

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: P551614

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-82-87-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: P551614
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-82-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 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

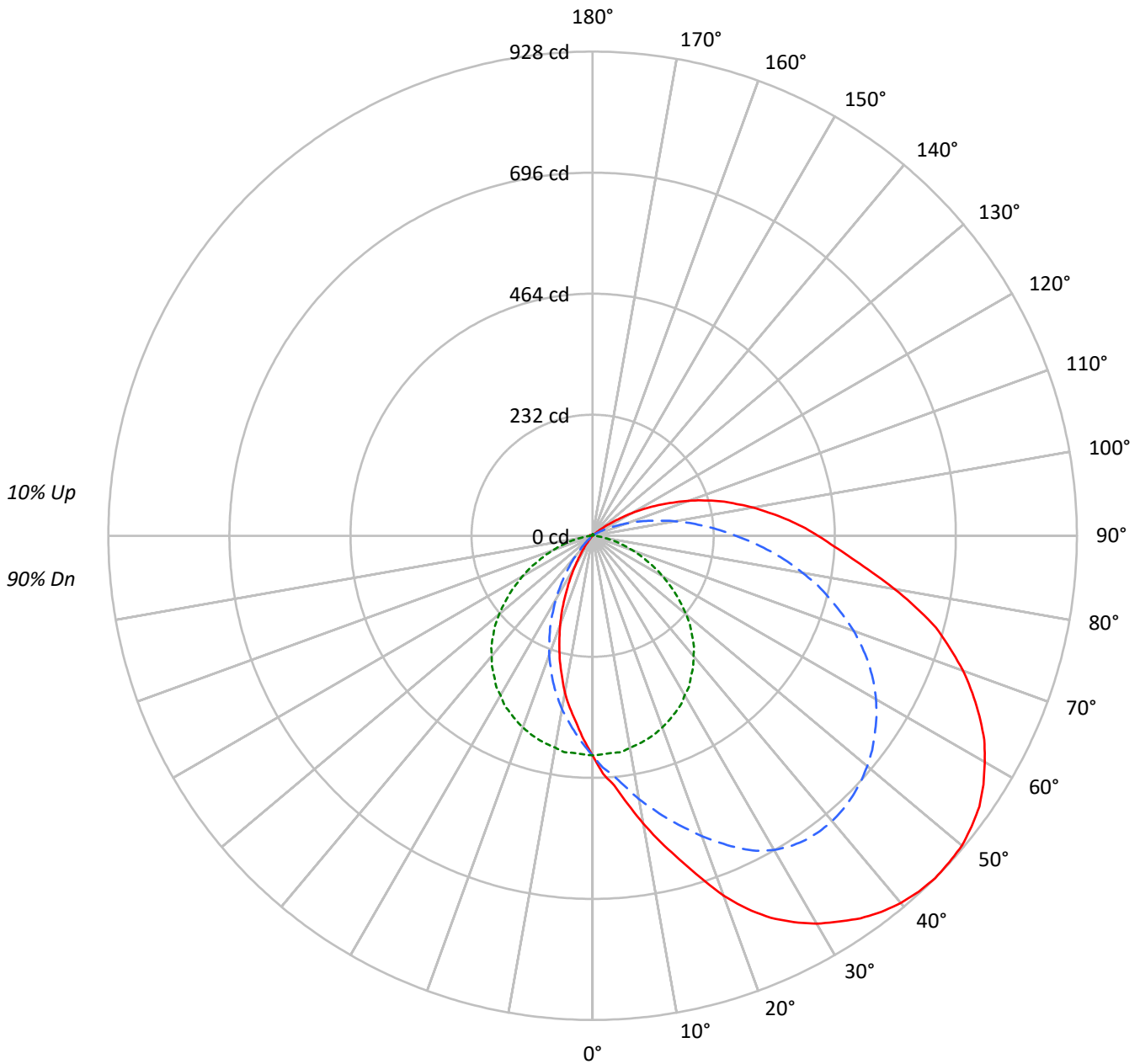
Lumens per Lamp: N/A
Luminaire Lumens: 2080.9 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551614

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-87-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°	4531	4531	4531
5°	4974	4464	3725
10°	5629	4410	3070
15°	6308	4354	2392
20°	7114	4283	1762
25°	7783	4201	1157
30°	8280	4090	652
35°	8711	3972	287
40°	9093	3825	69
45°	9420	3643	0
50°	9695	3400	0
55°	9904	3091	0
60°	10009	2732	0
65°	10050	2326	0
70°	10017	1898	0
75°	9889	1398	7
80°	9490	856	44
85°	9172	407	59



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.3	1.9
10°-20°	120.7	5.8
20°-30°	195.5	9.4
30°-40°	251.1	12.1
40°-50°	284.3	13.7
50°-60°	294.5	14.2
60°-70°	277.8	13.3
70°-80°	232.8	11.2
80°-90°	168.7	8.1
90°-100°	110.9	5.3
100°-110°	64.0	3.1
110°-120°	28.3	1.4
120°-130°	7.6	0.4
130°-140°	1.7	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	356.6	17.1
0°-40°	607.7	29.2
0°-60°	1186.5	57.0
0°-90°	1865.8	89.7
90°-120°	203.2	9.8
90°-150°	213.7	10.3
90°-180°	215.0	10.3
0°-180°	2080.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	421	421	421	421	421	
5°	480	461	418	379	360	48
15°	642	563	404	292	243	185
25°	808	660	374	192	120	373
35°	895	712	329	93	30	561
45°	928	705	269	21	0	717
55°	905	660	194	0	0	808
65°	818	584	116	0	0	809
75°	682	472	49	0	0	715
85°	499	342	8	2	3	426
90°	432	274	2	3	4	237
95°	371	214	1	4	5	291
105°	255	111	1	3	4	269
115°	139	37	2	2	3	139
125°	41	5	2	2	2	41
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°	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9
2.5°	456.3	455.8	454.2	451.5	447.7	441.3	436.0	431.1	424.7	419.3	409.1
5°	480.5	477.8	475.6	473.0	464.4	458.5	448.8	438.1	427.9	417.7	397.3
7.5°	519.1	514.8	511.6	504.1	492.3	478.8	463.8	453.6	446.7	418.3	383.4
10°	560.4	556.6	550.2	536.8	522.3	503.0	481.5	457.4	436.0	412.4	371.1
12.5°	601.1	595.7	586.6	569.5	549.1	525.0	495.5	467.1	436.5	408.6	356.6
15°	641.9	636.0	626.3	605.4	578.6	546.9	511.0	475.1	439.2	403.8	341.6
17.5°	686.4	678.3	663.8	640.3	606.5	567.3	525.0	481.5	438.1	397.9	325.5
20°	734.1	722.8	707.3	675.6	636.0	589.8	538.9	488.0	437.6	390.9	307.3
22.5°	773.8	762.5	745.4	712.6	664.9	608.6	550.7	492.3	435.4	382.9	290.1
25°	808.1	799.0	780.2	742.7	692.3	628.5	562.0	495.5	432.2	374.3	271.9
27.5°	834.9	826.3	805.4	766.8	715.3	646.2	570.5	497.1	427.9	365.7	253.1
30°	858.5	849.9	824.7	785.0	730.9	660.1	579.1	497.6	422.5	352.8	232.7
32.5°	876.7	868.7	842.9	800.6	741.6	669.7	583.9	497.1	415.6	343.7	210.7
35°	895.0	886.9	856.9	811.8	749.6	674.0	587.7	494.4	407.0	328.7	189.8
37.5°	908.9	899.8	869.2	819.4	753.4	675.1	587.2	490.6	397.9	316.4	168.9
40°	918.6	908.9	876.2	823.6	754.5	673.5	582.9	484.2	387.2	300.8	146.9
42.5°	925.0	914.3	879.4	830.1	752.3	669.2	576.4	476.2	375.4	287.4	126.0
45°	928.2	916.9	879.9	824.7	748.6	661.2	566.8	466.0	362.5	269.2	105.1
47.5°	926.6	914.3	877.3	818.8	741.6	652.6	556.1	453.6	346.9	253.1	85.3
50°	923.9	911.0	871.4	811.3	731.9	641.9	544.3	438.6	330.9	233.3	67.6
52.5°	915.3	902.5	864.9	800.6	720.7	629.5	528.2	423.1	313.7	214.0	51.5
55°	904.6	892.8	853.7	790.9	706.2	614.5	513.2	406.5	297.1	194.1	37.0
57.5°	888.0	877.3	839.7	775.4	691.7	597.9	496.5	388.2	276.2	174.3	25.7
60°	867.6	856.9	820.4	757.7	675.1	579.1	478.3	369.5	257.4	154.4	16.1
62.5°	846.2	836.0	797.9	735.7	654.2	559.3	458.5	350.7	237.5	136.2	9.7
65°	817.7	808.1	773.8	709.4	631.1	537.8	436.5	328.2	217.2	115.8	5.4
67.5°	787.7	779.1	744.3	685.3	604.3	514.2	414.0	306.2	195.7	98.1	2.7
70°	755.5	744.8	712.6	652.6	577.0	487.4	389.3	283.7	175.3	81.0	0.0
72.5°	718.0	710.0	678.9	622.0	545.3	459.0	364.1	259.0	152.8	64.3	0.5
75°	681.5	671.4	642.9	589.3	514.2	429.0	336.2	235.9	130.8	49.3	0.5
77.5°	634.4	631.1	604.3	552.3	484.7	400.0	305.6	208.1	109.9	35.4	0.5
80°	587.2	583.9	563.0	515.3	450.4	365.7	277.2	181.8	89.5	23.6	0.5
82.5°	540.5	536.2	516.4	476.7	415.6	336.7	247.7	155.5	70.8	14.5	0.5
85°	498.7	493.3	471.9	435.4	379.6	304.0	217.2	129.8	52.6	8.0	1.1
87.5°	462.8	459.0	435.4	397.9	343.2	273.5	190.4	105.1	37.0	3.8	1.6
90°	432.2	424.2	403.2	363.6	308.9	239.7	161.9	84.2	24.7	2.1	2.1
92.5°	402.2	395.2	372.1	331.4	278.3	210.7	134.6	64.3	15.6	1.1	2.7
95°	371.1	363.6	341.0	303.5	247.2	181.2	110.5	47.2	8.6	1.1	2.7
97.5°	340.5	333.5	309.9	272.4	219.3	155.5	87.4	33.2	4.3	1.1	2.1
100°	312.1	304.0	282.6	245.1	191.4	129.8	67.6	21.4	2.7	1.1	2.1
102.5°	282.1	275.6	253.6	217.2	162.5	105.6	50.4	13.4	1.1	1.1	1.6
105°	255.2	247.2	225.8	188.2	138.3	83.1	35.4	8.0	1.1	1.1	1.6



TEST NUMBER: P551614

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-87-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	166.2	159.8	141.0	109.4	70.2	32.7	9.7	1.6	1.6	1.6	1.6
115°	138.9	129.2	112.6	84.7	52.0	21.4	4.8	1.6	1.6	1.6	1.6
117.5°	111.0	103.0	91.2	64.3	34.3	13.9	2.7	1.6	1.6	1.6	1.6
120°	86.9	79.4	66.0	44.5	23.1	8.0	1.1	1.6	1.6	1.6	1.6
122.5°	62.2	56.3	44.5	29.0	13.9	3.8	1.6	1.6	2.1	2.1	1.6
125°	41.3	38.1	29.5	17.7	8.6	1.6	1.6	1.6	2.1	2.1	1.6
127.5°	26.8	24.1	17.2	10.2	3.8	1.6	1.6	2.1	2.1	2.1	1.6
130°	15.0	13.4	10.2	5.9	1.6	1.6	1.6	2.1	2.1	2.1	1.6
132.5°	8.6	8.0	5.4	1.1	1.6	1.6	1.6	2.1	2.1	2.1	2.1
135°	2.1	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.1
137.5°	0.5	0.5	1.1	1.1	1.6	1.6	2.1	2.7	2.7	2.7	2.1
140°	0.5	0.5	1.1	1.6	1.6	1.6	2.1	2.7	2.7	2.7	2.1
142.5°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.1	2.1
145°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.1	2.1	2.1
147.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.1	2.1
150°	0.5	1.1	1.1	1.6	2.1	2.1	2.1	2.7	2.1	2.1	2.1
152.5°	0.5	1.1	1.1	1.6	2.1	2.1	2.1	2.7	2.1	2.1	2.1
155°	1.1	1.1	1.1	1.6	2.1	2.1	2.1	2.7	2.1	2.1	2.7
157.5°	1.1	1.1	1.1	1.6	2.1	2.1	2.1	2.7	2.1	2.1	2.7
160°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
162.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
165°	1.1	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1
167.5°	1.1	1.1	1.1	1.6	1.6	1.6	2.1	2.1	2.1	2.1	2.1
170°	1.1	1.1	1.1	1.6	1.6	1.6	2.1	2.7	2.7	2.7	2.7
172.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.7	2.7
175°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.7	2.7
177.5°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.7	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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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-87-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	420.9	420.9	420.9
2.5°	400.6	393.1	390.9
5°	379.1	366.8	359.8
7.5°	357.7	341.0	333.0
10°	337.8	314.2	305.6
12.5°	314.2	286.9	273.5
15°	291.7	256.3	243.4
17.5°	266.5	226.8	211.8
20°	242.9	197.3	181.8
22.5°	216.1	168.4	151.2
25°	192.0	139.4	120.1
27.5°	165.2	109.9	93.3
30°	140.0	84.2	67.6
32.5°	115.8	61.7	46.7
35°	93.3	41.8	29.5
37.5°	71.9	25.7	15.0
40°	52.0	13.4	7.0
42.5°	34.9	6.4	3.8
45°	21.4	3.2	0.0
47.5°	12.3	0.0	0.0
50°	6.4	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	2.1	2.7
82.5°	2.1	2.7	2.7
85°	2.1	2.7	3.2
87.5°	2.7	3.2	3.8
90°	3.2	3.8	3.8
92.5°	3.2	4.3	4.3
95°	3.8	4.3	4.8
97.5°	4.3	4.8	4.8
100°	3.8	4.8	5.4
102.5°	3.2	4.8	4.8
105°	2.7	3.8	4.3



TEST NUMBER: P551614

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-87-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.1	2.7	2.7
115°	1.6	2.1	2.7
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	1.1
152.5°	1.6	1.1	1.1
155°	1.6	1.1	0.5
157.5°	2.1	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°	225.2	218.8	197.3	161.9	113.1	63.3	23.6	4.3	1.1	1.6	1.6
110°	196.3	190.9	168.9	134.6	91.2	47.2	15.6	2.7	1.6	1.6	1.6





107.5°	2.1	3.2	3.8
110°	2.1	2.7	3.2



(END OF REPORT)