

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: P550636

Luminaire Tested: **FCC-X-2-LD4-1HI-50-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: P550636
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-81-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

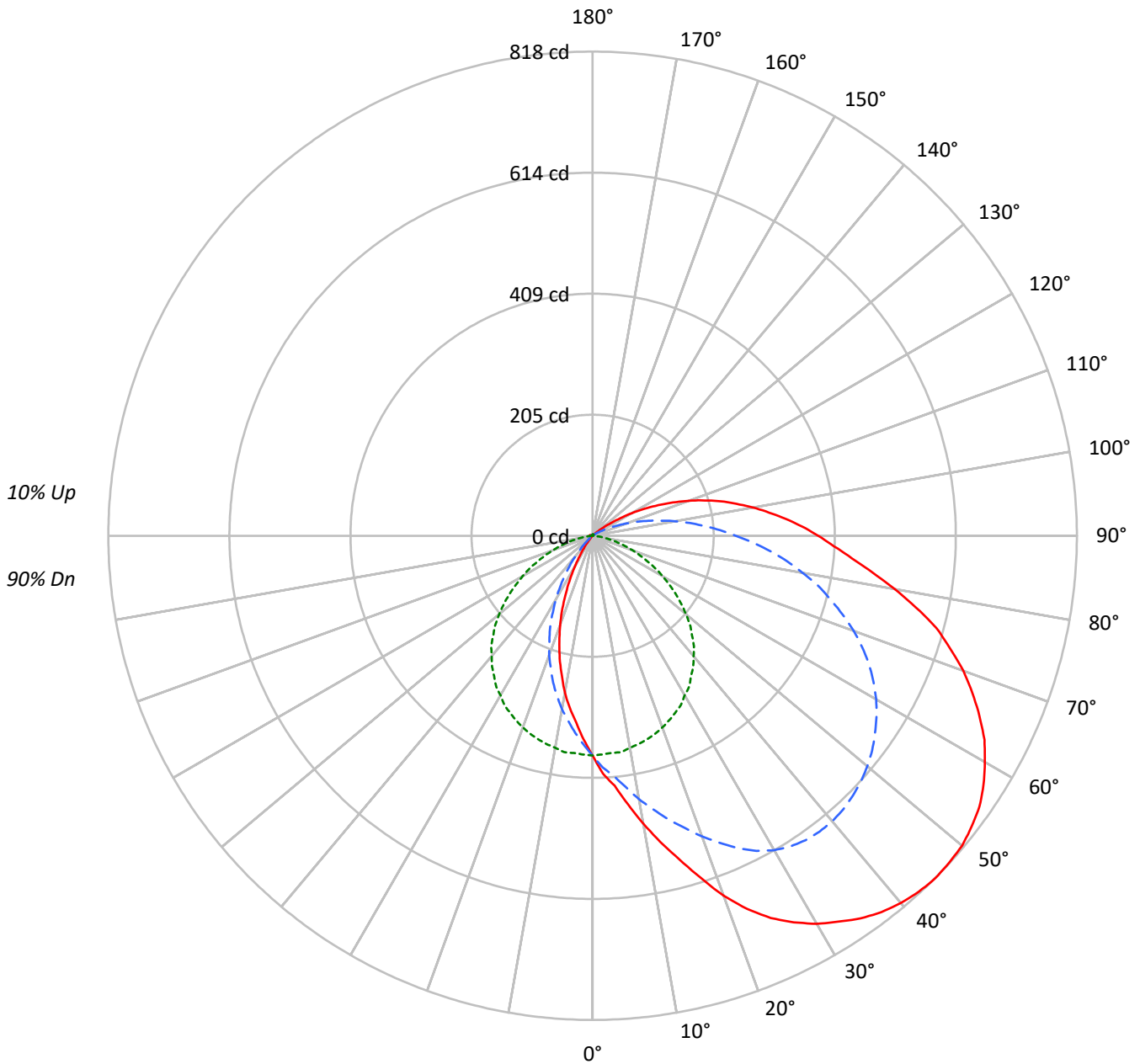
Lumens per Lamp: N/A
Luminaire Lumens: 1835.0 lumens
Efficiency: N/A
Efficacy: 84.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P550636

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-86-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°	3996	3996	3996
5°	4386	3936	3285
10°	4963	3888	2707
15°	5562	3839	2110
20°	6273	3777	1553
25°	6863	3703	1020
30°	7301	3606	575
35°	7681	3502	253
40°	8018	3374	60
45°	8306	3212	0
50°	8549	2998	0
55°	8734	2726	0
60°	8826	2410	0
65°	8863	2051	0
70°	8833	1673	0
75°	8721	1234	7
80°	8368	754	39
85°	8087	361	51



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.6	1.9
10°-20°	106.5	5.8
20°-30°	172.4	9.4
30°-40°	221.5	12.1
40°-50°	250.7	13.7
50°-60°	259.7	14.2
60°-70°	244.9	13.3
70°-80°	205.3	11.2
80°-90°	148.8	8.1
90°-100°	97.8	5.3
100°-110°	56.5	3.1
110°-120°	24.9	1.4
120°-130°	6.7	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	314.4	17.1
0°-40°	535.9	29.2
0°-60°	1046.3	57.0
0°-90°	1645.2	89.7
90°-120°	179.2	9.8
90°-150°	188.5	10.3
90°-180°	190.0	10.4
0°-180°	1835.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	371	371	371	371	371	
5°	424	407	368	334	317	43
15°	566	496	356	257	215	163
25°	713	582	330	169	106	329
35°	789	628	290	82	26	495
45°	818	622	237	19	0	632
55°	798	582	171	0	0	712
65°	721	515	102	0	0	713
75°	601	416	44	0	0	630
85°	440	301	7	2	3	376
90°	381	242	2	3	3	209
95°	327	189	1	3	4	257
105°	225	98	1	2	4	238
115°	122	32	1	1	2	123
125°	36	4	2	1	2	36
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	371.2	371.2	371.2	371.2	371.2	371.2	371.2	371.2	371.2	371.2	371.2
2.5°	402.4	401.9	400.5	398.1	394.8	389.1	384.4	380.2	374.5	369.8	360.8
5°	423.7	421.3	419.4	417.0	409.5	404.3	395.8	386.3	377.3	368.3	350.4
7.5°	457.7	453.9	451.1	444.5	434.1	422.2	409.0	400.0	393.9	368.8	338.1
10°	494.1	490.8	485.1	473.3	460.5	443.5	424.6	403.3	384.4	363.6	327.2
12.5°	530.0	525.3	517.3	502.2	484.2	462.9	436.9	411.8	384.9	360.3	314.4
15°	566.0	560.8	552.3	533.8	510.2	482.3	450.6	418.9	387.3	356.0	301.2
17.5°	605.2	598.1	585.4	564.6	534.8	500.3	462.9	424.6	386.3	350.8	287.0
20°	647.3	637.4	623.7	595.8	560.8	520.1	475.2	430.3	385.8	344.7	270.9
22.5°	682.3	672.4	657.2	628.4	586.3	536.7	485.6	434.1	383.9	337.6	255.8
25°	712.6	704.5	688.0	654.9	610.4	554.2	495.5	436.9	381.1	330.0	239.7
27.5°	736.2	728.6	710.2	676.2	630.8	569.8	503.1	438.3	377.3	322.5	223.2
30°	757.0	749.4	727.2	692.2	644.5	582.1	510.7	438.8	372.6	311.1	205.2
32.5°	773.1	766.0	743.3	705.9	653.9	590.6	514.9	438.3	366.4	303.1	185.8
35°	789.2	782.1	755.6	715.9	661.0	594.4	518.2	436.0	358.9	289.8	167.4
37.5°	801.5	793.4	766.5	722.5	664.3	595.3	517.8	432.6	350.8	279.0	148.9
40°	810.0	801.5	772.6	726.3	665.3	593.9	514.0	427.0	341.4	265.3	129.6
42.5°	815.6	806.2	775.5	732.0	663.4	590.1	508.3	419.9	331.0	253.4	111.1
45°	818.5	808.5	775.9	727.2	660.1	583.0	499.8	410.9	319.6	237.4	92.7
47.5°	817.1	806.2	773.6	722.0	653.9	575.4	490.3	400.0	305.9	223.2	75.2
50°	814.7	803.3	768.4	715.4	645.4	566.0	479.9	386.8	291.7	205.7	59.6
52.5°	807.1	795.8	762.7	705.9	635.5	555.1	465.7	373.1	276.6	188.7	45.4
55°	797.7	787.3	752.8	697.4	622.7	541.9	452.5	358.4	262.0	171.2	32.6
57.5°	783.0	773.6	740.5	683.7	610.0	527.2	437.8	342.3	243.5	153.7	22.7
60°	765.0	755.6	723.4	668.1	595.3	510.7	421.8	325.8	227.0	136.2	14.2
62.5°	746.1	737.2	703.6	648.7	576.9	493.2	404.3	309.2	209.5	120.1	8.5
65°	721.1	712.6	682.3	625.6	556.5	474.3	384.9	289.4	191.5	102.1	4.7
67.5°	694.6	687.0	656.3	604.3	532.9	453.4	365.0	270.0	172.6	86.5	2.4
70°	666.2	656.8	628.4	575.4	508.8	429.8	343.3	250.1	154.6	71.4	0.0
72.5°	633.1	626.0	598.6	548.5	480.9	404.7	321.1	228.4	134.8	56.7	0.5
75°	601.0	592.0	566.9	519.6	453.4	378.3	296.5	208.0	115.4	43.5	0.5
77.5°	559.4	556.5	532.9	487.0	427.4	352.7	269.5	183.5	96.9	31.2	0.5
80°	517.8	514.9	496.5	454.4	397.2	322.5	244.5	160.3	79.0	20.8	0.5
82.5°	476.6	472.8	455.3	420.4	366.4	296.9	218.5	137.1	62.4	12.8	0.5
85°	439.7	435.0	416.1	383.9	334.8	268.1	191.5	114.4	46.3	7.1	0.9
87.5°	408.1	404.7	383.9	350.8	302.6	241.1	167.9	92.7	32.6	3.3	1.4
90°	381.1	374.0	355.6	320.6	272.4	211.4	142.8	74.2	21.8	1.9	1.9
92.5°	354.6	348.5	328.1	292.2	245.4	185.8	118.7	56.7	13.7	0.9	2.4
95°	327.2	320.6	300.7	267.6	218.0	159.8	97.4	41.6	7.6	0.9	2.4
97.5°	300.3	294.1	273.3	240.2	193.4	137.1	77.1	29.3	3.8	0.9	1.9
100°	275.2	268.1	249.2	216.1	168.8	114.4	59.6	18.9	2.4	0.9	1.9
102.5°	248.7	243.0	223.7	191.5	143.3	93.1	44.4	11.8	0.9	0.9	1.4
105°	225.1	218.0	199.1	166.0	122.0	73.3	31.2	7.1	0.9	0.9	1.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	146.6	140.9	124.4	96.5	61.9	28.8	8.5	1.4	1.4	1.4	1.4
115°	122.5	114.0	99.3	74.7	45.9	18.9	4.3	1.4	1.4	1.4	1.4
117.5°	97.9	90.8	80.4	56.7	30.3	12.3	2.4	1.4	1.4	1.4	1.4
120°	76.6	70.0	58.2	39.2	20.3	7.1	0.9	1.4	1.4	1.4	1.4
122.5°	54.8	49.6	39.2	25.5	12.3	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.4	33.6	26.0	15.6	7.6	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.6	21.3	15.1	9.0	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.2	11.8	9.0	5.2	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.6	7.1	4.7	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	2.4	2.4	2.4	2.4
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	1.9
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	371.2	371.2	371.2
2.5°	353.2	346.6	344.7
5°	334.3	323.4	317.3
7.5°	315.4	300.7	293.6
10°	297.9	277.1	269.5
12.5°	277.1	253.0	241.1
15°	257.2	226.0	214.7
17.5°	235.0	200.0	186.8
20°	214.2	174.0	160.3
22.5°	190.6	148.5	133.3
25°	169.3	122.9	105.9
27.5°	145.6	96.9	82.3
30°	123.4	74.2	59.6
32.5°	102.1	54.4	41.1
35°	82.3	36.9	26.0
37.5°	63.4	22.7	13.2
40°	45.9	11.8	6.1
42.5°	30.7	5.7	3.3
45°	18.9	2.8	0.0
47.5°	10.9	0.0	0.0
50°	5.7	0.0	0.0
52.5°	2.4	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	0.9	1.4
80°	0.9	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.8
87.5°	2.4	2.8	3.3
90°	2.8	3.3	3.3
92.5°	2.8	3.8	3.8
95°	3.3	3.8	4.3
97.5°	3.8	4.3	4.3
100°	3.3	4.3	4.7
102.5°	2.8	4.3	4.3
105°	2.4	3.3	3.8



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CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-86-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.4	1.9	2.4
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.9	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	198.6	192.9	174.0	142.8	99.8	55.8	20.8	3.8	0.9	1.4	1.4
110°	173.1	168.3	148.9	118.7	80.4	41.6	13.7	2.4	1.4	1.4	1.4





107.5°	1.9	2.8	3.3
110°	1.9	2.4	2.8



(END OF REPORT)