

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: P241396

Luminaire Tested: **FVS8M-4-LD4-50-2LO-P125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241396  
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-LD4-50-2LO-P125-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
4FT LENGTH, 2-MODULE LED WITH P125 LENS  
Light Source: (168) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

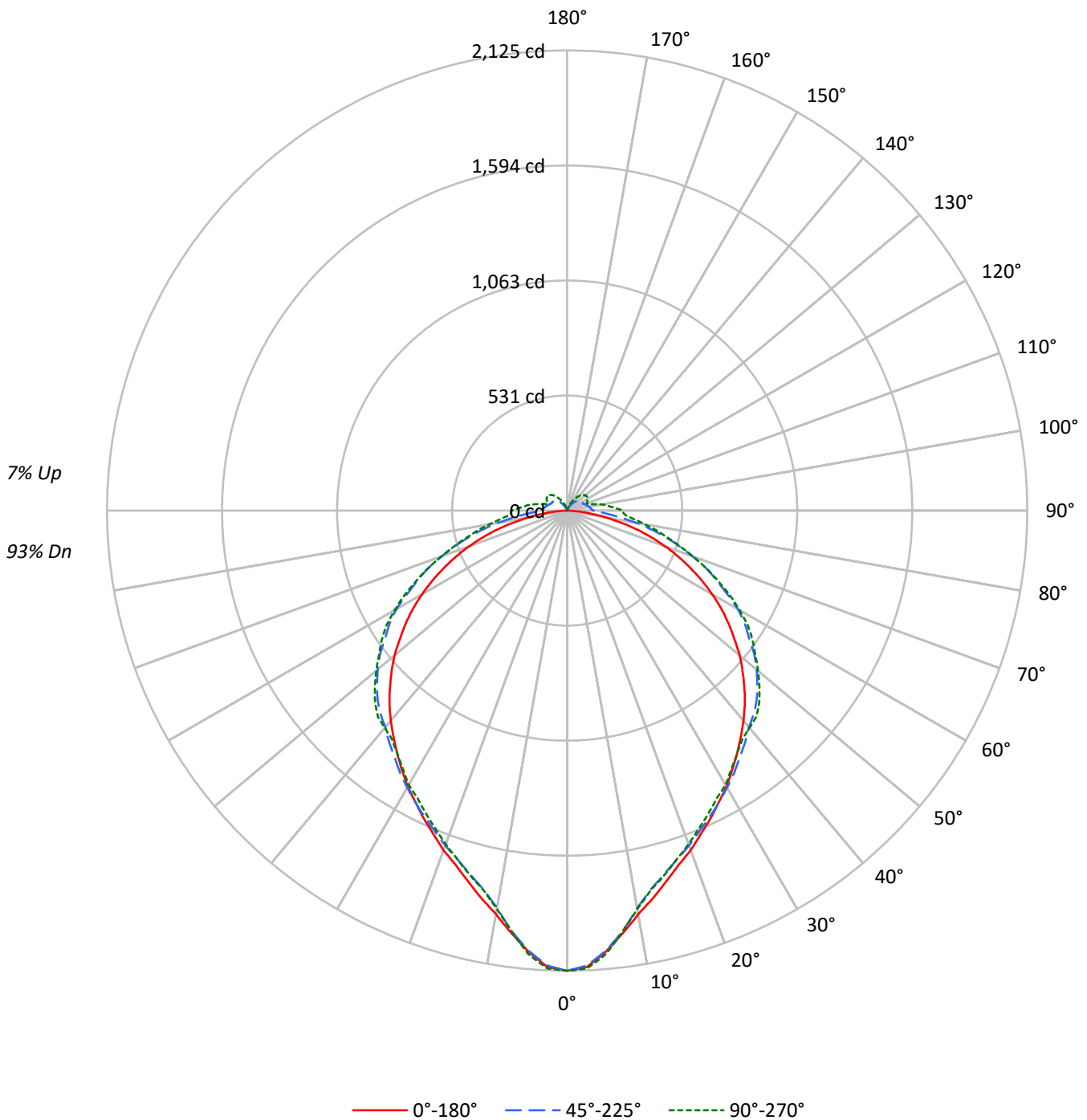
Lumens per Lamp: N/A  
Luminaire Lumens: 5902.0 lumens  
Efficiency: N/A  
Efficacy: 129.7 lumens/watt  
Spacing Criteria (0/90/45): 1.04 / 1.02 / 1.27  
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')  
CIE Type: Direct

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-LD4-50-2LO-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	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°	9498	9498	9498
5°	9142	9011	9045
10°	8528	8184	8150
15°	8109	7651	7596
20°	7825	7328	7205
25°	7592	7073	6887
30°	7428	6878	6676
35°	7266	6704	6446
40°	7156	6585	6425
45°	7041	6591	6470
50°	6914	6493	6304
55°	6715	6300	6162
60°	6475	6145	5908
65°	6121	5744	5478
70°	5672	5314	4982
75°	4947	4743	4480
80°	3826	4002	4092
85°	2137	3120	3928



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	189.7	3.2
10°-20°	494.0	8.4
20°-30°	720.4	12.2
30°-40°	868.0	14.7
40°-50°	941.4	16.0
50°-60°	897.2	15.2
60°-70°	723.5	12.3
70°-80°	462.7	7.8
80°-90°	206.9	3.5
90°-100°	114.8	1.9
100°-110°	83.7	1.4
110°-120°	65.9	1.1
120°-130°	58.4	1.0
130°-140°	42.7	0.7
140°-150°	23.1	0.4
150°-160°	8.3	0.1
160°-170°	1.3	0.0
170°-180°	0.0	0.0
0°-30°	1404.1	23.8
0°-40°	2272.1	38.5
0°-60°	4110.8	69.7
0°-90°	5503.8	93.3
90°-120°	264.4	4.5
90°-150°	388.6	6.6
90°-180°	398.0	6.7
0°-180°	5902.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2125	2125	2125	2125	2125	
5°	2045	2045	2041	2056	2056	190
15°	1771	1765	1737	1743	1741	500
25°	1568	1570	1560	1556	1544	723
35°	1368	1389	1390	1384	1368	857
45°	1158	1193	1238	1258	1255	893
55°	910	970	1025	1048	1046	813
65°	627	698	761	770	769	622
75°	328	390	467	490	478	347
85°	60	115	191	241	274	75
90°	1	56	122	173	256	3
95°	1	50	110	158	201	0
105°	1	42	94	118	116	1
115°	1	37	80	95	102	1
125°	1	30	76	101	112	1
135°	1	20	62	89	102	1
145°	1	9	39	62	71	1
155°	1	2	16	32	36	1
165°	2	1	2	6	10	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°	2125.2	2125.2	2125.2	2125.2	2125.2	2125.2	2125.2	2125.2	2125.2	2125.2	2125.2
2.5°	2108.7	2108.7	2108.7	2105.5	2105.5	2109.3	2109.3	2111.3	2108.1	2104.9	2102.4
5°	2044.6	2042.7	2038.2	2038.9	2041.4	2044.6	2043.9	2049.7	2047.8	2043.9	2041.4
7.5°	1968.4	1964.6	1962.7	1962.7	1960.8	1963.9	1962.0	1966.5	1962.7	1959.5	1958.9
10°	1892.2	1892.2	1892.2	1887.1	1887.7	1887.1	1883.3	1880.8	1877.6	1867.4	1863.0
12.5°	1832.5	1831.2	1826.2	1822.3	1822.3	1819.8	1820.4	1815.4	1807.1	1795.0	1790.0
15°	1770.9	1772.8	1770.9	1765.2	1766.5	1764.6	1762.7	1756.3	1752.5	1740.4	1736.6
17.5°	1714.4	1719.5	1715.7	1709.3	1707.4	1706.1	1706.8	1704.2	1696.6	1691.5	1687.7
20°	1668.7	1667.4	1664.2	1659.2	1664.2	1662.3	1662.3	1659.8	1655.4	1649.6	1645.8
22.5°	1615.3	1616.6	1612.8	1612.8	1616.0	1617.9	1614.1	1612.8	1609.6	1602.6	1600.1
25°	1567.7	1569.0	1566.5	1565.2	1567.7	1569.6	1569.6	1569.6	1567.1	1562.6	1559.5
27.5°	1517.6	1522.0	1518.8	1518.8	1523.9	1527.7	1529.6	1526.5	1525.2	1520.1	1518.2
30°	1471.8	1467.4	1469.3	1476.3	1478.8	1483.3	1486.5	1487.1	1480.7	1478.8	1476.9
32.5°	1419.8	1421.7	1417.9	1425.5	1435.7	1440.7	1440.7	1439.5	1437.6	1436.9	1435.7
35°	1368.3	1369.6	1370.9	1380.4	1385.5	1388.7	1393.7	1398.2	1395.0	1391.8	1389.9
37.5°	1316.9	1319.5	1322.0	1329.0	1335.3	1341.7	1347.4	1353.7	1352.5	1348.0	1349.9
40°	1266.8	1269.9	1268.7	1273.1	1290.9	1297.2	1299.8	1305.5	1306.1	1300.4	1306.1
42.5°	1214.7	1214.7	1214.1	1228.0	1238.8	1245.2	1245.8	1258.5	1263.6	1268.7	1275.0
45°	1157.5	1158.8	1164.5	1174.0	1183.6	1193.1	1202.6	1217.2	1222.9	1230.6	1238.2
47.5°	1099.1	1099.8	1109.3	1115.6	1135.3	1146.1	1153.7	1161.3	1170.9	1179.1	1190.6
50°	1040.7	1043.2	1043.2	1063.6	1079.4	1083.9	1090.9	1102.9	1121.3	1132.8	1142.3
52.5°	973.4	979.7	984.2	1000.7	1013.4	1023.6	1035.6	1056.6	1069.9	1080.1	1089.0
55°	909.9	906.7	924.5	929.6	956.3	970.2	979.1	993.7	1002.0	1013.4	1024.8
57.5°	845.1	844.5	854.7	868.6	897.2	903.6	906.1	923.9	946.1	962.6	973.4
60°	773.4	776.6	782.9	808.9	821.0	827.4	840.7	868.6	884.5	901.6	910.5
62.5°	702.9	703.5	721.3	735.3	751.2	767.0	781.0	796.9	805.8	821.0	831.2
65°	627.3	631.2	650.2	659.7	689.6	697.8	702.9	718.8	733.4	751.8	761.3
67.5°	555.6	559.4	574.6	586.7	612.7	615.3	624.2	648.3	671.2	685.1	694.7
70°	480.7	487.7	494.6	516.9	530.8	540.4	553.1	579.7	588.0	604.5	615.9
72.5°	405.1	411.5	419.1	436.9	454.6	465.4	480.0	495.3	504.8	520.0	539.7
75°	328.3	334.6	345.4	360.0	379.7	390.5	398.1	412.1	435.0	452.7	466.7
77.5°	251.4	255.3	270.5	283.2	306.7	313.7	324.5	341.6	363.2	381.0	393.7
80°	181.6	186.7	196.8	212.1	229.9	240.7	248.9	269.9	291.4	304.1	320.7
82.5°	115.6	120.6	132.7	147.9	163.8	173.3	184.1	203.8	222.2	235.6	251.4
85°	60.3	64.8	76.2	92.1	106.0	114.9	125.7	145.4	159.4	175.9	191.1
87.5°	19.0	24.1	35.6	50.8	66.7	74.9	83.8	102.2	116.2	132.7	146.7
90°	0.6	5.1	16.5	31.1	47.6	55.9	64.1	80.0	94.6	108.6	121.9
92.5°	0.6	4.4	15.2	29.2	44.4	52.1	59.7	74.3	88.9	102.2	113.7
95°	0.6	3.8	14.0	27.9	42.5	49.5	57.1	71.1	85.1	97.8	109.8
97.5°	0.6	3.8	13.3	26.0	40.0	47.0	54.6	68.6	81.9	94.0	106.0
100°	0.6	3.2	12.1	24.8	38.1	45.1	52.1	66.0	78.7	90.8	101.6
102.5°	0.6	2.5	11.4	23.5	36.8	43.2	50.2	63.5	75.6	87.6	97.8
105°	0.6	2.5	10.2	22.2	35.6	41.9	48.9	61.6	73.7	84.5	94.0
107.5°	0.6	1.9	9.5	21.0	34.3	40.6	47.6	59.7	71.1	81.3	90.2
110°	0.6	1.9	8.9	20.3	33.0	39.4	45.7	58.4	69.2	78.7	85.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.6	1.3	8.3	19.0	31.7	38.1	44.4	56.5	67.3	75.6	82.5
115°	0.6	1.3	7.6	18.4	30.5	36.8	43.2	54.6	64.8	73.7	80.0
117.5°	0.6	0.6	7.0	17.1	29.2	34.9	41.3	53.3	63.5	71.8	78.7
120°	0.6	0.6	5.7	15.9	27.3	33.7	40.0	51.4	62.2	71.1	78.7
122.5°	0.6	0.6	5.1	14.6	26.0	32.4	38.1	49.5	60.3	69.8	77.5
125°	0.6	0.6	4.4	13.3	24.1	30.5	36.2	47.6	58.4	67.9	75.6
127.5°	0.6	0.6	3.8	12.1	22.2	27.9	34.3	45.1	55.9	64.8	73.0
130°	0.6	0.6	2.5	10.2	20.3	26.0	31.7	42.5	52.7	61.6	69.8
132.5°	1.3	0.6	1.9	8.9	18.4	23.5	28.6	39.4	49.5	57.8	66.0
135°	1.3	0.6	1.3	7.0	15.9	20.3	25.4	34.9	45.1	54.0	61.6
137.5°	1.3	1.3	1.3	5.7	13.3	17.1	21.6	31.1	40.0	48.9	57.1
140°	1.3	1.3	0.6	4.4	10.8	14.6	18.4	26.7	34.9	43.2	51.4
142.5°	1.3	1.3	0.6	3.2	8.3	11.4	15.2	22.2	30.5	38.1	45.1
145°	1.3	1.3	0.6	1.9	6.3	8.9	12.1	18.4	25.4	31.7	38.7
147.5°	1.3	1.3	0.6	1.3	4.4	7.0	8.9	14.6	20.3	26.0	31.7
150°	1.3	1.3	0.6	1.3	3.2	4.4	7.0	11.4	15.9	21.0	26.0
152.5°	1.3	1.3	1.3	0.6	1.9	3.2	5.1	8.3	12.7	16.5	21.0
155°	1.3	1.3	1.3	0.6	1.3	1.9	3.2	5.7	8.9	12.7	15.9
157.5°	1.9	1.3	1.3	0.6	0.6	1.3	1.9	3.8	6.3	8.9	11.4
160°	1.9	1.3	1.3	0.6	0.6	0.6	1.3	1.9	3.8	5.7	7.6
162.5°	1.9	1.9	1.3	0.6	0.6	0.6	0.6	1.3	1.9	3.2	4.4
165°	1.9	1.9	1.3	1.3	0.6	0.6	0.6	0.6	0.6	1.3	1.9
167.5°	1.9	1.9	1.3	1.3	0.6	0.6	0.6	0.6	0.6	0.6	0.6
170°	1.9	1.9	1.3	1.3	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°	2125.2	2125.2	2125.2	2125.2	2125.2	2125.2	2125.2	2125.2	2125.2	2125.2
2.5°	2102.4	2109.3	2114.4	2116.3	2117.0	2115.7	2118.2	2118.9	2118.2	2116.3
5°	2042.0	2049.0	2054.7	2056.6	2056.0	2058.6	2057.3	2057.9	2057.3	2056.0
7.5°	1951.9	1953.8	1956.3	1953.1	1957.0	1957.6	1952.5	1955.7	1957.0	1960.1
10°	1863.0	1864.3	1866.2	1864.9	1866.2	1866.2	1866.2	1866.8	1869.3	1867.4
12.5°	1789.3	1791.9	1798.9	1796.9	1800.1	1803.9	1799.5	1796.3	1800.8	1793.1
15°	1737.9	1739.8	1741.1	1739.2	1743.0	1741.1	1739.8	1736.6	1740.4	1741.1
17.5°	1689.6	1688.4	1692.8	1689.0	1689.6	1688.4	1687.7	1683.3	1682.0	1687.1
20°	1646.5	1643.3	1640.1	1642.7	1645.8	1643.3	1642.7	1639.5	1640.1	1639.5
22.5°	1598.8	1602.6	1605.2	1604.6	1601.4	1602.6	1598.2	1593.1	1592.5	1589.3
25°	1560.7	1562.0	1560.7	1560.7	1556.3	1554.4	1556.3	1551.2	1546.1	1543.6
27.5°	1519.5	1520.1	1520.1	1515.0	1513.8	1512.5	1508.0	1504.2	1500.4	1497.2
30°	1474.4	1478.2	1473.8	1476.3	1475.0	1470.6	1467.4	1462.3	1458.5	1462.3
32.5°	1435.0	1432.5	1432.5	1430.6	1429.3	1430.6	1424.2	1416.0	1412.2	1412.8
35°	1390.6	1390.6	1393.1	1388.7	1384.2	1383.0	1377.2	1375.3	1367.7	1368.3
37.5°	1349.9	1348.7	1349.9	1348.7	1346.1	1345.5	1334.7	1336.6	1334.7	1329.6
40°	1313.7	1318.2	1319.5	1311.2	1314.4	1316.9	1309.3	1310.6	1307.4	1309.9
42.5°	1283.3	1286.4	1291.5	1290.2	1287.7	1284.5	1290.2	1292.2	1289.0	1292.8
45°	1247.1	1252.8	1253.4	1259.1	1258.5	1256.0	1256.6	1254.7	1251.5	1254.7
47.5°	1198.2	1202.6	1206.4	1207.1	1211.5	1211.5	1207.1	1209.0	1212.8	1203.9
50°	1149.9	1151.8	1156.3	1153.7	1155.6	1158.2	1156.9	1151.8	1151.8	1150.6
52.5°	1096.6	1101.0	1101.7	1102.9	1102.3	1096.6	1097.9	1097.9	1093.4	1095.3
55°	1036.9	1047.1	1050.9	1048.3	1047.7	1049.6	1045.2	1052.8	1045.2	1045.8
57.5°	981.0	982.9	988.0	988.6	986.7	991.2	989.3	988.6	986.7	990.5
60°	916.9	918.8	918.8	915.0	920.1	915.0	916.9	915.6	921.3	919.4
62.5°	840.1	845.1	849.6	842.6	843.2	841.3	840.7	840.7	845.8	847.7
65°	767.7	767.0	773.4	768.9	769.6	770.8	763.2	767.7	767.7	768.9
67.5°	702.3	701.0	698.5	696.6	695.9	695.3	693.4	689.6	692.1	694.0
70°	623.5	631.2	627.3	627.3	626.1	624.8	627.3	615.3	617.2	617.8
72.5°	549.2	553.1	558.8	561.3	559.4	556.2	553.7	549.2	544.2	545.4
75°	475.6	479.4	487.0	488.9	489.6	487.7	488.9	485.1	482.6	478.1
77.5°	404.5	410.8	415.3	422.9	422.9	423.5	426.7	425.4	421.6	422.9
80°	330.8	337.8	347.3	355.6	358.8	360.0	361.3	360.7	361.9	362.6
82.5°	261.6	278.7	283.8	292.7	296.5	297.8	304.1	306.7	308.6	312.4
85°	205.1	217.2	229.2	237.5	241.3	244.5	250.8	259.1	269.2	274.3
87.5°	160.0	170.8	182.2	192.4	198.7	203.8	214.0	230.5	248.9	260.3
90°	133.3	144.8	156.8	167.0	172.7	178.4	193.7	214.6	241.9	256.5
92.5°	125.1	137.2	147.3	158.1	163.8	170.2	186.0	205.1	222.2	228.0
95°	121.3	132.7	141.6	151.8	158.1	164.5	177.2	189.2	198.1	201.3
97.5°	116.8	127.0	135.9	146.0	150.5	155.6	166.4	175.9	182.9	186.0
100°	111.8	121.3	128.9	137.2	140.3	144.8	154.3	161.3	164.5	162.6
102.5°	107.3	114.3	121.3	127.0	129.5	132.7	137.8	139.1	138.4	136.5
105°	101.6	107.9	112.4	115.6	117.5	118.7	120.0	119.4	118.1	116.2
107.5°	96.5	101.0	104.1	104.8	106.0	106.7	107.3	106.0	104.1	103.5
110°	91.4	95.2	97.1	97.8	97.8	98.4	99.1	99.1	97.8	97.1





TEST NUMBER: P241396

CATALOG NUMBER: FVS8M-4-LD4-50-2LO-P125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	87.6	90.8	92.7	94.0	94.6	95.2	97.1	98.4	97.8	97.8
115°	85.1	88.9	92.1	94.0	95.2	96.5	99.7	101.6	102.2	102.2
117.5°	84.5	89.5	93.3	96.5	97.8	99.7	102.9	105.4	106.0	106.0
120°	85.1	90.2	94.6	98.4	100.3	102.2	105.4	107.9	109.2	109.8
122.5°	84.5	90.2	95.2	99.7	101.6	103.5	106.7	109.8	111.1	111.1
125°	82.5	88.9	94.0	99.1	101.0	102.9	106.7	109.8	111.8	111.8
127.5°	80.0	86.4	92.1	97.1	99.1	101.6	105.4	108.6	111.1	111.1
130°	76.8	83.8	89.5	94.6	96.5	99.1	102.9	106.7	108.6	109.2
132.5°	73.0	80.0	85.7	90.8	93.3	95.2	99.7	103.5	105.4	106.7
135°	69.2	75.6	81.3	87.0	88.9	91.4	95.2	98.4	101.0	102.2
137.5°	64.1	70.5	76.2	81.3	83.2	85.7	89.5	92.7	95.2	95.9
140°	58.4	64.8	70.5	74.9	77.5	79.4	83.2	85.7	87.6	88.3
142.5°	52.1	58.4	63.5	67.9	69.8	71.8	74.9	77.5	79.4	80.0
145°	45.1	51.4	55.9	60.3	62.2	63.5	66.7	68.6	71.1	71.1
147.5°	38.1	43.8	48.9	52.7	54.0	55.9	58.4	60.3	61.0	61.6
150°	31.1	36.2	41.3	45.1	46.4	47.6	49.5	51.4	52.7	52.7
152.5°	24.8	29.2	33.7	38.1	38.7	40.0	41.9	43.2	44.4	44.4
155°	19.7	22.9	26.0	29.8	31.7	33.0	34.3	35.6	36.2	36.2
157.5°	14.6	17.1	19.7	22.9	24.1	26.0	27.3	27.9	28.6	29.2
160°	9.5	12.1	14.0	16.5	17.8	19.0	20.3	21.6	22.2	22.2
162.5°	5.7	7.6	8.9	10.8	11.4	12.1	14.6	15.2	15.2	15.2
165°	3.2	3.8	5.1	5.7	6.3	7.0	8.3	9.5	9.5	9.5
167.5°	0.6	1.3	1.9	1.9	2.5	2.5	3.2	4.4	4.4	4.4
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)