

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: P241402

Luminaire Tested: **FVS8M-4-LD4-35-2HI-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241402
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-38)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-4-LD4-35-2HI-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
4FT LENGTH, 2-MODULE LED WITH P125 LENS
Light Source: (168) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

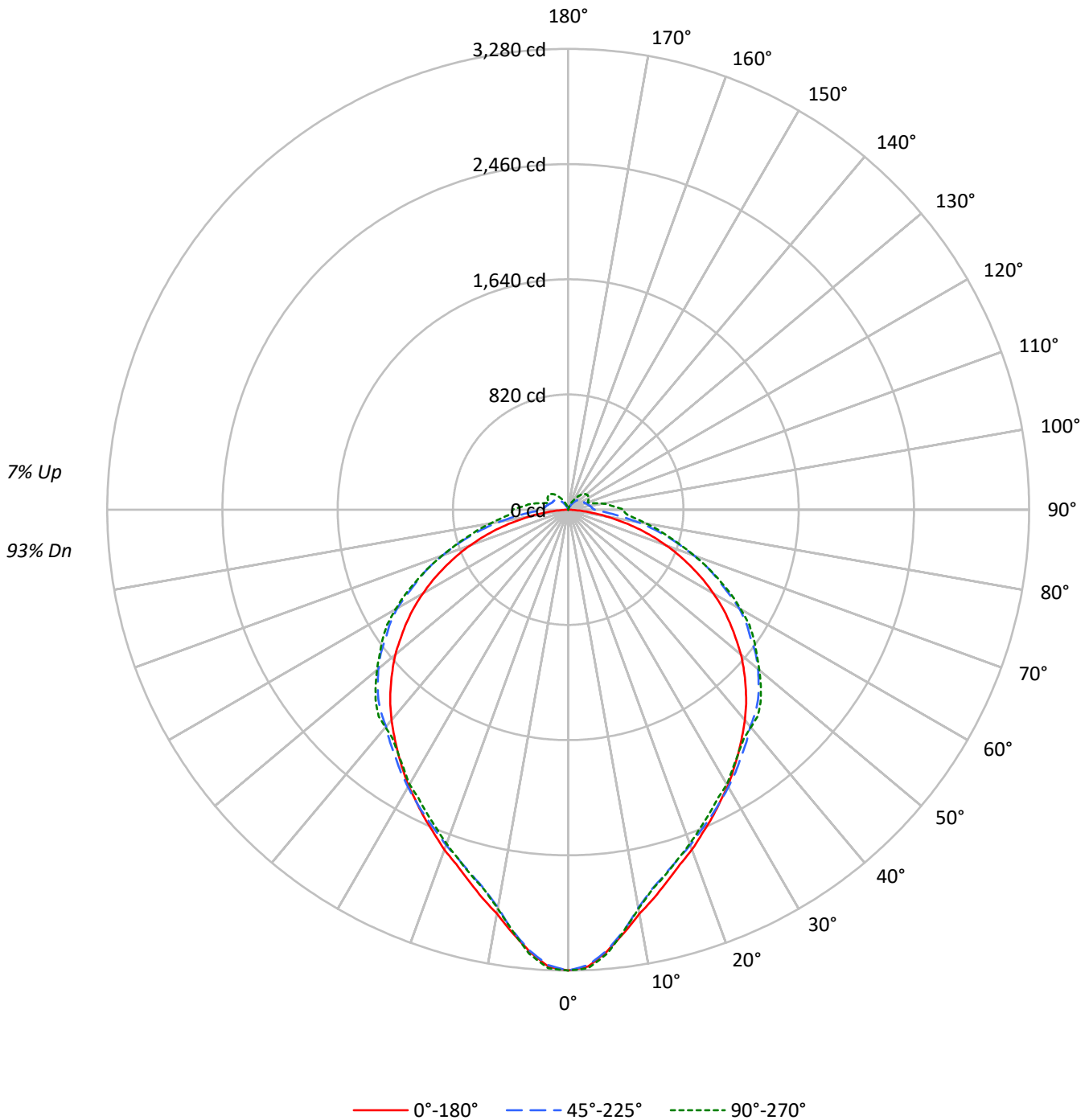
Lumens per Lamp: N/A
Luminaire Lumens: 9109.0 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Spacing Criteria (0/90/45): 1.04 / 1.02 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')
CIE Type: Direct

Input Watts (W): 85.4
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-4-LD4-35-2HI-P125-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	114	114	114	114	107	107	107	101	101	101	96	96	96	93
1	106	101	96	92	103	98	94	90	93	89	86	87	85	82	83	81	79	76
2	96	87	80	74	93	85	78	73	80	75	70	76	71	67	72	68	65	62
3	87	76	68	61	84	74	66	60	70	64	58	67	61	56	63	59	55	52
4	80	67	58	51	77	66	57	51	62	55	49	59	53	48	56	51	47	44
5	73	60	51	44	71	59	50	44	56	48	42	53	46	41	50	45	40	38
6	68	54	45	38	65	53	44	38	50	43	37	48	41	36	46	40	35	33
7	63	49	40	34	60	48	39	33	46	38	33	44	37	32	42	36	31	29
8	58	45	36	30	56	44	35	30	42	34	29	40	33	29	38	32	28	26
9	54	41	33	27	53	40	32	27	38	31	26	37	30	26	35	30	25	23
10	51	38	30	24	49	37	29	24	35	29	24	34	28	23	33	27	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14659	14659	14659
5°	14109	13907	13960
10°	13163	12632	12579
15°	12515	11809	11724
20°	12077	11310	11120
25°	11718	10915	10629
30°	11464	10616	10304
35°	11215	10347	9949
40°	11044	10163	9916
45°	10867	10173	9985
50°	10671	10021	9728
55°	10363	9723	9510
60°	9992	9484	9118
65°	9447	8865	8456
70°	8754	8201	7689
75°	7635	7320	6915
80°	5905	6176	6315
85°	3299	4816	6063



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	292.8	3.2
10°-20°	762.4	8.4
20°-30°	1111.9	12.2
30°-40°	1339.7	14.7
40°-50°	1453.0	16.0
50°-60°	1384.8	15.2
60°-70°	1116.5	12.3
70°-80°	714.1	7.8
80°-90°	319.3	3.5
90°-100°	177.1	1.9
100°-110°	129.2	1.4
110°-120°	101.8	1.1
120°-130°	90.1	1.0
130°-140°	65.9	0.7
140°-150°	35.7	0.4
150°-160°	12.7	0.1
160°-170°	2.1	0.0
170°-180°	0.0	0.0
0°-30°	2167.1	23.8
0°-40°	3506.8	38.5
0°-60°	6344.5	69.7
0°-90°	8494.4	93.3
90°-120°	408.1	4.5
90°-150°	599.8	6.6
90°-180°	615.0	6.8
0°-180°	9109.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3280	3280	3280	3280	3280	
5°	3156	3156	3151	3173	3173	294
15°	2733	2723	2680	2690	2687	771
25°	2420	2422	2407	2402	2382	1116
35°	2112	2143	2145	2136	2112	1323
45°	1786	1841	1911	1942	1936	1378
55°	1404	1497	1582	1617	1614	1255
65°	968	1077	1175	1188	1187	960
75°	507	603	720	756	738	535
85°	93	177	295	372	423	116
90°	1	86	188	267	396	4
95°	1	76	170	244	311	1
105°	1	65	145	181	179	1
115°	1	57	124	147	158	1
125°	1	47	117	156	172	1
135°	2	31	95	137	158	1
145°	2	14	60	96	110	1
155°	2	3	24	49	56	1
165°	3	1	3	10	15	1
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241402

CATALOG NUMBER: FVS8M-4-LD4-35-2HI-P125-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3280.0	3280.0	3280.0	3280.0	3280.0	3280.0	3280.0	3280.0	3280.0	3280.0	3280.0
2.5°	3254.5	3254.5	3254.5	3249.6	3249.6	3255.5	3255.5	3258.5	3253.6	3248.7	3244.7
5°	3155.6	3152.6	3145.8	3146.7	3150.7	3155.6	3154.6	3163.4	3160.5	3154.6	3150.7
7.5°	3038.0	3032.1	3029.1	3029.1	3026.2	3031.1	3028.2	3035.0	3029.1	3024.2	3023.3
10°	2920.4	2920.4	2920.4	2912.5	2913.5	2912.5	2906.6	2902.7	2897.8	2882.1	2875.3
12.5°	2828.2	2826.3	2818.4	2812.6	2812.6	2808.6	2809.6	2801.8	2789.0	2770.4	2762.6
15°	2733.2	2736.1	2733.2	2724.4	2726.3	2723.4	2720.4	2710.6	2704.8	2686.1	2680.3
17.5°	2646.0	2653.8	2647.9	2638.1	2635.2	2633.2	2634.2	2630.3	2618.5	2610.7	2604.8
20°	2575.4	2573.4	2568.5	2560.7	2568.5	2565.6	2565.6	2561.7	2554.8	2546.0	2540.1
22.5°	2493.1	2495.0	2489.2	2489.2	2494.1	2497.0	2491.1	2489.2	2484.3	2473.5	2469.6
25°	2419.6	2421.5	2417.6	2415.7	2419.6	2422.5	2422.5	2422.5	2418.6	2411.7	2406.8
27.5°	2342.2	2349.0	2344.1	2344.1	2352.0	2357.8	2360.8	2355.9	2353.9	2346.1	2343.1
30°	2271.6	2264.8	2267.7	2278.5	2282.4	2289.3	2294.2	2295.1	2285.3	2282.4	2279.5
32.5°	2191.3	2194.2	2188.3	2200.1	2215.8	2223.6	2223.6	2221.6	2218.7	2217.7	2215.8
35°	2111.9	2113.8	2115.8	2130.5	2138.3	2143.2	2151.1	2157.9	2153.0	2148.1	2145.2
37.5°	2032.5	2036.4	2040.3	2051.1	2060.9	2070.7	2079.5	2089.3	2087.4	2080.5	2083.5
40°	1955.1	1960.0	1958.0	1964.9	1992.3	2002.1	2006.0	2014.9	2015.8	2007.0	2015.8
42.5°	1874.7	1874.7	1873.7	1895.3	1912.0	1921.8	1922.7	1942.3	1950.2	1958.0	1967.8
45°	1786.5	1788.5	1797.3	1812.0	1826.7	1841.4	1856.1	1878.6	1887.5	1899.2	1911.0
47.5°	1696.4	1697.3	1712.0	1721.8	1752.2	1768.9	1780.6	1792.4	1807.1	1819.8	1837.5
50°	1606.2	1610.1	1610.1	1641.5	1666.0	1672.8	1683.6	1702.2	1730.7	1748.3	1763.0
52.5°	1502.3	1512.1	1519.0	1544.5	1564.1	1579.7	1598.4	1630.7	1651.3	1667.0	1680.7
55°	1404.3	1399.4	1426.9	1434.7	1475.9	1497.4	1511.1	1533.7	1546.4	1564.1	1581.7
57.5°	1304.4	1303.4	1319.1	1340.6	1384.7	1394.5	1398.4	1425.9	1460.2	1485.7	1502.3
60°	1193.6	1198.5	1208.3	1248.5	1267.1	1276.9	1297.5	1340.6	1365.1	1391.6	1405.3
62.5°	1084.8	1085.8	1113.3	1134.8	1159.3	1183.8	1205.4	1229.9	1243.6	1267.1	1282.8
65°	968.2	974.1	1003.5	1018.2	1064.3	1077.0	1084.8	1109.3	1131.9	1160.3	1175.0
67.5°	857.5	863.4	886.9	905.5	945.7	949.6	963.3	1000.6	1035.8	1057.4	1072.1
70°	741.9	752.6	763.4	797.7	819.3	834.0	853.6	894.7	907.5	932.9	950.6
72.5°	625.2	635.0	646.8	674.2	701.7	718.3	740.9	764.4	779.1	802.6	833.0
75°	506.7	516.5	533.1	555.7	586.0	602.7	614.5	636.0	671.3	698.7	720.3
77.5°	388.1	394.0	417.5	437.1	473.3	484.1	500.8	527.2	560.6	588.0	607.6
80°	280.3	288.1	303.8	327.3	354.8	371.4	384.2	416.5	449.8	469.4	494.9
82.5°	178.4	186.2	204.8	228.3	252.8	267.5	284.2	314.6	343.0	363.6	388.1
85°	93.1	100.0	117.6	142.1	163.7	177.4	194.0	224.4	246.0	271.5	295.0
87.5°	29.4	37.2	54.9	78.4	102.9	115.6	129.4	157.8	179.3	204.8	226.4
90°	1.0	7.8	25.5	48.0	73.5	86.2	99.0	123.5	146.0	167.6	188.2
92.5°	1.0	6.9	23.5	45.1	68.6	80.4	92.1	114.7	137.2	157.8	175.4
95°	1.0	5.9	21.6	43.1	65.7	76.4	88.2	109.8	131.3	150.9	169.5
97.5°	1.0	5.9	20.6	40.2	61.7	72.5	84.3	105.8	126.4	145.0	163.7
100°	1.0	4.9	18.6	38.2	58.8	69.6	80.4	101.9	121.5	140.1	156.8
102.5°	1.0	3.9	17.6	36.3	56.8	66.6	77.4	98.0	116.6	135.2	150.9
105°	1.0	3.9	15.7	34.3	54.9	64.7	75.5	95.1	113.7	130.3	145.0
107.5°	1.0	2.9	14.7	32.3	52.9	62.7	73.5	92.1	109.8	125.4	139.2
110°	1.0	2.9	13.7	31.4	51.0	60.8	70.6	90.2	106.8	121.5	132.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	1.0	2.0	12.7	29.4	49.0	58.8	68.6	87.2	103.9	116.6	127.4
115°	1.0	2.0	11.8	28.4	47.0	56.8	66.6	84.3	100.0	113.7	123.5
117.5°	1.0	1.0	10.8	26.5	45.1	53.9	63.7	82.3	98.0	110.7	121.5
120°	1.0	1.0	8.8	24.5	42.1	51.9	61.7	79.4	96.0	109.8	121.5
122.5°	1.0	1.0	7.8	22.5	40.2	50.0	58.8	76.4	93.1	107.8	119.6
125°	1.0	1.0	6.9	20.6	37.2	47.0	55.9	73.5	90.2	104.9	116.6
127.5°	1.0	1.0	5.9	18.6	34.3	43.1	52.9	69.6	86.2	100.0	112.7
130°	1.0	1.0	3.9	15.7	31.4	40.2	49.0	65.7	81.3	95.1	107.8
132.5°	2.0	1.0	2.9	13.7	28.4	36.3	44.1	60.8	76.4	89.2	101.9
135°	2.0	1.0	2.0	10.8	24.5	31.4	39.2	53.9	69.6	83.3	95.1
137.5°	2.0	2.0	2.0	8.8	20.6	26.5	33.3	48.0	61.7	75.5	88.2
140°	2.0	2.0	1.0	6.9	16.7	22.5	28.4	41.2	53.9	66.6	79.4
142.5°	2.0	2.0	1.0	4.9	12.7	17.6	23.5	34.3	47.0	58.8	69.6
145°	2.0	2.0	1.0	2.9	9.8	13.7	18.6	28.4	39.2	49.0	59.8
147.5°	2.0	2.0	1.0	2.0	6.9	10.8	13.7	22.5	31.4	40.2	49.0
150°	2.0	2.0	1.0	2.0	4.9	6.9	10.8	17.6	24.5	32.3	40.2
152.5°	2.0	2.0	2.0	1.0	2.9	4.9	7.8	12.7	19.6	25.5	32.3
155°	2.0	2.0	2.0	1.0	2.0	2.9	4.9	8.8	13.7	19.6	24.5
157.5°	2.9	2.0	2.0	1.0	1.0	2.0	2.9	5.9	9.8	13.7	17.6
160°	2.9	2.0	2.0	1.0	1.0	1.0	2.0	2.9	5.9	8.8	11.8
162.5°	2.9	2.9	2.0	1.0	1.0	1.0	1.0	2.0	2.9	4.9	6.9
165°	2.9	2.9	2.0	2.0	1.0	1.0	1.0	1.0	1.0	2.0	2.9
167.5°	2.9	2.9	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
170°	2.9	2.9	2.0	2.0	1.0	1.0	1.0	1.0	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	3280.0	3280.0	3280.0	3280.0	3280.0	3280.0	3280.0	3280.0	3280.0	3280.0
2.5°	3244.7	3255.5	3263.4	3266.3	3267.3	3265.3	3269.2	3270.2	3269.2	3266.3
5°	3151.6	3162.4	3171.2	3174.2	3173.2	3177.1	3175.2	3176.1	3175.2	3173.2
7.5°	3012.5	3015.4	3019.3	3014.4	3020.3	3021.3	3013.5	3018.4	3020.3	3025.2
10°	2875.3	2877.2	2880.2	2878.2	2880.2	2880.2	2880.2	2881.2	2885.1	2882.1
12.5°	2761.6	2765.5	2776.3	2773.4	2778.3	2784.1	2777.3	2772.4	2779.2	2767.5
15°	2682.2	2685.2	2687.1	2684.2	2690.1	2687.1	2685.2	2680.3	2686.1	2687.1
17.5°	2607.7	2605.8	2612.6	2606.8	2607.7	2605.8	2604.8	2597.9	2596.0	2603.8
20°	2541.1	2536.2	2531.3	2535.2	2540.1	2536.2	2535.2	2530.3	2531.3	2530.3
22.5°	2467.6	2473.5	2477.4	2476.4	2471.5	2473.5	2466.6	2458.8	2457.8	2452.9
25°	2408.8	2410.8	2408.8	2408.8	2401.9	2399.0	2401.9	2394.1	2386.3	2382.3
27.5°	2345.1	2346.1	2346.1	2338.2	2336.3	2334.3	2327.5	2321.6	2315.7	2310.8
30°	2275.5	2281.4	2274.6	2278.5	2276.5	2269.7	2264.8	2256.9	2251.0	2256.9
32.5°	2214.8	2210.9	2210.9	2207.9	2206.0	2207.9	2198.1	2185.4	2179.5	2180.5
35°	2146.2	2146.2	2150.1	2143.2	2136.4	2134.4	2125.6	2122.7	2110.9	2111.9
37.5°	2083.5	2081.5	2083.5	2081.5	2077.6	2076.6	2059.9	2062.9	2059.9	2052.1
40°	2027.6	2034.5	2036.4	2023.7	2028.6	2032.5	2020.7	2022.7	2017.8	2021.7
42.5°	1980.6	1985.5	1993.3	1991.3	1987.4	1982.5	1991.3	1994.3	1989.4	1995.3
45°	1924.7	1933.5	1934.5	1943.3	1942.3	1938.4	1939.4	1936.5	1931.6	1936.5
47.5°	1849.2	1856.1	1862.0	1863.0	1869.8	1869.8	1863.0	1865.9	1871.8	1858.1
50°	1774.8	1777.7	1784.6	1780.6	1783.6	1787.5	1785.5	1777.7	1777.7	1775.7
52.5°	1692.4	1699.3	1700.3	1702.2	1701.3	1692.4	1694.4	1694.4	1687.5	1690.5
55°	1600.3	1616.0	1621.9	1618.0	1617.0	1619.9	1613.1	1624.8	1613.1	1614.0
57.5°	1514.1	1517.0	1524.9	1525.8	1522.9	1529.8	1526.8	1525.8	1522.9	1528.8
60°	1415.1	1418.0	1418.0	1412.2	1420.0	1412.2	1415.1	1413.1	1422.0	1419.0
62.5°	1296.5	1304.4	1311.2	1300.4	1301.4	1298.5	1297.5	1297.5	1305.3	1308.3
65°	1184.8	1183.8	1193.6	1186.8	1187.7	1189.7	1177.9	1184.8	1184.8	1186.8
67.5°	1083.9	1081.9	1078.0	1075.0	1074.1	1073.1	1070.1	1064.3	1068.2	1071.1
70°	962.3	974.1	968.2	968.2	966.3	964.3	968.2	949.6	952.5	953.5
72.5°	847.7	853.6	862.4	866.3	863.4	858.5	854.5	847.7	839.8	841.8
75°	734.0	739.9	751.7	754.6	755.6	752.6	754.6	748.7	744.8	737.9
77.5°	624.3	634.1	640.9	652.7	652.7	653.7	658.6	656.6	650.7	652.7
80°	510.6	521.4	536.1	548.8	553.7	555.7	557.6	556.6	558.6	559.6
82.5°	403.8	430.2	438.1	451.8	457.7	459.6	469.4	473.3	476.3	482.2
85°	316.5	335.2	353.8	366.5	372.4	377.3	387.1	399.8	415.5	423.4
87.5°	247.0	263.6	281.3	296.9	306.7	314.6	330.3	355.7	384.2	401.8
90°	205.8	223.4	242.1	257.7	266.6	275.4	298.9	331.2	373.4	395.9
92.5°	193.1	211.7	227.4	244.0	252.8	262.6	287.1	316.5	343.0	351.8
95°	187.2	204.8	218.5	234.2	244.0	253.8	273.4	292.0	305.8	310.7
97.5°	180.3	196.0	209.7	225.4	232.3	240.1	256.8	271.5	282.2	287.1
100°	172.5	187.2	198.9	211.7	216.6	223.4	238.1	248.9	253.8	250.9
102.5°	165.6	176.4	187.2	196.0	199.9	204.8	212.7	214.6	213.6	210.7
105°	156.8	166.6	173.5	178.4	181.3	183.3	185.2	184.2	182.3	179.3
107.5°	149.0	155.8	160.7	161.7	163.7	164.6	165.6	163.7	160.7	159.7
110°	141.1	147.0	149.9	150.9	150.9	151.9	152.9	152.9	150.9	149.9



TEST NUMBER: P241402

CATALOG NUMBER: FVS8M-4-LD4-35-2HI-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	135.2	140.1	143.1	145.0	146.0	147.0	149.9	151.9	150.9	150.9
115°	131.3	137.2	142.1	145.0	147.0	149.0	153.9	156.8	157.8	157.8
117.5°	130.3	138.2	144.1	149.0	150.9	153.9	158.8	162.7	163.7	163.7
120°	131.3	139.2	146.0	151.9	154.8	157.8	162.7	166.6	168.6	169.5
122.5°	130.3	139.2	147.0	153.9	156.8	159.7	164.6	169.5	171.5	171.5
125°	127.4	137.2	145.0	152.9	155.8	158.8	164.6	169.5	172.5	172.5
127.5°	123.5	133.3	142.1	149.9	152.9	156.8	162.7	167.6	171.5	171.5
130°	118.6	129.4	138.2	146.0	149.0	152.9	158.8	164.6	167.6	168.6
132.5°	112.7	123.5	132.3	140.1	144.1	147.0	153.9	159.7	162.7	164.6
135°	106.8	116.6	125.4	134.3	137.2	141.1	147.0	151.9	155.8	157.8
137.5°	99.0	108.8	117.6	125.4	128.4	132.3	138.2	143.1	147.0	148.0
140°	90.2	100.0	108.8	115.6	119.6	122.5	128.4	132.3	135.2	136.2
142.5°	80.4	90.2	98.0	104.9	107.8	110.7	115.6	119.6	122.5	123.5
145°	69.6	79.4	86.2	93.1	96.0	98.0	102.9	105.8	109.8	109.8
147.5°	58.8	67.6	75.5	81.3	83.3	86.2	90.2	93.1	94.1	95.1
150°	48.0	55.9	63.7	69.6	71.5	73.5	76.4	79.4	81.3	81.3
152.5°	38.2	45.1	51.9	58.8	59.8	61.7	64.7	66.6	68.6	68.6
155°	30.4	35.3	40.2	46.1	49.0	51.0	52.9	54.9	55.9	55.9
157.5°	22.5	26.5	30.4	35.3	37.2	40.2	42.1	43.1	44.1	45.1
160°	14.7	18.6	21.6	25.5	27.4	29.4	31.4	33.3	34.3	34.3
162.5°	8.8	11.8	13.7	16.7	17.6	18.6	22.5	23.5	23.5	23.5
165°	4.9	5.9	7.8	8.8	9.8	10.8	12.7	14.7	14.7	14.7
167.5°	1.0	2.0	2.9	2.9	3.9	3.9	4.9	6.9	6.9	6.9
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
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)