

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: P241340

Luminaire Tested: **FVS8M-2-LD4-50-3STD-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241340
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-13)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-2-LD4-50-3STD-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 3-MODULE LED WITH P125 LENS
Light Source: (126) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

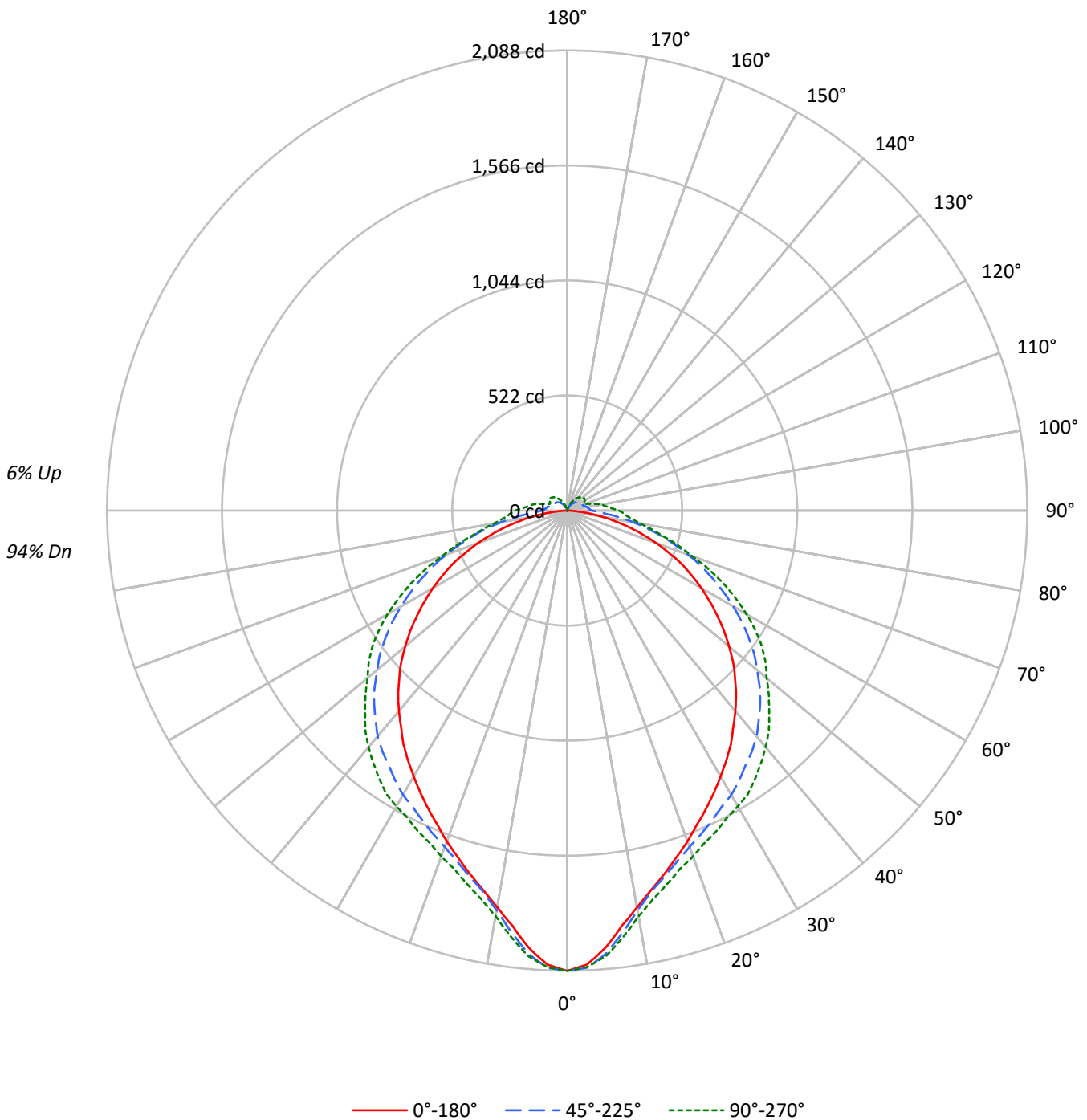
Lumens per Lamp: N/A
Luminaire Lumens: 5758.0 lumens
Efficiency: N/A
Efficacy: 113.8 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.11 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 50.6
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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	106	101	97	93	103	98	94	91	93	90	87	88	85	83	84	81	79	77
2	96	88	81	75	93	85	79	73	81	75	71	77	72	68	73	69	66	63
3	88	77	68	62	85	75	67	61	71	64	59	67	62	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	56	50	60	54	49	57	52	47	45
5	74	61	51	45	71	59	50	44	56	49	43	54	47	42	51	45	41	39
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	37	32	42	36	32	30
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	28	26
9	55	41	33	27	53	40	32	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	34	28	24	33	27	23	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18773	18773	18773
5°	17852	17877	17951
10°	16452	16190	16401
15°	15551	15095	15392
20°	14852	14402	14758
25°	14276	13988	14392
30°	13824	13752	14226
35°	13470	13456	14082
40°	13073	13296	13828
45°	12698	12958	13440
50°	12261	12514	13020
55°	11719	12046	12799
60°	11123	11395	12161
65°	10434	10577	11199
70°	9293	9637	9769
75°	7765	8462	8538
80°	5742	7078	7629
85°	2781	5442	7791



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.7	3.2
10°-20°	486.5	8.4
20°-30°	716.6	12.4
30°-40°	879.8	15.3
40°-50°	935.9	16.3
50°-60°	875.7	15.2
60°-70°	694.4	12.1
70°-80°	433.5	7.5
80°-90°	194.6	3.4
90°-100°	104.4	1.8
100°-110°	76.1	1.3
110°-120°	55.6	1.0
120°-130°	49.1	0.9
130°-140°	37.0	0.6
140°-150°	21.7	0.4
150°-160°	8.8	0.2
160°-170°	1.7	0.0
170°-180°	0.0	0.0
0°-30°	1389.8	24.1
0°-40°	2269.6	39.4
0°-60°	4081.1	70.9
0°-90°	5403.6	93.8
90°-120°	236.1	4.1
90°-150°	343.9	6.0
90°-180°	354.0	6.1
0°-180°	5758.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2088	2088	2088	2088	2088	
5°	1992	2002	2019	2023	2029	185
15°	1706	1708	1716	1734	1754	481
25°	1492	1511	1552	1593	1604	688
35°	1295	1340	1411	1483	1486	809
45°	1078	1143	1239	1284	1296	832
55°	832	906	1005	1055	1080	744
65°	573	633	727	770	782	562
75°	289	350	439	472	453	307
85°	51	107	183	228	270	66
90°	1	50	114	167	236	3
95°	0	44	99	143	187	0
105°	0	36	81	109	118	0
115°	0	31	66	79	85	0
125°	0	26	62	85	95	0
135°	1	20	53	75	86	1
145°	1	13	38	56	63	1
155°	1	4	20	32	35	0
165°	1	1	4	9	11	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°	2088.5	2088.5	2088.5	2088.5	2088.5	2088.5	2088.5	2088.5	2088.5	2088.5	2088.5
2.5°	2062.1	2064.7	2065.5	2066.4	2066.4	2068.9	2068.9	2070.6	2073.2	2074.9	2075.7
5°	1992.1	1997.3	1993.0	1997.3	2000.7	2002.4	2004.9	2006.6	2011.8	2016.9	2018.6
7.5°	1900.8	1902.6	1905.1	1907.7	1911.1	1910.2	1911.9	1917.9	1923.9	1931.6	1930.7
10°	1827.5	1827.5	1827.5	1827.5	1827.5	1830.0	1830.9	1833.4	1837.7	1845.4	1841.1
12.5°	1762.6	1764.3	1766.9	1766.0	1764.3	1763.5	1760.9	1764.3	1765.2	1770.3	1768.6
15°	1706.3	1703.8	1706.3	1708.0	1706.3	1708.0	1707.2	1709.7	1708.9	1710.6	1715.7
17.5°	1649.2	1655.1	1656.8	1652.6	1654.3	1656.0	1656.8	1656.0	1656.0	1662.8	1666.2
20°	1597.1	1599.7	1599.7	1598.8	1602.2	1603.1	1607.4	1607.4	1611.6	1620.2	1623.6
22.5°	1540.8	1545.9	1549.3	1548.5	1557.9	1557.9	1558.7	1562.1	1574.1	1577.5	1588.6
25°	1492.2	1497.3	1499.0	1502.4	1509.2	1511.0	1511.0	1525.5	1529.7	1540.0	1551.9
27.5°	1442.7	1446.1	1447.8	1453.8	1464.9	1464.9	1469.1	1483.7	1493.0	1505.0	1516.9
30°	1392.4	1400.0	1400.0	1409.4	1418.8	1421.4	1431.6	1444.4	1459.8	1470.0	1489.6
32.5°	1343.7	1347.1	1350.6	1365.1	1375.3	1383.0	1390.7	1406.9	1419.7	1437.6	1452.1
35°	1295.1	1299.4	1302.8	1318.1	1327.5	1340.3	1349.7	1370.2	1383.0	1400.0	1411.1
37.5°	1237.9	1244.8	1252.4	1264.4	1283.2	1293.4	1301.9	1326.7	1341.2	1356.5	1377.0
40°	1187.6	1194.4	1203.0	1215.8	1236.2	1243.9	1255.0	1275.5	1299.4	1317.3	1337.8
42.5°	1134.7	1142.4	1150.9	1166.3	1182.5	1192.7	1205.5	1226.8	1250.7	1272.9	1286.6
45°	1077.5	1084.4	1095.5	1110.0	1130.4	1143.2	1153.5	1179.1	1197.8	1220.9	1238.8
47.5°	1022.9	1026.4	1038.3	1057.9	1075.8	1091.2	1101.4	1123.6	1148.4	1165.4	1185.0
50°	959.0	963.2	976.0	995.6	1019.5	1034.0	1040.0	1067.3	1087.8	1110.0	1124.5
52.5°	896.7	903.5	918.9	936.8	959.0	971.8	982.8	1002.5	1028.9	1048.5	1070.7
55°	831.8	840.4	854.0	873.6	893.3	906.1	918.9	941.0	964.9	988.0	1005.0
57.5°	767.0	775.5	789.2	808.8	828.4	838.7	851.5	874.5	901.8	924.0	940.2
60°	703.0	709.0	723.5	740.5	760.2	773.0	782.4	806.2	831.8	851.5	870.2
62.5°	636.5	642.4	654.4	670.6	692.8	703.9	712.4	737.1	761.0	779.8	800.3
65°	573.3	573.3	587.8	601.5	620.3	633.0	645.8	667.2	687.6	708.1	726.9
67.5°	497.4	505.1	515.3	530.7	552.0	563.1	575.9	596.4	615.1	639.9	657.8
70°	430.0	433.4	445.4	462.4	479.5	490.6	503.4	522.1	543.5	565.6	583.6
72.5°	357.5	364.3	374.5	394.2	407.8	418.9	430.8	450.5	470.9	493.1	511.0
75°	289.2	295.2	305.4	320.8	338.7	349.8	359.2	379.7	399.3	424.0	439.4
77.5°	224.4	226.9	238.0	252.5	274.7	280.7	291.8	310.6	332.7	352.4	371.1
80°	160.4	165.5	174.0	187.7	207.3	216.7	226.1	246.6	265.3	286.7	303.7
82.5°	100.7	108.4	115.2	133.1	148.5	156.1	167.2	185.1	206.5	224.4	239.7
85°	51.2	57.2	67.4	80.2	97.3	106.6	114.3	133.9	151.9	168.9	182.6
87.5°	19.6	23.9	32.4	46.1	61.4	69.1	78.5	94.7	111.8	125.4	139.1
90°	0.9	6.0	15.4	28.2	42.7	50.3	58.0	74.2	88.7	101.5	113.5
92.5°	0.0	4.3	12.8	25.6	39.2	46.1	53.7	67.4	79.3	91.3	103.2
95°	0.0	3.4	11.9	23.9	36.7	44.4	51.2	64.0	75.9	87.0	99.0
97.5°	0.0	3.4	11.1	23.0	35.8	42.7	48.6	60.6	71.7	83.6	94.7
100°	0.0	3.4	11.1	22.2	34.1	40.1	46.1	57.2	69.1	80.2	90.4
102.5°	0.0	2.6	10.2	20.5	32.4	38.4	43.5	54.6	65.7	75.9	86.2
105°	0.0	2.6	9.4	19.6	30.7	35.8	41.8	52.9	63.1	72.5	81.1
107.5°	0.0	2.6	9.4	18.8	29.0	35.0	40.1	50.3	60.6	69.1	76.8
110°	0.0	1.7	8.5	17.9	28.2	33.3	38.4	48.6	58.0	65.7	73.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	1.7	7.7	17.1	26.4	31.6	36.7	46.9	55.5	63.1	69.1
115°	0.0	1.7	7.7	16.2	25.6	30.7	35.8	45.2	53.7	60.6	66.5
117.5°	0.0	1.7	6.8	15.4	24.7	29.9	34.1	43.5	52.0	58.9	64.8
120°	0.0	1.7	6.8	14.5	23.9	29.0	33.3	42.7	50.3	58.0	64.0
122.5°	0.0	0.9	6.0	13.7	23.0	27.3	32.4	41.0	49.5	57.2	63.1
125°	0.0	0.9	6.0	12.8	22.2	26.4	31.6	40.1	48.6	56.3	62.3
127.5°	0.0	0.9	5.1	11.9	20.5	24.7	29.9	38.4	46.9	54.6	60.6
130°	0.0	0.9	4.3	11.1	19.6	23.9	28.2	36.7	44.4	52.0	58.0
132.5°	0.9	0.9	4.3	10.2	17.9	22.2	26.4	34.1	41.8	49.5	55.5
135°	0.9	0.9	3.4	9.4	16.2	20.5	23.9	32.4	39.2	46.9	52.9
137.5°	0.9	0.9	3.4	8.5	15.4	18.8	22.2	29.9	36.7	43.5	49.5
140°	0.9	0.9	2.6	7.7	13.7	17.1	20.5	27.3	34.1	40.1	46.1
142.5°	0.9	0.9	1.7	6.0	11.9	14.5	17.9	24.7	30.7	36.7	41.8
145°	0.9	0.9	1.7	5.1	10.2	12.8	15.4	21.3	27.3	32.4	38.4
147.5°	0.9	0.9	0.9	4.3	7.7	10.2	12.8	18.8	23.9	29.0	34.1
150°	0.9	0.9	0.9	2.6	6.0	8.5	10.2	15.4	19.6	24.7	29.0
152.5°	0.9	0.9	0.9	1.7	5.1	6.0	8.5	11.9	16.2	20.5	24.7
155°	0.9	0.9	0.9	1.7	3.4	4.3	6.0	9.4	12.8	16.2	19.6
157.5°	0.9	0.9	0.9	0.9	2.6	3.4	4.3	6.8	9.4	11.9	15.4
160°	0.9	0.9	0.9	0.9	1.7	1.7	2.6	4.3	6.8	8.5	11.1
162.5°	0.9	0.9	0.9	0.9	0.9	0.9	1.7	2.6	4.3	6.0	7.7
165°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.7	2.6	3.4	4.3
167.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.9	0.9	1.7	2.6
170°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
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°	2088.5	2088.5	2088.5	2088.5	2088.5	2088.5	2088.5	2088.5	2088.5	2088.5
2.5°	2076.6	2075.7	2076.6	2075.7	2075.7	2074.9	2075.7	2074.9	2073.2	2073.2
5°	2018.6	2024.6	2025.4	2027.1	2022.9	2025.4	2025.4	2025.4	2025.4	2028.8
7.5°	1935.8	1944.4	1944.4	1944.4	1948.6	1949.5	1952.0	1952.0	1951.2	1951.2
10°	1848.0	1854.8	1857.3	1858.2	1863.3	1863.3	1867.6	1865.9	1868.4	1868.4
12.5°	1769.5	1772.9	1782.3	1790.8	1789.9	1794.2	1798.5	1801.9	1799.3	1804.4
15°	1717.4	1723.4	1727.7	1730.2	1733.6	1738.7	1743.0	1748.1	1749.8	1754.1
17.5°	1666.2	1674.8	1682.4	1691.0	1695.2	1696.9	1699.5	1702.1	1704.6	1704.6
20°	1632.1	1638.9	1644.9	1648.3	1652.6	1656.8	1657.7	1662.8	1664.5	1669.6
22.5°	1597.1	1602.2	1609.9	1618.5	1621.0	1624.4	1626.1	1628.7	1633.0	1631.2
25°	1563.0	1572.4	1582.6	1586.9	1592.9	1598.0	1601.4	1606.5	1608.2	1603.9
27.5°	1532.3	1538.3	1557.9	1567.3	1571.5	1571.5	1571.5	1576.6	1575.8	1570.7
30°	1498.2	1515.2	1528.9	1533.1	1536.5	1540.8	1545.9	1548.5	1546.8	1549.3
32.5°	1466.6	1478.5	1496.4	1508.4	1511.8	1516.1	1518.6	1522.9	1524.6	1525.5
35°	1430.8	1448.7	1470.9	1476.8	1482.8	1488.8	1490.5	1487.9	1491.3	1486.2
37.5°	1394.1	1418.8	1423.9	1439.3	1441.8	1441.8	1442.7	1444.4	1446.1	1444.4
40°	1354.8	1363.4	1382.1	1387.2	1389.0	1391.5	1396.6	1397.5	1398.3	1401.7
42.5°	1304.5	1319.0	1327.5	1344.6	1345.4	1345.4	1345.4	1348.0	1352.3	1354.8
45°	1248.2	1264.4	1276.3	1284.9	1284.0	1288.3	1292.5	1292.5	1295.1	1296.0
47.5°	1198.7	1206.4	1213.2	1221.7	1228.6	1228.6	1231.1	1234.5	1237.9	1241.4
50°	1137.3	1150.9	1158.6	1167.1	1165.4	1168.8	1177.4	1181.6	1179.9	1181.6
52.5°	1081.0	1091.2	1104.0	1109.1	1115.1	1119.4	1120.2	1127.0	1132.1	1135.6
55°	1021.2	1028.9	1041.7	1055.4	1055.4	1057.1	1067.3	1073.3	1080.1	1080.1
57.5°	955.5	968.3	982.8	987.1	993.9	1001.6	1009.3	1011.9	1014.4	1013.6
60°	883.0	900.9	914.6	924.0	927.4	930.8	930.8	940.2	941.0	941.0
62.5°	816.5	831.8	842.1	845.5	846.3	851.5	853.2	856.6	854.9	861.7
65°	744.0	757.6	764.4	767.8	770.4	769.6	772.1	775.5	782.4	781.5
67.5°	675.7	680.8	687.6	692.8	692.8	697.0	699.6	703.9	696.2	695.3
70°	600.6	611.7	615.1	624.5	621.1	621.1	614.3	608.3	600.6	602.3
72.5°	527.3	536.6	546.9	543.5	543.5	540.9	535.8	530.7	525.5	529.0
75°	453.9	466.7	472.7	471.8	471.8	470.1	464.1	460.7	457.3	453.0
77.5°	387.3	394.2	401.8	405.3	406.1	405.3	399.3	393.3	392.5	390.7
80°	315.7	324.2	331.9	337.9	338.7	338.7	337.0	337.0	334.4	336.1
82.5°	250.0	259.4	270.5	277.3	279.0	283.3	285.0	287.5	292.6	296.9
85°	192.0	205.6	215.9	224.4	227.8	230.4	239.7	250.8	262.8	270.5
87.5°	151.9	163.8	175.8	185.1	190.3	197.1	208.2	224.4	243.2	255.9
90°	126.3	138.2	151.0	162.1	167.2	173.2	186.8	203.1	225.2	235.5
92.5°	114.3	127.1	137.4	146.7	151.9	157.0	169.8	183.4	199.6	206.5
95°	110.1	119.4	128.0	138.2	143.3	149.3	159.5	170.6	180.9	186.8
97.5°	104.1	113.5	122.9	131.4	136.5	140.8	148.5	158.7	167.2	170.6
100°	99.8	108.4	116.0	123.7	128.0	131.4	140.8	150.2	155.3	157.8
102.5°	94.7	102.4	109.2	116.0	119.4	122.9	130.5	135.7	137.4	137.4
105°	88.7	96.4	102.4	108.4	109.2	111.8	116.0	117.7	117.7	117.7
107.5°	83.6	89.6	94.7	98.1	99.0	99.8	100.7	100.7	99.0	99.0
110°	79.3	83.6	87.0	88.7	87.9	88.7	88.7	87.9	87.9	87.9



TEST NUMBER: P241340

CATALOG NUMBER: FVS8M-2-LD4-50-3STD-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	75.1	78.5	80.2	81.9	81.9	81.9	81.9	83.6	83.6	83.6
115°	71.7	75.1	77.6	79.3	79.3	80.2	81.9	84.5	85.3	85.3
117.5°	70.0	74.2	76.8	79.3	81.1	81.9	85.3	87.0	88.7	88.7
120°	69.1	74.2	78.5	81.9	83.6	85.3	87.9	90.4	92.1	92.1
122.5°	69.1	74.2	79.3	82.8	85.3	86.2	89.6	92.1	93.8	93.8
125°	68.3	74.2	79.3	83.6	85.3	87.0	89.6	92.1	93.8	94.7
127.5°	66.5	72.5	77.6	81.9	83.6	86.2	88.7	91.3	93.0	93.8
130°	64.0	70.0	75.1	79.3	81.9	83.6	87.0	89.6	91.3	91.3
132.5°	61.4	67.4	71.7	76.8	79.3	81.1	84.5	87.0	88.7	88.7
135°	58.9	64.0	68.3	73.4	75.1	77.6	81.1	83.6	85.3	86.2
137.5°	55.5	60.6	64.8	69.1	71.7	73.4	76.8	79.3	81.1	81.9
140°	51.2	56.3	60.6	64.8	67.4	69.1	71.7	74.2	75.9	75.9
142.5°	46.9	52.0	56.3	59.7	61.4	63.1	65.7	68.3	69.1	70.0
145°	42.7	46.9	51.2	54.6	55.5	57.2	59.7	61.4	63.1	63.1
147.5°	37.5	41.8	45.2	47.8	49.5	50.3	52.9	54.6	55.5	56.3
150°	32.4	36.7	39.2	41.8	43.5	44.4	46.1	47.8	48.6	49.5
152.5°	28.2	30.7	34.1	35.8	37.5	38.4	40.1	41.0	41.8	41.8
155°	23.0	25.6	28.2	29.9	31.6	31.6	33.3	34.1	35.0	35.0
157.5°	17.9	20.5	23.0	24.7	25.6	26.4	27.3	28.2	28.2	29.0
160°	12.8	15.4	17.9	18.8	19.6	20.5	21.3	21.3	22.2	22.2
162.5°	9.4	11.1	12.8	13.7	14.5	14.5	15.4	16.2	16.2	16.2
165°	6.0	6.8	8.5	9.4	9.4	10.2	10.2	11.1	11.1	11.1
167.5°	2.6	3.4	4.3	5.1	5.1	6.0	6.0	6.0	6.8	6.0
170°	0.9	0.9	1.7	1.7	1.7	1.7	2.6	2.6	2.6	2.6
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)