

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: P550504

Luminaire Tested: **FCC-X-2-LD4-1HI-35-UNV-81-84-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: P550504
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-35-UNV-81-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

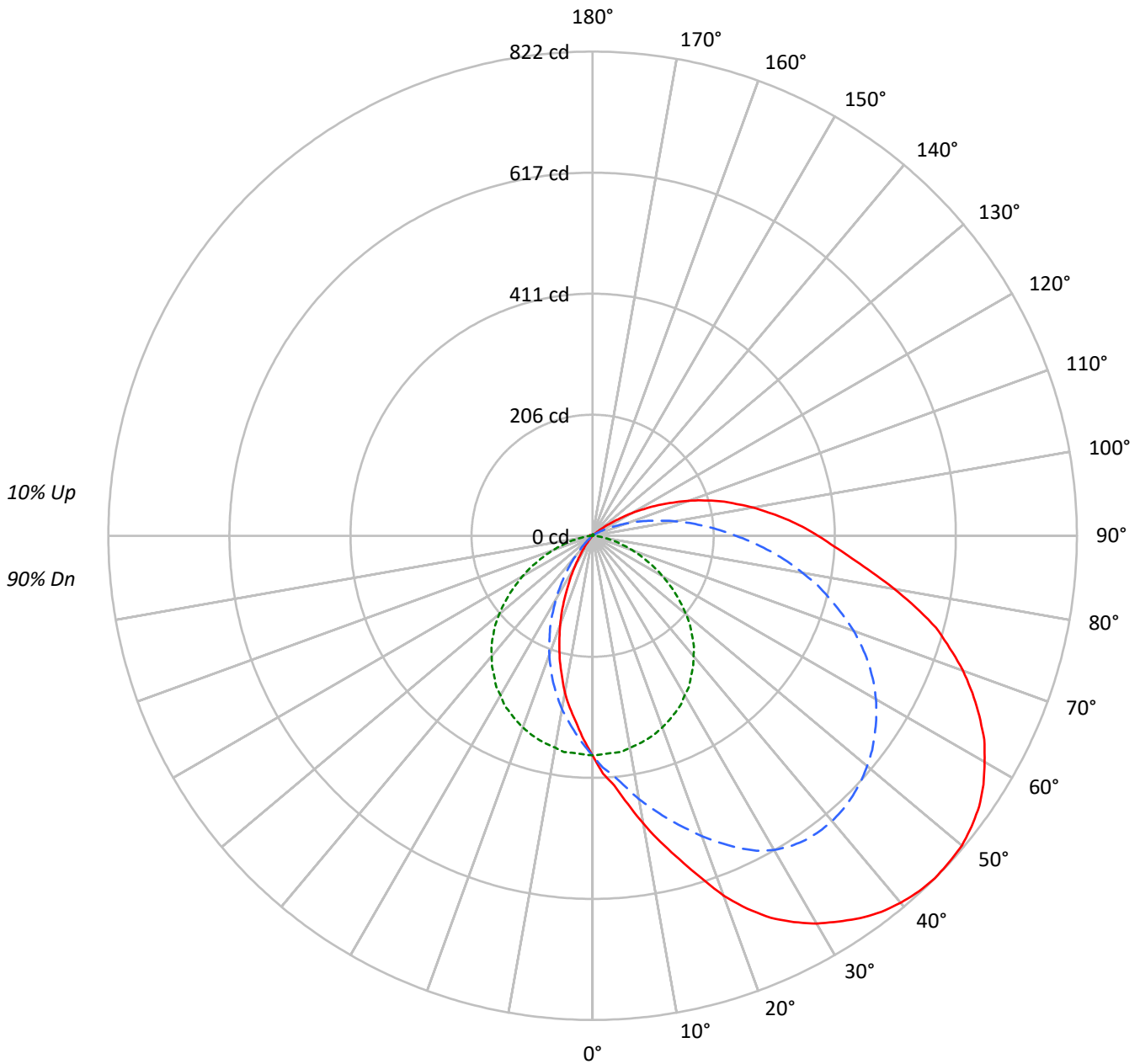
Lumens per Lamp: N/A
Luminaire Lumens: 1842.9 lumens
Efficiency: N/A
Efficacy: 84.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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				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°	4013	4013	4013
5°	4405	3954	3299
10°	4985	3906	2719
15°	5587	3856	2119
20°	6300	3793	1560
25°	6893	3720	1025
30°	7333	3623	577
35°	7714	3517	254
40°	8052	3388	61
45°	8342	3226	0
50°	8585	3011	0
55°	8772	2737	0
60°	8865	2421	0
65°	8901	2061	0
70°	8871	1680	0
75°	8759	1239	7
80°	8404	758	39
85°	8124	361	51



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.7	1.9
10°-20°	106.9	5.8
20°-30°	173.1	9.4
30°-40°	222.4	12.1
40°-50°	251.8	13.7
50°-60°	260.8	14.2
60°-70°	246.0	13.3
70°-80°	206.2	11.2
80°-90°	149.4	8.1
90°-100°	98.2	5.3
100°-110°	56.7	3.1
110°-120°	25.0	1.4
120°-130°	6.8	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°	315.8	17.1
0°-40°	538.2	29.2
0°-60°	1050.8	57.0
0°-90°	1652.4	89.7
90°-120°	179.9	9.8
90°-150°	189.3	10.3
90°-180°	191.0	10.4
0°-180°	1842.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	373	373	373	373	373	
5°	426	409	370	336	319	43
15°	568	498	358	258	216	164
25°	716	585	332	170	106	331
35°	793	630	291	83	26	497
45°	822	624	238	19	0	635
55°	801	585	172	0	0	715
65°	724	518	103	0	0	717
75°	604	418	44	0	0	633
85°	442	303	7	2	3	377
90°	383	243	2	3	3	210
95°	329	190	1	3	4	258
105°	226	98	1	2	4	239
115°	123	33	1	1	2	123
125°	37	4	2	1	2	37
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°	372.8	372.8	372.8	372.8	372.8	372.8	372.8	372.8	372.8	372.8	372.8
2.5°	404.1	403.7	402.2	399.9	396.5	390.8	386.1	381.8	376.1	371.4	362.3
5°	425.5	423.1	421.2	418.9	411.3	406.0	397.5	388.0	379.0	369.9	351.9
7.5°	459.7	455.9	453.1	446.4	436.0	424.1	410.8	401.8	395.6	370.4	339.6
10°	496.3	492.9	487.2	475.4	462.6	445.5	426.5	405.1	386.1	365.2	328.6
12.5°	532.4	527.6	519.5	504.3	486.3	464.9	438.8	413.6	386.6	361.9	315.8
15°	568.5	563.2	554.7	536.2	512.4	484.4	452.6	420.8	388.9	357.6	302.5
17.5°	607.9	600.7	587.9	567.0	537.1	502.4	464.9	426.5	388.0	352.4	288.3
20°	650.1	640.2	626.4	598.4	563.2	522.4	477.3	432.2	387.5	346.2	272.1
22.5°	685.3	675.3	660.1	631.1	588.9	539.0	487.7	436.0	385.6	339.1	256.9
25°	715.7	707.6	691.0	657.7	613.1	556.6	497.7	438.8	382.8	331.5	240.8
27.5°	739.4	731.8	713.3	679.1	633.5	572.3	505.3	440.2	379.0	323.9	224.2
30°	760.3	752.7	730.4	695.3	647.3	584.6	512.9	440.7	374.2	312.5	206.1
32.5°	776.5	769.3	746.5	709.0	656.8	593.1	517.2	440.2	368.0	304.4	186.6
35°	792.6	785.5	758.9	719.0	663.9	596.9	520.5	437.9	360.4	291.1	168.1
37.5°	805.0	796.9	769.8	725.6	667.2	597.9	520.0	434.5	352.4	280.2	149.6
40°	813.5	805.0	776.0	729.4	668.2	596.5	516.2	428.8	342.9	266.4	130.1
42.5°	819.2	809.7	778.8	735.1	666.3	592.7	510.5	421.7	332.4	254.5	111.6
45°	822.0	812.1	779.3	730.4	663.0	585.5	502.0	412.7	321.0	238.4	93.1
47.5°	820.6	809.7	776.9	725.2	656.8	578.0	492.5	401.8	307.3	224.2	75.5
50°	818.2	806.9	771.7	718.5	648.2	568.5	482.0	388.5	293.0	206.6	59.8
52.5°	810.7	799.3	766.0	709.0	638.3	557.5	467.8	374.7	277.8	189.5	45.6
55°	801.2	790.7	756.0	700.5	625.4	544.2	454.5	360.0	263.1	171.9	32.8
57.5°	786.4	776.9	743.7	686.7	612.6	529.5	439.8	343.8	244.6	154.3	22.8
60°	768.4	758.9	726.6	671.0	597.9	512.9	423.6	327.2	228.0	136.8	14.2
62.5°	749.4	740.4	706.6	651.6	579.4	495.3	406.0	310.6	210.4	120.6	8.5
65°	724.2	715.7	685.3	628.3	559.0	476.3	386.6	290.6	192.3	102.6	4.7
67.5°	697.6	690.0	659.2	606.9	535.2	455.4	366.6	271.2	173.3	86.9	2.4
70°	669.1	659.6	631.1	578.0	511.0	431.7	344.8	251.2	155.3	71.7	0.0
72.5°	635.9	628.8	601.2	550.9	483.0	406.5	322.5	229.4	135.3	57.0	0.5
75°	603.6	594.6	569.4	521.9	455.4	379.9	297.8	209.0	115.9	43.7	0.5
77.5°	561.8	559.0	535.2	489.1	429.3	354.3	270.7	184.3	97.4	31.3	0.5
80°	520.0	517.2	498.6	456.4	398.9	323.9	245.5	161.0	79.3	20.9	0.5
82.5°	478.7	474.9	457.3	422.2	368.0	298.2	219.4	137.7	62.7	12.8	0.5
85°	441.7	436.9	417.9	385.6	336.2	269.3	192.3	114.9	46.5	7.1	0.9
87.5°	409.8	406.5	385.6	352.4	303.9	242.2	168.6	93.1	32.8	3.3	1.4
90°	382.8	375.6	357.1	322.0	273.5	212.3	143.4	74.6	21.8	1.9	1.9
92.5°	356.2	350.0	329.6	293.5	246.5	186.6	119.2	57.0	13.8	0.9	2.4
95°	328.6	322.0	302.0	268.8	218.9	160.5	97.8	41.8	7.6	0.9	2.4
97.5°	301.6	295.4	274.5	241.2	194.2	137.7	77.4	29.4	3.8	0.9	1.9
100°	276.4	269.3	250.3	217.0	169.5	114.9	59.8	19.0	2.4	0.9	1.9
102.5°	249.8	244.1	224.6	192.3	143.9	93.6	44.6	11.9	0.9	0.9	1.4
105°	226.1	218.9	199.9	166.7	122.5	73.6	31.3	7.1	0.9	0.9	1.4



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CATALOG NUMBER: FCC-X-2-LD4-1HI-35-UNV-81-84-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	147.2	141.5	124.9	96.9	62.2	29.0	8.5	1.4	1.4	1.4	1.4
115°	123.0	114.5	99.7	75.0	46.1	19.0	4.3	1.4	1.4	1.4	1.4
117.5°	98.3	91.2	80.7	57.0	30.4	12.3	2.4	1.4	1.4	1.4	1.4
120°	76.9	70.3	58.4	39.4	20.4	7.1	0.9	1.4	1.4	1.4	1.4
122.5°	55.1	49.9	39.4	25.6	12.3	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.6	33.7	26.1	15.7	7.6	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.7	21.4	15.2	9.0	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.3	11.9	9.0	5.2	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.6	7.1	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	2.4	2.4	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
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	2.4	2.4	2.4	2.4
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	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°	372.8	372.8	372.8
2.5°	354.7	348.1	346.2
5°	335.8	324.8	318.7
7.5°	316.8	302.0	294.9
10°	299.2	278.3	270.7
12.5°	278.3	254.1	242.2
15°	258.3	227.0	215.6
17.5°	236.0	200.9	187.6
20°	215.1	174.8	161.0
22.5°	191.4	149.1	133.9
25°	170.0	123.5	106.4
27.5°	146.3	97.4	82.6
30°	123.9	74.6	59.8
32.5°	102.6	54.6	41.3
35°	82.6	37.0	26.1
37.5°	63.6	22.8	13.3
40°	46.1	11.9	6.2
42.5°	30.9	5.7	3.3
45°	19.0	2.8	0.0
47.5°	10.9	0.0	0.0
50°	5.7	0.0	0.0
52.5°	2.4	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	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.8
87.5°	2.4	2.8	3.3
90°	2.8	3.3	3.3
92.5°	2.8	3.8	3.8
95°	3.3	3.8	4.3
97.5°	3.8	4.3	4.3
100°	3.3	4.3	4.7
102.5°	2.8	4.3	4.3
105°	2.4	3.3	3.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.4	1.9	2.4
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°	199.5	193.8	174.8	143.4	100.2	56.0	20.9	3.8	0.9	1.4	1.4
110°	173.8	169.1	149.6	119.2	80.7	41.8	13.8	2.4	1.4	1.4	1.4





107.5°	1.9	2.8	3.3
110°	1.9	2.4	2.8



(END OF REPORT)