

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: P241394

Luminaire Tested: **FVS8M-4-LD4-35-2LO-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241394
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-LD4-35-2LO-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
4FT LENGTH, 2-MODULE LED WITH P125 LENS
Light Source: (168) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

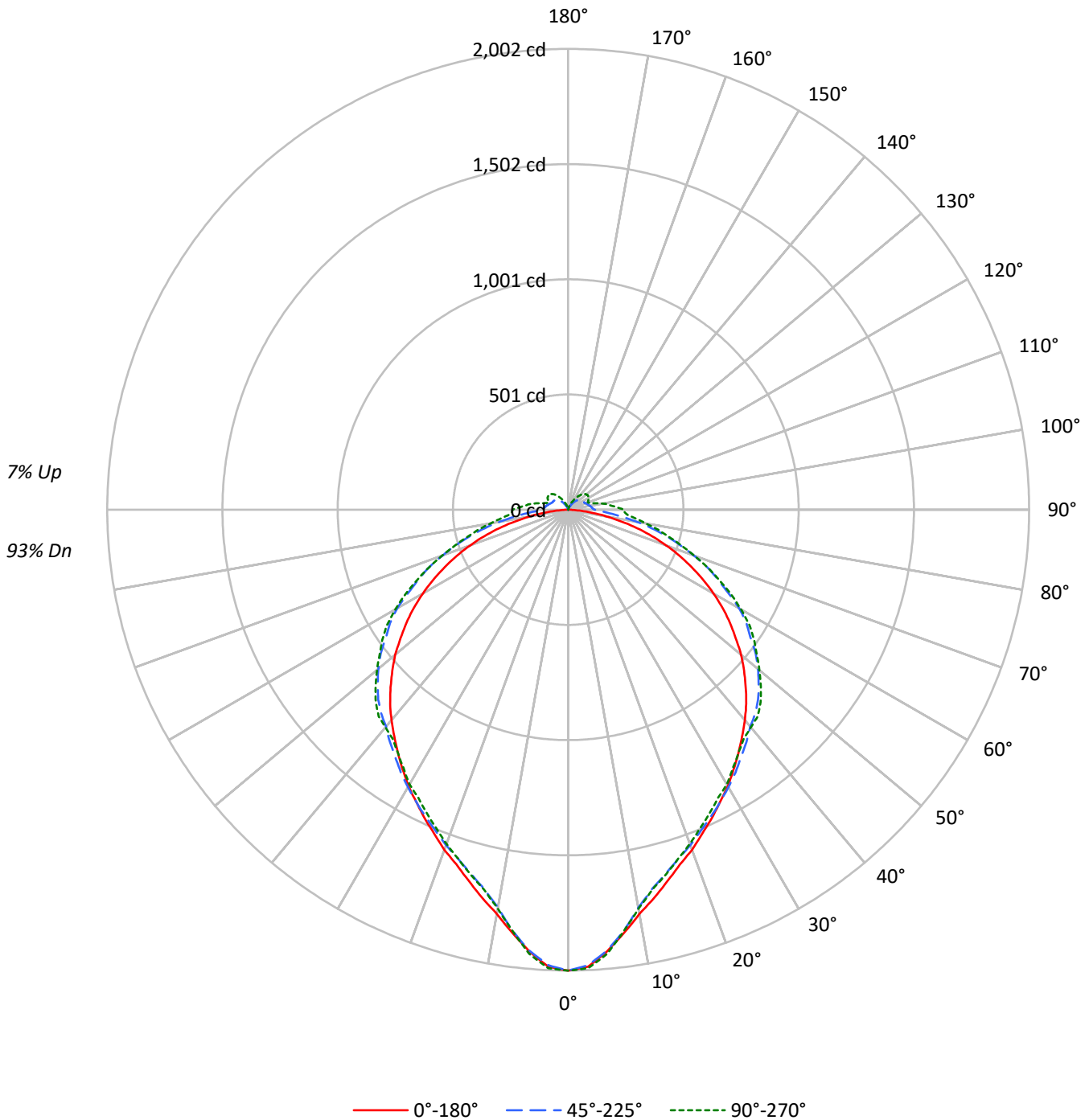
Lumens per Lamp: N/A
Luminaire Lumens: 5561.0 lumens
Efficiency: N/A
Efficacy: 122.2 lumens/watt
Spacing Criteria (0/90/45): 1.04 / 1.02 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')
CIE Type: Direct

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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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	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°	8949	8949	8949
5°	8613	8490	8523
10°	8036	7711	7679
15°	7640	7209	7157
20°	7373	6905	6789
25°	7154	6664	6489
30°	6999	6481	6290
35°	6847	6317	6074
40°	6743	6205	6054
45°	6634	6210	6096
50°	6514	6118	5939
55°	6327	5936	5806
60°	6100	5790	5566
65°	5767	5412	5162
70°	5344	5006	4694
75°	4661	4469	4222
80°	3604	3770	3855
85°	2013	2940	3702



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.7	3.2
10°-20°	465.5	8.4
20°-30°	678.8	12.2
30°-40°	817.9	14.7
40°-50°	887.0	16.0
50°-60°	845.4	15.2
60°-70°	681.6	12.3
70°-80°	435.9	7.8
80°-90°	194.9	3.5
90°-100°	108.1	1.9
100°-110°	78.8	1.4
110°-120°	62.1	1.1
120°-130°	55.0	1.0
130°-140°	40.2	0.7
140°-150°	21.8	0.4
150°-160°	7.8	0.1
160°-170°	1.3	0.0
170°-180°	0.0	0.0
0°-30°	1323.0	23.8
0°-40°	2140.9	38.5
0°-60°	3873.3	69.7
0°-90°	5185.8	93.3
90°-120°	249.1	4.5
90°-150°	366.2	6.6
90°-180°	375.0	6.7
0°-180°	5561.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2002	2002	2002	2002	2002	
5°	1926	1926	1924	1937	1937	179
15°	1669	1663	1636	1642	1640	471
25°	1477	1479	1469	1466	1454	681
35°	1289	1308	1310	1304	1289	808
45°	1091	1124	1167	1186	1182	841
55°	857	914	966	987	985	766
65°	591	658	717	725	724	586
75°	309	368	440	461	450	327
85°	57	108	180	227	258	71
90°	1	53	115	163	242	3
95°	1	47	104	149	190	0
105°	1	40	88	111	110	1
115°	1	35	75	90	96	1
125°	1	29	71	95	105	1
135°	1	19	58	84	96	1
145°	1	8	36	59	67	1
155°	1	2	15	30	34	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°	2002.4	2002.4	2002.4	2002.4	2002.4	2002.4	2002.4	2002.4	2002.4	2002.4	2002.4
2.5°	1986.9	1986.9	1986.9	1983.9	1983.9	1987.5	1987.5	1989.3	1986.3	1983.3	1980.9
5°	1926.5	1924.7	1920.5	1921.1	1923.5	1926.5	1925.9	1931.2	1929.4	1925.9	1923.5
7.5°	1854.7	1851.1	1849.3	1849.3	1847.5	1850.5	1848.7	1852.9	1849.3	1846.3	1845.7
10°	1782.9	1782.9	1782.9	1778.1	1778.7	1778.1	1774.5	1772.1	1769.1	1759.5	1755.3
12.5°	1726.6	1725.4	1720.6	1717.1	1717.1	1714.7	1715.3	1710.5	1702.7	1691.3	1686.5
15°	1668.6	1670.4	1668.6	1663.2	1664.4	1662.6	1660.8	1654.8	1651.2	1639.9	1636.3
17.5°	1615.3	1620.1	1616.5	1610.6	1608.8	1607.6	1608.2	1605.8	1598.6	1593.8	1590.2
20°	1572.3	1571.1	1568.1	1563.3	1568.1	1566.3	1566.3	1563.9	1559.7	1554.3	1550.7
22.5°	1522.0	1523.2	1519.6	1519.6	1522.6	1524.4	1520.8	1519.6	1516.6	1510.1	1507.7
25°	1477.1	1478.3	1476.0	1474.8	1477.1	1478.9	1478.9	1478.9	1476.5	1472.4	1469.4
27.5°	1429.9	1434.1	1431.1	1431.1	1435.9	1439.5	1441.3	1438.3	1437.1	1432.3	1430.5
30°	1386.8	1382.6	1384.4	1391.0	1393.4	1397.6	1400.6	1401.2	1395.2	1393.4	1391.6
32.5°	1337.7	1339.5	1336.0	1343.1	1352.7	1357.5	1357.5	1356.3	1354.5	1353.9	1352.7
35°	1289.3	1290.5	1291.7	1300.7	1305.4	1308.4	1313.2	1317.4	1314.4	1311.4	1309.6
37.5°	1240.8	1243.2	1245.6	1252.2	1258.2	1264.2	1269.5	1275.5	1274.3	1270.1	1271.9
40°	1193.6	1196.6	1195.4	1199.5	1216.3	1222.3	1224.7	1230.1	1230.7	1225.3	1230.7
42.5°	1144.5	1144.5	1143.9	1157.1	1167.2	1173.2	1173.8	1185.8	1190.6	1195.4	1201.3
45°	1090.7	1091.9	1097.2	1106.2	1115.2	1124.2	1133.1	1146.9	1152.3	1159.5	1166.6
47.5°	1035.6	1036.2	1045.2	1051.2	1069.7	1079.9	1087.1	1094.2	1103.2	1111.0	1121.8
50°	980.6	983.0	983.0	1002.1	1017.1	1021.3	1027.8	1039.2	1056.6	1067.3	1076.3
52.5°	917.2	923.1	927.3	942.9	954.9	964.4	975.8	995.5	1008.1	1017.7	1026.0
55°	857.3	854.3	871.1	875.9	901.0	914.2	922.5	936.3	944.1	954.9	965.6
57.5°	796.3	795.7	805.3	818.4	845.4	851.3	853.7	870.5	891.4	907.0	917.2
60°	728.7	731.7	737.7	762.2	773.6	779.6	792.1	818.4	833.4	849.6	857.9
62.5°	662.3	662.9	679.6	692.8	707.8	722.7	735.9	750.8	759.2	773.6	783.1
65°	591.1	594.7	612.6	621.6	649.7	657.5	662.3	677.3	691.0	708.4	717.3
67.5°	523.5	527.1	541.4	552.8	577.3	579.7	588.1	610.8	632.4	645.5	654.5
70°	452.9	459.5	466.1	487.0	500.2	509.1	521.1	546.2	554.0	569.6	580.3
72.5°	381.7	387.7	394.9	411.6	428.4	438.5	452.3	466.7	475.6	490.0	508.5
75°	309.3	315.3	325.5	339.2	357.8	367.9	375.1	388.3	409.8	426.6	439.7
77.5°	236.9	240.5	254.9	266.8	289.0	295.5	305.7	321.9	342.2	359.0	370.9
80°	171.1	175.9	185.5	199.8	216.6	226.7	234.5	254.3	274.6	286.6	302.1
82.5°	108.9	113.7	125.0	139.4	154.4	163.3	173.5	192.0	209.4	222.0	236.9
85°	56.8	61.0	71.8	86.8	99.9	108.3	118.5	137.0	150.2	165.7	180.1
87.5°	17.9	22.7	33.5	47.9	62.8	70.6	79.0	96.3	109.5	125.0	138.2
90°	0.6	4.8	15.6	29.3	44.9	52.6	60.4	75.4	89.1	102.3	114.9
92.5°	0.6	4.2	14.4	27.5	41.9	49.1	56.2	70.0	83.8	96.3	107.1
95°	0.6	3.6	13.2	26.3	40.1	46.7	53.8	67.0	80.2	92.1	103.5
97.5°	0.6	3.6	12.6	24.5	37.7	44.3	51.5	64.6	77.2	88.5	99.9
100°	0.6	3.0	11.4	23.3	35.9	42.5	49.1	62.2	74.2	85.6	95.7
102.5°	0.6	2.4	10.8	22.1	34.7	40.7	47.3	59.8	71.2	82.6	92.1
105°	0.6	2.4	9.6	20.9	33.5	39.5	46.1	58.0	69.4	79.6	88.5
107.5°	0.6	1.8	9.0	19.7	32.3	38.3	44.9	56.2	67.0	76.6	85.0
110°	0.6	1.8	8.4	19.1	31.1	37.1	43.1	55.0	65.2	74.2	80.8



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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	7.8	17.9	29.9	35.9	41.9	53.2	63.4	71.2	77.8
115°	0.6	1.2	7.2	17.4	28.7	34.7	40.7	51.5	61.0	69.4	75.4
117.5°	0.6	0.6	6.6	16.2	27.5	32.9	38.9	50.3	59.8	67.6	74.2
120°	0.6	0.6	5.4	15.0	25.7	31.7	37.7	48.5	58.6	67.0	74.2
122.5°	0.6	0.6	4.8	13.8	24.5	30.5	35.9	46.7	56.8	65.8	73.0
125°	0.6	0.6	4.2	12.6	22.7	28.7	34.1	44.9	55.0	64.0	71.2
127.5°	0.6	0.6	3.6	11.4	20.9	26.3	32.3	42.5	52.6	61.0	68.8
130°	0.6	0.6	2.4	9.6	19.1	24.5	29.9	40.1	49.7	58.0	65.8
132.5°	1.2	0.6	1.8	8.4	17.4	22.1	26.9	37.1	46.7	54.4	62.2
135°	1.2	0.6	1.2	6.6	15.0	19.1	23.9	32.9	42.5	50.9	58.0
137.5°	1.2	1.2	1.2	5.4	12.6	16.2	20.3	29.3	37.7	46.1	53.8
140°	1.2	1.2	0.6	4.2	10.2	13.8	17.4	25.1	32.9	40.7	48.5
142.5°	1.2	1.2	0.6	3.0	7.8	10.8	14.4	20.9	28.7	35.9	42.5
145°	1.2	1.2	0.6	1.8	6.0	8.4	11.4	17.4	23.9	29.9	36.5
147.5°	1.2	1.2	0.6	1.2	4.2	6.6	8.4	13.8	19.1	24.5	29.9
150°	1.2	1.2	0.6	1.2	3.0	4.2	6.6	10.8	15.0	19.7	24.5
152.5°	1.2	1.2	1.2	0.6	1.8	3.0	4.8	7.8	12.0	15.6	19.7
155°	1.2	1.2	1.2	0.6	1.2	1.8	3.0	5.4	8.4	12.0	15.0
157.5°	1.8	1.2	1.2	0.6	0.6	1.2	1.8	3.6	6.0	8.4	10.8
160°	1.8	1.2	1.2	0.6	0.6	0.6	1.2	1.8	3.6	5.4	7.2
162.5°	1.8	1.8	1.2	0.6	0.6	0.6	0.6	1.2	1.8	3.0	4.2
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°	2002.4	2002.4	2002.4	2002.4	2002.4	2002.4	2002.4	2002.4	2002.4	2002.4
2.5°	1980.9	1987.5	1992.3	1994.1	1994.7	1993.5	1995.9	1996.5	1995.9	1994.1
5°	1924.1	1930.6	1936.0	1937.8	1937.2	1939.6	1938.4	1939.0	1938.4	1937.2
7.5°	1839.1	1840.9	1843.3	1840.3	1843.9	1844.5	1839.7	1842.7	1843.9	1846.9
10°	1755.3	1756.5	1758.3	1757.1	1758.3	1758.3	1758.3	1758.9	1761.3	1759.5
12.5°	1685.9	1688.3	1694.9	1693.1	1696.1	1699.7	1695.5	1692.5	1696.7	1689.5
15°	1637.5	1639.3	1640.5	1638.7	1642.3	1640.5	1639.3	1636.3	1639.9	1640.5
17.5°	1592.0	1590.8	1595.0	1591.4	1592.0	1590.8	1590.2	1586.0	1584.8	1589.6
20°	1551.3	1548.3	1545.4	1547.7	1550.7	1548.3	1547.7	1544.8	1545.4	1544.8
22.5°	1506.5	1510.1	1512.4	1511.8	1508.9	1510.1	1505.9	1501.1	1500.5	1497.5
25°	1470.6	1471.8	1470.6	1470.6	1466.4	1464.6	1466.4	1461.6	1456.8	1454.4
27.5°	1431.7	1432.3	1432.3	1427.5	1426.3	1425.1	1420.9	1417.3	1413.7	1410.7
30°	1389.2	1392.8	1388.6	1391.0	1389.8	1385.6	1382.6	1377.8	1374.2	1377.8
32.5°	1352.1	1349.7	1349.7	1347.9	1346.7	1347.9	1341.9	1334.2	1330.6	1331.2
35°	1310.2	1310.2	1312.6	1308.4	1304.2	1303.0	1297.7	1295.9	1288.7	1289.3
37.5°	1271.9	1270.7	1271.9	1270.7	1268.3	1267.8	1257.6	1259.4	1257.6	1252.8
40°	1237.8	1242.0	1243.2	1235.4	1238.4	1240.8	1233.6	1234.8	1231.9	1234.2
42.5°	1209.1	1212.1	1216.9	1215.7	1213.3	1210.3	1215.7	1217.5	1214.5	1218.1
45°	1175.0	1180.4	1181.0	1186.4	1185.8	1183.4	1184.0	1182.2	1179.2	1182.2
47.5°	1128.9	1133.1	1136.7	1137.3	1141.5	1141.5	1137.3	1139.1	1142.7	1134.3
50°	1083.5	1085.3	1089.5	1087.1	1088.9	1091.3	1090.1	1085.3	1085.3	1084.1
52.5°	1033.2	1037.4	1038.0	1039.2	1038.6	1033.2	1034.4	1034.4	1030.2	1032.0
55°	977.0	986.6	990.1	987.8	987.2	989.0	984.8	991.9	984.8	985.4
57.5°	924.3	926.1	930.9	931.5	929.7	933.9	932.1	931.5	929.7	933.3
60°	863.9	865.7	865.7	862.1	866.9	862.1	863.9	862.7	868.1	866.3
62.5°	791.5	796.3	800.5	793.9	794.5	792.7	792.1	792.1	796.9	798.7
65°	723.3	722.7	728.7	724.5	725.1	726.3	719.1	723.3	723.3	724.5
67.5°	661.7	660.5	658.1	656.3	655.7	655.1	653.3	649.7	652.1	653.9
70°	587.5	594.7	591.1	591.1	589.9	588.7	591.1	579.7	581.5	582.1
72.5°	517.5	521.1	526.5	528.9	527.1	524.1	521.7	517.5	512.7	513.9
75°	448.1	451.7	458.9	460.7	461.3	459.5	460.7	457.1	454.7	450.5
77.5°	381.1	387.1	391.3	398.5	398.5	399.1	402.0	400.8	397.3	398.5
80°	311.7	318.3	327.3	335.0	338.0	339.2	340.4	339.8	341.0	341.6
82.5°	246.5	262.6	267.4	275.8	279.4	280.6	286.6	289.0	290.8	294.4
85°	193.2	204.6	216.0	223.8	227.3	230.3	236.3	244.1	253.7	258.5
87.5°	150.8	160.9	171.7	181.3	187.3	192.0	201.6	217.2	234.5	245.3
90°	125.6	136.4	147.8	157.3	162.7	168.1	182.5	202.2	227.9	241.7
92.5°	117.9	129.2	138.8	149.0	154.4	160.3	175.3	193.2	209.4	214.8
95°	114.3	125.0	133.4	143.0	149.0	155.0	166.9	178.3	186.7	189.7
97.5°	110.1	119.7	128.0	137.6	141.8	146.6	156.7	165.7	172.3	175.3
100°	105.3	114.3	121.5	129.2	132.2	136.4	145.4	152.0	155.0	153.2
102.5°	101.1	107.7	114.3	119.7	122.0	125.0	129.8	131.0	130.4	128.6
105°	95.7	101.7	105.9	108.9	110.7	111.9	113.1	112.5	111.3	109.5
107.5°	90.9	95.1	98.1	98.7	99.9	100.5	101.1	99.9	98.1	97.5
110°	86.2	89.7	91.5	92.1	92.1	92.7	93.3	93.3	92.1	91.5



TEST NUMBER: P241394

CATALOG NUMBER: FVS8M-4-LD4-35-2LO-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	82.6	85.6	87.3	88.5	89.1	89.7	91.5	92.7	92.1	92.1
115°	80.2	83.8	86.8	88.5	89.7	90.9	93.9	95.7	96.3	96.3
117.5°	79.6	84.4	87.9	90.9	92.1	93.9	96.9	99.3	99.9	99.9
120°	80.2	85.0	89.1	92.7	94.5	96.3	99.3	101.7	102.9	103.5
122.5°	79.6	85.0	89.7	93.9	95.7	97.5	100.5	103.5	104.7	104.7
125°	77.8	83.8	88.5	93.3	95.1	96.9	100.5	103.5	105.3	105.3
127.5°	75.4	81.4	86.8	91.5	93.3	95.7	99.3	102.3	104.7	104.7
130°	72.4	79.0	84.4	89.1	90.9	93.3	96.9	100.5	102.3	102.9
132.5°	68.8	75.4	80.8	85.6	87.9	89.7	93.9	97.5	99.3	100.5
135°	65.2	71.2	76.6	82.0	83.8	86.2	89.7	92.7	95.1	96.3
137.5°	60.4	66.4	71.8	76.6	78.4	80.8	84.4	87.3	89.7	90.3
140°	55.0	61.0	66.4	70.6	73.0	74.8	78.4	80.8	82.6	83.2
142.5°	49.1	55.0	59.8	64.0	65.8	67.6	70.6	73.0	74.8	75.4
145°	42.5	48.5	52.6	56.8	58.6	59.8	62.8	64.6	67.0	67.0
147.5°	35.9	41.3	46.1	49.7	50.9	52.6	55.0	56.8	57.4	58.0
150°	29.3	34.1	38.9	42.5	43.7	44.9	46.7	48.5	49.7	49.7
152.5°	23.3	27.5	31.7	35.9	36.5	37.7	39.5	40.7	41.9	41.9
155°	18.5	21.5	24.5	28.1	29.9	31.1	32.3	33.5	34.1	34.1
157.5°	13.8	16.2	18.5	21.5	22.7	24.5	25.7	26.3	26.9	27.5
160°	9.0	11.4	13.2	15.6	16.8	17.9	19.1	20.3	20.9	20.9
162.5°	5.4	7.2	8.4	10.2	10.8	11.4	13.8	14.4	14.4	14.4
165°	3.0	3.6	4.8	5.4	6.0	6.6	7.8	9.0	9.0	9.0
167.5°	0.6	1.2	1.8	1.8	2.4	2.4	3.0	4.2	4.2	4.2
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)