

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: P241397

Luminaire Tested: **FVS8M-4-LD4-30-2STD-P125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241397  
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-LD4-30-2STD-P125-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
4FT LENGTH, 2-MODULE LED WITH P125 LENS  
Light Source: (168) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

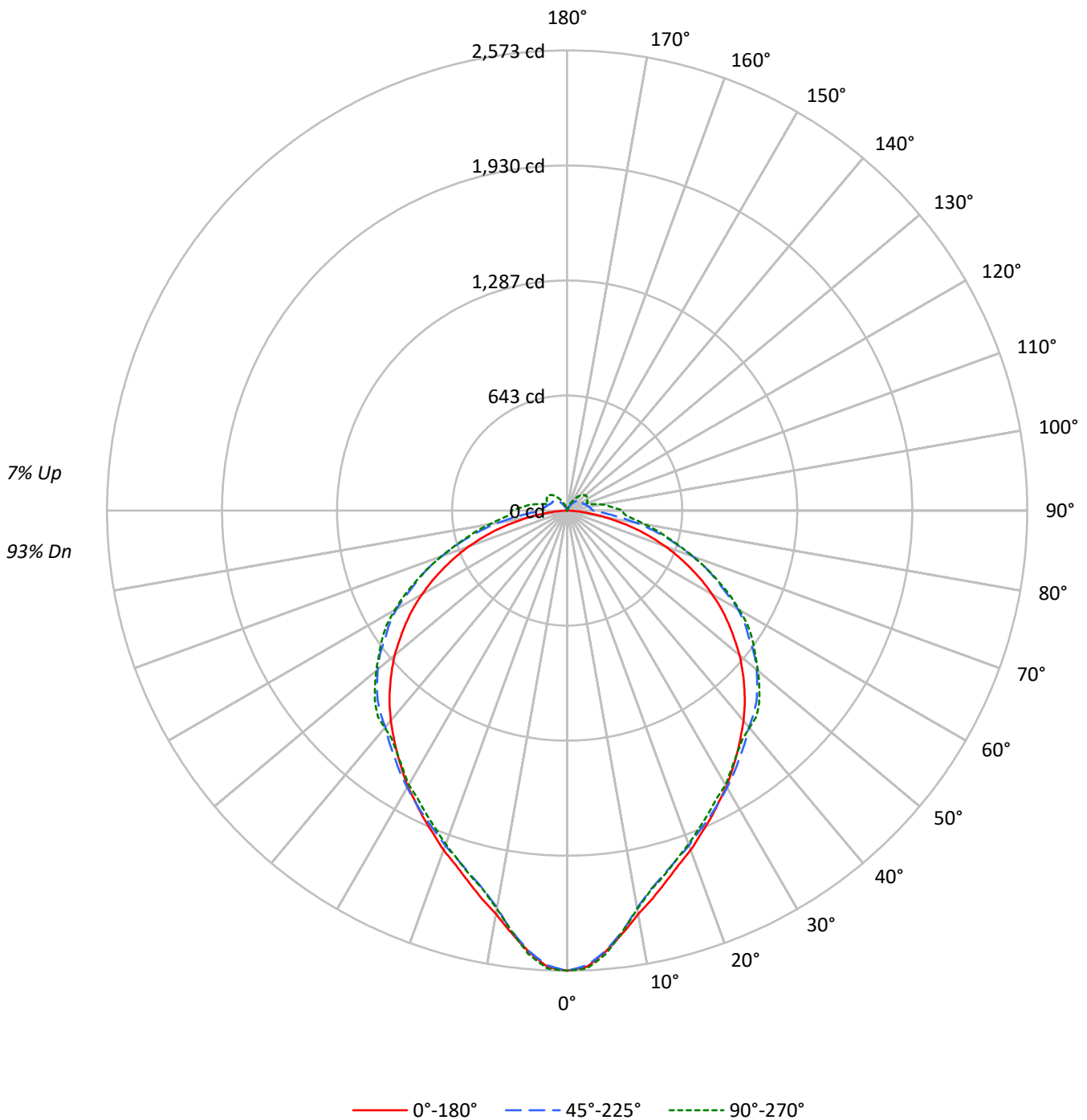
Lumens per Lamp: N/A  
Luminaire Lumens: 7145.0 lumens  
Efficiency: N/A  
Efficacy: 110.1 lumens/watt  
Spacing Criteria (0/90/45): 1.04 / 1.02 / 1.27  
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 64.9  
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°	11499	11499	11499
5°	11067	10908	10950
10°	10325	9908	9867
15°	9817	9263	9196
20°	9473	8871	8723
25°	9192	8562	8337
30°	8992	8327	8082
35°	8797	8116	7804
40°	8663	7972	7778
45°	8524	7979	7832
50°	8370	7860	7631
55°	8129	7627	7459
60°	7838	7439	7152
65°	7410	6954	6633
70°	6866	6432	6031
75°	5988	5742	5424
80°	4630	4845	4953
85°	2587	3778	4756



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	229.6	3.2
10°-20°	598.0	8.4
20°-30°	872.2	12.2
30°-40°	1050.8	14.7
40°-50°	1139.7	16.0
50°-60°	1086.2	15.2
60°-70°	875.8	12.3
70°-80°	560.1	7.8
80°-90°	250.4	3.5
90°-100°	138.9	1.9
100°-110°	101.3	1.4
110°-120°	79.8	1.1
120°-130°	70.7	1.0
130°-140°	51.7	0.7
140°-150°	28.0	0.4
150°-160°	10.0	0.1
160°-170°	1.6	0.0
170°-180°	0.0	0.0
0°-30°	1699.8	23.8
0°-40°	2750.7	38.5
0°-60°	4976.6	69.7
0°-90°	6662.9	93.3
90°-120°	320.1	4.5
90°-150°	470.5	6.6
90°-180°	482.0	6.7
0°-180°	7145.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2573	2573	2573	2573	2573	
5°	2475	2475	2471	2489	2489	230
15°	2144	2136	2102	2110	2108	605
25°	1898	1900	1888	1884	1869	875
35°	1656	1681	1683	1676	1656	1038
45°	1401	1444	1499	1524	1519	1081
55°	1102	1175	1241	1268	1266	984
65°	760	845	922	932	931	753
75°	397	473	565	593	579	420
85°	73	139	231	292	332	91
90°	1	68	148	209	311	3
95°	1	60	133	191	244	1
105°	1	51	114	142	141	1
115°	1	45	97	115	124	1
125°	1	37	92	122	135	1
135°	2	25	75	108	124	1
145°	2	11	47	75	86	1
155°	2	2	19	38	44	1
165°	2	1	2	8	12	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°	2572.8	2572.8	2572.8	2572.8	2572.8	2572.8	2572.8	2572.8	2572.8	2572.8	2572.8
2.5°	2552.8	2552.8	2552.8	2549.0	2549.0	2553.6	2553.6	2555.9	2552.1	2548.2	2545.1
5°	2475.2	2472.9	2467.5	2468.3	2471.3	2475.2	2474.4	2481.3	2479.0	2474.4	2471.3
7.5°	2382.9	2378.3	2376.0	2376.0	2373.7	2377.6	2375.3	2380.6	2376.0	2372.2	2371.4
10°	2290.7	2290.7	2290.7	2284.6	2285.3	2284.6	2279.9	2276.9	2273.0	2260.7	2255.3
12.5°	2218.4	2216.9	2210.8	2206.1	2206.1	2203.1	2203.8	2197.7	2187.7	2173.1	2166.9
15°	2143.9	2146.2	2143.9	2137.0	2138.5	2136.2	2133.9	2126.2	2121.6	2107.0	2102.4
17.5°	2075.5	2081.6	2077.0	2069.3	2067.0	2065.5	2066.2	2063.2	2053.9	2047.8	2043.2
20°	2020.1	2018.6	2014.7	2008.6	2014.7	2012.4	2012.4	2009.4	2004.0	1997.1	1992.4
22.5°	1955.6	1957.1	1952.5	1952.5	1956.3	1958.6	1954.0	1952.5	1948.6	1940.2	1937.1
25°	1897.9	1899.4	1896.4	1894.8	1897.9	1900.2	1900.2	1900.2	1897.1	1891.7	1887.9
27.5°	1837.2	1842.6	1838.7	1838.7	1844.9	1849.5	1851.8	1847.9	1846.4	1840.2	1837.9
30°	1781.8	1776.4	1778.8	1787.2	1790.3	1795.7	1799.5	1800.3	1792.6	1790.3	1788.0
32.5°	1718.8	1721.1	1716.5	1725.7	1738.0	1744.2	1744.2	1742.6	1740.3	1739.5	1738.0
35°	1656.5	1658.1	1659.6	1671.1	1677.3	1681.1	1687.3	1692.7	1688.8	1685.0	1682.7
37.5°	1594.3	1597.3	1600.4	1608.9	1616.6	1624.2	1631.2	1638.8	1637.3	1631.9	1634.2
40°	1533.5	1537.4	1535.8	1541.2	1562.7	1570.4	1573.5	1580.4	1581.2	1574.3	1581.2
42.5°	1470.5	1470.5	1469.7	1486.6	1499.7	1507.4	1508.2	1523.5	1529.7	1535.8	1543.5
45°	1401.3	1402.9	1409.8	1421.3	1432.8	1444.4	1455.9	1473.6	1480.5	1489.7	1498.9
47.5°	1330.6	1331.4	1342.9	1350.6	1374.4	1387.5	1396.7	1405.9	1417.5	1427.5	1441.3
50°	1259.9	1263.0	1263.0	1287.6	1306.8	1312.2	1320.6	1335.2	1357.5	1371.3	1382.9
52.5°	1178.4	1186.1	1191.5	1211.5	1226.8	1239.1	1253.7	1279.1	1295.2	1307.5	1318.3
55°	1101.5	1097.7	1119.2	1125.4	1157.6	1174.6	1185.3	1203.0	1213.0	1226.8	1240.7
57.5°	1023.1	1022.4	1034.7	1051.6	1086.2	1093.8	1096.9	1118.4	1145.4	1165.3	1178.4
60°	936.3	940.1	947.8	979.3	993.9	1001.6	1017.7	1051.6	1070.8	1091.5	1102.3
62.5°	850.9	851.7	873.2	890.1	909.4	928.6	945.5	964.7	975.5	993.9	1006.2
65°	759.5	764.1	787.1	798.7	834.8	844.8	850.9	870.2	887.8	910.1	921.7
67.5°	672.6	677.2	695.7	710.3	741.8	744.9	755.6	784.8	812.5	829.4	840.9
70°	581.9	590.4	598.8	625.7	642.6	654.2	669.5	701.8	711.8	731.8	745.6
72.5°	490.4	498.1	507.3	528.9	550.4	563.5	581.1	599.6	611.1	629.6	653.4
75°	397.4	405.1	418.2	435.8	459.7	472.7	482.0	498.9	526.6	548.1	565.0
77.5°	304.4	309.0	327.5	342.8	371.3	379.7	392.8	413.6	439.7	461.2	476.6
80°	219.8	226.0	238.3	256.7	278.3	291.3	301.3	326.7	352.8	368.2	388.2
82.5°	139.9	146.1	160.7	179.1	198.3	209.9	222.9	246.7	269.0	285.2	304.4
85°	73.0	78.4	92.2	111.5	128.4	139.1	152.2	176.0	192.9	212.9	231.4
87.5°	23.1	29.2	43.0	61.5	80.7	90.7	101.5	123.8	140.7	160.7	177.6
90°	0.8	6.1	20.0	37.7	57.7	67.6	77.6	96.9	114.5	131.4	147.6
92.5°	0.8	5.4	18.4	35.4	53.8	63.0	72.3	89.9	107.6	123.8	137.6
95°	0.8	4.6	16.9	33.8	51.5	60.0	69.2	86.1	103.0	118.4	133.0
97.5°	0.8	4.6	16.1	31.5	48.4	56.9	66.1	83.0	99.2	113.8	128.4
100°	0.8	3.8	14.6	30.0	46.1	54.6	63.0	79.9	95.3	109.9	123.0
102.5°	0.8	3.1	13.8	28.4	44.6	52.3	60.7	76.9	91.5	106.1	118.4
105°	0.8	3.1	12.3	26.9	43.0	50.7	59.2	74.6	89.2	102.2	113.8
107.5°	0.8	2.3	11.5	25.4	41.5	49.2	57.7	72.3	86.1	98.4	109.2
110°	0.8	2.3	10.8	24.6	40.0	47.7	55.3	70.7	83.8	95.3	103.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.8	1.5	10.0	23.1	38.4	46.1	53.8	68.4	81.5	91.5	99.9
115°	0.8	1.5	9.2	22.3	36.9	44.6	52.3	66.1	78.4	89.2	96.9
117.5°	0.8	0.8	8.5	20.8	35.4	42.3	50.0	64.6	76.9	86.9	95.3
120°	0.8	0.8	6.9	19.2	33.1	40.7	48.4	62.3	75.3	86.1	95.3
122.5°	0.8	0.8	6.1	17.7	31.5	39.2	46.1	60.0	73.0	84.6	93.8
125°	0.8	0.8	5.4	16.1	29.2	36.9	43.8	57.7	70.7	82.2	91.5
127.5°	0.8	0.8	4.6	14.6	26.9	33.8	41.5	54.6	67.6	78.4	88.4
130°	0.8	0.8	3.1	12.3	24.6	31.5	38.4	51.5	63.8	74.6	84.6
132.5°	1.5	0.8	2.3	10.8	22.3	28.4	34.6	47.7	60.0	70.0	79.9
135°	1.5	0.8	1.5	8.5	19.2	24.6	30.7	42.3	54.6	65.3	74.6
137.5°	1.5	1.5	1.5	6.9	16.1	20.8	26.1	37.7	48.4	59.2	69.2
140°	1.5	1.5	0.8	5.4	13.1	17.7	22.3	32.3	42.3	52.3	62.3
142.5°	1.5	1.5	0.8	3.8	10.0	13.8	18.4	26.9	36.9	46.1	54.6
145°	1.5	1.5	0.8	2.3	7.7	10.8	14.6	22.3	30.7	38.4	46.9
147.5°	1.5	1.5	0.8	1.5	5.4	8.5	10.8	17.7	24.6	31.5	38.4
150°	1.5	1.5	0.8	1.5	3.8	5.4	8.5	13.8	19.2	25.4	31.5
152.5°	1.5	1.5	1.5	0.8	2.3	3.8	6.1	10.0	15.4	20.0	25.4
155°	1.5	1.5	1.5	0.8	1.5	2.3	3.8	6.9	10.8	15.4	19.2
157.5°	2.3	1.5	1.5	0.8	0.8	1.5	2.3	4.6	7.7	10.8	13.8
160°	2.3	1.5	1.5	0.8	0.8	0.8	1.5	2.3	4.6	6.9	9.2
162.5°	2.3	2.3	1.5	0.8	0.8	0.8	0.8	1.5	2.3	3.8	5.4
165°	2.3	2.3	1.5	1.5	0.8	0.8	0.8	0.8	0.8	1.5	2.3
167.5°	2.3	2.3	1.5	1.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8
170°	2.3	2.3	1.5	1.5	0.8	0.8	0.8	0.8	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°	2572.8	2572.8	2572.8	2572.8	2572.8	2572.8	2572.8	2572.8	2572.8	2572.8
2.5°	2545.1	2553.6	2559.7	2562.0	2562.8	2561.3	2564.4	2565.1	2564.4	2562.0
5°	2472.1	2480.6	2487.5	2489.8	2489.0	2492.1	2490.6	2491.3	2490.6	2489.0
7.5°	2363.0	2365.3	2368.3	2364.5	2369.1	2369.9	2363.7	2367.6	2369.1	2373.0
10°	2255.3	2256.9	2259.2	2257.6	2259.2	2259.2	2259.2	2260.0	2263.0	2260.7
12.5°	2166.2	2169.2	2177.7	2175.4	2179.2	2183.9	2178.5	2174.6	2180.0	2170.8
15°	2103.9	2106.2	2107.8	2105.4	2110.1	2107.8	2106.2	2102.4	2107.0	2107.8
17.5°	2045.5	2044.0	2049.3	2044.7	2045.5	2044.0	2043.2	2037.8	2036.3	2042.4
20°	1993.2	1989.4	1985.5	1988.6	1992.4	1989.4	1988.6	1984.8	1985.5	1984.8
22.5°	1935.6	1940.2	1943.3	1942.5	1938.6	1940.2	1934.8	1928.6	1927.9	1924.0
25°	1889.4	1891.0	1889.4	1889.4	1884.1	1881.8	1884.1	1877.9	1871.8	1868.7
27.5°	1839.5	1840.2	1840.2	1834.1	1832.6	1831.0	1825.6	1821.0	1816.4	1812.6
30°	1784.9	1789.5	1784.1	1787.2	1785.7	1780.3	1776.4	1770.3	1765.7	1770.3
32.5°	1737.2	1734.2	1734.2	1731.9	1730.3	1731.9	1724.2	1714.2	1709.6	1710.3
35°	1683.4	1683.4	1686.5	1681.1	1675.7	1674.2	1667.3	1665.0	1655.8	1656.5
37.5°	1634.2	1632.7	1634.2	1632.7	1629.6	1628.9	1615.8	1618.1	1615.8	1609.6
40°	1590.4	1595.8	1597.3	1587.3	1591.2	1594.3	1585.0	1586.6	1582.7	1585.8
42.5°	1553.5	1557.4	1563.5	1562.0	1558.9	1555.1	1562.0	1564.3	1560.4	1565.1
45°	1509.7	1516.6	1517.4	1524.3	1523.5	1520.5	1521.2	1518.9	1515.1	1518.9
47.5°	1450.5	1455.9	1460.5	1461.3	1466.7	1466.7	1461.3	1463.6	1468.2	1457.4
50°	1392.1	1394.4	1399.8	1396.7	1399.0	1402.1	1400.6	1394.4	1394.4	1392.9
52.5°	1327.5	1332.9	1333.7	1335.2	1334.4	1327.5	1329.1	1329.1	1323.7	1326.0
55°	1255.3	1267.6	1272.2	1269.1	1268.3	1270.6	1265.3	1274.5	1265.3	1266.0
57.5°	1187.6	1189.9	1196.1	1196.9	1194.5	1199.9	1197.6	1196.9	1194.5	1199.2
60°	1110.0	1112.3	1112.3	1107.7	1113.8	1107.7	1110.0	1108.5	1115.4	1113.1
62.5°	1017.0	1023.1	1028.5	1020.1	1020.8	1018.5	1017.7	1017.7	1023.9	1026.2
65°	929.3	928.6	936.3	930.9	931.7	933.2	924.0	929.3	929.3	930.9
67.5°	850.2	848.6	845.6	843.3	842.5	841.7	839.4	834.8	837.9	840.2
70°	754.9	764.1	759.5	759.5	757.9	756.4	759.5	744.9	747.2	747.9
72.5°	664.9	669.5	676.4	679.5	677.2	673.4	670.3	664.9	658.8	660.3
75°	575.7	580.4	589.6	591.9	592.7	590.4	591.9	587.3	584.2	578.8
77.5°	489.7	497.3	502.7	511.9	511.9	512.7	516.6	515.0	510.4	511.9
80°	400.5	408.9	420.5	430.5	434.3	435.8	437.4	436.6	438.2	438.9
82.5°	316.7	337.5	343.6	354.4	359.0	360.5	368.2	371.3	373.6	378.2
85°	248.3	262.9	277.5	287.5	292.1	295.9	303.6	313.6	325.9	332.1
87.5°	193.7	206.8	220.6	232.9	240.6	246.7	259.0	279.0	301.3	315.2
90°	161.4	175.3	189.9	202.2	209.1	216.0	234.5	259.8	292.9	310.6
92.5°	151.4	166.0	178.3	191.4	198.3	206.0	225.2	248.3	269.0	276.0
95°	146.8	160.7	171.4	183.7	191.4	199.1	214.5	229.1	239.8	243.7
97.5°	141.4	153.7	164.5	176.8	182.2	188.3	201.4	212.9	221.4	225.2
100°	135.3	146.8	156.0	166.0	169.9	175.3	186.8	195.2	199.1	196.8
102.5°	129.9	138.4	146.8	153.7	156.8	160.7	166.8	168.3	167.6	165.3
105°	123.0	130.7	136.1	139.9	142.2	143.7	145.3	144.5	143.0	140.7
107.5°	116.8	122.2	126.1	126.8	128.4	129.1	129.9	128.4	126.1	125.3
110°	110.7	115.3	117.6	118.4	118.4	119.1	119.9	119.9	118.4	117.6





TEST NUMBER: P241397

CATALOG NUMBER: FVS8M-4-LD4-30-2STD-P125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	106.1	109.9	112.2	113.8	114.5	115.3	117.6	119.1	118.4	118.4
115°	103.0	107.6	111.5	113.8	115.3	116.8	120.7	123.0	123.8	123.8
117.5°	102.2	108.4	113.0	116.8	118.4	120.7	124.5	127.6	128.4	128.4
120°	103.0	109.2	114.5	119.1	121.5	123.8	127.6	130.7	132.2	133.0
122.5°	102.2	109.2	115.3	120.7	123.0	125.3	129.1	133.0	134.5	134.5
125°	99.9	107.6	113.8	119.9	122.2	124.5	129.1	133.0	135.3	135.3
127.5°	96.9	104.5	111.5	117.6	119.9	123.0	127.6	131.4	134.5	134.5
130°	93.0	101.5	108.4	114.5	116.8	119.9	124.5	129.1	131.4	132.2
132.5°	88.4	96.9	103.8	109.9	113.0	115.3	120.7	125.3	127.6	129.1
135°	83.8	91.5	98.4	105.3	107.6	110.7	115.3	119.1	122.2	123.8
137.5°	77.6	85.3	92.2	98.4	100.7	103.8	108.4	112.2	115.3	116.1
140°	70.7	78.4	85.3	90.7	93.8	96.1	100.7	103.8	106.1	106.8
142.5°	63.0	70.7	76.9	82.2	84.6	86.9	90.7	93.8	96.1	96.9
145°	54.6	62.3	67.6	73.0	75.3	76.9	80.7	83.0	86.1	86.1
147.5°	46.1	53.0	59.2	63.8	65.3	67.6	70.7	73.0	73.8	74.6
150°	37.7	43.8	50.0	54.6	56.1	57.7	60.0	62.3	63.8	63.8
152.5°	30.0	35.4	40.7	46.1	46.9	48.4	50.7	52.3	53.8	53.8
155°	23.8	27.7	31.5	36.1	38.4	40.0	41.5	43.0	43.8	43.8
157.5°	17.7	20.8	23.8	27.7	29.2	31.5	33.1	33.8	34.6	35.4
160°	11.5	14.6	16.9	20.0	21.5	23.1	24.6	26.1	26.9	26.9
162.5°	6.9	9.2	10.8	13.1	13.8	14.6	17.7	18.4	18.4	18.4
165°	3.8	4.6	6.1	6.9	7.7	8.5	10.0	11.5	11.5	11.5
167.5°	0.8	1.5	2.3	2.3	3.1	3.1	3.8	5.4	5.4	5.4
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8
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)