

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: P551147

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-81-86-ED1D-90**

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: P551147
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-LD4-1STD-50-UNV-81-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

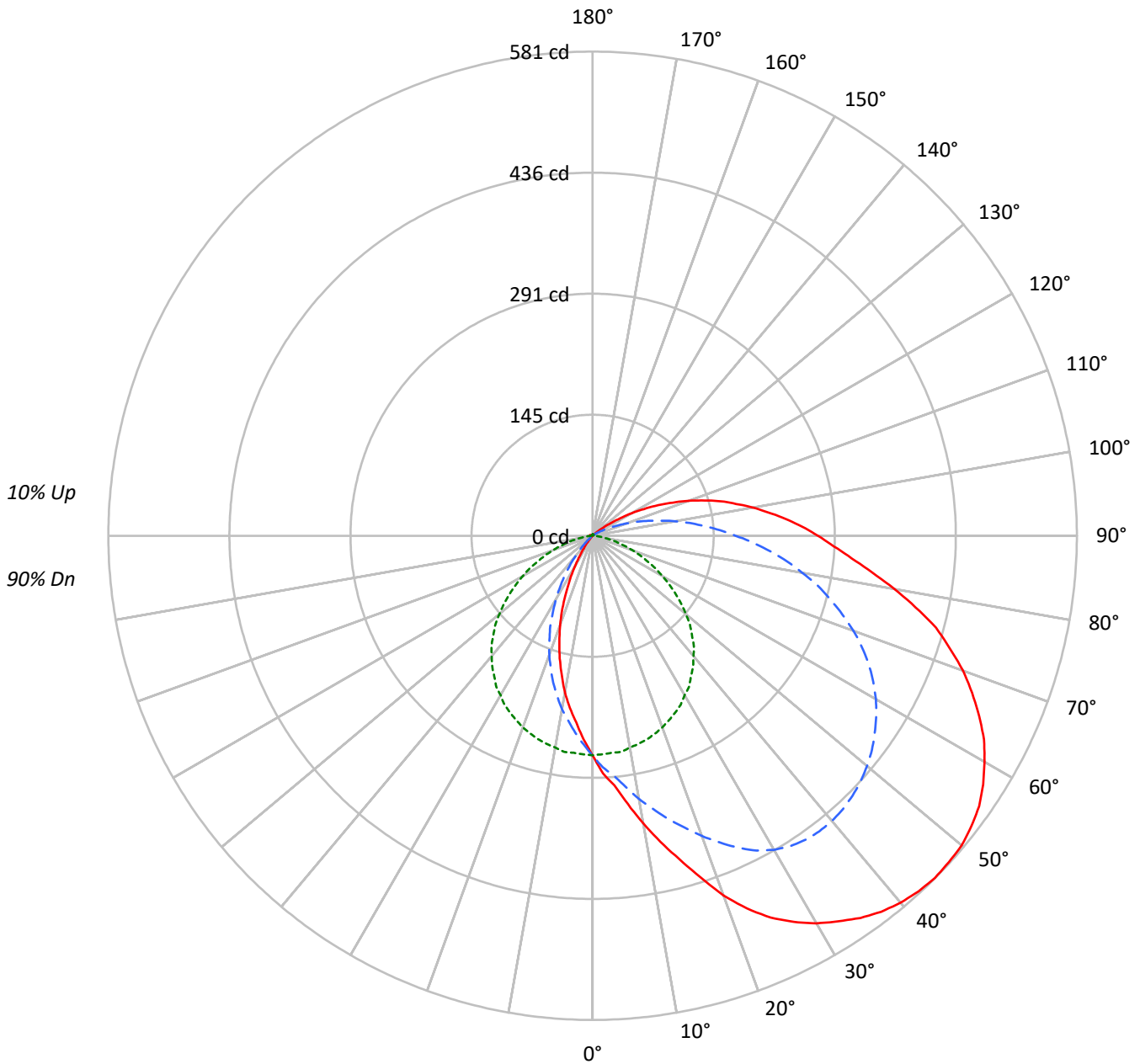
Lumens per Lamp: N/A
Luminaire Lumens: 1301.9 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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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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	70	70	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	56	56	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	46	46	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	38	38	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	33	33	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	28	28	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	25	25	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	22	22	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	20	20	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	18	18	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2835	2835	2835
5°	3112	2794	2330
10°	3522	2759	1920
15°	3947	2724	1497
20°	4451	2680	1102
25°	4869	2628	724
30°	5180	2560	408
35°	5449	2485	180
40°	5689	2393	44
45°	5893	2279	0
50°	6066	2126	0
55°	6197	1933	0
60°	6262	1709	0
65°	6288	1456	0
70°	6267	1188	0
75°	6187	876	4
80°	5937	537	27
85°	5738	254	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.2	1.9
10°-20°	75.5	5.8
20°-30°	122.3	9.4
30°-40°	157.1	12.1
40°-50°	177.9	13.7
50°-60°	184.3	14.2
60°-70°	173.8	13.3
70°-80°	145.6	11.2
80°-90°	105.6	8.1
90°-100°	69.4	5.3
100°-110°	40.1	3.1
110°-120°	17.7	1.4
120°-130°	4.8	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	223.1	17.1
0°-40°	380.2	29.2
0°-60°	742.4	57.0
0°-90°	1167.4	89.7
90°-120°	127.1	9.8
90°-150°	133.7	10.3
90°-180°	135.0	10.4
0°-180°	1301.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	263	263	263	263	263	
5°	301	289	261	237	225	30
15°	402	352	253	182	152	116
25°	506	413	234	120	75	234
35°	560	445	206	58	18	351
45°	581	441	168	13	0	448
55°	566	413	121	0	0	505
65°	512	366	72	0	0	506
75°	426	295	31	0	0	447
85°	312	214	5	1	2	266
90°	270	172	1	2	2	148
95°	232	134	1	2	3	182
105°	160	69	1	2	3	169
115°	87	23	1	1	2	87
125°	26	3	1	1	1	26
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°	263.4	263.4	263.4	263.4	263.4	263.4	263.4	263.4	263.4	263.4	263.4
2.5°	285.5	285.2	284.2	282.5	280.1	276.1	272.8	269.7	265.7	262.4	256.0
5°	300.6	298.9	297.6	295.9	290.5	286.8	280.8	274.1	267.7	261.4	248.6
7.5°	324.8	322.1	320.1	315.4	308.0	299.6	290.2	283.8	279.5	261.7	239.9
10°	350.6	348.2	344.2	335.8	326.8	314.7	301.3	286.2	272.8	258.0	232.2
12.5°	376.1	372.7	367.0	356.3	343.5	328.4	310.0	292.2	273.1	255.6	223.1
15°	401.6	397.9	391.9	378.8	362.0	342.2	319.7	297.2	274.8	252.6	213.7
17.5°	429.4	424.4	415.3	400.6	379.4	355.0	328.4	301.3	274.1	248.9	203.6
20°	459.3	452.2	442.5	422.7	397.9	369.0	337.2	305.3	273.8	244.6	192.2
22.5°	484.1	477.1	466.3	445.9	416.0	380.8	344.6	308.0	272.4	239.5	181.5
25°	505.6	499.9	488.1	464.7	433.1	393.2	351.6	310.0	270.4	234.2	170.1
27.5°	522.4	517.0	503.9	479.8	447.5	404.3	357.0	311.0	267.7	228.8	158.4
30°	537.1	531.8	516.0	491.2	457.3	413.0	362.3	311.3	264.4	220.8	145.6
32.5°	548.5	543.5	527.4	500.9	464.0	419.0	365.4	311.0	260.0	215.1	131.8
35°	559.9	554.9	536.1	507.9	469.0	421.7	367.7	309.3	254.6	205.7	118.8
37.5°	568.7	563.0	543.8	512.6	471.4	422.4	367.4	307.0	248.9	197.9	105.7
40°	574.7	568.7	548.2	515.3	472.0	421.4	364.7	303.0	242.2	188.2	91.9
42.5°	578.7	572.0	550.2	519.3	470.7	418.7	360.7	297.9	234.8	179.8	78.8
45°	580.7	573.7	550.5	516.0	468.4	413.7	354.6	291.5	226.8	168.4	65.8
47.5°	579.7	572.0	548.9	512.3	464.0	408.3	347.9	283.8	217.1	158.4	53.3
50°	578.1	570.0	545.2	507.6	458.0	401.6	340.5	274.4	207.0	145.9	42.3
52.5°	572.7	564.6	541.2	500.9	450.9	393.9	330.5	264.7	196.3	133.9	32.2
55°	566.0	558.6	534.1	494.9	441.8	384.5	321.1	254.3	185.9	121.4	23.1
57.5°	555.6	548.9	525.4	485.1	432.8	374.1	310.7	242.9	172.8	109.0	16.1
60°	542.8	536.1	513.3	474.1	422.4	362.3	299.3	231.2	161.0	96.6	10.1
62.5°	529.4	523.0	499.2	460.3	409.3	349.9	286.8	219.4	148.6	85.2	6.0
65°	511.6	505.6	484.1	443.9	394.9	336.5	273.1	205.3	135.9	72.5	3.4
67.5°	492.8	487.5	465.7	428.8	378.1	321.7	259.0	191.6	122.5	61.4	1.7
70°	472.7	466.0	445.9	408.3	361.0	305.0	243.6	177.5	109.7	50.7	0.0
72.5°	449.2	444.2	424.7	389.2	341.2	287.2	227.8	162.0	95.6	40.3	0.3
75°	426.4	420.0	402.3	368.7	321.7	268.4	210.4	147.6	81.9	30.9	0.3
77.5°	396.9	394.9	378.1	345.6	303.3	250.3	191.2	130.2	68.8	22.1	0.3
80°	367.4	365.4	352.3	322.4	281.8	228.8	173.5	113.7	56.0	14.8	0.3
82.5°	338.2	335.5	323.1	298.3	260.0	210.7	155.0	97.3	44.3	9.1	0.3
85°	312.0	308.7	295.2	272.4	237.5	190.2	135.9	81.2	32.9	5.0	0.7
87.5°	289.5	287.2	272.4	248.9	214.7	171.1	119.1	65.8	23.1	2.3	1.0
90°	270.4	265.4	252.3	227.5	193.2	150.0	101.3	52.7	15.4	1.3	1.3
92.5°	251.6	247.3	232.8	207.3	174.1	131.8	84.2	40.3	9.7	0.7	1.7
95°	232.2	227.5	213.4	189.9	154.7	113.4	69.1	29.5	5.4	0.7	1.7
97.5°	213.0	208.7	193.9	170.4	137.2	97.3	54.7	20.8	2.7	0.7	1.3
100°	195.3	190.2	176.8	153.3	119.8	81.2	42.3	13.4	1.7	0.7	1.3
102.5°	176.5	172.4	158.7	135.9	101.7	66.1	31.5	8.4	0.7	0.7	1.0
105°	159.7	154.7	141.2	117.8	86.6	52.0	22.1	5.0	0.7	0.7	1.0



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-81-86-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	104.0	100.0	88.2	68.4	43.9	20.5	6.0	1.0	1.0	1.0	1.0
115°	86.9	80.9	70.5	53.0	32.5	13.4	3.0	1.0	1.0	1.0	1.0
117.5°	69.4	64.4	57.0	40.3	21.5	8.7	1.7	1.0	1.0	1.0	1.0
120°	54.4	49.7	41.3	27.8	14.4	5.0	0.7	1.0	1.0	1.0	1.0
122.5°	38.9	35.2	27.8	18.1	8.7	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.8	23.8	18.5	11.1	5.4	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.8	15.1	10.7	6.4	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.4	8.4	6.4	3.7	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.4	5.0	3.4	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.3	1.7	1.7	1.7	1.3
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.3
142.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
145°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.3	1.3	1.3
147.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
150°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
152.5°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
155°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
157.5°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.3
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	263.4	263.4	263.4
2.5°	250.6	245.9	244.6
5°	237.2	229.5	225.1
7.5°	223.8	213.4	208.3
10°	211.4	196.6	191.2
12.5°	196.6	179.5	171.1
15°	182.5	160.4	152.3
17.5°	166.7	141.9	132.5
20°	152.0	123.5	113.7
22.5°	135.2	105.3	94.6
25°	120.1	87.2	75.2
27.5°	103.3	68.8	58.4
30°	87.6	52.7	42.3
32.5°	72.5	38.6	29.2
35°	58.4	26.2	18.5
37.5°	45.0	16.1	9.4
40°	32.5	8.4	4.4
42.5°	21.8	4.0	2.3
45°	13.4	2.0	0.0
47.5°	7.7	0.0	0.0
50°	4.0	0.0	0.0
52.5°	1.7	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°	0.3	0.3	0.3
77.5°	0.3	0.7	1.0
80°	0.7	1.3	1.7
82.5°	1.3	1.7	1.7
85°	1.3	1.7	2.0
87.5°	1.7	2.0	2.3
90°	2.0	2.3	2.3
92.5°	2.0	2.7	2.7
95°	2.3	2.7	3.0
97.5°	2.7	3.0	3.0
100°	2.3	3.0	3.4
102.5°	2.0	3.0	3.0
105°	1.7	2.3	2.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.7	1.7
115°	1.0	1.3	1.7
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.3	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	140.9	136.9	123.5	101.3	70.8	39.6	14.8	2.7	0.7	1.0	1.0
110°	122.8	119.4	105.7	84.2	57.0	29.5	9.7	1.7	1.0	1.0	1.0





107.5°	1.3	2.0	2.3
110°	1.3	1.7	2.0



(END OF REPORT)