

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: P551517

Luminaire Tested: **FCC-X-2-LD4-2LO-35-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: P551517
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-80-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

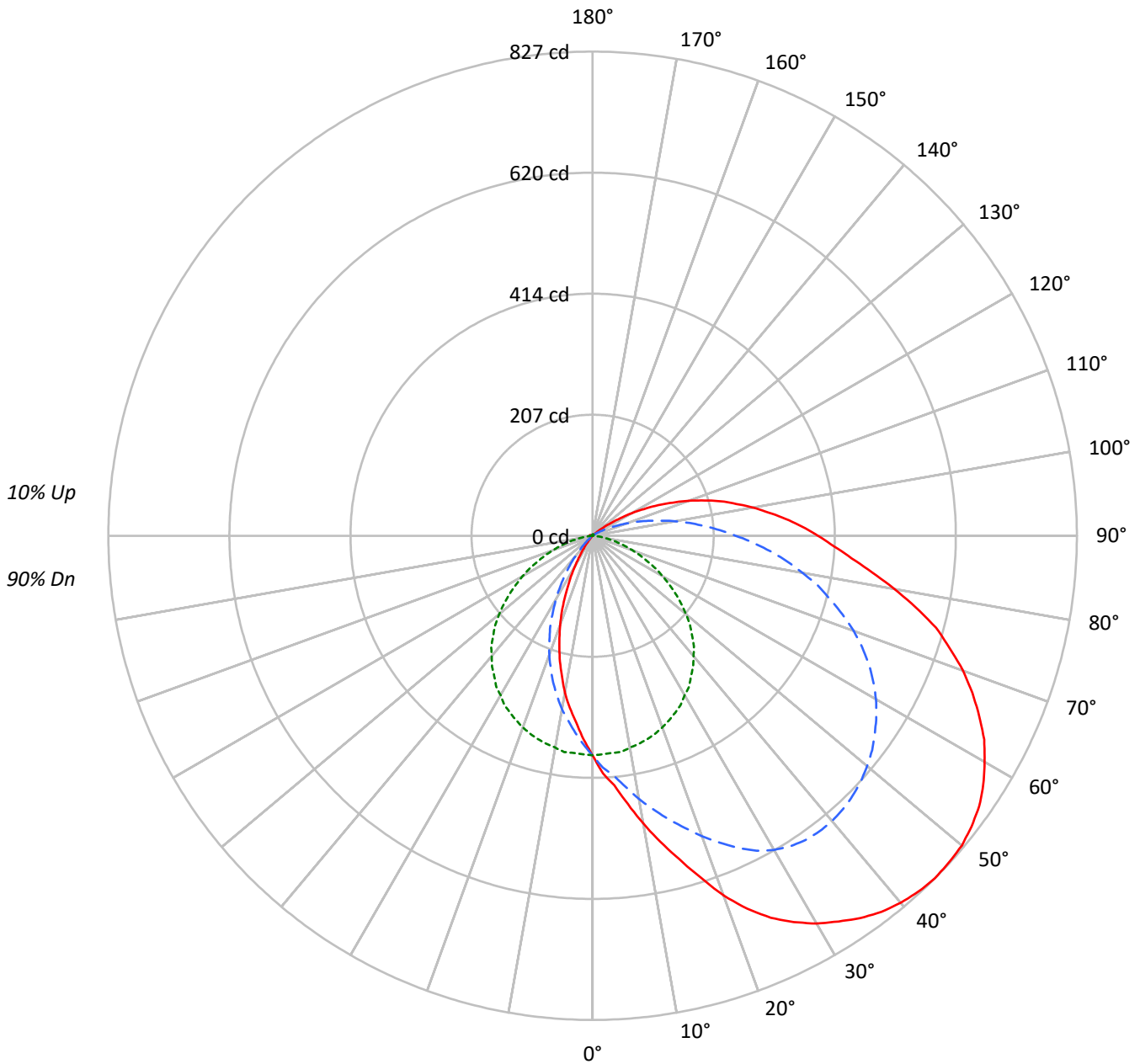
Lumens per Lamp: N/A
Luminaire Lumens: 1854.0 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P551517

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-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°	4036	4036	4036
5°	4431	3978	3319
10°	5014	3929	2735
15°	5619	3878	2131
20°	6338	3816	1570
25°	6933	3743	1031
30°	7376	3644	581
35°	7760	3538	256
40°	8101	3408	61
45°	8393	3245	0
50°	8637	3029	0
55°	8823	2753	0
60°	8918	2435	0
65°	8954	2073	0
70°	8924	1689	0
75°	8811	1248	7
80°	8454	762	39
85°	8172	366	53



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.9	1.9
10°-20°	107.6	5.8
20°-30°	174.2	9.4
30°-40°	223.7	12.1
40°-50°	253.3	13.7
50°-60°	262.4	14.2
60°-70°	247.5	13.3
70°-80°	207.4	11.2
80°-90°	150.3	8.1
90°-100°	98.8	5.3
100°-110°	57.1	3.1
110°-120°	25.2	1.4
120°-130°	6.8	0.4
130°-140°	1.6	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	317.7	17.1
0°-40°	541.4	29.2
0°-60°	1057.1	57.0
0°-90°	1662.3	89.7
90°-120°	181.0	9.8
90°-150°	190.4	10.3
90°-180°	192.0	10.4
0°-180°	1854.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	375	375	375	375	375	
5°	428	411	372	338	321	43
15°	572	501	360	260	217	165
25°	720	588	334	171	107	333
35°	797	634	293	83	26	500
45°	827	628	240	19	0	638
55°	806	588	173	0	0	720
65°	728	521	103	0	0	721
75°	607	420	44	0	0	637
85°	444	305	7	2	3	379
90°	385	244	2	3	3	211
95°	331	191	1	3	4	259
105°	227	99	1	2	4	240
115°	124	33	1	1	2	124
125°	37	4	2	1	2	37
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°	375.0	375.0	375.0	375.0	375.0	375.0	375.0	375.0	375.0	375.0	375.0
2.5°	406.5	406.1	404.6	402.3	398.9	393.2	388.4	384.1	378.4	373.6	364.5
5°	428.0	425.7	423.7	421.4	413.7	408.5	399.9	390.3	381.2	372.2	354.0
7.5°	462.4	458.6	455.8	449.1	438.6	426.6	413.2	404.2	398.0	372.6	341.6
10°	499.2	495.9	490.2	478.2	465.3	448.1	429.0	407.5	388.4	367.4	330.6
12.5°	535.5	530.8	522.6	507.4	489.2	467.7	441.4	416.1	388.9	364.0	317.7
15°	571.8	566.6	558.0	539.4	515.5	487.3	455.3	423.3	391.3	359.7	304.3
17.5°	611.5	604.3	591.4	570.4	540.3	505.4	467.7	429.0	390.3	354.5	290.0
20°	654.0	644.0	630.1	601.9	566.6	525.5	480.1	434.7	389.8	348.3	273.7
22.5°	689.4	679.3	664.0	634.9	592.4	542.2	490.6	438.6	387.9	341.1	258.5
25°	719.9	711.8	695.1	661.7	616.8	559.9	500.7	441.4	385.1	333.5	242.2
27.5°	743.8	736.2	717.6	683.2	637.3	575.7	508.3	442.9	381.2	325.8	225.5
30°	764.8	757.2	734.8	699.4	651.1	588.1	516.0	443.3	376.5	314.3	207.3
32.5°	781.1	773.9	751.0	713.3	660.7	596.7	520.3	442.9	370.2	306.2	187.7
35°	797.3	790.2	763.4	723.3	667.9	600.5	523.6	440.5	362.6	292.8	169.1
37.5°	809.8	801.6	774.4	730.0	671.2	601.5	523.1	437.1	354.5	281.9	150.5
40°	818.4	809.8	780.6	733.8	672.2	600.0	519.3	431.4	344.9	268.0	130.9
42.5°	824.1	814.5	783.5	739.5	670.3	596.2	513.6	424.2	334.4	256.1	112.3
45°	827.0	816.9	784.0	734.8	666.9	589.0	505.0	415.1	322.9	239.8	93.6
47.5°	825.5	814.5	781.6	729.5	660.7	581.4	495.4	404.2	309.1	225.5	76.0
50°	823.1	811.7	776.3	722.8	652.1	571.8	484.9	390.8	294.8	207.8	60.2
52.5°	815.5	804.0	770.6	713.3	642.1	560.9	470.6	376.9	279.5	190.6	45.9
55°	805.9	795.4	760.5	704.7	629.2	547.5	457.2	362.1	264.7	172.9	33.0
57.5°	791.1	781.6	748.1	690.8	616.3	532.7	442.4	345.9	246.0	155.3	22.9
60°	773.0	763.4	730.9	675.0	601.5	516.0	426.1	329.2	229.3	137.6	14.3
62.5°	753.9	744.8	710.9	655.4	582.8	498.3	408.5	312.4	211.6	121.3	8.6
65°	728.5	719.9	689.4	632.0	562.3	479.2	388.9	292.4	193.5	103.2	4.8
67.5°	701.8	694.1	663.1	610.5	538.4	458.1	368.8	272.8	174.4	87.4	2.4
70°	673.1	663.6	634.9	581.4	514.0	434.3	346.8	252.7	156.2	72.1	0.0
72.5°	639.7	632.5	604.8	554.2	485.9	408.9	324.4	230.7	136.2	57.3	0.5
75°	607.2	598.1	572.8	525.0	458.1	382.2	299.5	210.2	116.6	44.0	0.5
77.5°	565.2	562.3	538.4	492.1	431.9	356.4	272.3	185.4	97.9	31.5	0.5
80°	523.1	520.3	501.6	459.1	401.3	325.8	247.0	162.0	79.8	21.0	0.5
82.5°	481.6	477.7	460.1	424.7	370.2	300.0	220.7	138.5	63.1	12.9	0.5
85°	444.3	439.5	420.4	387.9	338.2	270.9	193.5	115.6	46.8	7.2	1.0
87.5°	412.3	408.9	387.9	354.5	305.7	243.6	169.6	93.6	33.0	3.3	1.4
90°	385.1	377.9	359.3	323.9	275.2	213.5	144.3	75.0	22.0	1.9	1.9
92.5°	358.3	352.1	331.5	295.2	247.9	187.7	119.9	57.3	13.9	1.0	2.4
95°	330.6	323.9	303.8	270.4	220.2	161.5	98.4	42.0	7.6	1.0	2.4
97.5°	303.4	297.1	276.1	242.7	195.4	138.5	77.9	29.6	3.8	1.0	1.9
100°	278.0	270.9	251.8	218.3	170.6	115.6	60.2	19.1	2.4	1.0	1.9
102.5°	251.3	245.6	226.0	193.5	144.8	94.1	44.9	11.9	1.0	1.0	1.4
105°	227.4	220.2	201.1	167.7	123.3	74.0	31.5	7.2	1.0	1.0	1.4



TEST NUMBER: P551517

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	148.1	142.4	125.6	97.5	62.6	29.1	8.6	1.4	1.4	1.4	1.4
115°	123.7	115.1	100.3	75.5	46.3	19.1	4.3	1.4	1.4	1.4	1.4
117.5°	98.9	91.7	81.2	57.3	30.6	12.4	2.4	1.4	1.4	1.4	1.4
120°	77.4	70.7	58.8	39.7	20.5	7.2	1.0	1.4	1.4	1.4	1.4
122.5°	55.4	50.2	39.7	25.8	12.4	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.8	33.9	26.3	15.8	7.6	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.9	21.5	15.3	9.1	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.4	11.9	9.1	5.3	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.6	7.2	4.8	1.0	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	1.0	1.0	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	1.0	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	1.0	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	1.0	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	1.0	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	1.0	1.0	1.0	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	1.0	1.0	1.0	1.4	1.4	1.4	1.9	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	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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CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-80-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	375.0	375.0	375.0
2.5°	356.9	350.2	348.3
5°	337.8	326.8	320.6
7.5°	318.6	303.8	296.7
10°	301.0	280.0	272.3
12.5°	280.0	255.6	243.6
15°	259.9	228.4	216.9
17.5°	237.4	202.1	188.7
20°	216.4	175.8	162.0
22.5°	192.5	150.0	134.7
25°	171.0	124.2	107.0
27.5°	147.1	97.9	83.1
30°	124.7	75.0	60.2
32.5°	103.2	54.9	41.6
35°	83.1	37.3	26.3
37.5°	64.0	22.9	13.4
40°	46.3	11.9	6.2
42.5°	31.1	5.7	3.3
45°	19.1	2.9	0.0
47.5°	11.0	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	1.0	1.4
80°	1.0	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.9
87.5°	2.4	2.9	3.3
90°	2.9	3.3	3.3
92.5°	2.9	3.8	3.8
95°	3.3	3.8	4.3
97.5°	3.8	4.3	4.3
100°	3.3	4.3	4.8
102.5°	2.9	4.3	4.3
105°	2.4	3.3	3.8



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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	1.0
152.5°	1.4	1.0	1.0
155°	1.4	1.0	0.5
157.5°	1.9	1.0	0.5
160°	1.4	1.0	0.5
162.5°	1.4	1.0	0.5
165°	1.4	1.0	0.0
167.5°	1.4	1.0	0.5
170°	1.4	1.0	0.5
172.5°	1.4	1.0	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°	200.6	194.9	175.8	144.3	100.8	56.4	21.0	3.8	1.0	1.4	1.4
110°	174.8	170.1	150.5	119.9	81.2	42.0	13.9	2.4	1.4	1.4	1.4





107.5°	1.9	2.9	3.3
110°	1.9	2.4	2.9



(END OF REPORT)