

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: P550584

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-82-84-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: P550584
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-40-UNV-82-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

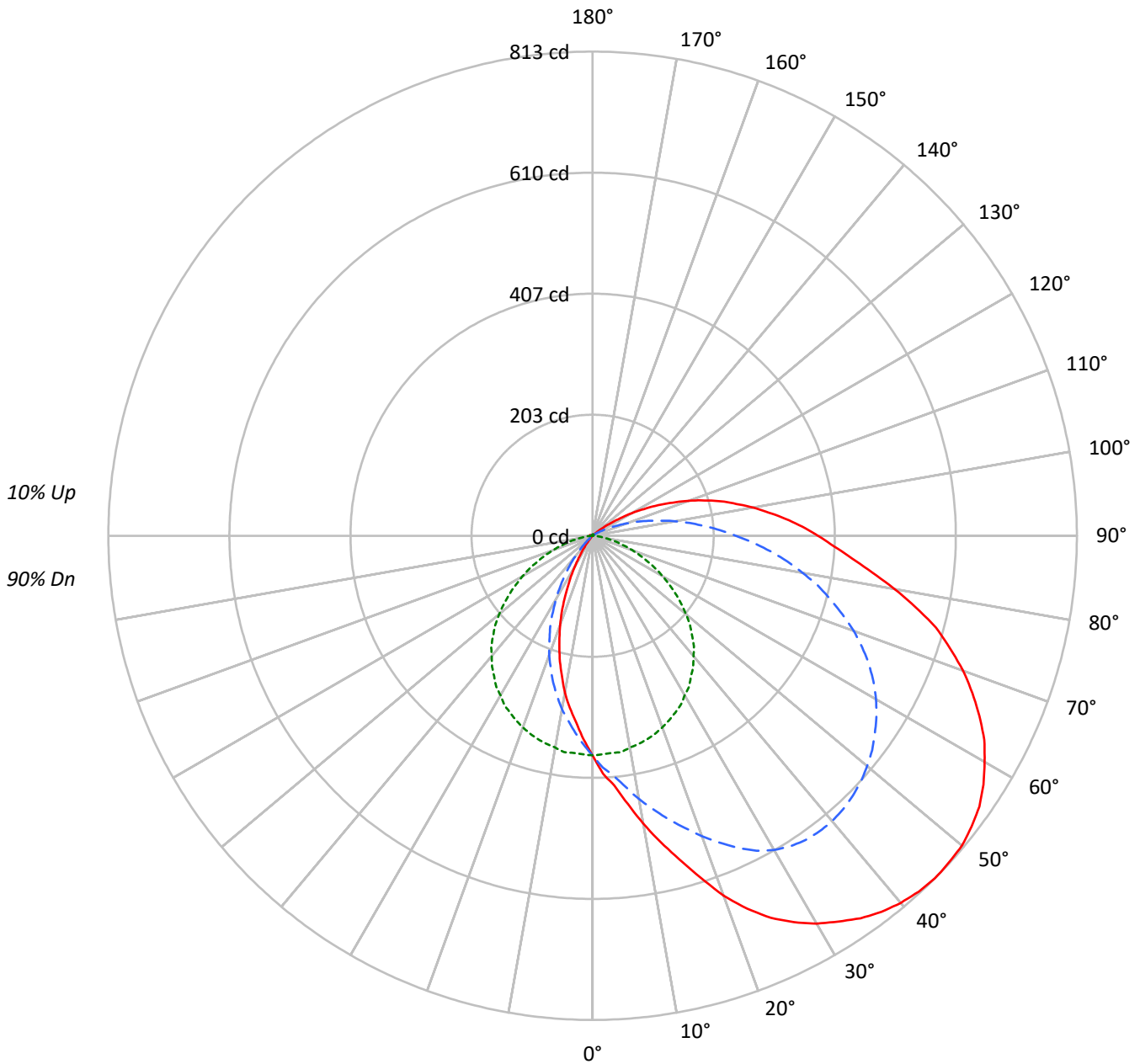
Lumens per Lamp: N/A
Luminaire Lumens: 1823.0 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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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°	3969	3969	3969
5°	4357	3911	3263
10°	4931	3863	2690
15°	5526	3814	2096
20°	6232	3751	1543
25°	6818	3680	1013
30°	7254	3583	571
35°	7631	3480	251
40°	7965	3351	60
45°	8252	3191	0
50°	8493	2978	0
55°	8677	2707	0
60°	8768	2394	0
65°	8805	2039	0
70°	8776	1661	0
75°	8663	1225	7
80°	8313	751	37
85°	8035	356	51



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.3	1.9
10°-20°	105.8	5.8
20°-30°	171.3	9.4
30°-40°	220.0	12.1
40°-50°	249.0	13.7
50°-60°	258.0	14.2
60°-70°	243.3	13.3
70°-80°	203.9	11.2
80°-90°	147.8	8.1
90°-100°	97.2	5.3
100°-110°	56.1	3.1
110°-120°	24.8	1.4
120°-130°	6.7	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	312.3	17.1
0°-40°	532.4	29.2
0°-60°	1039.4	57.0
0°-90°	1634.5	89.7
90°-120°	178.0	9.8
90°-150°	187.2	10.3
90°-180°	188.0	10.3
0°-180°	1823.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	369	369	369	369	369	
5°	421	404	366	332	315	42
15°	562	493	354	256	213	162
25°	708	578	328	168	105	327
35°	784	624	288	82	26	492
45°	813	618	236	19	0	628
55°	792	578	170	0	0	708
65°	716	512	102	0	0	709
75°	597	413	43	0	0	626
85°	437	299	7	2	3	373
90°	379	240	2	3	3	208
95°	325	188	1	3	4	255
105°	224	97	1	2	4	236
115°	122	32	1	1	2	122
125°	36	4	2	1	2	36
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	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°	368.7	368.7	368.7	368.7	368.7	368.7	368.7	368.7	368.7	368.7	368.7
2.5°	399.8	399.3	397.9	395.5	392.2	386.6	381.9	377.7	372.0	367.3	358.4
5°	420.9	418.5	416.7	414.3	406.8	401.6	393.2	383.8	374.9	365.9	348.1
7.5°	454.7	451.0	448.1	441.6	431.2	419.5	406.3	397.4	391.3	366.4	335.9
10°	490.9	487.6	482.0	470.2	457.5	440.6	421.8	400.7	381.9	361.2	325.1
12.5°	526.6	521.9	513.9	498.9	481.0	459.9	434.0	409.1	382.4	357.9	312.4
15°	562.3	557.1	548.7	530.3	506.9	479.1	447.7	416.2	384.7	353.7	299.2
17.5°	601.3	594.2	581.5	560.9	531.3	497.0	459.9	421.8	383.8	348.6	285.1
20°	643.1	633.2	619.6	591.9	557.1	516.7	472.1	427.5	383.3	342.4	269.2
22.5°	677.8	668.0	652.9	624.3	582.5	533.2	482.4	431.2	381.4	335.4	254.1
25°	707.9	699.9	683.5	650.6	606.4	550.5	492.3	434.0	378.6	327.9	238.2
27.5°	731.4	723.9	705.6	671.7	626.6	566.0	499.8	435.5	374.9	320.4	221.7
30°	752.1	744.5	722.5	687.7	640.3	578.3	507.3	435.9	370.2	309.1	203.9
32.5°	768.0	761.0	738.4	701.3	649.7	586.7	511.6	435.5	364.1	301.1	184.6
35°	784.0	777.0	750.7	711.2	656.7	590.5	514.8	433.1	356.5	288.0	166.3
37.5°	796.2	788.2	761.5	717.8	660.0	591.4	514.4	429.8	348.6	277.1	148.0
40°	804.7	796.2	767.6	721.5	660.9	590.0	510.6	424.2	339.2	263.5	128.7
42.5°	810.3	800.9	770.4	727.2	659.1	586.2	505.0	417.1	328.8	251.8	110.4
45°	813.1	803.3	770.9	722.5	655.8	579.2	496.5	408.2	317.5	235.8	92.1
47.5°	811.7	800.9	768.5	717.3	649.7	571.7	487.1	397.4	303.9	221.7	74.7
50°	809.4	798.1	763.3	710.7	641.2	562.3	476.8	384.3	289.8	204.3	59.2
52.5°	801.9	790.6	757.7	701.3	631.3	551.5	462.7	370.6	274.8	187.4	45.1
55°	792.5	782.1	747.8	692.9	618.7	538.3	449.5	356.1	260.2	170.0	32.4
57.5°	777.9	768.5	735.6	679.2	606.0	523.8	435.0	340.1	241.9	152.7	22.5
60°	760.0	750.7	718.7	663.7	591.4	507.3	419.0	323.7	225.5	135.3	14.1
62.5°	741.3	732.3	699.0	644.5	573.1	489.9	401.6	307.2	208.1	119.3	8.5
65°	716.4	707.9	677.8	621.5	552.9	471.2	382.4	287.5	190.2	101.5	4.7
67.5°	690.1	682.5	652.0	600.3	529.4	450.5	362.6	268.2	171.5	86.0	2.3
70°	661.9	652.5	624.3	571.7	505.4	427.0	341.0	248.5	153.6	70.9	0.0
72.5°	629.0	621.9	594.7	544.9	477.7	402.1	319.0	226.9	133.9	56.4	0.5
75°	597.0	588.1	563.2	516.2	450.5	375.8	294.5	206.7	114.6	43.2	0.5
77.5°	555.7	552.9	529.4	483.8	424.6	350.4	267.8	182.3	96.3	31.0	0.5
80°	514.4	511.6	493.2	451.4	394.6	320.4	242.9	159.2	78.4	20.7	0.5
82.5°	473.5	469.7	452.4	417.6	364.1	295.0	217.0	136.2	62.0	12.7	0.5
85°	436.9	432.2	413.4	381.4	332.6	266.3	190.2	113.7	46.0	7.0	0.9
87.5°	405.4	402.1	381.4	348.6	300.6	239.6	166.8	92.1	32.4	3.3	1.4
90°	378.6	371.6	353.2	318.5	270.6	210.0	141.9	73.7	21.6	1.9	1.9
92.5°	352.3	346.2	326.0	290.3	243.8	184.6	117.9	56.4	13.6	0.9	2.3
95°	325.1	318.5	298.8	265.9	216.6	158.8	96.8	41.3	7.5	0.9	2.3
97.5°	298.3	292.2	271.5	238.6	192.1	136.2	76.6	29.1	3.8	0.9	1.9
100°	273.4	266.3	247.6	214.7	167.7	113.7	59.2	18.8	2.3	0.9	1.9
102.5°	247.1	241.4	222.2	190.2	142.3	92.5	44.2	11.7	0.9	0.9	1.4
105°	223.6	216.6	197.8	164.9	121.2	72.8	31.0	7.0	0.9	0.9	1.4



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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-82-84-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	145.6	140.0	123.5	95.8	61.5	28.7	8.5	1.4	1.4	1.4	1.4
115°	121.7	113.2	98.6	74.2	45.6	18.8	4.2	1.4	1.4	1.4	1.4
117.5°	97.2	90.2	79.9	56.4	30.1	12.2	2.3	1.4	1.4	1.4	1.4
120°	76.1	69.5	57.8	39.0	20.2	7.0	0.9	1.4	1.4	1.4	1.4
122.5°	54.5	49.3	39.0	25.4	12.2	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.2	33.4	25.8	15.5	7.5	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.5	21.1	15.0	8.9	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.2	11.7	8.9	5.2	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.5	7.0	4.7	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.3	2.3	2.3	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.3	2.3	2.3	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	2.3
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	1.9
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	368.7	368.7	368.7
2.5°	350.9	344.3	342.4
5°	332.1	321.3	315.2
7.5°	313.3	298.8	291.7
10°	295.9	275.3	267.8
12.5°	275.3	251.3	239.6
15°	255.5	224.5	213.3
17.5°	233.5	198.7	185.5
20°	212.8	172.9	159.2
22.5°	189.3	147.5	132.5
25°	168.2	122.1	105.2
27.5°	144.7	96.3	81.7
30°	122.6	73.7	59.2
32.5°	101.5	54.0	40.9
35°	81.7	36.6	25.8
37.5°	62.9	22.5	13.2
40°	45.6	11.7	6.1
42.5°	30.5	5.6	3.3
45°	18.8	2.8	0.0
47.5°	10.8	0.0	0.0
50°	5.6	0.0	0.0
52.5°	2.3	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	0.9	1.4
80°	0.9	1.9	2.3
82.5°	1.9	2.3	2.3
85°	1.9	2.3	2.8
87.5°	2.3	2.8	3.3
90°	2.8	3.3	3.3
92.5°	2.8	3.8	3.8
95°	3.3	3.8	4.2
97.5°	3.8	4.2	4.2
100°	3.3	4.2	4.7
102.5°	2.8	4.2	4.2
105°	2.3	3.3	3.8



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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-82-84-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.3	2.3
115°	1.4	1.9	2.3
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.9	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	197.3	191.7	172.9	141.9	99.1	55.4	20.7	3.8	0.9	1.4	1.4
110°	171.9	167.2	148.0	117.9	79.9	41.3	13.6	2.3	1.4	1.4	1.4





107.5°	1.9	2.8	3.3
110°	1.9	2.3	2.8



(END OF REPORT)