

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: P550862

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-93-87-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: P550862
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-LD4-1LO-40-UNV-93-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

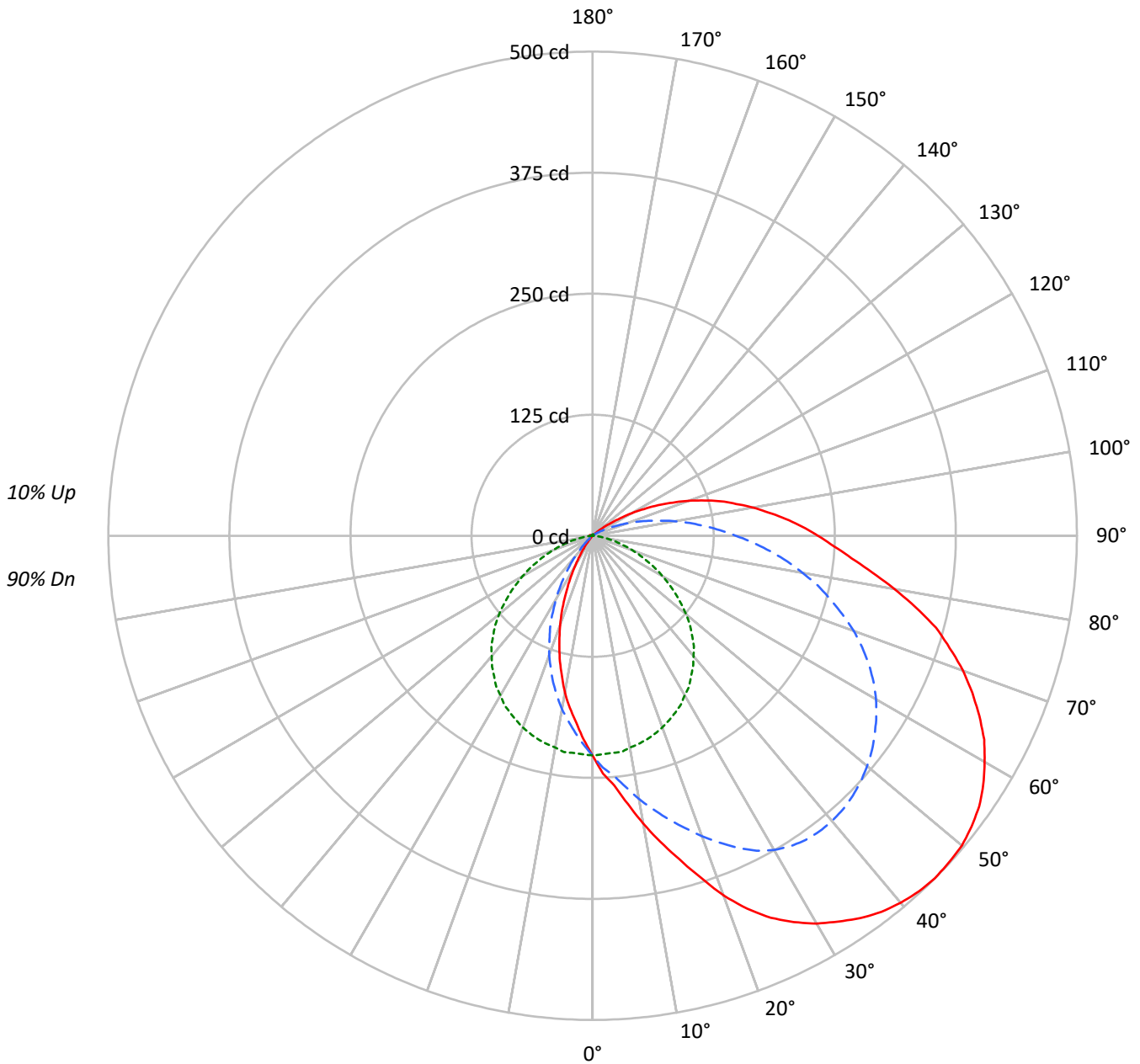
Lumens per Lamp: N/A
Luminaire Lumens: 1121.1 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
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: P550862

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-93-87-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°	2441	2441	2441
5°	2679	2405	2006
10°	3032	2375	1653
15°	3398	2345	1288
20°	3832	2307	949
25°	4192	2262	623
30°	4461	2204	351
35°	4692	2140	155
40°	4898	2060	38
45°	5074	1962	0
50°	5222	1832	0
55°	5335	1666	0
60°	5392	1472	0
65°	5414	1253	0
70°	5396	1021	0
75°	5327	754	4
80°	5112	461	23
85°	4940	219	31



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.7	1.9
10°-20°	65.0	5.8
20°-30°	105.3	9.4
30°-40°	135.3	12.1
40°-50°	153.1	13.7
50°-60°	158.7	14.2
60°-70°	149.6	13.3
70°-80°	125.4	11.2
80°-90°	90.9	8.1
90°-100°	59.7	5.3
100°-110°	34.5	3.1
110°-120°	15.2	1.4
120°-130°	4.1	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
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0°-30°	192.1	17.1
0°-40°	327.4	29.2
0°-60°	639.2	57.0
0°-90°	1005.1	89.7
90°-120°	109.5	9.8
90°-150°	115.2	10.3
90°-180°	116.0	10.3
0°-180°	1121.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	227	227	227	227	227	
5°	259	249	225	204	194	26
15°	346	303	218	157	131	100
25°	435	356	202	103	65	201
35°	482	383	177	50	16	302
45°	500	380	145	12	0	386
55°	487	356	105	0	0	435
65°	440	315	62	0	0	436
75°	367	254	27	0	0	385
85°	269	184	4	1	2	229
90°	233	148	1	2	2	128
95°	200	115	1	2	3	157
105°	138	60	1	1	2	145
115°	75	20	1	1	1	75
125°	22	3	1	1	1	22
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	1	1	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°	226.8	226.8	226.8	226.8	226.8	226.8	226.8	226.8	226.8	226.8	226.8
2.5°	245.8	245.5	244.7	243.2	241.2	237.7	234.8	232.2	228.8	225.9	220.4
5°	258.8	257.4	256.2	254.8	250.1	247.0	241.8	236.0	230.5	225.0	214.0
7.5°	279.6	277.3	275.6	271.5	265.2	257.9	249.9	244.4	240.6	225.3	206.5
10°	301.9	299.8	296.4	289.1	281.3	270.9	259.4	246.4	234.8	222.1	199.9
12.5°	323.8	320.9	316.0	306.8	295.8	282.8	266.9	251.6	235.1	220.1	192.1
15°	345.8	342.6	337.4	326.1	311.7	294.6	275.3	255.9	236.6	217.5	184.0
17.5°	369.7	365.4	357.6	344.9	326.7	305.6	282.8	259.4	236.0	214.3	175.3
20°	395.4	389.4	381.0	364.0	342.6	317.7	290.3	262.9	235.7	210.6	165.5
22.5°	416.8	410.8	401.5	383.9	358.2	327.9	296.7	265.2	234.6	206.2	156.3
25°	435.3	430.4	420.3	400.1	372.9	338.5	302.7	266.9	232.8	201.6	146.4
27.5°	449.7	445.1	433.9	413.1	385.3	348.1	307.3	267.8	230.5	197.0	136.3
30°	462.5	457.8	444.3	422.9	393.7	355.6	312.0	268.1	227.6	190.1	125.4
32.5°	472.3	467.9	454.1	431.3	399.5	360.8	314.6	267.8	223.9	185.2	113.5
35°	482.1	477.8	461.6	437.3	403.8	363.1	316.6	266.3	219.2	177.1	102.3
37.5°	489.6	484.7	468.2	441.4	405.8	363.7	316.3	264.3	214.3	170.4	91.0
40°	494.8	489.6	472.0	443.7	406.4	362.8	314.0	260.8	208.6	162.0	79.1
42.5°	498.3	492.5	473.7	447.1	405.3	360.5	310.5	256.5	202.2	154.8	67.9
45°	500.0	493.9	474.0	444.3	403.2	356.2	305.3	251.0	195.3	145.0	56.6
47.5°	499.1	492.5	472.6	441.1	399.5	351.5	299.5	244.4	186.9	136.3	45.9
50°	497.7	490.8	469.4	437.0	394.3	345.8	293.2	236.3	178.2	125.7	36.4
52.5°	493.1	486.1	465.9	431.3	388.2	339.1	284.5	227.9	169.0	115.3	27.7
55°	487.3	480.9	459.9	426.1	380.4	331.0	276.4	219.0	160.0	104.6	19.9
57.5°	478.3	472.6	452.3	417.7	372.6	322.1	267.5	209.1	148.8	93.9	13.9
60°	467.4	461.6	441.9	408.2	363.7	312.0	257.7	199.0	138.7	83.2	8.7
62.5°	455.8	450.3	429.8	396.3	352.4	301.3	247.0	188.9	128.0	73.4	5.2
65°	440.5	435.3	416.8	382.2	340.0	289.7	235.1	176.8	117.0	62.4	2.9
67.5°	424.3	419.7	400.9	369.2	325.5	277.0	223.0	164.9	105.4	52.9	1.4
70°	407.0	401.2	383.9	351.5	310.8	262.6	209.7	152.8	94.5	43.6	0.0
72.5°	386.8	382.4	365.7	335.1	293.8	247.3	196.1	139.5	82.3	34.7	0.3
75°	367.1	361.6	346.3	317.5	277.0	231.1	181.1	127.1	70.5	26.6	0.3
77.5°	341.7	340.0	325.5	297.5	261.1	215.5	164.6	112.1	59.2	19.1	0.3
80°	316.3	314.6	303.3	277.6	242.6	197.0	149.3	97.9	48.2	12.7	0.3
82.5°	291.2	288.9	278.2	256.8	223.9	181.4	133.5	83.8	38.1	7.8	0.3
85°	268.6	265.7	254.2	234.6	204.5	163.8	117.0	69.9	28.3	4.3	0.6
87.5°	249.3	247.3	234.6	214.3	184.9	147.3	102.5	56.6	19.9	2.0	0.9
90°	232.8	228.5	217.2	195.8	166.4	129.1	87.2	45.4	13.3	1.2	1.2
92.5°	216.6	212.9	200.5	178.5	149.9	113.5	72.5	34.7	8.4	0.6	1.4
95°	199.9	195.8	183.7	163.5	133.2	97.6	59.5	25.4	4.6	0.6	1.4
97.5°	183.4	179.7	167.0	146.7	118.1	83.8	47.1	17.9	2.3	0.6	1.2
100°	168.1	163.8	152.2	132.0	103.1	69.9	36.4	11.6	1.4	0.6	1.2
102.5°	151.9	148.5	136.6	117.0	87.5	56.9	27.2	7.2	0.6	0.6	0.9
105°	137.5	133.2	121.6	101.4	74.5	44.8	19.1	4.3	0.6	0.6	0.9



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CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-93-87-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	89.5	86.1	76.0	58.9	37.8	17.6	5.2	0.9	0.9	0.9	0.9
115°	74.8	69.6	60.7	45.6	28.0	11.6	2.6	0.9	0.9	0.9	0.9
117.5°	59.8	55.5	49.1	34.7	18.5	7.5	1.4	0.9	0.9	0.9	0.9
120°	46.8	42.8	35.5	24.0	12.4	4.3	0.6	0.9	0.9	0.9	0.9
122.5°	33.5	30.3	24.0	15.6	7.5	2.0	0.9	0.9	1.2	1.2	0.9
125°	22.2	20.5	15.9	9.5	4.6	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	14.4	13.0	9.2	5.5	2.0	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.1	7.2	5.5	3.2	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.6	4.3	2.9	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2
135°	1.2	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.4	1.4	1.4	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.4	1.4	1.4	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.4
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.4
160°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
162.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2	1.2
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.4	1.4	1.4	1.4
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.4	1.4
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.4	1.4
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.4	1.2
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	226.8	226.8	226.8
2.5°	215.8	211.7	210.6
5°	204.2	197.6	193.8
7.5°	192.7	183.7	179.4
10°	182.0	169.3	164.6
12.5°	169.3	154.5	147.3
15°	157.1	138.1	131.1
17.5°	143.6	122.2	114.1
20°	130.9	106.3	97.9
22.5°	116.4	90.7	81.5
25°	103.4	75.1	64.7
27.5°	89.0	59.2	50.3
30°	75.4	45.4	36.4
32.5°	62.4	33.2	25.1
35°	50.3	22.5	15.9
37.5°	38.7	13.9	8.1
40°	28.0	7.2	3.8
42.5°	18.8	3.5	2.0
45°	11.6	1.7	0.0
47.5°	6.6	0.0	0.0
50°	3.5	0.0	0.0
52.5°	1.4	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°	0.3	0.3	0.3
77.5°	0.3	0.6	0.9
80°	0.6	1.2	1.4
82.5°	1.2	1.4	1.4
85°	1.2	1.4	1.7
87.5°	1.4	1.7	2.0
90°	1.7	2.0	2.0
92.5°	1.7	2.3	2.3
95°	2.0	2.3	2.6
97.5°	2.3	2.6	2.6
100°	2.0	2.6	2.9
102.5°	1.7	2.6	2.6
105°	1.4	2.0	2.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.2	1.4	1.4
115°	0.9	1.2	1.4
117.5°	0.9	1.2	1.2
120°	0.9	0.9	1.2
122.5°	0.9	0.9	1.2
125°	0.9	0.9	1.2
127.5°	1.2	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.2	0.9	0.9
135°	1.2	0.9	0.9
137.5°	1.2	0.9	0.9
140°	1.2	0.9	0.9
142.5°	1.2	0.9	0.9
145°	0.9	0.9	0.9
147.5°	0.9	0.9	0.9
150°	0.9	0.9	0.6
152.5°	0.9	0.6	0.6
155°	0.9	0.6	0.3
157.5°	1.2	0.6	0.3
160°	0.9	0.6	0.3
162.5°	0.9	0.6	0.3
165°	0.9	0.6	0.0
167.5°	0.9	0.6	0.3
170°	0.9	0.6	0.3
172.5°	0.9	0.6	0.3
175°	0.9	0.3	0.3
177.5°	0.9	0.3	0.3
180°	0.9	0.9	0.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	121.3	117.9	106.3	87.2	60.9	34.1	12.7	2.3	0.6	0.9	0.9
110°	105.7	102.8	91.0	72.5	49.1	25.4	8.4	1.4	0.9	0.9	0.9





107.5°	1.2	1.7	2.0
110°	1.2	1.4	1.7



(END OF REPORT)