

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: P226084

Luminaire Tested: **FW-LD2-612-1000-35-PC-R4-LGW**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P226084
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-LD2-612-1000-35-PC-R4-LGW
Description: NIGHT CONDOR LED FLOODLIGHT
Light Source: (28) 3500 CCT, 80 CRI LEDS
 EL089N028E835M
Ballast/Driver: OSRAM
 OT25WPRG1250C

Summary

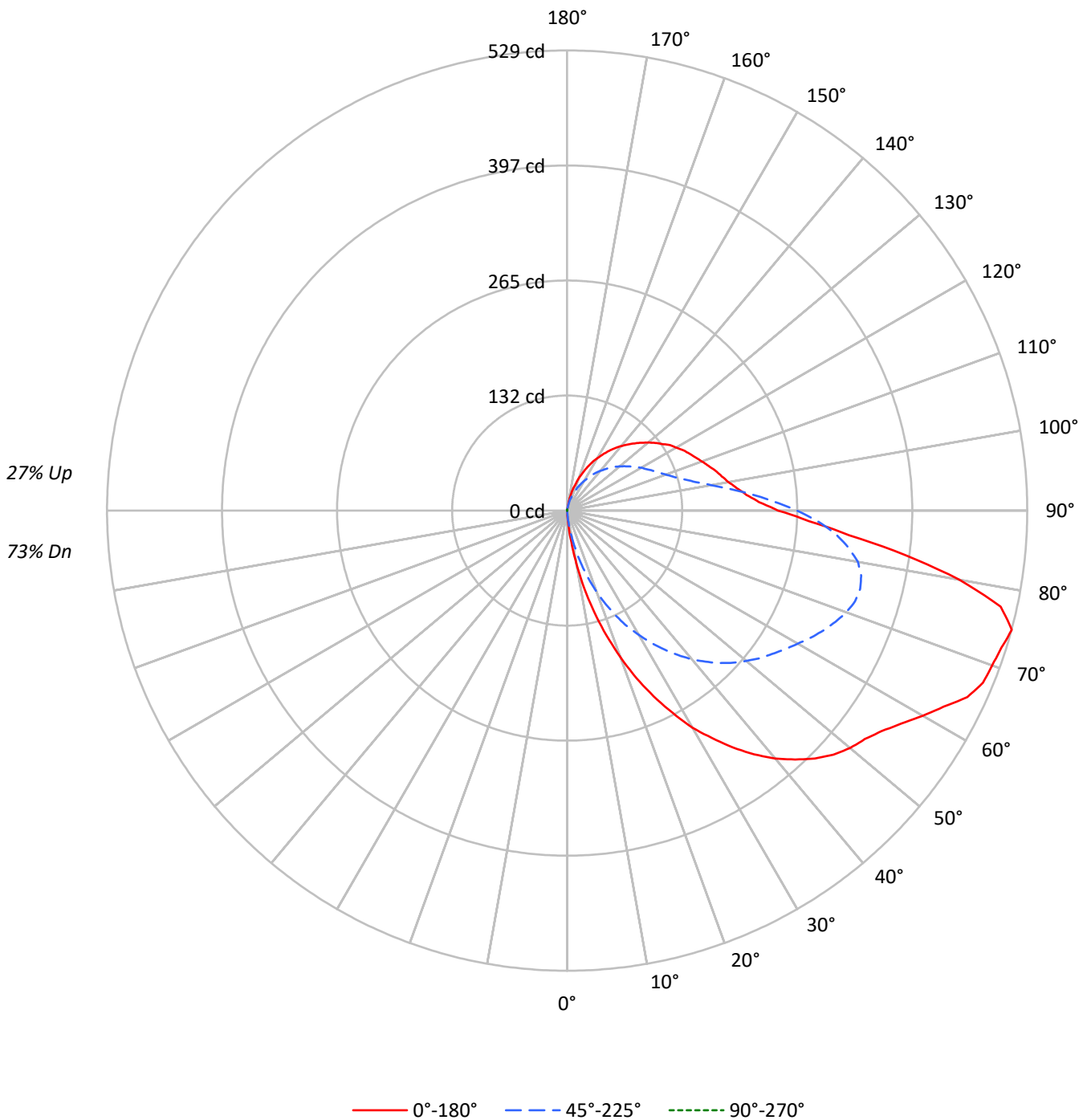
Lumens per Lamp: N/A
Luminaire Lumens: 1009.0 lumens
Efficiency: N/A
Efficacy: 77.0 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: (L: 0 ' x W: 0.5 ' x H: 1 '
CIE Type: Semi-Direct

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

TEST NUMBER: P226084

CATALOG NUMBER: FW-LD2-612-1000-35-PC-R4-LGW

Luminous Intensity Polar Plot





TEST NUMBER: P226084

CATALOG NUMBER: FW-LD2-612-1000-35-PC-R4-LGW

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°			



TEST NUMBER: P226084

CATALOG NUMBER: FW-LD2-612-1000-35-PC-R4-LGW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.7	0.1
10°-20°	9.3	0.9
20°-30°	29.3	2.9
30°-40°	56.9	5.6
40°-50°	86.8	8.6
50°-60°	114.6	11.4
60°-70°	143.4	14.2
70°-80°	160.0	15.9
80°-90°	131.1	13.0
90°-100°	86.5	8.6
100°-110°	61.1	6.1
110°-120°	46.9	4.6
120°-130°	35.1	3.5
130°-140°	24.1	2.4
140°-150°	14.4	1.4
150°-160°	6.8	0.7
160°-170°	1.9	0.2
170°-180°	0.1	0.0
<hr/>		
0°-30°	39.3	3.9
0°-40°	96.2	9.5
0°-60°	297.6	29.5
0°-90°	732.1	72.6
90°-120°	194.5	19.3
90°-150°	268.2	26.6
90°-180°	277.0	27.5
0°-180°	1009.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	0	0	0	0	0	
5°	16	7	0	0	0	3
15°	121	65	0	0	0	36
25°	236	134	0	0	0	110
35°	332	195	0	0	0	209
45°	403	248	0	0	0	311
55°	442	287	0	0	0	399
65°	508	325	0	0	0	499
75°	529	349	0	0	0	543
85°	325	310	0	0	0	295
90°	242	264	0	0	0	135
95°	207	213	0	0	0	166
105°	177	139	0	0	0	187
115°	155	108	0	0	0	154
125°	133	88	0	0	0	120
135°	109	70	0	0	0	85
145°	84	50	0	0	0	53
155°	55	30	0	0	0	26
165°	25	12	0	0	0	7
175°	0	1	0	0	0	0
180°	0	0	0	0	0	



TEST NUMBER: P226084

CATALOG NUMBER: FW-LD2-612-1000-35-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°	3.1	2.3	2.3	2.3	1.5	0.8	0.8	0.8	0.8	0.0	0.0
5°	16.3	15.5	14.7	13.2	10.1	7.0	3.9	1.5	0.8	0.0	0.0
7.5°	36.4	37.2	34.9	30.2	24.0	17.8	10.8	5.4	1.5	0.8	0.0
10°	62.8	62.8	59.7	52.7	42.6	31.8	20.1	10.1	2.3	0.8	0.0
12.5°	92.2	90.6	86.0	75.9	62.8	47.3	31.8	16.3	4.6	0.8	0.0
15°	120.9	118.5	112.3	101.5	85.2	65.1	43.4	23.2	7.7	0.8	0.0
17.5°	150.3	149.5	141.8	127.1	106.9	82.1	55.8	30.2	10.1	0.8	0.0
20°	179.7	178.2	168.1	151.9	128.6	99.9	69.0	38.0	13.2	0.8	0.0
22.5°	208.4	206.1	195.2	175.9	148.8	117.0	81.3	45.7	16.3	0.8	0.0
25°	235.5	233.2	222.4	199.1	169.7	134.0	93.7	53.5	20.1	0.8	0.0
27.5°	261.9	260.3	246.4	222.4	189.0	150.3	106.1	61.2	23.2	1.5	0.0
30°	288.2	285.1	270.4	243.3	207.6	165.0	118.5	69.0	26.3	1.5	0.0
32.5°	309.9	308.4	292.1	264.2	225.5	180.5	129.4	76.7	29.4	2.3	0.0
35°	332.4	330.8	313.8	284.3	243.3	195.2	141.0	83.7	32.5	2.3	0.0
37.5°	353.3	350.2	333.9	302.2	259.5	209.2	152.6	90.6	35.6	3.1	0.0
40°	371.9	369.6	351.7	320.0	275.8	223.1	162.7	96.1	38.0	3.1	0.0
42.5°	388.2	386.6	368.8	335.5	291.3	235.5	171.2	102.3	40.3	3.1	0.0
45°	402.9	400.6	382.7	350.2	305.3	247.9	179.7	107.7	42.6	3.1	0.0
47.5°	415.3	412.9	395.1	361.8	317.7	258.8	187.5	112.3	44.2	3.9	0.0
50°	424.6	423.0	406.7	375.0	329.3	268.8	195.2	116.2	46.5	3.9	0.0
52.5°	431.5	430.0	416.8	386.6	340.1	278.9	203.0	120.9	48.0	3.9	0.0
55°	441.6	440.1	426.9	398.2	351.7	287.4	209.2	124.7	50.4	3.9	0.0
57.5°	455.6	454.0	439.3	411.4	363.4	296.7	216.2	129.4	51.9	4.6	0.0
60°	471.8	470.3	454.0	423.0	375.0	306.0	223.1	134.0	54.2	4.6	0.0
62.5°	488.1	485.8	471.1	438.5	388.2	316.1	229.3	137.9	55.8	4.6	0.0
65°	507.5	504.4	485.8	452.5	399.8	325.4	236.3	141.8	57.3	4.6	0.0
67.5°	517.5	515.2	498.9	466.4	410.6	333.9	241.7	144.9	58.9	5.4	0.0
70°	519.9	518.3	508.2	476.5	419.9	341.7	247.1	148.8	60.4	5.4	0.0
72.5°	523.7	523.0	512.1	482.7	426.1	347.1	251.0	151.1	61.2	5.4	0.0
75°	529.2	526.1	509.8	481.1	427.7	348.6	253.3	151.9	62.0	5.4	0.0
77.5°	510.6	507.5	495.1	469.5	422.2	346.3	252.6	151.9	62.0	5.4	0.0
80°	457.9	459.4	462.5	449.4	409.8	339.3	247.9	149.5	60.4	5.4	0.0
82.5°	392.0	395.1	414.5	415.3	387.4	326.2	241.0	145.7	59.7	5.4	0.0
85°	325.4	329.3	356.4	376.5	361.0	309.9	230.9	140.2	57.3	5.4	0.0
87.5°	278.1	280.5	302.2	331.6	329.3	289.0	216.9	133.3	55.0	5.4	0.0
90°	242.5	244.8	261.1	289.0	296.0	264.2	202.2	125.5	51.9	4.6	0.0
92.5°	220.8	222.4	232.4	250.2	260.3	237.9	185.9	116.2	48.8	4.6	0.0
95°	206.9	206.9	211.5	222.4	227.8	213.1	168.9	106.9	45.7	4.6	0.0
97.5°	196.8	196.8	197.6	200.7	203.0	189.0	151.9	98.4	42.6	3.9	0.0
100°	188.3	187.5	186.7	185.2	182.1	168.1	136.4	89.9	39.5	3.9	0.0
102.5°	182.1	182.1	179.0	173.5	165.8	151.1	124.0	82.1	36.4	3.9	0.0
105°	176.6	175.9	172.0	164.2	155.0	138.7	113.1	75.9	33.3	3.9	0.0
107.5°	170.4	169.7	165.8	157.3	145.7	128.6	104.6	69.7	31.0	3.1	0.0
110°	165.0	165.0	159.6	151.1	137.9	120.9	96.8	65.1	29.4	3.1	0.0



TEST NUMBER: P226084

CATALOG NUMBER: FW-LD2-612-1000-35-PC-R4-LGW

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	159.6	159.6	155.0	145.7	131.7	113.9	90.6	60.4	27.1	3.1	0.0
115°	155.0	154.2	149.5	140.2	126.3	108.5	85.2	56.6	25.6	2.3	0.0
117.5°	150.3	149.5	144.9	134.8	120.9	103.0	80.6	52.7	23.2	2.3	0.0
120°	144.9	144.1	139.5	129.4	115.4	98.4	75.9	49.6	21.7	2.3	0.0
122.5°	140.2	138.7	134.0	124.0	110.8	93.0	72.1	45.7	20.1	2.3	0.0
125°	133.3	133.3	127.8	118.5	105.4	88.3	67.4	42.6	17.8	1.5	0.0
127.5°	127.8	127.1	122.4	113.1	100.7	83.7	63.5	39.5	17.0	1.5	0.0
130°	121.6	120.9	116.2	107.7	95.3	79.0	59.7	37.2	15.5	1.5	0.0
132.5°	115.4	114.7	110.0	101.5	89.9	74.4	55.8	34.1	13.9	1.5	0.0
135°	109.2	109.2	103.8	95.3	84.4	69.7	51.9	31.8	12.4	1.5	0.0
137.5°	103.0	102.3	98.4	89.9	78.3	64.3	48.0	28.7	11.6	1.5	0.0
140°	96.8	96.1	91.4	83.7	72.8	59.7	44.2	26.3	10.1	0.8	0.0
142.5°	90.6	89.9	85.2	77.5	67.4	55.0	40.3	23.2	9.3	0.8	0.0
145°	83.7	82.9	79.0	71.3	61.2	49.6	35.6	20.9	8.5	0.8	0.0
147.5°	76.7	76.7	72.1	65.1	55.8	44.2	31.8	18.6	7.0	0.8	0.0
150°	69.7	69.7	65.1	58.9	49.6	39.5	27.9	16.3	6.2	0.8	0.0
152.5°	62.8	62.0	58.9	52.7	44.2	34.9	24.0	13.9	5.4	0.8	0.0
155°	55.0	55.0	51.1	46.5	38.7	30.2	20.9	11.6	4.6	0.8	0.0
157.5°	47.3	47.3	44.2	39.5	32.5	24.8	17.0	9.3	3.9	0.8	0.0
160°	40.3	39.5	37.2	33.3	27.1	20.9	13.9	7.7	3.1	0.8	0.8
162.5°	31.8	31.8	30.2	26.3	21.7	16.3	10.8	6.2	2.3	0.8	0.0
165°	24.8	24.8	23.2	20.1	17.0	12.4	7.7	3.9	1.5	0.8	0.0
167.5°	17.8	17.8	16.3	14.7	10.8	7.7	4.6	3.1	1.5	0.8	0.8
170°	9.3	9.3	8.5	7.0	5.4	3.9	2.3	1.5	0.8	0.8	0.8
172.5°	1.5	1.5	1.5	1.5	1.5	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



TEST NUMBER: P226084

CATALOG NUMBER: FW-LD2-612-1000-35-PC-R4-LGW

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: P226084

CATALOG NUMBER: FW-LD2-612-1000-35-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)