

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: P241393

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241393
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-LD4-30-2LO-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

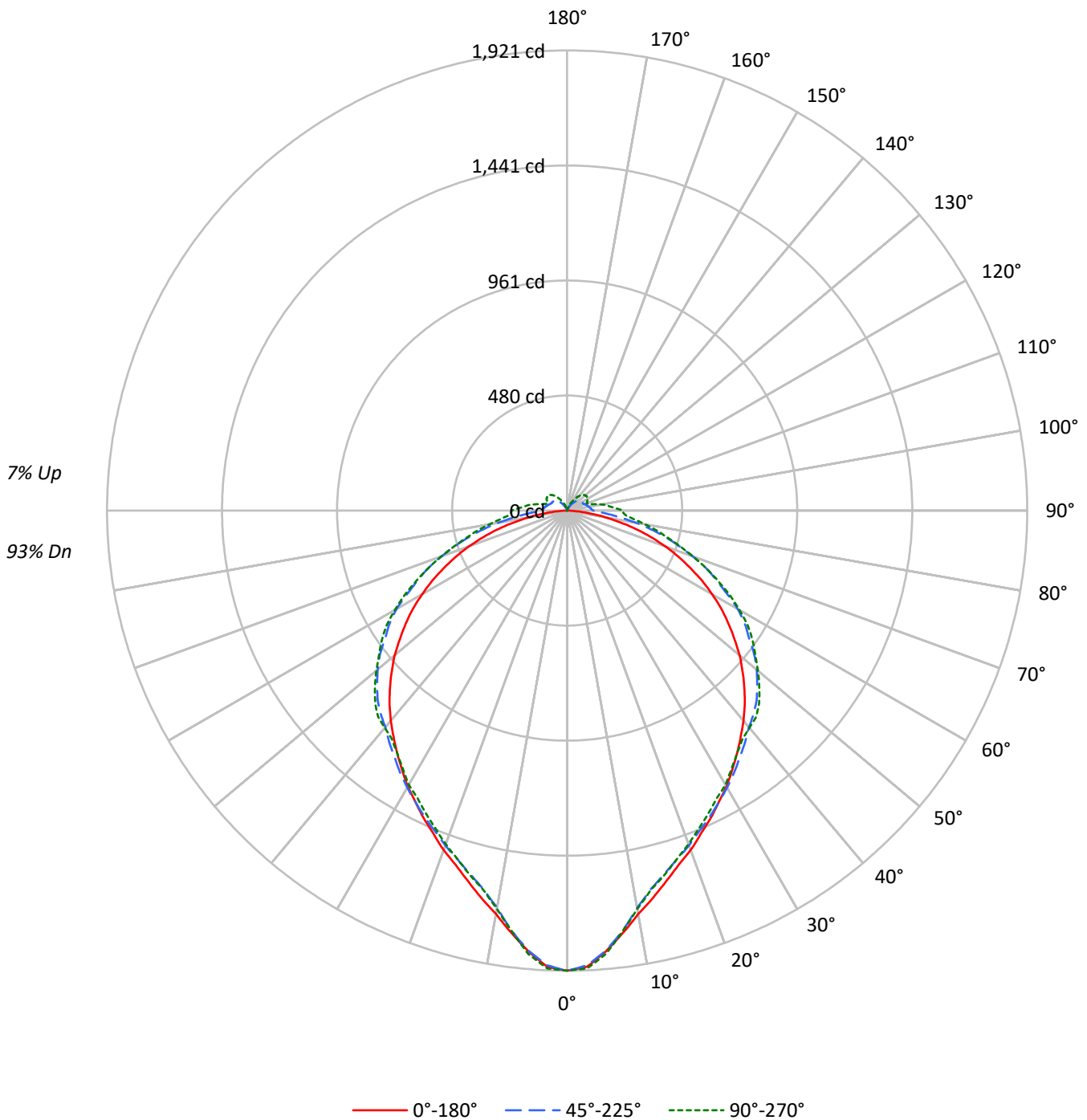
Lumens per Lamp: N/A
Luminaire Lumens: 5334.0 lumens
Efficiency: N/A
Efficacy: 117.2 lumens/watt
Spacing Criteria (0/90/45): 1.04 / 1.02 / 1.27
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')
CIE Type: Direct

Input Watts (W): 45.5
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

TEST NUMBER: P241393

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

Luminous Intensity Polar Plot





TEST NUMBER: P241393

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

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°	8584	8584	8584
5°	8262	8143	8175
10°	7708	7397	7366
15°	7329	6915	6865
20°	7072	6623	6512
25°	6862	6392	6224
30°	6713	6216	6034
35°	6568	6059	5826
40°	6467	5951	5807
45°	6363	5957	5847
50°	6248	5868	5697
55°	6068	5694	5568
60°	5852	5554	5339
65°	5532	5191	4951
70°	5126	4802	4503
75°	4471	4287	4049
80°	3457	3617	3698
85°	1931	2819	3550



TEST NUMBER: P241393

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.4	3.2
10°-20°	446.5	8.4
20°-30°	651.1	12.2
30°-40°	784.5	14.7
40°-50°	850.8	16.0
50°-60°	810.9	15.2
60°-70°	653.8	12.3
70°-80°	418.1	7.8
80°-90°	186.9	3.5
90°-100°	103.7	1.9
100°-110°	75.6	1.4
110°-120°	59.6	1.1
120°-130°	52.8	1.0
130°-140°	38.6	0.7
140°-150°	20.9	0.4
150°-160°	7.5	0.1
160°-170°	1.2	0.0
170°-180°	0.0	0.0
0°-30°	1269.0	23.8
0°-40°	2053.5	38.5
0°-60°	3715.2	69.7
0°-90°	4974.1	93.3
90°-120°	239.0	4.5
90°-150°	351.2	6.6
90°-180°	360.0	6.7
0°-180°	5334.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1921	1921	1921	1921	1921	
5°	1848	1848	1845	1858	1858	172
15°	1600	1595	1570	1575	1574	452
25°	1417	1419	1409	1406	1395	653
35°	1237	1255	1256	1251	1237	775
45°	1046	1078	1119	1137	1134	807
55°	822	877	926	947	945	735
65°	567	631	688	696	695	562
75°	297	353	422	442	432	313
85°	54	104	173	218	248	68
90°	1	50	110	156	232	3
95°	1	45	99	143	182	0
105°	1	38	85	106	105	1
115°	1	33	72	86	92	1
125°	1	28	68	91	101	1
135°	1	18	56	80	92	1
145°	1	8	35	56	64	1
155°	1	2	14	29	33	1
165°	2	1	2	6	9	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241393

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1920.7	1920.7	1920.7	1920.7	1920.7	1920.7	1920.7	1920.7	1920.7	1920.7	1920.7
2.5°	1905.8	1905.8	1905.8	1902.9	1902.9	1906.3	1906.3	1908.1	1905.2	1902.3	1900.0
5°	1847.8	1846.1	1842.1	1842.7	1844.9	1847.8	1847.2	1852.4	1850.7	1847.2	1844.9
7.5°	1779.0	1775.5	1773.8	1773.8	1772.1	1774.9	1773.2	1777.2	1773.8	1770.9	1770.3
10°	1710.1	1710.1	1710.1	1705.5	1706.1	1705.5	1702.1	1699.8	1696.9	1687.7	1683.7
12.5°	1656.1	1655.0	1650.4	1647.0	1647.0	1644.7	1645.2	1640.7	1633.2	1622.3	1617.7
15°	1600.5	1602.2	1600.5	1595.3	1596.5	1594.7	1593.0	1587.3	1583.8	1572.9	1569.5
17.5°	1549.4	1554.0	1550.6	1544.8	1543.1	1542.0	1542.5	1540.2	1533.3	1528.8	1525.3
20°	1508.1	1506.9	1504.1	1499.5	1504.1	1502.4	1502.4	1500.1	1496.0	1490.9	1487.4
22.5°	1459.9	1461.0	1457.6	1457.6	1460.5	1462.2	1458.7	1457.6	1454.7	1448.4	1446.1
25°	1416.8	1418.0	1415.7	1414.6	1416.8	1418.6	1418.6	1418.6	1416.3	1412.3	1409.4
27.5°	1371.5	1375.5	1372.7	1372.7	1377.3	1380.7	1382.4	1379.5	1378.4	1373.8	1372.1
30°	1330.2	1326.2	1327.9	1334.2	1336.5	1340.5	1343.4	1344.0	1338.2	1336.5	1334.8
32.5°	1283.1	1284.9	1281.4	1288.3	1297.5	1302.1	1302.1	1300.9	1299.2	1298.6	1297.5
35°	1236.7	1237.8	1239.0	1247.6	1252.2	1255.0	1259.6	1263.6	1260.8	1257.9	1256.2
37.5°	1190.2	1192.5	1194.8	1201.1	1206.8	1212.6	1217.7	1223.5	1222.3	1218.3	1220.0
40°	1144.8	1147.7	1146.6	1150.6	1166.6	1172.4	1174.7	1179.8	1180.4	1175.3	1180.4
42.5°	1097.8	1097.8	1097.2	1109.8	1119.6	1125.3	1125.9	1137.4	1142.0	1146.6	1152.3
45°	1046.1	1047.3	1052.5	1061.1	1069.7	1078.3	1086.9	1100.1	1105.2	1112.1	1119.0
47.5°	993.3	993.9	1002.5	1008.3	1026.1	1035.8	1042.7	1049.6	1058.2	1065.7	1076.0
50°	940.5	942.8	942.8	961.2	975.6	979.6	985.9	996.8	1013.4	1023.8	1032.4
52.5°	879.7	885.5	889.5	904.4	915.9	925.1	936.0	954.9	966.9	976.1	984.2
55°	822.3	819.5	835.5	840.1	864.2	876.9	884.9	898.1	905.5	915.9	926.2
57.5°	763.8	763.2	772.4	785.0	810.9	816.6	818.9	835.0	855.0	870.0	879.7
60°	699.0	701.8	707.6	731.1	742.0	747.7	759.8	785.0	799.4	814.9	822.9
62.5°	635.3	635.8	651.9	664.5	678.9	693.2	705.8	720.2	728.2	742.0	751.2
65°	567.0	570.4	587.6	596.2	623.2	630.7	635.3	649.6	662.8	679.4	688.1
67.5°	502.1	505.6	519.3	530.2	553.8	556.1	564.1	585.9	606.6	619.2	627.8
70°	434.4	440.7	447.0	467.1	479.7	488.4	499.8	523.9	531.4	546.3	556.6
72.5°	366.1	371.9	378.7	394.8	410.9	420.6	433.8	447.6	456.2	470.0	487.8
75°	296.7	302.4	312.2	325.4	343.2	352.9	359.8	372.4	393.1	409.2	421.8
77.5°	227.2	230.7	244.5	255.9	277.2	283.5	293.2	308.7	328.2	344.3	355.8
80°	164.1	168.7	177.9	191.7	207.7	217.5	225.0	243.9	263.4	274.9	289.8
82.5°	104.4	109.0	119.9	133.7	148.1	156.7	166.4	184.2	200.8	212.9	227.2
85°	54.5	58.5	68.9	83.2	95.8	103.9	113.6	131.4	144.0	159.0	172.7
87.5°	17.2	21.8	32.1	45.9	60.3	67.7	75.7	92.4	105.0	119.9	132.6
90°	0.6	4.6	14.9	28.1	43.0	50.5	58.0	72.3	85.5	98.1	110.2
92.5°	0.6	4.0	13.8	26.4	40.2	47.1	53.9	67.1	80.3	92.4	102.7
95°	0.6	3.4	12.6	25.2	38.4	44.8	51.6	64.3	76.9	88.4	99.3
97.5°	0.6	3.4	12.1	23.5	36.2	42.5	49.4	62.0	74.0	84.9	95.8
100°	0.6	2.9	10.9	22.4	34.4	40.7	47.1	59.7	71.2	82.1	91.8
102.5°	0.6	2.3	10.3	21.2	33.3	39.0	45.3	57.4	68.3	79.2	88.4
105°	0.6	2.3	9.2	20.1	32.1	37.9	44.2	55.7	66.6	76.3	84.9
107.5°	0.6	1.7	8.6	18.9	31.0	36.7	43.0	53.9	64.3	73.5	81.5
110°	0.6	1.7	8.0	18.4	29.8	35.6	41.3	52.8	62.6	71.2	77.5



TEST NUMBER: P241393

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

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.6	1.1	7.5	17.2	28.7	34.4	40.2	51.1	60.8	68.3	74.6
115°	0.6	1.1	6.9	16.6	27.5	33.3	39.0	49.4	58.5	66.6	72.3
117.5°	0.6	0.6	6.3	15.5	26.4	31.6	37.3	48.2	57.4	64.8	71.2
120°	0.6	0.6	5.2	14.3	24.7	30.4	36.2	46.5	56.2	64.3	71.2
122.5°	0.6	0.6	4.6	13.2	23.5	29.3	34.4	44.8	54.5	63.1	70.0
125°	0.6	0.6	4.0	12.1	21.8	27.5	32.7	43.0	52.8	61.4	68.3
127.5°	0.6	0.6	3.4	10.9	20.1	25.2	31.0	40.7	50.5	58.5	66.0
130°	0.6	0.6	2.3	9.2	18.4	23.5	28.7	38.4	47.6	55.7	63.1
132.5°	1.1	0.6	1.7	8.0	16.6	21.2	25.8	35.6	44.8	52.2	59.7
135°	1.1	0.6	1.1	6.3	14.3	18.4	23.0	31.6	40.7	48.8	55.7
137.5°	1.1	1.1	1.1	5.2	12.1	15.5	19.5	28.1	36.2	44.2	51.6
140°	1.1	1.1	0.6	4.0	9.8	13.2	16.6	24.1	31.6	39.0	46.5
142.5°	1.1	1.1	0.6	2.9	7.5	10.3	13.8	20.1	27.5	34.4	40.7
145°	1.1	1.1	0.6	1.7	5.7	8.0	10.9	16.6	23.0	28.7	35.0
147.5°	1.1	1.1	0.6	1.1	4.0	6.3	8.0	13.2	18.4	23.5	28.7
150°	1.1	1.1	0.6	1.1	2.9	4.0	6.3	10.3	14.3	18.9	23.5
152.5°	1.1	1.1	1.1	0.6	1.7	2.9	4.6	7.5	11.5	14.9	18.9
155°	1.1	1.1	1.1	0.6	1.1	1.7	2.9	5.2	8.0	11.5	14.3
157.5°	1.7	1.1	1.1	0.6	0.6	1.1	1.7	3.4	5.7	8.0	10.3
160°	1.7	1.1	1.1	0.6	0.6	0.6	1.1	1.7	3.4	5.2	6.9
162.5°	1.7	1.7	1.1	0.6	0.6	0.6	0.6	1.1	1.7	2.9	4.0
165°	1.7	1.7	1.1	1.1	0.6	0.6	0.6	0.6	0.6	1.1	1.7
167.5°	1.7	1.7	1.1	1.1	0.6	0.6	0.6	0.6	0.6	0.6	0.6
170°	1.7	1.7	1.1	1.1	0.6	0.6	0.6	0.6	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



TEST NUMBER: P241393

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1920.7	1920.7	1920.7	1920.7	1920.7	1920.7	1920.7	1920.7	1920.7	1920.7
2.5°	1900.0	1906.3	1910.9	1912.7	1913.2	1912.1	1914.4	1915.0	1914.4	1912.7
5°	1845.5	1851.8	1857.0	1858.7	1858.1	1860.4	1859.3	1859.9	1859.3	1858.1
7.5°	1764.0	1765.8	1768.0	1765.2	1768.6	1769.2	1764.6	1767.5	1768.6	1771.5
10°	1683.7	1684.8	1686.6	1685.4	1686.6	1686.6	1686.6	1687.1	1689.4	1687.7
12.5°	1617.1	1619.4	1625.7	1624.0	1626.9	1630.3	1626.3	1623.4	1627.5	1620.6
15°	1570.6	1572.4	1573.5	1571.8	1575.2	1573.5	1572.4	1569.5	1572.9	1573.5
17.5°	1527.0	1525.9	1529.9	1526.5	1527.0	1525.9	1525.3	1521.3	1520.1	1524.7
20°	1488.0	1485.1	1482.3	1484.6	1487.4	1485.1	1484.6	1481.7	1482.3	1481.7
22.5°	1445.0	1448.4	1450.7	1450.1	1447.3	1448.4	1444.4	1439.8	1439.2	1436.4
25°	1410.5	1411.7	1410.5	1410.5	1406.5	1404.8	1406.5	1401.9	1397.3	1395.0
27.5°	1373.2	1373.8	1373.8	1369.2	1368.1	1366.9	1362.9	1359.5	1356.0	1353.2
30°	1332.5	1335.9	1331.9	1334.2	1333.1	1329.1	1326.2	1321.6	1318.1	1321.6
32.5°	1296.9	1294.6	1294.6	1292.9	1291.7	1292.9	1287.2	1279.7	1276.3	1276.8
35°	1256.7	1256.7	1259.0	1255.0	1251.0	1249.9	1244.7	1243.0	1236.1	1236.7
37.5°	1220.0	1218.9	1220.0	1218.9	1216.6	1216.0	1206.2	1208.0	1206.2	1201.7
40°	1187.3	1191.3	1192.5	1185.0	1187.9	1190.2	1183.3	1184.4	1181.6	1183.9
42.5°	1159.8	1162.6	1167.2	1166.1	1163.8	1160.9	1166.1	1167.8	1164.9	1168.4
45°	1127.1	1132.2	1132.8	1138.0	1137.4	1135.1	1135.7	1133.9	1131.1	1133.9
47.5°	1082.9	1086.9	1090.3	1090.9	1094.9	1094.9	1090.9	1092.6	1096.1	1088.0
50°	1039.3	1041.0	1045.0	1042.7	1044.4	1046.7	1045.6	1041.0	1041.0	1039.8
52.5°	991.0	995.1	995.6	996.8	996.2	991.0	992.2	992.2	988.2	989.9
55°	937.1	946.3	949.7	947.4	946.9	948.6	944.6	951.5	944.6	945.1
57.5°	886.6	888.3	892.9	893.5	891.8	895.8	894.1	893.5	891.8	895.2
60°	828.6	830.4	830.4	826.9	831.5	826.9	828.6	827.5	832.7	830.9
62.5°	759.2	763.8	767.8	761.5	762.1	760.4	759.8	759.8	764.4	766.1
65°	693.8	693.2	699.0	694.9	695.5	696.7	689.8	693.8	693.8	694.9
67.5°	634.7	633.5	631.2	629.5	628.9	628.4	626.7	623.2	625.5	627.2
70°	563.5	570.4	567.0	567.0	565.8	564.7	567.0	556.1	557.8	558.4
72.5°	496.4	499.8	505.0	507.3	505.6	502.7	500.4	496.4	491.8	492.9
75°	429.8	433.3	440.1	441.9	442.4	440.7	441.9	438.4	436.1	432.1
77.5°	365.5	371.3	375.3	382.2	382.2	382.8	385.6	384.5	381.0	382.2
80°	299.0	305.3	313.9	321.4	324.2	325.4	326.5	326.0	327.1	327.7
82.5°	236.4	251.9	256.5	264.5	268.0	269.1	274.9	277.2	278.9	282.3
85°	185.4	196.3	207.2	214.6	218.1	220.9	226.7	234.1	243.3	247.9
87.5°	144.6	154.4	164.7	173.9	179.6	184.2	193.4	208.3	225.0	235.3
90°	120.5	130.8	141.7	150.9	156.1	161.3	175.0	194.0	218.6	231.8
92.5°	113.0	124.0	133.1	142.9	148.1	153.8	168.1	185.4	200.8	206.0
95°	109.6	119.9	128.0	137.2	142.9	148.6	160.1	171.0	179.0	181.9
97.5°	105.6	114.8	122.8	132.0	136.0	140.6	150.4	159.0	165.3	168.1
100°	101.0	109.6	116.5	124.0	126.8	130.8	139.4	145.8	148.6	146.9
102.5°	97.0	103.3	109.6	114.8	117.1	119.9	124.5	125.7	125.1	123.4
105°	91.8	97.6	101.6	104.4	106.2	107.3	108.5	107.9	106.7	105.0
107.5°	87.2	91.2	94.1	94.7	95.8	96.4	97.0	95.8	94.1	93.5
110°	82.6	86.1	87.8	88.4	88.4	88.9	89.5	89.5	88.4	87.8



TEST NUMBER: P241393

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	79.2	82.1	83.8	84.9	85.5	86.1	87.8	88.9	88.4	88.4
115°	76.9	80.3	83.2	84.9	86.1	87.2	90.1	91.8	92.4	92.4
117.5°	76.3	80.9	84.4	87.2	88.4	90.1	93.0	95.3	95.8	95.8
120°	76.9	81.5	85.5	88.9	90.7	92.4	95.3	97.6	98.7	99.3
122.5°	76.3	81.5	86.1	90.1	91.8	93.5	96.4	99.3	100.4	100.4
125°	74.6	80.3	84.9	89.5	91.2	93.0	96.4	99.3	101.0	101.0
127.5°	72.3	78.0	83.2	87.8	89.5	91.8	95.3	98.1	100.4	100.4
130°	69.4	75.7	80.9	85.5	87.2	89.5	93.0	96.4	98.1	98.7
132.5°	66.0	72.3	77.5	82.1	84.4	86.1	90.1	93.5	95.3	96.4
135°	62.6	68.3	73.5	78.6	80.3	82.6	86.1	88.9	91.2	92.4
137.5°	58.0	63.7	68.9	73.5	75.2	77.5	80.9	83.8	86.1	86.7
140°	52.8	58.5	63.7	67.7	70.0	71.7	75.2	77.5	79.2	79.8
142.5°	47.1	52.8	57.4	61.4	63.1	64.8	67.7	70.0	71.7	72.3
145°	40.7	46.5	50.5	54.5	56.2	57.4	60.3	62.0	64.3	64.3
147.5°	34.4	39.6	44.2	47.6	48.8	50.5	52.8	54.5	55.1	55.7
150°	28.1	32.7	37.3	40.7	41.9	43.0	44.8	46.5	47.6	47.6
152.5°	22.4	26.4	30.4	34.4	35.0	36.2	37.9	39.0	40.2	40.2
155°	17.8	20.7	23.5	27.0	28.7	29.8	31.0	32.1	32.7	32.7
157.5°	13.2	15.5	17.8	20.7	21.8	23.5	24.7	25.2	25.8	26.4
160°	8.6	10.9	12.6	14.9	16.1	17.2	18.4	19.5	20.1	20.1
162.5°	5.2	6.9	8.0	9.8	10.3	10.9	13.2	13.8	13.8	13.8
165°	2.9	3.4	4.6	5.2	5.7	6.3	7.5	8.6	8.6	8.6
167.5°	0.6	1.1	1.7	1.7	2.3	2.3	2.9	4.0	4.0	4.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6
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)