

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: P226089

Luminaire Tested: **FW-LD2-612-1250-50-PC-R4-LGW**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P226089
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-LD2-612-1250-50-PC-R4-LGW
Description: NIGHT CONDOR LED FLOODLIGHT
Light Source: (28) 5000 CCT, 80 CRI LEDS
 EL089N028E850M
Ballast/Driver: OSRAM
 OT25WPRG1250C

Summary

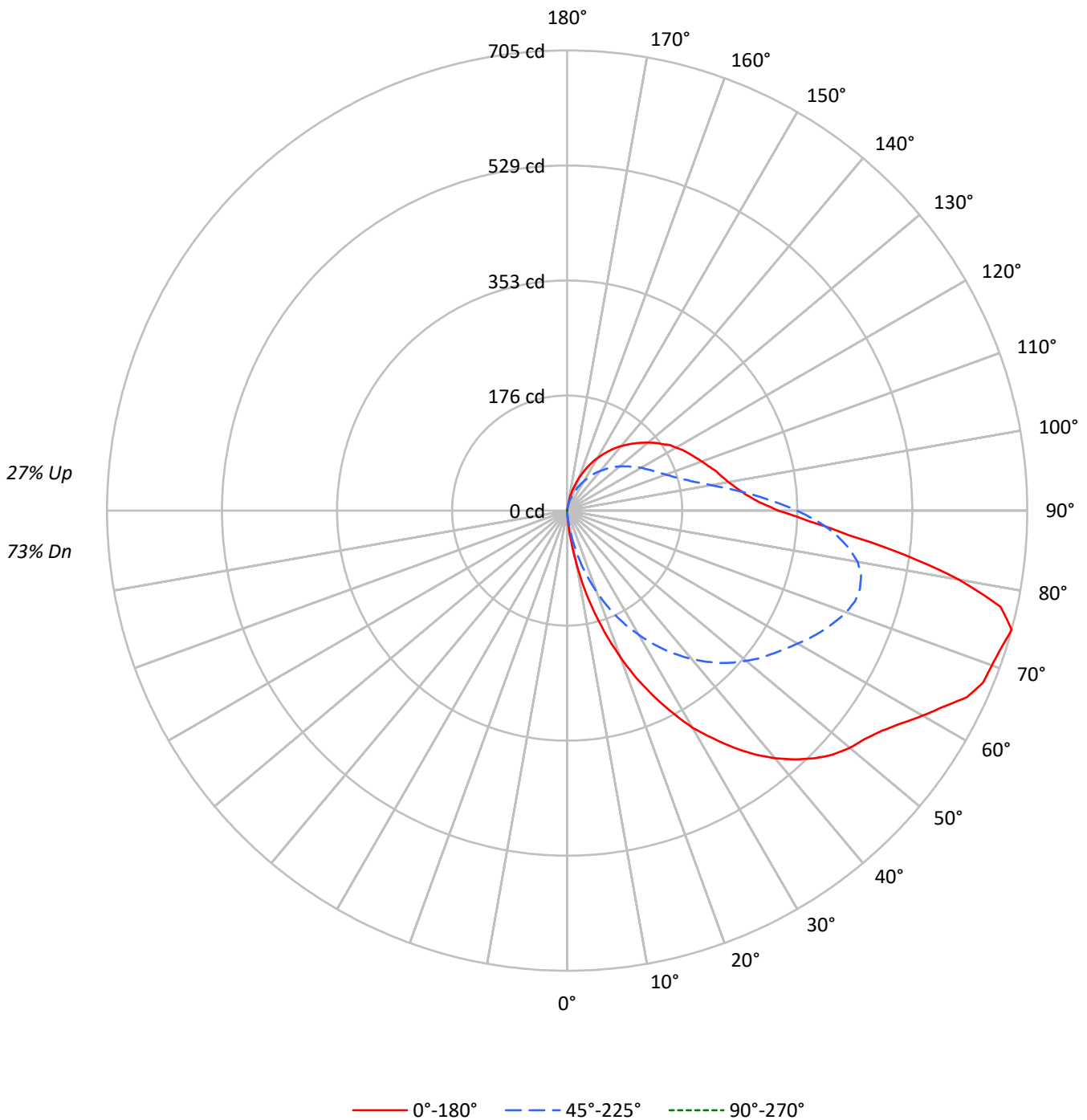
Lumens per Lamp: N/A
Luminaire Lumens: 1344.0 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: (L: 0 ' x W: 0.5 ' x H: 1 '
CIE Type: Semi-Direct

Input Watts (W): 17.9
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

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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°	1.0	0.1
10°-20°	12.4	0.9
20°-30°	39.0	2.9
30°-40°	75.8	5.6
40°-50°	115.6	8.6
50°-60°	152.7	11.4
60°-70°	191.0	14.2
70°-80°	213.1	15.9
80°-90°	174.6	13.0
90°-100°	115.2	8.6
100°-110°	81.4	6.1
110°-120°	62.5	4.6
120°-130°	46.8	3.5
130°-140°	32.2	2.4
140°-150°	19.2	1.4
150°-160°	9.0	0.7
160°-170°	2.5	0.2
170°-180°	0.1	0.0
0°-30°	52.4	3.9
0°-40°	128.2	9.5
0°-60°	396.4	29.5
0°-90°	975.1	72.6
90°-120°	259.1	19.3
90°-150°	357.3	26.6
90°-180°	369.0	27.5
0°-180°	1344.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	0	0	0	0	0	
5°	22	9	0	0	0	4
15°	161	87	0	0	0	48
25°	314	178	0	0	0	147
35°	443	260	0	0	0	279
45°	537	330	0	0	0	415
55°	588	383	0	0	0	531
65°	676	433	0	0	0	665
75°	705	464	0	0	0	723
85°	433	413	0	0	0	394
90°	323	352	0	0	0	180
95°	276	284	0	0	0	221
105°	235	185	0	0	0	249
115°	206	144	0	0	0	205
125°	178	118	0	0	0	160
135°	146	93	0	0	0	113
145°	112	66	0	0	0	70
155°	73	40	0	0	0	34
165°	33	16	0	0	0	10
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°	4.1	3.1	3.1	3.1	2.1	1.0	1.0	1.0	1.0	0.0	0.0
5°	21.7	20.6	19.6	17.5	13.4	9.3	5.2	2.1	1.0	0.0	0.0
7.5°	48.5	49.5	46.4	40.2	32.0	23.7	14.4	7.2	2.1	1.0	0.0
10°	83.6	83.6	79.5	70.2	56.8	42.3	26.8	13.4	3.1	1.0	0.0
12.5°	122.8	120.7	114.6	101.1	83.6	63.0	42.3	21.7	6.2	1.0	0.0
15°	161.0	157.9	149.6	135.2	113.5	86.7	57.8	31.0	10.3	1.0	0.0
17.5°	200.2	199.2	188.9	169.2	142.4	109.4	74.3	40.2	13.4	1.0	0.0
20°	239.4	237.4	223.9	202.3	171.3	133.1	91.8	50.6	17.5	1.0	0.0
22.5°	277.6	274.5	260.1	234.3	198.1	155.8	108.4	60.9	21.7	1.0	0.0
25°	313.7	310.6	296.2	265.2	226.0	178.5	124.9	71.2	26.8	1.0	0.0
27.5°	348.8	346.7	328.2	296.2	251.8	200.2	141.4	81.5	31.0	2.1	0.0
30°	383.9	379.8	360.2	324.0	276.6	219.8	157.9	91.8	35.1	2.1	0.0
32.5°	412.8	410.7	389.1	351.9	300.3	240.5	172.3	102.2	39.2	3.1	0.0
35°	442.7	440.7	418.0	378.7	324.0	260.1	187.8	111.5	43.3	3.1	0.0
37.5°	470.6	466.5	444.8	402.5	345.7	278.6	203.3	120.7	47.5	4.1	0.0
40°	495.4	492.3	468.5	426.2	367.4	297.2	216.7	128.0	50.6	4.1	0.0
42.5°	517.0	515.0	491.2	446.9	388.0	313.7	228.1	136.2	53.7	4.1	0.0
45°	536.6	533.5	509.8	466.5	406.6	330.2	239.4	143.4	56.8	4.1	0.0
47.5°	553.1	550.1	526.3	481.9	423.1	344.7	249.7	149.6	58.8	5.2	0.0
50°	565.5	563.5	541.8	499.5	438.6	358.1	260.1	154.8	61.9	5.2	0.0
52.5°	574.8	572.8	555.2	515.0	453.0	371.5	270.4	161.0	64.0	5.2	0.0
55°	588.2	586.2	568.6	530.4	468.5	382.9	278.6	166.2	67.1	5.2	0.0
57.5°	606.8	604.7	585.1	548.0	484.0	395.3	287.9	172.3	69.1	6.2	0.0
60°	628.5	626.4	604.7	563.5	499.5	407.6	297.2	178.5	72.2	6.2	0.0
62.5°	650.2	647.1	627.5	584.1	517.0	421.1	305.5	183.7	74.3	6.2	0.0
65°	676.0	671.8	647.1	602.7	532.5	433.4	314.8	188.9	76.4	6.2	0.0
67.5°	689.4	686.3	664.6	621.3	547.0	444.8	322.0	193.0	78.4	7.2	0.0
70°	692.5	690.4	677.0	634.7	559.3	455.1	329.2	198.1	80.5	7.2	0.0
72.5°	697.6	696.6	682.1	642.9	567.6	462.3	334.4	201.2	81.5	7.2	0.0
75°	704.9	700.7	679.1	640.9	569.7	464.4	337.5	202.3	82.6	7.2	0.0
77.5°	680.1	676.0	659.4	625.4	562.4	461.3	336.4	202.3	82.6	7.2	0.0
80°	609.9	612.0	616.1	598.6	545.9	452.0	330.2	199.2	80.5	7.2	0.0
82.5°	522.2	526.3	552.1	553.1	516.0	434.5	320.9	194.0	79.5	7.2	0.0
85°	433.4	438.6	474.7	501.5	480.9	412.8	307.5	186.8	76.4	7.2	0.0
87.5°	370.5	373.6	402.5	441.7	438.6	384.9	289.0	177.5	73.3	7.2	0.0
90°	323.0	326.1	347.8	384.9	394.2	351.9	269.3	167.2	69.1	6.2	0.0
92.5°	294.1	296.2	309.6	333.3	346.7	316.8	247.7	154.8	65.0	6.2	0.0
95°	275.5	275.5	281.7	296.2	303.4	283.8	225.0	142.4	60.9	6.2	0.0
97.5°	262.1	262.1	263.2	267.3	270.4	251.8	202.3	131.1	56.8	5.2	0.0
100°	250.8	249.7	248.7	246.6	242.5	223.9	181.6	119.7	52.6	5.2	0.0
102.5°	242.5	242.5	238.4	231.2	220.8	201.2	165.1	109.4	48.5	5.2	0.0
105°	235.3	234.3	229.1	218.8	206.4	184.7	150.7	101.1	44.4	5.2	0.0
107.5°	227.0	226.0	220.8	209.5	194.0	171.3	139.3	92.9	41.3	4.1	0.0
110°	219.8	219.8	212.6	201.2	183.7	161.0	129.0	86.7	39.2	4.1	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	212.6	212.6	206.4	194.0	175.4	151.7	120.7	80.5	36.1	4.1	0.0
115°	206.4	205.4	199.2	186.8	168.2	144.5	113.5	75.3	34.1	3.1	0.0
117.5°	200.2	199.2	193.0	179.6	161.0	137.3	107.3	70.2	31.0	3.1	0.0
120°	193.0	192.0	185.8	172.3	153.8	131.1	101.1	66.0	28.9	3.1	0.0
122.5°	186.8	184.7	178.5	165.1	147.6	123.8	96.0	60.9	26.8	3.1	0.0
125°	177.5	177.5	170.3	157.9	140.4	117.6	89.8	56.8	23.7	2.1	0.0
127.5°	170.3	169.2	163.1	150.7	134.2	111.5	84.6	52.6	22.7	2.1	0.0
130°	162.0	161.0	154.8	143.4	126.9	105.3	79.5	49.5	20.6	2.1	0.0
132.5°	153.8	152.7	146.5	135.2	119.7	99.1	74.3	45.4	18.6	2.1	0.0
135°	145.5	145.5	138.3	126.9	112.5	92.9	69.1	42.3	16.5	2.1	0.0
137.5°	137.3	136.2	131.1	119.7	104.2	85.7	64.0	38.2	15.5	2.1	0.0
140°	129.0	128.0	121.8	111.5	97.0	79.5	58.8	35.1	13.4	1.0	0.0
142.5°	120.7	119.7	113.5	103.2	89.8	73.3	53.7	31.0	12.4	1.0	0.0
145°	111.5	110.4	105.3	94.9	81.5	66.0	47.5	27.9	11.4	1.0	0.0
147.5°	102.2	102.2	96.0	86.7	74.3	58.8	42.3	24.8	9.3	1.0	0.0
150°	92.9	92.9	86.7	78.4	66.0	52.6	37.2	21.7	8.3	1.0	0.0
152.5°	83.6	82.6	78.4	70.2	58.8	46.4	32.0	18.6	7.2	1.0	0.0
155°	73.3	73.3	68.1	61.9	51.6	40.2	27.9	15.5	6.2	1.0	0.0
157.5°	63.0	63.0	58.8	52.6	43.3	33.0	22.7	12.4	5.2	1.0	0.0
160°	53.7	52.6	49.5	44.4	36.1	27.9	18.6	10.3	4.1	1.0	1.0
162.5°	42.3	42.3	40.2	35.1	28.9	21.7	14.4	8.3	3.1	1.0	0.0
165°	33.0	33.0	31.0	26.8	22.7	16.5	10.3	5.2	2.1	1.0	0.0
167.5°	23.7	23.7	21.7	19.6	14.4	10.3	6.2	4.1	2.1	1.0	1.0
170°	12.4	12.4	11.4	9.3	7.2	5.2	3.1	2.1	1.0	1.0	1.0
172.5°	2.1	2.1	2.1	2.1	2.1	1.0	1.0	1.0	1.0	1.0	0.0
175°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	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



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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: P226089

CATALOG NUMBER: FW-LD2-612-1250-50-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)