

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: P551615

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-82-88-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: P551615
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-LD4-2LO-40-UNV-82-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

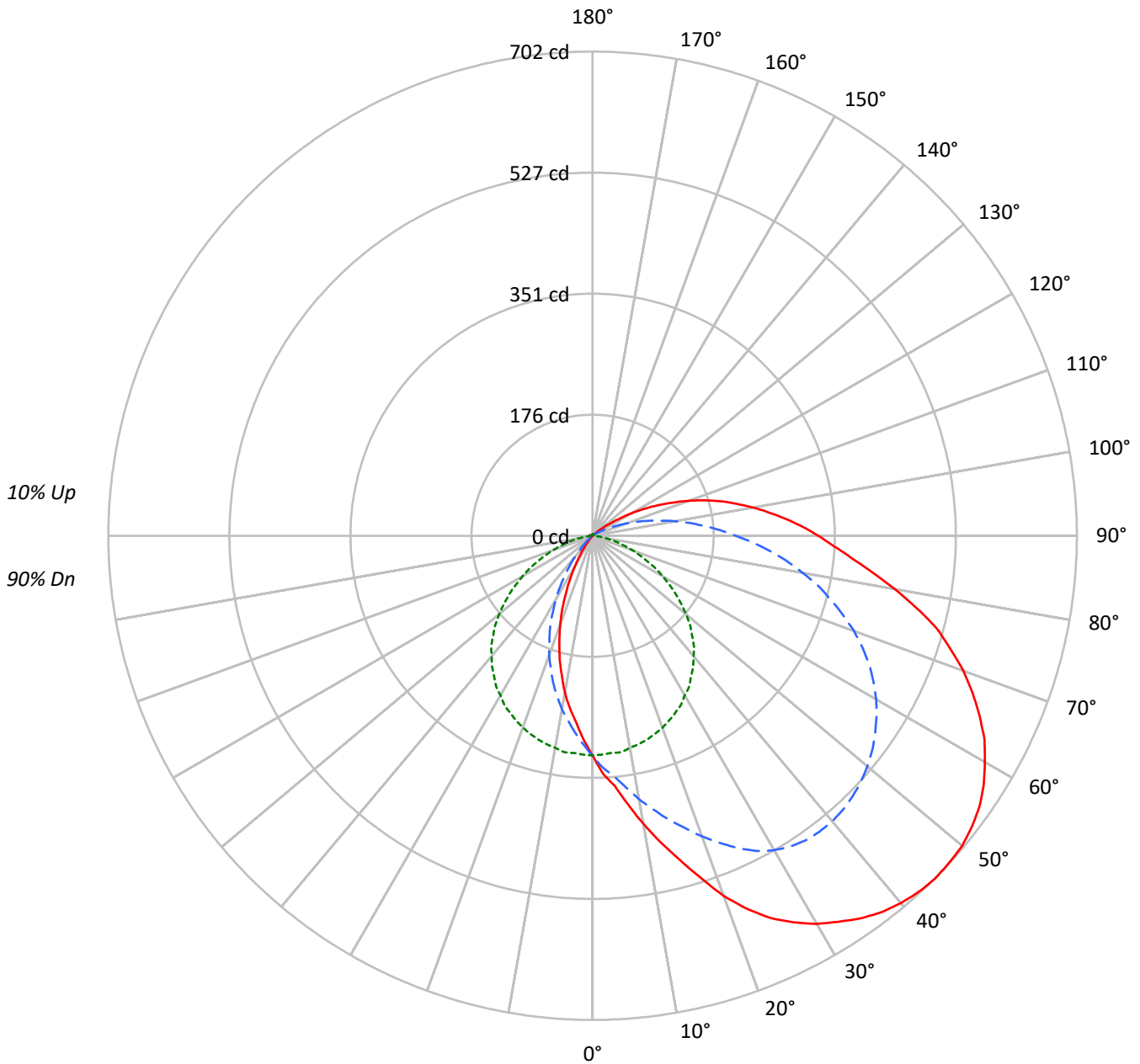
Lumens per Lamp: N/A
Luminaire Lumens: 1574.9 lumens
Efficiency: N/A
Efficacy: 67.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
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°	3429	3429	3429
5°	3764	3379	2819
10°	4260	3338	2323
15°	4774	3295	1811
20°	5384	3242	1333
25°	5890	3179	875
30°	6267	3095	493
35°	6592	3006	217
40°	6881	2896	52
45°	7129	2756	0
50°	7338	2572	0
55°	7496	2339	0
60°	7575	2069	0
65°	7607	1761	0
70°	7581	1436	0
75°	7485	1058	6
80°	7182	649	32
85°	6941	310	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.5	1.9
10°-20°	91.4	5.8
20°-30°	148.0	9.4
30°-40°	190.1	12.1
40°-50°	215.2	13.7
50°-60°	222.9	14.2
60°-70°	210.2	13.3
70°-80°	176.2	11.2
80°-90°	127.7	8.1
90°-100°	83.9	5.3
100°-110°	48.5	3.1
110°-120°	21.4	1.4
120°-130°	5.8	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	269.9	17.1
0°-40°	459.9	29.2
0°-60°	898.0	57.0
0°-90°	1412.1	89.7
90°-120°	153.8	9.8
90°-150°	161.7	10.3
90°-180°	163.0	10.3
0°-180°	1574.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	319	319	319	319	319	
5°	364	349	316	287	272	37
15°	486	426	306	221	184	140
25°	612	500	283	145	91	283
35°	677	539	249	71	22	425
45°	702	534	204	16	0	542
55°	685	500	147	0	0	611
65°	619	442	88	0	0	612
75°	516	357	37	0	0	541
85°	377	259	6	2	2	322
90°	327	208	2	2	3	179
95°	281	162	1	3	4	220
105°	193	84	1	2	3	204
115°	105	28	1	1	2	105
125°	31	4	2	1	2	31
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°	318.6	318.6	318.6	318.6	318.6	318.6	318.6	318.6	318.6	318.6	318.6
2.5°	345.4	345.0	343.7	341.7	338.9	334.0	329.9	326.3	321.4	317.4	309.7
5°	363.6	361.6	360.0	358.0	351.5	347.0	339.7	331.6	323.9	316.1	300.7
7.5°	392.9	389.6	387.2	381.5	372.6	362.4	351.1	343.3	338.1	316.6	290.2
10°	424.1	421.3	416.4	406.2	395.3	380.7	364.4	346.2	329.9	312.1	280.8
12.5°	454.9	450.9	444.0	431.0	415.6	397.3	375.0	353.5	330.4	309.3	269.9
15°	485.8	481.3	474.0	458.2	437.9	414.0	386.8	359.6	332.4	305.6	258.5
17.5°	519.5	513.4	502.4	484.6	459.0	429.4	397.3	364.4	331.6	301.1	246.3
20°	555.6	547.1	535.3	511.4	481.3	446.4	407.9	369.3	331.2	295.9	232.5
22.5°	585.6	577.1	564.1	539.4	503.2	460.6	416.8	372.6	329.5	289.8	219.6
25°	611.6	604.7	590.5	562.1	523.9	475.6	425.3	375.0	327.1	283.3	205.8
27.5°	631.9	625.4	609.6	580.4	541.4	489.0	431.8	376.2	323.9	276.8	191.6
30°	649.8	643.3	624.2	594.2	553.2	499.6	438.3	376.6	319.8	267.0	176.1
32.5°	663.5	657.5	638.0	605.9	561.3	506.9	442.0	376.2	314.5	260.1	159.5
35°	677.3	671.3	648.5	614.4	567.4	510.1	444.8	374.2	308.0	248.8	143.7
37.5°	687.9	681.0	657.9	620.1	570.2	511.0	444.4	371.3	301.1	239.4	127.8
40°	695.2	687.9	663.1	623.4	571.0	509.7	441.1	366.5	293.0	227.7	111.2
42.5°	700.1	692.0	665.6	628.2	569.4	506.5	436.3	360.4	284.1	217.5	95.4
45°	702.5	694.0	666.0	624.2	566.6	500.4	429.0	352.7	274.3	203.7	79.5
47.5°	701.3	692.0	664.0	619.7	561.3	493.9	420.9	343.3	262.6	191.6	64.5
50°	699.3	689.5	659.5	614.0	554.0	485.8	411.9	332.0	250.4	176.5	51.1
52.5°	692.8	683.0	654.6	605.9	545.4	476.5	399.8	320.2	237.4	161.9	39.0
55°	684.7	675.7	646.1	598.6	534.5	465.1	388.4	307.6	224.8	146.9	28.0
57.5°	672.1	664.0	635.5	586.8	523.5	452.5	375.8	293.8	209.0	131.9	19.5
60°	656.6	648.5	620.9	573.5	511.0	438.3	362.0	279.6	194.8	116.9	12.2
62.5°	640.4	632.7	603.9	556.8	495.1	423.3	347.0	265.4	179.8	103.1	7.3
65°	618.9	611.6	585.6	536.9	477.7	407.1	330.4	248.4	164.4	87.7	4.1
67.5°	596.2	589.7	563.3	518.7	457.4	389.2	313.3	231.7	148.1	74.3	2.0
70°	571.8	563.7	539.4	493.9	436.7	368.9	294.6	214.7	132.7	61.3	0.0
72.5°	543.4	537.3	513.8	470.8	412.7	347.4	275.6	196.0	115.7	48.7	0.4
75°	515.8	508.1	486.6	446.0	389.2	324.7	254.5	178.6	99.0	37.3	0.4
77.5°	480.1	477.7	457.4	418.0	366.9	302.8	231.3	157.5	83.2	26.8	0.4
80°	444.4	442.0	426.1	390.0	340.9	276.8	209.8	137.6	67.8	17.9	0.4
82.5°	409.1	405.8	390.8	360.8	314.5	254.9	187.5	117.7	53.6	11.0	0.4
85°	377.4	373.4	357.1	329.5	287.3	230.1	164.4	98.2	39.8	6.1	0.8
87.5°	350.2	347.4	329.5	301.1	259.7	207.0	144.1	79.5	28.0	2.8	1.2
90°	327.1	321.0	305.2	275.2	233.8	181.4	122.6	63.7	18.7	1.6	1.6
92.5°	304.4	299.1	281.7	250.8	210.6	159.5	101.9	48.7	11.8	0.8	2.0
95°	280.8	275.2	258.1	229.7	187.1	137.2	83.6	35.7	6.5	0.8	2.0
97.5°	257.7	252.4	234.6	206.2	166.0	117.7	66.2	25.2	3.2	0.8	1.6
100°	236.2	230.1	213.9	185.5	144.9	98.2	51.1	16.2	2.0	0.8	1.6
102.5°	213.5	208.6	192.0	164.4	123.0	80.0	38.1	10.1	0.8	0.8	1.2
105°	193.2	187.1	170.9	142.4	104.7	62.9	26.8	6.1	0.8	0.8	1.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	125.8	120.9	106.7	82.8	53.2	24.8	7.3	1.2	1.2	1.2	1.2
115°	105.1	97.8	85.2	64.1	39.4	16.2	3.7	1.2	1.2	1.2	1.2
117.5°	84.0	77.9	69.0	48.7	26.0	10.6	2.0	1.2	1.2	1.2	1.2
120°	65.7	60.1	49.9	33.7	17.5	6.1	0.8	1.2	1.2	1.2	1.2
122.5°	47.1	42.6	33.7	21.9	10.6	2.8	1.2	1.2	1.6	1.6	1.2
125°	31.2	28.8	22.3	13.4	6.5	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.3	18.3	13.0	7.7	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.4	10.1	7.7	4.5	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.5	6.1	4.1	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
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°	318.6	318.6	318.6
2.5°	303.2	297.5	295.9
5°	286.9	277.6	272.3
7.5°	270.7	258.1	252.0
10°	255.7	237.8	231.3
12.5°	237.8	217.1	207.0
15°	220.8	194.0	184.3
17.5°	201.7	171.7	160.3
20°	183.8	149.3	137.6
22.5°	163.6	127.4	114.4
25°	145.3	105.5	90.9
27.5°	125.0	83.2	70.6
30°	105.9	63.7	51.1
32.5°	87.7	46.7	35.3
35°	70.6	31.7	22.3
37.5°	54.4	19.5	11.4
40°	39.4	10.1	5.3
42.5°	26.4	4.9	2.8
45°	16.2	2.4	0.0
47.5°	9.3	0.0	0.0
50°	4.9	0.0	0.0
52.5°	2.0	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	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.4
87.5°	2.0	2.4	2.8
90°	2.4	2.8	2.8
92.5°	2.4	3.2	3.2
95°	2.8	3.2	3.7
97.5°	3.2	3.7	3.7
100°	2.8	3.7	4.1
102.5°	2.4	3.7	3.7
105°	2.0	2.8	3.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	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°	1.6	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°	170.5	165.6	149.3	122.6	85.6	47.9	17.9	3.2	0.8	1.2	1.2
110°	148.5	144.5	127.8	101.9	69.0	35.7	11.8	2.0	1.2	1.2	1.2





107.5°	1.6	2.4	2.8
110°	1.6	2.0	2.4



(END OF REPORT)