

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: P226199

Luminaire Tested: **FW-LD2-99-1250-50-PC-R4-LGW**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P226199
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1705-064-4)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FW-LD2-99-1250-50-PC-R4-LGW
Description: NIGHT CONDOR LED FLOODLIGHT
Light Source: (56) 5000 CCT, 80 CRI LEDS
 EL089N056E850M
Ballast/Driver: OSRAM
 OT25WPRG1250C

Summary

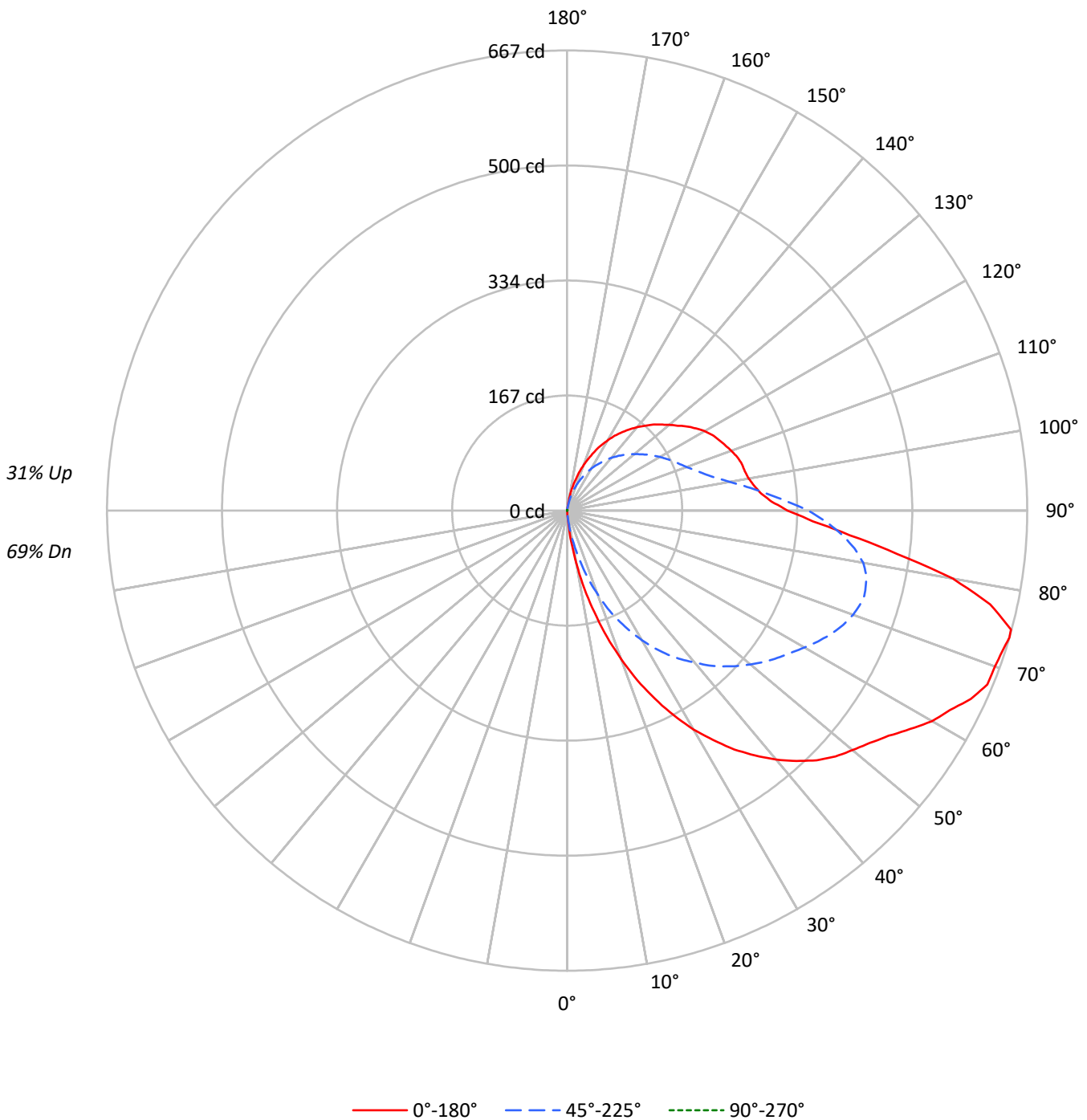
Lumens per Lamp: N/A
Luminaire Lumens: 1355.7 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: (L: 0 ' x W: 0.75 ' x H: 0.75 '
CIE Type: Semi-Direct

Input Watts (W): 13.9
Input Voltage (V): NR
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: P226199

CATALOG NUMBER: FW-LD2-99-1250-50-PC-R4-LGW

Luminous Intensity Polar Plot





TEST NUMBER: P226199

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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	112	112	112	112	106	106	106	106	94	94	94		83	83	83		74	74	74	69
1	95	88	81	75	89	82	76	71	72	67	63		63	59	55		54	51	48	44
2	83	72	63	55	78	67	59	52	59	52	46		51	45	40		43	39	35	31
3	74	61	50	42	69	57	47	40	49	41	35		42	36	31		36	31	26	22
4	67	52	42	33	62	49	39	31	42	34	28		36	29	24		30	25	20	17
5	61	45	35	27	56	42	33	26	37	29	22		31	25	19		26	21	16	13
6	55	40	30	22	51	37	28	21	32	24	18		28	21	16		23	18	13	10
7	51	36	26	19	47	33	24	18	29	21	16		25	18	13		21	15	11	8
8	47	32	23	16	43	30	21	15	26	19	13		22	16	11		19	13	9	7
9	43	29	20	14	40	27	19	13	24	16	11		20	14	10		17	12	8	6
10	40	26	18	12	38	25	17	11	22	15	10		19	13	8		16	11	7	5

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	Luminous shape not found,		
5°	reference photometric report, or contact		
10°	the photometric lab for calculations.		
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



TEST NUMBER: P226199

CATALOG NUMBER: FW-LD2-99-1250-50-PC-R4-LGW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.9	0.1
10°-20°	11.8	0.9
20°-30°	37.9	2.8
30°-40°	73.1	5.4
40°-50°	110.8	8.2
50°-60°	147.7	10.9
60°-70°	185.0	13.6
70°-80°	203.9	15.0
80°-90°	168.1	12.4
90°-100°	118.0	8.7
100°-110°	90.5	6.7
110°-120°	73.2	5.4
120°-130°	55.9	4.1
130°-140°	39.1	2.9
140°-150°	24.3	1.8
150°-160°	12.0	0.9
160°-170°	3.5	0.3
170°-180°	0.2	0.0
0°-30°	50.6	3.7
0°-40°	123.7	9.1
0°-60°	382.2	28.2
0°-90°	939.1	69.3
90°-120°	281.7	20.8
90°-150°	401.0	29.6
90°-180°	417.0	30.8
0°-180°	1355.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	0	0	0	0	0	
5°	18	7	0	0	0	4
15°	153	82	0	0	0	46
25°	301	176	0	0	0	141
35°	423	255	0	0	0	266
45°	512	319	0	0	0	395
55°	569	372	0	0	0	514
65°	646	423	0	0	0	637
75°	666	447	0	0	0	680
85°	411	400	0	0	0	369
90°	319	349	0	0	0	177
95°	282	288	0	0	0	228
105°	262	206	0	0	0	276
115°	243	169	0	0	0	241
125°	213	141	0	0	0	191
135°	176	114	0	0	0	137
145°	138	85	0	0	0	87
155°	94	55	0	0	0	44
165°	45	24	1	0	0	14
175°	1	1	1	0	0	1
180°	0	0	0	0	0	



TEST NUMBER: P226199

CATALOG NUMBER: FW-LD2-99-1250-50-PC-R4-LGW

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	1.8	1.8	1.8	1.8	0.9	0.9	0.9	0.9	0.9	0.9	0.0
5°	18.5	17.6	15.9	13.2	10.6	7.1	3.5	1.8	0.9	0.9	0.0
7.5°	45.0	43.2	40.6	37.1	29.1	20.3	11.5	4.4	0.9	0.9	0.0
10°	78.5	75.9	73.2	64.4	52.1	38.8	23.8	11.5	2.6	0.9	0.0
12.5°	116.5	113.8	107.6	96.2	79.4	59.1	38.8	19.4	4.4	0.9	0.0
15°	152.6	152.6	143.8	128.8	107.6	82.1	53.8	28.2	7.9	0.9	0.0
17.5°	192.3	190.6	181.8	163.2	137.6	105.9	71.5	37.9	11.5	0.9	0.0
20°	228.5	228.5	217.0	196.8	165.0	128.8	88.2	48.5	15.9	0.9	0.0
22.5°	266.5	264.7	252.3	228.5	195.0	153.5	106.8	59.1	20.3	0.9	0.0
25°	300.9	299.1	285.0	258.5	221.5	175.6	123.5	69.7	24.7	0.9	0.0
27.5°	334.4	330.9	316.8	287.6	247.0	195.9	140.3	80.3	29.1	0.9	0.0
30°	366.2	362.6	345.9	314.1	270.9	217.0	155.3	90.9	33.5	1.8	0.0
32.5°	394.4	393.5	374.1	341.5	294.7	236.5	171.2	99.7	37.1	1.8	0.0
35°	422.6	420.0	401.5	364.4	315.0	255.0	185.3	108.5	41.5	2.6	0.0
37.5°	447.3	444.7	423.5	386.5	335.3	271.8	197.6	117.3	45.0	2.6	0.0
40°	471.2	466.7	445.6	407.6	354.7	287.6	209.1	124.4	48.5	3.5	0.0
42.5°	492.3	487.9	466.7	426.2	373.2	304.4	221.5	131.5	51.2	3.5	0.0
45°	511.7	507.3	484.4	443.8	390.0	319.4	232.0	138.5	54.7	4.4	0.0
47.5°	527.6	525.0	502.9	460.6	405.9	333.5	242.6	144.7	57.4	4.4	0.0
50°	540.0	537.3	517.9	478.2	421.7	346.8	252.3	150.9	60.0	5.3	0.0
52.5°	553.2	550.6	532.9	494.1	436.7	360.0	262.0	157.1	62.6	5.3	0.0
55°	569.1	567.3	548.8	510.9	452.6	372.3	271.8	163.2	66.2	6.2	0.0
57.5°	589.4	586.7	566.4	526.7	467.6	383.8	281.5	169.4	68.8	6.2	0.0
60°	610.6	607.0	585.9	546.2	483.5	397.0	290.3	175.6	71.5	6.2	0.0
62.5°	625.6	623.8	605.3	564.7	500.3	410.3	300.0	181.8	74.1	7.1	0.0
65°	645.9	642.3	622.0	581.4	516.2	422.6	308.8	187.1	76.8	7.1	0.0
67.5°	659.1	657.3	637.0	597.3	529.4	433.2	316.8	192.3	79.4	7.9	0.0
70°	660.0	659.1	646.7	607.0	539.1	441.2	323.8	196.8	81.2	7.9	0.0
72.5°	663.5	662.6	648.5	611.4	543.5	446.5	328.2	200.3	82.9	7.9	0.0
74°	667.0	663.5	645.9	609.7	544.4	448.2	329.1	201.2	82.9	8.8	0.0
75°	666.1	661.7	641.4	607.0	543.5	447.3	330.0	202.1	82.9	8.8	0.0
77.5°	628.2	630.0	618.5	590.3	534.7	444.7	328.2	200.3	82.9	8.8	0.0
80°	567.3	565.6	574.4	562.9	518.8	435.9	322.9	198.5	82.1	8.8	0.0
82.5°	482.6	488.8	513.5	522.3	493.2	420.0	315.0	194.1	80.3	8.8	0.0
85°	411.2	414.7	445.6	474.7	459.7	399.7	303.5	187.9	78.5	8.8	0.0
87.5°	356.5	359.1	384.7	421.7	423.5	375.9	288.5	180.0	75.9	8.8	0.0
90°	319.4	322.0	339.7	373.2	383.8	349.4	270.9	170.3	72.3	7.9	0.0
92.5°	296.5	298.2	308.8	332.6	344.1	317.6	252.3	160.6	68.8	7.9	0.0
95°	282.3	283.2	288.5	300.9	310.6	288.5	230.3	150.0	64.4	7.9	0.0
97.5°	273.5	273.5	275.3	280.6	281.5	262.9	211.8	138.5	60.9	7.1	0.0
100°	267.3	267.3	266.5	265.6	258.5	239.1	194.1	128.8	56.5	7.1	0.0
102.5°	263.8	263.8	261.2	255.0	243.5	219.7	178.2	119.1	52.9	6.2	0.0
105°	262.0	261.2	255.9	247.0	231.2	205.6	165.9	111.2	49.4	6.2	0.0
107.5°	258.5	257.6	251.5	240.0	221.5	194.1	155.3	104.1	46.8	5.3	0.0



TEST NUMBER: P226199

CATALOG NUMBER: FW-LD2-99-1250-50-PC-R4-LGW

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	253.2	252.3	246.2	232.9	213.5	184.4	146.5	97.9	44.1	5.3	0.0
112.5°	247.9	247.0	240.9	226.8	205.6	176.5	139.4	92.6	41.5	5.3	0.0
115°	242.6	242.6	234.7	219.7	198.5	169.4	132.3	86.5	38.8	4.4	0.0
117.5°	237.3	236.5	227.6	212.6	190.6	162.3	125.3	82.1	36.2	4.4	0.0
120°	230.3	229.4	220.6	204.7	183.5	155.3	119.1	76.8	33.5	4.4	0.0
122.5°	221.5	220.6	212.6	196.8	175.6	148.2	112.9	72.3	31.8	3.5	0.0
125°	212.6	211.8	202.9	188.8	168.5	141.2	106.8	67.9	29.1	3.5	0.0
127.5°	202.1	201.2	194.1	180.0	159.7	134.1	101.5	63.5	27.4	3.5	0.0
130°	193.2	192.3	184.4	171.2	152.6	127.1	96.2	59.1	24.7	2.6	0.0
132.5°	184.4	183.5	176.5	162.3	144.7	120.9	90.0	55.6	22.9	2.6	0.0
135°	176.5	174.7	167.6	154.4	136.8	113.8	84.7	51.2	21.2	2.6	0.0
137.5°	166.8	165.9	158.8	145.6	128.8	106.8	78.5	47.6	19.4	2.6	0.0
140°	157.9	157.1	150.0	137.6	120.9	99.7	73.2	44.1	17.6	2.6	0.0
142.5°	148.2	147.3	141.2	128.8	112.9	92.6	67.9	40.6	15.9	1.8	0.0
145°	138.5	137.6	130.6	120.0	105.0	84.7	61.8	36.2	15.0	1.8	0.0
147.5°	128.8	127.1	121.8	111.2	96.2	77.6	55.6	32.6	13.2	1.8	0.9
150°	117.3	117.3	111.2	101.5	87.3	70.6	50.3	29.1	11.5	1.8	0.0
152.5°	106.8	105.9	100.6	91.8	78.5	62.6	44.1	25.6	10.6	1.8	0.9
155°	94.4	93.5	89.1	81.2	68.8	54.7	37.9	22.1	8.8	0.9	0.0
157.5°	82.1	82.1	78.5	70.6	60.0	46.8	32.6	18.5	7.1	0.9	0.0
160°	70.6	69.7	66.2	59.1	50.3	38.8	26.5	15.0	6.2	0.9	0.9
162.5°	58.2	57.4	54.7	48.5	40.6	31.8	21.2	12.4	4.4	0.9	0.9
165°	45.0	45.0	42.4	37.9	31.8	23.8	15.0	7.9	3.5	0.9	0.9
167.5°	32.6	32.6	31.8	27.4	22.1	15.0	8.8	5.3	2.6	0.9	0.9
170°	20.3	20.3	18.5	14.1	9.7	7.1	5.3	2.6	1.8	0.9	0.9
172.5°	6.2	5.3	5.3	4.4	3.5	2.6	1.8	1.8	0.9	0.9	0.9
175°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
177.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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: P226199

CATALOG NUMBER: FW-LD2-99-1250-50-PC-R4-LGW

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P226199

CATALOG NUMBER: FW-LD2-99-1250-50-PC-R4-LGW

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
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)