

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: P241357

Luminaire Tested: **FVS8M-3-LD4-30-2LO-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241357
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-3-LD4-30-2LO-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
3FT LENGTH, 2-MODULE LED WITH P125 LENS
Light Source: (168) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

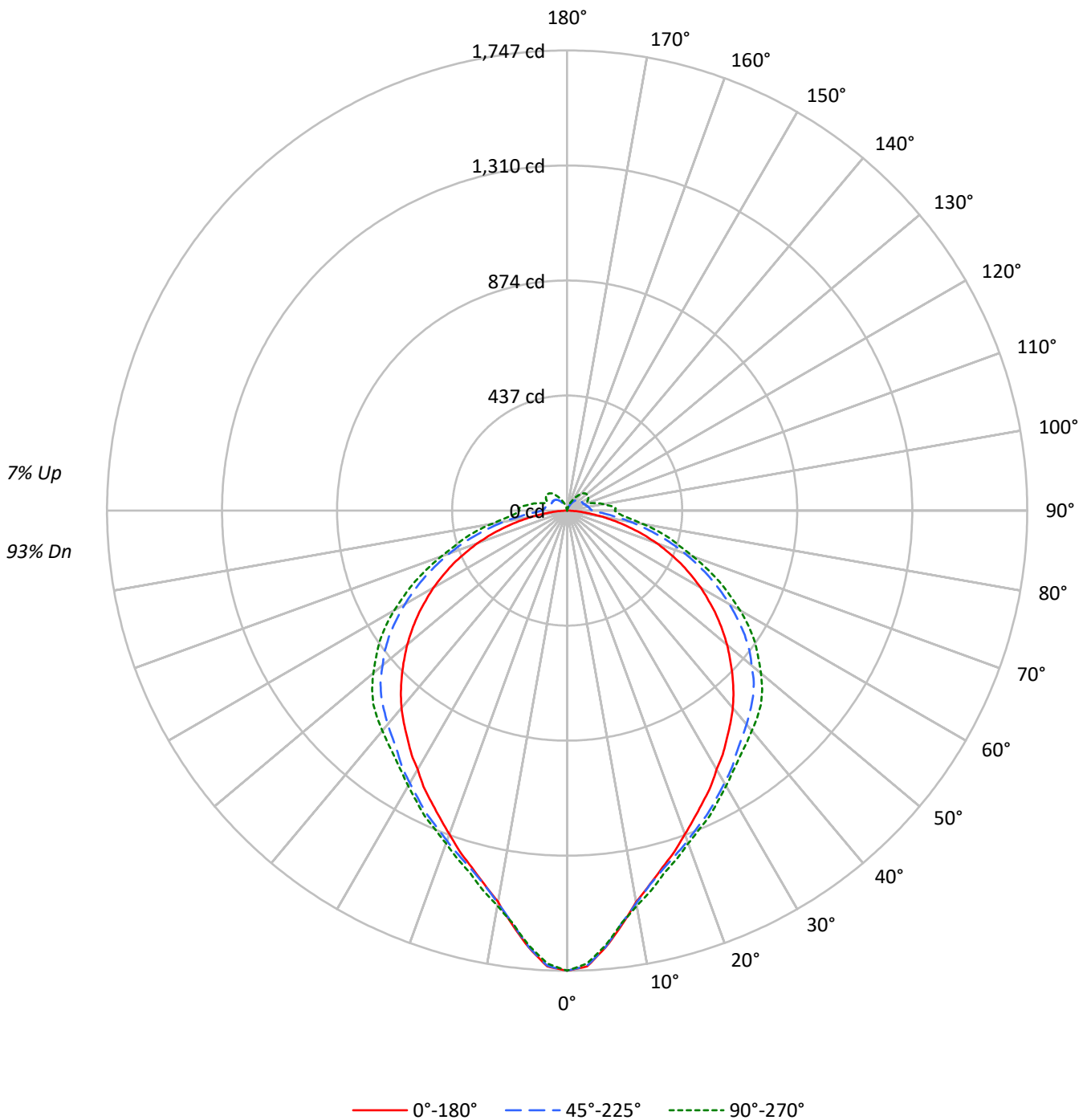
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4731.0 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 1.03 / 1.26
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 40.7
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-3-LD4-30-2LO-P125-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241357

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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	97	92	103	98	94	90	93	89	86	87	85	82	83	80	78	76
2	96	88	80	74	93	85	79	73	80	75	70	76	71	68	72	68	65	62
3	87	77	68	61	84	74	67	60	70	64	58	67	61	57	63	59	55	52
4	80	68	59	52	77	66	57	51	62	55	50	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°	10200	10200	10200
5°	9719	9591	9531
10°	8868	8667	8689
15°	8358	8092	8118
20°	7976	7740	7722
25°	7678	7481	7461
30°	7431	7236	7201
35°	7270	7032	7028
40°	7154	6936	6992
45°	6974	6894	7013
50°	6785	6737	6879
55°	6562	6547	6697
60°	6286	6207	6370
65°	5926	5797	5937
70°	5397	5270	5356
75°	4631	4628	4929
80°	3567	3864	4288
85°	1963	3021	3909



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.8	3.3
10°-20°	398.8	8.4
20°-30°	581.0	12.3
30°-40°	699.2	14.8
40°-50°	756.6	16.0
50°-60°	715.1	15.1
60°-70°	567.7	12.0
70°-80°	360.1	7.6
80°-90°	156.9	3.3
90°-100°	90.2	1.9
100°-110°	70.4	1.5
110°-120°	54.9	1.2
120°-130°	50.5	1.1
130°-140°	40.0	0.8
140°-150°	23.8	0.5
150°-160°	9.8	0.2
160°-170°	2.4	0.0
170°-180°	0.1	0.0
0°-30°	1133.6	24.0
0°-40°	1832.8	38.7
0°-60°	3304.4	69.8
0°-90°	4389.1	92.8
90°-120°	215.5	4.6
90°-150°	329.7	7.0
90°-180°	342.0	7.2
0°-180°	4731.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1747	1747	1747	1747	1747	
5°	1665	1668	1664	1658	1658	154
15°	1402	1400	1409	1420	1424	395
25°	1220	1245	1267	1279	1280	563
35°	1056	1092	1122	1144	1142	662
45°	888	929	998	1034	1041	685
55°	692	748	823	858	870	617
65°	476	526	596	619	638	469
75°	244	292	355	389	403	259
85°	46	83	146	183	209	56
90°	1	39	95	131	181	2
95°	1	38	86	123	174	0
105°	1	34	75	102	108	1
115°	1	31	65	79	85	1
125°	1	28	64	86	96	1
135°	1	23	58	81	93	1
145°	1	15	42	60	68	1
155°	1	7	21	34	38	1
165°	2	2	7	12	15	1
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°	1746.7	1746.7	1746.7	1746.7	1746.7	1746.7	1746.7	1746.7	1746.7	1746.7	1746.7
2.5°	1732.0	1729.6	1730.2	1727.1	1728.3	1730.2	1730.2	1732.0	1732.6	1731.4	1729.6
5°	1665.4	1669.1	1666.6	1664.8	1665.4	1667.8	1667.2	1669.1	1667.2	1667.8	1664.2
7.5°	1587.2	1588.4	1584.1	1581.1	1582.3	1582.9	1584.8	1586.0	1589.0	1582.9	1581.1
10°	1509.0	1514.5	1507.8	1506.6	1507.8	1507.2	1510.2	1506.6	1509.6	1509.6	1512.1
12.5°	1452.8	1453.4	1455.9	1447.9	1447.9	1448.5	1447.9	1447.3	1448.5	1452.2	1454.0
15°	1401.5	1403.3	1403.3	1399.0	1399.0	1399.6	1400.9	1402.1	1402.7	1410.0	1408.8
17.5°	1356.3	1354.4	1356.3	1355.0	1357.5	1361.2	1360.5	1363.0	1366.7	1366.7	1370.9
20°	1307.4	1310.5	1314.1	1310.5	1317.2	1320.2	1322.1	1324.5	1326.9	1333.7	1334.3
22.5°	1262.2	1268.3	1269.5	1268.3	1277.5	1280.5	1283.6	1286.0	1295.2	1294.6	1298.2
25°	1220.0	1225.5	1226.1	1230.4	1240.2	1245.1	1246.9	1252.4	1257.3	1260.4	1267.1
27.5°	1180.9	1184.0	1184.6	1193.2	1199.3	1204.1	1210.3	1218.8	1221.3	1228.0	1229.2
30°	1134.5	1141.2	1144.9	1152.2	1164.4	1166.9	1173.0	1178.5	1187.7	1190.7	1194.4
32.5°	1099.1	1102.1	1103.3	1113.1	1123.5	1130.2	1134.5	1138.2	1149.2	1155.9	1161.4
35°	1056.3	1061.8	1064.2	1074.6	1083.2	1092.3	1095.4	1105.8	1110.7	1119.8	1121.7
37.5°	1017.8	1022.1	1025.1	1033.1	1044.7	1053.9	1054.5	1066.1	1074.6	1081.4	1088.7
40°	978.7	979.9	984.8	991.5	1005.6	1008.6	1016.0	1028.2	1041.6	1050.2	1059.4
42.5°	934.7	935.3	941.4	950.0	965.3	969.6	979.9	992.8	1006.8	1022.1	1028.8
45°	887.7	890.1	898.7	909.7	922.5	928.6	938.4	954.9	970.8	987.3	998.3
47.5°	840.0	845.5	852.9	863.9	878.5	886.5	895.6	915.8	930.5	945.7	961.0
50°	792.4	797.3	804.6	817.4	833.3	841.9	849.8	871.2	891.4	904.8	914.6
52.5°	741.7	746.6	755.1	770.4	788.7	793.6	805.2	825.4	844.3	858.4	871.8
55°	691.6	694.6	706.2	719.1	738.0	748.4	755.7	775.9	792.4	811.3	822.9
57.5°	637.2	641.5	653.7	665.3	686.7	694.6	703.2	723.3	743.5	756.9	767.3
60°	585.9	588.9	599.3	612.2	629.9	640.3	648.8	668.4	684.2	699.5	711.7
62.5°	529.1	533.3	543.1	557.2	576.1	583.4	595.7	609.7	629.9	640.3	653.7
65°	475.9	480.2	488.1	501.0	515.6	526.0	535.8	550.5	566.9	581.0	595.7
67.5°	417.3	422.2	431.9	445.4	461.9	469.2	476.5	491.8	509.5	523.6	535.2
70°	360.5	363.5	373.9	384.9	398.9	407.5	414.8	432.5	447.8	463.1	474.7
72.5°	302.4	304.9	314.6	326.8	341.5	351.9	358.6	372.1	387.3	402.6	417.3
75°	244.4	249.3	256.6	267.6	282.9	292.0	297.5	314.0	327.5	343.3	355.0
77.5°	186.9	191.2	201.0	212.0	226.0	234.6	240.1	256.0	268.8	282.9	297.5
80°	136.8	136.8	148.5	156.4	171.1	178.4	184.5	197.3	212.0	226.0	242.5
82.5°	85.5	88.6	96.5	107.5	120.4	127.1	132.6	145.4	160.7	175.3	189.4
85°	46.4	47.0	55.0	64.8	78.2	83.1	90.4	103.9	117.3	130.7	146.0
87.5°	14.1	17.7	25.7	36.7	47.0	53.8	58.6	72.7	84.9	98.4	113.6
90°	1.2	4.3	12.2	22.0	33.6	39.1	45.8	58.0	70.3	84.3	95.3
92.5°	0.6	3.7	11.0	20.8	32.4	37.9	44.6	56.2	69.0	80.0	89.8
95°	0.6	3.1	10.4	20.8	31.8	37.9	43.4	55.6	67.2	77.0	86.1
97.5°	0.6	3.1	10.4	20.2	31.2	36.7	42.8	54.4	64.8	74.5	84.9
100°	0.6	3.1	9.8	19.5	30.5	36.7	42.2	52.5	62.3	72.7	81.3
102.5°	0.6	3.1	9.8	19.5	29.9	35.4	40.3	50.7	60.5	69.0	78.2
105°	0.6	2.4	9.2	18.9	28.7	34.2	39.1	48.9	58.0	67.2	75.1
107.5°	0.6	2.4	9.2	17.7	28.1	33.0	38.5	47.7	56.2	64.8	72.7
110°	0.6	2.4	8.6	17.7	26.9	32.4	37.3	46.4	55.0	62.9	69.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.6	2.4	8.6	17.1	26.3	31.2	36.0	45.8	53.8	61.1	67.8
115°	0.6	1.8	7.9	16.5	26.3	31.2	35.4	44.6	53.2	59.9	65.4
117.5°	0.6	1.8	7.9	15.9	25.0	29.9	34.8	44.0	51.9	59.3	64.8
120°	0.6	1.8	7.3	15.9	25.0	29.3	34.2	43.4	51.3	58.6	64.8
122.5°	0.6	1.8	7.3	15.3	23.8	28.7	33.6	42.8	50.7	58.0	64.8
125°	0.6	1.2	6.7	14.7	23.2	28.1	33.0	42.2	50.1	58.0	64.1
127.5°	0.6	1.2	6.1	14.1	22.6	26.9	31.8	40.9	48.9	56.8	63.5
130°	0.6	1.2	6.1	12.8	21.4	25.7	30.5	39.7	47.7	55.0	62.3
132.5°	0.6	1.2	5.5	12.2	20.2	24.4	28.7	37.9	45.8	53.2	59.9
135°	1.2	1.2	4.9	11.0	18.9	23.2	27.5	36.0	44.0	51.3	58.0
137.5°	1.2	1.2	4.3	10.4	17.1	21.4	25.0	33.6	40.9	48.3	55.0
140°	1.2	1.2	3.7	9.2	15.3	18.9	22.6	29.9	37.9	44.6	51.3
142.5°	1.2	1.2	3.1	7.9	13.4	17.1	20.2	26.9	33.6	40.9	47.0
145°	1.2	1.2	2.4	6.7	11.6	14.7	17.1	23.2	29.3	36.0	42.2
147.5°	1.2	1.2	2.4	5.5	9.8	12.2	14.7	20.2	25.7	31.2	36.7
150°	1.2	1.2	1.8	4.3	7.9	9.8	12.2	17.1	21.4	26.3	31.8
152.5°	1.2	1.2	1.2	3.7	6.7	8.6	9.8	14.1	17.7	22.0	26.3
155°	1.2	1.2	1.2	3.1	5.5	6.7	7.9	11.0	14.7	18.3	21.4
157.5°	1.2	1.2	1.2	2.4	4.3	4.9	6.1	9.2	11.6	14.7	17.1
160°	1.8	1.2	1.2	1.8	3.1	3.7	4.9	6.7	9.2	11.0	13.4
162.5°	1.8	1.2	1.2	1.2	2.4	3.1	3.7	4.9	6.7	8.6	9.8
165°	1.8	1.8	1.2	1.2	1.8	1.8	2.4	3.7	4.3	6.1	7.3
167.5°	1.8	1.8	1.2	1.2	1.2	1.2	1.8	2.4	3.1	3.7	4.3
170°	1.8	1.8	1.2	1.2	1.2	1.2	1.2	1.2	1.8	1.8	2.4
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°	1746.7	1746.7	1746.7	1746.7	1746.7	1746.7	1746.7	1746.7	1746.7	1746.7
2.5°	1727.7	1728.9	1725.9	1726.5	1725.3	1725.9	1724.1	1723.4	1724.7	1721.0
5°	1664.8	1661.7	1658.1	1658.1	1657.5	1656.2	1655.6	1656.8	1656.2	1658.1
7.5°	1582.9	1577.4	1578.7	1575.6	1579.3	1578.0	1579.3	1580.5	1580.5	1580.5
10°	1507.8	1513.3	1515.7	1518.2	1521.2	1519.4	1523.7	1524.9	1526.1	1523.7
12.5°	1458.3	1458.3	1462.6	1463.8	1463.8	1465.0	1469.9	1466.2	1471.7	1476.6
15°	1411.9	1415.5	1419.2	1419.8	1419.8	1425.9	1427.1	1425.3	1425.9	1424.1
17.5°	1374.6	1376.4	1377.7	1381.3	1385.0	1384.4	1385.6	1388.7	1387.4	1385.6
20°	1336.7	1342.2	1346.5	1345.9	1346.5	1348.3	1348.9	1349.6	1346.5	1344.7
22.5°	1302.5	1302.5	1309.8	1312.3	1314.7	1314.1	1312.9	1314.1	1314.1	1309.8
25°	1267.1	1273.2	1276.8	1275.6	1279.3	1282.3	1279.3	1278.7	1281.1	1279.9
27.5°	1237.7	1237.7	1242.0	1248.7	1248.1	1249.4	1246.9	1244.5	1242.6	1242.0
30°	1198.6	1204.8	1210.9	1209.6	1211.5	1213.9	1213.9	1211.5	1207.2	1207.2
32.5°	1164.4	1168.7	1171.2	1178.5	1180.9	1180.3	1174.8	1170.5	1172.4	1172.4
35°	1129.0	1133.9	1143.7	1142.4	1143.7	1144.9	1143.1	1141.2	1141.2	1141.8
37.5°	1091.1	1106.4	1105.8	1118.0	1120.5	1119.8	1118.0	1112.5	1113.7	1116.2
40°	1069.1	1075.2	1087.5	1089.9	1091.1	1092.3	1097.8	1094.2	1092.3	1091.1
42.5°	1041.0	1051.4	1057.5	1064.9	1070.4	1071.6	1068.5	1066.7	1067.9	1067.3
45°	1006.2	1020.3	1028.2	1034.9	1034.3	1035.5	1039.2	1043.5	1044.1	1041.0
47.5°	973.2	976.9	993.4	991.5	998.9	1004.4	1003.2	1000.7	1005.0	1004.4
50°	927.4	940.2	944.5	956.1	957.3	953.7	957.9	960.4	961.0	961.0
52.5°	882.2	890.1	902.3	903.0	907.2	909.1	911.5	912.7	915.2	914.0
55°	835.8	840.6	849.2	856.5	858.4	857.7	860.8	865.7	868.1	870.0
57.5°	780.2	791.2	793.6	800.9	799.7	804.0	809.5	811.9	815.6	817.4
60°	719.7	728.2	736.8	739.2	741.7	745.3	750.8	750.2	755.7	758.8
62.5°	664.7	668.4	675.7	680.6	681.2	681.2	686.7	689.1	694.6	695.9
65°	602.4	610.9	614.0	615.8	618.9	618.9	623.8	626.2	630.5	637.8
67.5°	544.3	552.3	558.4	559.6	562.1	563.3	562.1	565.1	568.2	571.8
70°	483.9	491.2	499.1	504.0	502.8	502.2	502.8	505.2	509.5	508.3
72.5°	425.8	437.4	441.1	448.4	449.0	450.3	447.2	446.0	449.6	447.8
75°	367.2	379.4	384.9	392.8	389.2	391.0	391.0	396.5	401.4	402.6
77.5°	311.6	323.8	331.1	334.8	340.9	347.0	348.2	351.3	348.2	348.2
80°	255.4	266.4	279.8	284.1	285.9	287.7	289.6	290.2	290.8	290.8
82.5°	205.9	219.9	227.3	228.5	229.7	232.2	235.2	238.9	243.8	244.4
85°	160.1	168.6	175.3	180.8	182.7	186.3	193.1	199.2	205.9	208.9
87.5°	124.0	130.7	138.1	144.2	149.1	152.1	160.7	170.5	182.7	188.8
90°	103.9	111.2	118.5	126.5	131.4	136.2	146.0	157.0	172.3	180.8
92.5°	97.7	106.3	114.9	122.2	125.9	129.5	139.3	154.0	173.5	185.1
95°	95.9	103.9	110.6	117.9	122.8	127.7	139.3	154.0	168.0	174.1
97.5°	92.9	99.6	106.9	116.1	120.4	125.2	135.6	145.4	151.5	154.0
100°	88.6	95.9	103.9	111.8	116.1	119.7	127.1	133.8	138.1	140.5
102.5°	85.5	92.3	99.6	106.9	110.0	113.0	119.1	124.0	125.9	126.5
105°	82.5	88.6	95.3	100.2	102.0	104.5	107.5	107.5	107.5	107.5
107.5°	78.8	84.3	89.2	91.6	92.9	93.5	94.1	93.5	93.5	92.9
110°	75.8	80.0	83.1	84.3	84.3	84.9	84.9	84.9	84.9	84.9



TEST NUMBER: P241357

CATALOG NUMBER: FVS8M-3-LD4-30-2LO-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	72.7	76.4	78.2	79.4	79.4	80.0	80.6	81.9	82.5	82.5
115°	70.3	73.9	75.8	77.6	78.8	79.4	81.3	83.7	84.9	84.9
117.5°	69.0	73.3	75.8	78.8	80.6	81.9	84.9	87.4	88.6	89.2
120°	69.6	73.9	77.6	81.3	83.1	84.3	88.0	90.4	92.3	92.9
122.5°	70.3	74.5	79.4	83.1	84.9	86.8	89.8	92.9	94.7	95.3
125°	69.6	75.1	80.0	84.3	86.1	88.0	91.0	94.1	95.9	96.5
127.5°	69.0	74.5	80.0	84.3	86.1	88.6	91.6	94.1	95.9	96.5
130°	67.8	73.3	78.8	83.7	85.5	87.4	90.4	93.5	95.3	96.5
132.5°	66.0	71.5	77.0	81.3	83.7	85.5	89.2	92.3	94.7	95.3
135°	63.5	69.0	74.5	79.4	81.3	83.7	86.8	89.8	91.6	92.9
137.5°	60.5	66.0	70.9	75.8	77.6	79.4	83.1	86.1	88.0	88.6
140°	56.8	61.7	66.6	70.9	72.7	74.5	77.6	80.0	82.5	83.7
142.5°	51.9	56.8	61.1	64.8	66.6	68.4	71.5	73.3	75.1	76.4
145°	47.0	51.3	55.0	58.0	59.9	61.7	64.1	66.0	67.8	68.4
147.5°	41.5	45.2	48.9	51.9	53.2	54.4	56.8	58.6	59.9	59.9
150°	36.0	39.7	42.8	45.8	46.4	47.7	49.5	50.7	51.9	51.3
152.5°	30.5	33.6	37.3	39.7	40.3	41.5	42.8	44.0	44.6	44.6
155°	25.0	28.1	31.2	33.6	34.2	35.4	36.0	37.3	37.9	37.9
157.5°	20.2	23.2	25.7	28.1	28.7	29.3	30.5	31.2	31.2	31.8
160°	15.9	17.7	20.2	22.0	23.2	23.8	25.0	25.0	25.7	25.7
162.5°	11.6	13.4	15.3	17.1	17.7	18.3	19.5	20.2	20.2	20.2
165°	7.9	9.8	10.4	11.6	12.2	13.4	14.7	14.7	15.3	14.7
167.5°	5.5	6.1	6.7	7.9	7.9	8.6	9.2	9.8	10.4	10.4
170°	3.1	3.7	3.7	4.3	4.3	4.3	4.9	5.5	5.5	5.5
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)