

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: P550588

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-82-86-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: P550588
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-82-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

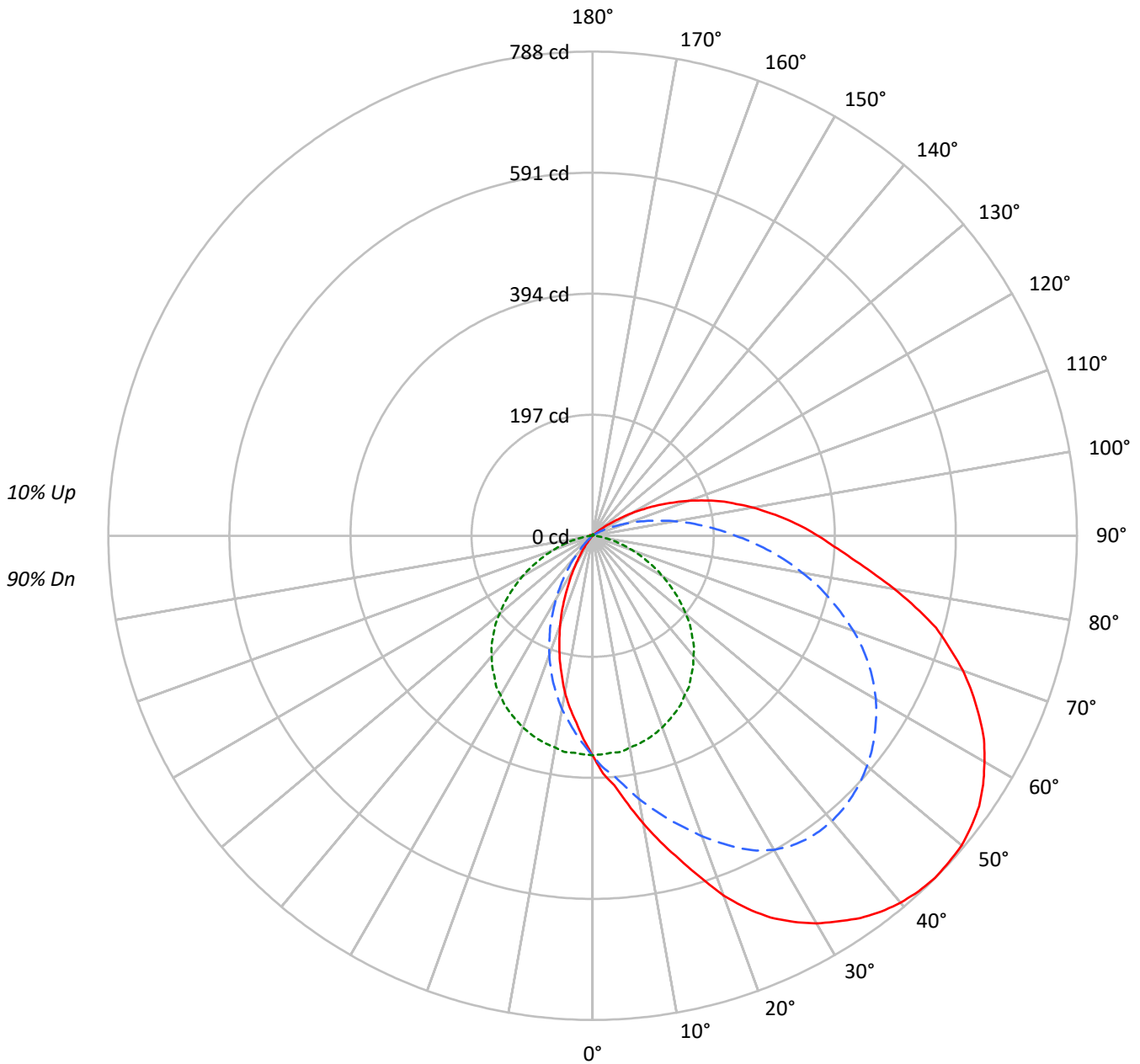
Lumens per Lamp: N/A
Luminaire Lumens: 1766.0 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (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				
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°	3845	3845	3845
5°	4221	3789	3161
10°	4776	3742	2606
15°	5353	3695	2030
20°	6038	3634	1495
25°	6605	3564	981
30°	7026	3471	553
35°	7392	3370	243
40°	7716	3247	58
45°	7994	3091	0
50°	8228	2884	0
55°	8405	2623	0
60°	8494	2320	0
65°	8530	1974	0
70°	8501	1609	0
75°	8393	1188	7
80°	8053	725	37
85°	7783	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°	165.9	9.4
30°-40°	213.1	12.1
40°-50°	241.3	13.7
50°-60°	249.9	14.2
60°-70°	235.7	13.3
70°-80°	197.6	11.2
80°-90°	143.2	8.1
90°-100°	94.1	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°	302.6	17.1
0°-40°	515.7	29.2
0°-60°	1006.9	57.0
0°-90°	1583.4	89.7
90°-120°	172.5	9.8
90°-150°	181.4	10.3
90°-180°	183.0	10.4
0°-180°	1766.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	357	357	357	357	357	
5°	408	392	354	322	305	41
15°	545	478	343	248	207	157
25°	686	560	318	163	102	317
35°	760	604	279	79	25	476
45°	788	598	228	18	0	608
55°	768	560	165	0	0	686
65°	694	496	98	0	0	687
75°	578	400	42	0	0	607
85°	423	290	7	2	3	361
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°	357.2	357.2	357.2	357.2	357.2	357.2	357.2	357.2	357.2	357.2	357.2
2.5°	387.3	386.8	385.4	383.2	380.0	374.5	370.0	365.9	360.4	355.9	347.2
5°	407.7	405.5	403.6	401.4	394.1	389.1	380.9	371.8	363.1	354.5	337.2
7.5°	440.5	436.9	434.1	427.8	417.7	406.4	393.6	385.0	379.1	354.9	325.4
10°	475.5	472.3	466.9	455.5	443.2	426.8	408.6	388.2	370.0	349.9	314.9
12.5°	510.1	505.6	497.8	483.3	466.0	445.5	420.5	396.4	370.4	346.8	302.6
15°	544.7	539.7	531.5	513.8	491.0	464.2	433.7	403.2	372.7	342.7	289.9
17.5°	582.5	575.6	563.4	543.3	514.7	481.4	445.5	408.6	371.8	337.7	276.2
20°	623.0	613.4	600.2	573.4	539.7	500.6	457.3	414.1	371.3	331.7	260.7
22.5°	656.6	647.1	632.5	604.8	564.3	516.5	467.3	417.7	369.5	324.9	246.2
25°	685.8	678.0	662.1	630.3	587.5	533.3	476.9	420.5	366.8	317.6	230.7
27.5°	708.5	701.2	683.5	650.7	607.0	548.3	484.2	421.8	363.1	310.3	214.8
30°	728.5	721.3	699.9	666.2	620.2	560.2	491.5	422.3	358.6	299.4	197.5
32.5°	744.0	737.2	715.3	679.4	629.3	568.4	495.6	421.8	352.7	291.7	178.8
35°	759.5	752.7	727.2	689.0	636.2	572.0	498.7	419.6	345.4	278.9	161.1
37.5°	771.3	763.6	737.6	695.3	639.4	572.9	498.3	416.4	337.7	268.5	143.3
40°	779.5	771.3	743.6	699.0	640.3	571.6	494.6	410.9	328.6	255.3	124.7
42.5°	785.0	775.9	746.3	704.4	638.4	567.9	489.2	404.1	318.5	243.9	106.9
45°	787.7	778.1	746.7	699.9	635.3	561.1	481.0	395.4	307.6	228.4	89.2
47.5°	786.3	775.9	744.5	694.9	629.3	553.8	471.9	385.0	294.4	214.8	72.4
50°	784.1	773.1	739.5	688.5	621.2	544.7	461.9	372.2	280.8	197.9	57.3
52.5°	776.8	765.9	734.0	679.4	611.6	534.2	448.2	359.0	266.2	181.6	43.7
55°	767.7	757.7	724.5	671.2	599.3	521.5	435.5	344.9	252.1	164.7	31.4
57.5°	753.6	744.5	712.6	658.0	587.0	507.4	421.4	329.5	234.4	147.9	21.8
60°	736.3	727.2	696.2	643.0	572.9	491.5	405.9	313.5	218.4	131.1	13.7
62.5°	718.1	709.4	677.1	624.3	555.2	474.6	389.1	297.6	201.6	115.6	8.2
65°	694.0	685.8	656.6	602.0	535.6	456.4	370.4	278.5	184.3	98.3	4.6
67.5°	668.5	661.2	631.6	581.6	512.8	436.4	351.3	259.8	166.1	83.3	2.3
70°	641.2	632.1	604.8	553.8	489.6	413.6	330.4	240.7	148.8	68.7	0.0
72.5°	609.3	602.5	576.1	527.9	462.8	389.5	309.0	219.8	129.7	54.6	0.5
75°	578.4	569.7	545.6	500.1	436.4	364.0	285.3	200.2	111.0	41.9	0.5
77.5°	538.3	535.6	512.8	468.7	411.4	339.5	259.4	176.6	93.3	30.0	0.5
80°	498.3	495.6	477.8	437.3	382.2	310.3	235.3	154.3	76.0	20.0	0.5
82.5°	458.7	455.1	438.2	404.5	352.7	285.8	210.2	132.0	60.1	12.3	0.5
85°	423.2	418.7	400.4	369.5	322.2	258.0	184.3	110.1	44.6	6.8	0.9
87.5°	392.7	389.5	369.5	337.7	291.2	232.1	161.5	89.2	31.4	3.2	1.4
90°	366.8	359.9	342.2	308.5	262.1	203.4	137.4	71.4	20.9	1.8	1.8
92.5°	341.3	335.4	315.8	281.2	236.2	178.8	114.2	54.6	13.2	0.9	2.3
95°	314.9	308.5	289.4	257.6	209.8	153.8	93.7	40.0	7.3	0.9	2.3
97.5°	289.0	283.0	263.0	231.2	186.1	132.0	74.2	28.2	3.6	0.9	1.8
100°	264.8	258.0	239.8	208.0	162.5	110.1	57.3	18.2	2.3	0.9	1.8
102.5°	239.4	233.9	215.2	184.3	137.9	89.6	42.8	11.4	0.9	0.9	1.4
105°	216.6	209.8	191.6	159.7	117.4	70.5	30.0	6.8	0.9	0.9	1.4



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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-82-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	141.1	135.6	119.7	92.8	59.6	27.8	8.2	1.4	1.4	1.4	1.4
115°	117.9	109.7	95.6	71.9	44.1	18.2	4.1	1.4	1.4	1.4	1.4
117.5°	94.2	87.4	77.4	54.6	29.1	11.8	2.3	1.4	1.4	1.4	1.4
120°	73.7	67.3	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°	35.0	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	8.6	3.2	1.4	1.4	1.8	1.8	1.8	1.4
130°	12.7	11.4	8.6	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°	357.2	357.2	357.2
2.5°	339.9	333.6	331.7
5°	321.7	311.3	305.3
7.5°	303.5	289.4	282.6
10°	286.7	266.7	259.4
12.5°	266.7	243.5	232.1
15°	247.6	217.5	206.6
17.5°	226.2	192.5	179.7
20°	206.1	167.5	154.3
22.5°	183.4	142.9	128.3
25°	162.9	118.3	101.9
27.5°	140.2	93.3	79.2
30°	118.8	71.4	57.3
32.5°	98.3	52.3	39.6
35°	79.2	35.5	25.0
37.5°	61.0	21.8	12.7
40°	44.1	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°	191.1	185.7	167.5	137.4	96.0	53.7	20.0	3.6	0.9	1.4	1.4
110°	166.6	162.0	143.3	114.2	77.4	40.0	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)