

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: P226194

Luminaire Tested: **FW-LD2-99-1000-35-PC-R4-LGW**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P226194  
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-LD2-99-1000-35-PC-R4-LGW  
Description: NIGHT CONDOR LED FLOODLIGHT  
Light Source: (56) 3500 CCT, 80 CRI LEDS  
                  EL089N056E835M  
Ballast/Driver: OSRAM  
                  OT25WPRG1250C

**Summary**

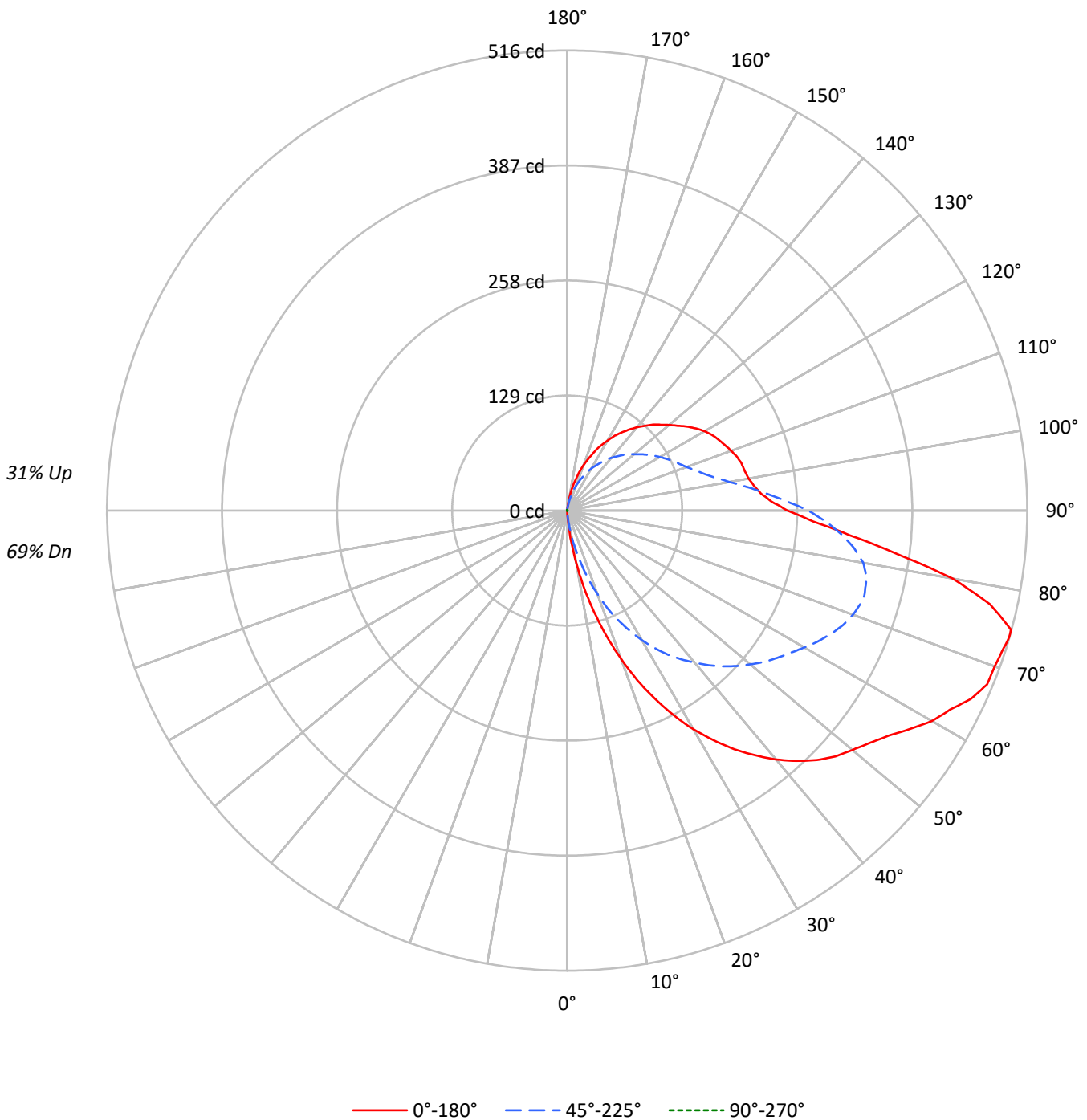
Lumens per Lamp: N/A  
Luminaire Lumens: 1048.4 lumens  
Efficiency: N/A  
Efficacy: 92.0 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: (L: 0 ' x W: 0.75 ' x H: 0.75 '  
CIE Type: Semi-Direct

Input Watts (W): 11.4  
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-LD2-99-1000-35-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	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°			



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	0.7	0.1
10°-20°	9.1	0.9
20°-30°	29.3	2.8
30°-40°	56.6	5.4
40°-50°	85.7	8.2
50°-60°	114.3	10.9
60°-70°	143.1	13.6
70°-80°	157.6	15.0
80°-90°	130.0	12.4
90°-100°	91.3	8.7
100°-110°	70.0	6.7
110°-120°	56.6	5.4
120°-130°	43.2	4.1
130°-140°	30.2	2.9
140°-150°	18.8	1.8
150°-160°	9.3	0.9
160°-170°	2.7	0.3
170°-180°	0.1	0.0
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0°-30°	39.1	3.7
0°-40°	95.6	9.1
0°-60°	295.6	28.2
0°-90°	726.3	69.3
90°-120°	217.8	20.8
90°-150°	310.1	29.6
90°-180°	322.0	30.7
0°-180°	1048.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	0	0	0	0	0	
5°	14	6	0	0	0	3
15°	118	64	0	0	0	35
25°	233	136	0	0	0	109
35°	327	197	0	0	0	205
45°	396	247	0	0	0	306
55°	440	288	0	0	0	397
65°	500	327	0	0	0	493
75°	515	346	0	0	0	526
85°	318	309	0	0	0	285
90°	247	270	0	0	0	137
95°	218	223	0	0	0	176
105°	203	159	0	0	0	214
115°	188	131	0	0	0	186
125°	164	109	0	0	0	147
135°	136	88	0	0	0	106
145°	107	66	0	0	0	68
155°	73	42	0	0	0	34
165°	35	18	1	0	0	10
175°	1	1	1	0	0	1
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°	1.4	1.4	1.4	1.4	0.7	0.7	0.7	0.7	0.7	0.7	0.0
5°	14.3	13.6	12.3	10.2	8.2	5.5	2.7	1.4	0.7	0.7	0.0
7.5°	34.8	33.4	31.4	28.7	22.5	15.7	8.9	3.4	0.7	0.7	0.0
10°	60.7	58.7	56.6	49.8	40.3	30.0	18.4	8.9	2.0	0.7	0.0
12.5°	90.1	88.0	83.2	74.4	61.4	45.7	30.0	15.0	3.4	0.7	0.0
15°	118.0	118.0	111.2	99.6	83.2	63.5	41.6	21.8	6.1	0.7	0.0
17.5°	148.7	147.4	140.6	126.2	106.4	81.9	55.3	29.3	8.9	0.7	0.0
20°	176.7	176.7	167.9	152.2	127.6	99.6	68.2	37.5	12.3	0.7	0.0
22.5°	206.1	204.7	195.1	176.7	150.8	118.7	82.6	45.7	15.7	0.7	0.0
25°	232.7	231.3	220.4	199.9	171.3	135.8	95.5	53.9	19.1	0.7	0.0
27.5°	258.6	255.9	245.0	222.4	191.1	151.5	108.5	62.1	22.5	0.7	0.0
30°	283.2	280.4	267.5	242.9	209.5	167.9	120.1	70.3	25.9	1.4	0.0
32.5°	305.0	304.3	289.3	264.1	227.9	182.9	132.4	77.1	28.7	1.4	0.0
35°	326.8	324.8	310.5	281.8	243.6	197.2	143.3	83.9	32.1	2.0	0.0
37.5°	345.9	343.9	327.5	298.9	259.3	210.2	152.8	90.8	34.8	2.0	0.0
40°	364.4	361.0	344.6	315.2	274.3	222.4	161.7	96.2	37.5	2.7	0.0
42.5°	380.7	377.3	361.0	329.6	288.6	235.4	171.3	101.7	39.6	2.7	0.0
45°	395.8	392.3	374.6	343.2	301.6	247.0	179.5	107.1	42.3	3.4	0.0
47.5°	408.0	406.0	388.9	356.2	313.9	257.9	187.6	111.9	44.4	3.4	0.0
50°	417.6	415.5	400.5	369.8	326.2	268.2	195.1	116.7	46.4	4.1	0.0
52.5°	427.8	425.8	412.1	382.1	337.8	278.4	202.7	121.5	48.4	4.1	0.0
55°	440.1	438.7	424.4	395.1	350.0	287.9	210.2	126.2	51.2	4.8	0.0
57.5°	455.8	453.8	438.1	407.4	361.6	296.8	217.7	131.0	53.2	4.8	0.0
60°	472.2	469.4	453.1	422.4	373.9	307.0	224.5	135.8	55.3	4.8	0.0
62.5°	483.8	482.4	468.1	436.7	386.9	317.3	232.0	140.6	57.3	5.5	0.0
65°	499.5	496.7	481.0	449.7	399.2	326.8	238.8	144.7	59.4	5.5	0.0
67.5°	509.7	508.3	492.6	461.9	409.4	335.0	245.0	148.7	61.4	6.1	0.0
70°	510.4	509.7	500.1	469.4	416.9	341.2	250.4	152.2	62.8	6.1	0.0
72.5°	513.1	512.4	501.5	472.9	420.3	345.3	253.8	154.9	64.1	6.1	0.0
74°	515.8	513.1	499.5	471.5	421.0	346.6	254.5	155.6	64.1	6.8	0.0
75°	515.2	511.7	496.1	469.4	420.3	345.9	255.2	156.3	64.1	6.8	0.0
77.5°	485.8	487.2	478.3	456.5	413.5	343.9	253.8	154.9	64.1	6.8	0.0
80°	438.7	437.4	444.2	435.3	401.2	337.1	249.7	153.5	63.5	6.8	0.0
82.5°	373.2	378.0	397.1	403.9	381.4	324.8	243.6	150.1	62.1	6.8	0.0
85°	318.0	320.7	344.6	367.1	355.5	309.1	234.7	145.3	60.7	6.8	0.0
87.5°	275.7	277.7	297.5	326.2	327.5	290.7	223.1	139.2	58.7	6.8	0.0
90°	247.0	249.1	262.7	288.6	296.8	270.2	209.5	131.7	56.0	6.1	0.0
92.5°	229.3	230.6	238.8	257.2	266.1	245.6	195.1	124.2	53.2	6.1	0.0
95°	218.3	219.0	223.1	232.7	240.2	223.1	178.1	116.0	49.8	6.1	0.0
97.5°	211.5	211.5	212.9	217.0	217.7	203.3	163.8	107.1	47.1	5.5	0.0
100°	206.7	206.7	206.1	205.4	199.9	184.9	150.1	99.6	43.7	5.5	0.0
102.5°	204.0	204.0	202.0	197.2	188.3	169.9	137.8	92.1	40.9	4.8	0.0
105°	202.7	202.0	197.9	191.1	178.8	159.0	128.3	86.0	38.2	4.8	0.0
107.5°	199.9	199.2	194.5	185.6	171.3	150.1	120.1	80.5	36.2	4.1	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	195.8	195.1	190.4	180.1	165.1	142.6	113.3	75.7	34.1	4.1	0.0
112.5°	191.7	191.1	186.3	175.4	159.0	136.5	107.8	71.6	32.1	4.1	0.0
115°	187.6	187.6	181.5	169.9	153.5	131.0	102.3	66.9	30.0	3.4	0.0
117.5°	183.5	182.9	176.0	164.4	147.4	125.5	96.9	63.5	28.0	3.4	0.0
120°	178.1	177.4	170.6	158.3	141.9	120.1	92.1	59.4	25.9	3.4	0.0
122.5°	171.3	170.6	164.4	152.2	135.8	114.6	87.3	56.0	24.6	2.7	0.0
125°	164.4	163.8	156.9	146.0	130.3	109.2	82.6	52.5	22.5	2.7	0.0
127.5°	156.3	155.6	150.1	139.2	123.5	103.7	78.5	49.1	21.2	2.7	0.0
130°	149.4	148.7	142.6	132.4	118.0	98.3	74.4	45.7	19.1	2.0	0.0
132.5°	142.6	141.9	136.5	125.5	111.9	93.5	69.6	43.0	17.7	2.0	0.0
135°	136.5	135.1	129.6	119.4	105.8	88.0	65.5	39.6	16.4	2.0	0.0
137.5°	129.0	128.3	122.8	112.6	99.6	82.6	60.7	36.8	15.0	2.0	0.0
140°	122.1	121.5	116.0	106.4	93.5	77.1	56.6	34.1	13.6	2.0	0.0
142.5°	114.6	113.9	109.2	99.6	87.3	71.6	52.5	31.4	12.3	1.4	0.0
145°	107.1	106.4	101.0	92.8	81.2	65.5	47.8	28.0	11.6	1.4	0.0
147.5°	99.6	98.3	94.2	86.0	74.4	60.0	43.0	25.2	10.2	1.4	0.7
150°	90.8	90.8	86.0	78.5	67.6	54.6	38.9	22.5	8.9	1.4	0.0
152.5°	82.6	81.9	77.8	71.0	60.7	48.4	34.1	19.8	8.2	1.4	0.7
155°	73.0	72.3	68.9	62.8	53.2	42.3	29.3	17.1	6.8	0.7	0.0
157.5°	63.5	63.5	60.7	54.6	46.4	36.2	25.2	14.3	5.5	0.7	0.0
160°	54.6	53.9	51.2	45.7	38.9	30.0	20.5	11.6	4.8	0.7	0.7
162.5°	45.0	44.4	42.3	37.5	31.4	24.6	16.4	9.6	3.4	0.7	0.7
165°	34.8	34.8	32.8	29.3	24.6	18.4	11.6	6.1	2.7	0.7	0.7
167.5°	25.2	25.2	24.6	21.2	17.1	11.6	6.8	4.1	2.0	0.7	0.7
170°	15.7	15.7	14.3	10.9	7.5	5.5	4.1	2.0	1.4	0.7	0.7
172.5°	4.8	4.1	4.1	3.4	2.7	2.0	1.4	1.4	0.7	0.7	0.7
175°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
177.5°	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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
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: P226194

CATALOG NUMBER: FW-LD2-99-1000-35-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)