

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: P550638

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-81-87-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: P550638
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-50-UNV-81-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

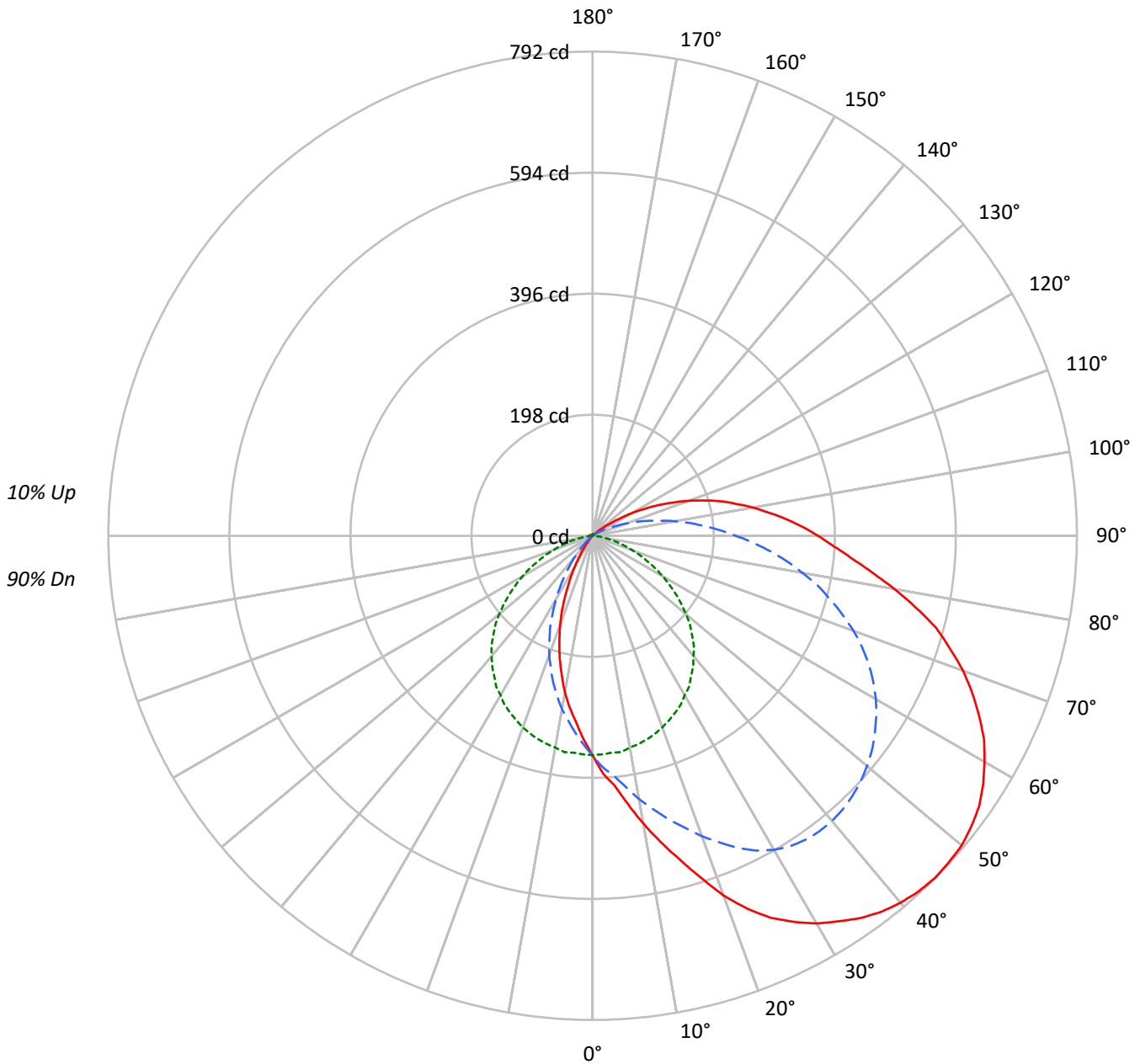
Lumens per Lamp: N/A
Luminaire Lumens: 1775.0 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
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				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°	3864	3864	3864
5°	4242	3808	3177
10°	4801	3761	2619
15°	5380	3713	2040
20°	6068	3653	1503
25°	6639	3582	987
30°	7063	3489	556
35°	7430	3388	245
40°	7755	3263	58
45°	8034	3107	0
50°	8270	2900	0
55°	8448	2637	0
60°	8537	2331	0
65°	8573	1984	0
70°	8544	1619	0
75°	8435	1194	7
80°	8093	729	37
85°	7824	351	50



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.4	1.9
10°-20°	103.0	5.8
20°-30°	166.8	9.4
30°-40°	214.2	12.1
40°-50°	242.5	13.7
50°-60°	251.2	14.2
60°-70°	236.9	13.3
70°-80°	198.6	11.2
80°-90°	143.9	8.1
90°-100°	94.6	5.3
100°-110°	54.6	3.1
110°-120°	24.1	1.4
120°-130°	6.5	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°	304.1	17.1
0°-40°	518.3	29.2
0°-60°	1012.0	57.0
0°-90°	1591.5	89.7
90°-120°	173.3	9.8
90°-150°	182.3	10.3
90°-180°	184.0	10.4
0°-180°	1775.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	359	359	359	359	359	
5°	410	394	356	323	307	41
15°	548	480	344	249	208	158
25°	689	563	319	164	102	319
35°	763	607	280	80	25	479
45°	792	601	230	18	0	611
55°	772	563	166	0	0	689
65°	698	498	99	0	0	690
75°	581	402	42	0	0	610
85°	425	292	7	2	3	363
90°	369	234	2	3	3	202
95°	316	183	1	3	4	248
105°	218	94	1	2	4	230
115°	118	31	1	1	2	119
125°	35	4	2	1	2	35
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°	359.0	359.0	359.0	359.0	359.0	359.0	359.0	359.0	359.0	359.0	359.0
2.5°	389.2	388.8	387.4	385.1	381.9	376.4	371.8	367.7	362.2	357.7	349.0
5°	409.8	407.5	405.7	403.4	396.1	391.1	382.8	373.7	365.0	356.3	338.9
7.5°	442.7	439.1	436.3	429.9	419.9	408.4	395.6	386.9	381.0	356.8	327.0
10°	478.0	474.8	469.3	457.8	445.5	429.0	410.7	390.1	371.8	351.7	316.5
12.5°	512.7	508.1	500.4	485.7	468.4	447.8	422.6	398.4	372.3	348.5	304.2
15°	547.5	542.4	534.2	516.4	493.5	466.5	435.9	405.2	374.6	344.4	291.3
17.5°	585.4	578.6	566.2	546.1	517.3	483.9	447.8	410.7	373.7	339.4	277.6
20°	626.1	616.5	603.3	576.3	542.4	503.1	459.7	416.2	373.2	333.4	262.1
22.5°	660.0	650.4	635.8	607.9	567.1	519.1	469.7	419.9	371.4	326.6	247.4
25°	689.3	681.5	665.5	633.5	590.5	536.0	479.3	422.6	368.6	319.2	231.9
27.5°	712.1	704.8	687.0	654.0	610.1	551.1	486.6	424.0	365.0	311.9	215.9
30°	732.3	724.9	703.4	669.6	623.4	563.0	494.0	424.4	360.4	301.0	198.5
32.5°	747.8	740.9	719.0	682.9	632.6	571.3	498.1	424.0	354.5	293.2	179.7
35°	763.4	756.5	730.9	692.5	639.4	574.9	501.3	421.7	347.1	280.4	161.9
37.5°	775.3	767.5	741.4	698.9	642.6	575.8	500.8	418.5	339.4	269.9	144.1
40°	783.5	775.3	747.4	702.5	643.5	574.5	497.2	413.0	330.2	256.6	125.3
42.5°	789.0	779.8	750.1	708.0	641.7	570.8	491.7	406.1	320.2	245.2	107.5
45°	791.7	782.1	750.6	703.4	638.5	563.9	483.4	397.5	309.2	229.6	89.6
47.5°	790.3	779.8	748.3	698.4	632.6	556.6	474.3	386.9	295.9	215.9	72.7
50°	788.1	777.1	743.2	692.0	624.3	547.5	464.2	374.1	282.2	199.0	57.6
52.5°	780.7	769.8	737.7	682.9	614.7	537.0	450.5	360.9	267.6	182.5	43.9
55°	771.6	761.5	728.1	674.6	602.4	524.2	437.7	346.7	253.4	165.6	31.6
57.5°	757.4	748.3	716.3	661.4	590.0	510.0	423.5	331.1	235.5	148.6	22.0
60°	740.0	730.9	699.8	646.3	575.8	494.0	408.0	315.1	219.5	131.7	13.7
62.5°	721.7	713.0	680.6	627.5	558.0	477.0	391.1	299.1	202.6	116.2	8.2
65°	697.5	689.3	660.0	605.1	538.3	458.7	372.3	279.9	185.2	98.8	4.6
67.5°	671.9	664.6	634.8	584.5	515.5	438.6	353.1	261.2	166.9	83.7	2.3
70°	644.4	635.3	607.9	556.6	492.1	415.8	332.1	242.0	149.6	69.1	0.0
72.5°	612.4	605.6	579.0	530.6	465.2	391.5	310.6	220.9	130.4	54.9	0.5
75°	581.3	572.6	548.4	502.7	438.6	365.9	286.8	201.2	111.6	42.1	0.5
77.5°	541.1	538.3	515.5	471.1	413.5	341.2	260.7	177.5	93.8	30.2	0.5
80°	500.8	498.1	480.2	439.5	384.2	311.9	236.5	155.1	76.4	20.1	0.5
82.5°	461.0	457.4	440.5	406.6	354.5	287.2	211.3	132.6	60.4	12.3	0.5
85°	425.4	420.8	402.5	371.4	323.8	259.3	185.2	110.7	44.8	6.9	0.9
87.5°	394.7	391.5	371.4	339.4	292.7	233.3	162.4	89.6	31.6	3.2	1.4
90°	368.6	361.8	343.9	310.1	263.4	204.4	138.1	71.8	21.0	1.8	1.8
92.5°	343.0	337.1	317.4	282.7	237.4	179.7	114.8	54.9	13.3	0.9	2.3
95°	316.5	310.1	290.9	258.9	210.9	154.6	94.2	40.2	7.3	0.9	2.3
97.5°	290.4	284.5	264.4	232.3	187.1	132.6	74.6	28.4	3.7	0.9	1.8
100°	266.2	259.3	241.0	209.0	163.3	110.7	57.6	18.3	2.3	0.9	1.8
102.5°	240.6	235.1	216.3	185.2	138.6	90.1	43.0	11.4	0.9	0.9	1.4
105°	217.7	210.9	192.6	160.5	118.0	70.9	30.2	6.9	0.9	0.9	1.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	141.8	136.3	120.3	93.3	59.9	27.9	8.2	1.4	1.4	1.4	1.4
115°	118.5	110.2	96.0	72.3	44.4	18.3	4.1	1.4	1.4	1.4	1.4
117.5°	94.7	87.8	77.8	54.9	29.3	11.9	2.3	1.4	1.4	1.4	1.4
120°	74.1	67.7	56.3	38.0	19.7	6.9	0.9	1.4	1.4	1.4	1.4
122.5°	53.1	48.0	38.0	24.7	11.9	3.2	1.4	1.4	1.8	1.8	1.4
125°	35.2	32.5	25.2	15.1	7.3	1.4	1.4	1.4	1.8	1.8	1.4
127.5°	22.9	20.6	14.6	8.7	3.2	1.4	1.4	1.8	1.8	1.8	1.4
130°	12.8	11.4	8.7	5.0	1.4	1.4	1.4	1.8	1.8	1.8	1.4
132.5°	7.3	6.9	4.6	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.8	2.3	2.3	2.3	1.8
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	1.8
142.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
145°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
150°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
152.5°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
157.5°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	1.8
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°	359.0	359.0	359.0
2.5°	341.7	335.3	333.4
5°	323.4	312.8	306.9
7.5°	305.1	290.9	284.0
10°	288.1	268.0	260.7
12.5°	268.0	244.7	233.3
15°	248.8	218.6	207.6
17.5°	227.3	193.5	180.7
20°	207.2	168.3	155.1
22.5°	184.3	143.6	129.0
25°	163.7	118.9	102.5
27.5°	140.9	93.8	79.6
30°	119.4	71.8	57.6
32.5°	98.8	52.6	39.8
35°	79.6	35.7	25.2
37.5°	61.3	22.0	12.8
40°	44.4	11.4	5.9
42.5°	29.7	5.5	3.2
45°	18.3	2.7	0.0
47.5°	10.5	0.0	0.0
50°	5.5	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	1.8	2.3
82.5°	1.8	2.3	2.3
85°	1.8	2.3	2.7
87.5°	2.3	2.7	3.2
90°	2.7	3.2	3.2
92.5°	2.7	3.7	3.7
95°	3.2	3.7	4.1
97.5°	3.7	4.1	4.1
100°	3.2	4.1	4.6
102.5°	2.7	4.1	4.1
105°	2.3	3.2	3.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.8	2.3	2.3
115°	1.4	1.8	2.3
117.5°	1.4	1.8	1.8
120°	1.4	1.4	1.8
122.5°	1.4	1.4	1.8
125°	1.4	1.4	1.8
127.5°	1.8	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.8	1.4	1.4
135°	1.8	1.4	1.4
137.5°	1.8	1.4	1.4
140°	1.8	1.4	1.4
142.5°	1.8	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°	1.8	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°	192.1	186.6	168.3	138.1	96.5	54.0	20.1	3.7	0.9	1.4	1.4
110°	167.4	162.8	144.1	114.8	77.8	40.2	13.3	2.3	1.4	1.4	1.4





107.5°	1.8	2.7	3.2
110°	1.8	2.3	2.7



(END OF REPORT)