

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: P551509

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-93-97-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: P551509
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-93-97-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

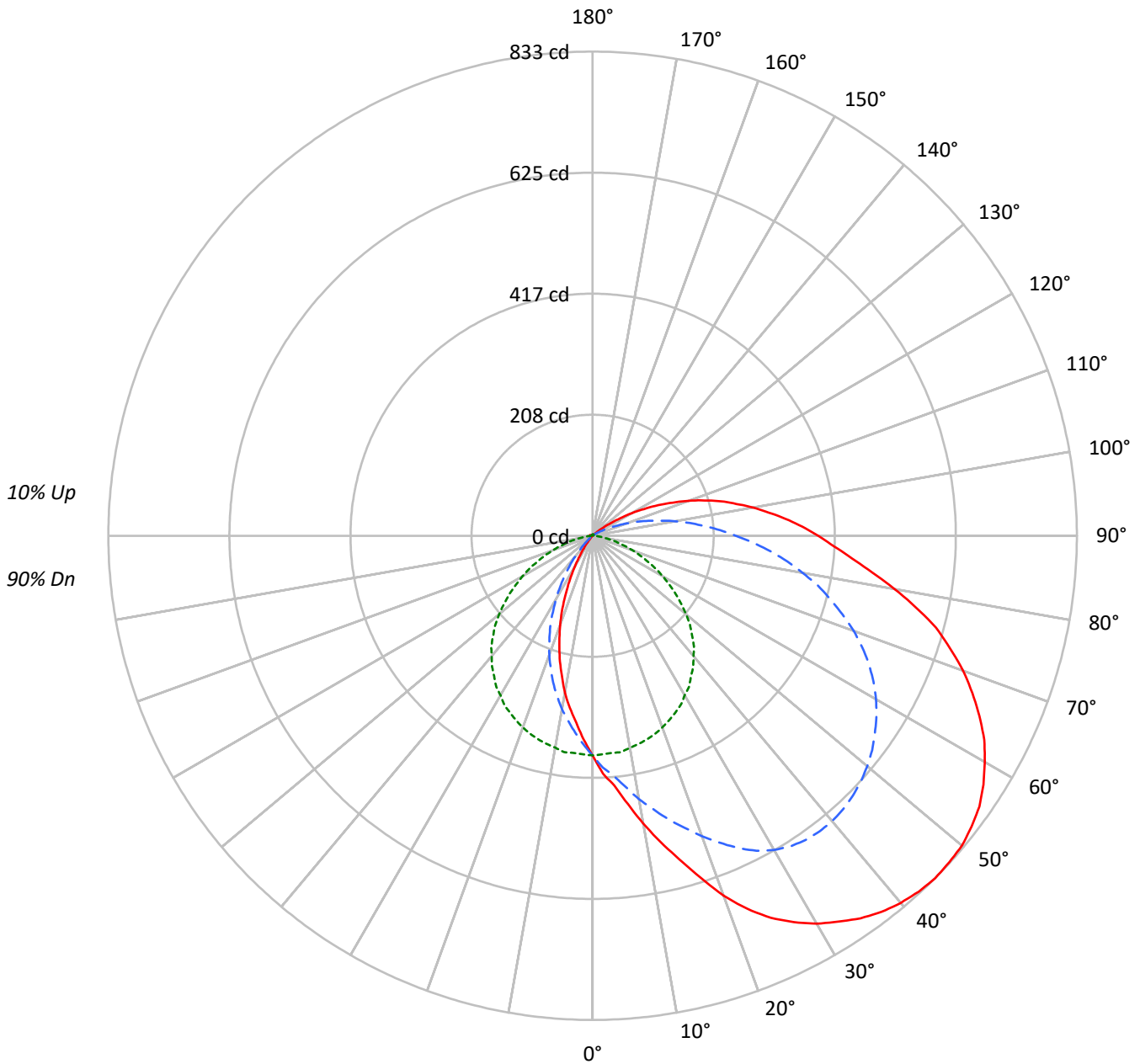
Lumens per Lamp: N/A
Luminaire Lumens: 1867.9 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-93-97-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°	4068	4068	4068
5°	4465	4008	3344
10°	5052	3959	2756
15°	5662	3908	2147
20°	6386	3845	1582
25°	6986	3771	1038
30°	7432	3671	584
35°	7819	3566	258
40°	8161	3434	62
45°	8456	3269	0
50°	8702	3052	0
55°	8890	2774	0
60°	8985	2453	0
65°	9021	2089	0
70°	8992	1703	0
75°	8878	1256	7
80°	8518	769	39
85°	8232	366	53



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.2	1.9
10°-20°	108.4	5.8
20°-30°	175.5	9.4
30°-40°	225.4	12.1
40°-50°	255.2	13.7
50°-60°	264.4	14.2
60°-70°	249.3	13.3
70°-80°	209.0	11.2
80°-90°	151.5	8.1
90°-100°	99.6	5.3
100°-110°	57.5	3.1
110°-120°	25.4	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°	320.1	17.1
0°-40°	545.5	29.2
0°-60°	1065.1	57.0
0°-90°	1674.8	89.7
90°-120°	182.4	9.8
90°-150°	191.8	10.3
90°-180°	193.0	10.3
0°-180°	1867.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	378	378	378	378	378	
5°	431	414	375	340	323	43
15°	576	505	362	262	218	166
25°	725	593	336	172	108	335
35°	803	639	295	84	26	504
45°	833	633	242	19	0	643
55°	812	593	174	0	0	725
65°	734	525	104	0	0	726
75°	612	423	44	0	0	642
85°	448	307	7	2	3	382
90°	388	246	2	3	3	213
95°	333	192	1	3	4	261
105°	229	99	1	2	4	242
115°	125	33	1	1	2	125
125°	37	5	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°	377.9	377.9	377.9	377.9	377.9	377.9	377.9	377.9	377.9	377.9	377.9
2.5°	409.6	409.1	407.7	405.3	401.9	396.1	391.3	387.0	381.2	376.4	367.3
5°	431.3	428.9	426.9	424.5	416.8	411.5	402.9	393.3	384.1	375.0	356.7
7.5°	465.9	462.1	459.2	452.5	441.9	429.8	416.4	407.2	401.0	375.4	344.2
10°	503.0	499.6	493.9	481.8	468.8	451.5	432.2	410.6	391.3	370.2	333.1
12.5°	539.6	534.8	526.6	511.2	492.9	471.2	444.8	419.2	391.8	366.8	320.1
15°	576.2	570.9	562.2	543.4	519.4	491.0	458.7	426.5	394.2	362.4	306.6
17.5°	616.1	608.9	595.9	574.7	544.4	509.3	471.2	432.2	393.3	357.2	292.2
20°	659.0	648.8	634.9	606.5	570.9	529.5	483.7	438.0	392.8	350.9	275.8
22.5°	694.6	684.5	669.1	639.7	596.9	546.3	494.3	441.9	390.8	343.7	260.4
25°	725.4	717.2	700.3	666.7	621.4	564.1	504.4	444.8	388.0	336.0	244.0
27.5°	749.4	741.7	723.0	688.3	642.1	580.0	512.1	446.2	384.1	328.3	227.2
30°	770.6	762.9	740.3	704.7	656.1	592.5	519.8	446.7	379.3	316.7	208.9
32.5°	787.0	779.8	756.7	718.6	665.7	601.2	524.2	446.2	373.0	308.5	189.2
35°	803.4	796.1	769.2	728.7	672.9	605.0	527.5	443.8	365.3	295.1	170.4
37.5°	815.9	807.7	780.3	735.5	676.3	606.0	527.1	440.4	357.2	284.0	151.6
40°	824.5	815.9	786.5	739.3	677.2	604.6	523.2	434.6	347.5	270.0	131.9
42.5°	830.3	820.7	789.4	745.1	675.3	600.7	517.4	427.4	336.9	258.0	113.1
45°	833.2	823.1	789.9	740.3	672.0	593.5	508.8	418.3	325.4	241.6	94.3
47.5°	831.8	820.7	787.5	735.0	665.7	585.8	499.1	407.2	311.4	227.2	76.5
50°	829.3	817.8	782.2	728.3	657.0	576.2	488.6	393.7	297.0	209.4	60.6
52.5°	821.6	810.1	776.4	718.6	646.9	565.1	474.1	379.8	281.6	192.1	46.2
55°	812.0	801.4	766.3	710.0	633.9	551.6	460.6	364.9	266.7	174.2	33.2
57.5°	797.1	787.5	753.8	696.0	620.9	536.7	445.7	348.5	247.9	156.4	23.1
60°	778.8	769.2	736.4	680.1	606.0	519.8	429.4	331.6	231.0	138.6	14.4
62.5°	759.6	750.4	716.2	660.4	587.2	502.0	411.5	314.8	213.2	122.3	8.7
65°	734.0	725.4	694.6	636.8	566.5	482.8	391.8	294.6	194.9	104.0	4.8
67.5°	707.1	699.4	668.1	615.2	542.5	461.6	371.6	274.8	175.7	88.1	2.4
70°	678.2	668.6	639.7	585.8	517.9	437.5	349.5	254.6	157.4	72.7	0.0
72.5°	644.5	637.3	609.4	558.4	489.5	412.0	326.8	232.5	137.2	57.8	0.5
75°	611.8	602.6	577.1	529.0	461.6	385.1	301.8	211.8	117.4	44.3	0.5
77.5°	569.4	566.5	542.5	495.8	435.1	359.1	274.4	186.8	98.7	31.8	0.5
80°	527.1	524.2	505.4	462.6	404.3	328.3	248.9	163.2	80.4	21.2	0.5
82.5°	485.2	481.3	463.5	427.9	373.0	302.3	222.4	139.6	63.5	13.0	0.5
85°	447.6	442.8	423.6	390.8	340.8	272.9	194.9	116.5	47.2	7.2	1.0
87.5°	415.4	412.0	390.8	357.2	308.1	245.5	170.9	94.3	33.2	3.4	1.4
90°	388.0	380.7	362.0	326.3	277.3	215.2	145.4	75.6	22.1	1.9	1.9
92.5°	361.0	354.7	334.0	297.5	249.8	189.2	120.8	57.8	14.0	1.0	2.4
95°	333.1	326.3	306.1	272.4	221.9	162.7	99.2	42.4	7.7	1.0	2.4
97.5°	305.7	299.4	278.2	244.5	196.9	139.6	78.5	29.8	3.9	1.0	1.9
100°	280.1	272.9	253.7	220.0	171.8	116.5	60.6	19.3	2.4	1.0	1.9
102.5°	253.2	247.4	227.7	194.9	145.8	94.8	45.2	12.0	1.0	1.0	1.4
105°	229.1	221.9	202.6	169.0	124.2	74.6	31.8	7.2	1.0	1.0	1.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	149.2	143.4	126.6	98.2	63.1	29.4	8.7	1.4	1.4	1.4	1.4
115°	124.7	116.0	101.1	76.1	46.7	19.3	4.3	1.4	1.4	1.4	1.4
117.5°	99.6	92.4	81.8	57.8	30.8	12.5	2.4	1.4	1.4	1.4	1.4
120°	78.0	71.2	59.2	40.0	20.7	7.2	1.0	1.4	1.4	1.4	1.4
122.5°	55.8	50.5	40.0	26.0	12.5	3.4	1.4	1.4	1.9	1.9	1.4
125°	37.1	34.2	26.5	15.9	7.7	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	24.1	21.7	15.4	9.1	3.4	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.5	12.0	9.1	5.3	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.7	7.2	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°	377.9	377.9	377.9
2.5°	359.6	352.8	350.9
5°	340.3	329.2	323.0
7.5°	321.1	306.1	298.9
10°	303.2	282.1	274.4
12.5°	282.1	257.5	245.5
15°	261.8	230.1	218.5
17.5°	239.2	203.6	190.1
20°	218.0	177.1	163.2
22.5°	194.0	151.1	135.7
25°	172.3	125.1	107.8
27.5°	148.3	98.7	83.8
30°	125.6	75.6	60.6
32.5°	104.0	55.4	41.9
35°	83.8	37.5	26.5
37.5°	64.5	23.1	13.5
40°	46.7	12.0	6.3
42.5°	31.3	5.8	3.4
45°	19.3	2.9	0.0
47.5°	11.1	0.0	0.0
50°	5.8	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	3.4
90°	2.9	3.4	3.4
92.5°	2.9	3.9	3.9
95°	3.4	3.9	4.3
97.5°	3.9	4.3	4.3
100°	3.4	4.3	4.8
102.5°	2.9	4.3	4.3
105°	2.4	3.4	3.9



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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°	202.2	196.4	177.1	145.4	101.6	56.8	21.2	3.9	1.0	1.4	1.4
110°	176.2	171.4	151.6	120.8	81.8	42.4	14.0	2.4	1.4	1.4	1.4





107.5°	1.9	2.9	3.4
110°	1.9	2.4	2.9



(END OF REPORT)