

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: P551576

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-80-84-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: P551576
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-80-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

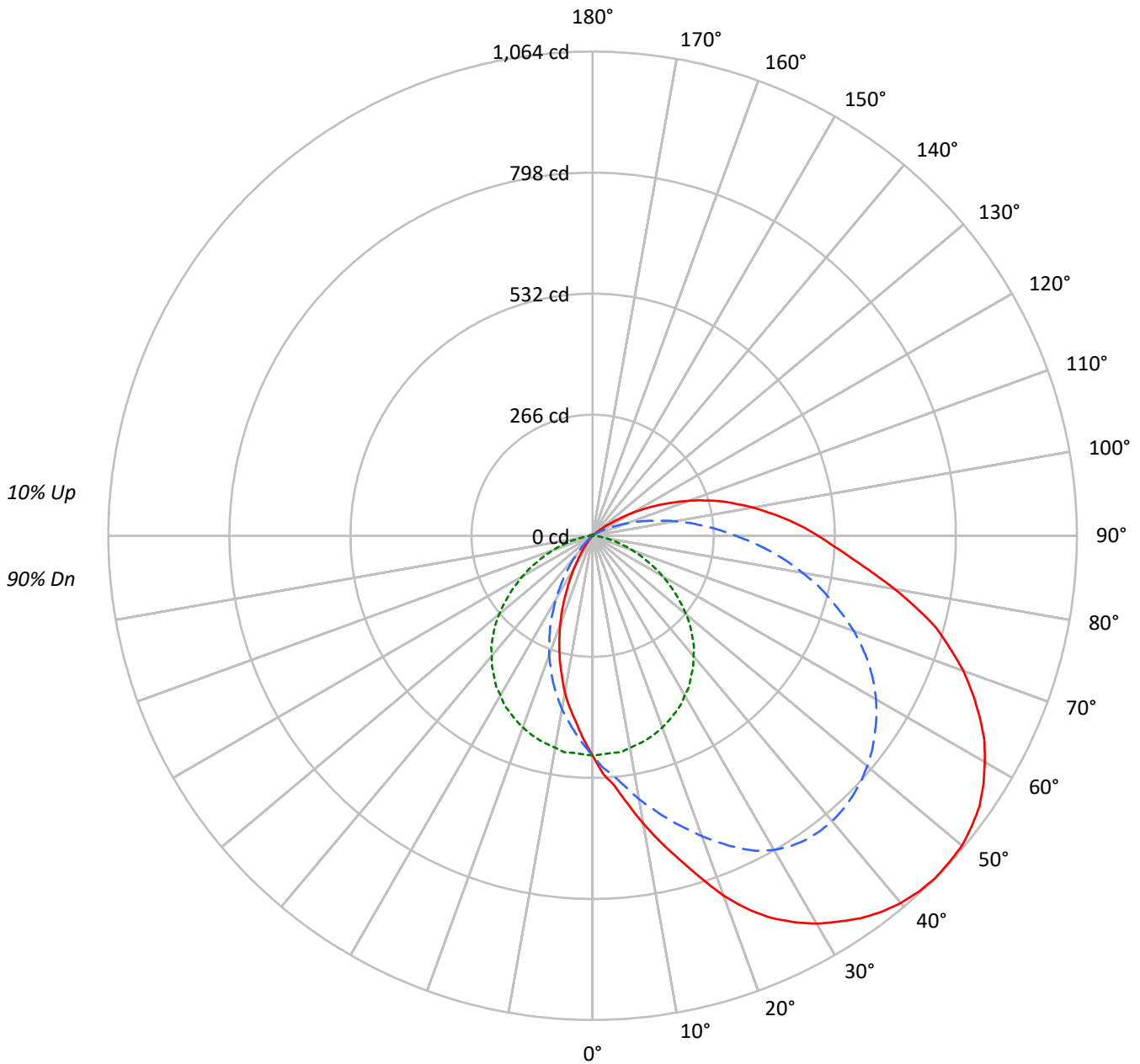
Lumens per Lamp: N/A
Luminaire Lumens: 2386.0 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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-40-UNV-80-84-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°	5195	5195	5195
5°	5703	5119	4270
10°	6454	5056	3520
15°	7232	4992	2743
20°	8157	4911	2020
25°	8923	4816	1326
30°	9493	4689	747
35°	9987	4554	329
40°	10425	4386	79
45°	10800	4176	0
50°	11115	3897	0
55°	11356	3545	0
60°	11477	3134	0
65°	11524	2667	0
70°	11486	2174	0
75°	11339	1605	9
80°	10879	983	50
85°	10516	468	68



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.2	1.9
10°-20°	138.4	5.8
20°-30°	224.2	9.4
30°-40°	287.9	12.1
40°-50°	326.0	13.7
50°-60°	337.7	14.2
60°-70°	318.5	13.3
70°-80°	266.9	11.2
80°-90°	193.5	8.1
90°-100°	127.1	5.3
100°-110°	73.4	3.1
110°-120°	32.4	1.4
120°-130°	8.8	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°	408.8	17.1
0°-40°	696.8	29.2
0°-60°	1360.4	57.0
0°-90°	2139.3	89.7
90°-120°	233.0	9.8
90°-150°	245.1	10.3
90°-180°	247.0	10.4
0°-180°	2386.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	483	483	483	483	483	
5°	551	529	479	435	412	56
15°	736	645	463	334	279	212
25°	926	757	429	220	138	428
35°	1026	816	377	107	34	644
45°	1064	808	309	25	0	822
55°	1037	757	223	0	0	926
65°	938	670	133	0	0	928
75°	781	541	57	1	1	820
85°	572	392	9	2	4	488
90°	496	314	2	4	4	272
95°	426	246	1	4	6	334
105°	293	127	1	3	5	309
115°	159	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°	482.6	482.6	482.6	482.6	482.6	482.6	482.6	482.6	482.6	482.6	482.6
2.5°	523.2	522.6	520.7	517.7	513.4	506.0	499.8	494.3	486.9	480.8	469.1
5°	550.9	547.8	545.3	542.3	532.4	525.7	514.6	502.3	490.6	478.9	455.6
7.5°	595.1	590.2	586.5	577.9	564.4	549.0	531.8	520.1	512.1	479.6	439.6
10°	642.5	638.2	630.8	615.4	598.8	576.7	552.1	524.4	499.8	472.8	425.5
12.5°	689.2	683.1	672.6	652.9	629.6	601.9	568.1	535.5	500.5	468.5	408.9
15°	735.9	729.2	718.1	694.1	663.4	627.1	585.9	544.7	503.5	463.0	391.6
17.5°	787.0	777.7	761.1	734.1	695.4	650.5	601.9	552.1	502.3	456.2	373.2
20°	841.7	828.8	810.9	774.7	729.2	676.3	617.9	559.5	501.7	448.2	352.3
22.5°	887.2	874.3	854.6	817.1	762.4	697.8	631.4	564.4	499.2	439.0	332.6
25°	926.5	916.1	894.6	851.5	793.7	720.6	644.3	568.1	495.5	429.1	311.7
27.5°	957.3	947.4	923.5	879.2	820.2	740.9	654.2	569.9	490.6	419.3	290.2
30°	984.3	974.5	945.6	900.1	838.0	756.8	664.0	570.5	484.5	404.5	266.8
32.5°	1005.2	996.0	966.5	917.9	850.3	767.9	669.5	569.9	476.5	394.1	241.6
35°	1026.1	1016.9	982.5	930.8	859.5	772.8	673.8	566.9	466.6	376.9	217.6
37.5°	1042.1	1031.7	996.6	939.4	863.8	774.1	673.2	562.6	456.2	362.7	193.7
40°	1053.2	1042.1	1004.6	944.4	865.0	772.2	668.3	555.2	443.9	344.9	168.5
42.5°	1060.6	1048.3	1008.3	951.7	862.6	767.3	660.9	546.0	430.4	329.5	144.5
45°	1064.2	1051.3	1008.9	945.6	858.3	758.1	649.9	534.3	415.6	308.6	120.5
47.5°	1062.4	1048.3	1005.8	938.8	850.3	748.2	637.6	520.1	397.8	290.2	97.8
50°	1059.3	1044.6	999.1	930.2	839.2	735.9	624.0	502.9	379.3	267.4	77.5
52.5°	1049.5	1034.7	991.7	917.9	826.3	721.8	605.6	485.1	359.7	245.3	59.0
55°	1037.2	1023.7	978.8	906.9	809.7	704.6	588.4	466.0	340.6	222.6	42.4
57.5°	1018.1	1005.8	962.8	889.0	793.1	685.5	569.3	445.1	316.6	199.8	29.5
60°	994.8	982.5	940.7	868.7	774.1	664.0	548.4	423.6	295.1	177.1	18.4
62.5°	970.2	958.5	914.8	843.5	750.1	641.3	525.7	402.1	272.4	156.2	11.1
65°	937.6	926.5	887.2	813.4	723.6	616.7	500.5	376.3	249.0	132.8	6.1
67.5°	903.2	893.3	853.4	785.7	692.9	589.6	474.6	351.1	224.4	112.5	3.1
70°	866.3	854.0	817.1	748.2	661.5	558.9	446.4	325.2	201.0	92.8	0.0
72.5°	823.2	814.0	778.4	713.2	625.3	526.3	417.5	297.0	175.2	73.8	0.6
75°	781.4	769.7	737.2	675.7	589.6	491.9	385.5	270.5	150.0	56.6	0.6
77.5°	727.3	723.6	692.9	633.3	555.8	458.7	350.4	238.5	126.0	40.6	0.6
80°	673.2	669.5	645.6	590.8	516.4	419.3	317.9	208.4	102.7	27.1	0.6
82.5°	619.7	614.8	592.1	546.6	476.5	386.1	284.0	178.3	81.2	16.6	0.6
85°	571.8	565.6	541.0	499.2	435.3	348.6	249.0	148.8	60.3	9.2	1.2
87.5°	530.6	526.3	499.2	456.2	393.5	313.6	218.3	120.5	42.4	4.3	1.8
90°	495.5	486.3	462.3	416.8	354.1	274.8	185.7	96.5	28.3	2.5	2.5
92.5°	461.1	453.1	426.7	380.0	319.1	241.6	154.3	73.8	17.8	1.2	3.1
95°	425.5	416.8	391.0	348.0	283.4	207.8	126.7	54.1	9.8	1.2	3.1
97.5°	390.4	382.4	355.4	312.3	251.5	178.3	100.2	38.1	4.9	1.2	2.5
100°	357.8	348.6	324.0	281.0	219.5	148.8	77.5	24.6	3.1	1.2	2.5
102.5°	323.4	316.0	290.8	249.0	186.3	121.1	57.8	15.4	1.2	1.2	1.8
105°	292.7	283.4	258.8	215.8	158.6	95.3	40.6	9.2	1.2	1.2	1.8



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-84-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	190.6	183.2	161.7	125.4	80.5	37.5	11.1	1.8	1.8	1.8	1.8
115°	159.2	148.2	129.1	97.1	59.6	24.6	5.5	1.8	1.8	1.8	1.8
117.5°	127.3	118.0	104.5	73.8	39.3	16.0	3.1	1.8	1.8	1.8	1.8
120°	99.6	91.0	75.6	51.0	26.4	9.2	1.2	1.8	1.8	1.8	1.8
122.5°	71.3	64.6	51.0	33.2	16.0	4.3	1.8	1.8	2.5	2.5	1.8
125°	47.3	43.7	33.8	20.3	9.8	1.8	1.8	1.8	2.5	2.5	1.8
127.5°	30.7	27.7	19.7	11.7	4.3	1.8	1.8	2.5	2.5	2.5	1.8
130°	17.2	15.4	11.7	6.8	1.8	1.8	1.8	2.5	2.5	2.5	1.8
132.5°	9.8	9.2	6.1	1.2	1.8	1.8	1.8	2.5	2.5	2.5	2.5
135°	2.5	1.2	1.2	1.2	1.8	1.8	2.5	2.5	3.1	3.1	2.5
137.5°	0.6	0.6	1.2	1.2	1.8	1.8	2.5	3.1	3.1	3.1	2.5
140°	0.6	0.6	1.2	1.8	1.8	1.8	2.5	3.1	3.1	3.1	2.5
142.5°	0.6	1.2	1.2	1.8	1.8	2.5	2.5	3.1	3.1	2.5	2.5
145°	0.6	1.2	1.2	1.8	1.8	2.5	2.5	3.1	2.5	2.5	2.5
147.5°	1.2	1.2	1.2	1.8	1.8	2.5	2.5	3.1	3.1	2.5	2.5
150°	0.6	1.2	1.2	1.8	2.5	2.5	2.5	3.1	2.5	2.5	2.5
152.5°	0.6	1.2	1.2	1.8	2.5	2.5	2.5	3.1	2.5	2.5	2.5
155°	1.2	1.2	1.2	1.8	2.5	2.5	2.5	3.1	2.5	2.5	3.1
157.5°	1.2	1.2	1.2	1.8	2.5	2.5	2.5	3.1	2.5	2.5	3.1
160°	1.2	1.2	1.2	1.8	1.8	2.5	2.5	2.5	2.5	2.5	2.5
162.5°	1.2	1.2	1.2	1.8	1.8	2.5	2.5	2.5	2.5	2.5	2.5
165°	1.2	1.2	1.2	1.2	1.8	1.8	2.5	2.5	2.5	2.5	2.5
167.5°	1.2	1.2	1.2	1.8	1.8	1.8	2.5	2.5	2.5	2.5	2.5
170°	1.2	1.2	1.2	1.8	1.8	1.8	2.5	3.1	3.1	3.1	3.1
172.5°	1.2	1.2	1.2	1.8	1.8	2.5	2.5	3.1	3.1	3.1	3.1
175°	1.2	1.2	1.2	1.8	1.8	2.5	2.5	3.1	3.1	3.1	3.1
177.5°	0.6	1.2	1.2	1.8	1.8	2.5	2.5	3.1	3.1	3.1	2.5
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°	482.6	482.6	482.6
2.5°	459.3	450.7	448.2
5°	434.7	420.5	412.5
7.5°	410.1	391.0	381.8
10°	387.3	360.3	350.4
12.5°	360.3	328.9	313.6
15°	334.5	293.9	279.1
17.5°	305.6	260.1	242.9
20°	278.5	226.3	208.4
22.5°	247.8	193.1	173.4
25°	220.1	159.9	137.7
27.5°	189.4	126.0	107.0
30°	160.5	96.5	77.5
32.5°	132.8	70.7	53.5
35°	107.0	48.0	33.8
37.5°	82.4	29.5	17.2
40°	59.6	15.4	8.0
42.5°	40.0	7.4	4.3
45°	24.6	3.7	0.0
47.5°	14.1	0.0	0.0
50°	7.4	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	2.5	3.1
82.5°	2.5	3.1	3.1
85°	2.5	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°	2.5	3.1	3.1
115°	1.8	2.5	3.1
117.5°	1.8	2.5	2.5
120°	1.8	1.8	2.5
122.5°	1.8	1.8	2.5
125°	1.8	1.8	2.5
127.5°	2.5	1.8	1.8
130°	1.8	1.8	1.8
132.5°	2.5	1.8	1.8
135°	2.5	1.8	1.8
137.5°	2.5	1.8	1.8
140°	2.5	1.8	1.8
142.5°	2.5	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°	2.5	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°	258.2	250.8	226.3	185.7	129.7	72.5	27.1	4.9	1.2	1.8	1.8
110°	225.0	218.9	193.7	154.3	104.5	54.1	17.8	3.1	1.8	1.8	1.8





107.5°	2.5	3.7	4.3
110°	2.5	3.1	3.7



(END OF REPORT)