

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: P550926

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-93-87-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: P550926
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-50-UNV-93-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

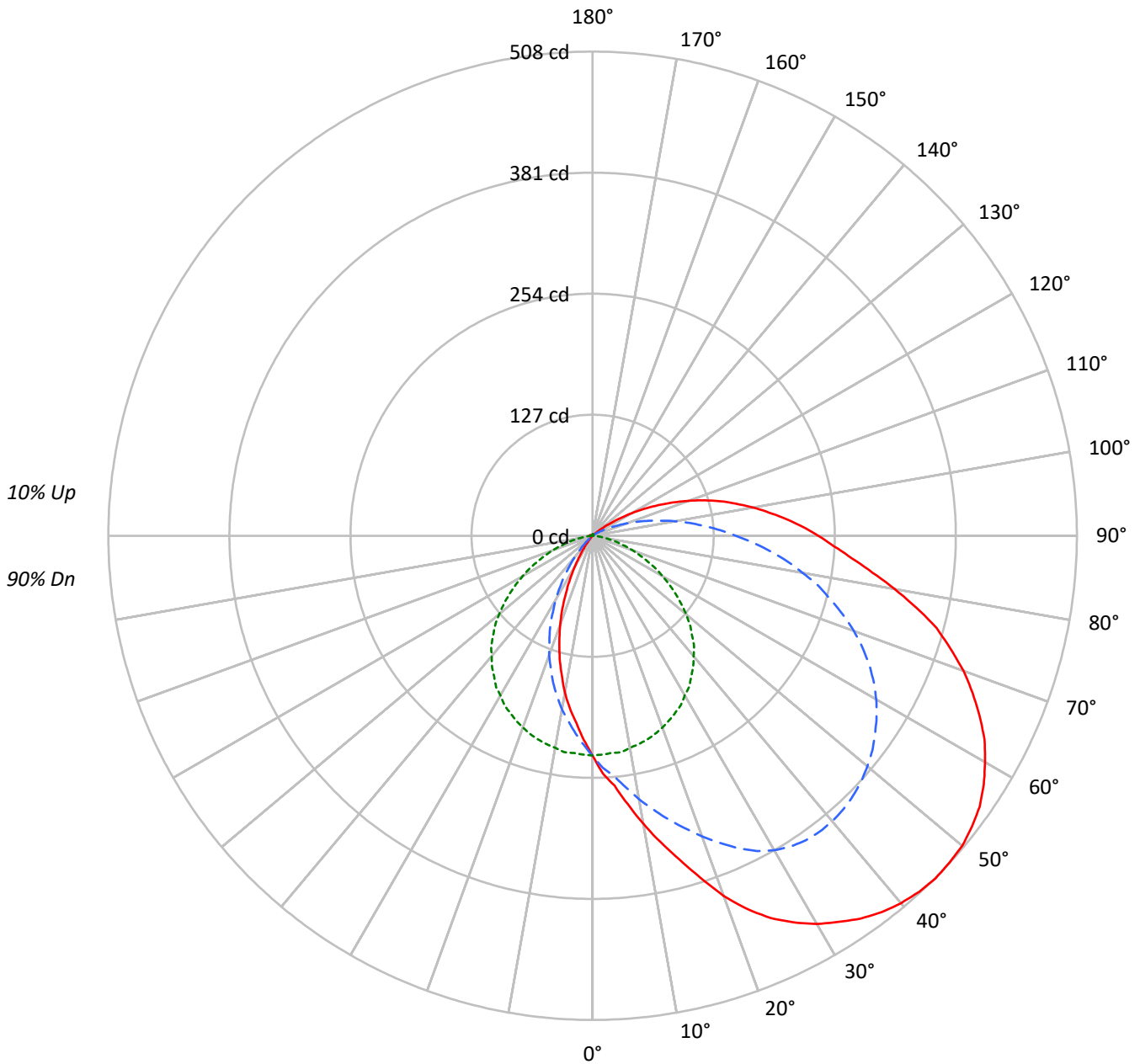
Lumens per Lamp: N/A
Luminaire Lumens: 1140.1 lumens
Efficiency: N/A
Efficacy: 97.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (A_{in}): 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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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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°	2482	2482	2482
5°	2725	2445	2040
10°	3084	2416	1681
15°	3455	2385	1311
20°	3897	2346	965
25°	4264	2301	634
30°	4536	2241	357
35°	4772	2176	158
40°	4981	2096	38
45°	5160	1996	0
50°	5311	1863	0
55°	5426	1693	0
60°	5483	1497	0
65°	5506	1275	0
70°	5488	1040	0
75°	5418	766	4
80°	5199	468	24
85°	5025	224	33



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.1	1.9
10°-20°	66.1	5.8
20°-30°	107.1	9.4
30°-40°	137.6	12.1
40°-50°	155.7	13.7
50°-60°	161.3	14.2
60°-70°	152.2	13.3
70°-80°	127.5	11.2
80°-90°	92.5	8.1
90°-100°	60.8	5.3
100°-110°	35.1	3.1
110°-120°	15.5	1.4
120°-130°	4.2	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	195.3	17.1
0°-40°	332.9	29.2
0°-60°	650.0	57.0
0°-90°	1022.2	89.7
90°-120°	111.4	9.8
90°-150°	117.2	10.3
90°-180°	118.0	10.3
0°-180°	1140.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	231	231	231	231	231	
5°	263	253	229	208	197	27
15°	352	308	221	160	133	101
25°	443	362	205	105	66	205
35°	490	390	180	51	16	307
45°	508	386	148	12	0	393
55°	496	362	106	0	0	443
65°	448	320	64	0	0	443
75°	373	258	27	0	0	392
85°	273	187	4	1	2	233
90°	237	150	1	2	2	130
95°	203	117	1	2	3	159
105°	140	61	1	2	2	148
115°	76	20	1	1	2	76
125°	23	3	1	1	1	23
135°	1	1	2	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	1	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°	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6
2.5°	250.0	249.7	248.8	247.3	245.3	241.8	238.8	236.2	232.7	229.7	224.1
5°	263.2	261.7	260.6	259.1	254.4	251.2	245.9	240.0	234.4	228.8	217.7
7.5°	284.4	282.0	280.2	276.1	269.7	262.3	254.1	248.5	244.7	229.1	210.0
10°	307.0	304.9	301.4	294.0	286.1	275.5	263.8	250.6	238.8	225.9	203.3
12.5°	329.3	326.4	321.4	312.0	300.8	287.6	271.4	255.9	239.1	223.8	195.3
15°	351.6	348.4	343.1	331.6	317.0	299.6	279.9	260.3	240.6	221.2	187.1
17.5°	376.0	371.6	363.7	350.7	332.2	310.8	287.6	263.8	240.0	218.0	178.3
20°	402.1	396.0	387.5	370.1	348.4	323.1	295.2	267.3	239.7	214.1	168.3
22.5°	423.9	417.7	408.3	390.4	364.3	333.4	301.7	269.7	238.5	209.7	158.9
25°	442.7	437.7	427.4	406.8	379.2	344.3	307.9	271.4	236.8	205.0	148.9
27.5°	457.4	452.7	441.2	420.1	391.9	354.0	312.6	272.3	234.4	200.3	138.7
30°	470.3	465.6	451.8	430.1	400.4	361.6	317.3	272.6	231.5	193.3	127.5
32.5°	480.3	475.9	461.8	438.6	406.3	366.9	319.9	272.3	227.7	188.3	115.4
35°	490.3	485.9	469.4	444.7	410.7	369.2	322.0	270.8	223.0	180.1	104.0
37.5°	497.9	492.9	476.2	448.9	412.7	369.8	321.7	268.8	218.0	173.3	92.5
40°	503.2	497.9	480.0	451.2	413.3	369.0	319.3	265.3	212.1	164.8	80.5
42.5°	506.7	500.8	481.8	454.7	412.1	366.6	315.8	260.9	205.6	157.5	69.0
45°	508.5	502.3	482.0	451.8	410.1	362.2	310.5	255.3	198.6	147.5	57.6
47.5°	507.6	500.8	480.6	448.6	406.3	357.5	304.6	248.5	190.1	138.7	46.7
50°	506.1	499.1	477.3	444.4	401.0	351.6	298.2	240.3	181.2	127.8	37.0
52.5°	501.4	494.4	473.8	438.6	394.8	344.9	289.3	231.8	171.8	117.2	28.2
55°	495.6	489.1	467.7	433.3	386.9	336.6	281.1	222.7	162.7	106.3	20.3
57.5°	486.5	480.6	460.0	424.8	378.9	327.5	272.0	212.7	151.3	95.5	14.1
60°	475.3	469.4	449.4	415.1	369.8	317.3	262.0	202.4	141.0	84.6	8.8
62.5°	463.5	458.0	437.1	403.0	358.4	306.4	251.2	192.1	130.1	74.6	5.3
65°	448.0	442.7	423.9	388.6	345.7	294.6	239.1	179.8	119.0	63.5	2.9
67.5°	431.5	426.8	407.7	375.4	331.1	281.7	226.8	167.7	107.2	53.8	1.5
70°	413.9	408.0	390.4	357.5	316.1	267.0	213.3	155.4	96.1	44.4	0.0
72.5°	393.3	388.9	371.9	340.8	298.7	251.5	199.5	141.9	83.7	35.3	0.3
75°	373.4	367.8	352.2	322.8	281.7	235.0	184.2	129.3	71.7	27.0	0.3
77.5°	347.5	345.7	331.1	302.6	265.6	219.1	167.4	114.0	60.2	19.4	0.3
80°	321.7	319.9	308.4	282.3	246.8	200.3	151.9	99.6	49.1	12.9	0.3
82.5°	296.1	293.8	282.9	261.1	227.7	184.5	135.7	85.2	38.8	7.9	0.3
85°	273.2	270.3	258.5	238.5	208.0	166.6	119.0	71.1	28.8	4.4	0.6
87.5°	253.5	251.5	238.5	218.0	188.0	149.8	104.3	57.6	20.3	2.1	0.9
90°	236.8	232.4	220.9	199.2	169.2	131.3	88.7	46.1	13.5	1.2	1.2
92.5°	220.3	216.5	203.9	181.5	152.5	115.4	73.7	35.3	8.5	0.6	1.5
95°	203.3	199.2	186.8	166.3	135.4	99.3	60.5	25.9	4.7	0.6	1.5
97.5°	186.5	182.7	169.8	149.2	120.1	85.2	47.9	18.2	2.4	0.6	1.2
100°	171.0	166.6	154.8	134.2	104.9	71.1	37.0	11.8	1.5	0.6	1.2
102.5°	154.5	151.0	138.9	119.0	89.0	57.9	27.6	7.3	0.6	0.6	0.9
105°	139.8	135.4	123.7	103.1	75.8	45.5	19.4	4.4	0.6	0.6	0.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	91.1	87.5	77.3	59.9	38.5	17.9	5.3	0.9	0.9	0.9	0.9
115°	76.1	70.8	61.7	46.4	28.5	11.8	2.6	0.9	0.9	0.9	0.9
117.5°	60.8	56.4	49.9	35.3	18.8	7.6	1.5	0.9	0.9	0.9	0.9
120°	47.6	43.5	36.1	24.4	12.6	4.4	0.6	0.9	0.9	0.9	0.9
122.5°	34.1	30.8	24.4	15.9	7.6	2.1	0.9	0.9	1.2	1.2	0.9
125°	22.6	20.9	16.2	9.7	4.7	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	14.7	13.2	9.4	5.6	2.1	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.2	7.3	5.6	3.2	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.7	4.4	2.9	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2
135°	1.2	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.5	1.5	1.5	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
160°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
162.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2	1.2
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.5
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.2
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	230.6	230.6	230.6
2.5°	219.4	215.3	214.1
5°	207.7	200.9	197.1
7.5°	195.9	186.8	182.4
10°	185.1	172.1	167.4
12.5°	172.1	157.2	149.8
15°	159.8	140.4	133.4
17.5°	146.0	124.3	116.0
20°	133.1	108.1	99.6
22.5°	118.4	92.2	82.8
25°	105.2	76.4	65.8
27.5°	90.5	60.2	51.1
30°	76.7	46.1	37.0
32.5°	63.5	33.8	25.6
35°	51.1	22.9	16.2
37.5°	39.4	14.1	8.2
40°	28.5	7.3	3.8
42.5°	19.1	3.5	2.1
45°	11.8	1.8	0.0
47.5°	6.8	0.0	0.0
50°	3.5	0.0	0.0
52.5°	1.5	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	0.6	0.9
80°	0.6	1.2	1.5
82.5°	1.2	1.5	1.5
85°	1.2	1.5	1.8
87.5°	1.5	1.8	2.1
90°	1.8	2.1	2.1
92.5°	1.8	2.4	2.4
95°	2.1	2.4	2.6
97.5°	2.4	2.6	2.6
100°	2.1	2.6	2.9
102.5°	1.8	2.6	2.6
105°	1.5	2.1	2.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.2	1.5	1.5
115°	0.9	1.2	1.5
117.5°	0.9	1.2	1.2
120°	0.9	0.9	1.2
122.5°	0.9	0.9	1.2
125°	0.9	0.9	1.2
127.5°	1.2	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.2	0.9	0.9
135°	1.2	0.9	0.9
137.5°	1.2	0.9	0.9
140°	1.2	0.9	0.9
142.5°	1.2	0.9	0.9
145°	0.9	0.9	0.9
147.5°	0.9	0.9	0.9
150°	0.9	0.9	0.6
152.5°	0.9	0.6	0.6
155°	0.9	0.6	0.3
157.5°	1.2	0.6	0.3
160°	0.9	0.6	0.3
162.5°	0.9	0.6	0.3
165°	0.9	0.6	0.0
167.5°	0.9	0.6	0.3
170°	0.9	0.6	0.3
172.5°	0.9	0.6	0.3
175°	0.9	0.3	0.3
177.5°	0.9	0.3	0.3
180°	0.9	0.9	0.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	123.4	119.9	108.1	88.7	62.0	34.7	12.9	2.4	0.6	0.9	0.9
110°	107.5	104.6	92.5	73.7	49.9	25.9	8.5	1.5	0.9	0.9	0.9





107.5°	1.2	1.8	2.1
110°	1.2	1.5	1.8



(END OF REPORT)