

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: P551482

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-82-85-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: P551482
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-LD4-2LO-30-UNV-82-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

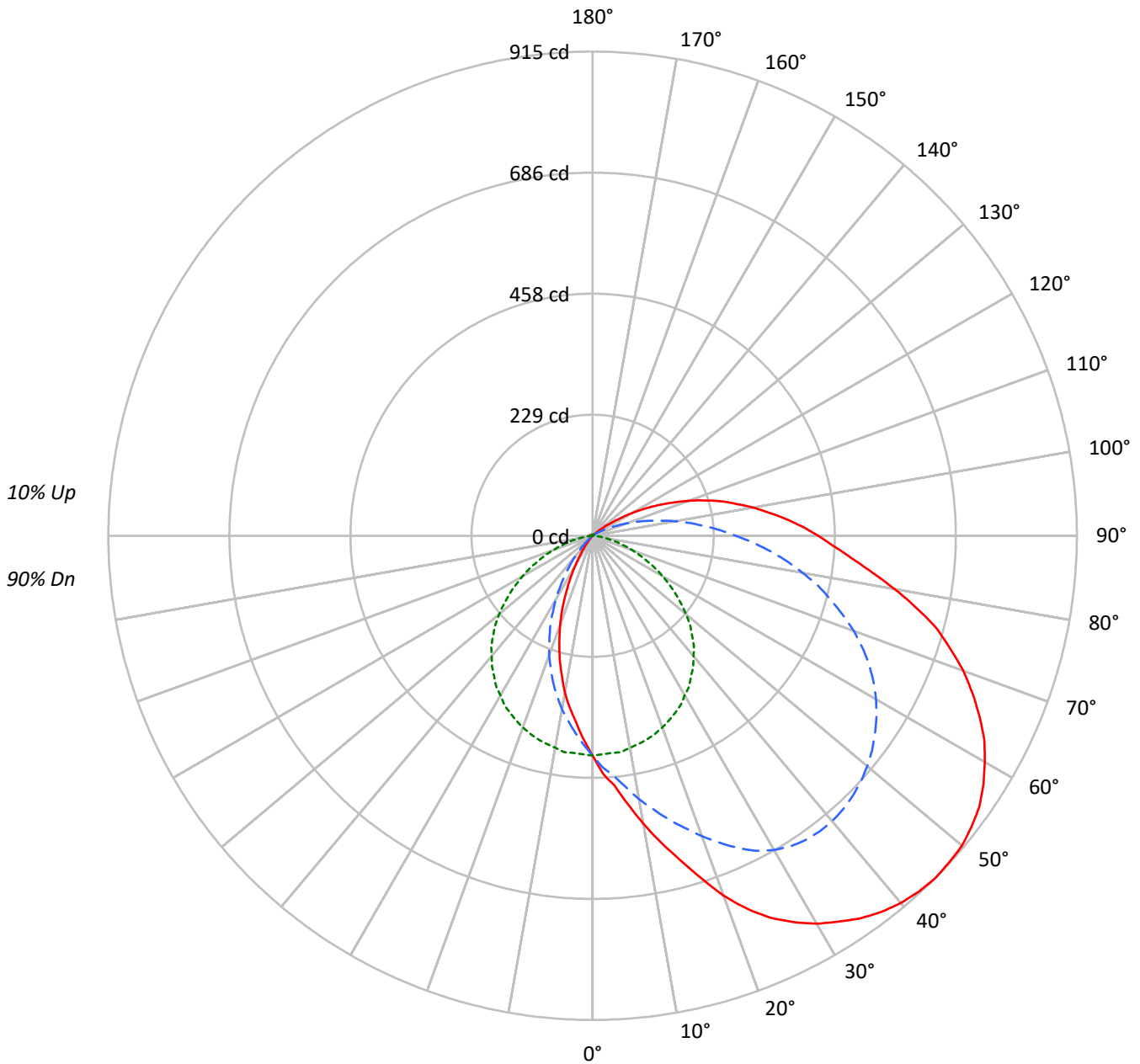
Lumens per Lamp: N/A
Luminaire Lumens: 2052.0 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
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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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°	4468	4468	4468
5°	4905	4402	3673
10°	5550	4348	3027
15°	6220	4294	2359
20°	7015	4224	1737
25°	7674	4142	1140
30°	8164	4033	642
35°	8589	3916	283
40°	8966	3772	68
45°	9289	3591	0
50°	9559	3352	0
55°	9766	3048	0
60°	9870	2695	0
65°	9910	2294	0
70°	9877	1869	0
75°	9751	1378	7
80°	9357	845	42
85°	9043	402	59



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.8	1.9
10°-20°	119.0	5.8
20°-30°	192.8	9.4
30°-40°	247.6	12.1
40°-50°	280.3	13.7
50°-60°	290.4	14.2
60°-70°	273.9	13.3
70°-80°	229.5	11.2
80°-90°	166.4	8.1
90°-100°	109.4	5.3
100°-110°	63.2	3.1
110°-120°	27.9	1.4
120°-130°	7.5	0.4
130°-140°	1.7	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	351.6	17.1
0°-40°	599.2	29.2
0°-60°	1170.0	57.0
0°-90°	1839.8	89.7
90°-120°	200.4	9.8
90°-150°	210.8	10.3
90°-180°	212.0	10.3
0°-180°	2052.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	415	415	415	415	415	
5°	474	455	412	374	355	48
15°	633	555	398	288	240	182
25°	797	651	369	189	118	368
35°	882	702	324	92	29	553
45°	915	695	265	21	0	707
55°	892	651	191	0	0	797
65°	806	576	114	0	0	798
75°	672	465	49	0	0	705
85°	492	337	8	2	3	420
90°	426	270	2	3	4	234
95°	366	211	1	4	5	287
105°	252	109	1	3	4	266
115°	137	36	2	2	3	137
125°	41	5	2	2	2	41
135°	2	2	3	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	3	2	0	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	415.1	415.1	415.1	415.1	415.1	415.1	415.1	415.1	415.1	415.1	415.1
2.5°	450.0	449.4	447.9	445.2	441.5	435.2	429.9	425.1	418.8	413.5	403.4
5°	473.8	471.1	469.0	466.4	457.9	452.1	442.6	432.0	421.9	411.9	391.8
7.5°	511.8	507.6	504.4	497.0	485.4	472.2	457.4	447.3	440.5	412.4	378.1
10°	552.5	548.8	542.5	529.3	515.0	496.0	474.8	451.0	429.9	406.6	365.9
12.5°	592.7	587.4	578.5	561.5	541.4	517.6	488.6	460.5	430.4	402.9	351.6
15°	632.9	627.1	617.6	597.0	570.5	539.3	503.9	468.5	433.0	398.2	336.8
17.5°	676.8	668.9	654.6	631.3	598.0	559.4	517.6	474.8	432.0	392.3	321.0
20°	723.9	712.8	697.4	666.2	627.1	581.6	531.4	481.2	431.5	385.5	303.0
22.5°	763.0	751.9	735.0	702.7	655.7	600.1	543.0	485.4	429.3	377.5	286.1
25°	796.8	787.8	769.3	732.3	682.6	619.7	554.1	488.6	426.2	369.1	268.1
27.5°	823.3	814.8	794.2	756.1	705.4	637.1	562.6	490.2	421.9	360.6	249.6
30°	846.5	838.1	813.2	774.1	720.7	650.9	571.1	490.7	416.7	347.9	229.5
32.5°	864.5	856.6	831.2	789.4	731.3	660.4	575.8	490.2	409.8	338.9	207.8
35°	882.5	874.6	844.9	800.5	739.2	664.6	579.5	487.5	401.3	324.1	187.2
37.5°	896.2	887.2	857.1	807.9	742.9	665.7	579.0	483.8	392.3	312.0	166.6
40°	905.8	896.2	864.0	812.2	744.0	664.1	574.8	477.5	381.8	296.6	144.9
42.5°	912.1	901.5	867.2	818.5	741.8	659.9	568.4	469.5	370.1	283.4	124.3
45°	915.3	904.2	867.7	813.2	738.1	652.0	558.9	459.5	357.4	265.4	103.6
47.5°	913.7	901.5	865.0	807.4	731.3	643.5	548.3	447.3	342.1	249.6	84.1
50°	911.0	898.3	859.2	800.0	721.7	632.9	536.7	432.5	326.2	230.0	66.6
52.5°	902.6	889.9	852.9	789.4	710.6	620.8	520.8	417.2	309.3	211.0	50.8
55°	892.0	880.4	841.8	779.9	696.4	605.9	506.0	400.8	292.9	191.4	36.5
57.5°	875.6	865.0	828.0	764.6	682.1	589.6	489.6	382.8	272.3	171.8	25.4
60°	855.5	844.9	809.0	747.1	665.7	571.1	471.6	364.3	253.8	152.3	15.9
62.5°	834.4	824.3	786.8	725.4	645.1	551.5	452.1	345.8	234.2	134.3	9.5
65°	806.3	796.8	763.0	699.5	622.3	530.3	430.4	323.6	214.1	114.2	5.3
67.5°	776.7	768.3	733.9	675.7	595.9	507.1	408.2	301.9	193.0	96.8	2.6
70°	745.0	734.4	702.7	643.5	568.9	480.6	383.9	279.7	172.9	79.8	0.0
72.5°	708.0	700.1	669.4	613.4	537.7	452.6	359.0	255.4	150.7	63.5	0.5
75°	672.0	662.0	634.0	581.1	507.1	423.0	331.5	232.7	129.0	48.6	0.5
77.5°	625.5	622.3	595.9	544.6	478.0	394.4	301.4	205.2	108.4	34.9	0.5
80°	579.0	575.8	555.2	508.1	444.2	360.6	273.4	179.2	88.3	23.3	0.5
82.5°	533.0	528.8	509.2	470.1	409.8	332.1	244.3	153.3	69.8	14.3	0.5
85°	491.7	486.5	465.3	429.3	374.4	299.8	214.1	128.0	51.8	7.9	1.1
87.5°	456.3	452.6	429.3	392.3	338.4	269.7	187.7	103.6	36.5	3.7	1.6
90°	426.2	418.2	397.6	358.5	304.6	236.4	159.7	83.0	24.3	2.1	2.1
92.5°	396.6	389.7	367.0	326.8	274.4	207.8	132.7	63.5	15.3	1.1	2.6
95°	365.9	358.5	336.3	299.3	243.8	178.7	108.9	46.5	8.5	1.1	2.6
97.5°	335.8	328.9	305.6	268.6	216.3	153.3	86.2	32.8	4.2	1.1	2.1
100°	307.7	299.8	278.7	241.6	188.8	128.0	66.6	21.2	2.6	1.1	2.1
102.5°	278.1	271.8	250.1	214.1	160.2	104.2	49.7	13.2	1.1	1.1	1.6
105°	251.7	243.8	222.6	185.6	136.4	82.0	34.9	7.9	1.1	1.1	1.6



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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	163.9	157.6	139.1	107.9	69.3	32.3	9.5	1.6	1.6	1.6	1.6
115°	136.9	127.4	111.0	83.5	51.3	21.2	4.8	1.6	1.6	1.6	1.6
117.5°	109.5	101.5	89.9	63.5	33.8	13.7	2.6	1.6	1.6	1.6	1.6
120°	85.7	78.3	65.0	43.9	22.7	7.9	1.1	1.6	1.6	1.6	1.6
122.5°	61.3	55.5	43.9	28.6	13.7	3.7	1.6	1.6	2.1	2.1	1.6
125°	40.7	37.5	29.1	17.4	8.5	1.6	1.6	1.6	2.1	2.1	1.6
127.5°	26.4	23.8	16.9	10.0	3.7	1.6	1.6	2.1	2.1	2.1	1.6
130°	14.8	13.2	10.0	5.8	1.6	1.6	1.6	2.1	2.1	2.1	1.6
132.5°	8.5	7.9	5.3	1.1	1.6	1.6	1.6	2.1	2.1	2.1	2.1
135°	2.1	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.1
137.5°	0.5	0.5	1.1	1.1	1.6	1.6	2.1	2.6	2.6	2.6	2.1
140°	0.5	0.5	1.1	1.6	1.6	1.6	2.1	2.6	2.6	2.6	2.1
142.5°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.1	2.1
145°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.1	2.1	2.1
147.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.1	2.1
150°	0.5	1.1	1.1	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.1
152.5°	0.5	1.1	1.1	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.1
155°	1.1	1.1	1.1	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.6
157.5°	1.1	1.1	1.1	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.6
160°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
162.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
165°	1.1	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1
167.5°	1.1	1.1	1.1	1.6	1.6	1.6	2.1	2.1	2.1	2.1	2.1
170°	1.1	1.1	1.1	1.6	1.6	1.6	2.1	2.6	2.6	2.6	2.6
172.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.6
175°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.6
177.5°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.1
180°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	415.1	415.1	415.1
2.5°	395.0	387.6	385.5
5°	373.8	361.7	354.8
7.5°	352.7	336.3	328.4
10°	333.1	309.8	301.4
12.5°	309.8	282.9	269.7
15°	287.6	252.7	240.1
17.5°	262.8	223.7	208.9
20°	239.5	194.6	179.2
22.5°	213.1	166.0	149.1
25°	189.3	137.5	118.4
27.5°	162.9	108.4	92.0
30°	138.0	83.0	66.6
32.5°	114.2	60.8	46.0
35°	92.0	41.2	29.1
37.5°	70.9	25.4	14.8
40°	51.3	13.2	6.9
42.5°	34.4	6.3	3.7
45°	21.2	3.2	0.0
47.5°	12.2	0.0	0.0
50°	6.3	0.0	0.0
52.5°	2.6	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°	0.5	0.5	0.5
77.5°	0.5	1.1	1.6
80°	1.1	2.1	2.6
82.5°	2.1	2.6	2.6
85°	2.1	2.6	3.2
87.5°	2.6	3.2	3.7
90°	3.2	3.7	3.7
92.5°	3.2	4.2	4.2
95°	3.7	4.2	4.8
97.5°	4.2	4.8	4.8
100°	3.7	4.8	5.3
102.5°	3.2	4.8	4.8
105°	2.6	3.7	4.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.1	2.6	2.6
115°	1.6	2.1	2.6
117.5°	1.6	2.1	2.1
120°	1.6	1.6	2.1
122.5°	1.6	1.6	2.1
125°	1.6	1.6	2.1
127.5°	2.1	1.6	1.6
130°	1.6	1.6	1.6
132.5°	2.1	1.6	1.6
135°	2.1	1.6	1.6
137.5°	2.1	1.6	1.6
140°	2.1	1.6	1.6
142.5°	2.1	1.6	1.6
145°	1.6	1.6	1.6
147.5°	1.6	1.6	1.6
150°	1.6	1.6	1.1
152.5°	1.6	1.1	1.1
155°	1.6	1.1	0.5
157.5°	2.1	1.1	0.5
160°	1.6	1.1	0.5
162.5°	1.6	1.1	0.5
165°	1.6	1.1	0.0
167.5°	1.6	1.1	0.5
170°	1.6	1.1	0.5
172.5°	1.6	1.1	0.5
175°	1.6	0.5	0.5
177.5°	1.6	0.5	0.5
180°	1.6	1.6	1.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	222.1	215.7	194.6	159.7	111.6	62.4	23.3	4.2	1.1	1.6	1.6
110°	193.5	188.2	166.6	132.7	89.9	46.5	15.3	2.6	1.6	1.6	1.6





107.5°	2.1	3.2	3.7
110°	2.1	2.6	3.2



(END OF REPORT)