

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: P550459

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-82-86-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: P550459
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-30-UNV-82-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

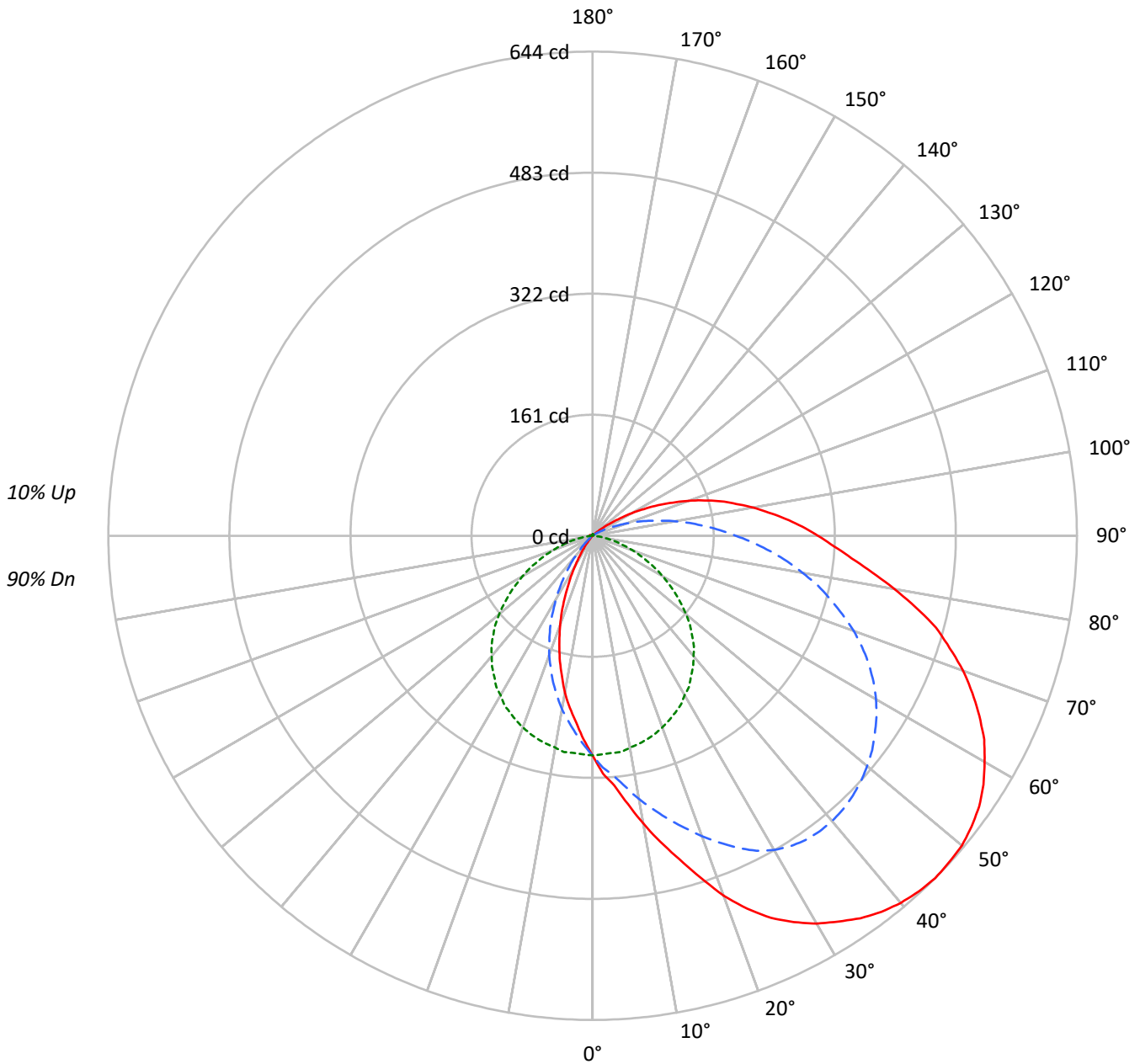
Lumens per Lamp: N/A
Luminaire Lumens: 1444.0 lumens
Efficiency: N/A
Efficacy: 66.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P550459

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-82-86-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P550459

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-82-86-ED1D-90

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°	3144	3144	3144
5°	3451	3098	2585
10°	3905	3060	2130
15°	4377	3021	1660
20°	4937	2971	1222
25°	5400	2914	802
30°	5745	2838	452
35°	6044	2756	200
40°	6309	2654	48
45°	6537	2528	0
50°	6727	2360	0
55°	6872	2145	0
60°	6945	1897	0
65°	6974	1615	0
70°	6951	1317	0
75°	6862	970	6
80°	6584	595	31
85°	6364	285	40



TEST NUMBER: P550459

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-82-86-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.0	1.9
10°-20°	83.8	5.8
20°-30°	135.7	9.4
30°-40°	174.3	12.1
40°-50°	197.3	13.7
50°-60°	204.4	14.2
60°-70°	192.7	13.3
70°-80°	161.5	11.2
80°-90°	117.1	8.1
90°-100°	76.9	5.3
100°-110°	44.4	3.1
110°-120°	19.6	1.4
120°-130°	5.3	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°	247.4	17.1
0°-40°	421.7	29.2
0°-60°	823.3	57.0
0°-90°	1294.7	89.7
90°-120°	141.0	9.8
90°-150°	148.3	10.3
90°-180°	149.0	10.3
0°-180°	1444.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	292	292	292	292	292	
5°	333	320	290	263	250	34
15°	445	390	280	202	169	128
25°	561	458	260	133	83	259
35°	621	494	228	65	20	389
45°	644	489	187	15	0	497
55°	628	458	135	0	0	561
65°	567	406	80	0	0	561
75°	473	327	34	0	0	496
85°	346	237	6	2	2	295
90°	300	190	2	2	3	164
95°	258	149	1	3	3	202
105°	177	77	1	2	3	187
115°	96	26	1	1	2	97
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: P550459

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-82-86-ED1D-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	292.1	292.1	292.1	292.1	292.1	292.1	292.1	292.1	292.1	292.1	292.1
2.5°	316.6	316.3	315.2	313.3	310.7	306.2	302.5	299.2	294.7	291.0	283.9
5°	333.4	331.5	330.0	328.2	322.2	318.1	311.4	304.0	296.9	289.9	275.7
7.5°	360.2	357.2	355.0	349.8	341.6	332.3	321.9	314.8	309.9	290.2	266.0
10°	388.8	386.2	381.8	372.5	362.4	349.0	334.1	317.4	302.5	286.1	257.5
12.5°	417.1	413.4	407.1	395.2	381.0	364.3	343.8	324.1	302.9	283.5	247.4
15°	445.4	441.3	434.6	420.1	401.5	379.5	354.6	329.7	304.7	280.2	237.0
17.5°	476.3	470.7	460.6	444.3	420.8	393.7	364.3	334.1	304.0	276.1	225.9
20°	509.4	501.6	490.8	468.8	441.3	409.3	373.9	338.6	303.6	271.2	213.2
22.5°	536.9	529.1	517.2	494.5	461.4	422.3	382.1	341.6	302.1	265.7	201.3
25°	560.7	554.4	541.4	515.3	480.4	436.1	389.9	343.8	299.9	259.7	188.6
27.5°	579.3	573.4	558.9	532.1	496.4	448.4	395.9	344.9	296.9	253.8	175.6
30°	595.7	589.8	572.3	544.7	507.2	458.0	401.9	345.3	293.2	244.8	161.5
32.5°	608.4	602.8	584.9	555.5	514.6	464.7	405.2	344.9	288.4	238.5	146.2
35°	621.0	615.4	594.6	563.3	520.2	467.7	407.8	343.1	282.4	228.1	131.7
37.5°	630.7	624.4	603.1	568.5	522.8	468.5	407.4	340.5	276.1	219.5	117.2
40°	637.4	630.7	608.0	571.5	523.5	467.3	404.5	336.0	268.6	208.7	102.0
42.5°	641.8	634.4	610.2	576.0	522.0	464.4	400.0	330.4	260.5	199.4	87.4
45°	644.1	636.3	610.6	572.3	519.4	458.8	393.3	323.3	251.5	186.8	72.9
47.5°	643.0	634.4	608.7	568.2	514.6	452.8	385.9	314.8	240.7	175.6	59.2
50°	641.1	632.2	604.6	563.0	507.9	445.4	377.7	304.4	229.6	161.9	46.9
52.5°	635.1	626.2	600.2	555.5	500.1	436.8	366.5	293.6	217.7	148.5	35.7
55°	627.7	619.5	592.4	548.8	490.0	426.4	356.1	282.0	206.1	134.7	25.7
57.5°	616.2	608.7	582.7	538.0	480.0	414.9	344.6	269.4	191.6	120.9	17.9
60°	602.0	594.6	569.3	525.8	468.5	401.9	331.9	256.4	178.6	107.2	11.2
62.5°	587.1	580.1	553.7	510.5	453.9	388.1	318.1	243.3	164.8	94.5	6.7
65°	567.4	560.7	536.9	492.3	437.9	373.2	302.9	227.7	150.7	80.4	3.7
67.5°	546.6	540.6	516.5	475.5	419.3	356.8	287.2	212.5	135.8	68.1	1.9
70°	524.3	516.8	494.5	452.8	400.4	338.2	270.1	196.8	121.7	56.2	0.0
72.5°	498.2	492.6	471.1	431.6	378.4	318.5	252.6	179.7	106.0	44.7	0.4
75°	472.9	465.9	446.1	408.9	356.8	297.7	233.3	163.7	90.8	34.2	0.4
77.5°	440.2	437.9	419.3	383.2	336.4	277.6	212.1	144.4	76.3	24.6	0.4
80°	407.4	405.2	390.7	357.6	312.6	253.8	192.4	126.1	62.1	16.4	0.4
82.5°	375.1	372.1	358.3	330.8	288.4	233.7	171.9	107.9	49.1	10.0	0.4
85°	346.0	342.3	327.4	302.1	263.4	211.0	150.7	90.0	36.5	5.6	0.7
87.5°	321.1	318.5	302.1	276.1	238.1	189.8	132.1	72.9	25.7	2.6	1.1
90°	299.9	294.3	279.8	252.3	214.3	166.3	112.4	58.4	17.1	1.5	1.5
92.5°	279.1	274.2	258.2	229.9	193.1	146.2	93.4	44.7	10.8	0.7	1.9
95°	257.5	252.3	236.6	210.6	171.5	125.8	76.6	32.7	6.0	0.7	1.9
97.5°	236.3	231.4	215.1	189.0	152.2	107.9	60.6	23.1	3.0	0.7	1.5
100°	216.6	211.0	196.1	170.0	132.8	90.0	46.9	14.9	1.9	0.7	1.5
102.5°	195.7	191.3	176.0	150.7	112.7	73.3	35.0	9.3	0.7	0.7	1.1
105°	177.1	171.5	156.6	130.6	96.0	57.7	24.6	5.6	0.7	0.7	1.1



TEST NUMBER: P550459

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-82-86-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	115.3	110.9	97.9	75.9	48.7	22.7	6.7	1.1	1.1	1.1	1.1
115°	96.4	89.7	78.1	58.8	36.1	14.9	3.3	1.1	1.1	1.1	1.1
117.5°	77.0	71.4	63.3	44.7	23.8	9.7	1.9	1.1	1.1	1.1	1.1
120°	60.3	55.1	45.8	30.9	16.0	5.6	0.7	1.1	1.1	1.1	1.1
122.5°	43.2	39.1	30.9	20.1	9.7	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.7	26.4	20.5	12.3	6.0	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.6	16.7	11.9	7.1	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.4	9.3	7.1	4.1	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	6.0	5.6	3.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.7	0.7	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: P550459

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-82-86-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	292.1	292.1	292.1
2.5°	277.9	272.7	271.2
5°	263.1	254.5	249.7
7.5°	248.2	236.6	231.1
10°	234.4	218.0	212.1
12.5°	218.0	199.1	189.8
15°	202.4	177.9	168.9
17.5°	184.9	157.4	147.0
20°	168.6	136.9	126.1
22.5°	150.0	116.8	104.9
25°	133.2	96.7	83.3
27.5°	114.6	76.3	64.7
30°	97.1	58.4	46.9
32.5°	80.4	42.8	32.4
35°	64.7	29.0	20.5
37.5°	49.9	17.9	10.4
40°	36.1	9.3	4.8
42.5°	24.2	4.5	2.6
45°	14.9	2.2	0.0
47.5°	8.6	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	0.7	1.1
80°	0.7	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.2
87.5°	1.9	2.2	2.6
90°	2.2	2.6	2.6
92.5°	2.2	3.0	3.0
95°	2.6	3.0	3.3
97.5°	3.0	3.3	3.3
100°	2.6	3.3	3.7
102.5°	2.2	3.3	3.3
105°	1.9	2.6	3.0



TEST NUMBER: P550459

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-82-86-ED1D-90

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	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.5	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	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°	156.3	151.8	136.9	112.4	78.5	43.9	16.4	3.0	0.7	1.1	1.1
110°	136.2	132.5	117.2	93.4	63.3	32.7	10.8	1.9	1.1	1.1	1.1





107.5°	1.5	2.2	2.6
110°	1.5	1.9	2.2



(END OF REPORT)