

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: P551478

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-81-97-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: P551478
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-LD4-2LO-30-UNV-81-97-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC 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

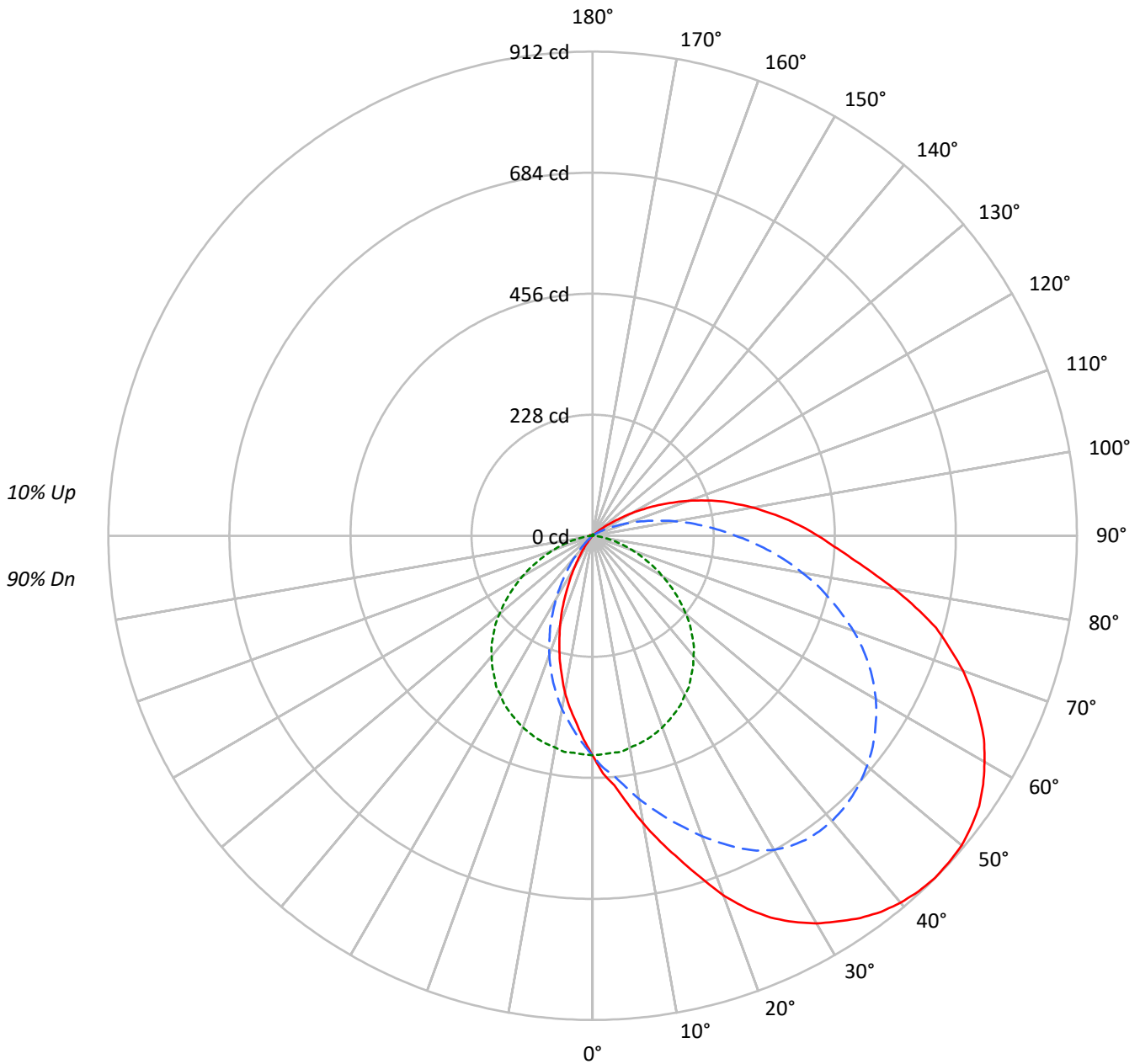
Lumens per Lamp: N/A
Luminaire Lumens: 2044.0 lumens
Efficiency: N/A
Efficacy: 87.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
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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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-81-97-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	90																			
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67																			
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	53																			
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	43																			
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	36																			
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	30																			
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	26																			
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	23																			
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	20																			
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	18																			
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	16																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4451	4451	4451
5°	4885	4385	3658
10°	5528	4331	3015
15°	6195	4276	2350
20°	6987	4207	1730
25°	7644	4125	1136
30°	8133	4018	640
35°	8555	3902	282
40°	8930	3758	67
45°	9252	3578	0
50°	9522	3339	0
55°	9728	3037	0
60°	9832	2685	0
65°	9872	2286	0
70°	9839	1862	0
75°	9714	1375	7
80°	9320	842	42
85°	9008	402	59



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.6	1.9
10°-20°	118.6	5.8
20°-30°	192.0	9.4
30°-40°	246.7	12.1
40°-50°	279.2	13.7
50°-60°	289.3	14.2
60°-70°	272.8	13.3
70°-80°	228.6	11.2
80°-90°	165.7	8.1
90°-100°	108.9	5.3
100°-110°	62.9	3.1
110°-120°	27.8	1.4
120°-130°	7.5	0.4
130°-140°	1.7	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	350.2	17.1
0°-40°	596.9	29.2
0°-60°	1165.4	57.0
0°-90°	1832.6	89.7
90°-120°	199.6	9.8
90°-150°	210.0	10.3
90°-180°	211.0	10.3
0°-180°	2044.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	414	414	414	414	414	
5°	472	453	410	372	353	48
15°	630	553	397	286	239	182
25°	794	649	368	189	118	367
35°	879	699	323	92	29	551
45°	912	692	264	21	0	704
55°	888	649	191	0	0	793
65°	803	574	114	0	0	795
75°	669	463	48	0	0	702
85°	490	336	8	2	3	418
90°	424	269	2	3	4	233
95°	364	210	1	4	5	286
105°	251	109	1	3	4	265
115°	136	36	2	2	3	137
125°	41	5	2	2	2	41
135°	2	2	3	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	3	2	0	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5
2.5°	448.2	447.7	446.1	443.5	439.8	433.5	428.2	423.5	417.1	411.9	401.9
5°	471.9	469.3	467.2	464.5	456.1	450.3	440.8	430.3	420.3	410.3	390.3
7.5°	509.8	505.6	502.5	495.1	483.5	470.3	455.6	445.6	438.7	410.8	376.6
10°	550.4	546.7	540.4	527.2	513.0	494.0	473.0	449.3	428.2	405.0	364.5
12.5°	590.4	585.2	576.2	559.3	539.3	515.6	486.7	458.7	428.7	401.3	350.2
15°	630.4	624.7	615.2	594.6	568.3	537.2	501.9	466.6	431.4	396.6	335.5
17.5°	674.2	666.3	652.0	628.9	595.7	557.2	515.6	473.0	430.3	390.8	319.7
20°	721.0	710.0	694.7	663.6	624.7	579.4	529.3	479.3	429.8	384.0	301.8
22.5°	760.0	749.0	732.1	700.0	653.1	597.8	540.9	483.5	427.7	376.1	284.9
25°	793.7	784.8	766.3	729.5	680.0	617.3	552.0	486.7	424.5	367.6	267.0
27.5°	820.1	811.6	791.1	753.2	702.6	634.7	560.4	488.2	420.3	359.2	248.6
30°	843.2	834.8	810.1	771.1	717.9	648.4	568.8	488.8	415.0	346.6	228.6
32.5°	861.1	853.2	828.0	786.3	728.4	657.8	573.6	488.2	408.2	337.6	207.0
35°	879.0	871.1	841.7	797.4	736.3	662.1	577.3	485.6	399.8	322.9	186.4
37.5°	892.7	883.8	853.8	804.8	740.0	663.1	576.7	481.9	390.8	310.7	165.9
40°	902.2	892.7	860.6	809.0	741.1	661.5	572.5	475.6	380.3	295.5	144.3
42.5°	908.5	898.0	863.8	815.3	738.9	657.3	566.2	467.7	368.7	282.3	123.8
45°	911.7	900.6	864.3	810.1	735.3	649.4	556.7	457.7	356.0	264.4	103.2
47.5°	910.1	898.0	861.7	804.3	728.4	641.0	546.2	445.6	340.8	248.6	83.7
50°	907.5	894.8	855.9	796.9	718.9	630.4	534.6	430.8	325.0	229.1	66.4
52.5°	899.1	886.4	849.6	786.3	707.9	618.3	518.8	415.6	308.1	210.1	50.6
55°	888.5	876.9	838.5	776.9	693.7	603.6	504.0	399.2	291.8	190.7	36.3
57.5°	872.2	861.7	824.8	761.6	679.4	587.3	487.7	381.3	271.2	171.2	25.3
60°	852.2	841.7	805.8	744.2	663.1	568.8	469.8	362.9	252.8	151.7	15.8
62.5°	831.1	821.1	783.7	722.6	642.6	549.3	450.3	344.5	233.3	133.8	9.5
65°	803.2	793.7	760.0	696.8	619.9	528.3	428.7	322.3	213.3	113.8	5.3
67.5°	773.7	765.3	731.0	673.1	593.6	505.1	406.6	300.7	192.2	96.4	2.6
70°	742.1	731.6	700.0	641.0	566.7	478.8	382.4	278.6	172.2	79.5	0.0
72.5°	705.2	697.3	666.8	611.0	535.6	450.8	357.6	254.4	150.1	63.2	0.5
75°	669.4	659.4	631.5	578.8	505.1	421.4	330.2	231.7	128.5	48.5	0.5
77.5°	623.1	619.9	593.6	542.5	476.1	392.9	300.2	204.4	108.0	34.8	0.5
80°	576.7	573.6	553.0	506.1	442.4	359.2	272.3	178.5	88.0	23.2	0.5
82.5°	530.9	526.7	507.2	468.2	408.2	330.8	243.3	152.7	69.5	14.2	0.5
85°	489.8	484.6	463.5	427.7	372.9	298.6	213.3	127.5	51.6	7.9	1.1
87.5°	454.5	450.8	427.7	390.8	337.1	268.6	187.0	103.2	36.3	3.7	1.6
90°	424.5	416.6	396.1	357.1	303.4	235.4	159.1	82.7	24.2	2.1	2.1
92.5°	395.0	388.2	365.5	325.5	273.4	207.0	132.2	63.2	15.3	1.1	2.6
95°	364.5	357.1	335.0	298.1	242.8	178.0	108.5	46.3	8.4	1.1	2.6
97.5°	334.4	327.6	304.4	267.6	215.4	152.7	85.9	32.7	4.2	1.1	2.1
100°	306.5	298.6	277.6	240.7	188.0	127.5	66.4	21.1	2.6	1.1	2.1
102.5°	277.0	270.7	249.1	213.3	159.6	103.8	49.5	13.2	1.1	1.1	1.6
105°	250.7	242.8	221.7	184.9	135.9	81.6	34.8	7.9	1.1	1.1	1.6



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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-81-97-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	163.3	157.0	138.5	107.4	69.0	32.1	9.5	1.6	1.6	1.6	1.6
115°	136.4	126.9	110.6	83.2	51.1	21.1	4.7	1.6	1.6	1.6	1.6
117.5°	109.0	101.1	89.5	63.2	33.7	13.7	2.6	1.6	1.6	1.6	1.6
120°	85.3	78.0	64.8	43.7	22.6	7.9	1.1	1.6	1.6	1.6	1.6
122.5°	61.1	55.3	43.7	28.4	13.7	3.7	1.6	1.6	2.1	2.1	1.6
125°	40.6	37.4	29.0	17.4	8.4	1.6	1.6	1.6	2.1	2.1	1.6
127.5°	26.3	23.7	16.9	10.0	3.7	1.6	1.6	2.1	2.1	2.1	1.6
130°	14.7	13.2	10.0	5.8	1.6	1.6	1.6	2.1	2.1	2.1	1.6
132.5°	8.4	7.9	5.3	1.1	1.6	1.6	1.6	2.1	2.1	2.1	2.1
135°	2.1	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.1
137.5°	0.5	0.5	1.1	1.1	1.6	1.6	2.1	2.6	2.6	2.6	2.1
140°	0.5	0.5	1.1	1.6	1.6	1.6	2.1	2.6	2.6	2.6	2.1
142.5°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.1	2.1
145°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.1	2.1	2.1
147.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.1	2.1
150°	0.5	1.1	1.1	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.1
152.5°	0.5	1.1	1.1	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.1
155°	1.1	1.1	1.1	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.6
157.5°	1.1	1.1	1.1	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.6
160°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
162.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
165°	1.1	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1
167.5°	1.1	1.1	1.1	1.6	1.6	1.6	2.1	2.1	2.1	2.1	2.1
170°	1.1	1.1	1.1	1.6	1.6	1.6	2.1	2.6	2.6	2.6	2.6
172.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.6
175°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.6
177.5°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.1
180°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	413.5	413.5	413.5
2.5°	393.4	386.1	384.0
5°	372.4	360.3	353.4
7.5°	351.3	335.0	327.1
10°	331.8	308.6	300.2
12.5°	308.6	281.8	268.6
15°	286.5	251.8	239.1
17.5°	261.8	222.8	208.0
20°	238.6	193.8	178.5
22.5°	212.3	165.4	148.5
25°	188.6	136.9	118.0
27.5°	162.2	108.0	91.6
30°	137.5	82.7	66.4
32.5°	113.8	60.6	45.8
35°	91.6	41.1	29.0
37.5°	70.6	25.3	14.7
40°	51.1	13.2	6.8
42.5°	34.2	6.3	3.7
45°	21.1	3.2	0.0
47.5°	12.1	0.0	0.0
50°	6.3	0.0	0.0
52.5°	2.6	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	1.1	1.6
80°	1.1	2.1	2.6
82.5°	2.1	2.6	2.6
85°	2.1	2.6	3.2
87.5°	2.6	3.2	3.7
90°	3.2	3.7	3.7
92.5°	3.2	4.2	4.2
95°	3.7	4.2	4.7
97.5°	4.2	4.7	4.7
100°	3.7	4.7	5.3
102.5°	3.2	4.7	4.7
105°	2.6	3.7	4.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.1	2.6	2.6
115°	1.6	2.1	2.6
117.5°	1.6	2.1	2.1
120°	1.6	1.6	2.1
122.5°	1.6	1.6	2.1
125°	1.6	1.6	2.1
127.5°	2.1	1.6	1.6
130°	1.6	1.6	1.6
132.5°	2.1	1.6	1.6
135°	2.1	1.6	1.6
137.5°	2.1	1.6	1.6
140°	2.1	1.6	1.6
142.5°	2.1	1.6	1.6
145°	1.6	1.6	1.6
147.5°	1.6	1.6	1.6
150°	1.6	1.6	1.1
152.5°	1.6	1.1	1.1
155°	1.6	1.1	0.5
157.5°	2.1	1.1	0.5
160°	1.6	1.1	0.5
162.5°	1.6	1.1	0.5
165°	1.6	1.1	0.0
167.5°	1.6	1.1	0.5
170°	1.6	1.1	0.5
172.5°	1.6	1.1	0.5
175°	1.6	0.5	0.5
177.5°	1.6	0.5	0.5
180°	1.6	1.6	1.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	221.2	214.9	193.8	159.1	111.1	62.1	23.2	4.2	1.1	1.6	1.6
110°	192.8	187.5	165.9	132.2	89.5	46.3	15.3	2.6	1.6	1.6	1.6





107.5°	2.1	3.2	3.7
110°	2.1	2.6	3.2



(END OF REPORT)