

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: P241344

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241344
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-LD4-50-3HI-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

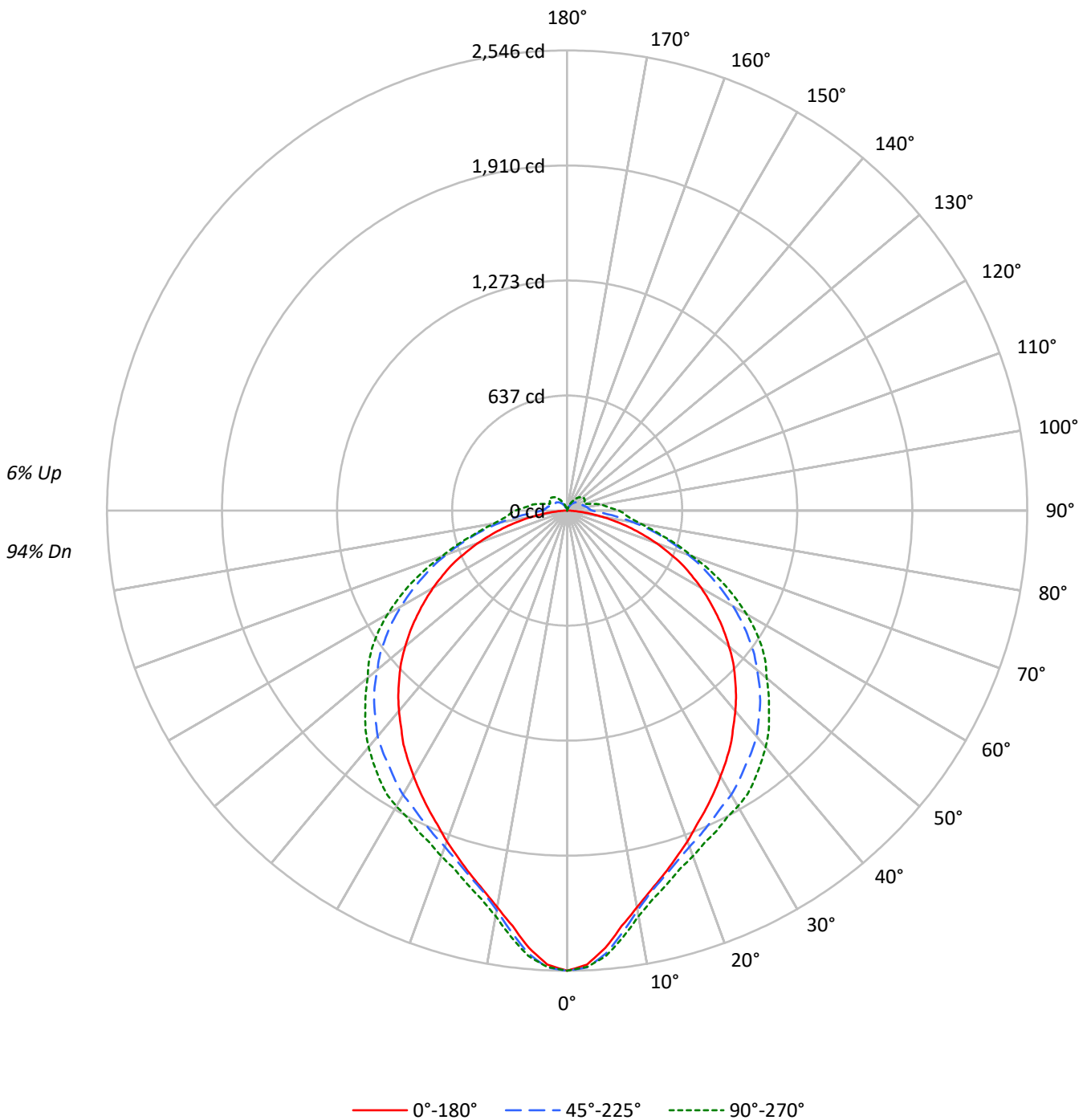
Lumens per Lamp: N/A
Luminaire Lumens: 7019.0 lumens
Efficiency: N/A
Efficacy: 105.5 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.11 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 66.5
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	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°	22885	22885	22885
5°	21762	21793	21883
10°	20055	19736	19993
15°	18957	18402	18763
20°	18105	17556	17990
25°	17403	17051	17544
30°	16852	16764	17343
35°	16419	16404	17166
40°	15936	16207	16856
45°	15480	15796	16383
50°	14946	15254	15872
55°	14286	14684	15602
60°	13560	13891	14824
65°	12720	12894	13651
70°	11329	11748	11908
75°	9467	10314	10407
80°	6998	8628	9301
85°	3389	6634	9496



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.5	3.2
10°-20°	593.0	8.4
20°-30°	873.5	12.4
30°-40°	1072.5	15.3
40°-50°	1140.8	16.3
50°-60°	1067.4	15.2
60°-70°	846.5	12.1
70°-80°	528.4	7.5
80°-90°	237.2	3.4
90°-100°	127.3	1.8
100°-110°	92.7	1.3
110°-120°	67.8	1.0
120°-130°	59.9	0.9
130°-140°	45.0	0.6
140°-150°	26.5	0.4
150°-160°	10.7	0.2
160°-170°	2.1	0.0
170°-180°	0.0	0.0
0°-30°	1694.1	24.1
0°-40°	2766.6	39.4
0°-60°	4974.8	70.9
0°-90°	6587.0	93.8
90°-120°	287.8	4.1
90°-150°	419.2	6.0
90°-180°	432.0	6.2
0°-180°	7019.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2546	2546	2546	2546	2546	
5°	2428	2441	2461	2466	2473	225
15°	2080	2082	2092	2113	2138	586
25°	1819	1842	1892	1942	1955	839
35°	1579	1634	1720	1808	1812	986
45°	1314	1394	1510	1565	1580	1014
55°	1014	1104	1225	1286	1317	907
65°	699	772	886	939	953	686
75°	353	426	536	575	552	375
85°	62	130	223	278	330	80
90°	1	61	138	204	287	4
95°	0	54	121	175	228	0
105°	0	44	99	133	144	0
115°	0	37	81	97	104	0
125°	0	32	76	104	115	0
135°	1	25	64	92	105	1
145°	1	16	47	68	77	1
155°	1	5	24	38	43	0
165°	1	1	5	11	14	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°	2545.9	2545.9	2545.9	2545.9	2545.9	2545.9	2545.9	2545.9	2545.9	2545.9	2545.9
2.5°	2513.7	2516.8	2517.9	2518.9	2518.9	2522.0	2522.0	2524.1	2527.2	2529.3	2530.3
5°	2428.4	2434.7	2429.5	2434.7	2438.8	2440.9	2444.0	2446.1	2452.3	2458.6	2460.7
7.5°	2317.1	2319.2	2322.3	2325.5	2329.6	2328.6	2330.7	2337.9	2345.2	2354.6	2353.5
10°	2227.7	2227.7	2227.7	2227.7	2227.7	2230.8	2231.9	2235.0	2240.2	2249.5	2244.3
12.5°	2148.7	2150.7	2153.9	2152.8	2150.7	2149.7	2146.6	2150.7	2151.8	2158.0	2155.9
15°	2080.0	2076.9	2080.0	2082.1	2080.0	2082.1	2081.1	2084.2	2083.1	2085.2	2091.5
17.5°	2010.3	2017.6	2019.7	2014.5	2016.6	2018.7	2019.7	2018.7	2018.7	2027.0	2031.1
20°	1946.9	1950.0	1950.0	1949.0	1953.1	1954.2	1959.4	1959.4	1964.6	1975.0	1979.1
22.5°	1878.3	1884.5	1888.7	1887.6	1899.1	1899.1	1900.1	1904.3	1918.8	1923.0	1936.5
25°	1819.0	1825.2	1827.3	1831.5	1839.8	1841.9	1841.9	1859.5	1864.7	1877.2	1891.8
27.5°	1758.7	1762.8	1764.9	1772.2	1785.7	1785.7	1790.9	1808.6	1820.0	1834.6	1849.1
30°	1697.3	1706.7	1706.7	1718.1	1729.5	1732.7	1745.1	1760.7	1779.5	1791.9	1815.9
32.5°	1638.0	1642.2	1646.3	1664.0	1676.5	1685.9	1695.2	1715.0	1730.6	1752.4	1770.1
35°	1578.7	1583.9	1588.1	1606.8	1618.2	1633.8	1645.3	1670.3	1685.9	1706.7	1720.2
37.5°	1509.0	1517.4	1526.7	1541.3	1564.2	1576.6	1587.0	1617.2	1634.9	1653.6	1678.6
40°	1447.7	1456.0	1466.4	1482.0	1507.0	1516.3	1529.8	1554.8	1583.9	1605.8	1630.7
42.5°	1383.2	1392.6	1403.0	1421.7	1441.4	1453.9	1469.5	1495.5	1524.6	1551.7	1568.3
45°	1313.5	1321.8	1335.4	1353.0	1378.0	1393.6	1406.1	1437.3	1460.2	1488.2	1510.1
47.5°	1247.0	1251.1	1265.7	1289.6	1311.4	1330.2	1342.6	1369.7	1399.8	1420.6	1444.6
50°	1169.0	1174.2	1189.8	1213.7	1242.8	1260.5	1267.8	1301.0	1326.0	1353.0	1370.7
52.5°	1093.0	1101.4	1120.1	1141.9	1169.0	1184.6	1198.1	1222.0	1254.2	1278.2	1305.2
55°	1014.0	1024.4	1041.0	1065.0	1088.9	1104.5	1120.1	1147.1	1176.2	1204.3	1225.1
57.5°	935.0	945.4	962.0	985.9	1009.8	1022.3	1037.9	1066.0	1099.3	1126.3	1146.1
60°	857.0	864.2	881.9	902.7	926.6	942.2	953.7	982.8	1014.0	1037.9	1060.8
62.5°	775.8	783.1	797.7	817.4	844.5	858.0	868.4	898.6	927.7	950.6	975.5
65°	698.9	698.9	716.6	733.2	756.1	771.7	787.3	813.3	838.2	863.2	886.1
67.5°	606.3	615.7	628.2	646.9	672.9	686.4	702.0	727.0	749.8	780.0	801.8
70°	524.2	528.3	542.9	563.7	584.5	598.0	613.6	636.5	662.5	689.5	711.4
72.5°	435.8	444.1	456.6	480.5	497.1	510.6	525.2	549.1	574.1	601.1	623.0
75°	352.6	359.8	372.3	391.0	412.9	426.4	437.8	462.8	486.7	516.9	535.6
77.5°	273.5	276.6	290.2	307.8	334.9	342.2	355.7	378.6	405.6	429.5	452.4
80°	195.5	201.8	212.2	228.8	252.7	264.2	275.6	300.6	323.4	349.4	370.2
82.5°	122.7	132.1	140.4	162.2	181.0	190.3	203.8	225.7	251.7	273.5	292.2
85°	62.4	69.7	82.2	97.8	118.6	130.0	139.4	163.3	185.1	205.9	222.6
87.5°	23.9	29.1	39.5	56.2	74.9	84.2	95.7	115.4	136.2	152.9	169.5
90°	1.0	7.3	18.7	34.3	52.0	61.4	70.7	90.5	108.2	123.8	138.3
92.5°	0.0	5.2	15.6	31.2	47.8	56.2	65.5	82.2	96.7	111.3	125.8
95°	0.0	4.2	14.6	29.1	44.7	54.1	62.4	78.0	92.6	106.1	120.6
97.5°	0.0	4.2	13.5	28.1	43.7	52.0	59.3	73.8	87.4	101.9	115.4
100°	0.0	4.2	13.5	27.0	41.6	48.9	56.2	69.7	84.2	97.8	110.2
102.5°	0.0	3.1	12.5	25.0	39.5	46.8	53.0	66.6	80.1	92.6	105.0
105°	0.0	3.1	11.4	23.9	37.4	43.7	51.0	64.5	77.0	88.4	98.8
107.5°	0.0	3.1	11.4	22.9	35.4	42.6	48.9	61.4	73.8	84.2	93.6
110°	0.0	2.1	10.4	21.8	34.3	40.6	46.8	59.3	70.7	80.1	89.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	2.1	9.4	20.8	32.2	38.5	44.7	57.2	67.6	77.0	84.2
115°	0.0	2.1	9.4	19.8	31.2	37.4	43.7	55.1	65.5	73.8	81.1
117.5°	0.0	2.1	8.3	18.7	30.2	36.4	41.6	53.0	63.4	71.8	79.0
120°	0.0	2.1	8.3	17.7	29.1	35.4	40.6	52.0	61.4	70.7	78.0
122.5°	0.0	1.0	7.3	16.6	28.1	33.3	39.5	49.9	60.3	69.7	77.0
125°	0.0	1.0	7.3	15.6	27.0	32.2	38.5	48.9	59.3	68.6	75.9
127.5°	0.0	1.0	6.2	14.6	25.0	30.2	36.4	46.8	57.2	66.6	73.8
130°	0.0	1.0	5.2	13.5	23.9	29.1	34.3	44.7	54.1	63.4	70.7
132.5°	1.0	1.0	5.2	12.5	21.8	27.0	32.2	41.6	51.0	60.3	67.6
135°	1.0	1.0	4.2	11.4	19.8	25.0	29.1	39.5	47.8	57.2	64.5
137.5°	1.0	1.0	4.2	10.4	18.7	22.9	27.0	36.4	44.7	53.0	60.3
140°	1.0	1.0	3.1	9.4	16.6	20.8	25.0	33.3	41.6	48.9	56.2
142.5°	1.0	1.0	2.1	7.3	14.6	17.7	21.8	30.2	37.4	44.7	51.0
145°	1.0	1.0	2.1	6.2	12.5	15.6	18.7	26.0	33.3	39.5	46.8
147.5°	1.0	1.0	1.0	5.2	9.4	12.5	15.6	22.9	29.1	35.4	41.6
150°	1.0	1.0	1.0	3.1	7.3	10.4	12.5	18.7	23.9	30.2	35.4
152.5°	1.0	1.0	1.0	2.1	6.2	7.3	10.4	14.6	19.8	25.0	30.2
155°	1.0	1.0	1.0	2.1	4.2	5.2	7.3	11.4	15.6	19.8	23.9
157.5°	1.0	1.0	1.0	1.0	3.1	4.2	5.2	8.3	11.4	14.6	18.7
160°	1.0	1.0	1.0	1.0	2.1	2.1	3.1	5.2	8.3	10.4	13.5
162.5°	1.0	1.0	1.0	1.0	1.0	1.0	2.1	3.1	5.2	7.3	9.4
165°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1	3.1	4.2	5.2
167.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	2.1	3.1
170°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
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°	2545.9	2545.9	2545.9	2545.9	2545.9	2545.9	2545.9	2545.9	2545.9	2545.9
2.5°	2531.4	2530.3	2531.4	2530.3	2530.3	2529.3	2530.3	2529.3	2527.2	2527.2
5°	2460.7	2467.9	2469.0	2471.1	2465.9	2469.0	2469.0	2469.0	2469.0	2473.1
7.5°	2359.8	2370.2	2370.2	2370.2	2375.4	2376.4	2379.5	2379.5	2378.5	2378.5
10°	2252.7	2261.0	2264.1	2265.1	2271.4	2271.4	2276.6	2274.5	2277.6	2277.6
12.5°	2157.0	2161.1	2172.6	2183.0	2181.9	2187.1	2192.3	2196.5	2193.4	2199.6
15°	2093.5	2100.8	2106.0	2109.1	2113.3	2119.5	2124.7	2131.0	2133.1	2138.3
17.5°	2031.1	2041.5	2050.9	2061.3	2066.5	2068.6	2071.7	2074.8	2077.9	2077.9
20°	1989.5	1997.9	2005.1	2009.3	2014.5	2019.7	2020.7	2027.0	2029.1	2035.3
22.5°	1946.9	1953.1	1962.5	1972.9	1976.0	1980.2	1982.3	1985.4	1990.6	1988.5
25°	1905.3	1916.7	1929.2	1934.4	1941.7	1947.9	1952.1	1958.3	1960.4	1955.2
27.5°	1867.9	1875.1	1899.1	1910.5	1915.7	1915.7	1915.7	1921.9	1920.9	1914.7
30°	1826.3	1847.1	1863.7	1868.9	1873.1	1878.3	1884.5	1887.6	1885.5	1888.7
32.5°	1787.8	1802.3	1824.2	1838.7	1842.9	1848.1	1851.2	1856.4	1858.5	1859.5
35°	1744.1	1765.9	1793.0	1800.3	1807.5	1814.8	1816.9	1813.8	1817.9	1811.7
37.5°	1699.4	1729.5	1735.8	1754.5	1757.6	1757.6	1758.7	1760.7	1762.8	1760.7
40°	1651.5	1661.9	1684.8	1691.1	1693.1	1696.3	1702.5	1703.5	1704.6	1708.7
42.5°	1590.2	1607.8	1618.2	1639.0	1640.1	1640.1	1640.1	1643.2	1648.4	1651.5
45°	1521.5	1541.3	1555.8	1566.2	1565.2	1570.4	1575.6	1575.6	1578.7	1579.8
47.5°	1461.2	1470.6	1478.9	1489.3	1497.6	1497.6	1500.7	1504.9	1509.0	1513.2
50°	1386.3	1403.0	1412.3	1422.7	1420.6	1424.8	1435.2	1440.4	1438.3	1440.4
52.5°	1317.7	1330.2	1345.8	1352.0	1359.3	1364.5	1365.5	1373.8	1380.1	1384.2
55°	1244.9	1254.2	1269.8	1286.5	1286.5	1288.6	1301.0	1308.3	1316.6	1316.6
57.5°	1164.8	1180.4	1198.1	1203.3	1211.6	1221.0	1230.3	1233.4	1236.6	1235.5
60°	1076.4	1098.2	1114.9	1126.3	1130.5	1134.6	1134.6	1146.1	1147.1	1147.1
62.5°	995.3	1014.0	1026.5	1030.6	1031.7	1037.9	1040.0	1044.2	1042.1	1050.4
65°	906.9	923.5	931.8	936.0	939.1	938.1	941.2	945.4	953.7	952.6
67.5°	823.7	829.9	838.2	844.5	844.5	849.7	852.8	858.0	848.6	847.6
70°	732.2	745.7	749.8	761.3	757.1	757.1	748.8	741.5	732.2	734.2
72.5°	642.7	654.2	666.6	662.5	662.5	659.4	653.1	646.9	640.6	644.8
75°	553.3	568.9	576.2	575.1	575.1	573.0	565.8	561.6	557.4	552.2
77.5°	472.2	480.5	489.8	494.0	495.0	494.0	486.7	479.4	478.4	476.3
80°	384.8	395.2	404.6	411.8	412.9	412.9	410.8	410.8	407.7	409.8
82.5°	304.7	316.2	329.7	338.0	340.1	345.3	347.4	350.5	356.7	361.9
85°	234.0	250.6	263.1	273.5	277.7	280.8	292.2	305.8	320.3	329.7
87.5°	185.1	199.7	214.2	225.7	231.9	240.2	253.8	273.5	296.4	312.0
90°	153.9	168.5	184.1	197.6	203.8	211.1	227.8	247.5	274.6	287.0
92.5°	139.4	155.0	167.4	178.9	185.1	191.4	207.0	223.6	243.4	251.7
95°	134.2	145.6	156.0	168.5	174.7	182.0	194.5	208.0	220.5	227.8
97.5°	126.9	138.3	149.8	160.2	166.4	171.6	181.0	193.4	203.8	208.0
100°	121.7	132.1	141.4	150.8	156.0	160.2	171.6	183.0	189.3	192.4
102.5°	115.4	124.8	133.1	141.4	145.6	149.8	159.1	165.4	167.4	167.4
105°	108.2	117.5	124.8	132.1	133.1	136.2	141.4	143.5	143.5	143.5
107.5°	101.9	109.2	115.4	119.6	120.6	121.7	122.7	122.7	120.6	120.6
110°	96.7	101.9	106.1	108.2	107.1	108.2	108.2	107.1	107.1	107.1



TEST NUMBER: P241344

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	91.5	95.7	97.8	99.8	99.8	99.8	99.8	101.9	101.9	101.9
115°	87.4	91.5	94.6	96.7	96.7	97.8	99.8	103.0	104.0	104.0
117.5°	85.3	90.5	93.6	96.7	98.8	99.8	104.0	106.1	108.2	108.2
120°	84.2	90.5	95.7	99.8	101.9	104.0	107.1	110.2	112.3	112.3
122.5°	84.2	90.5	96.7	100.9	104.0	105.0	109.2	112.3	114.4	114.4
125°	83.2	90.5	96.7	101.9	104.0	106.1	109.2	112.3	114.4	115.4
127.5°	81.1	88.4	94.6	99.8	101.9	105.0	108.2	111.3	113.4	114.4
130°	78.0	85.3	91.5	96.7	99.8	101.9	106.1	109.2	111.3	111.3
132.5°	74.9	82.2	87.4	93.6	96.7	98.8	103.0	106.1	108.2	108.2
135°	71.8	78.0	83.2	89.4	91.5	94.6	98.8	101.9	104.0	105.0
137.5°	67.6	73.8	79.0	84.2	87.4	89.4	93.6	96.7	98.8	99.8
140°	62.4	68.6	73.8	79.0	82.2	84.2	87.4	90.5	92.6	92.6
142.5°	57.2	63.4	68.6	72.8	74.9	77.0	80.1	83.2	84.2	85.3
145°	52.0	57.2	62.4	66.6	67.6	69.7	72.8	74.9	77.0	77.0
147.5°	45.8	51.0	55.1	58.2	60.3	61.4	64.5	66.6	67.6	68.6
150°	39.5	44.7	47.8	51.0	53.0	54.1	56.2	58.2	59.3	60.3
152.5°	34.3	37.4	41.6	43.7	45.8	46.8	48.9	49.9	51.0	51.0
155°	28.1	31.2	34.3	36.4	38.5	38.5	40.6	41.6	42.6	42.6
157.5°	21.8	25.0	28.1	30.2	31.2	32.2	33.3	34.3	34.3	35.4
160°	15.6	18.7	21.8	22.9	23.9	25.0	26.0	26.0	27.0	27.0
162.5°	11.4	13.5	15.6	16.6	17.7	17.7	18.7	19.8	19.8	19.8
165°	7.3	8.3	10.4	11.4	11.4	12.5	12.5	13.5	13.5	13.5
167.5°	3.1	4.2	5.2	6.2	6.2	7.3	7.3	7.3	8.3	7.3
170°	1.0	1.0	2.1	2.1	2.1	2.1	3.1	3.1	3.1	3.1
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)