

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: P551163

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-82-86-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: P551163
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-82-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 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

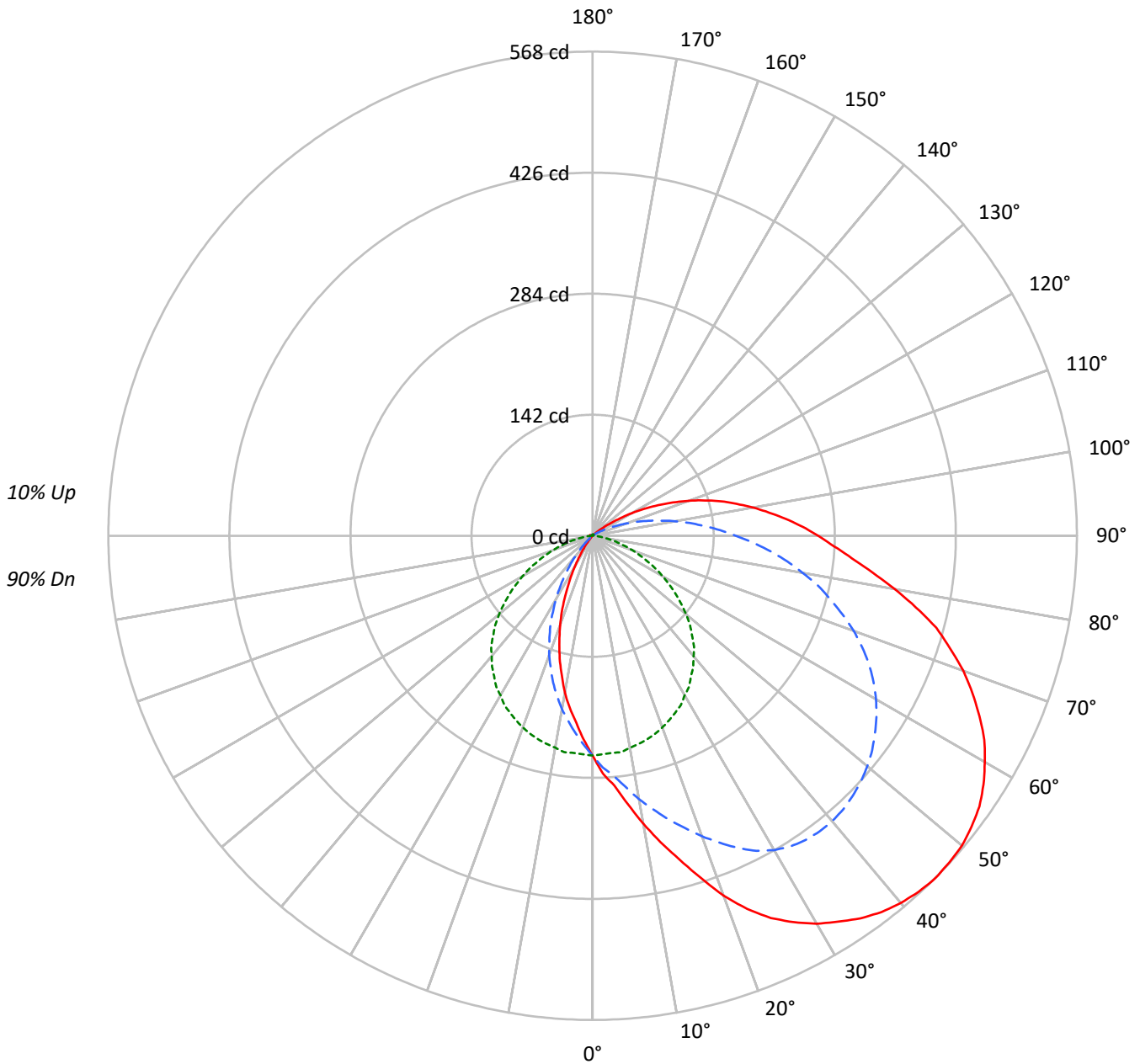
Lumens per Lamp: N/A
Luminaire Lumens: 1274.0 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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

TEST NUMBER: P551163

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-86-ED1D-90

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°	2774	2774	2774
5°	3045	2733	2281
10°	3446	2699	1879
15°	3862	2665	1464
20°	4355	2622	1079
25°	4765	2571	708
30°	5069	2504	399
35°	5333	2431	176
40°	5566	2343	43
45°	5767	2230	0
50°	5935	2081	0
55°	6063	1892	0
60°	6128	1672	0
65°	6153	1424	0
70°	6132	1162	0
75°	6054	856	4
80°	5810	522	26
85°	5615	249	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.7	1.9
10°-20°	73.9	5.8
20°-30°	119.7	9.4
30°-40°	153.7	12.1
40°-50°	174.0	13.7
50°-60°	180.3	14.2
60°-70°	170.1	13.3
70°-80°	142.5	11.2
80°-90°	103.3	8.1
90°-100°	67.9	5.3
100°-110°	39.2	3.1
110°-120°	17.3	1.4
120°-130°	4.7	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
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0°-30°	218.3	17.1
0°-40°	372.0	29.2
0°-60°	726.4	57.0
0°-90°	1142.2	89.7
90°-120°	124.4	9.8
90°-150°	130.9	10.3
90°-180°	132.0	10.4
0°-180°	1274.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	258	258	258	258	258	
5°	294	282	256	232	220	30
15°	393	344	247	179	149	113
25°	495	404	229	118	74	229
35°	548	436	201	57	18	344
45°	568	432	165	13	0	439
55°	554	404	119	0	0	495
65°	501	358	71	0	0	495
75°	417	289	30	0	0	438
85°	305	209	5	1	2	261
90°	265	168	1	2	2	145
95°	227	131	1	2	3	178
105°	156	68	1	2	3	165
115°	85	22	1	1	2	85
125°	25	3	1	1	1	25
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°	257.7	257.7	257.7	257.7	257.7	257.7	257.7	257.7	257.7	257.7	257.7
2.5°	279.4	279.0	278.1	276.4	274.1	270.2	266.9	263.9	260.0	256.7	250.5
5°	294.1	292.5	291.2	289.5	284.3	280.7	274.8	268.2	262.0	255.7	243.3
7.5°	317.8	315.1	313.2	308.6	301.4	293.2	284.0	277.7	273.5	256.1	234.7
10°	343.1	340.8	336.8	328.6	319.7	307.9	294.8	280.0	266.9	252.4	227.2
12.5°	368.0	364.7	359.1	348.6	336.2	321.4	303.3	285.9	267.2	250.1	218.3
15°	393.0	389.3	383.4	370.6	354.2	334.8	312.9	290.9	268.9	247.2	209.1
17.5°	420.2	415.3	406.4	392.0	371.3	347.3	321.4	294.8	268.2	243.6	199.3
20°	449.4	442.5	433.0	413.6	389.3	361.1	329.9	298.7	267.9	239.3	188.1
22.5°	473.7	466.8	456.3	436.3	407.1	372.6	337.1	301.4	266.6	234.4	177.6
25°	494.7	489.1	477.6	454.7	423.8	384.7	344.0	303.3	264.6	229.1	166.4
27.5°	511.1	505.9	493.1	469.4	437.9	395.6	349.3	304.3	262.0	223.9	154.9
30°	525.6	520.3	504.9	480.6	447.4	404.1	354.5	304.6	258.7	216.0	142.5
32.5°	536.7	531.8	516.1	490.1	454.0	410.0	357.5	304.3	254.4	210.4	129.0
35°	547.9	543.0	524.6	497.0	458.9	412.6	359.8	302.7	249.2	201.2	116.2
37.5°	556.4	550.9	532.1	501.6	461.2	413.3	359.5	300.4	243.6	193.7	103.4
40°	562.3	556.4	536.4	504.2	461.9	412.3	356.8	296.4	237.0	184.2	89.9
42.5°	566.3	559.7	538.4	508.2	460.6	409.7	352.9	291.5	229.8	176.0	77.1
45°	568.3	561.4	538.7	504.9	458.3	404.8	347.0	285.3	221.9	164.8	64.3
47.5°	567.3	559.7	537.1	501.3	454.0	399.5	340.4	277.7	212.4	154.9	52.2
50°	565.6	557.7	533.5	496.7	448.1	393.0	333.2	268.5	202.5	142.8	41.4
52.5°	560.4	552.5	529.5	490.1	441.2	385.4	323.4	259.0	192.0	131.0	31.5
55°	553.8	546.6	522.6	484.2	432.3	376.2	314.2	248.8	181.9	118.8	22.7
57.5°	543.6	537.1	514.1	474.7	423.5	366.0	304.0	237.7	169.1	106.7	15.8
60°	531.2	524.6	502.3	463.9	413.3	354.5	292.8	226.2	157.6	94.5	9.8
62.5°	518.0	511.8	488.5	450.4	400.5	342.4	280.7	214.7	145.4	83.4	5.9
65°	500.6	494.7	473.7	434.3	386.4	329.3	267.2	200.9	133.0	70.9	3.3
67.5°	482.2	477.0	455.7	419.5	370.0	314.8	253.4	187.4	119.8	60.1	1.6
70°	462.5	456.0	436.3	399.5	353.2	298.4	238.3	173.7	107.3	49.6	0.0
72.5°	439.6	434.6	415.6	380.8	333.9	281.0	222.9	158.6	93.6	39.4	0.3
75°	417.2	411.0	393.6	360.8	314.8	262.6	205.8	144.4	80.1	30.2	0.3
77.5°	388.4	386.4	370.0	338.1	296.8	244.9	187.1	127.4	67.3	21.7	0.3
80°	359.5	357.5	344.7	315.5	275.8	223.9	169.7	111.3	54.8	14.4	0.3
82.5°	330.9	328.3	316.1	291.8	254.4	206.2	151.7	95.2	43.3	8.9	0.3
85°	305.3	302.0	288.9	266.6	232.4	186.1	133.0	79.4	32.2	4.9	0.7
87.5°	283.3	281.0	266.6	243.6	210.1	167.4	116.5	64.3	22.7	2.3	1.0
90°	264.6	259.7	246.9	222.6	189.1	146.7	99.1	51.5	15.1	1.3	1.3
92.5°	246.2	241.9	227.8	202.9	170.4	129.0	82.4	39.4	9.5	0.7	1.6
95°	227.2	222.6	208.8	185.8	151.3	111.0	67.6	28.9	5.3	0.7	1.6
97.5°	208.5	204.2	189.7	166.8	134.3	95.2	53.5	20.4	2.6	0.7	1.3
100°	191.1	186.1	173.0	150.0	117.2	79.4	41.4	13.1	1.6	0.7	1.3
102.5°	172.7	168.7	155.3	133.0	99.5	64.7	30.9	8.2	0.7	0.7	1.0
105°	156.3	151.3	138.2	115.2	84.7	50.9	21.7	4.9	0.7	0.7	1.0



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-86-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	101.8	97.8	86.3	67.0	43.0	20.0	5.9	1.0	1.0	1.0	1.0
115°	85.0	79.1	68.9	51.9	31.8	13.1	3.0	1.0	1.0	1.0	1.0
117.5°	68.0	63.0	55.8	39.4	21.0	8.5	1.6	1.0	1.0	1.0	1.0
120°	53.2	48.6	40.4	27.2	14.1	4.9	0.7	1.0	1.0	1.0	1.0
122.5°	38.1	34.5	27.2	17.7	8.5	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.3	23.3	18.1	10.8	5.3	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.4	14.8	10.5	6.2	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.2	8.2	6.2	3.6	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.3	4.9	3.3	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	1.6	1.6	1.3
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
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	1.6	1.6	1.6	1.6
172.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.6	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°	257.7	257.7	257.7
2.5°	245.2	240.6	239.3
5°	232.1	224.5	220.3
7.5°	219.0	208.8	203.9
10°	206.8	192.4	187.1
12.5°	192.4	175.6	167.4
15°	178.6	156.9	149.0
17.5°	163.2	138.9	129.7
20°	148.7	120.8	111.3
22.5°	132.3	103.1	92.6
25°	117.5	85.4	73.5
27.5°	101.1	67.3	57.1
30°	85.7	51.5	41.4
32.5°	70.9	37.8	28.6
35°	57.1	25.6	18.1
37.5°	44.0	15.8	9.2
40°	31.8	8.2	4.3
42.5°	21.3	3.9	2.3
45°	13.1	2.0	0.0
47.5°	7.6	0.0	0.0
50°	3.9	0.0	0.0
52.5°	1.6	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	1.6
82.5°	1.3	1.6	1.6
85°	1.3	1.6	2.0
87.5°	1.6	2.0	2.3
90°	2.0	2.3	2.3
92.5°	2.0	2.6	2.6
95°	2.3	2.6	3.0
97.5°	2.6	3.0	3.0
100°	2.3	3.0	3.3
102.5°	2.0	3.0	3.0
105°	1.6	2.3	2.6



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-86-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.6	1.6
115°	1.0	1.3	1.6
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°	137.9	133.9	120.8	99.1	69.3	38.7	14.4	2.6	0.7	1.0	1.0
110°	120.2	116.9	103.4	82.4	55.8	28.9	9.5	1.6	1.0	1.0	1.0





107.5°	1.3	2.0	2.3
110°	1.3	1.6	2.0



(END OF REPORT)