

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: P226082

Luminaire Tested: **FW-LD2-612-750-40-PC-R4-LGW**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P226082
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-LD2-612-750-40-PC-R4-LGW
Description: NIGHT CONDOR LED FLOODLIGHT
Light Source: (28) 4000 CCT, 80 CRI LEDS
ELO89N028E840M
Ballast/Driver: OSRAM
OT25WPRG1250C

Summary

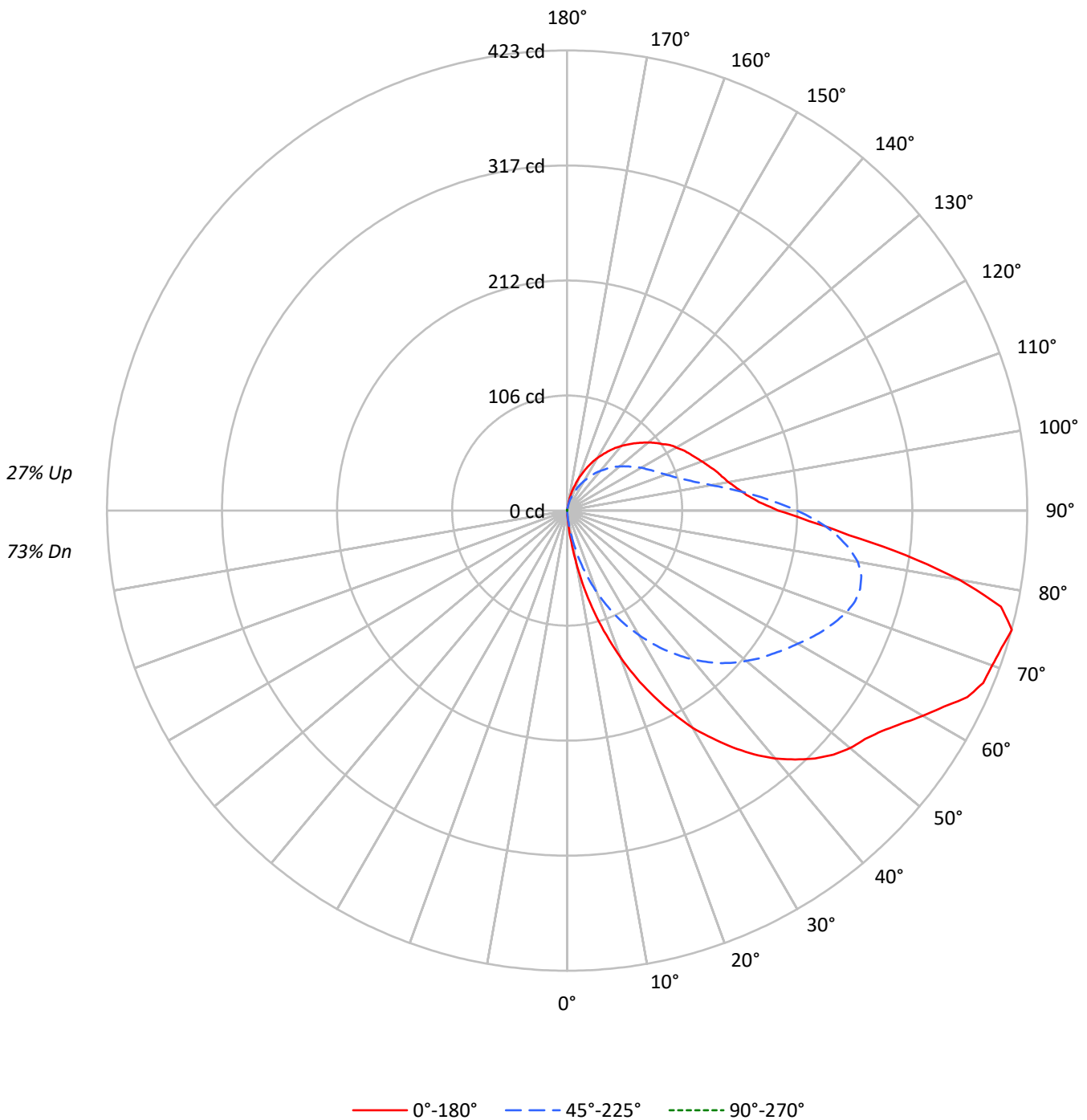
Lumens per Lamp: N/A
Luminaire Lumens: 807.0 lumens
Efficiency: N/A
Efficacy: 77.6 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: (L: 0 ' x W: 0.5 ' x H: 1 '
CIE Type: Semi-Direct

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-LD2-612-750-40-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°	7.4	0.9
20°-30°	23.4	2.9
30°-40°	45.5	5.6
40°-50°	69.4	8.6
50°-60°	91.7	11.4
60°-70°	114.7	14.2
70°-80°	127.9	15.9
80°-90°	104.8	13.0
90°-100°	69.2	8.6
100°-110°	48.9	6.1
110°-120°	37.5	4.6
120°-130°	28.1	3.5
130°-140°	19.3	2.4
140°-150°	11.5	1.4
150°-160°	5.4	0.7
160°-170°	1.5	0.2
170°-180°	0.1	0.0
0°-30°	31.5	3.9
0°-40°	77.0	9.5
0°-60°	238.1	29.5
0°-90°	585.5	72.6
90°-120°	155.6	19.3
90°-150°	214.5	26.6
90°-180°	221.0	27.4
0°-180°	807.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	0	0	0	0	0	
5°	13	6	0	0	0	2
15°	97	52	0	0	0	29
25°	188	107	0	0	0	88
35°	266	156	0	0	0	167
45°	322	198	0	0	0	249
55°	353	230	0	0	0	319
65°	406	260	0	0	0	399
75°	423	279	0	0	0	434
85°	260	248	0	0	0	236
90°	194	211	0	0	0	108
95°	165	170	0	0	0	132
105°	141	111	0	0	0	149
115°	124	87	0	0	0	123
125°	107	71	0	0	0	96
135°	87	56	0	0	0	68
145°	67	40	0	0	0	42
155°	44	24	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: P226082

CATALOG NUMBER: FW-LD2-612-750-40-PC-R4-LGW

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°	2.5	1.9	1.9	1.9	1.2	0.6	0.6	0.6	0.6	0.0	0.0
5°	13.0	12.4	11.8	10.5	8.1	5.6	3.1	1.2	0.6	0.0	0.0
7.5°	29.1	29.7	27.9	24.2	19.2	14.3	8.7	4.3	1.2	0.6	0.0
10°	50.2	50.2	47.7	42.1	34.1	25.4	16.1	8.1	1.9	0.6	0.0
12.5°	73.7	72.5	68.8	60.7	50.2	37.8	25.4	13.0	3.7	0.6	0.0
15°	96.7	94.8	89.9	81.2	68.2	52.1	34.7	18.6	6.2	0.6	0.0
17.5°	120.2	119.6	113.4	101.6	85.5	65.7	44.6	24.2	8.1	0.6	0.0
20°	143.8	142.5	134.5	121.5	102.9	79.9	55.1	30.4	10.5	0.6	0.0
22.5°	166.7	164.8	156.2	140.7	119.0	93.6	65.1	36.6	13.0	0.6	0.0
25°	188.4	186.5	177.8	159.3	135.7	107.2	75.0	42.8	16.1	0.6	0.0
27.5°	209.4	208.2	197.1	177.8	151.2	120.2	84.9	49.0	18.6	1.2	0.0
30°	230.5	228.0	216.3	194.6	166.1	132.0	94.8	55.1	21.1	1.2	0.0
32.5°	247.9	246.6	233.6	211.3	180.3	144.4	103.5	61.3	23.5	1.9	0.0
35°	265.8	264.6	251.0	227.4	194.6	156.2	112.8	66.9	26.0	1.9	0.0
37.5°	282.6	280.1	267.1	241.7	207.6	167.3	122.1	72.5	28.5	2.5	0.0
40°	297.4	295.6	281.3	255.9	220.6	178.5	130.1	76.8	30.4	2.5	0.0
42.5°	310.4	309.2	295.0	268.3	233.0	188.4	136.9	81.8	32.2	2.5	0.0
45°	322.2	320.4	306.1	280.1	244.1	198.3	143.8	86.1	34.1	2.5	0.0
47.5°	332.1	330.3	316.0	289.4	254.1	207.0	150.0	89.9	35.3	3.1	0.0
50°	339.6	338.3	325.3	299.9	263.4	215.0	156.2	92.9	37.2	3.1	0.0
52.5°	345.1	343.9	333.4	309.2	272.0	223.1	162.3	96.7	38.4	3.1	0.0
55°	353.2	352.0	341.4	318.5	281.3	229.9	167.3	99.8	40.3	3.1	0.0
57.5°	364.4	363.1	351.3	329.0	290.6	237.3	172.9	103.5	41.5	3.7	0.0
60°	377.4	376.1	363.1	338.3	299.9	244.8	178.5	107.2	43.4	3.7	0.0
62.5°	390.4	388.5	376.8	350.7	310.4	252.8	183.4	110.3	44.6	3.7	0.0
65°	405.9	403.4	388.5	361.9	319.7	260.3	189.0	113.4	45.9	3.7	0.0
67.5°	413.9	412.1	399.1	373.0	328.4	267.1	193.3	115.9	47.1	4.3	0.0
70°	415.8	414.5	406.5	381.1	335.9	273.3	197.7	119.0	48.3	4.3	0.0
72.5°	418.9	418.3	409.6	386.0	340.8	277.6	200.8	120.8	49.0	4.3	0.0
75°	423.2	420.7	407.7	384.8	342.0	278.8	202.6	121.5	49.6	4.3	0.0
77.5°	408.4	405.9	396.0	375.5	337.7	277.0	202.0	121.5	49.6	4.3	0.0
80°	366.2	367.5	369.9	359.4	327.8	271.4	198.3	119.6	48.3	4.3	0.0
82.5°	313.5	316.0	331.5	332.1	309.8	260.9	192.7	116.5	47.7	4.3	0.0
85°	260.3	263.4	285.0	301.2	288.8	247.9	184.7	112.2	45.9	4.3	0.0
87.5°	222.5	224.3	241.7	265.2	263.4	231.1	173.5	106.6	44.0	4.3	0.0
90°	194.0	195.8	208.8	231.1	236.7	211.3	161.7	100.4	41.5	3.7	0.0
92.5°	176.6	177.8	185.9	200.1	208.2	190.2	148.7	92.9	39.0	3.7	0.0
95°	165.4	165.4	169.2	177.8	182.2	170.4	135.1	85.5	36.6	3.7	0.0
97.5°	157.4	157.4	158.0	160.5	162.3	151.2	121.5	78.7	34.1	3.1	0.0
100°	150.6	150.0	149.3	148.1	145.6	134.5	109.1	71.9	31.6	3.1	0.0
102.5°	145.6	145.6	143.1	138.8	132.6	120.8	99.1	65.7	29.1	3.1	0.0
105°	141.3	140.7	137.6	131.4	123.9	110.9	90.5	60.7	26.6	3.1	0.0
107.5°	136.3	135.7	132.6	125.8	116.5	102.9	83.7	55.8	24.8	2.5	0.0
110°	132.0	132.0	127.6	120.8	110.3	96.7	77.5	52.1	23.5	2.5	0.0



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CATALOG NUMBER: FW-LD2-612-750-40-PC-R4-LGW

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	127.6	127.6	123.9	116.5	105.3	91.1	72.5	48.3	21.7	2.5	0.0
115°	123.9	123.3	119.6	112.2	101.0	86.8	68.2	45.2	20.4	1.9	0.0
117.5°	120.2	119.6	115.9	107.8	96.7	82.4	64.4	42.1	18.6	1.9	0.0
120°	115.9	115.3	111.5	103.5	92.3	78.7	60.7	39.7	17.4	1.9	0.0
122.5°	112.2	110.9	107.2	99.1	88.6	74.4	57.6	36.6	16.1	1.9	0.0
125°	106.6	106.6	102.2	94.8	84.3	70.6	53.9	34.1	14.3	1.2	0.0
127.5°	102.2	101.6	97.9	90.5	80.6	66.9	50.8	31.6	13.6	1.2	0.0
130°	97.3	96.7	92.9	86.1	76.2	63.2	47.7	29.7	12.4	1.2	0.0
132.5°	92.3	91.7	88.0	81.2	71.9	59.5	44.6	27.3	11.2	1.2	0.0
135°	87.4	87.4	83.0	76.2	67.5	55.8	41.5	25.4	9.9	1.2	0.0
137.5°	82.4	81.8	78.7	71.9	62.6	51.4	38.4	22.9	9.3	1.2	0.0
140°	77.5	76.8	73.1	66.9	58.2	47.7	35.3	21.1	8.1	0.6	0.0
142.5°	72.5	71.9	68.2	62.0	53.9	44.0	32.2	18.6	7.4	0.6	0.0
145°	66.9	66.3	63.2	57.0	49.0	39.7	28.5	16.7	6.8	0.6	0.0
147.5°	61.3	61.3	57.6	52.1	44.6	35.3	25.4	14.9	5.6	0.6	0.0
150°	55.8	55.8	52.1	47.1	39.7	31.6	22.3	13.0	5.0	0.6	0.0
152.5°	50.2	49.6	47.1	42.1	35.3	27.9	19.2	11.2	4.3	0.6	0.0
155°	44.0	44.0	40.9	37.2	31.0	24.2	16.7	9.3	3.7	0.6	0.0
157.5°	37.8	37.8	35.3	31.6	26.0	19.8	13.6	7.4	3.1	0.6	0.0
160°	32.2	31.6	29.7	26.6	21.7	16.7	11.2	6.2	2.5	0.6	0.6
162.5°	25.4	25.4	24.2	21.1	17.4	13.0	8.7	5.0	1.9	0.6	0.0
165°	19.8	19.8	18.6	16.1	13.6	9.9	6.2	3.1	1.2	0.6	0.0
167.5°	14.3	14.3	13.0	11.8	8.7	6.2	3.7	2.5	1.2	0.6	0.6
170°	7.4	7.4	6.8	5.6	4.3	3.1	1.9	1.2	0.6	0.6	0.6
172.5°	1.2	1.2	1.2	1.2	1.2	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: P226082

CATALOG NUMBER: FW-LD2-612-750-40-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)