

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: P241398

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241398
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-LD4-35-2STD-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

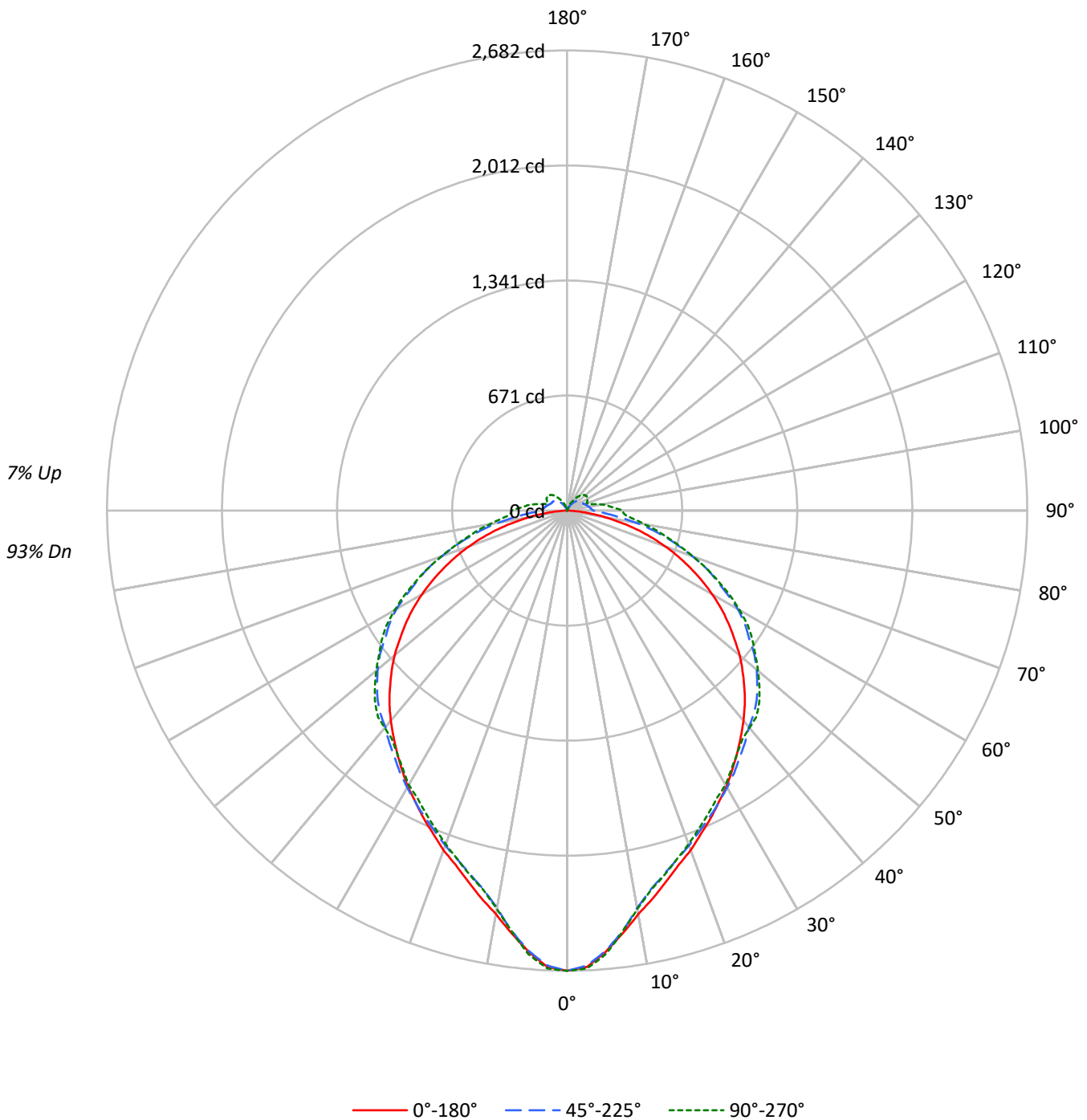
Lumens per Lamp: N/A
Luminaire Lumens: 7449.0 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Spacing Criteria (0/90/45): 1.04 / 1.02 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')
CIE Type: Direct

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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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°	11988	11988	11988
5°	11538	11373	11416
10°	10764	10330	10287
15°	10234	9657	9587
20°	9876	9249	9094
25°	9582	8926	8692
30°	9375	8681	8426
35°	9171	8462	8136
40°	9031	8311	8109
45°	8886	8319	8165
50°	8726	8195	7956
55°	8475	7952	7777
60°	8171	7756	7456
65°	7726	7250	6915
70°	7159	6707	6289
75°	6243	5986	5655
80°	4828	5051	5164
85°	2697	3938	4958



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.4	3.2
10°-20°	623.5	8.4
20°-30°	909.3	12.2
30°-40°	1095.6	14.7
40°-50°	1188.2	16.0
50°-60°	1132.4	15.2
60°-70°	913.1	12.3
70°-80°	583.9	7.8
80°-90°	261.1	3.5
90°-100°	144.9	1.9
100°-110°	105.6	1.4
110°-120°	83.2	1.1
120°-130°	73.7	1.0
130°-140°	53.9	0.7
140°-150°	29.2	0.4
150°-160°	10.4	0.1
160°-170°	1.7	0.0
170°-180°	0.0	0.0
0°-30°	1772.2	23.8
0°-40°	2867.7	38.5
0°-60°	5188.3	69.7
0°-90°	6946.4	93.3
90°-120°	333.7	4.5
90°-150°	490.4	6.6
90°-180°	503.0	6.8
0°-180°	7449.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2682	2682	2682	2682	2682	
5°	2580	2580	2576	2595	2595	240
15°	2235	2227	2192	2200	2197	631
25°	1979	1981	1968	1964	1948	912
35°	1727	1753	1754	1747	1727	1082
45°	1461	1506	1563	1588	1584	1127
55°	1148	1224	1294	1322	1320	1026
65°	792	881	961	971	970	785
75°	414	493	589	618	604	438
85°	76	145	241	304	346	95
90°	1	70	154	218	324	4
95°	1	62	139	200	254	1
105°	1	53	119	148	147	1
115°	1	46	101	120	129	1
125°	1	38	95	127	141	1
135°	2	26	78	112	129	1
145°	2	11	49	78	90	1
155°	2	2	20	40	46	1
165°	2	1	2	8	12	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°	2682.3	2682.3	2682.3	2682.3	2682.3	2682.3	2682.3	2682.3	2682.3	2682.3	2682.3
2.5°	2661.4	2661.4	2661.4	2657.4	2657.4	2662.2	2662.2	2664.6	2660.6	2656.6	2653.4
5°	2580.5	2578.1	2572.5	2573.3	2576.5	2580.5	2579.7	2586.9	2584.5	2579.7	2576.5
7.5°	2484.3	2479.5	2477.1	2477.1	2474.7	2478.7	2476.3	2481.9	2477.1	2473.1	2472.3
10°	2388.2	2388.2	2388.2	2381.8	2382.6	2381.8	2376.9	2373.7	2369.7	2356.9	2351.3
12.5°	2312.8	2311.2	2304.8	2300.0	2300.0	2296.8	2297.6	2291.2	2280.8	2265.5	2259.1
15°	2235.1	2237.5	2235.1	2227.9	2229.5	2227.1	2224.7	2216.7	2211.9	2196.6	2191.8
17.5°	2163.8	2170.2	2165.4	2157.4	2155.0	2153.4	2154.2	2150.9	2141.3	2134.9	2130.1
20°	2106.1	2104.5	2100.5	2094.1	2100.5	2098.1	2098.1	2094.9	2089.2	2082.0	2077.2
22.5°	2038.8	2040.4	2035.5	2035.5	2039.6	2042.0	2037.2	2035.5	2031.5	2022.7	2019.5
25°	1978.6	1980.3	1977.0	1975.4	1978.6	1981.1	1981.1	1981.1	1977.8	1972.2	1968.2
27.5°	1915.3	1920.9	1916.9	1916.9	1923.4	1928.2	1930.6	1926.6	1925.0	1918.5	1916.1
30°	1857.6	1852.0	1854.4	1863.2	1866.5	1872.1	1876.1	1876.9	1868.9	1866.5	1864.0
32.5°	1791.9	1794.3	1789.5	1799.1	1812.0	1818.4	1818.4	1816.8	1814.4	1813.6	1812.0
35°	1727.0	1728.6	1730.2	1742.2	1748.6	1752.7	1759.1	1764.7	1760.7	1756.7	1754.3
37.5°	1662.1	1665.3	1668.5	1677.3	1685.3	1693.4	1700.6	1708.6	1707.0	1701.4	1703.8
40°	1598.8	1602.8	1601.2	1606.8	1629.2	1637.3	1640.5	1647.7	1648.5	1641.3	1648.5
42.5°	1533.1	1533.1	1532.3	1549.9	1563.5	1571.5	1572.3	1588.4	1594.8	1601.2	1609.2
45°	1460.9	1462.5	1469.8	1481.8	1493.8	1505.8	1517.8	1536.3	1543.5	1553.1	1562.7
47.5°	1387.2	1388.0	1400.0	1408.1	1432.9	1446.5	1456.1	1465.8	1477.8	1488.2	1502.6
50°	1313.5	1316.7	1316.7	1342.3	1362.4	1368.0	1376.8	1392.0	1415.3	1429.7	1441.7
52.5°	1228.5	1236.6	1242.2	1263.0	1279.0	1291.9	1307.1	1333.5	1350.4	1363.2	1374.4
55°	1148.4	1144.4	1166.8	1173.2	1206.9	1224.5	1235.8	1254.2	1264.6	1279.0	1293.5
57.5°	1066.7	1065.9	1078.7	1096.3	1132.4	1140.4	1143.6	1166.0	1194.1	1214.9	1228.5
60°	976.1	980.1	988.1	1021.0	1036.2	1044.2	1061.0	1096.3	1116.3	1138.0	1149.2
62.5°	887.1	887.9	910.4	928.0	948.1	968.1	985.7	1005.8	1017.0	1036.2	1049.0
65°	791.8	796.6	820.6	832.7	870.3	880.7	887.1	907.2	925.6	948.9	960.9
67.5°	701.2	706.0	725.3	740.5	773.3	776.6	787.8	818.2	847.1	864.7	876.7
70°	606.7	615.5	624.3	652.3	670.0	682.0	698.0	731.7	742.1	762.9	777.4
72.5°	511.3	519.3	528.9	551.4	573.8	587.4	605.9	625.1	637.1	656.3	681.2
75°	414.3	422.3	436.0	454.4	479.2	492.9	502.5	520.1	549.0	571.4	589.0
77.5°	317.4	322.2	341.4	357.4	387.1	395.9	409.5	431.2	458.4	480.8	496.9
80°	229.2	235.6	248.4	267.7	290.1	303.7	314.1	340.6	367.8	383.9	404.7
82.5°	145.9	152.3	167.5	186.7	206.8	218.8	232.4	257.2	280.5	297.3	317.4
85°	76.1	81.7	96.2	116.2	133.8	145.1	158.7	183.5	201.2	222.0	241.2
87.5°	24.0	30.5	44.9	64.1	84.1	94.6	105.8	129.0	146.7	167.5	185.1
90°	0.8	6.4	20.8	39.3	60.1	70.5	80.9	101.0	119.4	137.0	153.9
92.5°	0.8	5.6	19.2	36.9	56.1	65.7	75.3	93.8	112.2	129.0	143.5
95°	0.8	4.8	17.6	35.3	53.7	62.5	72.1	89.8	107.4	123.4	138.6
97.5°	0.8	4.8	16.8	32.9	50.5	59.3	68.9	86.6	103.4	118.6	133.8
100°	0.8	4.0	15.2	31.3	48.1	56.9	65.7	83.3	99.4	114.6	128.2
102.5°	0.8	3.2	14.4	29.7	46.5	54.5	63.3	80.1	95.4	110.6	123.4
105°	0.8	3.2	12.8	28.0	44.9	52.9	61.7	77.7	93.0	106.6	118.6
107.5°	0.8	2.4	12.0	26.4	43.3	51.3	60.1	75.3	89.8	102.6	113.8
110°	0.8	2.4	11.2	25.6	41.7	49.7	57.7	73.7	87.4	99.4	108.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.8	1.6	10.4	24.0	40.1	48.1	56.1	71.3	84.9	95.4	104.2
115°	0.8	1.6	9.6	23.2	38.5	46.5	54.5	68.9	81.7	93.0	101.0
117.5°	0.8	0.8	8.8	21.6	36.9	44.1	52.1	67.3	80.1	90.6	99.4
120°	0.8	0.8	7.2	20.0	34.5	42.5	50.5	64.9	78.5	89.8	99.4
122.5°	0.8	0.8	6.4	18.4	32.9	40.9	48.1	62.5	76.1	88.2	97.8
125°	0.8	0.8	5.6	16.8	30.5	38.5	45.7	60.1	73.7	85.7	95.4
127.5°	0.8	0.8	4.8	15.2	28.0	35.3	43.3	56.9	70.5	81.7	92.2
130°	0.8	0.8	3.2	12.8	25.6	32.9	40.1	53.7	66.5	77.7	88.2
132.5°	1.6	0.8	2.4	11.2	23.2	29.7	36.1	49.7	62.5	72.9	83.3
135°	1.6	0.8	1.6	8.8	20.0	25.6	32.1	44.1	56.9	68.1	77.7
137.5°	1.6	1.6	1.6	7.2	16.8	21.6	27.2	39.3	50.5	61.7	72.1
140°	1.6	1.6	0.8	5.6	13.6	18.4	23.2	33.7	44.1	54.5	64.9
142.5°	1.6	1.6	0.8	4.0	10.4	14.4	19.2	28.0	38.5	48.1	56.9
145°	1.6	1.6	0.8	2.4	8.0	11.2	15.2	23.2	32.1	40.1	48.9
147.5°	1.6	1.6	0.8	1.6	5.6	8.8	11.2	18.4	25.6	32.9	40.1
150°	1.6	1.6	0.8	1.6	4.0	5.6	8.8	14.4	20.0	26.4	32.9
152.5°	1.6	1.6	1.6	0.8	2.4	4.0	6.4	10.4	16.0	20.8	26.4
155°	1.6	1.6	1.6	0.8	1.6	2.4	4.0	7.2	11.2	16.0	20.0
157.5°	2.4	1.6	1.6	0.8	0.8	1.6	2.4	4.8	8.0	11.2	14.4
160°	2.4	1.6	1.6	0.8	0.8	0.8	1.6	2.4	4.8	7.2	9.6
162.5°	2.4	2.4	1.6	0.8	0.8	0.8	0.8	1.6	2.4	4.0	5.6
165°	2.4	2.4	1.6	1.6	0.8	0.8	0.8	0.8	0.8	1.6	2.4
167.5°	2.4	2.4	1.6	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8
170°	2.4	2.4	1.6	1.6	0.8	0.8	0.8	0.8	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°	2682.3	2682.3	2682.3	2682.3	2682.3	2682.3	2682.3	2682.3	2682.3	2682.3
2.5°	2653.4	2662.2	2668.7	2671.1	2671.9	2670.3	2673.5	2674.3	2673.5	2671.1
5°	2577.3	2586.1	2593.3	2595.7	2594.9	2598.1	2596.5	2597.3	2596.5	2594.9
7.5°	2463.5	2465.9	2469.1	2465.1	2469.9	2470.7	2464.3	2468.3	2469.9	2473.9
10°	2351.3	2352.9	2355.3	2353.7	2355.3	2355.3	2355.3	2356.1	2359.3	2356.9
12.5°	2258.3	2261.5	2270.4	2268.0	2272.0	2276.8	2271.2	2267.2	2272.8	2263.1
15°	2193.4	2195.8	2197.4	2195.0	2199.8	2197.4	2195.8	2191.8	2196.6	2197.4
17.5°	2132.5	2130.9	2136.5	2131.7	2132.5	2130.9	2130.1	2124.5	2122.9	2129.3
20°	2078.0	2074.0	2070.0	2073.2	2077.2	2074.0	2073.2	2069.2	2070.0	2069.2
22.5°	2017.9	2022.7	2025.9	2025.1	2021.1	2022.7	2017.1	2010.7	2009.9	2005.9
25°	1969.8	1971.4	1969.8	1969.8	1964.2	1961.8	1964.2	1957.8	1951.4	1948.2
27.5°	1917.7	1918.5	1918.5	1912.1	1910.5	1908.9	1903.3	1898.5	1893.7	1889.7
30°	1860.8	1865.7	1860.0	1863.2	1861.6	1856.0	1852.0	1845.6	1840.8	1845.6
32.5°	1811.2	1808.0	1808.0	1805.5	1803.9	1805.5	1797.5	1787.1	1782.3	1783.1
35°	1755.1	1755.1	1758.3	1752.7	1747.0	1745.4	1738.2	1735.8	1726.2	1727.0
37.5°	1703.8	1702.2	1703.8	1702.2	1699.0	1698.2	1684.5	1686.9	1684.5	1678.1
40°	1658.1	1663.7	1665.3	1654.9	1658.9	1662.1	1652.5	1654.1	1650.1	1653.3
42.5°	1619.6	1623.6	1630.0	1628.4	1625.2	1621.2	1628.4	1630.8	1626.8	1631.6
45°	1573.9	1581.2	1582.0	1589.2	1588.4	1585.2	1586.0	1583.6	1579.6	1583.6
47.5°	1512.2	1517.8	1522.7	1523.5	1529.1	1529.1	1523.5	1525.9	1530.7	1519.4
50°	1451.3	1453.7	1459.3	1456.1	1458.5	1461.7	1460.1	1453.7	1453.7	1452.1
52.5°	1384.0	1389.6	1390.4	1392.0	1391.2	1384.0	1385.6	1385.6	1380.0	1382.4
55°	1308.7	1321.5	1326.3	1323.1	1322.3	1324.7	1319.1	1328.7	1319.1	1319.9
57.5°	1238.2	1240.6	1247.0	1247.8	1245.4	1251.0	1248.6	1247.8	1245.4	1250.2
60°	1157.2	1159.6	1159.6	1154.8	1161.2	1154.8	1157.2	1155.6	1162.8	1160.4
62.5°	1060.2	1066.7	1072.3	1063.5	1064.3	1061.9	1061.0	1061.0	1067.5	1069.9
65°	968.9	968.1	976.1	970.5	971.3	972.9	963.3	968.9	968.9	970.5
67.5°	886.3	884.7	881.5	879.1	878.3	877.5	875.1	870.3	873.5	875.9
70°	787.0	796.6	791.8	791.8	790.2	788.6	791.8	776.6	779.0	779.8
72.5°	693.2	698.0	705.2	708.4	706.0	702.0	698.8	693.2	686.8	688.4
75°	600.2	605.1	614.7	617.1	617.9	615.5	617.1	612.3	609.1	603.5
77.5°	510.5	518.5	524.1	533.7	533.7	534.5	538.5	536.9	532.1	533.7
80°	417.5	426.3	438.4	448.8	452.8	454.4	456.0	455.2	456.8	457.6
82.5°	330.2	351.8	358.2	369.4	374.3	375.9	383.9	387.1	389.5	394.3
85°	258.9	274.1	289.3	299.7	304.5	308.5	316.6	327.0	339.8	346.2
87.5°	202.0	215.6	230.0	242.8	250.8	257.2	270.1	290.9	314.1	328.6
90°	168.3	182.7	197.9	210.8	218.0	225.2	244.4	270.9	305.3	323.8
92.5°	157.9	173.1	185.9	199.5	206.8	214.8	234.8	258.9	280.5	287.7
95°	153.1	167.5	178.7	191.5	199.5	207.6	223.6	238.8	250.0	254.0
97.5°	147.5	160.3	171.5	184.3	189.9	196.3	210.0	222.0	230.8	234.8
100°	141.0	153.1	162.7	173.1	177.1	182.7	194.7	203.6	207.6	205.2
102.5°	135.4	144.3	153.1	160.3	163.5	167.5	173.9	175.5	174.7	172.3
105°	128.2	136.2	141.8	145.9	148.3	149.9	151.5	150.7	149.1	146.7
107.5°	121.8	127.4	131.4	132.2	133.8	134.6	135.4	133.8	131.4	130.6
110°	115.4	120.2	122.6	123.4	123.4	124.2	125.0	125.0	123.4	122.6



TEST NUMBER: P241398

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	110.6	114.6	117.0	118.6	119.4	120.2	122.6	124.2	123.4	123.4
115°	107.4	112.2	116.2	118.6	120.2	121.8	125.8	128.2	129.0	129.0
117.5°	106.6	113.0	117.8	121.8	123.4	125.8	129.8	133.0	133.8	133.8
120°	107.4	113.8	119.4	124.2	126.6	129.0	133.0	136.2	137.8	138.6
122.5°	106.6	113.8	120.2	125.8	128.2	130.6	134.6	138.6	140.2	140.2
125°	104.2	112.2	118.6	125.0	127.4	129.8	134.6	138.6	141.0	141.0
127.5°	101.0	109.0	116.2	122.6	125.0	128.2	133.0	137.0	140.2	140.2
130°	97.0	105.8	113.0	119.4	121.8	125.0	129.8	134.6	137.0	137.8
132.5°	92.2	101.0	108.2	114.6	117.8	120.2	125.8	130.6	133.0	134.6
135°	87.4	95.4	102.6	109.8	112.2	115.4	120.2	124.2	127.4	129.0
137.5°	80.9	89.0	96.2	102.6	105.0	108.2	113.0	117.0	120.2	121.0
140°	73.7	81.7	89.0	94.6	97.8	100.2	105.0	108.2	110.6	111.4
142.5°	65.7	73.7	80.1	85.7	88.2	90.6	94.6	97.8	100.2	101.0
145°	56.9	64.9	70.5	76.1	78.5	80.1	84.1	86.6	89.8	89.8
147.5°	48.1	55.3	61.7	66.5	68.1	70.5	73.7	76.1	76.9	77.7
150°	39.3	45.7	52.1	56.9	58.5	60.1	62.5	64.9	66.5	66.5
152.5°	31.3	36.9	42.5	48.1	48.9	50.5	52.9	54.5	56.1	56.1
155°	24.8	28.9	32.9	37.7	40.1	41.7	43.3	44.9	45.7	45.7
157.5°	18.4	21.6	24.8	28.9	30.5	32.9	34.5	35.3	36.1	36.9
160°	12.0	15.2	17.6	20.8	22.4	24.0	25.6	27.2	28.0	28.0
162.5°	7.2	9.6	11.2	13.6	14.4	15.2	18.4	19.2	19.2	19.2
165°	4.0	4.8	6.4	7.2	8.0	8.8	10.4	12.0	12.0	12.0
167.5°	0.8	1.6	2.4	2.4	3.2	3.2	4.0	5.6	5.6	5.6
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8
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)