

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: P241364

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241364
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-LD4-50-2STD-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

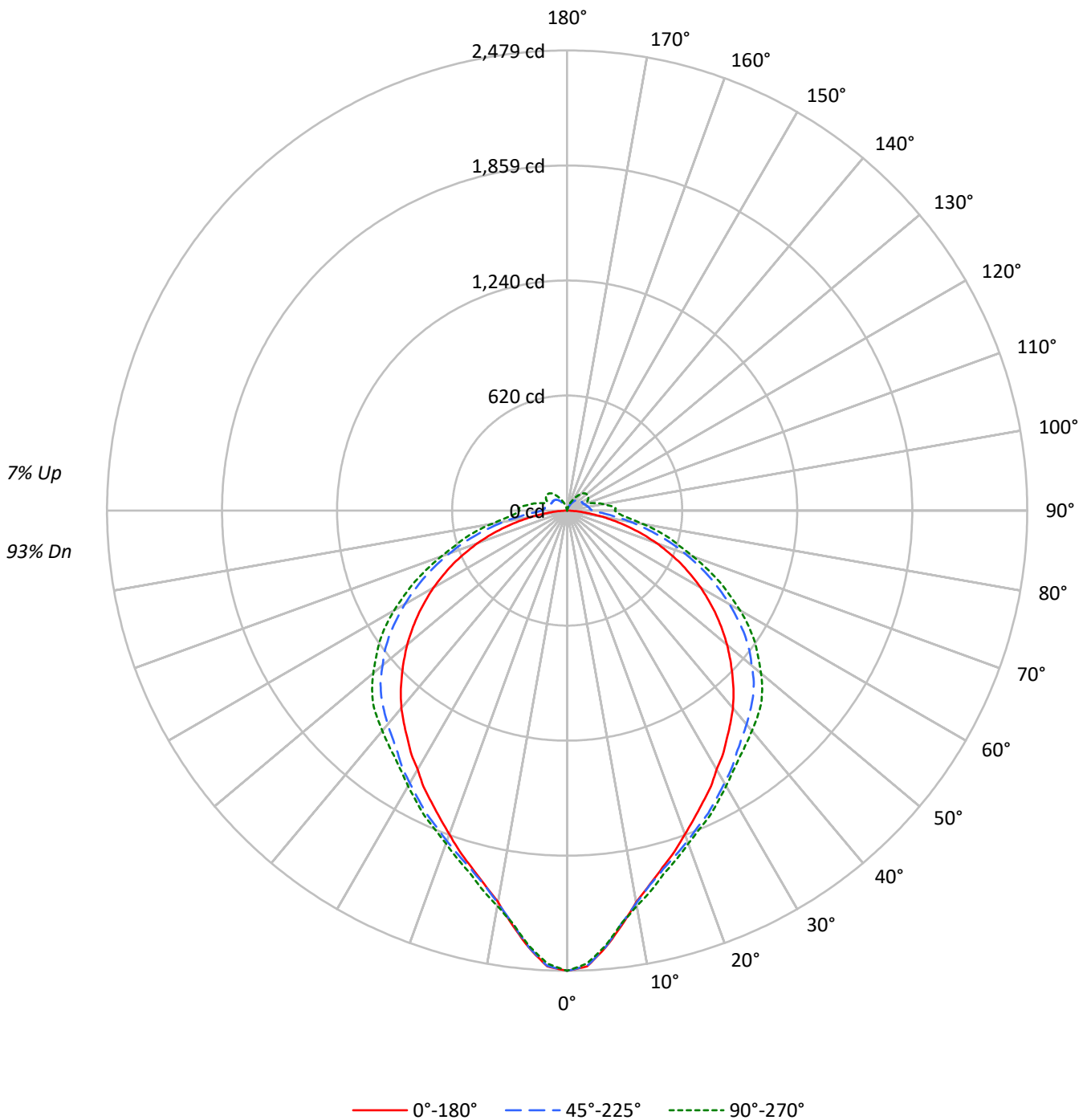
Lumens per Lamp: N/A
Luminaire Lumens: 6715.0 lumens
Efficiency: N/A
Efficacy: 122.8 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 1.03 / 1.26
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 54.7
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°	14477	14477	14477
5°	13794	13613	13528
10°	12586	12301	12332
15°	11863	11486	11522
20°	11321	10986	10960
25°	10898	10618	10590
30°	10547	10269	10221
35°	10319	9981	9976
40°	10154	9844	9925
45°	9899	9785	9955
50°	9631	9562	9764
55°	9314	9293	9506
60°	8923	8810	9042
65°	8412	8228	8428
70°	7659	7480	7602
75°	6573	6568	6996
80°	5063	5486	6087
85°	2787	4287	5549



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.2	3.3
10°-20°	566.0	8.4
20°-30°	824.7	12.3
30°-40°	992.4	14.8
40°-50°	1073.8	16.0
50°-60°	1014.9	15.1
60°-70°	805.8	12.0
70°-80°	511.1	7.6
80°-90°	222.6	3.3
90°-100°	128.0	1.9
100°-110°	99.9	1.5
110°-120°	77.9	1.2
120°-130°	71.6	1.1
130°-140°	56.8	0.8
140°-150°	33.7	0.5
150°-160°	13.9	0.2
160°-170°	3.3	0.0
170°-180°	0.1	0.0
0°-30°	1609.0	24.0
0°-40°	2601.4	38.7
0°-60°	4690.1	69.8
0°-90°	6229.7	92.8
90°-120°	305.9	4.6
90°-150°	468.0	7.0
90°-180°	485.0	7.2
0°-180°	6715.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2479	2479	2479	2479	2479	
5°	2364	2367	2362	2352	2353	219
15°	1989	1987	2000	2015	2021	561
25°	1732	1767	1798	1816	1817	799
35°	1499	1550	1592	1623	1621	940
45°	1260	1318	1417	1468	1478	972
55°	982	1062	1168	1218	1235	876
65°	676	747	846	878	905	666
75°	347	414	504	552	571	368
85°	66	118	207	259	297	80
90°	2	56	135	186	257	3
95°	1	54	122	174	247	1
105°	1	49	107	145	153	1
115°	1	44	93	112	120	1
125°	1	40	91	122	137	1
135°	2	33	82	115	132	1
145°	2	21	60	85	97	1
155°	2	10	30	49	54	1
165°	3	3	10	17	21	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°	2479.1	2479.1	2479.1	2479.1	2479.1	2479.1	2479.1	2479.1	2479.1	2479.1	2479.1
2.5°	2458.3	2454.9	2455.7	2451.4	2453.1	2455.7	2455.7	2458.3	2459.2	2457.5	2454.9
5°	2363.8	2369.0	2365.5	2362.9	2363.8	2367.3	2366.4	2369.0	2366.4	2367.3	2362.1
7.5°	2252.8	2254.5	2248.5	2244.1	2245.9	2246.7	2249.3	2251.1	2255.4	2246.7	2244.1
10°	2141.8	2149.6	2140.1	2138.4	2140.1	2139.2	2143.6	2138.4	2142.7	2142.7	2146.2
12.5°	2062.0	2062.9	2066.4	2055.1	2055.1	2056.0	2055.1	2054.2	2056.0	2061.2	2063.8
15°	1989.2	1991.8	1991.8	1985.7	1985.7	1986.6	1988.3	1990.1	1990.9	2001.3	1999.6
17.5°	1925.0	1922.4	1925.0	1923.3	1926.8	1932.0	1931.1	1934.6	1939.8	1939.8	1945.8
20°	1855.7	1860.0	1865.2	1860.0	1869.5	1873.9	1876.5	1879.9	1883.4	1893.0	1893.8
22.5°	1791.5	1800.2	1801.9	1800.2	1813.2	1817.5	1821.8	1825.3	1838.3	1837.5	1842.7
25°	1731.7	1739.5	1740.3	1746.4	1760.3	1767.2	1769.8	1777.6	1784.6	1788.9	1798.4
27.5°	1676.2	1680.5	1681.4	1693.5	1702.2	1709.1	1717.8	1729.9	1733.4	1742.9	1744.7
30°	1610.3	1619.8	1625.0	1635.4	1652.8	1656.2	1664.9	1672.7	1685.7	1690.0	1695.2
32.5°	1560.0	1564.3	1566.0	1579.9	1594.7	1604.2	1610.3	1615.5	1631.1	1640.6	1648.4
35°	1499.3	1507.1	1510.5	1525.3	1537.4	1550.4	1554.8	1569.5	1576.5	1589.5	1592.1
37.5°	1444.6	1450.7	1455.1	1466.3	1482.8	1495.8	1496.7	1513.1	1525.3	1534.8	1545.2
40°	1389.1	1390.9	1397.8	1407.4	1427.3	1431.6	1442.0	1459.4	1478.5	1490.6	1503.6
42.5°	1326.7	1327.6	1336.3	1348.4	1370.1	1376.1	1390.9	1409.1	1429.0	1450.7	1460.3
45°	1259.9	1263.4	1275.6	1291.2	1309.4	1318.0	1331.9	1355.3	1377.9	1401.3	1416.9
47.5°	1192.3	1200.1	1210.5	1226.1	1246.9	1258.2	1271.2	1299.8	1320.6	1342.3	1364.0
50°	1124.7	1131.6	1142.0	1160.2	1182.8	1194.9	1206.2	1236.5	1265.1	1284.2	1298.1
52.5°	1052.7	1059.6	1071.8	1093.5	1119.5	1126.4	1142.9	1171.5	1198.4	1218.3	1237.4
55°	981.6	985.9	1002.4	1020.6	1047.5	1062.2	1072.6	1101.3	1124.7	1151.6	1168.0
57.5°	904.4	910.5	927.8	944.3	974.7	985.9	998.1	1026.7	1055.3	1074.4	1089.1
60°	831.6	835.9	850.7	868.9	894.0	908.8	920.9	948.6	971.2	992.9	1010.2
62.5°	750.9	757.0	770.9	790.8	817.7	828.1	845.5	865.4	894.0	908.8	927.8
65°	675.5	681.6	692.8	711.1	731.9	746.6	760.5	781.3	804.7	824.6	845.5
67.5°	592.3	599.2	613.1	632.1	655.6	666.0	676.4	698.0	723.2	743.1	759.6
70°	511.6	515.9	530.7	546.3	566.2	578.4	588.8	613.9	635.6	657.3	673.8
72.5°	429.2	432.7	446.6	463.9	484.7	499.5	509.0	528.1	549.8	571.4	592.3
75°	346.9	353.8	364.2	379.8	401.5	414.5	422.3	445.7	464.8	487.3	503.8
77.5°	265.3	271.4	285.3	300.9	320.8	333.0	340.8	363.3	381.5	401.5	422.3
80°	194.2	194.2	210.7	222.0	242.8	253.2	261.9	280.1	300.9	320.8	344.3
82.5°	121.4	125.7	137.0	152.6	170.8	180.4	188.2	206.4	228.1	248.9	268.8
85°	65.9	66.8	78.0	91.9	111.0	117.9	128.3	147.4	166.5	185.6	207.2
87.5°	19.9	25.1	36.4	52.0	66.8	76.3	83.2	103.2	120.5	139.6	161.3
90°	1.7	6.1	17.3	31.2	47.7	55.5	65.0	82.4	99.7	119.7	135.3
92.5°	0.9	5.2	15.6	29.5	46.0	53.8	63.3	79.8	98.0	113.6	127.5
95°	0.9	4.3	14.7	29.5	45.1	53.8	61.6	78.9	95.4	109.3	122.3
97.5°	0.9	4.3	14.7	28.6	44.2	52.0	60.7	77.2	91.9	105.8	120.5
100°	0.9	4.3	13.9	27.7	43.4	52.0	59.8	74.6	88.4	103.2	115.3
102.5°	0.9	4.3	13.9	27.7	42.5	50.3	57.2	72.0	85.8	98.0	111.0
105°	0.9	3.5	13.0	26.9	40.8	48.6	55.5	69.4	82.4	95.4	106.7
107.5°	0.9	3.5	13.0	25.1	39.9	46.8	54.6	67.6	79.8	91.9	103.2
110°	0.9	3.5	12.1	25.1	38.2	46.0	52.9	65.9	78.0	89.3	98.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.9	3.5	12.1	24.3	37.3	44.2	51.2	65.0	76.3	86.7	96.3
115°	0.9	2.6	11.3	23.4	37.3	44.2	50.3	63.3	75.4	85.0	92.8
117.5°	0.9	2.6	11.3	22.5	35.6	42.5	49.4	62.4	73.7	84.1	91.9
120°	0.9	2.6	10.4	22.5	35.6	41.6	48.6	61.6	72.8	83.2	91.9
122.5°	0.9	2.6	10.4	21.7	33.8	40.8	47.7	60.7	72.0	82.4	91.9
125°	0.9	1.7	9.5	20.8	33.0	39.9	46.8	59.8	71.1	82.4	91.0
127.5°	0.9	1.7	8.7	19.9	32.1	38.2	45.1	58.1	69.4	80.6	90.2
130°	0.9	1.7	8.7	18.2	30.3	36.4	43.4	56.4	67.6	78.0	88.4
132.5°	0.9	1.7	7.8	17.3	28.6	34.7	40.8	53.8	65.0	75.4	85.0
135°	1.7	1.7	6.9	15.6	26.9	33.0	39.0	51.2	62.4	72.8	82.4
137.5°	1.7	1.7	6.1	14.7	24.3	30.3	35.6	47.7	58.1	68.5	78.0
140°	1.7	1.7	5.2	13.0	21.7	26.9	32.1	42.5	53.8	63.3	72.8
142.5°	1.7	1.7	4.3	11.3	19.1	24.3	28.6	38.2	47.7	58.1	66.8
145°	1.7	1.7	3.5	9.5	16.5	20.8	24.3	33.0	41.6	51.2	59.8
147.5°	1.7	1.7	3.5	7.8	13.9	17.3	20.8	28.6	36.4	44.2	52.0
150°	1.7	1.7	2.6	6.1	11.3	13.9	17.3	24.3	30.3	37.3	45.1
152.5°	1.7	1.7	1.7	5.2	9.5	12.1	13.9	19.9	25.1	31.2	37.3
155°	1.7	1.7	1.7	4.3	7.8	9.5	11.3	15.6	20.8	26.0	30.3
157.5°	1.7	1.7	1.7	3.5	6.1	6.9	8.7	13.0	16.5	20.8	24.3
160°	2.6	1.7	1.7	2.6	4.3	5.2	6.9	9.5	13.0	15.6	19.1
162.5°	2.6	1.7	1.7	1.7	3.5	4.3	5.2	6.9	9.5	12.1	13.9
165°	2.6	2.6	1.7	1.7	2.6	2.6	3.5	5.2	6.1	8.7	10.4
167.5°	2.6	2.6	1.7	1.7	1.7	1.7	2.6	3.5	4.3	5.2	6.1
170°	2.6	2.6	1.7	1.7	1.7	1.7	1.7	1.7	2.6	2.6	3.5
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°	2479.1	2479.1	2479.1	2479.1	2479.1	2479.1	2479.1	2479.1	2479.1	2479.1
2.5°	2452.3	2454.0	2449.7	2450.5	2448.8	2449.7	2447.1	2446.2	2447.9	2442.7
5°	2362.9	2358.6	2353.4	2353.4	2352.5	2350.8	2349.9	2351.7	2350.8	2353.4
7.5°	2246.7	2238.9	2240.7	2236.3	2241.5	2239.8	2241.5	2243.3	2243.3	2243.3
10°	2140.1	2147.9	2151.4	2154.8	2159.2	2156.6	2162.6	2164.4	2166.1	2162.6
12.5°	2069.8	2069.8	2075.9	2077.7	2077.7	2079.4	2086.3	2081.1	2088.9	2095.9
15°	2003.9	2009.2	2014.4	2015.2	2015.2	2023.9	2025.6	2023.0	2023.9	2021.3
17.5°	1951.1	1953.7	1955.4	1960.6	1965.8	1964.9	1966.7	1971.0	1969.3	1966.7
20°	1897.3	1905.1	1911.2	1910.3	1911.2	1913.8	1914.6	1915.5	1911.2	1908.6
22.5°	1848.7	1848.7	1859.1	1862.6	1866.1	1865.2	1863.5	1865.2	1865.2	1859.1
25°	1798.4	1807.1	1812.3	1810.6	1815.8	1820.1	1815.8	1814.9	1818.4	1816.6
27.5°	1756.8	1756.8	1762.9	1772.4	1771.6	1773.3	1769.8	1766.4	1763.8	1762.9
30°	1701.3	1710.0	1718.7	1716.9	1719.5	1723.0	1723.0	1719.5	1713.5	1713.5
32.5°	1652.8	1658.8	1662.3	1672.7	1676.2	1675.3	1667.5	1661.4	1664.0	1664.0
35°	1602.5	1609.4	1623.3	1621.5	1623.3	1625.0	1622.4	1619.8	1619.8	1620.7
37.5°	1548.7	1570.4	1569.5	1586.9	1590.3	1589.5	1586.9	1579.1	1580.8	1584.3
40°	1517.5	1526.2	1543.5	1547.0	1548.7	1550.4	1558.2	1553.0	1550.4	1548.7
42.5°	1477.6	1492.3	1501.0	1511.4	1519.2	1521.0	1516.6	1514.0	1515.8	1514.9
45°	1428.2	1448.1	1459.4	1468.9	1468.1	1469.8	1475.0	1481.1	1481.9	1477.6
47.5°	1381.3	1386.5	1410.0	1407.4	1417.8	1425.6	1423.8	1420.4	1426.4	1425.6
50°	1316.3	1334.5	1340.6	1357.1	1358.8	1353.6	1359.7	1363.1	1364.0	1364.0
52.5°	1252.1	1263.4	1280.8	1281.6	1287.7	1290.3	1293.8	1295.5	1299.0	1297.2
55°	1186.2	1193.2	1205.3	1215.7	1218.3	1217.5	1221.8	1228.7	1232.2	1234.8
57.5°	1107.3	1122.9	1126.4	1136.8	1135.1	1141.1	1149.0	1152.4	1157.6	1160.2
60°	1021.5	1033.6	1045.8	1049.2	1052.7	1057.9	1065.7	1064.8	1072.6	1077.0
62.5°	943.4	948.6	959.1	966.0	966.9	966.9	974.7	978.1	985.9	987.7
65°	855.0	867.1	871.5	874.1	878.4	878.4	885.3	888.8	894.9	905.3
67.5°	772.6	783.9	792.6	794.3	797.8	799.5	797.8	802.1	806.4	811.6
70°	686.8	697.2	708.4	715.4	713.7	712.8	713.7	717.1	723.2	721.5
72.5°	604.4	620.9	626.1	636.5	637.3	639.1	634.7	633.0	638.2	635.6
75°	521.1	538.5	546.3	557.6	552.4	555.0	555.0	562.8	569.7	571.4
77.5°	442.2	459.6	470.0	475.2	483.9	492.5	494.3	498.6	494.3	494.3
80°	362.5	378.1	397.1	403.2	405.8	408.4	411.0	411.9	412.8	412.8
82.5°	292.2	312.2	322.6	324.3	326.0	329.5	333.8	339.0	346.0	346.9
85°	227.2	239.3	248.9	256.7	259.3	264.5	274.0	282.7	292.2	296.6
87.5°	176.0	185.6	196.0	204.6	211.6	215.9	228.1	241.9	259.3	267.9
90°	147.4	157.8	168.2	179.5	186.4	193.4	207.2	222.9	244.5	256.7
92.5°	138.7	150.9	163.0	173.4	178.6	183.8	197.7	218.5	246.3	262.7
95°	136.1	147.4	157.0	167.4	174.3	181.2	197.7	218.5	238.5	247.1
97.5°	131.8	141.3	151.7	164.8	170.8	177.8	192.5	206.4	215.0	218.5
100°	125.7	136.1	147.4	158.7	164.8	170.0	180.4	189.9	196.0	199.4
102.5°	121.4	130.9	141.3	151.7	156.1	160.4	169.1	176.0	178.6	179.5
105°	117.1	125.7	135.3	142.2	144.8	148.3	152.6	152.6	152.6	152.6
107.5°	111.9	119.7	126.6	130.1	131.8	132.7	133.5	132.7	132.7	131.8
110°	107.5	113.6	117.9	119.7	119.7	120.5	120.5	120.5	120.5	120.5



TEST NUMBER: P241364

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	103.2	108.4	111.0	112.7	112.7	113.6	114.5	116.2	117.1	117.1
115°	99.7	104.9	107.5	110.1	111.9	112.7	115.3	118.8	120.5	120.5
117.5°	98.0	104.1	107.5	111.9	114.5	116.2	120.5	124.0	125.7	126.6
120°	98.9	104.9	110.1	115.3	117.9	119.7	124.9	128.3	130.9	131.8
122.5°	99.7	105.8	112.7	117.9	120.5	123.1	127.5	131.8	134.4	135.3
125°	98.9	106.7	113.6	119.7	122.3	124.9	129.2	133.5	136.1	137.0
127.5°	98.0	105.8	113.6	119.7	122.3	125.7	130.1	133.5	136.1	137.0
130°	96.3	104.1	111.9	118.8	121.4	124.0	128.3	132.7	135.3	137.0
132.5°	93.7	101.5	109.3	115.3	118.8	121.4	126.6	130.9	134.4	135.3
135°	90.2	98.0	105.8	112.7	115.3	118.8	123.1	127.5	130.1	131.8
137.5°	85.8	93.7	100.6	107.5	110.1	112.7	117.9	122.3	124.9	125.7
140°	80.6	87.6	94.5	100.6	103.2	105.8	110.1	113.6	117.1	118.8
142.5°	73.7	80.6	86.7	91.9	94.5	97.1	101.5	104.1	106.7	108.4
145°	66.8	72.8	78.0	82.4	85.0	87.6	91.0	93.7	96.3	97.1
147.5°	59.0	64.2	69.4	73.7	75.4	77.2	80.6	83.2	85.0	85.0
150°	51.2	56.4	60.7	65.0	65.9	67.6	70.2	72.0	73.7	72.8
152.5°	43.4	47.7	52.9	56.4	57.2	59.0	60.7	62.4	63.3	63.3
155°	35.6	39.9	44.2	47.7	48.6	50.3	51.2	52.9	53.8	53.8
157.5°	28.6	33.0	36.4	39.9	40.8	41.6	43.4	44.2	44.2	45.1
160°	22.5	25.1	28.6	31.2	33.0	33.8	35.6	35.6	36.4	36.4
162.5°	16.5	19.1	21.7	24.3	25.1	26.0	27.7	28.6	28.6	28.6
165°	11.3	13.9	14.7	16.5	17.3	19.1	20.8	20.8	21.7	20.8
167.5°	7.8	8.7	9.5	11.3	11.3	12.1	13.0	13.9	14.7	14.7
170°	4.3	5.2	5.2	6.1	6.1	6.1	6.9	7.8	7.8	7.8
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)