

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: P551566

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-93-87-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: P551566
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-35-UNV-93-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

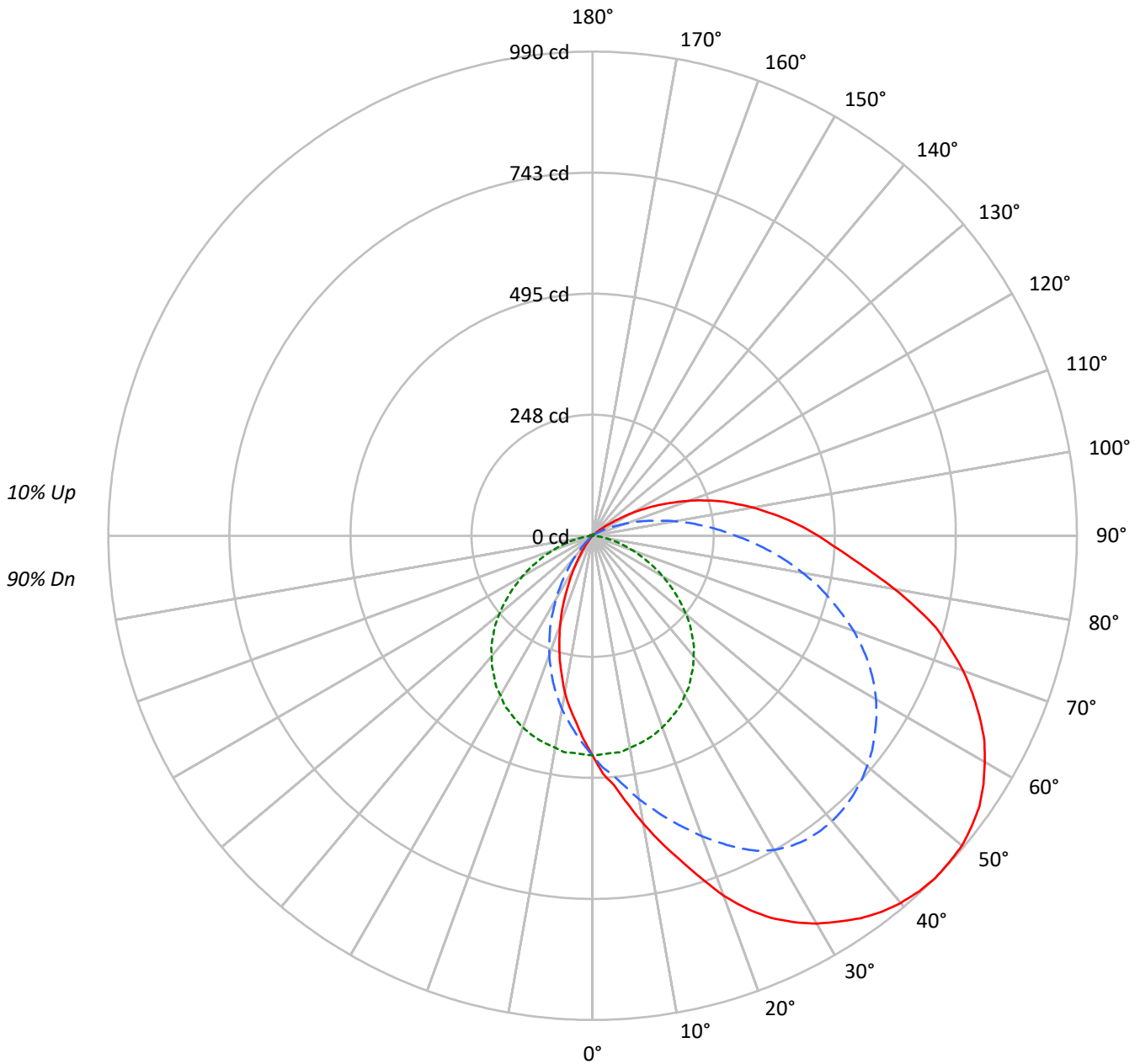
Lumens per Lamp: N/A
Luminaire Lumens: 2220.0 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551566

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-93-87-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4834	4834	4834
5°	5305	4763	3973
10°	6005	4704	3275
15°	6729	4644	2552
20°	7589	4569	1879
25°	8303	4481	1234
30°	8833	4363	695
35°	9292	4237	307
40°	9699	4081	73
45°	10049	3886	0
50°	10342	3626	0
55°	10565	3298	0
60°	10678	2915	0
65°	10722	2483	0
70°	10686	2024	0
75°	10551	1492	9
80°	10123	914	47
85°	9784	437	63



TEST NUMBER: P551566

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-93-87-ED1D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.0	1.9
10°-20°	128.8	5.8
20°-30°	208.6	9.4
30°-40°	267.9	12.1
40°-50°	303.3	13.7
50°-60°	314.2	14.2
60°-70°	296.3	13.3
70°-80°	248.3	11.2
80°-90°	180.0	8.1
90°-100°	118.3	5.3
100°-110°	68.3	3.1
110°-120°	30.1	1.4
120°-130°	8.2	0.4
130°-140°	1.9	0.1
140°-150°	1.2	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	380.4	17.1
0°-40°	648.3	29.2
0°-60°	1265.8	57.0
0°-90°	1990.4	89.7
90°-120°	216.8	9.8
90°-150°	228.0	10.3
90°-180°	230.0	10.4
0°-180°	2220.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	449	449	449	449	449	
5°	512	492	446	404	384	52
15°	685	600	431	311	260	197
25°	862	704	399	205	128	398
35°	955	759	351	100	32	599
45°	990	752	287	23	0	764
55°	965	704	207	0	0	862
65°	872	624	124	0	0	863
75°	727	503	53	1	1	763
85°	532	365	9	2	3	454
90°	461	293	2	3	4	253
95°	396	229	1	4	5	311
105°	272	118	1	3	5	287
115°	148	39	2	2	3	148
125°	44	5	2	2	2	44
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	2	1	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°	449.1	449.1	449.1	449.1	449.1	449.1	449.1	449.1	449.1	449.1	449.1
2.5°	486.8	486.2	484.5	481.7	477.7	470.8	465.1	459.9	453.1	447.3	436.5
5°	512.5	509.7	507.4	504.5	495.4	489.1	478.8	467.4	456.5	445.6	423.9
7.5°	553.7	549.2	545.7	537.7	525.1	510.8	494.8	483.9	476.5	446.2	409.0
10°	597.8	593.8	586.9	572.6	557.2	536.6	513.7	488.0	465.1	439.9	395.9
12.5°	641.3	635.5	625.8	607.5	585.8	560.0	528.6	498.2	465.6	435.9	380.4
15°	684.7	678.4	668.1	645.8	617.2	583.5	545.2	506.8	468.5	430.7	364.4
17.5°	732.2	723.6	708.2	683.0	647.0	605.2	560.0	513.7	467.4	424.5	347.2
20°	783.1	771.1	754.5	720.8	678.4	629.2	574.9	520.6	466.8	417.0	327.8
22.5°	825.5	813.4	795.1	760.2	709.3	649.3	587.5	525.1	464.5	408.4	309.5
25°	862.1	852.3	832.3	792.3	738.5	670.4	599.5	528.6	461.1	399.3	290.0
27.5°	890.7	881.5	859.2	818.0	763.1	689.3	608.7	530.3	456.5	390.1	270.0
30°	915.8	906.7	879.8	837.5	779.7	704.2	617.8	530.9	450.8	376.4	248.3
32.5°	935.3	926.7	899.2	854.1	791.1	714.5	623.0	530.3	443.3	366.7	224.8
35°	954.7	946.2	914.1	866.1	799.7	719.1	627.0	527.4	434.2	350.7	202.5
37.5°	969.6	959.9	927.3	874.1	803.7	720.2	626.4	523.4	424.5	337.5	180.2
40°	979.9	969.6	934.7	878.7	804.9	718.5	621.8	516.6	413.0	320.9	156.7
42.5°	986.8	975.3	938.1	885.5	802.6	713.9	614.9	508.0	400.4	306.6	134.4
45°	990.2	978.2	938.7	879.8	798.6	705.3	604.6	497.1	386.7	287.2	112.1
47.5°	988.5	975.3	935.9	873.5	791.1	696.2	593.2	483.9	370.1	270.0	91.0
50°	985.6	971.9	929.6	865.5	780.8	684.7	580.6	467.9	352.9	248.8	72.1
52.5°	976.5	962.7	922.7	854.1	768.8	671.6	563.5	451.3	334.6	228.2	54.9
55°	965.0	952.4	910.7	843.8	753.4	655.6	547.4	433.6	316.9	207.1	39.5
57.5°	947.3	935.9	895.8	827.2	737.9	637.8	529.7	414.2	294.6	185.9	27.5
60°	925.6	914.1	875.2	808.3	720.2	617.8	510.3	394.1	274.6	164.7	17.2
62.5°	902.7	891.8	851.2	784.8	697.9	596.6	489.1	374.1	253.4	145.3	10.3
65°	872.4	862.1	825.5	756.8	673.3	573.8	465.6	350.1	231.7	123.6	5.7
67.5°	840.3	831.2	794.0	731.1	644.7	548.6	441.6	326.6	208.8	104.7	2.9
70°	806.0	794.6	760.2	696.2	615.5	520.0	415.3	302.6	187.1	86.4	0.0
72.5°	766.0	757.4	724.2	663.6	581.8	489.7	388.4	276.3	163.0	68.6	0.6
75°	727.1	716.2	685.9	628.7	548.6	457.6	358.7	251.7	139.6	52.6	0.6
77.5°	676.7	673.3	644.7	589.2	517.1	426.7	326.1	222.0	117.3	37.8	0.6
80°	626.4	623.0	600.6	549.7	480.5	390.1	295.7	193.9	95.5	25.2	0.6
82.5°	576.6	572.0	550.9	508.5	443.3	359.2	264.3	165.9	75.5	15.4	0.6
85°	532.0	526.3	503.4	464.5	405.0	324.3	231.7	138.4	56.1	8.6	1.1
87.5°	493.7	489.7	464.5	424.5	366.1	291.7	203.1	112.1	39.5	4.0	1.7
90°	461.1	452.5	430.2	387.8	329.5	255.7	172.8	89.8	26.3	2.3	2.3
92.5°	429.0	421.6	397.0	353.5	296.9	224.8	143.6	68.6	16.6	1.1	2.9
95°	395.9	387.8	363.8	323.8	263.7	193.4	117.8	50.3	9.2	1.1	2.9
97.5°	363.2	355.8	330.6	290.6	234.0	165.9	93.2	35.5	4.6	1.1	2.3
100°	332.9	324.3	301.5	261.4	204.2	138.4	72.1	22.9	2.9	1.1	2.3
102.5°	300.9	294.0	270.6	231.7	173.3	112.7	53.8	14.3	1.1	1.1	1.7
105°	272.3	263.7	240.8	200.8	147.6	88.7	37.8	8.6	1.1	1.1	1.7



TEST NUMBER: P551566

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-93-87-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	177.3	170.5	150.4	116.7	74.9	34.9	10.3	1.7	1.7	1.7	1.7
115°	148.2	137.9	120.1	90.4	55.5	22.9	5.1	1.7	1.7	1.7	1.7
117.5°	118.4	109.8	97.2	68.6	36.6	14.9	2.9	1.7	1.7	1.7	1.7
120°	92.7	84.7	70.4	47.5	24.6	8.6	1.1	1.7	1.7	1.7	1.7
122.5°	66.4	60.1	47.5	30.9	14.9	4.0	1.7	1.7	2.3	2.3	1.7
125°	44.0	40.6	31.5	18.9	9.2	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	28.6	25.7	18.3	10.9	4.0	1.7	1.7	2.3	2.3	2.3	1.7
130°	16.0	14.3	10.9	6.3	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.2	8.6	5.7	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.3
137.5°	0.6	0.6	1.1	1.1	1.7	1.7	2.3	2.9	2.9	2.9	2.3
140°	0.6	0.6	1.1	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.3
142.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
145°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.3	2.3	2.3
147.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
150°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
152.5°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
155°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
157.5°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
160°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.1	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.9
172.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
175°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
177.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.3
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



TEST NUMBER: P551566

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-93-87-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	449.1	449.1	449.1
2.5°	427.3	419.3	417.0
5°	404.4	391.3	383.8
7.5°	381.6	363.8	355.2
10°	360.4	335.2	326.1
12.5°	335.2	306.0	291.7
15°	311.2	273.4	259.7
17.5°	284.3	242.0	226.0
20°	259.1	210.5	193.9
22.5°	230.5	179.6	161.3
25°	204.8	148.7	128.1
27.5°	176.2	117.3	99.5
30°	149.3	89.8	72.1
32.5°	123.6	65.8	49.8
35°	99.5	44.6	31.5
37.5°	76.7	27.5	16.0
40°	55.5	14.3	7.4
42.5°	37.2	6.9	4.0
45°	22.9	3.4	0.0
47.5°	13.2	0.0	0.0
50°	6.9	0.0	0.0
52.5°	2.9	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°	0.6	0.6	0.6
77.5°	0.6	1.1	1.7
80°	1.1	2.3	2.9
82.5°	2.3	2.9	2.9
85°	2.3	2.9	3.4
87.5°	2.9	3.4	4.0
90°	3.4	4.0	4.0
92.5°	3.4	4.6	4.6
95°	4.0	4.6	5.1
97.5°	4.6	5.1	5.1
100°	4.0	5.1	5.7
102.5°	3.4	5.1	5.1
105°	2.9	4.0	4.6



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CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-93-87-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.3	2.9	2.9
115°	1.7	2.3	2.9
117.5°	1.7	2.3	2.3
120°	1.7	1.7	2.3
122.5°	1.7	1.7	2.3
125°	1.7	1.7	2.3
127.5°	2.3	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.3	1.7	1.7
135°	2.3	1.7	1.7
137.5°	2.3	1.7	1.7
140°	2.3	1.7	1.7
142.5°	2.3	1.7	1.7
145°	1.7	1.7	1.7
147.5°	1.7	1.7	1.7
150°	1.7	1.7	1.1
152.5°	1.7	1.1	1.1
155°	1.7	1.1	0.6
157.5°	2.3	1.1	0.6
160°	1.7	1.1	0.6
162.5°	1.7	1.1	0.6
165°	1.7	1.1	0.0
167.5°	1.7	1.1	0.6
170°	1.7	1.1	0.6
172.5°	1.7	1.1	0.6
175°	1.7	0.6	0.6
177.5°	1.7	0.6	0.6
180°	1.7	1.7	1.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	240.3	233.4	210.5	172.8	120.7	67.5	25.2	4.6	1.1	1.7	1.7
110°	209.4	203.6	180.2	143.6	97.2	50.3	16.6	2.9	1.7	1.7	1.7





107.5°	2.3	3.4	4.0
110°	2.3	2.9	3.4



(END OF REPORT)