

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: P241395

Luminaire Tested: **FVS8M-4-LD4-40-2LO-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241395
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-38)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-4-LD4-40-2LO-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
4FT LENGTH, 2-MODULE LED WITH P125 LENS
Light Source: (168) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

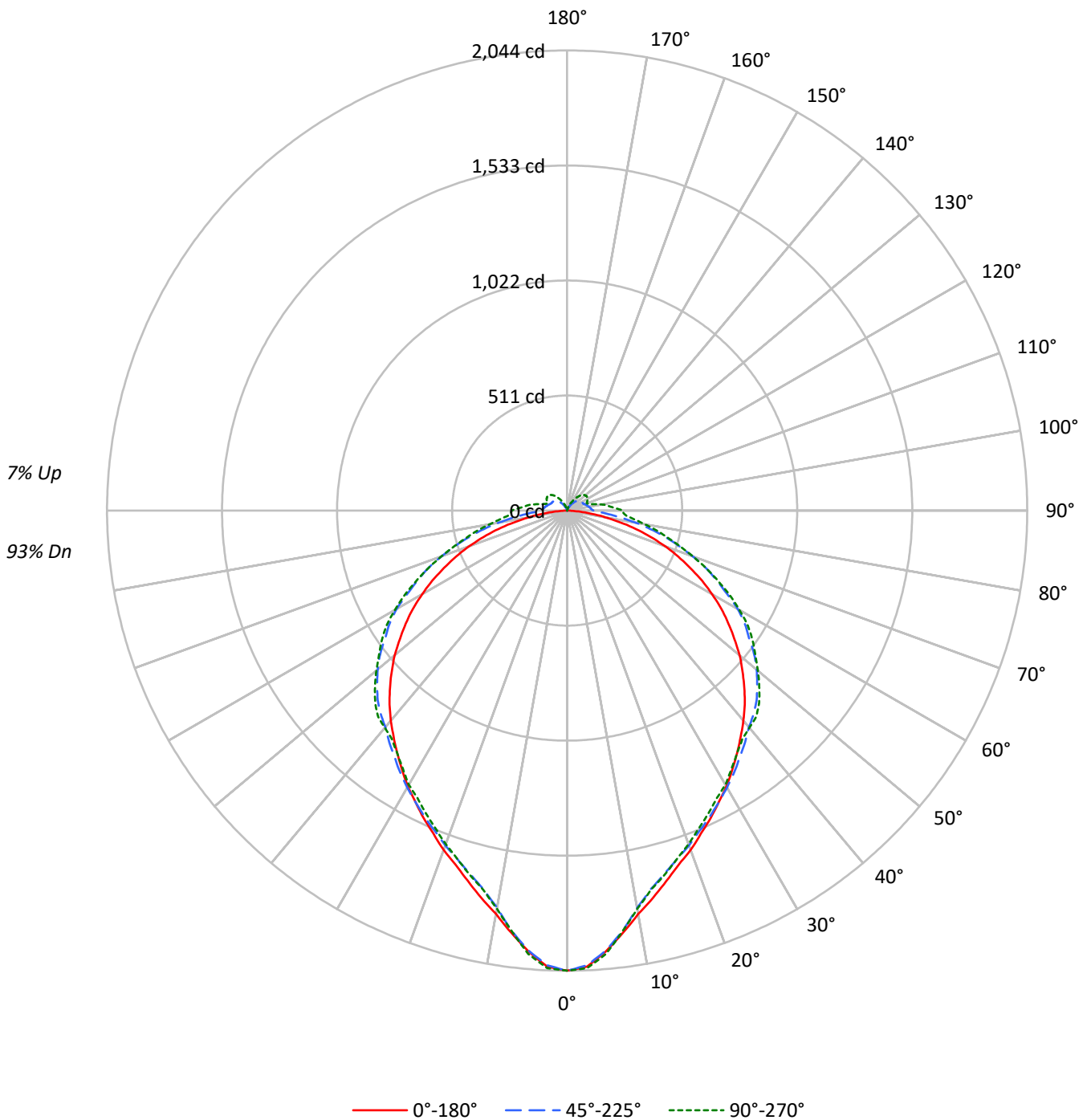
Lumens per Lamp: N/A
Luminaire Lumens: 5675.0 lumens
Efficiency: N/A
Efficacy: 124.7 lumens/watt
Spacing Criteria (0/90/45): 1.04 / 1.02 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')
CIE Type: Direct

Input Watts (W): 45.5
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-LD4-40-2LO-P125-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241395

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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	96	92	103	98	94	90	93	89	86	87	85	82	83	81	79	76
2	96	87	80	74	93	85	78	73	80	75	70	76	71	67	72	68	65	62
3	87	76	68	61	84	74	66	60	70	64	58	67	61	56	63	59	55	52
4	80	67	58	51	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	42	53	46	41	50	45	40	38
6	68	54	45	38	65	53	44	38	50	43	37	48	41	36	46	40	35	33
7	63	49	40	34	60	48	39	33	46	38	33	44	37	32	42	36	31	29
8	58	45	36	30	56	44	35	30	42	34	29	40	33	29	38	32	28	26
9	54	41	33	27	53	40	32	27	38	31	26	37	30	26	35	30	25	23
10	51	38	30	24	49	37	29	24	35	29	24	34	28	23	33	27	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9133	9133	9133
5°	8790	8664	8697
10°	8200	7869	7837
15°	7797	7357	7304
20°	7524	7046	6928
25°	7300	6800	6622
30°	7142	6613	6420
35°	6987	6446	6198
40°	6880	6332	6178
45°	6770	6338	6220
50°	6648	6243	6061
55°	6457	6058	5925
60°	6225	5909	5681
65°	5885	5523	5268
70°	5454	5109	4791
75°	4757	4560	4308
80°	3678	3848	3934
85°	2055	3001	3778



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.4	3.2
10°-20°	475.0	8.4
20°-30°	692.7	12.2
30°-40°	834.6	14.7
40°-50°	905.2	16.0
50°-60°	862.7	15.2
60°-70°	695.6	12.3
70°-80°	444.9	7.8
80°-90°	198.9	3.5
90°-100°	110.4	1.9
100°-110°	80.5	1.4
110°-120°	63.4	1.1
120°-130°	56.2	1.0
130°-140°	41.0	0.7
140°-150°	22.2	0.4
150°-160°	7.9	0.1
160°-170°	1.3	0.0
170°-180°	0.0	0.0
0°-30°	1350.1	23.8
0°-40°	2184.8	38.5
0°-60°	3952.7	69.7
0°-90°	5292.1	93.3
90°-120°	254.2	4.5
90°-150°	373.6	6.6
90°-180°	383.0	6.7
0°-180°	5675.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2044	2044	2044	2044	2044	
5°	1966	1966	1963	1977	1977	183
15°	1703	1697	1670	1676	1674	481
25°	1507	1509	1500	1496	1484	695
35°	1316	1335	1336	1331	1316	824
45°	1113	1147	1191	1210	1206	859
55°	875	933	985	1007	1006	782
65°	603	671	732	740	739	598
75°	316	376	449	471	460	334
85°	58	110	184	232	264	72
90°	1	54	117	166	247	3
95°	1	48	106	152	194	0
105°	1	40	90	113	112	1
115°	1	35	77	92	98	1
125°	1	29	73	97	108	1
135°	1	20	59	86	98	1
145°	1	8	37	60	68	1
155°	1	2	15	30	35	1
165°	2	1	2	6	9	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°	2043.5	2043.5	2043.5	2043.5	2043.5	2043.5	2043.5	2043.5	2043.5	2043.5	2043.5
2.5°	2027.6	2027.6	2027.6	2024.6	2024.6	2028.2	2028.2	2030.1	2027.0	2023.9	2021.5
5°	1965.9	1964.1	1959.8	1960.5	1962.9	1965.9	1965.3	1970.8	1969.0	1965.3	1962.9
7.5°	1892.7	1889.0	1887.2	1887.2	1885.4	1888.4	1886.6	1890.8	1887.2	1884.1	1883.5
10°	1819.4	1819.4	1819.4	1814.5	1815.1	1814.5	1810.9	1808.4	1805.4	1795.6	1791.3
12.5°	1762.0	1760.8	1755.9	1752.3	1752.3	1749.8	1750.4	1745.5	1737.6	1726.0	1721.1
15°	1702.8	1704.6	1702.8	1697.3	1698.5	1696.7	1694.9	1688.8	1685.1	1673.5	1669.8
17.5°	1648.5	1653.3	1649.7	1643.6	1641.7	1640.5	1641.1	1638.7	1631.4	1626.5	1622.8
20°	1604.5	1603.3	1600.2	1595.3	1600.2	1598.4	1598.4	1596.0	1591.7	1586.2	1582.5
22.5°	1553.2	1554.4	1550.8	1550.8	1553.8	1555.7	1552.0	1550.8	1547.7	1541.0	1538.6
25°	1507.4	1508.6	1506.2	1505.0	1507.4	1509.3	1509.3	1509.3	1506.8	1502.5	1499.5
27.5°	1459.2	1463.5	1460.4	1460.4	1465.3	1469.0	1470.8	1467.7	1466.5	1461.6	1459.8
30°	1415.2	1411.0	1412.8	1419.5	1422.0	1426.2	1429.3	1429.9	1423.8	1422.0	1420.1
32.5°	1365.2	1367.0	1363.3	1370.7	1380.4	1385.3	1385.3	1384.1	1382.3	1381.7	1380.4
35°	1315.7	1316.9	1318.2	1327.3	1332.2	1335.3	1340.1	1344.4	1341.4	1338.3	1336.5
37.5°	1266.3	1268.7	1271.1	1277.9	1284.0	1290.1	1295.6	1301.7	1300.5	1296.2	1298.0
40°	1218.0	1221.1	1219.9	1224.1	1241.2	1247.3	1249.8	1255.3	1255.9	1250.4	1255.9
42.5°	1168.0	1168.0	1167.4	1180.8	1191.2	1197.3	1197.9	1210.1	1215.0	1219.9	1226.0
45°	1113.0	1114.2	1119.7	1128.9	1138.1	1147.2	1156.4	1170.4	1175.9	1183.2	1190.6
47.5°	1056.8	1057.5	1066.6	1072.7	1091.6	1102.0	1109.4	1116.7	1125.8	1133.8	1144.8
50°	1000.7	1003.1	1003.1	1022.7	1037.9	1042.2	1048.9	1060.5	1078.2	1089.2	1098.4
52.5°	936.0	942.1	946.3	962.2	974.4	984.2	995.8	1015.9	1028.8	1038.5	1047.1
55°	874.9	871.9	888.9	893.8	919.5	932.9	941.5	955.5	963.4	974.4	985.4
57.5°	812.6	812.0	821.8	835.2	862.7	868.8	871.2	888.3	909.7	925.6	936.0
60°	743.6	746.7	752.8	777.8	789.4	795.5	808.4	835.2	850.5	867.0	875.5
62.5°	675.9	676.5	693.6	707.0	722.3	737.5	751.0	766.2	774.8	789.4	799.2
65°	603.2	606.9	625.2	634.4	663.0	671.0	675.9	691.1	705.2	722.9	732.0
67.5°	534.2	537.9	552.5	564.1	589.2	591.6	600.2	623.4	645.3	658.8	667.9
70°	462.2	468.9	475.6	497.0	510.4	519.6	531.8	557.4	565.4	581.2	592.2
72.5°	389.5	395.6	403.0	420.1	437.1	447.5	461.6	476.2	485.4	500.0	519.0
75°	315.7	321.8	332.1	346.2	365.1	375.5	382.8	396.2	418.2	435.3	448.7
77.5°	241.8	245.4	260.1	272.3	294.9	301.6	312.0	328.5	349.2	366.3	378.5
80°	174.6	179.5	189.3	203.9	221.0	231.4	239.3	259.5	280.2	292.4	308.3
82.5°	111.1	116.0	127.6	142.3	157.5	166.7	177.1	196.0	213.7	226.5	241.8
85°	58.0	62.3	73.3	88.5	102.0	110.5	120.9	139.8	153.2	169.1	183.8
87.5°	18.3	23.2	34.2	48.8	64.1	72.0	80.6	98.3	111.7	127.6	141.0
90°	0.6	4.9	15.9	29.9	45.8	53.7	61.7	76.9	91.0	104.4	117.2
92.5°	0.6	4.3	14.7	28.1	42.7	50.1	57.4	71.4	85.5	98.3	109.3
95°	0.6	3.7	13.4	26.9	40.9	47.6	54.9	68.4	81.8	94.0	105.6
97.5°	0.6	3.7	12.8	25.0	38.5	45.2	52.5	65.9	78.8	90.4	102.0
100°	0.6	3.1	11.6	23.8	36.6	43.3	50.1	63.5	75.7	87.3	97.7
102.5°	0.6	2.4	11.0	22.6	35.4	41.5	48.2	61.1	72.7	84.3	94.0
105°	0.6	2.4	9.8	21.4	34.2	40.3	47.0	59.2	70.8	81.2	90.4
107.5°	0.6	1.8	9.2	20.1	33.0	39.1	45.8	57.4	68.4	78.1	86.7
110°	0.6	1.8	8.5	19.5	31.7	37.9	44.0	56.2	66.5	75.7	82.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.6	1.2	7.9	18.3	30.5	36.6	42.7	54.3	64.7	72.7	79.4
115°	0.6	1.2	7.3	17.7	29.3	35.4	41.5	52.5	62.3	70.8	76.9
117.5°	0.6	0.6	6.7	16.5	28.1	33.6	39.7	51.3	61.1	69.0	75.7
120°	0.6	0.6	5.5	15.3	26.3	32.4	38.5	49.5	59.8	68.4	75.7
122.5°	0.6	0.6	4.9	14.0	25.0	31.1	36.6	47.6	58.0	67.2	74.5
125°	0.6	0.6	4.3	12.8	23.2	29.3	34.8	45.8	56.2	65.3	72.7
127.5°	0.6	0.6	3.7	11.6	21.4	26.9	33.0	43.3	53.7	62.3	70.2
130°	0.6	0.6	2.4	9.8	19.5	25.0	30.5	40.9	50.7	59.2	67.2
132.5°	1.2	0.6	1.8	8.5	17.7	22.6	27.5	37.9	47.6	55.6	63.5
135°	1.2	0.6	1.2	6.7	15.3	19.5	24.4	33.6	43.3	51.9	59.2
137.5°	1.2	1.2	1.2	5.5	12.8	16.5	20.8	29.9	38.5	47.0	54.9
140°	1.2	1.2	0.6	4.3	10.4	14.0	17.7	25.6	33.6	41.5	49.5
142.5°	1.2	1.2	0.6	3.1	7.9	11.0	14.7	21.4	29.3	36.6	43.3
145°	1.2	1.2	0.6	1.8	6.1	8.5	11.6	17.7	24.4	30.5	37.2
147.5°	1.2	1.2	0.6	1.2	4.3	6.7	8.5	14.0	19.5	25.0	30.5
150°	1.2	1.2	0.6	1.2	3.1	4.3	6.7	11.0	15.3	20.1	25.0
152.5°	1.2	1.2	1.2	0.6	1.8	3.1	4.9	7.9	12.2	15.9	20.1
155°	1.2	1.2	1.2	0.6	1.2	1.8	3.1	5.5	8.5	12.2	15.3
157.5°	1.8	1.2	1.2	0.6	0.6	1.2	1.8	3.7	6.1	8.5	11.0
160°	1.8	1.2	1.2	0.6	0.6	0.6	1.2	1.8	3.7	5.5	7.3
162.5°	1.8	1.8	1.2	0.6	0.6	0.6	0.6	1.2	1.8	3.1	4.3
165°	1.8	1.8	1.2	1.2	0.6	0.6	0.6	0.6	0.6	1.2	1.8
167.5°	1.8	1.8	1.2	1.2	0.6	0.6	0.6	0.6	0.6	0.6	0.6
170°	1.8	1.8	1.2	1.2	0.6	0.6	0.6	0.6	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	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°	2043.5	2043.5	2043.5	2043.5	2043.5	2043.5	2043.5	2043.5	2043.5	2043.5
2.5°	2021.5	2028.2	2033.1	2034.9	2035.5	2034.3	2036.8	2037.4	2036.8	2034.9
5°	1963.5	1970.2	1975.7	1977.5	1976.9	1979.4	1978.2	1978.8	1978.2	1976.9
7.5°	1876.8	1878.6	1881.1	1878.0	1881.7	1882.3	1877.4	1880.5	1881.7	1884.7
10°	1791.3	1792.6	1794.4	1793.2	1794.4	1794.4	1794.4	1795.0	1797.4	1795.6
12.5°	1720.5	1722.9	1729.7	1727.8	1730.9	1734.6	1730.3	1727.2	1731.5	1724.2
15°	1671.1	1672.9	1674.1	1672.3	1675.9	1674.1	1672.9	1669.8	1673.5	1674.1
17.5°	1624.7	1623.4	1627.7	1624.0	1624.7	1623.4	1622.8	1618.5	1617.3	1622.2
20°	1583.1	1580.1	1577.0	1579.5	1582.5	1580.1	1579.5	1576.4	1577.0	1576.4
22.5°	1537.3	1541.0	1543.5	1542.8	1539.8	1541.0	1536.7	1531.9	1531.2	1528.2
25°	1500.7	1501.9	1500.7	1500.7	1496.4	1494.6	1496.4	1491.6	1486.7	1484.2
27.5°	1461.0	1461.6	1461.6	1456.8	1455.5	1454.3	1450.0	1446.4	1442.7	1439.7
30°	1417.7	1421.3	1417.1	1419.5	1418.3	1414.0	1411.0	1406.1	1402.4	1406.1
32.5°	1379.8	1377.4	1377.4	1375.6	1374.3	1375.6	1369.4	1361.5	1357.8	1358.5
35°	1337.1	1337.1	1339.5	1335.3	1331.0	1329.8	1324.3	1322.4	1315.1	1315.7
37.5°	1298.0	1296.8	1298.0	1296.8	1294.3	1293.7	1283.4	1285.2	1283.4	1278.5
40°	1263.2	1267.5	1268.7	1260.8	1263.8	1266.3	1258.9	1260.2	1257.1	1259.5
42.5°	1233.9	1237.0	1241.8	1240.6	1238.2	1235.1	1240.6	1242.5	1239.4	1243.1
45°	1199.1	1204.6	1205.2	1210.7	1210.1	1207.7	1208.3	1206.4	1203.4	1206.4
47.5°	1152.1	1156.4	1160.0	1160.6	1164.9	1164.9	1160.6	1162.5	1166.1	1157.6
50°	1105.7	1107.5	1111.8	1109.4	1111.2	1113.6	1112.4	1107.5	1107.5	1106.3
52.5°	1054.4	1058.7	1059.3	1060.5	1059.9	1054.4	1055.6	1055.6	1051.4	1053.2
55°	997.0	1006.8	1010.4	1008.0	1007.4	1009.2	1005.0	1012.3	1005.0	1005.6
57.5°	943.3	945.1	950.0	950.6	948.8	953.1	951.2	950.6	948.8	952.4
60°	881.6	883.5	883.5	879.8	884.7	879.8	881.6	880.4	885.9	884.1
62.5°	807.7	812.6	816.9	810.2	810.8	809.0	808.4	808.4	813.2	815.1
65°	738.1	737.5	743.6	739.4	740.0	741.2	733.9	738.1	738.1	739.4
67.5°	675.3	674.0	671.6	669.8	669.2	668.5	666.7	663.0	665.5	667.3
70°	599.6	606.9	603.2	603.2	602.0	600.8	603.2	591.6	593.4	594.1
72.5°	528.1	531.8	537.3	539.7	537.9	534.8	532.4	528.1	523.2	524.5
75°	457.3	461.0	468.3	470.1	470.7	468.9	470.1	466.5	464.0	459.7
77.5°	388.9	395.0	399.3	406.6	406.6	407.2	410.3	409.1	405.4	406.6
80°	318.1	324.8	334.0	341.9	345.0	346.2	347.4	346.8	348.0	348.6
82.5°	251.5	268.0	272.9	281.5	285.1	286.3	292.4	294.9	296.7	300.4
85°	197.2	208.8	220.4	228.3	232.0	235.1	241.2	249.1	258.9	263.8
87.5°	153.9	164.2	175.2	185.0	191.1	196.0	205.8	221.6	239.3	250.3
90°	128.2	139.2	150.8	160.6	166.1	171.6	186.2	206.4	232.6	246.7
92.5°	120.3	131.9	141.6	152.0	157.5	163.6	178.9	197.2	213.7	219.2
95°	116.6	127.6	136.2	145.9	152.0	158.1	170.3	181.9	190.5	193.5
97.5°	112.3	122.1	130.7	140.4	144.7	149.6	160.0	169.1	175.8	178.9
100°	107.5	116.6	123.9	131.9	134.9	139.2	148.4	155.1	158.1	156.3
102.5°	103.2	109.9	116.6	122.1	124.6	127.6	132.5	133.7	133.1	131.3
105°	97.7	103.8	108.1	111.1	113.0	114.2	115.4	114.8	113.6	111.7
107.5°	92.8	97.1	100.1	100.7	102.0	102.6	103.2	102.0	100.1	99.5
110°	87.9	91.6	93.4	94.0	94.0	94.6	95.2	95.2	94.0	93.4



TEST NUMBER: P241395

CATALOG NUMBER: FVS8M-4-LD4-40-2LO-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	84.3	87.3	89.1	90.4	91.0	91.6	93.4	94.6	94.0	94.0
115°	81.8	85.5	88.5	90.4	91.6	92.8	95.9	97.7	98.3	98.3
117.5°	81.2	86.1	89.7	92.8	94.0	95.9	98.9	101.3	102.0	102.0
120°	81.8	86.7	91.0	94.6	96.5	98.3	101.3	103.8	105.0	105.6
122.5°	81.2	86.7	91.6	95.9	97.7	99.5	102.6	105.6	106.8	106.8
125°	79.4	85.5	90.4	95.2	97.1	98.9	102.6	105.6	107.5	107.5
127.5°	76.9	83.0	88.5	93.4	95.2	97.7	101.3	104.4	106.8	106.8
130°	73.9	80.6	86.1	91.0	92.8	95.2	98.9	102.6	104.4	105.0
132.5°	70.2	76.9	82.4	87.3	89.7	91.6	95.9	99.5	101.3	102.6
135°	66.5	72.7	78.1	83.6	85.5	87.9	91.6	94.6	97.1	98.3
137.5°	61.7	67.8	73.3	78.1	80.0	82.4	86.1	89.1	91.6	92.2
140°	56.2	62.3	67.8	72.0	74.5	76.3	80.0	82.4	84.3	84.9
142.5°	50.1	56.2	61.1	65.3	67.2	69.0	72.0	74.5	76.3	76.9
145°	43.3	49.5	53.7	58.0	59.8	61.1	64.1	65.9	68.4	68.4
147.5°	36.6	42.1	47.0	50.7	51.9	53.7	56.2	58.0	58.6	59.2
150°	29.9	34.8	39.7	43.3	44.6	45.8	47.6	49.5	50.7	50.7
152.5°	23.8	28.1	32.4	36.6	37.2	38.5	40.3	41.5	42.7	42.7
155°	18.9	22.0	25.0	28.7	30.5	31.7	33.0	34.2	34.8	34.8
157.5°	14.0	16.5	18.9	22.0	23.2	25.0	26.3	26.9	27.5	28.1
160°	9.2	11.6	13.4	15.9	17.1	18.3	19.5	20.8	21.4	21.4
162.5°	5.5	7.3	8.5	10.4	11.0	11.6	14.0	14.7	14.7	14.7
165°	3.1	3.7	4.9	5.5	6.1	6.7	7.9	9.2	9.2	9.2
167.5°	0.6	1.2	1.8	1.8	2.4	2.4	3.1	4.3	4.3	4.3
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6
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)