

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: P241338

Luminaire Tested: **FVS8M-2-LD4-35-3STD-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241338
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-LD4-35-3STD-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 3-MODULE LED WITH P125 LENS
Light Source: (126) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

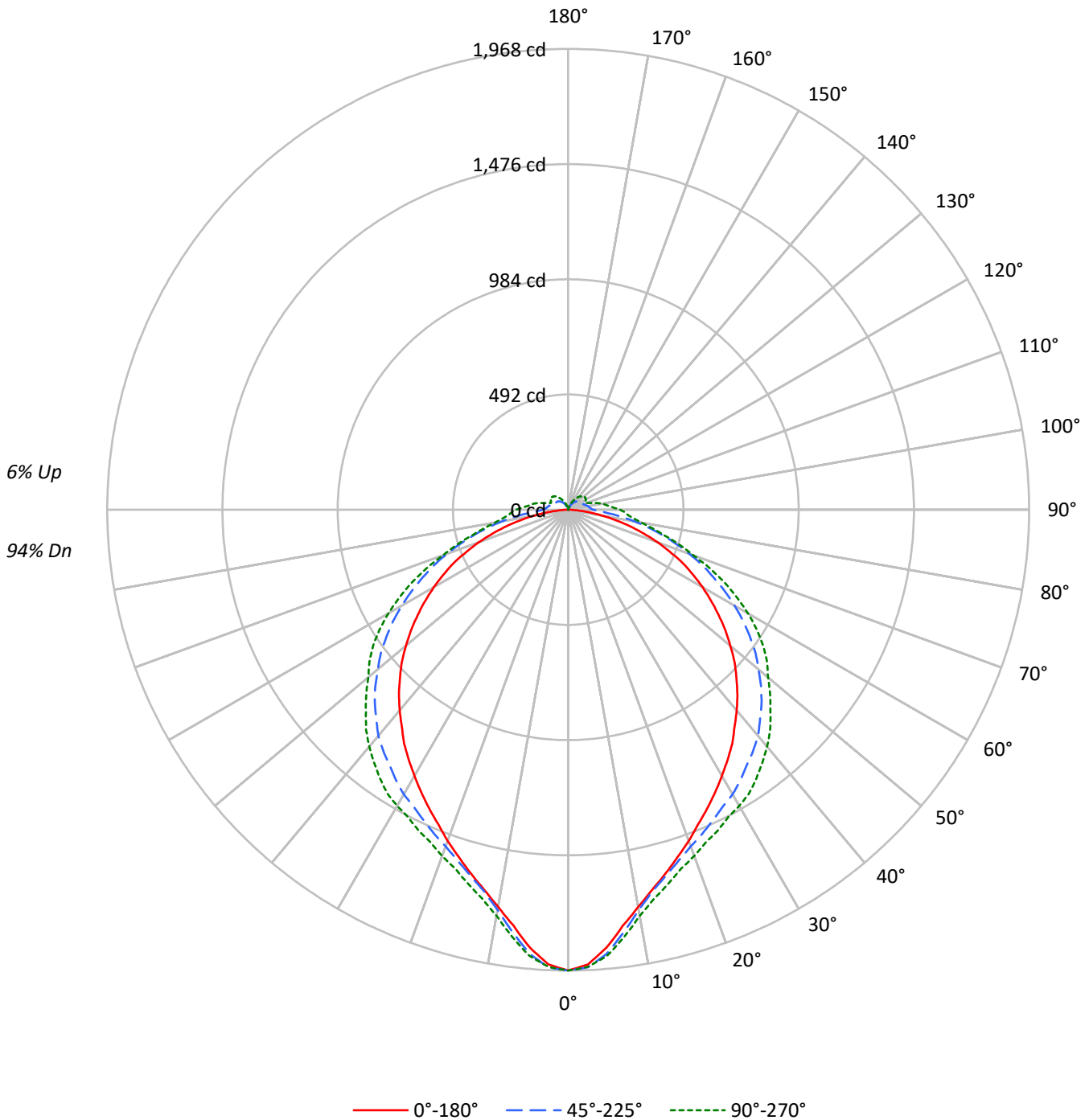
Lumens per Lamp: N/A
Luminaire Lumens: 5426.0 lumens
Efficiency: N/A
Efficacy: 107.2 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.11 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')
CIE Type: Direct

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°	17691	17691	17691
5°	16823	16846	16916
10°	15503	15257	15455
15°	14654	14225	14505
20°	13996	13572	13908
25°	13452	13181	13563
30°	13027	12959	13406
35°	12693	12681	13270
40°	12319	12529	13031
45°	11967	12211	12664
50°	11554	11792	12269
55°	11044	11352	12061
60°	10482	10739	11460
65°	9833	9968	10553
70°	8757	9081	9206
75°	7316	7973	8046
80°	5409	6671	7191
85°	2618	5126	7341



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.9	3.2
10°-20°	458.4	8.4
20°-30°	675.3	12.4
30°-40°	829.1	15.3
40°-50°	881.9	16.3
50°-60°	825.2	15.2
60°-70°	654.4	12.1
70°-80°	408.5	7.5
80°-90°	183.4	3.4
90°-100°	98.4	1.8
100°-110°	71.7	1.3
110°-120°	52.4	1.0
120°-130°	46.3	0.9
130°-140°	34.8	0.6
140°-150°	20.5	0.4
150°-160°	8.3	0.2
160°-170°	1.6	0.0
170°-180°	0.0	0.0
0°-30°	1309.6	24.1
0°-40°	2138.7	39.4
0°-60°	3845.8	70.9
0°-90°	5092.0	93.8
90°-120°	222.5	4.1
90°-150°	324.1	6.0
90°-180°	334.0	6.2
0°-180°	5426.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1968	1968	1968	1968	1968	
5°	1877	1887	1902	1906	1912	174
15°	1608	1610	1617	1634	1653	453
25°	1406	1424	1462	1501	1512	648
35°	1220	1263	1330	1397	1400	762
45°	1015	1077	1167	1210	1221	784
55°	784	854	947	994	1018	701
65°	540	596	685	726	736	530
75°	272	330	414	445	427	290
85°	48	100	172	215	255	62
90°	1	47	107	158	222	3
95°	0	42	93	135	176	0
105°	0	34	76	103	111	0
115°	0	29	63	75	80	0
125°	0	25	59	80	89	0
135°	1	19	50	71	81	1
145°	1	12	36	52	60	1
155°	1	4	18	30	33	0
165°	1	1	4	9	10	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°	1968.1	1968.1	1968.1	1968.1	1968.1	1968.1	1968.1	1968.1	1968.1	1968.1	1968.1
2.5°	1943.2	1945.6	1946.4	1947.2	1947.2	1949.6	1949.6	1951.2	1953.7	1955.3	1956.1
5°	1877.3	1882.1	1878.1	1882.1	1885.3	1886.9	1889.3	1890.9	1895.8	1900.6	1902.2
7.5°	1791.2	1792.9	1795.3	1797.7	1800.9	1800.1	1801.7	1807.3	1813.0	1820.2	1819.4
10°	1722.1	1722.1	1722.1	1722.1	1722.1	1724.5	1725.3	1727.7	1731.8	1739.0	1735.0
12.5°	1661.0	1662.6	1665.0	1664.2	1662.6	1661.8	1659.4	1662.6	1663.4	1668.2	1666.6
15°	1607.9	1605.5	1607.9	1609.6	1607.9	1609.6	1608.7	1611.2	1610.4	1612.0	1616.8
17.5°	1554.1	1559.7	1561.3	1557.3	1558.9	1560.5	1561.3	1560.5	1560.5	1566.9	1570.2
20°	1505.0	1507.4	1507.4	1506.6	1509.9	1510.7	1514.7	1514.7	1518.7	1526.7	1530.0
22.5°	1452.0	1456.8	1460.0	1459.2	1468.1	1468.1	1468.9	1472.1	1483.3	1486.5	1497.0
25°	1406.1	1411.0	1412.6	1415.8	1422.2	1423.8	1423.8	1437.5	1441.5	1451.2	1462.4
27.5°	1359.5	1362.7	1364.3	1370.0	1380.4	1380.4	1384.4	1398.1	1406.9	1418.2	1429.5
30°	1312.1	1319.3	1319.3	1328.2	1337.0	1339.4	1349.1	1361.1	1375.6	1385.2	1403.7
32.5°	1266.3	1269.5	1272.7	1286.4	1296.0	1303.2	1310.5	1325.7	1337.8	1354.7	1368.4
35°	1220.4	1224.4	1227.7	1242.1	1251.0	1263.0	1271.9	1291.2	1303.2	1319.3	1329.8
37.5°	1166.6	1173.0	1180.2	1191.5	1209.2	1218.8	1226.9	1250.2	1263.8	1278.3	1297.6
40°	1119.1	1125.6	1133.6	1145.7	1165.0	1172.2	1182.6	1201.9	1224.4	1241.3	1260.6
42.5°	1069.3	1076.5	1084.6	1099.0	1114.3	1124.0	1136.0	1156.1	1178.6	1199.5	1212.4
45°	1015.4	1021.8	1032.3	1046.0	1065.3	1077.3	1087.0	1111.1	1128.8	1150.5	1167.4
47.5°	964.0	967.2	978.4	996.9	1013.8	1028.3	1037.9	1058.8	1082.1	1098.2	1116.7
50°	903.7	907.7	919.7	938.2	960.7	974.4	980.0	1005.8	1025.1	1046.0	1059.6
52.5°	845.0	851.4	865.9	882.8	903.7	915.7	926.2	944.7	969.6	988.1	1009.0
55°	783.9	791.9	804.8	823.3	841.8	853.8	865.9	886.8	909.3	931.0	947.1
57.5°	722.8	730.8	743.7	762.2	780.7	790.3	802.4	824.1	849.8	870.7	886.0
60°	662.5	668.1	681.8	697.8	716.3	728.4	737.2	759.8	783.9	802.4	820.1
62.5°	599.8	605.4	616.6	631.9	652.8	663.3	671.3	694.6	717.1	734.8	754.1
65°	540.3	540.3	553.9	566.8	584.5	596.5	608.6	628.7	648.0	667.3	685.0
67.5°	468.7	476.0	485.6	500.1	520.2	530.6	542.7	562.0	579.7	603.0	619.9
70°	405.2	408.4	419.7	435.8	451.8	462.3	474.3	492.0	512.1	533.0	549.9
72.5°	336.9	343.3	352.9	371.4	384.3	394.7	406.0	424.5	443.8	464.7	481.6
75°	272.5	278.2	287.8	302.3	319.2	329.6	338.5	357.8	376.3	399.6	414.0
77.5°	211.4	213.9	224.3	238.0	258.9	264.5	275.0	292.6	313.5	332.0	349.7
80°	151.1	156.0	164.0	176.9	195.4	204.2	213.1	232.3	250.0	270.1	286.2
82.5°	94.9	102.1	108.5	125.4	139.9	147.1	157.6	174.5	194.6	211.4	225.9
85°	48.2	53.9	63.5	75.6	91.7	100.5	107.7	126.2	143.1	159.2	172.0
87.5°	18.5	22.5	30.6	43.4	57.9	65.1	74.0	89.2	105.3	118.2	131.0
90°	0.8	5.6	14.5	26.5	40.2	47.4	54.7	69.9	83.6	95.7	106.9
92.5°	0.0	4.0	12.1	24.1	37.0	43.4	50.7	63.5	74.8	86.0	97.3
95°	0.0	3.2	11.3	22.5	34.6	41.8	48.2	60.3	71.6	82.0	93.3
97.5°	0.0	3.2	10.5	21.7	33.8	40.2	45.8	57.1	67.5	78.8	89.2
100°	0.0	3.2	10.5	20.9	32.2	37.8	43.4	53.9	65.1	75.6	85.2
102.5°	0.0	2.4	9.6	19.3	30.6	36.2	41.0	51.5	61.9	71.6	81.2
105°	0.0	2.4	8.8	18.5	28.9	33.8	39.4	49.8	59.5	68.3	76.4
107.5°	0.0	2.4	8.8	17.7	27.3	33.0	37.8	47.4	57.1	65.1	72.4
110°	0.0	1.6	8.0	16.9	26.5	31.4	36.2	45.8	54.7	61.9	69.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	1.6	7.2	16.1	24.9	29.7	34.6	44.2	52.3	59.5	65.1
115°	0.0	1.6	7.2	15.3	24.1	28.9	33.8	42.6	50.7	57.1	62.7
117.5°	0.0	1.6	6.4	14.5	23.3	28.1	32.2	41.0	49.0	55.5	61.1
120°	0.0	1.6	6.4	13.7	22.5	27.3	31.4	40.2	47.4	54.7	60.3
122.5°	0.0	0.8	5.6	12.9	21.7	25.7	30.6	38.6	46.6	53.9	59.5
125°	0.0	0.8	5.6	12.1	20.9	24.9	29.7	37.8	45.8	53.1	58.7
127.5°	0.0	0.8	4.8	11.3	19.3	23.3	28.1	36.2	44.2	51.5	57.1
130°	0.0	0.8	4.0	10.5	18.5	22.5	26.5	34.6	41.8	49.0	54.7
132.5°	0.8	0.8	4.0	9.6	16.9	20.9	24.9	32.2	39.4	46.6	52.3
135°	0.8	0.8	3.2	8.8	15.3	19.3	22.5	30.6	37.0	44.2	49.8
137.5°	0.8	0.8	3.2	8.0	14.5	17.7	20.9	28.1	34.6	41.0	46.6
140°	0.8	0.8	2.4	7.2	12.9	16.1	19.3	25.7	32.2	37.8	43.4
142.5°	0.8	0.8	1.6	5.6	11.3	13.7	16.9	23.3	28.9	34.6	39.4
145°	0.8	0.8	1.6	4.8	9.6	12.1	14.5	20.1	25.7	30.6	36.2
147.5°	0.8	0.8	0.8	4.0	7.2	9.6	12.1	17.7	22.5	27.3	32.2
150°	0.8	0.8	0.8	2.4	5.6	8.0	9.6	14.5	18.5	23.3	27.3
152.5°	0.8	0.8	0.8	1.6	4.8	5.6	8.0	11.3	15.3	19.3	23.3
155°	0.8	0.8	0.8	1.6	3.2	4.0	5.6	8.8	12.1	15.3	18.5
157.5°	0.8	0.8	0.8	0.8	2.4	3.2	4.0	6.4	8.8	11.3	14.5
160°	0.8	0.8	0.8	0.8	1.6	1.6	2.4	4.0	6.4	8.0	10.5
162.5°	0.8	0.8	0.8	0.8	0.8	0.8	1.6	2.4	4.0	5.6	7.2
165°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6	2.4	3.2	4.0
167.5°	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.8	0.8	1.6	2.4
170°	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	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	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°	1968.1	1968.1	1968.1	1968.1	1968.1	1968.1	1968.1	1968.1	1968.1	1968.1
2.5°	1956.9	1956.1	1956.9	1956.1	1956.1	1955.3	1956.1	1955.3	1953.7	1953.7
5°	1902.2	1907.8	1908.6	1910.2	1906.2	1908.6	1908.6	1908.6	1908.6	1911.8
7.5°	1824.2	1832.3	1832.3	1832.3	1836.3	1837.1	1839.5	1839.5	1838.7	1838.7
10°	1741.4	1747.8	1750.2	1751.0	1755.9	1755.9	1759.9	1758.3	1760.7	1760.7
12.5°	1667.4	1670.7	1679.5	1687.5	1686.7	1690.8	1694.8	1698.0	1695.6	1700.4
15°	1618.4	1624.0	1628.0	1630.5	1633.7	1638.5	1642.5	1647.3	1648.9	1653.0
17.5°	1570.2	1578.2	1585.4	1593.5	1597.5	1599.1	1601.5	1603.9	1606.3	1606.3
20°	1538.0	1544.4	1550.1	1553.3	1557.3	1561.3	1562.1	1566.9	1568.5	1573.4
22.5°	1505.0	1509.9	1517.1	1525.1	1527.5	1530.8	1532.4	1534.8	1538.8	1537.2
25°	1472.9	1481.7	1491.4	1495.4	1501.0	1505.8	1509.1	1513.9	1515.5	1511.5
27.5°	1443.9	1449.6	1468.1	1476.9	1480.9	1480.9	1480.9	1485.7	1484.9	1480.1
30°	1411.8	1427.9	1440.7	1444.7	1448.0	1452.0	1456.8	1459.2	1457.6	1460.0
32.5°	1382.0	1393.3	1410.2	1421.4	1424.6	1428.7	1431.1	1435.1	1436.7	1437.5
35°	1348.3	1365.1	1386.0	1391.7	1397.3	1402.9	1404.5	1402.1	1405.3	1400.5
37.5°	1313.7	1337.0	1341.8	1356.3	1358.7	1358.7	1359.5	1361.1	1362.7	1361.1
40°	1276.7	1284.7	1302.4	1307.3	1308.9	1311.3	1316.1	1316.9	1317.7	1320.9
42.5°	1229.3	1242.9	1251.0	1267.1	1267.9	1267.9	1267.9	1270.3	1274.3	1276.7
45°	1176.2	1191.5	1202.7	1210.8	1210.0	1214.0	1218.0	1218.0	1220.4	1221.2
47.5°	1129.6	1136.8	1143.2	1151.3	1157.7	1157.7	1160.1	1163.3	1166.6	1169.8
50°	1071.7	1084.6	1091.8	1099.8	1098.2	1101.4	1109.5	1113.5	1111.9	1113.5
52.5°	1018.6	1028.3	1040.3	1045.2	1050.8	1054.8	1055.6	1062.0	1066.9	1070.1
55°	962.4	969.6	981.6	994.5	994.5	996.1	1005.8	1011.4	1017.8	1017.8
57.5°	900.4	912.5	926.2	930.2	936.6	943.9	951.1	953.5	955.9	955.1
60°	832.1	849.0	861.9	870.7	873.9	877.1	877.1	886.0	886.8	886.8
62.5°	769.4	783.9	793.5	796.7	797.5	802.4	804.0	807.2	805.6	812.0
65°	701.1	713.9	720.4	723.6	726.0	725.2	727.6	730.8	737.2	736.4
67.5°	636.7	641.6	648.0	652.8	652.8	656.8	659.3	663.3	656.0	655.2
70°	566.0	576.4	579.7	588.5	585.3	585.3	578.9	573.2	566.0	567.6
72.5°	496.9	505.7	515.3	512.1	512.1	509.7	504.9	500.1	495.2	498.5
75°	427.7	439.8	445.4	444.6	444.6	443.0	437.4	434.1	430.9	426.9
77.5°	365.0	371.4	378.7	381.9	382.7	381.9	376.3	370.6	369.8	368.2
80°	297.5	305.5	312.7	318.4	319.2	319.2	317.6	317.6	315.2	316.8
82.5°	235.6	244.4	254.9	261.3	262.9	266.9	268.5	270.9	275.8	279.8
85°	180.9	193.8	203.4	211.4	214.7	217.1	225.9	236.4	247.6	254.9
87.5°	143.1	154.4	165.6	174.5	179.3	185.7	196.2	211.4	229.1	241.2
90°	119.0	130.2	142.3	152.8	157.6	163.2	176.1	191.3	212.2	221.9
92.5°	107.7	119.8	129.4	138.3	143.1	147.9	160.0	172.9	188.1	194.6
95°	103.7	112.6	120.6	130.2	135.1	140.7	150.3	160.8	170.4	176.1
97.5°	98.1	106.9	115.8	123.8	128.6	132.7	139.9	149.5	157.6	160.8
100°	94.1	102.1	109.3	116.6	120.6	123.8	132.7	141.5	146.3	148.7
102.5°	89.2	96.5	102.9	109.3	112.6	115.8	123.0	127.8	129.4	129.4
105°	83.6	90.8	96.5	102.1	102.9	105.3	109.3	110.9	110.9	110.9
107.5°	78.8	84.4	89.2	92.5	93.3	94.1	94.9	94.9	93.3	93.3
110°	74.8	78.8	82.0	83.6	82.8	83.6	83.6	82.8	82.8	82.8



TEST NUMBER: P241338

CATALOG NUMBER: FVS8M-2-LD4-35-3STD-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	70.7	74.0	75.6	77.2	77.2	77.2	77.2	78.8	78.8	78.8
115°	67.5	70.7	73.2	74.8	74.8	75.6	77.2	79.6	80.4	80.4
117.5°	65.9	69.9	72.4	74.8	76.4	77.2	80.4	82.0	83.6	83.6
120°	65.1	69.9	74.0	77.2	78.8	80.4	82.8	85.2	86.8	86.8
122.5°	65.1	69.9	74.8	78.0	80.4	81.2	84.4	86.8	88.4	88.4
125°	64.3	69.9	74.8	78.8	80.4	82.0	84.4	86.8	88.4	89.2
127.5°	62.7	68.3	73.2	77.2	78.8	81.2	83.6	86.0	87.6	88.4
130°	60.3	65.9	70.7	74.8	77.2	78.8	82.0	84.4	86.0	86.0
132.5°	57.9	63.5	67.5	72.4	74.8	76.4	79.6	82.0	83.6	83.6
135°	55.5	60.3	64.3	69.1	70.7	73.2	76.4	78.8	80.4	81.2
137.5°	52.3	57.1	61.1	65.1	67.5	69.1	72.4	74.8	76.4	77.2
140°	48.2	53.1	57.1	61.1	63.5	65.1	67.5	69.9	71.6	71.6
142.5°	44.2	49.0	53.1	56.3	57.9	59.5	61.9	64.3	65.1	65.9
145°	40.2	44.2	48.2	51.5	52.3	53.9	56.3	57.9	59.5	59.5
147.5°	35.4	39.4	42.6	45.0	46.6	47.4	49.8	51.5	52.3	53.1
150°	30.6	34.6	37.0	39.4	41.0	41.8	43.4	45.0	45.8	46.6
152.5°	26.5	28.9	32.2	33.8	35.4	36.2	37.8	38.6	39.4	39.4
155°	21.7	24.1	26.5	28.1	29.7	29.7	31.4	32.2	33.0	33.0
157.5°	16.9	19.3	21.7	23.3	24.1	24.9	25.7	26.5	26.5	27.3
160°	12.1	14.5	16.9	17.7	18.5	19.3	20.1	20.1	20.9	20.9
162.5°	8.8	10.5	12.1	12.9	13.7	13.7	14.5	15.3	15.3	15.3
165°	5.6	6.4	8.0	8.8	8.8	9.6	9.6	10.5	10.5	10.5
167.5°	2.4	3.2	4.0	4.8	4.8	5.6	5.6	5.6	6.4	5.6
170°	0.8	0.8	1.6	1.6	1.6	1.6	2.4	2.4	2.4	2.4
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)