

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: P550461

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-82-87-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: P550461
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-LD4-1HI-30-UNV-82-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

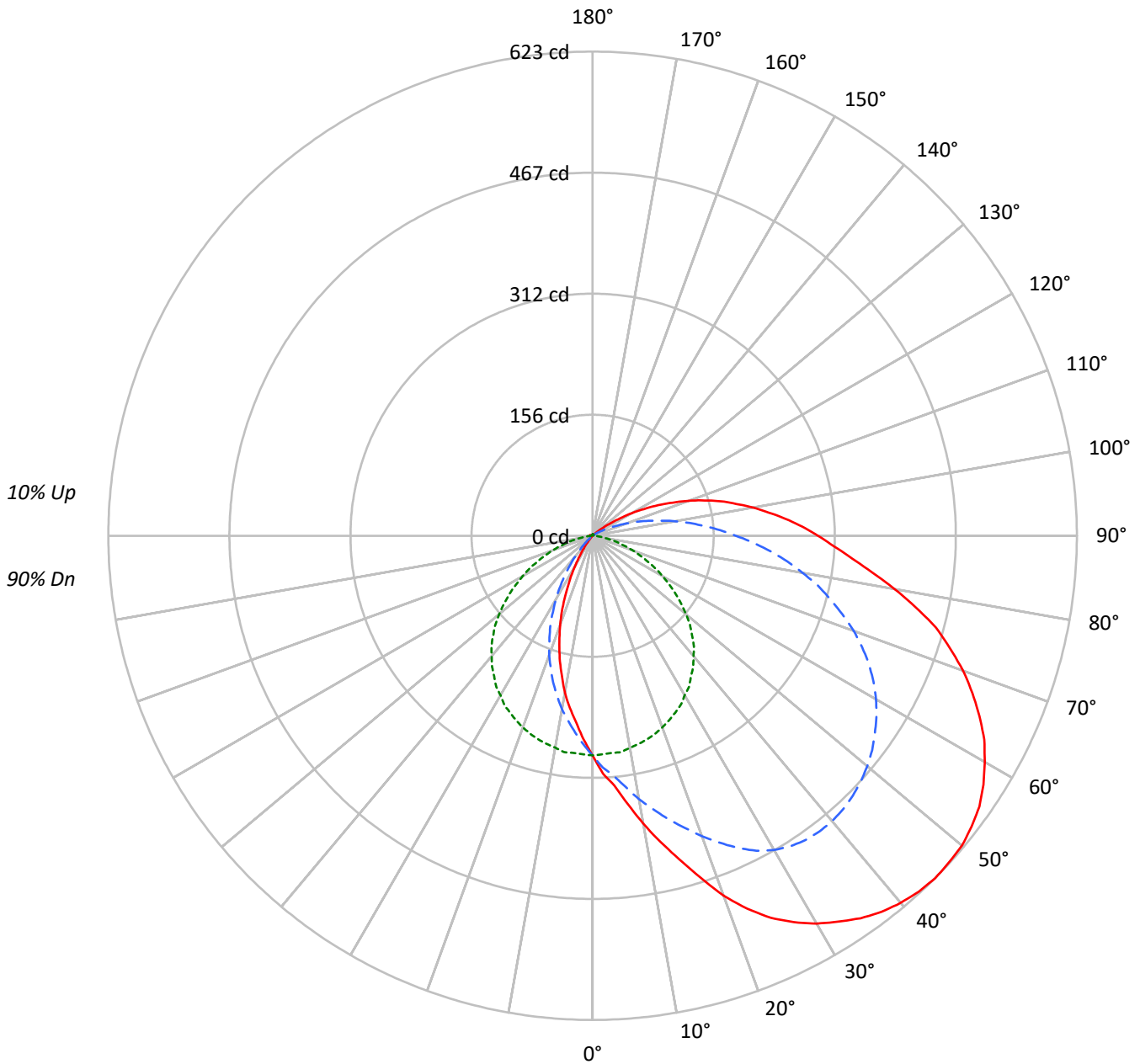
Lumens per Lamp: N/A
Luminaire Lumens: 1397.0 lumens
Efficiency: N/A
Efficacy: 64.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
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-LD4-1HI-30-UNV-82-87-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°	3042	3042	3042
5°	3339	2997	2500
10°	3779	2960	2061
15°	4234	2923	1606
20°	4776	2875	1182
25°	5225	2820	776
30°	5558	2746	438
35°	5847	2667	193
40°	6103	2568	47
45°	6323	2445	0
50°	6508	2282	0
55°	6649	2075	0
60°	6719	1835	0
65°	6748	1563	0
70°	6725	1274	0
75°	6639	939	6
80°	6371	573	29
85°	6158	275	40



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.1	1.9
10°-20°	81.0	5.8
20°-30°	131.2	9.4
30°-40°	168.6	12.1
40°-50°	190.8	13.7
50°-60°	197.7	14.2
60°-70°	186.5	13.3
70°-80°	156.3	11.2
80°-90°	113.3	8.1
90°-100°	74.4	5.3
100°-110°	43.0	3.1
110°-120°	19.0	1.4
120°-130°	5.1	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	239.4	17.1
0°-40°	408.0	29.2
0°-60°	796.5	57.0
0°-90°	1252.5	89.7
90°-120°	136.4	9.8
90°-150°	143.5	10.3
90°-180°	144.0	10.3
0°-180°	1397.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	283	283	283	283	283	
5°	322	310	280	254	242	33
15°	431	378	271	196	163	124
25°	542	443	251	129	81	251
35°	601	478	221	63	20	377
45°	623	473	181	14	0	481
55°	607	443	130	0	0	542
65°	549	392	78	0	0	543
75°	458	317	33	0	0	480
85°	335	230	5	1	2	286
90°	290	184	1	2	2	159
95°	249	144	1	2	3	195
105°	171	74	1	2	3	181
115°	93	25	1	1	2	93
125°	28	3	1	1	1	28
135°	1	1	2	1	1	3
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°	282.6	282.6	282.6	282.6	282.6	282.6	282.6	282.6	282.6	282.6	282.6
2.5°	306.3	306.0	304.9	303.1	300.6	296.3	292.7	289.4	285.1	281.5	274.7
5°	322.5	320.7	319.3	317.5	311.7	307.8	301.3	294.1	287.3	280.4	266.7
7.5°	348.5	345.6	343.4	338.4	330.5	321.5	311.4	304.5	299.9	280.8	257.4
10°	376.2	373.7	369.3	360.3	350.6	337.7	323.3	307.1	292.7	276.8	249.1
12.5°	403.5	399.9	393.8	382.3	368.6	352.4	332.6	313.5	293.0	274.3	239.4
15°	430.9	426.9	420.4	406.4	388.4	367.2	343.1	318.9	294.8	271.1	229.3
17.5°	460.8	455.4	445.6	429.8	407.1	380.9	352.4	323.3	294.1	267.1	218.5
20°	492.8	485.2	474.8	453.6	426.9	396.0	361.8	327.6	293.7	262.4	206.3
22.5°	519.4	511.9	500.4	478.4	446.4	408.6	369.7	330.5	292.3	257.0	194.7
25°	542.5	536.4	523.8	498.6	464.7	421.9	377.3	332.6	290.1	251.3	182.5
27.5°	560.5	554.7	540.7	514.8	480.2	433.8	383.0	333.7	287.3	245.5	169.9
30°	576.3	570.6	553.6	527.0	490.6	443.1	388.8	334.1	283.7	236.9	156.2
32.5°	588.6	583.2	565.9	537.4	497.8	449.6	392.0	333.7	279.0	230.7	141.5
35°	600.8	595.4	575.2	545.0	503.2	452.5	394.5	331.9	273.2	220.7	127.4
37.5°	610.2	604.0	583.5	550.0	505.8	453.2	394.2	329.4	267.1	212.4	113.4
40°	616.6	610.2	588.2	552.9	506.5	452.1	391.3	325.1	259.9	201.9	98.6
42.5°	621.0	613.8	590.4	557.2	505.0	449.2	387.0	319.7	252.0	192.9	84.6
45°	623.1	615.6	590.7	553.6	502.5	443.8	380.5	312.8	243.3	180.7	70.6
47.5°	622.0	613.8	588.9	549.7	497.8	438.1	373.3	304.5	232.9	169.9	57.2
50°	620.2	611.6	585.0	544.6	491.4	430.9	365.4	294.5	222.1	156.6	45.4
52.5°	614.5	605.8	580.6	537.4	483.8	422.6	354.6	284.0	210.6	143.6	34.6
55°	607.3	599.4	573.1	531.0	474.1	412.5	344.5	272.9	199.4	130.3	24.8
57.5°	596.1	588.9	563.7	520.5	464.4	401.4	333.3	260.6	185.4	117.0	17.3
60°	582.4	575.2	550.8	508.6	453.2	388.8	321.1	248.0	172.8	103.7	10.8
62.5°	568.0	561.2	535.6	493.9	439.2	375.5	307.8	235.4	159.5	91.4	6.5
65°	549.0	542.5	519.4	476.2	423.7	361.1	293.0	220.3	145.8	77.8	3.6
67.5°	528.8	523.0	499.6	460.0	405.7	345.2	277.9	205.5	131.4	65.9	1.8
70°	507.2	500.0	478.4	438.1	387.3	327.2	261.3	190.4	117.7	54.4	0.0
72.5°	482.0	476.6	455.7	417.6	366.1	308.1	244.4	173.9	102.6	43.2	0.4
75°	457.5	450.7	431.6	395.6	345.2	288.0	225.7	158.4	87.8	33.1	0.4
77.5°	425.8	423.7	405.7	370.8	325.4	268.5	205.2	139.7	73.8	23.8	0.4
80°	394.2	392.0	378.0	345.9	302.4	245.5	186.1	122.0	60.1	15.8	0.4
82.5°	362.9	360.0	346.7	320.0	279.0	226.1	166.3	104.4	47.5	9.7	0.4
85°	334.8	331.2	316.8	292.3	254.9	204.1	145.8	87.1	35.3	5.4	0.7
87.5°	310.7	308.1	292.3	267.1	230.4	183.6	127.8	70.6	24.8	2.5	1.1
90°	290.1	284.7	270.7	244.1	207.3	160.9	108.7	56.5	16.6	1.4	1.4
92.5°	270.0	265.3	249.8	222.5	186.8	141.5	90.4	43.2	10.4	0.7	1.8
95°	249.1	244.1	228.9	203.7	165.9	121.7	74.2	31.7	5.8	0.7	1.8
97.5°	228.6	223.9	208.1	182.9	147.2	104.4	58.7	22.3	2.9	0.7	1.4
100°	209.5	204.1	189.7	164.5	128.5	87.1	45.4	14.4	1.8	0.7	1.4
102.5°	189.3	185.0	170.3	145.8	109.1	70.9	33.8	9.0	0.7	0.7	1.1
105°	171.3	165.9	151.5	126.4	92.9	55.8	23.8	5.4	0.7	0.7	1.1



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CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-82-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	111.6	107.3	94.7	73.4	47.2	22.0	6.5	1.1	1.1	1.1	1.1
115°	93.2	86.8	75.6	56.9	34.9	14.4	3.2	1.1	1.1	1.1	1.1
117.5°	74.5	69.1	61.2	43.2	23.0	9.4	1.8	1.1	1.1	1.1	1.1
120°	58.3	53.3	44.3	29.9	15.5	5.4	0.7	1.1	1.1	1.1	1.1
122.5°	41.8	37.8	29.9	19.4	9.4	2.5	1.1	1.1	1.4	1.4	1.1
125°	27.7	25.6	19.8	11.9	5.8	1.1	1.1	1.1	1.4	1.4	1.1
127.5°	18.0	16.2	11.5	6.8	2.5	1.1	1.1	1.4	1.4	1.4	1.1
130°	10.1	9.0	6.8	4.0	1.1	1.1	1.1	1.4	1.4	1.4	1.1
132.5°	5.8	5.4	3.6	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.4	1.8	1.8	1.8	1.4
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.4
142.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
145°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
150°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
152.5°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
157.5°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.4
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



TEST NUMBER: P550461

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	282.6	282.6	282.6
2.5°	268.9	263.9	262.4
5°	254.5	246.2	241.5
7.5°	240.1	228.9	223.5
10°	226.8	210.9	205.2
12.5°	210.9	192.6	183.6
15°	195.8	172.1	163.4
17.5°	178.9	152.3	142.2
20°	163.1	132.5	122.0
22.5°	145.1	113.0	101.5
25°	128.9	93.6	80.6
27.5°	110.9	73.8	62.6
30°	94.0	56.5	45.4
32.5°	77.8	41.4	31.3
35°	62.6	28.1	19.8
37.5°	48.2	17.3	10.1
40°	34.9	9.0	4.7
42.5°	23.4	4.3	2.5
45°	14.4	2.2	0.0
47.5°	8.3	0.0	0.0
50°	4.3	0.0	0.0
52.5°	1.8	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	0.7	1.1
80°	0.7	1.4	1.8
82.5°	1.4	1.8	1.8
85°	1.4	1.8	2.2
87.5°	1.8	2.2	2.5
90°	2.2	2.5	2.5
92.5°	2.2	2.9	2.9
95°	2.5	2.9	3.2
97.5°	2.9	3.2	3.2
100°	2.5	3.2	3.6
102.5°	2.2	3.2	3.2
105°	1.8	2.5	2.9



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CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-82-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.4	1.8	1.8
115°	1.1	1.4	1.8
117.5°	1.1	1.4	1.4
120°	1.1	1.1	1.4
122.5°	1.1	1.1	1.4
125°	1.1	1.1	1.4
127.5°	1.4	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.4	1.1	1.1
135°	1.4	1.1	1.1
137.5°	1.4	1.1	1.1
140°	1.4	1.1	1.1
142.5°	1.4	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.4	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	151.2	146.9	132.5	108.7	76.0	42.5	15.8	2.9	0.7	1.1	1.1
110°	131.8	128.2	113.4	90.4	61.2	31.7	10.4	1.8	1.1	1.1	1.1





107.5°	1.4	2.2	2.5
110°	1.4	1.8	2.2



(END OF REPORT)