

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: P226200

Luminaire Tested: **FW-LD2-99-1500-35-PC-R4-LGW**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P226200  
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-LD2-99-1500-35-PC-R4-LGW  
Description: NIGHT CONDOR LED FLOODLIGHT  
Light Source: (56) 3500 CCT, 80 CRI LEDS  
                  EL089N056E835M  
Ballast/Driver: OSRAM  
                  OT25WPRG1250C

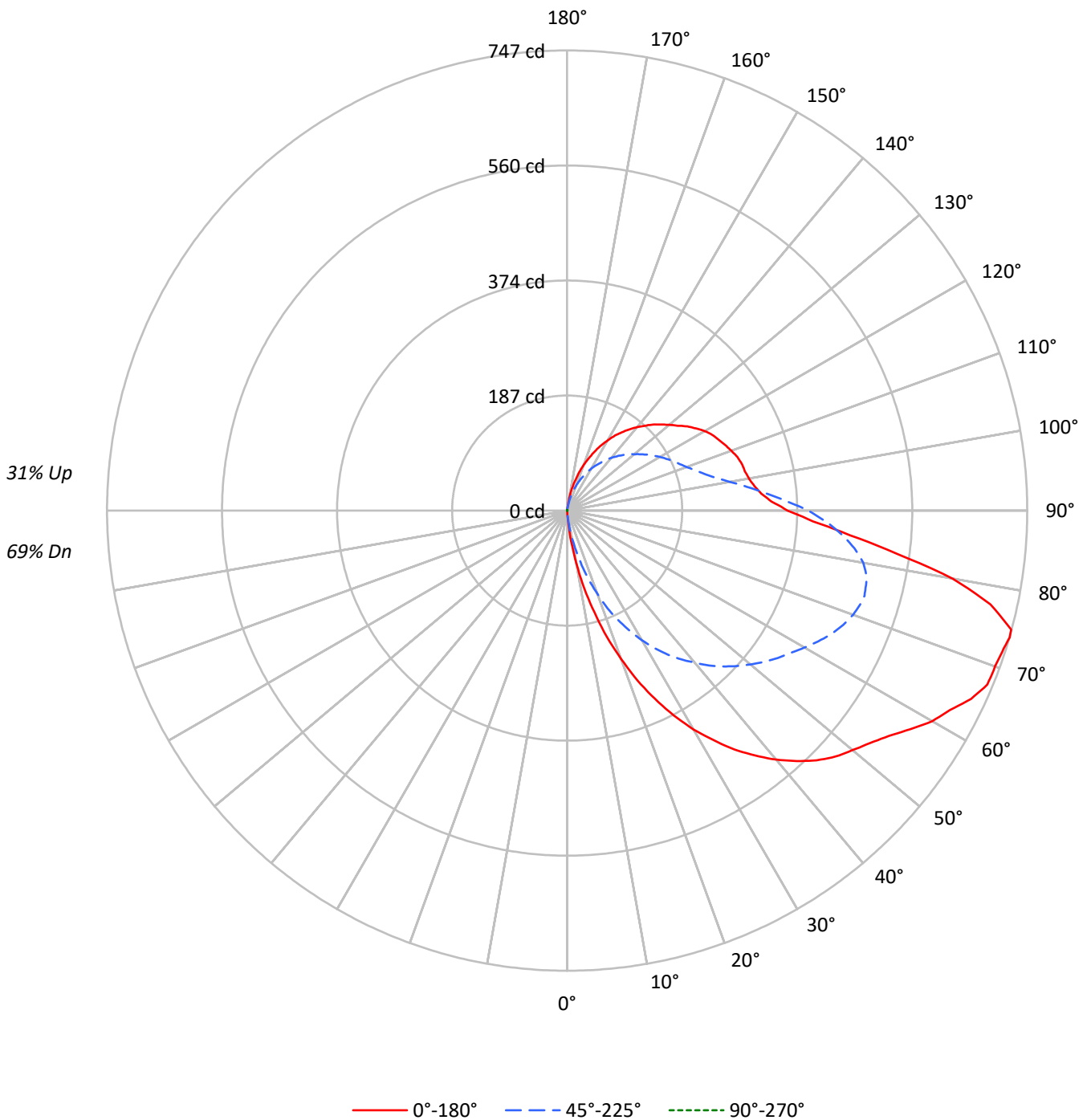
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1518.8 lumens  
Efficiency: N/A  
Efficacy: 90.9 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): 16.7  
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°	1.0	0.1
10°-20°	13.2	0.9
20°-30°	42.4	2.8
30°-40°	81.9	5.4
40°-50°	124.1	8.2
50°-60°	165.5	10.9
60°-70°	207.3	13.6
70°-80°	228.4	15.0
80°-90°	188.3	12.4
90°-100°	132.2	8.7
100°-110°	101.4	6.7
110°-120°	82.0	5.4
120°-130°	62.6	4.1
130°-140°	43.8	2.9
140°-150°	27.2	1.8
150°-160°	13.4	0.9
160°-170°	3.9	0.3
170°-180°	0.2	0.0
0°-30°	56.6	3.7
0°-40°	138.6	9.1
0°-60°	428.2	28.2
0°-90°	1052.1	69.3
90°-120°	315.6	20.8
90°-150°	449.2	29.6
90°-180°	467.0	30.7
0°-180°	1518.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	0	0	0	0	0	
5°	21	8	0	0	0	4
15°	171	92	0	0	0	51
25°	337	197	0	0	0	158
35°	474	286	0	0	0	298
45°	573	358	0	0	0	443
55°	638	417	0	0	0	575
65°	724	474	0	0	0	714
75°	746	501	0	0	0	762
85°	461	448	0	0	0	413
90°	358	391	0	0	0	198
95°	316	323	0	0	0	256
105°	294	230	0	0	0	310
115°	272	190	0	0	0	270
125°	238	158	0	0	0	213
135°	198	128	0	0	0	153
145°	155	95	0	0	0	98
155°	106	61	0	0	0	50
165°	50	27	1	0	0	15
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°	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
5°	20.8	19.8	17.8	14.8	11.9	7.9	4.0	2.0	1.0	1.0	0.0
7.5°	50.4	48.4	45.5	41.5	32.6	22.7	12.8	4.9	1.0	1.0	0.0
10°	88.0	85.0	82.0	72.2	58.3	43.5	26.7	12.8	3.0	1.0	0.0
12.5°	130.5	127.5	120.6	107.7	89.0	66.2	43.5	21.7	4.9	1.0	0.0
15°	171.0	171.0	161.1	144.3	120.6	91.9	60.3	31.6	8.9	1.0	0.0
17.5°	215.5	213.5	203.6	182.9	154.2	118.6	80.1	42.5	12.8	1.0	0.0
20°	256.0	256.0	243.2	220.4	184.8	144.3	98.8	54.4	17.8	1.0	0.0
22.5°	298.5	296.5	282.7	256.0	218.4	172.0	119.6	66.2	22.7	1.0	0.0
25°	337.1	335.1	319.3	289.6	248.1	196.7	138.4	78.1	27.7	1.0	0.0
27.5°	374.6	370.7	354.9	322.2	276.8	219.4	157.2	89.9	32.6	1.0	0.0
30°	410.2	406.3	387.5	351.9	303.5	243.2	174.0	101.8	37.6	2.0	0.0
32.5°	441.8	440.8	419.1	382.5	330.1	264.9	191.8	111.7	41.5	2.0	0.0
35°	473.5	470.5	449.7	408.2	352.9	285.7	207.6	121.6	46.5	3.0	0.0
37.5°	501.1	498.2	474.5	432.9	375.6	304.4	221.4	131.5	50.4	3.0	0.0
40°	527.8	522.9	499.2	456.7	397.4	322.2	234.3	139.4	54.4	4.0	0.0
42.5°	551.6	546.6	522.9	477.4	418.1	341.0	248.1	147.3	57.3	4.0	0.0
45°	573.3	568.4	542.7	497.2	436.9	357.8	260.0	155.2	61.3	4.9	0.0
47.5°	591.1	588.1	563.4	516.0	454.7	373.6	271.8	162.1	64.2	4.9	0.0
50°	604.9	602.0	580.2	535.7	472.5	388.5	282.7	169.0	67.2	5.9	0.0
52.5°	619.8	616.8	597.0	553.5	489.3	403.3	293.6	175.9	70.2	5.9	0.0
55°	637.5	635.6	614.8	572.3	507.1	417.1	304.4	182.9	74.1	6.9	0.0
57.5°	660.3	657.3	634.6	590.1	523.9	430.0	315.3	189.8	77.1	6.9	0.0
60°	684.0	680.1	656.3	611.8	541.7	444.8	325.2	196.7	80.1	6.9	0.0
62.5°	700.8	698.8	678.1	632.6	560.5	459.6	336.1	203.6	83.0	7.9	0.0
65°	723.5	719.6	696.9	651.4	578.2	473.5	346.0	209.6	86.0	7.9	0.0
67.5°	738.4	736.4	713.7	669.2	593.1	485.3	354.9	215.5	89.0	8.9	0.0
70°	739.4	738.4	724.5	680.1	603.9	494.2	362.8	220.4	90.9	8.9	0.0
72.5°	743.3	742.3	726.5	685.0	608.9	500.2	367.7	224.4	92.9	8.9	0.0
74°	747.3	743.3	723.5	683.0	609.9	502.1	368.7	225.4	92.9	9.9	0.0
75°	746.3	741.3	718.6	680.1	608.9	501.1	369.7	226.4	92.9	9.9	0.0
77.5°	703.8	705.8	692.9	661.3	599.0	498.2	367.7	224.4	92.9	9.9	0.0
80°	635.6	633.6	643.5	630.6	581.2	488.3	361.8	222.4	91.9	9.9	0.0
82.5°	540.7	547.6	575.3	585.2	552.5	470.5	352.9	217.5	89.9	9.9	0.0
85°	460.6	464.6	499.2	531.8	515.0	447.8	340.0	210.5	88.0	9.9	0.0
87.5°	399.3	402.3	431.0	472.5	474.5	421.1	323.2	201.6	85.0	9.9	0.0
90°	357.8	360.8	380.6	418.1	430.0	391.4	303.5	190.8	81.1	8.9	0.0
92.5°	332.1	334.1	346.0	372.6	385.5	355.8	282.7	179.9	77.1	8.9	0.0
95°	316.3	317.3	323.2	337.1	347.9	323.2	258.0	168.0	72.2	8.9	0.0
97.5°	306.4	306.4	308.4	314.3	315.3	294.6	237.2	155.2	68.2	7.9	0.0
100°	299.5	299.5	298.5	297.5	289.6	267.9	217.5	144.3	63.3	7.9	0.0
102.5°	295.5	295.5	292.6	285.7	272.8	246.1	199.7	133.4	59.3	6.9	0.0
105°	293.6	292.6	286.7	276.8	259.0	230.3	185.8	124.5	55.4	6.9	0.0
107.5°	289.6	288.6	281.7	268.9	248.1	217.5	174.0	116.6	52.4	5.9	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	283.7	282.7	275.8	261.0	239.2	206.6	164.1	109.7	49.4	5.9	0.0
112.5°	277.8	276.8	269.8	254.0	230.3	197.7	156.2	103.8	46.5	5.9	0.0
115°	271.8	271.8	262.9	246.1	222.4	189.8	148.3	96.9	43.5	4.9	0.0
117.5°	265.9	264.9	255.0	238.2	213.5	181.9	140.4	91.9	40.5	4.9	0.0
120°	258.0	257.0	247.1	229.3	205.6	174.0	133.4	86.0	37.6	4.9	0.0
122.5°	248.1	247.1	238.2	220.4	196.7	166.1	126.5	81.1	35.6	4.0	0.0
125°	238.2	237.2	227.3	211.5	188.8	158.2	119.6	76.1	32.6	4.0	0.0
127.5°	226.4	225.4	217.5	201.6	178.9	150.2	113.7	71.2	30.6	4.0	0.0
130°	216.5	215.5	206.6	191.8	171.0	142.3	107.7	66.2	27.7	3.0	0.0
132.5°	206.6	205.6	197.7	181.9	162.1	135.4	100.8	62.3	25.7	3.0	0.0
135°	197.7	195.7	187.8	173.0	153.2	127.5	94.9	57.3	23.7	3.0	0.0
137.5°	186.8	185.8	177.9	163.1	144.3	119.6	88.0	53.4	21.7	3.0	0.0
140°	176.9	175.9	168.0	154.2	135.4	111.7	82.0	49.4	19.8	3.0	0.0
142.5°	166.1	165.1	158.2	144.3	126.5	103.8	76.1	45.5	17.8	2.0	0.0
145°	155.2	154.2	146.3	134.4	117.6	94.9	69.2	40.5	16.8	2.0	0.0
147.5°	144.3	142.3	136.4	124.5	107.7	87.0	62.3	36.6	14.8	2.0	1.0
150°	131.5	131.5	124.5	113.7	97.9	79.1	56.3	32.6	12.8	2.0	0.0
152.5°	119.6	118.6	112.7	102.8	88.0	70.2	49.4	28.7	11.9	2.0	1.0
155°	105.8	104.8	99.8	90.9	77.1	61.3	42.5	24.7	9.9	1.0	0.0
157.5°	91.9	91.9	88.0	79.1	67.2	52.4	36.6	20.8	7.9	1.0	0.0
160°	79.1	78.1	74.1	66.2	56.3	43.5	29.7	16.8	6.9	1.0	1.0
162.5°	65.2	64.2	61.3	54.4	45.5	35.6	23.7	13.8	4.9	1.0	1.0
165°	50.4	50.4	47.4	42.5	35.6	26.7	16.8	8.9	4.0	1.0	1.0
167.5°	36.6	36.6	35.6	30.6	24.7	16.8	9.9	5.9	3.0	1.0	1.0
170°	22.7	22.7	20.8	15.8	10.9	7.9	5.9	3.0	2.0	1.0	1.0
172.5°	6.9	5.9	5.9	4.9	4.0	3.0	2.0	2.0	1.0	1.0	1.0
175°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
177.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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
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





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CATALOG NUMBER: FW-LD2-99-1500-35-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)