

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: P241592

Luminaire Tested: **FVS8M-3-LD4-50-3STD-O-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241592
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-29)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-3-LD4-50-3STD-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
3FT LENGTH, 3-MODULE LED WITH OPAL LENS
Light Source: (252) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

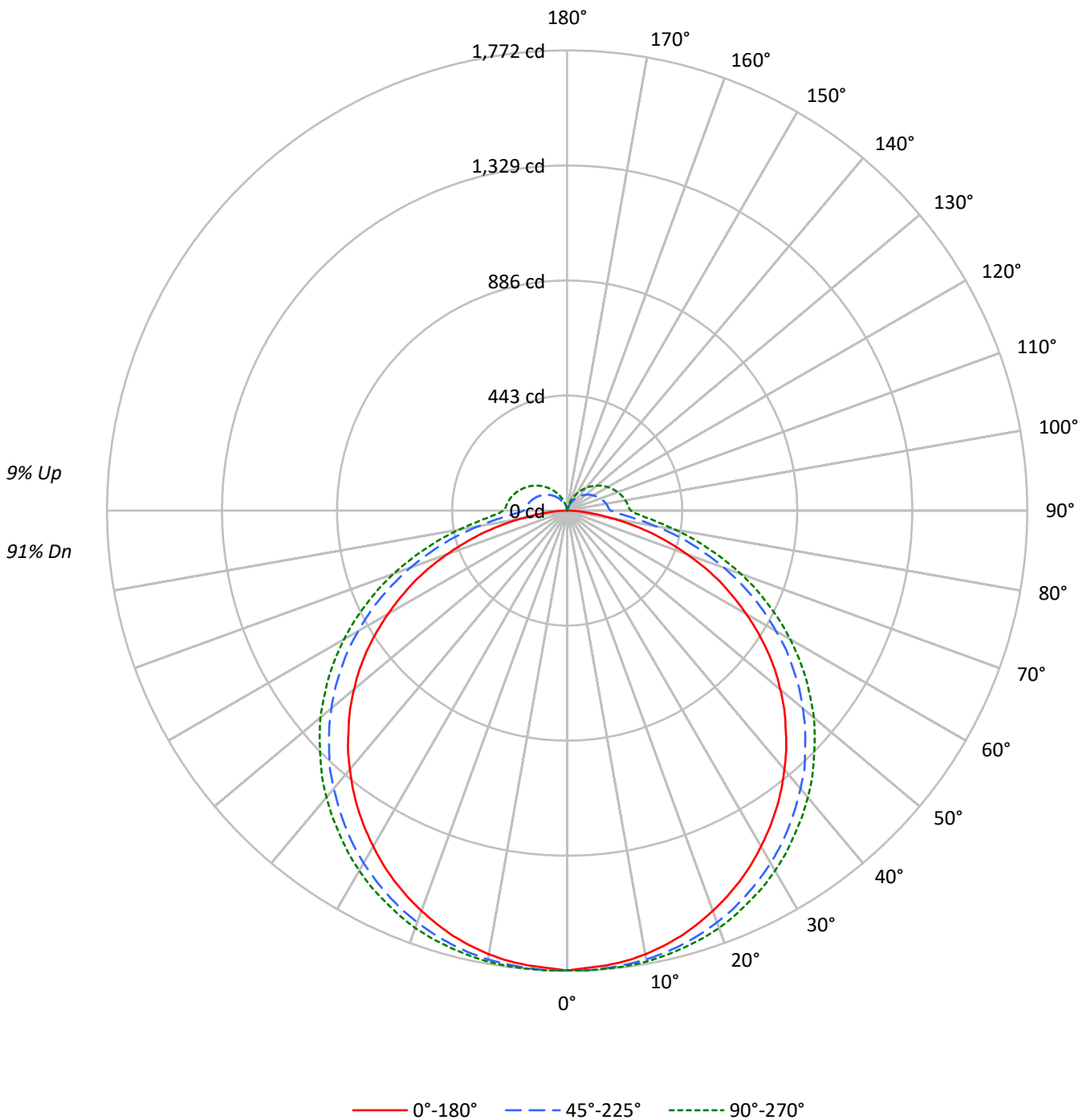
Lumens per Lamp: N/A
Luminaire Lumens: 6364.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.34 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 82.9
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: P241592

CATALOG NUMBER: FVS8M-3-LD4-50-3STD-O-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241592

CATALOG NUMBER: FVS8M-3-LD4-50-3STD-O-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	113	113	113	113	106	106	106	99	99	99	93	93	93	91
1	105	100	95	91	102	97	93	89	91	88	84	85	83	80	80	78	76	73
2	95	87	79	73	92	84	77	72	79	73	68	74	69	66	70	66	63	60
3	87	76	67	60	83	73	65	59	69	62	57	65	59	55	61	56	53	50
4	79	67	57	51	76	65	56	50	61	54	48	57	51	46	54	49	45	42
5	72	59	50	43	70	58	49	42	54	47	41	51	45	40	49	43	39	36
6	67	53	44	37	64	52	43	37	49	41	36	46	40	35	44	38	34	31
7	62	48	39	33	59	47	38	32	44	37	31	42	36	31	40	34	30	28
8	57	44	35	29	55	43	34	29	40	33	28	38	32	27	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	35	29	24	34	28	24	22
10	50	37	29	24	48	36	28	23	34	27	23	33	27	22	31	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10339	10339	10339
5°	10256	10188	10177
10°	10195	10058	10057
15°	10113	9925	9934
20°	10006	9792	9823
25°	9907	9643	9678
30°	9781	9494	9551
35°	9662	9330	9390
40°	9513	9152	9242
45°	9351	8952	9054
50°	9173	8728	8880
55°	8928	8453	8634
60°	8547	8099	8329
65°	8103	7685	7942
70°	7362	7137	7497
75°	6403	6433	6882
80°	4823	5510	6212
85°	2610	4691	5705



TEST NUMBER: P241592

CATALOG NUMBER: FVS8M-3-LD4-50-3STD-O-UNV-EDC1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.2	2.6
10°-20°	486.8	7.6
20°-30°	749.9	11.8
30°-40°	925.3	14.5
40°-50°	991.8	15.6
50°-60°	937.8	14.7
60°-70°	765.2	12.0
70°-80°	501.9	7.9
80°-90°	239.5	3.8
90°-100°	154.3	2.4
100°-110°	136.7	2.1
110°-120°	112.8	1.8
120°-130°	85.5	1.3
130°-140°	57.9	0.9
140°-150°	33.1	0.5
150°-160°	14.1	0.2
160°-170°	3.1	0.0
170°-180°	0.1	0.0
0°-30°	1404.9	22.1
0°-40°	2330.2	36.6
0°-60°	4259.9	66.9
0°-90°	5766.4	90.6
90°-120°	403.8	6.3
90°-150°	580.3	9.1
90°-180°	598.0	9.4
0°-180°	6364.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1770	1770	1770	1770	1770	
5°	1758	1762	1768	1770	1770	167
15°	1696	1708	1728	1740	1743	478
25°	1574	1599	1633	1654	1660	725
35°	1404	1440	1488	1518	1526	878
45°	1190	1241	1296	1334	1344	919
55°	941	996	1062	1108	1122	840
65°	651	714	790	840	853	641
75°	338	409	494	545	562	355
85°	62	140	227	283	305	77
90°	3	78	167	226	245	4
95°	1	72	158	216	235	1
105°	1	63	144	200	219	1
115°	1	54	127	177	195	1
125°	1	43	106	150	166	1
135°	1	31	82	119	132	1
145°	2	18	58	86	96	1
155°	2	8	30	52	57	1
165°	2	2	9	17	22	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241592

CATALOG NUMBER: FVS8M-3-LD4-50-3STD-O-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1770.5	1770.5	1770.5	1770.5	1770.5	1770.5	1770.5	1770.5	1770.5	1770.5	1770.5
2.5°	1762.7	1764.4	1765.3	1764.4	1765.3	1767.0	1767.9	1769.6	1770.5	1771.4	1772.3
5°	1757.5	1758.4	1760.1	1760.1	1761.0	1761.8	1763.6	1764.4	1766.2	1767.0	1767.9
7.5°	1748.8	1749.7	1750.5	1751.4	1752.3	1753.1	1754.0	1756.6	1759.2	1761.0	1762.7
10°	1734.9	1735.8	1737.5	1737.5	1739.2	1741.0	1743.6	1747.1	1750.5	1753.1	1754.9
12.5°	1716.7	1718.4	1719.3	1721.0	1723.6	1725.3	1727.9	1732.3	1737.5	1740.1	1743.6
15°	1695.8	1697.5	1697.5	1700.1	1704.5	1708.0	1710.6	1714.9	1721.0	1724.5	1727.9
17.5°	1669.7	1673.2	1673.2	1676.7	1681.9	1685.4	1688.0	1694.1	1701.0	1704.5	1709.7
20°	1640.2	1642.8	1644.5	1648.9	1655.8	1660.2	1662.8	1668.9	1677.6	1682.8	1688.0
22.5°	1608.9	1609.8	1615.0	1619.4	1627.2	1630.6	1635.9	1643.7	1648.9	1656.7	1662.8
25°	1574.2	1575.0	1579.4	1585.5	1593.3	1599.4	1602.8	1611.5	1620.2	1628.0	1633.3
27.5°	1536.0	1536.0	1541.2	1549.9	1558.5	1562.9	1569.8	1579.4	1587.2	1594.2	1602.0
30°	1493.4	1495.1	1500.3	1510.8	1519.4	1524.7	1531.6	1541.2	1551.6	1559.4	1567.2
32.5°	1449.9	1451.7	1459.5	1468.2	1479.5	1483.8	1490.8	1502.9	1512.5	1522.9	1529.9
35°	1403.9	1403.0	1414.3	1423.0	1434.3	1440.4	1448.2	1459.5	1469.9	1481.2	1488.2
37.5°	1354.4	1356.1	1364.8	1375.2	1387.4	1395.2	1403.0	1413.5	1423.9	1436.9	1443.9
40°	1301.4	1303.1	1314.4	1325.7	1339.6	1346.6	1352.6	1364.8	1377.8	1389.1	1397.8
42.5°	1249.3	1251.0	1259.7	1272.7	1286.6	1291.8	1301.4	1314.4	1328.3	1340.5	1351.8
45°	1190.2	1192.8	1204.1	1218.0	1231.9	1240.6	1245.8	1260.6	1273.6	1287.5	1296.2
47.5°	1134.6	1135.5	1147.6	1160.7	1175.4	1185.8	1191.9	1209.3	1219.7	1232.8	1243.2
50°	1071.2	1073.8	1085.1	1099.0	1116.3	1123.3	1130.2	1146.8	1161.5	1172.8	1185.0
52.5°	1009.5	1010.4	1021.7	1038.2	1053.8	1060.7	1067.7	1085.1	1101.6	1115.5	1126.8
55°	940.9	946.9	957.4	970.4	987.8	995.6	1003.4	1021.7	1036.4	1051.2	1062.5
57.5°	869.6	875.7	887.9	902.6	920.0	928.7	937.4	953.9	971.3	985.2	1000.8
60°	796.6	804.5	817.5	832.3	851.4	857.5	867.0	882.7	900.9	917.4	928.7
62.5°	722.8	730.6	744.5	758.4	778.4	788.8	796.6	814.9	832.3	847.0	860.9
65°	650.7	655.9	667.2	687.2	704.6	714.1	722.8	743.7	756.7	777.5	789.7
67.5°	572.5	576.9	591.6	611.6	629.8	637.7	649.0	668.9	683.7	702.8	715.0
70°	491.7	500.4	513.4	532.5	553.4	561.2	571.6	590.8	611.6	626.4	642.9
72.5°	413.5	421.3	437.9	454.4	474.3	485.6	494.3	515.2	533.4	554.3	565.6
75°	337.9	342.3	358.8	377.9	397.0	409.2	416.1	437.9	456.1	476.1	493.5
77.5°	257.2	266.7	283.2	302.3	325.8	337.1	344.0	366.6	384.9	404.0	420.5
80°	185.0	190.3	207.6	228.5	248.5	260.6	270.2	291.9	309.3	333.6	345.8
82.5°	117.3	127.7	140.7	162.5	185.0	196.3	209.4	227.6	245.9	263.2	281.5
85°	61.7	69.5	84.3	106.0	127.7	139.9	149.4	172.0	191.1	207.6	226.7
87.5°	20.9	27.8	44.3	63.4	86.9	98.2	108.6	129.4	150.3	167.7	185.9
90°	2.6	9.6	25.2	45.2	66.9	78.2	88.6	109.5	130.3	148.6	166.8
92.5°	0.9	7.0	22.6	42.6	63.4	73.8	85.1	106.0	125.1	143.3	160.7
95°	0.9	7.0	20.9	40.8	61.7	72.1	82.5	103.4	122.5	140.7	158.1
97.5°	0.9	6.1	20.0	39.1	59.1	70.4	80.8	100.8	120.8	139.0	155.5
100°	0.9	6.1	19.1	37.4	57.3	67.8	78.2	98.2	117.3	135.5	152.0
102.5°	0.9	5.2	18.2	35.6	55.6	65.2	75.6	94.7	113.8	132.1	148.6
105°	0.9	5.2	17.4	34.8	53.9	63.4	73.0	92.1	110.3	128.6	144.2
107.5°	0.9	4.3	16.5	33.0	51.3	60.8	70.4	89.5	106.9	124.2	140.7
110°	0.9	4.3	15.6	31.3	49.5	58.2	67.8	86.0	103.4	120.8	135.5



TEST NUMBER: P241592

CATALOG NUMBER: FVS8M-3-LD4-50-3STD-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.9	3.5	14.8	29.5	46.9	56.5	65.2	83.4	99.9	116.4	131.2
115°	0.9	3.5	13.0	27.8	45.2	53.9	62.6	79.1	96.4	112.1	126.8
117.5°	0.9	2.6	12.2	26.1	42.6	51.3	59.1	75.6	92.1	107.7	121.6
120°	0.9	2.6	11.3	25.2	40.0	47.8	56.5	72.1	87.7	102.5	116.4
122.5°	0.9	1.7	10.4	23.5	38.2	45.2	53.0	68.6	83.4	98.2	111.2
125°	0.9	1.7	9.6	21.7	35.6	42.6	50.4	65.2	79.1	93.0	106.0
127.5°	0.9	1.7	8.7	20.0	33.0	40.0	46.9	60.8	74.7	87.7	100.8
130°	0.9	1.7	7.0	18.2	30.4	37.4	43.4	57.3	70.4	82.5	94.7
132.5°	0.9	1.7	6.1	16.5	27.8	33.9	40.8	53.0	66.0	77.3	88.6
135°	0.9	0.9	5.2	13.9	25.2	31.3	37.4	49.5	60.8	72.1	82.5
137.5°	0.9	0.9	4.3	12.2	22.6	27.8	33.9	45.2	56.5	66.9	76.5
140°	0.9	0.9	3.5	10.4	19.1	24.3	29.5	40.8	51.3	60.8	70.4
142.5°	1.7	1.7	2.6	8.7	16.5	20.9	26.1	35.6	46.0	55.6	64.3
145°	1.7	1.7	1.7	7.0	13.9	18.2	22.6	31.3	40.0	49.5	58.2
147.5°	1.7	1.7	1.7	6.1	11.3	14.8	19.1	26.9	34.8	43.4	51.3
150°	1.7	1.7	1.7	4.3	9.6	12.2	15.6	21.7	29.5	36.5	43.4
152.5°	1.7	1.7	1.7	3.5	7.0	9.6	12.2	18.2	24.3	30.4	36.5
155°	1.7	1.7	1.7	2.6	5.2	7.8	9.6	14.8	19.1	25.2	30.4
157.5°	1.7	1.7	1.7	1.7	3.5	5.2	7.0	11.3	14.8	19.1	23.5
160°	1.7	1.7	1.7	1.7	2.6	4.3	5.2	7.8	11.3	14.8	18.2
162.5°	1.7	1.7	1.7	1.7	1.7	2.6	3.5	5.2	7.8	10.4	13.0
165°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.5	5.2	6.1	8.7
167.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.6	3.5	4.3
170°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	0.9	1.7	1.7
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: P241592

CATALOG NUMBER: FVS8M-3-LD4-50-3STD-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1770.5	1770.5	1770.5	1770.5	1770.5	1770.5	1770.5	1770.5	1770.5	1770.5
2.5°	1772.3	1772.3	1773.1	1773.1	1773.1	1772.3	1773.1	1772.3	1772.3	1772.3
5°	1767.9	1768.8	1769.6	1770.5	1770.5	1770.5	1770.5	1769.6	1770.5	1770.5
7.5°	1764.4	1764.4	1766.2	1767.0	1767.9	1767.9	1767.9	1767.9	1768.8	1768.8
10°	1756.6	1758.4	1760.1	1761.8	1761.8	1762.7	1763.6	1762.7	1763.6	1763.6
12.5°	1745.3	1747.1	1749.7	1751.4	1753.1	1752.3	1754.0	1754.0	1754.0	1754.0
15°	1730.6	1734.0	1735.8	1738.4	1740.1	1741.0	1741.0	1742.7	1742.7	1742.7
17.5°	1712.3	1716.7	1719.3	1722.7	1723.6	1725.3	1726.2	1726.2	1727.9	1727.9
20°	1692.3	1695.8	1699.3	1702.8	1704.5	1706.2	1708.0	1708.0	1708.8	1710.6
22.5°	1666.3	1672.3	1675.8	1680.2	1682.8	1682.8	1684.5	1687.1	1687.1	1688.0
25°	1638.5	1643.7	1648.9	1653.2	1654.1	1655.8	1658.4	1660.2	1662.8	1660.2
27.5°	1608.1	1614.1	1620.2	1623.7	1624.6	1626.3	1629.8	1631.5	1632.4	1634.1
30°	1572.4	1580.3	1586.3	1589.8	1591.6	1594.2	1596.8	1598.5	1601.1	1601.1
32.5°	1536.0	1542.0	1550.7	1555.1	1557.7	1560.3	1562.0	1564.6	1566.4	1566.4
35°	1496.0	1504.7	1508.2	1516.0	1517.7	1519.4	1523.8	1526.4	1526.4	1525.5
37.5°	1456.0	1463.0	1467.3	1474.3	1477.7	1478.6	1482.1	1483.8	1486.4	1485.6
40°	1406.5	1417.8	1424.8	1428.2	1431.7	1436.0	1437.8	1440.4	1443.0	1442.1
42.5°	1360.5	1365.7	1376.1	1383.1	1384.8	1387.4	1391.7	1393.5	1397.0	1396.1
45°	1307.5	1317.9	1324.8	1330.9	1334.4	1337.9	1340.5	1343.1	1347.4	1344.0
47.5°	1254.5	1263.2	1272.7	1280.5	1282.3	1285.8	1289.2	1292.7	1294.4	1292.7
50°	1198.0	1206.7	1216.3	1222.3	1225.8	1228.4	1234.5	1238.0	1238.8	1240.6
52.5°	1138.9	1151.1	1158.0	1165.9	1169.3	1174.6	1177.2	1182.4	1180.6	1179.8
55°	1076.4	1084.2	1096.4	1104.2	1107.7	1109.4	1113.7	1118.1	1118.1	1121.6
57.5°	1009.5	1022.5	1032.1	1040.8	1042.5	1047.7	1052.1	1054.7	1056.4	1057.3
60°	942.6	955.6	965.2	975.6	978.2	981.7	984.3	988.6	992.1	992.1
62.5°	874.0	884.4	896.6	905.2	908.7	912.2	918.3	921.7	923.5	925.2
65°	804.5	817.5	825.3	836.6	840.1	842.7	844.4	854.0	853.1	853.1
67.5°	731.5	741.0	753.2	764.5	767.1	770.6	775.8	781.9	781.0	784.5
70°	657.6	668.1	682.0	689.8	695.9	700.2	701.1	706.3	710.6	711.5
72.5°	580.3	595.1	607.3	615.9	619.4	625.5	630.7	635.9	636.8	636.8
75°	506.5	518.6	532.5	540.4	544.7	549.1	554.3	561.2	561.2	562.1
77.5°	434.4	449.1	458.7	467.4	472.6	475.2	483.9	485.6	488.2	493.5
80°	361.4	374.4	387.5	397.0	401.4	405.7	412.7	417.0	419.6	421.3
82.5°	298.0	311.0	324.0	333.6	337.9	343.2	346.6	355.3	357.1	357.1
85°	240.6	255.4	269.3	278.0	283.2	288.4	294.5	300.6	302.3	304.9
87.5°	203.3	218.1	230.2	241.5	245.9	249.3	256.3	262.4	264.1	265.0
90°	182.4	196.3	210.2	220.7	225.9	229.4	237.2	241.5	244.1	245.0
92.5°	176.4	190.3	203.3	213.7	218.9	222.4	229.4	234.6	237.2	238.0
95°	173.8	187.7	199.8	211.1	215.5	219.8	226.7	231.1	233.7	234.6
97.5°	171.1	185.0	197.2	207.6	212.8	217.2	223.3	228.5	231.1	232.0
100°	167.7	181.6	193.7	204.2	208.5	212.8	219.8	224.1	226.7	227.6
102.5°	164.2	177.2	189.4	199.8	204.2	208.5	214.6	219.8	222.4	223.3
105°	159.9	172.9	185.0	194.6	199.8	203.3	210.2	214.6	218.1	218.9
107.5°	155.5	168.5	179.8	190.3	194.6	198.1	205.0	210.2	212.8	212.8
110°	150.3	163.3	174.6	185.0	189.4	192.9	198.9	204.2	206.8	207.6



TEST NUMBER: P241592

CATALOG NUMBER: FVS8M-3-LD4-50-3STD-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	146.0	158.1	169.4	179.0	183.3	186.8	192.9	198.1	199.8	200.7
115°	139.9	152.9	163.3	172.9	177.2	180.7	186.8	191.1	193.7	194.6
117.5°	134.7	146.8	157.2	166.8	170.3	173.8	179.8	184.2	186.8	187.7
120°	129.4	140.7	151.2	159.9	164.2	167.7	172.9	177.2	179.8	180.7
122.5°	123.4	134.7	145.1	152.9	157.2	159.9	165.9	170.3	172.9	173.8
125°	118.2	128.6	138.1	146.0	150.3	152.9	158.1	162.5	165.1	165.9
127.5°	112.1	122.5	131.2	139.0	142.5	146.0	150.3	154.6	156.4	157.2
130°	106.0	115.5	124.2	131.2	134.7	137.3	142.5	146.0	148.6	149.4
132.5°	99.0	108.6	116.4	123.4	126.8	129.4	134.7	138.1	139.9	140.7
135°	93.0	101.6	109.5	115.5	119.0	121.6	126.0	129.4	131.2	132.1
137.5°	86.0	94.7	101.6	107.7	111.2	112.9	117.3	120.8	122.5	123.4
140°	79.1	86.9	93.8	99.9	102.5	105.1	108.6	111.2	112.9	113.8
142.5°	73.0	79.9	86.0	91.2	93.8	96.4	99.9	102.5	104.3	105.1
145°	66.0	72.1	78.2	83.4	86.0	87.7	91.2	93.8	94.7	95.6
147.5°	59.1	65.2	70.4	75.6	77.3	79.1	82.5	84.3	86.0	86.0
150°	51.3	57.3	62.6	66.9	68.6	70.4	73.0	74.7	76.5	77.3
152.5°	43.4	49.5	54.7	58.2	59.9	61.7	64.3	66.0	66.9	67.8
155°	35.6	40.8	46.9	50.4	52.1	53.0	54.7	56.5	57.3	57.3
157.5°	27.8	33.0	37.4	41.7	42.6	44.3	46.0	47.8	47.8	48.7
160°	21.7	25.2	28.7	33.0	33.9	35.6	37.4	38.2	39.1	39.1
162.5°	15.6	18.2	20.9	24.3	25.2	26.9	28.7	29.5	29.5	30.4
165°	10.4	12.2	13.9	16.5	17.4	18.2	20.0	20.9	20.9	21.7
167.5°	6.1	7.0	8.7	9.6	10.4	10.4	12.2	13.0	13.0	13.0
170°	2.6	2.6	3.5	4.3	4.3	4.3	5.2	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)