

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: P551687

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-93-84-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: P551687
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-50-UNV-93-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

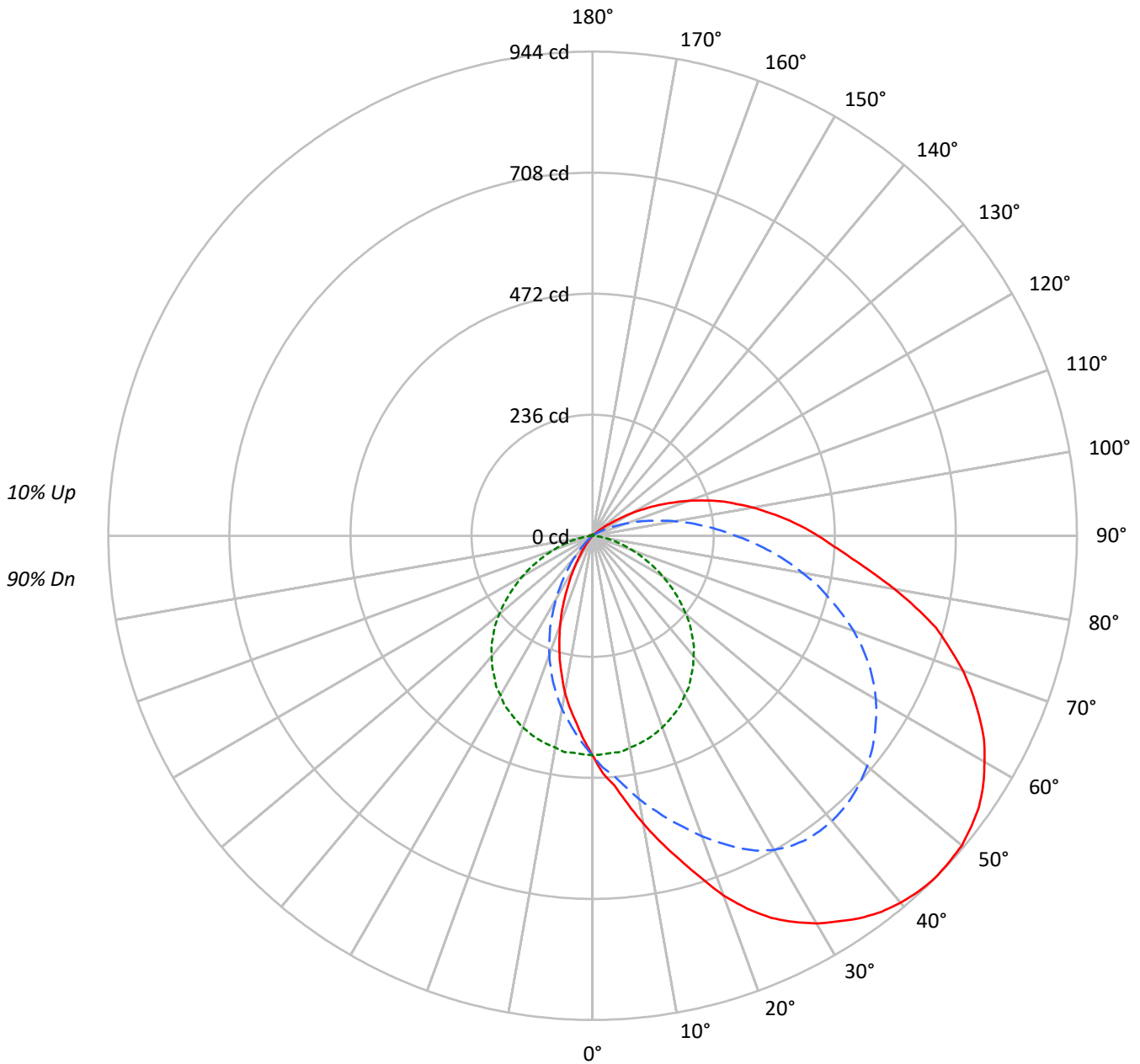
Lumens per Lamp: N/A
Luminaire Lumens: 2116.0 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (A_{in}): 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: P551687

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-93-84-ED1D-90

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°	4607	4607	4607
5°	5057	4539	3788
10°	5723	4484	3122
15°	6414	4427	2432
20°	7233	4355	1791
25°	7914	4271	1176
30°	8419	4159	663
35°	8857	4038	292
40°	9245	3890	70
45°	9578	3703	0
50°	9858	3457	0
55°	10070	3143	0
60°	10178	2778	0
65°	10220	2366	0
70°	10185	1928	0
75°	10056	1424	7
80°	9648	871	44
85°	9327	417	61



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.0	1.9
10°-20°	122.8	5.8
20°-30°	198.8	9.4
30°-40°	255.4	12.1
40°-50°	289.1	13.7
50°-60°	299.5	14.2
60°-70°	282.4	13.3
70°-80°	236.7	11.2
80°-90°	171.6	8.1
90°-100°	112.8	5.3
100°-110°	65.1	3.1
110°-120°	28.7	1.4
120°-130°	7.8	0.4
130°-140°	1.8	0.1
140°-150°	1.2	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	362.6	17.1
0°-40°	617.9	29.2
0°-60°	1206.5	57.0
0°-90°	1897.2	89.7
90°-120°	206.6	9.8
90°-150°	217.3	10.3
90°-180°	219.0	10.3
0°-180°	2116.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	428	428	428	428	428	
5°	488	469	425	386	366	49
15°	653	572	411	297	248	188
25°	822	671	381	195	122	380
35°	910	724	334	95	30	571
45°	944	717	274	22	0	729
55°	920	671	197	0	0	821
65°	832	594	118	0	0	823
75°	693	480	50	0	0	727
85°	507	348	8	2	3	433
90°	440	279	2	3	4	241
95°	377	218	1	4	5	296
105°	260	113	1	3	4	274
115°	141	37	2	2	3	141
125°	42	5	2	2	2	42
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°	428.0	428.0	428.0	428.0	428.0	428.0	428.0	428.0	428.0	428.0	428.0
2.5°	464.0	463.5	461.8	459.1	455.3	448.7	443.3	438.4	431.8	426.4	416.0
5°	488.5	485.8	483.6	480.9	472.2	466.2	456.4	445.5	435.1	424.7	404.0
7.5°	527.8	523.4	520.2	512.5	500.5	486.9	471.6	461.3	454.2	425.3	389.8
10°	569.8	566.0	559.4	545.8	531.1	511.4	489.6	465.1	443.3	419.3	377.3
12.5°	611.2	605.8	596.5	579.0	558.3	533.8	503.8	474.9	443.8	415.5	362.6
15°	652.7	646.7	636.8	615.6	588.3	556.1	519.6	483.1	446.6	410.6	347.3
17.5°	697.9	689.7	675.0	651.0	616.7	576.9	533.8	489.6	445.5	404.6	331.0
20°	746.4	735.0	719.2	687.0	646.7	599.8	548.0	496.2	444.9	397.5	312.4
22.5°	786.8	775.3	757.9	724.6	676.1	618.9	560.0	500.5	442.7	389.3	295.0
25°	821.7	812.4	793.3	755.2	703.9	639.0	571.4	503.8	439.5	380.6	276.4
27.5°	848.9	840.2	819.0	779.7	727.4	657.0	580.1	505.4	435.1	371.9	257.4
30°	872.9	864.2	838.6	798.2	743.2	671.2	588.9	506.0	429.7	358.8	236.6
32.5°	891.5	883.3	857.1	814.0	754.1	681.0	593.8	505.4	422.6	349.5	214.3
35°	910.0	901.8	871.3	825.5	762.3	685.4	597.6	502.7	413.8	334.2	193.0
37.5°	924.2	914.9	883.8	833.1	766.1	686.5	597.0	498.9	404.6	321.7	171.8
40°	934.0	924.2	890.9	837.5	767.2	684.8	592.7	492.4	393.7	305.9	149.4
42.5°	940.5	929.6	894.2	844.0	765.0	680.5	586.1	484.2	381.7	292.3	128.1
45°	943.8	932.4	894.7	838.6	761.2	672.3	576.3	473.8	368.6	273.7	106.9
47.5°	942.2	929.6	892.0	832.6	754.1	663.6	565.4	461.3	352.8	257.4	86.7
50°	939.5	926.4	886.0	825.0	744.3	652.7	553.4	446.0	336.4	237.2	68.7
52.5°	930.7	917.6	879.5	814.0	732.8	640.1	537.1	430.2	319.0	217.6	52.3
55°	919.8	907.8	868.0	804.2	718.1	624.8	521.8	413.3	302.1	197.4	37.6
57.5°	902.9	892.0	853.9	788.4	703.4	607.9	504.9	394.8	280.8	177.2	26.2
60°	882.2	871.3	834.2	770.4	686.5	588.9	486.4	375.7	261.7	157.0	16.4
62.5°	860.4	850.0	811.3	748.1	665.2	568.7	466.2	356.6	241.5	138.5	9.8
65°	831.5	821.7	786.8	721.4	641.8	546.9	443.8	333.7	220.8	117.8	5.5
67.5°	801.0	792.2	756.8	696.8	614.5	522.9	420.9	311.3	199.0	99.8	2.7
70°	768.2	757.3	724.6	663.6	586.7	495.6	395.8	288.4	178.3	82.3	0.0
72.5°	730.1	721.9	690.3	632.5	554.5	466.7	370.2	263.4	155.4	65.4	0.5
75°	693.0	682.6	653.7	599.2	522.9	436.2	341.9	239.9	133.0	50.2	0.5
77.5°	645.0	641.8	614.5	561.6	492.9	406.8	310.8	211.6	111.8	36.0	0.5
80°	597.0	593.8	572.5	524.0	458.0	371.9	281.9	184.8	91.1	24.0	0.5
82.5°	549.6	545.2	525.1	484.7	422.6	342.4	251.9	158.1	72.0	14.7	0.5
85°	507.1	501.6	479.8	442.7	386.0	309.2	220.8	131.9	53.4	8.2	1.1
87.5°	470.5	466.7	442.7	404.6	349.0	278.1	193.6	106.9	37.6	3.8	1.6
90°	439.5	431.3	410.0	369.7	314.1	243.7	164.7	85.6	25.1	2.2	2.2
92.5°	408.9	401.8	378.4	337.0	283.0	214.3	136.9	65.4	15.8	1.1	2.7
95°	377.3	369.7	346.8	308.6	251.4	184.3	112.3	48.0	8.7	1.1	2.7
97.5°	346.2	339.1	315.2	277.0	223.0	158.1	88.9	33.8	4.4	1.1	2.2
100°	317.3	309.2	287.3	249.2	194.7	131.9	68.7	21.8	2.7	1.1	2.2
102.5°	286.8	280.3	257.9	220.8	165.2	107.4	51.3	13.6	1.1	1.1	1.6
105°	259.5	251.4	229.5	191.4	140.7	84.5	36.0	8.2	1.1	1.1	1.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	169.0	162.5	143.4	111.2	71.4	33.3	9.8	1.6	1.6	1.6	1.6
115°	141.2	131.4	114.5	86.1	52.9	21.8	4.9	1.6	1.6	1.6	1.6
117.5°	112.9	104.7	92.7	65.4	34.9	14.2	2.7	1.6	1.6	1.6	1.6
120°	88.3	80.7	67.1	45.3	23.4	8.2	1.1	1.6	1.6	1.6	1.6
122.5°	63.2	57.3	45.3	29.4	14.2	3.8	1.6	1.6	2.2	2.2	1.6
125°	42.0	38.7	30.0	18.0	8.7	1.6	1.6	1.6	2.2	2.2	1.6
127.5°	27.3	24.5	17.4	10.4	3.8	1.6	1.6	2.2	2.2	2.2	1.6
130°	15.3	13.6	10.4	6.0	1.6	1.6	1.6	2.2	2.2	2.2	1.6
132.5°	8.7	8.2	5.5	1.1	1.6	1.6	1.6	2.2	2.2	2.2	2.2
135°	2.2	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2
137.5°	0.5	0.5	1.1	1.1	1.6	1.6	2.2	2.7	2.7	2.7	2.2
140°	0.5	0.5	1.1	1.6	1.6	1.6	2.2	2.7	2.7	2.7	2.2
142.5°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2	2.2
145°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.2	2.2	2.2
147.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2	2.2
150°	0.5	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.2
152.5°	0.5	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.2
155°	1.1	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.7
157.5°	1.1	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.7
160°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2	2.2
162.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2	2.2
165°	1.1	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2
167.5°	1.1	1.1	1.1	1.6	1.6	1.6	2.2	2.2	2.2	2.2	2.2
170°	1.1	1.1	1.1	1.6	1.6	1.6	2.2	2.7	2.7	2.7	2.7
172.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.7
175°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.7
177.5°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.2
180°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



TEST NUMBER: P551687

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	428.0	428.0	428.0
2.5°	407.3	399.7	397.5
5°	385.5	372.9	365.9
7.5°	363.7	346.8	338.6
10°	343.5	319.5	310.8
12.5°	319.5	291.7	278.1
15°	296.6	260.6	247.5
17.5°	271.0	230.6	215.4
20°	247.0	200.6	184.8
22.5°	219.7	171.2	153.8
25°	195.2	141.8	122.1
27.5°	167.9	111.8	94.9
30°	142.3	85.6	68.7
32.5°	117.8	62.7	47.4
35°	94.9	42.5	30.0
37.5°	73.1	26.2	15.3
40°	52.9	13.6	7.1
42.5°	35.4	6.5	3.8
45°	21.8	3.3	0.0
47.5°	12.5	0.0	0.0
50°	6.5	0.0	0.0
52.5°	2.7	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	2.2	2.7
82.5°	2.2	2.7	2.7
85°	2.2	2.7	3.3
87.5°	2.7	3.3	3.8
90°	3.3	3.8	3.8
92.5°	3.3	4.4	4.4
95°	3.8	4.4	4.9
97.5°	4.4	4.9	4.9
100°	3.8	4.9	5.5
102.5°	3.3	4.9	4.9
105°	2.7	3.8	4.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.2	2.7	2.7
115°	1.6	2.2	2.7
117.5°	1.6	2.2	2.2
120°	1.6	1.6	2.2
122.5°	1.6	1.6	2.2
125°	1.6	1.6	2.2
127.5°	2.2	1.6	1.6
130°	1.6	1.6	1.6
132.5°	2.2	1.6	1.6
135°	2.2	1.6	1.6
137.5°	2.2	1.6	1.6
140°	2.2	1.6	1.6
142.5°	2.2	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°	2.2	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°	229.0	222.5	200.6	164.7	115.0	64.3	24.0	4.4	1.1	1.6	1.6
110°	199.6	194.1	171.8	136.9	92.7	48.0	15.8	2.7	1.6	1.6	1.6





107.5°	2.2	3.3	3.8
110°	2.2	2.7	3.3



(END OF REPORT)