

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: P551570

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-93-94-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: P551570
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-93-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K,
AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

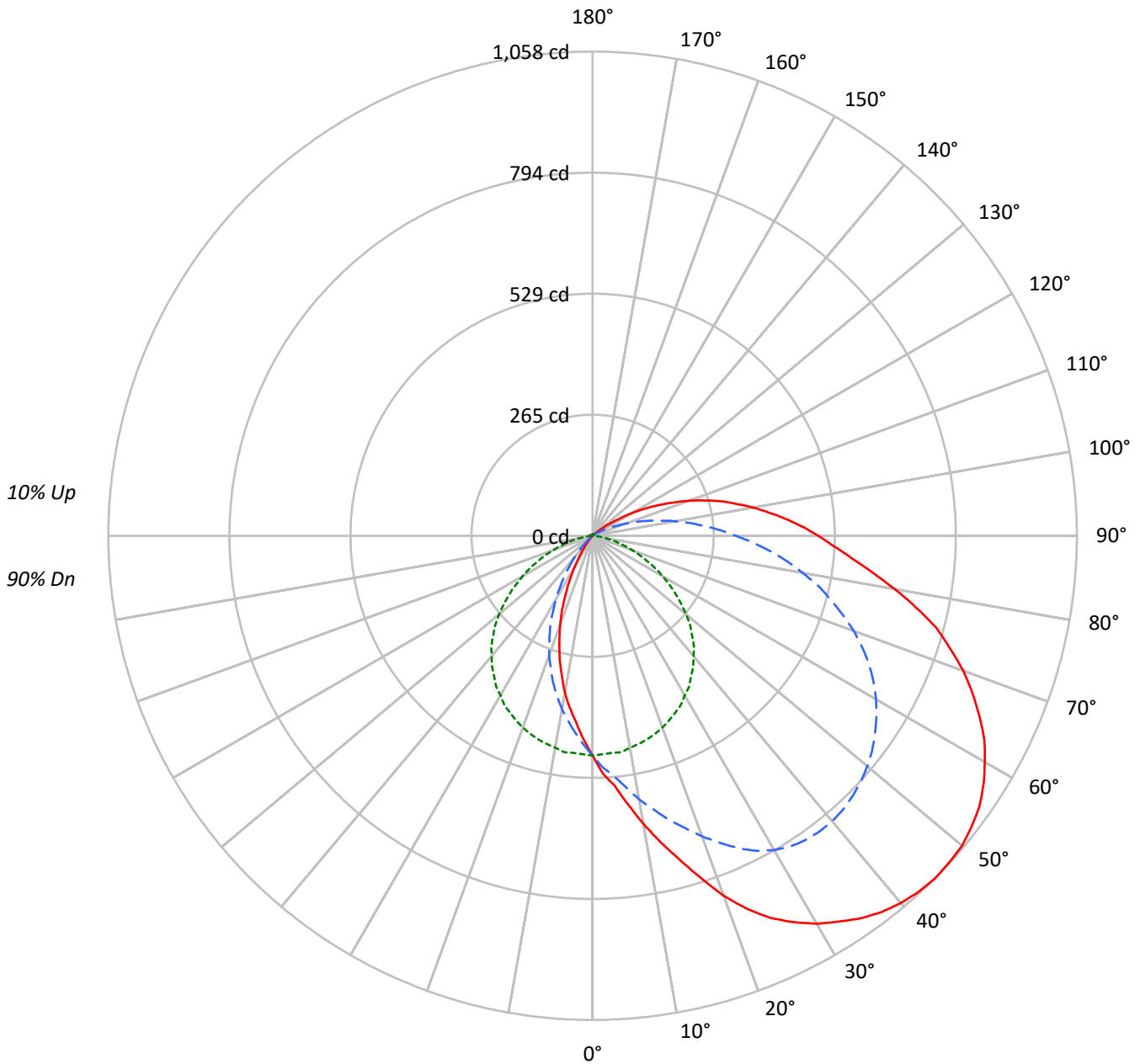
Lumens per Lamp: N/A
Luminaire Lumens: 2372.9 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-93-94-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°	5167	5167	5167
5°	5672	5091	4248
10°	6418	5028	3500
15°	7192	4964	2728
20°	8112	4884	2009
25°	8875	4790	1319
30°	9442	4664	743
35°	9932	4529	327
40°	10368	4362	78
45°	10741	4154	0
50°	11056	3877	0
55°	11293	3525	0
60°	11414	3116	0
65°	11461	2653	0
70°	11423	2162	0
75°	11278	1597	9
80°	10821	976	50
85°	10459	468	68



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.0	1.9
10°-20°	137.7	5.8
20°-30°	222.9	9.4
30°-40°	286.4	12.1
40°-50°	324.2	13.7
50°-60°	335.9	14.2
60°-70°	316.7	13.3
70°-80°	265.4	11.2
80°-90°	192.4	8.1
90°-100°	126.5	5.3
100°-110°	73.0	3.1
110°-120°	32.2	1.4
120°-130°	8.7	0.4
130°-140°	2.0	0.1
140°-150°	1.3	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	406.6	17.1
0°-40°	693.0	29.2
0°-60°	1353.0	57.0
0°-90°	2127.6	89.7
90°-120°	231.7	9.8
90°-150°	243.7	10.3
90°-180°	245.0	10.3
0°-180°	2372.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	480	480	480	480	480	
5°	548	526	476	432	410	55
15°	732	642	460	333	278	211
25°	922	753	427	219	137	426
35°	1020	812	375	106	34	640
45°	1058	804	307	24	0	817
55°	1032	753	221	0	0	921
65°	932	666	132	0	0	923
75°	777	538	56	1	1	815
85°	569	390	9	2	4	486
90°	493	313	2	4	4	270
95°	423	244	1	4	6	332
105°	291	126	1	3	5	307
115°	158	42	2	2	3	159
125°	47	6	2	2	2	47
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°	480.0	480.0	480.0	480.0	480.0	480.0	480.0	480.0	480.0	480.0	480.0
2.5°	520.4	519.7	517.9	514.9	510.6	503.2	497.1	491.6	484.3	478.2	466.5
5°	547.9	544.8	542.4	539.3	529.5	522.8	511.8	499.6	487.9	476.3	453.1
7.5°	591.9	587.0	583.3	574.8	561.3	546.0	528.9	517.3	509.4	476.9	437.2
10°	639.0	634.7	627.4	612.1	595.6	573.6	549.1	521.6	497.1	470.2	423.1
12.5°	685.5	679.3	668.9	649.4	626.1	598.6	565.0	532.6	497.7	465.9	406.6
15°	731.9	725.2	714.2	690.3	659.8	623.7	582.7	541.8	500.8	460.4	389.5
17.5°	782.7	773.5	757.0	730.1	691.6	646.9	598.6	549.1	499.6	453.7	371.2
20°	837.1	824.3	806.5	770.4	725.2	672.6	614.5	556.4	499.0	445.8	350.4
22.5°	882.3	869.5	849.9	812.6	758.2	694.0	628.0	561.3	496.5	436.6	330.8
25°	921.5	911.1	889.7	846.9	789.4	716.6	640.8	565.0	492.8	426.8	310.0
27.5°	952.1	942.3	918.4	874.4	815.7	736.8	650.6	566.8	487.9	417.0	288.6
30°	979.0	969.2	940.4	895.2	833.4	752.7	660.4	567.4	481.8	402.3	265.4
32.5°	999.7	990.6	961.2	912.9	845.7	763.7	665.9	566.8	473.9	391.9	240.3
35°	1020.5	1011.4	977.1	925.8	854.8	768.6	670.2	563.8	464.1	374.8	216.5
37.5°	1036.4	1026.0	991.2	934.3	859.1	769.8	669.6	559.5	453.7	360.8	192.6
40°	1047.4	1036.4	999.1	939.2	860.3	768.0	664.7	552.2	441.5	343.0	167.5
42.5°	1054.8	1042.5	1002.8	946.5	857.9	763.1	657.3	543.0	428.0	327.7	143.7
45°	1058.4	1045.6	1003.4	940.4	853.6	753.9	646.3	531.4	413.4	307.0	119.8
47.5°	1056.6	1042.5	1000.4	933.7	845.7	744.2	634.1	517.3	395.6	288.6	97.2
50°	1053.6	1038.9	993.6	925.1	834.7	731.9	620.6	500.2	377.3	266.0	77.0
52.5°	1043.8	1029.1	986.3	912.9	821.8	717.9	602.3	482.4	357.7	244.0	58.7
55°	1031.5	1018.1	973.5	901.9	805.3	700.7	585.2	463.5	338.8	221.4	42.2
57.5°	1012.6	1000.4	957.6	884.2	788.8	681.8	566.2	442.7	314.9	198.7	29.4
60°	989.4	977.1	935.5	864.0	769.8	660.4	545.4	421.3	293.5	176.1	18.3
62.5°	964.9	953.3	909.9	838.9	746.0	637.8	522.8	399.9	270.9	155.3	11.0
65°	932.5	921.5	882.3	809.0	719.7	613.3	497.7	374.2	247.6	132.1	6.1
67.5°	898.2	888.5	848.7	781.5	689.1	586.4	472.1	349.1	223.2	111.9	3.1
70°	861.6	849.3	812.6	744.2	657.9	555.8	443.9	323.5	199.9	92.3	0.0
72.5°	818.8	809.6	774.1	709.3	621.9	523.4	415.2	295.3	174.3	73.4	0.6
75°	777.2	765.6	733.1	672.0	586.4	489.2	383.4	269.0	149.2	56.3	0.6
77.5°	723.4	719.7	689.1	629.8	552.8	456.2	348.5	237.2	125.4	40.4	0.6
80°	669.6	665.9	642.0	587.6	513.6	417.0	316.1	207.3	102.1	26.9	0.6
82.5°	616.4	611.5	588.8	543.6	473.9	384.0	282.5	177.3	80.7	16.5	0.6
85°	568.7	562.5	538.1	496.5	432.9	346.7	247.6	148.0	59.9	9.2	1.2
87.5°	527.7	523.4	496.5	453.7	391.3	311.8	217.1	119.8	42.2	4.3	1.8
90°	492.8	483.7	459.8	414.6	352.2	273.3	184.7	96.0	28.1	2.4	2.4
92.5°	458.6	450.7	424.4	377.9	317.4	240.3	153.5	73.4	17.7	1.2	3.1
95°	423.1	414.6	388.9	346.1	281.9	206.7	126.0	53.8	9.8	1.2	3.1
97.5°	388.3	380.3	353.4	310.6	250.1	177.3	99.7	37.9	4.9	1.2	2.4
100°	355.9	346.7	322.2	279.4	218.3	148.0	77.0	24.5	3.1	1.2	2.4
102.5°	321.6	314.3	289.2	247.6	185.3	120.5	57.5	15.3	1.2	1.2	1.8
105°	291.1	281.9	257.4	214.6	157.8	94.8	40.4	9.2	1.2	1.2	1.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	189.6	182.2	160.8	124.7	80.1	37.3	11.0	1.8	1.8	1.8	1.8
115°	158.4	147.4	128.4	96.6	59.3	24.5	5.5	1.8	1.8	1.8	1.8
117.5°	126.6	117.4	103.9	73.4	39.1	15.9	3.1	1.8	1.8	1.8	1.8
120°	99.1	90.5	75.2	50.8	26.3	9.2	1.2	1.8	1.8	1.8	1.8
122.5°	70.9	64.2	50.8	33.0	15.9	4.3	1.8	1.8	2.4	2.4	1.8
125°	47.1	43.4	33.6	20.2	9.8	1.8	1.8	1.8	2.4	2.4	1.8
127.5°	30.6	27.5	19.6	11.6	4.3	1.8	1.8	2.4	2.4	2.4	1.8
130°	17.1	15.3	11.6	6.7	1.8	1.8	1.8	2.4	2.4	2.4	1.8
132.5°	9.8	9.2	6.1	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4
135°	2.4	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.1	3.1	2.4
137.5°	0.6	0.6	1.2	1.2	1.8	1.8	2.4	3.1	3.1	3.1	2.4
140°	0.6	0.6	1.2	1.8	1.8	1.8	2.4	3.1	3.1	3.1	2.4
142.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.1	3.1	2.4	2.4
145°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.1	2.4	2.4	2.4
147.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.1	3.1	2.4	2.4
150°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.1	2.4	2.4	2.4
152.5°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.1	2.4	2.4	2.4
155°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.1	2.4	2.4	3.1
157.5°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.1	2.4	2.4	3.1
160°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
162.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
165°	1.2	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4
167.5°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4	2.4
170°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	3.1	3.1	3.1	3.1
172.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.1	3.1	3.1	3.1
175°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.1	3.1	3.1	3.1
177.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.1	3.1	3.1	2.4
180°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	480.0	480.0	480.0
2.5°	456.8	448.2	445.8
5°	432.3	418.2	410.3
7.5°	407.8	388.9	379.7
10°	385.2	358.3	348.5
12.5°	358.3	327.1	311.8
15°	332.6	292.3	277.6
17.5°	303.9	258.7	241.5
20°	277.0	225.0	207.3
22.5°	246.4	192.0	172.4
25°	218.9	159.0	137.0
27.5°	188.3	125.4	106.4
30°	159.6	96.0	77.0
32.5°	132.1	70.3	53.2
35°	106.4	47.7	33.6
37.5°	81.9	29.4	17.1
40°	59.3	15.3	7.9
42.5°	39.7	7.3	4.3
45°	24.5	3.7	0.0
47.5°	14.1	0.0	0.0
50°	7.3	0.0	0.0
52.5°	3.1	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	1.2	1.8
80°	1.2	2.4	3.1
82.5°	2.4	3.1	3.1
85°	2.4	3.1	3.7
87.5°	3.1	3.7	4.3
90°	3.7	4.3	4.3
92.5°	3.7	4.9	4.9
95°	4.3	4.9	5.5
97.5°	4.9	5.5	5.5
100°	4.3	5.5	6.1
102.5°	3.7	5.5	5.5
105°	3.1	4.3	4.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.4	3.1	3.1
115°	1.8	2.4	3.1
117.5°	1.8	2.4	2.4
120°	1.8	1.8	2.4
122.5°	1.8	1.8	2.4
125°	1.8	1.8	2.4
127.5°	2.4	1.8	1.8
130°	1.8	1.8	1.8
132.5°	2.4	1.8	1.8
135°	2.4	1.8	1.8
137.5°	2.4	1.8	1.8
140°	2.4	1.8	1.8
142.5°	2.4	1.8	1.8
145°	1.8	1.8	1.8
147.5°	1.8	1.8	1.8
150°	1.8	1.8	1.2
152.5°	1.8	1.2	1.2
155°	1.8	1.2	0.6
157.5°	2.4	1.2	0.6
160°	1.8	1.2	0.6
162.5°	1.8	1.2	0.6
165°	1.8	1.2	0.0
167.5°	1.8	1.2	0.6
170°	1.8	1.2	0.6
172.5°	1.8	1.2	0.6
175°	1.8	0.6	0.6
177.5°	1.8	0.6	0.6
180°	1.8	1.8	1.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	256.8	249.5	225.0	184.7	129.0	72.2	26.9	4.9	1.2	1.8	1.8
110°	223.8	217.7	192.6	153.5	103.9	53.8	17.7	3.1	1.8	1.8	1.8





107.5°	2.4	3.7	4.3
110°	2.4	3.1	3.7



(END OF REPORT)