

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: P551609

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-82-85-ED1D-90**

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: P551609
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-82-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

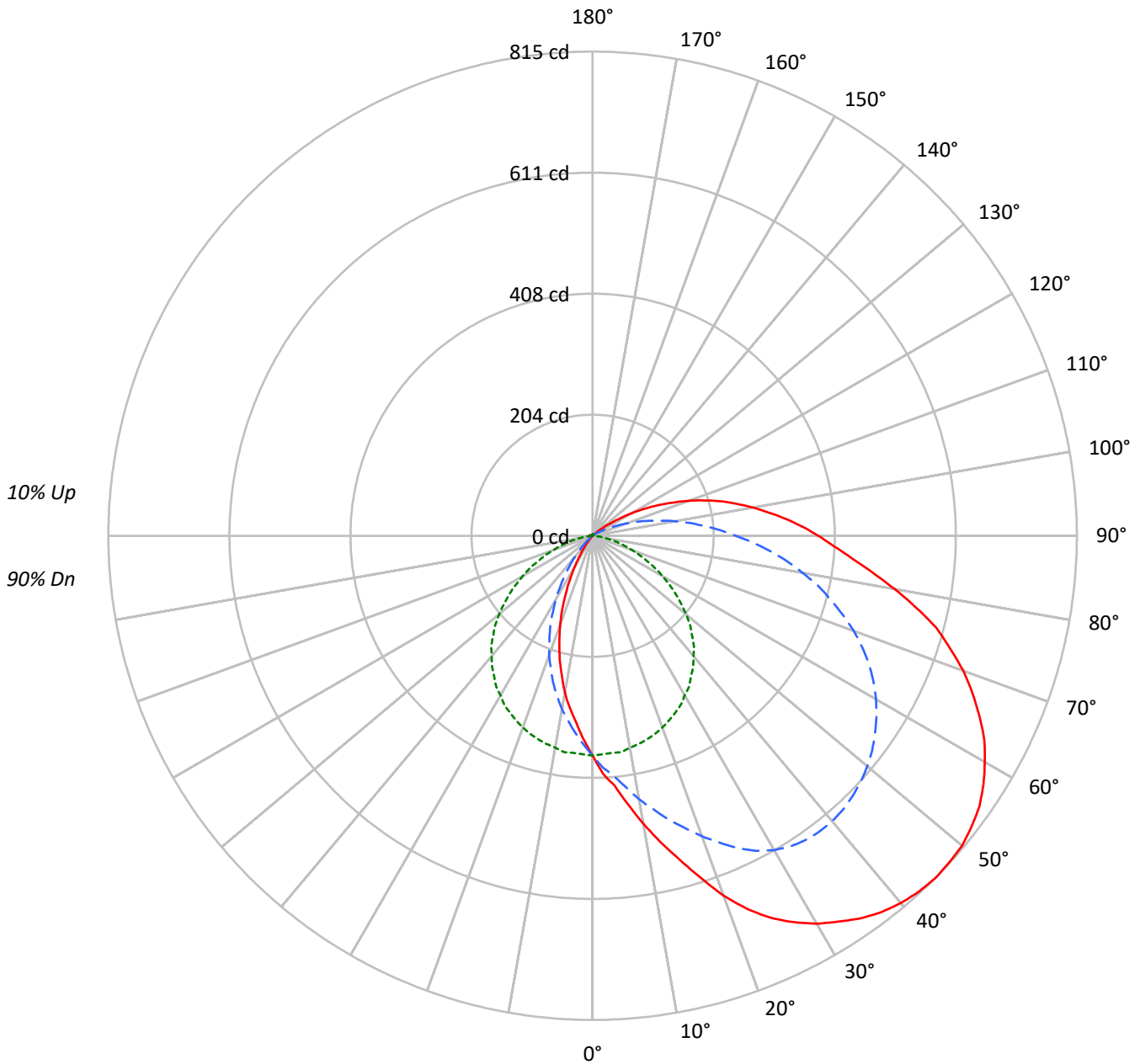
Lumens per Lamp: N/A
Luminaire Lumens: 1828.0 lumens
Efficiency: N/A
Efficacy: 77.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551609

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-85-ED1D-90

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	90																			
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67																			
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	53																			
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	43																			
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	36																			
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	30																			
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	26																			
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	23																			
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	20																			
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	18																			
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	16																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3980	3980	3980
5°	4369	3921	3272
10°	4944	3873	2697
15°	5540	3825	2101
20°	6249	3762	1548
25°	6836	3690	1016
30°	7273	3593	573
35°	7652	3488	252
40°	7987	3360	60
45°	8275	3200	0
50°	8516	2986	0
55°	8700	2715	0
60°	8792	2401	0
65°	8828	2043	0
70°	8799	1666	0
75°	8688	1228	7
80°	8336	751	39
85°	8057	361	51



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.4	1.9
10°-20°	106.0	5.8
20°-30°	171.7	9.4
30°-40°	220.6	12.1
40°-50°	249.7	13.7
50°-60°	258.7	14.2
60°-70°	244.0	13.3
70°-80°	204.5	11.2
80°-90°	148.2	8.1
90°-100°	97.4	5.3
100°-110°	56.3	3.1
110°-120°	24.8	1.4
120°-130°	6.7	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	313.2	17.1
0°-40°	533.8	29.2
0°-60°	1042.3	57.0
0°-90°	1639.0	89.7
90°-120°	178.5	9.8
90°-150°	187.8	10.3
90°-180°	189.0	10.3
0°-180°	1828.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	370	370	370	370	370	
5°	422	405	367	333	316	43
15°	564	494	355	256	214	163
25°	710	580	329	169	106	328
35°	786	625	289	82	26	493
45°	815	619	236	19	0	629
55°	795	580	170	0	0	710
65°	718	513	102	0	0	711
75°	599	414	43	0	0	628
85°	438	300	7	2	3	374
90°	380	241	2	3	3	208
95°	326	188	1	3	4	256
105°	224	97	1	2	4	237
115°	122	32	1	1	2	122
125°	36	4	2	1	2	36
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	2	1	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	369.8	369.8	369.8	369.8	369.8	369.8	369.8	369.8	369.8	369.8	369.8
2.5°	400.8	400.4	399.0	396.6	393.3	387.7	382.9	378.7	373.1	368.3	359.4
5°	422.0	419.7	417.8	415.5	407.9	402.7	394.3	384.8	375.9	366.9	349.0
7.5°	456.0	452.2	449.4	442.8	432.4	420.6	407.4	398.5	392.4	367.4	336.8
10°	492.2	488.9	483.3	471.5	458.8	441.8	423.0	401.8	382.9	362.2	326.0
12.5°	528.0	523.3	515.3	500.2	482.3	461.1	435.2	410.3	383.4	358.9	313.2
15°	563.8	558.6	550.2	531.8	508.2	480.5	448.9	417.3	385.8	354.7	300.0
17.5°	602.9	595.9	583.1	562.4	532.7	498.4	461.1	423.0	384.8	349.5	285.9
20°	644.8	635.0	621.3	593.5	558.6	518.1	473.4	428.6	384.4	343.4	269.9
22.5°	679.7	669.8	654.7	626.0	584.1	534.6	483.8	432.4	382.5	336.3	254.8
25°	709.8	701.8	685.4	652.4	608.1	552.1	493.6	435.2	379.7	328.8	238.8
27.5°	733.4	725.9	707.5	673.6	628.4	567.6	501.2	436.6	375.9	321.2	222.3
30°	754.1	746.6	724.4	689.6	642.0	579.8	508.7	437.1	371.2	309.9	204.4
32.5°	770.1	763.1	740.5	703.3	651.4	588.3	513.0	436.6	365.1	301.9	185.1
35°	786.2	779.1	752.7	713.1	658.5	592.1	516.3	434.3	357.5	288.7	166.7
37.5°	798.4	790.4	763.5	719.7	661.8	593.0	515.8	431.0	349.5	277.9	148.4
40°	806.9	798.4	769.7	723.5	662.7	591.6	512.0	425.3	340.1	264.2	129.1
42.5°	812.5	803.1	772.5	729.2	660.9	587.8	506.4	418.3	329.7	252.5	110.7
45°	815.4	805.5	773.0	724.4	657.6	580.8	497.9	409.3	318.4	236.5	92.3
47.5°	813.9	803.1	770.6	719.3	651.4	573.2	488.5	398.5	304.8	222.3	74.9
50°	811.6	800.3	765.4	712.7	643.0	563.8	478.1	385.3	290.6	204.9	59.4
52.5°	804.1	792.7	759.8	703.3	633.1	553.0	464.0	371.6	275.6	187.9	45.2
55°	794.6	784.3	749.9	694.8	620.3	539.8	450.8	357.0	261.0	170.5	32.5
57.5°	780.0	770.6	737.6	681.1	607.6	525.2	436.2	341.0	242.6	153.1	22.6
60°	762.1	752.7	720.7	665.6	593.0	508.7	420.2	324.5	226.1	135.7	14.1
62.5°	743.3	734.3	700.9	646.3	574.7	491.3	402.7	308.1	208.7	119.6	8.5
65°	718.3	709.8	679.7	623.2	554.4	472.4	383.4	288.3	190.8	101.7	4.7
67.5°	691.9	684.4	653.8	602.0	530.9	451.7	363.6	269.0	171.9	86.2	2.4
70°	663.7	654.3	626.0	573.2	506.8	428.2	342.0	249.2	154.0	71.1	0.0
72.5°	630.7	623.6	596.3	546.4	479.0	403.2	319.8	227.5	134.2	56.5	0.5
75°	598.7	589.7	564.8	517.7	451.7	376.8	295.3	207.3	114.9	43.3	0.5
77.5°	557.2	554.4	530.9	485.2	425.8	351.4	268.5	182.8	96.6	31.1	0.5
80°	515.8	513.0	494.6	452.7	395.7	321.2	243.5	159.7	78.7	20.7	0.5
82.5°	474.8	471.0	453.6	418.7	365.1	295.8	217.6	136.6	62.2	12.7	0.5
85°	438.1	433.3	414.5	382.5	333.5	267.1	190.8	114.0	46.2	7.1	0.9
87.5°	406.5	403.2	382.5	349.5	301.5	240.2	167.2	92.3	32.5	3.3	1.4
90°	379.7	372.6	354.2	319.4	271.3	210.6	142.3	74.0	21.7	1.9	1.9
92.5°	353.3	347.2	326.9	291.1	244.5	185.1	118.2	56.5	13.7	0.9	2.4
95°	326.0	319.4	299.6	266.6	217.1	159.2	97.0	41.5	7.5	0.9	2.4
97.5°	299.1	293.0	272.3	239.3	192.7	136.6	76.8	29.2	3.8	0.9	1.9
100°	274.1	267.1	248.2	215.3	168.2	114.0	59.4	18.8	2.4	0.9	1.9
102.5°	247.8	242.1	222.8	190.8	142.7	92.8	44.3	11.8	0.9	0.9	1.4
105°	224.2	217.1	198.3	165.3	121.5	73.0	31.1	7.1	0.9	0.9	1.4



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	146.0	140.4	123.9	96.1	61.7	28.7	8.5	1.4	1.4	1.4	1.4
115°	122.0	113.5	98.9	74.4	45.7	18.8	4.2	1.4	1.4	1.4	1.4
117.5°	97.5	90.4	80.1	56.5	30.1	12.2	2.4	1.4	1.4	1.4	1.4
120°	76.3	69.7	57.9	39.1	20.3	7.1	0.9	1.4	1.4	1.4	1.4
122.5°	54.6	49.5	39.1	25.4	12.2	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.3	33.4	25.9	15.5	7.5	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.6	21.2	15.1	8.9	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.2	11.8	8.9	5.2	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.5	7.1	4.7	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	2.4	2.4	2.4	2.4
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	1.9
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	369.8	369.8	369.8
2.5°	351.9	345.3	343.4
5°	333.0	322.2	316.1
7.5°	314.2	299.6	292.5
10°	296.8	276.0	268.5
12.5°	276.0	252.0	240.2
15°	256.2	225.2	213.8
17.5°	234.1	199.2	186.1
20°	213.4	173.3	159.7
22.5°	189.8	147.9	132.8
25°	168.6	122.5	105.5
27.5°	145.1	96.6	82.0
30°	122.9	74.0	59.4
32.5°	101.7	54.2	41.0
35°	82.0	36.7	25.9
37.5°	63.1	22.6	13.2
40°	45.7	11.8	6.1
42.5°	30.6	5.7	3.3
45°	18.8	2.8	0.0
47.5°	10.8	0.0	0.0
50°	5.7	0.0	0.0
52.5°	2.4	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	0.9	1.4
80°	0.9	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.8
87.5°	2.4	2.8	3.3
90°	2.8	3.3	3.3
92.5°	2.8	3.8	3.8
95°	3.3	3.8	4.2
97.5°	3.8	4.2	4.2
100°	3.3	4.2	4.7
102.5°	2.8	4.2	4.2
105°	2.4	3.3	3.8



TEST NUMBER: P551609

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.4	1.9	2.4
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.9	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	197.8	192.2	173.3	142.3	99.4	55.6	20.7	3.8	0.9	1.4	1.4
110°	172.4	167.7	148.4	118.2	80.1	41.5	13.7	2.4	1.4	1.4	1.4





107.5°	1.9	2.8	3.3
110°	1.9	2.4	2.8



(END OF REPORT)