

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: P551162

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-82-85-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: P551162
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-50-UNV-82-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

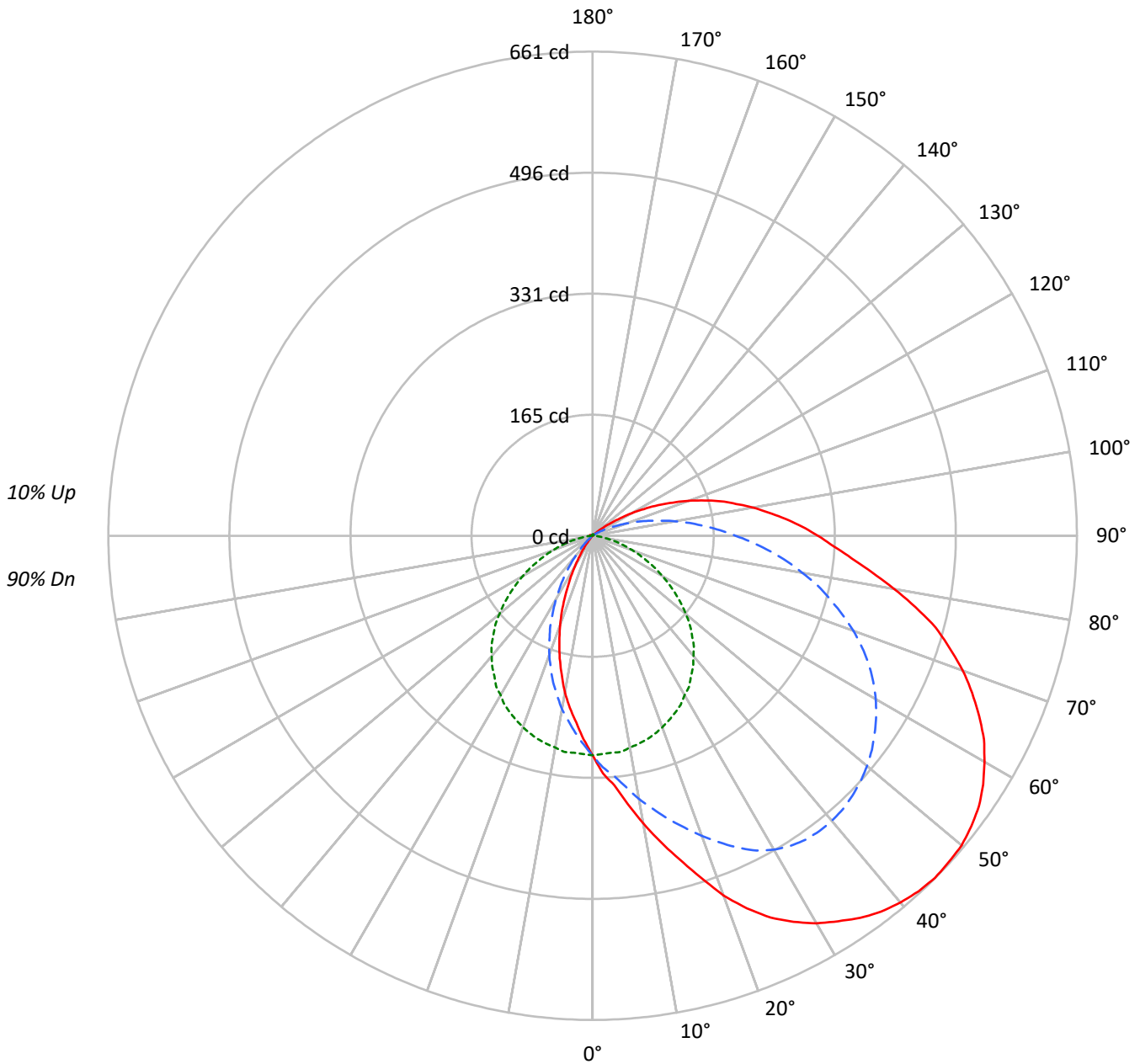
Lumens per Lamp: N/A
Luminaire Lumens: 1480.9 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551162

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-85-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°	3225	3225	3225
5°	3539	3178	2651
10°	4006	3139	2185
15°	4489	3099	1703
20°	5063	3048	1254
25°	5539	2990	823
30°	5893	2911	464
35°	6199	2826	204
40°	6471	2723	49
45°	6704	2593	0
50°	6899	2419	0
55°	7049	2199	0
60°	7124	1945	0
65°	7153	1655	0
70°	7129	1349	0
75°	7038	995	6
80°	6754	609	31
85°	6527	290	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.7	1.9
10°-20°	85.9	5.8
20°-30°	139.1	9.4
30°-40°	178.7	12.1
40°-50°	202.3	13.7
50°-60°	209.6	14.2
60°-70°	197.7	13.3
70°-80°	165.7	11.2
80°-90°	120.1	8.1
90°-100°	78.9	5.3
100°-110°	45.6	3.1
110°-120°	20.1	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°	253.8	17.1
0°-40°	432.5	29.2
0°-60°	844.4	57.0
0°-90°	1327.9	89.7
90°-120°	144.6	9.8
90°-150°	152.1	10.3
90°-180°	153.0	10.3
0°-180°	1480.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	300	300	300	300	300	
5°	342	328	297	270	256	34
15°	457	401	287	208	173	132
25°	575	470	266	137	86	266
35°	637	507	234	66	21	399
45°	661	502	192	15	0	510
55°	644	470	138	0	0	575
65°	582	416	82	0	0	576
75°	485	336	35	0	0	509
85°	355	243	6	2	2	303
90°	308	195	2	2	3	169
95°	264	152	1	3	3	207
105°	182	79	1	2	3	192
115°	99	26	1	1	2	99
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	299.6	299.6	299.6	299.6	299.6	299.6	299.6	299.6	299.6	299.6	299.6
2.5°	324.8	324.4	323.2	321.3	318.7	314.1	310.3	306.8	302.2	298.4	291.2
5°	341.9	340.0	338.5	336.6	330.5	326.3	319.4	311.8	304.5	297.3	282.8
7.5°	369.4	366.4	364.1	358.7	350.3	340.8	330.1	322.8	317.9	297.7	272.9
10°	398.8	396.1	391.5	382.0	371.7	358.0	342.7	325.5	310.3	293.5	264.1
12.5°	427.8	424.0	417.5	405.3	390.8	373.6	352.6	332.4	310.6	290.8	253.8
15°	456.8	452.6	445.7	430.8	411.8	389.3	363.7	338.1	312.5	287.4	243.1
17.5°	488.5	482.7	472.4	455.7	431.6	403.8	373.6	342.7	311.8	283.2	231.6
20°	522.4	514.4	503.4	480.8	452.6	419.8	383.5	347.3	311.4	278.2	218.7
22.5°	550.7	542.7	530.5	507.2	473.2	433.1	391.9	350.3	309.9	272.5	206.5
25°	575.1	568.6	555.3	528.5	492.7	447.3	399.9	352.6	307.6	266.4	193.5
27.5°	594.2	588.1	573.2	545.7	509.1	459.9	406.0	353.8	304.5	260.3	180.1
30°	611.0	604.9	586.9	558.7	520.1	469.8	412.1	354.1	300.7	251.1	165.6
32.5°	623.9	618.2	599.9	569.8	527.8	476.6	415.6	353.8	295.8	244.6	150.0
35°	636.9	631.2	609.8	577.8	533.5	479.7	418.3	351.9	289.6	233.9	135.1
37.5°	646.8	640.4	618.6	583.1	536.2	480.5	417.9	349.2	283.2	225.2	120.2
40°	653.7	646.8	623.6	586.2	536.9	479.3	414.8	344.6	275.5	214.1	104.6
42.5°	658.3	650.7	625.9	590.7	535.4	476.3	410.2	338.9	267.1	204.5	89.7
45°	660.6	652.6	626.2	586.9	532.7	470.5	403.4	331.6	258.0	191.6	74.8
47.5°	659.4	650.7	624.3	582.7	527.8	464.4	395.7	322.8	246.9	180.1	60.7
50°	657.5	648.4	620.1	577.4	520.9	456.8	387.3	312.2	235.5	166.0	48.1
52.5°	651.4	642.3	615.6	569.8	512.9	448.0	375.9	301.1	223.2	152.3	36.6
55°	643.8	635.4	607.5	562.9	502.6	437.3	365.2	289.3	211.4	138.1	26.3
57.5°	632.0	624.3	597.6	551.8	492.3	425.5	353.4	276.3	196.5	124.0	18.3
60°	617.5	609.8	583.9	539.2	480.5	412.1	340.4	262.9	183.2	109.9	11.4
62.5°	602.2	594.9	567.8	523.6	465.6	398.0	326.3	249.6	169.1	96.9	6.9
65°	582.0	575.1	550.7	504.9	449.2	382.8	310.6	233.6	154.6	82.4	3.8
67.5°	560.6	554.5	529.7	487.7	430.1	366.0	294.6	217.9	139.3	69.8	1.9
70°	537.7	530.1	507.2	464.4	410.6	346.9	277.1	201.9	124.8	57.6	0.0
72.5°	511.0	505.3	483.1	442.7	388.1	326.7	259.1	184.3	108.8	45.8	0.4
75°	485.0	477.8	457.6	419.4	366.0	305.3	239.3	167.9	93.1	35.1	0.4
77.5°	451.5	449.2	430.1	393.1	345.0	284.7	217.5	148.1	78.2	25.2	0.4
80°	417.9	415.6	400.7	366.7	320.6	260.3	197.3	129.4	63.7	16.8	0.4
82.5°	384.7	381.6	367.5	339.3	295.8	239.7	176.3	110.7	50.4	10.3	0.4
85°	354.9	351.1	335.8	309.9	270.2	216.4	154.6	92.4	37.4	5.7	0.8
87.5°	329.3	326.7	309.9	283.2	244.2	194.6	135.5	74.8	26.3	2.7	1.1
90°	307.6	301.9	287.0	258.7	219.8	170.6	115.2	59.9	17.6	1.5	1.5
92.5°	286.2	281.3	264.8	235.8	198.1	150.0	95.8	45.8	11.1	0.8	1.9
95°	264.1	258.7	242.7	216.0	175.9	129.0	78.6	33.6	6.1	0.8	1.9
97.5°	242.3	237.4	220.6	193.9	156.1	110.7	62.2	23.7	3.1	0.8	1.5
100°	222.1	216.4	201.1	174.4	136.2	92.4	48.1	15.3	1.9	0.8	1.5
102.5°	200.7	196.2	180.5	154.6	115.6	75.2	35.9	9.5	0.8	0.8	1.1
105°	181.7	175.9	160.7	133.9	98.5	59.2	25.2	5.7	0.8	0.8	1.1



TEST NUMBER: P551162

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	118.3	113.7	100.4	77.9	50.0	23.3	6.9	1.1	1.1	1.1	1.1
115°	98.8	92.0	80.1	60.3	37.0	15.3	3.4	1.1	1.1	1.1	1.1
117.5°	79.0	73.3	64.9	45.8	24.4	9.9	1.9	1.1	1.1	1.1	1.1
120°	61.8	56.5	46.9	31.7	16.4	5.7	0.8	1.1	1.1	1.1	1.1
122.5°	44.3	40.1	31.7	20.6	9.9	2.7	1.1	1.1	1.5	1.5	1.1
125°	29.4	27.1	21.0	12.6	6.1	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	19.1	17.2	12.2	7.3	2.7	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.7	9.5	7.3	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



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-85-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	299.6	299.6	299.6
2.5°	285.1	279.7	278.2
5°	269.8	261.0	256.1
7.5°	254.5	242.7	237.0
10°	240.4	223.6	217.5
12.5°	223.6	204.2	194.6
15°	207.6	182.4	173.3
17.5°	189.7	161.4	150.7
20°	172.9	140.4	129.4
22.5°	153.8	119.8	107.6
25°	136.6	99.2	85.5
27.5°	117.5	78.2	66.4
30°	99.6	59.9	48.1
32.5°	82.4	43.9	33.2
35°	66.4	29.8	21.0
37.5°	51.1	18.3	10.7
40°	37.0	9.5	5.0
42.5°	24.8	4.6	2.7
45°	15.3	2.3	0.0
47.5°	8.8	0.0	0.0
50°	4.6	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	3.1	3.1
95°	2.7	3.1	3.4
97.5°	3.1	3.4	3.4
100°	2.7	3.4	3.8
102.5°	2.3	3.4	3.4
105°	1.9	2.7	3.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-85-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°	160.3	155.7	140.4	115.2	80.5	45.0	16.8	3.1	0.8	1.1	1.1
110°	139.7	135.9	120.2	95.8	64.9	33.6	11.1	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)