

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: P226197

Luminaire Tested: **FW-LD2-99-1250-35-PC-R4-LGW**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P226197
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-LD2-99-1250-35-PC-R4-LGW
Description: NIGHT CONDOR LED FLOODLIGHT
Light Source: (56) 3500 CCT, 80 CRI LEDS
 EL089N056E835M
Ballast/Driver: OSRAM
 OT25WPRG1250C

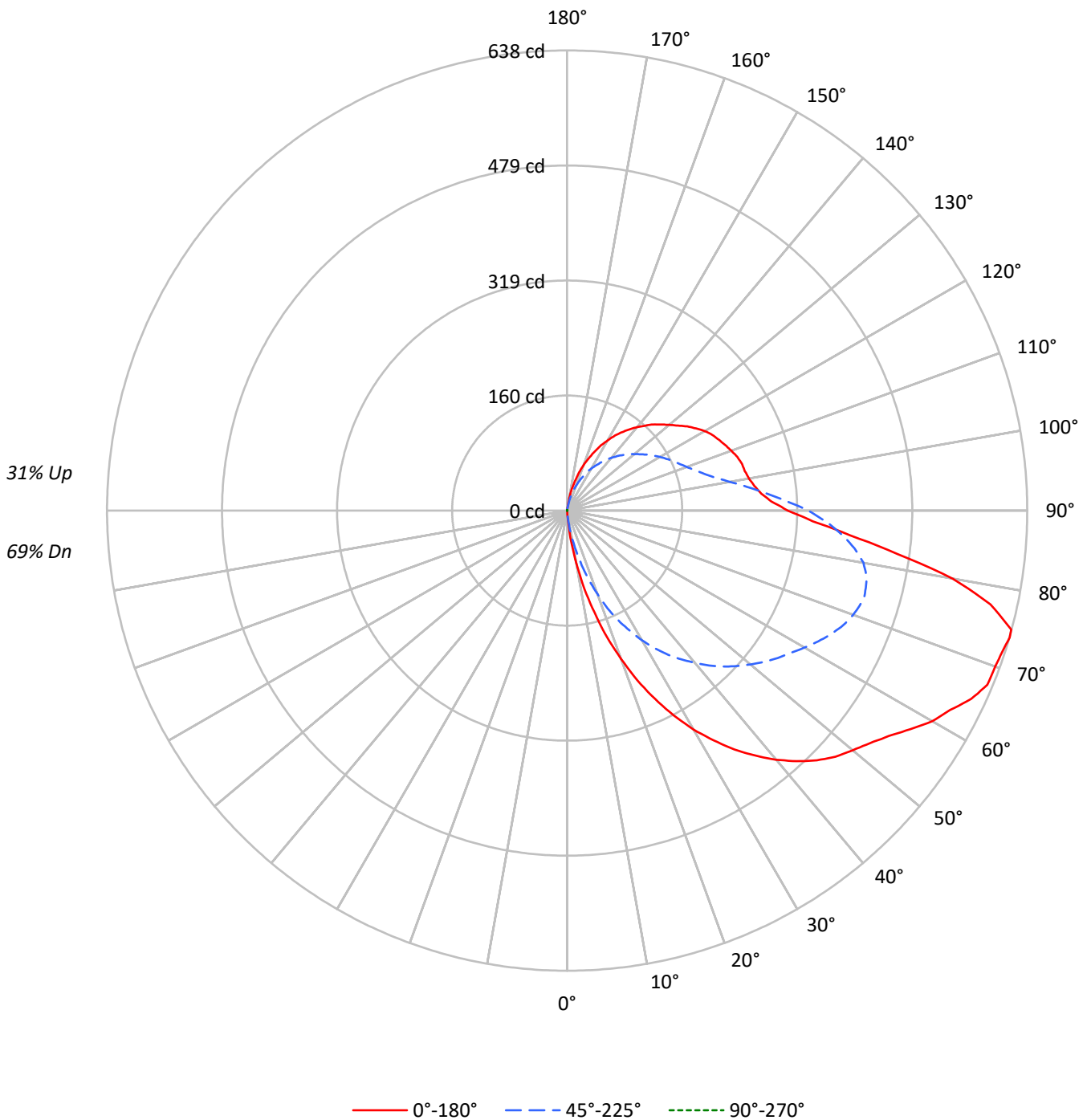
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1297.5 lumens
Efficiency: N/A
Efficacy: 93.3 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

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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	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°	0.8	0.1
10°-20°	11.3	0.9
20°-30°	36.2	2.8
30°-40°	70.0	5.4
40°-50°	106.0	8.2
50°-60°	141.4	10.9
60°-70°	177.1	13.6
70°-80°	195.1	15.0
80°-90°	160.8	12.4
90°-100°	112.9	8.7
100°-110°	86.6	6.7
110°-120°	70.0	5.4
120°-130°	53.5	4.1
130°-140°	37.4	2.9
140°-150°	23.3	1.8
150°-160°	11.5	0.9
160°-170°	3.3	0.3
170°-180°	0.2	0.0
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0°-30°	48.4	3.7
0°-40°	118.4	9.1
0°-60°	365.8	28.2
0°-90°	898.7	69.3
90°-120°	269.6	20.8
90°-150°	383.8	29.6
90°-180°	399.0	30.8
0°-180°	1297.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	0	0	0	0	0	
5°	18	7	0	0	0	4
15°	146	78	0	0	0	44
25°	288	168	0	0	0	135
35°	404	244	0	0	0	254
45°	490	306	0	0	0	378
55°	545	356	0	0	0	491
65°	618	404	0	0	0	610
75°	638	428	0	0	0	651
85°	394	382	0	0	0	353
90°	306	334	0	0	0	169
95°	270	276	0	0	0	218
105°	251	197	0	0	0	264
115°	232	162	0	0	0	230
125°	204	135	0	0	0	182
135°	169	109	0	0	0	131
145°	133	81	0	0	0	84
155°	90	52	0	0	0	42
165°	43	23	1	0	0	13
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°	1.7	1.7	1.7	1.7	0.8	0.8	0.8	0.8	0.8	0.8	0.0
5°	17.7	16.9	15.2	12.7	10.1	6.8	3.4	1.7	0.8	0.8	0.0
7.5°	43.1	41.4	38.8	35.5	27.9	19.4	11.0	4.2	0.8	0.8	0.0
10°	75.2	72.6	70.1	61.6	49.8	37.2	22.8	11.0	2.5	0.8	0.0
12.5°	111.5	108.9	103.0	92.0	76.0	56.6	37.2	18.6	4.2	0.8	0.0
15°	146.1	146.1	137.6	123.3	103.0	78.5	51.5	27.0	7.6	0.8	0.0
17.5°	184.1	182.4	173.9	156.2	131.7	101.3	68.4	36.3	11.0	0.8	0.0
20°	218.7	218.7	207.7	188.3	157.9	123.3	84.4	46.4	15.2	0.8	0.0
22.5°	255.0	253.3	241.5	218.7	186.6	146.9	102.2	56.6	19.4	0.8	0.0
25°	287.9	286.2	272.7	247.4	211.9	168.0	118.2	66.7	23.6	0.8	0.0
27.5°	320.0	316.6	303.1	275.3	236.4	187.5	134.3	76.8	27.9	0.8	0.0
30°	350.4	347.0	331.0	300.6	259.2	207.7	148.6	87.0	32.1	1.7	0.0
32.5°	377.4	376.6	358.0	326.8	282.0	226.3	163.8	95.4	35.5	1.7	0.0
35°	404.5	401.9	384.2	348.7	301.4	244.0	177.3	103.9	39.7	2.5	0.0
37.5°	428.1	425.6	405.3	369.8	320.9	260.1	189.1	112.3	43.1	2.5	0.0
40°	450.9	446.7	426.4	390.1	339.4	275.3	200.1	119.1	46.4	3.4	0.0
42.5°	471.2	466.9	446.7	407.8	357.2	291.3	211.9	125.8	49.0	3.4	0.0
45°	489.7	485.5	463.6	424.7	373.2	305.7	222.1	132.6	52.4	4.2	0.0
47.5°	504.9	502.4	481.3	440.8	388.4	319.2	232.2	138.5	54.9	4.2	0.0
50°	516.8	514.2	495.7	457.7	403.6	331.8	241.5	144.4	57.4	5.1	0.0
52.5°	529.4	526.9	510.0	472.9	418.0	344.5	250.8	150.3	60.0	5.1	0.0
55°	544.6	542.9	525.2	488.9	433.2	356.3	260.1	156.2	63.3	5.9	0.0
57.5°	564.1	561.5	542.1	504.1	447.5	367.3	269.4	162.1	65.9	5.9	0.0
60°	584.3	580.9	560.7	522.7	462.7	380.0	277.8	168.0	68.4	5.9	0.0
62.5°	598.7	597.0	579.3	540.4	478.8	392.6	287.1	173.9	70.9	6.8	0.0
65°	618.1	614.7	595.3	556.5	494.0	404.5	295.5	179.0	73.5	6.8	0.0
67.5°	630.8	629.1	609.7	571.7	506.6	414.6	303.1	184.1	76.0	7.6	0.0
70°	631.6	630.8	618.9	580.9	515.9	422.2	309.9	188.3	77.7	7.6	0.0
72.5°	635.0	634.1	620.6	585.2	520.1	427.3	314.1	191.7	79.4	7.6	0.0
74°	638.4	635.0	618.1	583.5	521.0	429.0	315.0	192.5	79.4	8.4	0.0
75°	637.5	633.3	613.9	580.9	520.1	428.1	315.8	193.4	79.4	8.4	0.0
77.5°	601.2	602.9	591.9	564.9	511.7	425.6	314.1	191.7	79.4	8.4	0.0
80°	542.9	541.3	549.7	538.7	496.5	417.1	309.0	190.0	78.5	8.4	0.0
82.5°	461.9	467.8	491.4	499.9	472.0	401.9	301.4	185.8	76.8	8.4	0.0
85°	393.5	396.9	426.4	454.3	439.9	382.5	290.5	179.9	75.2	8.4	0.0
87.5°	341.1	343.7	368.2	403.6	405.3	359.7	276.1	172.3	72.6	8.4	0.0
90°	305.7	308.2	325.1	357.2	367.3	334.4	259.2	163.0	69.2	7.6	0.0
92.5°	283.7	285.4	295.5	318.3	329.3	304.0	241.5	153.7	65.9	7.6	0.0
95°	270.2	271.1	276.1	287.9	297.2	276.1	220.4	143.5	61.6	7.6	0.0
97.5°	261.8	261.8	263.5	268.5	269.4	251.6	202.7	132.6	58.3	6.8	0.0
100°	255.9	255.9	255.0	254.2	247.4	228.8	185.8	123.3	54.0	6.8	0.0
102.5°	252.5	252.5	249.9	244.0	233.1	210.3	170.6	114.0	50.7	5.9	0.0
105°	250.8	249.9	244.9	236.4	221.2	196.7	158.7	106.4	47.3	5.9	0.0
107.5°	247.4	246.6	240.7	229.7	211.9	185.8	148.6	99.6	44.8	5.1	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	242.3	241.5	235.6	222.9	204.3	176.5	140.2	93.7	42.2	5.1	0.0
112.5°	237.3	236.4	230.5	217.0	196.7	168.9	133.4	88.7	39.7	5.1	0.0
115°	232.2	232.2	224.6	210.3	190.0	162.1	126.7	82.8	37.2	4.2	0.0
117.5°	227.1	226.3	217.9	203.5	182.4	155.4	119.9	78.5	34.6	4.2	0.0
120°	220.4	219.5	211.1	195.9	175.6	148.6	114.0	73.5	32.1	4.2	0.0
122.5°	211.9	211.1	203.5	188.3	168.0	141.9	108.1	69.2	30.4	3.4	0.0
125°	203.5	202.7	194.2	180.7	161.3	135.1	102.2	65.0	27.9	3.4	0.0
127.5°	193.4	192.5	185.8	172.3	152.8	128.3	97.1	60.8	26.2	3.4	0.0
130°	184.9	184.1	176.5	163.8	146.1	121.6	92.0	56.6	23.6	2.5	0.0
132.5°	176.5	175.6	168.9	155.4	138.5	115.7	86.1	53.2	22.0	2.5	0.0
135°	168.9	167.2	160.4	147.8	130.9	108.9	81.1	49.0	20.3	2.5	0.0
137.5°	159.6	158.7	152.0	139.3	123.3	102.2	75.2	45.6	18.6	2.5	0.0
140°	151.1	150.3	143.5	131.7	115.7	95.4	70.1	42.2	16.9	2.5	0.0
142.5°	141.9	141.0	135.1	123.3	108.1	88.7	65.0	38.8	15.2	1.7	0.0
145°	132.6	131.7	125.0	114.8	100.5	81.1	59.1	34.6	14.4	1.7	0.0
147.5°	123.3	121.6	116.5	106.4	92.0	74.3	53.2	31.2	12.7	1.7	0.8
150°	112.3	112.3	106.4	97.1	83.6	67.6	48.1	27.9	11.0	1.7	0.0
152.5°	102.2	101.3	96.3	87.8	75.2	60.0	42.2	24.5	10.1	1.7	0.8
155°	90.4	89.5	85.3	77.7	65.9	52.4	36.3	21.1	8.4	0.8	0.0
157.5°	78.5	78.5	75.2	67.6	57.4	44.8	31.2	17.7	6.8	0.8	0.0
160°	67.6	66.7	63.3	56.6	48.1	37.2	25.3	14.4	5.9	0.8	0.8
162.5°	55.7	54.9	52.4	46.4	38.8	30.4	20.3	11.8	4.2	0.8	0.8
165°	43.1	43.1	40.5	36.3	30.4	22.8	14.4	7.6	3.4	0.8	0.8
167.5°	31.2	31.2	30.4	26.2	21.1	14.4	8.4	5.1	2.5	0.8	0.8
170°	19.4	19.4	17.7	13.5	9.3	6.8	5.1	2.5	1.7	0.8	0.8
172.5°	5.9	5.1	5.1	4.2	3.4	2.5	1.7	1.7	0.8	0.8	0.8
175°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
177.5°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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: P226197

CATALOG NUMBER: FW-LD2-99-1250-35-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)