

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: P551666

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-81-94-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: P551666
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-50-UNV-81-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

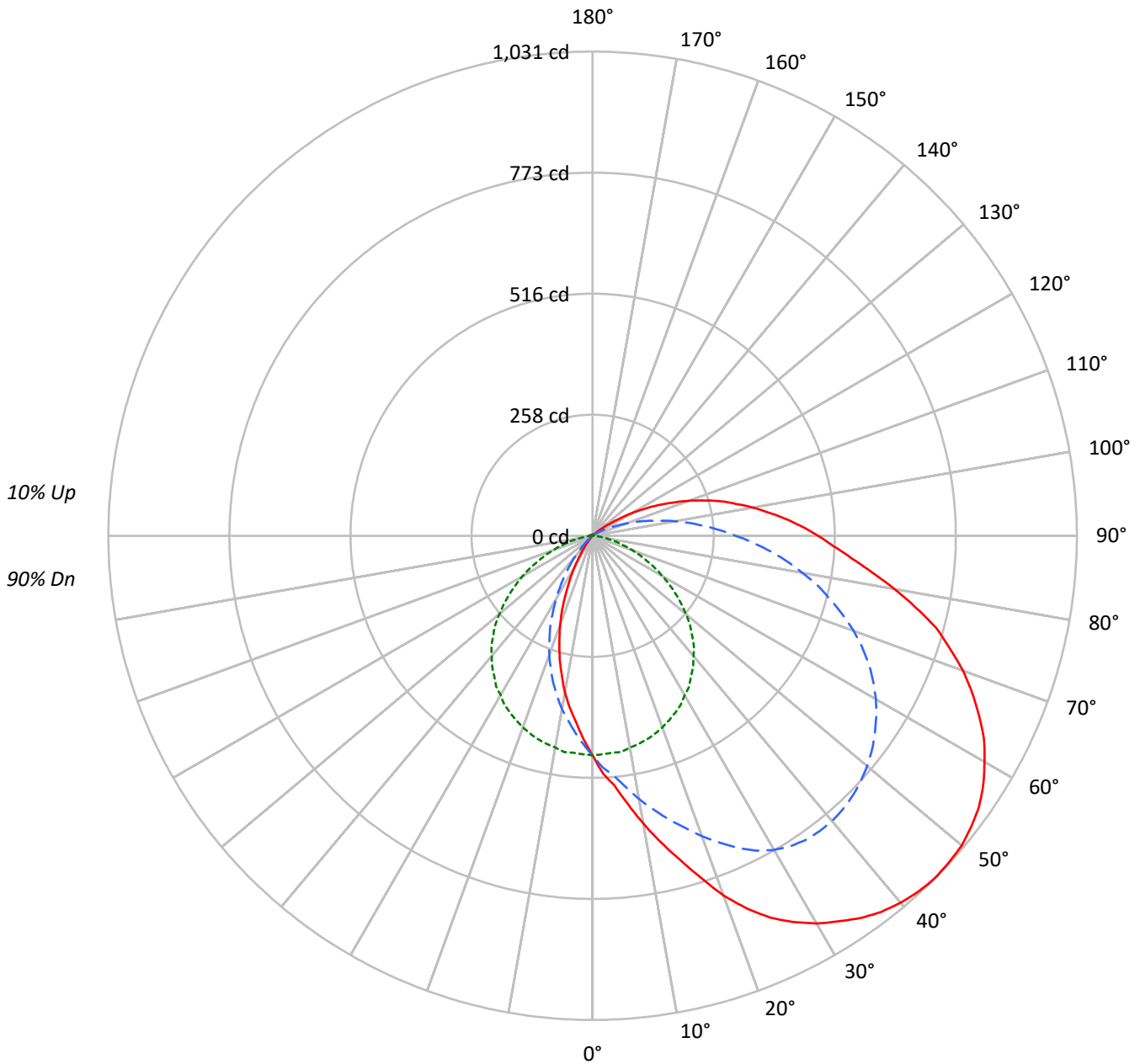
Lumens per Lamp: N/A
Luminaire Lumens: 2311.1 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551666

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-94-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°	5032	5032	5032
5°	5524	4958	4137
10°	6251	4897	3409
15°	7005	4835	2657
20°	7900	4756	1957
25°	8643	4665	1285
30°	9195	4542	723
35°	9673	4410	319
40°	10097	4249	76
45°	10461	4044	0
50°	10766	3775	0
55°	10999	3433	0
60°	11116	3035	0
65°	11161	2583	0
70°	11124	2106	0
75°	10983	1554	9
80°	10538	950	48
85°	10185	453	66



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.8	1.9
10°-20°	134.1	5.8
20°-30°	217.1	9.4
30°-40°	278.9	12.1
40°-50°	315.7	13.7
50°-60°	327.1	14.2
60°-70°	308.5	13.3
70°-80°	258.5	11.2
80°-90°	187.4	8.1
90°-100°	123.2	5.3
100°-110°	71.1	3.1
110°-120°	31.4	1.4
120°-130°	8.5	0.4
130°-140°	2.0	0.1
140°-150°	1.3	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	396.0	17.1
0°-40°	674.9	29.2
0°-60°	1317.7	57.0
0°-90°	2072.0	89.7
90°-120°	225.7	9.8
90°-150°	237.5	10.3
90°-180°	239.0	10.3
0°-180°	2311.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	468	468	468	468	468	
5°	534	512	464	421	400	54
15°	713	625	448	324	270	206
25°	897	733	416	213	133	415
35°	994	790	365	104	33	623
45°	1031	783	299	24	0	796
55°	1005	733	216	0	0	897
65°	908	649	129	0	0	898
75°	757	524	55	1	1	794
85°	554	380	9	2	4	473
90°	480	305	2	4	4	263
95°	412	238	1	4	5	323
105°	284	123	1	3	5	299
115°	154	41	2	2	3	154
125°	46	6	2	2	2	46
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	



TEST NUMBER: P551666

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	467.5	467.5	467.5	467.5	467.5	467.5	467.5	467.5	467.5	467.5	467.5
2.5°	506.8	506.2	504.4	501.4	497.2	490.1	484.1	478.8	471.6	465.7	454.4
5°	533.6	530.6	528.2	525.2	515.7	509.1	498.4	486.5	475.2	463.9	441.3
7.5°	576.4	571.7	568.1	559.8	546.7	531.8	515.1	503.8	496.0	464.5	425.8
10°	622.3	618.1	611.0	596.1	580.0	558.6	534.8	508.0	484.1	457.9	412.1
12.5°	667.5	661.6	651.5	632.4	609.8	583.0	550.2	518.7	484.7	453.8	396.0
15°	712.8	706.3	695.5	672.3	642.5	607.4	567.5	527.6	487.7	448.4	379.3
17.5°	762.2	753.3	737.2	711.0	673.5	630.0	583.0	534.8	486.5	441.9	361.5
20°	815.2	802.7	785.5	750.3	706.3	655.0	598.5	541.9	485.9	434.1	341.2
22.5°	859.3	846.8	827.7	791.4	738.4	675.9	611.6	546.7	483.5	425.2	322.2
25°	897.4	887.3	866.4	824.8	768.8	697.9	624.1	550.2	480.0	415.7	301.9
27.5°	927.2	917.7	894.4	851.6	794.4	717.6	633.6	552.0	475.2	406.1	281.1
30°	953.4	943.9	915.9	871.8	811.7	733.0	643.1	552.6	469.2	391.8	258.4
32.5°	973.6	964.7	936.1	889.1	823.6	743.8	648.5	552.0	461.5	381.7	234.0
35°	993.9	984.9	951.6	901.6	832.5	748.5	652.7	549.0	452.0	365.0	210.8
37.5°	1009.4	999.2	965.3	909.9	836.7	749.7	652.1	544.9	441.9	351.3	187.6
40°	1020.1	1009.4	973.0	914.7	837.9	747.9	647.3	537.7	429.9	334.1	163.2
42.5°	1027.2	1015.3	976.6	921.8	835.5	743.2	640.2	528.8	416.8	319.2	139.9
45°	1030.8	1018.3	977.2	915.9	831.3	734.2	629.4	517.5	402.6	298.9	116.7
47.5°	1029.0	1015.3	974.2	909.3	823.6	724.7	617.5	503.8	385.3	281.1	94.7
50°	1026.0	1011.7	967.7	901.0	812.8	712.8	604.4	487.1	367.4	259.0	75.0
52.5°	1016.5	1002.2	960.5	889.1	800.3	699.1	586.6	469.8	348.4	237.6	57.2
55°	1004.6	991.5	948.0	878.3	784.3	682.4	569.9	451.4	329.9	215.6	41.1
57.5°	986.1	974.2	932.5	861.1	768.2	664.0	551.4	431.1	306.7	193.5	28.6
60°	963.5	951.6	911.1	841.4	749.7	643.1	531.2	410.3	285.8	171.5	17.9
62.5°	939.7	928.4	886.1	817.0	726.5	621.1	509.1	389.5	263.8	151.3	10.7
65°	908.1	897.4	859.3	787.8	700.9	597.3	484.7	364.4	241.2	128.6	6.0
67.5°	874.8	865.2	826.5	761.0	671.1	571.1	459.7	340.0	217.4	109.0	3.0
70°	839.0	827.1	791.4	724.7	640.7	541.3	432.3	315.0	194.7	89.9	0.0
72.5°	797.4	788.4	753.9	690.8	605.6	509.7	404.3	287.6	169.7	71.5	0.6
75°	756.9	745.6	714.0	654.4	571.1	476.4	373.4	262.0	145.3	54.8	0.6
77.5°	704.5	700.9	671.1	613.4	538.3	444.2	339.4	231.1	122.1	39.3	0.6
80°	652.1	648.5	625.3	572.3	500.2	406.1	307.9	201.9	99.4	26.2	0.6
82.5°	600.3	595.5	573.5	529.4	461.5	374.0	275.1	172.7	78.6	16.1	0.6
85°	553.8	547.9	524.0	483.5	421.6	337.6	241.2	144.1	58.4	8.9	1.2
87.5°	513.9	509.7	483.5	441.9	381.1	303.7	211.4	116.7	41.1	4.2	1.8
90°	480.0	471.0	447.8	403.7	343.0	266.2	179.8	93.5	27.4	2.4	2.4
92.5°	446.6	438.9	413.3	368.0	309.1	234.0	149.5	71.5	17.3	1.2	3.0
95°	412.1	403.7	378.7	337.0	274.5	201.3	122.7	52.4	9.5	1.2	3.0
97.5°	378.1	370.4	344.2	302.5	243.6	172.7	97.1	36.9	4.8	1.2	2.4
100°	346.6	337.6	313.8	272.1	212.6	144.1	75.0	23.8	3.0	1.2	2.4
102.5°	313.2	306.1	281.7	241.2	180.4	117.3	56.0	14.9	1.2	1.2	1.8
105°	283.5	274.5	250.7	209.0	153.6	92.3	39.3	8.9	1.2	1.2	1.8



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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	184.6	177.5	156.6	121.5	78.0	36.3	10.7	1.8	1.8	1.8	1.8
115°	154.2	143.5	125.1	94.1	57.8	23.8	5.4	1.8	1.8	1.8	1.8
117.5°	123.3	114.3	101.2	71.5	38.1	15.5	3.0	1.8	1.8	1.8	1.8
120°	96.5	88.1	73.2	49.4	25.6	8.9	1.2	1.8	1.8	1.8	1.8
122.5°	69.1	62.5	49.4	32.2	15.5	4.2	1.8	1.8	2.4	2.4	1.8
125°	45.9	42.3	32.8	19.7	9.5	1.8	1.8	1.8	2.4	2.4	1.8
127.5°	29.8	26.8	19.1	11.3	4.2	1.8	1.8	2.4	2.4	2.4	1.8
130°	16.7	14.9	11.3	6.6	1.8	1.8	1.8	2.4	2.4	2.4	1.8
132.5°	9.5	8.9	6.0	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4
135°	2.4	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4
137.5°	0.6	0.6	1.2	1.2	1.8	1.8	2.4	3.0	3.0	3.0	2.4
140°	0.6	0.6	1.2	1.8	1.8	1.8	2.4	3.0	3.0	3.0	2.4
142.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4	2.4
145°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	2.4	2.4	2.4
147.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4	2.4
150°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	2.4
152.5°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	2.4
155°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	3.0
157.5°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	3.0
160°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
162.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
165°	1.2	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4
167.5°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4	2.4
170°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	3.0	3.0	3.0	3.0
172.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0
175°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0
177.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	2.4
180°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	467.5	467.5	467.5
2.5°	444.8	436.5	434.1
5°	421.0	407.3	399.6
7.5°	397.2	378.7	369.8
10°	375.2	349.0	339.4
12.5°	349.0	318.6	303.7
15°	323.9	284.6	270.4
17.5°	296.0	251.9	235.2
20°	269.8	219.1	201.9
22.5°	240.0	187.0	167.9
25°	213.2	154.8	133.4
27.5°	183.4	122.1	103.6
30°	155.4	93.5	75.0
32.5°	128.6	68.5	51.8
35°	103.6	46.4	32.8
37.5°	79.8	28.6	16.7
40°	57.8	14.9	7.7
42.5°	38.7	7.1	4.2
45°	23.8	3.6	0.0
47.5°	13.7	0.0	0.0
50°	7.1	0.0	0.0
52.5°	3.0	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	1.2	1.8
80°	1.2	2.4	3.0
82.5°	2.4	3.0	3.0
85°	2.4	3.0	3.6
87.5°	3.0	3.6	4.2
90°	3.6	4.2	4.2
92.5°	3.6	4.8	4.8
95°	4.2	4.8	5.4
97.5°	4.8	5.4	5.4
100°	4.2	5.4	6.0
102.5°	3.6	5.4	5.4
105°	3.0	4.2	4.8



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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.4	3.0	3.0
115°	1.8	2.4	3.0
117.5°	1.8	2.4	2.4
120°	1.8	1.8	2.4
122.5°	1.8	1.8	2.4
125°	1.8	1.8	2.4
127.5°	2.4	1.8	1.8
130°	1.8	1.8	1.8
132.5°	2.4	1.8	1.8
135°	2.4	1.8	1.8
137.5°	2.4	1.8	1.8
140°	2.4	1.8	1.8
142.5°	2.4	1.8	1.8
145°	1.8	1.8	1.8
147.5°	1.8	1.8	1.8
150°	1.8	1.8	1.2
152.5°	1.8	1.2	1.2
155°	1.8	1.2	0.6
157.5°	2.4	1.2	0.6
160°	1.8	1.2	0.6
162.5°	1.8	1.2	0.6
165°	1.8	1.2	0.0
167.5°	1.8	1.2	0.6
170°	1.8	1.2	0.6
172.5°	1.8	1.2	0.6
175°	1.8	0.6	0.6
177.5°	1.8	0.6	0.6
180°	1.8	1.8	1.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	250.1	243.0	219.1	179.8	125.6	70.3	26.2	4.8	1.2	1.8	1.8
110°	217.9	212.0	187.6	149.5	101.2	52.4	17.3	3.0	1.8	1.8	1.8





107.5°	2.4	3.6	4.2
110°	2.4	3.0	3.6



(END OF REPORT)