

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: P241332

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241332
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-8)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-2-LD4-50-2HI-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 2-MODULE LED WITH P125 LENS
Light Source: (84) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

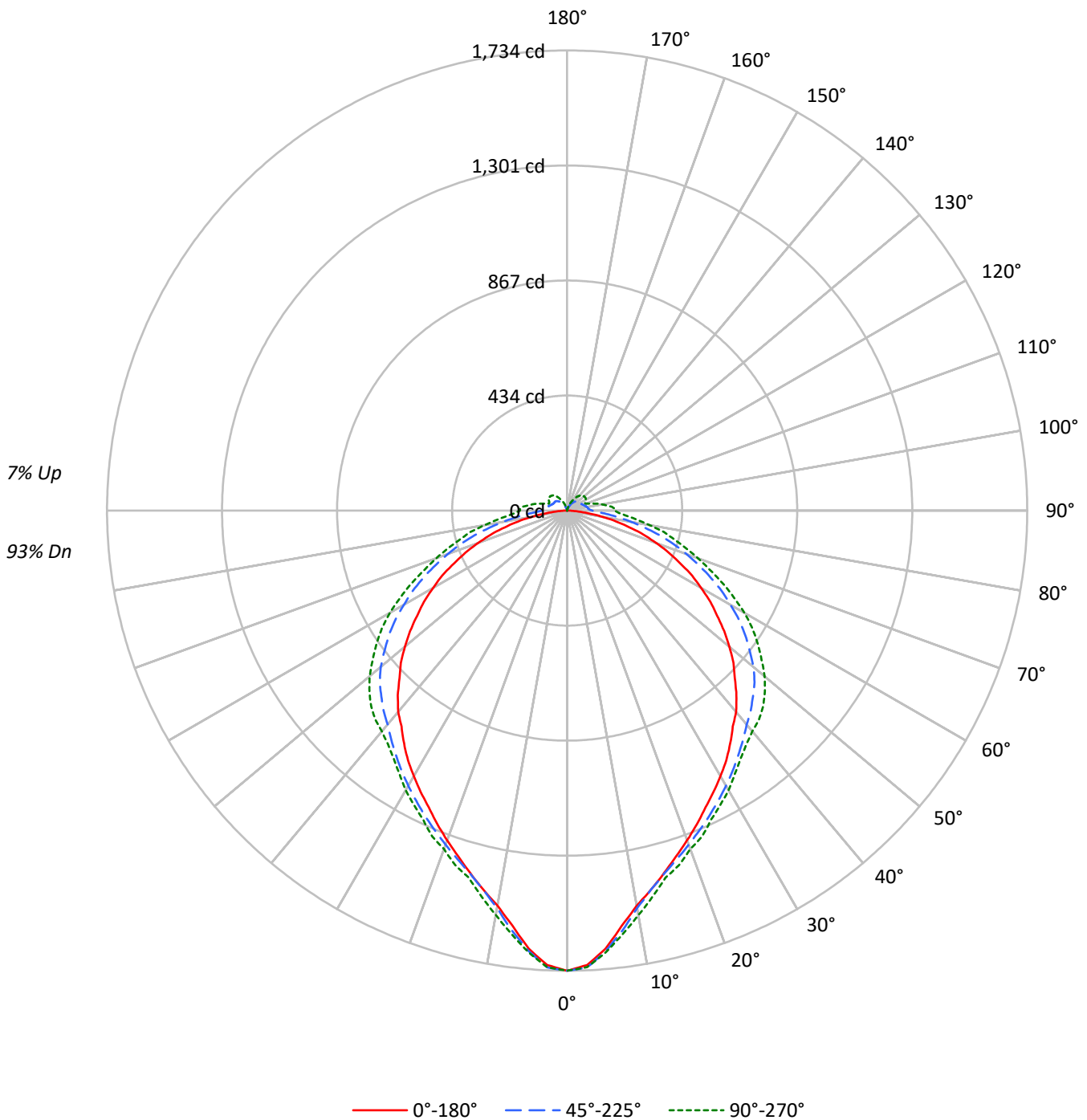
Lumens per Lamp: N/A
Luminaire Lumens: 4722.0 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.05 / 1.26
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 44.2
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

TEST NUMBER: P241332

CATALOG NUMBER: FVS8M-2-LD4-50-2HI-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	97	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	88	80	74	93	85	79	73	81	75	70	76	72	68	72	69	65	63
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	52
4	80	68	59	52	77	66	58	51	63	55	50	59	53	48	56	51	47	44
5	73	60	51	44	71	59	50	44	56	48	43	53	47	42	51	45	41	38
6	68	54	45	39	65	53	44	38	50	43	37	48	42	36	46	40	36	33
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	32	30
8	58	45	36	30	56	44	36	30	42	35	29	40	34	29	39	33	28	26
9	55	41	33	27	53	40	32	27	39	31	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	24	36	29	24	34	28	24	33	27	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15585	15585	15585
5°	14848	14756	14780
10°	13606	13372	13586
15°	12882	12455	12567
20°	12294	11883	11997
25°	11802	11437	11526
30°	11473	11052	11174
35°	11142	10721	10801
40°	10900	10461	10712
45°	10529	10358	10830
50°	10200	10197	10705
55°	9716	9824	10402
60°	9216	9303	9974
65°	8537	8687	9241
70°	7711	7900	8520
75°	6506	6950	7840
80°	4765	5722	7129
85°	2373	4402	6440



TEST NUMBER: P241332

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.4	3.3
10°-20°	401.3	8.5
20°-30°	584.1	12.4
30°-40°	700.8	14.8
40°-50°	755.8	16.0
50°-60°	716.0	15.2
60°-70°	570.7	12.1
70°-80°	365.8	7.7
80°-90°	162.5	3.4
90°-100°	85.8	1.8
100°-110°	65.3	1.4
110°-120°	48.7	1.0
120°-130°	44.2	0.9
130°-140°	34.7	0.7
140°-150°	21.1	0.4
150°-160°	8.8	0.2
160°-170°	1.9	0.0
170°-180°	0.0	0.0
0°-30°	1139.8	24.1
0°-40°	1840.5	39.0
0°-60°	3312.3	70.1
0°-90°	4411.4	93.4
90°-120°	199.8	4.2
90°-150°	299.9	6.4
90°-180°	311.0	6.6
0°-180°	4722.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1734	1734	1734	1734	1734	
5°	1657	1660	1666	1672	1670	153
15°	1414	1410	1416	1433	1432	398
25°	1234	1247	1269	1287	1284	570
35°	1071	1095	1124	1146	1140	671
45°	893	929	990	1039	1044	691
55°	690	741	820	864	878	618
65°	469	522	597	626	645	466
75°	242	288	361	405	416	258
85°	44	84	148	199	224	56
90°	0	37	95	130	178	2
95°	0	34	80	116	168	0
105°	0	31	70	96	102	0
115°	0	27	59	70	74	0
125°	0	23	57	76	84	0
135°	0	19	50	71	80	0
145°	1	12	36	54	62	1
155°	1	5	20	31	35	0
165°	1	1	5	11	12	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241332

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8
2.5°	1714.1	1714.1	1714.1	1714.1	1716.2	1715.1	1717.2	1718.2	1720.3	1721.4	1723.4
5°	1656.9	1656.9	1654.8	1655.8	1656.9	1660.0	1659.0	1663.1	1665.2	1668.3	1666.2
7.5°	1577.8	1582.0	1579.9	1581.0	1579.9	1582.0	1586.2	1587.2	1592.4	1595.5	1595.5
10°	1511.3	1511.3	1507.1	1508.1	1508.1	1510.2	1510.2	1513.3	1516.5	1521.7	1520.6
12.5°	1462.4	1462.4	1457.2	1458.2	1455.1	1456.1	1456.1	1457.2	1459.3	1462.4	1462.4
15°	1413.5	1409.3	1409.3	1411.4	1411.4	1410.4	1411.4	1411.4	1411.4	1413.5	1415.6
17.5°	1365.7	1365.7	1366.7	1365.7	1367.7	1366.7	1366.7	1369.8	1371.9	1371.9	1376.1
20°	1322.0	1323.0	1322.0	1325.1	1328.2	1328.2	1328.2	1331.3	1331.3	1335.5	1339.6
22.5°	1278.3	1279.3	1282.4	1281.4	1285.6	1285.6	1284.5	1290.8	1293.9	1298.0	1303.2
25°	1233.6	1234.6	1236.7	1240.8	1242.9	1247.1	1249.2	1252.3	1260.6	1262.7	1268.9
27.5°	1195.1	1194.0	1196.1	1204.4	1204.4	1207.6	1211.7	1219.0	1220.0	1229.4	1232.5
30°	1155.6	1155.6	1155.6	1164.9	1167.0	1171.2	1175.3	1181.6	1186.8	1192.0	1197.2
32.5°	1116.0	1111.9	1115.0	1122.3	1132.7	1132.7	1134.7	1145.1	1149.3	1155.6	1161.8
35°	1071.3	1072.3	1076.5	1080.7	1090.0	1095.2	1099.4	1105.6	1110.8	1116.0	1124.3
37.5°	1025.5	1029.7	1033.9	1039.1	1045.3	1051.5	1055.7	1064.0	1075.5	1080.7	1089.0
40°	990.2	988.1	991.2	995.4	1002.7	1008.9	1016.2	1025.5	1035.9	1044.3	1052.6
42.5°	944.4	942.3	950.7	953.8	965.2	967.3	975.6	987.1	1000.6	1012.0	1023.5
45°	893.4	897.6	902.8	912.2	919.4	928.8	936.1	947.5	965.2	979.8	990.2
47.5°	849.8	848.7	855.0	865.4	876.8	884.1	891.4	908.0	926.7	942.3	957.9
50°	797.8	800.9	807.1	818.6	833.1	837.3	843.5	864.3	882.0	901.8	916.3
52.5°	745.8	746.8	756.2	767.6	783.2	790.5	799.8	817.5	835.2	852.9	867.4
55°	689.6	692.7	705.2	715.6	732.2	740.6	751.0	768.6	787.4	805.0	819.6
57.5°	639.7	641.7	650.1	663.6	681.3	687.5	698.9	718.7	735.4	754.1	768.6
60°	582.5	586.6	594.9	611.6	625.1	631.3	643.8	662.5	679.2	696.9	710.4
62.5°	531.5	531.5	538.8	555.4	568.9	577.3	587.7	603.3	623.0	638.6	656.3
65°	469.1	475.3	485.7	497.2	512.8	522.1	529.4	546.1	562.7	580.4	597.0
67.5°	415.0	419.2	426.4	440.0	457.6	461.8	473.2	489.9	504.4	520.0	535.7
70°	356.8	359.9	369.2	382.8	397.3	402.5	412.9	428.5	444.1	461.8	478.4
72.5°	301.6	303.7	314.1	324.5	339.1	348.4	354.7	368.2	385.9	404.6	420.2
75°	242.3	246.5	254.8	266.3	280.8	288.1	296.4	311.0	327.6	344.3	360.9
77.5°	190.3	190.3	198.7	211.1	223.6	231.9	239.2	254.8	271.5	286.0	300.6
80°	133.1	138.3	144.6	156.0	169.5	178.9	183.1	197.6	214.3	228.8	245.5
82.5°	86.3	89.4	96.7	108.2	120.7	125.9	133.1	147.7	163.3	179.9	193.5
85°	43.7	47.8	55.1	65.5	78.0	84.2	90.5	106.1	118.6	133.1	147.7
87.5°	16.6	18.7	26.0	36.4	47.8	54.1	59.3	72.8	85.3	99.8	114.4
90°	0.0	4.2	11.4	20.8	32.2	37.4	43.7	56.2	67.6	81.1	94.6
92.5°	0.0	3.1	9.4	18.7	29.1	35.4	40.6	52.0	63.4	75.9	85.3
95°	0.0	3.1	9.4	18.7	29.1	34.3	39.5	51.0	62.4	72.8	80.1
97.5°	0.0	2.1	9.4	18.7	28.1	33.3	38.5	49.9	60.3	69.7	78.0
100°	0.0	2.1	8.3	17.7	27.0	32.2	38.5	48.9	57.2	66.6	75.9
102.5°	0.0	2.1	8.3	16.6	27.0	32.2	37.4	46.8	55.1	64.5	72.8
105°	0.0	2.1	7.3	16.6	26.0	31.2	35.4	44.7	54.1	62.4	69.7
107.5°	0.0	2.1	7.3	15.6	25.0	29.1	34.3	43.7	52.0	59.3	66.6
110°	0.0	2.1	7.3	14.6	23.9	29.1	33.3	42.6	49.9	57.2	63.4



TEST NUMBER: P241332

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

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	1.0	6.2	13.5	23.9	28.1	32.2	40.6	48.9	55.1	61.4
115°	0.0	1.0	6.2	13.5	22.9	27.0	31.2	39.5	46.8	54.1	59.3
117.5°	0.0	1.0	6.2	13.5	21.8	26.0	31.2	38.5	45.8	53.0	58.2
120°	0.0	1.0	5.2	12.5	20.8	25.0	30.2	38.5	45.8	52.0	57.2
122.5°	0.0	1.0	5.2	12.5	19.8	23.9	29.1	37.4	44.7	52.0	57.2
125°	0.0	1.0	5.2	11.4	19.8	22.9	28.1	36.4	44.7	51.0	57.2
127.5°	0.0	1.0	4.2	11.4	18.7	22.9	27.0	35.4	42.6	49.9	56.2
130°	0.0	1.0	4.2	10.4	17.7	21.8	26.0	33.3	41.6	48.9	55.1
132.5°	0.0	1.0	4.2	9.4	16.6	20.8	23.9	31.2	38.5	46.8	53.0
135°	0.0	1.0	3.1	8.3	15.6	18.7	22.9	30.2	36.4	43.7	49.9
137.5°	0.0	1.0	3.1	8.3	14.6	17.7	21.8	28.1	34.3	40.6	46.8
140°	0.0	0.0	2.1	7.3	12.5	15.6	19.8	26.0	32.2	38.5	43.7
142.5°	1.0	0.0	2.1	6.2	11.4	14.6	17.7	23.9	30.2	35.4	40.6
145°	1.0	0.0	1.0	5.2	9.4	12.5	14.6	20.8	27.0	32.2	36.4
147.5°	1.0	0.0	1.0	4.2	8.3	10.4	12.5	17.7	22.9	28.1	33.3
150°	1.0	0.0	1.0	3.1	6.2	8.3	10.4	14.6	19.8	25.0	29.1
152.5°	1.0	1.0	1.0	2.1	5.2	6.2	8.3	12.5	16.6	20.8	23.9
155°	1.0	1.0	1.0	1.0	3.1	5.2	6.2	9.4	13.5	16.6	19.8
157.5°	1.0	1.0	0.0	1.0	2.1	3.1	4.2	7.3	10.4	12.5	15.6
160°	1.0	1.0	0.0	1.0	2.1	2.1	3.1	5.2	7.3	9.4	11.4
162.5°	1.0	1.0	0.0	1.0	1.0	1.0	2.1	3.1	5.2	6.2	8.3
165°	1.0	1.0	1.0	0.0	1.0	1.0	1.0	2.1	3.1	4.2	5.2
167.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	2.1	3.1
170°	1.0	1.0	1.0	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	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



TEST NUMBER: P241332

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8	1733.8
2.5°	1725.5	1724.5	1724.5	1723.4	1724.5	1723.4	1723.4	1724.5	1723.4	1722.4
5°	1671.4	1672.5	1673.5	1671.4	1672.5	1671.4	1671.4	1670.4	1671.4	1670.4
7.5°	1597.6	1600.7	1602.8	1601.8	1604.9	1603.8	1605.9	1608.0	1609.0	1609.0
10°	1524.8	1526.9	1530.0	1534.1	1536.2	1538.3	1541.4	1545.6	1546.6	1547.7
12.5°	1466.5	1470.7	1471.7	1473.8	1475.9	1474.9	1482.1	1485.3	1490.5	1489.4
15°	1417.7	1423.9	1426.0	1432.2	1433.3	1435.3	1441.6	1436.4	1435.3	1432.2
17.5°	1379.2	1385.4	1386.5	1386.5	1387.5	1390.6	1396.9	1397.9	1400.0	1401.0
20°	1341.7	1345.9	1350.0	1353.2	1355.2	1356.3	1359.4	1355.2	1356.3	1357.3
22.5°	1305.3	1309.5	1315.7	1318.8	1323.0	1326.1	1326.1	1325.1	1323.0	1329.2
25°	1275.2	1278.3	1284.5	1284.5	1286.6	1289.7	1285.6	1288.7	1286.6	1284.5
27.5°	1238.8	1247.1	1249.2	1251.2	1253.3	1252.3	1252.3	1251.2	1251.2	1250.2
30°	1205.5	1208.6	1214.8	1215.9	1218.0	1220.0	1220.0	1222.1	1215.9	1216.9
32.5°	1171.2	1175.3	1182.6	1184.7	1185.7	1185.7	1182.6	1176.4	1177.4	1176.4
35°	1130.6	1139.9	1147.2	1147.2	1146.2	1147.2	1145.1	1144.1	1141.0	1139.9
37.5°	1093.1	1101.5	1109.8	1112.9	1111.9	1113.9	1110.8	1108.7	1108.7	1109.8
40°	1061.9	1068.2	1076.5	1082.7	1082.7	1084.8	1084.8	1084.8	1086.9	1085.9
42.5°	1030.7	1042.2	1052.6	1063.0	1066.1	1066.1	1065.1	1066.1	1068.2	1069.2
45°	1004.7	1017.2	1027.6	1035.9	1039.1	1039.1	1041.1	1044.3	1043.2	1044.3
47.5°	972.5	979.8	991.2	997.5	999.5	1002.7	1005.8	1005.8	1007.9	1011.0
50°	927.8	937.1	946.5	956.9	960.0	960.0	965.2	968.3	969.4	971.5
52.5°	879.9	893.4	901.8	910.1	912.2	914.2	917.4	919.4	920.5	923.6
55°	830.0	844.6	850.8	860.2	864.3	869.5	866.4	874.7	875.8	877.8
57.5°	782.2	792.6	804.0	809.2	809.2	813.4	820.6	822.7	826.9	827.9
60°	722.9	735.4	745.8	747.8	752.0	753.0	758.2	763.4	768.6	771.8
62.5°	664.6	676.1	685.4	688.5	690.6	692.7	698.9	704.1	709.3	708.3
65°	606.4	617.8	625.1	626.1	626.1	632.4	636.5	637.6	644.9	644.9
67.5°	549.2	560.6	564.8	571.0	572.1	571.0	574.1	579.3	584.5	580.4
70°	490.9	500.3	507.6	515.9	513.8	513.8	515.9	520.0	522.1	525.3
72.5°	431.6	442.0	450.4	456.6	458.7	461.8	462.8	464.9	466.0	468.0
75°	374.4	383.8	395.2	403.6	404.6	407.7	410.8	412.9	412.9	416.0
77.5°	316.2	330.8	339.1	349.5	349.5	353.6	363.0	365.1	371.3	373.4
80°	260.0	272.5	287.1	296.4	301.6	306.8	307.9	307.9	311.0	314.1
82.5°	209.1	221.5	238.2	245.5	248.6	249.6	257.9	261.1	265.2	267.3
85°	164.3	181.0	188.3	195.5	198.7	200.7	208.0	213.2	220.5	223.6
87.5°	131.1	138.3	145.6	152.9	156.0	159.1	168.5	175.8	188.3	194.5
90°	104.0	110.3	117.5	126.9	130.0	135.2	144.6	155.0	169.5	177.9
92.5°	92.6	99.8	107.1	116.5	121.7	125.9	136.3	149.8	168.5	177.9
95°	88.4	96.7	105.1	112.3	116.5	121.7	133.1	148.7	163.3	168.5
97.5°	87.4	94.6	100.9	109.2	113.4	118.6	130.0	139.4	145.6	148.7
100°	83.2	90.5	97.8	105.1	110.3	113.4	120.7	127.9	132.1	134.2
102.5°	80.1	86.3	93.6	99.8	103.0	106.1	112.3	117.5	119.6	119.6
105°	77.0	82.2	88.4	92.6	95.7	97.8	100.9	101.9	101.9	101.9
107.5°	72.8	78.0	82.2	85.3	86.3	87.4	87.4	87.4	86.3	85.3
110°	68.6	73.8	75.9	77.0	77.0	77.0	77.0	77.0	77.0	75.9



TEST NUMBER: P241332

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	65.5	68.6	70.7	71.8	70.7	71.8	71.8	72.8	72.8	72.8
115°	63.4	66.6	67.6	68.6	69.7	69.7	71.8	72.8	73.8	73.8
117.5°	62.4	65.5	67.6	70.7	70.7	71.8	73.8	75.9	77.0	77.0
120°	62.4	65.5	69.7	72.8	73.8	74.9	77.0	79.0	80.1	80.1
122.5°	62.4	66.6	70.7	73.8	75.9	77.0	79.0	81.1	82.2	83.2
125°	62.4	66.6	71.8	74.9	75.9	78.0	80.1	82.2	83.2	84.2
127.5°	61.4	66.6	70.7	74.9	75.9	77.0	80.1	82.2	83.2	84.2
130°	60.3	65.5	69.7	72.8	74.9	75.9	79.0	81.1	82.2	83.2
132.5°	58.2	63.4	67.6	71.8	72.8	74.9	78.0	80.1	81.1	82.2
135°	56.2	61.4	65.5	69.7	70.7	72.8	75.9	78.0	80.1	80.1
137.5°	53.0	58.2	62.4	66.6	68.6	69.7	72.8	75.9	77.0	78.0
140°	49.9	54.1	59.3	62.4	64.5	66.6	68.6	71.8	72.8	73.8
142.5°	45.8	49.9	54.1	58.2	60.3	61.4	64.5	66.6	68.6	68.6
145°	41.6	44.7	48.9	53.0	54.1	55.1	58.2	60.3	61.4	62.4
147.5°	37.4	40.6	44.7	46.8	47.8	49.9	52.0	54.1	54.1	55.1
150°	32.2	35.4	38.5	40.6	42.6	43.7	45.8	46.8	47.8	47.8
152.5°	28.1	30.2	33.3	35.4	36.4	37.4	38.5	40.6	40.6	41.6
155°	22.9	26.0	28.1	30.2	31.2	32.2	33.3	34.3	34.3	35.4
157.5°	18.7	20.8	22.9	25.0	26.0	26.0	28.1	28.1	29.1	28.1
160°	14.6	16.6	18.7	19.8	20.8	20.8	21.8	22.9	22.9	22.9
162.5°	10.4	12.5	13.5	15.6	15.6	15.6	16.6	17.7	17.7	17.7
165°	7.3	8.3	9.4	10.4	11.4	11.4	11.4	12.5	12.5	12.5
167.5°	4.2	4.2	5.2	6.2	6.2	7.3	7.3	7.3	8.3	8.3
170°	1.0	2.1	2.1	3.1	3.1	3.1	3.1	3.1	4.2	4.2
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)