

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: P551148

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-81-86-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: P551148
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
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

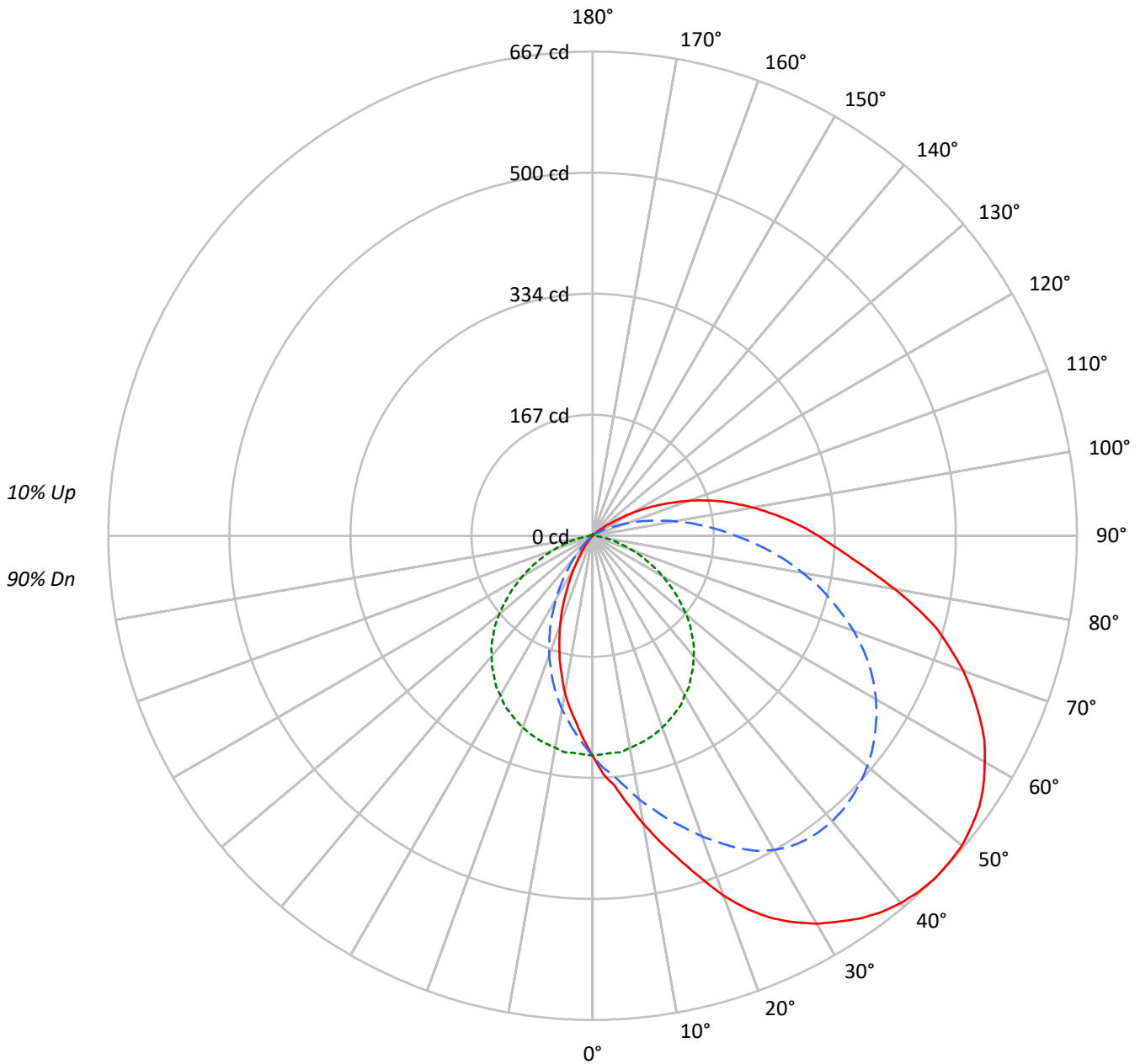
Lumens per Lamp: N/A
Luminaire Lumens: 1496.0 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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

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°	3257	3257	3257
5°	3576	3210	2678
10°	4046	3170	2207
15°	4534	3130	1720
20°	5114	3079	1267
25°	5595	3020	831
30°	5953	2940	469
35°	6262	2855	206
40°	6536	2751	49
45°	6772	2618	0
50°	6970	2444	0
55°	7120	2221	0
60°	7195	1964	0
65°	7226	1673	0
70°	7201	1363	0
75°	7110	1007	6
80°	6821	617	31
85°	6593	295	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.0	1.9
10°-20°	86.8	5.8
20°-30°	140.5	9.4
30°-40°	180.5	12.1
40°-50°	204.4	13.7
50°-60°	211.7	14.2
60°-70°	199.7	13.3
70°-80°	167.3	11.2
80°-90°	121.3	8.1
90°-100°	79.7	5.3
100°-110°	46.0	3.1
110°-120°	20.3	1.4
120°-130°	5.5	0.4
130°-140°	1.3	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	256.3	17.1
0°-40°	436.9	29.2
0°-60°	853.0	57.0
0°-90°	1341.3	89.7
90°-120°	146.1	9.8
90°-150°	153.7	10.3
90°-180°	155.0	10.4
0°-180°	1496.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	303	303	303	303	303	
5°	345	332	300	272	259	35
15°	461	405	290	210	175	133
25°	581	475	269	138	86	268
35°	643	512	236	67	21	404
45°	667	507	194	15	0	515
55°	650	475	140	0	0	581
65°	588	420	83	0	0	582
75°	490	339	36	0	0	514
85°	358	246	6	2	2	306
90°	311	197	2	2	3	170
95°	267	154	1	3	4	209
105°	184	80	1	2	3	194
115°	100	26	1	1	2	100
125°	30	4	2	1	2	30
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	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°	302.6	302.6	302.6	302.6	302.6	302.6	302.6	302.6	302.6	302.6	302.6
2.5°	328.0	327.7	326.5	324.6	321.9	317.3	313.4	309.9	305.3	301.4	294.1
5°	345.4	343.5	341.9	340.0	333.8	329.6	322.7	314.9	307.6	300.3	285.6
7.5°	373.1	370.1	367.8	362.4	353.9	344.2	333.4	326.1	321.1	300.7	275.6
10°	402.8	400.1	395.5	385.9	375.5	361.6	346.2	328.8	313.4	296.4	266.8
12.5°	432.1	428.3	421.7	409.4	394.7	377.4	356.2	335.8	313.8	293.7	256.3
15°	461.4	457.2	450.2	435.2	415.9	393.2	367.4	341.5	315.7	290.3	245.6
17.5°	493.4	487.6	477.2	460.3	436.0	407.8	377.4	346.2	314.9	286.0	234.0
20°	527.7	519.6	508.5	485.7	457.2	424.0	387.4	350.8	314.6	281.0	220.9
22.5°	556.3	548.2	535.8	512.3	478.0	437.5	395.9	353.9	313.0	275.2	208.5
25°	580.9	574.4	560.9	533.9	497.7	451.8	404.0	356.2	310.7	269.1	195.4
27.5°	600.2	594.0	579.0	551.2	514.2	464.5	410.2	357.3	307.6	262.9	181.9
30°	617.2	611.0	592.9	564.3	525.4	474.5	416.3	357.7	303.8	253.6	167.3
32.5°	630.3	624.5	606.0	575.5	533.1	481.5	419.8	357.3	298.8	247.1	151.5
35°	643.4	637.6	616.0	583.6	538.9	484.6	422.5	355.4	292.6	236.3	136.5
37.5°	653.4	646.8	624.9	589.0	541.6	485.3	422.1	352.7	286.0	227.4	121.4
40°	660.3	653.4	629.9	592.1	542.4	484.2	419.0	348.1	278.3	216.3	105.6
42.5°	665.0	657.3	632.2	596.7	540.8	481.1	414.4	342.3	269.8	206.6	90.6
45°	667.3	659.2	632.6	592.9	538.1	475.3	407.5	335.0	260.6	193.5	75.6
47.5°	666.1	657.3	630.7	588.6	533.1	469.1	399.7	326.1	249.4	181.9	61.3
50°	664.2	654.9	626.4	583.2	526.2	461.4	391.3	315.3	237.8	167.7	48.6
52.5°	658.0	648.8	621.8	575.5	518.1	452.6	379.7	304.1	225.5	153.8	37.0
55°	650.3	641.8	613.7	568.6	507.7	441.8	368.9	292.2	213.6	139.5	26.6
57.5°	638.4	630.7	603.7	557.4	497.3	429.8	357.0	279.1	198.5	125.3	18.5
60°	623.7	616.0	589.8	544.7	485.3	416.3	343.9	265.6	185.0	111.0	11.6
62.5°	608.3	601.0	573.6	528.9	470.3	402.1	329.6	252.1	170.8	97.9	6.9
65°	587.9	580.9	556.3	510.0	453.7	386.6	313.8	235.9	156.1	83.3	3.9
67.5°	566.3	560.1	535.1	492.6	434.4	369.7	297.6	220.1	140.7	70.5	1.9
70°	543.1	535.4	512.3	469.1	414.8	350.4	279.9	203.9	126.1	58.2	0.0
72.5°	516.2	510.4	488.0	447.2	392.0	330.0	261.7	186.2	109.9	46.3	0.4
75°	490.0	482.6	462.2	423.6	369.7	308.4	241.7	169.6	94.1	35.5	0.4
77.5°	456.0	453.7	434.4	397.0	348.5	287.6	219.7	149.6	79.0	25.4	0.4
80°	422.1	419.8	404.8	370.5	323.8	262.9	199.3	130.7	64.4	17.0	0.4
82.5°	388.6	385.5	371.2	342.7	298.8	242.1	178.1	111.8	50.9	10.4	0.4
85°	358.5	354.6	339.2	313.0	272.9	218.6	156.1	93.3	37.8	5.8	0.8
87.5°	332.7	330.0	313.0	286.0	246.7	196.6	136.8	75.6	26.6	2.7	1.2
90°	310.7	304.9	289.9	261.4	222.0	172.3	116.4	60.5	17.7	1.5	1.5
92.5°	289.1	284.1	267.5	238.2	200.1	151.5	96.8	46.3	11.2	0.8	1.9
95°	266.8	261.4	245.2	218.2	177.7	130.3	79.4	33.9	6.2	0.8	1.9
97.5°	244.8	239.8	222.8	195.8	157.7	111.8	62.8	23.9	3.1	0.8	1.5
100°	224.4	218.6	203.2	176.2	137.6	93.3	48.6	15.4	1.9	0.8	1.5
102.5°	202.8	198.1	182.3	156.1	116.8	75.9	36.2	9.6	0.8	0.8	1.2
105°	183.5	177.7	162.3	135.3	99.5	59.8	25.4	5.8	0.8	0.8	1.2



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

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	119.5	114.9	101.4	78.6	50.5	23.5	6.9	1.2	1.2	1.2	1.2
115°	99.8	92.9	81.0	60.9	37.4	15.4	3.5	1.2	1.2	1.2	1.2
117.5°	79.8	74.0	65.5	46.3	24.7	10.0	1.9	1.2	1.2	1.2	1.2
120°	62.4	57.1	47.4	32.0	16.6	5.8	0.8	1.2	1.2	1.2	1.2
122.5°	44.7	40.5	32.0	20.8	10.0	2.7	1.2	1.2	1.5	1.5	1.2
125°	29.7	27.4	21.2	12.7	6.2	1.2	1.2	1.2	1.5	1.5	1.2
127.5°	19.3	17.3	12.3	7.3	2.7	1.2	1.2	1.5	1.5	1.5	1.2
130°	10.8	9.6	7.3	4.2	1.2	1.2	1.2	1.5	1.5	1.5	1.2
132.5°	6.2	5.8	3.9	0.8	1.2	1.2	1.2	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	302.6	302.6	302.6
2.5°	288.0	282.6	281.0
5°	272.5	263.7	258.7
7.5°	257.1	245.2	239.4
10°	242.9	225.9	219.7
12.5°	225.9	206.2	196.6
15°	209.7	184.3	175.0
17.5°	191.6	163.1	152.3
20°	174.6	141.9	130.7
22.5°	155.4	121.0	108.7
25°	138.0	100.2	86.3
27.5°	118.7	79.0	67.1
30°	100.6	60.5	48.6
32.5°	83.3	44.3	33.5
35°	67.1	30.1	21.2
37.5°	51.7	18.5	10.8
40°	37.4	9.6	5.0
42.5°	25.1	4.6	2.7
45°	15.4	2.3	0.0
47.5°	8.9	0.0	0.0
50°	4.6	0.0	0.0
52.5°	1.9	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°	0.4	0.4	0.4
77.5°	0.4	0.8	1.2
80°	0.8	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	2.3	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.1	3.1
95°	2.7	3.1	3.5
97.5°	3.1	3.5	3.5
100°	2.7	3.5	3.9
102.5°	2.3	3.5	3.5
105°	1.9	2.7	3.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.2	1.5	1.9
117.5°	1.2	1.5	1.5
120°	1.2	1.2	1.5
122.5°	1.2	1.2	1.5
125°	1.2	1.2	1.5
127.5°	1.5	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.5	1.2	1.2
135°	1.5	1.2	1.2
137.5°	1.5	1.2	1.2
140°	1.5	1.2	1.2
142.5°	1.5	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	161.9	157.3	141.9	116.4	81.3	45.5	17.0	3.1	0.8	1.2	1.2
110°	141.1	137.2	121.4	96.8	65.5	33.9	11.2	1.9	1.2	1.2	1.2





107.5°	1.5	2.3	2.7
110°	1.5	1.9	2.3



(END OF REPORT)