

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: P551619

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-82-96-ED1D-90**

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: P551619
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-40-UNV-82-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

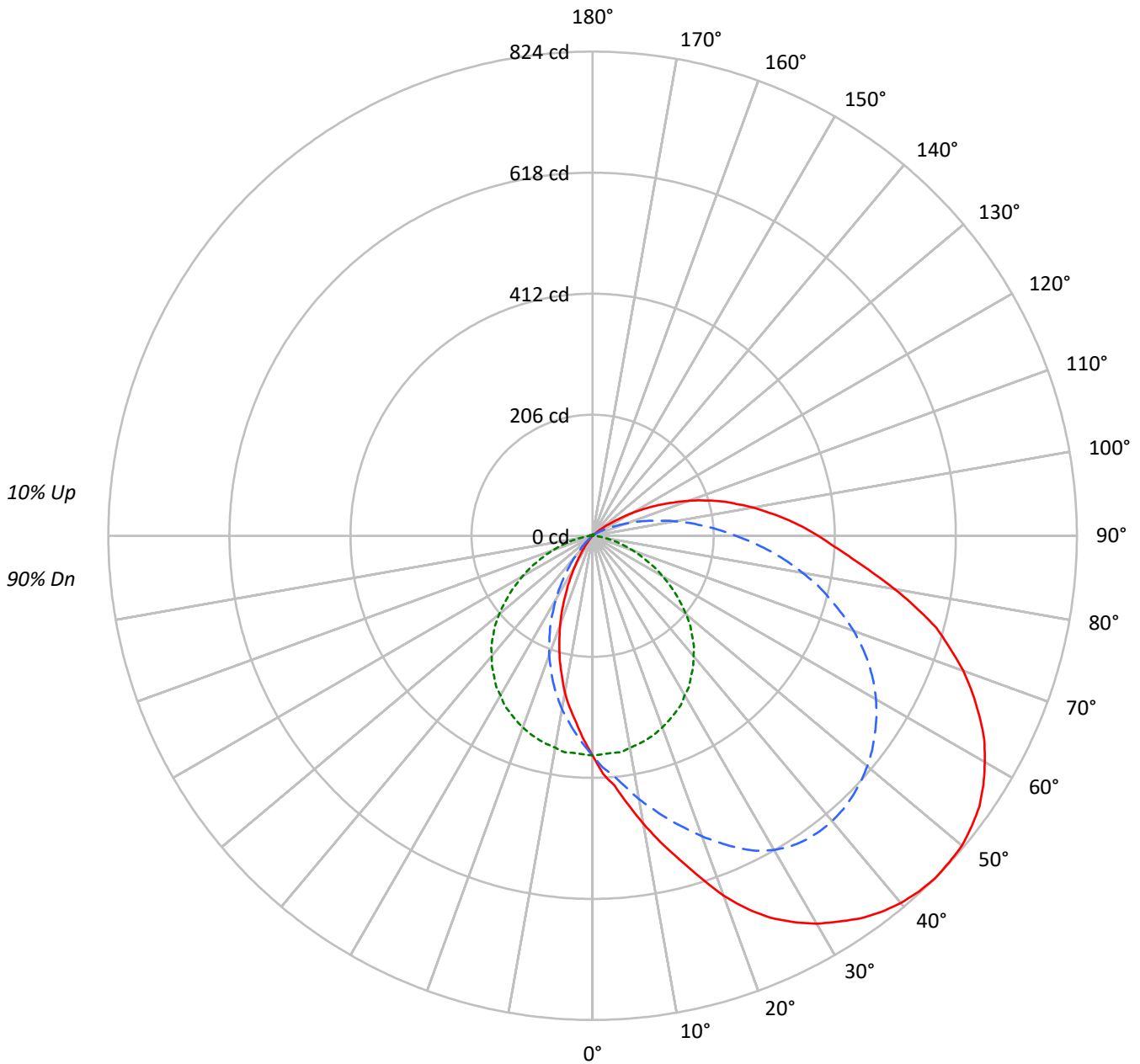
Lumens per Lamp: N/A
Luminaire Lumens: 1848.0 lumens
Efficiency: N/A
Efficacy: 78.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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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°	4024	4024	4024
5°	4417	3964	3308
10°	4998	3916	2726
15°	5601	3867	2125
20°	6318	3803	1564
25°	6911	3730	1028
30°	7353	3632	579
35°	7736	3527	255
40°	8074	3397	61
45°	8365	3234	0
50°	8610	3018	0
55°	8795	2745	0
60°	8889	2426	0
65°	8926	2067	0
70°	8895	1684	0
75°	8782	1242	7
80°	8426	762	39
85°	8146	361	53



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.8	1.9
10°-20°	107.2	5.8
20°-30°	173.6	9.4
30°-40°	223.0	12.1
40°-50°	252.5	13.7
50°-60°	261.6	14.2
60°-70°	246.7	13.3
70°-80°	206.7	11.2
80°-90°	149.8	8.1
90°-100°	98.5	5.3
100°-110°	56.9	3.1
110°-120°	25.1	1.4
120°-130°	6.8	0.4
130°-140°	1.6	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	316.6	17.1
0°-40°	539.7	29.2
0°-60°	1053.7	57.0
0°-90°	1656.9	89.7
90°-120°	180.5	9.8
90°-150°	189.8	10.3
90°-180°	191.0	10.3
0°-180°	1848.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	374	374	374	374	374	
5°	427	410	371	337	320	43
15°	570	500	359	259	216	164
25°	718	586	332	170	107	332
35°	795	632	292	83	26	498
45°	824	626	239	19	0	636
55°	803	586	172	0	0	717
65°	726	519	103	0	0	718
75°	605	419	44	0	0	635
85°	443	304	7	2	3	378
90°	384	244	2	3	3	210
95°	330	190	1	3	4	259
105°	227	98	1	2	4	239
115°	123	33	1	1	2	124
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°	373.8	373.8	373.8	373.8	373.8	373.8	373.8	373.8	373.8	373.8	373.8
2.5°	405.2	404.8	403.3	400.9	397.6	391.9	387.1	382.9	377.1	372.4	363.3
5°	426.7	424.3	422.4	420.0	412.4	407.1	398.6	389.0	380.0	370.9	352.9
7.5°	460.9	457.1	454.3	447.6	437.1	425.2	411.9	402.9	396.7	371.4	340.5
10°	497.6	494.3	488.6	476.7	463.8	446.7	427.6	406.2	387.1	366.2	329.5
12.5°	533.8	529.0	520.9	505.7	487.6	466.2	440.0	414.8	387.6	362.9	316.7
15°	570.0	564.8	556.2	537.6	513.8	485.7	453.8	421.9	390.0	358.6	303.3
17.5°	609.5	602.4	589.5	568.6	538.6	503.8	466.2	427.6	389.0	353.3	289.0
20°	651.9	641.9	628.1	600.0	564.8	523.8	478.6	433.3	388.6	347.1	272.9
22.5°	687.1	677.1	661.9	632.9	590.5	540.5	489.0	437.1	386.7	340.0	257.6
25°	717.6	709.5	692.9	659.5	614.8	558.1	499.0	440.0	383.8	332.4	241.4
27.5°	741.4	733.8	715.2	680.9	635.2	573.8	506.7	441.4	380.0	324.8	224.8
30°	762.4	754.8	732.4	697.1	649.0	586.2	514.3	441.9	375.2	313.3	206.7
32.5°	778.6	771.4	748.6	710.9	658.6	594.8	518.6	441.4	369.0	305.2	187.1
35°	794.8	787.6	760.9	720.9	665.7	598.6	521.9	439.0	361.4	291.9	168.6
37.5°	807.1	799.0	771.9	727.6	669.0	599.5	521.4	435.7	353.3	280.9	150.0
40°	815.7	807.1	778.1	731.4	670.0	598.1	517.6	430.0	343.8	267.1	130.5
42.5°	821.4	811.9	780.9	737.1	668.1	594.3	511.9	422.9	333.3	255.2	111.9
45°	824.3	814.3	781.4	732.4	664.8	587.1	503.3	413.8	321.9	239.0	93.3
47.5°	822.8	811.9	779.0	727.1	658.6	579.5	493.8	402.9	308.1	224.8	75.7
50°	820.5	809.0	773.8	720.5	650.0	570.0	483.3	389.5	293.8	207.1	60.0
52.5°	812.8	801.4	768.1	710.9	640.0	559.0	469.0	375.7	278.6	190.0	45.7
55°	803.3	792.8	758.1	702.4	627.1	545.7	455.7	360.9	263.8	172.4	32.9
57.5°	788.6	779.0	745.7	688.6	614.3	530.9	440.9	344.8	245.2	154.8	22.9
60°	770.5	760.9	728.6	672.9	599.5	514.3	424.8	328.1	228.6	137.1	14.3
62.5°	751.4	742.4	708.6	653.3	580.9	496.7	407.1	311.4	211.0	121.0	8.6
65°	726.2	717.6	687.1	630.0	560.5	477.6	387.6	291.4	192.9	102.9	4.8
67.5°	699.5	691.9	660.9	608.6	536.7	456.7	367.6	271.9	173.8	87.1	2.4
70°	670.9	661.4	632.9	579.5	512.4	432.9	345.7	251.9	155.7	71.9	0.0
72.5°	637.6	630.5	602.9	552.4	484.3	407.6	323.3	230.0	135.7	57.1	0.5
75°	605.2	596.2	570.9	523.3	456.7	380.9	298.6	209.5	116.2	43.8	0.5
77.5°	563.3	560.5	536.7	490.5	430.5	355.2	271.4	184.8	97.6	31.4	0.5
80°	521.4	518.6	500.0	457.6	400.0	324.8	246.2	161.4	79.5	21.0	0.5
82.5°	480.0	476.2	458.6	423.3	369.0	299.0	220.0	138.1	62.9	12.9	0.5
85°	442.9	438.1	419.0	386.7	337.1	270.0	192.9	115.2	46.7	7.1	1.0
87.5°	410.9	407.6	386.7	353.3	304.8	242.9	169.0	93.3	32.9	3.3	1.4
90°	383.8	376.7	358.1	322.9	274.3	212.9	143.8	74.8	21.9	1.9	1.9
92.5°	357.1	350.9	330.5	294.3	247.1	187.1	119.5	57.1	13.8	1.0	2.4
95°	329.5	322.9	302.9	269.5	219.5	161.0	98.1	41.9	7.6	1.0	2.4
97.5°	302.4	296.2	275.2	241.9	194.8	138.1	77.6	29.5	3.8	1.0	1.9
100°	277.1	270.0	251.0	217.6	170.0	115.2	60.0	19.0	2.4	1.0	1.9
102.5°	250.5	244.8	225.2	192.9	144.3	93.8	44.8	11.9	1.0	1.0	1.4
105°	226.7	219.5	200.5	167.1	122.9	73.8	31.4	7.1	1.0	1.0	1.4



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-96-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	147.6	141.9	125.2	97.1	62.4	29.0	8.6	1.4	1.4	1.4	1.4
115°	123.3	114.8	100.0	75.2	46.2	19.0	4.3	1.4	1.4	1.4	1.4
117.5°	98.6	91.4	81.0	57.1	30.5	12.4	2.4	1.4	1.4	1.4	1.4
120°	77.1	70.5	58.6	39.5	20.5	7.1	1.0	1.4	1.4	1.4	1.4
122.5°	55.2	50.0	39.5	25.7	12.4	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.7	33.8	26.2	15.7	7.6	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.8	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	4.8	1.0	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	1.0	1.0	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	1.0	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	1.0	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	1.0	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	1.0	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	1.0	1.0	1.0	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	1.0	1.0	1.0	1.4	1.4	1.4	1.9	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	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°	373.8	373.8	373.8
2.5°	355.7	349.0	347.1
5°	336.7	325.7	319.5
7.5°	317.6	302.9	295.7
10°	300.0	279.0	271.4
12.5°	279.0	254.8	242.9
15°	259.0	227.6	216.2
17.5°	236.7	201.4	188.1
20°	215.7	175.2	161.4
22.5°	191.9	149.5	134.3
25°	170.5	123.8	106.7
27.5°	146.7	97.6	82.9
30°	124.3	74.8	60.0
32.5°	102.9	54.8	41.4
35°	82.9	37.1	26.2
37.5°	63.8	22.9	13.3
40°	46.2	11.9	6.2
42.5°	31.0	5.7	3.3
45°	19.0	2.9	0.0
47.5°	11.0	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	1.0	1.4
80°	1.0	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.9
87.5°	2.4	2.9	3.3
90°	2.9	3.3	3.3
92.5°	2.9	3.8	3.8
95°	3.3	3.8	4.3
97.5°	3.8	4.3	4.3
100°	3.3	4.3	4.8
102.5°	2.9	4.3	4.3
105°	2.4	3.3	3.8



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-96-ED1D-90

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	1.0
152.5°	1.4	1.0	1.0
155°	1.4	1.0	0.5
157.5°	1.9	1.0	0.5
160°	1.4	1.0	0.5
162.5°	1.4	1.0	0.5
165°	1.4	1.0	0.0
167.5°	1.4	1.0	0.5
170°	1.4	1.0	0.5
172.5°	1.4	1.0	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°	200.0	194.3	175.2	143.8	100.5	56.2	21.0	3.8	1.0	1.4	1.4
110°	174.3	169.5	150.0	119.5	81.0	41.9	13.8	2.4	1.4	1.4	1.4





107.5°	1.9	2.9	3.3
110°	1.9	2.4	2.9



(END OF REPORT)