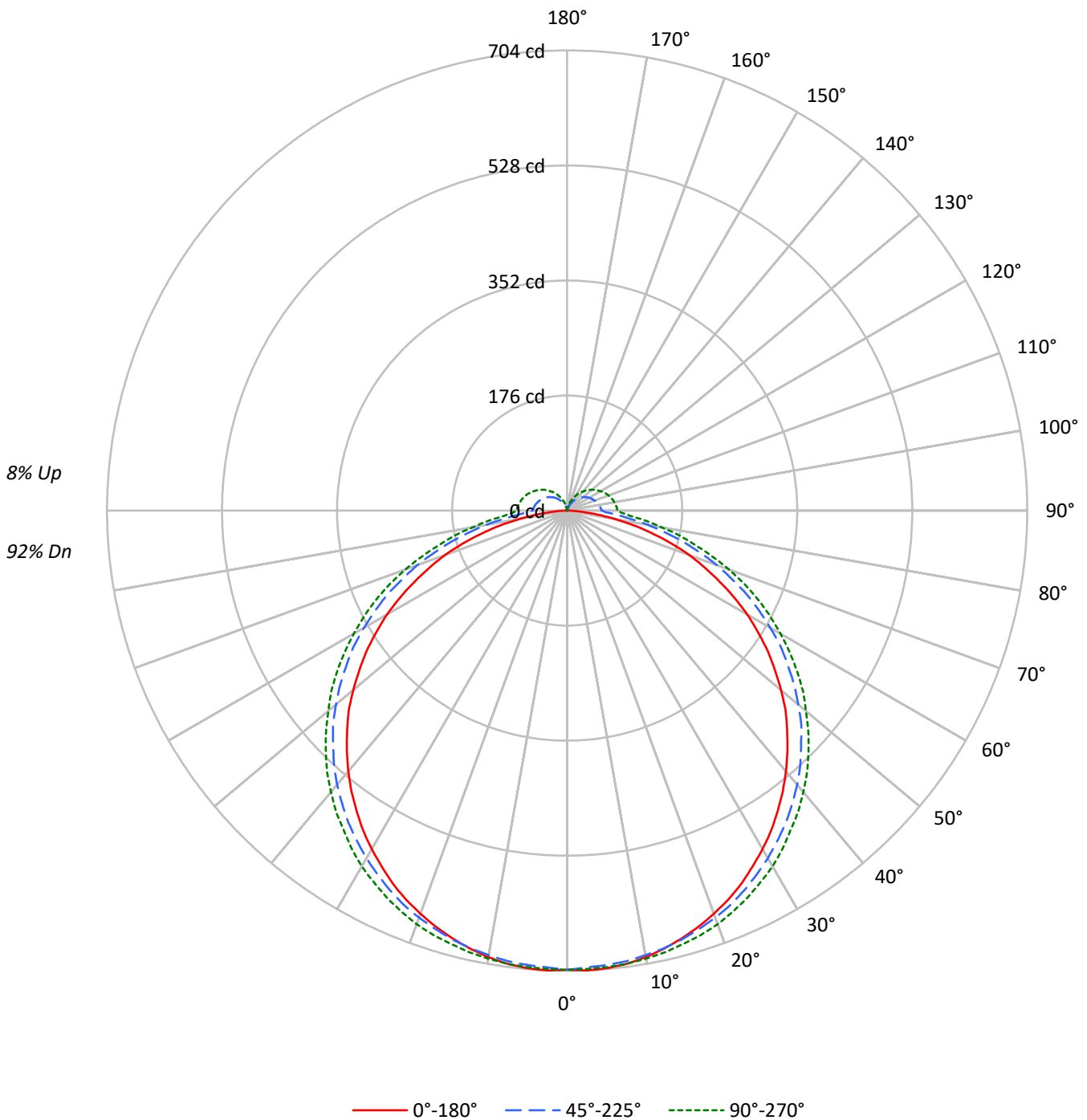
Lumens per Lamp: N/A
Luminaire Lumens: 2432.0 lumens
Efficiency: N/A
Efficacy: 72.6 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.32 / 1.43
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')
CIE Type: Direct

Input Watts (W): 33.5
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: P241603

CATALOG NUMBER: FVS8M-4-LD4-40-1STD-O-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241603

CATALOG NUMBER: FVS8M-4-LD4-40-1STD-O-UNV-EDC1

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 | 107 | 107 | 107 | 100 | 100 | 100 | 95 | 95 | 95 | 92 |
| 1 | 106 | 101 | 96 | 92 | 102 | 98 | 94 | 90 | 92 | 89 | 85 | 87 | 84 | 81 | 82 | 80 | 78 | 75 |
| 2 | 96 | 87 | 80 | 74 | 92 | 85 | 78 | 72 | 80 | 74 | 70 | 75 | 71 | 67 | 71 | 67 | 64 | 61 |
| 3 | 87 | 76 | 68 | 61 | 84 | 74 | 66 | 60 | 70 | 63 | 58 | 66 | 60 | 56 | 62 | 58 | 54 | 51 |
| 4 | 79 | 67 | 58 | 51 | 77 | 65 | 57 | 50 | 62 | 55 | 49 | 58 | 52 | 47 | 55 | 50 | 46 | 43 |
| 5 | 73 | 60 | 51 | 44 | 70 | 58 | 50 | 43 | 55 | 48 | 42 | 52 | 46 | 41 | 50 | 44 | 40 | 37 |
| 6 | 67 | 54 | 45 | 38 | 65 | 52 | 44 | 37 | 50 | 42 | 37 | 47 | 41 | 36 | 45 | 39 | 35 | 32 |
| 7 | 62 | 48 | 40 | 33 | 60 | 47 | 39 | 33 | 45 | 38 | 32 | 43 | 36 | 31 | 41 | 35 | 31 | 28 |
| 8 | 58 | 44 | 36 | 30 | 56 | 43 | 35 | 29 | 41 | 34 | 29 | 39 | 33 | 28 | 37 | 32 | 27 | 25 |
| 9 | 54 | 40 | 32 | 27 | 52 | 39 | 32 | 26 | 38 | 31 | 26 | 36 | 30 | 25 | 35 | 29 | 25 | 23 |
| 10 | 51 | 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° | 3140 | 3140 | 3140 |
| 5° | 3141 | 3080 | 3084 |
| 10° | 3127 | 3033 | 3038 |
| 15° | 3102 | 2992 | 2995 |
| 20° | 3078 | 2951 | 2960 |
| 25° | 3053 | 2907 | 2914 |
| 30° | 3017 | 2860 | 2870 |
| 35° | 2981 | 2813 | 2809 |
| 40° | 2941 | 2760 | 2757 |
| 45° | 2895 | 2694 | 2693 |
| 50° | 2839 | 2623 | 2612 |
| 55° | 2764 | 2531 | 2532 |
| 60° | 2665 | 2423 | 2422 |
| 65° | 2512 | 2286 | 2298 |
| 70° | 2348 | 2102 | 2123 |
| 75° | 2031 | 1858 | 1896 |
| 80° | 1540 | 1561 | 1650 |
| 85° | 836 | 1233 | 1408 |



TEST NUMBER: P241603

CATALOG NUMBER: FVS8M-4-LD4-40-1STD-O-UNV-EDC1

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 66.7 | 2.7 |
| 10°-20° | 192.4 | 7.9 |
| 20°-30° | 295.9 | 12.2 |
| 30°-40° | 364.0 | 15.0 |
| 40°-50° | 388.4 | 16.0 |
| 50°-60° | 364.6 | 15.0 |
| 60°-70° | 293.9 | 12.1 |
| 70°-80° | 187.3 | 7.7 |
| 80°-90° | 81.1 | 3.3 |
| 90°-100° | 49.5 | 2.0 |
| 100°-110° | 44.7 | 1.8 |
| 110°-120° | 37.3 | 1.5 |
| 120°-130° | 28.7 | 1.2 |
| 130°-140° | 19.7 | 0.8 |
| 140°-150° | 11.4 | 0.5 |
| 150°-160° | 5.0 | 0.2 |
| 160°-170° | 1.3 | 0.1 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 555.0 | 22.8 |
| 0°-40° | 919.0 | 37.8 |
| 0°-60° | 1672.0 | 68.8 |
| 0°-90° | 2234.3 | 91.9 |
| 90°-120° | 131.5 | 5.4 |
| 90°-150° | 191.3 | 7.9 |
| 90°-180° | 198.0 | 8.1 |
| 0°-180° | 2432.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 703 | 703 | 703 | 703 | 703 | |
| 5° | 703 | 701 | 698 | 701 | 701 | 67 |
| 15° | 678 | 678 | 679 | 686 | 686 | 191 |
| 25° | 630 | 634 | 641 | 651 | 653 | 290 |
| 35° | 561 | 570 | 583 | 594 | 596 | 351 |
| 45° | 476 | 490 | 506 | 518 | 522 | 367 |
| 55° | 374 | 392 | 412 | 426 | 430 | 334 |
| 65° | 258 | 279 | 303 | 318 | 322 | 255 |
| 75° | 135 | 157 | 183 | 199 | 202 | 143 |
| 85° | 24 | 48 | 76 | 93 | 98 | 30 |
| 90° | 0 | 24 | 53 | 71 | 76 | 1 |
| 95° | 0 | 24 | 51 | 69 | 76 | 0 |
| 105° | 0 | 21 | 47 | 65 | 71 | 0 |
| 115° | 0 | 19 | 42 | 58 | 63 | 0 |
| 125° | 0 | 15 | 36 | 50 | 54 | 0 |
| 135° | 1 | 11 | 28 | 40 | 44 | 0 |
| 145° | 1 | 7 | 20 | 29 | 32 | 1 |
| 155° | 1 | 3 | 11 | 18 | 20 | 0 |
| 165° | 1 | 1 | 4 | 6 | 9 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P241603

CATALOG NUMBER: FVS8M-4-LD4-40-1STD-O-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 702.6 | 702.6 | 702.6 | 702.6 | 702.6 | 702.6 | 702.6 | 702.6 | 702.6 | 702.6 | 702.6 |
| 2.5° | 704.3 | 703.4 | 703.4 | 703.4 | 703.4 | 703.4 | 703.4 | 703.4 | 701.8 | 701.0 | 699.4 |
| 5° | 702.6 | 701.8 | 701.0 | 701.0 | 701.0 | 701.0 | 701.0 | 701.0 | 700.2 | 698.6 | 697.8 |
| 7.5° | 699.4 | 698.6 | 697.8 | 697.8 | 697.8 | 697.8 | 698.6 | 697.8 | 697.0 | 695.3 | 695.3 |
| 10° | 693.7 | 692.9 | 692.1 | 692.1 | 692.9 | 692.9 | 692.9 | 692.9 | 692.1 | 691.3 | 690.5 |
| 12.5° | 686.4 | 686.4 | 685.6 | 685.6 | 685.6 | 686.4 | 686.4 | 687.2 | 686.4 | 685.6 | 685.6 |
| 15° | 677.5 | 677.5 | 676.6 | 676.6 | 677.5 | 678.3 | 678.3 | 679.9 | 679.1 | 679.1 | 679.1 |
| 17.5° | 667.7 | 666.9 | 666.9 | 666.9 | 668.5 | 669.3 | 669.3 | 670.1 | 671.0 | 671.0 | 671.0 |
| 20° | 656.3 | 656.3 | 655.5 | 657.1 | 658.0 | 658.8 | 659.6 | 660.4 | 661.2 | 661.2 | 662.8 |
| 22.5° | 644.2 | 643.3 | 643.3 | 644.2 | 645.8 | 646.6 | 648.2 | 649.8 | 649.8 | 650.7 | 653.1 |
| 25° | 630.3 | 629.5 | 628.7 | 630.3 | 632.0 | 633.6 | 635.2 | 636.8 | 637.7 | 639.3 | 640.9 |
| 27.5° | 614.1 | 614.1 | 614.9 | 615.7 | 618.2 | 619.8 | 621.4 | 623.0 | 624.7 | 626.3 | 627.9 |
| 30° | 597.9 | 597.9 | 597.9 | 599.5 | 602.7 | 605.2 | 606.0 | 608.4 | 609.2 | 611.7 | 614.1 |
| 32.5° | 580.8 | 579.2 | 580.8 | 583.2 | 586.5 | 588.1 | 589.7 | 592.2 | 593.8 | 596.2 | 598.7 |
| 35° | 561.3 | 561.3 | 562.1 | 564.5 | 568.6 | 570.2 | 571.9 | 575.9 | 577.5 | 580.0 | 583.2 |
| 37.5° | 541.8 | 541.0 | 542.6 | 545.9 | 549.9 | 551.6 | 554.0 | 556.4 | 558.9 | 562.1 | 565.4 |
| 40° | 520.7 | 520.7 | 522.3 | 526.4 | 529.6 | 532.1 | 533.7 | 537.7 | 540.2 | 543.4 | 547.5 |
| 42.5° | 498.8 | 499.6 | 501.2 | 504.4 | 509.3 | 511.7 | 514.2 | 517.4 | 520.7 | 523.9 | 528.0 |
| 45° | 476.0 | 475.2 | 478.4 | 482.5 | 487.4 | 489.8 | 492.3 | 496.3 | 499.6 | 503.6 | 506.1 |
| 47.5° | 453.3 | 450.8 | 454.9 | 458.1 | 463.8 | 467.9 | 468.7 | 473.6 | 477.6 | 481.7 | 485.8 |
| 50° | 427.3 | 427.3 | 431.3 | 434.6 | 441.1 | 442.7 | 445.1 | 450.0 | 454.1 | 458.9 | 461.4 |
| 52.5° | 400.5 | 400.5 | 404.5 | 410.2 | 415.9 | 418.3 | 420.8 | 426.5 | 430.5 | 433.8 | 437.8 |
| 55° | 374.5 | 375.3 | 378.5 | 383.4 | 389.9 | 391.5 | 395.6 | 399.7 | 404.5 | 408.6 | 411.8 |
| 57.5° | 346.0 | 347.7 | 350.9 | 355.8 | 363.1 | 364.7 | 368.8 | 374.5 | 377.7 | 382.6 | 387.5 |
| 60° | 318.4 | 319.2 | 323.3 | 330.6 | 335.5 | 337.1 | 340.4 | 346.0 | 350.9 | 354.2 | 359.0 |
| 62.5° | 288.4 | 290.8 | 294.1 | 300.6 | 305.4 | 309.5 | 311.1 | 316.8 | 322.5 | 326.5 | 330.6 |
| 65° | 257.5 | 260.7 | 264.0 | 269.7 | 276.2 | 279.4 | 282.7 | 287.6 | 294.1 | 298.1 | 303.0 |
| 67.5° | 227.4 | 229.9 | 233.9 | 240.4 | 245.3 | 249.4 | 251.0 | 258.3 | 262.4 | 268.1 | 272.1 |
| 70° | 199.0 | 200.6 | 203.9 | 209.6 | 215.3 | 218.5 | 222.6 | 227.4 | 233.9 | 239.6 | 243.7 |
| 72.5° | 166.5 | 167.3 | 171.4 | 177.1 | 184.4 | 187.6 | 190.1 | 198.2 | 203.1 | 208.8 | 212.0 |
| 75° | 134.8 | 136.5 | 140.5 | 146.2 | 153.5 | 156.8 | 160.0 | 167.3 | 173.0 | 177.9 | 182.8 |
| 77.5° | 104.8 | 104.8 | 109.7 | 117.0 | 123.5 | 126.7 | 129.2 | 137.3 | 142.2 | 147.8 | 152.7 |
| 80° | 73.1 | 75.5 | 81.2 | 86.9 | 94.2 | 98.3 | 101.5 | 106.4 | 112.9 | 119.4 | 125.1 |
| 82.5° | 47.1 | 48.7 | 53.6 | 60.9 | 67.4 | 70.7 | 74.7 | 80.4 | 86.9 | 93.4 | 98.3 |
| 85° | 23.6 | 26.8 | 30.9 | 37.4 | 44.7 | 47.9 | 51.2 | 57.7 | 64.2 | 69.9 | 75.5 |
| 87.5° | 7.3 | 9.7 | 14.6 | 21.1 | 28.4 | 31.7 | 34.9 | 41.4 | 47.9 | 53.6 | 59.3 |
| 90° | 0.0 | 2.4 | 8.1 | 13.8 | 21.1 | 24.4 | 27.6 | 34.9 | 41.4 | 47.1 | 52.8 |
| 92.5° | 0.0 | 2.4 | 7.3 | 13.8 | 20.3 | 24.4 | 27.6 | 34.1 | 40.6 | 46.3 | 52.0 |
| 95° | 0.0 | 2.4 | 7.3 | 13.0 | 20.3 | 23.6 | 26.8 | 33.3 | 39.8 | 45.5 | 51.2 |
| 97.5° | 0.0 | 2.4 | 6.5 | 13.0 | 19.5 | 22.7 | 26.0 | 33.3 | 39.0 | 44.7 | 50.4 |
| 100° | 0.0 | 1.6 | 6.5 | 13.0 | 19.5 | 22.7 | 26.0 | 32.5 | 38.2 | 43.9 | 49.6 |
| 102.5° | 0.0 | 1.6 | 6.5 | 12.2 | 18.7 | 21.9 | 25.2 | 31.7 | 37.4 | 43.1 | 48.7 |
| 105° | 0.0 | 1.6 | 6.5 | 12.2 | 17.9 | 21.1 | 24.4 | 30.9 | 36.6 | 42.2 | 47.1 |
| 107.5° | 0.0 | 1.6 | 5.7 | 11.4 | 17.9 | 20.3 | 23.6 | 30.1 | 35.7 | 40.6 | 46.3 |
| 110° | 0.0 | 1.6 | 5.7 | 11.4 | 17.1 | 20.3 | 22.7 | 28.4 | 34.1 | 39.8 | 44.7 |



TEST NUMBER: P241603

CATALOG NUMBER: FVS8M-4-LD4-40-1STD-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|--------|-----|-----|-----|------|------|-------|------|------|------|------|------|
| 112.5° | 0.0 | 1.6 | 5.7 | 10.6 | 16.2 | 19.5 | 21.9 | 27.6 | 33.3 | 38.2 | 43.1 |
| 115° | 0.0 | 1.6 | 4.9 | 9.7 | 15.4 | 18.7 | 21.1 | 26.8 | 32.5 | 37.4 | 42.2 |
| 117.5° | 0.0 | 0.8 | 4.9 | 9.7 | 14.6 | 17.9 | 20.3 | 26.0 | 30.9 | 35.7 | 40.6 |
| 120° | 0.0 | 0.8 | 4.9 | 8.9 | 14.6 | 17.1 | 19.5 | 24.4 | 30.1 | 34.9 | 39.0 |
| 122.5° | 0.0 | 0.8 | 4.1 | 8.9 | 13.0 | 16.2 | 18.7 | 23.6 | 28.4 | 33.3 | 37.4 |
| 125° | 0.0 | 0.8 | 4.1 | 8.1 | 13.0 | 15.4 | 17.9 | 22.7 | 26.8 | 31.7 | 35.7 |
| 127.5° | 0.0 | 0.8 | 4.1 | 7.3 | 12.2 | 14.6 | 16.2 | 21.1 | 26.0 | 30.1 | 34.1 |
| 130° | 0.0 | 0.8 | 3.2 | 7.3 | 11.4 | 13.0 | 15.4 | 20.3 | 24.4 | 28.4 | 31.7 |
| 132.5° | 0.0 | 0.8 | 2.4 | 6.5 | 10.6 | 12.2 | 14.6 | 18.7 | 22.7 | 26.8 | 30.1 |
| 135° | 0.8 | 0.8 | 2.4 | 5.7 | 8.9 | 11.4 | 13.0 | 17.1 | 21.1 | 25.2 | 28.4 |
| 137.5° | 0.8 | 0.8 | 2.4 | 4.9 | 8.1 | 9.7 | 12.2 | 15.4 | 19.5 | 22.7 | 26.0 |
| 140° | 0.8 | 0.8 | 1.6 | 4.1 | 7.3 | 8.9 | 10.6 | 13.8 | 17.1 | 20.3 | 24.4 |
| 142.5° | 0.8 | 0.8 | 1.6 | 4.1 | 6.5 | 8.1 | 9.7 | 12.2 | 15.4 | 18.7 | 21.9 |
| 145° | 0.8 | 0.8 | 1.6 | 3.2 | 5.7 | 7.3 | 8.1 | 11.4 | 13.8 | 16.2 | 19.5 |
| 147.5° | 0.8 | 0.8 | 0.8 | 2.4 | 4.9 | 5.7 | 7.3 | 9.7 | 12.2 | 14.6 | 17.1 |
| 150° | 0.8 | 0.8 | 0.8 | 2.4 | 4.1 | 4.9 | 6.5 | 8.1 | 10.6 | 13.0 | 14.6 |
| 152.5° | 0.8 | 0.8 | 0.8 | 1.6 | 3.2 | 4.1 | 4.9 | 7.3 | 8.9 | 10.6 | 13.0 |
| 155° | 0.8 | 0.8 | 0.8 | 1.6 | 3.2 | 3.2 | 4.1 | 5.7 | 7.3 | 8.9 | 10.6 |
| 157.5° | 0.8 | 0.8 | 0.8 | 1.6 | 2.4 | 3.2 | 3.2 | 4.9 | 6.5 | 7.3 | 8.9 |
| 160° | 0.8 | 0.8 | 0.8 | 0.8 | 1.6 | 2.4 | 2.4 | 4.1 | 4.9 | 5.7 | 7.3 |
| 162.5° | 0.8 | 0.8 | 0.8 | 0.8 | 1.6 | 1.6 | 1.6 | 3.2 | 4.1 | 4.9 | 5.7 |
| 165° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 1.6 | 1.6 | 2.4 | 3.2 | 4.1 |
| 167.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 1.6 | 1.6 | 2.4 | 2.4 |
| 170° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 1.6 | 1.6 |
| 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: P241603

CATALOG NUMBER: FVS8M-4-LD4-40-1STD-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 702.6 | 702.6 | 702.6 | 702.6 | 702.6 | 702.6 | 702.6 | 702.6 | 702.6 | 702.6 |
| 2.5° | 699.4 | 701.0 | 701.8 | 702.6 | 702.6 | 702.6 | 702.6 | 702.6 | 702.6 | 701.8 |
| 5° | 697.8 | 699.4 | 700.2 | 701.0 | 701.0 | 701.0 | 701.0 | 701.0 | 701.0 | 701.0 |
| 7.5° | 695.3 | 697.0 | 697.8 | 698.6 | 698.6 | 699.4 | 699.4 | 699.4 | 699.4 | 699.4 |
| 10° | 691.3 | 692.9 | 694.5 | 695.3 | 695.3 | 696.1 | 696.1 | 696.1 | 696.1 | 696.1 |
| 12.5° | 687.2 | 688.8 | 689.6 | 691.3 | 691.3 | 691.3 | 692.1 | 692.1 | 692.1 | 692.1 |
| 15° | 680.7 | 683.1 | 684.0 | 685.6 | 685.6 | 685.6 | 686.4 | 686.4 | 687.2 | 686.4 |
| 17.5° | 673.4 | 675.0 | 677.5 | 677.5 | 679.1 | 679.1 | 679.1 | 679.9 | 679.9 | 680.7 |
| 20° | 664.5 | 666.9 | 668.5 | 670.1 | 670.1 | 671.8 | 671.8 | 672.6 | 672.6 | 673.4 |
| 22.5° | 654.7 | 657.1 | 659.6 | 661.2 | 661.2 | 662.0 | 662.8 | 663.6 | 663.6 | 663.6 |
| 25° | 643.3 | 645.8 | 648.2 | 649.8 | 650.7 | 651.5 | 652.3 | 652.3 | 653.1 | 653.1 |
| 27.5° | 630.3 | 633.6 | 636.0 | 637.7 | 638.5 | 638.5 | 640.1 | 640.9 | 640.9 | 640.9 |
| 30° | 617.3 | 619.8 | 622.2 | 624.7 | 624.7 | 625.5 | 627.1 | 627.9 | 627.1 | 628.7 |
| 32.5° | 602.7 | 605.2 | 607.6 | 609.2 | 610.0 | 610.8 | 611.7 | 613.3 | 613.3 | 613.3 |
| 35° | 585.7 | 588.9 | 591.4 | 593.8 | 593.8 | 594.6 | 596.2 | 597.0 | 597.0 | 596.2 |
| 37.5° | 568.6 | 571.9 | 574.3 | 576.7 | 577.5 | 577.5 | 579.2 | 579.2 | 580.0 | 580.8 |
| 40° | 550.7 | 554.0 | 556.4 | 557.2 | 558.9 | 559.7 | 561.3 | 562.1 | 561.3 | 562.1 |
| 42.5° | 532.1 | 533.7 | 536.1 | 539.4 | 539.4 | 541.0 | 541.8 | 542.6 | 543.4 | 543.4 |
| 45° | 510.1 | 512.6 | 515.8 | 518.2 | 518.2 | 519.9 | 520.7 | 521.5 | 523.1 | 522.3 |
| 47.5° | 489.0 | 491.4 | 493.9 | 496.3 | 496.3 | 497.9 | 500.4 | 500.4 | 500.4 | 500.4 |
| 50° | 465.4 | 468.7 | 470.3 | 473.6 | 474.4 | 475.2 | 476.0 | 477.6 | 477.6 | 476.8 |
| 52.5° | 441.1 | 445.1 | 448.4 | 450.0 | 450.8 | 451.6 | 452.4 | 454.1 | 454.1 | 454.9 |
| 55° | 415.9 | 420.0 | 422.4 | 425.6 | 425.6 | 426.5 | 428.9 | 429.7 | 428.9 | 429.7 |
| 57.5° | 389.9 | 393.2 | 396.4 | 398.8 | 400.5 | 400.5 | 402.1 | 403.7 | 403.7 | 403.7 |
| 60° | 363.1 | 365.5 | 369.6 | 372.0 | 374.5 | 373.7 | 376.9 | 376.9 | 376.9 | 376.9 |
| 62.5° | 333.9 | 338.7 | 341.2 | 345.2 | 346.0 | 346.9 | 348.5 | 349.3 | 349.3 | 350.1 |
| 65° | 306.2 | 310.3 | 313.5 | 316.0 | 317.6 | 317.6 | 320.0 | 320.9 | 321.7 | 322.5 |
| 67.5° | 277.0 | 281.1 | 284.3 | 288.4 | 289.2 | 289.2 | 290.0 | 293.2 | 292.4 | 293.2 |
| 70° | 246.9 | 251.0 | 254.2 | 257.5 | 258.3 | 259.1 | 260.7 | 263.2 | 263.2 | 263.2 |
| 72.5° | 216.9 | 221.8 | 225.0 | 227.4 | 227.4 | 229.1 | 232.3 | 231.5 | 233.9 | 232.3 |
| 75° | 187.6 | 190.9 | 195.8 | 197.4 | 199.0 | 200.6 | 202.3 | 203.1 | 203.9 | 202.3 |
| 77.5° | 158.4 | 162.5 | 165.7 | 168.1 | 169.8 | 171.4 | 173.0 | 174.6 | 173.8 | 176.3 |
| 80° | 130.0 | 132.4 | 135.7 | 139.7 | 141.3 | 143.0 | 145.4 | 146.2 | 145.4 | 146.2 |
| 82.5° | 103.2 | 107.2 | 110.5 | 114.5 | 115.3 | 117.0 | 118.6 | 121.0 | 121.0 | 121.8 |
| 85° | 80.4 | 84.5 | 89.4 | 91.8 | 92.6 | 94.2 | 96.7 | 97.5 | 99.1 | 98.3 |
| 87.5° | 64.2 | 69.0 | 73.1 | 75.5 | 77.2 | 78.8 | 80.4 | 82.0 | 82.9 | 83.7 |
| 90° | 57.7 | 61.7 | 65.8 | 69.0 | 70.7 | 71.5 | 73.9 | 75.5 | 76.4 | 76.4 |
| 92.5° | 56.9 | 60.9 | 65.0 | 68.2 | 69.9 | 71.5 | 73.1 | 74.7 | 75.5 | 76.4 |
| 95° | 56.0 | 60.1 | 64.2 | 67.4 | 69.0 | 70.7 | 72.3 | 73.9 | 74.7 | 75.5 |
| 97.5° | 55.2 | 60.1 | 63.4 | 66.6 | 68.2 | 69.9 | 71.5 | 73.1 | 73.9 | 74.7 |
| 100° | 54.4 | 58.5 | 62.5 | 65.8 | 67.4 | 68.2 | 70.7 | 72.3 | 73.1 | 73.1 |
| 102.5° | 53.6 | 57.7 | 61.7 | 65.0 | 65.8 | 67.4 | 69.0 | 70.7 | 71.5 | 72.3 |
| 105° | 52.0 | 56.0 | 60.1 | 63.4 | 65.0 | 65.8 | 68.2 | 69.9 | 70.7 | 70.7 |
| 107.5° | 51.2 | 55.2 | 58.5 | 61.7 | 63.4 | 65.0 | 66.6 | 68.2 | 69.0 | 69.0 |
| 110° | 49.6 | 53.6 | 56.9 | 60.1 | 61.7 | 62.5 | 65.0 | 66.6 | 67.4 | 67.4 |



TEST NUMBER: P241603

CATALOG NUMBER: FVS8M-4-LD4-40-1STD-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° |
|--------|------|------|------|------|-------|------|------|------|------|------|
| 112.5° | 47.9 | 52.0 | 55.2 | 58.5 | 60.1 | 60.9 | 63.4 | 64.2 | 65.0 | 65.8 |
| 115° | 46.3 | 50.4 | 53.6 | 56.9 | 57.7 | 59.3 | 60.9 | 62.5 | 63.4 | 63.4 |
| 117.5° | 44.7 | 48.7 | 52.0 | 54.4 | 56.0 | 56.9 | 59.3 | 60.1 | 60.9 | 61.7 |
| 120° | 43.1 | 47.1 | 50.4 | 52.8 | 54.4 | 55.2 | 56.9 | 58.5 | 59.3 | 59.3 |
| 122.5° | 41.4 | 44.7 | 47.9 | 50.4 | 52.0 | 52.8 | 54.4 | 56.0 | 56.9 | 56.9 |
| 125° | 39.8 | 43.1 | 45.5 | 48.7 | 49.6 | 50.4 | 52.8 | 53.6 | 54.4 | 54.4 |
| 127.5° | 37.4 | 40.6 | 43.9 | 46.3 | 47.1 | 48.7 | 49.6 | 51.2 | 52.0 | 52.0 |
| 130° | 35.7 | 39.0 | 41.4 | 43.9 | 44.7 | 46.3 | 47.1 | 48.7 | 49.6 | 49.6 |
| 132.5° | 33.3 | 36.6 | 39.0 | 41.4 | 42.2 | 43.1 | 44.7 | 46.3 | 46.3 | 47.1 |
| 135° | 31.7 | 34.1 | 36.6 | 39.0 | 39.8 | 40.6 | 42.2 | 43.1 | 43.9 | 43.9 |
| 137.5° | 29.2 | 31.7 | 34.1 | 36.6 | 37.4 | 38.2 | 39.8 | 40.6 | 41.4 | 41.4 |
| 140° | 26.8 | 30.1 | 31.7 | 34.1 | 34.9 | 35.7 | 36.6 | 37.4 | 38.2 | 38.2 |
| 142.5° | 25.2 | 27.6 | 29.2 | 30.9 | 31.7 | 32.5 | 34.1 | 34.9 | 34.9 | 35.7 |
| 145° | 21.9 | 25.2 | 26.8 | 28.4 | 29.2 | 30.1 | 30.9 | 31.7 | 32.5 | 32.5 |
| 147.5° | 19.5 | 21.9 | 24.4 | 26.0 | 26.8 | 26.8 | 28.4 | 28.4 | 29.2 | 29.2 |
| 150° | 17.1 | 19.5 | 21.9 | 23.6 | 23.6 | 24.4 | 25.2 | 26.0 | 26.0 | 26.0 |
| 152.5° | 14.6 | 16.2 | 18.7 | 20.3 | 21.1 | 21.1 | 21.9 | 22.7 | 23.6 | 23.6 |
| 155° | 12.2 | 13.8 | 15.4 | 17.1 | 17.9 | 18.7 | 19.5 | 20.3 | 20.3 | 20.3 |
| 157.5° | 10.6 | 11.4 | 13.0 | 14.6 | 15.4 | 16.2 | 16.2 | 17.1 | 17.1 | 17.1 |
| 160° | 8.1 | 8.9 | 10.6 | 11.4 | 12.2 | 13.0 | 13.8 | 13.8 | 14.6 | 14.6 |
| 162.5° | 6.5 | 7.3 | 8.1 | 8.9 | 9.7 | 9.7 | 10.6 | 11.4 | 11.4 | 11.4 |
| 165° | 4.9 | 4.9 | 5.7 | 6.5 | 6.5 | 7.3 | 8.1 | 8.9 | 8.9 | 8.9 |
| 167.5° | 3.2 | 3.2 | 4.1 | 4.1 | 4.9 | 4.9 | 4.9 | 5.7 | 5.7 | 5.7 |
| 170° | 1.6 | 1.6 | 2.4 | 2.4 | 2.4 | 2.4 | 3.2 | 3.2 | 3.2 | 3.2 |
| 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)