

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: P241360

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241360
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-3-LD4-50-2LO-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
3FT LENGTH, 2-MODULE LED WITH P125 LENS
Light Source: (168) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

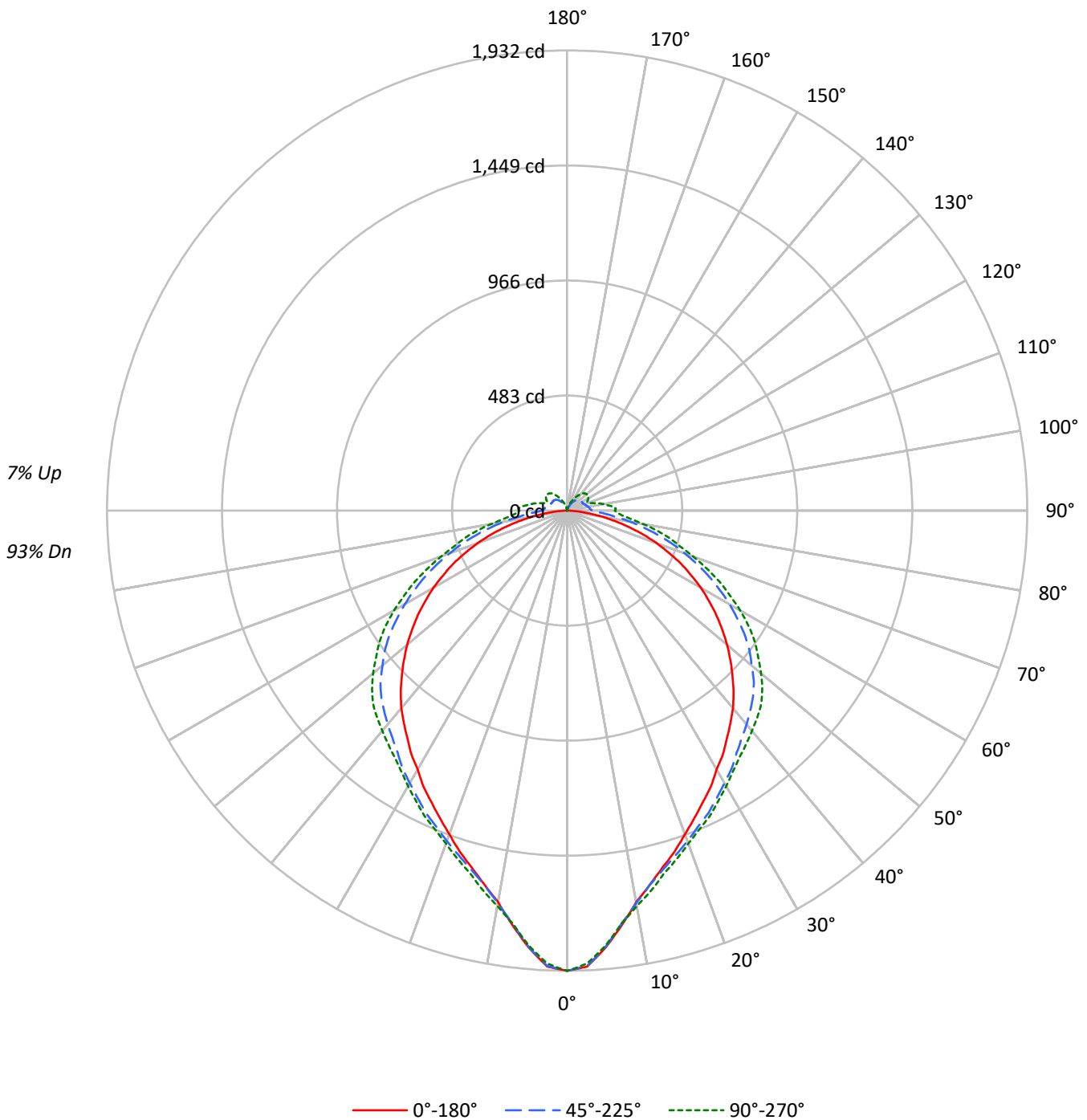
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5234.0 lumens
Efficiency: N/A
Efficacy: 128.6 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 1.03 / 1.26
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 40.7
Input Voltage (V): 120
Input Current (A_{in}): 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: P241360
CATALOG NUMBER: FVS8M-3-LD4-50-2LO-P125-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241360

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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	95	95	95	93
1	106	101	97	92	103	98	94	90	93	89	86	87	85	82	83	80	78	76
2	96	88	80	74	93	85	79	73	80	75	70	76	71	68	72	68	65	62
3	87	77	68	61	84	74	67	60	70	64	58	67	61	57	63	59	55	52
4	80	68	59	52	77	66	57	51	62	55	50	59	53	48	56	51	47	44
5	73	60	51	44	71	59	50	44	56	48	43	53	47	42	50	45	40	38
6	68	54	45	39	65	53	44	38	50	43	37	48	41	36	46	40	35	33
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	31	29
8	58	45	36	30	56	44	36	30	42	35	29	40	34	29	38	33	28	26
9	55	41	33	27	53	40	32	27	38	31	26	37	31	26	35	30	25	24
10	51	38	30	25	49	37	30	24	36	29	24	34	28	24	33	27	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11284	11284	11284
5°	10752	10610	10544
10°	9810	9588	9613
15°	9247	8953	8981
20°	8824	8563	8542
25°	8494	8276	8254
30°	8220	8005	7967
35°	8043	7779	7775
40°	7915	7673	7736
45°	7716	7627	7759
50°	7506	7453	7611
55°	7260	7243	7410
60°	6955	6867	7048
65°	6556	6413	6569
70°	5971	5830	5925
75°	5124	5119	5453
80°	3947	4275	4744
85°	2174	3342	4326



TEST NUMBER: P241360

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.1	3.3
10°-20°	441.2	8.4
20°-30°	642.8	12.3
30°-40°	773.5	14.8
40°-50°	837.0	16.0
50°-60°	791.1	15.1
60°-70°	628.1	12.0
70°-80°	398.4	7.6
80°-90°	173.5	3.3
90°-100°	99.8	1.9
100°-110°	77.9	1.5
110°-120°	60.7	1.2
120°-130°	55.8	1.1
130°-140°	44.3	0.8
140°-150°	26.3	0.5
150°-160°	10.8	0.2
160°-170°	2.6	0.0
170°-180°	0.1	0.0
0°-30°	1254.1	24.0
0°-40°	2027.6	38.7
0°-60°	3655.7	69.8
0°-90°	4855.7	92.8
90°-120°	238.4	4.6
90°-150°	364.8	7.0
90°-180°	378.0	7.2
0°-180°	5234.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1932	1932	1932	1932	1932	
5°	1842	1845	1841	1834	1834	170
15°	1550	1548	1559	1571	1576	437
25°	1350	1378	1402	1415	1416	623
35°	1169	1208	1241	1265	1263	733
45°	982	1027	1104	1144	1152	758
55°	765	828	910	950	962	683
65°	526	582	659	685	706	519
75°	270	323	393	430	445	286
85°	51	92	162	202	231	62
90°	1	43	105	145	200	3
95°	1	42	95	136	193	1
105°	1	38	83	113	119	1
115°	1	34	72	87	94	1
125°	1	31	71	95	107	1
135°	1	26	64	90	103	1
145°	1	16	47	66	76	1
155°	1	7	24	38	42	1
165°	2	2	8	14	16	1
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241360

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1932.4	1932.4	1932.4	1932.4	1932.4	1932.4	1932.4	1932.4	1932.4	1932.4	1932.4
2.5°	1916.1	1913.4	1914.1	1910.7	1912.1	1914.1	1914.1	1916.1	1916.8	1915.5	1913.4
5°	1842.5	1846.5	1843.8	1841.8	1842.5	1845.2	1844.5	1846.5	1844.5	1845.2	1841.1
7.5°	1756.0	1757.3	1752.6	1749.2	1750.5	1751.2	1753.3	1754.6	1758.0	1751.2	1749.2
10°	1669.4	1675.5	1668.1	1666.7	1668.1	1667.4	1670.8	1666.7	1670.1	1670.1	1672.8
12.5°	1607.3	1607.9	1610.6	1601.9	1601.9	1602.5	1601.9	1601.2	1602.5	1606.6	1608.6
15°	1550.5	1552.5	1552.5	1547.8	1547.8	1548.5	1549.8	1551.2	1551.8	1559.9	1558.6
17.5°	1500.5	1498.4	1500.5	1499.1	1501.8	1505.9	1505.2	1507.9	1512.0	1512.0	1516.7
20°	1446.4	1449.8	1453.8	1449.8	1457.2	1460.6	1462.6	1465.3	1468.0	1475.5	1476.1
22.5°	1396.4	1403.1	1404.5	1403.1	1413.3	1416.7	1420.0	1422.7	1432.9	1432.2	1436.3
25°	1349.7	1355.8	1356.5	1361.2	1372.1	1377.5	1379.5	1385.6	1391.0	1394.4	1401.8
27.5°	1306.5	1309.9	1310.5	1320.0	1326.8	1332.2	1338.9	1348.4	1351.1	1358.5	1359.9
30°	1255.1	1262.6	1266.6	1274.7	1288.2	1290.9	1297.7	1303.8	1313.9	1317.3	1321.4
32.5°	1215.9	1219.3	1220.7	1231.5	1243.0	1250.4	1255.1	1259.2	1271.3	1278.8	1284.9
35°	1168.6	1174.7	1177.4	1188.9	1198.3	1208.5	1211.9	1223.4	1228.8	1238.9	1240.9
37.5°	1126.0	1130.8	1134.1	1142.9	1155.8	1165.9	1166.6	1179.4	1188.9	1196.3	1204.4
40°	1082.8	1084.1	1089.5	1097.0	1112.5	1115.9	1124.0	1137.5	1152.4	1161.8	1172.0
42.5°	1034.1	1034.8	1041.5	1051.0	1067.9	1072.6	1084.1	1098.3	1113.9	1130.8	1138.2
45°	982.1	984.8	994.2	1006.4	1020.6	1027.3	1038.2	1056.4	1074.0	1092.2	1104.4
47.5°	929.3	935.4	943.5	955.7	971.9	980.7	990.9	1013.2	1029.4	1046.3	1063.2
50°	876.6	882.0	890.1	904.3	921.9	931.4	940.2	963.8	986.1	1001.0	1011.8
52.5°	820.5	825.9	835.4	852.3	872.6	878.0	890.8	913.1	934.1	949.6	964.5
55°	765.1	768.5	781.3	795.5	816.5	828.0	836.1	858.4	876.6	897.6	910.4
57.5°	705.0	709.7	723.2	736.0	759.7	768.5	777.9	800.3	822.6	837.4	848.9
60°	648.2	651.6	663.0	677.2	696.8	708.3	717.8	739.4	757.0	773.9	787.4
62.5°	585.3	590.0	600.9	616.4	637.4	645.5	659.0	674.5	696.8	708.3	723.2
65°	526.5	531.2	540.0	554.2	570.4	581.9	592.8	609.0	627.2	642.8	659.0
67.5°	461.6	467.0	477.9	492.7	511.0	519.1	527.2	544.1	563.7	579.2	592.1
70°	398.8	402.2	413.6	425.8	441.4	450.8	458.9	478.5	495.4	512.3	525.2
72.5°	334.6	337.3	348.1	361.6	377.8	389.3	396.7	411.6	428.5	445.4	461.6
75°	270.4	275.8	283.9	296.0	312.9	323.1	329.2	347.4	362.3	379.8	392.7
77.5°	206.8	211.6	222.4	234.5	250.1	259.5	265.6	283.2	297.4	312.9	329.2
80°	151.4	151.4	164.2	173.0	189.2	197.4	204.1	218.3	234.5	250.1	268.3
82.5°	94.6	98.0	106.8	119.0	133.1	140.6	146.7	160.9	177.8	194.0	209.5
85°	51.4	52.0	60.8	71.6	86.5	91.9	100.0	114.9	129.8	144.6	161.5
87.5°	15.5	19.6	28.4	40.6	52.0	59.5	64.9	80.4	93.9	108.8	125.7
90°	1.4	4.7	13.5	24.3	37.2	43.3	50.7	64.2	77.7	93.3	105.4
92.5°	0.7	4.1	12.2	23.0	35.8	41.9	49.3	62.2	76.4	88.5	99.4
95°	0.7	3.4	11.5	23.0	35.1	41.9	48.0	61.5	74.3	85.2	95.3
97.5°	0.7	3.4	11.5	22.3	34.5	40.6	47.3	60.2	71.6	82.5	93.9
100°	0.7	3.4	10.8	21.6	33.8	40.6	46.6	58.1	68.9	80.4	89.9
102.5°	0.7	3.4	10.8	21.6	33.1	39.2	44.6	56.1	66.9	76.4	86.5
105°	0.7	2.7	10.1	21.0	31.8	37.8	43.3	54.1	64.2	74.3	83.1
107.5°	0.7	2.7	10.1	19.6	31.1	36.5	42.6	52.7	62.2	71.6	80.4
110°	0.7	2.7	9.5	19.6	29.7	35.8	41.2	51.4	60.8	69.6	77.1



TEST NUMBER: P241360

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

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.7	2.7	9.5	18.9	29.1	34.5	39.9	50.7	59.5	67.6	75.0
115°	0.7	2.0	8.8	18.2	29.1	34.5	39.2	49.3	58.8	66.2	72.3
117.5°	0.7	2.0	8.8	17.6	27.7	33.1	38.5	48.7	57.5	65.6	71.6
120°	0.7	2.0	8.1	17.6	27.7	32.4	37.8	48.0	56.8	64.9	71.6
122.5°	0.7	2.0	8.1	16.9	26.4	31.8	37.2	47.3	56.1	64.2	71.6
125°	0.7	1.4	7.4	16.2	25.7	31.1	36.5	46.6	55.4	64.2	71.0
127.5°	0.7	1.4	6.8	15.5	25.0	29.7	35.1	45.3	54.1	62.9	70.3
130°	0.7	1.4	6.8	14.2	23.7	28.4	33.8	43.9	52.7	60.8	68.9
132.5°	0.7	1.4	6.1	13.5	22.3	27.0	31.8	41.9	50.7	58.8	66.2
135°	1.4	1.4	5.4	12.2	21.0	25.7	30.4	39.9	48.7	56.8	64.2
137.5°	1.4	1.4	4.7	11.5	18.9	23.7	27.7	37.2	45.3	53.4	60.8
140°	1.4	1.4	4.1	10.1	16.9	21.0	25.0	33.1	41.9	49.3	56.8
142.5°	1.4	1.4	3.4	8.8	14.9	18.9	22.3	29.7	37.2	45.3	52.0
145°	1.4	1.4	2.7	7.4	12.8	16.2	18.9	25.7	32.4	39.9	46.6
147.5°	1.4	1.4	2.7	6.1	10.8	13.5	16.2	22.3	28.4	34.5	40.6
150°	1.4	1.4	2.0	4.7	8.8	10.8	13.5	18.9	23.7	29.1	35.1
152.5°	1.4	1.4	1.4	4.1	7.4	9.5	10.8	15.5	19.6	24.3	29.1
155°	1.4	1.4	1.4	3.4	6.1	7.4	8.8	12.2	16.2	20.3	23.7
157.5°	1.4	1.4	1.4	2.7	4.7	5.4	6.8	10.1	12.8	16.2	18.9
160°	2.0	1.4	1.4	2.0	3.4	4.1	5.4	7.4	10.1	12.2	14.9
162.5°	2.0	1.4	1.4	1.4	2.7	3.4	4.1	5.4	7.4	9.5	10.8
165°	2.0	2.0	1.4	1.4	2.0	2.0	2.7	4.1	4.7	6.8	8.1
167.5°	2.0	2.0	1.4	1.4	1.4	1.4	2.0	2.7	3.4	4.1	4.7
170°	2.0	2.0	1.4	1.4	1.4	1.4	1.4	1.4	2.0	2.0	2.7
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: P241360

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1932.4	1932.4	1932.4	1932.4	1932.4	1932.4	1932.4	1932.4	1932.4	1932.4
2.5°	1911.4	1912.8	1909.4	1910.1	1908.7	1909.4	1907.4	1906.7	1908.0	1904.0
5°	1841.8	1838.4	1834.4	1834.4	1833.7	1832.3	1831.7	1833.0	1832.3	1834.4
7.5°	1751.2	1745.1	1746.5	1743.1	1747.2	1745.8	1747.2	1748.5	1748.5	1748.5
10°	1668.1	1674.2	1676.9	1679.6	1683.0	1680.9	1685.7	1687.0	1688.4	1685.7
12.5°	1613.3	1613.3	1618.1	1619.4	1619.4	1620.8	1626.2	1622.1	1628.2	1633.6
15°	1562.0	1566.0	1570.1	1570.8	1570.8	1577.5	1578.9	1576.8	1577.5	1575.5
17.5°	1520.7	1522.8	1524.1	1528.2	1532.2	1531.6	1532.9	1536.3	1534.9	1532.9
20°	1478.8	1484.9	1489.7	1489.0	1489.7	1491.7	1492.4	1493.0	1489.7	1487.6
22.5°	1441.0	1441.0	1449.1	1451.8	1454.5	1453.8	1452.5	1453.8	1453.8	1449.1
25°	1401.8	1408.5	1412.6	1411.3	1415.3	1418.7	1415.3	1414.6	1417.3	1416.0
27.5°	1369.3	1369.3	1374.1	1381.5	1380.8	1382.2	1379.5	1376.8	1374.8	1374.1
30°	1326.1	1332.8	1339.6	1338.3	1340.3	1343.0	1343.0	1340.3	1335.6	1335.6
32.5°	1288.2	1293.0	1295.7	1303.8	1306.5	1305.8	1299.7	1295.0	1297.0	1297.0
35°	1249.0	1254.4	1265.3	1263.9	1265.3	1266.6	1264.6	1262.6	1262.6	1263.2
37.5°	1207.1	1224.0	1223.4	1236.9	1239.6	1238.9	1236.9	1230.8	1232.1	1234.8
40°	1182.8	1189.6	1203.1	1205.8	1207.1	1208.5	1214.6	1210.5	1208.5	1207.1
42.5°	1151.7	1163.2	1170.0	1178.1	1184.2	1185.5	1182.1	1180.1	1181.5	1180.8
45°	1113.2	1128.7	1137.5	1145.0	1144.3	1145.6	1149.7	1154.4	1155.1	1151.7
47.5°	1076.7	1080.7	1099.0	1097.0	1105.1	1111.2	1109.8	1107.1	1111.8	1111.2
50°	1026.0	1040.2	1044.9	1057.8	1059.1	1055.1	1059.8	1062.5	1063.2	1063.2
52.5°	976.0	984.8	998.3	999.0	1003.7	1005.7	1008.4	1009.8	1012.5	1011.1
55°	924.6	930.0	939.5	947.6	949.6	948.9	952.3	957.7	960.4	962.5
57.5°	863.1	875.3	878.0	886.1	884.7	889.5	895.6	898.3	902.3	904.3
60°	796.2	805.7	815.1	817.8	820.5	824.6	830.7	830.0	836.1	839.5
62.5°	735.4	739.4	747.5	752.9	753.6	753.6	759.7	762.4	768.5	769.8
65°	666.4	675.9	679.3	681.3	684.7	684.7	690.1	692.8	697.5	705.6
67.5°	602.2	611.0	617.8	619.1	621.8	623.2	621.8	625.2	628.6	632.6
70°	535.3	543.4	552.2	557.6	556.3	555.6	556.3	559.0	563.7	562.3
72.5°	471.1	483.9	488.0	496.1	496.8	498.1	494.7	493.4	497.5	495.4
75°	406.2	419.7	425.8	434.6	430.5	432.6	432.6	438.7	444.1	445.4
77.5°	344.7	358.2	366.3	370.4	377.1	383.9	385.3	388.6	385.3	385.3
80°	282.5	294.7	309.6	314.3	316.3	318.3	320.4	321.0	321.7	321.7
82.5°	227.8	243.3	251.4	252.8	254.1	256.8	260.2	264.3	269.7	270.4
85°	177.1	186.5	194.0	200.1	202.1	206.1	213.6	220.3	227.8	231.2
87.5°	137.2	144.6	152.8	159.5	164.9	168.3	177.8	188.6	202.1	208.8
90°	114.9	123.0	131.1	139.9	145.3	150.7	161.5	173.7	190.6	200.1
92.5°	108.1	117.6	127.1	135.2	139.2	143.3	154.1	170.3	192.0	204.8
95°	106.1	114.9	122.3	130.4	135.9	141.3	154.1	170.3	185.9	192.6
97.5°	102.7	110.2	118.3	128.4	133.1	138.6	150.0	160.9	167.6	170.3
100°	98.0	106.1	114.9	123.7	128.4	132.5	140.6	148.0	152.8	155.5
102.5°	94.6	102.1	110.2	118.3	121.7	125.0	131.8	137.2	139.2	139.9
105°	91.2	98.0	105.4	110.8	112.9	115.6	119.0	119.0	119.0	119.0
107.5°	87.2	93.3	98.7	101.4	102.7	103.4	104.1	103.4	103.4	102.7
110°	83.8	88.5	91.9	93.3	93.3	93.9	93.9	93.9	93.9	93.9



TEST NUMBER: P241360

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	80.4	84.5	86.5	87.9	87.9	88.5	89.2	90.6	91.2	91.2
115°	77.7	81.8	83.8	85.8	87.2	87.9	89.9	92.6	93.9	93.9
117.5°	76.4	81.1	83.8	87.2	89.2	90.6	93.9	96.7	98.0	98.7
120°	77.1	81.8	85.8	89.9	91.9	93.3	97.3	100.0	102.1	102.7
122.5°	77.7	82.5	87.9	91.9	93.9	96.0	99.4	102.7	104.8	105.4
125°	77.1	83.1	88.5	93.3	95.3	97.3	100.7	104.1	106.1	106.8
127.5°	76.4	82.5	88.5	93.3	95.3	98.0	101.4	104.1	106.1	106.8
130°	75.0	81.1	87.2	92.6	94.6	96.7	100.0	103.4	105.4	106.8
132.5°	73.0	79.1	85.2	89.9	92.6	94.6	98.7	102.1	104.8	105.4
135°	70.3	76.4	82.5	87.9	89.9	92.6	96.0	99.4	101.4	102.7
137.5°	66.9	73.0	78.4	83.8	85.8	87.9	91.9	95.3	97.3	98.0
140°	62.9	68.3	73.7	78.4	80.4	82.5	85.8	88.5	91.2	92.6
142.5°	57.5	62.9	67.6	71.6	73.7	75.7	79.1	81.1	83.1	84.5
145°	52.0	56.8	60.8	64.2	66.2	68.3	71.0	73.0	75.0	75.7
147.5°	46.0	50.0	54.1	57.5	58.8	60.2	62.9	64.9	66.2	66.2
150°	39.9	43.9	47.3	50.7	51.4	52.7	54.7	56.1	57.5	56.8
152.5°	33.8	37.2	41.2	43.9	44.6	46.0	47.3	48.7	49.3	49.3
155°	27.7	31.1	34.5	37.2	37.8	39.2	39.9	41.2	41.9	41.9
157.5°	22.3	25.7	28.4	31.1	31.8	32.4	33.8	34.5	34.5	35.1
160°	17.6	19.6	22.3	24.3	25.7	26.4	27.7	27.7	28.4	28.4
162.5°	12.8	14.9	16.9	18.9	19.6	20.3	21.6	22.3	22.3	22.3
165°	8.8	10.8	11.5	12.8	13.5	14.9	16.2	16.2	16.9	16.2
167.5°	6.1	6.8	7.4	8.8	8.8	9.5	10.1	10.8	11.5	11.5
170°	3.4	4.1	4.1	4.7	4.7	4.7	5.4	6.1	6.1	6.1
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)