

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: P241486

Luminaire Tested: **FVS8M-3-LD4-35-3HI-PA187-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241486  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-30)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS8M-3-LD4-35-3HI-PA187-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
3FT LENGTH, 3-MODULE LED WITH PA187 LENS  
Light Source: (252) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

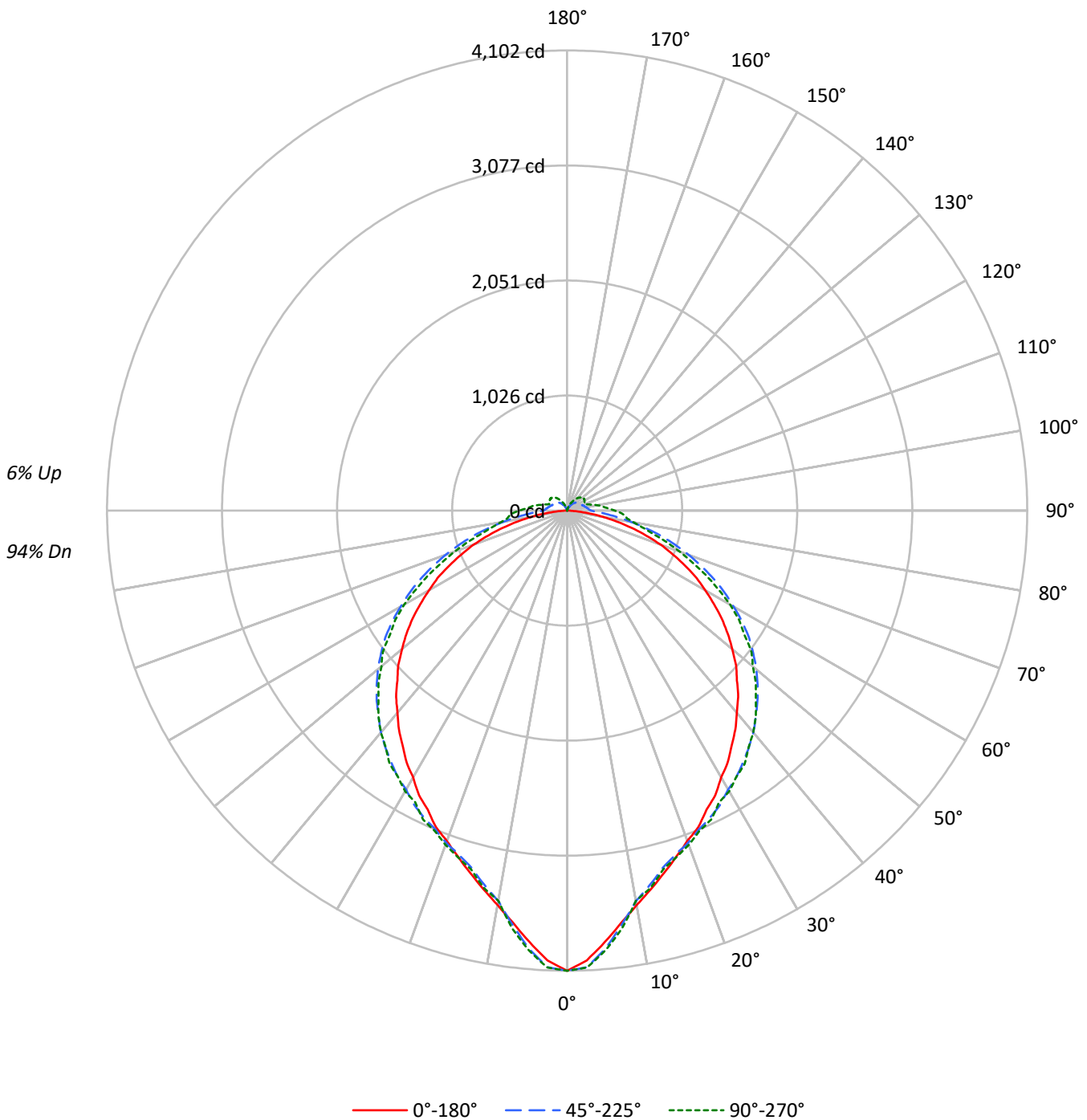
Lumens per Lamp: N/A  
Luminaire Lumens: 11089.0 lumens  
Efficiency: N/A  
Efficacy: 105.6 lumens/watt  
Spacing Criteria (0/90/45): 1.01 / 1.04 / 1.28  
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 105  
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: P241486

CATALOG NUMBER: FVS8M-3-LD4-35-3HI-PA187-UNV-EDC1

### Luminous Intensity Polar Plot





TEST NUMBER: P241486

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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   | 118 | 118 | 118 | 118 | 114 | 114 | 114 | 114 | 108 | 108 | 108 | 102 | 102 | 102 | 96 | 96 | 96 | 94 |
| 1   | 107 | 101 | 97  | 93  | 103 | 99  | 94  | 91  | 93  | 90  | 87  | 88  | 85  | 83  | 84 | 81 | 79 | 77 |
| 2   | 97  | 88  | 81  | 75  | 93  | 85  | 79  | 73  | 81  | 75  | 71  | 77  | 72  | 68  | 73 | 69 | 66 | 63 |
| 3   | 88  | 77  | 68  | 62  | 85  | 75  | 67  | 61  | 71  | 64  | 59  | 67  | 62  | 57  | 64 | 59 | 55 | 53 |
| 4   | 80  | 68  | 59  | 52  | 77  | 66  | 58  | 51  | 63  | 56  | 50  | 60  | 54  | 49  | 57 | 52 | 47 | 45 |
| 5   | 74  | 61  | 51  | 45  | 71  | 59  | 51  | 44  | 56  | 49  | 43  | 54  | 47  | 42  | 51 | 46 | 41 | 39 |
| 6   | 68  | 54  | 45  | 39  | 66  | 53  | 45  | 38  | 51  | 43  | 38  | 48  | 42  | 37  | 46 | 41 | 36 | 34 |
| 7   | 63  | 49  | 40  | 34  | 61  | 48  | 40  | 34  | 46  | 39  | 33  | 44  | 37  | 33  | 42 | 36 | 32 | 30 |
| 8   | 59  | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 42  | 35  | 30  | 40  | 34  | 29  | 39 | 33 | 29 | 27 |
| 9   | 55  | 41  | 33  | 27  | 53  | 40  | 33  | 27  | 39  | 32  | 27  | 37  | 31  | 26  | 36 | 30 | 26 | 24 |
| 10  | 51  | 38  | 30  | 25  | 50  | 37  | 30  | 25  | 36  | 29  | 24  | 35  | 28  | 24  | 33 | 28 | 23 | 22 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 23955 | 23955 | 23955 |
| 5°  | 22527 | 22580 | 22617 |
| 10° | 20980 | 20255 | 20141 |
| 15° | 19936 | 18926 | 18871 |
| 20° | 19120 | 18288 | 18205 |
| 25° | 18514 | 17821 | 17715 |
| 30° | 17985 | 17395 | 17239 |
| 35° | 17590 | 17147 | 16981 |
| 40° | 17192 | 16907 | 16542 |
| 45° | 16816 | 16574 | 16024 |
| 50° | 16448 | 16220 | 15468 |
| 55° | 15975 | 15758 | 14847 |
| 60° | 15246 | 14966 | 14077 |
| 65° | 14400 | 14029 | 12736 |
| 70° | 13248 | 12772 | 11225 |
| 75° | 11235 | 11268 | 9611  |
| 80° | 8560  | 9213  | 8815  |
| 85° | 4310  | 7178  | 9664  |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 361.5   | 3.3       |
| 10°-20°   | 938.4   | 8.5       |
| 20°-30°   | 1386.5  | 12.5      |
| 30°-40°   | 1691.1  | 15.3      |
| 40°-50°   | 1800.3  | 16.2      |
| 50°-60°   | 1692.4  | 15.3      |
| 60°-70°   | 1340.3  | 12.1      |
| 70°-80°   | 833.6   | 7.5       |
| 80°-90°   | 367.5   | 3.3       |
| 90°-100°  | 195.4   | 1.8       |
| 100°-110° | 143.9   | 1.3       |
| 110°-120° | 112.2   | 1.0       |
| 120°-130° | 97.4    | 0.9       |
| 130°-140° | 70.2    | 0.6       |
| 140°-150° | 39.4    | 0.4       |
| 150°-160° | 15.5    | 0.1       |
| 160°-170° | 3.1     | 0.0       |
| 170°-180° | 0.1     | 0.0       |
| 0°-30°    | 2686.4  | 24.2      |
| 0°-40°    | 4377.5  | 39.5      |
| 0°-60°    | 7870.2  | 71.0      |
| 0°-90°    | 10411.6 | 93.9      |
| 90°-120°  | 451.6   | 4.1       |
| 90°-150°  | 658.6   | 5.9       |
| 90°-180°  | 677.0   | 6.1       |
| 0°-180°   | 11089.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 4102 | 4102  | 4102 | 4102  | 4102 |      |
| 5°   | 3860 | 3888  | 3918 | 3940  | 3935 | 359  |
| 15°  | 3343 | 3326  | 3295 | 3297  | 3310 | 942  |
| 25°  | 2942 | 2981  | 3018 | 3025  | 3039 | 1360 |
| 35°  | 2556 | 2660  | 2735 | 2761  | 2759 | 1602 |
| 45°  | 2140 | 2270  | 2400 | 2397  | 2378 | 1656 |
| 55°  | 1684 | 1823  | 1981 | 1966  | 1929 | 1501 |
| 65°  | 1156 | 1292  | 1442 | 1426  | 1368 | 1146 |
| 75°  | 593  | 724   | 864  | 860   | 785  | 630  |
| 85°  | 102  | 218   | 347  | 418   | 516  | 133  |
| 90°  | 2    | 100   | 214  | 306   | 424  | 5    |
| 95°  | 1    | 83    | 188  | 272   | 334  | 1    |
| 105° | 1    | 71    | 157  | 210   | 208  | 1    |
| 115° | 1    | 61    | 134  | 168   | 170  | 1    |
| 125° | 1    | 51    | 124  | 172   | 183  | 1    |
| 135° | 2    | 37    | 98   | 145   | 165  | 2    |
| 145° | 3    | 20    | 67   | 103   | 119  | 2    |
| 155° | 3    | 8     | 32   | 57    | 66   | 1    |
| 165° | 4    | 2     | 8    | 16    | 21   | 1    |
| 175° | 0    | 0     | 0    | 0     | 0    | 0    |
| 180° | 0    | 0     | 0    | 0     | 0    | 0    |



TEST NUMBER: P241486

CATALOG NUMBER: FVS8M-3-LD4-35-3HI-PA187-UNV-EDC1

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 22.5°  | 25°    | 30°    | 35°    | 40°    | 45°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 4102.3 | 4102.3 | 4102.3 | 4102.3 | 4102.3 | 4102.3 | 4102.3 | 4102.3 | 4102.3 | 4102.3 | 4102.3 |
| 2.5°   | 4013.1 | 4020.9 | 4027.8 | 4031.7 | 4035.6 | 4046.4 | 4054.3 | 4055.2 | 4067.0 | 4075.8 | 4072.9 |
| 5°     | 3860.2 | 3867.1 | 3880.8 | 3887.7 | 3882.8 | 3887.7 | 3898.4 | 3902.4 | 3905.3 | 3909.2 | 3918.0 |
| 7.5°   | 3703.4 | 3699.5 | 3711.3 | 3708.3 | 3713.2 | 3710.3 | 3712.2 | 3711.3 | 3721.1 | 3723.0 | 3724.0 |
| 10°    | 3570.1 | 3574.1 | 3576.0 | 3568.2 | 3567.2 | 3570.1 | 3564.3 | 3558.4 | 3555.4 | 3540.7 | 3533.9 |
| 12.5°  | 3454.5 | 3454.5 | 3455.5 | 3440.8 | 3433.9 | 3429.0 | 3435.9 | 3433.9 | 3421.2 | 3408.4 | 3416.3 |
| 15°    | 3342.8 | 3345.7 | 3347.7 | 3336.9 | 3328.1 | 3326.1 | 3329.1 | 3309.5 | 3311.4 | 3318.3 | 3294.8 |
| 17.5°  | 3236.0 | 3247.7 | 3242.8 | 3230.1 | 3230.1 | 3230.1 | 3227.1 | 3223.2 | 3227.1 | 3220.3 | 3213.4 |
| 20°    | 3134.0 | 3137.0 | 3136.0 | 3141.9 | 3141.9 | 3140.9 | 3139.9 | 3141.9 | 3149.7 | 3134.0 | 3152.7 |
| 22.5°  | 3054.7 | 3057.6 | 3062.5 | 3051.7 | 3048.8 | 3044.9 | 3052.7 | 3075.2 | 3068.4 | 3080.1 | 3075.2 |
| 25°    | 2942.0 | 2942.9 | 2942.0 | 2952.7 | 2970.4 | 2981.2 | 2989.0 | 2991.0 | 2996.8 | 3014.5 | 3018.4 |
| 27.5°  | 2860.6 | 2861.6 | 2874.3 | 2879.2 | 2889.0 | 2900.8 | 2902.8 | 2918.4 | 2934.1 | 2941.0 | 2955.7 |
| 30°    | 2746.0 | 2759.7 | 2761.6 | 2787.1 | 2813.6 | 2822.4 | 2828.3 | 2844.9 | 2856.7 | 2875.3 | 2871.4 |
| 32.5°  | 2663.6 | 2671.5 | 2690.1 | 2705.8 | 2724.4 | 2731.3 | 2746.9 | 2772.4 | 2790.1 | 2808.7 | 2811.6 |
| 35°    | 2555.8 | 2559.8 | 2578.4 | 2604.8 | 2645.0 | 2659.7 | 2677.4 | 2682.3 | 2708.7 | 2729.3 | 2735.2 |
| 37.5°  | 2462.7 | 2469.6 | 2494.1 | 2517.6 | 2540.2 | 2560.7 | 2584.3 | 2609.7 | 2631.3 | 2648.0 | 2660.7 |
| 40°    | 2352.0 | 2356.9 | 2385.3 | 2415.7 | 2458.8 | 2479.4 | 2487.2 | 2525.5 | 2549.0 | 2563.7 | 2582.3 |
| 42.5°  | 2256.9 | 2261.8 | 2287.3 | 2317.7 | 2349.1 | 2378.5 | 2397.1 | 2433.3 | 2457.8 | 2475.5 | 2489.2 |
| 45°    | 2140.3 | 2151.1 | 2174.6 | 2215.8 | 2258.9 | 2269.7 | 2290.3 | 2325.5 | 2358.9 | 2389.2 | 2400.0 |
| 47.5°  | 2041.3 | 2045.3 | 2073.7 | 2102.1 | 2145.2 | 2168.7 | 2193.2 | 2223.6 | 2263.8 | 2284.4 | 2303.0 |
| 50°    | 1920.8 | 1933.5 | 1957.1 | 1994.3 | 2033.5 | 2055.1 | 2083.5 | 2122.7 | 2155.0 | 2183.4 | 2202.1 |
| 52.5°  | 1805.2 | 1812.0 | 1839.5 | 1878.7 | 1922.8 | 1948.2 | 1968.8 | 2009.0 | 2053.1 | 2078.6 | 2090.3 |
| 55°    | 1683.6 | 1691.5 | 1721.9 | 1760.1 | 1802.2 | 1822.8 | 1848.3 | 1892.4 | 1936.5 | 1960.0 | 1980.6 |
| 57.5°  | 1551.3 | 1568.0 | 1595.4 | 1636.6 | 1673.8 | 1694.4 | 1721.9 | 1771.8 | 1810.1 | 1835.5 | 1851.2 |
| 60°    | 1421.0 | 1432.8 | 1462.2 | 1498.4 | 1551.3 | 1574.9 | 1596.4 | 1640.5 | 1672.9 | 1701.3 | 1716.0 |
| 62.5°  | 1301.4 | 1307.3 | 1333.8 | 1368.1 | 1412.2 | 1433.7 | 1458.2 | 1506.3 | 1539.6 | 1564.1 | 1581.7 |
| 65°    | 1156.4 | 1172.1 | 1196.6 | 1228.9 | 1271.1 | 1291.6 | 1316.1 | 1364.2 | 1400.4 | 1429.8 | 1441.6 |
| 67.5°  | 1021.2 | 1025.1 | 1056.4 | 1093.7 | 1135.8 | 1155.4 | 1176.0 | 1222.1 | 1257.3 | 1280.9 | 1295.6 |
| 70°    | 884.9  | 886.9  | 920.2  | 947.7  | 993.7  | 1015.3 | 1032.9 | 1073.1 | 1114.3 | 1133.9 | 1150.5 |
| 72.5°  | 736.0  | 744.8  | 779.1  | 808.5  | 845.7  | 865.3  | 891.8  | 931.0  | 964.3  | 988.8  | 1001.6 |
| 75°    | 592.9  | 600.7  | 625.2  | 664.4  | 702.7  | 724.2  | 749.7  | 786.9  | 814.4  | 844.8  | 864.4  |
| 77.5°  | 454.7  | 476.3  | 489.0  | 523.3  | 566.4  | 591.9  | 609.6  | 643.9  | 671.3  | 695.8  | 711.5  |
| 80°    | 328.3  | 333.2  | 359.7  | 391.0  | 432.2  | 448.8  | 468.4  | 505.7  | 533.1  | 560.6  | 578.2  |
| 82.5°  | 205.8  | 215.6  | 242.1  | 271.5  | 306.7  | 323.4  | 342.0  | 377.3  | 407.7  | 429.2  | 452.8  |
| 85°    | 101.9  | 111.7  | 136.2  | 163.7  | 201.9  | 217.6  | 235.2  | 267.5  | 296.0  | 319.5  | 346.9  |
| 87.5°  | 34.3   | 42.1   | 63.7   | 91.1   | 123.5  | 138.2  | 153.9  | 183.3  | 208.7  | 237.2  | 259.7  |
| 90°    | 2.0    | 9.8    | 29.4   | 55.9   | 85.3   | 100.0  | 114.7  | 138.2  | 164.6  | 189.1  | 213.6  |
| 92.5°  | 1.0    | 7.8    | 25.5   | 50.0   | 77.4   | 90.2   | 101.9  | 126.4  | 151.9  | 174.4  | 197.0  |
| 95°    | 1.0    | 6.9    | 23.5   | 46.1   | 70.6   | 83.3   | 96.0   | 120.5  | 145.0  | 167.6  | 188.2  |
| 97.5°  | 1.0    | 5.9    | 21.6   | 43.1   | 66.6   | 79.4   | 91.1   | 115.6  | 138.2  | 159.7  | 179.3  |
| 100°   | 1.0    | 5.9    | 20.6   | 41.2   | 63.7   | 75.5   | 87.2   | 110.7  | 132.3  | 151.9  | 170.5  |
| 102.5° | 1.0    | 5.9    | 19.6   | 39.2   | 61.7   | 72.5   | 84.3   | 105.8  | 126.4  | 145.0  | 163.7  |
| 105°   | 1.0    | 4.9    | 18.6   | 38.2   | 59.8   | 70.6   | 80.4   | 101.9  | 120.5  | 139.2  | 156.8  |
| 107.5° | 1.0    | 4.9    | 17.6   | 36.3   | 56.8   | 67.6   | 78.4   | 98.0   | 116.6  | 134.3  | 149.9  |
| 110°   | 1.0    | 3.9    | 16.7   | 35.3   | 54.9   | 65.7   | 75.5   | 95.1   | 112.7  | 129.4  | 143.1  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 5°  | 10°  | 15°  | 20°  | 22.5° | 25°  | 30°  | 35°   | 40°   | 45°   |
|--------|-----|-----|------|------|------|-------|------|------|-------|-------|-------|
| 112.5° | 1.0 | 3.9 | 15.7 | 33.3 | 52.9 | 63.7  | 73.5 | 92.1 | 109.8 | 124.5 | 138.2 |
| 115°   | 1.0 | 2.9 | 14.7 | 31.4 | 51.0 | 60.8  | 70.6 | 89.2 | 105.8 | 120.5 | 134.3 |
| 117.5° | 1.0 | 2.9 | 13.7 | 30.4 | 49.0 | 58.8  | 67.6 | 86.2 | 102.9 | 118.6 | 131.3 |
| 120°   | 1.0 | 2.9 | 12.7 | 28.4 | 47.0 | 55.9  | 65.7 | 83.3 | 100.9 | 115.6 | 129.4 |
| 122.5° | 1.0 | 2.0 | 11.8 | 26.5 | 44.1 | 52.9  | 62.7 | 80.4 | 97.0  | 112.7 | 127.4 |
| 125°   | 1.0 | 2.0 | 10.8 | 25.5 | 42.1 | 51.0  | 59.8 | 76.4 | 94.1  | 108.8 | 123.5 |
| 127.5° | 2.0 | 2.0 | 9.8  | 23.5 | 39.2 | 48.0  | 55.9 | 73.5 | 89.2  | 103.9 | 118.6 |
| 130°   | 2.0 | 2.0 | 8.8  | 20.6 | 36.3 | 45.1  | 52.9 | 68.6 | 84.3  | 98.0  | 112.7 |
| 132.5° | 2.0 | 2.0 | 7.8  | 18.6 | 33.3 | 41.2  | 49.0 | 63.7 | 78.4  | 92.1  | 105.8 |
| 135°   | 2.0 | 2.0 | 5.9  | 16.7 | 29.4 | 37.2  | 44.1 | 58.8 | 72.5  | 85.3  | 98.0  |
| 137.5° | 2.0 | 2.0 | 4.9  | 13.7 | 25.5 | 32.3  | 39.2 | 52.9 | 66.6  | 78.4  | 91.1  |
| 140°   | 2.0 | 2.0 | 3.9  | 11.8 | 22.5 | 28.4  | 34.3 | 47.0 | 59.8  | 71.5  | 83.3  |
| 142.5° | 2.9 | 2.0 | 3.9  | 9.8  | 18.6 | 24.5  | 29.4 | 40.2 | 51.9  | 63.7  | 74.5  |
| 145°   | 2.9 | 2.0 | 2.9  | 7.8  | 15.7 | 19.6  | 24.5 | 34.3 | 45.1  | 55.9  | 66.6  |
| 147.5° | 2.9 | 2.9 | 2.9  | 5.9  | 12.7 | 16.7  | 20.6 | 29.4 | 38.2  | 48.0  | 56.8  |
| 150°   | 2.9 | 2.9 | 2.0  | 4.9  | 9.8  | 12.7  | 16.7 | 23.5 | 31.4  | 40.2  | 48.0  |
| 152.5° | 2.9 | 2.9 | 2.0  | 3.9  | 7.8  | 9.8   | 12.7 | 19.6 | 25.5  | 32.3  | 40.2  |
| 155°   | 2.9 | 2.9 | 2.9  | 2.9  | 5.9  | 7.8   | 9.8  | 14.7 | 20.6  | 25.5  | 32.3  |
| 157.5° | 2.9 | 2.9 | 2.9  | 2.9  | 3.9  | 5.9   | 6.9  | 10.8 | 14.7  | 19.6  | 24.5  |
| 160°   | 3.9 | 2.9 | 2.9  | 2.0  | 2.9  | 3.9   | 4.9  | 7.8  | 10.8  | 14.7  | 17.6  |
| 162.5° | 3.9 | 3.9 | 2.9  | 2.9  | 2.0  | 2.9   | 3.9  | 4.9  | 6.9   | 9.8   | 11.8  |
| 165°   | 3.9 | 3.9 | 2.9  | 2.9  | 2.0  | 2.0   | 2.9  | 2.9  | 4.9   | 5.9   | 7.8   |
| 167.5° | 3.9 | 3.9 | 2.9  | 2.9  | 2.0  | 2.0   | 2.0  | 2.0  | 2.9   | 2.9   | 3.9   |
| 170°   | 3.9 | 3.9 | 2.9  | 2.9  | 2.0  | 2.0   | 2.0  | 2.0  | 1.0   | 1.0   | 2.0   |
| 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   |



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**CANDELA DISTRIBUTION (continued):**

|        | 50°    | 55°    | 60°    | 65°    | 67.5°  | 70°    | 75°    | 80°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 4102.3 | 4102.3 | 4102.3 | 4102.3 | 4102.3 | 4102.3 | 4102.3 | 4102.3 | 4102.3 | 4102.3 |
| 2.5°   | 4078.8 | 4071.9 | 4075.8 | 4076.8 | 4079.7 | 4083.7 | 4073.9 | 4072.9 | 4075.8 | 4075.8 |
| 5°     | 3919.0 | 3927.8 | 3926.9 | 3934.7 | 3939.6 | 3935.7 | 3936.7 | 3939.6 | 3943.5 | 3934.7 |
| 7.5°   | 3716.2 | 3722.0 | 3732.8 | 3725.0 | 3734.8 | 3729.9 | 3744.6 | 3735.8 | 3752.4 | 3755.4 |
| 10°    | 3533.9 | 3534.9 | 3547.6 | 3552.5 | 3564.3 | 3546.6 | 3541.7 | 3537.8 | 3527.0 | 3531.9 |
| 12.5°  | 3400.6 | 3382.0 | 3367.3 | 3376.1 | 3390.8 | 3401.6 | 3421.2 | 3433.9 | 3439.8 | 3441.8 |
| 15°    | 3285.9 | 3304.6 | 3313.4 | 3312.4 | 3296.7 | 3291.8 | 3288.9 | 3292.8 | 3303.6 | 3310.4 |
| 17.5°  | 3235.0 | 3221.3 | 3208.5 | 3237.9 | 3255.6 | 3266.3 | 3267.3 | 3260.5 | 3256.5 | 3238.9 |
| 20°    | 3136.0 | 3163.4 | 3189.9 | 3167.4 | 3151.7 | 3146.8 | 3141.9 | 3158.5 | 3169.3 | 3170.3 |
| 22.5°  | 3094.8 | 3113.5 | 3077.2 | 3111.5 | 3129.1 | 3134.0 | 3122.3 | 3107.6 | 3096.8 | 3088.0 |
| 25°    | 3026.2 | 3018.4 | 3056.6 | 3035.1 | 3025.3 | 3015.5 | 3030.2 | 3037.0 | 3035.1 | 3039.0 |
| 27.5°  | 2942.0 | 2971.4 | 2943.9 | 2964.5 | 2985.1 | 2992.9 | 2969.4 | 2949.8 | 2935.1 | 2931.2 |
| 30°    | 2893.9 | 2872.4 | 2921.4 | 2908.6 | 2891.0 | 2882.2 | 2879.2 | 2886.1 | 2888.1 | 2890.0 |
| 32.5°  | 2816.5 | 2839.1 | 2817.5 | 2810.6 | 2830.2 | 2838.1 | 2842.0 | 2824.4 | 2819.5 | 2809.7 |
| 35°    | 2744.0 | 2748.9 | 2745.0 | 2774.4 | 2760.7 | 2753.8 | 2749.9 | 2756.7 | 2760.7 | 2758.7 |
| 37.5°  | 2688.1 | 2662.7 | 2701.9 | 2675.4 | 2686.2 | 2691.1 | 2696.0 | 2677.4 | 2671.5 | 2656.8 |
| 40°    | 2585.2 | 2605.8 | 2586.2 | 2607.8 | 2607.8 | 2595.0 | 2574.5 | 2570.5 | 2574.5 | 2581.3 |
| 42.5°  | 2501.0 | 2502.9 | 2530.4 | 2497.0 | 2489.2 | 2488.2 | 2501.0 | 2498.0 | 2483.3 | 2490.2 |
| 45°    | 2414.7 | 2423.5 | 2396.1 | 2390.2 | 2397.1 | 2391.2 | 2372.6 | 2369.6 | 2377.5 | 2378.5 |
| 47.5°  | 2309.9 | 2321.6 | 2293.2 | 2291.2 | 2282.4 | 2273.6 | 2284.4 | 2291.2 | 2282.4 | 2280.5 |
| 50°    | 2211.9 | 2189.3 | 2197.2 | 2182.5 | 2186.4 | 2193.2 | 2170.7 | 2157.0 | 2157.0 | 2160.9 |
| 52.5°  | 2095.2 | 2102.1 | 2086.4 | 2104.1 | 2089.4 | 2076.6 | 2077.6 | 2072.7 | 2071.7 | 2071.7 |
| 55°    | 1979.6 | 1987.4 | 1998.2 | 1967.8 | 1965.9 | 1963.9 | 1957.1 | 1941.4 | 1930.6 | 1928.6 |
| 57.5°  | 1862.0 | 1863.0 | 1865.9 | 1856.1 | 1860.0 | 1851.2 | 1821.8 | 1825.7 | 1822.8 | 1816.9 |
| 60°    | 1726.8 | 1738.5 | 1720.9 | 1714.0 | 1709.1 | 1706.2 | 1703.2 | 1687.6 | 1676.8 | 1676.8 |
| 62.5°  | 1586.6 | 1577.8 | 1581.7 | 1567.0 | 1572.9 | 1573.9 | 1545.5 | 1533.7 | 1521.0 | 1517.0 |
| 65°    | 1446.5 | 1434.7 | 1431.8 | 1433.7 | 1425.9 | 1403.4 | 1393.6 | 1386.7 | 1372.0 | 1368.1 |
| 67.5°  | 1298.5 | 1300.5 | 1294.6 | 1279.9 | 1268.1 | 1262.2 | 1243.6 | 1226.0 | 1213.2 | 1209.3 |
| 70°    | 1150.5 | 1148.6 | 1151.5 | 1133.9 | 1138.8 | 1127.0 | 1103.5 | 1082.9 | 1077.0 | 1065.3 |
| 72.5°  | 1006.5 | 1009.4 | 1008.4 | 1007.4 | 997.6  | 983.9  | 968.2  | 952.6  | 943.7  | 923.2  |
| 75°    | 870.2  | 882.0  | 873.2  | 865.3  | 859.5  | 851.6  | 842.8  | 812.4  | 795.8  | 785.0  |
| 77.5°  | 727.2  | 740.9  | 745.8  | 735.0  | 732.1  | 732.1  | 715.4  | 694.8  | 688.0  | 685.0  |
| 80°    | 588.0  | 603.7  | 615.4  | 616.4  | 615.4  | 610.5  | 606.6  | 603.7  | 600.7  | 597.8  |
| 82.5°  | 470.4  | 489.0  | 496.9  | 500.8  | 507.6  | 506.7  | 516.5  | 524.3  | 533.1  | 538.0  |
| 85°    | 363.6  | 380.2  | 396.9  | 410.6  | 418.5  | 428.3  | 440.0  | 459.6  | 490.0  | 516.5  |
| 87.5°  | 282.2  | 301.8  | 324.4  | 343.0  | 349.9  | 358.7  | 380.2  | 412.6  | 452.8  | 479.2  |
| 90°    | 236.2  | 257.7  | 279.3  | 297.9  | 305.8  | 317.5  | 342.0  | 371.4  | 406.7  | 424.3  |
| 92.5°  | 217.6  | 238.1  | 257.7  | 276.4  | 287.1  | 297.9  | 318.5  | 339.1  | 360.6  | 372.4  |
| 95°    | 207.8  | 226.4  | 245.0  | 262.6  | 271.5  | 281.3  | 295.0  | 312.6  | 327.3  | 334.2  |
| 97.5°  | 198.0  | 215.6  | 232.3  | 248.9  | 256.8  | 264.6  | 280.3  | 296.0  | 310.7  | 309.7  |
| 100°   | 189.1  | 205.8  | 220.5  | 235.2  | 242.1  | 248.9  | 261.7  | 268.5  | 272.4  | 273.4  |
| 102.5° | 181.3  | 195.0  | 208.7  | 220.5  | 225.4  | 232.3  | 241.1  | 242.1  | 242.1  | 237.2  |
| 105°   | 171.5  | 185.2  | 197.0  | 204.8  | 209.7  | 212.7  | 214.6  | 213.6  | 209.7  | 207.8  |
| 107.5° | 163.7  | 174.4  | 184.2  | 190.1  | 192.1  | 192.1  | 189.1  | 187.2  | 183.3  | 184.2  |
| 110°   | 155.8  | 165.6  | 172.5  | 175.4  | 176.4  | 176.4  | 174.4  | 171.5  | 169.5  | 169.5  |





TEST NUMBER: P241486

CATALOG NUMBER: FVS8M-3-LD4-35-3HI-PA187-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

|        | 50°   | 55°   | 60°   | 65°   | 67.5° | 70°   | 75°   | 80°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 149.9 | 158.8 | 164.6 | 167.6 | 168.6 | 168.6 | 168.6 | 167.6 | 166.6 | 165.6 |
| 115°   | 145.0 | 154.8 | 160.7 | 165.6 | 167.6 | 168.6 | 170.5 | 171.5 | 170.5 | 170.5 |
| 117.5° | 144.1 | 152.9 | 161.7 | 167.6 | 170.5 | 172.5 | 175.4 | 177.4 | 176.4 | 175.4 |
| 120°   | 142.1 | 152.9 | 161.7 | 169.5 | 172.5 | 175.4 | 179.3 | 181.3 | 180.3 | 179.3 |
| 122.5° | 141.1 | 151.9 | 161.7 | 170.5 | 173.5 | 176.4 | 181.3 | 183.3 | 182.3 | 182.3 |
| 125°   | 137.2 | 149.0 | 159.7 | 168.6 | 171.5 | 174.4 | 180.3 | 182.3 | 183.3 | 183.3 |
| 127.5° | 132.3 | 144.1 | 154.8 | 163.7 | 167.6 | 171.5 | 176.4 | 179.3 | 181.3 | 181.3 |
| 130°   | 125.4 | 138.2 | 149.0 | 157.8 | 161.7 | 165.6 | 170.5 | 175.4 | 177.4 | 178.4 |
| 132.5° | 118.6 | 130.3 | 141.1 | 150.9 | 154.8 | 158.8 | 164.6 | 168.6 | 171.5 | 172.5 |
| 135°   | 110.7 | 121.5 | 132.3 | 141.1 | 145.0 | 149.9 | 155.8 | 160.7 | 163.7 | 164.6 |
| 137.5° | 101.9 | 112.7 | 122.5 | 131.3 | 135.2 | 139.2 | 147.0 | 151.9 | 154.8 | 155.8 |
| 140°   | 93.1  | 103.9 | 112.7 | 121.5 | 125.4 | 129.4 | 136.2 | 141.1 | 144.1 | 145.0 |
| 142.5° | 85.3  | 94.1  | 102.9 | 110.7 | 114.7 | 118.6 | 124.5 | 129.4 | 131.3 | 133.3 |
| 145°   | 75.5  | 84.3  | 92.1  | 100.0 | 102.9 | 105.8 | 111.7 | 115.6 | 117.6 | 118.6 |
| 147.5° | 66.6  | 74.5  | 82.3  | 88.2  | 91.1  | 94.1  | 99.0  | 101.9 | 104.9 | 104.9 |
| 150°   | 56.8  | 64.7  | 71.5  | 77.4  | 80.4  | 82.3  | 86.2  | 89.2  | 90.2  | 91.1  |
| 152.5° | 47.0  | 53.9  | 60.8  | 65.7  | 67.6  | 70.6  | 73.5  | 76.4  | 77.4  | 78.4  |
| 155°   | 37.2  | 44.1  | 50.0  | 54.9  | 56.8  | 58.8  | 60.8  | 63.7  | 64.7  | 65.7  |
| 157.5° | 29.4  | 34.3  | 39.2  | 44.1  | 45.1  | 47.0  | 49.0  | 51.0  | 51.9  | 51.9  |
| 160°   | 21.6  | 25.5  | 29.4  | 33.3  | 35.3  | 36.3  | 39.2  | 39.2  | 41.2  | 41.2  |
| 162.5° | 14.7  | 17.6  | 20.6  | 23.5  | 24.5  | 26.5  | 28.4  | 29.4  | 30.4  | 30.4  |
| 165°   | 9.8   | 10.8  | 13.7  | 15.7  | 15.7  | 16.7  | 19.6  | 19.6  | 19.6  | 20.6  |
| 167.5° | 4.9   | 5.9   | 6.9   | 8.8   | 8.8   | 9.8   | 10.8  | 11.8  | 11.8  | 11.8  |
| 170°   | 2.0   | 2.0   | 2.9   | 2.9   | 2.9   | 3.9   | 3.9   | 4.9   | 4.9   | 4.9   |
| 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)