

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: P241368

Luminaire Tested: **FVS8M-3-LD4-50-2HI-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241368
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-3-LD4-50-2HI-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
3FT LENGTH, 2-MODULE LED WITH P125 LENS
Light Source: (168) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

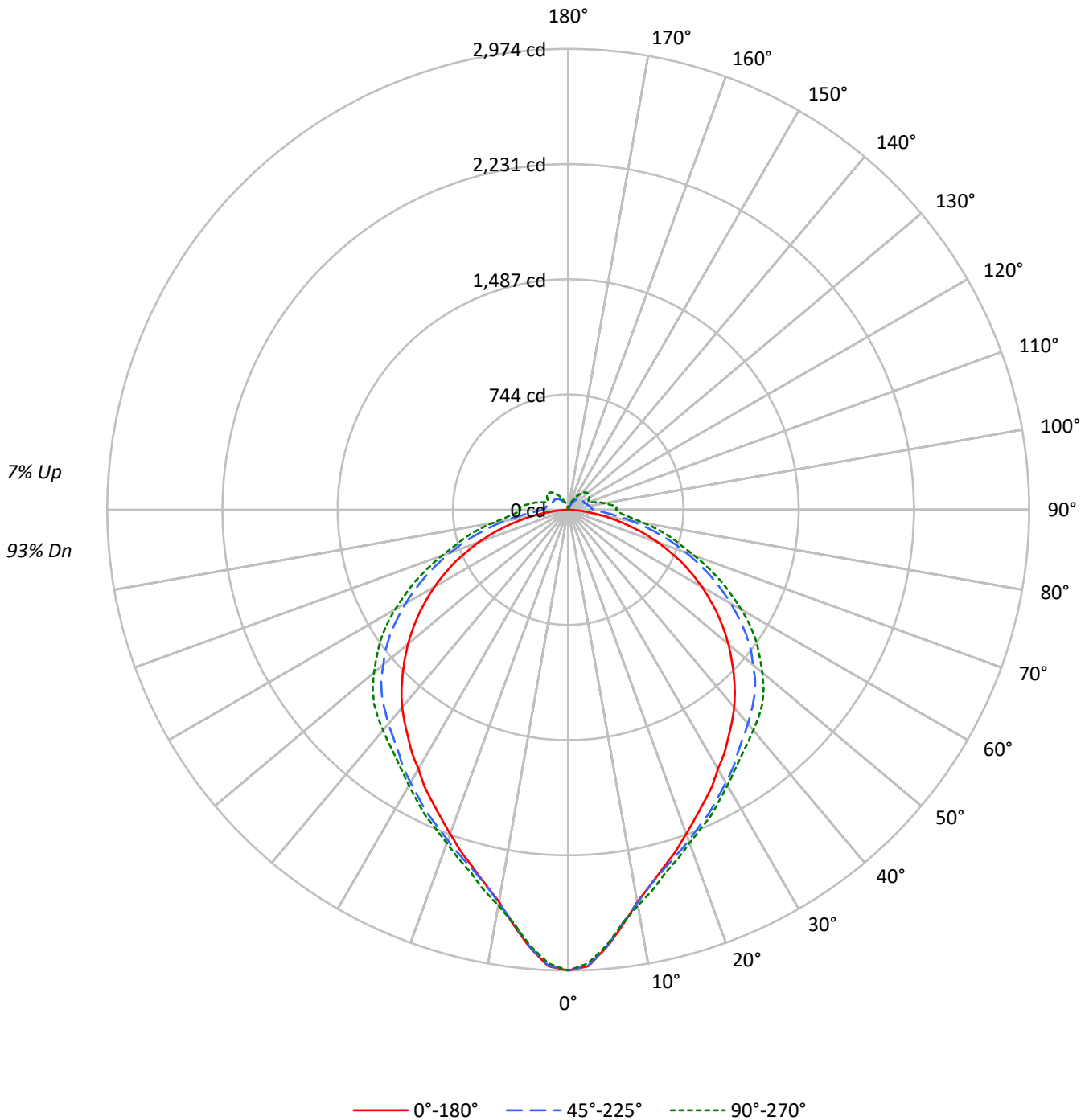
Lumens per Lamp: N/A
Luminaire Lumens: 8054.0 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 1.03 / 1.26
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 69.3
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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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	95	95	95	93
1	106	101	97	92	103	98	94	90	93	89	86	87	85	82	83	80	78	76
2	96	88	80	74	93	85	79	73	80	75	70	76	71	68	72	68	65	62
3	87	77	68	61	84	74	67	60	70	64	58	67	61	57	63	59	55	52
4	80	68	59	52	77	66	57	51	62	55	50	59	53	48	56	51	47	44
5	73	60	51	44	71	59	50	44	56	48	43	53	47	42	50	45	40	38
6	68	54	45	39	65	53	44	38	50	43	37	48	41	36	46	40	35	33
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	31	29
8	58	45	36	30	56	44	36	30	42	35	29	40	34	29	38	33	28	26
9	55	41	33	27	53	40	32	27	38	31	26	37	31	26	35	30	25	24
10	51	38	30	25	49	37	30	24	36	29	24	34	28	24	33	27	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17364	17364	17364
5°	16545	16327	16225
10°	15096	14754	14792
15°	14229	13776	13820
20°	13578	13177	13145
25°	13071	12736	12701
30°	12650	12318	12259
35°	12376	11971	11965
40°	12179	11807	11904
45°	11873	11736	11939
50°	11551	11468	11711
55°	11171	11146	11401
60°	10701	10567	10844
65°	10089	9867	10108
70°	9187	8971	9117
75°	7883	7878	8392
80°	6075	6579	7300
85°	3342	5144	6655



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.8	3.3
10°-20°	678.9	8.4
20°-30°	989.2	12.3
30°-40°	1190.3	14.8
40°-50°	1287.9	16.0
50°-60°	1217.3	15.1
60°-70°	966.4	12.0
70°-80°	613.1	7.6
80°-90°	267.0	3.3
90°-100°	153.5	1.9
100°-110°	119.9	1.5
110°-120°	93.5	1.2
120°-130°	85.9	1.1
130°-140°	68.1	0.8
140°-150°	40.4	0.5
150°-160°	16.6	0.2
160°-170°	4.0	0.0
170°-180°	0.1	0.0
0°-30°	1929.8	24.0
0°-40°	3120.1	38.7
0°-60°	5625.4	69.8
0°-90°	7471.9	92.8
90°-120°	366.8	4.6
90°-150°	561.3	7.0
90°-180°	582.0	7.2
0°-180°	8054.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2974	2974	2974	2974	2974	
5°	2835	2839	2833	2822	2823	262
15°	2386	2383	2398	2417	2424	673
25°	2077	2120	2157	2178	2179	958
35°	1798	1860	1910	1947	1944	1128
45°	1511	1581	1699	1761	1772	1166
55°	1177	1274	1401	1461	1481	1051
65°	810	896	1014	1054	1086	798
75°	416	497	604	662	685	441
85°	79	141	249	311	356	96
90°	2	67	162	224	308	4
95°	1	64	147	209	296	1
105°	1	58	128	174	183	1
115°	1	53	111	134	145	1
125°	1	48	109	147	164	1
135°	2	40	99	138	158	1
145°	2	25	72	102	116	1
155°	2	11	36	58	64	1
165°	3	3	12	21	25	1
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2973.5	2973.5	2973.5	2973.5	2973.5	2973.5	2973.5	2973.5	2973.5	2973.5	2973.5
2.5°	2948.5	2944.4	2945.4	2940.2	2942.3	2945.4	2945.4	2948.5	2949.6	2947.5	2944.4
5°	2835.2	2841.4	2837.2	2834.1	2835.2	2839.3	2838.3	2841.4	2838.3	2839.3	2833.1
7.5°	2702.0	2704.1	2696.8	2691.6	2693.7	2694.8	2697.9	2700.0	2705.2	2694.8	2691.6
10°	2568.9	2578.3	2566.8	2564.8	2566.8	2565.8	2571.0	2564.8	2570.0	2570.0	2574.1
12.5°	2473.2	2474.3	2478.4	2464.9	2464.9	2465.9	2464.9	2463.9	2465.9	2472.2	2475.3
15°	2385.9	2389.0	2389.0	2381.7	2381.7	2382.7	2384.8	2386.9	2387.9	2400.4	2398.3
17.5°	2308.9	2305.8	2308.9	2306.8	2311.0	2317.2	2316.2	2320.3	2326.6	2326.6	2333.9
20°	2225.7	2230.9	2237.1	2230.9	2242.3	2247.5	2250.7	2254.8	2259.0	2270.4	2271.5
22.5°	2148.7	2159.1	2161.2	2159.1	2174.7	2179.9	2185.1	2189.3	2204.9	2203.9	2210.1
25°	2077.0	2086.3	2087.4	2094.7	2111.3	2119.6	2122.7	2132.1	2140.4	2145.6	2157.1
27.5°	2010.4	2015.6	2016.6	2031.2	2041.6	2049.9	2060.3	2074.9	2079.0	2090.5	2092.6
30°	1931.4	1942.8	1949.0	1961.5	1982.3	1986.5	1996.9	2006.2	2021.8	2027.0	2033.3
32.5°	1871.0	1876.2	1878.3	1895.0	1912.6	1924.1	1931.4	1937.6	1956.3	1967.8	1977.1
35°	1798.2	1807.6	1811.8	1829.4	1844.0	1859.6	1864.8	1882.5	1890.8	1906.4	1909.5
37.5°	1732.7	1740.0	1745.2	1758.7	1778.5	1794.1	1795.1	1814.9	1829.4	1840.9	1853.4
40°	1666.2	1668.2	1676.6	1688.0	1711.9	1717.1	1729.6	1750.4	1773.3	1787.8	1803.4
42.5°	1591.3	1592.3	1602.7	1617.3	1643.3	1650.6	1668.2	1690.1	1714.0	1740.0	1751.4
45°	1511.2	1515.3	1529.9	1548.6	1570.5	1580.9	1597.5	1625.6	1652.6	1680.7	1699.4
47.5°	1430.1	1439.4	1451.9	1470.6	1495.6	1509.1	1524.7	1559.0	1584.0	1610.0	1636.0
50°	1348.9	1357.3	1369.7	1391.6	1418.6	1433.2	1446.7	1483.1	1517.4	1540.3	1556.9
52.5°	1262.6	1270.9	1285.5	1311.5	1342.7	1351.0	1370.8	1405.1	1437.3	1461.3	1484.1
55°	1177.3	1182.5	1202.3	1224.1	1256.4	1274.1	1286.5	1320.9	1348.9	1381.2	1400.9
57.5°	1084.8	1092.0	1112.8	1132.6	1169.0	1182.5	1197.1	1231.4	1265.7	1288.6	1306.3
60°	997.4	1002.6	1020.3	1042.1	1072.3	1090.0	1104.5	1137.8	1164.9	1190.9	1211.7
62.5°	900.7	908.0	924.6	948.5	980.8	993.2	1014.0	1038.0	1072.3	1090.0	1112.8
65°	810.2	817.5	831.0	852.8	877.8	895.5	912.1	937.1	965.2	989.1	1014.0
67.5°	710.4	718.7	735.3	758.2	786.3	798.8	811.2	837.2	867.4	891.3	911.1
70°	613.6	618.8	636.5	655.2	679.1	693.7	706.2	736.4	762.4	788.4	808.1
72.5°	514.8	519.0	535.6	556.4	581.4	599.1	610.5	633.4	659.4	685.4	710.4
75°	416.0	424.3	436.8	455.5	481.5	497.1	506.5	534.6	557.5	584.5	604.3
77.5°	318.3	325.5	342.2	360.9	384.8	399.4	408.7	435.8	457.6	481.5	506.5
80°	233.0	233.0	252.7	266.3	291.2	303.7	314.1	335.9	360.9	384.8	412.9
82.5°	145.6	150.8	164.3	183.0	204.9	216.3	225.7	247.5	273.5	298.5	322.4
85°	79.0	80.1	93.6	110.2	133.1	141.4	153.9	176.8	199.7	222.6	248.6
87.5°	23.9	30.2	43.7	62.4	80.1	91.5	99.8	123.8	144.6	167.4	193.4
90°	2.1	7.3	20.8	37.4	57.2	66.6	78.0	98.8	119.6	143.5	162.2
92.5°	1.0	6.2	18.7	35.4	55.1	64.5	75.9	95.7	117.5	136.2	152.9
95°	1.0	5.2	17.7	35.4	54.1	64.5	73.8	94.6	114.4	131.0	146.6
97.5°	1.0	5.2	17.7	34.3	53.0	62.4	72.8	92.6	110.2	126.9	144.6
100°	1.0	5.2	16.6	33.3	52.0	62.4	71.8	89.4	106.1	123.8	138.3
102.5°	1.0	5.2	16.6	33.3	51.0	60.3	68.6	86.3	103.0	117.5	133.1
105°	1.0	4.2	15.6	32.2	48.9	58.2	66.6	83.2	98.8	114.4	127.9
107.5°	1.0	4.2	15.6	30.2	47.8	56.2	65.5	81.1	95.7	110.2	123.8
110°	1.0	4.2	14.6	30.2	45.8	55.1	63.4	79.0	93.6	107.1	118.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	1.0	4.2	14.6	29.1	44.7	53.0	61.4	78.0	91.5	104.0	115.4
115°	1.0	3.1	13.5	28.1	44.7	53.0	60.3	75.9	90.5	101.9	111.3
117.5°	1.0	3.1	13.5	27.0	42.6	51.0	59.3	74.9	88.4	100.9	110.2
120°	1.0	3.1	12.5	27.0	42.6	49.9	58.2	73.8	87.4	99.8	110.2
122.5°	1.0	3.1	12.5	26.0	40.6	48.9	57.2	72.8	86.3	98.8	110.2
125°	1.0	2.1	11.4	25.0	39.5	47.8	56.2	71.8	85.3	98.8	109.2
127.5°	1.0	2.1	10.4	23.9	38.5	45.8	54.1	69.7	83.2	96.7	108.2
130°	1.0	2.1	10.4	21.8	36.4	43.7	52.0	67.6	81.1	93.6	106.1
132.5°	1.0	2.1	9.4	20.8	34.3	41.6	48.9	64.5	78.0	90.5	101.9
135°	2.1	2.1	8.3	18.7	32.2	39.5	46.8	61.4	74.9	87.4	98.8
137.5°	2.1	2.1	7.3	17.7	29.1	36.4	42.6	57.2	69.7	82.2	93.6
140°	2.1	2.1	6.2	15.6	26.0	32.2	38.5	51.0	64.5	75.9	87.4
142.5°	2.1	2.1	5.2	13.5	22.9	29.1	34.3	45.8	57.2	69.7	80.1
145°	2.1	2.1	4.2	11.4	19.8	25.0	29.1	39.5	49.9	61.4	71.8
147.5°	2.1	2.1	4.2	9.4	16.6	20.8	25.0	34.3	43.7	53.0	62.4
150°	2.1	2.1	3.1	7.3	13.5	16.6	20.8	29.1	36.4	44.7	54.1
152.5°	2.1	2.1	2.1	6.2	11.4	14.6	16.6	23.9	30.2	37.4	44.7
155°	2.1	2.1	2.1	5.2	9.4	11.4	13.5	18.7	25.0	31.2	36.4
157.5°	2.1	2.1	2.1	4.2	7.3	8.3	10.4	15.6	19.8	25.0	29.1
160°	3.1	2.1	2.1	3.1	5.2	6.2	8.3	11.4	15.6	18.7	22.9
162.5°	3.1	2.1	2.1	2.1	4.2	5.2	6.2	8.3	11.4	14.6	16.6
165°	3.1	3.1	2.1	2.1	3.1	3.1	4.2	6.2	7.3	10.4	12.5
167.5°	3.1	3.1	2.1	2.1	2.1	2.1	3.1	4.2	5.2	6.2	7.3
170°	3.1	3.1	2.1	2.1	2.1	2.1	2.1	2.1	3.1	3.1	4.2
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°	2973.5	2973.5	2973.5	2973.5	2973.5	2973.5	2973.5	2973.5	2973.5	2973.5
2.5°	2941.2	2943.3	2938.1	2939.2	2937.1	2938.1	2935.0	2934.0	2936.0	2929.8
5°	2834.1	2828.9	2822.7	2822.7	2821.6	2819.6	2818.5	2820.6	2819.6	2822.7
7.5°	2694.8	2685.4	2687.5	2682.3	2688.5	2686.4	2688.5	2690.6	2690.6	2690.6
10°	2566.8	2576.2	2580.4	2584.5	2589.7	2586.6	2593.9	2596.0	2598.0	2593.9
12.5°	2482.6	2482.6	2489.9	2491.9	2491.9	2494.0	2502.3	2496.1	2505.5	2513.8
15°	2403.5	2409.8	2416.0	2417.1	2417.1	2427.5	2429.5	2426.4	2427.5	2424.3
17.5°	2340.1	2343.2	2345.3	2351.5	2357.8	2356.7	2358.8	2364.0	2361.9	2358.8
20°	2275.6	2285.0	2292.3	2291.2	2292.3	2295.4	2296.4	2297.5	2292.3	2289.1
22.5°	2217.4	2217.4	2229.9	2234.0	2238.2	2237.1	2235.1	2237.1	2237.1	2229.9
25°	2157.1	2167.5	2173.7	2171.6	2177.9	2183.1	2177.9	2176.8	2181.0	2178.9
27.5°	2107.1	2107.1	2114.4	2125.9	2124.8	2126.9	2122.7	2118.6	2115.5	2114.4
30°	2040.6	2051.0	2061.4	2059.3	2062.4	2066.6	2066.6	2062.4	2055.1	2055.1
32.5°	1982.3	1989.6	1993.8	2006.2	2010.4	2009.4	2000.0	1992.7	1995.8	1995.8
35°	1922.0	1930.3	1947.0	1944.9	1947.0	1949.0	1945.9	1942.8	1942.8	1943.8
37.5°	1857.5	1883.5	1882.5	1903.3	1907.4	1906.4	1903.3	1893.9	1896.0	1900.2
40°	1820.1	1830.5	1851.3	1855.4	1857.5	1859.6	1869.0	1862.7	1859.6	1857.5
42.5°	1772.2	1789.9	1800.3	1812.8	1822.2	1824.2	1819.0	1815.9	1818.0	1817.0
45°	1713.0	1736.9	1750.4	1761.8	1760.8	1762.9	1769.1	1776.4	1777.4	1772.2
47.5°	1656.8	1663.0	1691.1	1688.0	1700.5	1709.8	1707.8	1703.6	1710.9	1709.8
50°	1578.8	1600.6	1607.9	1627.7	1629.8	1623.5	1630.8	1635.0	1636.0	1636.0
52.5°	1501.8	1515.3	1536.1	1537.2	1544.5	1547.6	1551.7	1553.8	1558.0	1555.9
55°	1422.8	1431.1	1445.7	1458.1	1461.3	1460.2	1465.4	1473.7	1477.9	1481.0
57.5°	1328.1	1346.9	1351.0	1363.5	1361.4	1368.7	1378.1	1382.2	1388.5	1391.6
60°	1225.2	1239.7	1254.3	1258.5	1262.6	1268.9	1278.2	1277.2	1286.5	1291.7
62.5°	1131.6	1137.8	1150.3	1158.6	1159.6	1159.6	1169.0	1173.2	1182.5	1184.6
65°	1025.5	1040.0	1045.2	1048.4	1053.6	1053.6	1061.9	1066.0	1073.3	1085.8
67.5°	926.7	940.2	950.6	952.7	956.8	958.9	956.8	962.0	967.2	973.5
70°	823.7	836.2	849.7	858.0	856.0	854.9	856.0	860.1	867.4	865.3
72.5°	724.9	744.7	750.9	763.4	764.4	766.5	761.3	759.2	765.5	762.4
75°	625.1	645.9	655.2	668.7	662.5	665.6	665.6	675.0	683.3	685.4
77.5°	530.4	551.2	563.7	569.9	580.3	590.7	592.8	598.0	592.8	592.8
80°	434.7	453.5	476.3	483.6	486.7	489.9	493.0	494.0	495.1	495.1
82.5°	350.5	374.4	386.9	389.0	391.1	395.2	400.4	406.7	415.0	416.0
85°	272.5	287.1	298.5	307.9	311.0	317.2	328.7	339.1	350.5	355.7
87.5°	211.1	222.6	235.1	245.5	253.8	259.0	273.5	290.2	311.0	321.4
90°	176.8	189.3	201.8	215.3	223.6	231.9	248.6	267.3	293.3	307.9
92.5°	166.4	181.0	195.5	208.0	214.2	220.5	237.1	262.1	295.4	315.1
95°	163.3	176.8	188.2	200.7	209.0	217.4	237.1	262.1	286.0	296.4
97.5°	158.1	169.5	182.0	197.6	204.9	213.2	230.9	247.5	257.9	262.1
100°	150.8	163.3	176.8	190.3	197.6	203.8	216.3	227.8	235.1	239.2
102.5°	145.6	157.0	169.5	182.0	187.2	192.4	202.8	211.1	214.2	215.3
105°	140.4	150.8	162.2	170.6	173.7	177.8	183.0	183.0	183.0	183.0
107.5°	134.2	143.5	151.8	156.0	158.1	159.1	160.2	159.1	159.1	158.1
110°	129.0	136.2	141.4	143.5	143.5	144.6	144.6	144.6	144.6	144.6



TEST NUMBER: P241368

CATALOG NUMBER: FVS8M-3-LD4-50-2HI-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	123.8	130.0	133.1	135.2	135.2	136.2	137.3	139.4	140.4	140.4
115°	119.6	125.8	129.0	132.1	134.2	135.2	138.3	142.5	144.6	144.6
117.5°	117.5	124.8	129.0	134.2	137.3	139.4	144.6	148.7	150.8	151.8
120°	118.6	125.8	132.1	138.3	141.4	143.5	149.8	153.9	157.0	158.1
122.5°	119.6	126.9	135.2	141.4	144.6	147.7	152.9	158.1	161.2	162.2
125°	118.6	127.9	136.2	143.5	146.6	149.8	155.0	160.2	163.3	164.3
127.5°	117.5	126.9	136.2	143.5	146.6	150.8	156.0	160.2	163.3	164.3
130°	115.4	124.8	134.2	142.5	145.6	148.7	153.9	159.1	162.2	164.3
132.5°	112.3	121.7	131.0	138.3	142.5	145.6	151.8	157.0	161.2	162.2
135°	108.2	117.5	126.9	135.2	138.3	142.5	147.7	152.9	156.0	158.1
137.5°	103.0	112.3	120.6	129.0	132.1	135.2	141.4	146.6	149.8	150.8
140°	96.7	105.0	113.4	120.6	123.8	126.9	132.1	136.2	140.4	142.5
142.5°	88.4	96.7	104.0	110.2	113.4	116.5	121.7	124.8	127.9	130.0
145°	80.1	87.4	93.6	98.8	101.9	105.0	109.2	112.3	115.4	116.5
147.5°	70.7	77.0	83.2	88.4	90.5	92.6	96.7	99.8	101.9	101.9
150°	61.4	67.6	72.8	78.0	79.0	81.1	84.2	86.3	88.4	87.4
152.5°	52.0	57.2	63.4	67.6	68.6	70.7	72.8	74.9	75.9	75.9
155°	42.6	47.8	53.0	57.2	58.2	60.3	61.4	63.4	64.5	64.5
157.5°	34.3	39.5	43.7	47.8	48.9	49.9	52.0	53.0	53.0	54.1
160°	27.0	30.2	34.3	37.4	39.5	40.6	42.6	42.6	43.7	43.7
162.5°	19.8	22.9	26.0	29.1	30.2	31.2	33.3	34.3	34.3	34.3
165°	13.5	16.6	17.7	19.8	20.8	22.9	25.0	25.0	26.0	25.0
167.5°	9.4	10.4	11.4	13.5	13.5	14.6	15.6	16.6	17.7	17.7
170°	5.2	6.2	6.2	7.3	7.3	7.3	8.3	9.4	9.4	9.4
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)