

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: P551161

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-82-85-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: P551161
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-82-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

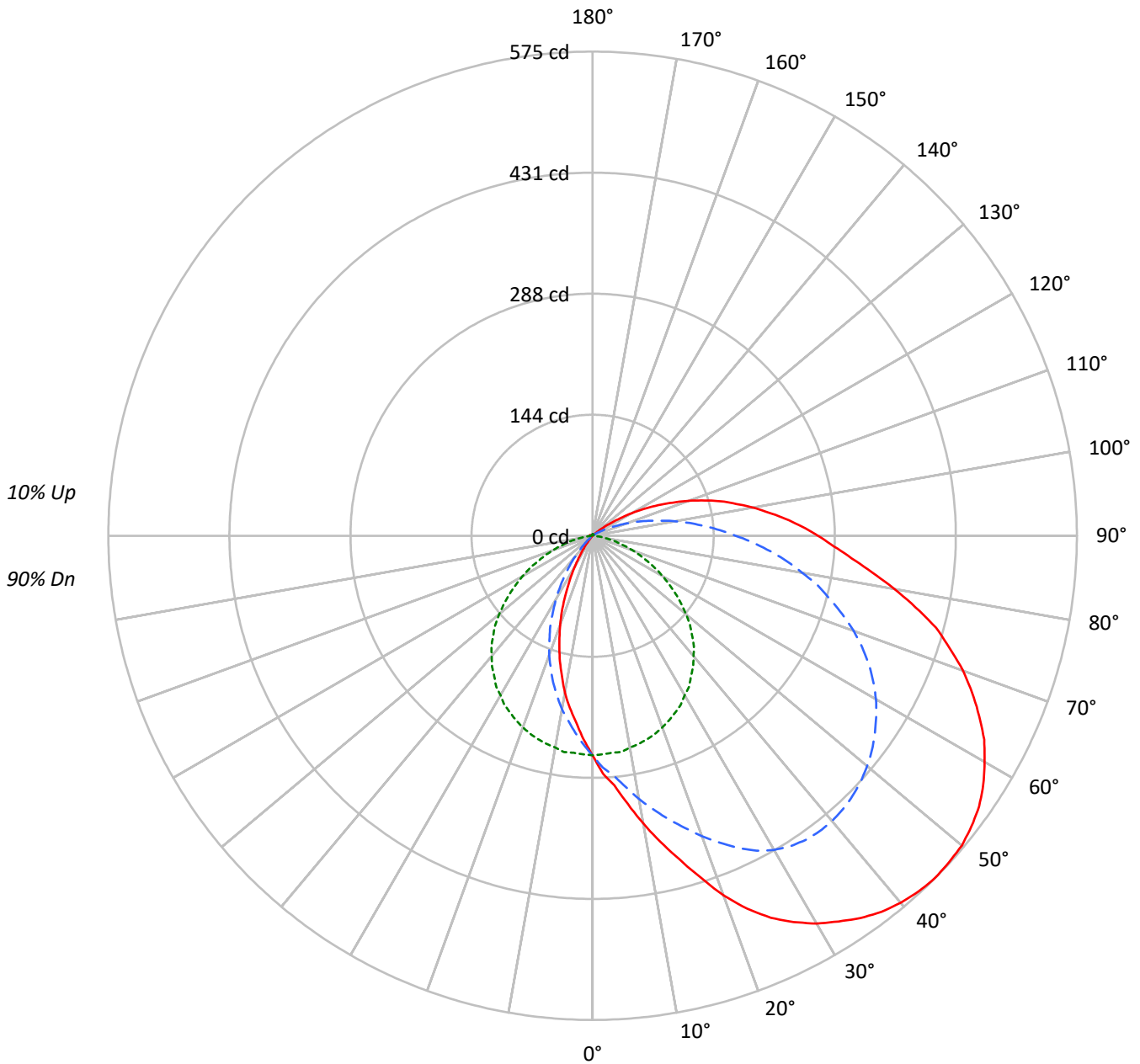
Lumens per Lamp: N/A
Luminaire Lumens: 1289.0 lumens
Efficiency: N/A
Efficacy: 77.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	2806	2806	2806
5°	3081	2765	2308
10°	3486	2731	1901
15°	3907	2697	1482
20°	4407	2653	1091
25°	4820	2601	717
30°	5129	2534	404
35°	5395	2460	178
40°	5632	2369	43
45°	5834	2256	0
50°	6005	2106	0
55°	6134	1914	0
60°	6200	1694	0
65°	6225	1440	0
70°	6205	1176	0
75°	6126	868	4
80°	5878	530	27
85°	5681	254	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.0	1.9
10°-20°	74.8	5.8
20°-30°	121.1	9.4
30°-40°	155.6	12.1
40°-50°	176.1	13.7
50°-60°	182.4	14.2
60°-70°	172.1	13.3
70°-80°	144.2	11.2
80°-90°	104.5	8.1
90°-100°	68.7	5.3
100°-110°	39.7	3.1
110°-120°	17.5	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
0°-30°	220.9	17.1
0°-40°	376.4	29.2
0°-60°	734.9	57.0
0°-90°	1155.7	89.7
90°-120°	125.9	9.8
90°-150°	132.4	10.3
90°-180°	133.0	10.3
0°-180°	1289.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	261	261	261	261	261	
5°	298	286	259	235	223	30
15°	398	349	250	181	151	115
25°	500	409	232	119	74	231
35°	554	441	204	58	18	348
45°	575	437	167	13	0	444
55°	560	409	120	0	0	500
65°	506	362	72	0	0	501
75°	422	292	31	0	0	443
85°	309	212	5	1	2	264
90°	268	170	1	2	2	147
95°	230	133	1	2	3	180
105°	158	69	1	2	3	167
115°	86	23	1	1	2	86
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°	260.7	260.7	260.7	260.7	260.7	260.7	260.7	260.7	260.7	260.7	260.7
2.5°	282.7	282.3	281.3	279.7	277.3	273.4	270.0	267.0	263.1	259.7	253.4
5°	297.6	295.9	294.6	293.0	287.6	284.0	278.0	271.4	265.1	258.7	246.1
7.5°	321.5	318.9	316.9	312.2	304.9	296.6	287.3	281.0	276.7	259.1	237.5
10°	347.1	344.8	340.8	332.5	323.5	311.6	298.3	283.3	270.0	255.4	229.8
12.5°	372.3	369.0	363.4	352.7	340.1	325.2	306.9	289.3	270.4	253.1	220.9
15°	397.6	393.9	387.9	375.0	358.4	338.8	316.5	294.3	272.0	250.1	211.6
17.5°	425.1	420.2	411.2	396.6	375.7	351.4	325.2	298.3	271.4	246.5	201.6
20°	454.7	447.7	438.1	418.5	393.9	365.4	333.8	302.3	271.0	242.1	190.3
22.5°	479.3	472.3	461.7	441.4	411.9	377.0	341.1	304.9	269.7	237.2	179.7
25°	500.5	494.9	483.3	460.0	428.8	389.3	348.1	306.9	267.7	231.8	168.4
27.5°	517.1	511.8	498.9	475.0	443.1	400.2	353.4	307.9	265.1	226.5	156.8
30°	531.8	526.4	510.8	486.3	452.7	408.9	358.7	308.2	261.7	218.6	144.2
32.5°	543.1	538.1	522.1	495.9	459.4	414.8	361.7	307.9	257.4	212.9	130.5
35°	554.3	549.4	530.8	502.9	464.3	417.5	364.0	306.2	252.1	203.6	117.6
37.5°	563.0	557.3	538.4	507.5	466.7	418.2	363.7	303.9	246.5	196.0	104.6
40°	569.0	563.0	542.7	510.2	467.3	417.2	361.0	299.9	239.8	186.3	91.0
42.5°	572.9	566.3	544.7	514.2	466.0	414.5	357.1	294.9	232.5	178.0	78.1
45°	574.9	568.0	545.0	510.8	463.7	409.5	351.1	288.6	224.5	166.7	65.1
47.5°	573.9	566.3	543.4	507.2	459.4	404.2	344.4	281.0	214.9	156.8	52.8
50°	572.3	564.3	539.7	502.5	453.4	397.6	337.1	271.7	204.9	144.5	41.9
52.5°	567.0	559.0	535.7	495.9	446.4	389.9	327.2	262.1	194.3	132.5	31.9
55°	560.3	553.0	528.8	489.9	437.4	380.6	317.9	251.8	184.0	120.2	22.9
57.5°	550.0	543.4	520.1	480.3	428.5	370.3	307.6	240.5	171.1	107.9	15.9
60°	537.4	530.8	508.2	469.3	418.2	358.7	296.3	228.8	159.4	95.7	10.0
62.5°	524.1	517.8	494.2	455.7	405.2	346.4	284.0	217.2	147.1	84.4	6.0
65°	506.5	500.5	479.3	439.4	390.9	333.1	270.4	203.3	134.5	71.7	3.3
67.5°	487.9	482.6	461.0	424.5	374.3	318.5	256.4	189.7	121.2	60.8	1.7
70°	468.0	461.3	441.4	404.2	357.4	301.9	241.1	175.7	108.6	50.2	0.0
72.5°	444.7	439.8	420.5	385.3	337.8	284.3	225.5	160.4	94.7	39.9	0.3
75°	422.2	415.8	398.2	365.0	318.5	265.7	208.3	146.1	81.0	30.6	0.3
77.5°	392.9	390.9	374.3	342.1	300.3	247.8	189.3	128.9	68.1	21.9	0.3
80°	363.7	361.7	348.8	319.2	279.0	226.5	171.7	112.6	55.5	14.6	0.3
82.5°	334.8	332.1	319.9	295.3	257.4	208.6	153.5	96.3	43.8	9.0	0.3
85°	308.9	305.6	292.3	269.7	235.2	188.3	134.5	80.4	32.6	5.0	0.7
87.5°	286.6	284.3	269.7	246.5	212.6	169.4	117.9	65.1	22.9	2.3	1.0
90°	267.7	262.7	249.8	225.2	191.3	148.5	100.3	52.1	15.3	1.3	1.3
92.5°	249.1	244.8	230.5	205.3	172.4	130.5	83.4	39.9	9.6	0.7	1.7
95°	229.8	225.2	211.2	188.0	153.1	112.3	68.4	29.2	5.3	0.7	1.7
97.5°	210.9	206.6	192.0	168.7	135.8	96.3	54.1	20.6	2.7	0.7	1.3
100°	193.3	188.3	175.0	151.8	118.6	80.4	41.9	13.3	1.7	0.7	1.3
102.5°	174.7	170.7	157.1	134.5	100.6	65.4	31.2	8.3	0.7	0.7	1.0
105°	158.1	153.1	139.8	116.6	85.7	51.5	21.9	5.0	0.7	0.7	1.0



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	103.0	99.0	87.4	67.8	43.5	20.3	6.0	1.0	1.0	1.0	1.0
115°	86.0	80.0	69.8	52.5	32.2	13.3	3.0	1.0	1.0	1.0	1.0
117.5°	68.8	63.8	56.5	39.9	21.3	8.6	1.7	1.0	1.0	1.0	1.0
120°	53.8	49.2	40.9	27.6	14.3	5.0	0.7	1.0	1.0	1.0	1.0
122.5°	38.5	34.9	27.6	17.9	8.6	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.6	23.6	18.3	11.0	5.3	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.6	14.9	10.6	6.3	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.3	8.3	6.3	3.7	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.3	5.0	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	1.7	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°	260.7	260.7	260.7
2.5°	248.1	243.5	242.1
5°	234.8	227.2	222.9
7.5°	221.5	211.2	206.3
10°	209.3	194.6	189.3
12.5°	194.6	177.7	169.4
15°	180.7	158.8	150.8
17.5°	165.1	140.5	131.2
20°	150.5	122.2	112.6
22.5°	133.9	104.3	93.7
25°	118.9	86.4	74.4
27.5°	102.3	68.1	57.8
30°	86.7	52.1	41.9
32.5°	71.7	38.2	28.9
35°	57.8	25.9	18.3
37.5°	44.5	15.9	9.3
40°	32.2	8.3	4.3
42.5°	21.6	4.0	2.3
45°	13.3	2.0	0.0
47.5°	7.6	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	3.3
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°	139.5	135.5	122.2	100.3	70.1	39.2	14.6	2.7	0.7	1.0	1.0
110°	121.6	118.2	104.6	83.4	56.5	29.2	9.6	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)