

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: P551596

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-81-86-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: P551596  
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-40-UNV-81-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

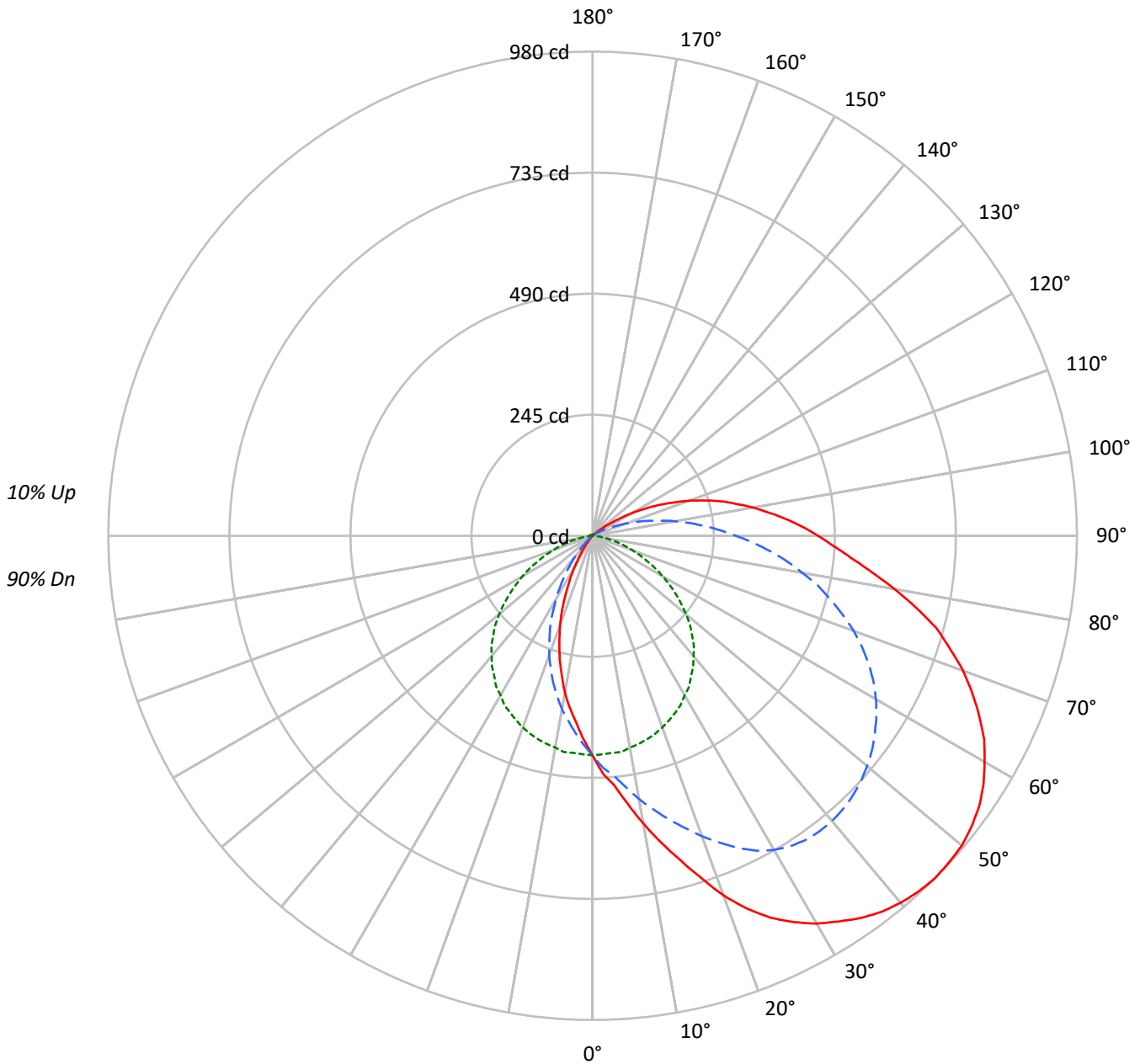
Lumens per Lamp: N/A  
Luminaire Lumens: 2197.0 lumens  
Efficiency: N/A  
Efficacy: 93.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 23.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P551596

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-81-86-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°	4783	4783	4783
5°	5251	4713	3933
10°	5942	4655	3241
15°	6659	4597	2526
20°	7511	4522	1860
25°	8216	4434	1221
30°	8742	4318	688
35°	9196	4193	303
40°	9599	4039	73
45°	9944	3846	0
50°	10235	3590	0
55°	10456	3263	0
60°	10568	2885	0
65°	10611	2456	0
70°	10576	2003	0
75°	10441	1478	9
80°	10018	903	45
85°	9683	432	63



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.6	1.9
10°-20°	127.5	5.8
20°-30°	206.4	9.4
30°-40°	265.1	12.1
40°-50°	300.1	13.7
50°-60°	310.9	14.2
60°-70°	293.3	13.3
70°-80°	245.8	11.2
80°-90°	178.1	8.1
90°-100°	117.1	5.3
100°-110°	67.6	3.1
110°-120°	29.8	1.4
120°-130°	8.1	0.4
130°-140°	1.9	0.1
140°-150°	1.2	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	376.4	17.1
0°-40°	641.6	29.2
0°-60°	1252.7	57.0
0°-90°	1969.8	89.7
90°-120°	214.5	9.8
90°-150°	225.7	10.3
90°-180°	227.0	10.3
0°-180°	2197.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	444	444	444	444	444	
5°	507	487	441	400	380	51
15°	678	594	426	308	257	195
25°	853	697	395	203	127	394
35°	945	752	347	98	31	593
45°	980	744	284	23	0	757
55°	955	697	205	0	0	853
65°	863	617	122	0	0	854
75°	720	498	52	1	1	755
85°	526	361	8	2	3	450
90°	456	290	2	3	4	250
95°	392	226	1	4	5	307
105°	270	117	1	3	4	284
115°	147	39	2	2	3	147
125°	44	5	2	2	2	44
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	2	1	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°	444.4	444.4	444.4	444.4	444.4	444.4	444.4	444.4	444.4	444.4	444.4
2.5°	481.8	481.2	479.5	476.7	472.7	465.9	460.3	455.2	448.4	442.7	431.9
5°	507.2	504.4	502.1	499.3	490.3	484.0	473.8	462.5	451.8	441.0	419.5
7.5°	548.0	543.5	540.1	532.1	519.7	505.5	489.7	478.9	471.6	441.6	404.8
10°	591.6	587.6	580.8	566.7	551.4	531.0	508.4	482.9	460.3	435.3	391.8
12.5°	634.6	629.0	619.3	601.2	579.7	554.2	523.1	493.1	460.8	431.4	376.5
15°	677.6	671.4	661.2	639.1	610.8	577.4	539.5	501.6	463.6	426.3	360.6
17.5°	724.6	716.1	700.9	675.9	640.3	598.9	554.2	508.4	462.5	420.1	343.6
20°	775.0	763.1	746.7	713.3	671.4	622.7	568.9	515.2	461.9	412.7	324.4
22.5°	816.9	805.0	786.9	752.4	702.0	642.5	581.4	519.7	459.7	404.2	306.3
25°	853.1	843.5	823.7	784.1	730.9	663.5	593.3	523.1	456.3	395.1	287.0
27.5°	881.4	872.4	850.3	809.5	755.2	682.2	602.3	524.8	451.8	386.1	267.2
30°	906.4	897.3	870.7	828.8	771.6	696.9	611.4	525.4	446.1	372.5	245.7
32.5°	925.6	917.1	889.9	845.2	782.9	707.1	616.5	524.8	438.7	362.9	222.5
35°	944.8	936.4	904.7	857.1	791.4	711.6	620.5	522.0	429.7	347.0	200.4
37.5°	959.6	949.9	917.7	865.0	795.4	712.7	619.9	518.0	420.1	334.0	178.3
40°	969.8	959.6	925.0	869.6	796.5	711.0	615.4	511.2	408.7	317.6	155.1
42.5°	976.5	965.2	928.4	876.3	794.3	706.5	608.6	502.7	396.3	303.4	133.0
45°	979.9	968.1	929.0	870.7	790.3	698.0	598.4	492.0	382.7	284.2	111.0
47.5°	978.2	965.2	926.2	864.5	782.9	689.0	587.1	478.9	366.3	267.2	90.0
50°	975.4	961.8	919.9	856.5	772.7	677.6	574.6	463.1	349.3	246.3	71.3
52.5°	966.4	952.8	913.1	845.2	760.9	664.6	557.6	446.7	331.2	225.9	54.3
55°	955.0	942.6	901.3	835.0	745.6	648.8	541.8	429.1	313.6	204.9	39.1
57.5°	937.5	926.2	886.5	818.6	730.3	631.2	524.2	409.9	291.5	184.0	27.2
60°	916.0	904.7	866.2	799.9	712.7	611.4	505.0	390.1	271.7	163.0	17.0
62.5°	893.3	882.6	842.4	776.7	690.7	590.5	484.0	370.2	250.8	143.8	10.2
65°	863.3	853.1	816.9	749.0	666.3	567.8	460.8	346.5	229.3	122.3	5.7
67.5°	831.6	822.6	785.8	723.5	638.0	542.9	437.0	323.3	206.6	103.6	2.8
70°	797.7	786.3	752.4	689.0	609.1	514.6	411.0	299.5	185.1	85.5	0.0
72.5°	758.0	749.5	716.7	656.7	575.7	484.6	384.4	273.4	161.3	67.9	0.6
75°	719.5	708.8	678.8	622.2	542.9	452.9	355.0	249.1	138.1	52.1	0.6
77.5°	669.7	666.3	638.0	583.1	511.8	422.3	322.7	219.7	116.1	37.4	0.6
80°	619.9	616.5	594.4	544.0	475.5	386.1	292.7	191.9	94.5	24.9	0.6
82.5°	570.6	566.1	545.2	503.3	438.7	355.5	261.5	164.2	74.7	15.3	0.6
85°	526.5	520.8	498.2	459.7	400.8	321.0	229.3	137.0	55.5	8.5	1.1
87.5°	488.6	484.6	459.7	420.1	362.3	288.7	201.0	111.0	39.1	4.0	1.7
90°	456.3	447.8	425.7	383.8	326.1	253.1	171.0	88.9	26.0	2.3	2.3
92.5°	424.6	417.2	392.9	349.9	293.8	222.5	142.1	67.9	16.4	1.1	2.8
95°	391.8	383.8	360.0	320.4	261.0	191.3	116.6	49.8	9.1	1.1	2.8
97.5°	359.5	352.1	327.2	287.6	231.5	164.2	92.3	35.1	4.5	1.1	2.3
100°	329.5	321.0	298.3	258.7	202.1	137.0	71.3	22.6	2.8	1.1	2.3
102.5°	297.8	291.0	267.8	229.3	171.5	111.5	53.2	14.2	1.1	1.1	1.7
105°	269.5	261.0	238.3	198.7	146.1	87.7	37.4	8.5	1.1	1.1	1.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	175.5	168.7	148.9	115.5	74.2	34.5	10.2	1.7	1.7	1.7	1.7
115°	146.6	136.4	118.9	89.4	54.9	22.6	5.1	1.7	1.7	1.7	1.7
117.5°	117.2	108.7	96.2	67.9	36.2	14.7	2.8	1.7	1.7	1.7	1.7
120°	91.7	83.8	69.6	47.0	24.3	8.5	1.1	1.7	1.7	1.7	1.7
122.5°	65.7	59.4	47.0	30.6	14.7	4.0	1.7	1.7	2.3	2.3	1.7
125°	43.6	40.2	31.1	18.7	9.1	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	28.3	25.5	18.1	10.8	4.0	1.7	1.7	2.3	2.3	2.3	1.7
130°	15.9	14.2	10.8	6.2	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.1	8.5	5.7	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3
137.5°	0.6	0.6	1.1	1.1	1.7	1.7	2.3	2.8	2.8	2.8	2.3
140°	0.6	0.6	1.1	1.7	1.7	1.7	2.3	2.8	2.8	2.8	2.3
142.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3	2.3
145°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.3	2.3	2.3
147.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3	2.3
150°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.3
152.5°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.3
155°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.8
157.5°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.8
160°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.1	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.8	2.8	2.8	2.8
172.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.8
175°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.8
177.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.3
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	444.4	444.4	444.4
2.5°	422.9	415.0	412.7
5°	400.2	387.2	379.9
7.5°	377.6	360.0	351.6
10°	356.7	331.7	322.7
12.5°	331.7	302.9	288.7
15°	308.0	270.6	257.0
17.5°	281.4	239.5	223.6
20°	256.5	208.3	191.9
22.5°	228.1	177.8	159.6
25°	202.7	147.2	126.8
27.5°	174.4	116.1	98.5
30°	147.8	88.9	71.3
32.5°	122.3	65.1	49.3
35°	98.5	44.2	31.1
37.5°	75.9	27.2	15.9
40°	54.9	14.2	7.4
42.5°	36.8	6.8	4.0
45°	22.6	3.4	0.0
47.5°	13.0	0.0	0.0
50°	6.8	0.0	0.0
52.5°	2.8	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°	0.6	0.6	0.6
77.5°	0.6	1.1	1.7
80°	1.1	2.3	2.8
82.5°	2.3	2.8	2.8
85°	2.3	2.8	3.4
87.5°	2.8	3.4	4.0
90°	3.4	4.0	4.0
92.5°	3.4	4.5	4.5
95°	4.0	4.5	5.1
97.5°	4.5	5.1	5.1
100°	4.0	5.1	5.7
102.5°	3.4	5.1	5.1
105°	2.8	4.0	4.5





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.3	2.8	2.8
115°	1.7	2.3	2.8
117.5°	1.7	2.3	2.3
120°	1.7	1.7	2.3
122.5°	1.7	1.7	2.3
125°	1.7	1.7	2.3
127.5°	2.3	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.3	1.7	1.7
135°	2.3	1.7	1.7
137.5°	2.3	1.7	1.7
140°	2.3	1.7	1.7
142.5°	2.3	1.7	1.7
145°	1.7	1.7	1.7
147.5°	1.7	1.7	1.7
150°	1.7	1.7	1.1
152.5°	1.7	1.1	1.1
155°	1.7	1.1	0.6
157.5°	2.3	1.1	0.6
160°	1.7	1.1	0.6
162.5°	1.7	1.1	0.6
165°	1.7	1.1	0.0
167.5°	1.7	1.1	0.6
170°	1.7	1.1	0.6
172.5°	1.7	1.1	0.6
175°	1.7	0.6	0.6
177.5°	1.7	0.6	0.6
180°	1.7	1.7	1.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	237.8	231.0	208.3	171.0	119.5	66.8	24.9	4.5	1.1	1.7	1.7
110°	207.2	201.5	178.3	142.1	96.2	49.8	16.4	2.8	1.7	1.7	1.7







107.5°	2.3	3.4	4.0
110°	2.3	2.8	3.4



(END OF REPORT)