

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: P241401

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241401
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-LD4-30-2HI-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

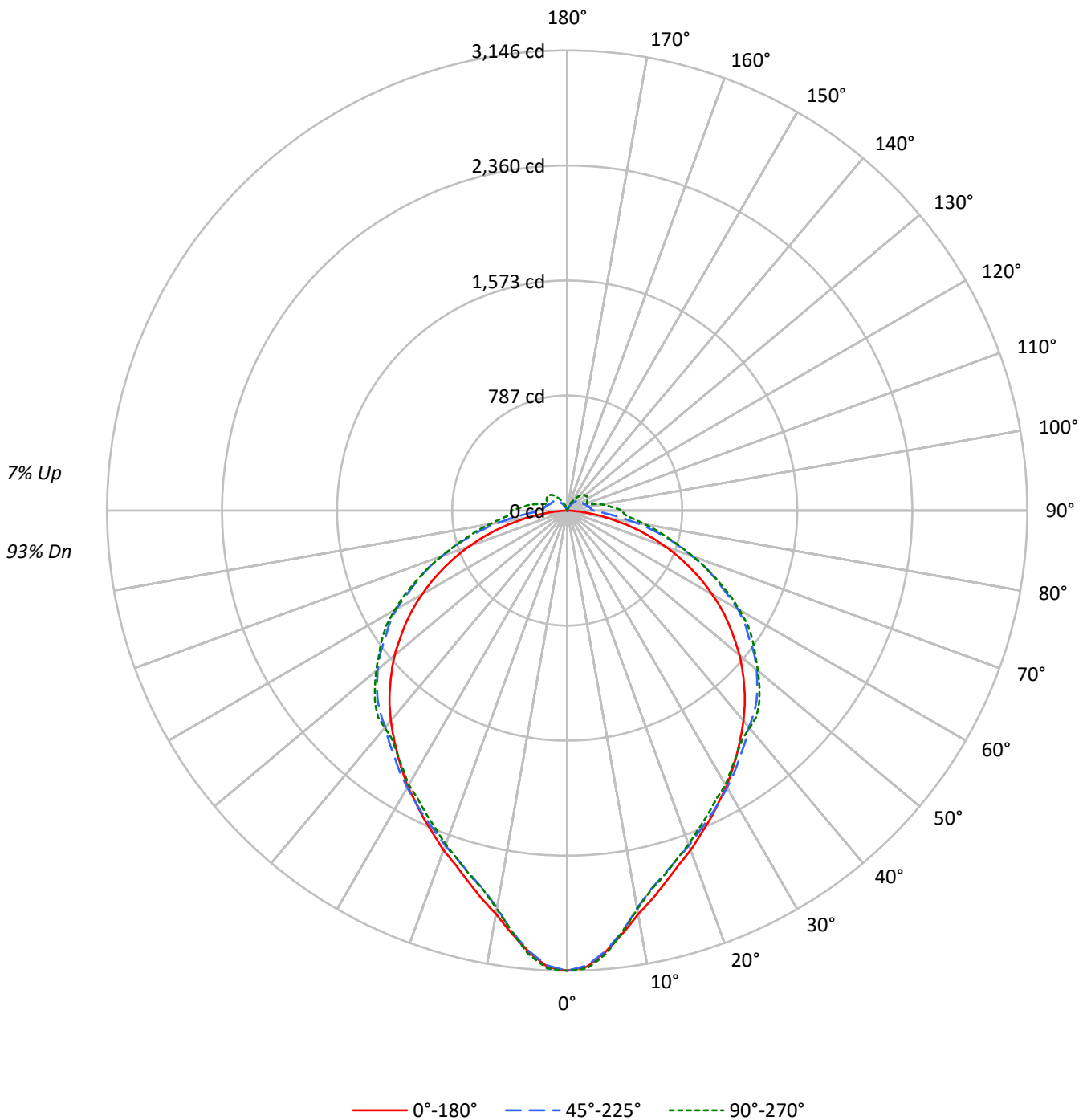
Lumens per Lamp: N/A
Luminaire Lumens: 8737.0 lumens
Efficiency: N/A
Efficacy: 102.3 lumens/watt
Spacing Criteria (0/90/45): 1.04 / 1.02 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')
CIE Type: Direct

Input Watts (W): 85.4
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-LD4-30-2HI-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°	14061	14061	14061
5°	13533	13339	13390
10°	12625	12116	12065
15°	12004	11326	11245
20°	11584	10848	10666
25°	11240	10470	10195
30°	10996	10182	9883
35°	10757	9925	9543
40°	10593	9748	9511
45°	10423	9757	9577
50°	10235	9612	9331
55°	9941	9326	9121
60°	9585	9097	8746
65°	9061	8503	8110
70°	8397	7866	7376
75°	7323	7022	6633
80°	5662	5924	6057
85°	3165	4618	5815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.8	3.2
10°-20°	731.3	8.4
20°-30°	1066.5	12.2
30°-40°	1285.0	14.7
40°-50°	1393.7	16.0
50°-60°	1328.2	15.2
60°-70°	1070.9	12.3
70°-80°	684.9	7.8
80°-90°	306.2	3.5
90°-100°	169.9	1.9
100°-110°	123.9	1.4
110°-120°	97.6	1.1
120°-130°	86.4	1.0
130°-140°	63.2	0.7
140°-150°	34.2	0.4
150°-160°	12.2	0.1
160°-170°	2.0	0.0
170°-180°	0.0	0.0
0°-30°	2078.6	23.8
0°-40°	3363.6	38.5
0°-60°	6085.4	69.7
0°-90°	8147.5	93.3
90°-120°	391.4	4.5
90°-150°	575.3	6.6
90°-180°	589.0	6.7
0°-180°	8737.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3146	3146	3146	3146	3146	
5°	3027	3027	3022	3044	3044	282
15°	2622	2612	2571	2580	2577	740
25°	2321	2324	2309	2304	2285	1070
35°	2026	2056	2058	2049	2026	1269
45°	1714	1766	1833	1863	1857	1322
55°	1347	1436	1517	1551	1548	1204
65°	929	1033	1127	1139	1138	920
75°	486	578	691	725	708	513
85°	89	170	283	357	406	111
90°	1	83	180	256	380	4
95°	1	73	163	234	298	1
105°	1	62	139	174	172	1
115°	1	54	118	141	151	1
125°	1	45	112	150	165	1
135°	2	30	91	132	151	1
145°	2	13	57	92	105	1
155°	2	3	24	47	54	1
165°	3	1	3	9	14	1
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241401

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3146.1	3146.1	3146.1	3146.1	3146.1	3146.1	3146.1	3146.1	3146.1	3146.1	3146.1
2.5°	3121.6	3121.6	3121.6	3116.9	3116.9	3122.6	3122.6	3125.4	3120.7	3116.0	3112.2
5°	3026.7	3023.9	3017.3	3018.2	3022.0	3026.7	3025.8	3034.2	3031.4	3025.8	3022.0
7.5°	2913.9	2908.3	2905.4	2905.4	2902.6	2907.3	2904.5	2911.1	2905.4	2900.7	2899.8
10°	2801.1	2801.1	2801.1	2793.6	2794.5	2793.6	2787.9	2784.2	2779.5	2764.4	2757.9
12.5°	2712.7	2710.9	2703.3	2697.7	2697.7	2693.9	2694.9	2687.4	2675.1	2657.3	2649.8
15°	2621.6	2624.4	2621.6	2613.1	2615.0	2612.2	2609.3	2599.9	2594.3	2576.4	2570.8
17.5°	2537.9	2545.4	2539.8	2530.4	2527.6	2525.7	2526.6	2522.9	2511.6	2504.1	2498.4
20°	2470.2	2468.4	2463.7	2456.1	2463.7	2460.8	2460.8	2457.1	2450.5	2442.0	2436.4
22.5°	2391.3	2393.2	2387.5	2387.5	2392.2	2395.0	2389.4	2387.5	2382.8	2372.5	2368.7
25°	2320.8	2322.7	2318.9	2317.0	2320.8	2323.6	2323.6	2323.6	2319.8	2313.3	2308.6
27.5°	2246.5	2253.1	2248.4	2248.4	2255.9	2261.6	2264.4	2259.7	2257.8	2250.3	2247.5
30°	2178.8	2172.3	2175.1	2185.4	2189.2	2195.8	2200.5	2201.4	2192.0	2189.2	2186.4
32.5°	2101.8	2104.6	2098.9	2110.2	2125.3	2132.8	2132.8	2130.9	2128.1	2127.1	2125.3
35°	2025.6	2027.5	2029.4	2043.5	2051.0	2055.7	2063.2	2069.8	2065.1	2060.4	2057.6
37.5°	1949.5	1953.2	1957.0	1967.3	1976.7	1986.1	1994.6	2004.0	2002.1	1995.5	1998.4
40°	1875.2	1879.9	1878.1	1884.6	1911.0	1920.4	1924.1	1932.6	1933.5	1925.1	1933.5
42.5°	1798.2	1798.2	1797.2	1817.9	1833.9	1843.3	1844.2	1863.0	1870.5	1878.1	1887.5
45°	1713.6	1715.4	1723.9	1738.0	1752.1	1766.2	1780.3	1801.9	1810.4	1821.7	1832.9
47.5°	1627.1	1628.0	1642.1	1651.5	1680.7	1696.6	1707.9	1719.2	1733.3	1745.5	1762.4
50°	1540.6	1544.4	1544.4	1574.4	1597.9	1604.5	1614.9	1632.7	1660.0	1676.9	1691.0
52.5°	1441.0	1450.4	1456.9	1481.4	1500.2	1515.2	1533.1	1564.1	1583.8	1598.9	1612.0
55°	1347.0	1342.3	1368.6	1376.1	1415.6	1436.3	1449.4	1471.0	1483.3	1500.2	1517.1
57.5°	1251.1	1250.2	1265.2	1285.9	1328.2	1337.6	1341.3	1367.7	1400.5	1425.0	1441.0
60°	1144.9	1149.6	1159.0	1197.5	1215.4	1224.8	1244.5	1285.9	1309.4	1334.8	1347.9
62.5°	1040.5	1041.5	1067.8	1088.5	1112.0	1135.5	1156.2	1179.7	1192.8	1215.4	1230.4
65°	928.7	934.3	962.5	976.6	1020.8	1033.0	1040.5	1064.0	1085.7	1112.9	1127.0
67.5°	822.5	828.1	850.7	868.5	907.1	910.8	924.0	959.7	993.5	1014.2	1028.3
70°	711.6	721.9	732.2	765.1	785.8	799.9	818.7	858.2	870.4	894.8	911.8
72.5°	599.7	609.1	620.4	646.7	673.0	689.0	710.6	733.2	747.3	769.8	799.0
75°	486.0	495.4	511.3	533.0	562.1	578.1	589.4	610.0	643.9	670.2	690.9
77.5°	372.2	377.9	400.4	419.2	454.0	464.3	480.3	505.7	537.7	564.0	582.8
80°	268.8	276.3	291.4	313.9	340.3	356.2	368.5	399.5	431.4	450.2	474.7
82.5°	171.1	178.6	196.5	219.0	242.5	256.6	272.6	301.7	329.0	348.7	372.2
85°	89.3	95.9	112.8	136.3	157.0	170.1	186.1	215.3	235.9	260.4	282.9
87.5°	28.2	35.7	52.6	75.2	98.7	110.9	124.1	151.3	172.0	196.5	217.1
90°	0.9	7.5	24.4	46.1	70.5	82.7	94.9	118.4	140.1	160.7	180.5
92.5°	0.9	6.6	22.6	43.2	65.8	77.1	88.4	110.0	131.6	151.3	168.3
95°	0.9	5.6	20.7	41.4	63.0	73.3	84.6	105.3	126.0	144.8	162.6
97.5°	0.9	5.6	19.7	38.5	59.2	69.6	80.8	101.5	121.3	139.1	157.0
100°	0.9	4.7	17.9	36.7	56.4	66.7	77.1	97.8	116.6	134.4	150.4
102.5°	0.9	3.8	16.9	34.8	54.5	63.9	74.3	94.0	111.9	129.7	144.8
105°	0.9	3.8	15.0	32.9	52.6	62.0	72.4	91.2	109.0	125.0	139.1
107.5°	0.9	2.8	14.1	31.0	50.8	60.2	70.5	88.4	105.3	120.3	133.5
110°	0.9	2.8	13.2	30.1	48.9	58.3	67.7	86.5	102.5	116.6	126.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.9	1.9	12.2	28.2	47.0	56.4	65.8	83.7	99.6	111.9	122.2
115°	0.9	1.9	11.3	27.3	45.1	54.5	63.9	80.8	95.9	109.0	118.4
117.5°	0.9	0.9	10.3	25.4	43.2	51.7	61.1	79.0	94.0	106.2	116.6
120°	0.9	0.9	8.5	23.5	40.4	49.8	59.2	76.1	92.1	105.3	116.6
122.5°	0.9	0.9	7.5	21.6	38.5	47.9	56.4	73.3	89.3	103.4	114.7
125°	0.9	0.9	6.6	19.7	35.7	45.1	53.6	70.5	86.5	100.6	111.9
127.5°	0.9	0.9	5.6	17.9	32.9	41.4	50.8	66.7	82.7	95.9	108.1
130°	0.9	0.9	3.8	15.0	30.1	38.5	47.0	63.0	78.0	91.2	103.4
132.5°	1.9	0.9	2.8	13.2	27.3	34.8	42.3	58.3	73.3	85.5	97.8
135°	1.9	0.9	1.9	10.3	23.5	30.1	37.6	51.7	66.7	79.9	91.2
137.5°	1.9	1.9	1.9	8.5	19.7	25.4	32.0	46.1	59.2	72.4	84.6
140°	1.9	1.9	0.9	6.6	16.0	21.6	27.3	39.5	51.7	63.9	76.1
142.5°	1.9	1.9	0.9	4.7	12.2	16.9	22.6	32.9	45.1	56.4	66.7
145°	1.9	1.9	0.9	2.8	9.4	13.2	17.9	27.3	37.6	47.0	57.3
147.5°	1.9	1.9	0.9	1.9	6.6	10.3	13.2	21.6	30.1	38.5	47.0
150°	1.9	1.9	0.9	1.9	4.7	6.6	10.3	16.9	23.5	31.0	38.5
152.5°	1.9	1.9	1.9	0.9	2.8	4.7	7.5	12.2	18.8	24.4	31.0
155°	1.9	1.9	1.9	0.9	1.9	2.8	4.7	8.5	13.2	18.8	23.5
157.5°	2.8	1.9	1.9	0.9	0.9	1.9	2.8	5.6	9.4	13.2	16.9
160°	2.8	1.9	1.9	0.9	0.9	0.9	1.9	2.8	5.6	8.5	11.3
162.5°	2.8	2.8	1.9	0.9	0.9	0.9	0.9	1.9	2.8	4.7	6.6
165°	2.8	2.8	1.9	1.9	0.9	0.9	0.9	0.9	0.9	1.9	2.8
167.5°	2.8	2.8	1.9	1.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
170°	2.8	2.8	1.9	1.9	0.9	0.9	0.9	0.9	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°	3146.1	3146.1	3146.1	3146.1	3146.1	3146.1	3146.1	3146.1	3146.1	3146.1
2.5°	3112.2	3122.6	3130.1	3132.9	3133.8	3132.0	3135.7	3136.7	3135.7	3132.9
5°	3022.9	3033.3	3041.7	3044.5	3043.6	3047.4	3045.5	3046.4	3045.5	3043.6
7.5°	2889.5	2892.3	2896.0	2891.3	2897.0	2897.9	2890.4	2895.1	2897.0	2901.7
10°	2757.9	2759.7	2762.6	2760.7	2762.6	2762.6	2762.6	2763.5	2767.3	2764.4
12.5°	2648.8	2652.6	2662.9	2660.1	2664.8	2670.4	2663.9	2659.2	2665.7	2654.5
15°	2572.7	2575.5	2577.4	2574.6	2580.2	2577.4	2575.5	2570.8	2576.4	2577.4
17.5°	2501.2	2499.4	2505.9	2500.3	2501.2	2499.4	2498.4	2491.8	2490.0	2497.5
20°	2437.3	2432.6	2427.9	2431.7	2436.4	2432.6	2431.7	2427.0	2427.9	2427.0
22.5°	2366.8	2372.5	2376.2	2375.3	2370.6	2372.5	2365.9	2358.4	2357.4	2352.7
25°	2310.4	2312.3	2310.4	2310.4	2303.9	2301.0	2303.9	2296.3	2288.8	2285.1
27.5°	2249.3	2250.3	2250.3	2242.8	2240.9	2239.0	2232.4	2226.8	2221.1	2216.4
30°	2182.6	2188.2	2181.7	2185.4	2183.5	2177.0	2172.3	2164.7	2159.1	2164.7
32.5°	2124.3	2120.6	2120.6	2117.7	2115.9	2117.7	2108.3	2096.1	2090.5	2091.4
35°	2058.5	2058.5	2062.3	2055.7	2049.1	2047.2	2038.8	2036.0	2024.7	2025.6
37.5°	1998.4	1996.5	1998.4	1996.5	1992.7	1991.8	1975.8	1978.6	1975.8	1968.3
40°	1944.8	1951.4	1953.2	1941.0	1945.7	1949.5	1938.2	1940.1	1935.4	1939.1
42.5°	1899.7	1904.4	1911.9	1910.0	1906.3	1901.6	1910.0	1912.8	1908.1	1913.8
45°	1846.1	1854.6	1855.5	1864.0	1863.0	1859.3	1860.2	1857.4	1852.7	1857.4
47.5°	1773.7	1780.3	1785.9	1786.9	1793.5	1793.5	1786.9	1789.7	1795.3	1782.2
50°	1702.3	1705.1	1711.7	1707.9	1710.7	1714.5	1712.6	1705.1	1705.1	1703.2
52.5°	1623.3	1629.9	1630.8	1632.7	1631.8	1623.3	1625.2	1625.2	1618.6	1621.4
55°	1535.0	1550.0	1555.6	1551.9	1550.9	1553.8	1547.2	1558.5	1547.2	1548.1
57.5°	1452.2	1455.1	1462.6	1463.5	1460.7	1467.3	1464.5	1463.5	1460.7	1466.3
60°	1357.3	1360.1	1360.1	1354.5	1362.0	1354.5	1357.3	1355.4	1363.9	1361.1
62.5°	1243.6	1251.1	1257.7	1247.3	1248.3	1245.5	1244.5	1244.5	1252.0	1254.9
65°	1136.4	1135.5	1144.9	1138.3	1139.2	1141.1	1129.8	1136.4	1136.4	1138.3
67.5°	1039.6	1037.7	1034.0	1031.1	1030.2	1029.3	1026.4	1020.8	1024.6	1027.4
70°	923.0	934.3	928.7	928.7	926.8	924.9	928.7	910.8	913.6	914.6
72.5°	813.1	818.7	827.2	830.9	828.1	823.4	819.7	813.1	805.6	807.4
75°	704.0	709.7	721.0	723.8	724.7	721.9	723.8	718.1	714.4	707.8
77.5°	598.8	608.2	614.7	626.0	626.0	627.0	631.7	629.8	624.1	626.0
80°	489.7	500.1	514.2	526.4	531.1	533.0	534.8	533.9	535.8	536.7
82.5°	387.3	412.6	420.2	433.3	439.0	440.8	450.2	454.0	456.8	462.5
85°	303.6	321.5	339.3	351.5	357.2	361.9	371.3	383.5	398.5	406.1
87.5°	236.9	252.9	269.8	284.8	294.2	301.7	316.8	341.2	368.5	385.4
90°	197.4	214.3	232.2	247.2	255.7	264.1	286.7	317.7	358.1	379.7
92.5°	185.2	203.0	218.1	234.1	242.5	251.9	275.4	303.6	329.0	337.4
95°	179.5	196.5	209.6	224.7	234.1	243.5	262.3	280.1	293.3	298.0
97.5°	173.0	188.0	201.2	216.2	222.8	230.3	246.3	260.4	270.7	275.4
100°	165.4	179.5	190.8	203.0	207.7	214.3	228.4	238.8	243.5	240.6
102.5°	158.9	169.2	179.5	188.0	191.8	196.5	204.0	205.9	204.9	202.1
105°	150.4	159.8	166.4	171.1	173.9	175.8	177.7	176.7	174.8	172.0
107.5°	142.9	149.5	154.2	155.1	157.0	157.9	158.9	157.0	154.2	153.2
110°	135.4	141.0	143.8	144.8	144.8	145.7	146.6	146.6	144.8	143.8



TEST NUMBER: P241401

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	129.7	134.4	137.2	139.1	140.1	141.0	143.8	145.7	144.8	144.8
115°	126.0	131.6	136.3	139.1	141.0	142.9	147.6	150.4	151.3	151.3
117.5°	125.0	132.5	138.2	142.9	144.8	147.6	152.3	156.0	157.0	157.0
120°	126.0	133.5	140.1	145.7	148.5	151.3	156.0	159.8	161.7	162.6
122.5°	125.0	133.5	141.0	147.6	150.4	153.2	157.9	162.6	164.5	164.5
125°	122.2	131.6	139.1	146.6	149.5	152.3	157.9	162.6	165.4	165.4
127.5°	118.4	127.8	136.3	143.8	146.6	150.4	156.0	160.7	164.5	164.5
130°	113.7	124.1	132.5	140.1	142.9	146.6	152.3	157.9	160.7	161.7
132.5°	108.1	118.4	126.9	134.4	138.2	141.0	147.6	153.2	156.0	157.9
135°	102.5	111.9	120.3	128.8	131.6	135.4	141.0	145.7	149.5	151.3
137.5°	94.9	104.3	112.8	120.3	123.1	126.9	132.5	137.2	141.0	141.9
140°	86.5	95.9	104.3	110.9	114.7	117.5	123.1	126.9	129.7	130.7
142.5°	77.1	86.5	94.0	100.6	103.4	106.2	110.9	114.7	117.5	118.4
145°	66.7	76.1	82.7	89.3	92.1	94.0	98.7	101.5	105.3	105.3
147.5°	56.4	64.9	72.4	78.0	79.9	82.7	86.5	89.3	90.2	91.2
150°	46.1	53.6	61.1	66.7	68.6	70.5	73.3	76.1	78.0	78.0
152.5°	36.7	43.2	49.8	56.4	57.3	59.2	62.0	63.9	65.8	65.8
155°	29.1	33.8	38.5	44.2	47.0	48.9	50.8	52.6	53.6	53.6
157.5°	21.6	25.4	29.1	33.8	35.7	38.5	40.4	41.4	42.3	43.2
160°	14.1	17.9	20.7	24.4	26.3	28.2	30.1	32.0	32.9	32.9
162.5°	8.5	11.3	13.2	16.0	16.9	17.9	21.6	22.6	22.6	22.6
165°	4.7	5.6	7.5	8.5	9.4	10.3	12.2	14.1	14.1	14.1
167.5°	0.9	1.9	2.8	2.8	3.8	3.8	4.7	6.6	6.6	6.6
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	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
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)