

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: P550438

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-80-97-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: P550438
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-80-97-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

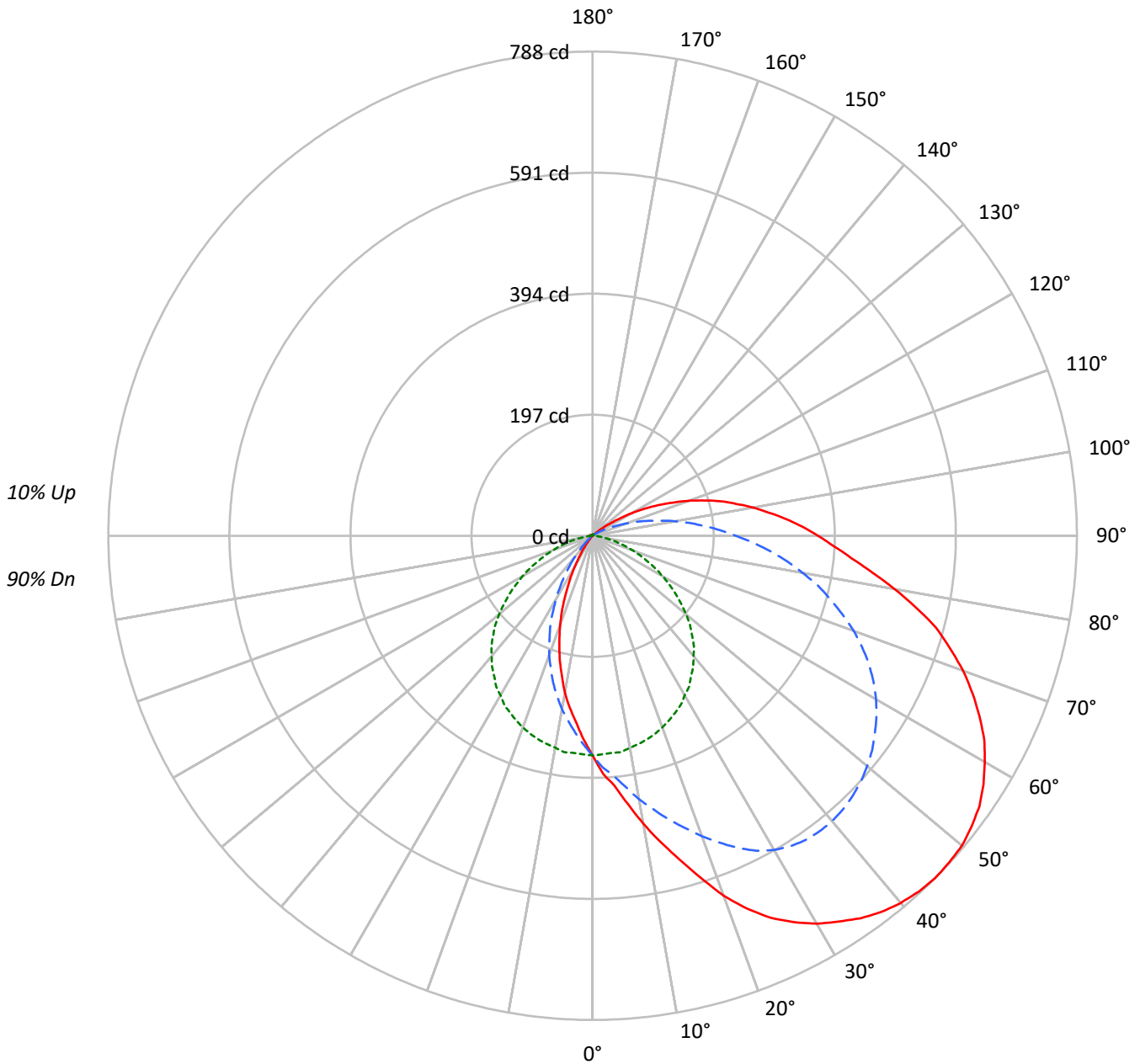
Lumens per Lamp: N/A
Luminaire Lumens: 1767.0 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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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°	3847	3847	3847
5°	4224	3791	3163
10°	4779	3744	2607
15°	5356	3697	2031
20°	6040	3636	1496
25°	6609	3567	982
30°	7031	3473	554
35°	7396	3372	243
40°	7721	3248	58
45°	7998	3093	0
50°	8232	2887	0
55°	8409	2624	0
60°	8499	2320	0
65°	8535	1974	0
70°	8505	1612	0
75°	8397	1188	7
80°	8058	725	37
85°	7787	346	50



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.2	1.9
10°-20°	102.5	5.8
20°-30°	166.0	9.4
30°-40°	213.2	12.1
40°-50°	241.4	13.7
50°-60°	250.1	14.2
60°-70°	235.9	13.3
70°-80°	197.7	11.2
80°-90°	143.3	8.1
90°-100°	94.2	5.3
100°-110°	54.4	3.1
110°-120°	24.0	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°	302.8	17.1
0°-40°	516.0	29.2
0°-60°	1007.5	57.0
0°-90°	1584.3	89.7
90°-120°	172.6	9.8
90°-150°	181.5	10.3
90°-180°	183.0	10.4
0°-180°	1767.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	357	357	357	357	357	
5°	408	392	355	322	306	41
15°	545	478	343	248	207	157
25°	686	561	318	163	102	317
35°	760	604	279	79	25	477
45°	788	598	229	18	0	608
55°	768	561	165	0	0	686
65°	694	496	98	0	0	687
75°	579	400	42	0	0	607
85°	423	290	7	2	3	362
90°	367	233	2	3	3	201
95°	315	182	1	3	4	247
105°	217	94	1	2	4	229
115°	118	31	1	1	2	118
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°	357.4	357.4	357.4	357.4	357.4	357.4	357.4	357.4	357.4	357.4	357.4
2.5°	387.5	387.0	385.7	383.4	380.2	374.7	370.2	366.1	360.6	356.1	347.4
5°	408.0	405.7	403.9	401.6	394.3	389.3	381.1	372.0	363.3	354.7	337.4
7.5°	440.7	437.1	434.4	428.0	418.0	406.6	393.8	385.2	379.3	355.1	325.5
10°	475.8	472.6	467.2	455.8	443.5	427.1	408.9	388.4	370.2	350.1	315.1
12.5°	510.4	505.9	498.1	483.5	466.2	445.8	420.7	396.6	370.6	346.9	302.8
15°	545.0	540.0	531.8	514.0	491.3	464.4	433.9	403.4	372.9	342.9	290.0
17.5°	582.8	576.0	563.7	543.6	515.0	481.7	445.8	408.9	372.0	337.8	276.4
20°	623.3	613.8	600.6	573.7	540.0	500.8	457.6	414.3	371.5	331.9	260.9
22.5°	657.0	647.5	632.9	605.1	564.6	516.8	467.6	418.0	369.7	325.1	246.3
25°	686.2	678.4	662.5	630.6	587.8	533.6	477.2	420.7	367.0	317.8	230.8
27.5°	708.9	701.6	683.9	651.1	607.4	548.7	484.5	422.1	363.3	310.5	214.9
30°	729.0	721.7	700.3	666.6	620.6	560.5	491.7	422.5	358.8	299.6	197.6
32.5°	744.4	737.6	715.8	679.8	629.7	568.7	495.8	422.1	352.9	291.9	178.9
35°	759.9	753.1	727.6	689.3	636.5	572.3	499.0	419.8	345.6	279.1	161.2
37.5°	771.8	764.0	738.1	695.7	639.7	573.2	498.6	416.6	337.8	268.6	143.4
40°	780.0	771.8	744.0	699.4	640.6	571.9	494.9	411.1	328.7	255.4	124.8
42.5°	785.4	776.3	746.7	704.8	638.8	568.2	489.5	404.3	318.7	244.0	107.0
45°	788.1	778.6	747.2	700.3	635.6	561.4	481.3	395.7	307.8	228.6	89.2
47.5°	786.8	776.3	744.9	695.3	629.7	554.1	472.2	385.2	294.6	214.9	72.4
50°	784.5	773.6	739.9	688.9	621.5	545.0	462.1	372.4	280.9	198.1	57.4
52.5°	777.2	766.3	734.4	679.8	611.9	534.5	448.5	359.2	266.4	181.7	43.7
55°	768.1	758.1	724.9	671.6	599.6	521.8	435.7	345.1	252.2	164.8	31.4
57.5°	754.0	744.9	713.0	658.4	587.4	507.7	421.6	329.6	234.5	148.0	21.9
60°	736.7	727.6	696.6	643.4	573.2	491.7	406.1	313.7	218.6	131.1	13.7
62.5°	718.5	709.8	677.5	624.7	555.5	474.9	389.3	297.8	201.7	115.6	8.2
65°	694.4	686.2	657.0	602.4	535.9	456.7	370.6	278.7	184.4	98.3	4.6
67.5°	668.9	661.6	632.0	581.9	513.1	436.6	351.5	260.0	166.2	83.3	2.3
70°	641.5	632.4	605.1	554.1	489.9	413.9	330.6	240.9	148.9	68.8	0.0
72.5°	609.7	602.8	576.4	528.2	463.1	389.7	309.2	219.9	129.8	54.6	0.5
75°	578.7	570.1	545.9	500.4	436.6	364.3	285.5	200.3	111.1	41.9	0.5
77.5°	538.6	535.9	513.1	469.0	411.6	339.7	259.5	176.7	93.3	30.1	0.5
80°	498.6	495.8	478.1	437.6	382.5	310.5	235.4	154.4	76.0	20.0	0.5
82.5°	459.0	455.3	438.5	404.8	352.9	285.9	210.4	132.0	60.1	12.3	0.5
85°	423.4	418.9	400.7	369.7	322.4	258.2	184.4	110.2	44.6	6.8	0.9
87.5°	392.9	389.7	369.7	337.8	291.4	232.2	161.6	89.2	31.4	3.2	1.4
90°	367.0	360.2	342.4	308.7	262.3	203.5	137.5	71.5	20.9	1.8	1.8
92.5°	341.5	335.6	316.0	281.4	236.3	178.9	114.3	54.6	13.2	0.9	2.3
95°	315.1	308.7	289.6	257.7	209.9	153.9	93.8	40.1	7.3	0.9	2.3
97.5°	289.1	283.2	263.2	231.3	186.2	132.0	74.2	28.2	3.6	0.9	1.8
100°	265.0	258.2	240.0	208.1	162.5	110.2	57.4	18.2	2.3	0.9	1.8
102.5°	239.5	234.0	215.4	184.4	138.0	89.7	42.8	11.4	0.9	0.9	1.4
105°	216.7	209.9	191.7	159.8	117.5	70.6	30.1	6.8	0.9	0.9	1.4



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CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-80-97-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	141.1	135.7	119.7	92.9	59.6	27.8	8.2	1.4	1.4	1.4	1.4
115°	117.9	109.7	95.6	71.9	44.2	18.2	4.1	1.4	1.4	1.4	1.4
117.5°	94.3	87.4	77.4	54.6	29.1	11.8	2.3	1.4	1.4	1.4	1.4
120°	73.8	67.4	56.0	37.8	19.6	6.8	0.9	1.4	1.4	1.4	1.4
122.5°	52.8	47.8	37.8	24.6	11.8	3.2	1.4	1.4	1.8	1.8	1.4
125°	35.1	32.3	25.0	15.0	7.3	1.4	1.4	1.4	1.8	1.8	1.4
127.5°	22.8	20.5	14.6	8.7	3.2	1.4	1.4	1.8	1.8	1.8	1.4
130°	12.7	11.4	8.7	5.0	1.4	1.4	1.4	1.8	1.8	1.8	1.4
132.5°	7.3	6.8	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°	357.4	357.4	357.4
2.5°	340.1	333.7	331.9
5°	321.9	311.4	305.5
7.5°	303.7	289.6	282.8
10°	286.8	266.8	259.5
12.5°	266.8	243.6	232.2
15°	247.7	217.6	206.7
17.5°	226.3	192.6	179.8
20°	206.3	167.6	154.4
22.5°	183.5	143.0	128.4
25°	163.0	118.4	102.0
27.5°	140.2	93.3	79.2
30°	118.8	71.5	57.4
32.5°	98.3	52.4	39.6
35°	79.2	35.5	25.0
37.5°	61.0	21.9	12.7
40°	44.2	11.4	5.9
42.5°	29.6	5.5	3.2
45°	18.2	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	3.6	3.6
95°	3.2	3.6	4.1
97.5°	3.6	4.1	4.1
100°	3.2	4.1	4.6
102.5°	2.7	4.1	4.1
105°	2.3	3.2	3.6



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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°	191.2	185.8	167.6	137.5	96.1	53.7	20.0	3.6	0.9	1.4	1.4
110°	166.6	162.1	143.4	114.3	77.4	40.1	13.2	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)