

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: P550450

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-81-94-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: P550450
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-81-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

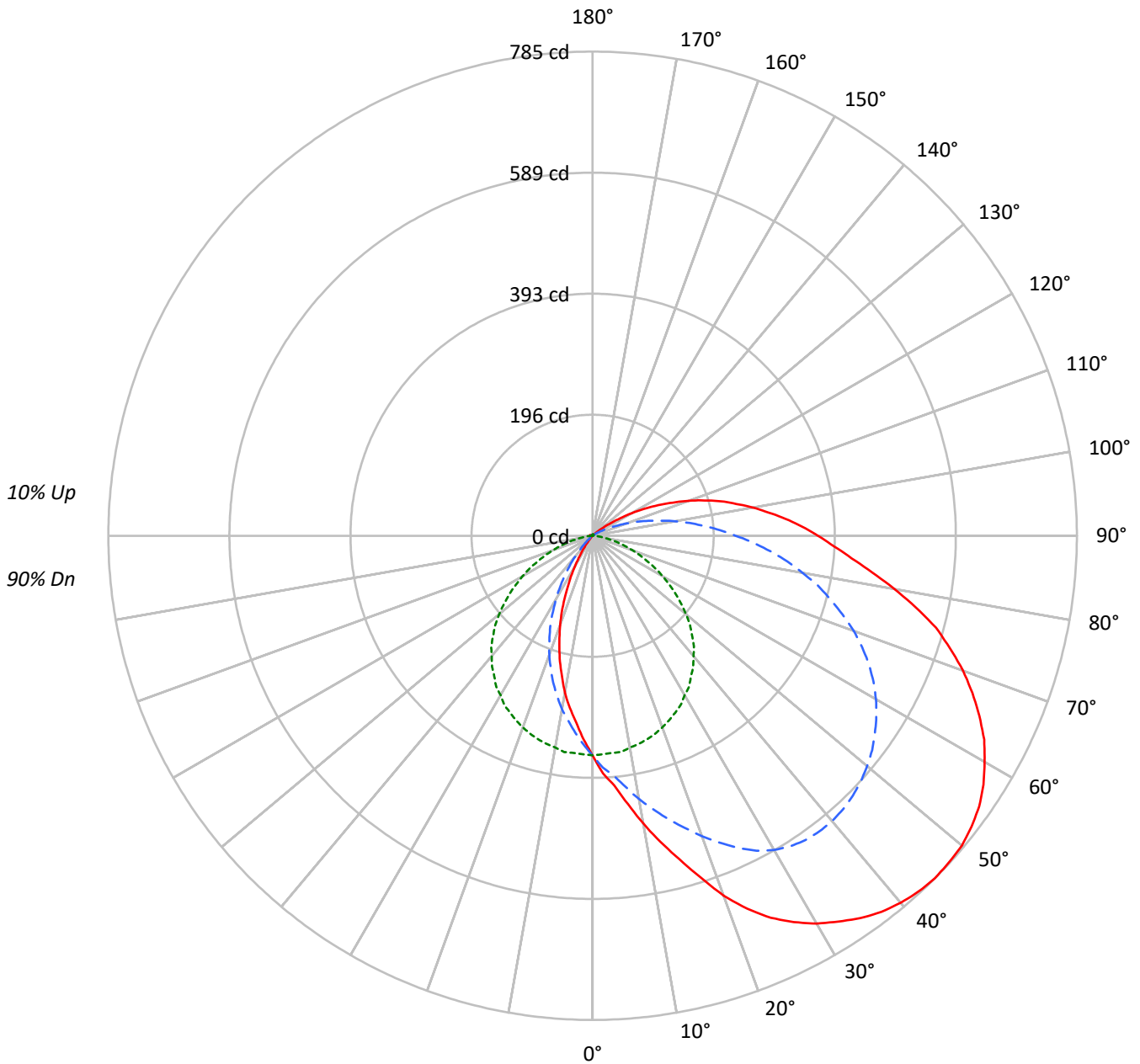
Lumens per Lamp: N/A
Luminaire Lumens: 1760.1 lumens
Efficiency: N/A
Efficacy: 81.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P550450

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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°	3832	3832	3832
5°	4206	3776	3150
10°	4760	3729	2596
15°	5335	3682	2023
20°	6017	3622	1490
25°	6582	3553	979
30°	7003	3459	551
35°	7367	3359	242
40°	7690	3235	58
45°	7966	3081	0
50°	8199	2876	0
55°	8377	2615	0
60°	8466	2311	0
65°	8500	1968	0
70°	8472	1605	0
75°	8364	1183	7
80°	8025	725	37
85°	7758	346	50



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.1	1.9
10°-20°	102.1	5.8
20°-30°	165.3	9.4
30°-40°	212.4	12.1
40°-50°	240.4	13.7
50°-60°	249.1	14.2
60°-70°	234.9	13.3
70°-80°	196.9	11.2
80°-90°	142.7	8.1
90°-100°	93.8	5.3
100°-110°	54.2	3.1
110°-120°	23.9	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°	301.6	17.1
0°-40°	514.0	29.2
0°-60°	1003.5	57.0
0°-90°	1578.0	89.7
90°-120°	171.9	9.8
90°-150°	180.8	10.3
90°-180°	182.0	10.3
0°-180°	1760.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	356	356	356	356	356	
5°	406	390	353	321	304	41
15°	543	476	342	247	206	157
25°	683	558	317	162	102	316
35°	757	602	278	79	25	475
45°	785	596	228	18	0	606
55°	765	558	164	0	0	683
65°	692	494	98	0	0	684
75°	576	399	42	0	0	605
85°	422	289	7	2	3	360
90°	366	232	2	3	3	200
95°	314	181	1	3	4	246
105°	216	94	1	2	4	228
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°	356.0	356.0	356.0	356.0	356.0	356.0	356.0	356.0	356.0	356.0	356.0
2.5°	385.9	385.5	384.1	381.9	378.7	373.2	368.7	364.6	359.2	354.6	346.0
5°	406.3	404.1	402.3	400.0	392.7	387.8	379.6	370.5	361.9	353.3	336.1
7.5°	439.0	435.4	432.6	426.3	416.3	405.0	392.3	383.7	377.8	353.7	324.3
10°	473.9	470.7	465.3	454.0	441.7	425.4	407.3	386.8	368.7	348.7	313.8
12.5°	508.4	503.9	496.1	481.6	464.4	444.0	419.0	395.0	369.2	345.6	301.6
15°	542.9	537.9	529.7	512.0	489.3	462.6	432.2	401.8	371.4	341.5	288.9
17.5°	580.5	573.7	561.4	541.5	512.9	479.8	444.0	407.3	370.5	336.5	275.3
20°	620.9	611.3	598.2	571.4	537.9	498.9	455.8	412.7	370.1	330.6	259.9
22.5°	654.4	644.9	630.4	602.7	562.4	514.7	465.8	416.3	368.3	323.8	245.3
25°	683.4	675.7	659.9	628.1	585.5	531.5	475.3	419.0	365.5	316.6	229.9
27.5°	706.1	698.9	681.2	648.5	605.0	546.5	482.5	420.4	361.9	309.3	214.1
30°	726.1	718.8	697.5	663.9	618.1	558.3	489.8	420.9	357.4	298.4	196.8
32.5°	741.5	734.7	712.9	677.1	627.2	566.4	493.9	420.4	351.5	290.7	178.2
35°	756.9	750.1	724.7	686.6	634.0	570.1	497.0	418.1	344.2	278.0	160.5
37.5°	768.7	761.0	735.1	693.0	637.2	571.0	496.6	415.0	336.5	267.6	142.9
40°	776.9	768.7	741.0	696.6	638.1	569.6	493.0	409.5	327.4	254.4	124.3
42.5°	782.3	773.2	743.8	702.0	636.3	566.0	487.5	402.7	317.5	243.1	106.6
45°	785.0	775.5	744.2	697.5	633.1	559.2	479.4	394.1	306.6	227.7	88.9
47.5°	783.7	773.2	741.9	692.5	627.2	551.9	470.3	383.7	293.4	214.1	72.1
50°	781.4	770.5	737.0	686.2	619.0	542.9	460.3	371.0	279.8	197.3	57.1
52.5°	774.1	763.3	731.5	677.1	609.5	532.4	446.7	357.8	265.3	181.0	43.5
55°	765.1	755.1	722.0	668.9	597.3	519.7	434.0	343.8	251.2	164.2	31.3
57.5°	751.0	741.9	710.2	655.8	585.0	505.7	420.0	328.3	233.6	147.4	21.8
60°	733.8	724.7	693.9	640.8	571.0	489.8	404.5	312.5	217.7	130.6	13.6
62.5°	715.6	707.0	674.8	622.2	553.3	473.0	387.8	296.6	200.9	115.2	8.2
65°	691.6	683.4	654.4	600.0	533.8	454.9	369.2	277.5	183.7	98.0	4.5
67.5°	666.2	659.0	629.5	579.6	511.1	434.9	350.1	259.0	165.5	83.0	2.3
70°	639.0	629.9	602.7	551.9	488.0	412.2	329.2	239.9	148.3	68.5	0.0
72.5°	607.3	600.4	574.1	526.1	461.2	388.2	307.9	219.0	129.3	54.4	0.5
75°	576.4	567.8	543.8	498.4	434.9	362.8	284.4	199.5	110.7	41.7	0.5
77.5°	536.5	533.8	511.1	467.1	410.0	338.3	258.5	176.0	93.0	29.9	0.5
80°	496.6	493.9	476.2	435.8	380.9	309.3	234.5	153.7	75.7	20.0	0.5
82.5°	457.1	453.5	436.7	403.2	351.5	284.8	209.5	131.5	59.9	12.2	0.5
85°	421.8	417.2	399.1	368.3	321.1	257.1	183.7	109.7	44.4	6.8	0.9
87.5°	391.4	388.2	368.3	336.5	290.2	231.3	161.0	88.9	31.3	3.2	1.4
90°	365.5	358.7	341.0	307.5	261.2	202.7	137.0	71.2	20.9	1.8	1.8
92.5°	340.1	334.2	314.7	280.3	235.4	178.2	113.8	54.4	13.2	0.9	2.3
95°	313.8	307.5	288.4	256.7	209.1	153.3	93.4	39.9	7.3	0.9	2.3
97.5°	288.0	282.1	262.1	230.4	185.5	131.5	73.9	28.1	3.6	0.9	1.8
100°	263.9	257.1	239.0	207.3	161.9	109.7	57.1	18.1	2.3	0.9	1.8
102.5°	238.5	233.1	214.5	183.7	137.4	89.3	42.6	11.3	0.9	0.9	1.4
105°	215.9	209.1	190.9	159.2	117.0	70.3	29.9	6.8	0.9	0.9	1.4



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CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-81-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	140.6	135.1	119.3	92.5	59.4	27.7	8.2	1.4	1.4	1.4	1.4
115°	117.5	109.3	95.2	71.7	44.0	18.1	4.1	1.4	1.4	1.4	1.4
117.5°	93.9	87.1	77.1	54.4	29.0	11.8	2.3	1.4	1.4	1.4	1.4
120°	73.5	67.1	55.8	37.6	19.5	6.8	0.9	1.4	1.4	1.4	1.4
122.5°	52.6	47.6	37.6	24.5	11.8	3.2	1.4	1.4	1.8	1.8	1.4
125°	34.9	32.2	24.9	15.0	7.3	1.4	1.4	1.4	1.8	1.8	1.4
127.5°	22.7	20.4	14.5	8.6	3.2	1.4	1.4	1.8	1.8	1.8	1.4
130°	12.7	11.3	8.6	5.0	1.4	1.4	1.4	1.8	1.8	1.8	1.4
132.5°	7.3	6.8	4.5	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°	356.0	356.0	356.0
2.5°	338.8	332.4	330.6
5°	320.6	310.2	304.3
7.5°	302.5	288.4	281.6
10°	285.7	265.8	258.5
12.5°	265.8	242.6	231.3
15°	246.7	216.8	205.9
17.5°	225.4	191.8	179.1
20°	205.4	166.9	153.7
22.5°	182.8	142.4	127.9
25°	162.4	117.9	101.6
27.5°	139.7	93.0	78.9
30°	118.4	71.2	57.1
32.5°	98.0	52.2	39.5
35°	78.9	35.4	24.9
37.5°	60.8	21.8	12.7
40°	44.0	11.3	5.9
42.5°	29.5	5.4	3.2
45°	18.1	2.7	0.0
47.5°	10.4	0.0	0.0
50°	5.4	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	4.5
102.5°	2.7	4.1	4.1
105°	2.3	3.2	3.6



TEST NUMBER: P550450

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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°	190.5	185.0	166.9	137.0	95.7	53.5	20.0	3.6	0.9	1.4	1.4
110°	166.0	161.4	142.9	113.8	77.1	39.9	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)