

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: P241390

Luminaire Tested: **FVS8M-4-LD4-35-1HI-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241390
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-LD4-35-1HI-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
4FT LENGTH, 1-MODULE LED WITH P125 LENS
Light Source: (84) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

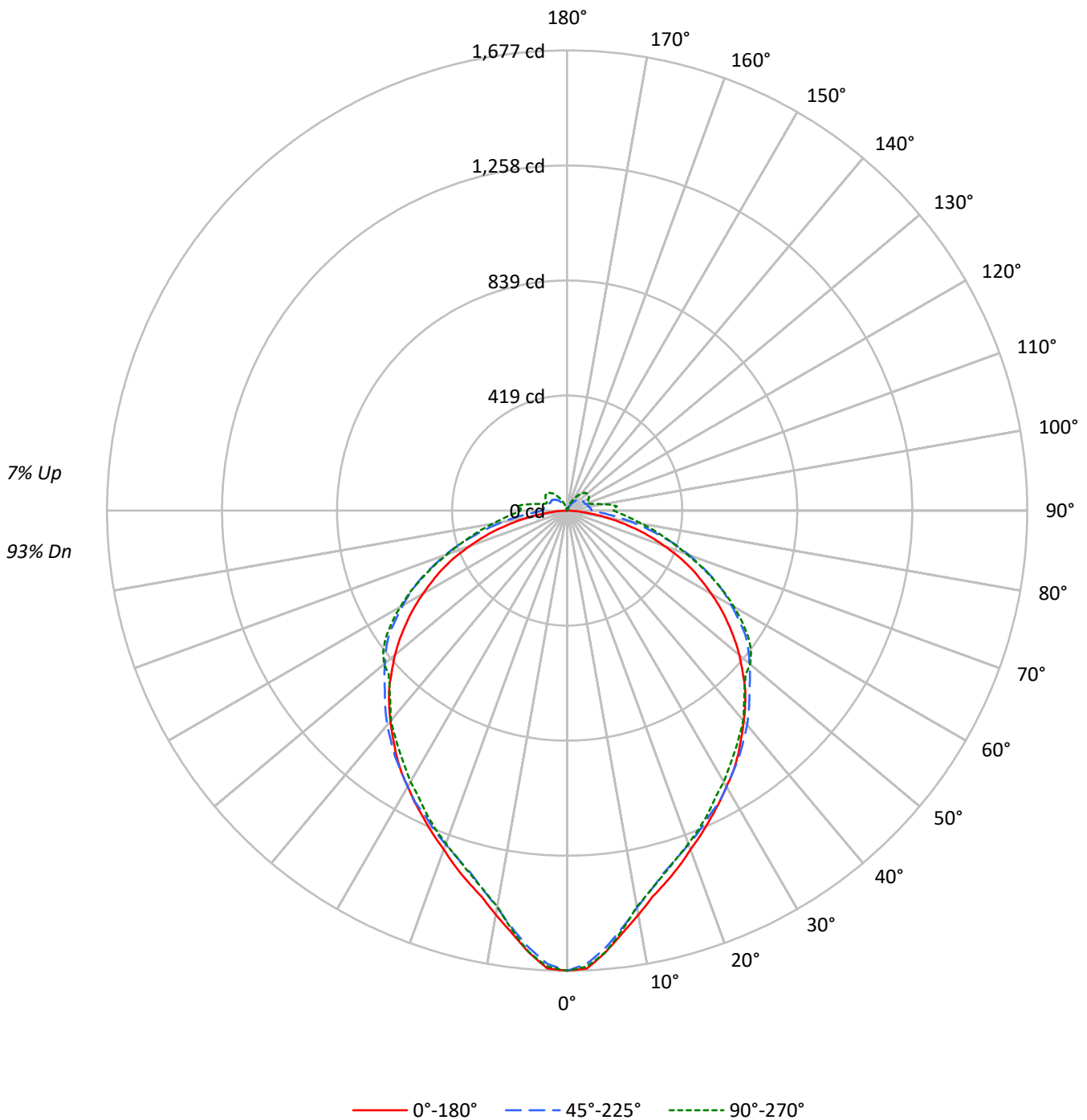
Lumens per Lamp: N/A
Luminaire Lumens: 4594.0 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 1.04 / 1.02 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')
CIE Type: Direct

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

TEST NUMBER: P241390

CATALOG NUMBER: FVS8M-4-LD4-35-1HI-P125-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241390

CATALOG NUMBER: FVS8M-4-LD4-35-1HI-P125-UNV-EDC1

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°	7494	7494	7494
5°	7221	7060	7101
10°	6740	6450	6394
15°	6408	6015	5973
20°	6163	5764	5677
25°	5990	5560	5426
30°	5861	5413	5208
35°	5767	5275	5028
40°	5658	5144	4899
45°	5580	4998	4715
50°	5443	4930	4773
55°	5280	4880	4752
60°	5078	4670	4515
65°	4867	4444	4169
70°	4440	4076	3739
75°	3898	3556	3389
80°	3014	2984	3108
85°	1634	2336	3046



TEST NUMBER: P241390

CATALOG NUMBER: FVS8M-4-LD4-35-1HI-P125-UNV-EDC1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.3	3.3
10°-20°	389.3	8.5
20°-30°	567.5	12.4
30°-40°	680.1	14.8
40°-50°	719.3	15.7
50°-60°	691.7	15.1
60°-70°	556.0	12.1
70°-80°	352.5	7.7
80°-90°	155.6	3.4
90°-100°	89.8	2.0
100°-110°	68.5	1.5
110°-120°	55.5	1.2
120°-130°	50.6	1.1
130°-140°	38.1	0.8
140°-150°	21.6	0.5
150°-160°	7.4	0.2
160°-170°	1.1	0.0
170°-180°	0.0	0.0
0°-30°	1106.2	24.1
0°-40°	1786.3	38.9
0°-60°	3197.3	69.6
0°-90°	4261.4	92.8
90°-120°	213.8	4.7
90°-150°	324.1	7.1
90°-180°	333.0	7.2
0°-180°	4594.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1677	1677	1677	1677	1677	
5°	1615	1609	1599	1617	1614	150
15°	1400	1386	1365	1367	1369	395
25°	1237	1239	1226	1226	1216	571
35°	1086	1094	1094	1083	1067	679
45°	917	935	939	932	914	706
55°	715	746	794	805	807	640
65°	499	532	589	586	585	490
75°	259	297	350	368	362	273
85°	46	87	143	182	213	59
90°	1	40	90	130	170	2
95°	0	38	86	122	182	0
105°	0	34	76	96	94	0
115°	1	31	68	80	83	0
125°	1	26	67	87	96	1
135°	1	19	56	78	91	1
145°	1	8	36	59	67	1
155°	1	2	14	28	32	0
165°	2	1	2	5	7	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241390

CATALOG NUMBER: FVS8M-4-LD4-35-1HI-P125-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1676.8	1676.8	1676.8	1676.8	1676.8	1676.8	1676.8	1676.8	1676.8	1676.8	1676.8
2.5°	1670.0	1666.1	1660.2	1663.1	1663.1	1664.1	1665.1	1665.1	1663.1	1660.2	1653.3
5°	1615.1	1611.2	1604.3	1605.3	1606.3	1609.2	1610.2	1610.2	1606.3	1604.3	1599.4
7.5°	1551.4	1547.5	1544.5	1544.5	1545.5	1546.5	1549.4	1544.5	1541.6	1539.6	1534.7
10°	1495.5	1493.6	1484.7	1485.7	1483.8	1483.8	1485.7	1484.7	1478.9	1474.0	1468.1
12.5°	1440.6	1437.7	1436.7	1434.8	1431.8	1430.8	1431.8	1430.8	1425.9	1421.0	1415.2
15°	1399.5	1392.6	1389.7	1390.7	1385.8	1385.8	1384.8	1387.7	1380.9	1373.0	1365.2
17.5°	1358.3	1354.4	1345.6	1347.5	1346.6	1348.5	1349.5	1348.5	1341.7	1333.8	1327.9
20°	1314.2	1311.3	1312.3	1312.3	1308.3	1309.3	1310.3	1308.3	1302.5	1294.6	1294.6
22.5°	1277.0	1272.1	1271.1	1268.2	1272.1	1273.1	1273.1	1274.0	1270.1	1264.2	1262.3
25°	1236.8	1234.8	1232.9	1235.8	1237.8	1238.8	1238.8	1236.8	1233.9	1229.0	1226.0
27.5°	1200.5	1194.7	1196.6	1199.6	1202.5	1206.4	1206.4	1201.5	1200.5	1194.7	1198.6
30°	1161.3	1156.4	1157.4	1160.4	1165.3	1169.2	1169.2	1172.1	1167.2	1164.3	1162.3
32.5°	1127.0	1117.2	1118.2	1125.1	1132.9	1133.9	1134.9	1136.8	1131.9	1130.0	1126.1
35°	1085.9	1081.0	1078.0	1088.8	1092.7	1093.7	1097.6	1100.6	1096.7	1094.7	1093.7
37.5°	1042.8	1038.8	1038.8	1046.7	1054.5	1058.4	1059.4	1060.4	1061.4	1056.5	1055.5
40°	1001.6	997.7	998.7	1004.5	1012.4	1015.3	1020.2	1024.1	1020.2	1018.3	1020.2
42.5°	960.4	953.6	959.5	965.3	973.2	975.1	981.0	987.9	983.0	979.1	981.0
45°	917.3	910.4	916.3	924.2	929.1	935.0	935.9	939.9	939.9	939.9	938.9
47.5°	866.3	865.4	868.3	877.1	885.0	887.9	891.8	895.7	901.6	906.5	903.6
50°	819.3	815.4	823.2	830.1	838.9	844.8	850.7	859.5	860.5	861.4	867.3
52.5°	768.3	767.4	774.2	782.1	790.9	799.7	804.6	810.5	815.4	824.2	832.0
55°	715.4	716.4	722.3	733.1	743.8	745.8	752.7	767.4	777.2	785.0	793.8
57.5°	663.5	662.5	672.3	681.1	689.9	700.7	706.6	719.3	726.2	736.0	740.9
60°	606.6	608.6	618.4	620.4	639.0	651.7	653.7	661.5	671.3	681.1	691.9
62.5°	551.8	553.7	562.5	572.3	584.1	590.0	593.9	609.6	619.4	635.1	642.9
65°	498.8	499.8	505.7	516.5	527.3	532.2	542.0	559.6	567.4	578.2	589.0
67.5°	440.0	442.0	449.8	455.7	470.4	479.2	488.1	499.8	505.7	520.4	528.2
70°	376.3	379.3	390.1	396.9	414.6	421.4	428.3	436.1	449.8	463.6	472.4
72.5°	319.5	319.5	329.3	338.1	356.7	358.7	364.6	379.3	395.0	404.8	414.6
75°	258.7	261.7	267.5	279.3	294.0	296.9	306.7	322.4	333.2	344.0	349.9
77.5°	198.0	201.9	210.7	222.5	232.3	242.1	248.9	261.7	272.4	281.3	292.0
80°	143.1	146.0	154.8	162.7	178.4	185.2	191.1	203.8	214.6	226.4	239.1
82.5°	92.1	93.1	102.9	112.7	124.5	132.3	138.2	149.9	165.6	177.4	189.1
85°	46.1	49.0	58.8	67.6	82.3	87.2	93.1	106.8	119.6	134.3	143.1
87.5°	13.7	18.6	27.4	37.2	49.0	54.9	60.8	73.5	86.2	98.0	108.8
90°	1.0	3.9	11.8	22.5	34.3	40.2	46.1	58.8	70.6	80.4	90.2
92.5°	0.0	2.9	10.8	21.6	33.3	39.2	45.1	56.8	67.6	77.4	87.2
95°	0.0	2.9	10.8	20.6	32.3	38.2	44.1	54.9	65.7	76.4	86.2
97.5°	0.0	2.9	9.8	20.6	31.4	37.2	43.1	53.9	64.7	74.5	83.3
100°	0.0	2.9	9.8	19.6	30.4	36.3	41.2	51.9	62.7	72.5	81.3
102.5°	0.0	2.0	8.8	18.6	29.4	35.3	40.2	51.0	61.7	70.6	78.4
105°	0.0	2.0	8.8	17.6	28.4	34.3	39.2	50.0	59.8	68.6	76.4
107.5°	0.0	2.0	7.8	17.6	28.4	33.3	39.2	49.0	58.8	66.6	74.5
110°	0.0	1.0	7.8	16.7	27.4	33.3	38.2	48.0	57.8	65.7	71.5



TEST NUMBER: P241390

CATALOG NUMBER: FVS8M-4-LD4-35-1HI-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	1.0	6.9	15.7	26.5	32.3	37.2	47.0	55.9	63.7	69.6
115°	1.0	1.0	6.9	15.7	25.5	31.4	36.3	46.1	54.9	62.7	67.6
117.5°	0.0	1.0	5.9	14.7	24.5	30.4	35.3	45.1	53.9	61.7	67.6
120°	1.0	1.0	4.9	13.7	23.5	29.4	34.3	44.1	52.9	60.8	67.6
122.5°	1.0	1.0	4.9	12.7	22.5	27.4	33.3	43.1	51.9	60.8	67.6
125°	1.0	1.0	3.9	11.8	21.6	26.5	31.4	42.1	51.0	58.8	66.6
127.5°	1.0	1.0	2.9	10.8	19.6	25.5	30.4	40.2	49.0	56.8	64.7
130°	1.0	1.0	2.0	8.8	18.6	22.5	28.4	38.2	47.0	54.9	61.7
132.5°	1.0	1.0	2.0	7.8	16.7	20.6	25.5	35.3	44.1	51.9	58.8
135°	1.0	1.0	1.0	5.9	13.7	18.6	22.5	31.4	40.2	49.0	55.9
137.5°	1.0	1.0	1.0	4.9	11.8	15.7	19.6	27.4	36.3	44.1	51.9
140°	1.0	1.0	1.0	3.9	9.8	12.7	16.7	24.5	32.3	40.2	47.0
142.5°	1.0	1.0	1.0	2.9	7.8	10.8	13.7	20.6	27.4	35.3	42.1
145°	1.0	1.0	1.0	2.0	5.9	7.8	10.8	16.7	23.5	30.4	36.3
147.5°	1.0	1.0	1.0	1.0	3.9	5.9	7.8	13.7	18.6	24.5	30.4
150°	1.0	1.0	1.0	1.0	2.9	3.9	5.9	9.8	14.7	19.6	24.5
152.5°	1.0	1.0	1.0	1.0	2.0	2.9	3.9	6.9	10.8	14.7	18.6
155°	1.0	1.0	1.0	1.0	1.0	2.0	2.9	4.9	7.8	10.8	13.7
157.5°	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.9	4.9	6.9	9.8
160°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.9	4.9	5.9
162.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.9
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



TEST NUMBER: P241390

CATALOG NUMBER: FVS8M-4-LD4-35-1HI-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1676.8	1676.8	1676.8	1676.8	1676.8	1676.8	1676.8	1676.8	1676.8	1676.8
2.5°	1655.3	1660.2	1664.1	1664.1	1664.1	1666.1	1666.1	1665.1	1666.1	1663.1
5°	1603.3	1611.2	1614.1	1618.0	1617.1	1616.1	1614.1	1618.0	1616.1	1614.1
7.5°	1537.7	1545.5	1541.6	1543.5	1545.5	1543.5	1544.5	1545.5	1541.6	1541.6
10°	1468.1	1471.0	1468.1	1470.0	1470.0	1466.1	1468.1	1468.1	1466.1	1465.1
12.5°	1412.2	1411.2	1410.3	1411.2	1412.2	1416.1	1414.2	1418.1	1417.1	1414.2
15°	1362.2	1366.2	1368.1	1371.1	1367.1	1370.1	1374.0	1372.0	1372.0	1369.1
17.5°	1331.9	1335.8	1331.9	1336.8	1338.7	1337.7	1336.8	1330.9	1334.8	1327.9
20°	1290.7	1297.6	1302.5	1295.6	1295.6	1296.6	1295.6	1293.6	1295.6	1291.7
22.5°	1265.2	1264.2	1263.3	1268.2	1269.1	1268.2	1262.3	1260.3	1254.4	1255.4
25°	1229.0	1226.0	1236.8	1230.9	1226.0	1226.0	1223.1	1219.2	1216.2	1216.2
27.5°	1194.7	1199.6	1194.7	1195.6	1194.7	1195.6	1182.9	1178.0	1178.0	1174.1
30°	1166.2	1162.3	1163.3	1156.4	1152.5	1151.5	1148.6	1144.7	1141.7	1140.8
32.5°	1125.1	1127.0	1124.1	1121.2	1120.2	1117.2	1115.3	1110.4	1106.5	1102.5
35°	1091.8	1088.8	1087.8	1089.8	1082.9	1078.0	1076.1	1073.1	1071.2	1067.3
37.5°	1055.5	1051.6	1052.6	1045.7	1046.7	1045.7	1039.8	1034.9	1033.9	1032.0
40°	1014.3	1016.3	1012.4	1012.4	1003.6	1002.6	1001.6	1001.6	998.7	998.7
42.5°	978.1	978.1	976.1	973.2	970.2	968.3	962.4	961.4	957.5	953.6
45°	940.8	938.9	935.9	934.0	932.0	929.1	921.2	918.3	916.3	914.4
47.5°	907.5	903.6	903.6	897.7	890.8	890.8	888.9	884.0	882.0	882.0
50°	871.2	877.1	880.1	875.2	873.2	871.2	869.3	870.3	868.3	871.2
52.5°	839.9	844.8	843.8	845.8	847.7	850.7	846.7	849.7	847.7	844.8
55°	799.7	803.6	801.7	799.7	804.6	804.6	809.5	807.5	806.6	806.6
57.5°	749.7	754.6	754.6	756.6	757.6	754.6	761.5	758.5	759.5	756.6
60°	697.8	696.8	699.7	705.6	706.6	702.7	701.7	705.6	702.7	702.7
62.5°	646.8	648.8	649.8	646.8	644.9	646.8	642.9	646.8	646.8	645.8
65°	591.9	593.9	594.9	591.0	586.1	587.0	583.1	585.1	586.1	585.1
67.5°	532.2	537.1	535.1	534.1	531.2	525.3	524.3	522.4	524.3	524.3
70°	475.3	480.2	475.3	476.3	476.3	471.4	468.5	464.5	464.5	463.6
72.5°	419.5	422.4	421.4	421.4	422.4	419.5	414.6	412.6	410.6	410.6
75°	360.7	366.5	366.5	367.5	368.5	366.5	366.5	363.6	360.7	361.6
77.5°	303.8	309.7	314.6	317.5	317.5	318.5	320.5	319.5	317.5	317.5
80°	250.9	259.7	264.6	270.5	271.5	271.5	275.4	276.4	276.4	275.4
82.5°	200.9	209.7	215.6	221.5	222.5	224.4	231.3	234.2	240.1	240.1
85°	152.9	162.7	169.5	177.4	182.3	185.2	191.1	198.9	206.8	212.7
87.5°	117.6	127.4	137.2	145.0	149.0	151.9	159.7	169.5	179.3	187.2
90°	100.9	109.8	118.6	125.4	130.3	133.3	141.1	149.9	161.7	169.5
92.5°	97.0	105.8	112.7	120.5	124.5	127.4	137.2	149.0	162.7	169.5
95°	94.1	101.9	109.8	118.6	122.5	127.4	140.1	156.8	175.4	182.3
97.5°	92.1	100.0	107.8	116.6	121.5	126.4	141.1	153.9	161.7	161.7
100°	89.2	97.0	104.9	112.7	116.6	121.5	130.3	134.3	134.3	134.3
102.5°	86.2	93.1	100.0	104.9	107.8	109.8	113.7	114.7	112.7	110.7
105°	83.3	88.2	92.1	95.1	96.0	97.0	98.0	98.0	96.0	94.1
107.5°	80.4	83.3	86.2	86.2	87.2	87.2	88.2	87.2	85.3	83.3
110°	76.4	79.4	80.4	81.3	81.3	81.3	82.3	82.3	80.4	79.4



TEST NUMBER: P241390

CATALOG NUMBER: FVS8M-4-LD4-35-1HI-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	73.5	76.4	77.4	78.4	79.4	79.4	81.3	81.3	80.4	80.4
115°	72.5	75.5	77.4	79.4	80.4	81.3	83.3	85.3	84.3	83.3
117.5°	72.5	76.4	79.4	81.3	82.3	84.3	87.2	88.2	88.2	88.2
120°	72.5	77.4	81.3	84.3	85.3	87.2	89.2	91.1	92.1	91.1
122.5°	72.5	77.4	82.3	85.3	86.2	88.2	91.1	93.1	94.1	94.1
125°	72.5	77.4	82.3	85.3	87.2	88.2	91.1	94.1	95.1	96.0
127.5°	70.6	76.4	80.4	84.3	86.2	88.2	91.1	94.1	96.0	97.0
130°	68.6	73.5	78.4	82.3	84.3	86.2	90.2	93.1	95.1	96.0
132.5°	65.7	70.6	75.5	79.4	81.3	83.3	87.2	91.1	93.1	94.1
135°	61.7	67.6	72.5	76.4	78.4	80.4	84.3	88.2	90.2	91.1
137.5°	57.8	63.7	68.6	72.5	74.5	76.4	80.4	83.3	86.2	86.2
140°	53.9	59.8	64.7	68.6	70.6	72.5	75.5	78.4	80.4	81.3
142.5°	49.0	54.9	58.8	63.7	65.7	66.6	69.6	72.5	74.5	74.5
145°	43.1	49.0	53.9	56.8	58.8	60.8	62.7	64.7	66.6	66.6
147.5°	36.3	42.1	47.0	50.0	51.9	52.9	54.9	56.8	57.8	57.8
150°	29.4	34.3	39.2	42.1	44.1	45.1	47.0	48.0	49.0	49.0
152.5°	22.5	27.4	31.4	34.3	36.3	37.2	39.2	39.2	40.2	41.2
155°	16.7	20.6	23.5	27.4	28.4	29.4	30.4	32.3	32.3	32.3
157.5°	11.8	14.7	16.7	19.6	20.6	22.5	23.5	24.5	24.5	24.5
160°	7.8	9.8	11.8	13.7	14.7	15.7	16.7	17.6	17.6	18.6
162.5°	4.9	5.9	6.9	7.8	8.8	9.8	10.8	11.8	11.8	11.8
165°	2.0	2.9	3.9	3.9	4.9	4.9	5.9	6.9	6.9	6.9
167.5°	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.9	2.9	2.9
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)