

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: P241391

Luminaire Tested: **FVS8M-4-LD4-40-1HI-P125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241391  
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-LD4-40-1HI-P125-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
4FT LENGTH, 1-MODULE LED WITH P125 LENS  
Light Source: (84) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

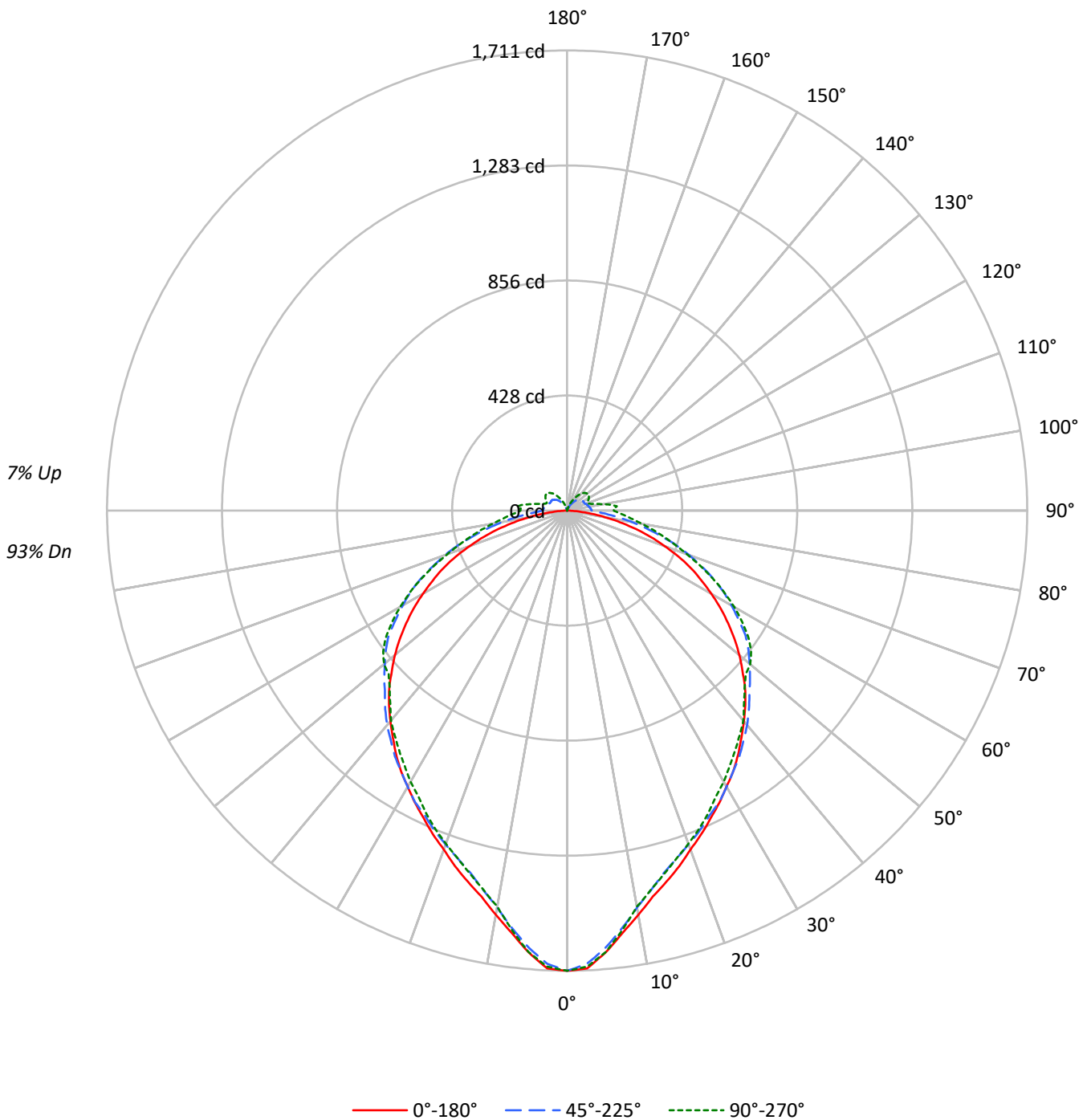
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4688.0 lumens  
Efficiency: N/A  
Efficacy: 106.1 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-LD4-40-1HI-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°	7647	7647	7647
5°	7369	7204	7246
10°	6878	6581	6525
15°	6539	6138	6096
20°	6289	5882	5793
25°	6112	5674	5537
30°	5981	5524	5315
35°	5885	5383	5131
40°	5774	5249	4999
45°	5694	5100	4811
50°	5555	5031	4871
55°	5388	4980	4850
60°	5183	4765	4608
65°	4966	4535	4254
70°	4531	4158	3814
75°	3978	3628	3458
80°	3076	3045	3171
85°	1666	2383	3107



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.4	3.3
10°-20°	397.2	8.5
20°-30°	579.1	12.4
30°-40°	694.0	14.8
40°-50°	734.1	15.7
50°-60°	705.9	15.1
60°-70°	567.4	12.1
70°-80°	359.7	7.7
80°-90°	158.8	3.4
90°-100°	91.7	2.0
100°-110°	69.9	1.5
110°-120°	56.6	1.2
120°-130°	51.6	1.1
130°-140°	38.9	0.8
140°-150°	22.1	0.5
150°-160°	7.6	0.2
160°-170°	1.1	0.0
170°-180°	0.0	0.0
0°-30°	1128.8	24.1
0°-40°	1822.8	38.9
0°-60°	3262.7	69.6
0°-90°	4348.6	92.8
90°-120°	218.2	4.7
90°-150°	330.7	7.1
90°-180°	339.0	7.2
0°-180°	4688.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1711	1711	1711	1711	1711	
5°	1648	1642	1632	1650	1647	153
15°	1428	1414	1393	1395	1397	403
25°	1262	1264	1251	1251	1241	583
35°	1108	1116	1116	1105	1089	693
45°	936	954	958	951	933	720
55°	730	761	810	821	823	653
65°	509	543	601	598	597	500
75°	264	303	357	376	369	279
85°	47	89	146	186	217	60
90°	1	41	92	133	173	2
95°	0	39	88	125	186	0
105°	0	35	78	98	96	0
115°	1	32	69	82	85	0
125°	1	27	68	89	98	1
135°	1	19	57	80	93	1
145°	1	8	37	60	68	1
155°	1	2	14	29	33	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°	1711.1	1711.1	1711.1	1711.1	1711.1	1711.1	1711.1	1711.1	1711.1	1711.1	1711.1
2.5°	1704.1	1700.1	1694.1	1697.1	1697.1	1698.1	1699.1	1699.1	1697.1	1694.1	1687.1
5°	1648.1	1644.1	1637.1	1638.1	1639.1	1642.1	1643.1	1643.1	1639.1	1637.1	1632.1
7.5°	1583.1	1579.1	1576.1	1576.1	1577.1	1578.1	1581.1	1576.1	1573.1	1571.1	1566.1
10°	1526.1	1524.1	1515.1	1516.1	1514.1	1514.1	1516.1	1515.1	1509.1	1504.1	1498.1
12.5°	1470.1	1467.1	1466.1	1464.1	1461.1	1460.1	1461.1	1460.1	1455.1	1450.1	1444.1
15°	1428.1	1421.1	1418.1	1419.1	1414.1	1414.1	1413.1	1416.1	1409.1	1401.1	1393.1
17.5°	1386.1	1382.1	1373.1	1375.1	1374.1	1376.1	1377.1	1376.1	1369.1	1361.1	1355.1
20°	1341.1	1338.1	1339.1	1339.1	1335.1	1336.1	1337.1	1335.1	1329.1	1321.1	1321.1
22.5°	1303.1	1298.1	1297.1	1294.1	1298.1	1299.1	1299.1	1300.1	1296.1	1290.1	1288.1
25°	1262.1	1260.1	1258.1	1261.1	1263.1	1264.1	1264.1	1262.1	1259.1	1254.1	1251.1
27.5°	1225.1	1219.1	1221.1	1224.1	1227.1	1231.1	1231.1	1226.1	1225.1	1219.1	1223.1
30°	1185.1	1180.1	1181.1	1184.1	1189.1	1193.1	1193.1	1196.1	1191.1	1188.1	1186.1
32.5°	1150.1	1140.1	1141.1	1148.1	1156.1	1157.1	1158.1	1160.1	1155.1	1153.1	1149.1
35°	1108.1	1103.1	1100.1	1111.1	1115.1	1116.1	1120.1	1123.1	1119.1	1117.1	1116.1
37.5°	1064.1	1060.1	1060.1	1068.1	1076.1	1080.1	1081.1	1082.1	1083.1	1078.1	1077.1
40°	1022.1	1018.1	1019.1	1025.1	1033.1	1036.1	1041.1	1045.1	1041.1	1039.1	1041.1
42.5°	980.1	973.1	979.1	985.1	993.1	995.1	1001.1	1008.1	1003.1	999.1	1001.1
45°	936.1	929.1	935.1	943.1	948.1	954.1	955.1	959.1	959.1	959.1	958.1
47.5°	884.1	883.1	886.1	895.1	903.1	906.1	910.1	914.1	920.1	925.1	922.1
50°	836.1	832.1	840.1	847.1	856.1	862.1	868.1	877.1	878.1	879.1	885.1
52.5°	784.1	783.1	790.1	798.1	807.1	816.1	821.1	827.1	832.1	841.1	849.1
55°	730.1	731.1	737.1	748.1	759.1	761.1	768.1	783.1	793.1	801.1	810.1
57.5°	677.1	676.1	686.1	695.1	704.1	715.1	721.1	734.1	741.1	751.1	756.1
60°	619.1	621.1	631.1	633.1	652.1	665.1	667.1	675.1	685.1	695.1	706.1
62.5°	563.0	565.0	574.0	584.0	596.1	602.1	606.1	622.1	632.1	648.1	656.1
65°	509.0	510.0	516.0	527.0	538.0	543.0	553.0	571.0	579.0	590.0	601.1
67.5°	449.0	451.0	459.0	465.0	480.0	489.0	498.0	510.0	516.0	531.0	539.0
70°	384.0	387.0	398.0	405.0	423.0	430.0	437.0	445.0	459.0	473.0	482.0
72.5°	326.0	326.0	336.0	345.0	364.0	366.0	372.0	387.0	403.0	413.0	423.0
75°	264.0	267.0	273.0	285.0	300.0	303.0	313.0	329.0	340.0	351.0	357.0
77.5°	202.0	206.0	215.0	227.0	237.0	247.0	254.0	267.0	278.0	287.0	298.0
80°	146.0	149.0	158.0	166.0	182.0	189.0	195.0	208.0	219.0	231.0	244.0
82.5°	94.0	95.0	105.0	115.0	127.0	135.0	141.0	153.0	169.0	181.0	193.0
85°	47.0	50.0	60.0	69.0	84.0	89.0	95.0	109.0	122.0	137.0	146.0
87.5°	14.0	19.0	28.0	38.0	50.0	56.0	62.0	75.0	88.0	100.0	111.0
90°	1.0	4.0	12.0	23.0	35.0	41.0	47.0	60.0	72.0	82.0	92.0
92.5°	0.0	3.0	11.0	22.0	34.0	40.0	46.0	58.0	69.0	79.0	89.0
95°	0.0	3.0	11.0	21.0	33.0	39.0	45.0	56.0	67.0	78.0	88.0
97.5°	0.0	3.0	10.0	21.0	32.0	38.0	44.0	55.0	66.0	76.0	85.0
100°	0.0	3.0	10.0	20.0	31.0	37.0	42.0	53.0	64.0	74.0	83.0
102.5°	0.0	2.0	9.0	19.0	30.0	36.0	41.0	52.0	63.0	72.0	80.0
105°	0.0	2.0	9.0	18.0	29.0	35.0	40.0	51.0	61.0	70.0	78.0
107.5°	0.0	2.0	8.0	18.0	29.0	34.0	40.0	50.0	60.0	68.0	76.0
110°	0.0	1.0	8.0	17.0	28.0	34.0	39.0	49.0	59.0	67.0	73.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	1.0	7.0	16.0	27.0	33.0	38.0	48.0	57.0	65.0	71.0
115°	1.0	1.0	7.0	16.0	26.0	32.0	37.0	47.0	56.0	64.0	69.0
117.5°	0.0	1.0	6.0	15.0	25.0	31.0	36.0	46.0	55.0	63.0	69.0
120°	1.0	1.0	5.0	14.0	24.0	30.0	35.0	45.0	54.0	62.0	69.0
122.5°	1.0	1.0	5.0	13.0	23.0	28.0	34.0	44.0	53.0	62.0	69.0
125°	1.0	1.0	4.0	12.0	22.0	27.0	32.0	43.0	52.0	60.0	68.0
127.5°	1.0	1.0	3.0	11.0	20.0	26.0	31.0	41.0	50.0	58.0	66.0
130°	1.0	1.0	2.0	9.0	19.0	23.0	29.0	39.0	48.0	56.0	63.0
132.5°	1.0	1.0	2.0	8.0	17.0	21.0	26.0	36.0	45.0	53.0	60.0
135°	1.0	1.0	1.0	6.0	14.0	19.0	23.0	32.0	41.0	50.0	57.0
137.5°	1.0	1.0	1.0	5.0	12.0	16.0	20.0	28.0	37.0	45.0	53.0
140°	1.0	1.0	1.0	4.0	10.0	13.0	17.0	25.0	33.0	41.0	48.0
142.5°	1.0	1.0	1.0	3.0	8.0	11.0	14.0	21.0	28.0	36.0	43.0
145°	1.0	1.0	1.0	2.0	6.0	8.0	11.0	17.0	24.0	31.0	37.0
147.5°	1.0	1.0	1.0	1.0	4.0	6.0	8.0	14.0	19.0	25.0	31.0
150°	1.0	1.0	1.0	1.0	3.0	4.0	6.0	10.0	15.0	20.0	25.0
152.5°	1.0	1.0	1.0	1.0	2.0	3.0	4.0	7.0	11.0	15.0	19.0
155°	1.0	1.0	1.0	1.0	1.0	2.0	3.0	5.0	8.0	11.0	14.0
157.5°	1.0	1.0	1.0	1.0	1.0	1.0	2.0	3.0	5.0	7.0	10.0
160°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	3.0	5.0	6.0
162.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	3.0
165°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0
167.5°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
170°	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	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°	1711.1	1711.1	1711.1	1711.1	1711.1	1711.1	1711.1	1711.1	1711.1	1711.1
2.5°	1689.1	1694.1	1698.1	1698.1	1698.1	1700.1	1700.1	1699.1	1700.1	1697.1
5°	1636.1	1644.1	1647.1	1651.1	1650.1	1649.1	1647.1	1651.1	1649.1	1647.1
7.5°	1569.1	1577.1	1573.1	1575.1	1577.1	1575.1	1576.1	1577.1	1573.1	1573.1
10°	1498.1	1501.1	1498.1	1500.1	1500.1	1496.1	1498.1	1498.1	1496.1	1495.1
12.5°	1441.1	1440.1	1439.1	1440.1	1441.1	1445.1	1443.1	1447.1	1446.1	1443.1
15°	1390.1	1394.1	1396.1	1399.1	1395.1	1398.1	1402.1	1400.1	1400.1	1397.1
17.5°	1359.1	1363.1	1359.1	1364.1	1366.1	1365.1	1364.1	1358.1	1362.1	1355.1
20°	1317.1	1324.1	1329.1	1322.1	1322.1	1323.1	1322.1	1320.1	1322.1	1318.1
22.5°	1291.1	1290.1	1289.1	1294.1	1295.1	1294.1	1288.1	1286.1	1280.1	1281.1
25°	1254.1	1251.1	1262.1	1256.1	1251.1	1251.1	1248.1	1244.1	1241.1	1241.1
27.5°	1219.1	1224.1	1219.1	1220.1	1219.1	1220.1	1207.1	1202.1	1202.1	1198.1
30°	1190.1	1186.1	1187.1	1180.1	1176.1	1175.1	1172.1	1168.1	1165.1	1164.1
32.5°	1148.1	1150.1	1147.1	1144.1	1143.1	1140.1	1138.1	1133.1	1129.1	1125.1
35°	1114.1	1111.1	1110.1	1112.1	1105.1	1100.1	1098.1	1095.1	1093.1	1089.1
37.5°	1077.1	1073.1	1074.1	1067.1	1068.1	1067.1	1061.1	1056.1	1055.1	1053.1
40°	1035.1	1037.1	1033.1	1033.1	1024.1	1023.1	1022.1	1022.1	1019.1	1019.1
42.5°	998.1	998.1	996.1	993.1	990.1	988.1	982.1	981.1	977.1	973.1
45°	960.1	958.1	955.1	953.1	951.1	948.1	940.1	937.1	935.1	933.1
47.5°	926.1	922.1	922.1	916.1	909.1	909.1	907.1	902.1	900.1	900.1
50°	889.1	895.1	898.1	893.1	891.1	889.1	887.1	888.1	886.1	889.1
52.5°	857.1	862.1	861.1	863.1	865.1	868.1	864.1	867.1	865.1	862.1
55°	816.1	820.1	818.1	816.1	821.1	821.1	826.1	824.1	823.1	823.1
57.5°	765.1	770.1	770.1	772.1	773.1	770.1	777.1	774.1	775.1	772.1
60°	712.1	711.1	714.1	720.1	721.1	717.1	716.1	720.1	717.1	717.1
62.5°	660.1	662.1	663.1	660.1	658.1	660.1	656.1	660.1	660.1	659.1
65°	604.1	606.1	607.1	603.1	598.1	599.1	595.1	597.1	598.1	597.1
67.5°	543.0	548.0	546.0	545.0	542.0	536.0	535.0	533.0	535.0	535.0
70°	485.0	490.0	485.0	486.0	486.0	481.0	478.0	474.0	474.0	473.0
72.5°	428.0	431.0	430.0	430.0	431.0	428.0	423.0	421.0	419.0	419.0
75°	368.0	374.0	374.0	375.0	376.0	374.0	374.0	371.0	368.0	369.0
77.5°	310.0	316.0	321.0	324.0	324.0	325.0	327.0	326.0	324.0	324.0
80°	256.0	265.0	270.0	276.0	277.0	277.0	281.0	282.0	282.0	281.0
82.5°	205.0	214.0	220.0	226.0	227.0	229.0	236.0	239.0	245.0	245.0
85°	156.0	166.0	173.0	181.0	186.0	189.0	195.0	203.0	211.0	217.0
87.5°	120.0	130.0	140.0	148.0	152.0	155.0	163.0	173.0	183.0	191.0
90°	103.0	112.0	121.0	128.0	133.0	136.0	144.0	153.0	165.0	173.0
92.5°	99.0	108.0	115.0	123.0	127.0	130.0	140.0	152.0	166.0	173.0
95°	96.0	104.0	112.0	121.0	125.0	130.0	143.0	160.0	179.0	186.0
97.5°	94.0	102.0	110.0	119.0	124.0	129.0	144.0	157.0	165.0	165.0
100°	91.0	99.0	107.0	115.0	119.0	124.0	133.0	137.0	137.0	137.0
102.5°	88.0	95.0	102.0	107.0	110.0	112.0	116.0	117.0	115.0	113.0
105°	85.0	90.0	94.0	97.0	98.0	99.0	100.0	100.0	98.0	96.0
107.5°	82.0	85.0	88.0	88.0	89.0	89.0	90.0	89.0	87.0	85.0
110°	78.0	81.0	82.0	83.0	83.0	83.0	84.0	84.0	82.0	81.0





TEST NUMBER: P241391

CATALOG NUMBER: FVS8M-4-LD4-40-1HI-P125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	75.0	78.0	79.0	80.0	81.0	81.0	83.0	83.0	82.0	82.0
115°	74.0	77.0	79.0	81.0	82.0	83.0	85.0	87.0	86.0	85.0
117.5°	74.0	78.0	81.0	83.0	84.0	86.0	89.0	90.0	90.0	90.0
120°	74.0	79.0	83.0	86.0	87.0	89.0	91.0	93.0	94.0	93.0
122.5°	74.0	79.0	84.0	87.0	88.0	90.0	93.0	95.0	96.0	96.0
125°	74.0	79.0	84.0	87.0	89.0	90.0	93.0	96.0	97.0	98.0
127.5°	72.0	78.0	82.0	86.0	88.0	90.0	93.0	96.0	98.0	99.0
130°	70.0	75.0	80.0	84.0	86.0	88.0	92.0	95.0	97.0	98.0
132.5°	67.0	72.0	77.0	81.0	83.0	85.0	89.0	93.0	95.0	96.0
135°	63.0	69.0	74.0	78.0	80.0	82.0	86.0	90.0	92.0	93.0
137.5°	59.0	65.0	70.0	74.0	76.0	78.0	82.0	85.0	88.0	88.0
140°	55.0	61.0	66.0	70.0	72.0	74.0	77.0	80.0	82.0	83.0
142.5°	50.0	56.0	60.0	65.0	67.0	68.0	71.0	74.0	76.0	76.0
145°	44.0	50.0	55.0	58.0	60.0	62.0	64.0	66.0	68.0	68.0
147.5°	37.0	43.0	48.0	51.0	53.0	54.0	56.0	58.0	59.0	59.0
150°	30.0	35.0	40.0	43.0	45.0	46.0	48.0	49.0	50.0	50.0
152.5°	23.0	28.0	32.0	35.0	37.0	38.0	40.0	40.0	41.0	42.0
155°	17.0	21.0	24.0	28.0	29.0	30.0	31.0	33.0	33.0	33.0
157.5°	12.0	15.0	17.0	20.0	21.0	23.0	24.0	25.0	25.0	25.0
160°	8.0	10.0	12.0	14.0	15.0	16.0	17.0	18.0	18.0	19.0
162.5°	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	12.0	12.0
165°	2.0	3.0	4.0	4.0	5.0	5.0	6.0	7.0	7.0	7.0
167.5°	1.0	1.0	1.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0
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)