

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: P551484

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-82-86-ED1D**

Issue Date: 7/9/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P551484  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-248-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FCC-X-2-LD4-2LO-30-UNV-82-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

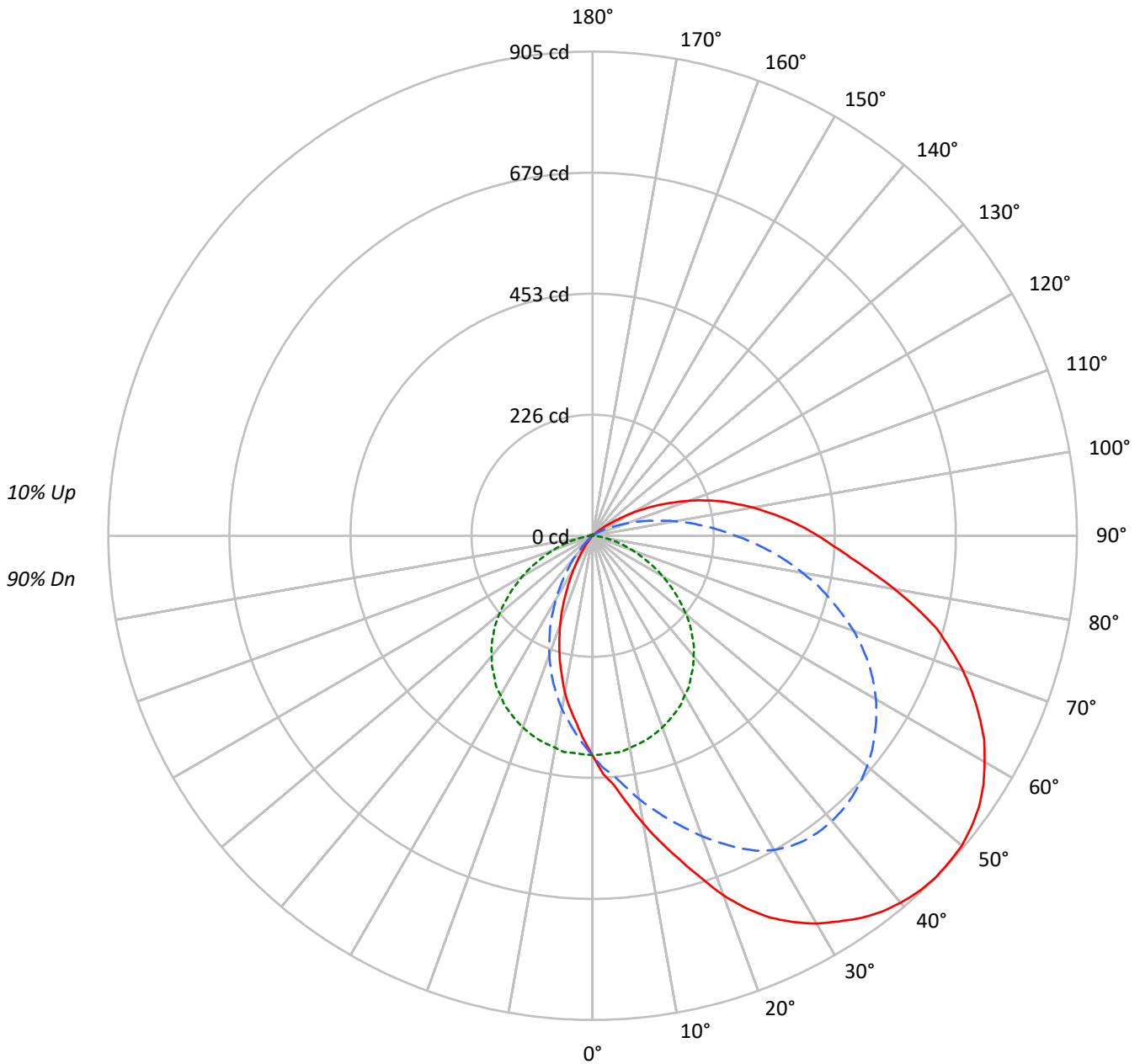
Lumens per Lamp: N/A  
Luminaire Lumens: 2029.0 lumens  
Efficiency: N/A  
Efficacy: 86.3 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 23.5  
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: P551484

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-86-ED1D

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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	50	30	10	0
RCR																					
0	117	117	117	117	113	113	113	113	105	105	105	99	99	99	93	93	93	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	4418	4418	4418
5°	4850	4353	3632
10°	5488	4300	2993
15°	6150	4245	2333
20°	6936	4175	1717
25°	7588	4095	1128
30°	8073	3988	636
35°	8493	3873	280
40°	8865	3730	67
45°	9184	3552	0
50°	9452	3314	0
55°	9656	3014	0
60°	9759	2665	0
65°	9799	2268	0
70°	9767	1848	0
75°	9642	1364	7
80°	9252	834	42
85°	8942	397	57



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.3	1.9
10°-20°	117.7	5.8
20°-30°	190.6	9.4
30°-40°	244.9	12.1
40°-50°	277.2	13.7
50°-60°	287.2	14.2
60°-70°	270.8	13.3
70°-80°	227.0	11.2
80°-90°	164.5	8.1
90°-100°	108.1	5.3
100°-110°	62.4	3.1
110°-120°	27.6	1.4
120°-130°	7.5	0.4
130°-140°	1.7	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	347.6	17.1
0°-40°	592.5	29.2
0°-60°	1156.9	57.0
0°-90°	1819.2	89.7
90°-120°	198.1	9.8
90°-150°	208.5	10.3
90°-180°	210.0	10.3
0°-180°	2029.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	410	410	410	410	410	
5°	468	450	407	370	351	47
15°	626	549	394	284	237	180
25°	788	644	365	187	117	364
35°	873	694	320	91	29	547
45°	905	687	262	21	0	699
55°	882	644	189	0	0	788
65°	797	570	113	0	0	789
75°	664	460	48	0	0	697
85°	486	333	8	2	3	415
90°	421	267	2	3	4	231
95°	362	209	1	4	5	284
105°	249	108	1	3	4	263
115°	135	36	2	2	3	136
125°	40	5	2	2	2	40
135°	2	2	3	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	3	2	0	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4
2.5°	444.9	444.4	442.8	440.2	436.6	430.3	425.1	420.4	414.1	408.8	398.9
5°	468.5	465.8	463.7	461.1	452.8	447.0	437.6	427.1	417.2	407.3	387.4
7.5°	506.1	501.9	498.8	491.5	480.0	466.9	452.2	442.3	435.5	407.8	373.8
10°	546.4	542.7	536.4	523.3	509.2	490.4	469.5	446.0	425.1	402.1	361.8
12.5°	586.1	580.9	572.0	555.2	535.4	511.8	483.1	455.4	425.6	398.4	347.7
15°	625.8	620.1	610.7	590.3	564.1	533.3	498.3	463.2	428.2	393.7	333.0
17.5°	669.2	661.4	647.3	624.3	591.3	553.1	511.8	469.5	427.1	387.9	317.4
20°	715.7	704.8	689.6	658.8	620.1	575.1	525.4	475.8	426.6	381.1	299.6
22.5°	754.4	743.5	726.7	694.8	648.3	593.4	536.9	480.0	424.5	373.3	282.8
25°	787.9	779.0	760.7	724.1	675.0	612.8	547.9	483.1	421.4	364.9	265.1
27.5°	814.0	805.7	785.3	747.6	697.4	630.0	556.3	484.7	417.2	356.6	246.8
30°	837.0	828.7	804.1	765.4	712.6	643.6	564.7	485.2	412.0	344.0	226.9
32.5°	854.8	847.0	821.9	780.6	723.1	653.0	569.4	484.7	405.2	335.1	205.5
35°	872.6	864.8	835.5	791.6	730.9	657.2	573.0	482.0	396.8	320.5	185.1
37.5°	886.2	877.3	847.5	798.9	734.6	658.2	572.5	478.4	387.9	308.5	164.7
40°	895.6	886.2	854.3	803.1	735.6	656.7	568.3	472.1	377.5	293.3	143.3
42.5°	901.9	891.4	857.4	809.3	733.5	652.5	562.0	464.3	366.0	280.2	122.9
45°	905.0	894.0	858.0	804.1	729.9	644.6	552.6	454.3	353.4	262.5	102.5
47.5°	903.4	891.4	855.3	798.4	723.1	636.3	542.2	442.3	338.3	246.8	83.1
50°	900.8	888.3	849.6	791.0	713.7	625.8	530.7	427.7	322.6	227.4	65.9
52.5°	892.5	879.9	843.3	780.6	702.7	613.8	515.0	412.5	305.9	208.6	50.2
55°	882.0	870.5	832.3	771.2	688.6	599.2	500.3	396.3	289.6	189.3	36.1
57.5°	865.8	855.3	818.7	756.0	674.4	583.0	484.1	378.5	269.3	169.9	25.1
60°	845.9	835.5	799.9	738.8	658.2	564.7	466.4	360.2	251.0	150.6	15.7
62.5°	825.0	815.1	778.0	717.3	637.8	545.3	447.0	341.9	231.6	132.8	9.4
65°	797.3	787.9	754.4	691.7	615.4	524.4	425.6	320.0	211.7	112.9	5.2
67.5°	768.0	759.7	725.7	668.2	589.2	501.4	403.6	298.5	190.8	95.7	2.6
70°	736.7	726.2	694.8	636.3	562.6	475.2	379.6	276.6	171.0	78.9	0.0
72.5°	700.1	692.2	661.9	606.5	531.7	447.5	355.0	252.5	149.0	62.7	0.5
75°	664.5	654.6	626.9	574.6	501.4	418.3	327.8	230.0	127.6	48.1	0.5
77.5°	618.5	615.4	589.2	538.5	472.6	390.0	298.0	202.9	107.2	34.5	0.5
80°	572.5	569.4	549.0	502.4	439.2	356.6	270.3	177.2	87.3	23.0	0.5
82.5°	527.0	522.8	503.5	464.8	405.2	328.3	241.5	151.6	69.0	14.1	0.5
85°	486.2	481.0	460.1	424.5	370.2	296.4	211.7	126.5	51.2	7.8	1.0
87.5°	451.2	447.5	424.5	387.9	334.6	266.6	185.6	102.5	36.1	3.7	1.6
90°	421.4	413.6	393.2	354.5	301.1	233.7	157.9	82.1	24.0	2.1	2.1
92.5°	392.1	385.3	362.8	323.1	271.3	205.5	131.2	62.7	15.2	1.0	2.6
95°	361.8	354.5	332.5	295.9	241.0	176.7	107.7	46.0	8.4	1.0	2.6
97.5°	332.0	325.2	302.2	265.6	213.8	151.6	85.2	32.4	4.2	1.0	2.1
100°	304.3	296.4	275.5	238.9	186.6	126.5	65.9	20.9	2.6	1.0	2.1
102.5°	275.0	268.7	247.3	211.7	158.4	103.0	49.1	13.1	1.0	1.0	1.6
105°	248.9	241.0	220.1	183.5	134.9	81.0	34.5	7.8	1.0	1.0	1.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	162.1	155.8	137.5	106.7	68.5	31.9	9.4	1.6	1.6	1.6	1.6
115°	135.4	126.0	109.8	82.6	50.7	20.9	4.7	1.6	1.6	1.6	1.6
117.5°	108.2	100.4	88.9	62.7	33.5	13.6	2.6	1.6	1.6	1.6	1.6
120°	84.7	77.4	64.3	43.4	22.5	7.8	1.0	1.6	1.6	1.6	1.6
122.5°	60.6	54.9	43.4	28.2	13.6	3.7	1.6	1.6	2.1	2.1	1.6
125°	40.3	37.1	28.8	17.3	8.4	1.6	1.6	1.6	2.1	2.1	1.6
127.5°	26.1	23.5	16.7	9.9	3.7	1.6	1.6	2.1	2.1	2.1	1.6
130°	14.6	13.1	9.9	5.8	1.6	1.6	1.6	2.1	2.1	2.1	1.6
132.5°	8.4	7.8	5.2	1.0	1.6	1.6	1.6	2.1	2.1	2.1	2.1
135°	2.1	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.1
137.5°	0.5	0.5	1.0	1.0	1.6	1.6	2.1	2.6	2.6	2.6	2.1
140°	0.5	0.5	1.0	1.6	1.6	1.6	2.1	2.6	2.6	2.6	2.1
142.5°	0.5	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.1	2.1
145°	0.5	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.1	2.1	2.1
147.5°	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.1	2.1
150°	0.5	1.0	1.0	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.1
152.5°	0.5	1.0	1.0	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.1
155°	1.0	1.0	1.0	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.6
157.5°	1.0	1.0	1.0	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.6
160°	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
162.5°	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
165°	1.0	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.1	2.1	2.1
167.5°	1.0	1.0	1.0	1.6	1.6	1.6	2.1	2.1	2.1	2.1	2.1
170°	1.0	1.0	1.0	1.6	1.6	1.6	2.1	2.6	2.6	2.6	2.6
172.5°	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.6
175°	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.6
177.5°	0.5	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.1
180°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	410.4	410.4	410.4
2.5°	390.6	383.2	381.1
5°	369.6	357.6	350.8
7.5°	348.7	332.5	324.7
10°	329.4	306.4	298.0
12.5°	306.4	279.7	266.6
15°	284.4	249.9	237.4
17.5°	259.8	221.2	206.5
20°	236.8	192.4	177.2
22.5°	210.7	164.2	147.4
25°	187.2	135.9	117.1
27.5°	161.0	107.2	91.0
30°	136.5	82.1	65.9
32.5°	112.9	60.1	45.5
35°	91.0	40.8	28.8
37.5°	70.1	25.1	14.6
40°	50.7	13.1	6.8
42.5°	34.0	6.3	3.7
45°	20.9	3.1	0.0
47.5°	12.0	0.0	0.0
50°	6.3	0.0	0.0
52.5°	2.6	0.0	0.0
55°	0.0	0.0	0.0
57.5°	0.0	0.0	0.0
60°	0.0	0.0	0.0
62.5°	0.0	0.0	0.0
65°	0.0	0.0	0.0
67.5°	0.0	0.0	0.0
70°	0.0	0.0	0.0
72.5°	0.0	0.0	0.0
75°	0.5	0.5	0.5
77.5°	0.5	1.0	1.6
80°	1.0	2.1	2.6
82.5°	2.1	2.6	2.6
85°	2.1	2.6	3.1
87.5°	2.6	3.1	3.7
90°	3.1	3.7	3.7
92.5°	3.1	4.2	4.2
95°	3.7	4.2	4.7
97.5°	4.2	4.7	4.7
100°	3.7	4.7	5.2
102.5°	3.1	4.7	4.7
105°	2.6	3.7	4.2





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.1	2.6	2.6
115°	1.6	2.1	2.6
117.5°	1.6	2.1	2.1
120°	1.6	1.6	2.1
122.5°	1.6	1.6	2.1
125°	1.6	1.6	2.1
127.5°	2.1	1.6	1.6
130°	1.6	1.6	1.6
132.5°	2.1	1.6	1.6
135°	2.1	1.6	1.6
137.5°	2.1	1.6	1.6
140°	2.1	1.6	1.6
142.5°	2.1	1.6	1.6
145°	1.6	1.6	1.6
147.5°	1.6	1.6	1.6
150°	1.6	1.6	1.0
152.5°	1.6	1.0	1.0
155°	1.6	1.0	0.5
157.5°	2.1	1.0	0.5
160°	1.6	1.0	0.5
162.5°	1.6	1.0	0.5
165°	1.6	1.0	0.0
167.5°	1.6	1.0	0.5
170°	1.6	1.0	0.5
172.5°	1.6	1.0	0.5
175°	1.6	0.5	0.5
177.5°	1.6	0.5	0.5
180°	1.6	1.6	1.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180°    - - 45°-225°    - - - - 90°-270°







107.5°	219.6	213.3	192.4	157.9	110.3	61.7	23.0	4.2	1.0	1.6	1.6
110°	191.4	186.1	164.7	131.2	88.9	46.0	15.2	2.6	1.6	1.6	1.6







107.5°	2.1	3.1	3.7
110°	2.1	2.6	3.1



(END OF REPORT)