

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: P550724

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-82-96-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: P550724
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-LD4-1LO-30-UNV-82-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

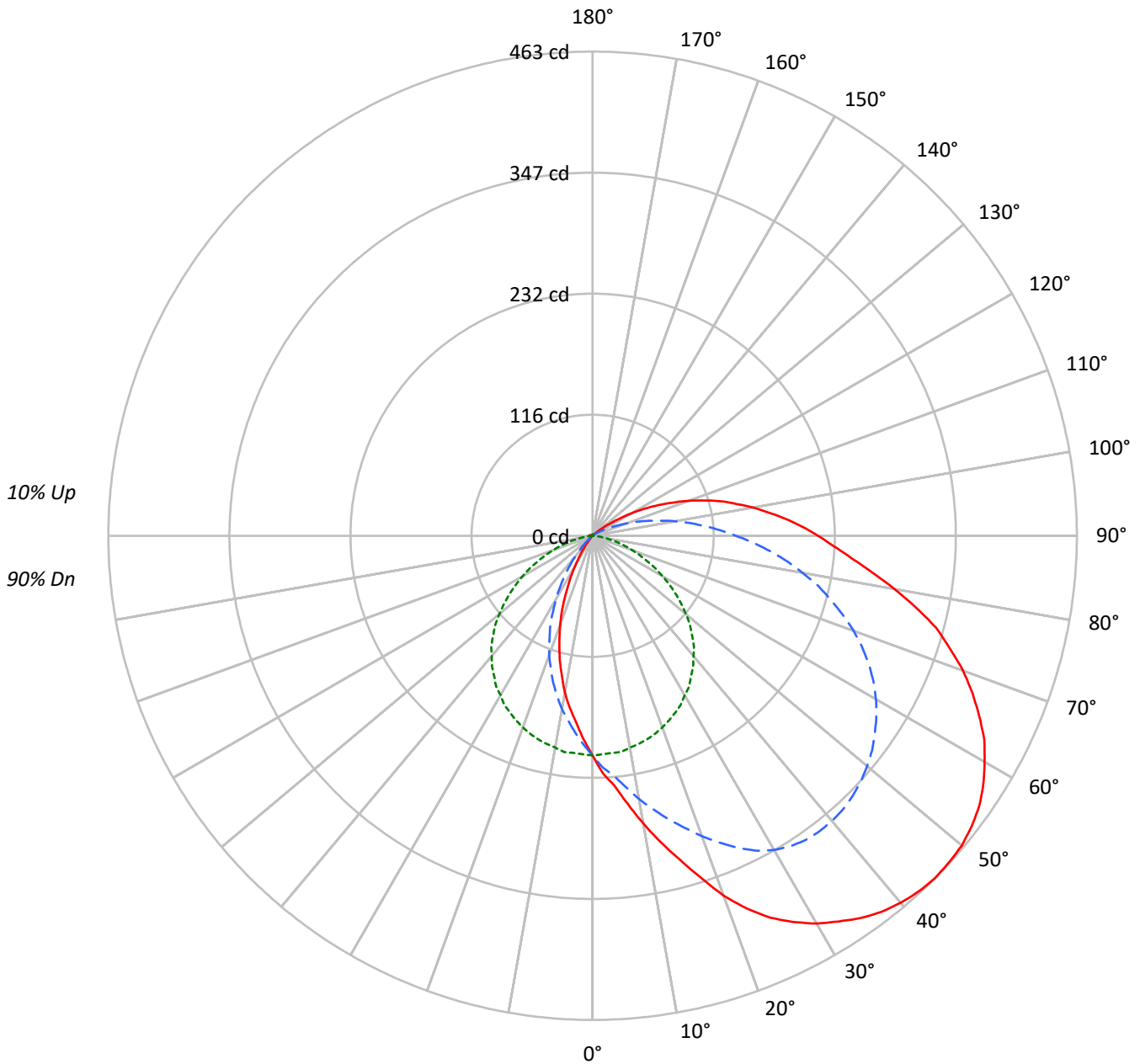
Lumens per Lamp: N/A
Luminaire Lumens: 1038.0 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
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

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CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-82-96-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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°	2260	2260	2260
5°	2481	2227	1858
10°	2807	2200	1532
15°	3147	2172	1193
20°	3549	2136	879
25°	3882	2095	577
30°	4130	2040	325
35°	4345	1982	143
40°	4535	1908	35
45°	4699	1817	0
50°	4835	1695	0
55°	4940	1541	0
60°	4993	1363	0
65°	5013	1161	0
70°	4997	946	0
75°	4934	698	4
80°	4733	428	21
85°	4574	203	29



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.1	1.9
10°-20°	60.2	5.8
20°-30°	97.5	9.4
30°-40°	125.3	12.1
40°-50°	141.8	13.7
50°-60°	146.9	14.2
60°-70°	138.5	13.3
70°-80°	116.1	11.2
80°-90°	84.2	8.1
90°-100°	55.3	5.3
100°-110°	31.9	3.1
110°-120°	14.1	1.4
120°-130°	3.8	0.4
130°-140°	0.9	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	177.8	17.1
0°-40°	303.1	29.2
0°-60°	591.8	57.0
0°-90°	930.7	89.7
90°-120°	101.4	9.8
90°-150°	106.6	10.3
90°-180°	107.0	10.3
0°-180°	1038.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	210	210	210	210	210	
5°	240	230	208	189	180	24
15°	320	281	201	146	121	92
25°	403	329	187	96	60	186
35°	446	355	164	46	15	280
45°	463	352	134	11	0	357
55°	451	329	97	0	0	403
65°	408	292	58	0	0	404
75°	340	235	25	0	0	357
85°	249	171	4	1	2	212
90°	216	137	1	2	2	118
95°	185	107	0	2	2	145
105°	127	55	0	1	2	134
115°	69	18	1	1	1	69
125°	21	3	1	1	1	21
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	0	1	1	1	0	0
165°	0	1	1	1	0	0
175°	0	1	1	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°	210.0	210.0	210.0	210.0	210.0	210.0	210.0	210.0	210.0	210.0	210.0
2.5°	227.6	227.3	226.5	225.2	223.3	220.1	217.5	215.0	211.8	209.2	204.1
5°	239.7	238.3	237.2	235.9	231.6	228.7	223.9	218.5	213.4	208.4	198.2
7.5°	258.9	256.8	255.2	251.4	245.5	238.8	231.4	226.3	222.8	208.6	191.2
10°	279.5	277.6	274.4	267.7	260.5	250.9	240.2	228.2	217.5	205.7	185.1
12.5°	299.8	297.2	292.6	284.1	273.9	261.9	247.1	233.0	217.7	203.8	177.9
15°	320.2	317.2	312.4	302.0	288.6	272.8	254.9	237.0	219.1	201.4	170.4
17.5°	342.4	338.3	331.1	319.4	302.5	283.0	261.9	240.2	218.5	198.5	162.4
20°	366.2	360.5	352.8	337.0	317.2	294.2	268.8	243.4	218.3	195.0	153.3
22.5°	386.0	380.3	371.8	355.5	331.7	303.6	274.7	245.5	217.2	191.0	144.7
25°	403.1	398.5	389.2	370.4	345.3	313.5	280.3	247.1	215.6	186.7	135.6
27.5°	416.4	412.2	401.7	382.5	356.8	322.3	284.6	247.9	213.4	182.4	126.2
30°	428.2	423.9	411.4	391.6	364.6	329.3	288.9	248.2	210.8	176.0	116.1
32.5°	437.3	433.3	420.5	399.3	369.9	334.1	291.3	247.9	207.3	171.4	105.1
35°	446.4	442.4	427.4	404.9	373.9	336.2	293.1	246.6	203.0	164.0	94.7
37.5°	453.4	448.8	433.6	408.7	375.8	336.7	292.9	244.7	198.5	157.8	84.3
40°	458.2	453.4	437.0	410.8	376.3	335.9	290.7	241.5	193.1	150.0	73.3
42.5°	461.4	456.0	438.6	414.0	375.3	333.8	287.5	237.5	187.2	143.4	62.9
45°	463.0	457.4	438.9	411.4	373.4	329.8	282.7	232.4	180.8	134.3	52.4
47.5°	462.2	456.0	437.6	408.4	369.9	325.5	277.4	226.3	173.1	126.2	42.5
50°	460.8	454.4	434.6	404.7	365.1	320.2	271.5	218.8	165.0	116.3	33.7
52.5°	456.6	450.1	431.4	399.3	359.5	314.0	263.5	211.0	156.5	106.7	25.7
55°	451.2	445.3	425.8	394.5	352.3	306.5	256.0	202.7	148.2	96.8	18.5
57.5°	442.9	437.6	418.9	386.8	345.0	298.2	247.7	193.6	137.7	86.9	12.8
60°	432.8	427.4	409.2	377.9	336.7	288.9	238.6	184.3	128.4	77.0	8.0
62.5°	422.1	417.0	398.0	367.0	326.3	279.0	228.7	174.9	118.5	67.9	4.8
65°	407.9	403.1	386.0	353.9	314.8	268.3	217.7	163.7	108.3	57.8	2.7
67.5°	392.9	388.6	371.2	341.8	301.4	256.5	206.5	152.7	97.6	48.9	1.3
70°	376.9	371.5	355.5	325.5	287.8	243.1	194.2	141.5	87.5	40.4	0.0
72.5°	358.1	354.1	338.6	310.3	272.0	229.0	181.6	129.2	76.2	32.1	0.3
75°	340.0	334.9	320.7	293.9	256.5	214.0	167.7	117.7	65.3	24.6	0.3
77.5°	316.4	314.8	301.4	275.5	241.8	199.5	152.5	103.8	54.8	17.7	0.3
80°	292.9	291.3	280.8	257.0	224.7	182.4	138.3	90.7	44.7	11.8	0.3
82.5°	269.6	267.5	257.6	237.8	207.3	168.0	123.6	77.6	35.3	7.2	0.3
85°	248.7	246.1	235.4	217.2	189.4	151.7	108.3	64.7	26.2	4.0	0.5
87.5°	230.8	229.0	217.2	198.5	171.2	136.4	95.0	52.4	18.5	1.9	0.8
90°	215.6	211.6	201.1	181.3	154.1	119.6	80.8	42.0	12.3	1.1	1.1
92.5°	200.6	197.1	185.6	165.3	138.8	105.1	67.1	32.1	7.8	0.5	1.3
95°	185.1	181.3	170.1	151.4	123.3	90.4	55.1	23.5	4.3	0.5	1.3
97.5°	169.8	166.4	154.6	135.9	109.4	77.6	43.6	16.6	2.1	0.5	1.1
100°	155.7	151.7	141.0	122.2	95.5	64.7	33.7	10.7	1.3	0.5	1.1
102.5°	140.7	137.5	126.5	108.3	81.0	52.7	25.1	6.7	0.5	0.5	0.8
105°	127.3	123.3	112.6	93.9	69.0	41.5	17.7	4.0	0.5	0.5	0.8



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CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-82-96-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	82.9	79.7	70.3	54.6	35.0	16.3	4.8	0.8	0.8	0.8	0.8
115°	69.3	64.5	56.2	42.3	25.9	10.7	2.4	0.8	0.8	0.8	0.8
117.5°	55.4	51.4	45.5	32.1	17.1	7.0	1.3	0.8	0.8	0.8	0.8
120°	43.3	39.6	32.9	22.2	11.5	4.0	0.5	0.8	0.8	0.8	0.8
122.5°	31.0	28.1	22.2	14.4	7.0	1.9	0.8	0.8	1.1	1.1	0.8
125°	20.6	19.0	14.7	8.8	4.3	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	13.4	12.0	8.6	5.1	1.9	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.5	6.7	5.1	2.9	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.3	4.0	2.7	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1
135°	1.1	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.1	1.3	1.3	1.3	1.1
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.1	1.3	1.3	1.3	1.1
142.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1	1.1
145°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.1	1.1	1.1
147.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1	1.1
150°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.1
152.5°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.1
155°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.3
157.5°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1	1.1
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.1
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	210.0	210.0	210.0
2.5°	199.8	196.1	195.0
5°	189.1	182.9	179.5
7.5°	178.4	170.1	166.1
10°	168.5	156.7	152.5
12.5°	156.7	143.1	136.4
15°	145.5	127.8	121.4
17.5°	132.9	113.1	105.6
20°	121.2	98.4	90.7
22.5°	107.8	84.0	75.4
25°	95.8	69.5	59.9
27.5°	82.4	54.8	46.5
30°	69.8	42.0	33.7
32.5°	57.8	30.8	23.3
35°	46.5	20.9	14.7
37.5°	35.8	12.8	7.5
40°	25.9	6.7	3.5
42.5°	17.4	3.2	1.9
45°	10.7	1.6	0.0
47.5°	6.2	0.0	0.0
50°	3.2	0.0	0.0
52.5°	1.3	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°	0.3	0.3	0.3
77.5°	0.3	0.5	0.8
80°	0.5	1.1	1.3
82.5°	1.1	1.3	1.3
85°	1.1	1.3	1.6
87.5°	1.3	1.6	1.9
90°	1.6	1.9	1.9
92.5°	1.6	2.1	2.1
95°	1.9	2.1	2.4
97.5°	2.1	2.4	2.4
100°	1.9	2.4	2.7
102.5°	1.6	2.4	2.4
105°	1.3	1.9	2.1



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CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-82-96-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.1	1.3	1.3
115°	0.8	1.1	1.3
117.5°	0.8	1.1	1.1
120°	0.8	0.8	1.1
122.5°	0.8	0.8	1.1
125°	0.8	0.8	1.1
127.5°	1.1	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.1	0.8	0.8
135°	1.1	0.8	0.8
137.5°	1.1	0.8	0.8
140°	1.1	0.8	0.8
142.5°	1.1	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.5
152.5°	0.8	0.5	0.5
155°	0.8	0.5	0.3
157.5°	1.1	0.5	0.3
160°	0.8	0.5	0.3
162.5°	0.8	0.5	0.3
165°	0.8	0.5	0.0
167.5°	0.8	0.5	0.3
170°	0.8	0.5	0.3
172.5°	0.8	0.5	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	112.3	109.1	98.4	80.8	56.4	31.6	11.8	2.1	0.5	0.8	0.8
110°	97.9	95.2	84.3	67.1	45.5	23.5	7.8	1.3	0.8	0.8	0.8





107.5°	1.1	1.6	1.9
110°	1.1	1.3	1.6



(END OF REPORT)