

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: P551080

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-81-84-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: P551080  
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-LD4-1STD-40-UNV-81-84-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

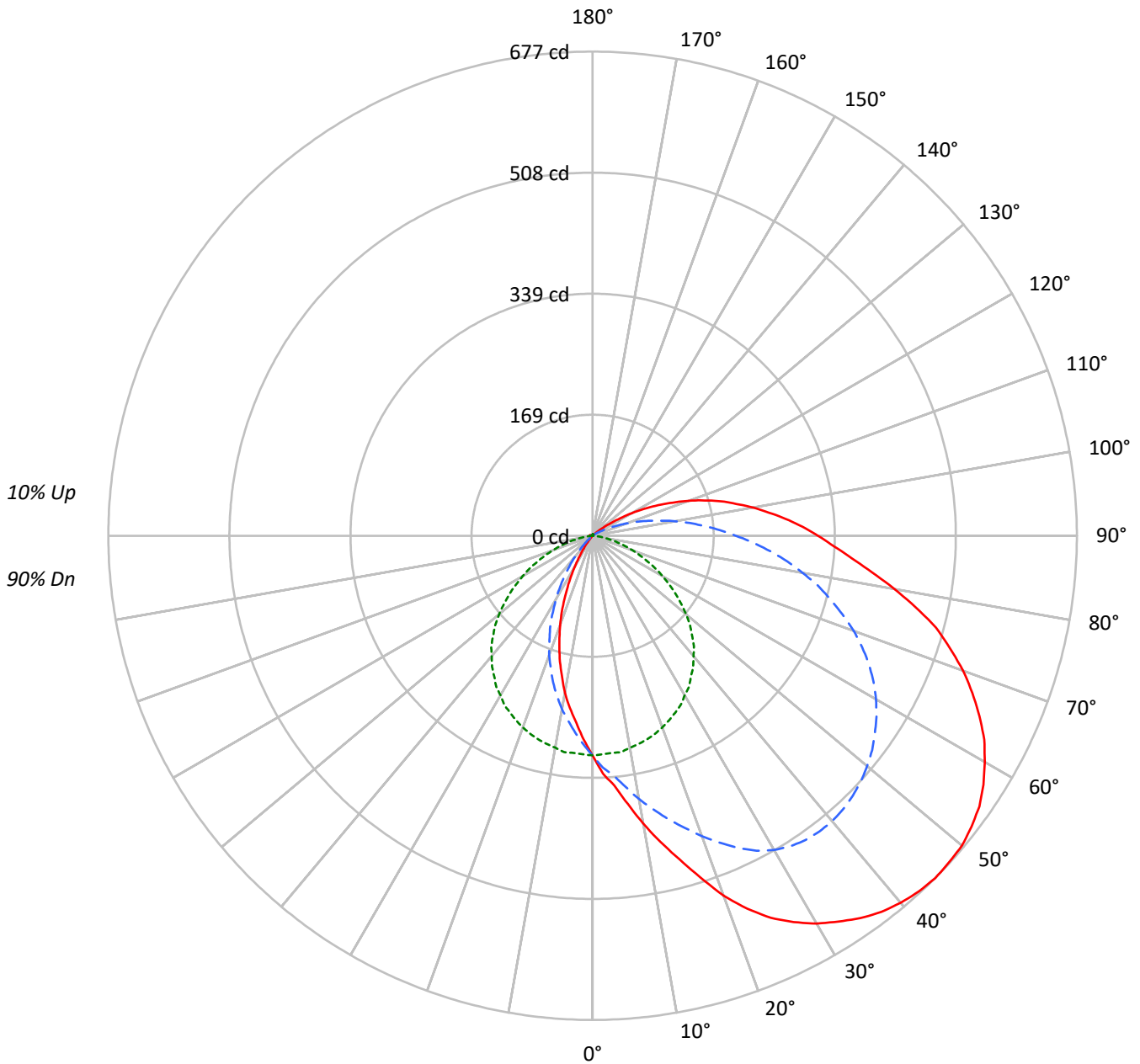
Lumens per Lamp: N/A  
Luminaire Lumens: 1518.1 lumens  
Efficiency: N/A  
Efficacy: 90.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
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: P551080

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-81-84-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°	3306	3306	3306
5°	3628	3257	2717
10°	4106	3217	2240
15°	4601	3175	1745
20°	5190	3125	1285
25°	5678	3064	844
30°	6040	2984	475
35°	6354	2897	209
40°	6632	2790	50
45°	6871	2658	0
50°	7072	2481	0
55°	7225	2255	0
60°	7302	1994	0
65°	7331	1697	0
70°	7307	1384	0
75°	7215	1021	6
80°	6922	624	32
85°	6691	300	42



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.4	1.9
10°-20°	88.1	5.8
20°-30°	142.6	9.4
30°-40°	183.2	12.1
40°-50°	207.4	13.7
50°-60°	214.8	14.2
60°-70°	202.6	13.3
70°-80°	169.8	11.2
80°-90°	123.1	8.1
90°-100°	80.9	5.3
100°-110°	46.7	3.1
110°-120°	20.6	1.4
120°-130°	5.6	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	260.1	17.1
0°-40°	443.3	29.2
0°-60°	865.5	57.0
0°-90°	1361.0	89.7
90°-120°	148.3	9.8
90°-150°	156.0	10.3
90°-180°	157.0	10.3
0°-180°	1518.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	307	307	307	307	307	
5°	350	337	305	276	262	35
15°	468	411	294	213	178	135
25°	590	482	273	140	88	272
35°	653	519	240	68	22	409
45°	677	514	196	16	0	523
55°	660	482	142	0	0	589
65°	596	426	84	0	0	590
75°	497	344	36	0	0	521
85°	364	249	6	2	2	311
90°	315	200	2	2	3	173
95°	271	156	1	3	4	212
105°	186	81	1	2	3	196
115°	101	27	1	1	2	101
125°	30	4	2	1	2	30
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	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°	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1	307.1
2.5°	332.9	332.5	331.3	329.4	326.6	321.9	318.0	314.5	309.8	305.9	298.4
5°	350.5	348.5	347.0	345.0	338.7	334.4	327.4	319.6	312.1	304.7	289.8
7.5°	378.6	375.5	373.2	367.7	359.1	349.3	338.3	330.9	325.8	305.1	279.7
10°	408.8	406.0	401.3	391.5	381.0	366.9	351.3	333.7	318.0	300.8	270.7
12.5°	438.5	434.6	427.9	415.4	400.5	382.9	361.4	340.7	318.4	298.1	260.1
15°	468.2	463.9	456.9	441.6	422.1	399.0	372.8	346.6	320.4	294.5	249.2
17.5°	500.7	494.8	484.2	467.0	442.4	413.8	382.9	351.3	319.6	290.2	237.4
20°	535.5	527.3	515.9	492.9	463.9	430.3	393.1	355.9	319.2	285.2	224.1
22.5°	564.4	556.2	543.7	519.8	485.0	444.0	401.7	359.1	317.6	279.3	211.6
25°	589.5	582.8	569.1	541.7	505.0	458.4	409.9	361.4	315.3	273.0	198.3
27.5°	609.0	602.8	587.5	559.3	521.8	471.3	416.2	362.6	312.1	266.8	184.6
30°	626.2	620.0	601.6	572.6	533.1	481.5	422.4	363.0	308.2	257.4	169.8
32.5°	639.5	633.7	614.9	584.0	541.0	488.5	426.0	362.6	303.1	250.7	153.7
35°	652.8	647.0	625.1	592.2	546.8	491.7	428.7	360.6	296.9	239.8	138.5
37.5°	663.0	656.4	634.1	597.7	549.6	492.5	428.3	357.9	290.2	230.8	123.2
40°	670.0	663.0	639.1	600.8	550.4	491.3	425.2	353.2	282.4	219.4	107.2
42.5°	674.7	666.9	641.5	605.5	548.8	488.2	420.5	347.3	273.8	209.7	91.9
45°	677.1	668.9	641.9	601.6	546.0	482.3	413.4	339.9	264.4	196.4	76.7
47.5°	675.9	666.9	639.9	597.3	541.0	476.0	405.6	330.9	253.1	184.6	62.2
50°	674.0	664.6	635.6	591.8	533.9	468.2	397.0	320.0	241.3	170.2	49.3
52.5°	667.7	658.3	630.9	584.0	525.7	459.2	385.3	308.6	228.8	156.1	37.6
55°	659.9	651.3	622.7	577.0	515.1	448.3	374.3	296.5	216.7	141.6	27.0
57.5°	647.7	639.9	612.5	565.6	504.6	436.1	362.2	283.2	201.4	127.1	18.8
60°	632.9	625.1	598.5	552.7	492.5	422.4	348.9	269.5	187.8	112.7	11.7
62.5°	617.2	609.8	582.0	536.7	477.2	408.0	334.4	255.8	173.3	99.4	7.0
65°	596.5	589.5	564.4	517.5	460.4	392.3	318.4	239.4	158.4	84.5	3.9
67.5°	574.6	568.3	542.9	499.9	440.8	375.1	302.0	223.3	142.8	71.6	2.0
70°	551.1	543.3	519.8	476.0	420.9	355.6	284.0	206.9	127.9	59.1	0.0
72.5°	523.8	517.9	495.2	453.7	397.8	334.8	265.6	188.9	111.5	46.9	0.4
75°	497.2	489.7	469.0	429.9	375.1	312.9	245.3	172.1	95.4	36.0	0.4
77.5°	462.7	460.4	440.8	402.9	353.6	291.8	223.0	151.8	80.2	25.8	0.4
80°	428.3	426.0	410.7	375.9	328.6	266.8	202.2	132.6	65.3	17.2	0.4
82.5°	394.3	391.2	376.7	347.7	303.1	245.6	180.7	113.4	51.6	10.6	0.4
85°	363.8	359.9	344.2	317.6	276.9	221.8	158.4	94.7	38.3	5.9	0.8
87.5°	337.6	334.8	317.6	290.2	250.3	199.5	138.9	76.7	27.0	2.7	1.2
90°	315.3	309.4	294.1	265.2	225.3	174.8	118.1	61.4	18.0	1.6	1.6
92.5°	293.4	288.3	271.5	241.7	203.0	153.7	98.2	46.9	11.3	0.8	2.0
95°	270.7	265.2	248.8	221.4	180.3	132.2	80.6	34.4	6.3	0.8	2.0
97.5°	248.4	243.3	226.1	198.7	160.0	113.4	63.8	24.3	3.1	0.8	1.6
100°	227.7	221.8	206.1	178.8	139.6	94.7	49.3	15.6	2.0	0.8	1.6
102.5°	205.7	201.1	185.0	158.4	118.5	77.1	36.8	9.8	0.8	0.8	1.2
105°	186.2	180.3	164.7	137.3	100.9	60.6	25.8	5.9	0.8	0.8	1.2



TEST NUMBER: P551080

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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	121.3	116.6	102.9	79.8	51.2	23.9	7.0	1.2	1.2	1.2	1.2
115°	101.3	94.3	82.1	61.8	37.9	15.6	3.5	1.2	1.2	1.2	1.2
117.5°	81.0	75.1	66.5	46.9	25.0	10.2	2.0	1.2	1.2	1.2	1.2
120°	63.4	57.9	48.1	32.5	16.8	5.9	0.8	1.2	1.2	1.2	1.2
122.5°	45.4	41.1	32.5	21.1	10.2	2.7	1.2	1.2	1.6	1.6	1.2
125°	30.1	27.8	21.5	12.9	6.3	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.6	17.6	12.5	7.4	2.7	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.0	9.8	7.4	4.3	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.3	5.9	3.9	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	307.1	307.1	307.1
2.5°	292.2	286.7	285.2
5°	276.5	267.5	262.5
7.5°	260.9	248.8	242.9
10°	246.4	229.2	223.0
12.5°	229.2	209.3	199.5
15°	212.8	187.0	177.6
17.5°	194.4	165.5	154.5
20°	177.2	143.9	132.6
22.5°	157.6	122.8	110.3
25°	140.0	101.7	87.6
27.5°	120.5	80.2	68.1
30°	102.1	61.4	49.3
32.5°	84.5	45.0	34.0
35°	68.1	30.5	21.5
37.5°	52.4	18.8	11.0
40°	37.9	9.8	5.1
42.5°	25.4	4.7	2.7
45°	15.6	2.3	0.0
47.5°	9.0	0.0	0.0
50°	4.7	0.0	0.0
52.5°	2.0	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°	0.4	0.4	0.4
77.5°	0.4	0.8	1.2
80°	0.8	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.3
87.5°	2.0	2.3	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.1	3.1
95°	2.7	3.1	3.5
97.5°	3.1	3.5	3.5
100°	2.7	3.5	3.9
102.5°	2.3	3.5	3.5
105°	2.0	2.7	3.1





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.6	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	164.3	159.6	143.9	118.1	82.5	46.2	17.2	3.1	0.8	1.2	1.2
110°	143.2	139.3	123.2	98.2	66.5	34.4	11.3	2.0	1.2	1.2	1.2







107.5°	1.6	2.3	2.7
110°	1.6	2.0	2.3



(END OF REPORT)