

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: P550647

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-82-84-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: P550647
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-82-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

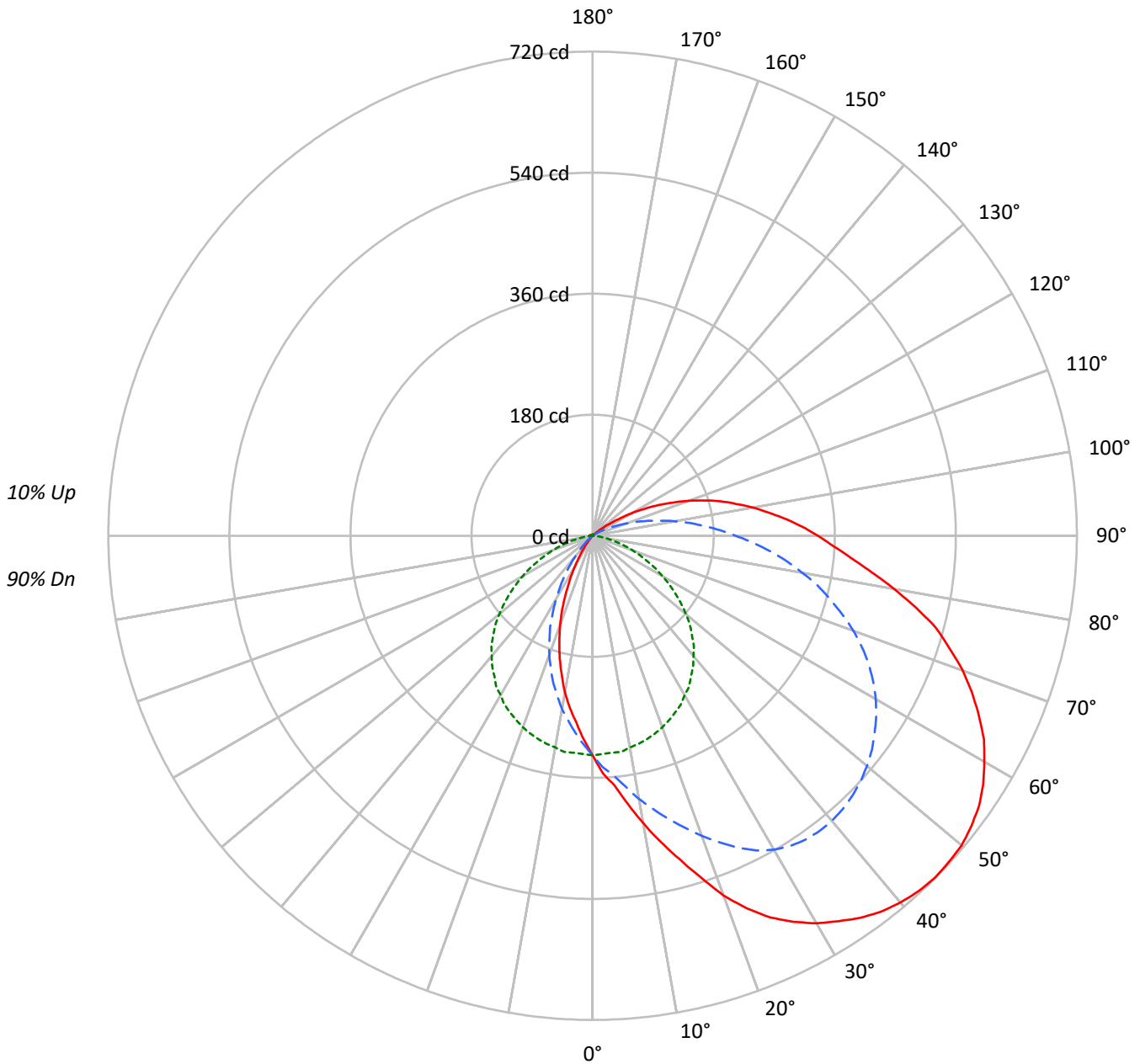
Lumens per Lamp: N/A
Luminaire Lumens: 1613.0 lumens
Efficiency: N/A
Efficacy: 74.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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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°	3512	3512	3512
5°	3855	3461	2887
10°	4362	3418	2380
15°	4889	3375	1854
20°	5514	3320	1365
25°	6033	3256	897
30°	6418	3171	505
35°	6752	3079	223
40°	7048	2966	53
45°	7302	2823	0
50°	7514	2635	0
55°	7677	2397	0
60°	7758	2118	0
65°	7790	1804	0
70°	7764	1471	0
75°	7666	1083	6
80°	7355	664	34
85°	7108	315	46



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.3	1.9
10°-20°	93.6	5.8
20°-30°	151.5	9.4
30°-40°	194.7	12.1
40°-50°	220.4	13.7
50°-60°	228.3	14.2
60°-70°	215.3	13.3
70°-80°	180.4	11.2
80°-90°	130.8	8.1
90°-100°	86.0	5.3
100°-110°	49.6	3.1
110°-120°	21.9	1.4
120°-130°	5.9	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	276.4	17.1
0°-40°	471.0	29.2
0°-60°	919.7	57.0
0°-90°	1446.2	89.7
90°-120°	157.5	9.8
90°-150°	165.6	10.3
90°-180°	167.0	10.4
0°-180°	1613.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	326	326	326	326	326	
5°	372	358	324	294	279	38
15°	498	436	313	226	189	143
25°	626	512	290	149	93	289
35°	694	552	255	72	23	435
45°	720	546	209	17	0	555
55°	701	512	150	0	0	626
65°	634	453	90	0	0	627
75°	528	366	38	0	0	554
85°	386	265	6	2	2	330
90°	335	213	2	2	3	184
95°	288	166	1	3	4	226
105°	198	86	1	2	3	209
115°	108	28	1	1	2	108
125°	32	4	2	1	2	32
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	326.3	326.3	326.3	326.3	326.3	326.3	326.3	326.3	326.3	326.3	326.3
2.5°	353.7	353.3	352.0	350.0	347.1	342.1	337.9	334.2	329.2	325.0	317.1
5°	372.4	370.3	368.7	366.6	359.9	355.4	347.9	339.6	331.7	323.8	308.0
7.5°	402.3	399.0	396.5	390.7	381.6	371.2	359.5	351.6	346.2	324.2	297.2
10°	434.3	431.4	426.4	416.0	404.8	389.9	373.2	354.5	337.9	319.6	287.6
12.5°	465.9	461.8	454.7	441.4	425.6	406.9	384.0	362.0	338.3	316.7	276.4
15°	497.5	492.9	485.5	469.2	448.5	423.9	396.1	368.3	340.4	313.0	264.8
17.5°	532.0	525.8	514.6	496.3	470.1	439.7	406.9	373.2	339.6	308.4	252.3
20°	569.0	560.3	548.2	523.7	492.9	457.2	417.7	378.2	339.2	303.0	238.2
22.5°	599.8	591.0	577.7	552.4	515.4	471.7	426.9	381.6	337.5	296.8	224.9
25°	626.4	619.3	604.7	575.7	536.6	487.1	435.6	384.0	335.0	290.1	210.7
27.5°	647.1	640.5	624.3	594.4	554.5	500.8	442.2	385.3	331.7	283.5	196.2
30°	665.4	658.8	639.2	608.5	566.5	511.6	448.9	385.7	327.5	273.5	180.4
32.5°	679.6	673.3	653.4	620.5	574.8	519.1	452.6	385.3	322.1	266.4	163.3
35°	693.7	687.5	664.2	629.3	581.1	522.4	455.5	383.2	315.5	254.8	147.1
37.5°	704.5	697.4	673.7	635.1	584.0	523.3	455.1	380.3	308.4	245.2	130.9
40°	712.0	704.5	679.1	638.4	584.8	522.0	451.8	375.3	300.1	233.2	113.9
42.5°	717.0	708.7	681.6	643.4	583.1	518.7	446.8	369.1	290.9	222.8	97.7
45°	719.5	710.7	682.1	639.2	580.2	512.5	439.3	361.2	281.0	208.6	81.5
47.5°	718.2	708.7	680.0	634.7	574.8	505.8	431.0	351.6	268.9	196.2	66.1
50°	716.1	706.2	675.4	628.9	567.3	497.5	421.9	340.0	256.4	180.8	52.4
52.5°	709.5	699.5	670.4	620.5	558.6	488.0	409.4	327.9	243.1	165.8	39.9
55°	701.2	692.0	661.7	613.1	547.4	476.3	397.8	315.0	230.3	150.5	28.7
57.5°	688.3	680.0	650.9	601.0	536.2	463.4	384.9	300.9	214.1	135.1	20.0
60°	672.5	664.2	635.9	587.3	523.3	448.9	370.7	286.4	199.5	119.7	12.5
62.5°	655.9	648.0	618.5	570.2	507.1	433.5	355.4	271.8	184.1	105.6	7.5
65°	633.8	626.4	599.8	549.9	489.2	416.9	338.3	254.4	168.3	89.8	4.2
67.5°	610.6	603.9	576.9	531.2	468.4	398.6	320.9	237.3	151.7	76.1	2.1
70°	585.6	577.3	552.4	505.8	447.2	377.8	301.7	219.9	135.9	62.8	0.0
72.5°	556.5	550.3	526.2	482.1	422.7	355.8	282.2	200.8	118.5	49.9	0.4
75°	528.3	520.4	498.3	456.8	398.6	332.5	260.6	182.9	101.4	38.2	0.4
77.5°	491.7	489.2	468.4	428.1	375.7	310.1	236.9	161.3	85.2	27.4	0.4
80°	455.1	452.6	436.4	399.4	349.1	283.5	214.9	140.9	69.4	18.3	0.4
82.5°	419.0	415.6	400.3	369.5	322.1	261.0	192.0	120.5	54.9	11.2	0.4
85°	386.5	382.4	365.8	337.5	294.3	235.7	168.3	100.6	40.7	6.2	0.8
87.5°	358.7	355.8	337.5	308.4	266.0	212.0	147.5	81.5	28.7	2.9	1.2
90°	335.0	328.8	312.6	281.8	239.4	185.8	125.5	65.3	19.1	1.7	1.7
92.5°	311.7	306.3	288.4	256.9	215.7	163.3	104.3	49.9	12.1	0.8	2.1
95°	287.6	281.8	264.3	235.2	191.6	140.5	85.6	36.6	6.7	0.8	2.1
97.5°	263.9	258.5	240.2	211.1	170.0	120.5	67.7	25.8	3.3	0.8	1.7
100°	241.9	235.7	219.0	189.9	148.4	100.6	52.4	16.6	2.1	0.8	1.7
102.5°	218.6	213.6	196.6	168.3	125.9	81.9	39.1	10.4	0.8	0.8	1.2
105°	197.8	191.6	175.0	145.9	107.2	64.4	27.4	6.2	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-82-84-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	128.8	123.9	109.3	84.8	54.4	25.4	7.5	1.2	1.2	1.2	1.2
115°	107.6	100.2	87.3	65.7	40.3	16.6	3.7	1.2	1.2	1.2	1.2
117.5°	86.0	79.8	70.7	49.9	26.6	10.8	2.1	1.2	1.2	1.2	1.2
120°	67.3	61.5	51.1	34.5	17.9	6.2	0.8	1.2	1.2	1.2	1.2
122.5°	48.2	43.6	34.5	22.4	10.8	2.9	1.2	1.2	1.7	1.7	1.2
125°	32.0	29.5	22.9	13.7	6.7	1.2	1.2	1.2	1.7	1.7	1.2
127.5°	20.8	18.7	13.3	7.9	2.9	1.2	1.2	1.7	1.7	1.7	1.2
130°	11.6	10.4	7.9	4.6	1.2	1.2	1.2	1.7	1.7	1.7	1.2
132.5°	6.7	6.2	4.2	0.8	1.2	1.2	1.2	1.7	1.7	1.7	1.7
135°	1.7	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.7	2.1	2.1	2.1	1.7
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.7	2.1	2.1	2.1	1.7
142.5°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7	1.7
145°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	1.7	1.7	1.7
147.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7	1.7
150°	0.4	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	1.7
152.5°	0.4	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	1.7
155°	0.8	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	2.1
157.5°	0.8	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	2.1
160°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.7	1.7	1.7	1.7	1.7
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.7	2.1	2.1	2.1	2.1
172.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	2.1
175°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	2.1
177.5°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	1.7
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	326.3	326.3	326.3
2.5°	310.5	304.7	303.0
5°	293.9	284.3	278.9
7.5°	277.2	264.3	258.1
10°	261.8	243.6	236.9
12.5°	243.6	222.4	212.0
15°	226.1	198.7	188.7
17.5°	206.6	175.8	164.2
20°	188.3	153.0	140.9
22.5°	167.5	130.5	117.2
25°	148.8	108.1	93.1
27.5°	128.0	85.2	72.3
30°	108.5	65.3	52.4
32.5°	89.8	47.8	36.2
35°	72.3	32.4	22.9
37.5°	55.7	20.0	11.6
40°	40.3	10.4	5.4
42.5°	27.0	5.0	2.9
45°	16.6	2.5	0.0
47.5°	9.6	0.0	0.0
50°	5.0	0.0	0.0
52.5°	2.1	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	1.2
80°	0.8	1.7	2.1
82.5°	1.7	2.1	2.1
85°	1.7	2.1	2.5
87.5°	2.1	2.5	2.9
90°	2.5	2.9	2.9
92.5°	2.5	3.3	3.3
95°	2.9	3.3	3.7
97.5°	3.3	3.7	3.7
100°	2.9	3.7	4.2
102.5°	2.5	3.7	3.7
105°	2.1	2.9	3.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.7	2.1	2.1
115°	1.2	1.7	2.1
117.5°	1.2	1.7	1.7
120°	1.2	1.2	1.7
122.5°	1.2	1.2	1.7
125°	1.2	1.2	1.7
127.5°	1.7	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.7	1.2	1.2
135°	1.7	1.2	1.2
137.5°	1.7	1.2	1.2
140°	1.7	1.2	1.2
142.5°	1.7	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.7	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	174.6	169.6	153.0	125.5	87.7	49.0	18.3	3.3	0.8	1.2	1.2
110°	152.1	148.0	130.9	104.3	70.7	36.6	12.1	2.1	1.2	1.2	1.2





107.5°	1.7	2.5	2.9
110°	1.7	2.1	2.5



(END OF REPORT)