

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: P226083

Luminaire Tested: **FW-LD2-612-750-50-PC-R4-LGW**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P226083
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1705-064-10)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FW-LD2-612-750-50-PC-R4-LGW
Description: NIGHT CONDOR LED FLOODLIGHT
Light Source: (28) 5000 CCT, 80 CRI LEDS
 EL089N028E850M
Ballast/Driver: OSRAM
 OT25WPRG1250C

Summary

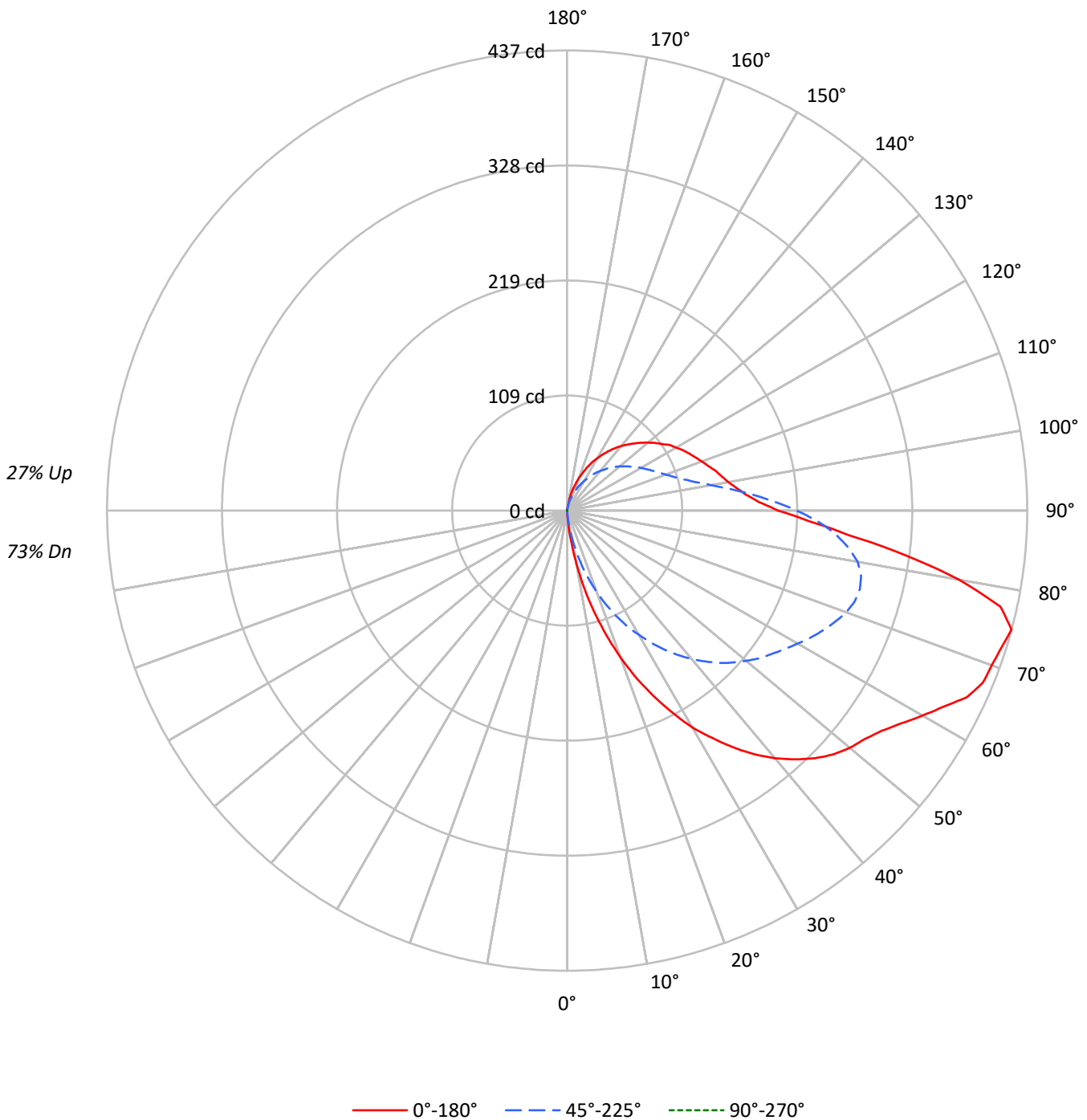
Lumens per Lamp: N/A
Luminaire Lumens: 833.0 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: (L: 0 ' x W: 0.5 ' x H: 1 '
CIE Type: Semi-Direct

Input Watts (W): 10.4
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

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CATALOG NUMBER: FW-LD2-612-750-50-PC-R4-LGW

Luminous Intensity Polar Plot





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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	113	113	113	113	107	107	107	107	96	96	96	86	86	86	77	77	77	73
1	95	88	81	75	90	83	77	71	73	68	64	64	60	57	56	53	50	46
2	84	72	63	55	78	68	59	52	59	52	46	52	46	41	45	40	36	32
3	74	61	50	42	69	57	47	39	50	42	35	43	37	31	37	32	27	23
4	67	52	41	33	62	49	39	31	43	34	28	37	30	24	31	26	21	18
5	61	45	35	27	56	42	33	25	37	29	22	32	25	20	27	22	17	14
6	55	40	29	22	51	37	28	21	33	25	18	28	21	16	24	18	14	11
7	51	35	26	19	47	33	24	18	29	21	15	25	19	13	22	16	12	9
8	47	32	22	16	44	30	21	15	26	19	13	23	16	11	20	14	10	7
9	43	29	20	14	40	27	19	13	24	16	11	21	14	10	18	12	8	6
10	40	26	18	12	38	25	17	11	22	15	10	19	13	9	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°			



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.6	0.1
10°-20°	7.7	0.9
20°-30°	24.2	2.9
30°-40°	47.0	5.6
40°-50°	71.6	8.6
50°-60°	94.6	11.4
60°-70°	118.4	14.2
70°-80°	132.1	15.9
80°-90°	108.2	13.0
90°-100°	71.4	8.6
100°-110°	50.5	6.1
110°-120°	38.7	4.6
120°-130°	29.0	3.5
130°-140°	19.9	2.4
140°-150°	11.9	1.4
150°-160°	5.6	0.7
160°-170°	1.5	0.2
170°-180°	0.1	0.0
0°-30°	32.5	3.9
0°-40°	79.4	9.5
0°-60°	245.7	29.5
0°-90°	604.4	72.6
90°-120°	160.6	19.3
90°-150°	221.4	26.6
90°-180°	229.0	27.5
0°-180°	833.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	0	0	0	0	0	
5°	13	6	0	0	0	3
15°	100	54	0	0	0	30
25°	194	111	0	0	0	91
35°	274	161	0	0	0	173
45°	333	205	0	0	0	257
55°	365	237	0	0	0	329
65°	419	269	0	0	0	412
75°	437	288	0	0	0	448
85°	269	256	0	0	0	244
90°	200	218	0	0	0	111
95°	171	176	0	0	0	137
105°	146	114	0	0	0	154
115°	128	90	0	0	0	127
125°	110	73	0	0	0	99
135°	90	58	0	0	0	70
145°	69	41	0	0	0	44
155°	45	25	0	0	0	21
165°	20	10	0	0	0	6
175°	0	1	0	0	0	0
180°	0	0	0	0	0	



TEST NUMBER: P226083

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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°	2.6	1.9	1.9	1.9	1.3	0.6	0.6	0.6	0.6	0.0	0.0
5°	13.4	12.8	12.2	10.9	8.3	5.8	3.2	1.3	0.6	0.0	0.0
7.5°	30.1	30.7	28.8	24.9	19.8	14.7	9.0	4.5	1.3	0.6	0.0
10°	51.8	51.8	49.3	43.5	35.2	26.2	16.6	8.3	1.9	0.6	0.0
12.5°	76.1	74.8	71.0	62.7	51.8	39.0	26.2	13.4	3.8	0.6	0.0
15°	99.8	97.9	92.7	83.8	70.4	53.7	35.8	19.2	6.4	0.6	0.0
17.5°	124.1	123.4	117.1	104.9	88.3	67.8	46.1	24.9	8.3	0.6	0.0
20°	148.4	147.1	138.8	125.4	106.2	82.5	56.9	31.3	10.9	0.6	0.0
22.5°	172.1	170.1	161.2	145.2	122.8	96.6	67.2	37.7	13.4	0.6	0.0
25°	194.4	192.5	183.6	164.4	140.1	110.7	77.4	44.1	16.6	0.6	0.0
27.5°	216.2	214.9	203.4	183.6	156.1	124.1	87.6	50.5	19.2	1.3	0.0
30°	237.9	235.4	223.2	200.8	171.4	136.2	97.9	56.9	21.7	1.3	0.0
32.5°	255.8	254.6	241.1	218.1	186.1	149.0	106.8	63.3	24.3	1.9	0.0
35°	274.4	273.1	259.0	234.7	200.8	161.2	116.4	69.1	26.9	1.9	0.0
37.5°	291.7	289.1	275.7	249.5	214.3	172.7	126.0	74.8	29.4	2.6	0.0
40°	307.0	305.1	290.4	264.2	227.7	184.2	134.3	79.3	31.3	2.6	0.0
42.5°	320.4	319.2	304.5	277.0	240.5	194.4	141.4	84.4	33.3	2.6	0.0
45°	332.6	330.7	316.0	289.1	252.0	204.7	148.4	88.9	35.2	2.6	0.0
47.5°	342.8	340.9	326.2	298.7	262.2	213.6	154.8	92.7	36.5	3.2	0.0
50°	350.5	349.2	335.8	309.6	271.8	221.9	161.2	95.9	38.4	3.2	0.0
52.5°	356.3	355.0	344.1	319.2	280.8	230.3	167.6	99.8	39.7	3.2	0.0
55°	364.6	363.3	352.4	328.8	290.4	237.3	172.7	103.0	41.6	3.2	0.0
57.5°	376.1	374.8	362.7	339.6	300.0	245.0	178.5	106.8	42.9	3.8	0.0
60°	389.5	388.2	374.8	349.2	309.6	252.6	184.2	110.7	44.8	3.8	0.0
62.5°	403.0	401.0	388.9	362.0	320.4	261.0	189.3	113.9	46.1	3.8	0.0
65°	419.0	416.4	401.0	373.5	330.0	268.6	195.1	117.1	47.3	3.8	0.0
67.5°	427.3	425.3	411.9	385.1	339.0	275.7	199.6	119.6	48.6	4.5	0.0
70°	429.2	427.9	419.6	393.4	346.7	282.1	204.0	122.8	49.9	4.5	0.0
72.5°	432.4	431.7	422.8	398.5	351.8	286.5	207.2	124.7	50.5	4.5	0.0
75°	436.9	434.3	420.9	397.2	353.1	287.8	209.2	125.4	51.2	4.5	0.0
77.5°	421.5	419.0	408.7	387.6	348.6	285.9	208.5	125.4	51.2	4.5	0.0
80°	378.0	379.3	381.9	371.0	338.4	280.2	204.7	123.4	49.9	4.5	0.0
82.5°	323.6	326.2	342.2	342.8	319.8	269.3	198.9	120.2	49.3	4.5	0.0
85°	268.6	271.8	294.2	310.9	298.1	255.8	190.6	115.8	47.3	4.5	0.0
87.5°	229.6	231.5	249.5	273.8	271.8	238.6	179.1	110.0	45.4	4.5	0.0
90°	200.2	202.1	215.6	238.6	244.3	218.1	166.9	103.6	42.9	3.8	0.0
92.5°	182.3	183.6	191.9	206.6	214.9	196.4	153.5	95.9	40.3	3.8	0.0
95°	170.8	170.8	174.6	183.6	188.0	175.9	139.4	88.3	37.7	3.8	0.0
97.5°	162.5	162.5	163.1	165.7	167.6	156.1	125.4	81.2	35.2	3.2	0.0
100°	155.4	154.8	154.1	152.9	150.3	138.8	112.6	74.2	32.6	3.2	0.0
102.5°	150.3	150.3	147.8	143.3	136.9	124.7	102.3	67.8	30.1	3.2	0.0
105°	145.8	145.2	142.0	135.6	127.9	114.5	93.4	62.7	27.5	3.2	0.0
107.5°	140.7	140.1	136.9	129.8	120.2	106.2	86.3	57.6	25.6	2.6	0.0
110°	136.2	136.2	131.8	124.7	113.9	99.8	80.0	53.7	24.3	2.6	0.0



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CATALOG NUMBER: FW-LD2-612-750-50-PC-R4-LGW

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	131.8	131.8	127.9	120.2	108.7	94.0	74.8	49.9	22.4	2.6	0.0
115°	127.9	127.3	123.4	115.8	104.3	89.5	70.4	46.7	21.1	1.9	0.0
117.5°	124.1	123.4	119.6	111.3	99.8	85.1	66.5	43.5	19.2	1.9	0.0
120°	119.6	119.0	115.1	106.8	95.3	81.2	62.7	40.9	17.9	1.9	0.0
122.5°	115.8	114.5	110.7	102.3	91.5	76.8	59.5	37.7	16.6	1.9	0.0
125°	110.0	110.0	105.5	97.9	87.0	72.9	55.6	35.2	14.7	1.3	0.0
127.5°	105.5	104.9	101.1	93.4	83.2	69.1	52.4	32.6	14.1	1.3	0.0
130°	100.4	99.8	95.9	88.9	78.7	65.2	49.3	30.7	12.8	1.3	0.0
132.5°	95.3	94.7	90.8	83.8	74.2	61.4	46.1	28.1	11.5	1.3	0.0
135°	90.2	90.2	85.7	78.7	69.7	57.6	42.9	26.2	10.2	1.3	0.0
137.5°	85.1	84.4	81.2	74.2	64.6	53.1	39.7	23.7	9.6	1.3	0.0
140°	80.0	79.3	75.5	69.1	60.1	49.3	36.5	21.7	8.3	0.6	0.0
142.5°	74.8	74.2	70.4	64.0	55.6	45.4	33.3	19.2	7.7	0.6	0.0
145°	69.1	68.4	65.2	58.8	50.5	40.9	29.4	17.3	7.0	0.6	0.0
147.5°	63.3	63.3	59.5	53.7	46.1	36.5	26.2	15.4	5.8	0.6	0.0
150°	57.6	57.6	53.7	48.6	40.9	32.6	23.0	13.4	5.1	0.6	0.0
152.5°	51.8	51.2	48.6	43.5	36.5	28.8	19.8	11.5	4.5	0.6	0.0
155°	45.4	45.4	42.2	38.4	32.0	24.9	17.3	9.6	3.8	0.6	0.0
157.5°	39.0	39.0	36.5	32.6	26.9	20.5	14.1	7.7	3.2	0.6	0.0
160°	33.3	32.6	30.7	27.5	22.4	17.3	11.5	6.4	2.6	0.6	0.6
162.5°	26.2	26.2	24.9	21.7	17.9	13.4	9.0	5.1	1.9	0.6	0.0
165°	20.5	20.5	19.2	16.6	14.1	10.2	6.4	3.2	1.3	0.6	0.0
167.5°	14.7	14.7	13.4	12.2	9.0	6.4	3.8	2.6	1.3	0.6	0.6
170°	7.7	7.7	7.0	5.8	4.5	3.2	1.9	1.3	0.6	0.6	0.6
172.5°	1.3	1.3	1.3	1.3	1.3	0.6	0.6	0.6	0.6	0.6	0.0
175°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	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



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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
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
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P226083

CATALOG NUMBER: FW-LD2-612-750-50-PC-R4-LGW

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
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)