

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: P226198

Luminaire Tested: **FW-LD2-99-1250-40-PC-R4-LGW**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P226198
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-LD2-99-1250-40-PC-R4-LGW
Description: NIGHT CONDOR LED FLOODLIGHT
Light Source: (56) 4000 CCT, 80 CRI LEDS
ELO89N056E840M
Ballast/Driver: OSRAM
OT25WPRG1250C

Summary

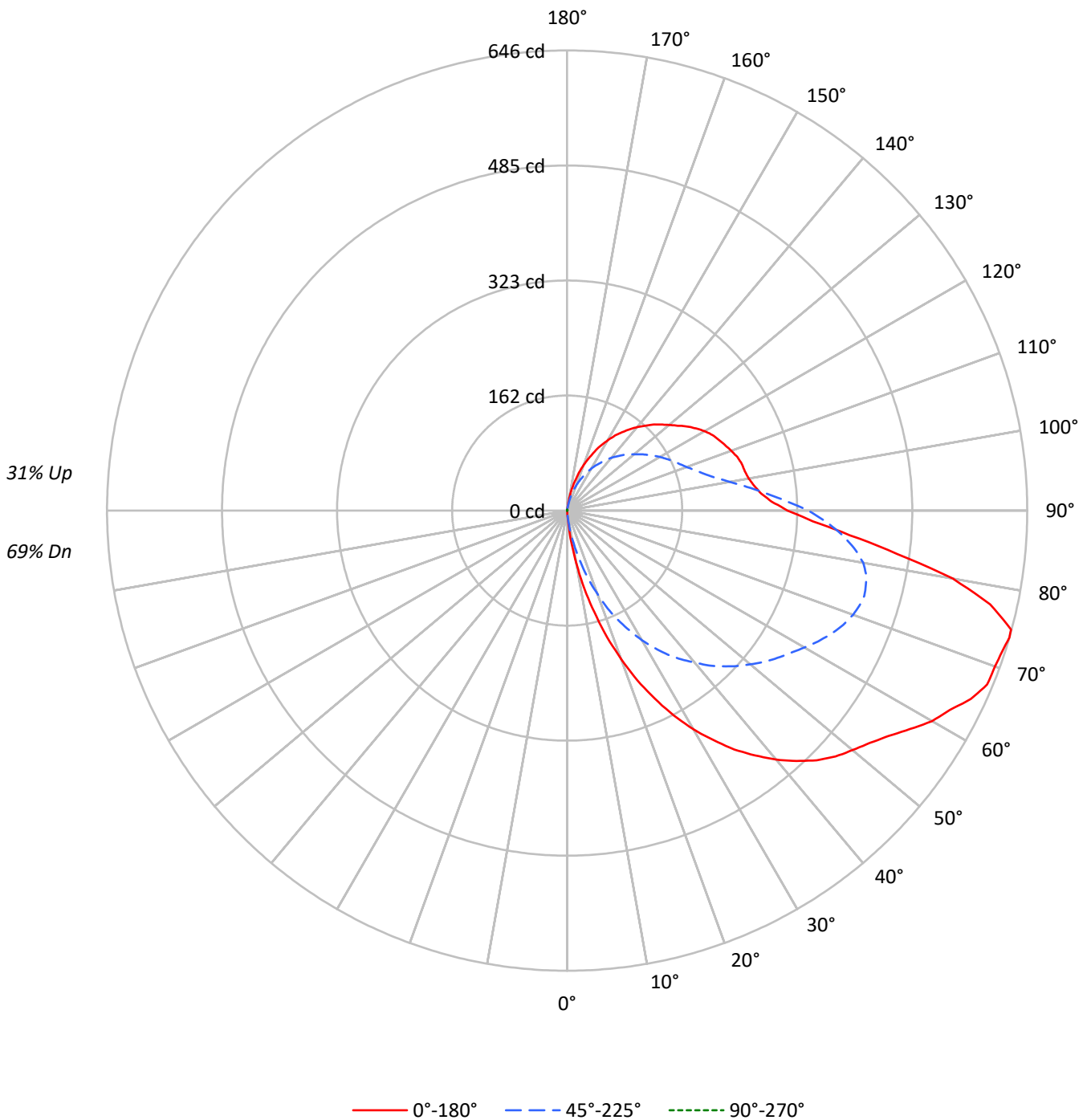
Lumens per Lamp: N/A
Luminaire Lumens: 1313.0 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: (L: 0 ' x W: 0.75 ' x H: 0.75 '
CIE Type: Semi-Direct

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: P226198

CATALOG NUMBER: FW-LD2-99-1250-40-PC-R4-LGW

Luminous Intensity Polar Plot





TEST NUMBER: P226198

CATALOG NUMBER: FW-LD2-99-1250-40-PC-R4-LGW

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: P226198

CATALOG NUMBER: FW-LD2-99-1250-40-PC-R4-LGW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.8	0.1
10°-20°	11.4	0.9
20°-30°	36.7	2.8
30°-40°	70.8	5.4
40°-50°	107.3	8.2
50°-60°	143.1	10.9
60°-70°	179.2	13.6
70°-80°	197.4	15.0
80°-90°	162.8	12.4
90°-100°	114.3	8.7
100°-110°	87.7	6.7
110°-120°	70.8	5.4
120°-130°	54.1	4.1
130°-140°	37.9	2.9
140°-150°	23.6	1.8
150°-160°	11.6	0.9
160°-170°	3.4	0.3
170°-180°	0.2	0.0
0°-30°	49.0	3.7
0°-40°	119.8	9.1
0°-60°	370.2	28.2
0°-90°	909.5	69.3
90°-120°	272.8	20.8
90°-150°	388.4	29.6
90°-180°	403.0	30.7
0°-180°	1313.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	0	0	0	0	0	
5°	18	7	0	0	0	4
15°	148	80	0	0	0	44
25°	291	170	0	0	0	136
35°	409	247	0	0	0	257
45°	496	309	0	0	0	383
55°	551	361	0	0	0	497
65°	626	409	0	0	0	617
75°	645	433	0	0	0	659
85°	398	387	0	0	0	357
90°	309	338	0	0	0	171
95°	273	279	0	0	0	221
105°	254	199	0	0	0	268
115°	235	164	0	0	0	233
125°	206	137	0	0	0	184
135°	171	110	0	0	0	132
145°	134	82	0	0	0	85
155°	91	53	0	0	0	43
165°	44	23	1	0	0	13
175°	1	1	1	0	0	1
180°	0	0	0	0	0	



TEST NUMBER: P226198

CATALOG NUMBER: FW-LD2-99-1250-40-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°	1.7	1.7	1.7	1.7	0.9	0.9	0.9	0.9	0.9	0.9	0.0
5°	17.9	17.1	15.4	12.8	10.3	6.8	3.4	1.7	0.9	0.9	0.0
7.5°	43.6	41.9	39.3	35.9	28.2	19.7	11.1	4.3	0.9	0.9	0.0
10°	76.1	73.5	70.9	62.4	50.4	37.6	23.1	11.1	2.6	0.9	0.0
12.5°	112.8	110.2	104.2	93.1	76.9	57.3	37.6	18.8	4.3	0.9	0.0
15°	147.8	147.8	139.3	124.8	104.2	79.5	52.1	27.3	7.7	0.9	0.0
17.5°	186.3	184.6	176.0	158.1	133.3	102.5	69.2	36.7	11.1	0.9	0.0
20°	221.3	221.3	210.2	190.6	159.8	124.8	85.5	47.0	15.4	0.9	0.0
22.5°	258.1	256.4	244.4	221.3	188.8	148.7	103.4	57.3	19.7	0.9	0.0
25°	291.4	289.7	276.0	250.4	214.5	170.0	119.6	67.5	23.9	0.9	0.0
27.5°	323.9	320.4	306.8	278.6	239.3	189.7	135.9	77.8	28.2	0.9	0.0
30°	354.6	351.2	335.0	304.2	262.3	210.2	150.4	88.0	32.5	1.7	0.0
32.5°	382.0	381.1	362.3	330.7	285.4	229.0	165.8	96.6	35.9	1.7	0.0
35°	409.3	406.7	388.8	352.9	305.1	247.0	179.4	105.1	40.2	2.6	0.0
37.5°	433.2	430.7	410.2	374.3	324.7	263.2	191.4	113.6	43.6	2.6	0.0
40°	456.3	452.0	431.5	394.8	343.5	278.6	202.5	120.5	47.0	3.4	0.0
42.5°	476.8	472.5	452.0	412.7	361.5	294.8	214.5	127.3	49.6	3.4	0.0
45°	495.6	491.3	469.1	429.8	377.7	309.3	224.7	134.2	53.0	4.3	0.0
47.5°	511.0	508.4	487.1	446.1	393.1	323.0	235.0	140.1	55.5	4.3	0.0
50°	523.0	520.4	501.6	463.1	408.5	335.8	244.4	146.1	58.1	5.1	0.0
52.5°	535.8	533.2	516.1	478.5	423.0	348.6	253.8	152.1	60.7	5.1	0.0
55°	551.2	549.4	531.5	494.8	438.4	360.6	263.2	158.1	64.1	6.0	0.0
57.5°	570.8	568.2	548.6	510.1	452.9	371.7	272.6	164.1	66.7	6.0	0.0
60°	591.3	587.9	567.4	528.9	468.3	384.5	281.1	170.0	69.2	6.0	0.0
62.5°	605.8	604.1	586.2	546.9	484.5	397.3	290.5	176.0	71.8	6.8	0.0
65°	625.5	622.1	602.4	563.1	499.9	409.3	299.1	181.2	74.3	6.8	0.0
67.5°	638.3	636.6	617.0	578.5	512.7	419.6	306.8	186.3	76.9	7.7	0.0
70°	639.2	638.3	626.4	587.9	522.1	427.3	313.6	190.6	78.6	7.7	0.0
72.5°	642.6	641.7	628.1	592.2	526.4	432.4	317.9	194.0	80.3	7.7	0.0
74°	646.0	642.6	625.5	590.5	527.2	434.1	318.7	194.8	80.3	8.5	0.0
75°	645.2	640.9	621.2	587.9	526.4	433.2	319.6	195.7	80.3	8.5	0.0
77.5°	608.4	610.1	599.0	571.7	517.8	430.7	317.9	194.0	80.3	8.5	0.0
80°	549.4	547.7	556.3	545.2	502.4	422.1	312.7	192.3	79.5	8.5	0.0
82.5°	467.4	473.4	497.3	505.9	477.7	406.7	305.1	188.0	77.8	8.5	0.0
85°	398.2	401.6	431.5	459.7	445.2	387.1	294.0	182.0	76.1	8.5	0.0
87.5°	345.2	347.8	372.6	408.5	410.2	364.0	279.4	174.3	73.5	8.5	0.0
90°	309.3	311.9	329.0	361.5	371.7	338.4	262.3	164.9	70.1	7.7	0.0
92.5°	287.1	288.8	299.1	322.1	333.3	307.6	244.4	155.5	66.7	7.7	0.0
95°	273.4	274.3	279.4	291.4	300.8	279.4	223.0	145.3	62.4	7.7	0.0
97.5°	264.9	264.9	266.6	271.7	272.6	254.6	205.1	134.2	59.0	6.8	0.0
100°	258.9	258.9	258.1	257.2	250.4	231.6	188.0	124.8	54.7	6.8	0.0
102.5°	255.5	255.5	252.9	247.0	235.8	212.8	172.6	115.4	51.3	6.0	0.0
105°	253.8	252.9	247.8	239.3	223.9	199.1	160.6	107.7	47.9	6.0	0.0
107.5°	250.4	249.5	243.5	232.4	214.5	188.0	150.4	100.8	45.3	5.1	0.0



TEST NUMBER: P226198

CATALOG NUMBER: FW-LD2-99-1250-40-PC-R4-LGW

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	245.2	244.4	238.4	225.6	206.8	178.6	141.8	94.9	42.7	5.1	0.0
112.5°	240.1	239.3	233.3	219.6	199.1	170.9	135.0	89.7	40.2	5.1	0.0
115°	235.0	235.0	227.3	212.8	192.3	164.1	128.2	83.7	37.6	4.3	0.0
117.5°	229.9	229.0	220.5	205.9	184.6	157.2	121.3	79.5	35.0	4.3	0.0
120°	223.0	222.2	213.6	198.2	177.7	150.4	115.4	74.3	32.5	4.3	0.0
122.5°	214.5	213.6	205.9	190.6	170.0	143.6	109.4	70.1	30.8	3.4	0.0
125°	205.9	205.1	196.5	182.9	163.2	136.7	103.4	65.8	28.2	3.4	0.0
127.5°	195.7	194.8	188.0	174.3	154.7	129.9	98.3	61.5	26.5	3.4	0.0
130°	187.1	186.3	178.6	165.8	147.8	123.0	93.1	57.3	23.9	2.6	0.0
132.5°	178.6	177.7	170.9	157.2	140.1	117.1	87.2	53.8	22.2	2.6	0.0
135°	170.9	169.2	162.4	149.5	132.4	110.2	82.0	49.6	20.5	2.6	0.0
137.5°	161.5	160.6	153.8	141.0	124.8	103.4	76.1	46.1	18.8	2.6	0.0
140°	153.0	152.1	145.3	133.3	117.1	96.6	70.9	42.7	17.1	2.6	0.0
142.5°	143.6	142.7	136.7	124.8	109.4	89.7	65.8	39.3	15.4	1.7	0.0
145°	134.2	133.3	126.5	116.2	101.7	82.0	59.8	35.0	14.5	1.7	0.0
147.5°	124.8	123.0	117.9	107.7	93.1	75.2	53.8	31.6	12.8	1.7	0.9
150°	113.6	113.6	107.7	98.3	84.6	68.4	48.7	28.2	11.1	1.7	0.0
152.5°	103.4	102.5	97.4	88.9	76.1	60.7	42.7	24.8	10.3	1.7	0.9
155°	91.4	90.6	86.3	78.6	66.7	53.0	36.7	21.4	8.5	0.9	0.0
157.5°	79.5	79.5	76.1	68.4	58.1	45.3	31.6	17.9	6.8	0.9	0.0
160°	68.4	67.5	64.1	57.3	48.7	37.6	25.6	14.5	6.0	0.9	0.9
162.5°	56.4	55.5	53.0	47.0	39.3	30.8	20.5	12.0	4.3	0.9	0.9
165°	43.6	43.6	41.0	36.7	30.8	23.1	14.5	7.7	3.4	0.9	0.9
167.5°	31.6	31.6	30.8	26.5	21.4	14.5	8.5	5.1	2.6	0.9	0.9
170°	19.7	19.7	17.9	13.7	9.4	6.8	5.1	2.6	1.7	0.9	0.9
172.5°	6.0	5.1	5.1	4.3	3.4	2.6	1.7	1.7	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: P226198

CATALOG NUMBER: FW-LD2-99-1250-40-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: P226198

CATALOG NUMBER: FW-LD2-99-1250-40-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)