

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: P241363

Luminaire Tested: **FVS8M-3-LD4-40-2STD-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241363
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-LD4-40-2STD-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
3FT LENGTH, 2-MODULE LED WITH P125 LENS
Light Source: (168) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

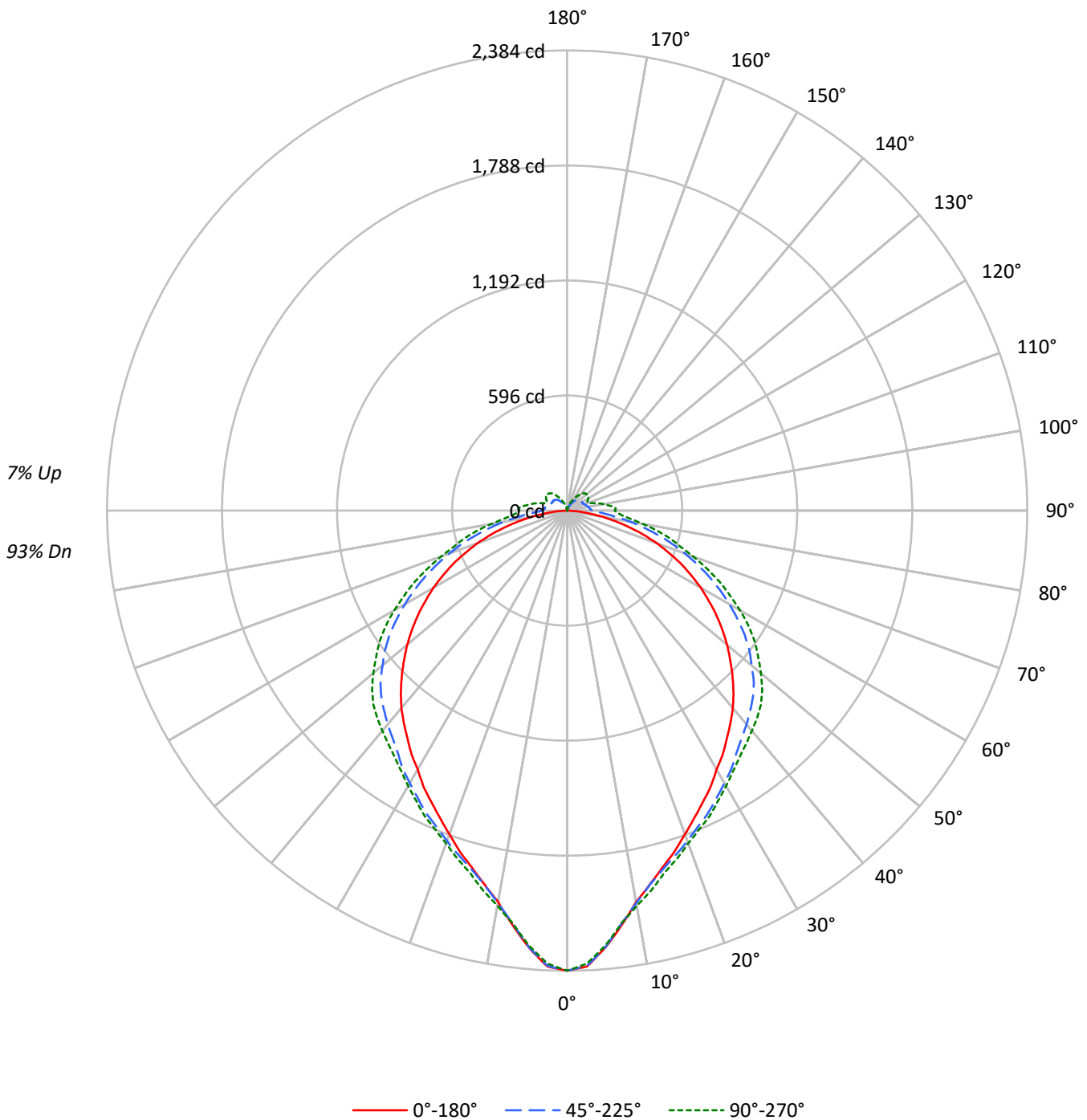
Lumens per Lamp: N/A
Luminaire Lumens: 6456.0 lumens
Efficiency: N/A
Efficacy: 118.0 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 1.03 / 1.26
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 54.7
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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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	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°	13918	13918	13918
5°	13262	13088	13006
10°	12101	11827	11857
15°	11406	11043	11078
20°	10884	10562	10536
25°	10477	10209	10181
30°	10140	9874	9827
35°	9920	9596	9591
40°	9763	9465	9542
45°	9517	9407	9571
50°	9259	9193	9387
55°	8954	8935	9139
60°	8578	8470	8693
65°	8087	7910	8103
70°	7365	7191	7308
75°	6319	6315	6727
80°	4868	5274	5851
85°	2682	4124	5334



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.8	3.3
10°-20°	544.2	8.4
20°-30°	792.9	12.3
30°-40°	954.1	14.8
40°-50°	1032.4	16.0
50°-60°	975.8	15.1
60°-70°	774.7	12.0
70°-80°	491.4	7.6
80°-90°	214.0	3.3
90°-100°	123.1	1.9
100°-110°	96.1	1.5
110°-120°	74.9	1.2
120°-130°	68.9	1.1
130°-140°	54.6	0.8
140°-150°	32.4	0.5
150°-160°	13.3	0.2
160°-170°	3.2	0.0
170°-180°	0.1	0.0
0°-30°	1546.9	24.0
0°-40°	2501.0	38.7
0°-60°	4509.2	69.8
0°-90°	5989.4	92.8
90°-120°	294.1	4.6
90°-150°	450.0	7.0
90°-180°	467.0	7.2
0°-180°	6456.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2384	2384	2384	2384	2384	
5°	2273	2276	2271	2262	2263	210
15°	1912	1910	1922	1938	1943	539
25°	1665	1699	1729	1746	1747	768
35°	1441	1491	1531	1561	1558	904
45°	1211	1267	1362	1411	1421	935
55°	944	1021	1123	1171	1187	842
65°	649	718	813	844	870	640
75°	334	398	484	531	549	353
85°	63	113	199	249	285	77
90°	2	53	130	179	247	3
95°	1	52	118	168	238	1
105°	1	47	102	139	147	1
115°	1	42	89	108	116	1
125°	1	38	88	118	132	1
135°	2	32	79	111	127	1
145°	2	20	58	82	93	1
155°	2	9	29	47	52	1
165°	2	2	10	17	20	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°	2383.5	2383.5	2383.5	2383.5	2383.5	2383.5	2383.5	2383.5	2383.5	2383.5	2383.5
2.5°	2363.5	2360.2	2361.0	2356.8	2358.5	2361.0	2361.0	2363.5	2364.3	2362.7	2360.2
5°	2272.6	2277.6	2274.3	2271.8	2272.6	2276.0	2275.1	2277.6	2275.1	2276.0	2271.0
7.5°	2165.9	2167.6	2161.8	2157.6	2159.3	2160.1	2162.6	2164.3	2168.4	2160.1	2157.6
10°	2059.2	2066.7	2057.5	2055.9	2057.5	2056.7	2060.9	2055.9	2060.0	2060.0	2063.4
12.5°	1982.5	1983.3	1986.7	1975.8	1975.8	1976.7	1975.8	1975.0	1976.7	1981.7	1984.2
15°	1912.5	1915.0	1915.0	1909.1	1909.1	1910.0	1911.6	1913.3	1914.1	1924.2	1922.5
17.5°	1850.8	1848.3	1850.8	1849.1	1852.5	1857.5	1856.6	1860.0	1865.0	1865.0	1870.8
20°	1784.1	1788.3	1793.3	1788.3	1797.4	1801.6	1804.1	1807.4	1810.8	1819.9	1820.8
22.5°	1722.4	1730.7	1732.4	1730.7	1743.2	1747.4	1751.6	1754.9	1767.4	1766.6	1771.6
25°	1664.9	1672.4	1673.2	1679.0	1692.4	1699.1	1701.6	1709.1	1715.7	1719.9	1729.1
27.5°	1611.5	1615.7	1616.5	1628.2	1636.5	1643.2	1651.5	1663.2	1666.5	1675.7	1677.4
30°	1548.2	1557.3	1562.3	1572.3	1589.0	1592.3	1600.7	1608.2	1620.7	1624.9	1629.9
32.5°	1499.8	1504.0	1505.6	1519.0	1533.2	1542.3	1548.2	1553.2	1568.2	1577.3	1584.8
35°	1441.4	1449.0	1452.3	1466.5	1478.1	1490.6	1494.8	1509.0	1515.6	1528.2	1530.7
37.5°	1388.9	1394.8	1398.9	1409.8	1425.6	1438.1	1438.9	1454.8	1466.5	1475.6	1485.6
40°	1335.6	1337.2	1343.9	1353.1	1372.3	1376.4	1386.4	1403.1	1421.4	1433.1	1445.6
42.5°	1275.5	1276.4	1284.7	1296.4	1317.2	1323.1	1337.2	1354.7	1373.9	1394.8	1403.9
45°	1211.3	1214.7	1226.4	1241.4	1258.9	1267.2	1280.5	1303.1	1324.7	1347.2	1362.2
47.5°	1146.3	1153.8	1163.8	1178.8	1198.8	1209.7	1222.2	1249.7	1269.7	1290.6	1311.4
50°	1081.3	1088.0	1098.0	1115.5	1137.2	1148.8	1159.7	1188.8	1216.4	1234.7	1248.0
52.5°	1012.1	1018.8	1030.4	1051.3	1076.3	1083.0	1098.8	1126.3	1152.2	1171.3	1189.7
55°	943.7	947.9	963.7	981.3	1007.1	1021.3	1031.3	1058.8	1081.3	1107.1	1123.0
57.5°	869.5	875.4	892.0	907.9	937.1	947.9	959.6	987.1	1014.6	1032.9	1047.1
60°	799.5	803.7	817.8	835.4	859.5	873.7	885.4	912.1	933.7	954.6	971.2
62.5°	722.0	727.8	741.1	760.3	786.2	796.2	812.8	832.0	859.5	873.7	892.0
65°	649.4	655.3	666.1	683.6	703.6	717.8	731.1	751.2	773.7	792.8	812.8
67.5°	569.4	576.1	589.4	607.8	630.3	640.3	650.3	671.1	695.3	714.5	730.3
70°	491.9	496.0	510.2	525.2	544.4	556.1	566.1	590.3	611.1	631.9	647.8
72.5°	412.7	416.0	429.3	446.0	466.0	480.2	489.4	507.7	528.6	549.4	569.4
75°	333.5	340.1	350.1	365.2	386.0	398.5	406.0	428.5	446.9	468.5	484.4
77.5°	255.1	260.9	274.3	289.3	308.5	320.1	327.6	349.3	366.8	386.0	406.0
80°	186.7	186.7	202.6	213.4	233.4	243.4	251.8	269.3	289.3	308.5	331.0
82.5°	116.7	120.9	131.7	146.7	164.2	173.4	180.9	198.4	219.3	239.3	258.4
85°	63.4	64.2	75.0	88.4	106.7	113.4	123.4	141.7	160.1	178.4	199.3
87.5°	19.2	24.2	35.0	50.0	64.2	73.4	80.0	99.2	115.9	134.2	155.1
90°	1.7	5.8	16.7	30.0	45.9	53.4	62.5	79.2	95.9	115.0	130.1
92.5°	0.8	5.0	15.0	28.3	44.2	51.7	60.9	76.7	94.2	109.2	122.6
95°	0.8	4.2	14.2	28.3	43.4	51.7	59.2	75.9	91.7	105.0	117.6
97.5°	0.8	4.2	14.2	27.5	42.5	50.0	58.4	74.2	88.4	101.7	115.9
100°	0.8	4.2	13.3	26.7	41.7	50.0	57.5	71.7	85.0	99.2	110.9
102.5°	0.8	4.2	13.3	26.7	40.9	48.4	55.0	69.2	82.5	94.2	106.7
105°	0.8	3.3	12.5	25.8	39.2	46.7	53.4	66.7	79.2	91.7	102.5
107.5°	0.8	3.3	12.5	24.2	38.3	45.0	52.5	65.0	76.7	88.4	99.2
110°	0.8	3.3	11.7	24.2	36.7	44.2	50.9	63.4	75.0	85.9	95.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.8	3.3	11.7	23.3	35.8	42.5	49.2	62.5	73.4	83.4	92.5
115°	0.8	2.5	10.8	22.5	35.8	42.5	48.4	60.9	72.5	81.7	89.2
117.5°	0.8	2.5	10.8	21.7	34.2	40.9	47.5	60.0	70.9	80.9	88.4
120°	0.8	2.5	10.0	21.7	34.2	40.0	46.7	59.2	70.0	80.0	88.4
122.5°	0.8	2.5	10.0	20.8	32.5	39.2	45.9	58.4	69.2	79.2	88.4
125°	0.8	1.7	9.2	20.0	31.7	38.3	45.0	57.5	68.4	79.2	87.5
127.5°	0.8	1.7	8.3	19.2	30.8	36.7	43.4	55.9	66.7	77.5	86.7
130°	0.8	1.7	8.3	17.5	29.2	35.0	41.7	54.2	65.0	75.0	85.0
132.5°	0.8	1.7	7.5	16.7	27.5	33.3	39.2	51.7	62.5	72.5	81.7
135°	1.7	1.7	6.7	15.0	25.8	31.7	37.5	49.2	60.0	70.0	79.2
137.5°	1.7	1.7	5.8	14.2	23.3	29.2	34.2	45.9	55.9	65.9	75.0
140°	1.7	1.7	5.0	12.5	20.8	25.8	30.8	40.9	51.7	60.9	70.0
142.5°	1.7	1.7	4.2	10.8	18.3	23.3	27.5	36.7	45.9	55.9	64.2
145°	1.7	1.7	3.3	9.2	15.8	20.0	23.3	31.7	40.0	49.2	57.5
147.5°	1.7	1.7	3.3	7.5	13.3	16.7	20.0	27.5	35.0	42.5	50.0
150°	1.7	1.7	2.5	5.8	10.8	13.3	16.7	23.3	29.2	35.8	43.4
152.5°	1.7	1.7	1.7	5.0	9.2	11.7	13.3	19.2	24.2	30.0	35.8
155°	1.7	1.7	1.7	4.2	7.5	9.2	10.8	15.0	20.0	25.0	29.2
157.5°	1.7	1.7	1.7	3.3	5.8	6.7	8.3	12.5	15.8	20.0	23.3
160°	2.5	1.7	1.7	2.5	4.2	5.0	6.7	9.2	12.5	15.0	18.3
162.5°	2.5	1.7	1.7	1.7	3.3	4.2	5.0	6.7	9.2	11.7	13.3
165°	2.5	2.5	1.7	1.7	2.5	2.5	3.3	5.0	5.8	8.3	10.0
167.5°	2.5	2.5	1.7	1.7	1.7	1.7	2.5	3.3	4.2	5.0	5.8
170°	2.5	2.5	1.7	1.7	1.7	1.7	1.7	1.7	2.5	2.5	3.3
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°	2383.5	2383.5	2383.5	2383.5	2383.5	2383.5	2383.5	2383.5	2383.5	2383.5
2.5°	2357.7	2359.3	2355.2	2356.0	2354.3	2355.2	2352.7	2351.8	2353.5	2348.5
5°	2271.8	2267.6	2262.6	2262.6	2261.8	2260.1	2259.3	2261.0	2260.1	2262.6
7.5°	2160.1	2152.6	2154.3	2150.1	2155.1	2153.4	2155.1	2156.8	2156.8	2156.8
10°	2057.5	2065.0	2068.4	2071.7	2075.9	2073.4	2079.2	2080.9	2082.6	2079.2
12.5°	1990.0	1990.0	1995.9	1997.5	1997.5	1999.2	2005.9	2000.9	2008.4	2015.0
15°	1926.7	1931.7	1936.7	1937.5	1937.5	1945.8	1947.5	1945.0	1945.8	1943.3
17.5°	1875.8	1878.3	1880.0	1885.0	1890.0	1889.1	1890.8	1895.0	1893.3	1890.8
20°	1824.1	1831.6	1837.5	1836.6	1837.5	1840.0	1840.8	1841.6	1837.5	1834.9
22.5°	1777.4	1777.4	1787.4	1790.8	1794.1	1793.3	1791.6	1793.3	1793.3	1787.4
25°	1729.1	1737.4	1742.4	1740.7	1745.7	1749.9	1745.7	1744.9	1748.2	1746.6
27.5°	1689.1	1689.1	1694.9	1704.1	1703.2	1704.9	1701.6	1698.2	1695.7	1694.9
30°	1635.7	1644.0	1652.4	1650.7	1653.2	1656.5	1656.5	1653.2	1647.4	1647.4
32.5°	1589.0	1594.8	1598.2	1608.2	1611.5	1610.7	1603.2	1597.3	1599.8	1599.8
35°	1540.7	1547.3	1560.7	1559.0	1560.7	1562.3	1559.8	1557.3	1557.3	1558.2
37.5°	1489.0	1509.8	1509.0	1525.7	1529.0	1528.2	1525.7	1518.1	1519.8	1523.1
40°	1459.0	1467.3	1484.0	1487.3	1489.0	1490.6	1498.1	1493.1	1490.6	1489.0
42.5°	1420.6	1434.8	1443.1	1453.1	1460.6	1462.3	1458.1	1455.6	1457.3	1456.5
45°	1373.1	1392.3	1403.1	1412.3	1411.4	1413.1	1418.1	1423.9	1424.8	1420.6
47.5°	1328.1	1333.1	1355.6	1353.1	1363.1	1370.6	1368.9	1365.6	1371.4	1370.6
50°	1265.5	1283.0	1288.9	1304.7	1306.4	1301.4	1307.2	1310.6	1311.4	1311.4
52.5°	1203.8	1214.7	1231.4	1232.2	1238.0	1240.5	1243.9	1245.5	1248.9	1247.2
55°	1140.5	1147.2	1158.8	1168.8	1171.3	1170.5	1174.7	1181.3	1184.7	1187.2
57.5°	1064.6	1079.6	1083.0	1093.0	1091.3	1097.1	1104.6	1108.0	1113.0	1115.5
60°	982.1	993.8	1005.4	1008.8	1012.1	1017.1	1024.6	1023.8	1031.3	1035.4
62.5°	907.1	912.1	922.1	928.7	929.6	929.6	937.1	940.4	947.9	949.6
65°	822.0	833.7	837.9	840.4	844.5	844.5	851.2	854.5	860.4	870.4
67.5°	742.8	753.7	762.0	763.7	767.0	768.7	767.0	771.2	775.3	780.3
70°	660.3	670.3	681.1	687.8	686.1	685.3	686.1	689.5	695.3	693.6
72.5°	581.1	596.9	601.9	611.9	612.8	614.4	610.3	608.6	613.6	611.1
75°	501.0	517.7	525.2	536.1	531.1	533.6	533.6	541.1	547.7	549.4
77.5°	425.2	441.9	451.9	456.9	465.2	473.5	475.2	479.4	475.2	475.2
80°	348.5	363.5	381.8	387.7	390.2	392.7	395.2	396.0	396.8	396.8
82.5°	281.0	300.1	310.1	311.8	313.5	316.8	321.0	326.0	332.6	333.5
85°	218.4	230.1	239.3	246.8	249.3	254.3	263.4	271.8	281.0	285.1
87.5°	169.2	178.4	188.4	196.8	203.4	207.6	219.3	232.6	249.3	257.6
90°	141.7	151.7	161.7	172.6	179.2	185.9	199.3	214.3	235.1	246.8
92.5°	133.4	145.1	156.7	166.7	171.7	176.7	190.1	210.1	236.8	252.6
95°	130.9	141.7	150.9	160.9	167.6	174.2	190.1	210.1	229.3	237.6
97.5°	126.7	135.9	145.9	158.4	164.2	170.9	185.1	198.4	206.8	210.1
100°	120.9	130.9	141.7	152.6	158.4	163.4	173.4	182.6	188.4	191.7
102.5°	116.7	125.9	135.9	145.9	150.1	154.2	162.6	169.2	171.7	172.6
105°	112.5	120.9	130.1	136.7	139.2	142.6	146.7	146.7	146.7	146.7
107.5°	107.5	115.0	121.7	125.1	126.7	127.6	128.4	127.6	127.6	126.7
110°	103.4	109.2	113.4	115.0	115.0	115.9	115.9	115.9	115.9	115.9



TEST NUMBER: P241363

CATALOG NUMBER: FVS8M-3-LD4-40-2STD-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	99.2	104.2	106.7	108.4	108.4	109.2	110.0	111.7	112.5	112.5
115°	95.9	100.9	103.4	105.9	107.5	108.4	110.9	114.2	115.9	115.9
117.5°	94.2	100.0	103.4	107.5	110.0	111.7	115.9	119.2	120.9	121.7
120°	95.0	100.9	105.9	110.9	113.4	115.0	120.1	123.4	125.9	126.7
122.5°	95.9	101.7	108.4	113.4	115.9	118.4	122.6	126.7	129.2	130.1
125°	95.0	102.5	109.2	115.0	117.6	120.1	124.2	128.4	130.9	131.7
127.5°	94.2	101.7	109.2	115.0	117.6	120.9	125.1	128.4	130.9	131.7
130°	92.5	100.0	107.5	114.2	116.7	119.2	123.4	127.6	130.1	131.7
132.5°	90.0	97.5	105.0	110.9	114.2	116.7	121.7	125.9	129.2	130.1
135°	86.7	94.2	101.7	108.4	110.9	114.2	118.4	122.6	125.1	126.7
137.5°	82.5	90.0	96.7	103.4	105.9	108.4	113.4	117.6	120.1	120.9
140°	77.5	84.2	90.9	96.7	99.2	101.7	105.9	109.2	112.5	114.2
142.5°	70.9	77.5	83.4	88.4	90.9	93.4	97.5	100.0	102.5	104.2
145°	64.2	70.0	75.0	79.2	81.7	84.2	87.5	90.0	92.5	93.4
147.5°	56.7	61.7	66.7	70.9	72.5	74.2	77.5	80.0	81.7	81.7
150°	49.2	54.2	58.4	62.5	63.4	65.0	67.5	69.2	70.9	70.0
152.5°	41.7	45.9	50.9	54.2	55.0	56.7	58.4	60.0	60.9	60.9
155°	34.2	38.3	42.5	45.9	46.7	48.4	49.2	50.9	51.7	51.7
157.5°	27.5	31.7	35.0	38.3	39.2	40.0	41.7	42.5	42.5	43.4
160°	21.7	24.2	27.5	30.0	31.7	32.5	34.2	34.2	35.0	35.0
162.5°	15.8	18.3	20.8	23.3	24.2	25.0	26.7	27.5	27.5	27.5
165°	10.8	13.3	14.2	15.8	16.7	18.3	20.0	20.0	20.8	20.0
167.5°	7.5	8.3	9.2	10.8	10.8	11.7	12.5	13.3	14.2	14.2
170°	4.2	5.0	5.0	5.8	5.8	5.8	6.7	7.5	7.5	7.5
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)