

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: P550967

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-82-84-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: P550967
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-30-UNV-82-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

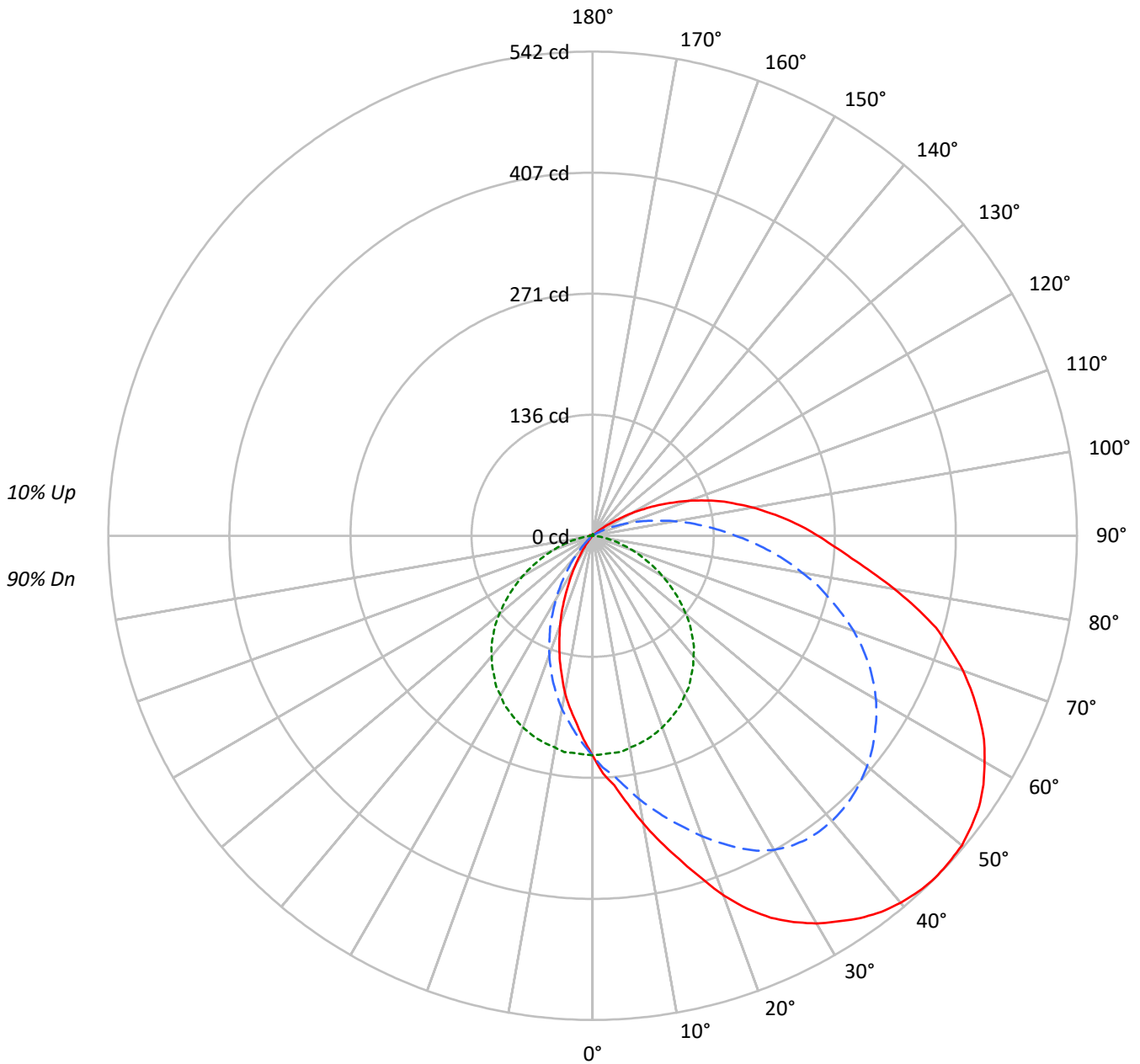
Lumens per Lamp: N/A
Luminaire Lumens: 1215.0 lumens
Efficiency: N/A
Efficacy: 72.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2646	2646	2646
5°	2904	2607	2175
10°	3287	2575	1793
15°	3683	2541	1396
20°	4154	2500	1028
25°	4544	2452	675
30°	4834	2388	380
35°	5085	2319	167
40°	5309	2233	41
45°	5499	2127	0
50°	5660	1985	0
55°	5783	1804	0
60°	5845	1596	0
65°	5868	1358	0
70°	5848	1108	0
75°	5774	817	4
80°	5540	501	26
85°	5356	239	35



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.5	1.9
10°-20°	70.5	5.8
20°-30°	114.1	9.4
30°-40°	146.6	12.1
40°-50°	166.0	13.7
50°-60°	172.0	14.2
60°-70°	162.2	13.3
70°-80°	135.9	11.2
80°-90°	98.5	8.1
90°-100°	64.8	5.3
100°-110°	37.4	3.1
110°-120°	16.5	1.4
120°-130°	4.5	0.4
130°-140°	1.0	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°	208.2	17.1
0°-40°	354.8	29.2
0°-60°	692.8	57.0
0°-90°	1089.4	89.7
90°-120°	118.6	9.8
90°-150°	124.8	10.3
90°-180°	126.0	10.4
0°-180°	1215.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	246	246	246	246	246	
5°	280	269	244	221	210	28
15°	375	329	236	170	142	108
25°	472	386	218	112	70	218
35°	522	416	192	54	17	328
45°	542	412	157	12	0	418
55°	528	386	113	0	0	472
65°	477	341	68	0	0	472
75°	398	275	29	0	0	417
85°	291	200	5	1	2	249
90°	252	160	1	2	2	138
95°	217	125	1	2	3	170
105°	149	65	1	2	2	157
115°	81	21	1	1	2	81
125°	24	3	1	1	1	24
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°	245.8	245.8	245.8	245.8	245.8	245.8	245.8	245.8	245.8	245.8	245.8
2.5°	266.4	266.1	265.2	263.6	261.4	257.7	254.5	251.7	248.0	244.8	238.9
5°	280.5	279.0	277.7	276.1	271.1	267.7	262.0	255.8	249.8	243.9	232.0
7.5°	303.1	300.6	298.7	294.3	287.4	279.6	270.8	264.9	260.8	244.2	223.8
10°	327.2	325.0	321.2	313.4	304.9	293.7	281.1	267.1	254.5	240.8	216.6
12.5°	351.0	347.8	342.5	332.5	320.6	306.5	289.3	272.7	254.8	238.6	208.2
15°	374.8	371.3	365.7	353.5	337.8	319.3	298.4	277.4	256.4	235.7	199.4
17.5°	400.7	396.0	387.6	373.8	354.1	331.2	306.5	281.1	255.8	232.3	190.0
20°	428.6	422.0	412.9	394.5	371.3	344.4	314.6	284.9	255.5	228.2	179.4
22.5°	451.8	445.2	435.2	416.1	388.2	355.3	321.5	287.4	254.2	223.5	169.4
25°	471.8	466.5	455.5	433.6	404.2	366.9	328.1	289.3	252.3	218.5	158.7
27.5°	487.5	482.5	470.2	447.7	417.6	377.3	333.1	290.2	249.8	213.5	147.8
30°	501.2	496.2	481.5	458.3	426.7	385.4	338.1	290.5	246.7	206.0	135.9
32.5°	511.9	507.2	492.2	467.4	433.0	391.0	340.9	290.2	242.6	200.7	123.0
35°	522.5	517.8	500.3	474.0	437.7	393.5	343.1	288.7	237.6	191.9	110.8
37.5°	530.7	525.3	507.5	478.4	439.9	394.2	342.8	286.5	232.3	184.7	98.6
40°	536.3	530.7	511.6	480.9	440.5	393.2	340.3	282.7	226.0	175.6	85.8
42.5°	540.1	533.8	513.4	484.6	439.2	390.7	336.6	278.0	219.2	167.8	73.6
45°	541.9	535.4	513.8	481.5	437.1	386.0	330.9	272.1	211.6	157.2	61.4
47.5°	541.0	533.8	512.2	478.1	433.0	381.0	324.7	264.9	202.6	147.8	49.8
50°	539.4	531.9	508.7	473.7	427.3	374.8	317.8	256.1	193.2	136.2	39.4
52.5°	534.4	526.9	505.0	467.4	420.8	367.6	308.4	247.0	183.1	124.9	30.1
55°	528.2	521.3	498.4	461.8	412.3	358.8	299.6	237.3	173.4	113.3	21.6
57.5°	518.5	512.2	490.3	452.7	403.9	349.1	289.9	226.7	161.2	101.7	15.0
60°	506.6	500.3	479.0	442.4	394.2	338.1	279.3	215.7	150.3	90.2	9.4
62.5°	494.0	488.1	465.9	429.5	382.0	326.5	267.7	204.8	138.7	79.5	5.6
65°	477.4	471.8	451.8	414.2	368.5	314.0	254.8	191.6	126.8	67.6	3.1
67.5°	459.9	454.9	434.6	400.1	352.8	300.2	241.7	178.8	114.3	57.3	1.6
70°	441.1	434.9	416.1	381.0	336.9	284.6	227.3	165.6	102.4	47.3	0.0
72.5°	419.2	414.5	396.4	363.2	318.4	268.0	212.6	151.2	89.2	37.6	0.3
75°	397.9	392.0	375.4	344.1	300.2	250.5	196.3	137.8	76.4	28.8	0.3
77.5°	370.4	368.5	352.8	322.5	283.0	233.6	178.5	121.5	64.2	20.7	0.3
80°	342.8	340.9	328.7	300.9	263.0	213.5	161.9	106.1	52.3	13.8	0.3
82.5°	315.6	313.1	301.5	278.3	242.6	196.6	144.6	90.8	41.3	8.5	0.3
85°	291.2	288.0	275.5	254.2	221.7	177.5	126.8	75.8	30.7	4.7	0.6
87.5°	270.2	268.0	254.2	232.3	200.4	159.7	111.1	61.4	21.6	2.2	0.9
90°	252.3	247.6	235.4	212.3	180.3	139.9	94.5	49.2	14.4	1.3	1.3
92.5°	234.8	230.7	217.3	193.5	162.5	123.0	78.6	37.6	9.1	0.6	1.6
95°	216.6	212.3	199.1	177.2	144.3	105.8	64.5	27.6	5.0	0.6	1.6
97.5°	198.8	194.7	181.0	159.0	128.0	90.8	51.0	19.4	2.5	0.6	1.3
100°	182.2	177.5	165.0	143.1	111.8	75.8	39.4	12.5	1.6	0.6	1.3
102.5°	164.7	160.9	148.1	126.8	94.9	61.7	29.4	7.8	0.6	0.6	0.9
105°	149.0	144.3	131.8	109.9	80.8	48.5	20.7	4.7	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°	97.1	93.3	82.3	63.9	41.0	19.1	5.6	0.9	0.9	0.9	0.9
115°	81.1	75.5	65.7	49.5	30.4	12.5	2.8	0.9	0.9	0.9	0.9
117.5°	64.8	60.1	53.2	37.6	20.0	8.1	1.6	0.9	0.9	0.9	0.9
120°	50.7	46.3	38.5	26.0	13.5	4.7	0.6	0.9	0.9	0.9	0.9
122.5°	36.3	32.9	26.0	16.9	8.1	2.2	0.9	0.9	1.3	1.3	0.9
125°	24.1	22.2	17.2	10.3	5.0	0.9	0.9	0.9	1.3	1.3	0.9
127.5°	15.7	14.1	10.0	5.9	2.2	0.9	0.9	1.3	1.3	1.3	0.9
130°	8.8	7.8	5.9	3.4	0.9	0.9	0.9	1.3	1.3	1.3	0.9
132.5°	5.0	4.7	3.1	0.6	0.9	0.9	0.9	1.3	1.3	1.3	1.3
135°	1.3	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.3
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.6	0.6	0.9	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.6	0.6	0.9	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.6	0.6	0.6	0.9	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.6	0.6	0.6	0.9	1.3	1.3	1.3	1.6	1.3	1.3	1.6
160°	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.3	1.3	1.3
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.3	1.3	1.3	1.3	1.3
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.3	1.6	1.6	1.6	1.6
172.5°	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.6	1.3
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°	245.8	245.8	245.8
2.5°	233.9	229.5	228.2
5°	221.3	214.1	210.1
7.5°	208.8	199.1	194.4
10°	197.2	183.5	178.5
12.5°	183.5	167.5	159.7
15°	170.3	149.7	142.1
17.5°	155.6	132.4	123.7
20°	141.8	115.2	106.1
22.5°	126.2	98.3	88.3
25°	112.1	81.4	70.1
27.5°	96.4	64.2	54.5
30°	81.7	49.2	39.4
32.5°	67.6	36.0	27.2
35°	54.5	24.4	17.2
37.5°	42.0	15.0	8.8
40°	30.4	7.8	4.1
42.5°	20.3	3.8	2.2
45°	12.5	1.9	0.0
47.5°	7.2	0.0	0.0
50°	3.8	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	0.6	0.9
80°	0.6	1.3	1.6
82.5°	1.3	1.6	1.6
85°	1.3	1.6	1.9
87.5°	1.6	1.9	2.2
90°	1.9	2.2	2.2
92.5°	1.9	2.5	2.5
95°	2.2	2.5	2.8
97.5°	2.5	2.8	2.8
100°	2.2	2.8	3.1
102.5°	1.9	2.8	2.8
105°	1.6	2.2	2.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.6	1.6
115°	0.9	1.3	1.6
117.5°	0.9	1.3	1.3
120°	0.9	0.9	1.3
122.5°	0.9	0.9	1.3
125°	0.9	0.9	1.3
127.5°	1.3	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.3	0.9	0.9
135°	1.3	0.9	0.9
137.5°	1.3	0.9	0.9
140°	1.3	0.9	0.9
142.5°	1.3	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°	1.3	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°	131.5	127.7	115.2	94.5	66.1	36.9	13.8	2.5	0.6	0.9	0.9
110°	114.6	111.5	98.6	78.6	53.2	27.6	9.1	1.6	0.9	0.9	0.9





107.5°	1.3	1.9	2.2
110°	1.3	1.6	1.9



(END OF REPORT)