

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: P551084

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-81-86-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: P551084
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-LD4-1STD-40-UNV-81-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

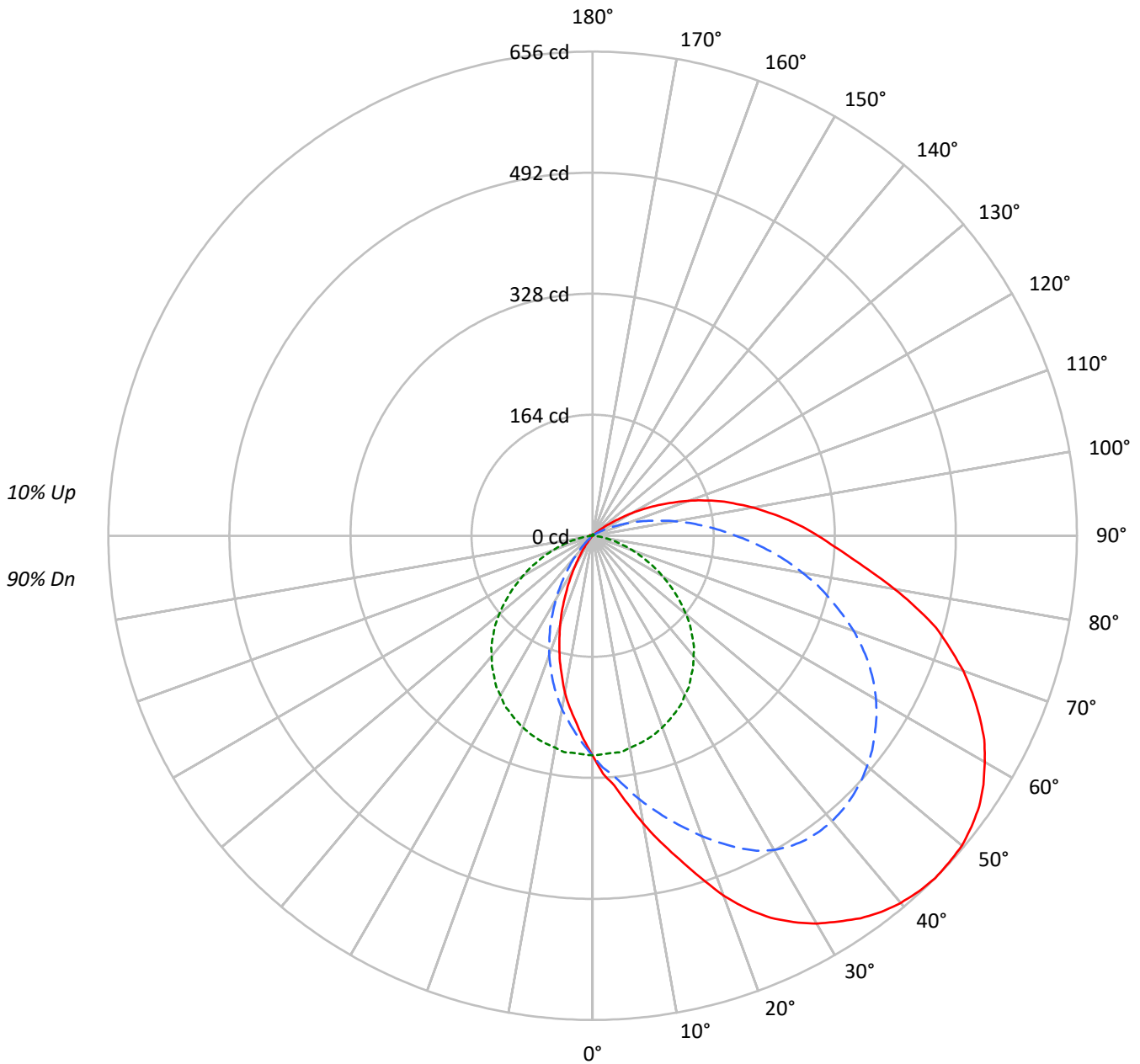
Lumens per Lamp: N/A
Luminaire Lumens: 1471.0 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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: P551084

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-81-86-ED1D

Luminous Intensity Polar Plot





TEST NUMBER: P551084

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-81-86-ED1D

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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°	3202	3202	3202
5°	3516	3156	2633
10°	3979	3117	2171
15°	4459	3077	1691
20°	5029	3027	1245
25°	5501	2969	818
30°	5853	2891	461
35°	6157	2808	202
40°	6427	2704	49
45°	6658	2575	0
50°	6853	2403	0
55°	7000	2185	0
60°	7075	1932	0
65°	7104	1645	0
70°	7081	1340	0
75°	6991	990	6
80°	6708	606	31
85°	6483	290	42



TEST NUMBER: P551084

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-81-86-ED1D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.5	1.9
10°-20°	85.3	5.8
20°-30°	138.2	9.4
30°-40°	177.5	12.1
40°-50°	201.0	13.7
50°-60°	208.2	14.2
60°-70°	196.3	13.3
70°-80°	164.6	11.2
80°-90°	119.3	8.1
90°-100°	78.4	5.3
100°-110°	45.3	3.1
110°-120°	20.0	1.4
120°-130°	5.4	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	252.0	17.1
0°-40°	429.6	29.2
0°-60°	838.7	57.0
0°-90°	1318.9	89.7
90°-120°	143.6	9.8
90°-150°	151.1	10.3
90°-180°	152.0	10.3
0°-180°	1471.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	298	298	298	298	298	
5°	340	326	295	268	254	34
15°	454	398	285	206	172	131
25°	571	467	265	136	85	264
35°	633	503	232	66	21	397
45°	656	498	190	15	0	507
55°	639	467	137	0	0	571
65°	578	413	82	0	0	572
75°	482	333	35	0	0	505
85°	352	242	6	2	2	301
90°	306	194	2	2	3	168
95°	262	151	1	3	3	206
105°	180	78	1	2	3	190
115°	98	26	1	1	2	98
125°	29	4	2	1	2	29
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P551084

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-81-86-ED1D

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	297.5	297.5	297.5	297.5	297.5	297.5	297.5	297.5	297.5	297.5	297.5
2.5°	322.6	322.2	321.0	319.2	316.5	312.0	308.2	304.7	300.2	296.4	289.2
5°	339.6	337.7	336.2	334.3	328.3	324.1	317.3	309.7	302.5	295.3	280.9
7.5°	366.9	363.9	361.6	356.3	348.0	338.5	327.9	320.7	315.7	295.7	271.0
10°	396.1	393.4	388.9	379.4	369.2	355.5	340.4	323.3	308.2	291.5	262.3
12.5°	424.9	421.1	414.7	402.5	388.1	371.1	350.2	330.1	308.5	288.8	252.1
15°	453.7	449.5	442.7	427.9	409.0	386.6	361.2	335.8	310.4	285.4	241.4
17.5°	485.2	479.5	469.3	452.6	428.7	401.0	371.1	340.4	309.7	281.2	230.1
20°	518.9	510.9	500.0	477.6	449.5	416.9	380.9	344.9	309.3	276.3	217.2
22.5°	547.0	539.0	526.9	503.7	470.0	430.2	389.3	348.0	307.8	270.6	205.1
25°	571.2	564.8	551.5	525.0	489.3	444.2	397.2	350.2	305.5	264.6	192.2
27.5°	590.2	584.1	569.3	542.0	505.6	456.7	403.3	351.4	302.5	258.5	178.9
30°	606.8	600.8	583.0	554.9	516.6	466.6	409.4	351.8	298.7	249.4	164.5
32.5°	619.7	614.0	595.9	565.9	524.2	473.4	412.8	351.4	293.8	243.0	149.0
35°	632.6	626.9	605.7	573.9	529.9	476.5	415.4	349.5	287.7	232.4	134.2
37.5°	642.5	636.0	614.4	579.2	532.6	477.2	415.1	346.8	281.2	223.6	119.4
40°	649.3	642.5	619.4	582.2	533.3	476.1	412.0	342.3	273.7	212.6	103.9
42.5°	653.8	646.3	621.6	586.8	531.8	473.0	407.5	336.6	265.3	203.2	89.1
45°	656.1	648.2	622.0	583.0	529.1	467.4	400.6	329.4	256.2	190.3	74.3
47.5°	655.0	646.3	620.1	578.8	524.2	461.3	393.1	320.7	245.2	178.9	60.3
50°	653.1	644.0	615.9	573.5	517.4	453.7	384.7	310.1	233.9	164.9	47.8
52.5°	647.0	637.9	611.4	565.9	509.4	445.0	373.4	299.1	221.7	151.2	36.4
55°	639.4	631.1	603.4	559.1	499.2	434.4	362.7	287.3	210.0	137.2	26.2
57.5°	627.7	620.1	593.6	548.1	489.0	422.6	351.0	274.4	195.2	123.2	18.2
60°	613.3	605.7	579.9	535.6	477.2	409.4	338.1	261.2	181.9	109.2	11.4
62.5°	598.1	590.9	564.0	520.0	462.4	395.3	324.1	247.9	167.9	96.3	6.8
65°	578.0	571.2	547.0	501.5	446.1	380.2	308.5	232.0	153.5	81.9	3.8
67.5°	556.8	550.7	526.1	484.4	427.2	363.5	292.6	216.4	138.4	69.4	1.9
70°	534.1	526.5	503.7	461.3	407.8	344.5	275.2	200.5	123.9	57.2	0.0
72.5°	507.5	501.9	479.9	439.7	385.5	324.5	257.4	183.1	108.0	45.5	0.4
75°	481.8	474.6	454.5	416.6	363.5	303.2	237.7	166.8	92.5	34.9	0.4
77.5°	448.4	446.1	427.2	390.4	342.7	282.8	216.1	147.1	77.7	25.0	0.4
80°	415.1	412.8	398.0	364.3	318.4	258.5	196.0	128.5	63.3	16.7	0.4
82.5°	382.1	379.0	365.0	337.0	293.8	238.0	175.1	109.9	50.0	10.2	0.4
85°	352.5	348.7	333.6	307.8	268.4	214.9	153.5	91.7	37.1	5.7	0.8
87.5°	327.1	324.5	307.8	281.2	242.6	193.3	134.6	74.3	26.2	2.7	1.1
90°	305.5	299.8	285.0	257.0	218.3	169.4	114.5	59.5	17.4	1.5	1.5
92.5°	284.3	279.4	263.1	234.2	196.7	149.0	95.1	45.5	11.0	0.8	1.9
95°	262.3	257.0	241.1	214.5	174.7	128.1	78.1	33.4	6.1	0.8	1.9
97.5°	240.7	235.8	219.1	192.6	155.0	109.9	61.8	23.5	3.0	0.8	1.5
100°	220.6	214.9	199.8	173.2	135.3	91.7	47.8	15.2	1.9	0.8	1.5
102.5°	199.4	194.8	179.3	153.5	114.8	74.7	35.6	9.5	0.8	0.8	1.1
105°	180.4	174.7	159.6	133.0	97.8	58.8	25.0	5.7	0.8	0.8	1.1



TEST NUMBER: P551084

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-81-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	117.5	113.0	99.7	77.3	49.7	23.1	6.8	1.1	1.1	1.1	1.1
115°	98.2	91.3	79.6	59.9	36.8	15.2	3.4	1.1	1.1	1.1	1.1
117.5°	78.5	72.8	64.4	45.5	24.3	9.9	1.9	1.1	1.1	1.1	1.1
120°	61.4	56.1	46.6	31.5	16.3	5.7	0.8	1.1	1.1	1.1	1.1
122.5°	44.0	39.8	31.5	20.5	9.9	2.7	1.1	1.1	1.5	1.5	1.1
125°	29.2	26.9	20.8	12.5	6.1	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	19.0	17.1	12.1	7.2	2.7	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.6	9.5	7.2	4.2	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	6.1	5.7	3.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



TEST NUMBER: P551084

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-81-86-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	297.5	297.5	297.5
2.5°	283.1	277.8	276.3
5°	268.0	259.3	254.3
7.5°	252.8	241.1	235.4
10°	238.8	222.1	216.1
12.5°	222.1	202.8	193.3
15°	206.2	181.2	172.1
17.5°	188.4	160.3	149.7
20°	171.7	139.5	128.5
22.5°	152.8	119.0	106.9
25°	135.7	98.6	84.9
27.5°	116.7	77.7	66.0
30°	98.9	59.5	47.8
32.5°	81.9	43.6	33.0
35°	66.0	29.6	20.8
37.5°	50.8	18.2	10.6
40°	36.8	9.5	4.9
42.5°	24.6	4.5	2.7
45°	15.2	2.3	0.0
47.5°	8.7	0.0	0.0
50°	4.5	0.0	0.0
52.5°	1.9	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	0.8	1.1
80°	0.8	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	2.3	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.0	3.0
95°	2.7	3.0	3.4
97.5°	3.0	3.4	3.4
100°	2.7	3.4	3.8
102.5°	2.3	3.4	3.4
105°	1.9	2.7	3.0



TEST NUMBER: P551084

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-81-86-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.1	1.5	1.9
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.8
152.5°	1.1	0.8	0.8
155°	1.1	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.1	0.8	0.4
162.5°	1.1	0.8	0.4
165°	1.1	0.8	0.0
167.5°	1.1	0.8	0.4
170°	1.1	0.8	0.4
172.5°	1.1	0.8	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	159.2	154.6	139.5	114.5	80.0	44.7	16.7	3.0	0.8	1.1	1.1
110°	138.7	134.9	119.4	95.1	64.4	33.4	11.0	1.9	1.1	1.1	1.1





107.5°	1.5	2.3	2.7
110°	1.5	1.9	2.3



(END OF REPORT)