

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: P550666

Luminaire Tested: **FCC-X-2-LD4-1HI-50-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: P550666
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-93-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

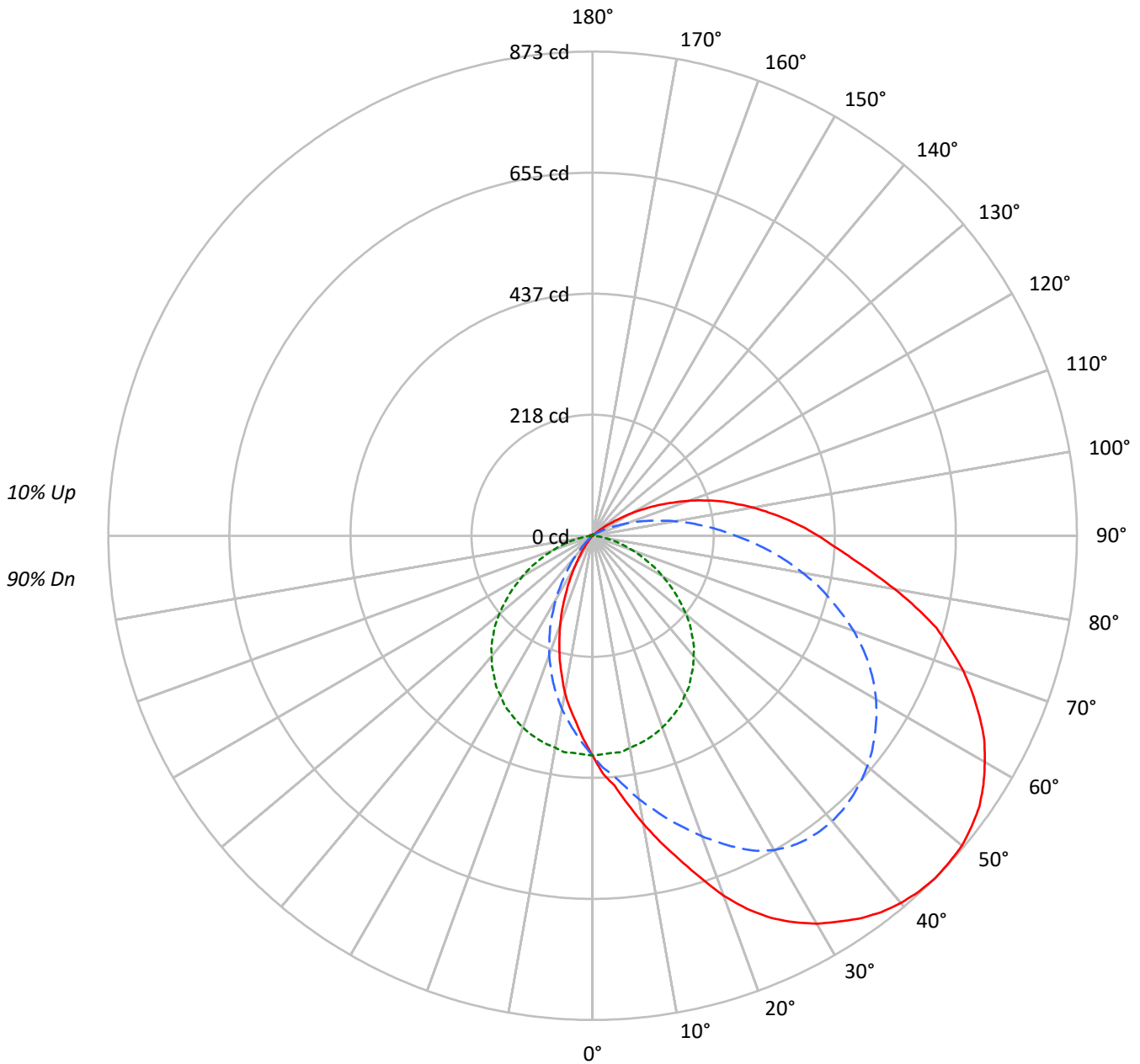
Lumens per Lamp: N/A
Luminaire Lumens: 1957.9 lumens
Efficiency: N/A
Efficacy: 90.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
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: P550666

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-85-ED1D

Luminous Intensity Polar Plot





TEST NUMBER: P550666

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-85-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°	4264	4264	4264
5°	4680	4200	3504
10°	5295	4149	2889
15°	5935	4096	2251
20°	6694	4030	1657
25°	7323	3953	1088
30°	7791	3849	613
35°	8196	3737	270
40°	8555	3599	65
45°	8863	3427	0
50°	9122	3199	0
55°	9318	2908	0
60°	9417	2571	0
65°	9457	2189	0
70°	9425	1785	0
75°	9306	1316	7
80°	8929	805	40
85°	8629	386	55



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.9	1.9
10°-20°	113.6	5.8
20°-30°	184.0	9.4
30°-40°	236.3	12.1
40°-50°	267.5	13.7
50°-60°	277.1	14.2
60°-70°	261.4	13.3
70°-80°	219.0	11.2
80°-90°	158.7	8.1
90°-100°	104.3	5.3
100°-110°	60.2	3.1
110°-120°	26.6	1.4
120°-130°	7.2	0.4
130°-140°	1.6	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	335.5	17.1
0°-40°	571.8	29.2
0°-60°	1116.4	57.0
0°-90°	1755.5	89.7
90°-120°	191.2	9.8
90°-150°	201.1	10.3
90°-180°	202.0	10.3
0°-180°	1957.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	396	396	396	396	396	
5°	452	434	393	357	338	46
15°	604	530	380	274	229	174
25°	760	621	352	181	113	351
35°	842	670	309	88	28	528
45°	873	663	253	20	0	674
55°	851	621	183	0	0	760
65°	769	550	109	0	0	761
75°	641	444	46	0	0	673
85°	469	322	8	2	3	401
90°	407	258	2	3	4	223
95°	349	202	1	4	4	274
105°	240	104	1	2	4	253
115°	131	35	2	2	2	131
125°	39	5	2	2	2	39
135°	2	2	2	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	2	2	0	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	396.1	396.1	396.1	396.1	396.1	396.1	396.1	396.1	396.1	396.1	396.1
2.5°	429.4	428.9	427.3	424.8	421.3	415.2	410.2	405.6	399.6	394.5	385.0
5°	452.1	449.5	447.5	445.0	436.9	431.4	422.3	412.2	402.6	393.0	373.9
7.5°	488.4	484.3	481.3	474.3	463.2	450.5	436.4	426.8	420.3	393.5	360.7
10°	527.2	523.7	517.6	505.0	491.4	473.2	453.1	430.4	410.2	388.0	349.1
12.5°	565.6	560.5	552.0	535.8	516.6	493.9	466.2	439.4	410.7	384.5	335.5
15°	603.9	598.4	589.3	569.6	544.4	514.6	480.8	447.0	413.2	379.9	321.4
17.5°	645.8	638.2	624.6	602.4	570.6	533.8	493.9	453.1	412.2	374.4	306.2
20°	690.7	680.1	665.5	635.7	598.4	555.0	507.1	459.1	411.7	367.8	289.1
22.5°	728.0	717.4	701.3	670.5	625.6	572.6	518.2	463.2	409.7	360.2	273.0
25°	760.3	751.8	734.1	698.8	651.3	591.3	528.7	466.2	406.7	352.2	255.8
27.5°	785.6	777.5	757.8	721.5	673.0	608.0	536.8	467.7	402.6	344.1	238.1
30°	807.8	799.7	776.0	738.6	687.7	621.1	544.9	468.2	397.6	332.0	219.0
32.5°	824.9	817.3	793.1	753.3	697.8	630.2	549.4	467.7	391.0	323.4	198.3
35°	842.1	834.5	806.2	763.9	705.3	634.2	553.0	465.2	382.9	309.3	178.6
37.5°	855.2	846.6	817.8	770.9	708.9	635.2	552.5	461.6	374.4	297.7	158.9
40°	864.3	855.2	824.4	775.0	709.9	633.7	548.4	455.6	364.3	283.0	138.2
42.5°	870.3	860.2	827.4	781.0	707.9	629.7	542.4	448.0	353.2	270.4	118.6
45°	873.3	862.7	827.9	776.0	704.3	622.1	533.3	438.4	341.1	253.3	98.9
47.5°	871.8	860.2	825.4	770.4	697.8	614.0	523.2	426.8	326.4	238.1	80.2
50°	869.3	857.2	819.9	763.4	688.7	603.9	512.1	412.7	311.3	219.5	63.6
52.5°	861.2	849.1	813.8	753.3	678.1	592.3	497.0	398.1	295.2	201.3	48.4
55°	851.1	840.0	803.2	744.2	664.5	578.2	482.8	382.4	279.5	182.6	34.8
57.5°	835.5	825.4	790.1	729.6	650.8	562.6	467.2	365.3	259.8	164.0	24.2
60°	816.3	806.2	771.9	712.9	635.2	544.9	450.0	347.6	242.2	145.3	15.1
62.5°	796.1	786.6	750.7	692.2	615.5	526.2	431.4	330.0	223.5	128.2	9.1
65°	769.4	760.3	728.0	667.5	593.8	506.0	410.7	308.8	204.3	109.0	5.0
67.5°	741.2	733.1	700.3	644.8	568.6	483.8	389.5	288.1	184.2	92.3	2.5
70°	710.9	700.8	670.5	614.0	542.9	458.6	366.3	266.9	165.0	76.2	0.0
72.5°	675.6	668.0	638.7	585.3	513.1	431.9	342.6	243.7	143.8	60.5	0.5
75°	641.3	631.7	604.9	554.5	483.8	403.6	316.3	222.0	123.1	46.4	0.5
77.5°	596.9	593.8	568.6	519.7	456.1	376.4	287.6	195.8	103.4	33.3	0.5
80°	552.5	549.4	529.8	484.9	423.8	344.1	260.8	171.0	84.3	22.2	0.5
82.5°	508.6	504.5	485.9	448.5	391.0	316.8	233.1	146.3	66.6	13.6	0.5
85°	469.2	464.2	444.0	409.7	357.2	286.1	204.3	122.1	49.4	7.6	1.0
87.5°	435.4	431.9	409.7	374.4	322.9	257.3	179.1	98.9	34.8	3.5	1.5
90°	406.7	399.1	379.4	342.1	290.6	225.5	152.4	79.2	23.2	2.0	2.0
92.5°	378.4	371.8	350.1	311.8	261.9	198.3	126.6	60.5	14.6	1.0	2.5
95°	349.1	342.1	320.9	285.6	232.6	170.5	103.9	44.4	8.1	1.0	2.5
97.5°	320.4	313.8	291.6	256.3	206.4	146.3	82.2	31.3	4.0	1.0	2.0
100°	293.6	286.1	265.9	230.6	180.1	122.1	63.6	20.2	2.5	1.0	2.0
102.5°	265.4	259.3	238.6	204.3	152.9	99.4	47.4	12.6	1.0	1.0	1.5
105°	240.2	232.6	212.4	177.1	130.2	78.2	33.3	7.6	1.0	1.0	1.5



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CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	156.4	150.4	132.7	102.9	66.1	30.8	9.1	1.5	1.5	1.5	1.5
115°	130.7	121.6	106.0	79.7	48.9	20.2	4.5	1.5	1.5	1.5	1.5
117.5°	104.4	96.9	85.8	60.5	32.3	13.1	2.5	1.5	1.5	1.5	1.5
120°	81.7	74.7	62.1	41.9	21.7	7.6	1.0	1.5	1.5	1.5	1.5
122.5°	58.5	53.0	41.9	27.2	13.1	3.5	1.5	1.5	2.0	2.0	1.5
125°	38.8	35.8	27.7	16.6	8.1	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	25.2	22.7	16.1	9.6	3.5	1.5	1.5	2.0	2.0	2.0	1.5
130°	14.1	12.6	9.6	5.5	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	8.1	7.6	5.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0
135°	2.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.5	2.5	2.5	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
160°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
162.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.5
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.0
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



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CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-85-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	396.1	396.1	396.1
2.5°	376.9	369.8	367.8
5°	356.7	345.1	338.5
7.5°	336.5	320.9	313.3
10°	317.9	295.7	287.6
12.5°	295.7	269.9	257.3
15°	274.5	241.2	229.1
17.5°	250.8	213.4	199.3
20°	228.6	185.7	171.0
22.5°	203.3	158.4	142.3
25°	180.6	131.2	113.0
27.5°	155.4	103.4	87.8
30°	131.7	79.2	63.6
32.5°	109.0	58.0	43.9
35°	87.8	39.4	27.7
37.5°	67.6	24.2	14.1
40°	48.9	12.6	6.6
42.5°	32.8	6.1	3.5
45°	20.2	3.0	0.0
47.5°	11.6	0.0	0.0
50°	6.1	0.0	0.0
52.5°	2.5	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	2.0	2.5
82.5°	2.0	2.5	2.5
85°	2.0	2.5	3.0
87.5°	2.5	3.0	3.5
90°	3.0	3.5	3.5
92.5°	3.0	4.0	4.0
95°	3.5	4.0	4.5
97.5°	4.0	4.5	4.5
100°	3.5	4.5	5.0
102.5°	3.0	4.5	4.5
105°	2.5	3.5	4.0



TEST NUMBER: P550666

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-85-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.0	2.5	2.5
115°	1.5	2.0	2.5
117.5°	1.5	2.0	2.0
120°	1.5	1.5	2.0
122.5°	1.5	1.5	2.0
125°	1.5	1.5	2.0
127.5°	2.0	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.0	1.5	1.5
135°	2.0	1.5	1.5
137.5°	2.0	1.5	1.5
140°	2.0	1.5	1.5
142.5°	2.0	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	2.0	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	211.9	205.8	185.7	152.4	106.5	59.5	22.2	4.0	1.0	1.5	1.5
110°	184.7	179.6	158.9	126.6	85.8	44.4	14.6	2.5	1.5	1.5	1.5





107.5°	2.0	3.0	3.5
110°	2.0	2.5	3.0



(END OF REPORT)