

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: P241330

Luminaire Tested: **FVS8M-2-LD4-35-2HI-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241330
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-LD4-35-2HI-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 2-MODULE LED WITH P125 LENS
Light Source: (84) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

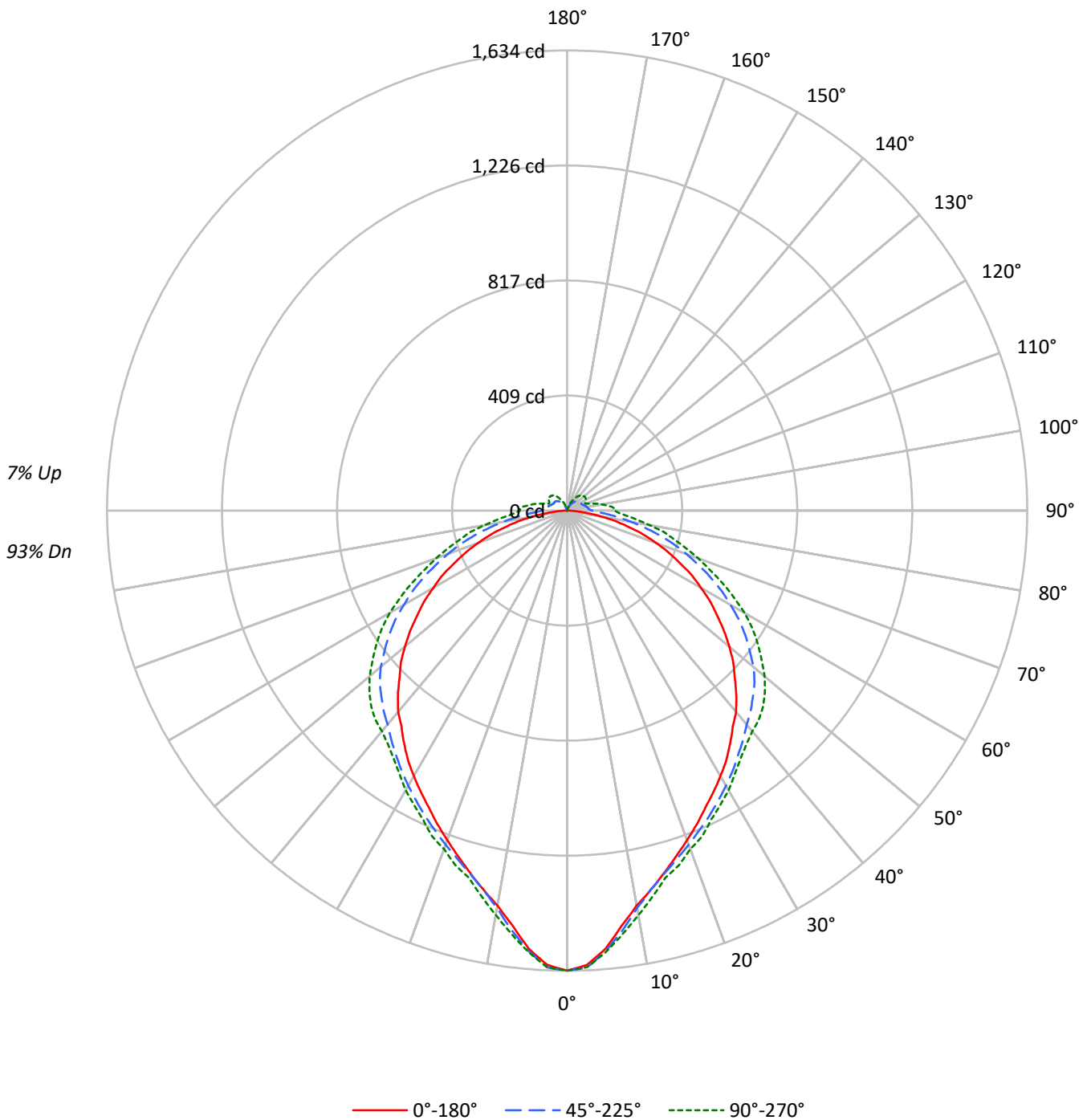
Lumens per Lamp: N/A
Luminaire Lumens: 4449.0 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.05 / 1.26
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')
CIE Type: Direct

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

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CATALOG NUMBER: FVS8M-2-LD4-35-2HI-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°	14684	14684	14684
5°	13990	13904	13925
10°	12819	12599	12800
15°	12138	11734	11841
20°	11582	11196	11304
25°	11119	10776	10860
30°	10809	10413	10528
35°	10498	10101	10176
40°	10269	9856	10093
45°	9921	9758	10203
50°	9610	9609	10086
55°	9154	9256	9801
60°	8683	8764	9396
65°	8044	8185	8707
70°	7264	7444	8027
75°	6130	6548	7388
80°	4489	5391	6718
85°	2238	4148	6068



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.4	3.3
10°-20°	378.1	8.5
20°-30°	550.3	12.4
30°-40°	660.2	14.8
40°-50°	712.1	16.0
50°-60°	674.6	15.2
60°-70°	537.7	12.1
70°-80°	344.7	7.7
80°-90°	153.1	3.4
90°-100°	80.8	1.8
100°-110°	61.6	1.4
110°-120°	45.9	1.0
120°-130°	41.7	0.9
130°-140°	32.7	0.7
140°-150°	19.9	0.4
150°-160°	8.3	0.2
160°-170°	1.8	0.0
170°-180°	0.0	0.0
0°-30°	1073.9	24.1
0°-40°	1734.1	39.0
0°-60°	3120.8	70.1
0°-90°	4156.3	93.4
90°-120°	188.3	4.2
90°-150°	282.6	6.4
90°-180°	293.0	6.6
0°-180°	4449.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1634	1634	1634	1634	1634	
5°	1561	1564	1570	1576	1574	144
15°	1332	1329	1334	1350	1349	375
25°	1162	1175	1196	1212	1210	537
35°	1009	1032	1059	1080	1074	632
45°	842	875	933	979	984	651
55°	650	698	772	814	827	583
65°	442	492	562	590	608	439
75°	228	272	340	381	392	243
85°	41	79	139	187	211	52
90°	0	35	89	122	168	2
95°	0	32	76	110	159	0
105°	0	29	66	90	96	0
115°	0	26	56	66	70	0
125°	0	22	54	72	79	0
135°	0	18	47	67	76	0
145°	1	12	34	51	59	1
155°	1	5	19	29	33	0
165°	1	1	5	11	12	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°	1633.6	1633.6	1633.6	1633.6	1633.6	1633.6	1633.6	1633.6	1633.6	1633.6	1633.6
2.5°	1615.0	1615.0	1615.0	1615.0	1616.9	1616.0	1617.9	1618.9	1620.9	1621.8	1623.8
5°	1561.1	1561.1	1559.1	1560.1	1561.1	1564.0	1563.0	1567.0	1568.9	1571.9	1569.9
7.5°	1486.6	1490.5	1488.6	1489.5	1488.6	1490.5	1494.4	1495.4	1500.3	1503.3	1503.3
10°	1423.9	1423.9	1420.0	1421.0	1421.0	1422.9	1422.9	1425.9	1428.8	1433.7	1432.7
12.5°	1377.8	1377.8	1372.9	1373.9	1371.0	1372.0	1372.0	1372.9	1374.9	1377.8	1377.8
15°	1331.8	1327.9	1327.9	1329.8	1329.8	1328.8	1329.8	1329.8	1329.8	1331.8	1333.7
17.5°	1286.7	1286.7	1287.7	1286.7	1288.7	1287.7	1287.7	1290.6	1292.6	1292.6	1296.5
20°	1245.5	1246.5	1245.5	1248.5	1251.4	1251.4	1251.4	1254.4	1254.4	1258.3	1262.2
22.5°	1204.4	1205.4	1208.3	1207.3	1211.2	1211.2	1210.3	1216.1	1219.1	1223.0	1227.9
25°	1162.2	1163.2	1165.2	1169.1	1171.1	1175.0	1176.9	1179.9	1187.7	1189.7	1195.6
27.5°	1126.0	1125.0	1127.0	1134.8	1134.8	1137.7	1141.7	1148.5	1149.5	1158.3	1161.3
30°	1088.7	1088.7	1088.7	1097.6	1099.5	1103.4	1107.4	1113.2	1118.1	1123.0	1127.9
32.5°	1051.5	1047.6	1050.5	1057.4	1067.2	1067.2	1069.1	1078.9	1082.9	1088.7	1094.6
35°	1009.4	1010.3	1014.3	1018.2	1027.0	1031.9	1035.8	1041.7	1046.6	1051.5	1059.3
37.5°	966.2	970.2	974.1	979.0	984.9	990.7	994.7	1002.5	1013.3	1018.2	1026.0
40°	932.9	931.0	933.9	937.8	944.7	950.6	957.4	966.2	976.0	983.9	991.7
42.5°	889.8	887.9	895.7	898.6	909.4	911.4	919.2	930.0	942.7	953.5	964.3
45°	841.8	845.7	850.6	859.4	866.3	875.1	882.0	892.7	909.4	923.1	932.9
47.5°	800.6	799.7	805.5	815.3	826.1	833.0	839.8	855.5	873.2	887.9	902.5
50°	751.6	754.6	760.5	771.2	785.0	788.9	794.8	814.4	831.0	849.6	863.4
52.5°	702.6	703.6	712.4	723.2	737.9	744.8	753.6	770.3	786.9	803.6	817.3
55°	649.7	652.7	664.4	674.2	689.9	697.7	707.5	724.2	741.8	758.5	772.2
57.5°	602.7	604.6	612.5	625.2	641.9	647.8	658.5	677.2	692.8	710.5	724.2
60°	548.8	552.7	560.5	576.2	589.0	594.8	606.6	624.2	639.9	656.6	669.3
62.5°	500.8	500.8	507.6	523.3	536.0	543.9	553.7	568.4	587.0	601.7	618.4
65°	442.0	447.8	457.6	468.4	483.1	491.9	498.8	514.5	530.2	546.8	562.5
67.5°	391.0	394.9	401.8	414.5	431.2	435.1	445.9	461.6	475.3	490.0	504.7
70°	336.1	339.1	347.9	360.6	374.3	379.2	389.0	403.7	418.4	435.1	450.8
72.5°	284.2	286.2	296.0	305.7	319.5	328.3	334.2	346.9	363.6	381.2	395.9
75°	228.3	232.3	240.1	250.9	264.6	271.5	279.3	293.0	308.7	324.4	340.0
77.5°	179.3	179.3	187.2	198.9	210.7	218.5	225.4	240.1	255.8	269.5	283.2
80°	125.4	130.3	136.2	147.0	159.7	168.6	172.5	186.2	201.9	215.6	231.3
82.5°	81.3	84.3	91.1	101.9	113.7	118.6	125.4	139.2	153.9	169.5	182.3
85°	41.2	45.1	51.9	61.7	73.5	79.4	85.3	100.0	111.7	125.4	139.2
87.5°	15.7	17.6	24.5	34.3	45.1	51.0	55.9	68.6	80.4	94.1	107.8
90°	0.0	3.9	10.8	19.6	30.4	35.3	41.2	52.9	63.7	76.4	89.2
92.5°	0.0	2.9	8.8	17.6	27.4	33.3	38.2	49.0	59.8	71.5	80.4
95°	0.0	2.9	8.8	17.6	27.4	32.3	37.2	48.0	58.8	68.6	75.5
97.5°	0.0	2.0	8.8	17.6	26.5	31.4	36.3	47.0	56.8	65.7	73.5
100°	0.0	2.0	7.8	16.7	25.5	30.4	36.3	46.1	53.9	62.7	71.5
102.5°	0.0	2.0	7.8	15.7	25.5	30.4	35.3	44.1	51.9	60.8	68.6
105°	0.0	2.0	6.9	15.7	24.5	29.4	33.3	42.1	51.0	58.8	65.7
107.5°	0.0	2.0	6.9	14.7	23.5	27.4	32.3	41.2	49.0	55.9	62.7
110°	0.0	2.0	6.9	13.7	22.5	27.4	31.4	40.2	47.0	53.9	59.8



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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	5.9	12.7	22.5	26.5	30.4	38.2	46.1	51.9	57.8
115°	0.0	1.0	5.9	12.7	21.6	25.5	29.4	37.2	44.1	51.0	55.9
117.5°	0.0	1.0	5.9	12.7	20.6	24.5	29.4	36.3	43.1	50.0	54.9
120°	0.0	1.0	4.9	11.8	19.6	23.5	28.4	36.3	43.1	49.0	53.9
122.5°	0.0	1.0	4.9	11.8	18.6	22.5	27.4	35.3	42.1	49.0	53.9
125°	0.0	1.0	4.9	10.8	18.6	21.6	26.5	34.3	42.1	48.0	53.9
127.5°	0.0	1.0	3.9	10.8	17.6	21.6	25.5	33.3	40.2	47.0	52.9
130°	0.0	1.0	3.9	9.8	16.7	20.6	24.5	31.4	39.2	46.1	51.9
132.5°	0.0	1.0	3.9	8.8	15.7	19.6	22.5	29.4	36.3	44.1	50.0
135°	0.0	1.0	2.9	7.8	14.7	17.6	21.6	28.4	34.3	41.2	47.0
137.5°	0.0	1.0	2.9	7.8	13.7	16.7	20.6	26.5	32.3	38.2	44.1
140°	0.0	0.0	2.0	6.9	11.8	14.7	18.6	24.5	30.4	36.3	41.2
142.5°	1.0	0.0	2.0	5.9	10.8	13.7	16.7	22.5	28.4	33.3	38.2
145°	1.0	0.0	1.0	4.9	8.8	11.8	13.7	19.6	25.5	30.4	34.3
147.5°	1.0	0.0	1.0	3.9	7.8	9.8	11.8	16.7	21.6	26.5	31.4
150°	1.0	0.0	1.0	2.9	5.9	7.8	9.8	13.7	18.6	23.5	27.4
152.5°	1.0	1.0	1.0	2.0	4.9	5.9	7.8	11.8	15.7	19.6	22.5
155°	1.0	1.0	1.0	1.0	2.9	4.9	5.9	8.8	12.7	15.7	18.6
157.5°	1.0	1.0	0.0	1.0	2.0	2.9	3.9	6.9	9.8	11.8	14.7
160°	1.0	1.0	0.0	1.0	2.0	2.0	2.9	4.9	6.9	8.8	10.8
162.5°	1.0	1.0	0.0	1.0	1.0	1.0	2.0	2.9	4.9	5.9	7.8
165°	1.0	1.0	1.0	0.0	1.0	1.0	1.0	2.0	2.9	3.9	4.9
167.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	2.0	2.9
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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1633.6	1633.6	1633.6	1633.6	1633.6	1633.6	1633.6	1633.6	1633.6	1633.6
2.5°	1625.8	1624.8	1624.8	1623.8	1624.8	1623.8	1623.8	1624.8	1623.8	1622.8
5°	1574.8	1575.8	1576.8	1574.8	1575.8	1574.8	1574.8	1573.8	1574.8	1573.8
7.5°	1505.2	1508.2	1510.1	1509.1	1512.1	1511.1	1513.1	1515.0	1516.0	1516.0
10°	1436.6	1438.6	1441.5	1445.5	1447.4	1449.4	1452.3	1456.2	1457.2	1458.2
12.5°	1381.8	1385.7	1386.7	1388.6	1390.6	1389.6	1396.5	1399.4	1404.3	1403.3
15°	1335.7	1341.6	1343.5	1349.4	1350.4	1352.4	1358.2	1353.3	1352.4	1349.4
17.5°	1299.4	1305.3	1306.3	1306.3	1307.3	1310.2	1316.1	1317.1	1319.0	1320.0
20°	1264.2	1268.1	1272.0	1274.9	1276.9	1277.9	1280.8	1276.9	1277.9	1278.9
22.5°	1229.9	1233.8	1239.7	1242.6	1246.5	1249.5	1249.5	1248.5	1246.5	1252.4
25°	1201.4	1204.4	1210.3	1210.3	1212.2	1215.2	1211.2	1214.2	1212.2	1210.3
27.5°	1167.1	1175.0	1176.9	1178.9	1180.9	1179.9	1179.9	1178.9	1178.9	1177.9
30°	1135.8	1138.7	1144.6	1145.6	1147.5	1149.5	1149.5	1151.5	1145.6	1146.6
32.5°	1103.4	1107.4	1114.2	1116.2	1117.2	1117.2	1114.2	1108.3	1109.3	1108.3
35°	1065.2	1074.0	1080.9	1080.9	1079.9	1080.9	1078.9	1078.0	1075.0	1074.0
37.5°	1029.9	1037.8	1045.6	1048.6	1047.6	1049.5	1046.6	1044.6	1044.6	1045.6
40°	1000.5	1006.4	1014.3	1020.1	1020.1	1022.1	1022.1	1022.1	1024.1	1023.1
42.5°	971.1	981.9	991.7	1001.5	1004.5	1004.5	1003.5	1004.5	1006.4	1007.4
45°	946.6	958.4	968.2	976.0	979.0	979.0	980.9	983.9	982.9	983.9
47.5°	916.3	923.1	933.9	939.8	941.7	944.7	947.6	947.6	949.6	952.5
50°	874.1	883.0	891.8	901.6	904.5	904.5	909.4	912.3	913.3	915.3
52.5°	829.1	841.8	849.6	857.5	859.4	861.4	864.3	866.3	867.3	870.2
55°	782.0	795.7	801.6	810.4	814.4	819.3	816.3	824.2	825.1	827.1
57.5°	736.9	746.7	757.5	762.4	762.4	766.3	773.2	775.2	779.1	780.1
60°	681.1	692.8	702.6	704.6	708.5	709.5	714.4	719.3	724.2	727.1
62.5°	626.2	637.0	645.8	648.7	650.7	652.7	658.5	663.4	668.3	667.4
65°	571.3	582.1	589.0	589.9	589.9	595.8	599.7	600.7	607.6	607.6
67.5°	517.4	528.2	532.1	538.0	539.0	538.0	540.9	545.8	550.7	546.8
70°	462.5	471.4	478.2	486.1	484.1	484.1	486.1	490.0	491.9	494.9
72.5°	406.7	416.5	424.3	430.2	432.2	435.1	436.1	438.0	439.0	441.0
75°	352.8	361.6	372.4	380.2	381.2	384.1	387.1	389.0	389.0	392.0
77.5°	297.9	311.6	319.5	329.3	329.3	333.2	342.0	344.0	349.8	351.8
80°	245.0	256.8	270.5	279.3	284.2	289.1	290.1	290.1	293.0	296.0
82.5°	197.0	208.7	224.4	231.3	234.2	235.2	243.0	246.0	249.9	251.9
85°	154.8	170.5	177.4	184.2	187.2	189.1	196.0	200.9	207.8	210.7
87.5°	123.5	130.3	137.2	144.1	147.0	149.9	158.8	165.6	177.4	183.3
90°	98.0	103.9	110.7	119.6	122.5	127.4	136.2	146.0	159.7	167.6
92.5°	87.2	94.1	100.9	109.8	114.7	118.6	128.4	141.1	158.8	167.6
95°	83.3	91.1	99.0	105.8	109.8	114.7	125.4	140.1	153.9	158.8
97.5°	82.3	89.2	95.1	102.9	106.8	111.7	122.5	131.3	137.2	140.1
100°	78.4	85.3	92.1	99.0	103.9	106.8	113.7	120.5	124.5	126.4
102.5°	75.5	81.3	88.2	94.1	97.0	100.0	105.8	110.7	112.7	112.7
105°	72.5	77.4	83.3	87.2	90.2	92.1	95.1	96.0	96.0	96.0
107.5°	68.6	73.5	77.4	80.4	81.3	82.3	82.3	82.3	81.3	80.4
110°	64.7	69.6	71.5	72.5	72.5	72.5	72.5	72.5	72.5	71.5



TEST NUMBER: P241330

CATALOG NUMBER: FVS8M-2-LD4-35-2HI-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	61.7	64.7	66.6	67.6	66.6	67.6	67.6	68.6	68.6	68.6
115°	59.8	62.7	63.7	64.7	65.7	65.7	67.6	68.6	69.6	69.6
117.5°	58.8	61.7	63.7	66.6	66.6	67.6	69.6	71.5	72.5	72.5
120°	58.8	61.7	65.7	68.6	69.6	70.6	72.5	74.5	75.5	75.5
122.5°	58.8	62.7	66.6	69.6	71.5	72.5	74.5	76.4	77.4	78.4
125°	58.8	62.7	67.6	70.6	71.5	73.5	75.5	77.4	78.4	79.4
127.5°	57.8	62.7	66.6	70.6	71.5	72.5	75.5	77.4	78.4	79.4
130°	56.8	61.7	65.7	68.6	70.6	71.5	74.5	76.4	77.4	78.4
132.5°	54.9	59.8	63.7	67.6	68.6	70.6	73.5	75.5	76.4	77.4
135°	52.9	57.8	61.7	65.7	66.6	68.6	71.5	73.5	75.5	75.5
137.5°	50.0	54.9	58.8	62.7	64.7	65.7	68.6	71.5	72.5	73.5
140°	47.0	51.0	55.9	58.8	60.8	62.7	64.7	67.6	68.6	69.6
142.5°	43.1	47.0	51.0	54.9	56.8	57.8	60.8	62.7	64.7	64.7
145°	39.2	42.1	46.1	50.0	51.0	51.9	54.9	56.8	57.8	58.8
147.5°	35.3	38.2	42.1	44.1	45.1	47.0	49.0	51.0	51.0	51.9
150°	30.4	33.3	36.3	38.2	40.2	41.2	43.1	44.1	45.1	45.1
152.5°	26.5	28.4	31.4	33.3	34.3	35.3	36.3	38.2	38.2	39.2
155°	21.6	24.5	26.5	28.4	29.4	30.4	31.4	32.3	32.3	33.3
157.5°	17.6	19.6	21.6	23.5	24.5	24.5	26.5	26.5	27.4	26.5
160°	13.7	15.7	17.6	18.6	19.6	19.6	20.6	21.6	21.6	21.6
162.5°	9.8	11.8	12.7	14.7	14.7	14.7	15.7	16.7	16.7	16.7
165°	6.9	7.8	8.8	9.8	10.8	10.8	10.8	11.8	11.8	11.8
167.5°	3.9	3.9	4.9	5.9	5.9	6.9	6.9	6.9	7.8	7.8
170°	1.0	2.0	2.0	2.9	2.9	2.9	2.9	2.9	3.9	3.9
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)