

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: P550865

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-93-94-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: P550865
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-93-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

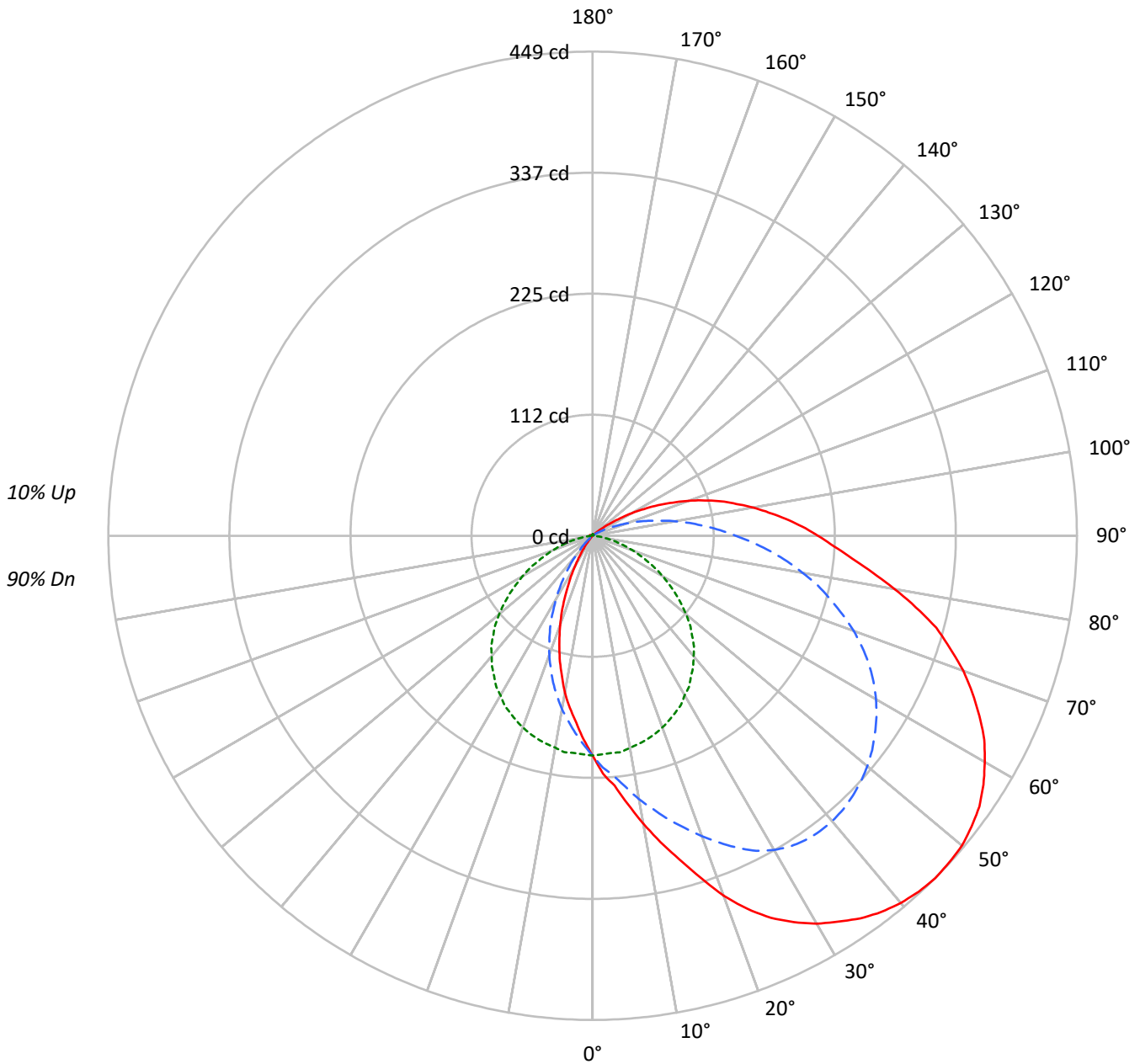
Lumens per Lamp: N/A
Luminaire Lumens: 1007.0 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P550865

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-93-94-ED1D-90

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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°	2193	2193	2193
5°	2407	2160	1802
10°	2724	2134	1486
15°	3052	2107	1158
20°	3442	2073	853
25°	3766	2032	560
30°	4006	1979	315
35°	4215	1922	139
40°	4400	1852	34
45°	4559	1763	0
50°	4691	1645	0
55°	4792	1495	0
60°	4843	1322	0
65°	4863	1125	0
70°	4847	918	0
75°	4786	678	4
80°	4591	414	21
85°	4438	198	29



TEST NUMBER: P550865

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.5	1.9
10°-20°	58.4	5.8
20°-30°	94.6	9.4
30°-40°	121.5	12.1
40°-50°	137.6	13.7
50°-60°	142.5	14.2
60°-70°	134.4	13.3
70°-80°	112.7	11.2
80°-90°	81.6	8.1
90°-100°	53.7	5.3
100°-110°	31.0	3.1
110°-120°	13.7	1.4
120°-130°	3.7	0.4
130°-140°	0.8	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	172.5	17.1
0°-40°	294.1	29.2
0°-60°	574.2	57.0
0°-90°	902.9	89.7
90°-120°	98.3	9.8
90°-150°	103.4	10.3
90°-180°	104.0	10.3
0°-180°	1007.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	204	204	204	204	204	
5°	232	223	202	184	174	23
15°	311	272	195	141	118	90
25°	391	320	181	93	58	181
35°	433	344	159	45	14	272
45°	449	341	130	10	0	347
55°	438	320	94	0	0	391
65°	396	283	56	0	0	392
75°	330	228	24	0	0	346
85°	241	165	4	1	2	206
90°	209	133	1	2	2	115
95°	180	104	0	2	2	141
105°	124	54	0	1	2	130
115°	67	18	1	1	1	67
125°	20	2	1	1	1	20
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	0	1	1	1	0	0
165°	0	1	1	1	0	0
175°	0	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°	203.7	203.7	203.7	203.7	203.7	203.7	203.7	203.7	203.7	203.7	203.7
2.5°	220.8	220.6	219.8	218.5	216.7	213.6	211.0	208.6	205.5	202.9	198.0
5°	232.5	231.2	230.2	228.9	224.7	221.9	217.2	212.0	207.1	202.1	192.3
7.5°	251.2	249.1	247.5	243.9	238.2	231.7	224.5	219.5	216.1	202.4	185.5
10°	271.2	269.3	266.2	259.7	252.7	243.4	233.0	221.3	211.0	199.5	179.6
12.5°	290.9	288.3	283.9	275.6	265.7	254.0	239.8	226.0	211.2	197.7	172.6
15°	310.6	307.7	303.1	293.0	280.0	264.7	247.3	229.9	212.5	195.4	165.3
17.5°	332.1	328.2	321.2	309.8	293.5	274.5	254.0	233.0	212.0	192.5	157.5
20°	355.2	349.8	342.3	326.9	307.7	285.4	260.8	236.1	211.7	189.2	148.7
22.5°	374.4	369.0	360.7	344.8	321.8	294.5	266.5	238.2	210.7	185.3	140.4
25°	391.0	386.6	377.5	359.4	335.0	304.1	271.9	239.8	209.1	181.1	131.6
27.5°	404.0	399.9	389.7	371.1	346.1	312.7	276.1	240.5	207.1	177.0	122.5
30°	415.4	411.3	399.1	379.9	353.7	319.4	280.2	240.8	204.5	170.7	112.6
32.5°	424.3	420.4	407.9	387.4	358.9	324.1	282.6	240.5	201.1	166.3	102.0
35°	433.1	429.2	414.6	392.9	362.8	326.2	284.4	239.2	196.9	159.1	91.9
37.5°	439.8	435.4	420.6	396.5	364.6	326.7	284.1	237.4	192.5	153.1	81.7
40°	444.5	439.8	424.0	398.6	365.1	325.9	282.1	234.3	187.3	145.6	71.1
42.5°	447.6	442.4	425.5	401.7	364.1	323.8	278.9	230.4	181.6	139.1	61.0
45°	449.2	443.7	425.8	399.1	362.2	319.9	274.3	225.5	175.4	130.3	50.9
47.5°	448.4	442.4	424.5	396.2	358.9	315.8	269.1	219.5	167.9	122.5	41.3
50°	447.1	440.9	421.7	392.6	354.2	310.6	263.4	212.3	160.1	112.9	32.7
52.5°	442.9	436.7	418.5	387.4	348.7	304.6	255.6	204.7	151.8	103.5	24.9
55°	437.7	432.0	413.1	382.7	341.7	297.4	248.3	196.7	143.8	93.9	17.9
57.5°	429.7	424.5	406.3	375.2	334.7	289.3	240.3	187.9	133.6	84.3	12.5
60°	419.8	414.6	397.0	366.6	326.7	280.2	231.5	178.8	124.6	74.7	7.8
62.5°	409.5	404.5	386.1	356.0	316.6	270.6	221.9	169.7	114.9	65.9	4.7
65°	395.7	391.0	374.4	343.3	305.4	260.3	211.2	158.8	105.1	56.0	2.6
67.5°	381.2	377.0	360.2	331.6	292.4	248.8	200.3	148.2	94.7	47.5	1.3
70°	365.6	360.4	344.8	315.8	279.2	235.9	188.4	137.3	84.9	39.2	0.0
72.5°	347.4	343.6	328.5	301.0	263.9	222.1	176.2	125.3	74.0	31.1	0.3
75°	329.8	324.9	311.1	285.2	248.8	207.6	162.7	114.2	63.3	23.9	0.3
77.5°	307.0	305.4	292.4	267.3	234.6	193.6	147.9	100.7	53.2	17.1	0.3
80°	284.1	282.6	272.5	249.4	218.0	177.0	134.2	88.0	43.3	11.4	0.3
82.5°	261.6	259.5	249.9	230.7	201.1	163.0	119.9	75.2	34.3	7.0	0.3
85°	241.3	238.7	228.3	210.7	183.7	147.1	105.1	62.8	25.4	3.9	0.5
87.5°	223.9	222.1	210.7	192.5	166.1	132.3	92.1	50.9	17.9	1.8	0.8
90°	209.1	205.2	195.1	175.9	149.5	116.0	78.4	40.7	11.9	1.0	1.0
92.5°	194.6	191.2	180.1	160.4	134.7	102.0	65.1	31.1	7.5	0.5	1.3
95°	179.6	175.9	165.0	146.9	119.6	87.7	53.5	22.8	4.2	0.5	1.3
97.5°	164.8	161.4	150.0	131.8	106.1	75.2	42.3	16.1	2.1	0.5	1.0
100°	151.0	147.1	136.7	118.6	92.6	62.8	32.7	10.4	1.3	0.5	1.0
102.5°	136.5	133.4	122.7	105.1	78.6	51.1	24.4	6.5	0.5	0.5	0.8
105°	123.5	119.6	109.2	91.1	66.9	40.2	17.1	3.9	0.5	0.5	0.8



TEST NUMBER: P550865

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-93-94-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	80.4	77.3	68.2	52.9	34.0	15.8	4.7	0.8	0.8	0.8	0.8
115°	67.2	62.5	54.5	41.0	25.2	10.4	2.3	0.8	0.8	0.8	0.8
117.5°	53.7	49.8	44.1	31.1	16.6	6.7	1.3	0.8	0.8	0.8	0.8
120°	42.0	38.4	31.9	21.5	11.2	3.9	0.5	0.8	0.8	0.8	0.8
122.5°	30.1	27.2	21.5	14.0	6.7	1.8	0.8	0.8	1.0	1.0	0.8
125°	20.0	18.4	14.3	8.6	4.2	0.8	0.8	0.8	1.0	1.0	0.8
127.5°	13.0	11.7	8.3	4.9	1.8	0.8	0.8	1.0	1.0	1.0	0.8
130°	7.3	6.5	4.9	2.9	0.8	0.8	0.8	1.0	1.0	1.0	0.8
132.5°	4.2	3.9	2.6	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.0	1.3	1.3	1.3	1.0
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.0
142.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
145°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
150°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
152.5°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
157.5°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.0
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	203.7	203.7	203.7
2.5°	193.8	190.2	189.2
5°	183.5	177.5	174.1
7.5°	173.1	165.0	161.1
10°	163.5	152.1	147.9
12.5°	152.1	138.8	132.3
15°	141.2	124.0	117.8
17.5°	129.0	109.8	102.5
20°	117.5	95.5	88.0
22.5°	104.6	81.5	73.2
25°	92.9	67.5	58.1
27.5°	79.9	53.2	45.1
30°	67.7	40.7	32.7
32.5°	56.0	29.8	22.6
35°	45.1	20.2	14.3
37.5°	34.8	12.5	7.3
40°	25.2	6.5	3.4
42.5°	16.9	3.1	1.8
45°	10.4	1.6	0.0
47.5°	6.0	0.0	0.0
50°	3.1	0.0	0.0
52.5°	1.3	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	0.5	0.8
80°	0.5	1.0	1.3
82.5°	1.0	1.3	1.3
85°	1.0	1.3	1.6
87.5°	1.3	1.6	1.8
90°	1.6	1.8	1.8
92.5°	1.6	2.1	2.1
95°	1.8	2.1	2.3
97.5°	2.1	2.3	2.3
100°	1.8	2.3	2.6
102.5°	1.6	2.3	2.3
105°	1.3	1.8	2.1



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CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-93-94-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.0	1.3	1.3
115°	0.8	1.0	1.3
117.5°	0.8	1.0	1.0
120°	0.8	0.8	1.0
122.5°	0.8	0.8	1.0
125°	0.8	0.8	1.0
127.5°	1.0	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.0	0.8	0.8
135°	1.0	0.8	0.8
137.5°	1.0	0.8	0.8
140°	1.0	0.8	0.8
142.5°	1.0	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.5
152.5°	0.8	0.5	0.5
155°	0.8	0.5	0.3
157.5°	1.0	0.5	0.3
160°	0.8	0.5	0.3
162.5°	0.8	0.5	0.3
165°	0.8	0.5	0.0
167.5°	0.8	0.5	0.3
170°	0.8	0.5	0.3
172.5°	0.8	0.5	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	109.0	105.9	95.5	78.4	54.8	30.6	11.4	2.1	0.5	0.8	0.8
110°	95.0	92.4	81.7	65.1	44.1	22.8	7.5	1.3	0.8	0.8	0.8





107.5°	1.0	1.6	1.8
110°	1.0	1.3	1.6



(END OF REPORT)