

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: P551180

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-93-86-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: P551180
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-50-UNV-93-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

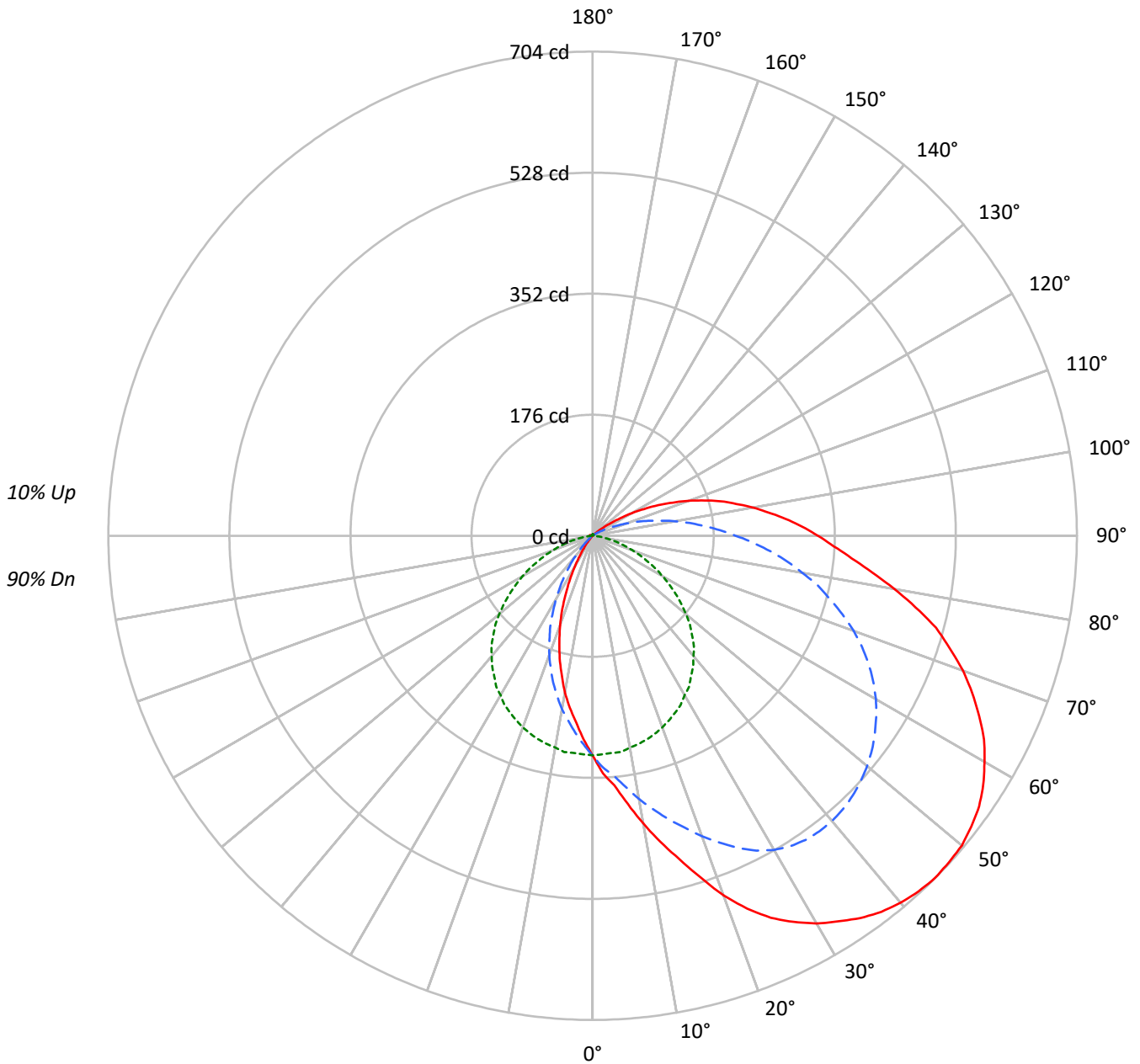
Lumens per Lamp: N/A
Luminaire Lumens: 1577.9 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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-LD4-1STD-50-UNV-93-86-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	0
RCR																					
0	117	117	117	117	113	113	113	113	105	105	105	99	99	99	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	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3436	3436	3436
5°	3771	3386	2824
10°	4268	3344	2328
15°	4783	3302	1814
20°	5395	3247	1335
25°	5902	3185	877
30°	6279	3102	494
35°	6605	3012	218
40°	6894	2901	52
45°	7142	2762	0
50°	7351	2578	0
55°	7511	2344	0
60°	7590	2072	0
65°	7622	1764	0
70°	7596	1438	0
75°	7499	1061	6
80°	7195	649	32
85°	6956	310	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.6	1.9
10°-20°	91.5	5.8
20°-30°	148.3	9.4
30°-40°	190.4	12.1
40°-50°	215.6	13.7
50°-60°	223.3	14.2
60°-70°	210.6	13.3
70°-80°	176.5	11.2
80°-90°	127.9	8.1
90°-100°	84.1	5.3
100°-110°	48.6	3.1
110°-120°	21.4	1.4
120°-130°	5.8	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°	270.4	17.1
0°-40°	460.8	29.2
0°-60°	899.7	57.0
0°-90°	1414.8	89.7
90°-120°	154.1	9.8
90°-150°	162.0	10.3
90°-180°	163.0	10.3
0°-180°	1577.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	319	319	319	319	319	
5°	364	350	317	288	273	37
15°	487	427	306	221	185	140
25°	613	501	284	146	91	283
35°	679	540	249	71	22	426
45°	704	534	204	16	0	543
55°	686	501	147	0	0	613
65°	620	443	88	0	0	613
75°	517	358	37	0	0	542
85°	378	259	6	2	2	323
90°	328	208	2	2	3	180
95°	281	162	1	3	4	221
105°	194	84	1	2	3	204
115°	105	28	1	1	2	105
125°	31	4	2	1	2	31
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°	319.2	319.2	319.2	319.2	319.2	319.2	319.2	319.2	319.2	319.2	319.2
2.5°	346.0	345.6	344.4	342.4	339.5	334.6	330.6	326.9	322.0	318.0	310.2
5°	364.3	362.3	360.7	358.6	352.1	347.7	340.3	332.2	324.5	316.8	301.3
7.5°	393.6	390.3	387.9	382.2	373.3	363.1	351.7	344.0	338.7	317.2	290.7
10°	424.9	422.1	417.2	407.0	396.0	381.4	365.1	346.8	330.6	312.7	281.4
12.5°	455.8	451.7	444.8	431.8	416.4	398.1	375.7	354.2	331.0	309.8	270.4
15°	486.7	482.2	474.9	459.1	438.7	414.7	387.5	360.3	333.0	306.2	259.0
17.5°	520.5	514.4	503.4	485.5	459.9	430.2	398.1	365.1	332.2	301.7	246.8
20°	556.7	548.1	536.3	512.3	482.2	447.3	408.6	370.0	331.8	296.4	233.0
22.5°	586.7	578.2	565.2	540.4	504.2	461.5	417.6	373.3	330.2	290.3	220.0
25°	612.8	605.9	591.6	563.2	524.9	476.6	426.1	375.7	327.7	283.8	206.2
27.5°	633.1	626.6	610.7	581.5	542.4	490.0	432.6	376.9	324.5	277.3	191.9
30°	651.0	644.5	625.4	595.3	554.2	500.5	439.1	377.3	320.4	267.6	176.5
32.5°	664.8	658.7	639.2	607.1	562.3	507.9	442.8	376.9	315.1	260.6	159.8
35°	678.6	672.5	649.8	615.6	568.4	511.1	445.6	374.9	308.6	249.3	143.9
37.5°	689.2	682.3	659.1	621.3	571.3	511.9	445.2	372.1	301.7	239.9	128.1
40°	696.5	689.2	664.4	624.6	572.1	510.7	442.0	367.2	293.6	228.1	111.4
42.5°	701.4	693.3	666.8	629.4	570.5	507.5	437.1	361.1	284.6	217.9	95.6
45°	703.8	695.3	667.3	625.4	567.6	501.4	429.8	353.3	274.9	204.1	79.7
47.5°	702.6	693.3	665.2	620.9	562.3	494.8	421.7	344.0	263.1	191.9	64.7
50°	700.6	690.8	660.7	615.2	555.0	486.7	412.7	332.6	250.9	176.9	51.2
52.5°	694.1	684.3	655.9	607.1	546.5	477.4	400.5	320.8	237.9	162.2	39.0
55°	686.0	677.0	647.3	599.8	535.5	466.0	389.1	308.2	225.3	147.2	28.1
57.5°	673.4	665.2	636.8	588.0	524.5	453.4	376.5	294.4	209.4	132.1	19.5
60°	657.9	649.8	622.1	574.5	511.9	439.1	362.7	280.2	195.2	117.1	12.2
62.5°	641.6	633.9	605.0	557.9	496.1	424.1	347.7	265.9	180.1	103.3	7.3
65°	620.1	612.8	586.7	537.9	478.6	407.8	331.0	248.8	164.7	87.8	4.1
67.5°	597.3	590.8	564.4	519.7	458.3	389.9	313.9	232.2	148.4	74.4	2.0
70°	572.9	564.8	540.4	494.8	437.5	369.6	295.2	215.1	133.0	61.4	0.0
72.5°	544.5	538.4	514.8	471.7	413.5	348.1	276.1	196.4	115.9	48.8	0.4
75°	516.8	509.1	487.5	446.9	389.9	325.3	254.9	178.9	99.2	37.4	0.4
77.5°	481.0	478.6	458.3	418.8	367.6	303.3	231.8	157.8	83.4	26.8	0.4
80°	445.2	442.8	426.9	390.8	341.6	277.3	210.2	137.8	67.9	17.9	0.4
82.5°	409.9	406.6	391.6	361.5	315.1	255.4	187.9	117.9	53.7	11.0	0.4
85°	378.2	374.1	357.8	330.2	287.9	230.5	164.7	98.4	39.8	6.1	0.8
87.5°	350.9	348.1	330.2	301.7	260.2	207.4	144.3	79.7	28.1	2.8	1.2
90°	327.7	321.6	305.8	275.7	234.2	181.8	122.8	63.8	18.7	1.6	1.6
92.5°	305.0	299.7	282.2	251.3	211.0	159.8	102.1	48.8	11.8	0.8	2.0
95°	281.4	275.7	258.6	230.1	187.4	137.4	83.8	35.8	6.5	0.8	2.0
97.5°	258.2	252.9	235.0	206.6	166.3	117.9	66.3	25.2	3.3	0.8	1.6
100°	236.6	230.5	214.3	185.8	145.2	98.4	51.2	16.3	2.0	0.8	1.6
102.5°	213.9	209.0	192.3	164.7	123.2	80.1	38.2	10.2	0.8	0.8	1.2
105°	193.5	187.4	171.2	142.7	104.9	63.0	26.8	6.1	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-93-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	126.1	121.2	106.9	82.9	53.3	24.8	7.3	1.2	1.2	1.2	1.2
115°	105.3	98.0	85.4	64.2	39.4	16.3	3.7	1.2	1.2	1.2	1.2
117.5°	84.2	78.1	69.1	48.8	26.0	10.6	2.0	1.2	1.2	1.2	1.2
120°	65.9	60.2	50.0	33.7	17.5	6.1	0.8	1.2	1.2	1.2	1.2
122.5°	47.2	42.7	33.7	22.0	10.6	2.8	1.2	1.2	1.6	1.6	1.2
125°	31.3	28.9	22.4	13.4	6.5	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.3	18.3	13.0	7.7	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.4	10.2	7.7	4.5	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.5	6.1	4.1	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°	319.2	319.2	319.2
2.5°	303.7	298.0	296.4
5°	287.5	278.1	272.8
7.5°	271.2	258.6	252.5
10°	256.2	238.3	231.8
12.5°	238.3	217.5	207.4
15°	221.2	194.4	184.6
17.5°	202.1	172.0	160.6
20°	184.2	149.6	137.8
22.5°	163.9	127.7	114.7
25°	145.6	105.7	91.1
27.5°	125.2	83.4	70.8
30°	106.1	63.8	51.2
32.5°	87.8	46.8	35.4
35°	70.8	31.7	22.4
37.5°	54.5	19.5	11.4
40°	39.4	10.2	5.3
42.5°	26.4	4.9	2.8
45°	16.3	2.4	0.0
47.5°	9.4	0.0	0.0
50°	4.9	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	2.4
87.5°	2.0	2.4	2.8
90°	2.4	2.8	2.8
92.5°	2.4	3.3	3.3
95°	2.8	3.3	3.7
97.5°	3.3	3.7	3.7
100°	2.8	3.7	4.1
102.5°	2.4	3.7	3.7
105°	2.0	2.8	3.3



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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°	170.8	165.9	149.6	122.8	85.8	48.0	17.9	3.3	0.8	1.2	1.2
110°	148.8	144.8	128.1	102.1	69.1	35.8	11.8	2.0	1.2	1.2	1.2





107.5°	1.6	2.4	2.8
110°	1.6	2.0	2.4



(END OF REPORT)