

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: P241389

Luminaire Tested: **FVS8M-4-LD4-30-1HI-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241389
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-33)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-4-LD4-30-1HI-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
4FT LENGTH, 1-MODULE LED WITH P125 LENS
Light Source: (84) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

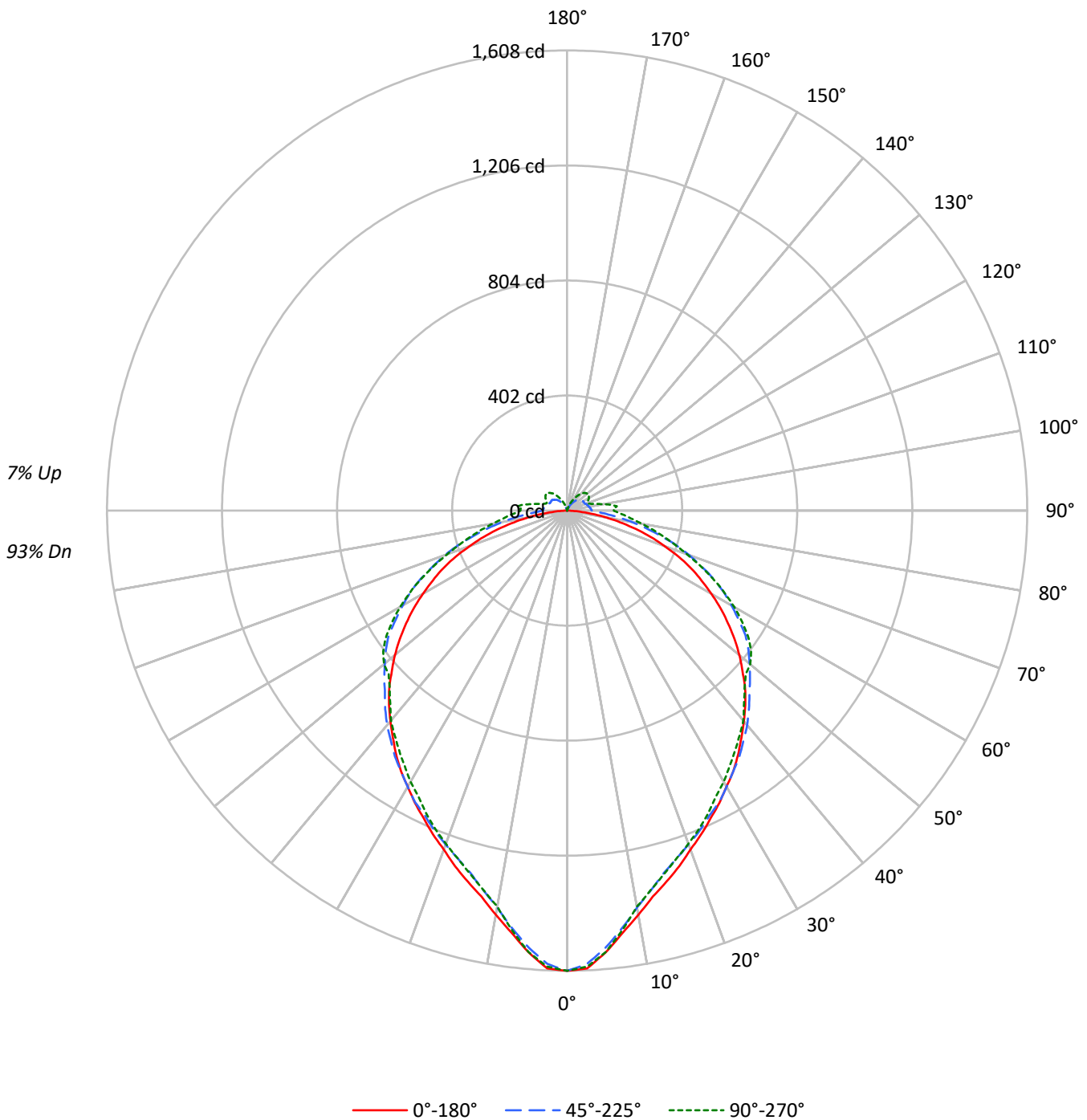
Lumens per Lamp: N/A
Luminaire Lumens: 4406.0 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Spacing Criteria (0/90/45): 1.04 / 1.02 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')
CIE Type: Direct

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

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CATALOG NUMBER: FVS8M-4-LD4-30-1HI-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	95	95	95	93
1	106	101	96	92	103	98	94	90	92	89	86	87	85	82	83	80	78	76
2	96	88	80	74	93	85	78	73	80	75	70	76	71	67	72	68	65	62
3	87	77	68	61	84	74	67	60	70	64	58	67	61	56	63	59	55	52
4	80	68	59	52	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	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°	7188	7188	7188
5°	6926	6771	6811
10°	6465	6186	6133
15°	6146	5769	5729
20°	5910	5528	5444
25°	5745	5332	5204
30°	5621	5192	4995
35°	5530	5060	4822
40°	5426	4933	4698
45°	5352	4793	4522
50°	5220	4728	4578
55°	5063	4680	4558
60°	4871	4479	4330
65°	4668	4262	3998
70°	4258	3908	3585
75°	3739	3411	3250
80°	2890	2862	2980
85°	1566	2240	2921



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.2	3.3
10°-20°	373.4	8.5
20°-30°	544.3	12.4
30°-40°	652.3	14.8
40°-50°	689.9	15.7
50°-60°	663.4	15.1
60°-70°	533.3	12.1
70°-80°	338.1	7.7
80°-90°	149.3	3.4
90°-100°	86.2	2.0
100°-110°	65.7	1.5
110°-120°	53.2	1.2
120°-130°	48.5	1.1
130°-140°	36.5	0.8
140°-150°	20.7	0.5
150°-160°	7.1	0.2
160°-170°	1.0	0.0
170°-180°	0.0	0.0
0°-30°	1060.9	24.1
0°-40°	1713.2	38.9
0°-60°	3066.4	69.6
0°-90°	4087.0	92.8
90°-120°	205.1	4.7
90°-150°	310.8	7.1
90°-180°	319.0	7.2
0°-180°	4406.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1608	1608	1608	1608	1608	
5°	1549	1543	1534	1551	1548	144
15°	1342	1329	1309	1311	1313	378
25°	1186	1188	1176	1176	1166	548
35°	1041	1049	1049	1039	1024	651
45°	880	897	900	894	877	677
55°	686	715	761	772	774	614
65°	478	510	565	562	561	470
75°	248	285	336	353	347	262
85°	44	84	137	175	204	56
90°	1	38	86	125	163	2
95°	0	37	83	118	175	0
105°	0	33	73	92	90	0
115°	1	30	65	77	80	0
125°	1	25	64	84	92	1
135°	1	18	54	75	87	1
145°	1	8	35	56	64	1
155°	1	2	13	27	31	0
165°	2	1	2	5	7	0
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°	1608.2	1608.2	1608.2	1608.2	1608.2	1608.2	1608.2	1608.2	1608.2	1608.2	1608.2
2.5°	1601.6	1597.9	1592.2	1595.1	1595.1	1596.0	1596.9	1596.9	1595.1	1592.2	1585.7
5°	1549.0	1545.2	1538.7	1539.6	1540.5	1543.4	1544.3	1544.3	1540.5	1538.7	1534.0
7.5°	1487.9	1484.1	1481.3	1481.3	1482.3	1483.2	1486.0	1481.3	1478.5	1476.6	1471.9
10°	1434.3	1432.4	1424.0	1424.9	1423.0	1423.0	1424.9	1424.0	1418.3	1413.6	1408.0
12.5°	1381.7	1378.9	1377.9	1376.1	1373.2	1372.3	1373.2	1372.3	1367.6	1362.9	1357.3
15°	1342.2	1335.6	1332.8	1333.8	1329.1	1329.1	1328.1	1330.9	1324.4	1316.8	1309.3
17.5°	1302.7	1299.0	1290.5	1292.4	1291.5	1293.3	1294.3	1293.3	1286.8	1279.2	1273.6
20°	1260.4	1257.6	1258.6	1258.6	1254.8	1255.7	1256.7	1254.8	1249.2	1241.6	1241.6
22.5°	1224.7	1220.0	1219.1	1216.3	1220.0	1221.0	1221.0	1221.9	1218.1	1212.5	1210.6
25°	1186.2	1184.3	1182.4	1185.2	1187.1	1188.1	1188.1	1186.2	1183.4	1178.7	1175.8
27.5°	1151.4	1145.8	1147.6	1150.5	1153.3	1157.0	1157.0	1152.3	1151.4	1145.8	1149.5
30°	1113.8	1109.1	1110.1	1112.9	1117.6	1121.3	1121.3	1124.2	1119.5	1116.6	1114.8
32.5°	1080.9	1071.5	1072.5	1079.0	1086.6	1087.5	1088.4	1090.3	1085.6	1083.7	1080.0
35°	1041.4	1036.7	1033.9	1044.3	1048.0	1049.0	1052.7	1055.5	1051.8	1049.9	1049.0
37.5°	1000.1	996.3	996.3	1003.8	1011.4	1015.1	1016.1	1017.0	1017.9	1013.2	1012.3
40°	960.6	956.8	957.8	963.4	970.9	973.8	978.5	982.2	978.5	976.6	978.5
42.5°	921.1	914.5	920.2	925.8	933.3	935.2	940.9	947.4	942.7	939.0	940.9
45°	879.8	873.2	878.8	886.4	891.0	896.7	897.6	901.4	901.4	901.4	900.4
47.5°	830.9	830.0	832.8	841.2	848.8	851.6	855.3	859.1	864.7	869.4	866.6
50°	785.8	782.0	789.5	796.1	804.6	810.2	815.9	824.3	825.3	826.2	831.8
52.5°	736.9	736.0	742.5	750.1	758.5	767.0	771.7	777.3	782.0	790.5	798.0
55°	686.1	687.1	692.7	703.1	713.4	715.3	721.9	736.0	745.4	752.9	761.3
57.5°	636.3	635.4	644.8	653.2	661.7	672.0	677.7	689.9	696.5	705.9	710.6
60°	581.8	583.7	593.1	595.0	612.8	625.1	626.9	634.5	643.8	653.2	663.6
62.5°	529.2	531.1	539.5	548.9	560.2	565.8	569.6	584.6	594.0	609.1	616.6
65°	478.4	479.4	485.0	495.3	505.7	510.4	519.8	536.7	544.2	554.6	564.9
67.5°	422.0	423.9	431.4	437.1	451.2	459.6	468.1	479.4	485.0	499.1	506.6
70°	360.9	363.8	374.1	380.7	397.6	404.2	410.7	418.3	431.4	444.6	453.0
72.5°	306.4	306.4	315.8	324.3	342.1	344.0	349.7	363.8	378.8	388.2	397.6
75°	248.1	251.0	256.6	267.9	282.0	284.8	294.2	309.2	319.6	329.9	335.6
77.5°	189.9	193.6	202.1	213.4	222.8	232.2	238.7	251.0	261.3	269.8	280.1
80°	137.2	140.0	148.5	156.0	171.1	177.6	183.3	195.5	205.8	217.1	229.3
82.5°	88.4	89.3	98.7	108.1	119.4	126.9	132.5	143.8	158.8	170.1	181.4
85°	44.2	47.0	56.4	64.9	79.0	83.7	89.3	102.5	114.7	128.8	137.2
87.5°	13.2	17.9	26.3	35.7	47.0	52.6	58.3	70.5	82.7	94.0	104.3
90°	0.9	3.8	11.3	21.6	32.9	38.5	44.2	56.4	67.7	77.1	86.5
92.5°	0.0	2.8	10.3	20.7	32.0	37.6	43.2	54.5	64.9	74.3	83.7
95°	0.0	2.8	10.3	19.7	31.0	36.7	42.3	52.6	63.0	73.3	82.7
97.5°	0.0	2.8	9.4	19.7	30.1	35.7	41.4	51.7	62.0	71.4	79.9
100°	0.0	2.8	9.4	18.8	29.1	34.8	39.5	49.8	60.2	69.6	78.0
102.5°	0.0	1.9	8.5	17.9	28.2	33.8	38.5	48.9	59.2	67.7	75.2
105°	0.0	1.9	8.5	16.9	27.3	32.9	37.6	47.9	57.3	65.8	73.3
107.5°	0.0	1.9	7.5	16.9	27.3	32.0	37.6	47.0	56.4	63.9	71.4
110°	0.0	0.9	7.5	16.0	26.3	32.0	36.7	46.1	55.5	63.0	68.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.9	6.6	15.0	25.4	31.0	35.7	45.1	53.6	61.1	66.7
115°	0.9	0.9	6.6	15.0	24.4	30.1	34.8	44.2	52.6	60.2	64.9
117.5°	0.0	0.9	5.6	14.1	23.5	29.1	33.8	43.2	51.7	59.2	64.9
120°	0.9	0.9	4.7	13.2	22.6	28.2	32.9	42.3	50.8	58.3	64.9
122.5°	0.9	0.9	4.7	12.2	21.6	26.3	32.0	41.4	49.8	58.3	64.9
125°	0.9	0.9	3.8	11.3	20.7	25.4	30.1	40.4	48.9	56.4	63.9
127.5°	0.9	0.9	2.8	10.3	18.8	24.4	29.1	38.5	47.0	54.5	62.0
130°	0.9	0.9	1.9	8.5	17.9	21.6	27.3	36.7	45.1	52.6	59.2
132.5°	0.9	0.9	1.9	7.5	16.0	19.7	24.4	33.8	42.3	49.8	56.4
135°	0.9	0.9	0.9	5.6	13.2	17.9	21.6	30.1	38.5	47.0	53.6
137.5°	0.9	0.9	0.9	4.7	11.3	15.0	18.8	26.3	34.8	42.3	49.8
140°	0.9	0.9	0.9	3.8	9.4	12.2	16.0	23.5	31.0	38.5	45.1
142.5°	0.9	0.9	0.9	2.8	7.5	10.3	13.2	19.7	26.3	33.8	40.4
145°	0.9	0.9	0.9	1.9	5.6	7.5	10.3	16.0	22.6	29.1	34.8
147.5°	0.9	0.9	0.9	0.9	3.8	5.6	7.5	13.2	17.9	23.5	29.1
150°	0.9	0.9	0.9	0.9	2.8	3.8	5.6	9.4	14.1	18.8	23.5
152.5°	0.9	0.9	0.9	0.9	1.9	2.8	3.8	6.6	10.3	14.1	17.9
155°	0.9	0.9	0.9	0.9	0.9	1.9	2.8	4.7	7.5	10.3	13.2
157.5°	0.9	0.9	0.9	0.9	0.9	0.9	1.9	2.8	4.7	6.6	9.4
160°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	2.8	4.7	5.6
162.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9	2.8
165°	1.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9
167.5°	1.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
170°	1.9	1.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	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°	1608.2	1608.2	1608.2	1608.2	1608.2	1608.2	1608.2	1608.2	1608.2	1608.2
2.5°	1587.5	1592.2	1596.0	1596.0	1596.0	1597.9	1597.9	1596.9	1597.9	1595.1
5°	1537.7	1545.2	1548.1	1551.8	1550.9	1549.9	1548.1	1551.8	1549.9	1548.1
7.5°	1474.7	1482.3	1478.5	1480.4	1482.3	1480.4	1481.3	1482.3	1478.5	1478.5
10°	1408.0	1410.8	1408.0	1409.9	1409.9	1406.1	1408.0	1408.0	1406.1	1405.2
12.5°	1354.4	1353.5	1352.6	1353.5	1354.4	1358.2	1356.3	1360.1	1359.1	1356.3
15°	1306.5	1310.3	1312.1	1315.0	1311.2	1314.0	1317.8	1315.9	1315.9	1313.1
17.5°	1277.4	1281.1	1277.4	1282.1	1283.9	1283.0	1282.1	1276.4	1280.2	1273.6
20°	1237.9	1244.5	1249.2	1242.6	1242.6	1243.5	1242.6	1240.7	1242.6	1238.8
22.5°	1213.4	1212.5	1211.6	1216.3	1217.2	1216.3	1210.6	1208.7	1203.1	1204.0
25°	1178.7	1175.8	1186.2	1180.5	1175.8	1175.8	1173.0	1169.3	1166.4	1166.4
27.5°	1145.8	1150.5	1145.8	1146.7	1145.8	1146.7	1134.5	1129.8	1129.8	1126.0
30°	1118.5	1114.8	1115.7	1109.1	1105.4	1104.4	1101.6	1097.8	1095.0	1094.1
32.5°	1079.0	1080.9	1078.1	1075.3	1074.3	1071.5	1069.6	1064.9	1061.2	1057.4
35°	1047.1	1044.3	1043.3	1045.2	1038.6	1033.9	1032.0	1029.2	1027.3	1023.6
37.5°	1012.3	1008.5	1009.5	1002.9	1003.8	1002.9	997.3	992.6	991.6	989.7
40°	972.8	974.7	970.9	970.9	962.5	961.5	960.6	960.6	957.8	957.8
42.5°	938.0	938.0	936.2	933.3	930.5	928.6	923.0	922.1	918.3	914.5
45°	902.3	900.4	897.6	895.7	893.9	891.0	883.5	880.7	878.8	877.0
47.5°	870.4	866.6	866.6	861.0	854.4	854.4	852.5	847.8	845.9	845.9
50°	835.6	841.2	844.1	839.4	837.5	835.6	833.7	834.7	832.8	835.6
52.5°	805.5	810.2	809.3	811.2	813.0	815.9	812.1	814.9	813.0	810.2
55°	767.0	770.7	768.9	767.0	771.7	771.7	776.4	774.5	773.6	773.6
57.5°	719.0	723.7	723.7	725.6	726.6	723.7	730.3	727.5	728.4	725.6
60°	669.2	668.3	671.1	676.7	677.7	673.9	673.0	676.7	673.9	673.9
62.5°	620.4	622.2	623.2	620.4	618.5	620.4	616.6	620.4	620.4	619.4
65°	567.7	569.6	570.5	566.8	562.1	563.0	559.3	561.1	562.1	561.1
67.5°	510.4	515.1	513.2	512.3	509.4	503.8	502.9	501.0	502.9	502.9
70°	455.9	460.6	455.9	456.8	456.8	452.1	449.3	445.5	445.5	444.6
72.5°	402.3	405.1	404.2	404.2	405.1	402.3	397.6	395.7	393.8	393.8
75°	345.9	351.5	351.5	352.5	353.4	351.5	351.5	348.7	345.9	346.8
77.5°	291.4	297.0	301.7	304.5	304.5	305.5	307.4	306.4	304.5	304.5
80°	240.6	249.1	253.8	259.4	260.4	260.4	264.1	265.1	265.1	264.1
82.5°	192.7	201.1	206.8	212.4	213.4	215.2	221.8	224.6	230.3	230.3
85°	146.6	156.0	162.6	170.1	174.8	177.6	183.3	190.8	198.3	204.0
87.5°	112.8	122.2	131.6	139.1	142.9	145.7	153.2	162.6	172.0	179.5
90°	96.8	105.3	113.7	120.3	125.0	127.8	135.3	143.8	155.1	162.6
92.5°	93.1	101.5	108.1	115.6	119.4	122.2	131.6	142.9	156.0	162.6
95°	90.2	97.8	105.3	113.7	117.5	122.2	134.4	150.4	168.2	174.8
97.5°	88.4	95.9	103.4	111.9	116.6	121.3	135.3	147.6	155.1	155.1
100°	85.5	93.1	100.6	108.1	111.9	116.6	125.0	128.8	128.8	128.8
102.5°	82.7	89.3	95.9	100.6	103.4	105.3	109.0	110.0	108.1	106.2
105°	79.9	84.6	88.4	91.2	92.1	93.1	94.0	94.0	92.1	90.2
107.5°	77.1	79.9	82.7	82.7	83.7	83.7	84.6	83.7	81.8	79.9
110°	73.3	76.1	77.1	78.0	78.0	78.0	79.0	79.0	77.1	76.1



TEST NUMBER: P241389

CATALOG NUMBER: FVS8M-4-LD4-30-1HI-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	70.5	73.3	74.3	75.2	76.1	76.1	78.0	78.0	77.1	77.1
115°	69.6	72.4	74.3	76.1	77.1	78.0	79.9	81.8	80.8	79.9
117.5°	69.6	73.3	76.1	78.0	79.0	80.8	83.7	84.6	84.6	84.6
120°	69.6	74.3	78.0	80.8	81.8	83.7	85.5	87.4	88.4	87.4
122.5°	69.6	74.3	79.0	81.8	82.7	84.6	87.4	89.3	90.2	90.2
125°	69.6	74.3	79.0	81.8	83.7	84.6	87.4	90.2	91.2	92.1
127.5°	67.7	73.3	77.1	80.8	82.7	84.6	87.4	90.2	92.1	93.1
130°	65.8	70.5	75.2	79.0	80.8	82.7	86.5	89.3	91.2	92.1
132.5°	63.0	67.7	72.4	76.1	78.0	79.9	83.7	87.4	89.3	90.2
135°	59.2	64.9	69.6	73.3	75.2	77.1	80.8	84.6	86.5	87.4
137.5°	55.5	61.1	65.8	69.6	71.4	73.3	77.1	79.9	82.7	82.7
140°	51.7	57.3	62.0	65.8	67.7	69.6	72.4	75.2	77.1	78.0
142.5°	47.0	52.6	56.4	61.1	63.0	63.9	66.7	69.6	71.4	71.4
145°	41.4	47.0	51.7	54.5	56.4	58.3	60.2	62.0	63.9	63.9
147.5°	34.8	40.4	45.1	47.9	49.8	50.8	52.6	54.5	55.5	55.5
150°	28.2	32.9	37.6	40.4	42.3	43.2	45.1	46.1	47.0	47.0
152.5°	21.6	26.3	30.1	32.9	34.8	35.7	37.6	37.6	38.5	39.5
155°	16.0	19.7	22.6	26.3	27.3	28.2	29.1	31.0	31.0	31.0
157.5°	11.3	14.1	16.0	18.8	19.7	21.6	22.6	23.5	23.5	23.5
160°	7.5	9.4	11.3	13.2	14.1	15.0	16.0	16.9	16.9	17.9
162.5°	4.7	5.6	6.6	7.5	8.5	9.4	10.3	11.3	11.3	11.3
165°	1.9	2.8	3.8	3.8	4.7	4.7	5.6	6.6	6.6	6.6
167.5°	0.9	0.9	0.9	1.9	1.9	1.9	1.9	2.8	2.8	2.8
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
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)