

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: P241392

Luminaire Tested: **FVS8M-4-LD4-50-1HI-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241392
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-LD4-50-1HI-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
4FT LENGTH, 1-MODULE LED WITH P125 LENS
Light Source: (84) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

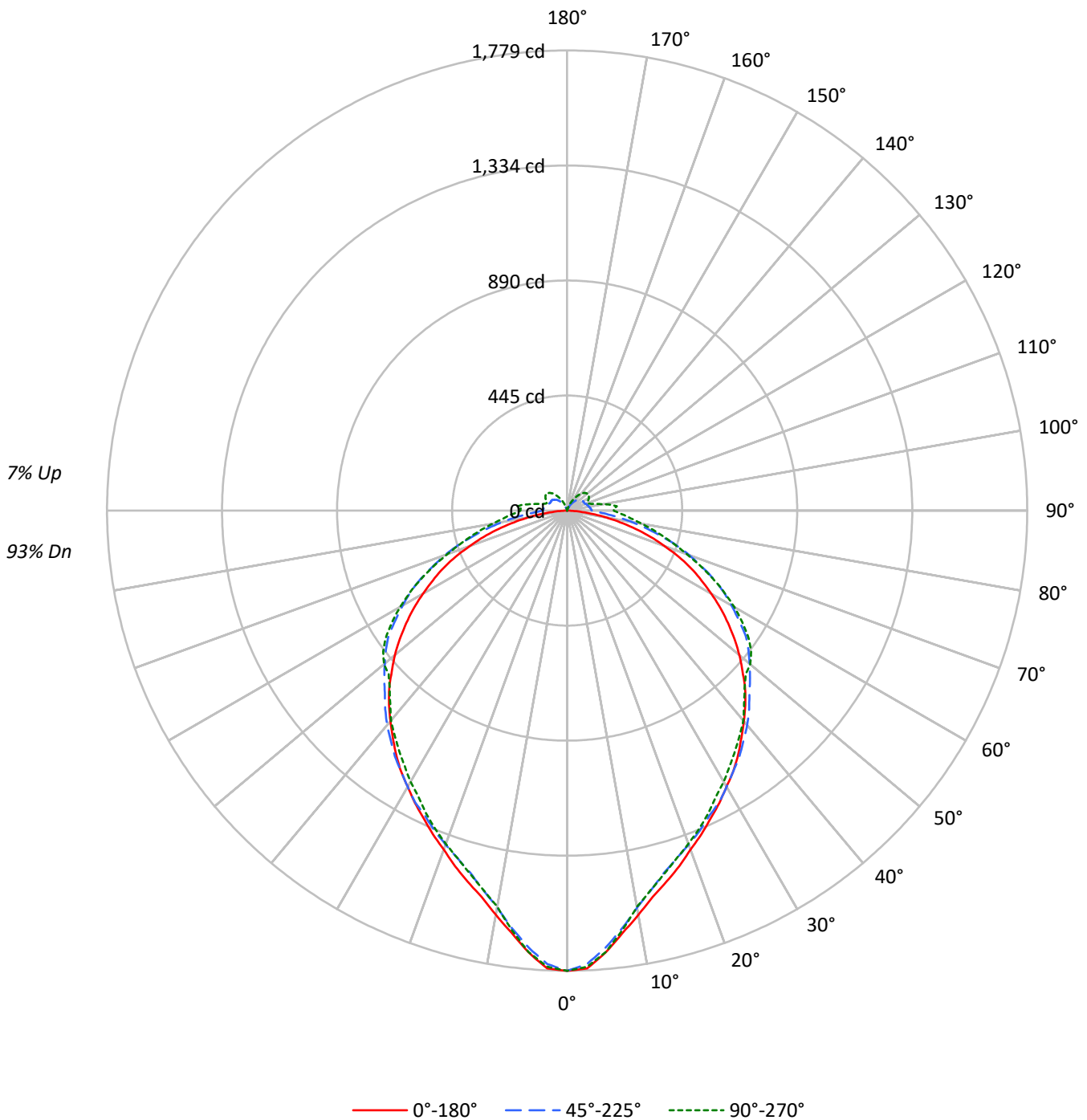
Lumens per Lamp: N/A
Luminaire Lumens: 4875.0 lumens
Efficiency: N/A
Efficacy: 110.3 lumens/watt
Spacing Criteria (0/90/45): 1.04 / 1.02 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')
CIE Type: Direct

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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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°	7953	7953	7953
5°	7663	7491	7535
10°	7153	6844	6786
15°	6800	6383	6339
20°	6540	6117	6024
25°	6356	5900	5758
30°	6220	5744	5527
35°	6119	5598	5335
40°	6004	5458	5198
45°	5921	5304	5003
50°	5776	5232	5065
55°	5603	5179	5043
60°	5389	4955	4792
65°	5164	4715	4424
70°	4713	4325	3967
75°	4138	3774	3597
80°	3198	3167	3298
85°	1733	2478	3232



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.5	3.3
10°-20°	413.1	8.5
20°-30°	602.2	12.4
30°-40°	721.7	14.8
40°-50°	763.3	15.7
50°-60°	734.0	15.1
60°-70°	590.0	12.1
70°-80°	374.1	7.7
80°-90°	165.2	3.4
90°-100°	95.3	2.0
100°-110°	72.7	1.5
110°-120°	58.8	1.2
120°-130°	53.7	1.1
130°-140°	40.4	0.8
140°-150°	22.9	0.5
150°-160°	7.9	0.2
160°-170°	1.1	0.0
170°-180°	0.0	0.0
0°-30°	1173.8	24.1
0°-40°	1895.5	38.9
0°-60°	3392.9	69.6
0°-90°	4522.1	92.8
90°-120°	226.9	4.7
90°-150°	343.9	7.1
90°-180°	353.0	7.2
0°-180°	4875.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1779	1779	1779	1779	1779	
5°	1714	1708	1697	1716	1713	159
15°	1485	1470	1449	1451	1453	419
25°	1312	1314	1301	1301	1291	606
35°	1152	1161	1161	1149	1132	721
45°	973	992	996	989	970	749
55°	759	791	842	854	856	679
65°	529	565	625	622	621	520
75°	275	315	371	391	384	290
85°	49	93	152	193	226	62
90°	1	43	96	138	180	2
95°	0	41	92	130	193	0
105°	0	36	81	102	100	0
115°	1	33	72	85	88	0
125°	1	28	71	93	102	1
135°	1	20	59	83	97	1
145°	1	8	38	62	71	1
155°	1	2	15	30	34	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°	1779.4	1779.4	1779.4	1779.4	1779.4	1779.4	1779.4	1779.4	1779.4	1779.4	1779.4
2.5°	1772.1	1768.0	1761.7	1764.8	1764.8	1765.9	1766.9	1766.9	1764.8	1761.7	1754.4
5°	1713.9	1709.7	1702.4	1703.5	1704.5	1707.6	1708.7	1708.7	1704.5	1702.4	1697.2
7.5°	1646.3	1642.1	1639.0	1639.0	1640.0	1641.1	1644.2	1639.0	1635.9	1633.8	1628.6
10°	1587.0	1584.9	1575.6	1576.6	1574.5	1574.5	1576.6	1575.6	1569.3	1564.1	1557.9
12.5°	1528.8	1525.6	1524.6	1522.5	1519.4	1518.4	1519.4	1518.4	1513.2	1508.0	1501.7
15°	1485.1	1477.8	1474.7	1475.7	1470.5	1470.5	1469.5	1472.6	1465.3	1457.0	1448.7
17.5°	1441.4	1437.2	1427.9	1430.0	1428.9	1431.0	1432.0	1431.0	1423.7	1415.4	1409.2
20°	1394.6	1391.5	1392.5	1392.5	1388.4	1389.4	1390.4	1388.4	1382.1	1373.8	1373.8
22.5°	1355.1	1349.9	1348.9	1345.7	1349.9	1350.9	1350.9	1352.0	1347.8	1341.6	1339.5
25°	1312.5	1310.4	1308.3	1311.4	1313.5	1314.5	1314.5	1312.5	1309.3	1304.1	1301.0
27.5°	1274.0	1267.7	1269.8	1272.9	1276.1	1280.2	1280.2	1275.0	1274.0	1267.7	1271.9
30°	1232.4	1227.2	1228.2	1231.3	1236.5	1240.7	1240.7	1243.8	1238.6	1235.5	1233.4
32.5°	1196.0	1185.6	1186.6	1193.9	1202.2	1203.3	1204.3	1206.4	1201.2	1199.1	1194.9
35°	1152.3	1147.1	1144.0	1155.4	1159.6	1160.6	1164.8	1167.9	1163.7	1161.7	1160.6
37.5°	1106.5	1102.4	1102.4	1110.7	1119.0	1123.2	1124.2	1125.3	1126.3	1121.1	1120.1
40°	1062.9	1058.7	1059.7	1066.0	1074.3	1077.4	1082.6	1086.8	1082.6	1080.5	1082.6
42.5°	1019.2	1011.9	1018.1	1024.4	1032.7	1034.8	1041.0	1048.3	1043.1	1038.9	1041.0
45°	973.4	966.1	972.4	980.7	985.9	992.1	993.2	997.3	997.3	997.3	996.3
47.5°	919.3	918.3	921.4	930.8	939.1	942.2	946.4	950.5	956.8	962.0	958.9
50°	869.4	865.3	873.6	880.9	890.2	896.5	902.7	912.1	913.1	914.1	920.4
52.5°	815.3	814.3	821.6	829.9	839.3	848.6	853.8	860.1	865.3	874.6	882.9
55°	759.2	760.2	766.5	777.9	789.3	791.4	798.7	814.3	824.7	833.0	842.4
57.5°	704.1	703.0	713.4	722.8	732.1	743.6	749.8	763.3	770.6	781.0	786.2
60°	643.7	645.8	656.2	658.3	678.1	691.6	693.7	702.0	712.4	722.8	734.2
62.5°	585.5	587.6	596.9	607.3	619.8	626.1	630.2	646.9	657.3	673.9	682.2
65°	529.3	530.4	536.6	548.1	559.5	564.7	575.1	593.8	602.1	613.6	625.0
67.5°	466.9	469.0	477.3	483.6	499.2	508.5	517.9	530.4	536.6	552.2	560.5
70°	399.4	402.5	413.9	421.2	439.9	447.2	454.5	462.8	477.3	491.9	501.3
72.5°	339.0	339.0	349.4	358.8	378.6	380.6	386.9	402.5	419.1	429.5	439.9
75°	274.6	277.7	283.9	296.4	312.0	315.1	325.5	342.2	353.6	365.0	371.3
77.5°	210.1	214.2	223.6	236.1	246.5	256.9	264.2	277.7	289.1	298.5	309.9
80°	151.8	155.0	164.3	172.6	189.3	196.6	202.8	216.3	227.8	240.2	253.8
82.5°	97.8	98.8	109.2	119.6	132.1	140.4	146.6	159.1	175.8	188.2	200.7
85°	48.9	52.0	62.4	71.8	87.4	92.6	98.8	113.4	126.9	142.5	151.8
87.5°	14.6	19.8	29.1	39.5	52.0	58.2	64.5	78.0	91.5	104.0	115.4
90°	1.0	4.2	12.5	23.9	36.4	42.6	48.9	62.4	74.9	85.3	95.7
92.5°	0.0	3.1	11.4	22.9	35.4	41.6	47.8	60.3	71.8	82.2	92.6
95°	0.0	3.1	11.4	21.8	34.3	40.6	46.8	58.2	69.7	81.1	91.5
97.5°	0.0	3.1	10.4	21.8	33.3	39.5	45.8	57.2	68.6	79.0	88.4
100°	0.0	3.1	10.4	20.8	32.2	38.5	43.7	55.1	66.6	77.0	86.3
102.5°	0.0	2.1	9.4	19.8	31.2	37.4	42.6	54.1	65.5	74.9	83.2
105°	0.0	2.1	9.4	18.7	30.2	36.4	41.6	53.0	63.4	72.8	81.1
107.5°	0.0	2.1	8.3	18.7	30.2	35.4	41.6	52.0	62.4	70.7	79.0
110°	0.0	1.0	8.3	17.7	29.1	35.4	40.6	51.0	61.4	69.7	75.9



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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	7.3	16.6	28.1	34.3	39.5	49.9	59.3	67.6	73.8
115°	1.0	1.0	7.3	16.6	27.0	33.3	38.5	48.9	58.2	66.6	71.8
117.5°	0.0	1.0	6.2	15.6	26.0	32.2	37.4	47.8	57.2	65.5	71.8
120°	1.0	1.0	5.2	14.6	25.0	31.2	36.4	46.8	56.2	64.5	71.8
122.5°	1.0	1.0	5.2	13.5	23.9	29.1	35.4	45.8	55.1	64.5	71.8
125°	1.0	1.0	4.2	12.5	22.9	28.1	33.3	44.7	54.1	62.4	70.7
127.5°	1.0	1.0	3.1	11.4	20.8	27.0	32.2	42.6	52.0	60.3	68.6
130°	1.0	1.0	2.1	9.4	19.8	23.9	30.2	40.6	49.9	58.2	65.5
132.5°	1.0	1.0	2.1	8.3	17.7	21.8	27.0	37.4	46.8	55.1	62.4
135°	1.0	1.0	1.0	6.2	14.6	19.8	23.9	33.3	42.6	52.0	59.3
137.5°	1.0	1.0	1.0	5.2	12.5	16.6	20.8	29.1	38.5	46.8	55.1
140°	1.0	1.0	1.0	4.2	10.4	13.5	17.7	26.0	34.3	42.6	49.9
142.5°	1.0	1.0	1.0	3.1	8.3	11.4	14.6	21.8	29.1	37.4	44.7
145°	1.0	1.0	1.0	2.1	6.2	8.3	11.4	17.7	25.0	32.2	38.5
147.5°	1.0	1.0	1.0	1.0	4.2	6.2	8.3	14.6	19.8	26.0	32.2
150°	1.0	1.0	1.0	1.0	3.1	4.2	6.2	10.4	15.6	20.8	26.0
152.5°	1.0	1.0	1.0	1.0	2.1	3.1	4.2	7.3	11.4	15.6	19.8
155°	1.0	1.0	1.0	1.0	1.0	2.1	3.1	5.2	8.3	11.4	14.6
157.5°	1.0	1.0	1.0	1.0	1.0	1.0	2.1	3.1	5.2	7.3	10.4
160°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1	3.1	5.2	6.2
162.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1	2.1	3.1
165°	2.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1
167.5°	2.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
170°	2.1	2.1	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°	1779.4	1779.4	1779.4	1779.4	1779.4	1779.4	1779.4	1779.4	1779.4	1779.4
2.5°	1756.5	1761.7	1765.9	1765.9	1765.9	1768.0	1768.0	1766.9	1768.0	1764.8
5°	1701.4	1709.7	1712.8	1717.0	1716.0	1714.9	1712.8	1717.0	1714.9	1712.8
7.5°	1631.7	1640.0	1635.9	1638.0	1640.0	1638.0	1639.0	1640.0	1635.9	1635.9
10°	1557.9	1561.0	1557.9	1560.0	1560.0	1555.8	1557.9	1557.9	1555.8	1554.8
12.5°	1498.6	1497.6	1496.5	1497.6	1498.6	1502.8	1500.7	1504.8	1503.8	1500.7
15°	1445.6	1449.7	1451.8	1454.9	1450.8	1453.9	1458.0	1456.0	1456.0	1452.8
17.5°	1413.3	1417.5	1413.3	1418.5	1420.6	1419.6	1418.5	1412.3	1416.4	1409.2
20°	1369.6	1376.9	1382.1	1374.8	1374.8	1375.9	1374.8	1372.8	1374.8	1370.7
22.5°	1342.6	1341.6	1340.5	1345.7	1346.8	1345.7	1339.5	1337.4	1331.2	1332.2
25°	1304.1	1301.0	1312.5	1306.2	1301.0	1301.0	1297.9	1293.7	1290.6	1290.6
27.5°	1267.7	1272.9	1267.7	1268.8	1267.7	1268.8	1255.3	1250.1	1250.1	1245.9
30°	1237.6	1233.4	1234.5	1227.2	1223.0	1222.0	1218.9	1214.7	1211.6	1210.5
32.5°	1193.9	1196.0	1192.9	1189.7	1188.7	1185.6	1183.5	1178.3	1174.1	1170.0
35°	1158.5	1155.4	1154.4	1156.5	1149.2	1144.0	1141.9	1138.8	1136.7	1132.5
37.5°	1120.1	1115.9	1116.9	1109.7	1110.7	1109.7	1103.4	1098.2	1097.2	1095.1
40°	1076.4	1078.5	1074.3	1074.3	1064.9	1063.9	1062.9	1062.9	1059.7	1059.7
42.5°	1037.9	1037.9	1035.8	1032.7	1029.6	1027.5	1021.3	1020.2	1016.1	1011.9
45°	998.4	996.3	993.2	991.1	989.0	985.9	977.6	974.5	972.4	970.3
47.5°	963.0	958.9	958.9	952.6	945.3	945.3	943.3	938.1	936.0	936.0
50°	924.5	930.8	933.9	928.7	926.6	924.5	922.5	923.5	921.4	924.5
52.5°	891.3	896.5	895.4	897.5	899.6	902.7	898.5	901.7	899.6	896.5
55°	848.6	852.8	850.7	848.6	853.8	853.8	859.0	856.9	855.9	855.9
57.5°	795.6	800.8	800.8	802.9	803.9	800.8	808.1	804.9	806.0	802.9
60°	740.5	739.4	742.5	748.8	749.8	745.7	744.6	748.8	745.7	745.7
62.5°	686.4	688.5	689.5	686.4	684.3	686.4	682.2	686.4	686.4	685.3
65°	628.1	630.2	631.3	627.1	621.9	622.9	618.8	620.9	621.9	620.9
67.5°	564.7	569.9	567.8	566.8	563.7	557.4	556.4	554.3	556.4	556.4
70°	504.4	509.6	504.4	505.4	505.4	500.2	497.1	492.9	492.9	491.9
72.5°	445.1	448.2	447.2	447.2	448.2	445.1	439.9	437.8	435.8	435.8
75°	382.7	389.0	389.0	390.0	391.0	389.0	389.0	385.8	382.7	383.8
77.5°	322.4	328.6	333.8	337.0	337.0	338.0	340.1	339.0	337.0	337.0
80°	266.2	275.6	280.8	287.0	288.1	288.1	292.2	293.3	293.3	292.2
82.5°	213.2	222.6	228.8	235.0	236.1	238.2	245.4	248.6	254.8	254.8
85°	162.2	172.6	179.9	188.2	193.4	196.6	202.8	211.1	219.4	225.7
87.5°	124.8	135.2	145.6	153.9	158.1	161.2	169.5	179.9	190.3	198.6
90°	107.1	116.5	125.8	133.1	138.3	141.4	149.8	159.1	171.6	179.9
92.5°	103.0	112.3	119.6	127.9	132.1	135.2	145.6	158.1	172.6	179.9
95°	99.8	108.2	116.5	125.8	130.0	135.2	148.7	166.4	186.2	193.4
97.5°	97.8	106.1	114.4	123.8	129.0	134.2	149.8	163.3	171.6	171.6
100°	94.6	103.0	111.3	119.6	123.8	129.0	138.3	142.5	142.5	142.5
102.5°	91.5	98.8	106.1	111.3	114.4	116.5	120.6	121.7	119.6	117.5
105°	88.4	93.6	97.8	100.9	101.9	103.0	104.0	104.0	101.9	99.8
107.5°	85.3	88.4	91.5	91.5	92.6	92.6	93.6	92.6	90.5	88.4
110°	81.1	84.2	85.3	86.3	86.3	86.3	87.4	87.4	85.3	84.2



TEST NUMBER: P241392

CATALOG NUMBER: FVS8M-4-LD4-50-1HI-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	78.0	81.1	82.2	83.2	84.2	84.2	86.3	86.3	85.3	85.3
115°	77.0	80.1	82.2	84.2	85.3	86.3	88.4	90.5	89.4	88.4
117.5°	77.0	81.1	84.2	86.3	87.4	89.4	92.6	93.6	93.6	93.6
120°	77.0	82.2	86.3	89.4	90.5	92.6	94.6	96.7	97.8	96.7
122.5°	77.0	82.2	87.4	90.5	91.5	93.6	96.7	98.8	99.8	99.8
125°	77.0	82.2	87.4	90.5	92.6	93.6	96.7	99.8	100.9	101.9
127.5°	74.9	81.1	85.3	89.4	91.5	93.6	96.7	99.8	101.9	103.0
130°	72.8	78.0	83.2	87.4	89.4	91.5	95.7	98.8	100.9	101.9
132.5°	69.7	74.9	80.1	84.2	86.3	88.4	92.6	96.7	98.8	99.8
135°	65.5	71.8	77.0	81.1	83.2	85.3	89.4	93.6	95.7	96.7
137.5°	61.4	67.6	72.8	77.0	79.0	81.1	85.3	88.4	91.5	91.5
140°	57.2	63.4	68.6	72.8	74.9	77.0	80.1	83.2	85.3	86.3
142.5°	52.0	58.2	62.4	67.6	69.7	70.7	73.8	77.0	79.0	79.0
145°	45.8	52.0	57.2	60.3	62.4	64.5	66.6	68.6	70.7	70.7
147.5°	38.5	44.7	49.9	53.0	55.1	56.2	58.2	60.3	61.4	61.4
150°	31.2	36.4	41.6	44.7	46.8	47.8	49.9	51.0	52.0	52.0
152.5°	23.9	29.1	33.3	36.4	38.5	39.5	41.6	41.6	42.6	43.7
155°	17.7	21.8	25.0	29.1	30.2	31.2	32.2	34.3	34.3	34.3
157.5°	12.5	15.6	17.7	20.8	21.8	23.9	25.0	26.0	26.0	26.0
160°	8.3	10.4	12.5	14.6	15.6	16.6	17.7	18.7	18.7	19.8
162.5°	5.2	6.2	7.3	8.3	9.4	10.4	11.4	12.5	12.5	12.5
165°	2.1	3.1	4.2	4.2	5.2	5.2	6.2	7.3	7.3	7.3
167.5°	1.0	1.0	1.0	2.1	2.1	2.1	2.1	3.1	3.1	3.1
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)