

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: P551602

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-81-94-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: P551602
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-40-UNV-81-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

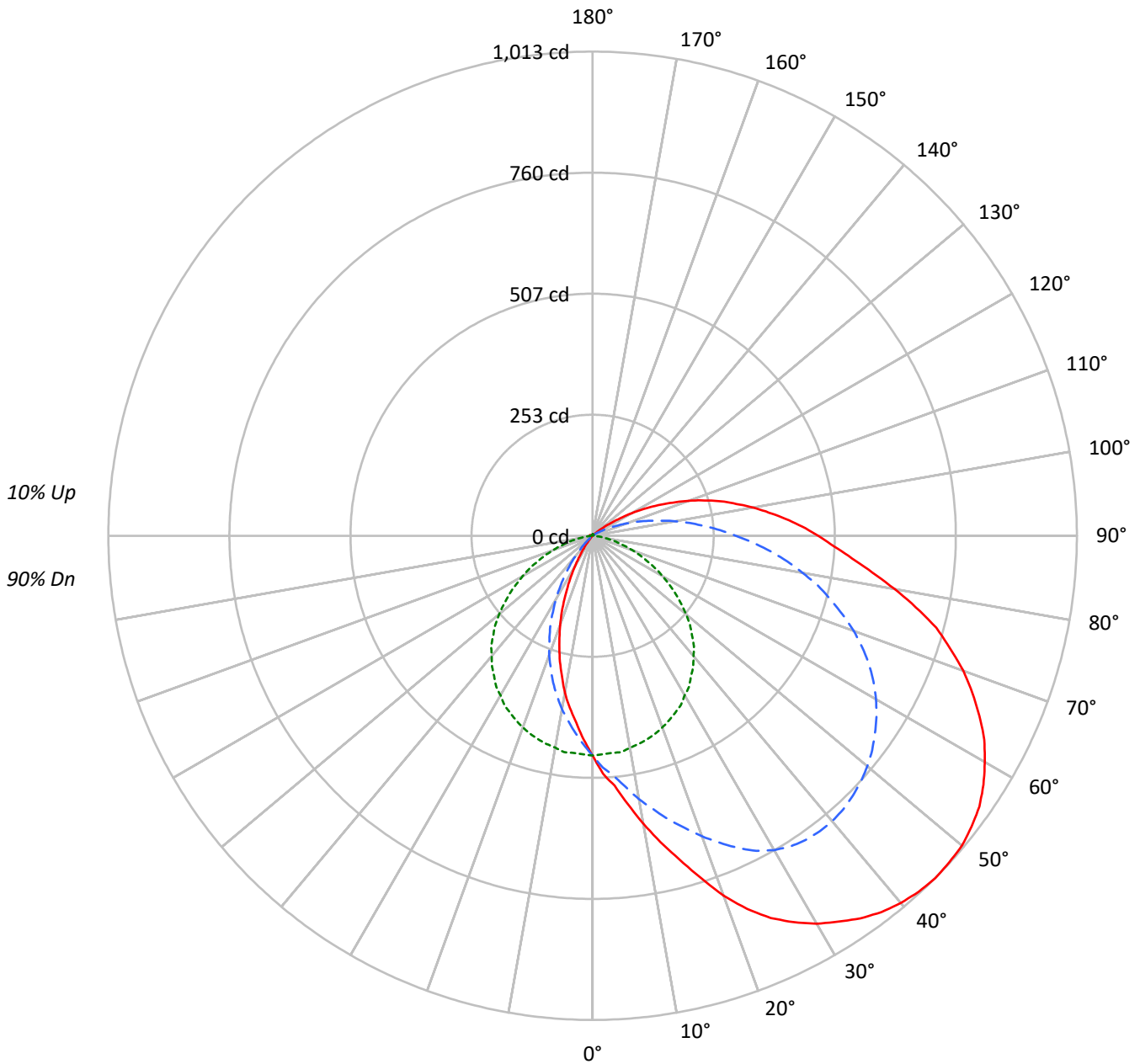
Lumens per Lamp: N/A
Luminaire Lumens: 2272.0 lumens
Efficiency: N/A
Efficacy: 96.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (Ain): 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: P551602

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-81-94-ED1D

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°	4947	4947	4947
5°	5431	4875	4066
10°	6145	4815	3352
15°	6887	4753	2612
20°	7767	4676	1924
25°	8498	4586	1263
30°	9040	4465	712
35°	9510	4337	313
40°	9927	4176	75
45°	10284	3977	0
50°	10584	3712	0
55°	10813	3374	0
60°	10928	2984	0
65°	10973	2541	0
70°	10937	2071	0
75°	10798	1529	9
80°	10361	936	47
85°	10014	447	64



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.0	1.9
10°-20°	131.8	5.8
20°-30°	213.4	9.4
30°-40°	274.2	12.1
40°-50°	310.4	13.7
50°-60°	321.6	14.2
60°-70°	303.3	13.3
70°-80°	254.2	11.2
80°-90°	184.2	8.1
90°-100°	121.1	5.3
100°-110°	69.9	3.1
110°-120°	30.9	1.4
120°-130°	8.4	0.4
130°-140°	1.9	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°	389.3	17.1
0°-40°	663.5	29.2
0°-60°	1295.4	57.0
0°-90°	2037.0	89.7
90°-120°	221.9	9.8
90°-150°	233.4	10.3
90°-180°	235.0	10.3
0°-180°	2272.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	460	460	460	460	460	
5°	525	504	456	414	393	53
15°	701	614	441	318	266	202
25°	882	721	409	210	131	408
35°	977	777	359	102	32	613
45°	1013	770	294	23	0	782
55°	988	721	212	0	0	882
65°	893	638	126	0	0	883
75°	744	515	54	1	1	780
85°	544	373	9	2	4	465
90°	472	299	2	4	4	259
95°	405	234	1	4	5	318
105°	279	121	1	3	5	294
115°	152	40	2	2	3	152
125°	45	6	2	2	2	45
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	



TEST NUMBER: P551602

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	459.6	459.6	459.6	459.6	459.6	459.6	459.6	459.6	459.6	459.6	459.6
2.5°	498.2	497.6	495.9	492.9	488.8	481.8	476.0	470.7	463.7	457.8	446.7
5°	524.6	521.6	519.3	516.4	507.0	500.6	490.0	478.3	467.2	456.1	433.8
7.5°	566.7	562.0	558.5	550.3	537.4	522.8	506.4	495.3	487.7	456.6	418.6
10°	611.8	607.7	600.7	586.0	570.2	549.1	525.7	499.4	476.0	450.2	405.1
12.5°	656.3	650.4	640.5	621.7	599.5	573.1	540.9	509.9	476.5	446.1	389.3
15°	700.8	694.3	683.8	661.0	631.7	597.1	557.9	518.7	479.5	440.8	372.9
17.5°	749.4	740.6	724.8	699.0	662.1	619.4	573.1	525.7	478.3	434.4	355.4
20°	801.5	789.2	772.2	737.7	694.3	644.0	588.4	532.8	477.7	426.8	335.5
22.5°	844.8	832.5	813.8	778.1	725.9	664.5	601.2	537.4	475.4	418.0	316.7
25°	882.3	872.3	851.8	810.8	755.8	686.1	613.5	540.9	471.9	408.6	296.8
27.5°	911.5	902.2	879.3	837.2	781.0	705.5	622.9	542.7	467.2	399.3	276.3
30°	937.3	927.9	900.4	857.1	798.0	720.7	632.3	543.3	461.3	385.2	254.1
32.5°	957.2	948.4	920.3	874.1	809.7	731.2	637.5	542.7	453.7	375.3	230.1
35°	977.1	968.3	935.5	886.4	818.4	735.9	641.6	539.8	444.3	358.9	207.2
37.5°	992.3	982.4	949.0	894.6	822.5	737.1	641.1	535.7	434.4	345.4	184.4
40°	1002.9	992.3	956.6	899.2	823.7	735.3	636.4	528.7	422.7	328.4	160.4
42.5°	1009.9	998.2	960.1	906.3	821.4	730.6	629.3	519.9	409.8	313.8	137.6
45°	1013.4	1001.1	960.7	900.4	817.3	721.8	618.8	508.7	395.8	293.9	114.7
47.5°	1011.6	998.2	957.8	894.0	809.7	712.5	607.1	495.3	378.8	276.3	93.1
50°	1008.7	994.7	951.3	885.8	799.1	700.8	594.2	478.9	361.2	254.7	73.8
52.5°	999.3	985.3	944.3	874.1	786.8	687.3	576.7	461.9	342.5	233.6	56.2
55°	987.6	974.8	932.0	863.5	771.0	670.9	560.3	443.8	324.3	211.9	40.4
57.5°	969.5	957.8	916.8	846.5	755.2	652.8	542.1	423.9	301.5	190.3	28.1
60°	947.2	935.5	895.7	827.2	737.1	632.3	522.2	403.4	281.0	168.6	17.6
62.5°	923.8	912.7	871.1	803.2	714.2	610.6	500.6	382.9	259.4	148.7	10.5
65°	892.8	882.3	844.8	774.5	689.1	587.2	476.5	358.3	237.1	126.5	5.9
67.5°	860.0	850.6	812.6	748.2	659.8	561.4	452.0	334.3	213.7	107.1	2.9
70°	824.9	813.2	778.1	712.5	629.9	532.2	425.0	309.7	191.4	88.4	0.0
72.5°	783.9	775.1	741.2	679.1	595.4	501.1	397.5	282.8	166.9	70.3	0.6
75°	744.1	733.0	701.9	643.4	561.4	468.4	367.1	257.6	142.8	53.9	0.6
77.5°	692.6	689.1	659.8	603.0	529.2	436.7	333.7	227.2	120.0	38.6	0.6
80°	641.1	637.5	614.7	562.6	491.8	399.3	302.7	198.5	97.8	25.8	0.6
82.5°	590.1	585.4	563.8	520.5	453.7	367.7	270.5	169.8	77.3	15.8	0.6
85°	544.5	538.6	515.2	475.4	414.5	331.9	237.1	141.7	57.4	8.8	1.2
87.5°	505.2	501.1	475.4	434.4	374.7	298.6	207.8	114.7	40.4	4.1	1.8
90°	471.9	463.1	440.3	396.9	337.2	261.7	176.8	91.9	26.9	2.3	2.3
92.5°	439.1	431.5	406.3	361.8	303.8	230.1	146.9	70.3	17.0	1.2	2.9
95°	405.1	396.9	372.3	331.4	269.9	197.9	120.6	51.5	9.4	1.2	2.9
97.5°	371.8	364.1	338.4	297.4	239.4	169.8	95.4	36.3	4.7	1.2	2.3
100°	340.7	331.9	308.5	267.5	209.0	141.7	73.8	23.4	2.9	1.2	2.3
102.5°	307.9	300.9	276.9	237.1	177.4	115.3	55.0	14.6	1.2	1.2	1.8
105°	278.7	269.9	246.5	205.5	151.0	90.7	38.6	8.8	1.2	1.2	1.8



TEST NUMBER: P551602

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-81-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	181.5	174.5	154.0	119.4	76.7	35.7	10.5	1.8	1.8	1.8	1.8
115°	151.6	141.1	122.9	92.5	56.8	23.4	5.3	1.8	1.8	1.8	1.8
117.5°	121.2	112.4	99.5	70.3	37.5	15.2	2.9	1.8	1.8	1.8	1.8
120°	94.8	86.6	72.0	48.6	25.2	8.8	1.2	1.8	1.8	1.8	1.8
122.5°	67.9	61.5	48.6	31.6	15.2	4.1	1.8	1.8	2.3	2.3	1.8
125°	45.1	41.6	32.2	19.3	9.4	1.8	1.8	1.8	2.3	2.3	1.8
127.5°	29.3	26.3	18.7	11.1	4.1	1.8	1.8	2.3	2.3	2.3	1.8
130°	16.4	14.6	11.1	6.4	1.8	1.8	1.8	2.3	2.3	2.3	1.8
132.5°	9.4	8.8	5.9	1.2	1.8	1.8	1.8	2.3	2.3	2.3	2.3
135°	2.3	1.2	1.2	1.2	1.8	1.8	2.3	2.3	2.9	2.9	2.3
137.5°	0.6	0.6	1.2	1.2	1.8	1.8	2.3	2.9	2.9	2.9	2.3
140°	0.6	0.6	1.2	1.8	1.8	1.8	2.3	2.9	2.9	2.9	2.3
142.5°	0.6	1.2	1.2	1.8	1.8	2.3	2.3	2.9	2.9	2.3	2.3
145°	0.6	1.2	1.2	1.8	1.8	2.3	2.3	2.9	2.3	2.3	2.3
147.5°	1.2	1.2	1.2	1.8	1.8	2.3	2.3	2.9	2.9	2.3	2.3
150°	0.6	1.2	1.2	1.8	2.3	2.3	2.3	2.9	2.3	2.3	2.3
152.5°	0.6	1.2	1.2	1.8	2.3	2.3	2.3	2.9	2.3	2.3	2.3
155°	1.2	1.2	1.2	1.8	2.3	2.3	2.3	2.9	2.3	2.3	2.9
157.5°	1.2	1.2	1.2	1.8	2.3	2.3	2.3	2.9	2.3	2.3	2.9
160°	1.2	1.2	1.2	1.8	1.8	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.2	1.2	1.2	1.8	1.8	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.2	1.2	1.2	1.2	1.8	1.8	2.3	2.3	2.3	2.3	2.3
167.5°	1.2	1.2	1.2	1.8	1.8	1.8	2.3	2.3	2.3	2.3	2.3
170°	1.2	1.2	1.2	1.8	1.8	1.8	2.3	2.9	2.9	2.9	2.9
172.5°	1.2	1.2	1.2	1.8	1.8	2.3	2.3	2.9	2.9	2.9	2.9
175°	1.2	1.2	1.2	1.8	1.8	2.3	2.3	2.9	2.9	2.9	2.9
177.5°	0.6	1.2	1.2	1.8	1.8	2.3	2.3	2.9	2.9	2.9	2.3
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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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-81-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	459.6	459.6	459.6
2.5°	437.3	429.1	426.8
5°	413.9	400.4	392.8
7.5°	390.5	372.3	363.6
10°	368.8	343.1	333.7
12.5°	343.1	313.2	298.6
15°	318.5	279.8	265.8
17.5°	291.0	247.6	231.2
20°	265.2	215.4	198.5
22.5°	235.9	183.8	165.1
25°	209.6	152.2	131.1
27.5°	180.3	120.0	101.9
30°	152.8	91.9	73.8
32.5°	126.5	67.3	50.9
35°	101.9	45.7	32.2
37.5°	78.4	28.1	16.4
40°	56.8	14.6	7.6
42.5°	38.1	7.0	4.1
45°	23.4	3.5	0.0
47.5°	13.5	0.0	0.0
50°	7.0	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	1.2	1.8
80°	1.2	2.3	2.9
82.5°	2.3	2.9	2.9
85°	2.3	2.9	3.5
87.5°	2.9	3.5	4.1
90°	3.5	4.1	4.1
92.5°	3.5	4.7	4.7
95°	4.1	4.7	5.3
97.5°	4.7	5.3	5.3
100°	4.1	5.3	5.9
102.5°	3.5	5.3	5.3
105°	2.9	4.1	4.7



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-81-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.3	2.9	2.9
115°	1.8	2.3	2.9
117.5°	1.8	2.3	2.3
120°	1.8	1.8	2.3
122.5°	1.8	1.8	2.3
125°	1.8	1.8	2.3
127.5°	2.3	1.8	1.8
130°	1.8	1.8	1.8
132.5°	2.3	1.8	1.8
135°	2.3	1.8	1.8
137.5°	2.3	1.8	1.8
140°	2.3	1.8	1.8
142.5°	2.3	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°	2.3	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°	245.9	238.9	215.4	176.8	123.5	69.1	25.8	4.7	1.2	1.8	1.8
110°	214.3	208.4	184.4	146.9	99.5	51.5	17.0	2.9	1.8	1.8	1.8





107.5°	2.3	3.5	4.1
110°	2.3	2.9	3.5



(END OF REPORT)