

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: P226086

Luminaire Tested: **FW-LD2-612-1000-50-PC-R4-LGW**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P226086
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-LD2-612-1000-50-PC-R4-LGW
Description: NIGHT CONDOR LED FLOODLIGHT
Light Source: (28) 5000 CCT, 80 CRI LEDS
 EL089N028E850M
Ballast/Driver: OSRAM
 OT25WPRG1250C

Summary

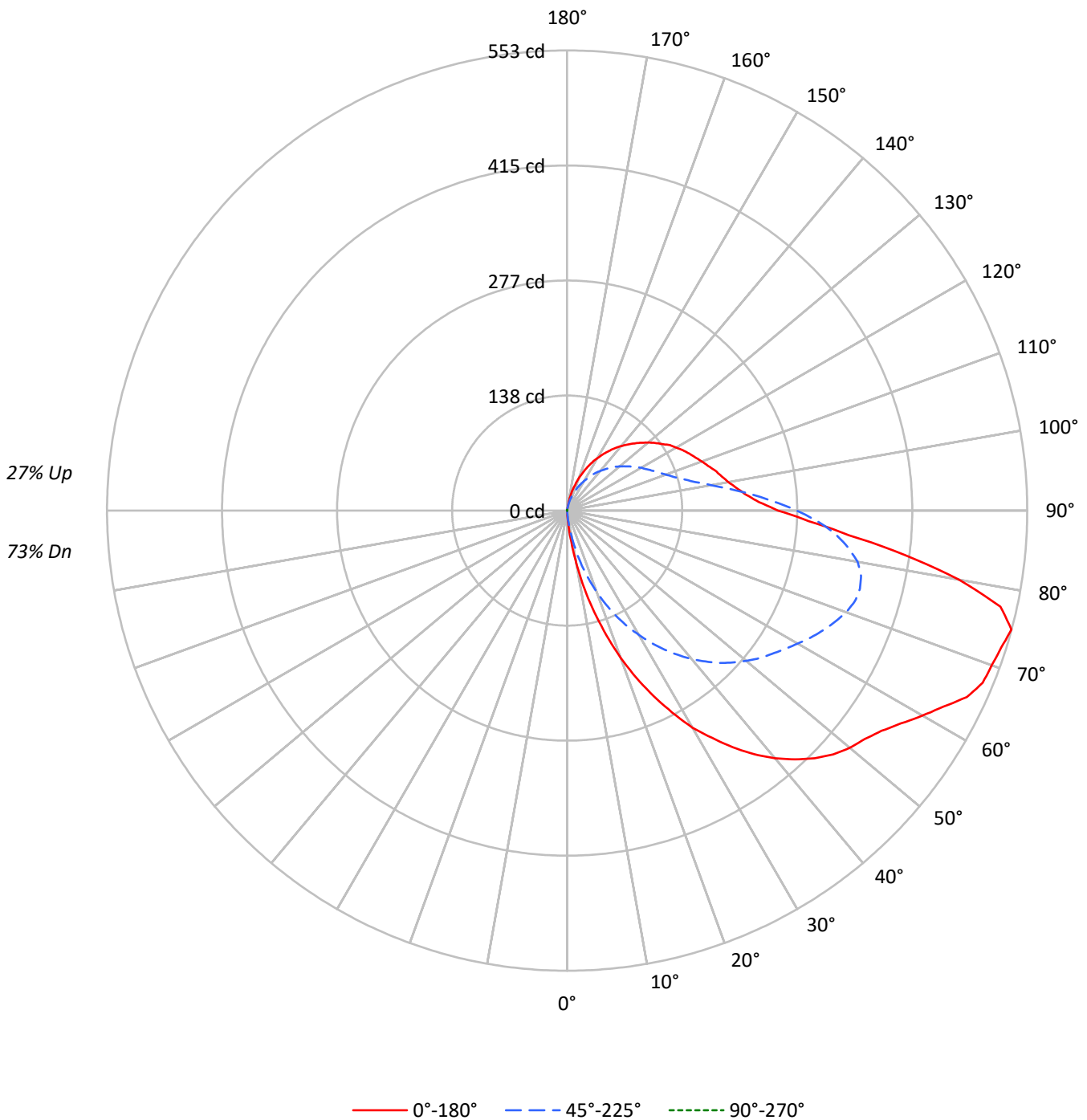
Lumens per Lamp: N/A
Luminaire Lumens: 1054.0 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: (L: 0 ' x W: 0.5 ' x H: 1 '
CIE Type: Semi-Direct

Input Watts (W): 13.1
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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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°	0.8	0.1
10°-20°	9.7	0.9
20°-30°	30.6	2.9
30°-40°	59.4	5.6
40°-50°	90.6	8.6
50°-60°	119.8	11.4
60°-70°	149.8	14.2
70°-80°	167.1	15.9
80°-90°	136.9	13.0
90°-100°	90.3	8.6
100°-110°	63.8	6.1
110°-120°	49.0	4.6
120°-130°	36.7	3.5
130°-140°	25.2	2.4
140°-150°	15.1	1.4
150°-160°	7.1	0.7
160°-170°	2.0	0.2
170°-180°	0.1	0.0
0°-30°	41.1	3.9
0°-40°	100.5	9.5
0°-60°	310.9	29.5
0°-90°	764.7	72.6
90°-120°	203.2	19.3
90°-150°	280.2	26.6
90°-180°	289.0	27.4
0°-180°	1054.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	0	0	0	0	0	
5°	17	7	0	0	0	3
15°	126	68	0	0	0	38
25°	246	140	0	0	0	115
35°	347	204	0	0	0	219
45°	421	259	0	0	0	325
55°	461	300	0	0	0	417
65°	530	340	0	0	0	521
75°	553	364	0	0	0	567
85°	340	324	0	0	0	309
90°	253	276	0	0	0	141
95°	216	223	0	0	0	173
105°	184	145	0	0	0	195
115°	162	113	0	0	0	161
125°	139	92	0	0	0	125
135°	114	73	0	0	0	89
145°	87	52	0	0	0	55
155°	58	32	0	0	0	27
165°	26	13	0	0	0	8
175°	0	1	0	0	0	0
180°	0	0	0	0	0	



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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°	3.2	2.4	2.4	2.4	1.6	0.8	0.8	0.8	0.8	0.0	0.0
5°	17.0	16.2	15.4	13.8	10.5	7.3	4.0	1.6	0.8	0.0	0.0
7.5°	38.0	38.8	36.4	31.6	25.1	18.6	11.3	5.7	1.6	0.8	0.0
10°	65.6	65.6	62.3	55.0	44.5	33.2	21.0	10.5	2.4	0.8	0.0
12.5°	96.3	94.7	89.8	79.3	65.6	49.4	33.2	17.0	4.9	0.8	0.0
15°	126.3	123.8	117.4	106.0	89.0	68.0	45.3	24.3	8.1	0.8	0.0
17.5°	157.0	156.2	148.1	132.7	111.7	85.8	58.3	31.6	10.5	0.8	0.0
20°	187.8	186.1	175.6	158.6	134.3	104.4	72.0	39.7	13.8	0.8	0.0
22.5°	217.7	215.3	203.9	183.7	155.4	122.2	85.0	47.7	17.0	0.8	0.0
25°	246.0	243.6	232.3	208.0	177.2	140.0	97.9	55.8	21.0	0.8	0.0
27.5°	273.5	271.9	257.4	232.3	197.5	157.0	110.9	63.9	24.3	1.6	0.0
30°	301.1	297.8	282.5	254.1	216.9	172.4	123.8	72.0	27.5	1.6	0.0
32.5°	323.7	322.1	305.1	276.0	235.5	188.6	135.2	80.1	30.8	2.4	0.0
35°	347.2	345.6	327.8	297.0	254.1	203.9	147.3	87.4	34.0	2.4	0.0
37.5°	369.0	365.8	348.8	315.6	271.1	218.5	159.4	94.7	37.2	3.2	0.0
40°	388.5	386.0	367.4	334.2	288.1	233.1	170.0	100.4	39.7	3.2	0.0
42.5°	405.5	403.8	385.2	350.4	304.3	246.0	178.9	106.8	42.1	3.2	0.0
45°	420.8	418.4	399.8	365.8	318.9	259.0	187.8	112.5	44.5	3.2	0.0
47.5°	433.8	431.4	412.8	378.0	331.8	270.3	195.9	117.4	46.1	4.0	0.0
50°	443.5	441.9	424.9	391.7	344.0	280.8	203.9	121.4	48.6	4.0	0.0
52.5°	450.8	449.2	435.4	403.8	355.3	291.4	212.0	126.3	50.2	4.0	0.0
55°	461.3	459.7	445.9	416.0	367.4	300.3	218.5	130.3	52.6	4.0	0.0
57.5°	475.9	474.3	458.9	429.7	379.6	310.0	225.8	135.2	54.2	4.9	0.0
60°	492.9	491.3	474.3	441.9	391.7	319.7	233.1	140.0	56.7	4.9	0.0
62.5°	509.9	507.4	492.1	458.1	405.5	330.2	239.6	144.1	58.3	4.9	0.0
65°	530.1	526.9	507.4	472.6	417.6	339.9	246.8	148.1	59.9	4.9	0.0
67.5°	540.6	538.2	521.2	487.2	428.9	348.8	252.5	151.3	61.5	5.7	0.0
70°	543.1	541.4	530.9	497.7	438.6	356.9	258.2	155.4	63.1	5.7	0.0
72.5°	547.1	546.3	535.0	504.2	445.1	362.6	262.2	157.8	63.9	5.7	0.0
75°	552.8	549.5	532.5	502.6	446.7	364.2	264.6	158.6	64.7	5.7	0.0
77.5°	533.3	530.1	517.2	490.4	441.1	361.8	263.8	158.6	64.7	5.7	0.0
80°	478.3	479.9	483.2	469.4	428.1	354.5	259.0	156.2	63.1	5.7	0.0
82.5°	409.5	412.8	433.0	433.8	404.7	340.7	251.7	152.2	62.3	5.7	0.0
85°	339.9	344.0	372.3	393.3	377.1	323.7	241.2	146.5	59.9	5.7	0.0
87.5°	290.5	293.0	315.6	346.4	344.0	301.9	226.6	139.2	57.5	5.7	0.0
90°	253.3	255.7	272.7	301.9	309.2	276.0	211.2	131.1	54.2	4.9	0.0
92.5°	230.7	232.3	242.8	261.4	271.9	248.5	194.2	121.4	51.0	4.9	0.0
95°	216.1	216.1	220.9	232.3	237.9	222.6	176.4	111.7	47.7	4.9	0.0
97.5°	205.6	205.6	206.4	209.6	212.0	197.5	158.6	102.8	44.5	4.0	0.0
100°	196.7	195.9	195.0	193.4	190.2	175.6	142.4	93.9	41.3	4.0	0.0
102.5°	190.2	190.2	187.0	181.3	173.2	157.8	129.5	85.8	38.0	4.0	0.0
105°	184.5	183.7	179.7	171.6	161.9	144.9	118.2	79.3	34.8	4.0	0.0
107.5°	178.0	177.2	173.2	164.3	152.2	134.3	109.3	72.8	32.4	3.2	0.0
110°	172.4	172.4	166.7	157.8	144.1	126.3	101.2	68.0	30.8	3.2	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	166.7	166.7	161.9	152.2	137.6	119.0	94.7	63.1	28.3	3.2	0.0
115°	161.9	161.1	156.2	146.5	131.9	113.3	89.0	59.1	26.7	2.4	0.0
117.5°	157.0	156.2	151.3	140.8	126.3	107.6	84.2	55.0	24.3	2.4	0.0
120°	151.3	150.5	145.7	135.2	120.6	102.8	79.3	51.8	22.7	2.4	0.0
122.5°	146.5	144.9	140.0	129.5	115.7	97.1	75.3	47.7	21.0	2.4	0.0
125°	139.2	139.2	133.5	123.8	110.1	92.3	70.4	44.5	18.6	1.6	0.0
127.5°	133.5	132.7	127.9	118.2	105.2	87.4	66.4	41.3	17.8	1.6	0.0
130°	127.1	126.3	121.4	112.5	99.5	82.6	62.3	38.8	16.2	1.6	0.0
132.5°	120.6	119.8	114.9	106.0	93.9	77.7	58.3	35.6	14.6	1.6	0.0
135°	114.1	114.1	108.4	99.5	88.2	72.8	54.2	33.2	12.9	1.6	0.0
137.5°	107.6	106.8	102.8	93.9	81.7	67.2	50.2	29.9	12.1	1.6	0.0
140°	101.2	100.4	95.5	87.4	76.1	62.3	46.1	27.5	10.5	0.8	0.0
142.5°	94.7	93.9	89.0	80.9	70.4	57.5	42.1	24.3	9.7	0.8	0.0
145°	87.4	86.6	82.6	74.5	63.9	51.8	37.2	21.9	8.9	0.8	0.0
147.5°	80.1	80.1	75.3	68.0	58.3	46.1	33.2	19.4	7.3	0.8	0.0
150°	72.8	72.8	68.0	61.5	51.8	41.3	29.1	17.0	6.5	0.8	0.0
152.5°	65.6	64.7	61.5	55.0	46.1	36.4	25.1	14.6	5.7	0.8	0.0
155°	57.5	57.5	53.4	48.6	40.5	31.6	21.9	12.1	4.9	0.8	0.0
157.5°	49.4	49.4	46.1	41.3	34.0	25.9	17.8	9.7	4.0	0.8	0.0
160°	42.1	41.3	38.8	34.8	28.3	21.9	14.6	8.1	3.2	0.8	0.8
162.5°	33.2	33.2	31.6	27.5	22.7	17.0	11.3	6.5	2.4	0.8	0.0
165°	25.9	25.9	24.3	21.0	17.8	12.9	8.1	4.0	1.6	0.8	0.0
167.5°	18.6	18.6	17.0	15.4	11.3	8.1	4.9	3.2	1.6	0.8	0.8
170°	9.7	9.7	8.9	7.3	5.7	4.0	2.4	1.6	0.8	0.8	0.8
172.5°	1.6	1.6	1.6	1.6	1.6	0.8	0.8	0.8	0.8	0.8	0.0
175°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	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: P226086

CATALOG NUMBER: FW-LD2-612-1000-50-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)