

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: P551598

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-81-87-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: P551598
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-81-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

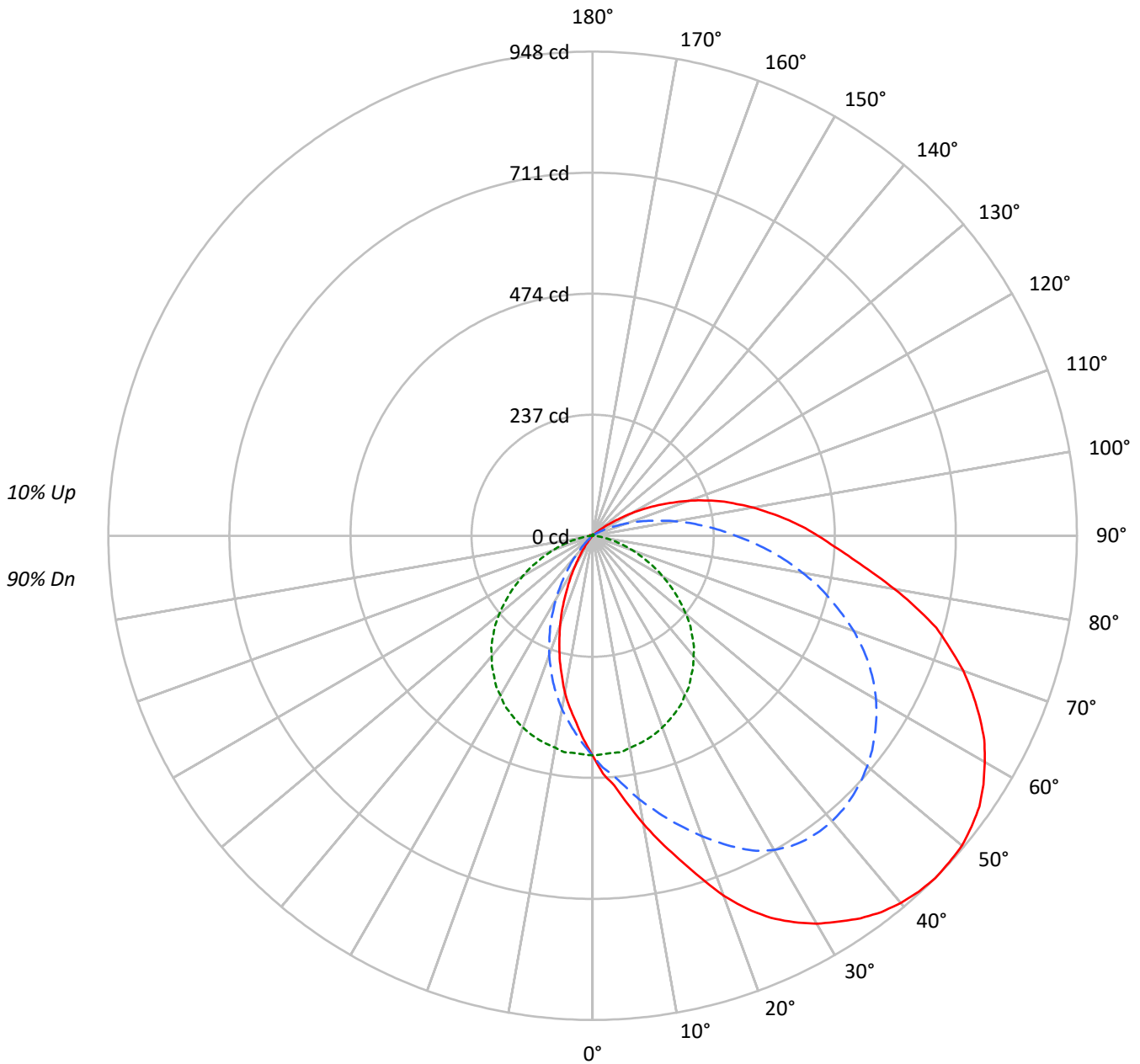
Lumens per Lamp: N/A
Luminaire Lumens: 2125.9 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (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: P551598

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-81-87-ED1D

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°	4628	4628	4628
5°	5081	4562	3805
10°	5750	4505	3137
15°	6444	4448	2444
20°	7268	4376	1800
25°	7951	4291	1182
30°	8460	4179	665
35°	8899	4057	293
40°	9289	3908	70
45°	9624	3721	0
50°	9904	3473	0
55°	10118	3158	0
60°	10226	2792	0
65°	10268	2376	0
70°	10234	1937	0
75°	10104	1429	7
80°	9695	874	44
85°	9371	417	61



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.2	1.9
10°-20°	123.3	5.8
20°-30°	199.7	9.4
30°-40°	256.6	12.1
40°-50°	290.4	13.7
50°-60°	300.9	14.2
60°-70°	283.8	13.3
70°-80°	237.8	11.2
80°-90°	172.4	8.1
90°-100°	113.3	5.3
100°-110°	65.4	3.1
110°-120°	28.9	1.4
120°-130°	7.8	0.4
130°-140°	1.8	0.1
140°-150°	1.2	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	364.3	17.1
0°-40°	620.8	29.2
0°-60°	1212.2	57.0
0°-90°	1906.1	89.7
90°-120°	207.6	9.8
90°-150°	218.3	10.3
90°-180°	220.0	10.3
0°-180°	2125.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	430	430	430	430	430	
5°	491	471	427	387	368	49
15°	656	575	412	298	249	189
25°	826	675	382	196	123	382
35°	914	727	336	95	30	573
45°	948	720	275	22	0	732
55°	924	675	198	0	0	825
65°	835	597	118	0	0	827
75°	696	482	50	0	0	730
85°	510	349	8	2	3	435
90°	442	280	2	3	4	242
95°	379	219	1	4	5	297
105°	261	113	1	3	4	275
115°	142	38	2	2	3	142
125°	42	5	2	2	2	42
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°	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0
2.5°	466.2	465.6	464.0	461.3	457.4	450.9	445.4	440.4	433.9	428.4	418.0
5°	490.8	488.1	485.9	483.2	474.4	468.4	458.5	447.6	437.2	426.8	405.9
7.5°	530.3	525.9	522.6	515.0	502.9	489.2	473.9	463.5	456.3	427.3	391.7
10°	572.5	568.6	562.1	548.4	533.6	513.9	491.9	467.3	445.4	421.3	379.1
12.5°	614.1	608.6	599.3	581.8	561.0	536.3	506.2	477.2	445.9	417.4	364.3
15°	655.7	649.7	639.9	618.5	591.1	558.8	522.1	485.4	448.7	412.5	349.0
17.5°	701.2	693.0	678.2	654.1	619.6	579.6	536.3	491.9	447.6	406.5	332.5
20°	750.0	738.5	722.6	690.3	649.7	602.6	550.6	498.5	447.0	399.4	313.9
22.5°	790.5	779.0	761.5	728.1	679.3	621.8	562.6	502.9	444.8	391.1	296.4
25°	825.6	816.3	797.1	758.7	707.2	642.0	574.1	506.2	441.5	382.4	277.7
27.5°	853.0	844.2	822.8	783.4	730.8	660.1	582.9	507.8	437.2	373.6	258.6
30°	877.1	868.3	842.5	802.0	746.7	674.4	591.6	508.4	431.7	360.5	237.8
32.5°	895.7	887.5	861.2	817.9	757.6	684.2	596.6	507.8	424.6	351.2	215.3
35°	914.3	906.1	875.4	829.4	765.9	688.6	600.4	505.1	415.8	335.8	193.9
37.5°	928.6	919.2	888.0	837.1	769.7	689.7	599.9	501.3	406.5	323.2	172.6
40°	938.4	928.6	895.1	841.5	770.8	688.1	595.5	494.7	395.5	307.3	150.1
42.5°	945.0	934.0	898.4	848.0	768.6	683.7	588.9	486.5	383.5	293.6	128.7
45°	948.3	936.8	899.0	842.5	764.8	675.5	579.0	476.1	370.3	275.0	107.4
47.5°	946.6	934.0	896.2	836.5	757.6	666.7	568.1	463.5	354.4	258.6	87.1
50°	943.9	930.7	890.2	828.9	747.8	655.7	556.0	448.1	338.0	238.3	69.0
52.5°	935.1	922.0	883.6	817.9	736.3	643.1	539.6	432.2	320.5	218.6	52.6
55°	924.2	912.1	872.1	808.0	721.5	627.8	524.3	415.2	303.5	198.3	37.8
57.5°	907.2	896.2	857.9	792.1	706.7	610.8	507.3	396.6	282.1	178.0	26.3
60°	886.4	875.4	838.2	774.1	689.7	591.6	488.7	377.4	263.0	157.8	16.4
62.5°	864.5	854.1	815.2	751.6	668.3	571.4	468.4	358.3	242.7	139.1	9.9
65°	835.4	825.6	790.5	724.8	644.8	549.5	445.9	335.3	221.9	118.3	5.5
67.5°	804.7	796.0	760.4	700.1	617.4	525.4	422.9	312.8	200.0	100.3	2.7
70°	771.9	760.9	728.1	666.7	589.5	498.0	397.7	289.8	179.1	82.7	0.0
72.5°	733.5	725.3	693.5	635.5	557.1	468.9	372.0	264.6	156.1	65.7	0.5
75°	696.3	685.9	656.8	602.1	525.4	438.3	343.5	241.0	133.7	50.4	0.5
77.5°	648.1	644.8	617.4	564.3	495.2	408.7	312.3	212.6	112.3	36.2	0.5
80°	599.9	596.6	575.2	526.5	460.2	373.6	283.2	185.7	91.5	24.1	0.5
82.5°	552.2	547.8	527.6	487.0	424.6	344.0	253.1	158.9	72.3	14.8	0.5
85°	509.5	504.0	482.1	444.8	387.9	310.6	221.9	132.6	53.7	8.2	1.1
87.5°	472.8	468.9	444.8	406.5	350.6	279.4	194.5	107.4	37.8	3.8	1.6
90°	441.5	433.3	412.0	371.4	315.5	244.9	165.4	86.0	25.2	2.2	2.2
92.5°	410.9	403.7	380.2	338.6	284.3	215.3	137.5	65.7	15.9	1.1	2.7
95°	379.1	371.4	348.4	310.1	252.5	185.2	112.9	48.2	8.8	1.1	2.7
97.5°	347.9	340.7	316.6	278.3	224.1	158.9	89.3	34.0	4.4	1.1	2.2
100°	318.8	310.6	288.7	250.4	195.6	132.6	69.0	21.9	2.7	1.1	2.2
102.5°	288.2	281.6	259.1	221.9	166.0	107.9	51.5	13.7	1.1	1.1	1.6
105°	260.8	252.5	230.6	192.3	141.3	84.9	36.2	8.2	1.1	1.1	1.6



TEST NUMBER: P551598

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-81-87-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	169.8	163.3	144.1	111.8	71.8	33.4	9.9	1.6	1.6	1.6	1.6
115°	141.9	132.0	115.0	86.6	53.1	21.9	4.9	1.6	1.6	1.6	1.6
117.5°	113.4	105.2	93.1	65.7	35.1	14.2	2.7	1.6	1.6	1.6	1.6
120°	88.7	81.1	67.4	45.5	23.6	8.2	1.1	1.6	1.6	1.6	1.6
122.5°	63.5	57.5	45.5	29.6	14.2	3.8	1.6	1.6	2.2	2.2	1.6
125°	42.2	38.9	30.1	18.1	8.8	1.6	1.6	1.6	2.2	2.2	1.6
127.5°	27.4	24.7	17.5	10.4	3.8	1.6	1.6	2.2	2.2	2.2	1.6
130°	15.3	13.7	10.4	6.0	1.6	1.6	1.6	2.2	2.2	2.2	1.6
132.5°	8.8	8.2	5.5	1.1	1.6	1.6	1.6	2.2	2.2	2.2	2.2
135°	2.2	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2
137.5°	0.5	0.5	1.1	1.1	1.6	1.6	2.2	2.7	2.7	2.7	2.2
140°	0.5	0.5	1.1	1.6	1.6	1.6	2.2	2.7	2.7	2.7	2.2
142.5°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2	2.2
145°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.2	2.2	2.2
147.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2	2.2
150°	0.5	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.2
152.5°	0.5	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.2
155°	1.1	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.7
157.5°	1.1	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.7
160°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2	2.2
162.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2	2.2
165°	1.1	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2
167.5°	1.1	1.1	1.1	1.6	1.6	1.6	2.2	2.2	2.2	2.2	2.2
170°	1.1	1.1	1.1	1.6	1.6	1.6	2.2	2.7	2.7	2.7	2.7
172.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.7
175°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.7
177.5°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.2
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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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-81-87-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	430.0	430.0	430.0
2.5°	409.2	401.6	399.4
5°	387.3	374.7	367.6
7.5°	365.4	348.4	340.2
10°	345.1	321.0	312.3
12.5°	321.0	293.1	279.4
15°	298.0	261.9	248.7
17.5°	272.3	231.7	216.4
20°	248.2	201.6	185.7
22.5°	220.8	172.0	154.5
25°	196.1	142.4	122.7
27.5°	168.7	112.3	95.3
30°	143.0	86.0	69.0
32.5°	118.3	63.0	47.7
35°	95.3	42.7	30.1
37.5°	73.4	26.3	15.3
40°	53.1	13.7	7.1
42.5°	35.6	6.6	3.8
45°	21.9	3.3	0.0
47.5°	12.6	0.0	0.0
50°	6.6	0.0	0.0
52.5°	2.7	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	1.1	1.6
80°	1.1	2.2	2.7
82.5°	2.2	2.7	2.7
85°	2.2	2.7	3.3
87.5°	2.7	3.3	3.8
90°	3.3	3.8	3.8
92.5°	3.3	4.4	4.4
95°	3.8	4.4	4.9
97.5°	4.4	4.9	4.9
100°	3.8	4.9	5.5
102.5°	3.3	4.9	4.9
105°	2.7	3.8	4.4



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-81-87-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.2	2.7	2.7
115°	1.6	2.2	2.7
117.5°	1.6	2.2	2.2
120°	1.6	1.6	2.2
122.5°	1.6	1.6	2.2
125°	1.6	1.6	2.2
127.5°	2.2	1.6	1.6
130°	1.6	1.6	1.6
132.5°	2.2	1.6	1.6
135°	2.2	1.6	1.6
137.5°	2.2	1.6	1.6
140°	2.2	1.6	1.6
142.5°	2.2	1.6	1.6
145°	1.6	1.6	1.6
147.5°	1.6	1.6	1.6
150°	1.6	1.6	1.1
152.5°	1.6	1.1	1.1
155°	1.6	1.1	0.5
157.5°	2.2	1.1	0.5
160°	1.6	1.1	0.5
162.5°	1.6	1.1	0.5
165°	1.6	1.1	0.0
167.5°	1.6	1.1	0.5
170°	1.6	1.1	0.5
172.5°	1.6	1.1	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°	230.1	223.5	201.6	165.4	115.6	64.6	24.1	4.4	1.1	1.6	1.6
110°	200.5	195.0	172.6	137.5	93.1	48.2	15.9	2.7	1.6	1.6	1.6





107.5°	2.2	3.3	3.8
110°	2.2	2.7	3.3



(END OF REPORT)