

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: P551453

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-80-87-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: P551453
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-80-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

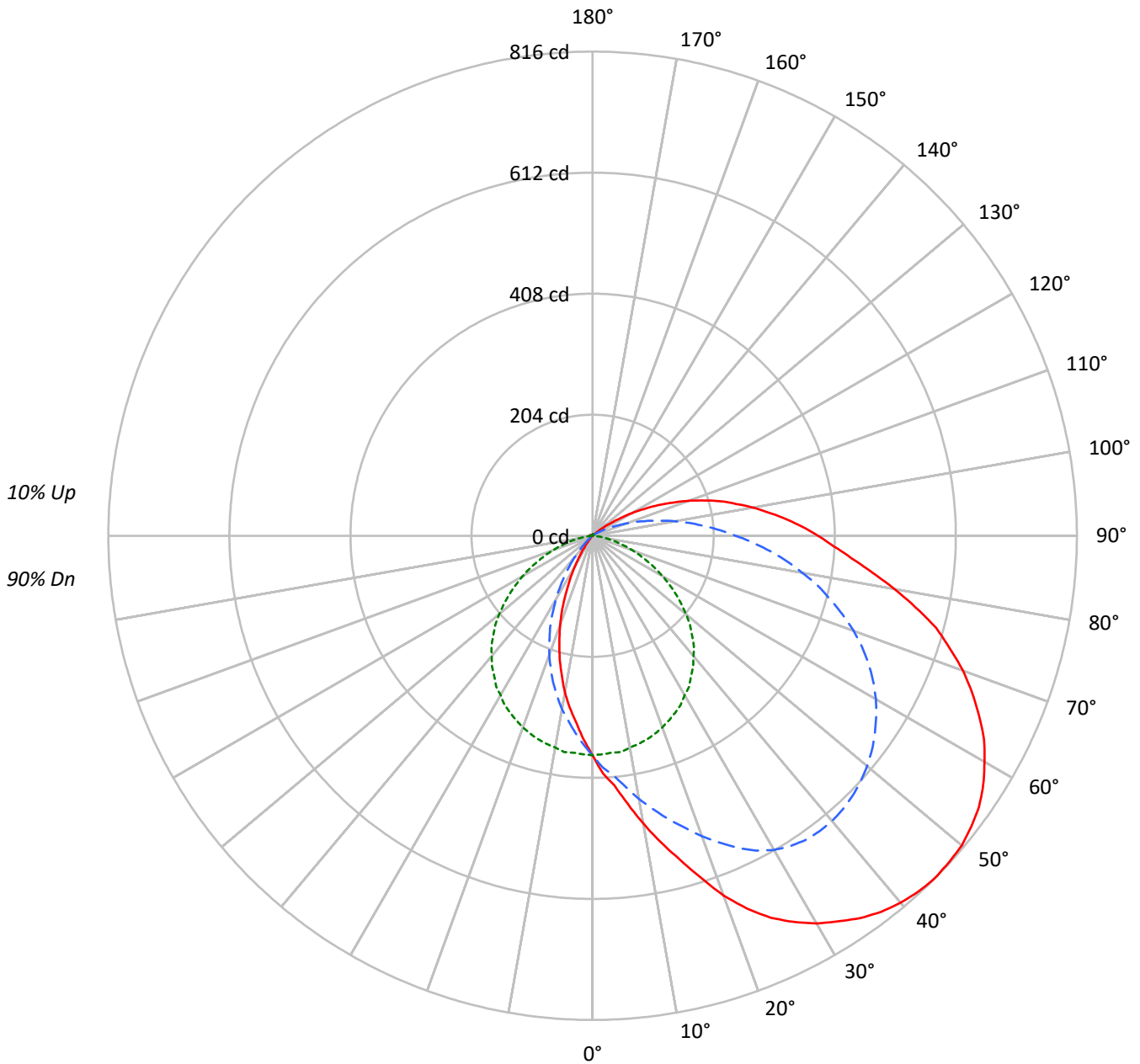
Lumens per Lamp: N/A
Luminaire Lumens: 1829.0 lumens
Efficiency: N/A
Efficacy: 77.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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-80-87-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°	3983	3983	3983
5°	4372	3924	3273
10°	4947	3876	2698
15°	5543	3827	2103
20°	6253	3765	1549
25°	6840	3692	1017
30°	7277	3595	573
35°	7656	3491	252
40°	7991	3362	60
45°	8279	3201	0
50°	8520	2988	0
55°	8705	2717	0
60°	8797	2401	0
65°	8833	2045	0
70°	8803	1668	0
75°	8692	1231	7
80°	8341	751	39
85°	8061	361	51



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.4	1.9
10°-20°	106.1	5.8
20°-30°	171.8	9.4
30°-40°	220.7	12.1
40°-50°	249.9	13.7
50°-60°	258.9	14.2
60°-70°	244.1	13.3
70°-80°	204.6	11.2
80°-90°	148.3	8.1
90°-100°	97.5	5.3
100°-110°	56.3	3.1
110°-120°	24.8	1.4
120°-130°	6.7	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	313.4	17.1
0°-40°	534.1	29.2
0°-60°	1042.8	57.0
0°-90°	1639.9	89.7
90°-120°	178.6	9.8
90°-150°	187.9	10.3
90°-180°	189.0	10.3
0°-180°	1829.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	370	370	370	370	370	
5°	422	406	367	333	316	43
15°	564	495	355	256	214	163
25°	710	580	329	169	106	328
35°	787	626	289	82	26	493
45°	816	620	237	19	0	630
55°	795	580	171	0	0	710
65°	719	514	102	0	0	711
75°	599	414	43	0	0	628
85°	438	300	7	2	3	374
90°	380	241	2	3	3	208
95°	326	188	1	3	4	256
105°	224	97	1	2	4	237
115°	122	32	1	1	2	122
125°	36	4	2	1	2	36
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°	370.0	370.0	370.0	370.0	370.0	370.0	370.0	370.0	370.0	370.0	370.0
2.5°	401.1	400.6	399.2	396.8	393.5	387.9	383.2	378.9	373.3	368.5	359.6
5°	422.3	419.9	418.0	415.7	408.1	403.0	394.5	385.0	376.1	367.1	349.2
7.5°	456.2	452.4	449.6	443.0	432.6	420.9	407.7	398.7	392.6	367.6	337.0
10°	492.5	489.2	483.5	471.8	459.0	442.1	423.2	402.0	383.2	362.4	326.1
12.5°	528.3	523.6	515.6	500.5	482.6	461.4	435.5	410.5	383.6	359.1	313.4
15°	564.1	559.0	550.5	532.1	508.5	480.7	449.1	417.6	386.0	354.9	300.2
17.5°	603.3	596.2	583.5	562.7	533.0	498.6	461.4	423.2	385.0	349.7	286.1
20°	645.2	635.3	621.6	593.8	559.0	518.4	473.6	428.9	384.6	343.6	270.0
22.5°	680.1	670.2	655.1	626.3	584.4	534.9	484.0	432.6	382.7	336.5	255.0
25°	710.2	702.2	685.7	652.7	608.4	552.4	493.9	435.5	379.9	329.0	238.9
27.5°	733.8	726.3	707.9	673.9	628.7	567.9	501.5	436.9	376.1	321.4	222.4
30°	754.5	747.0	724.8	690.0	642.4	580.2	509.0	437.4	371.4	310.1	204.5
32.5°	770.6	763.5	740.9	703.6	651.8	588.6	513.2	436.9	365.2	302.1	185.2
35°	786.6	779.5	753.1	713.5	658.9	592.4	516.5	434.5	357.7	288.9	166.8
37.5°	798.8	790.8	764.0	720.1	662.2	593.4	516.1	431.2	349.7	278.1	148.5
40°	807.3	798.8	770.1	723.9	663.1	591.9	512.3	425.6	340.3	264.4	129.1
42.5°	813.0	803.5	772.9	729.6	661.2	588.2	506.6	418.5	329.9	252.6	110.8
45°	815.8	805.9	773.4	724.8	657.9	581.1	498.2	409.6	318.6	236.6	92.4
47.5°	814.4	803.5	771.0	719.7	651.8	573.6	488.7	398.7	304.9	222.4	74.9
50°	812.0	800.7	765.8	713.1	643.3	564.1	478.4	385.5	290.8	205.0	59.4
52.5°	804.5	793.2	760.2	703.6	633.4	553.3	464.2	371.8	275.7	188.0	45.2
55°	795.1	784.7	750.3	695.2	620.7	540.1	451.0	357.2	261.1	170.6	32.5
57.5°	780.5	771.0	738.0	681.5	608.0	525.5	436.4	341.2	242.7	153.2	22.6
60°	762.5	753.1	721.1	665.9	593.4	509.0	420.4	324.7	226.2	135.7	14.1
62.5°	743.7	734.7	701.3	646.6	575.0	491.6	403.0	308.2	208.8	119.7	8.5
65°	718.7	710.2	680.1	623.5	554.7	472.7	383.6	288.4	190.9	101.8	4.7
67.5°	692.3	684.8	654.2	602.3	531.1	452.0	363.8	269.1	172.0	86.2	2.4
70°	664.0	654.6	626.3	573.6	507.1	428.4	342.2	249.3	154.1	71.2	0.0
72.5°	631.1	624.0	596.7	546.7	479.3	403.4	320.0	227.6	134.3	56.6	0.5
75°	599.0	590.1	565.1	517.9	452.0	377.0	295.5	207.4	115.0	43.4	0.5
77.5°	557.5	554.7	531.1	485.4	426.0	351.6	268.6	182.9	96.6	31.1	0.5
80°	516.1	513.2	494.9	452.9	395.9	321.4	243.7	159.8	78.7	20.7	0.5
82.5°	475.1	471.3	453.9	419.0	365.2	296.0	217.7	136.7	62.2	12.7	0.5
85°	438.3	433.6	414.7	382.7	333.7	267.2	190.9	114.1	46.2	7.1	0.9
87.5°	406.7	403.4	382.7	349.7	301.6	240.4	167.3	92.4	32.5	3.3	1.4
90°	379.9	372.8	354.4	319.5	271.5	210.7	142.3	74.0	21.7	1.9	1.9
92.5°	353.5	347.3	327.1	291.3	244.6	185.2	118.3	56.6	13.7	0.9	2.4
95°	326.1	319.5	299.7	266.8	217.3	159.3	97.1	41.5	7.5	0.9	2.4
97.5°	299.3	293.1	272.4	239.4	192.8	136.7	76.8	29.2	3.8	0.9	1.9
100°	274.3	267.2	248.4	215.4	168.3	114.1	59.4	18.9	2.4	0.9	1.9
102.5°	247.9	242.2	222.9	190.9	142.8	92.8	44.3	11.8	0.9	0.9	1.4
105°	224.3	217.3	198.4	165.4	121.6	73.0	31.1	7.1	0.9	0.9	1.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	146.1	140.4	123.9	96.1	61.7	28.7	8.5	1.4	1.4	1.4	1.4
115°	122.1	113.6	99.0	74.5	45.7	18.9	4.2	1.4	1.4	1.4	1.4
117.5°	97.6	90.5	80.1	56.6	30.2	12.3	2.4	1.4	1.4	1.4	1.4
120°	76.3	69.8	58.0	39.1	20.3	7.1	0.9	1.4	1.4	1.4	1.4
122.5°	54.7	49.5	39.1	25.4	12.3	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.3	33.5	25.9	15.6	7.5	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.6	21.2	15.1	9.0	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.2	11.8	9.0	5.2	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.5	7.1	4.7	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	2.4	2.4	2.4	2.4
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	0.9	0.9	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°	370.0	370.0	370.0
2.5°	352.1	345.5	343.6
5°	333.2	322.4	316.2
7.5°	314.4	299.7	292.7
10°	296.9	276.2	268.6
12.5°	276.2	252.1	240.4
15°	256.4	225.3	214.0
17.5°	234.2	199.4	186.2
20°	213.5	173.4	159.8
22.5°	189.9	148.0	132.9
25°	168.7	122.5	105.6
27.5°	145.2	96.6	82.0
30°	123.0	74.0	59.4
32.5°	101.8	54.2	41.0
35°	82.0	36.8	25.9
37.5°	63.2	22.6	13.2
40°	45.7	11.8	6.1
42.5°	30.6	5.7	3.3
45°	18.9	2.8	0.0
47.5°	10.8	0.0	0.0
50°	5.7	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	0.9	1.4
80°	0.9	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.8
87.5°	2.4	2.8	3.3
90°	2.8	3.3	3.3
92.5°	2.8	3.8	3.8
95°	3.3	3.8	4.2
97.5°	3.8	4.2	4.2
100°	3.3	4.2	4.7
102.5°	2.8	4.2	4.2
105°	2.4	3.3	3.8



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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-87-ED1D-90

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	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.9	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	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°	197.9	192.3	173.4	142.3	99.4	55.6	20.7	3.8	0.9	1.4	1.4
110°	172.5	167.8	148.5	118.3	80.1	41.5	13.7	2.4	1.4	1.4	1.4





107.5°	1.9	2.8	3.3
110°	1.9	2.4	2.8



(END OF REPORT)