

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: P550858

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-93-85-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: P550858
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-93-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

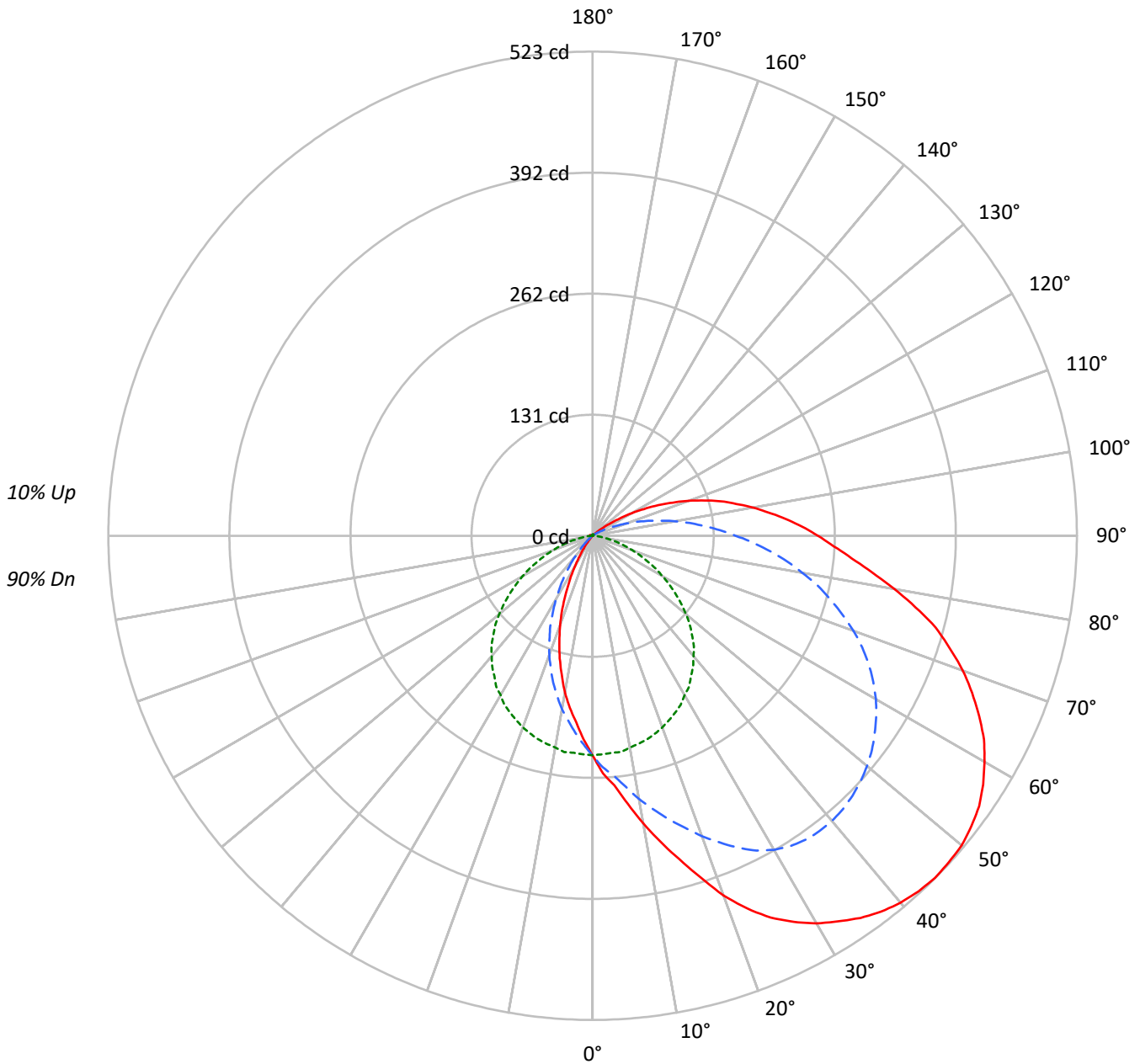
Lumens per Lamp: N/A
Luminaire Lumens: 1171.9 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P550858

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-93-85-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°	2552	2552	2552
5°	2801	2515	2097
10°	3170	2483	1729
15°	3552	2452	1347
20°	4006	2413	992
25°	4383	2366	651
30°	4663	2303	367
35°	4905	2237	162
40°	5120	2154	39
45°	5306	2051	0
50°	5460	1915	0
55°	5578	1740	0
60°	5637	1540	0
65°	5660	1310	0
70°	5641	1068	0
75°	5569	788	4
80°	5344	482	24
85°	5166	229	33



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.7	1.9
10°-20°	68.0	5.8
20°-30°	110.1	9.4
30°-40°	141.4	12.1
40°-50°	160.1	13.7
50°-60°	165.9	14.2
60°-70°	156.4	13.3
70°-80°	131.1	11.2
80°-90°	95.0	8.1
90°-100°	62.5	5.3
100°-110°	36.1	3.1
110°-120°	15.9	1.4
120°-130°	4.3	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	200.8	17.1
0°-40°	342.2	29.2
0°-60°	668.2	57.0
0°-90°	1050.8	89.7
90°-120°	114.4	9.8
90°-150°	120.4	10.3
90°-180°	121.0	10.3
0°-180°	1171.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	237	237	237	237	237	
5°	271	260	235	214	203	27
15°	362	317	227	164	137	104
25°	455	372	211	108	68	210
35°	504	401	185	52	17	316
45°	523	397	152	12	0	404
55°	510	372	109	0	0	455
65°	460	329	65	0	0	456
75°	384	266	28	0	0	403
85°	281	192	4	1	2	240
90°	243	154	1	2	2	133
95°	209	121	1	2	3	164
105°	144	62	1	2	2	152
115°	78	21	1	1	2	78
125°	23	3	1	1	1	23
135°	1	1	2	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	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°	237.1	237.1	237.1	237.1	237.1	237.1	237.1	237.1	237.1	237.1	237.1
2.5°	257.0	256.7	255.8	254.3	252.2	248.5	245.5	242.8	239.2	236.2	230.4
5°	270.6	269.1	267.9	266.4	261.5	258.2	252.8	246.7	241.0	235.3	223.8
7.5°	292.3	289.9	288.1	283.9	277.2	269.7	261.2	255.5	251.6	235.6	215.9
10°	315.6	313.5	309.8	302.3	294.1	283.3	271.2	257.6	245.5	232.2	209.0
12.5°	338.5	335.5	330.4	320.7	309.2	295.7	279.0	263.0	245.8	230.1	200.8
15°	361.5	358.2	352.7	341.0	325.9	308.0	287.8	267.6	247.3	227.4	192.4
17.5°	386.6	382.0	373.9	360.6	341.6	319.5	295.7	271.2	246.7	224.1	183.3
20°	413.4	407.1	398.3	380.5	358.2	332.2	303.5	274.8	246.4	220.2	173.0
22.5°	435.8	429.4	419.8	401.4	374.5	342.8	310.2	277.2	245.2	215.6	163.4
25°	455.1	450.0	439.4	418.3	389.9	353.9	316.5	279.0	243.4	210.8	153.1
27.5°	470.2	465.4	453.6	431.9	402.9	363.9	321.3	280.0	241.0	206.0	142.5
30°	483.5	478.7	464.5	442.1	411.6	371.8	326.2	280.3	238.0	198.7	131.1
32.5°	493.8	489.2	474.7	450.9	417.7	377.2	328.9	280.0	234.0	193.6	118.7
35°	504.0	499.5	482.6	457.2	422.2	379.6	331.0	278.4	229.2	185.1	106.9
37.5°	511.9	506.8	489.5	461.5	424.3	380.2	330.7	276.3	224.1	178.2	95.1
40°	517.3	511.9	493.5	463.9	424.9	379.3	328.3	272.7	218.0	169.4	82.7
42.5°	520.9	514.9	495.3	467.5	423.7	376.9	324.6	268.2	211.4	161.9	71.0
45°	522.8	516.4	495.6	464.5	421.6	372.4	319.2	262.4	204.1	151.6	59.2
47.5°	521.9	514.9	494.1	461.1	417.7	367.5	313.2	255.5	195.4	142.5	48.0
50°	520.3	513.1	490.7	456.9	412.2	361.5	306.5	247.0	186.3	131.4	38.1
52.5°	515.5	508.3	487.1	450.9	405.9	354.5	297.5	238.3	176.7	120.5	29.0
55°	509.5	502.8	480.8	445.4	397.7	346.1	289.0	228.9	167.3	109.3	20.8
57.5°	500.1	494.1	472.9	436.7	389.6	336.7	279.6	218.6	155.5	98.1	14.5
60°	488.6	482.6	462.1	426.7	380.2	326.2	269.4	208.1	145.0	87.0	9.1
62.5°	476.6	470.8	449.4	414.3	368.4	315.0	258.2	197.5	133.8	76.7	5.4
65°	460.5	455.1	435.8	399.5	355.5	302.9	245.8	184.8	122.3	65.2	3.0
67.5°	443.6	438.8	419.2	386.0	340.4	289.6	233.1	172.4	110.2	55.3	1.5
70°	425.5	419.5	401.4	367.5	324.9	274.5	219.2	159.8	98.8	45.6	0.0
72.5°	404.4	399.8	382.3	350.3	307.1	258.5	205.1	145.9	86.1	36.2	0.3
75°	383.8	378.1	362.1	331.9	289.6	241.6	189.4	132.9	73.7	27.8	0.3
77.5°	357.3	355.5	340.4	311.1	273.0	225.3	172.1	117.2	61.9	19.9	0.3
80°	330.7	328.9	317.1	290.2	253.7	206.0	156.1	102.4	50.4	13.3	0.3
82.5°	304.4	302.0	290.8	268.5	234.0	189.7	139.5	87.6	39.9	8.2	0.3
85°	280.9	277.8	265.8	245.2	213.8	171.2	122.3	73.1	29.6	4.5	0.6
87.5°	260.6	258.5	245.2	224.1	193.3	154.0	107.2	59.2	20.8	2.1	0.9
90°	243.4	238.9	227.1	204.8	174.0	135.0	91.2	47.4	13.9	1.2	1.2
92.5°	226.5	222.6	209.6	186.6	156.7	118.7	75.8	36.2	8.8	0.6	1.5
95°	209.0	204.8	192.1	170.9	139.2	102.1	62.2	26.6	4.8	0.6	1.5
97.5°	191.8	187.8	174.6	153.4	123.5	87.6	49.2	18.7	2.4	0.6	1.2
100°	175.8	171.2	159.2	138.0	107.8	73.1	38.1	12.1	1.5	0.6	1.2
102.5°	158.9	155.2	142.8	122.3	91.5	59.5	28.4	7.5	0.6	0.6	0.9
105°	143.8	139.2	127.1	106.0	77.9	46.8	19.9	4.5	0.6	0.6	0.9



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CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-93-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	93.6	90.0	79.4	61.6	39.6	18.4	5.4	0.9	0.9	0.9	0.9
115°	78.2	72.8	63.4	47.7	29.3	12.1	2.7	0.9	0.9	0.9	0.9
117.5°	62.5	58.0	51.3	36.2	19.3	7.9	1.5	0.9	0.9	0.9	0.9
120°	48.9	44.7	37.1	25.1	13.0	4.5	0.6	0.9	0.9	0.9	0.9
122.5°	35.0	31.7	25.1	16.3	7.9	2.1	0.9	0.9	1.2	1.2	0.9
125°	23.3	21.4	16.6	10.0	4.8	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	15.1	13.6	9.7	5.7	2.1	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.5	7.5	5.7	3.3	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.8	4.5	3.0	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	1.5	1.5	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.5	1.5	1.5	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
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	1.5	1.5	1.5	1.5
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	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°	237.1	237.1	237.1
2.5°	225.6	221.4	220.2
5°	213.5	206.6	202.6
7.5°	201.4	192.1	187.5
10°	190.3	177.0	172.1
12.5°	177.0	161.6	154.0
15°	164.3	144.4	137.1
17.5°	150.1	127.7	119.3
20°	136.8	111.1	102.4
22.5°	121.7	94.8	85.2
25°	108.1	78.5	67.6
27.5°	93.0	61.9	52.5
30°	78.8	47.4	38.1
32.5°	65.2	34.7	26.3
35°	52.5	23.6	16.6
37.5°	40.5	14.5	8.5
40°	29.3	7.5	3.9
42.5°	19.6	3.6	2.1
45°	12.1	1.8	0.0
47.5°	6.9	0.0	0.0
50°	3.6	0.0	0.0
52.5°	1.5	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	1.5
82.5°	1.2	1.5	1.5
85°	1.2	1.5	1.8
87.5°	1.5	1.8	2.1
90°	1.8	2.1	2.1
92.5°	1.8	2.4	2.4
95°	2.1	2.4	2.7
97.5°	2.4	2.7	2.7
100°	2.1	2.7	3.0
102.5°	1.8	2.7	2.7
105°	1.5	2.1	2.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.2	1.5	1.5
115°	0.9	1.2	1.5
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°	126.8	123.2	111.1	91.2	63.7	35.6	13.3	2.4	0.6	0.9	0.9
110°	110.5	107.5	95.1	75.8	51.3	26.6	8.8	1.5	0.9	0.9	0.9





107.5°	1.2	1.8	2.1
110°	1.2	1.5	1.8



(END OF REPORT)