

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: P232001

Luminaire Tested: **FVS4M-4-LD4-35-2HI-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P232001  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS4M-4-LD4-35-2HI-PFS125-UNV-EDC1  
Description: FAILSAFE FVS LED FIXTURE  
4FT LENGTH, 2-MODULE LED WITH PFS125 LENS  
Light Source: (168) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

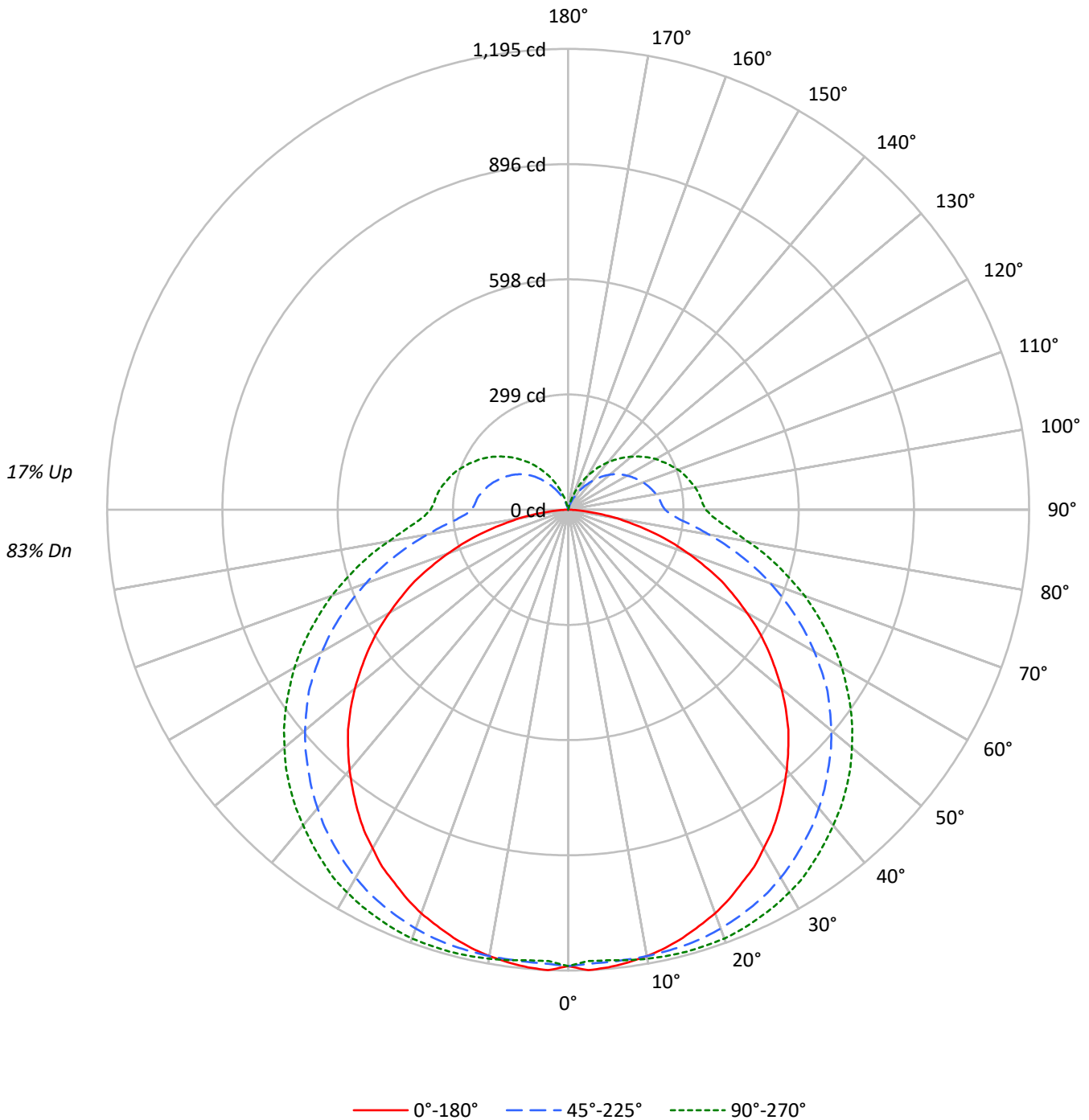
Lumens per Lamp: N/A  
Luminaire Lumens: 5304.0 lumens  
Efficiency: N/A  
Efficacy: 59.4 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.44 / 1.52  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 3.79' x H: 0.19')  
CIE Type: Semi-Direct

Input Watts (W): 89.3  
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	115	115	115	115	110	110	110	110	102	102	102	94	94	94	87	87	87	83
1	103	97	92	88	98	93	89	85	86	82	79	79	76	74	73	71	68	65
2	93	83	76	69	88	80	73	67	74	68	63	68	63	59	63	59	56	52
3	84	72	64	57	80	70	62	55	64	57	52	59	54	49	55	50	46	43
4	76	64	54	47	73	61	53	46	57	49	44	52	46	41	48	43	39	36
5	70	56	47	40	67	54	46	39	50	43	37	47	40	35	43	38	33	31
6	64	51	41	35	61	49	40	34	45	38	32	42	36	31	39	33	29	27
7	59	46	37	30	57	44	36	30	41	34	28	38	32	27	35	30	26	23
8	55	41	33	27	53	40	32	26	37	30	25	35	28	24	32	27	23	21
9	51	38	29	24	49	37	29	23	34	27	22	32	26	21	30	24	20	18
10	48	35	27	21	46	34	26	21	32	25	20	29	24	19	28	22	18	17

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	10750	10750	10750
5°	10817	10323	10160
10°	10750	10032	9863
15°	10666	9795	9612
20°	10577	9575	9390
25°	10451	9357	9153
30°	10339	9137	8930
35°	10204	8894	8682
40°	10036	8653	8429
45°	9878	8390	8188
50°	9631	8132	7910
55°	9340	7849	7618
60°	8958	7461	7303
65°	8536	7039	6931
70°	7749	6552	6539
75°	6711	5985	6098
80°	5246	5364	5604
85°	2677	4840	5280



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.8	2.1
10°-20°	331.1	6.2
20°-30°	520.7	9.8
30°-40°	656.9	12.4
40°-50°	722.9	13.6
50°-60°	710.5	13.4
60°-70°	617.7	11.6
70°-80°	459.2	8.7
80°-90°	293.1	5.5
90°-100°	231.4	4.4
100°-110°	205.1	3.9
110°-120°	168.5	3.2
120°-130°	126.6	2.4
130°-140°	83.4	1.6
140°-150°	45.0	0.8
150°-160°	17.0	0.3
160°-170°	2.3	0.0
170°-180°	0.0	0.0
0°-30°	964.5	18.2
0°-40°	1621.4	30.6
0°-60°	3054.7	57.6
0°-90°	4424.7	83.4
90°-120°	605.0	11.4
90°-150°	859.9	16.2
90°-180°	879.0	16.6
0°-180°	5304.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1183	1183	1183	1183	1183	
5°	1191	1187	1178	1180	1173	113
15°	1149	1155	1170	1188	1186	324
25°	1067	1096	1133	1166	1169	492
35°	952	1000	1060	1104	1112	595
45°	807	873	953	1008	1020	621
55°	631	721	821	878	893	564
65°	439	538	650	720	737	431
75°	226	339	463	539	563	239
85°	40	162	290	372	398	51
90°	0	120	251	332	357	2
95°	0	112	240	321	345	0
105°	0	98	220	297	320	0
115°	0	83	192	263	283	0
125°	0	65	160	221	239	0
135°	0	43	121	173	187	0
145°	1	23	76	122	132	1
155°	1	8	35	61	73	0
165°	1	0	6	10	17	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°	25°	30°	35°	40°	45°	50°
0°	1183.4	1183.4	1183.4	1183.4	1183.4	1183.4	1183.4	1183.4	1183.4	1183.4	1183.4
2.5°	1195.2	1193.2	1190.3	1189.3	1190.3	1190.3	1190.3	1188.3	1183.4	1178.5	1178.5
5°	1191.3	1190.3	1186.4	1185.4	1186.4	1187.3	1187.3	1185.4	1181.5	1177.5	1177.5
7.5°	1184.4	1183.4	1180.5	1179.5	1181.5	1182.4	1183.4	1181.5	1179.5	1176.5	1177.5
10°	1175.6	1173.6	1171.6	1170.7	1172.6	1175.6	1177.5	1177.5	1176.5	1175.6	1178.5
12.5°	1163.8	1162.8	1159.9	1160.9	1163.8	1168.7	1171.6	1173.6	1173.6	1172.6	1177.5
15°	1149.1	1149.1	1147.1	1148.1	1152.0	1158.9	1163.8	1166.7	1167.7	1169.7	1174.6
17.5°	1131.4	1132.4	1130.5	1132.4	1140.3	1148.1	1155.0	1157.9	1160.9	1163.8	1170.7
20°	1113.8	1113.8	1111.8	1116.7	1124.6	1134.4	1141.3	1147.1	1151.1	1156.0	1162.8
22.5°	1092.2	1092.2	1092.2	1098.1	1107.9	1117.7	1128.5	1135.4	1140.3	1145.2	1154.0
25°	1066.7	1069.7	1068.7	1077.5	1089.3	1102.0	1111.8	1118.7	1126.5	1133.4	1143.2
27.5°	1044.2	1042.2	1044.2	1054.0	1067.7	1079.5	1093.2	1101.1	1109.9	1119.7	1129.5
30°	1013.8	1012.8	1017.7	1029.5	1043.2	1058.9	1071.6	1081.4	1092.2	1102.0	1113.8
32.5°	985.4	982.4	989.3	1004.0	1017.7	1036.3	1048.1	1058.9	1069.7	1082.4	1094.2
35°	952.0	951.0	958.9	973.6	991.2	1008.9	1024.6	1037.3	1048.1	1059.9	1074.6
37.5°	916.7	920.6	927.5	942.2	961.8	980.5	996.1	1008.9	1021.6	1037.3	1052.0
40°	881.4	883.4	891.2	909.9	930.5	950.1	966.7	978.5	996.1	1010.9	1025.6
42.5°	844.2	843.2	858.9	877.5	897.1	918.7	935.4	951.0	967.7	983.4	999.1
45°	806.9	804.0	819.7	840.3	861.8	884.4	904.0	921.6	937.3	953.0	968.7
47.5°	764.8	765.7	782.4	803.0	826.5	849.1	876.5	887.3	904.0	923.6	939.3
50°	721.6	721.6	741.2	763.8	786.3	812.8	832.4	852.0	872.6	890.3	906.9
52.5°	676.5	680.4	698.1	723.6	750.0	772.6	793.2	816.7	836.3	855.0	871.6
55°	631.4	635.3	657.9	680.4	708.9	732.4	755.0	776.5	797.1	820.6	835.3
57.5°	585.3	591.2	611.8	636.3	662.8	690.2	715.7	736.3	758.9	778.5	797.1
60°	535.3	544.2	563.8	588.3	618.7	646.1	670.6	693.2	715.7	737.3	755.0
62.5°	486.3	494.2	515.7	541.2	571.6	602.0	623.6	651.0	673.6	694.2	713.8
65°	439.2	445.1	468.7	494.2	524.5	552.0	579.5	604.9	627.5	650.0	670.6
67.5°	383.4	394.1	416.7	445.1	475.5	504.0	530.4	557.9	582.4	604.0	624.6
70°	331.4	341.2	363.7	394.1	426.5	457.9	485.3	510.8	536.3	557.9	578.5
72.5°	279.4	290.2	312.8	340.2	373.6	403.0	433.4	461.8	489.2	511.8	532.4
75°	226.5	236.3	261.8	292.2	325.5	352.0	386.3	412.8	439.2	462.8	486.3
77.5°	170.6	185.3	208.8	241.2	272.6	305.9	337.3	365.7	391.2	416.7	441.2
80°	128.4	136.3	158.8	194.1	224.5	258.8	288.3	318.6	347.1	369.6	392.2
82.5°	78.4	90.2	118.6	146.1	183.3	212.8	246.1	275.5	303.0	328.5	350.0
85°	40.2	52.9	77.5	110.8	145.1	179.4	207.9	238.3	265.7	290.2	312.8
87.5°	11.8	23.5	51.0	82.4	116.7	151.0	182.4	211.8	239.2	264.7	287.3
90°	0.0	11.8	38.2	69.6	102.9	136.3	167.7	198.1	225.5	251.0	273.5
92.5°	0.0	10.8	35.3	65.7	99.0	131.4	162.8	192.2	218.6	244.1	266.7
95°	0.0	9.8	33.3	63.7	96.1	128.4	159.8	189.2	215.7	240.2	262.8
97.5°	0.0	8.8	31.4	60.8	93.1	124.5	155.9	185.3	211.8	237.3	259.8
100°	0.0	7.8	30.4	58.8	90.2	120.6	152.0	180.4	206.9	231.4	253.9
102.5°	0.0	6.9	28.4	55.9	86.3	117.7	147.1	175.5	202.0	225.5	248.1
105°	0.0	6.9	26.5	53.9	83.3	113.7	142.2	170.6	196.1	219.6	242.2
107.5°	0.0	5.9	25.5	51.0	80.4	108.8	137.3	164.7	190.2	213.7	235.3
110°	0.0	4.9	23.5	49.0	76.5	104.9	133.3	159.8	184.3	206.9	228.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	3.9	21.6	46.1	72.6	100.0	127.5	153.0	177.5	199.0	219.6
115°	0.0	2.9	20.6	43.1	69.6	96.1	121.6	147.1	170.6	192.2	211.8
117.5°	0.0	2.0	18.6	40.2	65.7	91.2	116.7	141.2	163.7	184.3	203.9
120°	0.0	2.0	16.7	38.2	61.8	86.3	110.8	134.3	156.9	176.5	195.1
122.5°	0.0	1.0	14.7	35.3	57.8	81.4	104.9	127.5	148.0	168.6	186.3
125°	0.0	1.0	12.7	32.4	53.9	76.5	99.0	120.6	141.2	159.8	177.5
127.5°	0.0	1.0	10.8	28.4	49.0	70.6	92.2	112.8	133.3	151.0	167.7
130°	0.0	1.0	8.8	25.5	44.1	64.7	85.3	104.9	124.5	141.2	157.9
132.5°	0.0	1.0	6.9	21.6	39.2	57.8	76.5	96.1	113.7	131.4	147.1
135°	0.0	0.0	4.9	18.6	34.3	52.0	68.6	86.3	103.9	120.6	136.3
137.5°	1.0	1.0	3.9	15.7	30.4	45.1	61.8	77.5	93.1	108.8	124.5
140°	1.0	1.0	2.9	12.7	25.5	40.2	53.9	68.6	83.3	97.1	110.8
142.5°	1.0	1.0	2.0	9.8	21.6	34.3	47.1	60.8	73.5	85.3	98.0
145°	1.0	1.0	2.0	6.9	17.6	28.4	41.2	52.0	63.7	75.5	85.3
147.5°	1.0	1.0	1.0	4.9	13.7	23.5	34.3	44.1	54.9	64.7	73.5
150°	1.0	1.0	1.0	3.9	10.8	19.6	28.4	36.3	46.1	53.9	62.7
152.5°	1.0	1.0	1.0	2.9	7.8	15.7	22.6	30.4	37.3	45.1	51.0
155°	1.0	1.0	1.0	2.0	4.9	10.8	17.6	23.5	29.4	35.3	41.2
157.5°	1.0	1.0	1.0	1.0	2.9	6.9	12.7	17.6	22.6	26.5	32.4
160°	1.0	1.0	1.0	1.0	2.0	3.9	7.8	11.8	15.7	19.6	22.6
162.5°	1.0	1.0	1.0	0.0	1.0	2.0	3.9	6.9	9.8	12.7	14.7
165°	1.0	1.0	1.0	0.0	0.0	0.0	1.0	2.0	3.9	5.9	6.9
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	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	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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1183.4	1183.4	1183.4	1183.4	1183.4	1183.4	1183.4	1183.4
2.5°	1179.5	1180.5	1179.5	1178.5	1176.5	1174.6	1172.6	1171.6
5°	1179.5	1180.5	1179.5	1179.5	1177.5	1175.6	1173.6	1172.6
7.5°	1181.5	1182.4	1182.4	1182.4	1182.4	1181.5	1179.5	1178.5
10°	1182.4	1185.4	1186.4	1186.4	1186.4	1185.4	1184.4	1182.4
12.5°	1182.4	1186.4	1187.3	1188.3	1189.3	1188.3	1186.4	1185.4
15°	1180.5	1185.4	1187.3	1188.3	1189.3	1189.3	1187.3	1186.4
17.5°	1177.5	1182.4	1185.4	1186.4	1188.3	1187.3	1186.4	1185.4
20°	1170.7	1176.5	1180.5	1183.4	1184.4	1185.4	1184.4	1183.4
22.5°	1162.8	1168.7	1173.6	1176.5	1178.5	1179.5	1178.5	1177.5
25°	1152.0	1158.9	1164.8	1167.7	1169.7	1171.6	1170.7	1168.7
27.5°	1139.3	1146.2	1152.0	1156.0	1159.9	1159.9	1159.9	1158.9
30°	1122.6	1131.4	1137.3	1142.2	1145.2	1147.1	1147.1	1146.2
32.5°	1106.0	1114.8	1120.7	1126.5	1129.5	1130.5	1131.4	1132.4
35°	1085.4	1094.2	1102.0	1106.9	1110.9	1112.8	1112.8	1111.8
37.5°	1062.8	1073.6	1081.4	1086.3	1092.2	1092.2	1092.2	1091.2
40°	1037.3	1047.1	1056.9	1062.8	1068.7	1069.7	1068.7	1068.7
42.5°	1012.8	1022.6	1031.4	1038.3	1042.2	1044.2	1045.2	1046.1
45°	983.4	995.2	1004.0	1011.8	1015.8	1018.7	1019.7	1019.7
47.5°	952.0	964.8	974.6	981.4	987.3	991.2	989.3	992.2
50°	921.6	932.4	944.2	950.1	955.9	960.8	959.9	959.9
52.5°	887.3	898.1	909.9	918.7	923.6	927.5	928.5	928.5
55°	850.1	862.8	874.6	882.4	888.3	891.2	893.2	893.2
57.5°	812.8	825.5	836.3	847.1	853.0	857.9	857.9	855.9
60°	772.6	786.3	798.1	806.9	816.7	817.7	818.7	819.7
62.5°	731.4	745.1	757.9	768.7	773.6	778.5	781.4	779.5
65°	688.3	700.0	716.7	723.6	730.4	733.4	738.3	737.3
67.5°	645.1	659.8	670.6	682.4	690.2	691.2	697.1	694.2
70°	596.1	610.8	626.5	634.4	643.2	646.1	649.1	652.0
72.5°	551.0	566.7	579.5	591.2	596.1	601.0	604.9	605.9
75°	504.0	522.6	532.4	545.1	552.0	555.9	561.8	562.8
77.5°	456.9	473.6	488.3	497.1	505.9	510.8	514.7	518.7
80°	410.8	425.5	442.2	454.9	463.8	467.7	472.6	471.6
82.5°	369.6	386.3	401.0	411.8	421.6	427.5	432.4	432.4
85°	335.3	353.9	365.7	377.5	386.3	392.2	397.1	398.1
87.5°	309.8	326.5	342.2	352.0	361.8	367.7	371.6	372.6
90°	294.1	311.8	326.5	338.3	347.1	353.0	356.9	356.9
92.5°	287.3	303.9	319.6	330.4	339.2	345.1	348.1	349.0
95°	283.4	300.0	314.7	326.5	335.3	341.2	344.1	345.1
97.5°	279.4	296.1	309.8	322.6	330.4	336.3	339.2	340.2
100°	273.5	290.2	304.9	315.7	325.5	330.4	333.4	334.3
102.5°	267.7	283.4	298.1	308.8	317.7	322.6	326.5	326.5
105°	260.8	278.4	291.2	302.0	310.8	316.7	318.6	319.6
107.5°	253.9	270.6	284.3	295.1	303.0	307.9	311.8	311.8
110°	247.1	262.8	275.5	286.3	294.1	299.0	302.0	303.0





TEST NUMBER: P232001

CATALOG NUMBER: FVS4M-4-LD4-35-2HI-PFS125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	238.3	253.9	266.7	277.5	284.3	289.2	292.2	292.2
115°	229.4	245.1	257.9	268.6	275.5	280.4	282.4	283.4
117.5°	220.6	235.3	248.1	257.9	264.7	269.6	271.6	271.6
120°	211.8	226.5	238.3	248.1	254.9	258.8	261.8	262.8
122.5°	202.0	215.7	227.5	237.3	244.1	248.1	250.0	251.0
125°	192.2	205.9	216.7	225.5	232.4	236.3	239.2	239.2
127.5°	182.4	195.1	205.9	213.7	219.6	223.5	225.5	226.5
130°	171.6	182.4	193.2	201.0	207.9	210.8	213.7	213.7
132.5°	160.8	171.6	181.4	190.2	194.1	198.1	201.0	201.0
135°	150.0	159.8	169.6	176.5	181.4	185.3	187.3	187.3
137.5°	138.2	149.0	157.9	163.7	168.6	171.6	173.5	174.5
140°	125.5	137.3	144.1	150.0	154.9	157.9	159.8	159.8
142.5°	110.8	122.6	131.4	138.2	141.2	143.1	146.1	146.1
145°	97.1	107.9	118.6	124.5	128.4	130.4	131.4	132.4
147.5°	83.3	93.1	102.9	109.8	113.7	114.7	115.7	115.7
150°	70.6	78.4	87.3	96.1	99.0	101.0	102.0	102.9
152.5°	58.8	64.7	72.6	79.4	85.3	86.3	87.3	87.3
155°	47.1	52.9	57.8	63.7	70.6	71.6	72.6	72.6
157.5°	36.3	40.2	44.1	48.0	53.9	57.8	57.8	58.8
160°	25.5	29.4	31.4	34.3	38.2	43.1	43.1	43.1
162.5°	16.7	18.6	20.6	21.6	23.5	27.5	29.4	29.4
165°	8.8	8.8	9.8	10.8	11.8	12.7	15.7	16.7
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	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
175°	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
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)