

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: P550672

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-93-88-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: P550672
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-LD4-1HI-50-UNV-93-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

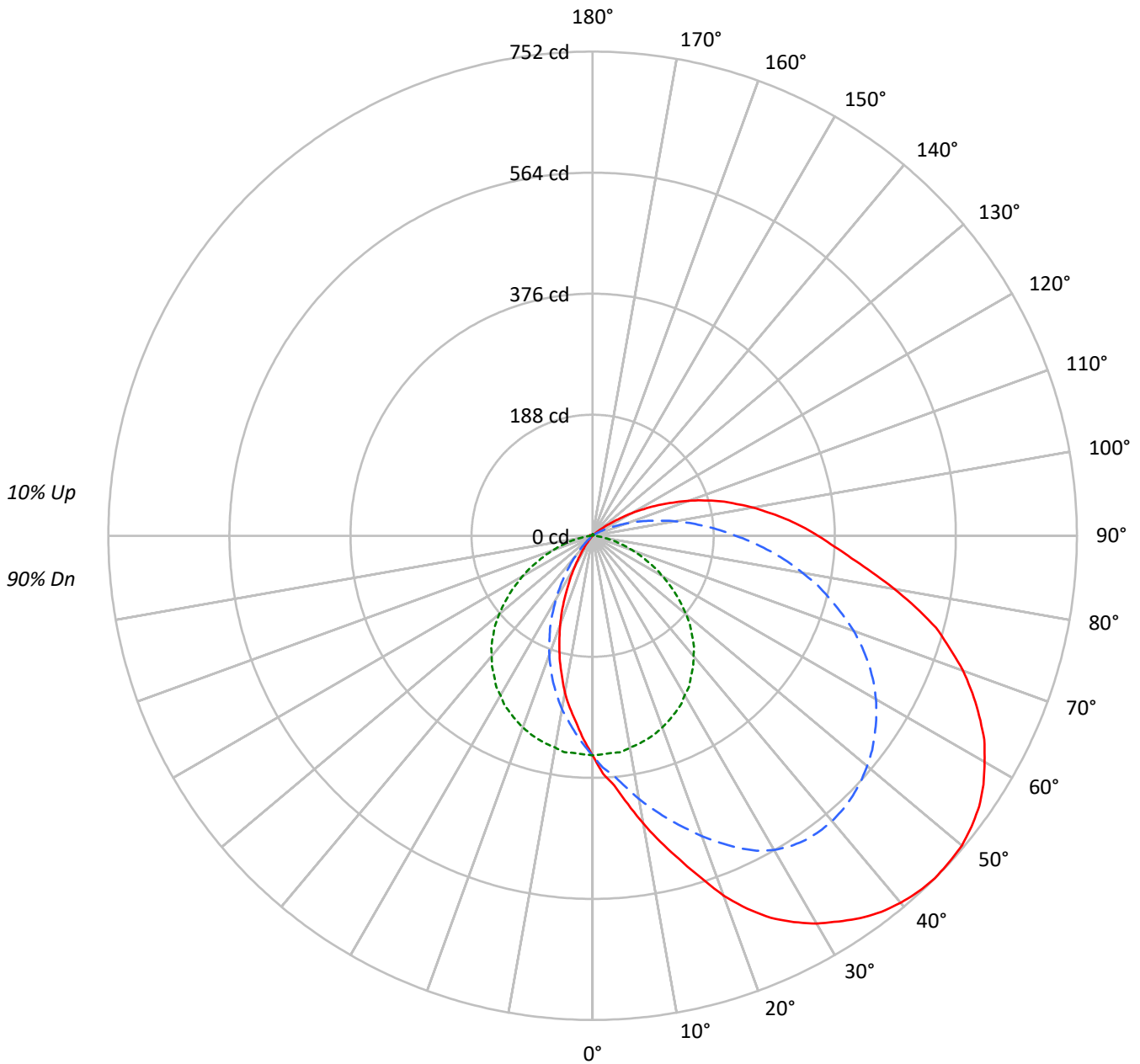
Lumens per Lamp: N/A
Luminaire Lumens: 1685.9 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): 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: P550672

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-88-ED1D

Luminous Intensity Polar Plot





TEST NUMBER: P550672

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-88-ED1D

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°	3670	3670	3670
5°	4030	3617	3018
10°	4560	3573	2487
15°	5110	3527	1938
20°	5764	3470	1427
25°	6306	3403	937
30°	6708	3314	528
35°	7057	3218	233
40°	7366	3099	55
45°	7632	2951	0
50°	7854	2755	0
55°	8024	2505	0
60°	8109	2214	0
65°	8143	1884	0
70°	8115	1537	0
75°	8013	1134	6
80°	7688	693	36
85°	7430	331	48



TEST NUMBER: P550672

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-88-ED1D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.7	1.9
10°-20°	97.8	5.8
20°-30°	158.4	9.4
30°-40°	203.5	12.1
40°-50°	230.3	13.7
50°-60°	238.6	14.2
60°-70°	225.0	13.3
70°-80°	188.6	11.2
80°-90°	136.7	8.1
90°-100°	89.8	5.3
100°-110°	51.9	3.1
110°-120°	22.9	1.4
120°-130°	6.2	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	288.9	17.1
0°-40°	492.3	29.2
0°-60°	961.3	57.0
0°-90°	1511.6	89.7
90°-120°	164.6	9.8
90°-150°	173.2	10.3
90°-180°	174.0	10.3
0°-180°	1685.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	341	341	341	341	341	
5°	389	374	338	307	292	39
15°	520	456	327	236	197	150
25°	655	535	303	156	97	303
35°	725	577	266	76	24	455
45°	752	571	218	17	0	581
55°	733	535	157	0	0	654
65°	662	474	94	0	0	655
75°	552	382	40	0	0	579
85°	404	277	6	2	3	345
90°	350	222	2	3	3	192
95°	301	174	1	3	4	236
105°	207	90	1	2	4	218
115°	112	30	1	1	2	113
125°	34	4	2	1	2	33
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	



TEST NUMBER: P550672

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-88-ED1D

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	341.0	341.0	341.0	341.0	341.0	341.0	341.0	341.0	341.0	341.0	341.0
2.5°	369.7	369.3	368.0	365.8	362.8	357.5	353.2	349.3	344.1	339.7	331.5
5°	389.3	387.1	385.4	383.2	376.2	371.4	363.6	354.9	346.7	338.4	321.9
7.5°	420.5	417.1	414.5	408.4	398.8	388.0	375.8	367.5	361.9	338.9	310.6
10°	454.0	451.0	445.7	434.9	423.1	407.5	390.1	370.6	353.2	334.1	300.6
12.5°	487.0	482.7	475.3	461.4	444.9	425.3	401.4	378.4	353.6	331.0	288.9
15°	520.0	515.2	507.4	490.5	468.8	443.1	414.0	384.9	355.8	327.1	276.7
17.5°	556.1	549.6	537.8	518.7	491.4	459.6	425.3	390.1	354.9	322.4	263.7
20°	594.8	585.6	573.0	547.4	515.2	477.9	436.6	395.3	354.5	316.7	248.9
22.5°	626.9	617.8	603.9	577.4	538.7	493.1	446.2	398.8	352.8	310.2	235.0
25°	654.7	647.3	632.1	601.7	560.9	509.2	455.3	401.4	350.2	303.2	220.3
27.5°	676.4	669.5	652.5	621.3	579.5	523.5	462.2	402.7	346.7	296.3	205.1
30°	695.5	688.6	668.2	636.0	592.1	534.8	469.2	403.2	342.3	285.9	188.5
32.5°	710.3	703.8	682.9	648.6	600.8	542.6	473.1	402.7	336.7	278.5	170.7
35°	725.1	718.6	694.2	657.7	607.4	546.1	476.1	400.6	329.7	266.3	153.8
37.5°	736.4	729.0	704.2	663.8	610.4	547.0	475.7	397.5	322.4	256.3	136.8
40°	744.2	736.4	709.9	667.3	611.3	545.7	472.2	392.3	313.7	243.7	119.0
42.5°	749.4	740.7	712.5	672.5	609.5	542.2	467.0	385.8	304.1	232.9	102.1
45°	752.0	742.9	712.9	668.2	606.5	535.7	459.2	377.5	293.7	218.1	85.2
47.5°	750.7	740.7	710.7	663.4	600.8	528.7	450.5	367.5	281.1	205.1	69.1
50°	748.5	738.1	706.0	657.3	593.0	520.0	441.0	355.4	268.1	189.0	54.7
52.5°	741.6	731.2	700.8	648.6	583.9	510.0	427.9	342.8	254.1	173.3	41.7
55°	732.9	723.3	691.6	640.8	572.2	497.9	415.8	329.3	240.7	157.3	30.0
57.5°	719.4	710.7	680.3	628.2	560.4	484.4	402.3	314.5	223.7	141.2	20.9
60°	702.9	694.2	664.7	613.9	547.0	469.2	387.5	299.3	208.5	125.1	13.0
62.5°	685.6	677.3	646.5	596.1	530.0	453.1	371.4	284.1	192.5	110.3	7.8
65°	662.5	654.7	626.9	574.8	511.3	435.7	353.6	265.9	175.9	93.8	4.3
67.5°	638.2	631.2	603.0	555.2	489.6	416.6	335.4	248.1	158.6	79.5	2.2
70°	612.1	603.4	577.4	528.7	467.5	394.9	315.4	229.8	142.1	65.6	0.0
72.5°	581.7	575.2	550.0	504.0	441.8	371.9	295.0	209.8	123.8	52.1	0.4
75°	552.2	543.9	520.9	477.5	416.6	347.6	272.4	191.2	106.0	40.0	0.4
77.5°	513.9	511.3	489.6	447.5	392.7	324.1	247.6	168.6	89.1	28.7	0.4
80°	475.7	473.1	456.2	417.5	364.9	296.3	224.6	147.3	72.6	19.1	0.4
82.5°	437.9	434.4	418.4	386.2	336.7	272.8	200.7	126.0	57.3	11.7	0.4
85°	404.0	399.7	382.3	352.8	307.6	246.3	175.9	105.1	42.6	6.5	0.9
87.5°	374.9	371.9	352.8	322.4	278.0	221.6	154.2	85.2	30.0	3.0	1.3
90°	350.2	343.6	326.7	294.6	250.2	194.2	131.2	68.2	20.0	1.7	1.7
92.5°	325.8	320.2	301.5	268.5	225.5	170.7	109.0	52.1	12.6	0.9	2.2
95°	300.6	294.6	276.3	245.9	200.3	146.8	89.5	38.2	7.0	0.9	2.2
97.5°	275.9	270.2	251.1	220.7	177.7	126.0	70.8	26.9	3.5	0.9	1.7
100°	252.8	246.3	229.0	198.5	155.1	105.1	54.7	17.4	2.2	0.9	1.7
102.5°	228.5	223.3	205.5	175.9	131.6	85.6	40.8	10.9	0.9	0.9	1.3
105°	206.8	200.3	182.9	152.5	112.1	67.3	28.7	6.5	0.9	0.9	1.3



TEST NUMBER: P550672

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	134.7	129.5	114.3	88.6	56.9	26.5	7.8	1.3	1.3	1.3	1.3
115°	112.5	104.7	91.2	68.6	42.1	17.4	3.9	1.3	1.3	1.3	1.3
117.5°	89.9	83.4	73.9	52.1	27.8	11.3	2.2	1.3	1.3	1.3	1.3
120°	70.4	64.3	53.4	36.1	18.7	6.5	0.9	1.3	1.3	1.3	1.3
122.5°	50.4	45.6	36.1	23.5	11.3	3.0	1.3	1.3	1.7	1.7	1.3
125°	33.5	30.8	23.9	14.3	7.0	1.3	1.3	1.3	1.7	1.7	1.3
127.5°	21.7	19.5	13.9	8.3	3.0	1.3	1.3	1.7	1.7	1.7	1.3
130°	12.2	10.9	8.3	4.8	1.3	1.3	1.3	1.7	1.7	1.7	1.3
132.5°	7.0	6.5	4.3	0.9	1.3	1.3	1.3	1.7	1.7	1.7	1.7
135°	1.7	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	1.7
137.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.7	2.2	2.2	2.2	1.7
140°	0.4	0.4	0.9	1.3	1.3	1.3	1.7	2.2	2.2	2.2	1.7
142.5°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	1.7	1.7
145°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.2	1.7	1.7	1.7
147.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	1.7	1.7
150°	0.4	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	1.7
152.5°	0.4	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	1.7
155°	0.9	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	2.2
157.5°	0.9	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	2.2
160°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.9	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7
167.5°	0.9	0.9	0.9	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7
170°	0.9	0.9	0.9	1.3	1.3	1.3	1.7	2.2	2.2	2.2	2.2
172.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	2.2	2.2
175°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	2.2	2.2
177.5°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	2.2	1.7
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



TEST NUMBER: P550672

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-88-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	341.0	341.0	341.0
2.5°	324.5	318.4	316.7
5°	307.2	297.2	291.5
7.5°	289.8	276.3	269.8
10°	273.7	254.6	247.6
12.5°	254.6	232.4	221.6
15°	236.3	207.7	197.2
17.5°	215.9	183.8	171.6
20°	196.8	159.9	147.3
22.5°	175.1	136.4	122.5
25°	155.5	113.0	97.3
27.5°	133.8	89.1	75.6
30°	113.4	68.2	54.7
32.5°	93.8	50.0	37.8
35°	75.6	33.9	23.9
37.5°	58.2	20.9	12.2
40°	42.1	10.9	5.6
42.5°	28.2	5.2	3.0
45°	17.4	2.6	0.0
47.5°	10.0	0.0	0.0
50°	5.2	0.0	0.0
52.5°	2.2	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°	0.4	0.4	0.4
77.5°	0.4	0.9	1.3
80°	0.9	1.7	2.2
82.5°	1.7	2.2	2.2
85°	1.7	2.2	2.6
87.5°	2.2	2.6	3.0
90°	2.6	3.0	3.0
92.5°	2.6	3.5	3.5
95°	3.0	3.5	3.9
97.5°	3.5	3.9	3.9
100°	3.0	3.9	4.3
102.5°	2.6	3.9	3.9
105°	2.2	3.0	3.5



TEST NUMBER: P550672

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-88-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.7	2.2	2.2
115°	1.3	1.7	2.2
117.5°	1.3	1.7	1.7
120°	1.3	1.3	1.7
122.5°	1.3	1.3	1.7
125°	1.3	1.3	1.7
127.5°	1.7	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.7	1.3	1.3
135°	1.7	1.3	1.3
137.5°	1.7	1.3	1.3
140°	1.7	1.3	1.3
142.5°	1.7	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.9
152.5°	1.3	0.9	0.9
155°	1.3	0.9	0.4
157.5°	1.7	0.9	0.4
160°	1.3	0.9	0.4
162.5°	1.3	0.9	0.4
165°	1.3	0.9	0.0
167.5°	1.3	0.9	0.4
170°	1.3	0.9	0.4
172.5°	1.3	0.9	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	182.5	177.3	159.9	131.2	91.7	51.3	19.1	3.5	0.9	1.3	1.3
110°	159.0	154.7	136.8	109.0	73.9	38.2	12.6	2.2	1.3	1.3	1.3





107.5°	1.7	2.6	3.0
110°	1.7	2.2	2.6



(END OF REPORT)