

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: P241400

Luminaire Tested: **FVS8M-4-LD4-50-2STD-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241400
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-LD4-50-2STD-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
4FT LENGTH, 2-MODULE LED WITH P125 LENS
Light Source: (168) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

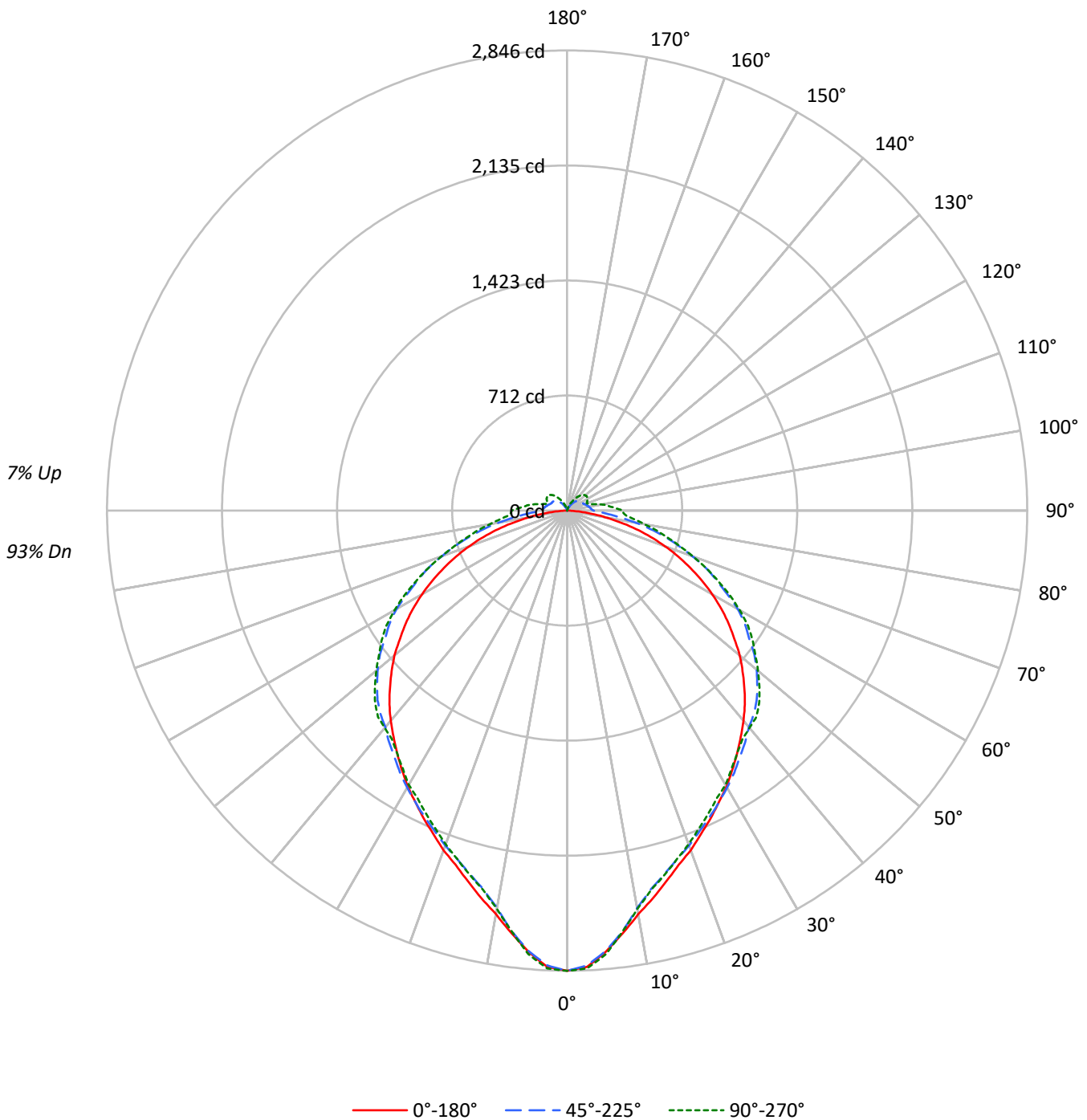
Lumens per Lamp: N/A
Luminaire Lumens: 7905.1 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Spacing Criteria (0/90/45): 1.04 / 1.02 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')
CIE Type: Direct

Input Watts (W): 64.9
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-LD4-50-2STD-P125-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241400

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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°	12722	12722	12722
5°	12244	12069	12115
10°	11423	10962	10916
15°	10861	10248	10174
20°	10481	9815	9651
25°	10169	9473	9224
30°	9949	9213	8942
35°	9733	8979	8634
40°	9584	8820	8606
45°	9431	8828	8665
50°	9260	8697	8443
55°	8994	8438	8253
60°	8672	8231	7913
65°	8199	7693	7338
70°	7597	7117	6673
75°	6626	6353	6001
80°	5123	5360	5480
85°	2863	4179	5261



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.1	3.2
10°-20°	661.6	8.4
20°-30°	964.9	12.2
30°-40°	1162.6	14.7
40°-50°	1260.9	16.0
50°-60°	1201.7	15.2
60°-70°	969.0	12.3
70°-80°	619.7	7.8
80°-90°	277.1	3.5
90°-100°	153.7	1.9
100°-110°	112.1	1.4
110°-120°	88.3	1.1
120°-130°	78.2	1.0
130°-140°	57.2	0.7
140°-150°	31.0	0.4
150°-160°	11.1	0.1
160°-170°	1.8	0.0
170°-180°	0.0	0.0
0°-30°	1880.7	23.8
0°-40°	3043.3	38.5
0°-60°	5505.9	69.7
0°-90°	7371.7	93.3
90°-120°	354.1	4.5
90°-150°	520.5	6.6
90°-180°	533.0	6.7
0°-180°	7905.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2846	2846	2846	2846	2846	
5°	2738	2738	2734	2754	2754	255
15°	2372	2363	2326	2334	2332	669
25°	2100	2102	2089	2084	2068	968
35°	1833	1860	1862	1854	1833	1148
45°	1550	1598	1658	1686	1680	1196
55°	1219	1300	1373	1403	1401	1089
65°	840	935	1020	1031	1030	833
75°	440	523	625	656	640	465
85°	81	154	256	323	367	101
90°	1	75	163	231	344	4
95°	1	66	147	212	270	1
105°	1	56	126	157	156	1
115°	1	49	107	128	137	1
125°	1	41	101	135	150	1
135°	2	27	82	119	137	1
145°	2	12	52	83	95	1
155°	2	3	21	42	48	1
165°	3	1	3	8	13	1
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241400

CATALOG NUMBER: FVS8M-4-LD4-50-2STD-P125-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2846.5	2846.5	2846.5	2846.5	2846.5	2846.5	2846.5	2846.5	2846.5	2846.5	2846.5
2.5°	2824.4	2824.4	2824.4	2820.1	2820.1	2825.2	2825.2	2827.8	2823.5	2819.3	2815.9
5°	2738.5	2735.9	2730.0	2730.8	2734.2	2738.5	2737.6	2745.3	2742.7	2737.6	2734.2
7.5°	2636.4	2631.3	2628.8	2628.8	2626.2	2630.5	2627.9	2633.9	2628.8	2624.5	2623.7
10°	2534.4	2534.4	2534.4	2527.6	2528.4	2527.6	2522.5	2519.0	2514.8	2501.2	2495.2
12.5°	2454.4	2452.7	2445.9	2440.8	2440.8	2437.4	2438.3	2431.5	2420.4	2404.2	2397.4
15°	2371.9	2374.5	2371.9	2364.3	2366.0	2363.4	2360.9	2352.4	2347.3	2331.1	2326.0
17.5°	2296.2	2303.0	2297.9	2289.4	2286.9	2285.2	2286.0	2282.6	2272.4	2265.6	2260.5
20°	2235.0	2233.3	2229.0	2222.2	2229.0	2226.5	2226.5	2223.1	2217.1	2209.5	2204.4
22.5°	2163.6	2165.3	2160.2	2160.2	2164.4	2167.0	2161.9	2160.2	2155.9	2146.5	2143.1
25°	2099.8	2101.5	2098.1	2096.4	2099.8	2102.3	2102.3	2102.3	2098.9	2093.0	2088.7
27.5°	2032.6	2038.5	2034.3	2034.3	2041.1	2046.2	2048.7	2044.5	2042.8	2036.0	2033.4
30°	1971.4	1965.4	1968.0	1977.3	1980.7	1986.7	1990.9	1991.8	1983.3	1980.7	1978.2
32.5°	1901.6	1904.2	1899.1	1909.3	1922.9	1929.7	1929.7	1928.0	1925.4	1924.6	1922.9
35°	1832.7	1834.4	1836.1	1848.9	1855.7	1859.9	1866.8	1872.7	1868.5	1864.2	1861.6
37.5°	1763.8	1767.2	1770.6	1780.0	1788.5	1797.0	1804.7	1813.2	1811.5	1805.5	1808.1
40°	1696.7	1700.9	1699.2	1705.2	1729.0	1737.5	1740.9	1748.5	1749.4	1741.7	1749.4
42.5°	1626.9	1626.9	1626.1	1644.8	1659.2	1667.7	1668.6	1685.6	1692.4	1699.2	1707.7
45°	1550.4	1552.1	1559.7	1572.5	1585.2	1598.0	1610.8	1630.3	1638.0	1648.2	1658.4
47.5°	1472.1	1473.0	1485.7	1494.3	1520.6	1535.1	1545.3	1555.5	1568.2	1579.3	1594.6
50°	1393.9	1397.3	1397.3	1424.5	1445.8	1451.7	1461.1	1477.2	1501.9	1517.2	1530.0
52.5°	1303.7	1312.3	1318.2	1340.3	1357.3	1370.9	1387.1	1415.2	1433.0	1446.6	1458.5
55°	1218.7	1214.5	1238.3	1245.1	1280.8	1299.5	1311.4	1331.0	1342.0	1357.3	1372.6
57.5°	1132.0	1131.1	1144.7	1163.4	1201.7	1210.2	1213.6	1237.4	1267.2	1289.3	1303.7
60°	1035.9	1040.1	1048.6	1083.5	1099.6	1108.1	1126.0	1163.4	1184.7	1207.6	1219.6
62.5°	941.5	942.3	966.1	984.8	1006.1	1027.4	1046.1	1067.3	1079.2	1099.6	1113.2
65°	840.3	845.4	870.9	883.6	923.6	934.7	941.5	962.7	982.3	1006.9	1019.7
67.5°	744.1	749.3	769.7	785.8	820.7	824.1	836.0	868.3	898.9	917.6	930.4
70°	643.8	653.1	662.5	692.3	711.0	723.7	740.7	776.5	787.5	809.6	824.9
72.5°	542.6	551.1	561.3	585.1	608.9	623.4	642.9	663.4	676.1	696.5	722.9
75°	439.7	448.2	462.6	482.2	508.6	523.0	533.2	551.9	582.6	606.4	625.1
77.5°	336.8	341.9	362.3	379.3	410.8	420.1	434.6	457.5	486.5	510.3	527.3
80°	243.2	250.0	263.6	284.1	307.9	322.3	333.4	361.4	390.4	407.4	429.5
82.5°	154.8	161.6	177.7	198.2	219.4	232.2	246.6	273.0	297.7	315.5	336.8
85°	80.8	86.7	102.1	123.3	142.0	153.9	168.4	194.8	213.5	235.6	256.0
87.5°	25.5	32.3	47.6	68.0	89.3	100.4	112.3	136.9	155.6	177.7	196.5
90°	0.9	6.8	22.1	41.7	63.8	74.8	85.9	107.2	126.7	145.4	163.3
92.5°	0.9	6.0	20.4	39.1	59.5	69.7	79.9	99.5	119.1	136.9	152.2
95°	0.9	5.1	18.7	37.4	57.0	66.3	76.5	95.3	114.0	131.0	147.1
97.5°	0.9	5.1	17.9	34.9	53.6	62.9	73.1	91.8	109.7	125.9	142.0
100°	0.9	4.3	16.2	33.2	51.0	60.4	69.7	88.4	105.5	121.6	136.1
102.5°	0.9	3.4	15.3	31.5	49.3	57.8	67.2	85.0	101.2	117.4	131.0
105°	0.9	3.4	13.6	29.8	47.6	56.1	65.5	82.5	98.7	113.1	125.9
107.5°	0.9	2.6	12.8	28.1	45.9	54.4	63.8	79.9	95.3	108.9	120.8
110°	0.9	2.6	11.9	27.2	44.2	52.7	61.2	78.2	92.7	105.5	114.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.9	1.7	11.1	25.5	42.5	51.0	59.5	75.7	90.1	101.2	110.6
115°	0.9	1.7	10.2	24.7	40.8	49.3	57.8	73.1	86.7	98.7	107.2
117.5°	0.9	0.9	9.4	23.0	39.1	46.8	55.3	71.4	85.0	96.1	105.5
120°	0.9	0.9	7.7	21.3	36.6	45.1	53.6	68.9	83.3	95.3	105.5
122.5°	0.9	0.9	6.8	19.6	34.9	43.4	51.0	66.3	80.8	93.6	103.8
125°	0.9	0.9	6.0	17.9	32.3	40.8	48.5	63.8	78.2	91.0	101.2
127.5°	0.9	0.9	5.1	16.2	29.8	37.4	45.9	60.4	74.8	86.7	97.8
130°	0.9	0.9	3.4	13.6	27.2	34.9	42.5	57.0	70.6	82.5	93.6
132.5°	1.7	0.9	2.6	11.9	24.7	31.5	38.3	52.7	66.3	77.4	88.4
135°	1.7	0.9	1.7	9.4	21.3	27.2	34.0	46.8	60.4	72.3	82.5
137.5°	1.7	1.7	1.7	7.7	17.9	23.0	28.9	41.7	53.6	65.5	76.5
140°	1.7	1.7	0.9	6.0	14.5	19.6	24.7	35.7	46.8	57.8	68.9
142.5°	1.7	1.7	0.9	4.3	11.1	15.3	20.4	29.8	40.8	51.0	60.4
145°	1.7	1.7	0.9	2.6	8.5	11.9	16.2	24.7	34.0	42.5	51.9
147.5°	1.7	1.7	0.9	1.7	6.0	9.4	11.9	19.6	27.2	34.9	42.5
150°	1.7	1.7	0.9	1.7	4.3	6.0	9.4	15.3	21.3	28.1	34.9
152.5°	1.7	1.7	1.7	0.9	2.6	4.3	6.8	11.1	17.0	22.1	28.1
155°	1.7	1.7	1.7	0.9	1.7	2.6	4.3	7.7	11.9	17.0	21.3
157.5°	2.6	1.7	1.7	0.9	0.9	1.7	2.6	5.1	8.5	11.9	15.3
160°	2.6	1.7	1.7	0.9	0.9	0.9	1.7	2.6	5.1	7.7	10.2
162.5°	2.6	2.6	1.7	0.9	0.9	0.9	0.9	1.7	2.6	4.3	6.0
165°	2.6	2.6	1.7	1.7	0.9	0.9	0.9	0.9	0.9	1.7	2.6
167.5°	2.6	2.6	1.7	1.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
170°	2.6	2.6	1.7	1.7	0.9	0.9	0.9	0.9	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°	2846.5	2846.5	2846.5	2846.5	2846.5	2846.5	2846.5	2846.5	2846.5	2846.5
2.5°	2815.9	2825.2	2832.0	2834.6	2835.4	2833.7	2837.1	2838.0	2837.1	2834.6
5°	2735.1	2744.4	2752.1	2754.6	2753.8	2757.2	2755.5	2756.3	2755.5	2753.8
7.5°	2614.3	2616.9	2620.3	2616.0	2621.1	2622.0	2615.2	2619.4	2621.1	2625.4
10°	2495.2	2496.9	2499.5	2497.8	2499.5	2499.5	2499.5	2500.3	2503.7	2501.2
12.5°	2396.6	2400.0	2409.3	2406.8	2411.0	2416.1	2410.2	2405.9	2411.9	2401.7
15°	2327.7	2330.2	2331.9	2329.4	2334.5	2331.9	2330.2	2326.0	2331.1	2331.9
17.5°	2263.1	2261.4	2267.3	2262.2	2263.1	2261.4	2260.5	2254.6	2252.9	2259.7
20°	2205.2	2201.0	2196.7	2200.1	2204.4	2201.0	2200.1	2195.9	2196.7	2195.9
22.5°	2141.4	2146.5	2150.0	2149.1	2144.8	2146.5	2140.6	2133.8	2132.9	2128.7
25°	2090.4	2092.1	2090.4	2090.4	2084.5	2081.9	2084.5	2077.7	2070.9	2067.5
27.5°	2035.1	2036.0	2036.0	2029.2	2027.5	2025.8	2019.8	2014.7	2009.6	2005.4
30°	1974.8	1979.9	1973.9	1977.3	1975.6	1969.7	1965.4	1958.6	1953.5	1958.6
32.5°	1922.0	1918.6	1918.6	1916.1	1914.4	1916.1	1907.6	1896.5	1891.4	1892.3
35°	1862.5	1862.5	1865.9	1859.9	1854.0	1852.3	1844.6	1842.1	1831.9	1832.7
37.5°	1808.1	1806.4	1808.1	1806.4	1803.0	1802.1	1787.7	1790.2	1787.7	1780.9
40°	1759.6	1765.5	1767.2	1756.2	1760.4	1763.8	1753.6	1755.3	1751.1	1754.5
42.5°	1718.8	1723.0	1729.8	1728.1	1724.7	1720.5	1728.1	1730.7	1726.4	1731.5
45°	1670.3	1677.9	1678.8	1686.5	1685.6	1682.2	1683.1	1680.5	1676.2	1680.5
47.5°	1604.8	1610.8	1615.9	1616.7	1622.7	1622.7	1616.7	1619.3	1624.4	1612.5
50°	1540.2	1542.7	1548.7	1545.3	1547.8	1551.2	1549.5	1542.7	1542.7	1541.0
52.5°	1468.7	1474.7	1475.5	1477.2	1476.4	1468.7	1470.4	1470.4	1464.5	1467.0
55°	1388.8	1402.4	1407.5	1404.1	1403.3	1405.8	1399.8	1410.1	1399.8	1400.7
57.5°	1314.0	1316.5	1323.3	1324.2	1321.6	1327.6	1325.0	1324.2	1321.6	1326.7
60°	1228.1	1230.6	1230.6	1225.5	1232.3	1225.5	1228.1	1226.4	1234.0	1231.5
62.5°	1125.2	1132.0	1137.9	1128.6	1129.4	1126.9	1126.0	1126.0	1132.8	1135.4
65°	1028.2	1027.4	1035.9	1029.9	1030.8	1032.5	1022.2	1028.2	1028.2	1029.9
67.5°	940.6	938.9	935.5	932.9	932.1	931.2	928.7	923.6	927.0	929.5
70°	835.1	845.4	840.3	840.3	838.5	836.8	840.3	824.1	826.6	827.5
72.5°	735.6	740.7	748.4	751.8	749.3	745.0	741.6	735.6	728.8	730.5
75°	637.0	642.1	652.3	654.9	655.7	653.1	654.9	649.7	646.3	640.4
77.5°	541.7	550.2	556.2	566.4	566.4	567.3	571.5	569.8	564.7	566.4
80°	443.1	452.4	465.2	476.3	480.5	482.2	483.9	483.1	484.8	485.6
82.5°	350.4	373.4	380.2	392.1	397.2	398.9	407.4	410.8	413.3	418.4
85°	274.7	290.9	307.0	318.1	323.2	327.4	335.9	347.0	360.6	367.4
87.5°	214.3	228.8	244.1	257.7	266.2	273.0	286.6	308.7	333.4	348.7
90°	178.6	193.9	210.1	223.7	231.3	239.0	259.4	287.5	324.0	343.6
92.5°	167.5	183.7	197.3	211.8	219.4	227.9	249.2	274.7	297.7	305.3
95°	162.4	177.7	189.7	203.3	211.8	220.3	237.3	253.4	265.3	269.6
97.5°	156.5	170.1	182.0	195.6	201.6	208.4	222.8	235.6	244.9	249.2
100°	149.7	162.4	172.6	183.7	188.0	193.9	206.7	216.0	220.3	217.7
102.5°	143.7	153.1	162.4	170.1	173.5	177.7	184.5	186.2	185.4	182.8
105°	136.1	144.6	150.5	154.8	157.3	159.0	160.7	159.9	158.2	155.6
107.5°	129.3	135.2	139.5	140.3	142.0	142.9	143.7	142.0	139.5	138.6
110°	122.5	127.6	130.1	131.0	131.0	131.8	132.7	132.7	131.0	130.1



TEST NUMBER: P241400

CATALOG NUMBER: FVS8M-4-LD4-50-2STD-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	117.4	121.6	124.2	125.9	126.7	127.6	130.1	131.8	131.0	131.0
115°	114.0	119.1	123.3	125.9	127.6	129.3	133.5	136.1	136.9	136.9
117.5°	113.1	119.9	125.0	129.3	131.0	133.5	137.8	141.2	142.0	142.0
120°	114.0	120.8	126.7	131.8	134.4	136.9	141.2	144.6	146.3	147.1
122.5°	113.1	120.8	127.6	133.5	136.1	138.6	142.9	147.1	148.8	148.8
125°	110.6	119.1	125.9	132.7	135.2	137.8	142.9	147.1	149.7	149.7
127.5°	107.2	115.7	123.3	130.1	132.7	136.1	141.2	145.4	148.8	148.8
130°	102.9	112.3	119.9	126.7	129.3	132.7	137.8	142.9	145.4	146.3
132.5°	97.8	107.2	114.8	121.6	125.0	127.6	133.5	138.6	141.2	142.9
135°	92.7	101.2	108.9	116.5	119.1	122.5	127.6	131.8	135.2	136.9
137.5°	85.9	94.4	102.1	108.9	111.4	114.8	119.9	124.2	127.6	128.4
140°	78.2	86.7	94.4	100.4	103.8	106.3	111.4	114.8	117.4	118.2
142.5°	69.7	78.2	85.0	91.0	93.6	96.1	100.4	103.8	106.3	107.2
145°	60.4	68.9	74.8	80.8	83.3	85.0	89.3	91.8	95.3	95.3
147.5°	51.0	58.7	65.5	70.6	72.3	74.8	78.2	80.8	81.6	82.5
150°	41.7	48.5	55.3	60.4	62.1	63.8	66.3	68.9	70.6	70.6
152.5°	33.2	39.1	45.1	51.0	51.9	53.6	56.1	57.8	59.5	59.5
155°	26.4	30.6	34.9	40.0	42.5	44.2	45.9	47.6	48.5	48.5
157.5°	19.6	23.0	26.4	30.6	32.3	34.9	36.6	37.4	38.3	39.1
160°	12.8	16.2	18.7	22.1	23.8	25.5	27.2	28.9	29.8	29.8
162.5°	7.7	10.2	11.9	14.5	15.3	16.2	19.6	20.4	20.4	20.4
165°	4.3	5.1	6.8	7.7	8.5	9.4	11.1	12.8	12.8	12.8
167.5°	0.9	1.7	2.6	2.6	3.4	3.4	4.3	6.0	6.0	6.0
170°	0.0	0.0	0.0	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
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)